

CORE LOG

Date 06/11/76 Ship DA GREEN Cruise 19 Leg 02 Core No. 01  
Latitude 28° 27.8' N Longitude 87° 51.2' W Sea 1 Ship Station 01  
Location GULF OF MEXICO

Bottom topography GENTLE SLOPE

No. and Depth sub-bottom reflections PDR MANY STRONG REFLECTIONS

Profiler FLAT Sheet No.       

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Length Core Pipe 19 ft. Core Head Wt. 1400 lbs. No. Pipes 1

Length Trigger Line 42 ft. Trigger Wt. 125 lbs. I.D. Pipes 2 1/2

Length Scope 10 ft. Length free fall 10 ft. Pipe Wall thickness 1/4 in.  
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TZ  
+5

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Time Lowered 0751 PDR Depth 1266 fm Nature of Hit GOOD

Time Messenger 0809 Counter Depth 1264 fm Wire Out at Hit 1309 fm

Time Hit 0841 PDR Depth 1263 fm Wire Angle at Hit LOW

Time Surfaced 0942 PDR Depth 1260 fm Pull Out MODERATE (5.5)  
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Depth of Penetration 700 cm Trigger Core Length 37 cm

Mud on Piston - yes  no

Condition of Cutting Edge and Pipe (Pipes bent ? where?) GOOD

Method of Extrusion LINER

Total Core Length 268 cm No. Gutter Pipe Filled 1 LINER

Estimate of Good Core        Estimate of Flow-in         
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CORRELATIVE STATION DATA:

Camera Station No.        Thermograd        No. of Probes       

Geochem Water Bbl. No.        Barrel above Core        fm

Particulate Water Bbl. No.        Barrel above Core        fm

Nephelometer Station No. (LSM)        Camera Dredge No.       

Rock Dredge        Trawl        Core Head Camera No.       

Tripod Core        Tripod T-Grad        Current Meter       

Biology: Multiple Plankton        JetNet        JK        Plankton       

Picture of Compass when pipe is in mud - yes  no

CORE LOG

Date 06/11/76 Ship IDA GREEN Cruise 19 Leg 02 Core No. 02  
Latitude 27° 40' N Longitude 87° 41' W Sea 1 Ship Station 02  
Location GULF OF MEXICO

Bottom topography LOW HILLS

No. and Depth sub-bottom reflections PDR INFREQUENT

Profiler \_\_\_\_\_ Sheet No. \_\_\_\_\_  
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Length Core Pipe 19 ft. Core Head Wt. 1400 lbs. No. Pipes 1

Length Trigger Line 42 ft. Trigger Wt. 125 lbs. I.D. Pipes 2 1/2

Length Scope 9 ft. Length free fall 9 ft. Pipe Wall thickness 1/4 in.  
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Time Lowered 1932 PDR Depth 1457 fm Nature of Hit GOOD

TZ  
+5  
Time Messenger 1945 Counter Depth 500 fm Wire Out at Hit 1492 fm

Time Hit 2023 PDR Depth 1462 fm Wire Angle at Hit LOW

Time Surfaced 2130 PDR Depth 1462 fm Pull Out EAST  
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Depth of Penetration 700 cm Trigger Core Length 11 cm

Mud on Piston - yes \_\_\_\_\_ no

Condition of Cutting Edge and Pipe (Pipes bent ? where?) GOOD

Method of Extrusion LINER

Total Core Length 234 cm No. Gutter Pipe Filled LINER

Estimate of Good Core 208 Estimate of Flow-in 26  
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CORRELATIVE STATION DATA:

Camera Station No. \_\_\_\_\_ Thermograd \_\_\_\_\_ No. of Probes \_\_\_\_\_

Geochem Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Particulate Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Nephelometer Station No. (LSM) \_\_\_\_\_ Camera Dredge No. \_\_\_\_\_

Rock Dredge \_\_\_\_\_ Trawl \_\_\_\_\_ Core Head Camera No. \_\_\_\_\_

Tripod Core \_\_\_\_\_ Tripod T-Grad \_\_\_\_\_ Current Meter \_\_\_\_\_

Biology: Multiple Plankton \_\_\_\_\_ JetNet \_\_\_\_\_ JK \_\_\_\_\_ Plankton \_\_\_\_\_

Picture of Compass when pipe is in mud - yes \_\_\_\_\_ no \_\_\_\_\_

CORE LOG

Date 06/23/76 Ship IDA GREEN Cruise 19 Leg 03 Core No. 03

Latitude 30° 05.6' N Longitude 85° 41.1' W Sea 1 Ship Station 03

Location GULF OF MEXICO

Bottom topography FLAT

No. and Depth sub-bottom reflections PDR \_\_\_\_\_

Profiler OFF Sheet No. \_\_\_\_\_

\*\*\*\*\* Length Core Pipe 20 ft. Core Head Wt. 1400 lbs. No. Pipes 1

Length Trigger Line 45 ft. Trigger Wt. 125 lbs. I.D. Pipes 2 1/2

Length Scope 10 ft. Length free fall 10 ft. Pipe Wall thickness 1/4 in.

\*\*\*\*\* Time Lowered 0920 PDR Depth 10 fm Nature of Hit GOOD

T2 Time Messenger 0921 Counter Depth 93 fm Wire Out at Hit 9 fm

+5 Time Hit 0922 PDR Depth 10 fm Wire Angle at Hit \_\_\_\_\_

Time Surfaced 0923 PDR Depth 10 fm Pull Out EASY

\*\*\*\*\* Depth of Penetration ? cm Trigger Core Length 0 cm

Mud on Piston - yes \_\_\_\_\_ no

Condition of Cutting Edge and Pipe (Pipes bent ? where?) GOOD

Method of Extrusion LINER

Total Core Length JAR cm No. Gutter Pipe Filled \_\_\_\_\_

\*\*\*\*\* Estimate of Good Core \_\_\_\_\_ Estimate of Flow-in \_\_\_\_\_ \*\*\*\*\*

CORRELATIVE STATION DATA:

~~Camera~~ <sup>PROFILMETER</sup> Station No. \_\_\_\_\_ Thermograd \_\_\_\_\_ No. of Probes \_\_\_\_\_

Geochem Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Particulate Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Nephelometer Station No. (LSM) \_\_\_\_\_ Camera Dredge No. \_\_\_\_\_

Rock Dredge \_\_\_\_\_ Trawl \_\_\_\_\_ Core Head Camera No. \_\_\_\_\_

Tripod Core \_\_\_\_\_ Tripod T-Grad \_\_\_\_\_ Current Meter \_\_\_\_\_

Biology: Multiple Plankton \_\_\_\_\_ JetNet \_\_\_\_\_ IK \_\_\_\_\_ Plankton \_\_\_\_\_

Picture of Compass when pipe is in mud - yes \_\_\_\_\_ no \_\_\_\_\_

CORE LOG

Date 06/23/76 Ship IG Cruise 19 Leg 03 Core No. 04  
 Latitude 30° 05.5' N Longitude 85° 49.1' W Sea 1 Ship Station 03  
 Location GULF OF MEXICO

Bottom topography FLAT

No. and Depth sub-bottom reflections PDR \_\_\_\_\_

Profiler OFF Sheet No. \_\_\_\_\_

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 Length Core Pipe 20 ft. Core Head Wt. 1400 lbs. No. Pipes 1

Length Trigger Line 45 ft. Trigger Wt. 125 lbs. I.D. Pipes 2 1/2

Length Scope 10 ft. Length free fall 10 ft. Pipe Wall thickness 1/4 in.

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 Time Lowered 0955 PDR Depth 10 fm Nature of Hit GOOD  
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15 Time Messenger 0955 Counter Depth 2 fm Wire Out at Hit 8 fm

Time Hit 0956 PDR Depth 10 fm Wire Angle at Hit \_\_\_\_\_

Time Surfaced 0957 PDR Depth 10 fm Pull Out EASY

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 Depth of Penetration \_\_\_\_\_ cm Trigger Core Length 0 cm  
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Mud on Piston - yes \_\_\_\_\_ no ✓

Condition of Cutting Edge and Pipe (Pipes bent ? where?) GOOD

Method of Extrusion LINER

Total Core Length 278cm cm No. Gutter Pipe Filled LINER

Estimate of Good Core 278 Estimate of Flow-in 0

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CORRELATIVE STATION DATA:

Camera Station No. \_\_\_\_\_ Thermograd \_\_\_\_\_ No. of Probes \_\_\_\_\_

Geochem Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Particulate Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Nephelometer Station No. (LSM) \_\_\_\_\_ Camera Dredge No. \_\_\_\_\_

Rock Dredge \_\_\_\_\_ Trawl \_\_\_\_\_ Core Head Camera No. \_\_\_\_\_

Tripod Core \_\_\_\_\_ Tripod T-Grad \_\_\_\_\_ Current Meter \_\_\_\_\_

Biology: Multiple Plankton \_\_\_\_\_ JetNet \_\_\_\_\_ JK \_\_\_\_\_ Plankton \_\_\_\_\_

Picture of Compass when pipe is in mud - yes \_\_\_\_\_ no \_\_\_\_\_



CORE LOG

5

Date 06/23/76 Ship I.G. Cruise 19 Leg 03 Core No. 05A  
Latitude 30° 03' N Longitude 85° 51' W Sea 1 Ship Station 04  
Location GULF OF MEXICO

Bottom topography -

No. and Depth sub-bottom reflections PDR -

Profiler - Sheet No. -

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Length Core Pipe 20 ft. Core Head Wt. 1400 lbs. No. Pipes 1

Length Trigger Line 45 ft. Trigger Wt. 125 lbs. I.D. Pipes 2.5

Length Scope 10 ft. Length free fall 10 ft. Pipe Wall thickness 1/4 in.

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Time Lowered 1054 PDR Depth 10 fm Nature of Hit GOOD

Time Messenger 1054 Counter Depth 1 fm Wire Out at Hit 10 fm

Time Hit 1054 PDR Depth 10 fm Wire Angle at Hit -

Time Surfaced 1055 PDR Depth 10 fm Pull Out EASY

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Depth of Penetration - cm Trigger Core Length 0 cm

Mud on Piston - yes - no

Condition of Cutting Edge and Pipe (Pipes bent ? where?) NO TRIP -

NO CORE

Method of Extrusion -

Total Core Length 0 cm No. Gutter Pipe Filled 0

Estimate of Good Core 0 Estimate of Flow-in 0

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CORRELATIVE STATION DATA:

Camera Station No. - Thermograd - No. of Probes -

Geochem Water Bbl. No. - Barrel above Core - fm

Particulate Water Bbl. No. - Barrel above Core - fm

Nephelometer Station No. (LSM) - Camera Dredge No. -

Rock Dredge - Trawl - Core Head Camera No. -

Tripod Core - Tripod T-Grad - Current Meter -

Biology: Multiple Plankton - JetNet - JK - Plankton -

Picture of Compass when pipe is in mud - yes - no -

T2  
TS

CORE LOG

Date 06/23/76 Ship L.G. Cruise 19 Leg 03 Core No. 05

Latitude 30° 03' 2" N Longitude 85° 51.7' W Sea 1 Ship Station 04

Location GULF OF MEXICO

Bottom topography FLAT

No. and Depth sub-bottom reflections PDR \_\_\_\_\_

Profiler \_\_\_\_\_ Sheet No. \_\_\_\_\_

\*\*\*\*\* Length Core Pipe 20 ft. Core Head Wt. 1700 lbs. No. Pipes 1

Length Trigger Line 45 ft. Trigger Wt. 125 lbs. I.D. Pipes 2.5

Length Scope 10 ft. Length free fall 10 ft. Pipe Wall thickness 1/4 in.

\*\*\*\*\* Time Lowered 1114 PDR Depth 12 fm Nature of Hit GOOD

Time Messenger 1114 Counter Depth 1 fm Wire Out at Hit 09 fm

Time Hit 1115 PDR Depth 12 fm Wire Angle at Hit \_\_\_\_\_

Time Surfaced 1116 PDR Depth 12 fm Pull Out EASY

\*\*\*\*\* Depth of Penetration ? cm Trigger Core Length 0 cm

Mud on Piston - yes \_\_\_\_\_ no

Condition of Cutting Edge and Pipe (Pipes bent ? where?) PIPE

BENT NEAR C.E.

Method of Extrusion LINER

Total Core Length 292 cm No. Gutter Pipe Filled 1

Estimate of Good Core 292 Estimate of Flow-in 0

CORRELATIVE STATION DATA:

Camera Station No. \_\_\_\_\_ Thermograd \_\_\_\_\_ No. of Probes \_\_\_\_\_

Geochem Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Particulate Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Nephelometer Station No. (LSM) \_\_\_\_\_ Camera Dredge No. \_\_\_\_\_

Rock Dredge \_\_\_\_\_ Trawl \_\_\_\_\_ Core Head Camera No. \_\_\_\_\_

Tripod Core \_\_\_\_\_ Tripod T-Grad \_\_\_\_\_ Current Meter \_\_\_\_\_

Biology: Multiple Plankton \_\_\_\_\_ JetNet \_\_\_\_\_ TK \_\_\_\_\_ Plankton \_\_\_\_\_

Picture of Compass when pipe is in mud - yes \_\_\_\_\_ no \_\_\_\_\_

T2  
T5

CORE LOG

Date 06/23/76 Ship 1 G Cruise 19 Leg 03 Core No. 06

Latitude 30° 01' N Longitude 85° 54' 22" W Sea 1 Ship Station 05

Location GULF OF MEXICO

Bottom topography FLAT

No. and Depth sub-bottom reflections PDR \_\_\_\_\_

Profiler \_\_\_\_\_ Sheet No. \_\_\_\_\_

Length Core Pipe 20 ft. Core Head Wt. 1400 lbs. No. Pipes 1

Length Trigger Line 45 ft. Trigger Wt. 125 lbs. I.D. Pipes 2.5

Length Scope 10 ft. Length free fall 10 ft. Pipe Wall thickness 1/4 in.

Time Lowered 1216 PDR Depth 15 fm Nature of Hit GOOD

Time Messenger 1216 Counter Depth 1 fm Wire Out at Hit 11 fm

Time Hit 1217 PDR Depth 15 fm Wire Angle at Hit \_\_\_\_\_

Time Surfaced 1217 PDR Depth 15 fm Pull Out EASY

Depth of Penetration ? cm Trigger Core Length 0 cm

Mud on Piston - yes \_\_\_\_\_ no

Condition of Cutting Edge and Pipe (Pipes bent ? where?) PIPE

BENT NEAR C.E.

Method of Extrusion LINER

Total Core Length 180 cm No. Gutter Pipe Filled 1

Estimate of Good Core 180 Estimate of Flow-in 0

CORRELATIVE STATION DATA:

Camera Station No. \_\_\_\_\_ Thermograd \_\_\_\_\_ No. of Probes \_\_\_\_\_

Geochem Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Particulate Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Nephelometer Station No. (LSM) \_\_\_\_\_ Camera Dredge No. \_\_\_\_\_

Rock Dredge \_\_\_\_\_ Trawl \_\_\_\_\_ Core Head Camera No. \_\_\_\_\_

Tripod Core \_\_\_\_\_ Tripod T-Grad \_\_\_\_\_ Current Meter \_\_\_\_\_

Biology: Multiple Plankton \_\_\_\_\_ JetNet \_\_\_\_\_ TK \_\_\_\_\_ Plankton \_\_\_\_\_

Picture of Compass when pipe is in mud - yes \_\_\_\_\_ no \_\_\_\_\_

12  
15

500  
60

CORE LOG

Date 06/23/76 Ship 1 G Cruise 19 Leg 03 Core No. 07

Latitude 29° 58.8' N Longitude 85° 56.9' W Sea 1 Ship Station 06

Location GULF OF MEXICO

Bottom topography FLAT

No. and Depth sub-bottom reflections PDR                     

Profiler                      Sheet No.                       
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Length Core Pipe 20 ft. Core Head Wt. 1800 lbs. No. Pipes 1

Length Trigger Line 45 ft. Trigger Wt. 125 lbs. I.D. Pipes 2.5

Length Scope 10 ft. Length free fall 10 ft. Pipe Wall thickness 1/4 in.

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Time Lowered 1407 PDR Depth 17 fm Nature of Hit GOOD

Time Messenger 1408 Counter Depth 2 fm Wire Out at Hit 15 fm

Time Hit 1408 PDR Depth 17 fm Wire Angle at Hit                     

Time Surfaced 1409 PDR Depth 17 fm Pull Out EASY  
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Depth of Penetration ? cm Trigger Core Length 0 cm

Mud on Piston - yes                      no                      ✓

Condition of Cutting Edge and Pipe (Pipes bent ? where?) GOOD

Method of Extrusion LINER

Total Core Length 395 cm No. Gutter Pipe Filled 1 1/2

Estimate of Good Core 395 Estimate of Flow-in ± 20  
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CORRELATIVE STATION DATA:

~~Camera~~ Station No. 01 Thermograd                      No. of Probes                     

Geochem Water Bbl. No.                      Barrel above Core                      fm

Particulate Water Bbl. No.                      Barrel above Core                      fm

Nephelometer Station No. (LSM)                      Camera Dredge No.                     

Rock Dredge                      Trawl                      Core Head Camera No.                     

Tripod Core                      Tripod T-Grad                      Current Meter                     

Biology: Multiple Plankton                      JetNet                      JK                      Plankton                     

Picture of Compass when pipe is in mud - yes                      no

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CORE LOG

Date 06/23/75 Ship IG Cruise 19 Leg 03 Core No. 08  
 Latitude 29° 56.6' N Longitude 85° 59.8' W Sea 1 Ship Station 07  
 Location GULF OF MEXICO

Bottom topography FLAT

No. and Depth sub-bottom reflections PDR \_\_\_\_\_

Profiler \_\_\_\_\_ Sheet No. \_\_\_\_\_

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 Length Core Pipe 20 ft. Core Head Wt. 1800 lbs. No. Pipes 1  
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Length Trigger Line 45 ft. Trigger Wt. 125 lbs. I.D. Pipes 2.5

Length Scope 10 ft. Length free fall 10 ft. Pipe Wall thickness 1/4 in.  
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 Time Lowered 1503 PDR Depth 18 fm Nature of Hit GOOD  
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Time Messenger 1503 Counter Depth 2 fm Wire Out at Hit 13 fm

Time Hit 1504 PDR Depth 18 fm Wire Angle at Hit \_\_\_\_\_

Time Surfaced 1505 PDR Depth 18 fm Pull Out EASY  
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Depth of Penetration ? cm Trigger Core Length 0 cm  
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Mud on Piston - yes \_\_\_\_\_ no

Condition of Cutting Edge and Pipe (Pipes bent ? where?) PIPE

BENT NEAR C.E. C.E. EDGES BENT

Method of Extrusion LINER

Total Core Length 392 cm No. Gutter Pipe Filled 1 1/2

Estimate of Good Core 392 Estimate of Flow-in 0  
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CORRELATIVE STATION DATA:

PROFILOMETER  
 Camera Station No. 02 Thermograd \_\_\_\_\_ No. of Probes \_\_\_\_\_

Geochem Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Particulate Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Nephelometer Station No. (LSM) \_\_\_\_\_ Camera Dredge No. \_\_\_\_\_

Rock Dredge \_\_\_\_\_ Trawl \_\_\_\_\_ Core Head Camera No. \_\_\_\_\_

Tripod Core \_\_\_\_\_ Tripod T-Grad \_\_\_\_\_ Current Meter \_\_\_\_\_

Biology: Multiple Plankton \_\_\_\_\_ JetNet \_\_\_\_\_ JK \_\_\_\_\_ Plankton \_\_\_\_\_

Picture of Compass when pipe is in mud - yes \_\_\_\_\_ no \_\_\_\_\_

CORE LOG

Date 06/23/76 Ship I.G. Cruise 19 Leg 03 Core No. 09  
Latitude 29°<sup>54.6</sup>~~55~~' N Longitude 96°<sup>01.3</sup>~~02~~' W Sea 1 Ship Station 08

Location GULF OF MEXICO

Bottom topography FLAT

No. and Depth sub-bottom reflections PDR —

Profiler — Sheet No. —

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Length Core Pipe 20 ft. Core Head Wt. 1900 lbs. No. Pipes 1

Length Trigger Line 45 ft. Trigger Wt. 125 lbs. I.D. Pipes 2.5

Length Scope 12 ft. Length free fall 12 ft. Pipe Wall thickness 1/4 in.

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Time Lowered 1631 PDR Depth 20 fm Nature of Hit GOOD

Time Messenger 1631 Counter Depth 2 fm Wire Out at Hit 16 fm

Time Hit 1632 PDR Depth 20 fm Wire Angle at Hit —

Time Surfaced 1633 PDR Depth 20 fm Pull Out EASY

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Depth of Penetration 120 cm Trigger Core Length 0 cm

Mud on Piston - yes — no ✓

Condition of Cutting Edge and Pipe (Pipes bent ? where?) GOOD

Method of Extrusion LINER

Total Core Length 58 cm No. Gutter Pipe Filled 1/2 (1 LINER FLOW)

Estimate of Good Core 58 Estimate of Flow-in 1 LINER

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CORRELATIVE STATION DATA:

PROFLOMETER  
Camera Station No. 03 Thermograd — No. of Probes —

Geochem Water Bbl. No. — Barrel above Core — fm

Particulate Water Bbl. No. — Barrel above Core — fm

Nephelometer Station No. (LSM) — Camera Dredge No. —

Rock Dredge — Trawl — Core Head Camera No. —

Tripod Core — Tripod T-Grad — Current Meter —

Biology: Multiple Plankton — JetNet — JK — Plankton —

Picture of Compass when pipe is in mud - yes — no —

CORE LOG

Date 06/23/76 Ship 1. G. Cruise 19 Leg 03 Core No. 10  
 Latitude 29° 52' N Longitude 86° 04' W Sea 1 Ship Station 09

Location GULF OF MEXICO

Bottom topography FLAT

No. and Depth sub-bottom reflections PDR —

Profiler — Sheet No. —  
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Length Core Pipe 20 ft. Core Head Wt. 1400 lbs. No. Pipes 1  
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Length Trigger Line 45 ft. Trigger Wt. 125 lbs. I.D. Pipes 2.5  
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Length Scope 10 ft. Length free fall 10 ft. Pipe Wall thickness 1/4 in.  
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Time Lowered 1725 PDR Depth 21 fm Nature of Hit GOOD  
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Time Messenger 1725 Counter Depth 2 fm Wire Out at Hit 17 fm  
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Time Hit 1726 PDR Depth 21 fm Wire Angle at Hit —  
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Time Surfaced 1727 PDR Depth 21 fm Pull Out EASY  
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Depth of Penetration 75 cm Trigger Core Length 0 cm  
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Mud on Piston - yes — no

Condition of Cutting Edge and Pipe (Pipes bent ? where?) GOOD

Method of Extrusion LINER

Total Core Length JAR + cm No. Gutter Pipe Filled 1/2

Estimate of Good Core — Estimate of Flow-in —  
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CORRELATIVE STATION DATA:

Camera Station No. 04 Thermograd — No. of Probes —

Geochem Water Bbl. No. — Barrel above Core — fm

Particulate Water Bbl. No. — Barrel above Core — fm

Nephelometer Station No. (LSM) — Camera Dredge No. —

Rock Dredge — Trawl — Core Head Camera No. —

Tripod Core — Tripod T-Grad — Current Meter —

Biology: Multiple Plankton — JetNet — JK — Plankton —

Picture of Compass when pipe is in mud - yes — no —

12  
15

NO. 1000001

CORE LOG

Date 06/24/76 Ship IG Cruise 19 Leg 03 Core No. 11

Latitude 29°49.9'N Longitude 86°07.8'W Sea 1 Ship Station 10

Location CONT. SHELF OFF N.W. FLORIDA

Bottom topography FLAT

No. and Depth sub-bottom reflections PDR \_\_\_\_\_

Profiler \_\_\_\_\_ Sheet No. \_\_\_\_\_

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Length Core Pipe 20 ft. Core Head Wt. 1400 lbs. No. Pipes 1

Length Trigger Line 45 ft. Trigger Wt. 125 lbs. I.D. Pipes 2-5

Length Scope 10 ft. Length free fall 10 ft. Pipe Wall thickness 1/4 in.  
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Time Lowered 0810 PDR Depth 22 fm Nature of Hit GOOD

TZ  
HS

Time Messenger 0810 Counter Depth 3 fm Wire Out at Hit 17 fm

Time Hit 0811 PDR Depth 22 fm Wire Angle at Hit \_\_\_\_\_

Time Surfaced 0812 PDR Depth 22 fm Pull Out EASY  
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Depth of Penetration 110 cm Trigger Core Length 0 cm

Mud on Piston - yes \_\_\_\_\_ no

Condition of Cutting Edge and Pipe (Pipes bent ? where?) GOOD

Method of Extrusion \_\_\_\_\_

Total Core Length 275 cm No. Gutter Pipe Filled 1

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Estimate of Good Core 100 Estimate of Flow-in 175  
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CORRELATIVE STATION DATA:

Camera Station No. \_\_\_\_\_ Thermograd \_\_\_\_\_ No. of Probes \_\_\_\_\_

Geochem Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Particulate Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Nephelometer Station No. (LSM) \_\_\_\_\_ Camera Dredge No. \_\_\_\_\_

Rock Dredge \_\_\_\_\_ Trawl \_\_\_\_\_ Core Head Camera No. \_\_\_\_\_

Tripod Core \_\_\_\_\_ Tripod T-Grad \_\_\_\_\_ Current Meter \_\_\_\_\_

Biology: Multiple Plankton \_\_\_\_\_ JetNet \_\_\_\_\_ JK \_\_\_\_\_ Plankton \_\_\_\_\_

Picture of Compass when pipe is in mud - yes \_\_\_\_\_ no \_\_\_\_\_



CORE LOG

Date 06/24/76 Ship 16 Cruise 19 Leg 03 Core No. 12  
 Latitude 29°48'N Longitude 86°10.3'W Sea 1 Ship Station 11  
 Location CONT. SHELF OFF NW FLORIDA  
 Bottom topography FLAT

No. and Depth sub-bottom reflections PDR \_\_\_\_\_

Profiler \_\_\_\_\_ Sheet No. \_\_\_\_\_

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 Length Core Pipe 20 ft. Core Head Wt. 1400 lbs. No. Pipes 1  
 Length Trigger Line 45 ft. Trigger Wt. 125 lbs. I.D. Pipes 2.5  
 Length Scope 10 ft. Length free fall 10 ft. Pipe Wall thickness 1/4 in.  
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Time Lowered 0858 PDR Depth 24 fm Nature of Hit GOOD

Time Messenger 0859 Counter Depth 3 fm Wire Out at Hit 19 fm

Time Hit 0900 PDR Depth 24 fm Wire Angle at Hit \_\_\_\_\_

Time Surfaced 0901 PDR Depth 24 fm Pull Out EASY

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 Depth of Penetration 100 cm Trigger Core Length 0 cm  
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Mud on Piston - yes \_\_\_\_\_ no

Condition of Cutting Edge and Pipe (Pipes bent ? where?) GOOD

Method of Extrusion LINER

Total Core Length 46 cm No. Gutter Pipe Filled 1/2

Estimate of Good Core 46 Estimate of Flow-in 0  
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CORRELATIVE STATION DATA:

~~Camera~~ Station No. 05 Thermograd \_\_\_\_\_ No. of Probes \_\_\_\_\_

Geochem Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Particulate Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Nephelometer Station No. (LSM) \_\_\_\_\_ Camera Dredge No. \_\_\_\_\_

Rock Dredge \_\_\_\_\_ Trawl \_\_\_\_\_ Core Head Camera No. \_\_\_\_\_

Tripod Core \_\_\_\_\_ Tripod T-Grad \_\_\_\_\_ Current Meter \_\_\_\_\_

Biology: Multiple Plankton \_\_\_\_\_ JetNet \_\_\_\_\_ IK \_\_\_\_\_ Plankton \_\_\_\_\_

Picture of Compass when pipe is in mud - yes \_\_\_\_\_ no \_\_\_\_\_

CORE LOG

14

Date 06/24/76 Ship IG Cruise 19 Leg 03 Core No. 13  
 Latitude 29°45.9'N Longitude 86°13.0'W Sea 1 Ship Station 12  
 Location CONT. SHELF OFF N.W. FLORIDA

Bottom topography FLAT

No. and Depth sub-bottom reflections PDR \_\_\_\_\_

Profiler \_\_\_\_\_ Sheet No. \_\_\_\_\_

\*\*\*\*\*  
 Length Core Pipe 20 ft. Core Head Wt. 1800 lbs. No. Pipes 1  
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Length Trigger Line 45 ft. Trigger Wt. 125 lbs. I.D. Pipes 2.5

Length Scope 10 ft. Length free fall 10 ft. Pipe Wall thickness 1/4 in.  
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 Time Lowered 0950 PDR Depth 28 fm Nature of Hit GOOD  
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Time Messenger 0950 Counter Depth 3 fm Wire Out at Hit 24 fm

Time Hit 0952 PDR Depth 28 fm Wire Angle at Hit \_\_\_\_\_

Time Surfaced 0953 PDR Depth 28 fm Pull Out EASY  
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Depth of Penetration 110 cm Trigger Core Length 0 cm  
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Mud on Piston - yes \_\_\_\_\_ no

Condition of Cutting Edge and Pipe (Pipes bent ? where?) GOOD

Method of Extrusion LINER

Total Core Length 153 cm No. Gutter Pipe Filled 1

Estimate of Good Core ~125 Estimate of Flow-in 28  
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CORRELATIVE STATION DATA:

PROFILOMETER  
 Camera Station No. 06 Thermograd \_\_\_\_\_ No. of Probes \_\_\_\_\_

Geochem Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Particulate Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Nephelometer Station No. (LSM) \_\_\_\_\_ Camera Dredge No. \_\_\_\_\_

Rock Dredge \_\_\_\_\_ Trawl \_\_\_\_\_ Core Head Camera No. \_\_\_\_\_

Tripod Core \_\_\_\_\_ Tripod T-Grad \_\_\_\_\_ Current Meter \_\_\_\_\_

Biology: Multiple Plankton \_\_\_\_\_ JetNet \_\_\_\_\_ JK \_\_\_\_\_ Plankton \_\_\_\_\_

Picture of Compass when pipe is in mud - yes \_\_\_\_\_ no \_\_\_\_\_

CORE LOG

Date 06/24/76 Ship IG Cruise 19 Leg 03 Core No. 14

Latitude 29 44' N Longitude 86 15.6' W Sea 1 Ship Station 13

Location CONT. SHELF OF N.W. FLORIDA

Bottom topography FLAT

No. and Depth sub-bottom reflections PDR \_\_\_\_\_

Profiler \_\_\_\_\_ Sheet No. \_\_\_\_\_

\*\*\*\*\*  
Length Core Pipe 20 ft. Core Head Wt. 1400 lbs. No. Pipes 1

Length Trigger Line 45 ft. Trigger Wt. 125 lbs. I.D. Pipes 2.5

Length Scope 10 ft. Length free fall 10 ft. Pipe Wall thickness 1/4 in.  
\*\*\*\*\*

TZ  
+5

Time Lowered 1037 PDR Depth 35 fm Nature of Hit GOOD

Time Messenger 1037 Counter Depth 5 fm Wire Out at Hit 31 fm

Time Hit 1039 PDR Depth 35 fm Wire Angle at Hit \_\_\_\_\_

Time Surfaced 1040 PDR Depth 35 fm Pull Out EASY  
\*\*\*\*\*

Depth of Penetration 110 cm Trigger Core Length 0 cm

Mud on Piston - yes \_\_\_\_\_ no

Condition of Cutting Edge and Pipe (Pipes bent ? where?) GOOD

Method of Extrusion LINER

Total Core Length ~~230~~ 302 cm No. Gutter Pipe Filled 1 1/2

Estimate of Good Core ~~100~~ 72 Estimate of Flow-in ~~130~~ 232  
\*\*\*\*\*

CORRELATIVE STATION DATA:

~~PROFILOMETER~~  
Camera Station No. 07 Thermograd \_\_\_\_\_ No. of Probes \_\_\_\_\_

Geochem Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Particulate Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Nephelometer Station No. (LSM) \_\_\_\_\_ Camera Dredge No. \_\_\_\_\_

Rock Dredge \_\_\_\_\_ Trawl \_\_\_\_\_ Core Head Camera No. \_\_\_\_\_

Tripod Core \_\_\_\_\_ Tripod T-Grad \_\_\_\_\_ Current Meter \_\_\_\_\_

Biology: Multiple Plankton \_\_\_\_\_ JetNet \_\_\_\_\_ JK \_\_\_\_\_ Plankton \_\_\_\_\_

Picture of Compass when pipe is in mud - yes \_\_\_\_\_ no \_\_\_\_\_

## CORE LOG

16

Date 06/24/76 Ship 1 G Cruise 19 Leg 03 Core No. 15  
 Latitude 29° 43.6' N Longitude 86° 15.8' W Sea 1 Ship Station 14  
 Location CONT. SHELF OFF N.W. FLORIDA  
 Bottom topography FLAT

No. and Depth sub-bottom reflections PDR \_\_\_\_\_

Profiler \_\_\_\_\_ Sheet No. \_\_\_\_\_

\*\*\*\*\*  
 Length Core Pipe 20 ft. Core Head Wt. 1400 lbs. No. Pipes 1  
 \*\*\*\*\*

Length Trigger Line 45 ft. Trigger Wt. 125 lbs. I.D. Pipes 2.5

Length Scope 10 ft. Length free fall 10 ft. Pipe Wall thickness 1/4 in.  
 \*\*\*\*\*

\*\*\*\*\*  
 Time Lowered 1146 PDR Depth 47 fm Nature of Hit GOOD  
 \*\*\*\*\*

Time Messenger 1146 Counter Depth 5 fm Wire Out at Hit 45 fm

Time Hit 1147 PDR Depth 47 fm Wire Angle at Hit \_\_\_\_\_

Time Surfaced 1149 PDR Depth 47 fm Pull Out MODERATELY EASY  
 \*\*\*\*\*

Depth of Penetration 275 cm Trigger Core Length 0 cm  
 \*\*\*\*\*

Mud on Piston - yes \_\_\_\_\_ no

Condition of Cutting Edge and Pipe (Pipes bent ? where?) GOOD

Method of Extrusion LINER

Total Core Length 280 cm No. Gutter Pipe Filled 1

Estimate of Good Core 280 Estimate of Flow-in 0  
 \*\*\*\*\*

## CORRELATIVE STATION DATA:

~~PROFLOMETER~~  
 Camera Station No. 07 Thermograd \_\_\_\_\_ No. of Probes \_\_\_\_\_

Geochem Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Particulate Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Nephelometer Station No. (LSM) \_\_\_\_\_ Camera Dredge No. \_\_\_\_\_

Rock Dredge \_\_\_\_\_ Trawl \_\_\_\_\_ Core Head Camera No. \_\_\_\_\_

Tripod Core \_\_\_\_\_ Tripod T-Grad \_\_\_\_\_ Current Meter \_\_\_\_\_

Biology: Multiple Plankton \_\_\_\_\_ JetNet \_\_\_\_\_ JK \_\_\_\_\_ Plankton \_\_\_\_\_

Picture of Compass when pipe is in mud - yes \_\_\_\_\_ no \_\_\_\_\_

CORE LOG

Date 06/24/76 Ship LG Cruise 03 Leg 03 Core No. 16  
Latitude 29°40' N Longitude 86°21' W Sea 1 Ship Station 15  
Location CONT. SHELF OFF NW FLORIDA  
Bottom topography FLAT

No. and Depth sub-bottom reflections PDR

Profiler \_\_\_\_\_ Sheet No. \_\_\_\_\_  
\*\*\*\*\*  
Length Core Pipe 20 ft. Core Head Wt. 1800 lbs. No. Pipes 1  
Length Trigger Line 45 ft. Trigger Wt. 125 lbs. I.D. Pipes 2.5  
Length Scope 10 ft. Length free fall 10 ft. Pipe Wall thickness 44 in.  
\*\*\*\*\*  
Time Lowered 1257 PDR Depth 57 fm Nature of Hit GOOD  
Time Messenger 1258 Counter Depth 75 fm Wire Out at Hit 55 fm  
Time Hit 1259 PDR Depth 57 fm Wire Angle at Hit \_\_\_\_\_  
Time Surfaced 1301 PDR Depth 57 fm Pull Out EASY  
\*\*\*\*\*  
Depth of Penetration 460 cm Trigger Core Length 15 cm  
Mud on Piston - yes \_\_\_\_\_ no

Condition of Cutting Edge and Pipe (Pipes bent ? where?) GOOD

Method of Extrusion LINER

Total Core Length 441 cm No. Gutter Pipe Filled 2

Estimate of Good Core 441 Estimate of Flow-in 0  
\*\*\*\*\*

CORRELATIVE STATION DATA: 10 025001

~~Camera~~ Station No. 08 Thermograd \_\_\_\_\_ No. of Probes \_\_\_\_\_

Geochem Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Particulate Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Nephelometer Station No. (LSM) \_\_\_\_\_ Camera Dredge No. \_\_\_\_\_

Rock Dredge \_\_\_\_\_ Trawl \_\_\_\_\_ Core Head Camera No. \_\_\_\_\_

Tripod Core \_\_\_\_\_ Tripod T-Grad \_\_\_\_\_ Current Meter \_\_\_\_\_

Biology: Multiple Plankton \_\_\_\_\_ JetNet \_\_\_\_\_ JK \_\_\_\_\_ Plankton \_\_\_\_\_

Picture of Compass when pipe is in mud - yes \_\_\_\_\_ no \_\_\_\_\_

CORE LOG

Date 06/24/76 Ship IG Cruise 8319 Leg 03 Core No. 17  
Latitude 29° 38.5' N Longitude 86° 23.1' W Sea 1 Ship Station 16  
Location CONT. SHELF OFF NW FLORIDA  
Bottom topography FLAT

No. and Depth sub-bottom reflections PDR \_\_\_\_\_

Profiler \_\_\_\_\_ Sheet No. \_\_\_\_\_

\*\*\*\*\*  
Length Core Pipe 20 ft. Core Head Wt. 1400 lbs. No. Pipes 1

Length Trigger Line 45 ft. Trigger Wt. 125 lbs. I.D. Pipes 2.5

Length Scope 10 ft. Length free fall 10 ft. Pipe Wall thickness 1/4 in.

\*\*\*\*\*  
Time Lowered 1348 PDR Depth 65 fm Nature of Hit GOOD

Time Messenger 1349 Counter Depth 20 fm Wire Out at Hit 64 fm

Time Hit 1352 PDR Depth 65 fm Wire Angle at Hit \_\_\_\_\_

Time Surfaced 1354 PDR Depth 65 fm Pull Out EASY  
\*\*\*\*\*

Depth of Penetration 500 cm Trigger Core Length 24 cm

Mud on Piston - yes \_\_\_\_\_ no

Condition of Cutting Edge and Pipe (Pipes bent ? where?) GOOD

Method of Extrusion LINER

Total Core Length 504 cm No. Gutter Pipe Filled 2

Estimate of Good Core 504 Estimate of Flow-in 0  
\*\*\*\*\*

CORRELATIVE STATION DATA: NOG 10 025 001

Camera Station No. 09 Thermograd \_\_\_\_\_ No. of Probes \_\_\_\_\_

Geochem Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Particulate Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Nephelometer Station No. (LSM) \_\_\_\_\_ Camera Dredge No. \_\_\_\_\_

Rock Dredge \_\_\_\_\_ Trawl \_\_\_\_\_ Core Head Camera No. \_\_\_\_\_

Tripod Core \_\_\_\_\_ Tripod T-Grad \_\_\_\_\_ Current Meter \_\_\_\_\_

Biology: Multiple Plankton \_\_\_\_\_ JetNet \_\_\_\_\_ JK \_\_\_\_\_ Plankton \_\_\_\_\_

Picture of Compass when pipe is in mud - yes \_\_\_\_\_ no \_\_\_\_\_

CORE LOG

Date 06/24/74 Ship IG Cruise 19 Leg 03 Core No. 18  
Latitude 29°37.6'N Longitude 86°23.5'W Sea 1 Ship Station 17  
Location CONT. SHELF OFF NW FLORIDA

Bottom topography FLAT

No. and Depth sub-bottom reflections PDR \_\_\_\_\_

Profiler \_\_\_\_\_ Sheet No. \_\_\_\_\_

\*\*\*\*\*  
Length Core Pipe 20 ft. Core Head Wt. 1400 lbs. No. Pipes 1

Length Trigger Line 45 ft. Trigger Wt. 125 lbs. I.D. Pipes 2.5

Length Scope 10 ft. Length free fall 10 ft. Pipe Wall thickness .44 in.

\*\*\*\*\*  
Time Lowered 1508 PDR Depth 75 fm Nature of Hit GOOD

Time Messenger 1510 Counter Depth 25 fm Wire Out at Hit 78 fm

Time Hit 1513 PDR Depth 75 fm Wire Angle at Hit \_\_\_\_\_

Time Surfaced 1515 PDR Depth 75 fm Pull Out EASY

\*\*\*\*\*  
Depth of Penetration 650 cm Trigger Core Length 27 cm

Mud on Piston - yes \_\_\_\_\_ no

Condition of Cutting Edge and Pipe (Pipes bent ? where?) GOOD

Method of Extrusion LINER

Total Core Length 552 cm No. Gutter Pipe Filled 2

Estimate of Good Core 552 Estimate of Flow-in 0

CORRELATIVE STATION DATA: 10025001

~~Camera~~ Station No. 09 Thermograd \_\_\_\_\_ No. of Probes \_\_\_\_\_

Geochem Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Particulate Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Nephelometer Station No. (LSM) \_\_\_\_\_ Camera Dredge No. \_\_\_\_\_

Rock Dredge \_\_\_\_\_ Trawl \_\_\_\_\_ Core Head Camera No. \_\_\_\_\_

Tripod Core \_\_\_\_\_ Tripod T-Grad \_\_\_\_\_ Current Meter \_\_\_\_\_

Biology: Multiple Plankton \_\_\_\_\_ JetNet \_\_\_\_\_ JK \_\_\_\_\_ Plankton \_\_\_\_\_

Picture of Compass when pipe is in mud - yes \_\_\_\_\_ no \_\_\_\_\_

Date 06/24/76 Ship IG Cruise 19 Leg 03 Core No. 19  
 Latitude 29° 34' N Longitude 86° 28.8' W Sea 1 Ship Station 18  
 Location CONT. SHELF OFF N.W. FLORIDA

Bottom topography FLAT

No. and Depth sub-bottom reflections PDR           

Profiler            Sheet No.           

\*\*\*\*\*  
 Length Core Pipe 38 ft. Core Head Wt. 1400 lbs. No. Pipes 2

Length Trigger Line 65 ft. Trigger Wt. 125 lbs. I.D. Pipes 2.5

Length Scope 13 ft. Length free fall 13 ft. Pipe Wall thickness 1/4 in.

\*\*\*\*\*  
 Time Lowered 1645 PDR Depth 87 fm Nature of Hit GOOD

Time Messenger 1646 Counter Depth 40 fm Wire Out at Hit 81 fm

Time Hit 1648 PDR Depth 87 fm Wire Angle at Hit           

Time Surfaced 1649 PDR Depth 87 fm Pull Out EASY

\*\*\*\*\*  
 Depth of Penetration 945 cm Trigger Core Length 15 cm

Mud on Piston - yes            no ✓

Condition of Cutting Edge and Pipe (Pipes bent ? where?) GOOD

Method of Extrusion LINER

Total Core Length 1125 cm No. Gutter Pipe Filled 4

Estimate of Good Core 1125 Estimate of Flow-in 0

CORRELATIVE STATION DATA:

0001055001

~~Camera~~ <sup>PROFILOMETER</sup> Station No. 10 Thermograd            No. of Probes           

Geochem Water Bbl. No.            Barrel above Core            fm

Particulate Water Bbl. No.            Barrel above Core            fm

Nephelometer Station No. (LSM)            Camera Dredge No.           

Rock Dredge            Trawl            Core Head Camera No.           

Tripod Core            Tripod T-Grad            Current Meter           

Biology: Multiple Plankton            JetNet            IK            Plankton           

Picture of Compass when pipe is in mud - yes            no



CORE LOG

Date 06/25/76 Ship LG Cruise 19 Leg 03 Core No. 20  
 Latitude 29° 32.3' N Longitude 86° 30.3' W Sea 1 Ship Station 19  
 Location CONT. SHELF OFF N.W. FLORIDA  
 Bottom topography FLAT

No. and Depth sub-bottom reflections PDR \_\_\_\_\_

Profiler \_\_\_\_\_ Sheet No. \_\_\_\_\_  
 \*\*\*\*\*  
 Length Core Pipe 38 ft. Core Head Wt. 1400 lbs. No. Pipes 2  
 Length Trigger Line 64 ft. Trigger Wt. 125 lbs. I.D. Pipes 2.5  
 Length Scope 14 ft. Length free fall 14 ft. Pipe Wall thickness 1/4 in.  
 \*\*\*\*\*  
 Time Lowered 0726 PDR Depth 100 fm Nature of Hit HARD  
 Time Messenger 0727 Counter Depth 50 fm Wire Out at Hit 90 fm  
 Time Hit 0728 PDR Depth 100 fm Wire Angle at Hit \_\_\_\_\_  
 Time Surfaced 0730 PDR Depth 100 fm Pull Out EASY  
 \*\*\*\*\*  
 Depth of Penetration 1180 cm Trigger Core Length 22 cm  
 Mud on Piston - yes \_\_\_\_\_ no

Condition of Cutting Edge and Pipe (Pipes bent ? where?) TOP LINER  
SECTION COLLAPSED IN 3 PLACES

Method of Extrusion LINES

Total Core Length 859 cm No. Gutter Pipe Filled 3 1/2  
 Estimate of Good Core 859 Estimate of Flow-in 0  
 \*\*\*\*\*

CORRELATIVE STATION DATA:

PROFILOMETER  
 Camera Station No. 11 Thermograd \_\_\_\_\_ No. of Probes \_\_\_\_\_  
 Geochem Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm  
 Particulate Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm  
 Nephelometer Station No. (LSM) \_\_\_\_\_ Camera Dredge No. \_\_\_\_\_  
 Rock Dredge \_\_\_\_\_ Trawl \_\_\_\_\_ Core Head Camera No. \_\_\_\_\_  
 Tripod Core \_\_\_\_\_ Tripod T-Grad \_\_\_\_\_ Current Meter \_\_\_\_\_  
 Biology: Multiple Plankton \_\_\_\_\_ JetNet \_\_\_\_\_ JK \_\_\_\_\_ Plankton \_\_\_\_\_  
 Picture of Compass when pipe is in mud - yes \_\_\_\_\_ no \_\_\_\_\_

CORE LOG

Date 06/25/74 Ship IG Cruise 19 Leg 03 Core No. 21  
 Latitude 29° 30' N Longitude 86° 32.6' W Sea 1 Ship Station 20  
 Location CONT. SHELF OFF N.W. FLORIDA

Bottom topography FLAT

No. and Depth sub-bottom reflections PDR \_\_\_\_\_

Profiler \_\_\_\_\_ Sheet No. \_\_\_\_\_

\*\*\*\*\*  
 Length Core Pipe 38 ft. Core Head Wt. 1400 lbs. No. Pipes \_\_\_\_\_

Length Trigger Line 64 ft. Trigger Wt. 125 lbs. I.D. Pipes 2.5

Length Scope 12 ft. Length free fall 12 ft. Pipe Wall thickness 1/4 in.

\*\*\*\*\*  
 Time Lowered 0959 PDR Depth 117 fm Nature of Hit HARD

Time Messenger 0959 Counter Depth 50 fm Wire Out at Hit 110 fm

Time Hit 1001 PDR Depth 117 fm Wire Angle at Hit \_\_\_\_\_

Time Surfaced 1003 PDR Depth 117 fm Pull Out EASY

\*\*\*\*\*  
 Depth of Penetration 1175 cm Trigger Core Length 19 cm

Mud on Piston - yes \_\_\_\_\_ no

Condition of Cutting Edge and Pipe (Pipes bent ? where?) GOOD

Method of Extrusion WINCR

Total Core Length 1114 cm No. Gutter Pipe Filled 34

Estimate of Good Core 1114 Estimate of Flow-in 0

CORRELATIVE STATION DATA:

PROFILOMETER  
 Camera Station No. 12 Thermograd \_\_\_\_\_ No. of Probes \_\_\_\_\_

Geochem Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Particulate Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Nephelometer Station No. (LSM) \_\_\_\_\_ Camera Dredge No. \_\_\_\_\_

Rock Dredge \_\_\_\_\_ Trawl \_\_\_\_\_ Core Head Camera No. \_\_\_\_\_

Tripod Core \_\_\_\_\_ Tripod T-Grad \_\_\_\_\_ Current Meter \_\_\_\_\_

Biology: Multiple Plankton \_\_\_\_\_ JetNet \_\_\_\_\_ JK \_\_\_\_\_ Plankton \_\_\_\_\_

Picture of Compass when pipe is in mud - yes \_\_\_\_\_ no \_\_\_\_\_

Date 06/25/76 Ship IG Cruise 19 Leg 03 Core No. 22Latitude 29° 28.3' N Longitude 82° 35.2' W Sea 1 Ship Station 21Location CONT. SHELF OFF NW FLORIDABottom topography FLAT

No. and Depth sub-bottom reflections PDR \_\_\_\_\_

Profiler \_\_\_\_\_ Sheet No. \_\_\_\_\_

\*\*\*\*\*  
Length Core Pipe 38 ft. Core Head Wt. 1400 lbs. No. Pipes 2Length Trigger Line 64 ft. Trigger Wt. 125 lbs. I.D. Pipes 2.5Length Scope 11 ft. Length free fall 11 ft. Pipe Wall thickness 1/4 in.\*\*\*\*\*  
Time Lowered 1107 PDR Depth 137 fm Nature of Hit GOODTime Messenger 1108 Counter Depth 50 ~~135~~ fm Wire Out at Hit 135 fmTime Hit 1110 PDR Depth 137 fm Wire Angle at Hit \_\_\_\_\_Time Surfaced \_\_\_\_\_ PDR Depth 137 fm Pull Out EASY\*\*\*\*\*  
Depth of Penetration 1175 cm Trigger Core Length 24 cmMud on Piston - yes \_\_\_\_\_ no Condition of Cutting Edge and Pipe (Pipes bent ? where?) GOODMethod of Extrusion LINERTotal Core Length 1038 cm No. Gutter Pipe Filled 3 1/2Estimate of Good Core 1038 Estimate of Flow-in 0

## CORRELATIVE STATION DATA:

PROFILER  
Camera Station No. 13 Thermograd \_\_\_\_\_ No. of Probes \_\_\_\_\_

Geochem Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Particulate Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Nephelometer Station No. (LSM) \_\_\_\_\_ Camera Dredge No. \_\_\_\_\_

Rock Dredge \_\_\_\_\_ Trawl \_\_\_\_\_ Core Head Camera No. \_\_\_\_\_

Tripod Core \_\_\_\_\_ Tripod T-Grad \_\_\_\_\_ Current Meter \_\_\_\_\_

Biology: Multiple Plankton \_\_\_\_\_ JetNet \_\_\_\_\_ JK \_\_\_\_\_ Plankton \_\_\_\_\_

Picture of Compass when pipe is in mud - yes \_\_\_\_\_ no \_\_\_\_\_

Date 06/25/76 Ship IC Cruise 19 Leg 03 Core No. 23Latitude 29°26.4'N Longitude 86°32.8'W Sea 1 Ship Station 22Location CONT. SHELF OFF NW FLORIDABottom topography FLAT

No. and Depth sub-bottom reflections PDR \_\_\_\_\_

Profiler \_\_\_\_\_ Sheet No. \_\_\_\_\_

\*\*\*\*\*

Length Core Pipe 38 ft. Core Head Wt. 1400 lbs. No. Pipes 2Length Trigger Line 64 ft. Trigger Wt. 125 lbs. I.D. Pipes 2.5Length Scope 12 ft. Length free fall 12 ft. Pipe Wall thickness 1/4 in.

\*\*\*\*\*

Time Lowered 1253 PDR Depth 162 fm Nature of Hit GOODT2 Time Messenger 1254 Counter Depth 50 fm Wire Out at Hit 159 fmT5 Time Hit 1257 PDR Depth 162 fm Wire Angle at Hit \_\_\_\_\_Time Surfaced 1300 PDR Depth 162 fm Pull Out EASY

\*\*\*\*\*

Depth of Penetration 1080 cm Trigger Core Length 28 cmMud on Piston - yes \_\_\_\_\_ no Condition of Cutting Edge and Pipe (Pipes bent ? where?) GOODMethod of Extrusion LINERTotal Core Length 1127 cm No. Gutter Pipe Filled 3 1/2Estimate of Good Core 1127 Estimate of Flow-in 0

\*\*\*\*\*

## CORRELATIVE STATION DATA:

PROFILER  
Camera Station No. 14 Thermograd \_\_\_\_\_ No. of Probes \_\_\_\_\_

Geochem Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Particulate Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Nephelometer Station No. (LSM) \_\_\_\_\_ Camera Dredge No. \_\_\_\_\_

Rock Dredge \_\_\_\_\_ Trawl \_\_\_\_\_ Core Head Camera No. \_\_\_\_\_

Tripod Core \_\_\_\_\_ Tripod T-Grad \_\_\_\_\_ Current Meter \_\_\_\_\_

Biology: Multiple Plankton \_\_\_\_\_ JetNet \_\_\_\_\_ JK \_\_\_\_\_ Plankton \_\_\_\_\_

Picture of Compass when pipe is in mud - yes \_\_\_\_\_ no \_\_\_\_\_

Date 06/25/76 Ship 1G Cruise 19 Leg 03 Core No. 24  
 Latitude 29° 24.5' N Longitude 86° 40.6' W Sea 02 Ship Station 23  
 Location GULF OF MEXICO

Bottom topography FLAT

No. and Depth sub-bottom reflections PDR \_\_\_\_\_

Profiler \_\_\_\_\_ Sheet No. \_\_\_\_\_

\*\*\*\*\*

Length Core Pipe 38 ft. Core Head Wt. 1400 lbs. No. Pipes 2

Length Trigger Line 64 ft. Trigger Wt. 125 lbs. I.D. Pipes 2.5

Length Scope 12 ft. Length free fall 12 ft. Pipe Wall thickness 1/4 in.

\*\*\*\*\*

Time Lowered 1401 PDR Depth 190 fm Nature of Hit GOOD

Time Messenger 1402 Counter Depth 50 fm Wire Out at Hit 188 fm

Time Hit 1406 PDR Depth 190 fm Wire Angle at Hit \_\_\_\_\_

Time Surfaced 1409 PDR Depth 190 fm Pull Out EASY

\*\*\*\*\*

Depth of Penetration 1130 cm Trigger Core Length 16 cm

Mud on Piston - yes \_\_\_\_\_ no

Condition of Cutting Edge and Pipe (Pipes bent ? where?) GOOD

Method of Extrusion LINER

Total Core Length 1065 cm No. Gutter Pipe Filled 3 1/2

Estimate of Good Core 1065 Estimate of Flow-in 0

\*\*\*\*\*

CORRELATIVE STATION DATA:

PROFILOMETER  
 Camera Station No. 15 Thermograd \_\_\_\_\_ No. of Probes \_\_\_\_\_

Geochem Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Particulate Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Nephelometer Station No. (LSM) \_\_\_\_\_ Camera Dredge No. \_\_\_\_\_

Rock Dredge \_\_\_\_\_ Trawl \_\_\_\_\_ Core Head Camera No. \_\_\_\_\_

Tripod Core \_\_\_\_\_ Tripod T-Grad \_\_\_\_\_ Current Meter \_\_\_\_\_

Biology: Multiple Plankton \_\_\_\_\_ JetNet \_\_\_\_\_ JK \_\_\_\_\_ Plankton \_\_\_\_\_

Picture of Compass when pipe is in mud - yes \_\_\_\_\_ no \_\_\_\_\_

Date 07/02/76 Ship IG Cruise 19 Leg 04 Core No. 70  
 Latitude 29° 41.0' N Longitude 87° 07.2' W Sea 2 Ship Station 69  
 Location GULF OF MEXICO

Bottom topography GENTLE SLOPE

No. and Depth sub-bottom reflections PDR \_\_\_\_\_

Profiler \_\_\_\_\_ Sheet No. \_\_\_\_\_

\*\*\*\*\*  
 Length Core Pipe 38 ft. Core Head Wt. 1400 lbs. No. Pipes 2

Length Trigger Line 63 ft. Trigger Wt. 125 lbs. I.D. Pipes 2-5

Length Scope 14 ft. Length free fall 14 ft. Pipe Wall thickness 1/4 in.

\*\*\*\*\*  
 Time Lowered 1108 PDR Depth 125 fm Nature of Hit GOOD

Time Messenger 1109 Counter Depth 50 fm Wire Out at Hit 122 fm

Time Hit 1110 PDR Depth 125 fm Wire Angle at Hit \_\_\_\_\_

Time Surfaced 1115 PDR Depth 125 fm Pull Out MODERATE

\*\*\*\*\*  
 Depth of Penetration 1050 cm Trigger Core Length 33 cm

Mud on Piston - yes \_\_\_\_\_ no

Condition of Cutting Edge and Pipe (Pipes bent ? where?) GOOD

Method of Extrusion LINER

Total Core Length 1025 cm No. Gutter Pipe Filled 3 1/2

Estimate of Good Core 1025 Estimate of Flow-in 0  
 \*\*\*\*\*

CORRELATIVE STATION DATA:

~~PROFIL~~  
 Camera Station No. 64 Thermograd \_\_\_\_\_ No. of Probes \_\_\_\_\_

Geochem Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Particulate Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Nephelometer Station No. (LSM) \_\_\_\_\_ Camera Dredge No. \_\_\_\_\_

Rock Dredge \_\_\_\_\_ Trawl \_\_\_\_\_ Core Head Camera No. \_\_\_\_\_

Tripod Core \_\_\_\_\_ Tripod T-Grad \_\_\_\_\_ Current Meter \_\_\_\_\_

Biology: Multiple Plankton \_\_\_\_\_ JetNet \_\_\_\_\_ JK \_\_\_\_\_ Plankton \_\_\_\_\_

Picture of Compass when pipe is in mud - yes \_\_\_\_\_ no \_\_\_\_\_

Date 07/02/76 Ship IG Cruise 19 Leg 04 Core No. 71  
 Latitude 29°39.8'N Longitude 87°11.0'W Sea 1 Ship Station 70  
 Location GULF OF MEXICO  
 Bottom topography FLAT, GENTLE SLOPE  
 No. and Depth sub-bottom reflections PDR \_\_\_\_\_

Profiler \_\_\_\_\_ Sheet No. \_\_\_\_\_  
 \*\*\*\*\*  
 Length Core Pipe 38 ft. Core Head Wt. 1400 lbs. No. Pipes 2  
 Length Trigger Line 63 ft. Trigger Wt. 125 lbs. I.D. Pipes 2.5  
 Length Scope 14 ft. Length free fall 14 ft. Pipe Wall thickness 1/4 in.  
 \*\*\*\*\*  
 Time Lowered 1228 PDR Depth 132 fm Nature of Hit GOOD  
 Time Messenger 1229 Counter Depth 50 fm Wire Out at Hit 133 fm  
 Time Hit 1230 PDR Depth 133 fm Wire Angle at Hit \_\_\_\_\_  
 Time Surfaced 1235 PDR Depth 133 fm Pull Out EASY  
 \*\*\*\*\*  
 Depth of Penetration 110<sup>0</sup> cm Trigger Core Length 30 cm  
 Mud on Piston - yes \_\_\_\_\_ no   
 Condition of Cutting Edge and Pipe (Pipes bent ? where?) GOOD

Method of Extrusion LINER  
 Total Core Length 885 cm No. Gutter Pipe Filled 3  
 Estimate of Good Core 885 Estimate of Flow-in 0  
 \*\*\*\*\*

## CORRELATIVE STATION DATA:

PROFIL  
 Camera Station No. 65 Thermograd \_\_\_\_\_ No. of Probes \_\_\_\_\_  
 Geochem Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm  
 Particulate Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm  
 Nephelometer Station No. (LSM) \_\_\_\_\_ Camera Dredge No. \_\_\_\_\_  
 Rock Dredge \_\_\_\_\_ Trawl \_\_\_\_\_ Core Head Camera No. \_\_\_\_\_  
 Tripod Core \_\_\_\_\_ Tripod T-Grad \_\_\_\_\_ Current Meter \_\_\_\_\_  
 Biology: Multiple Plankton \_\_\_\_\_ JetNet \_\_\_\_\_ JK \_\_\_\_\_ Plankton \_\_\_\_\_  
 Picture of Compass when pipe is in mud - yes \_\_\_\_\_ no \_\_\_\_\_

Date 07/02/76 Ship IG Cruise 19 Leg 04 Core No. 72Latitude 29°38.9'W Longitude 87°14.0'W Sea 1 Ship Station 71Location GULF OF MEXICOBottom topography FLAT

No. and Depth sub-bottom reflections PDR \_\_\_\_\_

Profiler \_\_\_\_\_ Sheet No. \_\_\_\_\_

\*\*\*\*\*  
Length Core Pipe 38 ft. Core Head Wt. 1400 lbs. No. Pipes 2Length Trigger Line 63 ft. Trigger Wt. 125 lbs. I.D. Pipes 2.5Length Scope 14 ft. Length free fall 14 ft. Pipe Wall thickness 1/4 in.\*\*\*\*\*  
Time Lowered 1321 PDR Depth 127 fm Nature of Hit GOODTime Messenger 1322 Counter Depth 50 fm Wire Out at Hit 124 fmTime Hit 1325 PDR Depth 127 fm Wire Angle at Hit \_\_\_\_\_Time Surfaced 1331 PDR Depth 127 fm Pull Out MODERATE\*\*\*\*\*  
Depth of Penetration 1100 cm Trigger Core Length 25 cmMud on Piston - yes \_\_\_\_\_ no Condition of Cutting Edge and Pipe (Pipes bent ? where?) GOODMethod of Extrusion LINERTotal Core Length 950 cm No. Gutter Pipe Filled 3 1/2Estimate of Good Core 950 Estimate of Flow-in 0  
\*\*\*\*\*CORRELATIVE STATION DATA:Camera Station No. 66 Thermograd \_\_\_\_\_ No. of Probes \_\_\_\_\_

Geochem Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Particulate Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Nephelometer Station No. (LSM) \_\_\_\_\_ Camera Dredge No. \_\_\_\_\_

Rock Dredge \_\_\_\_\_ Trawl \_\_\_\_\_ Core Head Camera No. \_\_\_\_\_

Tripod Core \_\_\_\_\_ Tripod T-Grad \_\_\_\_\_ Current Meter \_\_\_\_\_

Biology: Multiple Plankton \_\_\_\_\_ JetNet \_\_\_\_\_ JK \_\_\_\_\_ Plankton \_\_\_\_\_

Picture of Compass when pipe is in mud - yes \_\_\_\_\_ no \_\_\_\_\_



Date 07/03/76 Ship IG Cruise 19 Leg 04 Core No. 73  
 Latitude 29°39.4'N Longitude 86°18.5'W Sea 2 Ship Station 72  
 Location GULF OF MEXICO

Bottom topography EDGE OF SLOPE

No. and Depth sub-bottom reflections PDR \_\_\_\_\_

Profiler \_\_\_\_\_ Sheet No. \_\_\_\_\_

\*\*\*\*\*  
 Length Core Pipe 38 ft. Core Head Wt. 1400 lbs. No. Pipes 2

Length Trigger Line 63 ft. Trigger Wt. 125 lbs. I.D. Pipes 2.5

Length Scope 14 ft. Length free fall 13 ft. Pipe Wall thickness 1/4 in.

\*\*\*\*\*

Time Lowered 0812 PDR Depth 53 fm Nature of Hit GOOD

Time Messenger 0813 Counter Depth 10 fm Wire Out at Hit 47 fm

Time Hit 0817 PDR Depth 53 fm Wire Angle at Hit \_\_\_\_\_

Time Surfaced 0819 PDR Depth 53 fm Pull Out NONE

\*\*\*\*\*

Depth of Penetration 1000 cm Trigger Core Length 0 cm

Mud on Piston - yes \_\_\_\_\_ no

Condition of Cutting Edge and Pipe (Pipes bent ? where?) GOOD

Method of Extrusion LINERS

Total Core Length 860 cm No. Gutter Pipe Filled 3

Estimate of Good Core 860 Estimate of Flow-in 0

\*\*\*\*\*

CORRELATIVE STATION DATA:

~~CORE~~ <sup>PROF/LOMETER</sup> Station No. 67 Thermograd \_\_\_\_\_ No. of Probes \_\_\_\_\_

Geochem Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Particulate Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Nephelometer Station No. (LSM) \_\_\_\_\_ Camera Dredge No. \_\_\_\_\_

Rock Dredge \_\_\_\_\_ Trawl \_\_\_\_\_ Core Head Camera No. \_\_\_\_\_

Tripod Core \_\_\_\_\_ Tripod T-Grad \_\_\_\_\_ Current Meter \_\_\_\_\_

Biology: Multiple Plankton \_\_\_\_\_ JetNet \_\_\_\_\_ JK \_\_\_\_\_ Plankton \_\_\_\_\_

Picture of Compass when pipe is in mud - yes \_\_\_\_\_ no \_\_\_\_\_

Date 07/03/76 Ship IG Cruise 19 Leg 04 Core No. 74  
 Latitude 29°32.2'N Longitude 86°26.9'W Sea 1 Ship Station 73  
 Location GULF OF MEXICO  
 Bottom topography FLAT

No. and Depth sub-bottom reflections PDR \_\_\_\_\_

Profiler \_\_\_\_\_ Sheet No. \_\_\_\_\_  
 \*\*\*\*\*

Length Core Pipe 38 ft. Core Head Wt. 1400 lbs. No. Pipes 2

Length Trigger Line 63 ft. Trigger Wt. 125 lbs. I.D. Pipes 2.5

Length Scope 14 ft. Length free fall 14 ft. Pipe Wall thickness 1/4 in.  
 \*\*\*\*\*

Time Lowered 1000 PDR Depth 90 fm Nature of Hit GOOD  
 \*\*\*\*\*

Time Messenger 1001 Counter Depth 50 fm Wire Out at Hit 96 fm

Time Hit 1002 PDR Depth 90 fm Wire Angle at Hit \_\_\_\_\_

Time Surfaced 1007 PDR Depth 90 fm Pull Out MODERATE  
 \*\*\*\*\*

Depth of Penetration 1003 cm Trigger Core Length 22 cm  
 \*\*\*\*\*

Mud on Piston - yes \_\_\_\_\_ no \_\_\_\_\_

Condition of Cutting Edge and Pipe (Pipes bent ? where?) GOOD

Method of Extrusion LINER

Total Core Length 1068 cm No. Gutter Pipe Filled 4

Estimate of Good Core 1068 Estimate of Flow-in 0  
 \*\*\*\*\*

CORRELATIVE STATION DATA:

Camera Station No. 68 Thermograd \_\_\_\_\_ No. of Probes \_\_\_\_\_

Geochem Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Particulate Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Nephelometer Station No. (LSM) \_\_\_\_\_ Camera Dredge No. \_\_\_\_\_

Rock Dredge \_\_\_\_\_ Trawl \_\_\_\_\_ Core Head Camera No. \_\_\_\_\_

Tripod Core \_\_\_\_\_ Tripod T-Grad \_\_\_\_\_ Current Meter \_\_\_\_\_

Biology: Multiple Plankton \_\_\_\_\_ JetNet \_\_\_\_\_ JK \_\_\_\_\_ Plankton \_\_\_\_\_

Picture of Compass when pipe is in mud - yes \_\_\_\_\_ no \_\_\_\_\_

Date 07/03/76 Ship IG Cruise 19 Leg 04 Core No. 75  
 Latitude 29° 23.9' N Longitude 86° 36.2' W Sea 1 Ship Station 74  
 Location GULF OF MEXICO  
 Bottom topography FLAT

No. and Depth sub-bottom reflections PDR \_\_\_\_\_

Profiler \_\_\_\_\_ Sheet No. \_\_\_\_\_  
 \*\*\*\*\*  
 Length Core Pipe 38 ft. Core Head Wt. 1400 lbs. No. Pipes 2  
 Length Trigger Line 63 ft. Trigger Wt. 125 lbs. I.D. Pipes 2.5  
 Length Scope 14 ft. Length free fall 14 ft. Pipe Wall thickness 1/4 in.  
 \*\*\*\*\*  
 Time Lowered 1155 PDR Depth 170 fm Nature of Hit GOOD  
 Time Messenger 1156 Counter Depth 50 fm Wire Out at Hit 170 fm  
 Time Hit 1158 PDR Depth 172 fm Wire Angle at Hit \_\_\_\_\_  
 Time Surfaced 1205 PDR Depth 170 fm Pull Out EASY  
 \*\*\*\*\*  
 Depth of Penetration 1020 cm Trigger Core Length 32 cm  
 Mud on Piston - yes \_\_\_\_\_ no

Condition of Cutting Edge and Pipe (Pipes bent ? where?) BOTTOM  
LINER COLLAPSED NEAR COUPLING

Method of Extrusion LINER  
 Total Core Length 1035 cm No. Gutter Pipe Filled 4  
 Estimate of Good Core 1035 ? Estimate of Flow-in 0  
 \*\*\*\*\*

CORRELATIVE STATION DATA:

Camera Station No. 69 Thermograd \_\_\_\_\_ No. of Probes \_\_\_\_\_  
 Geochem Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm  
 Particulate Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm  
 Nephelometer Station No. (LSM) \_\_\_\_\_ Camera Dredge No. \_\_\_\_\_  
 Rock Dredge \_\_\_\_\_ Trawl \_\_\_\_\_ Core Head Camera No. \_\_\_\_\_  
 Tripod Core \_\_\_\_\_ Tripod T-Grad \_\_\_\_\_ Current Meter \_\_\_\_\_  
 Biology: Multiple Plankton \_\_\_\_\_ JetNet \_\_\_\_\_ JK \_\_\_\_\_ Plankton \_\_\_\_\_  
 Picture of Compass when pipe is in mud - yes \_\_\_\_\_ no \_\_\_\_\_

Date 07/03/70 Ship IG Cruise 19 Leg 04 Core No. 76

Latitude 29°14.6'N Longitude 87°00.8'W Sea 1 Ship Station 75

Location GULF OF MEXICO

Bottom topography SIDE OF HILL

No. and Depth sub-bottom reflections PDR STRONG REFLECTORS

Profiler \_\_\_\_\_ Sheet No. \_\_\_\_\_

\*\*\*\*\*  
Length Core Pipe 38 ft. Core Head Wt. 1400 lbs. No. Pipes 2

Length Trigger Line 63 ft. Trigger Wt. 125 lbs. I.D. Pipes 2.5

Length Scope 14 ft. Length free fall 14 ft. Pipe Wall thickness 1/4 in.

\*\*\*\*\*  
Time Lowered 1548 PDR Depth 478 fm Nature of Hit GOOD

Time Messenger 1549 Counter Depth 50 fm Wire Out at Hit 470 fm

Time Hit 1602 PDR Depth 463 fm Wire Angle at Hit \_\_\_\_\_

Time Surfaced 1608 PDR Depth \_\_\_\_\_ fm Pull Out MODERATE

\*\*\*\*\*  
Depth of Penetration 1150 cm Trigger Core Length 42 cm

Mud on Piston - yes \_\_\_\_\_ no

Condition of Cutting Edge and Pipe (Pipes bent ? where?) GOOD

Method of Extrusion LINER

Total Core Length 1008 cm No. Gutter Pipe Filled 8 1/2

Estimate of Good Core 1008 Estimate of Flow-in 0

CORRELATIVE STATION DATA:

Camera Station No. 70 Thermograd \_\_\_\_\_ No. of Probes \_\_\_\_\_

Geochem Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Particulate Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Nephelometer Station No. (LSM) \_\_\_\_\_ Camera Dredge No. \_\_\_\_\_

Rock Dredge \_\_\_\_\_ Trawl \_\_\_\_\_ Core Head Camera No. \_\_\_\_\_

Tripod Core \_\_\_\_\_ Tripod T-Grad \_\_\_\_\_ Current Meter \_\_\_\_\_

Biology: Multiple Plankton \_\_\_\_\_ JetNet \_\_\_\_\_ JK \_\_\_\_\_ Plankton \_\_\_\_\_

Picture of Compass when pipe is in mud - yes \_\_\_\_\_ no \_\_\_\_\_

CORE LOG

Date 07/03/76 Ship IG Cruise 19 Leg 04 Core No. 77

Latitude 29° 13.6' N Longitude 87° 00.8' W Sea 1 Ship Station 76

Location GULF OF MEXICO

Bottom topography FLAT

No. and Depth sub-bottom reflections PDR STRONG REFLECTORS

Profiler \_\_\_\_\_ Sheet No. \_\_\_\_\_

\*\*\*\*\*  
Length Core Pipe 38 ft. Core Head Wt. 1400 lbs. No. Pipes 2

Length Trigger Line 63 ft. Trigger Wt. 125 lbs. I.D. Pipes 2.5

Length Scope 14 ft. Length free fall 14 ft. Pipe Wall thickness 1/4 in.

\*\*\*\*\*  
Time Lowered 1716 PDR Depth 495 fm Nature of Hit GOOD

Time Messenger 1718 Counter Depth 50 fm Wire Out at Hit 497 fm

Time Hit 1723 PDR Depth 495 fm Wire Angle at Hit \_\_\_\_\_

Time Surfaced 1730 PDR Depth 495 fm Pull Out MODERATELY HARD

\*\*\*\*\*  
Depth of Penetration 840 cm Trigger Core Length 19 cm

Mud on Piston - yes \_\_\_\_\_ no

Condition of Cutting Edge and Pipe (Pipes bent ? where?) GOOD

Method of Extrusion WINER

Total Core Length 722 cm No. Gutter Pipe Filled 2 + 2 1/2 sec

Estimate of Good Core 722 Estimate of Plow-in 0

CORRELATIVE STATION DATA:

~~Camera~~ <sup>PROFIL</sup> Station No. 71 Thermograd \_\_\_\_\_ No. of Probes \_\_\_\_\_

Geochem Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Particulate Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Nephelometer Station No. (LSM) \_\_\_\_\_ Camera Dredge No. \_\_\_\_\_

Rock Dredge \_\_\_\_\_ Trawl \_\_\_\_\_ Core Head Camera No. \_\_\_\_\_

Tripod Core \_\_\_\_\_ Tripod T-Grad \_\_\_\_\_ Current Meter \_\_\_\_\_

Biology: Multiple Plankton \_\_\_\_\_ JetNet \_\_\_\_\_ JK \_\_\_\_\_ Plankton \_\_\_\_\_

Picture of Compass when pipe is in mud - yes \_\_\_\_\_ no \_\_\_\_\_

Date 07/01/76 Ship IG Cruise 19 Leg 04 Core No. 61  
 Latitude 29°48.9'N Longitude 86°37.5'W Sea 2 Ship Station 60  
 Location GULF OF MEXICO

Bottom topography FLAT

No. and Depth sub-bottom reflections PDR \_\_\_\_\_

Profiler \_\_\_\_\_ Sheet No. \_\_\_\_\_  
 \*\*\*\*\*  
 Length Core Pipe 19 ft. Core Head Wt. 1400 lbs. No. Pipes 1  
 Length Trigger Line 45 ft. Trigger Wt. 125 lbs. I.D. Pipes 2.5  
 Length Scope 10 ft. Length free fall 10 ft. Pipe Wall thickness .44 in.  
 \*\*\*\*\*  
 Time Lowered 1059 PDR Depth 64 fm Nature of Hit GOOD  
 Time Messenger 1100 Counter Depth 10 fm Wire Out at Hit 65 fm  
 Time Hit 1101 PDR Depth 64 fm Wire Angle at Hit \_\_\_\_\_  
 Time Surfaced 1106 PDR Depth 64 fm Pull Out EASY  
 \*\*\*\*\*  
 Depth of Penetration 570 cm Trigger Core Length 16 cm  
 Mud on Piston - yes \_\_\_\_\_ no   
 Condition of Cutting Edge and Pipe (Pipes bent ? where?) GOOD

Method of Extrusion WINER

Total Core Length 461 cm No. Gutter Pipe Filled 2

Estimate of Good Core 461 Estimate of Flow-in 0  
 \*\*\*\*\*

CORRELATIVE STATION DATA:

Camera Station No. 58 Thermograd \_\_\_\_\_ No. of Probes \_\_\_\_\_

Geochem Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Particulate Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Nephelometer Station No. (LSM) \_\_\_\_\_ Camera Dredge No. \_\_\_\_\_

Rock Dredge \_\_\_\_\_ Trawl \_\_\_\_\_ Core Head Camera No. \_\_\_\_\_

Tripod Core \_\_\_\_\_ Tripod T-Grad \_\_\_\_\_ Current Meter \_\_\_\_\_

Biology: Multiple Plankton \_\_\_\_\_ JetNet \_\_\_\_\_ JK \_\_\_\_\_ Plankton \_\_\_\_\_

Picture of Compass when pipe is in mud - yes \_\_\_\_\_ no \_\_\_\_\_

Date 07/01/76 Ship IG Cruise 19 Leg 04 Core No. 62  
 Latitude 29°47.7'N Longitude 86°40.3'W Sea 2 Ship Station 61  
 Location GULF OF MEXICO

Bottom topography FLAT

No. and Depth sub-bottom reflections PDR \_\_\_\_\_

Profiler \_\_\_\_\_ Sheet No. \_\_\_\_\_

\*\*\*\*\*  
 Length Core Pipe 38 ft. Core Head Wt. 1400 lbs. No. Pipes 2

Length Trigger Line 64 ft. Trigger Wt. 125 lbs. I.D. Pipes 2.5

Length Scope 14 ft. Length free fall 14 ft. Pipe Wall thickness 1/4 in.

\*\*\*\*\*  
 Time Lowered 1144 PDR Depth 72 fm Nature of Hit GOOD

Time Messenger 1145 Counter Depth 10 fm Wire Out at Hit 74 fm

Time Hit 1146 PDR Depth 72 fm Wire Angle at Hit \_\_\_\_\_

Time Surfaced 1153 PDR Depth 72 fm Pull Out MODERATE  
 \*\*\*\*\*

Depth of Penetration 770 cm Trigger Core Length 17 cm

Mud on Piston - yes \_\_\_\_\_ no

Condition of Cutting Edge and Pipe (Pipes bent ? where?) TOP PIPE

BENT AT COUPLING

Method of Extrusion LINER

Total Core Length 1016 cm No. Gutter Pipe Filled 3 1/2

Estimate of Good Core 700 Estimate of Flow-in 3 1/2  
 \*\*\*\*\*

CORRELATIVE STATION DATA:

Camera Station No. 56 Thermograd \_\_\_\_\_ No. of Probes \_\_\_\_\_

Geochem Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Particulate Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Nephelometer Station No. (LSM) \_\_\_\_\_ Camera Dredge No. \_\_\_\_\_

Rock Dredge \_\_\_\_\_ Trawl \_\_\_\_\_ Core Head Camera No. \_\_\_\_\_

Tripod Core \_\_\_\_\_ Tripod T-Grad \_\_\_\_\_ Current Meter \_\_\_\_\_

Biology: Multiple Plankton \_\_\_\_\_ JetNet \_\_\_\_\_ JK \_\_\_\_\_ Plankton \_\_\_\_\_

Picture of Compass when pipe is in mud - yes \_\_\_\_\_ no \_\_\_\_\_

CORE LOG

Date 07/01/76 Ship IG Cruise 19 Leg 04 Core No. 63  
 Latitude 29°47.1'N Longitude 86°43.6'W Sea 02 Ship Station 62  
 Location GULF OF MEXICO

Bottom topography FLAT

No. and Depth sub-bottom reflections PDR \_\_\_\_\_

Profiler \_\_\_\_\_ Sheet No. \_\_\_\_\_

\*\*\*\*\*  
 Length Core Pipe 38 ft. Core Head Wt. 1400 lbs. No. Pipes 2  
 \*\*\*\*\*

Length Trigger Line 65 ft. Trigger Wt. 125 lbs. I.D. Pipes 2.5

Length Scope 14 ft. Length free fall 14 ft. Pipe Wall 1/4 in. thickness

\*\*\*\*\*  
 Time Lowered 1350 PDR Depth 80 fm Nature of Hit GOOD  
 \*\*\*\*\*

Time Messenger 1351 Counter Depth 10 fm Wire Out at Hit 76 fm

Time Hit 1352 PDR Depth 80 fm Wire Angle at Hit \_\_\_\_\_

Time Surfaced 1357 PDR Depth 80 fm Pull Out MODERATE  
 \*\*\*\*\*

Depth of Penetration 910 cm Trigger Core Length 17 cm

Mud on Piston - yes \_\_\_\_\_ no

Condition of Cutting Edge and Pipe (Pipes bent ? where?) GOOD

Method of Extrusion WINNER

Total Core Length 1020 cm No. Gutter Pipe Filled 3 1/2 + JAR

Estimate of Good Core 900 Estimate of Flow-in 120  
 \*\*\*\*\*

CORRELATIVE STATION DATA:

Camera Station No. 57 Thermograd \_\_\_\_\_ No. of Probes \_\_\_\_\_

Geochem Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Particulate Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Nephelometer Station No. (LSM) \_\_\_\_\_ Camera Dredge No. \_\_\_\_\_

Rock Dredge \_\_\_\_\_ Trawl \_\_\_\_\_ Core Head Camera No. \_\_\_\_\_

Tripod Core \_\_\_\_\_ Tripod T-Grad \_\_\_\_\_ Current Meter \_\_\_\_\_

Biology: Multiple Plankton \_\_\_\_\_ JetNet \_\_\_\_\_ JK \_\_\_\_\_ Plankton \_\_\_\_\_

Picture of Compass when pipe is in mud - yes \_\_\_\_\_ no \_\_\_\_\_



Date 07/01/76 Ship IG Cruise 19 Leg 04 Core No. 64  
 Latitude 29°46.3'N Longitude 86°47.3'W Sea 2 Ship Station 63  
 Location GULF OF MEXICO  
 Bottom topography FLAT

No. and Depth sub-bottom reflections PDR \_\_\_\_\_

Profiler \_\_\_\_\_ Sheet No. \_\_\_\_\_

\*\*\*\*\*  
 Length Core Pipe 38 ft. Core Head Wt. 1400 lbs. No. Pipes 2  
 \*\*\*\*\*

Length Trigger Line 64 ft. Trigger Wt. 125 lbs. I.D. Pipes 2.5

Length Scope 14 ft. Length free fall 14 ft. Pipe Wall thickness 1/4 in.  
 \*\*\*\*\*

\*\*\*\*\*  
 Time Lowered 1439 PDR Depth 87 fm Nature of Hit GOOD  
 \*\*\*\*\*

Time Messenger 1439 Counter Depth 10 fm Wire Out at Hit 82 fm

Time Hit 1440 PDR Depth 87 fm Wire Angle at Hit \_\_\_\_\_

Time Surfaced 1445 PDR Depth 80 fm Pull Out EASY  
 \*\*\*\*\*

Depth of Penetration 950 cm Trigger Core Length 12 cm  
 \*\*\*\*\*

Mud on Piston - yes \_\_\_\_\_ no

Condition of Cutting Edge and Pipe (Pipes bent ? where?) GOOD

Method of Extrusion LINER

Total Core Length 979 cm No. Gutter Pipe Filled 3 1/2

Estimate of Good Core 979 Estimate of Flow-in 0  
 \*\*\*\*\*

CORRELATIVE STATION DATA:

Camera Station No. 58 Thermograd \_\_\_\_\_ No. of Probes \_\_\_\_\_

Geochem Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Particulate Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Nephelometer Station No. (LSM) \_\_\_\_\_ Camera Dredge No. \_\_\_\_\_

Rock Dredge \_\_\_\_\_ Trawl \_\_\_\_\_ Core Head Camera No. \_\_\_\_\_

Tripod Core \_\_\_\_\_ Tripod T-Grad \_\_\_\_\_ Current Meter \_\_\_\_\_

Biology: Multiple Plankton \_\_\_\_\_ JetNet \_\_\_\_\_ IK \_\_\_\_\_ Plankton \_\_\_\_\_

Picture of Compass when pipe is in mud - yes \_\_\_\_\_ no \_\_\_\_\_

Date 07/01/76 Ship 16 Cruise 19 Leg 04 Core No. 65  
 Latitude 29°45.5'N Longitude 86°50.6'W Sea 2 Ship Station 64  
 Location GULF OF MEXICO

Bottom topography FLAT

No. and Depth sub-bottom reflections PDR \_\_\_\_\_

Profiler \_\_\_\_\_ Sheet No. \_\_\_\_\_  
 \*\*\*\*\*

Length Core Pipe 38 ft. Core Head Wt. 1400 lbs. No. Pipes 2

Length Trigger Line 63 ft. Trigger Wt. 125 lbs. I.D. Pipes 2.5

Length Scope 14 ft. Length free fall 14 ft. Pipe Wall thickness 1/4 in.

\*\*\*\*\*  
 Time Lowered 1543 PDR Depth 94 fm Nature of Hit GOOD  
 \*\*\*\*\*

Time Messenger 1543 Counter Depth 10 fm Wire Out at Hit 70 fm

Time Hit 1548 PDR Depth 94 fm Wire Angle at Hit \_\_\_\_\_

Time Surfaced 1550 PDR Depth 94 fm Pull Out MODERATE  
 \*\*\*\*\*

Depth of Penetration 1070 cm Trigger Core Length 27 cm

Mud on Piston - yes \_\_\_\_\_ no

Condition of Cutting Edge and Pipe (Pipes bent ? where?) GOOD

Method of Extrusion LINER

Total Core Length 998 cm No. Gutter Pipe Filled 3 1/2

Estimate of Good Core 998 Estimate of Flow-in 0  
 \*\*\*\*\*

CORRELATIVE STATION DATA:

Camera Station No. 59 Thermograd \_\_\_\_\_ No. of Probes \_\_\_\_\_

Geochem Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Particulate Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Nephelometer Station No. (LSM) \_\_\_\_\_ Camera Dredge No. \_\_\_\_\_

Rock Dredge \_\_\_\_\_ Trawl \_\_\_\_\_ Core Head Camera No. \_\_\_\_\_

Tripod Core \_\_\_\_\_ Tripod T-Grad \_\_\_\_\_ Current Meter \_\_\_\_\_

Biology: Multiple Plankton \_\_\_\_\_ JetNet \_\_\_\_\_ JK \_\_\_\_\_ Plankton \_\_\_\_\_

Picture of Compass when pipe is in mud - yes \_\_\_\_\_ no \_\_\_\_\_

Date 07/01/76 Ship IG Cruise 19 Leg 04 Core No. 66  
 Latitude 29°44.5'N Longitude 86°54.0'W Sea 2 Ship Station 65  
 Location GULF OF MEXICO

Bottom topography FLAT

No. and Depth sub-bottom reflections PDR \_\_\_\_\_

Profiler \_\_\_\_\_ Sheet No. \_\_\_\_\_  
 \*\*\*\*\*

Length Core Pipe 38 ft. Core Head Wt. 1700 lbs. No. Pipes 2

Length Trigger Line 63 ft. Trigger Wt. 125 lbs. I.D. Pipes 2-5

Length Scope 14 ft. Length free fall 14 ft. Pipe Wall thickness 1/4 in.  
 \*\*\*\*\*

Time Lowered 1628 PDR Depth 101 fm Nature of Hit GOOD

Time Messenger 1629 Counter Depth 10 fm Wire Out at Hit 94 fm

Time Hit 1630 PDR Depth 101 fm Wire Angle at Hit \_\_\_\_\_

Time Surfaced 1635 PDR Depth 101 fm Pull Out EASY  
 \*\*\*\*\*

Depth of Penetration 1070 cm Trigger Core Length 27 cm

Mud on Piston - yes \_\_\_\_\_ no

Condition of Cutting Edge and Pipe (Pipes bent ? where?) GOOD

Method of Extrusion \_\_\_\_\_

Total Core Length 1028 cm No. Gutter Pipe Filled 3 1/2 + C.E.

Estimate of Good Core 1028 Estimate of Flow-in 0  
 \*\*\*\*\*

CORRELATIVE STATION DATA:

Camera Station No. 60 Thermograd \_\_\_\_\_ No. of Probes \_\_\_\_\_

Geochem Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Particulate Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Nephelometer Station No. (LSM) \_\_\_\_\_ Camera Dredge No. \_\_\_\_\_

Rock Dredge \_\_\_\_\_ Trawl \_\_\_\_\_ Core Head Camera No. \_\_\_\_\_

Tripod Core \_\_\_\_\_ Tripod T-Grad \_\_\_\_\_ Current Meter \_\_\_\_\_

Biology: Multiple Plankton \_\_\_\_\_ JetNet \_\_\_\_\_ IK \_\_\_\_\_ Plankton \_\_\_\_\_

Picture of Compass when pipe is in mud - yes \_\_\_\_\_ no \_\_\_\_\_

Date 07/02/76 Ship IG Cruise 9

Core No. 67

Latitude 29°43.9'N Longitude 86°57.5'W

Station 66

Location GULF OF MEXICO

Bottom topography GENTLE SLOPE

No. and Depth sub-bottom reflections PDR REFL

Profiler \_\_\_\_\_

\*\*\*\*\*

Length Core Pipe 38 ft. Core Head Wt. \_\_\_\_\_

Length Trigger Line 63 ft. Trigger Wt. \_\_\_\_\_

Length Scope 14 ft. Length free fall \_\_\_\_\_

\*\*\*\*\*

Time Lowered 0757 PDR Depth 107 fm

Time Messenger 0758 Counter Depth 50 fm

Time Hit 0759 PDR Depth 107 fm

Time Surfaced 0805 PDR Depth 107 fm

\*\*\*\*\*

Depth of Penetration 1100 cm Trigger \_\_\_\_\_

Mud on Piston - yes \_\_\_\_\_ no

Condition of Cutting Edge and Pipe (Pipes bent ?)

Method of Extrusion LINER

Total Core Length 1049 cm No. Guttes \_\_\_\_\_

Estimate of Good Core 1049 Estimate \_\_\_\_\_

\*\*\*\*\*

CORRELATIVE STATION DATA:

Camera Station No. 61 Thermograd \_\_\_\_\_

Geochem Water Bbl. No. \_\_\_\_\_ Barrel \_\_\_\_\_ fm

Particulate Water Bbl. No. \_\_\_\_\_ Barrel \_\_\_\_\_ fm

Nephelometer Station No. (LSM) \_\_\_\_\_ Camera \_\_\_\_\_

Rock Dredge \_\_\_\_\_ Trawl \_\_\_\_\_ Core Head \_\_\_\_\_

Tripod Core \_\_\_\_\_ Tripod T-Grad \_\_\_\_\_

Biology: Multiple Plankton \_\_\_\_\_ JetNet \_\_\_\_\_

Picture of Compass when pipe is in mud - yes \_\_\_\_\_

\*\*\*\*\*

No. Pipes 2

I.D. Pipes 2.5

Wall thickness 1/4 in.

\*\*\*\*\*

HARD

104 fm

DEGRATE

\*\*\*\*\*

30 cm

104

342

0

\*\*\*\*\*

## CORE LOG

41

Date 07/02/76 Ship IG Cruise 19 Leg 04 Core No. 68Latitude 29°42.8'N Longitude 87°08'W Sea 1 Ship Station 62Location GULF OF MEXICOBottom topography GENTLE SLOPENo. and Depth sub-bottom reflections PDR                     Profiler                      Sheet No.                     \*\*\*\*\*  
Length Core Pipe 38 ft. Core Head Wt. 1400 lbs. No. Pipes 2 \*\*\*\*\*Length Trigger Line 63 ft. Trigger Wt. 125 lbs. I.D. Pipes 2.5Length Scope 14 ft. Length free fall 14 ft. Pipe Wall thickness 44 in.\*\*\*\*\*  
Time Lowered 0853 PDR Depth 115 fm Nature of Hit HARD \*\*\*\*\*Time Messenger 0854 Counter Depth 50 fm Wire Out at Hit 111 fmTime Hit 0855 PDR Depth 115 fm Wire Angle at Hit                     Time Surfaced 0901 PDR Depth 115 fm Pull Out MODERATE\*\*\*\*\*  
Depth of Penetration 1110 cm Trigger Core Length 27 cm \*\*\*\*\*Mud on Piston - yes                      no Condition of Cutting Edge and Pipe (Pipes bent ? where?) TOP LINERCOLLAPSED BY PISTONMethod of Extrusion LINERTotal Core Length 1112 cm No. Gutter Pipe Filled 4Estimate of Good Core 1112 Estimate of Flow-in 0  
\*\*\*\*\*

## CORRELATIVE STATION DATA:

PROFIL  
Camera Station No. 62 Thermograd                      No. of Probes                     Geochem Water Bbl. No.                      Barrel above Core                      fmParticulate Water Bbl. No.                      Barrel above Core                      fmNephelometer Station No. (LSM)                      Camera Dredge No.                     Rock Dredge                      Trawl                      Core Head Camera No.                     Tripod Core                      Tripod T-Grad                      Current Meter                     Biology: Multiple Plankton                      JetNet                      JK                      Plankton                     Picture of Compass when pipe is in mud - yes                      no

Date 02/02/76 Ship 16 Cruise 19 Leg 04 Core No. 69  
 Latitude 29°42'N Longitude 87°03.9'W Sea 1 Ship Station 08  
 Location GULF OF MEXICO

Bottom topography GENTLE SLOPE

No. and Depth sub-bottom reflections PDR \_\_\_\_\_

Profiler \_\_\_\_\_ Sheet No. \_\_\_\_\_

\*\*\*\*\*  
 Length Core Pipe 38 ft. Core Head Wt. 1800 lbs. No. Pipes 2

Length Trigger Line 63 ft. Trigger Wt. 125 lbs. I.D. Pipes 2.5

Length Scope 14 ft. Length free fall 14 ft. Pipe Wall thickness 1/4 in.

\*\*\*\*\*  
 Time Lowered 0958 PDR Depth 120 fm Nature of Hit HARD

Time Messenger 0959 Counter Depth 50 fm Wire Out at Hit 116 fm

Time Hit 1000 PDR Depth 120 fm Wire Angle at Hit \_\_\_\_\_

Time Surfaced 1006 PDR Depth 120 fm Pull Out EASY

\*\*\*\*\*  
 Depth of Penetration 110 cm Trigger Core Length 35 cm

Mud on Piston - yes \_\_\_\_\_ no

Condition of Cutting Edge and Pipe (Pipes bent ? where?) GOOD

Method of Extrusion LINER

Total Core Length 998 cm No. Gutter Pipe Filled 3 1/2

Estimate of Good Core 998 Estimate of Flow-in 0  
 \*\*\*\*\*

CORRELATIVE STATION DATA:

PROFILE  
 Camera Station No. 63 Thermograd \_\_\_\_\_ No. of Probes \_\_\_\_\_

Geochem Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Particulate Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Nephelometer Station No. (LSM) \_\_\_\_\_ Camera Dredge No. \_\_\_\_\_

Rock Dredge \_\_\_\_\_ Trawl \_\_\_\_\_ Core Head Camera No. \_\_\_\_\_

Tripod Core \_\_\_\_\_ Tripod T-Grad \_\_\_\_\_ Current Meter \_\_\_\_\_

Biology: Multiple Plankton \_\_\_\_\_ JetNet \_\_\_\_\_ JK \_\_\_\_\_ Plankton \_\_\_\_\_

Picture of Compass when pipe is in mud - yes \_\_\_\_\_ no \_\_\_\_\_

## CORE LOG

43

Date 06/30/76 Ship 16 Cruise 19 Leg 04 Core No. 52  
 Latitude 29°57'N Longitude 86°07'W Sea 2 Ship Station 57  
 Location GULF OF MEXICO

Bottom topography FLAT

No. and Depth sub-bottom reflections PDR \_\_\_\_\_

Profiler \_\_\_\_\_ Sheet No. \_\_\_\_\_

\*\*\*\*\*  
 Length Core Pipe 19 ft. Core Head Wt. 1800 lbs. No. Pipes 1  
 \*\*\*\*\*

Length Trigger Line 45 ft. Trigger Wt. 125 lbs. I.D. Pipes 2.5

Length Scope 5 ft. Length free fall 5 ft. Pipe Wall thickness .44 in.  
 \*\*\*\*\*

\*\*\*\*\*  
 Time Lowered 1333 PDR Depth 20 fm Nature of Hit GOOD  
 \*\*\*\*\*

Time Messenger 1333 Counter Depth 5 fm Wire Out at Hit 19 fm

Time Hit 1334 PDR Depth 20 fm Wire Angle at Hit \_\_\_\_\_

Time Surfaced 1336 PDR Depth 20 fm Pull Out NONE  
 \*\*\*\*\*

\*\*\*\*\*  
 Depth of Penetration ~100 cm Trigger Core Length 0 cm  
 \*\*\*\*\*

Mud on Piston - yes \_\_\_\_\_ no

Condition of Cutting Edge and Pipe (Pipes bent ? where?) GOOD

Method of Extrusion LINCR

Total Core Length 194 cm No. Gutter Pipe Filled 1

\*\*\*\*\*  
 Estimate of Good Core 194 Estimate of Flow-in ~100  
 \*\*\*\*\*

## CORRELATIVE STATION DATA:

~~Camera~~ Station No. 45 Thermograd \_\_\_\_\_ No. of Probes \_\_\_\_\_

Geochem Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Particulate Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Nephelometer Station No. (LSM) \_\_\_\_\_ Camera Dredge No. \_\_\_\_\_

Rock Dredge \_\_\_\_\_ Trawl \_\_\_\_\_ Core Head Camera No. \_\_\_\_\_

Tripod Core \_\_\_\_\_ Tripod T-Grad \_\_\_\_\_ Current Meter \_\_\_\_\_

Biology: Multiple Plankton \_\_\_\_\_ JetNet \_\_\_\_\_ JK \_\_\_\_\_ Plankton \_\_\_\_\_

Picture of Compass when pipe is in mud - yes \_\_\_\_\_ no \_\_\_\_\_

Date 06/30/76 Ship IG Cruise 19 Leg 04 Core No. 53A

Latitude 29°57'N Longitude 86°09.7'W Sea 2 Ship Station 52

Location GULF OF MEXICO

Bottom topography FLAT

No. and Depth sub-bottom reflections PDR \_\_\_\_\_

Profiler \_\_\_\_\_ Sheet No. \_\_\_\_\_

\*\*\*\*\*

Length Core Pipe 19 ft. Core Head Wt. 1400 lbs. No. Pipes 1

Length Trigger Line 45 ft. Trigger Wt. 125 lbs. I.D. Pipes 2.5

Length Scope 5 ft. Length free fall 5 ft. Pipe Wall thickness 1/4 in.

\*\*\*\*\*

Time Lowered 1437 PDR Depth 22 fm Nature of Hit GOOD

Time Messenger 1438 Counter Depth 19 fm Wire Out at Hit 19 fm

Time Hit 1438 PDR Depth 22 fm Wire Angle at Hit \_\_\_\_\_

Time Surfaced 1440 PDR Depth 22 fm Pull Out NONE

\*\*\*\*\*

Depth of Penetration \_\_\_\_\_ cm Trigger Core Length \_\_\_\_\_ cm

Mud on Piston - yes \_\_\_\_\_ no \_\_\_\_\_

Condition of Cutting Edge and Pipe (Pipes bent ? where?) \_\_\_\_\_

Method of Extrusion NO CORE

Total Core Length \_\_\_\_\_ cm No. Gutter Pipe Filled \_\_\_\_\_

Estimate of Good Core \_\_\_\_\_ Estimate of Flow-in \_\_\_\_\_

\*\*\*\*\*

CORRELATIVE STATION DATA:

Camera Station No. 46 Thermograd \_\_\_\_\_ No. of Probes \_\_\_\_\_

Geochem Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Particulate Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Nephelometer Station No. (LSM) \_\_\_\_\_ Camera Dredge No. \_\_\_\_\_

Rock Dredge \_\_\_\_\_ Trawl \_\_\_\_\_ Core Head Camera No. \_\_\_\_\_

Tripod Core \_\_\_\_\_ Tripod T-Grad \_\_\_\_\_ Current Meter \_\_\_\_\_

Biology: Multiple Plankton \_\_\_\_\_ JetNet \_\_\_\_\_ IK \_\_\_\_\_ Plankton \_\_\_\_\_

Picture of Compass when pipe is in mud - yes \_\_\_\_\_ no \_\_\_\_\_



Date 06/30/74 Ship IG Cruise 19 Leg 04 Core No. 53  
 Latitude 29°57'N Longitude 81°10'W Sea 1 Ship Station 52  
 Location GULF OF MEXICO

Bottom topography FLAT

No. and Depth sub-bottom reflections PDR                     

Profiler                      Sheet No.                     

\*\*\*\*\*  
 Length Core Pipe 19 ft. Core Head Wt. 1400 lbs. No. Pipes 1  
 \*\*\*\*\*

Length Trigger Line 45 ft. Trigger Wt. 125 lbs. I.D. Pipes 2.5

Length Scope 5 ft. Length free fall 5 ft. Pipe Wall thickness 1/4 in.  
 \*\*\*\*\*

Time Lowered 1459 PDR Depth 23 fm Nature of Hit GOOD  
 \*\*\*\*\*

Time Messenger 1500 Counter Depth 10 fm Wire Out at Hit 17 fm

Time Hit 1500 PDR Depth 23 fm Wire Angle at Hit                     

Time Surfaced 1503 PDR Depth 23 fm Pull Out NONE  
 \*\*\*\*\*

Depth of Penetration 112 cm Trigger Core Length 0 cm  
 \*\*\*\*\*

Mud on Piston - yes                      no

Condition of Cutting Edge and Pipe (Pipes bent ? where?) GOOD

Method of Extrusion LINER

Total Core Length 192 cm No. Gutter Pipe Filled 1

Estimate of Good Core ~100 Estimate of Flow-in 92  
 \*\*\*\*\*

CORRELATIVE STATION DATA:

PROFILE.  
~~Camera~~ Station No. 47 Thermograd                      No. of Probes                     

Geochem Water Bbl. No.                      Barrel above Core                      fm

Particulate Water Bbl. No.                      Barrel above Core                      fm

Nephelometer Station No. (LSM)                      Camera Dredge No.                     

Rock Dredge                      Trawl                      Core Head Camera No.                     

Tripod Core                      Tripod T-Grad                      Current Meter                     

Biology: Multiple Plankton                      JetNet                      JK                      Plankton                     

Picture of Compass when pipe is in mud - yes                      no

Date 06/30/76 Ship IG Cruise 19 Leg 04 Core No. 51

Latitude 29°54.8'N Longitude 96°14.4'W Sea 2 Ship Station 53

Location GULF OF MEXICO

Bottom topography FLAT

No. and Depth sub-bottom reflections PDR                     

Profiler                      Sheet No.                     

\*\*\*\*\*  
Length Core Pipe 19 ft. Core Head Wt. 1400 lbs. No. Pipes 1

Length Trigger Line 45 ft. Trigger Wt. 125 lbs. I.D. Pipes 2.5

Length Scope 5 ft. Length free fall 5 ft. Pipe Wall thickness 1/4 in.

\*\*\*\*\*  
Time Lowered 1539 PDR Depth 28 fm Nature of Hit GOOD

Time Messenger 1540 Counter Depth 10 fm Wire Out at Hit 27 fm

Time Hit 1541 PDR Depth 28 fm Wire Angle at Hit                     

Time Surfaced 1544 PDR Depth 28 fm Pull Out EASY

\*\*\*\*\*  
Depth of Penetration 145 cm Trigger Core Length 0 cm

Mud on Piston - yes                      no

Condition of Cutting Edge and Pipe (Pipes bent ? where?) GOOD

Method of Extrusion LINER

Total Core Length 263 cm No. Gutter Pipe Filled 1

Estimate of Good Core 150 Estimate of Flow-in 113  
\*\*\*\*\*

CORRELATIVE STATION DATA:

~~Camera~~ Station No. 78 Thermograd                      No. of Probes                     

Geochem Water Bbl. No.                      Barrel above Core                      fm

Particulate Water Bbl. No.                      Barrel above Core                      fm

Nephelometer Station No. (LSM)                      Camera Dredge No.                     

Rock Dredge                      Trawl                      Core Head Camera No.                     

Tripod Core                      Tripod T-Grad                      Current Meter                     

Biology: Multiple Plankton                      JetNet                      JK                      Plankton                     

Picture of Compass when pipe is in mud - yes                      no

## CORE LOG

47

Date 06/30/74 Ship IG Cruise 19 Leg 04 Core No. 55  
 Latitude 29°54.8'N Longitude 86°17.1'W Sea 02 Ship Station 54  
 Location GULF OF MEXICO

Bottom topography FLAT

No. and Depth sub-bottom reflections PDR \_\_\_\_\_

Profiler \_\_\_\_\_ Sheet No. \_\_\_\_\_

\*\*\*\*\*  
 Length Core Pipe 19 ft. Core Head Wt. 1400 lbs. No. Pipes 1  
 \*\*\*\*\*

Length Trigger Line 45 ft. Trigger Wt. 125 lbs. I.D. Pipes 2.5

Length Scope 5 ft. Length free fall 5 ft. Pipe Wall thickness 1/4 in.  
 \*\*\*\*\*

\*\*\*\*\*  
 Time Lowered 1618 PDR Depth 35 fm Nature of Hit GOOD  
 \*\*\*\*\*

Time Messenger 1618 Counter Depth 10 fm Wire Out at Hit 30 fm

Time Hit 1619 PDR Depth 35 fm Wire Angle at Hit \_\_\_\_\_

Time Surfaced 1623 PDR Depth 35 fm Pull Out EASY  
 \*\*\*\*\*

Depth of Penetration 460 cm Trigger Core Length \_\_\_\_\_ cm  
 \*\*\*\*\*

Mud on Piston - yes \_\_\_\_\_ no

Condition of Cutting Edge and Pipe (Pipes bent ? where?) GOOD

Method of Extrusion LINER

Total Core Length 384 cm No. Gutter Pipe Filled 1/2

Estimate of Good Core 384 Estimate of Flow-in 0  
 \*\*\*\*\*

## CORRELATIVE STATION DATA:

~~Camera~~ Station No. 49 Thermograd \_\_\_\_\_ No. of Probes \_\_\_\_\_

Geochem Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Particulate Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Nephelometer Station No. (LSM) \_\_\_\_\_ Camera Dredge No. \_\_\_\_\_

Rock Dredge \_\_\_\_\_ Trawl \_\_\_\_\_ Core Head Camera No. \_\_\_\_\_

Tripod Core \_\_\_\_\_ Tripod T-Grad \_\_\_\_\_ Current Meter \_\_\_\_\_

Biology: Multiple Plankton \_\_\_\_\_ JetNet \_\_\_\_\_ IK \_\_\_\_\_ Plankton \_\_\_\_\_

Picture of Compass when pipe is in mud - yes \_\_\_\_\_ no \_\_\_\_\_

Date 06/30/76 Ship IG Cruise 19 Leg 04 Core No. 56Latitude 29°53.4'N Longitude 86°19.7'W Sea 2 Ship Station 55Location GULF OF MEXICOBottom topography FLAT

No. and Depth sub-bottom reflections PDR \_\_\_\_\_

Profiler \_\_\_\_\_ Sheet No. \_\_\_\_\_

\*\*\*\*\*

Length Core Pipe 19 ft. Core Head Wt. 1800 lbs. No. Pipes 1Length Trigger Line 45 ft. Trigger Wt. 125 lbs. I.D. Pipes 2.5Length Scope 5 ft. Length free fall 5 ft. Pipe Wall thickness 1/4 in.

\*\*\*\*\*

Time Lowered 1658 PDR Depth 36 fm Nature of Hit GOODTime Messenger 1658 Counter Depth 10 fm Wire Out at Hit 34 fmTime Hit 1700 PDR Depth 36 fm Wire Angle at Hit \_\_\_\_\_Time Surfaced 1705 PDR Depth 30 fm Pull Out 6754

\*\*\*\*\*

Depth of Penetration 460 cm Trigger Core Length 7 cmMud on Piston - yes \_\_\_\_\_ no Condition of Cutting Edge and Pipe (Pipes bent ? where?) GOODMethod of Extrusion LINERTotal Core Length 430 cm No. Gutter Pipe Filled 1/2Estimate of Good Core 430 Estimate of Flow-in 0

\*\*\*\*\*

## CORRELATIVE STATION DATA:

PROFIL  
Camera Station No. 50 Thermograd \_\_\_\_\_ No. of Probes \_\_\_\_\_

Geochem Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Particulate Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Nephelometer Station No. (LSM) \_\_\_\_\_ Camera Dredge No. \_\_\_\_\_

Rock Dredge \_\_\_\_\_ Trawl \_\_\_\_\_ Core Head Camera No. \_\_\_\_\_

Tripod Core \_\_\_\_\_ Tripod T-Grad \_\_\_\_\_ Current Meter \_\_\_\_\_

Biology: Multiple Plankton \_\_\_\_\_ JetNet \_\_\_\_\_ JK \_\_\_\_\_ Plankton \_\_\_\_\_

Picture of Compass when pipe is in mud - yes \_\_\_\_\_ no \_\_\_\_\_

Date 07/01/76 Ship IG Cruise 19 Leg 04 Core No. 57  
 Latitude 29°52.6'N Longitude 86°23.6'W Sea 2 Ship Station 58  
 Location GULF OF MEXICO

Bottom topography FLAT

No. and Depth sub-bottom reflections PDR \_\_\_\_\_

Profiler \_\_\_\_\_ Sheet No. \_\_\_\_\_

\*\*\*\*\*

Length Core Pipe 19 ft. Core Head Wt. 1400 lbs. No. Pipes 1

Length Trigger Line 45 ft. Trigger Wt. 125 lbs. I.D. Pipes 2.5

Length Scope 10 ft. Length free fall 10 ft. Pipe Wall thickness 1/4 in.

\*\*\*\*\*

Time Lowered 0809 PDR Depth 38 fm Nature of Hit GOOD

Time Messenger 0810 Counter Depth 10 fm Wire Out at Hit 38 fm

Time Hit 0811 PDR Depth 38 fm Wire Angle at Hit \_\_\_\_\_

Time Surfaced 0815 PDR Depth 38 fm Pull Out NONE

\*\*\*\*\*

Depth of Penetration 145 cm Trigger Core Length 0 cm

Mud on Piston - yes \_\_\_\_\_ no

Condition of Cutting Edge and Pipe (Pipes bent ? where?) GOOD

Method of Extrusion LINER

Total Core Length 348 cm No. Gutter Pipe Filled 142

Estimate of Good Core 3148 Estimate of Flow-in 200

\*\*\*\*\*

CORRELATIVE STATION DATA:

PROFIL  
 Camera Station No. 51 Thermograd \_\_\_\_\_ No. of Probes \_\_\_\_\_

Geochem Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Particulate Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Nephelometer Station No. (LSM) \_\_\_\_\_ Camera Dredge No. \_\_\_\_\_

Rock Dredge \_\_\_\_\_ Trawl \_\_\_\_\_ Core Head Camera No. \_\_\_\_\_

Tripod Core \_\_\_\_\_ Tripod T-Grad \_\_\_\_\_ Current Meter \_\_\_\_\_

Biology: Multiple Plankton \_\_\_\_\_ JetNet \_\_\_\_\_ IK \_\_\_\_\_ Plankton \_\_\_\_\_

Picture of Compass when pipe is in mud - yes \_\_\_\_\_ no \_\_\_\_\_

Date 07/01/76 Ship IG Cruise 3019 Leg 04 Core No. 58Latitude 29°51.2'N Longitude 96°27.2'W Sea 2 Ship Station 57Location GULF OF MEXICOBottom topography FLAT

No. and Depth sub-bottom reflections PDR \_\_\_\_\_

Profiler \_\_\_\_\_ Sheet No. \_\_\_\_\_

\*\*\*\*\*

Length Core Pipe 19 ft. Core Head Wt. 1400 lbs. No. Pipes 1Length Trigger Line 45 ft. Trigger Wt. 125 lbs. I.D. Pipes 2.5Length Scope 70 ft. Length free fall 70 ft. Pipe Wall thickness 1/4 in.

\*\*\*\*\*

Time Lowered 0857 PDR Depth 38 fm Nature of Hit GOODTime Messenger 0858 Counter Depth 70 fm Wire Out at Hit 40 fmTime Hit 0859 PDR Depth 38 fm Wire Angle at Hit \_\_\_\_\_Time Surfaced 0903 PDR Depth 38 fm Pull Out NONE

\*\*\*\*\*

Depth of Penetration 125 cm Trigger Core Length 0 cmMud on Piston - yes \_\_\_\_\_ no Condition of Cutting Edge and Pipe (Pipes bent ? where?) GOODMethod of Extrusion LINERTotal Core Length 303 cm No. Gutter Pipe Filled 1Estimate of Good Core 125 Estimate of Flow-in 178

\*\*\*\*\*

CORRELATIVE STATION DATA:PROFIL  
Station No. 52 Thermograd \_\_\_\_\_ No. of Probes \_\_\_\_\_

Geochem Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Particulate Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Nephelometer Station No. (LSM) \_\_\_\_\_ Camera Dredge No. \_\_\_\_\_

Rock Dredge \_\_\_\_\_ Trawl \_\_\_\_\_ Core Head Camera No. \_\_\_\_\_

Tripod Core \_\_\_\_\_ Tripod T-Grad \_\_\_\_\_ Current Meter \_\_\_\_\_

Biology: Multiple Plankton \_\_\_\_\_ JetNet \_\_\_\_\_ JK \_\_\_\_\_ Plankton \_\_\_\_\_

Picture of Compass when pipe is in mud - yes \_\_\_\_\_ no \_\_\_\_\_

Date 07/04/76 Ship IG Cruise 19 Leg 04 Core No. 59  
 Latitude 29°50.7'N Longitude 86°30.5'W Sea 2 Ship Station 58  
 Location GULF OF MEXICO  
 Bottom topography FLAT  
 No. and Depth sub-bottom reflections PDR \_\_\_\_\_

Profiler \_\_\_\_\_ Sheet No. \_\_\_\_\_

T2  
T5

\*\*\*\*\*  
 Length Core Pipe 19 ft. Core Head Wt. 1400 lbs. No. Pipes 1  
 Length Trigger Line 45 ft. Trigger Wt. 125 lbs. I.D. Pipes 2.5  
 Length Scope 7 ft. Length free fall 7 ft. Pipe Wall thickness 1/4 in.  
 \*\*\*\*\*

\*\*\*\*\*  
 Time Lowered 0937 PDR Depth 49 fm Nature of Hit GOOD  
 \*\*\*\*\*

Time Messenger 0938 Counter Depth 10 fm Wire Out at Hit 46 fm

Time Hit 0939 PDR Depth 49 fm Wire Angle at Hit \_\_\_\_\_

Time Surfaced 0943 PDR Depth 49 fm Pull Out NONE  
 \*\*\*\*\*

Depth of Penetration 245 cm Trigger Core Length 0 cm

Mud on Piston - yes \_\_\_\_\_ no

Condition of Cutting Edge and Pipe (Pipes bent ? where?) GOOD

Method of Extrusion LINER

Total Core Length 268 cm No. Gutter Pipe Filled 1

Estimate of Good Core 268 Estimate of Flow-in 0  
 \*\*\*\*\*

CORRELATIVE STATION DATA:

PROFIL  
 Camera Station No. 53 Thermograd \_\_\_\_\_ No. of Probes \_\_\_\_\_

Geochem Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Particulate Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Nephelometer Station No. (LSM) \_\_\_\_\_ Camera Dredge No. \_\_\_\_\_

Rock Dredge \_\_\_\_\_ Trawl \_\_\_\_\_ Core Head Camera No. \_\_\_\_\_

Tripod Core \_\_\_\_\_ Tripod T-Grad \_\_\_\_\_ Current Meter \_\_\_\_\_

Biology: Multiple Plankton \_\_\_\_\_ JetNet \_\_\_\_\_ JK \_\_\_\_\_ Plankton \_\_\_\_\_

Picture of Compass when pipe is in mud - yes \_\_\_\_\_ no \_\_\_\_\_

Date 07/01/76 Ship IG Cruise 19 Leg 04 Core No. 60  
 Latitude 29° 50.2' N Longitude 86° 33.5' W Sea 2 Ship Station 59  
 Location GULF OF MEXICO

Bottom topography FLAT

No. and Depth sub-bottom reflections PDR \_\_\_\_\_

Profiler \_\_\_\_\_ Sheet No. \_\_\_\_\_  
 \*\*\*\*\*

Length Core Pipe 19 ft. Core Head Wt. 1400 lbs. No. Pipes 1

Length Trigger Line 45 ft. Trigger Wt. 125 lbs. I.D. Pipes 2.5

Length Scope 7 ft. Length free fall 7 ft. Pipe Wall thickness 1/4 in.  
 \*\*\*\*\*

Time Lowered 1016 PDR Depth 57 fm Nature of Hit GOOD  
 \*\*\*\*\*

Time Messenger 1017 Counter Depth 10 fm Wire Out at Hit 55 fm

Time Hit 1018 PDR Depth 57 fm Wire Angle at Hit \_\_\_\_\_

Time Surfaced 1022 PDR Depth 57 fm Pull Out EASY  
 \*\*\*\*\*

Depth of Penetration 430 cm Trigger Core Length 21 cm

Mud on Piston - yes \_\_\_\_\_ no

Condition of Cutting Edge and Pipe (Pipes bent ? where?) GOOD

Method of Extrusion LINER

Total Core Length 340 cm No. Gutter Pipe Filled 1 1/2

Estimate of Good Core 340 Estimate of Flow-in 0  
 \*\*\*\*\*

CORRELATIVE STATION DATA:

~~Core~~ <sup>PROFIL</sup> Station No. 59 Thermograd \_\_\_\_\_ No. of Probes \_\_\_\_\_

Geochem Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Particulate Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Nephelometer Station No. (LSM) \_\_\_\_\_ Camera Dredge No. \_\_\_\_\_

Rock Dredge \_\_\_\_\_ Trawl \_\_\_\_\_ Core Head Camera No. \_\_\_\_\_

Tripod Core \_\_\_\_\_ Tripod T-Grad \_\_\_\_\_ Current Meter \_\_\_\_\_

Biology: Multiple Plankton \_\_\_\_\_ JetNet \_\_\_\_\_ JK \_\_\_\_\_ Plankton \_\_\_\_\_

Picture of Compass when pipe is in mud - yes \_\_\_\_\_ no \_\_\_\_\_



Date 06/25/74 Ship IG Cruise 19 Leg 03 Core No. 25Latitude 29° 22.7' N Longitude 88° 43.3' W Sea 2 Ship Station 24Location GULF OF MEXICOBottom topography FLAT

No. and Depth sub-bottom reflections PDR \_\_\_\_\_

Profiler \_\_\_\_\_ Sheet No. \_\_\_\_\_

\*\*\*\*\*  
Length Core Pipe 38 ft. Core Head Wt. 1800 lbs. No. Pipes 2Length Trigger Line 64 ft. Trigger Wt. 1.25 lbs. I.D. Pipes 2.5Length Scope 12 ft. Length free fall 12 ft. Pipe Wall thickness 1/4 in.  
\*\*\*\*\*\*\*\*\*\*  
Time Lowered 1509 PDR Depth 211 fm Nature of Hit GOODTime Messenger 1510 Counter Depth 50 fm Wire Out at Hit 210 fmTime Hit 1512 PDR Depth 211 fm Wire Angle at Hit \_\_\_\_\_Time Surfaced 1514 PDR Depth 211 fm Pull Out EASY  
\*\*\*\*\*\*\*\*\*\*  
Depth of Penetration 1100 cm Trigger Core Length 30 cmMud on Piston - yes \_\_\_\_\_ no Condition of Cutting Edge and Pipe (Pipes bent ? where?) GOODMethod of Extrusion LINERSTotal Core Length 1035 cm No. Gutter Pipe Filled 3 1/2Estimate of Good Core 1035 Estimate of Flow-in 0  
\*\*\*\*\*CORRELATIVE STATION DATA:~~Camera~~ PROFILOMETER Station No. 16 Thermograd \_\_\_\_\_ No. of Probes \_\_\_\_\_

Geochem Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Particulate Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Nephelometer Station No. (LSM) \_\_\_\_\_ Camera Dredge No. \_\_\_\_\_

Rock Dredge \_\_\_\_\_ Trawl \_\_\_\_\_ Core Head Camera No. \_\_\_\_\_

Tripod Core \_\_\_\_\_ Tripod T-Grad \_\_\_\_\_ Current Meter \_\_\_\_\_

Biology: Multiple Plankton \_\_\_\_\_ JetNet \_\_\_\_\_ JK \_\_\_\_\_ Plankton \_\_\_\_\_

Picture of Compass when pipe is in mud - yes \_\_\_\_\_ no \_\_\_\_\_

Date 06/25/76 Ship IG Cruise 8819 Leg 03 Core No. 26  
Latitude 29° 20.2' N Longitude 96° 45.2' W Sea 2 Ship Station 25  
Location GULF OF MEXICO

Bottom topography FLAT

No. and Depth sub-bottom reflections PDR \_\_\_\_\_

Profiler \_\_\_\_\_ Sheet No. \_\_\_\_\_

\*\*\*\*\*  
Length Core Pipe 38 ft. Core Head Wt. 1400 lbs. No. Pipes 2

Length Trigger Line 65 ft. Trigger Wt. 125 lbs. I.D. Pipes 2.5

Length Scope 12 ft. Length free fall 12 ft. Pipe Wall thickness 1/4 in.

\*\*\*\*\*  
Time Lowered 1617 PDR Depth 229 fm Nature of Hit GOOD

Time Messenger 1638 Counter Depth 50 fm Wire Out at Hit 230 fm

Time Hit 1623 PDR Depth 229 fm Wire Angle at Hit \_\_\_\_\_

Time Surfaced 1624 PDR Depth 229 fm Pull Out MODERATE  
\*\*\*\*\*

Depth of Penetration 1050 cm Trigger Core Length 35 cm

Mud on Piston - yes \_\_\_\_\_ no

Condition of Cutting Edge and Pipe (Pipes bent ? where?) GOOD

Method of Extrusion LINER

Total Core Length 1010 cm No. Gutter Pipe Filled 3 1/2

Estimate of Good Core 1000 Estimate of Flow-in 0  
\*\*\*\*\*

CORRELATIVE STATION DATA:

Camera Station No. \_\_\_\_\_ Thermograd \_\_\_\_\_ No. of Probes \_\_\_\_\_

Geochem Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Particulate Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Nephelometer Station No. (LSM) \_\_\_\_\_ Camera Dredge No. \_\_\_\_\_

Rock Dredge \_\_\_\_\_ Trawl \_\_\_\_\_ Core Head Camera No. \_\_\_\_\_

Tripod Core \_\_\_\_\_ Tripod T-Grad \_\_\_\_\_ Current Meter \_\_\_\_\_

Biology: Multiple Plankton \_\_\_\_\_ JetNet \_\_\_\_\_ JK \_\_\_\_\_ Plankton \_\_\_\_\_

Picture of Compass when pipe is in mud - yes \_\_\_\_\_ no \_\_\_\_\_

Date 06/26/76 Ship IC Cruise 19 Leg 03 Core No. 27Latitude 29° 16' N Longitude 86° 45.5' W Sea 1 Ship Station 26Location GULF OF MEXICOBottom topography GENTLE SLOPENo. and Depth sub-bottom reflections PDR           Profiler            Sheet No.           

\*\*\*\*\*

Length Core Pipe 38 ft. Core Head Wt. 1900 lbs. No. Pipes 2Length Trigger Line 64 ft. Trigger Wt. 125 lbs. I.D. Pipes 2.5Length Scope 13 ft. Length free fall 13 ft. Pipe Wall thickness 1/4 in.

\*\*\*\*\*

Time Lowered 0839 PDR Depth 240 fm Nature of Hit GOODTime Messenger 0839 Counter Depth 50 fm Wire Out at Hit 240 fmTime Hit 0842 PDR Depth 240 fm Wire Angle at Hit           Time Surfaced 0844 PDR Depth 240 fm Pull Out EASY

\*\*\*\*\*

Depth of Penetration 1075 cm Trigger Core Length 24 cmMud on Piston - yes            no Condition of Cutting Edge and Pipe (Pipes bent ? where?) GOODMethod of Extrusion LINERTotal Core Length 1013 cm No. Gutter Pipe Filled 3 1/2Estimate of Good Core 1013 Estimate of Flow-in 0

\*\*\*\*\*

CORRELATIVE STATION DATA:Profile                                                                    
Camera Station No. 18 Thermograd            No. of Probes           Geochem Water Bbl. No.            Barrel above Core            fmParticulate Water Bbl. No.            Barrel above Core            fmNephelometer Station No. (LSM)            Camera Dredge No.           Rock Dredge            Trawl            Core Head Camera No.           Tripod Core            Tripod T-Grad            Current Meter           Biology: Multiple Plankton            JetNet            IK            Plankton           Picture of Compass when pipe is in mud - yes            no

Date 06/26/76 Ship IG Cruise 19 Leg 03 Core No. 28

Latitude 29°14.3'N Longitude 86°47.8'W Sea 1 Ship Station 27

Location GULF OF MEXICO

Bottom topography GENTLE SLOPE

No. and Depth sub-bottom reflections PDR \_\_\_\_\_

Profiler \_\_\_\_\_ Sheet No. \_\_\_\_\_

\*\*\*\*\* Length Core Pipe 38 ft. Core Head Wt. 1800 lbs. No. Pipes 2

\*\*\*\*\* Length Trigger Line 64 ft. Trigger Wt. 125 lbs. I.D. Pipes 2.5

\*\*\*\*\* Length Scope 13 ft. Length free fall 13 ft. Pipe Wall thickness 1/4 in. \*\*\*\*\*

\*\*\*\*\* Time Lowered 0946 PDR Depth 255 fm Nature of Hit GOOD

\*\*\*\*\* Time Messenger 0947 Counter Depth 50 fm Wire Out at Hit 256 fm

\*\*\*\*\* Time Hit 0952 PDR Depth 255 fm Wire Angle at Hit \_\_\_\_\_

\*\*\*\*\* Time Surfaced 0955 PDR Depth 255 fm Pull Out EASY

\*\*\*\*\* Depth of Penetration 1080 cm Trigger Core Length 28 cm \*\*\*\*\*

Mud on Piston - yes \_\_\_\_\_ no

Condition of Cutting Edge and Pipe (Pipes bent ? where?) GOOD

Method of Extrusion LINERS

Total Core Length 1005 cm No. Gutter Pipe Filled 3 1/2

\*\*\*\*\* Estimate of Good Core 1005 Estimate of Flow-in 0 \*\*\*\*\*

CORRELATIVE STATION DATA:

Prof. Camera Station No. 19 Thermograd \_\_\_\_\_ No. of Probes \_\_\_\_\_

Geochem Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Particulate Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Nephelometer Station No. (LSM) \_\_\_\_\_ Camera Dredge No. \_\_\_\_\_

Rock Dredge \_\_\_\_\_ Trawl \_\_\_\_\_ Core Head Camera No. \_\_\_\_\_

Tripod Core \_\_\_\_\_ Tripod T-Grad \_\_\_\_\_ Current Meter \_\_\_\_\_

Biology: Multiple Plankton \_\_\_\_\_ JetNet \_\_\_\_\_ JK \_\_\_\_\_ Plankton \_\_\_\_\_

Picture of Compass when pipe is in mud - yes \_\_\_\_\_ no \_\_\_\_\_

## CORE LOG

54

Date 06/26/76 Ship 16 Cruise 19 Leg 03 Core No. 29Latitude 29° 12' N Longitude 86° 49 5' W Sea 1 Ship Station 28Location GULF OF MEXICOBottom topography GENTLE SLOPE

No. and Depth sub-bottom reflections PDR \_\_\_\_\_

Profiler \_\_\_\_\_ Sheet No. \_\_\_\_\_

\*\*\*\*\*  
Length Core Pipe 38 ft. Core Head Wt. 1400 lbs. No. Pipes 2Length Trigger Line 64 ft. Trigger Wt. 125 lbs. I.D. Pipes 2.5Length Scope 13 ft. Length free fall 13 ft. Pipe Wall thickness 1/4 in.\*\*\*\*\*  
Time Lowered 1051 PDR Depth 272 fm Nature of Hit GOODTime Messenger 1053 Counter Depth 50 fm Wire Out at Hit 273 fmTime Hit 1058 PDR Depth 272 fm Wire Angle at Hit \_\_\_\_\_Time Surfaced 1102 PDR Depth 272 fm Pull Out MODERATE\*\*\*\*\*  
Depth of Penetration 1100 cm Trigger Core Length 36 cmMud on Piston - yes \_\_\_\_\_ no Condition of Cutting Edge and Pipe (Pipes bent ? where?) GOODMethod of Extrusion LINERTotal Core Length 990 cm No. Gutter Pipe Filled 3 1/2Estimate of Good Core 990 Estimate of Flow-in 0  
\*\*\*\*\*

## CORRELATIVE STATION DATA:

PROFIL  
Camera Station No. 20 Thermograd \_\_\_\_\_ No. of Probes \_\_\_\_\_

Geochem Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Particulate Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Nephelometer Station No. (LSM) \_\_\_\_\_ Camera Dredge No. \_\_\_\_\_

Rock Dredge \_\_\_\_\_ Trawl \_\_\_\_\_ Core Head Camera No. \_\_\_\_\_

Tripod Core \_\_\_\_\_ Tripod T-Grad \_\_\_\_\_ Current Meter \_\_\_\_\_

Biology: Multiple Plankton \_\_\_\_\_ JetNet \_\_\_\_\_ JK \_\_\_\_\_ Plankton \_\_\_\_\_

Picture of Compass when pipe is in mud - yes \_\_\_\_\_ no \_\_\_\_\_

Date 06/26/76 Ship IG Cruise 19 Leg 03 Core No. 30  
 Latitude 29°09.8'N Longitude 86°52.7'W Sea 1 Ship Station 29  
 Location GULF OF MEXICO

Bottom topography GENTLE SLOPE

No. and Depth sub-bottom reflections PDR \_\_\_\_\_

Profiler \_\_\_\_\_ Sheet No. \_\_\_\_\_  
 \*\*\*\*\*

Length Core Pipe 38 ft. Core Head Wt. 1800 lbs. No. Pipes 2

Length Trigger Line 64 ft. Trigger Wt. 125 lbs. I.D. Pipes 2.5

Length Scope 13 ft. Length free fall 13 ft. Pipe Wall thickness 1/4 in.  
 \*\*\*\*\*

Time Lowered 1241 PDR Depth 297 fm Nature of Hit GOOD  
 \*\*\*\*\*

Time Messenger 242 Counter Depth 50 fm Wire Out at Hit 298 fm

Time Hit 1251 PDR Depth 297 fm Wire Angle at Hit \_\_\_\_\_

Time Surfaced 1255 PDR Depth 297 fm Pull Out MODERATE  
 \*\*\*\*\*

Depth of Penetration 1035 cm Trigger Core Length 37 cm  
 \*\*\*\*\*

Mud on Piston - yes \_\_\_\_\_ no

Condition of Cutting Edge and Pipe (Pipes bent ? where?) GOOD

Method of Extrusion WNER

Total Core Length 985 cm No. Gutter Pipe Filled 3 1/2

Estimate of Good Core 985 Estimate of Flow-in 0  
 \*\*\*\*\*

CORRELATIVE STATION DATA:

PROFILER  
~~Camera~~ Station No. 21 Thermograd \_\_\_\_\_ No. of Probes \_\_\_\_\_

Geochem Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Particulate Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Nephelometer Station No. (LSM) \_\_\_\_\_ Camera Dredge No. \_\_\_\_\_

Rock Dredge \_\_\_\_\_ Trawl \_\_\_\_\_ Core Head Camera No. \_\_\_\_\_

Tripod Core \_\_\_\_\_ Tripod T-Grad \_\_\_\_\_ Current Meter \_\_\_\_\_

Biology: Multiple Plankton \_\_\_\_\_ JetNet \_\_\_\_\_ JK \_\_\_\_\_ Plankton \_\_\_\_\_

Picture of Compass when pipe is in mud - yes \_\_\_\_\_ no \_\_\_\_\_

Date 06/26/76 Ship IG Cruise 19 Leg 03 Core No. 31  
 Latitude 29° 7.7' N Longitude 86° 55.0' W Sea 1 Ship Station 30  
 Location GULF OF MEXICO

Bottom topography GENTLE SLOPE

No. and Depth sub-bottom reflections PDR \_\_\_\_\_

Profiler \_\_\_\_\_ Sheet No. \_\_\_\_\_  
 \*\*\*\*\*

Length Core Pipe 38 ft. Core Head Wt. 1400 lbs. No. Pipes 2

Length Trigger Line 64 ft. Trigger Wt. 125 lbs. I.D. Pipes 2.5

Length Scope 13 ft. Length free fall 13 ft. Pipe Wall thickness 44 in.  
 \*\*\*\*\*

Time Lowered 1356 PDR Depth ~~37~~ 318 fm Nature of Hit GOOD

Time Messenger 1357 Counter Depth 50 fm Wire Out at Hit 320 fm

Time Hit 1401 PDR Depth ~~37~~ 318 fm Wire Angle at Hit \_\_\_\_\_

Time Surfaced 1405 PDR Depth ~~37~~ 318 fm Pull Out EASY  
 \*\*\*\*\*

Depth of Penetration 1040 cm Trigger Core Length 37 cm

Mud on Piston - yes \_\_\_\_\_ no

Condition of Cutting Edge and Pipe (Pipes bent ? where?) GOOD

Method of Extrusion LINCR

Total Core Length 975 cm No. Gutter Pipe Filled 3 1/2

Estimate of Good Core 975 Estimate of Flow-in 0  
 \*\*\*\*\*

CORRELATIVE STATION DATA:

PROFIL  
 Camera Station No. 22 Thermograd \_\_\_\_\_ No. of Probes \_\_\_\_\_

Geochem Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Particulate Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Nephelometer Station No. (LSM) \_\_\_\_\_ Camera Dredge No. \_\_\_\_\_

Rock Dredge \_\_\_\_\_ Trawl \_\_\_\_\_ Core Head Camera No. \_\_\_\_\_

Tripod Core \_\_\_\_\_ Tripod T-Grad \_\_\_\_\_ Current Meter \_\_\_\_\_

Biology: Multiple Plankton \_\_\_\_\_ JetNet \_\_\_\_\_ JK \_\_\_\_\_ Plankton \_\_\_\_\_

Picture of Compass when pipe is in mud - yes \_\_\_\_\_ no \_\_\_\_\_

Date 06/26/76 Ship IG Cruise 19 Leg 03 Core No. 32  
Latitude 29° 5.4' N Longitude 82° 57.4' W Sea 1 Ship Station 31  
Location GULF OF MEXICO

Bottom topography GENTLE SLOPE

No. and Depth sub-bottom reflections PDR \_\_\_\_\_

Profiler \_\_\_\_\_ Sheet No. \_\_\_\_\_  
\*\*\*\*\*

Length Core Pipe 38 ft. Core Head Wt. 1400 lbs. No. Pipes 2

Length Trigger Line 64 ft. Trigger Wt. 125 lbs. I.D. Pipes 2.5

Length Scope 13 ft. Length free fall 13 ft. Pipe Wall thickness 1/4 in.  
\*\*\*\*\*

Time Lowered 1505 PDR Depth 341 fm Nature of Hit GOOD  
\*\*\*\*\*

Time Messenger 1506 Counter Depth 50 fm Wire Out at Hit 345 fm

Time Hit 1510 PDR Depth 342 fm Wire Angle at Hit \_\_\_\_\_

Time Surfaced 1515 PDR Depth 342 fm Pull Out MODERATE  
\*\*\*\*\*

Depth of Penetration 1050 cm Trigger Core Length 33 cm  
\*\*\*\*\*

Mud on Piston - yes \_\_\_\_\_ no

Condition of Cutting Edge and Pipe (Pipes bent ? where?) GOOD

Method of Extrusion NORMAL

Total Core Length 1015 cm No. Gutter Pipe Filled 3 1/2

Estimate of Good Core 1015 Estimate of Flow-in 0  
\*\*\*\*\*

CORRELATIVE STATION DATA: 00020001

~~Camera~~ Station No. 23 Thermograd \_\_\_\_\_ No. of Probes \_\_\_\_\_

Geochem Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Particulate Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Nephelometer Station No. (LSM) \_\_\_\_\_ Camera Dredge No. \_\_\_\_\_

Rock Dredge \_\_\_\_\_ Trawl \_\_\_\_\_ Core Head Camera No. \_\_\_\_\_

Tripod Core \_\_\_\_\_ Tripod T-Grad \_\_\_\_\_ Current Meter \_\_\_\_\_

Biology: Multiple Plankton \_\_\_\_\_ JetNet \_\_\_\_\_ JK \_\_\_\_\_ Plankton \_\_\_\_\_

Picture of Compass when pipe is in mud - yes \_\_\_\_\_ no \_\_\_\_\_



## CORE LOG

61

Date 06/26/75 Ship IG Cruise 19 Leg 03 Core No. ~~33~~ 33Latitude 29°35'N Longitude 86°59.75'W Sea 1 Ship Station 30Location GULF OF MEXICOBottom topography GENTLE SLOPENo. and Depth sub-bottom reflections PDR       Profiler        Sheet No.       

\*\*\*\*\*

Length Core Pipe 38 ft. Core Head Wt. 1400 lbs. No. Pipes 2Length Trigger Line 64 ft. Trigger Wt. 125 lbs. I.D. Pipes 2.5Length Scope 13 ft. Length free fall 13 ft. Pipe Wall thickness 1/4 in.

\*\*\*\*\*

Time Lowered 1616 PDR Depth 368 fm Nature of Hit GOODTime Messenger 1617 Counter Depth 50 fm Wire Out at Hit 371 fmTime Hit 1622 PDR Depth 368 fm Wire Angle at Hit       Time Surfaced 1628 PDR Depth 368 fm Pull Out MODERATE

\*\*\*\*\*

Depth of Penetration 1140 cm Trigger Core Length 37 cmMud on Piston - yes        no Condition of Cutting Edge and Pipe (Pipes bent ? where?) GOODMethod of Extrusion WINERTotal Core Length 989 cm No. Gutter Pipe Filled 342Estimate of Good Core 989 Estimate of Flow-in 0

\*\*\*\*\*

CORRELATIVE STATION DATA:

Camera Station No. 24 Thermograd        No. of Probes         
 Profile       

Geochem Water Bbl. No.        Barrel above Core        fmParticulate Water Bbl. No.        Barrel above Core        fmNephelometer Station No. (LSM)        Camera Dredge No.       Rock Dredge        Trawl        Core Head Camera No.       Tripod Core        Tripod T-Grad        Current Meter       Biology: Multiple Plankton        JetNet        JK        Plankton       Picture of Compass when pipe is in mud - yes        no

Date 06/27/76 Ship IG Cruise 19 Leg 03 Core No. 34  
 Latitude 29° 1.5' N Longitude 87° 2.0' W Sea 2 Ship Station 33  
 Location GULF OF MEXICO

Bottom topography GENTLE SLOPE

No. and Depth sub-bottom reflections PDR \_\_\_\_\_

Profiler \_\_\_\_\_ Sheet No. \_\_\_\_\_  
 \*\*\*\*\*

Length Core Pipe 38 ft. Core Head Wt. 1400 lbs. No. Pipes 2

Length Trigger Line 64 ft. Trigger Wt. 125 lbs. I.D. Pipes 2.5

Length Scope 14 ft. Length free fall 14 ft. Pipe Wall thickness 1/4 in.  
 \*\*\*\*\*

Time Lowered 0827 PDR Depth 397 fm Nature of Hit GOOD  
 \*\*\*\*\*

Time Messenger 0828 Counter Depth 50 fm Wire Out at Hit 400 fm

Time Hit 0833 PDR Depth 398 fm Wire Angle at Hit \_\_\_\_\_

Time Surfaced 0840 PDR Depth 398 fm Pull Out EASY  
 \*\*\*\*\*

Depth of Penetration 1135 cm Trigger Core Length 26 cm

Mud on Piston - yes \_\_\_\_\_ no

Condition of Cutting Edge and Pipe (Pipes bent ? where?) GOOD

Method of Extrusion \_\_\_\_\_

Total Core Length 1075 cm No. Gutter Pipe Filled 4

Estimate of Good Core 1075 Estimate of Flow-in 0  
 \*\*\*\*\*

CORRELATIVE STATION DATA:

PROFIL.  
 Camera Station No. 25 Thermograd \_\_\_\_\_ No. of Probes \_\_\_\_\_

Geochem Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Particulate Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Nephelometer Station No. (LSM) \_\_\_\_\_ Camera Dredge No. \_\_\_\_\_

Rock Dredge \_\_\_\_\_ Trawl \_\_\_\_\_ Core Head Camera No. \_\_\_\_\_

Tripod Core \_\_\_\_\_ Tripod T-Grad \_\_\_\_\_ Current Meter \_\_\_\_\_

Biology: Multiple Plankton \_\_\_\_\_ JetNet \_\_\_\_\_ JK \_\_\_\_\_ Plankton \_\_\_\_\_

Picture of Compass when pipe is in mud - yes \_\_\_\_\_ no \_\_\_\_\_

## CORE LOG

63

Date 06/27/76 Ship IG Cruise 19 Leg 03 Core No. 35  
 Latitude 28°59.2'N Longitude 87°46'W Sea 2 Ship Station 34  
 Location GULF OF MEXICO  
 Bottom topography FLAT

No. and Depth sub-bottom reflections PDR \_\_\_\_\_

Profiler \_\_\_\_\_ Sheet No. \_\_\_\_\_

\*\*\*\*\*  
 Length Core Pipe 38 ft. Core Head Wt. 1400 lbs. No. Pipes 2  
 \*\*\*\*\*

Length Trigger Line 64 ft. Trigger Wt. 125 lbs. I.D. Pipes 2.5

Length Scope 15 ft. Length tree fall 15 ft. Pipe Wall thickness 44 in.  
 \*\*\*\*\*

\*\*\*\*\*  
 Time Lowered 0933 PDR Depth 423 fm Nature of Hit GOOD  
 \*\*\*\*\*

Time Messenger 0934 Counter Depth 50 fm Wire Out at Hit 426 fm

Time Hit 0943 PDR Depth 425 fm Wire Angle at Hit \_\_\_\_\_

Time Surfaced 0950 PDR Depth 425 fm Pull Out MODERATE  
 \*\*\*\*\*

Depth of Penetration 1135 cm Trigger Core Length 30 cm

Mud on Piston - yes \_\_\_\_\_ no

Condition of Cutting Edge and Pipe (Pipes bent ? where?) GOOD

Method of Extrusion WINER

Total Core Length 1005 cm No. Gutter Pipe Filled 4

Estimate of Good Core 1005 Estimate of Flow-in 0  
 \*\*\*\*\*

## CORRELATIVE STATION DATA:

PROFL  
 Camera Station No. 26 Thermograd \_\_\_\_\_ No. of Probes \_\_\_\_\_

Geochem Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Particulate Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Nephelometer Station No. (LSM) \_\_\_\_\_ Camera Dredge No. \_\_\_\_\_

Rock Dredge \_\_\_\_\_ Trawl \_\_\_\_\_ Core Head Camera No. \_\_\_\_\_

Tripod Core \_\_\_\_\_ Tripod T-Grad \_\_\_\_\_ Current Meter \_\_\_\_\_

Biology: Multiple Plankton \_\_\_\_\_ JetNet \_\_\_\_\_ JK \_\_\_\_\_ Plankton \_\_\_\_\_

Picture of Compass when pipe is in mud - yes \_\_\_\_\_ no \_\_\_\_\_

Date 06/27/76 Ship IG Cruise 19 Leg 03 Core No. 36  
 Latitude 28°57'N Longitude 87° 6.9'W Sea 2 Ship Station 35  
 Location GULF OF MEXICO  
 Bottom topography GENTLE SLOPE

No. and Depth sub-bottom reflections PDR \_\_\_\_\_

Profiler \_\_\_\_\_ Sheet No. \_\_\_\_\_  
 \*\*\*\*\*  
 Length Core Pipe 38 ft. Core Head Wt. 1400 lbs. No. Pipes 2  
 Length Trigger Line 64 ft. Trigger Wt. 125 lbs. I.D. Pipes 2.5  
 Length Scope 15 ft. Length free fall 15 ft. Pipe Wall thickness .4 in.  
 \*\*\*\*\*  
 Time Lowered 1045 PDR Depth 440 fm Nature of Hit GOOD  
 Time Messenger 1046 Counter Depth 50 fm Wire Out at Hit 442 fm  
 Time Hit 1053 PDR Depth 442 fm Wire Angle at Hit \_\_\_\_\_  
 Time Surfaced 1057 PDR Depth 443 fm Pull Out MODERATE  
 \*\*\*\*\*  
 Depth of Penetration 1160 cm Trigger Core Length 32 cm  
 Mud on Piston - yes \_\_\_\_\_ no   
 Condition of Cutting Edge and Pipe (Pipes bent ? where?) GOOD

Method of Extrusion LINER  
 Total Core Length 980 cm No. Gutter Pipe Filled 342  
 Estimate of Good Core 980 Estimate of Flow-in 0  
 \*\*\*\*\*

CORRELATIVE STATION DATA:

PROFIL  
 Camera Station No. 27 Thermograd \_\_\_\_\_ No. of Probes \_\_\_\_\_  
 Geochem Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm  
 Particulate Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm  
 Nephelometer Station No. (LSM) \_\_\_\_\_ Camera Dredge No. \_\_\_\_\_  
 Rock Dredge \_\_\_\_\_ Trawl \_\_\_\_\_ Core Head Camera No. \_\_\_\_\_  
 Tripod Core \_\_\_\_\_ Tripod T-Grad \_\_\_\_\_ Current Meter \_\_\_\_\_  
 Biology: Multiple Plankton \_\_\_\_\_ JetNet \_\_\_\_\_ JK \_\_\_\_\_ Plankton \_\_\_\_\_  
 Picture of Compass when pipe is in mud - yes \_\_\_\_\_ no \_\_\_\_\_

Date 06/27/76 Ship IG Cruise 19 Leg 03 Core No. 37

Latitude 28°55'N Longitude 87°9.3'W Sea 1 Ship Station 36

Location GULF OF MEXICO

Bottom topography GENTLE SLOPE

No. and Depth sub-bottom reflections PDR \_\_\_\_\_

Profiler \_\_\_\_\_ Sheet No. \_\_\_\_\_

\*\*\*\*\*  
Length Core Pipe 38 ft. Core Head Wt. 1400 lbs. No. Pipes 2

Length Trigger Line 64 ft. Trigger Wt. 125 lbs. I.D. Pipes 2-5

Length Scope 14 ft. Length free fall 44 ft. Pipe Wall thickness 1/4 in.

\*\*\*\*\*  
Time Lowered 1233 PDR Depth 470 fm Nature of Hit GOOD

Time Messenger 1234 Counter Depth 50 fm Wire Out at Hit 474 fm

Time Hit 1242 PDR Depth 471 fm Wire Angle at Hit \_\_\_\_\_

Time Surfaced 249 PDR Depth 471 fm Pull Out MODERATE

\*\*\*\*\*  
Depth of Penetration 1135 cm Trigger Core Length 36 cm

Mud on Piston - yes \_\_\_\_\_ no

Condition of Cutting Edge and Pipe (Pipes bent ? where?) GOOD

Method of Extrusion LINER

Total Core Length 900 cm No. Gutter Pipe Filled 2 + 2/2 SECTIONS\*

Estimate of Good Core 900 Estimate of Flow-in 0  
\*\*\*\*\*

CORRELATIVE STATION DATA:

PROFIL  
Camera Station No. 28 Thermograd \_\_\_\_\_ No. of Probes \_\_\_\_\_

Geochem Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Particulate Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Nephelometer Station No. (LSM) \_\_\_\_\_ Camera Dredge No. \_\_\_\_\_

Rock Dredge \_\_\_\_\_ Trawl \_\_\_\_\_ Core Head Camera No. \_\_\_\_\_

Tripod Core \_\_\_\_\_ Tripod T-Grad \_\_\_\_\_ Current Meter \_\_\_\_\_

Biology: Multiple Plankton \_\_\_\_\_ JetNet \_\_\_\_\_ JK \_\_\_\_\_ Plankton \_\_\_\_\_

Picture of Compass when pipe is in mud - yes \_\_\_\_\_ no \_\_\_\_\_



Date 06/27/76 Ship IG Cruise 19 Leg 03 Core No. 39

Latitude 28° 50.7'N Longitude 87° 14.2'W Sea 01 Ship Station 38

Location GULF OF MEXICO

Bottom topography GENTLE SLOPE

No. and Depth sub-bottom reflections PDR \_\_\_\_\_

Profiler \_\_\_\_\_ Sheet No. \_\_\_\_\_  
 \*\*\*\*\*

Length Core Pipe 38 ft. Core Head Wt. 1400 lbs. No. Pipes 2

Length Trigger Line 64 ft. Trigger Wt. 125 lbs. I.D. Pipes 2.5

Length Scope 15 ft. Length free fall 15 ft. Pipe Wall thickness 1/4 in.  
 \*\*\*\*\*

Time Lowered 1505 PDR Depth 538 fm Nature of Hit GOOD  
 \*\*\*\*\*

Time Messenger 1507 Counter Depth 100 fm Wire Out at Hit 841 fm

Time Hit 1513 PDR Depth 540 fm Wire Angle at Hit \_\_\_\_\_

Time Surfaced 1518 PDR Depth 540 fm Pull Out MODERATE  
 \*\*\*\*\*

Depth of Penetration 1135 cm Trigger Core Length 30 cm  
 \*\*\*\*\*

Mud on Piston - yes \_\_\_\_\_ no

Condition of Cutting Edge and Pipe (Pipes bent ? where?) GOOD

Method of Extrusion LINERS

Total Core Length 950 cm No. Gutter Pipe Filled 3 1/2

Estimate of Good Core 950 Estimate of Flow-in 0  
 \*\*\*\*\*

CORRELATIVE STATION DATA:

PROFIL  
 Camera Station No. 30 Thermograd \_\_\_\_\_ No. of Probes \_\_\_\_\_

Geochem Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Particulate Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Nephelometer Station No. (LSM) \_\_\_\_\_ Camera Dredge No. \_\_\_\_\_

Rock Dredge \_\_\_\_\_ Trawl \_\_\_\_\_ Core Head Camera No. \_\_\_\_\_

Tripod Core \_\_\_\_\_ Tripod T-Grad \_\_\_\_\_ Current Meter \_\_\_\_\_

Biology: Multiple Plankton \_\_\_\_\_ JetNet \_\_\_\_\_ JK \_\_\_\_\_ Plankton \_\_\_\_\_

Picture of Compass when pipe is in mud - yes \_\_\_\_\_ no \_\_\_\_\_

Date 06/28/76 Ship IG Cruise 19 Leg 03 Core No. 40  
 Latitude 29°31'0"N Longitude 87°43'3"W Sea 1 Ship Station 39  
 Location GULF OF MEXICO

Bottom topography GENTLE SLOPE

No. and Depth sub-bottom reflections PDR \_\_\_\_\_

Profiler \_\_\_\_\_ Sheet No. \_\_\_\_\_

\*\*\*\*\*  
 Length Core Pipe 319 ft. Core Head Wt. 1700 lbs. No. Pipes 21  
 \*\*\*\*\*

Length Trigger Line 45 ft. Trigger Wt. 125 lbs. I.D. Pipes 2.5

Length Scope 10 ~~15~~ ft. Length free fall 510 ft. Pipe Wall thickness 4 in.  
 \*\*\*\*\*

\*\*\*\*\*  
 Time Lowered 0930 PDR Depth 26 fm Nature of Hit GOOD  
 \*\*\*\*\*

Time Messenger 0931 Counter Depth 5 fm Wire Out at Hit 25 fm

Time Hit 0931 PDR Depth 26 fm Wire Angle at Hit \_\_\_\_\_

Time Surfaced 0933 PDR Depth 26 fm Pull Out EASY  
 \*\*\*\*\*

\*\*\*\*\*  
 Depth of Penetration 170 cm Trigger Core Length 0 cm  
 \*\*\*\*\*

Mud on Piston - yes \_\_\_\_\_ no

Condition of Cutting Edge and Pipe (Pipes bent ? where?) GOOD

Method of Extrusion LINER

Total Core Length 170 cm No. Gutter Pipe Filled 1/2

\*\*\*\*\*  
 Estimate of Good Core 170 Estimate of Flow-in 0  
 \*\*\*\*\*

CORRELATIVE STATION DATA:

PROFIC  
~~Camera~~ Station No. 31 Thermograd \_\_\_\_\_ No. of Probes \_\_\_\_\_

Geochem Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Particulate Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Nephelometer Station No. (LSM) \_\_\_\_\_ Camera Dredge No. \_\_\_\_\_

Rock Dredge \_\_\_\_\_ Trawl \_\_\_\_\_ Core Head Camera No. \_\_\_\_\_

Tripod Core \_\_\_\_\_ Tripod T-Grad \_\_\_\_\_ Current Meter \_\_\_\_\_

Biology: Multiple Plankton \_\_\_\_\_ JetNet \_\_\_\_\_ JK \_\_\_\_\_ Plankton \_\_\_\_\_

Picture of Compass when pipe is in mud - yes \_\_\_\_\_ no \_\_\_\_\_



Date 06/28/76 Ship IG Cruise 19 Leg 03 Core No. 41  
 Latitude 29°31.5'N Longitude 87°40'W Sea 1 Ship Station 40  
 Location GULF OF MEXICO

Bottom topography GENTLE RISE

No. and Depth sub-bottom reflections PDR \_\_\_\_\_

Profiler \_\_\_\_\_ Sheet No. \_\_\_\_\_  
 \*\*\*\*\*

Length Core Pipe 19 ft. Core Head Wt. 1400 lbs. No. Pipes 1

Length Trigger Line 45 ft. Trigger Wt. 125 lbs. I.D. Pipes 2.5

Length Scope 5 ft. Length free fall 5 ft. Pipe Wall thickness 1/4 in.  
 \*\*\*\*\*

Time Lowered 1030 PDR Depth 27 fm Nature of Hit GOOD  
 \*\*\*\*\*

Time Messenger 1031 Counter Depth 3 fm Wire Out at Hit 27 fm

Time Hit 1031 PDR Depth 27 fm Wire Angle at Hit \_\_\_\_\_

Time Surfaced 1033 PDR Depth 27 fm Pull Out NONE  
 \*\*\*\*\*

Depth of Penetration 105 cm Trigger Core Length 0 cm  
 \*\*\*\*\*

Mud on Piston - yes \_\_\_\_\_ no

Condition of Cutting Edge and Pipe (Pipes bent ? where?) GOOD

Method of Extrusion LINER

Total Core Length 217 cm No. Gutter Pipe Filled 1

Estimate of Good Core 217 Estimate of Flow-in 0  
 \*\*\*\*\*

CORRELATIVE STATION DATA:

PROFIL  
 Camera Station No. 32 Thermograd \_\_\_\_\_ No. of Probes \_\_\_\_\_

Geochem Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Particulate Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Nephelometer Station No. (LSM) \_\_\_\_\_ Camera Dredge No. \_\_\_\_\_

Rock Dredge \_\_\_\_\_ Trawl \_\_\_\_\_ Core Head Camera No. \_\_\_\_\_

Tripod Core \_\_\_\_\_ Tripod T-Grad \_\_\_\_\_ Current Meter \_\_\_\_\_

Biology: Multiple Plankton \_\_\_\_\_ JetNet \_\_\_\_\_ JK \_\_\_\_\_ Plankton \_\_\_\_\_

Picture of Compass when pipe is in mud - yes \_\_\_\_\_ no \_\_\_\_\_

Date 06/28/76 Ship IG Cruise 19 Leg 03 Core No. 42  
 Latitude 29° 32.8' N Longitude 87° 38.0' W Sea 1 Ship Station 41  
 Location GULF OF MEXICO  
 Bottom topography GENTLE RISE  
 No. and Depth sub-bottom reflections PDR \_\_\_\_\_

Profiler \_\_\_\_\_ Sheet No. \_\_\_\_\_  
 \*\*\*\*\*  
 Length Core Pipe 19 ft. Core Head Wt. 1400 lbs. No. Pipes 1  
 Length Trigger Line 45 ft. Trigger Wt. 125 lbs. I.D. Pipes 2.5  
 Length Scope \_\_\_\_\_ ft. Length free fall \_\_\_\_\_ ft. Pipe Wall thickness 1/4 in.  
 \*\*\*\*\*  
 Time Lowered 1121 PDR Depth 29 fm Nature of Hit GOOD  
 Time Messenger 1121 Counter Depth 3 fm Wire Out at Hit 28 fm  
 Time Hit 1134 PDR Depth 29 fm Wire Angle at Hit \_\_\_\_\_  
 Time Surfaced 1136 PDR Depth 29 fm Pull Out NONE  
 \*\*\*\*\*  
 Depth of Penetration 115 cm Trigger Core Length 0 cm  
 Mud on Piston - yes \_\_\_\_\_ no

Condition of Cutting Edge and Pipe (Pipes bent ? where?) GOOD

Method of Extrusion LINER  
 Total Core Length 187 cm No. Gutter Pipe Filled 1  
 Estimate of Good Core 187 Estimate of Flow-in 0  
 \*\*\*\*\*

CORRELATIVE STATION DATA:

Camera Station No. 33 Thermograd \_\_\_\_\_ No. of Probes \_\_\_\_\_  
 Geochem Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm  
 Particulate Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm  
 Nephelometer Station No. (LSM) \_\_\_\_\_ Camera Dredge No. \_\_\_\_\_  
 Rock Dredge \_\_\_\_\_ Trawl \_\_\_\_\_ Core Head Camera No. \_\_\_\_\_  
 Tripod Core \_\_\_\_\_ Tripod T-Grad \_\_\_\_\_ Current Meter \_\_\_\_\_  
 Biology: Multiple Plankton \_\_\_\_\_ JetNet \_\_\_\_\_ IK \_\_\_\_\_ Plankton \_\_\_\_\_  
 Picture of Compass when pipe is in mud - yes \_\_\_\_\_ no \_\_\_\_\_

CORE LOG

71

Date 06/28/76 Ship IG Cruise 19 Leg 03 Core No. 43  
 Latitude 29° 33.3'N Longitude 87° 33.9'W Sea \_\_\_\_\_ Ship Station 42  
 Location GULF OF MEXICO

Bottom topography FLAT

No. and Depth sub-bottom reflections PDR \_\_\_\_\_

Profiler \_\_\_\_\_ Sheet No. \_\_\_\_\_  
 \*\*\*\*\*

Length Core Pipe 19 ft. Core Head Wt. 1400 lbs. No. Pipes 1

Length Trigger Line 45 ft. Trigger Wt. 125 lbs. I.D. Pipes 2.5

Length Scope 5 ft. Length free fall 5 ft. Pipe Wall thickness 1/4 in.  
 \*\*\*\*\*

Time Lowered 1235 PDR Depth 32 fm Nature of Hit GOOD  
 \*\*\*\*\*

Time Messenger 1235 Counter Depth 3 fm Wire Out at Hit 32 fm

Time Hit 1236 PDR Depth 32 fm Wire Angle at Hit \_\_\_\_\_

Time Surfaced 1239 PDR Depth 32 fm Pull Out EASY  
 \*\*\*\*\*

Depth of Penetration 100 cm Trigger Core Length 0 cm

Mud on Piston - yes \_\_\_\_\_ no

Condition of Cutting Edge and Pipe (Pipes bent ? where?) GOOD

Method of Extrusion LINER

Total Core Length 50 cm No. Gutter Pipe Filled 1/2

Estimate of Good Core 50 Estimate of Flow-in 0  
 \*\*\*\*\*

CORRELATIVE STATION DATA:

PROFIL  
 Camera Station No. 34 Thermograd \_\_\_\_\_ No. of Probes \_\_\_\_\_

Geochem Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Particulate Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Nephelometer Station No. (LSM) \_\_\_\_\_ Camera Dredge No. \_\_\_\_\_

Rock Dredge \_\_\_\_\_ Trawl \_\_\_\_\_ Core Head Camera No. \_\_\_\_\_

Tripod Core \_\_\_\_\_ Tripod T-Grad \_\_\_\_\_ Current Meter \_\_\_\_\_

Biology: Multiple Plankton \_\_\_\_\_ JetNet \_\_\_\_\_ JK \_\_\_\_\_ Plankton \_\_\_\_\_

Picture of Compass when pipe is in mud - yes \_\_\_\_\_ no \_\_\_\_\_

Date 06/28/76 Ship IG Cruise 19 Leg 03 Core No. 44  
 Latitude 29°35.3'N Longitude 87°30.4'W Sea 1 Ship Station 43  
 Location GULF OF MEXICO

Bottom topography FLAT

No. and Depth sub-bottom reflections PDR \_\_\_\_\_

Profiler \_\_\_\_\_ Sheet No. \_\_\_\_\_

\*\*\*\*\*  
 Length Core Pipe 19 ft. Core Head Wt. 1400 lbs. No. Pipes 1  
 \*\*\*\*\*

Length Trigger Line 75 ft. Trigger Wt. 125 lbs. I.D. Pipes 2.5

Length Scope 5 ft. Length free fall 5 ft. Pipe Wall thickness 1/4 in.  
 \*\*\*\*\*

\*\*\*\*\*  
 Time Lowered 1339 PDR Depth 36 fm Nature of Hit GOOD  
 \*\*\*\*\*

Time Messenger 1340 Counter Depth 3 fm Wire Out at Hit 36 fm

Time Hit 1341 PDR Depth 36 fm Wire Angle at Hit \_\_\_\_\_

Time Surfaced 1343 PDR Depth 36 fm Pull Out EASY  
 \*\*\*\*\*

\*\*\*\*\*  
 Depth of Penetration 100 cm Trigger Core Length 0 cm  
 \*\*\*\*\*

Mud on Piston - yes \_\_\_\_\_ no

Condition of Cutting Edge and Pipe (Pipes bent ? where?) GOOD

Method of Extrusion LINER

Total Core Length 82 cm No. Gutter Pipe Filled 1/2

Estimate of Good Core 82 Estimate of Flow-in 0  
 \*\*\*\*\*

CORRELATIVE STATION DATA:

PROFIL  
 Camera Station No. 35 Thermograd \_\_\_\_\_ No. of Probes \_\_\_\_\_

Geochem Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Particulate Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Nephelometer Station No. (LSM) \_\_\_\_\_ Camera Dredge No. \_\_\_\_\_

Rock Dredge \_\_\_\_\_ Trawl \_\_\_\_\_ Core Head Camera No. \_\_\_\_\_

Tripod Core \_\_\_\_\_ Tripod T-Grad \_\_\_\_\_ Current Meter \_\_\_\_\_

Biology: Multiple Plankton \_\_\_\_\_ JetNet \_\_\_\_\_ JK \_\_\_\_\_ Plankton \_\_\_\_\_

Picture of Compass when pipe is in mud - yes \_\_\_\_\_ no \_\_\_\_\_

Date 06/28/76 Ship IG Cruise 19 Leg 03 Core No. 45  
 Latitude 29°35.6'N Longitude 87°26.9'W Sea 1 Ship Station 44  
 Location GULF OF MEXICO

Bottom topography FLAT

No. and Depth sub-bottom reflections PDR \_\_\_\_\_

Profiler \_\_\_\_\_ Sheet No. \_\_\_\_\_  
 \*\*\*\*\*  
 Length Core Pipe 19 ft. Core Head Wt. 1400 lbs. No. Pipes 1  
 Length Trigger Line 45 ft. Trigger Wt. 125 lbs. I.D. Pipes 2.5  
 Length Scope 5 ft. Length free fall 5 ft. Pipe Wall  
 thickness 1/4 in.  
 \*\*\*\*\*  
 Time Lowered 1431 PDR Depth 38 fm Nature of Hit GOOD  
 Time Messenger 1731 Counter Depth 10 fm Wire Out at Hit 37 fm  
 Time Hit 1433 PDR Depth 38 fm Wire Angle at Hit \_\_\_\_\_  
 Time Surfaced 1435 PDR Depth 38 fm Pull Out EASY  
 \*\*\*\*\*  
 Depth of Penetration 163 cm Trigger Core Length 0 cm  
 Mud on Piston - yes \_\_\_\_\_ no

Condition of Cutting Edge and Pipe (Pipes bent ? where?) GOOD

Method of Extrusion LINER

Total Core Length 153 cm No. Gutter Pipe Filled 1/2

Estimate of Good Core 153 Estimate of Flow-in 0  
 \*\*\*\*\*

CORRELATIVE STATION DATA:

PROFIL  
 Camera Station No. 36 Thermograd \_\_\_\_\_ No. of Probes \_\_\_\_\_

Geochem Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Particulate Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Nephelometer Station No. (LSM) \_\_\_\_\_ Camera Dredge No. \_\_\_\_\_

Rock Dredge \_\_\_\_\_ Trawl \_\_\_\_\_ Core Head Camera No. \_\_\_\_\_

Tripod Core \_\_\_\_\_ Tripod T-Grad \_\_\_\_\_ Current Meter \_\_\_\_\_

Biology: Multiple Plankton \_\_\_\_\_ JetNet \_\_\_\_\_ JK \_\_\_\_\_ Plankton \_\_\_\_\_

Picture of Compass when pipe is in mud - yes \_\_\_\_\_ no \_\_\_\_\_

Date 06/25/76 Ship LG Cruise 19 Leg 03 Core No. 46  
 Latitude 29°37.2'N Longitude 87°23.5'W Sea 1 Ship Station 45  
 Location GULF OF MEXICO

Bottom topography FLAT

No. and Depth sub-bottom reflections PDR \_\_\_\_\_

Profiler \_\_\_\_\_ Sheet No. \_\_\_\_\_

\*\*\*\*\*  
 Length Core Pipe 19 ft. Core Head Wt. 1400 lbs. No. Pipes 1

Length Trigger Line 45 ft. Trigger Wt. 125 lbs. I.D. Pipes 2.5

Length Scope 8 ft. Length free fall 8 ft. Pipe Wall thickness 1/4 in.

\*\*\*\*\*  
 Time Lowered 1516 PDR Depth 36 fm Nature of Hit GOOD

Time Messenger 1516 Counter Depth 10 fm Wire Out at Hit 35 fm

Time Hit 1518 PDR Depth 36 fm Wire Angle at Hit \_\_\_\_\_

Time Surfaced 1521 PDR Depth 36 fm Pull Out EASY

\*\*\*\*\*  
 Depth of Penetration ~300 ? cm Trigger Core Length 0 cm

Mud on Piston - yes \_\_\_\_\_ no

Condition of Cutting Edge and Pipe (Pipes bent ? where?) GOOD

Method of Extrusion LINER

Total Core Length 284 cm No. Gutter Pipe Filled 142

Estimate of Good Core 284 Estimate of Flow-in 0  
 \*\*\*\*\*

CORRELATIVE STATION DATA:

PROFIL  
 Camera Station No. 37 Thermograd \_\_\_\_\_ No. of Probes \_\_\_\_\_

Geochem Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Particulate Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Nephelometer Station No. (LSM) \_\_\_\_\_ Camera Dredge No. \_\_\_\_\_

Rock Dredge \_\_\_\_\_ Trawl \_\_\_\_\_ Core Head Camera No. \_\_\_\_\_

Tripod Core \_\_\_\_\_ Tripod T-Grad \_\_\_\_\_ Current Meter \_\_\_\_\_

Biology: Multiple Plankton \_\_\_\_\_ JetNet \_\_\_\_\_ JK \_\_\_\_\_ Plankton \_\_\_\_\_

Picture of Compass when pipe is in mud - yes \_\_\_\_\_ no \_\_\_\_\_

Date 06/28/76 Ship IC Cruise 17 Leg 03 Core No. 47  
 Latitude 29°37.7'N Longitude 87°19.7'W Sea 1 Ship Station 76  
 Location GULF OF MEXICO

Bottom topography FLAT

No. and Depth sub-bottom reflections PDR \_\_\_\_\_

Profiler \_\_\_\_\_ Sheet No. \_\_\_\_\_  
 \*\*\*\*\*

Length Core Pipe 19 ft. Core Head Wt. 1400 lbs. No. Pipes 1

Length Trigger Line 75 ft. Trigger Wt. 125 lbs. I.D. Pipes 2.5

Length Scope 8 ft. Length tree fall 8 ft. Pipe Wall thickness 1/4 in.  
 \*\*\*\*\*

Time Lowered 1601 PDR Depth 49 fm Nature of Hit GOOD  
 \*\*\*\*\*

Time Messenger 1602 Counter Depth 10 fm Wire Out at Hit 47 fm

Time Hit 1604 PDR Depth 49 fm Wire Angle at Hit \_\_\_\_\_

Time Surfaced 1607 PDR Depth 49 fm Pull Out NONE  
 \*\*\*\*\*

Depth of Penetration ? cm Trigger Core Length 0 cm  
 \*\*\*\*\*

Mud on Piston - yes \_\_\_\_\_ no

Condition of Cutting Edge and Pipe (Pipes bent ? where?) GOOD

Method of Extrusion WINCH

Total Core Length 386 cm No. Gutter Pipe Filled 1 1/2

Estimate of Good Core 386 Estimate of Flow-in 0  
 \*\*\*\*\*

CORRELATIVE STATION DATA:

~~Camera~~ Station No. 38 Thermograd \_\_\_\_\_ No. of Probes \_\_\_\_\_

Geochem Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Particulate Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Nephelometer Station No. (LSM) \_\_\_\_\_ Camera Dredge No. \_\_\_\_\_

Rock Dredge \_\_\_\_\_ Trawl \_\_\_\_\_ Core Head Camera No. \_\_\_\_\_

Tripod Core \_\_\_\_\_ Tripod T-Grad \_\_\_\_\_ Current Meter \_\_\_\_\_

Biology: Multiple Plankton \_\_\_\_\_ JetNet \_\_\_\_\_ JK \_\_\_\_\_ Plankton \_\_\_\_\_

Picture of Compass when pipe is in mud - yes \_\_\_\_\_ no \_\_\_\_\_

Date 06/30/76 Ship LG Cruise 19 Leg 084 Core No. 50A

Latitude \_\_\_\_\_ Longitude \_\_\_\_\_ Sea 2 Ship Station 49

Location GULF OF MEXICO

Bottom topography FLAT

No. and Depth sub-bottom reflections PDR \_\_\_\_\_

Profiler \_\_\_\_\_ Sheet No. \_\_\_\_\_  
\*\*\*\*\*

Length Core Pipe 19 ft. Core Head Wt. 1400 lbs. No. Pipes 1

Length Trigger Line 45 ft. Trigger Wt. 125 lbs. I.D. Pipes 2.5

Length Scope 5 ft. Length free fall 5 ft. Pipe Wall thickness 44 in.

\*\*\*\*\*  
Time Lowered 1131 PDR Depth 17 fm Nature of Hit GOOD

Time Messenger 1131 Counter Depth 5 fm Wire Out at Hit 14 fm

Time Hit 1131 PDR Depth 16 fm Wire Angle at Hit \_\_\_\_\_

Time Surfaced 1133 PDR Depth 16 fm Pull Out NONE  
\*\*\*\*\*

Depth of Penetration \_\_\_\_\_ cm Trigger Core Length \_\_\_\_\_ cm

Mud on Piston - yes \_\_\_\_\_ no \_\_\_\_\_

Condition of Cutting Edge and Pipe (Pipes bent ? where?) \_\_\_\_\_

Method of Extrusion \_\_\_\_\_

Total Core Length NO CORE No. Gutter Pipe Filled \_\_\_\_\_

Estimate of Good Core \_\_\_\_\_ Estimate of Flow-in \_\_\_\_\_  
\*\*\*\*\*

CORRELATIVE STATION DATA: MO 10 02 00 1

PROFIL  
Camera Station No. 42 Thermograd \_\_\_\_\_ No. of Probes \_\_\_\_\_

Geochem Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Particulate Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Nephelometer Station No. (LSM) \_\_\_\_\_ Camera Dredge No. \_\_\_\_\_

Rock Dredge \_\_\_\_\_ Trawl \_\_\_\_\_ Core Head Camera No. \_\_\_\_\_

Tripod Core \_\_\_\_\_ Tripod T-Grad \_\_\_\_\_ Current Meter \_\_\_\_\_

Biology: Multiple Plankton \_\_\_\_\_ JetNet \_\_\_\_\_ IK \_\_\_\_\_ Plankton \_\_\_\_\_

Picture of Compass when pipe is in mud - yes \_\_\_\_\_ no \_\_\_\_\_



Date 06/30/76 Ship IG Cruise 19 Leg 04 Core No. 50  
 Latitude 29° 58.8' N Longitude 86° 01.0' W Sea 2 Ship Station 49  
 Location GULF OF MEXICO

Bottom topography FLAT

No. and Depth sub-bottom reflections PDR \_\_\_\_\_

Profiler \_\_\_\_\_ Sheet No. \_\_\_\_\_

\*\*\*\*\*

Length Core Pipe 19 ft. Core Head Wt. 1400 lbs. No. Pipes 1

Length Trigger Line 75 ft. Trigger Wt. 125 lbs. I.D. Pipes 2.5

Length Scope 5 ft. Length free fall 5 ft. Pipe Wall thickness 1/4 in.

\*\*\*\*\*

Time Lowered 1053 PDR Depth 15 fm Nature of Hit GOOD

Time Messenger 1154 Counter Depth 5 fm Wire Out at Hit 14 fm

Time Hit 1154 PDR Depth 15 fm Wire Angle at Hit \_\_\_\_\_

Time Surfaced 1156 PDR Depth 15 fm Pull Out NONE

\*\*\*\*\*

Depth of Penetration 100 cm Trigger Core Length 0 cm

Mud on Piston - yes \_\_\_\_\_ no

Condition of Cutting Edge and Pipe (Pipes bent ? where?) GOOD

Method of Extrusion WINTR

Total Core Length 134 cm No. Gutter Pipe Filled 1/2

Estimate of Good Core 134 Estimate of Flow-in 0

\*\*\*\*\*

CORRELATIVE STATION DATA:

NO. 10 025 001

PROFIL  
 Camera Station No. 43 Thermograd \_\_\_\_\_ No. of Probes \_\_\_\_\_

Geochem Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Particulate Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Nephelometer Station No. (LSM) \_\_\_\_\_ Camera Dredge No. \_\_\_\_\_

Rock Dredge \_\_\_\_\_ Trawl \_\_\_\_\_ Core Head Camera No. \_\_\_\_\_

Tripod Core \_\_\_\_\_ Tripod T-Grad \_\_\_\_\_ Current Meter \_\_\_\_\_

Biology: Multiple Plankton \_\_\_\_\_ JetNet \_\_\_\_\_ IK \_\_\_\_\_ Plankton \_\_\_\_\_

Picture of Compass when pipe is in mud - yes \_\_\_\_\_ no \_\_\_\_\_

CORE LOG

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Date 06/30/76 Ship IG Cruise 19 Leg 04 Core No. 57

Latitude 29°58.1'N Longitude 86°03.5'W Sea 02 Ship Station 50

Location GULF OF MEXICO

Bottom topography FLAT

No. and Depth sub-bottom reflections PDR \_\_\_\_\_

Profiler \_\_\_\_\_ Sheet No. \_\_\_\_\_

\*\*\*\*\* Length Core Pipe 19 ft. Core Head Wt. 1400 lbs. No. Pipes 1

\*\*\*\*\* Length Trigger Line 45 ft. Trigger Wt. 125 lbs. I.D. Pipes 2.5

\*\*\*\*\* Length Scope 5 ft. Length free fall 5 ft. Pipe Wall thickness 1/4 in. \*\*\*\*\*

\*\*\*\*\* Time Lowered 1247 PDR Depth 17 fm Nature of Hit GOOD

\*\*\*\*\* Time Messenger 1247 Counter Depth 10 fm Wire Out at Hit 16 fm

\*\*\*\*\* Time Hit 1248 PDR Depth 17 fm Wire Angle at Hit \_\_\_\_\_

\*\*\*\*\* Time Surfaced 1250 PDR Depth 17 fm Pull Out NONE

\*\*\*\*\* Depth of Penetration 50 cm Trigger Core Length 0 cm

Mud on Piston - yes \_\_\_\_\_ no

Condition of Cutting Edge and Pipe (Pipes bent ? where?) GOOD

Method of Extrusion LINER

Total Core Length 82 + JAR cm No. Gutter Pipe Filled 42 + JAR

\*\*\*\*\* Estimate of Good Core 82 Estimate of Flow-in 0 \*\*\*\*\*

CORRELATIVE STATION DATA:

PROFIL. 10000001  
Camera Station No. 44 Thermograd \_\_\_\_\_ No. of Probes \_\_\_\_\_

Geochem Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Particulate Water Bbl. No. \_\_\_\_\_ Barrel above Core \_\_\_\_\_ fm

Nephelometer Station No. (LSM) \_\_\_\_\_ Camera Dredge No. \_\_\_\_\_

Rock Dredge \_\_\_\_\_ Trawl \_\_\_\_\_ Core Head Camera No. \_\_\_\_\_

Tripod Core \_\_\_\_\_ Tripod T-Grad \_\_\_\_\_ Current Meter \_\_\_\_\_

Biology: Multiple Plankton \_\_\_\_\_ JetNet \_\_\_\_\_ JK \_\_\_\_\_ Plankton \_\_\_\_\_

Picture of Compass when pipe is in mud - yes \_\_\_\_\_ no \_\_\_\_\_

CORE NUMBER 01 CRUISE IG 19 - 2  
 LATITUDE 28<sup>0</sup> 27.8' N LONGITUDE 87<sup>0</sup> 51.2' W  
 CORRECTED DEPTH 1288 fm PDR DEPTH 1263 fm  
 DATE TAKEN 6-11-76 DATE OPENED 3-28-77  
 DATE DESCRIBED 3-28-77 DATE PHOTOGRAPHED \_\_\_\_\_  
 DESCRIBED BY T. Haines CORE LENGTH 264 cm  
 PENETRATION 700 cm FLOW-IN 0 cm

SUMMARY OF CORE: medium fine to very fine muddy foraminiferal sand, light olive gray(5Y 6/1), very soft & moist; no visible sedimentary structures evident; chondrites burrowing present in low amounts in each unit; 25 to 110 cm is a fine to very fine foraminiferal sandy mud, greenish gray(5G 6/1), soft & moist; lowermost unit is a very fine foraminiferal sandy clay, olive gray(5Y 4/1), extremely soft & moist; homogeneous material with approximately 1% sand size material; coarse fraction analysis indicates that an overwhelming abundance of planktonic foraminifera prevails in the coarse sieving at 0 cm & 100 cm as well as the sample from the foram clay at 200 cm with only rare amounts of benthonic foraminifera(upper two units only), quartz, radiolaria, fish debris(top sample only), and echinoid spines(100 cm only) noted.

INTERVAL	DESCRIPTION
0-25 cm	medium fine to very fine muddy foraminiferal sand, light olive gray (5Y 6/1), very soft & moist; no visible sedimentary structures evident; chondrites burrowing is present in low amounts; mud content increases slightly with increasing depth. Basal contact a gradual change in color, texture, & composition.
25-110 cm	fine to very fine foraminiferal sandy mud, greenish gray(5G 6/1), very soft & moist; low amounts of chondrites burrowing is evident in random well-distributed areas; no visible sedimentary structures are evident. Basal contact a gradual change in color, texture, & composition.
110-264 cm (core bottom)	very fine foraminiferal sandy clay, olive gray(5Y 4/1), extremely soft & moist; homogeneous matrix; coarse fraction approximately 1%; chondrites burrowing occurs in low amounts in random locations; 2 to 3 mm thick black(N1) laminae are noted in this unit between 196 and 228 cm.

CORE NUMBER 01CRUISE IG-19-2

## DENSITY MEASUREMENTS ON CORE EXTRACTIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC BEG	CC END	WET BULK DENSITY	PROBLEMS/ OBSERVATIONS
1	15 cm	7.57	6.26	1.50	0.50	1.31	Very moist
2	35	7.80	6.47	1.70	0.70	1.33	
3	55	8.01	6.65	1.70	0.70	1.36	
4	75	7.59	6.22	1.70	0.70	1.37	
5	95	7.62	6.30	1.70	0.70	1.32	
6	115	7.44	6.18	1.70	0.70	1.26	
7	135	8.02	6.73	1.70	0.70	1.29	
8	155	7.83	6.60	1.70	0.70	1.23	
9	175	7.74	6.48	1.70	0.70	1.26	
10	195	7.62	6.30	1.70	0.70	1.32	
11	215	7.92	6.61	1.70	0.70	1.31	
12	235	7.80	6.44	1.70	0.70	1.36	
13	255	7.95	6.60	1.70	0.70	1.35	





GRAPHIC CORE LOG

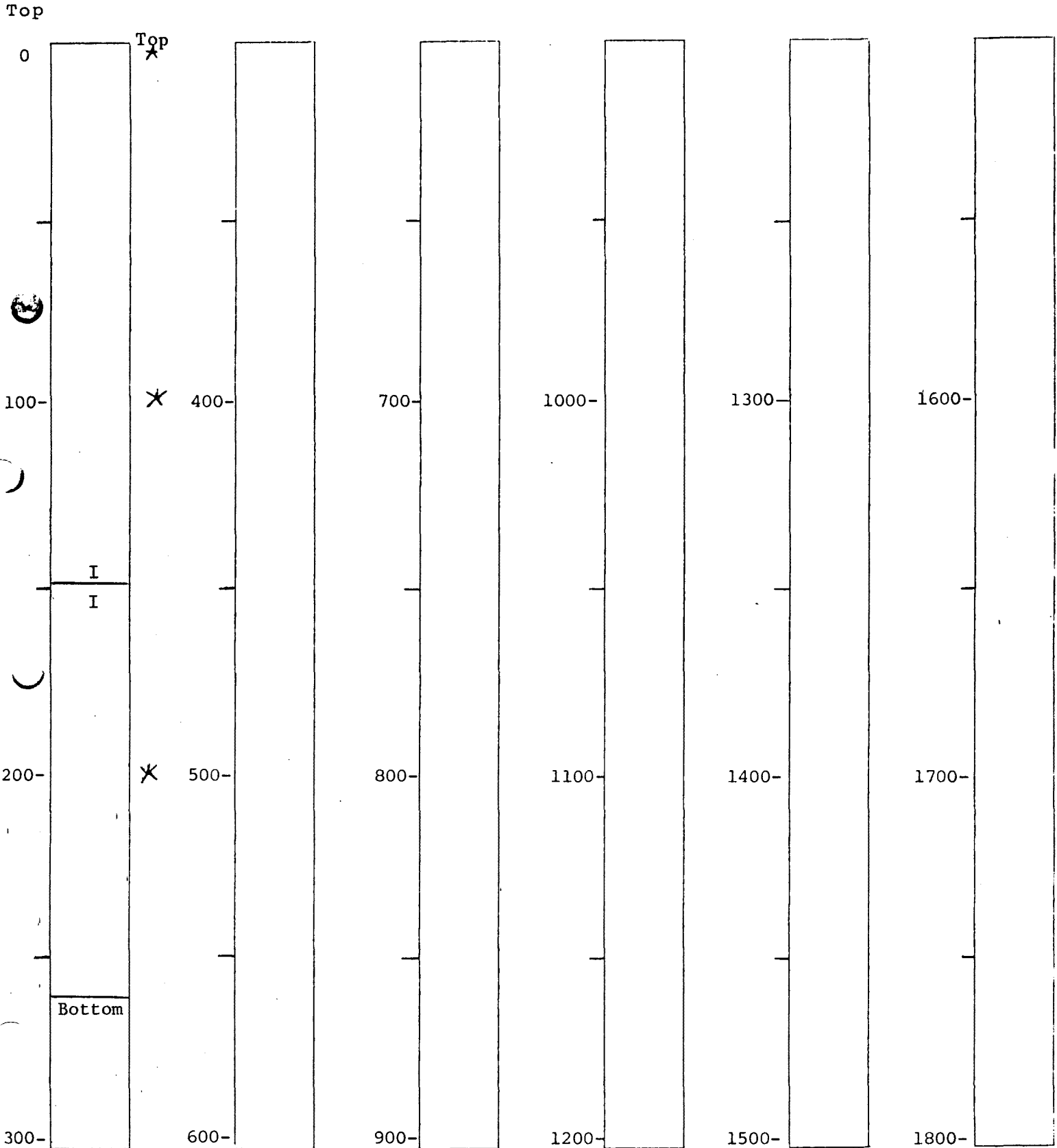
MCG 10000001

Core Number 01

Cruise IG-19-2

Core Cap Samples  
B = Bottom of Section  
T = Top of Section

CORE SECTIONS



\* = Coarse fraction/smear slide location

CORE NUMBER 1 CRUISE IG-19-2

INTERVAL OR ATION OF SAMPLE	ESTIMATED VOLUME OF SAMPLE	TAKEN BY	SAMPLING PURPOSE	PERSON AND/OR COMPANY RECEIVING SAMPLE(S) FOR INTENDED RESEARCH
Refer to page on "Density Measurements" for precise locations	approx. 1 cc.	T. Haines	wet-bulk density	U. S. Navy to receive density results (UT-MSI contracted to do density measurements)

3126



CORE NUMBER 02 CRUISE IG 19 - 2  
 LATITUDE 27° 39.9' N LONGITUDE 87° 40.9' W  
 CORRECTED DEPTH 1493 fm PDR DEPTH 1462 fm  
 DATE TAKEN 6-11-76 DATE OPENED 3-28-77  
 DATE DESCRIBED 3-28-77 DATE PHOTOGRAPHED \_\_\_\_\_  
 DESCRIBED BY T. Haines CORE LENGTH 228 cm  
 PENETRATION 700 cm FLOW-IN 0 cm

SUMMARY OF CORE: medium to very fine foraminiferal sandy mud, dark dusky yellow (5Y 5/4); soft & moist at top of core; foram-rich burrows present at 2 and 8 cm colored dark gray(N3) as well as foram-rich burrows found in upper unit less obvious due to same coloration as surrounding matrix(differing only texture-wise); lower unit(35 to 228 cm) is a very fine foraminiferal sandy clay, olive black (5Y 2/1), extremely soft & moist; homogeneous; open burrow at 55 cm; thin laminae noted through unit colored slightly darker than existing matrix; coarse fraction analysis indicates abundance of planktonic foraminifera in both units, rare amounts of mica, quartz, & rock fragments noted; coarse fraction approximately 1% in lower unit.

INTERVAL	DESCRIPTION
0-35 cm	medium fine to very fine foraminiferal sandy mud, dark dusky yellow (5Y 5/4), soft & moist; foram-rich closed burrows at 2 and 8 cm colored dark gray(N3) averaging 1 cm diameters; well distributed closed burrows(foram-rich) of same color as adjacent matrix occur in random areas throughout this unit. Basal contact a sharp change in color, texture, & composition.
35-228 cm (core bottom)	very fine foraminiferal sandy clay, olive black(5Y 2/1), extremely soft & moist; homogeneous; an open burrow noted at 55 cm; thin(2 to 3 mm thick) laminar banding is present through this unit in low amounts; chondrites burrowing is present in this unit in low amounts & increases in frequency with increasing depth.

NO. 10 02 000 1





ARE: 5%

MMON: 5-50%

: 50-100%

ORE 02

ample Depth

FORAMS-PLANKTONIC

FORAMS-BENTHONIC

RADIOLARIA

DIATOMS

PTEROPODS

SPONGE SPICULES

SILICOFLAGELLATES

COCCOLITHS

DISCOASTERS

IRONSTONE

OPAQUE MINERALS

QUARTZ

MANGANESE

ZEOLITE

ASH SHARDS

OTHER

MS 1000001

GRAPHIC CORE LOG

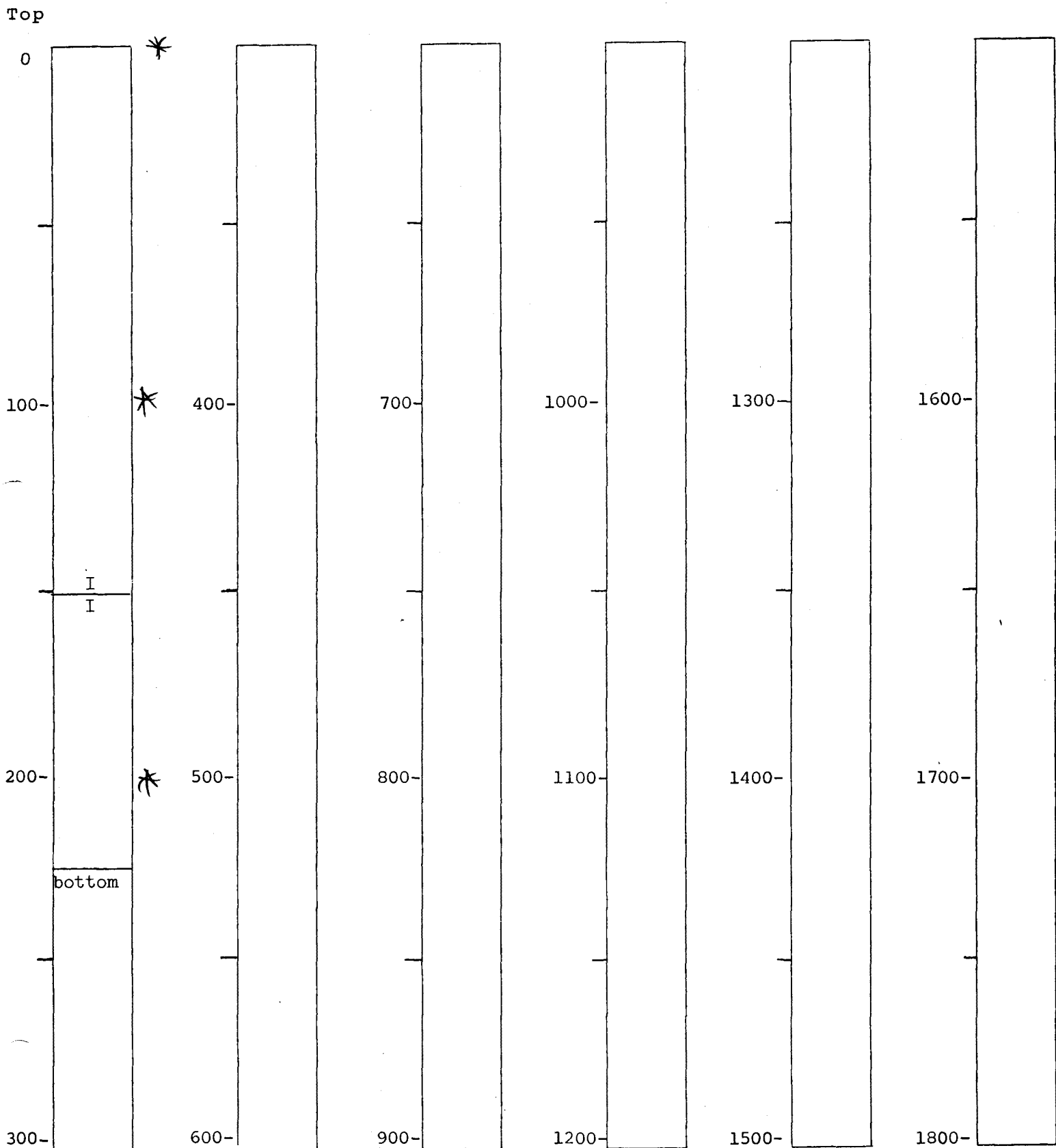
MGC 10 025901

Core Number 02

Cruise IG-19-2

Core Cap Samples  
B = Bottom of Section  
T = Top of Section

CORE SECTIONS



\* = Coarse fraction/smear slide location.

CORE NUMBER 2

CRUISE IG-19

INTERVAL OR LOCATION OF SAMPLE	ESTIMATED VOLUME OF SAMPLE	TAKEN BY	SAMPLING PURPOSE	PERSON AND/OR COMPANY RECEIVING SAMPLE(S) FOR INTENDED RESEARCH
Refer to page on "Density Measurements" for precise locations	approx. 1 cc.	T. Haines	wet-bulk density	U. S. Navy to receive density results (UT-MSI contracted to do density measurements)

NOG 10025001

CORE NUMBER 03 CRUISE IG 19 - 3  
 LATITUDE 30° 05.3' N LONGITUDE 85° 49.1' W  
 CORRECTED DEPTH 10 fm PDR DEPTH 10 fm  
 DATE TAKEN 6-23-76 DATE OPENED 10-18-76  
 DATE DESCRIBED 10-28-76 DATE PHOTOGRAPHED \_\_\_\_\_  
 DESCRIBED BY T. Haines CORE LENGTH 1 cm  
 PENETRATION 1+ cm FLOW-IN 0 cm

SUMMARY OF CORE: ONLY CORE CATCHER SAMPLE RETRIEVED  
 This core composed of a few small shell fragments including  
 several oyster fragments and a small pectin.

INTERVAL	DESCRIPTION

COARSE-FRACTION ANALYSIS

Rare: 5%	
Common: 5-50%	
Abund: 50-100%	
Core No: 03	
Cruise: IG 19-3	
Sample Depth	
0 cm	
	FORAMS-PLANKTONIC
	FORAMS-BENTHONIC
	RADIOLARIA
	DIATOMS
	PTEROPODS
	SPONGE SPICULES
	OSTRACODS
	MOLLUSC
	CORALLINE ALGAE
	CORAL
	BRYOZOA
	QUARTZ
	FELDSPAR
	MANGANESE
	IRONSTONE
	OPAQUE MINERALS
	ROCK FRAGMENTS
	OTHER

A

100.00



CORE NUMBER 04 CRUISE IG 19 - 3  
 LATITUDE 30° 04.1' N LONGITUDE 85° 51.2' W  
 CORRECTED DEPTH 10 fm PDR DEPTH 10 fm  
 DATE TAKEN 6-23-76 DATE OPENED 10-18-76  
 DATE DESCRIBED 10-18-76 DATE PHOTOGRAPHED \_\_\_\_\_  
 DESCRIBED BY T. Haines CORE LENGTH 280 cm  
 PENETRATION 280+ cm FLOW-IN 0 cm

SUMMARY OF CORE: medium to very coarse shelly quartz sand, light olive gray to olive gray; firm & moist; clean quartz grains, material graded to coarser grain size with depth; moderate amount of scattered molluscan shell fragments in upper portions of core with larger shells noted toward base of core; no visible sedimentary structures evident; upper unit(0 to 60 cm) shows some burrowing in 10 to 15 cm zone having slightly more muddy sand fill material; coarse fraction analysis indicates abundant amounts of quartz through both units with common amounts of coralline algae present at 280 cm; rare amounts of planktonic and benthonic foraminifera, pteropods, molluscan and echinoid debris, glauconite, carbonate rock fragments, and manganese are noted.

INTERVAL	DESCRIPTION
0-60 cm	medium fine to fine shelly quartz sand, light olive gray (7.5Y 3.5/2), firm & moist; clean grains; approximately 90% quartz and 10% carbonate with slight evidence of burrowing in the 10 to 15 cm zone with fill material of similar (but with mud present) texture as adjacent sediment matrix; shells in fragment form only (molluscan) are present in moderate amounts; no visible sedimentary structures evident. Basal contact a gradual change in color, texture, & composition.
60-280 cm (core bottom)	medium to very coarse shelly quartz sand, olive gray(5Y 3/2), firm & moist, dominantly clean grains; larger molluscan shell fragments and whole shells are noted in this unit; material becomes more coarse with increased depth; large pecten at 205 cm; 60% quartz and 40% carbonate approximate proportions noted; iron staining noted on some quartz grains; also, some increase in amount of smoky quartz is noted.

E NUMBER 04

CRUISE IG-19

DENSITY MEASUREMENTS ON CORE EXTRACTIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
1	15 cm	9.30	7.02	1.73	0.40	1.71	wet sand
2	35	8.57	7.06	1.38	0.50	1.71	
3	55	9.34	7.17	1.75	0.50	1.73	
4	75	9.11	7.05	1.70	0.50	1.71	
5	95	8.25	7.08	1.11	0.40	1.65	very loose & moist
6	110	7.94	7.04	0.70	0.20	1.80	very loose & moist, volume estimate is possibly erroneous as some additional sam- ple slipped out of syringe into vial
7	135	8.36	7.05	1.21	0.40	1.62	very loose & moist
8	155	8.22	7.01	1.09	0.40	1.75	very loose & moist
9	175	8.42	7.03	1.18	0.40	1.78	very loose & moist
10	195	8.34	6.95	1.37	0.50	1.60	very loose & moist
11	215	8.78	6.97	1.63	0.50	1.60	very loose & moist
12	235	8.35	7.07	1.35	0.50	1.51	very loose & moist
13	255	8.55	6.95	1.41	0.50	1.75	very loose & moist
14	275	7.60	6.93	1.00	0.48	1.29	very loose & moist, poor penetration

MSG 18 02 00 1

RARE: 5%

COMMON: 5-50%

UND: 50-100%

CORE NO.

COARSE-FRACTION ANALYSIS

- FORAMS - PLANKTONIC
- FORAMS - BENTHONIC
- RADIOLARIA
- DIATOMS
- PTEROPODS
- SPONGE SPICULES
- OSTRACODES
- MOLLUSC
- CORALLINE ALGAE
- CORAL
- BRYOZOA
- QUARTZ
- FELDSPAR
- IRONSTONE
- MANGANESE
- OPAQUE MINERALS
- ROCK FRAGMENTS
- OTHER

SAMPLE NO.

carbonate

0 cm	R	R				R					A			R		R	glauc. R echin. R
60 cm	R	R				R					A			R		R	glauc. R echin. R spines R
100 cm	R	R									A			R		R	glauc. R echin. R spines R
200 cm	R	R				R					A			R		R	glauc. R echin. R spines R
280 cm						R	C				C						glauc. R echin. R spines R

GRAPHIC CORE LOG

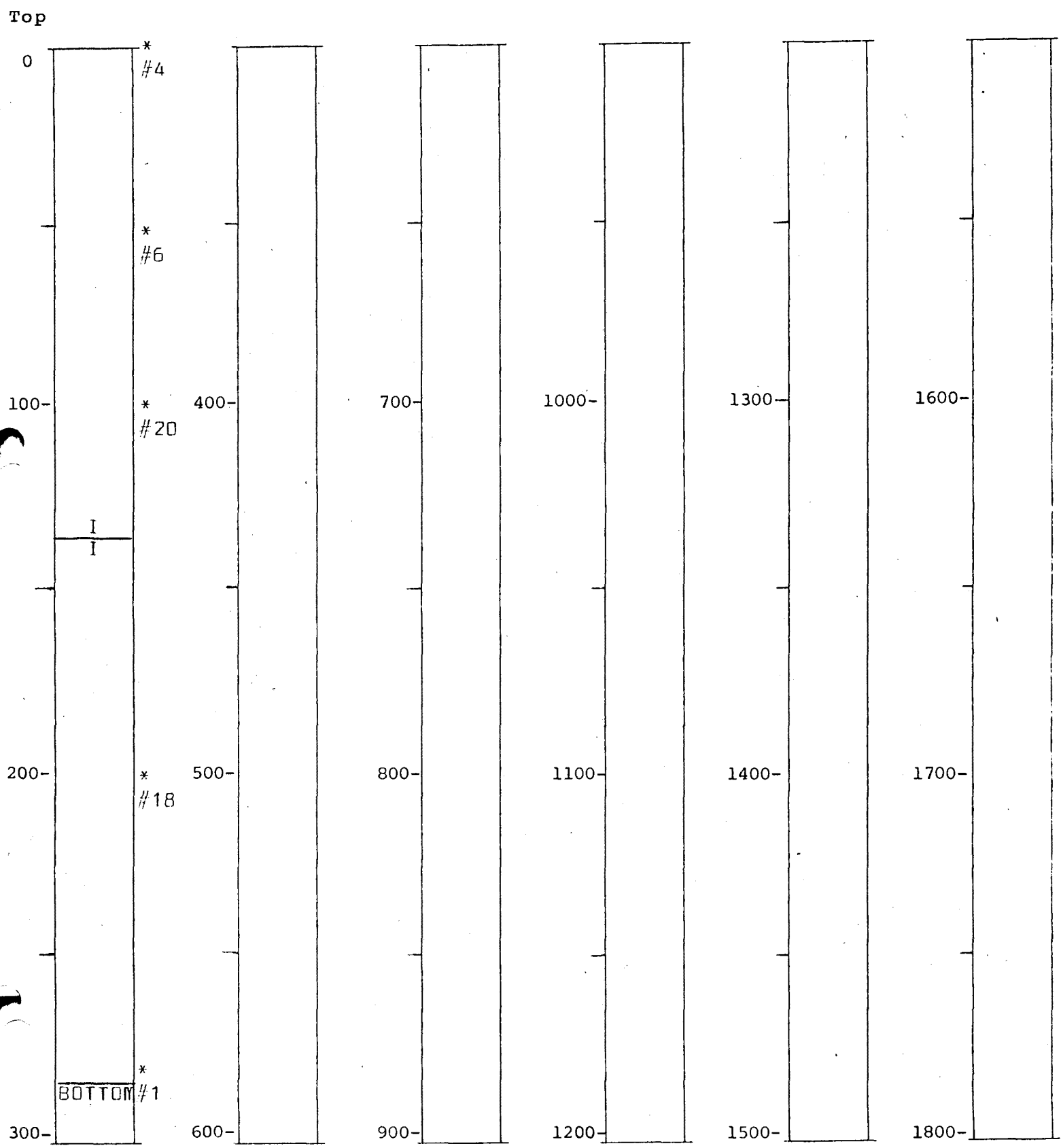
MGG 10 00 500 1

Core Number 04

Cruise IG-19

Core Cap Samples  
B = Bottom of Section  
T = Top of Section

CORE SECTIONS



\* - Coarse fraction (silt and clay)

CORE NUMBER 04

CRUISE IG-19

INTERVAL OR LOCATION OF SAMPLE	ESTIMATED VOLUME OF SAMPLE	TAKEN BY	SAMPLING PURPOSE	PERSON AND/OR COMPANY RECEIVING SAMPLE(S) FOR INTENDED RESEARCH
Refer to page on "Density Measurements" for precise locations	approx. 1 cc.	T. Haines	wet-bulk density	U. S. Navy to receive density results(UT-MSI contracted to do density measurements)

CORE NUMBER 05 CRUISE IG 19 - 3  
 LATITUDE 30<sup>o</sup> 03.4' N LONGITUDE 85<sup>o</sup> 51.6' W  
 CORRECTED DEPTH 12 fm PDR DEPTH 12 fm  
 DATE TAKEN 6-23-76 DATE OPENED 3-29-77  
 DATE DESCRIBED 3-29-77 DATE PHOTOGRAPHED \_\_\_\_\_  
 DESCRIBED BY T. Haines CORE LENGTH 293 cm  
 PENETRATION 293+ cm FLOW-IN 0 cm

SUMMARY OF CORE: medium coarse to medium fine shelly quartzose sand, grayish olive(10Y 4/2); firm & moist; thickbedded unit with no visible sedimentary or biogenic structures evident; increasing molluscan shell/shell fragment content with increasing depth; grading to slightly coarser grain size with depth is noted; a 1 cm thick band of sandy material parallel to liner's edge occurs through entire length of core colored light olive gray(5Y 5/2); coarse fraction analysis indicates a large abundance of quartz in all samples; rare amounts of manganese, opaque minerals, rock fragments(carbonate), & echinoid spines present throughout core; rare to common molluscan shell/shell fragments in all samples (rare at top only), and rare amounts of planktonic(top only) & benthonic foraminifera, ostracods and pteropods(top sample only).

INTERVAL	DESCRIPTION
0-293 cm (core bottom)	medium coarse to medium fine shelly quartzose sand, grayish olive (10Y 4/2); firm & moist; no visible sedimentary or biogenic structures evident; sand is thickbedded; a 1 cm band of same texture material colored light olive gray(5Y 5/2) runs parallel to liner's edge down entire length of core(differing only in color from adjacent sediment matrix); grading to a coarser grain size toward base of core is evident; increasing molluscan shell/shell fragment content downcore.

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CORE NUMBER 5

CRUISE IG-19

DENSITY MEASUREMENTS ON CORE EXTRACTATIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS	
1	15 cm	8.33	6.50	1.70	0.70	1.83	More of sample fell out of syringe, sandy	
2	35	8.09	6.26	1.60	0.60	1.83	Sandy and watery	
3	55	7.82	6.00	1.60	0.60	1.82	Increasing grain size	
4	75	8.14	6.30	1.70	0.70	1.84	↓	
5	95	8.21	6.32	1.60	0.50	1.72		
6	115	8.20	6.36	1.70	0.60	1.67		
7	135	7.97	6.12	1.60	0.50	1.68		
8	155	8.29	6.49	1.60	0.60	1.80		
9	175	8.30	6.45	1.60	0.60	1.85		
10	195	8.27	6.53	1.60	0.60	1.74		
11	215	8.36	6.57	1.60	0.60	1.79		
12	235	8.00	6.22	1.60	0.60	1.78		
13	255	8.33	6.65	1.60	0.60	1.68		
14	275	8.19	6.47	1.60	0.60	1.72		
15	291	7.91	6.40	1.30	0.40	1.68		Shell debris hampering sample retrieval

NOG 10 02 00 1





RE: 5%	
COMMON: 5-50%	
50-100%	
ORE 5	
IG-19	
Sample Depth	
FORAMS-PLANKTONIC	
FORAMS-BENTHONIC	
RADIOLARIA	
DIATOMS	
PTEROPODS	
SPONGE SPICULES	
SILICOFLAGELLATES	
COCCOLITHS	
DISCOASTERS	
IRONSTONE	
OPAQUE MINERALS	
QUARTZ	
MANGANESE	
ZEOLITE	
ASH SHARDS	
OTHER	

MCC 1000000

GRAPHIC CORE LOG

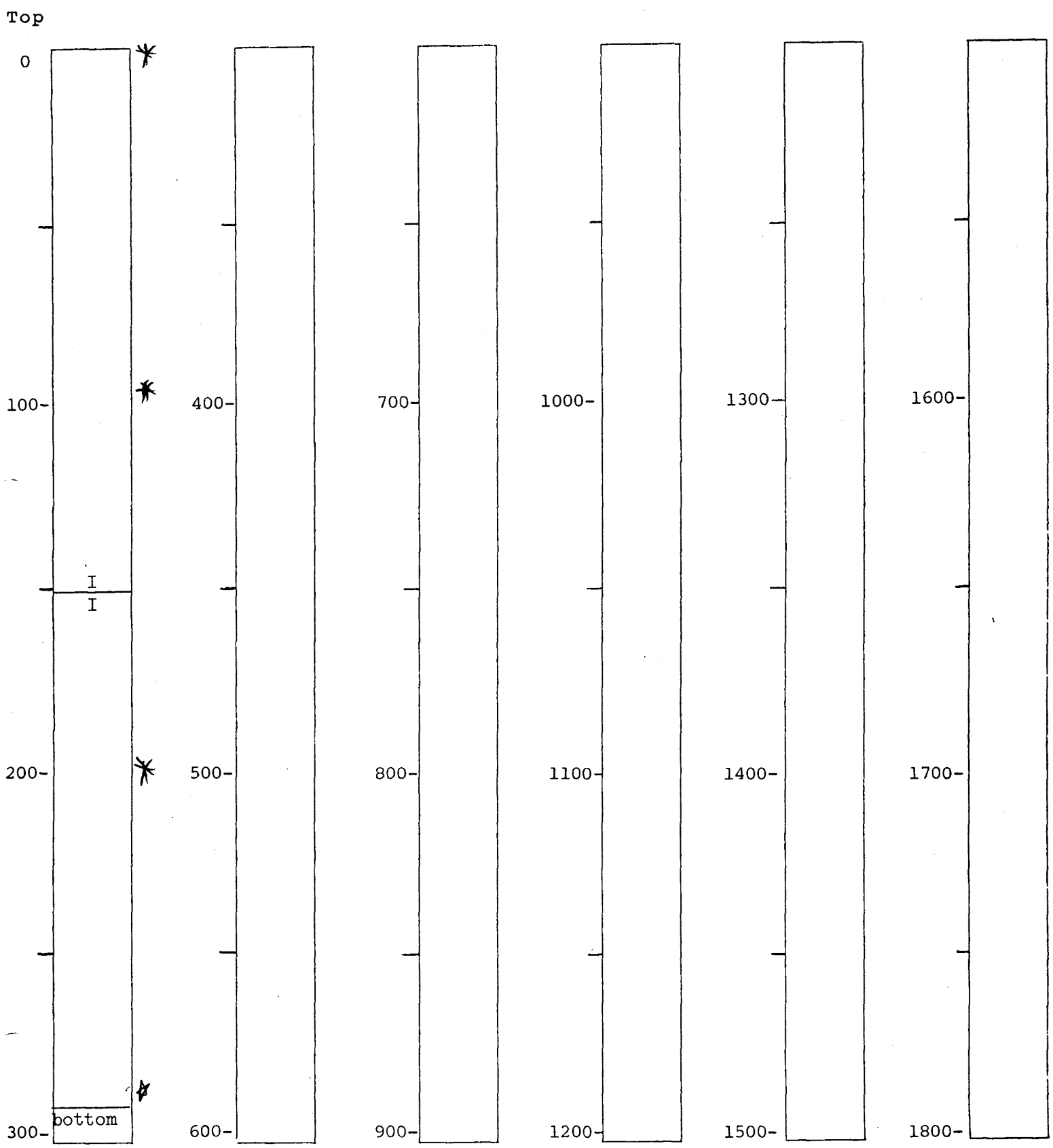
MCG 10023001

Core Number 05

Cruise IG-19

Core Cap Samples  
B = Bottom of Section  
T = Top of Section

CORE SECTIONS



\* = Coarse fraction/smear slide location.

CORE NUMBER 5

CRUISE IG-19

INTERVAL OR LOCATION OF SAMPLE	ESTIMATED VOLUME OF SAMPLE	TAKEN BY	SAMPLING PURPOSE	PERSON AND/OR COMPANY RECEIVING SAMPLE(S) FOR INTENDED RESEARCH
Refer to page on "Density Measurements" for precise locations	approx. 1 cc.	T. Haines	wet-bulk density	U. S. Navy to receive density results (UT-MSI contracted to do density measurements)

MCG 10 02 8 9 9 1

CORE NUMBER 06 CRUISE IG 19-3  
 LATITUDE 29° 59.6'N LONGITUDE 85° 55.5'W  
 CORRECTED DEPTH 16 fm PDR DEPTH 15 fm  
 DATE TAKEN 6-23-76 DATE OPENED 3-29-77  
 DATE DESCRIBED 3-29-77 DATE PHOTOGRAPHED \_\_\_\_\_  
 DESCRIBED BY T. Haines CORE LENGTH 180 cm  
 PENETRATION 180 + cm FLOW-IN 0 cm

SUMMARY OF CORE:

Medium to fine grained quartzose sand , yellowish gray (5Y 7/2); firm and low moisture content; no visible structures; some large bivalve shell debris present from 150 to 180 cm; unit is graded toward base of core, homogeneous very clean sand; coarse fraction analysis indicates a large abundance of quartz, with common amounts of coralline algae, and rare percentages of benthonic foraminifera, ostracods, manganese, opaque minerals & echinoid spines.

INTERVAL	DESCRIPTION
0-180 cm (core bottom)	Medium to fine quartzose sand, yellowish gray (5Y 7/2), firm and low moisture content; no visible structures; some large bivalve shells & shell debris found from 150 to 180 cm. Unit is graded toward bottom of core

NOG 10 02 00 1

CORE NUMBER 06

CRUISE IG-19

DENSITY MEASUREMENTS ON CORE EXTRACTATIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
1	15 cm	8.28	6.28	1.70	0.60	2.00	Difficult penetration very sandy, grains clean
2	35	8.48	6.75	1.70	0.70	1.73	
3	55	8.35	6.74	1.70	0.70	1.61	
4	75	7.91	6.29	1.70	0.70	1.62	
5	95	7.76	6.28	1.60	0.60	1.48	
6	115	7.88	6.29	1.60	0.60	1.59	
7	135	8.03	6.46	1.70	0.70	1.57	
8	155	8.33	6.63	1.60	0.50	1.55	
9	175	8.16	6.45	1.60	0.50	1.55	

NOG 10 020 00 1

RE: 5%

MON: 5-50%

Depth: 50-100%

RE

06

IG-19  
Depth

MOG 10 03 5 39

OTHER

echinoid spines R.

echinoid spines R.

		FORAMS-PLANKTONIC
		FORAMS-BENTHONIC
		RADIOLARIA
		DIATOMS
		PTEROPODS
		SPONGE SPICULES
	R	OSTRACODS
		MOLLUSC
	C	CORALLINE ALGAE
		CORAL
		BRYOZOA
	A	QUARTZ
		FELDSPAR
		IRONSTONE
	R	MANGANESE
	R	OPAQUE MINERALS
		ROCK FRAGMENTS

0 cm

R

R

C

A

R

R

180 cm

R

C

A

R

ARE: 5%

COMMON: 5-50%

RETD: 50-100%

ORE 06

O. IG-19

Sample Depth

FORAMS-PLANKTONIC

FORAMS-BENTHONIC

RADIOLARIA

DIATOMS

PTEROPODS

SPONGE SPICULES

SILICOFLAGELLATES

COCCOLITHS

DISCOASTERS

IRONSTONE

OPAQUE MINERALS

QUARTZ

MANGANESE

ZEOLITE

ASH SHARDS

OTHER

NOV 10 03 50 6 J

GRAPHIC CORE LOG

MGS 10085001

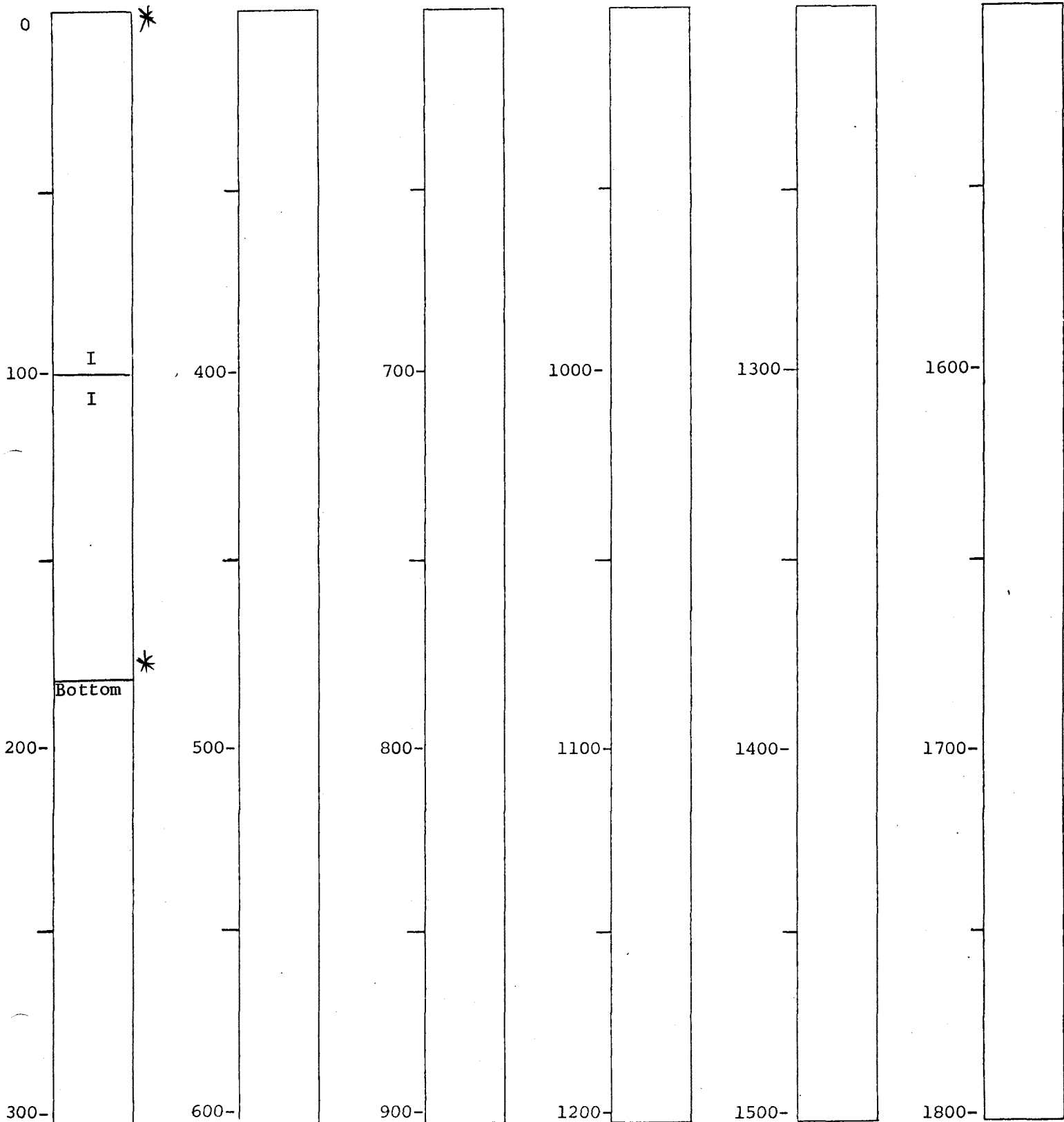
Core Number 06

Cruise IG-19

Core Cap Samples  
B = Bottom of Section  
T = Top of Section

CORE SECTIONS

Top



\* = Coarse fraction/smear slide location



CORE NUMBER 6

CRUISE IG-19

MCG 10095001

INTERVAL OR LOCATION OF SAMPLE	ESTIMATED VOLUME OF SAMPLE	TAKEN BY	SAMPLING PURPOSE	PERSON AND/OR COMPANY RECEIVING SAMPLE(S) FOR INTENDED RESEARCH
Refer to page on "Density Measurements" for precise locations	approx. 1 cc.	T. Haines	wet-bulk density	U. S. Navy to receive density results (UT-MSI contracted to do density measurements)

CORE NUMBER 07 CRUISE IG 19-3  
 LATITUDE 29° 59.2' N LONGITUDE 85° 56.6' W  
 CORRECTED DEPTH 18 fm PDR DEPTH 17 fm  
 DATE TAKEN 6-23-76 DATE OPENED 3-30-77  
 DATE DESCRIBED 3-30-77 DATE PHOTOGRAPHED \_\_\_\_\_  
 DESCRIBED BY T. Haines CORE LENGTH 402 cm  
 PENETRATION 402+ cm FLOW-IN 0 cm

SUMMARY OF CORE: medium coarse to medium fine quartzose sand, grayish olive (10Y 4/2); firm & sparsely moist; grades into a very coarse to medium foraminiferal shelly-algal quartzose sand, olive gray (5Y 4/1); firm with low moisture content; upper unit (0 to 50 cm) thickbedded with no sedimentary or biogenic structures evident; small randomly distributed algal clusters with carbonate-cemented bivalves attached are present in lower unit of core; coarse fraction analysis indicates abundant quartz (top sample) with rare amounts of benthonic foraminifera, molluscs, coralline algae, manganese, opaque minerals & echinoid spines; lower unit samples show common amounts of benthonic foraminifera, molluscan shell debris, coralline algae, quartz, and manganese with rare amounts of pteropods, ostracods, opaque minerals, echinoid spines & shell debris, few worm tubes noted.

INTERVAL	DESCRIPTION
0-50 cm	medium coarse to medium fine quartzose sand, grayish olive (10Y 4/2); firm & sparsely moist; thickbedded unit with no sedimentary or biogenic structures evident; rare amount of visible molluscan shell fragments noted. Basal contact a sharp change in color, texture, and composition.
50-402 cm (core bottom)	very coarse to medium foraminiferal shelly-algal quartzose sand, olive gray (5Y 4/1); firm with low moisture content; numerous clusters of bivalves cemented (carbonate) to coralline algal material; no visible sedimentary or biogenic structures evident.

NOV 16 02 50 1

MCS 10 025 00 1

CORE NUMBER 07CRUISE IG-19

## DENSITY MEASUREMENTS ON CORE EXTRACTIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
1	15 cm	8.48	6.76	1.50	0.50	1.72	
2	35	8.27	6.41	1.60	0.60	1.86	
3	55	7.98	6.46	1.30	0.50	1.90	Increasing coarseness in grain size
4	75	8.72	6.79	1.60	0.50	1.76	Coralline algae increasingly more common
5	95	7.46	6.45	1.10	0.50	1.68	Coarse grains hamper sample retrieval
6	115	7.96	6.37	1.50	0.50	1.59	
7	135	8.38	6.66	1.40	0.40	1.72	
8	155	8.05	6.28	1.40	0.40	1.77	
9	175	8.16	6.46	1.40	0.40	1.70	
10	195	8.37	6.70	1.40	0.40	1.67	
11	215	8.10	6.29	1.40	0.40	1.81	
12	235	8.27	6.52	1.40	0.40	1.75	Very coarse
13	255	8.28	6.59	1.50	0.50	1.69	Very coarse
14	275	8.38	6.41	1.50	0.30	1.64	Very coarse
15	295	7.53	6.32	1.20	0.40	1.51	Very low grain to grain cohesion
16	315	7.68	6.28	1.40	0.40	1.43	Very low grain to grain cohesion
17	335	7.54	6.47	1.20	0.50	1.40	Very low grain to grain cohesion
18	355		6.13				Too many large shell fragments to sample
19	375		6.46				Too many large shell fragments to sample
20	395		6.60				Too many large shell fragments to sample



AREA: 5%

COMMON: 5-50%

DEPTH: 50-100%

CORE: 07  
IG-19

Sample Depth

FORAMS-PLANKTONIC

FORAMS-BENTHONIC

RADIOLARIA

DIATOMS

PTEROPODS

SPONGE SPICULES

SILICOFLAGELLATES

COCCOLITHS

DISCOASTERS

IRONSTONE

OPAQUE MINERALS

QUARTZ

MANGANESE

ZEOLITE

ASH SHARDS

OTHER

MMS 10025001

GRAPHIC CORE LOG

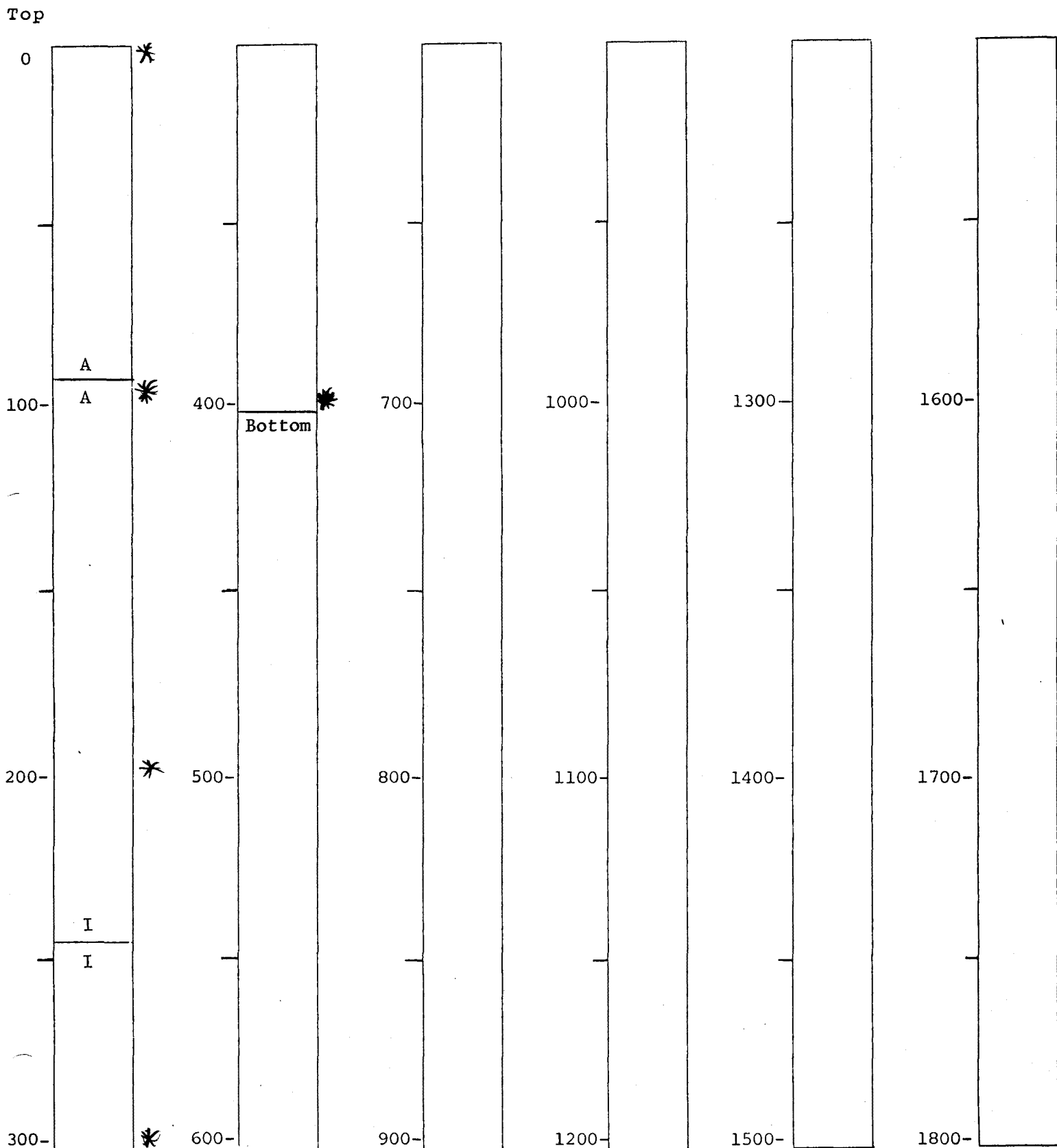
MCG 10 005 00 1

Core Number 07

Cruise IG-19

Core Cap Samples  
B = Bottom of Section  
T = Top of Section

CORE SECTIONS



\* = Coarse fraction/smear slide location

CORE NUMBER 7

CRUISE 1G-19

INTERVAL OR LOCATION OF SAMPLE	ESTIMATED VOLUME OF SAMPLE	TAKEN BY	SAMPLING PURPOSE	PERSON AND/OR COMPANY RECEIVING SAMPLE(S) FOR INTENDED RESEARCH
Refer to page on "Density Measurements" for precise locations	approx. 1 cc.	T. Haines	wet-bulk density	U. S. Navy to receive density results(UT-MSI contracted to do density measurements)

MCG 10 925 00 1

CORE NUMBER 08 CRUISE IG 19-3  
 LATITUDE 29° 56.8' N LONGITUDE 85° 59.8' W  
 CORRECTED DEPTH 19 fm PDR DEPTH 18 fm  
 DATE TAKEN 6-23-76 DATE OPENED 3-30-77  
 DATE DESCRIBED 3-30-77 DATE PHOTOGRAPHED \_\_\_\_\_  
 DESCRIBED BY T. Haines CORE LENGTH 358 cm  
 PENETRATION 358+ cm FLOW-IN 0 cm

SUMMARY OF CORE:

medium to fine quartzose shelly sand, yellowish gray(5Y 8/1), clean grains, low moisture, no visible structures evident. Shell debris (molluscan) present in low amounts in core; sandy bulbous irregular-shaped sandy aggregates present from 240 cm to end of core with a siliceous cementing agent; coarse fraction analysis indicates common amounts of molluscan shells/shell fragments and quartz with rare percentages of planktonic & benthonic(except common at top) foraminifera, pteropods, ostracods, bryzoa, manganese, opaque minerals, and echinoid spines.

INTERVAL	DESCRIPTION
0-358 cm (core bottom)	medium to fine quartzose shelly sand, yellowish gray(5Y 8/1), low moisture content, clean grains no visible structures evident. shell content present in form of molluscan shells and shell debris; at 240 cm sandy (concretionary?) oblong roundish structures occur and are abundant to end of core.

MGC 10 02 0001



CORE NUMBER 08

CRUISE IG-19

DENSITY MEASUREMENTS ON CORE EXTRACTIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS	
1	15 cm	7.35	6.12	?	1.10	0.40	1.54	Very clean sand, very firm
2	35	8.44	6.47	1.40	0.30	1.79		
3	55	8.42	6.61	1.50	0.50	1.81		
4	75	7.74	5.96	1.60	0.60	1.78		
5	95	8.05	6.32	1.60	0.60	1.73		
6	115	9.02	6.79	1.60	0.35	1.78		
7	135	8.35	6.57	1.60	0.60	1.78		
8	155	7.44	6.55	1.00	0.50	1.78	Watery sandy, liner not full with sediment-air pockets	
9	175	8.07	6.32	1.70	0.70	1.75	Too coarse to sample here, concretionary structures	
10	195	7.96	6.01	1.70	0.60	1.77		
11	215	7.93	5.99	1.70	0.60	1.76		
12	235	8.20	6.38	1.40	0.40	1.82		
13	255	7.54	6.45	1.00	0.40	1.82		
	275						Too coarse to sample; too many concretionary structures	
14	295	7.27	6.33	1.10	0.50	1.57	Too coarse to end of core for further samples	

MCC 10 025 00 1



NET: 5%

MON: 5-50%

W: 50-100%

REF: 08  
IG-19

Sample Depth

FORAMS-PLANKTONIC

FORAMS-BENTHONIC

RADIOLARIA

DIATOMS

PTEROPODS

SPONGE SPICULES

SILICOFLAGELLATES

COCCOLITHS

DISCOASTERS

IRONSTONE

OPAQUE MINERALS

QUARTZ

MANGANESE

ZEOLITE

ASH SHARDS

OTHER

100933001

GRAPHIC CORE LOG

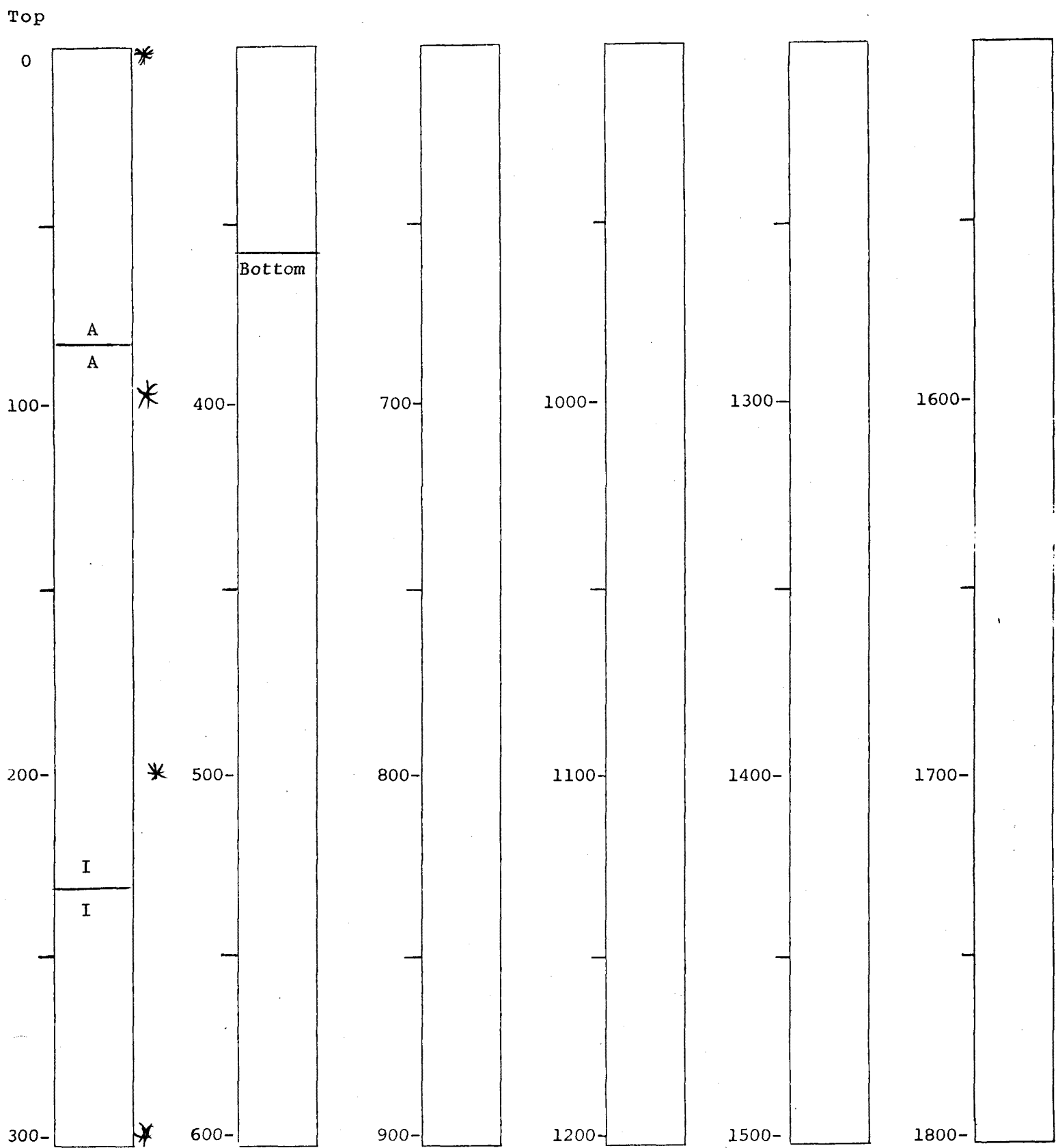
MCG 10 025 00 1

Core Number 08

Cruise IG-19

Core Cap Samples  
B = Bottom of Section  
T = Top of Section

CORE SECTIONS



\* = Coarse fraction/smear slide location.

INTERVAL OR LOCATION OF SAMPLE	ESTIMATED VOLUME OF SAMPLE	TAKEN BY	SAMPLING PURPOSE	PERSON AND/OR COMPANY RECEIVING SAMPLE(S) FOR INTENDED RESEARCH
Refer to page on "Density Measurements" for precise locations	approx. 1 cc.	T. Haines	wet-bulk density	U. S. Navy to receive density results (UT-MSI contracted to do density measurements)

MCG 10 02 5 00 1

CORE NUMBER	<u>09</u>	CRUISE	<u>IG 19-3</u>
LATITUDE	<u>29° 55.5' N</u>	LONGITUDE	<u>86° 01.4' W</u>
CORRECTED DEPTH	<u>21 fm</u>	PDR DEPTH	<u>20 fm</u>
DATE TAKEN	<u>6-23-76</u>	DATE OPENED	<u>3-31-77</u>
DATE DESCRIBED	<u>3-31-77</u>	DATE PHOTOGRAPHED	<u>                    </u>
DESCRIBED BY	<u>T. Haines</u>	CORE LENGTH	<u>67 cm</u>
PENETRATION	<u>120 cm</u>	FLOW-IN	<u>0 cm</u>

SUMMARY OF CORE: medium to fine shelly quartzose sand, grayish olive(10Y 4/2), firm & low moisture content; thickbedded unit with no visible sedimentary or biogenic structures evident; common well distributed moderate amounts of molluscan shells/shell fragments visible through entire core; coarse fraction analysis shows abundant amount of quartz with common amount of molluscan shell debris & unbroken shells, and rare percentages of planktonic & benthonic foraminifera, sponge spicules, manganese, and opaque minerals.

INTERVAL	DESCRIPTION
0-67 cm (core bottom)	medium to fine shelly quartzose sand, grayish olive(10Y 4/2), firm and low moisture content, clean grains, few small molluscan shells and shell fragments visible through unit, no visible structures. Sediment tapers from 1 cm thick at 0 cm to full liner capacity at 40 cm. (probably occurred in transporting cores)

MGG 10 02 300 1

ORE NUMBER 09

CRUISE IG-19

DENSITY MEASUREMENTS ON CORE EXTRactions FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
1	25 cm	7.38	6.28	1.30	0.60	1.57	Liner only partially filled with sediment
2	45	8.15	6.44	1.70	0.70	1.71	Sandy
3	65	8.48	6.72	1.60	0.60	1.76	Sandy

MCG 10 023 00 1

RE: 5%

AMON: 5-50%

RE: 50-100%

RE 09

IG 19-3

Sample Depth

30 cm

R

R

R

C

A

R

R

echinoid spines R.

FORAMS-PLANKTONIC

FORAMS-BENTHONIC

RADIOLARIA

DIATOMS

PTEROPODS

SPONGE SPICULES

OSTRACODS

MOLLUSC

CORALLINE ALGAE

CORAL

BRYOZOA

QUARTZ

FELDSPAR

IRONSTONE

MANGANESE

OPAQUE MINERALS

ROCK FRAGMENTS

OTHER

MGS 10 02 5 0 0 1



AREA: 5%

COMMON: 5-50%

): 50-100%

ORE

09

IG-19  
Sample Depth

FORAMS-PLANKTONIC

FORAMS-BENTHONIC

RADIOLARIA

DIATOMS

PTEROPODS

SPONGE SPICULES

SILICOFLAGELLATES

COCCOLITHS

DISCOASTERS

IRONSTONE

OPAQUE MINERALS

QUARTZ

MANGANESE

ZEOLITE

ASH SHARDS

OTHER

MGG 10025001

GRAPHIC CORE LOG

MCG 10025001

Core Cap Samples

B = Bottom of Section

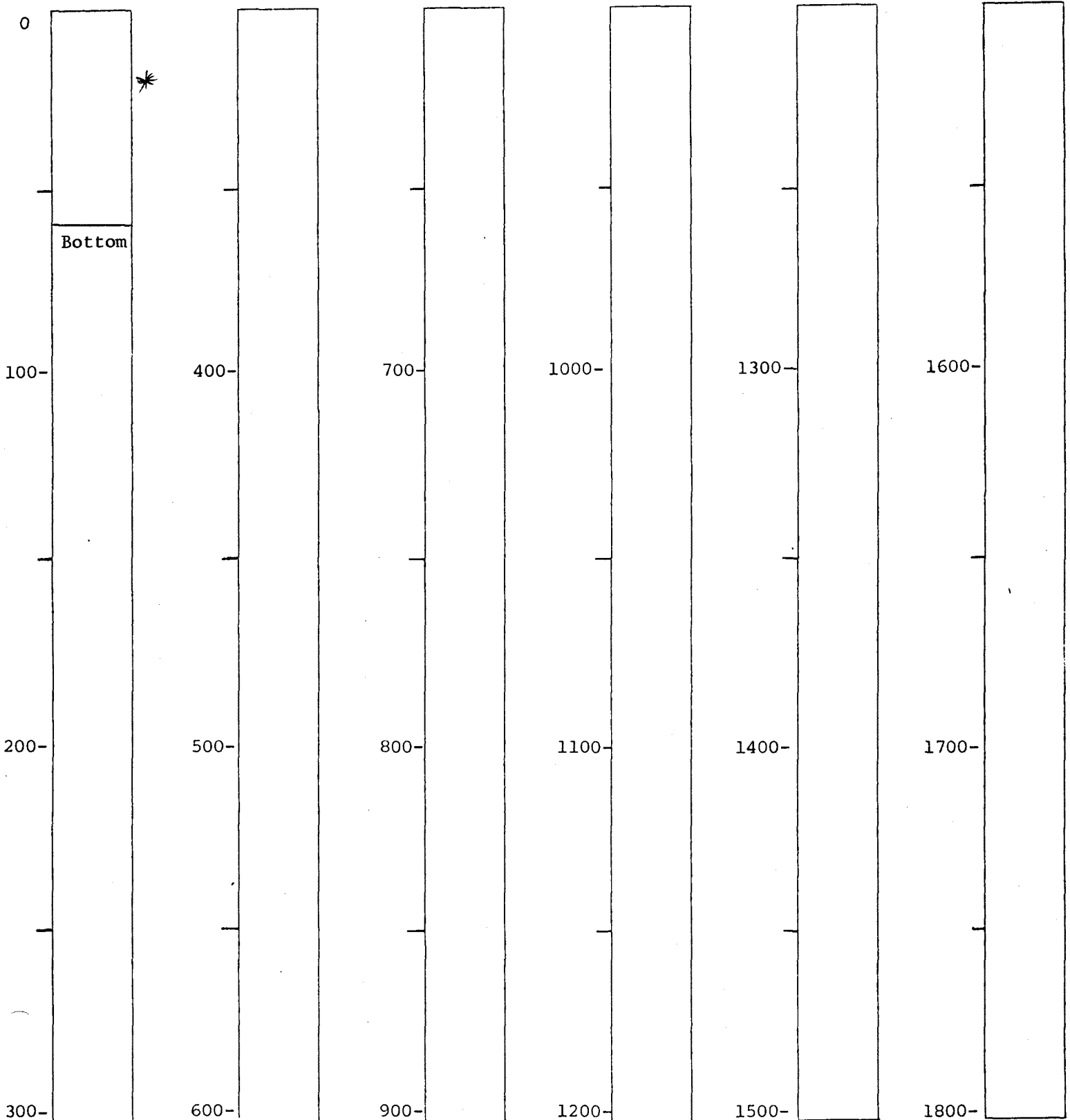
T = Top of Section

Core Number 09

Cruise IG-19

CORE SECTIONS

Top



\* = Coarse fraction/smear slide location

CORE NUMBER 9 CRUISE IG-19

INTERVAL OR LOCATION OF SAMPLE	ESTIMATED VOLUME OF SAMPLE	TAKEN BY	SAMPLING PURPOSE	PERSON AND/OR COMPANY RECEIVING SAMPLE(S) FOR INTENDED RESEARCH
Refer to page on "Density Measurements" for precise locations	approx. 1 cc.	T. Haines	wet-bulk density	U. S. Navy to receive density results (UT-MSI contracted to do density measurements)

MCG 10025001

CORE NUMBER 10 CRUISE IG 19-3  
 LATITUDE 29° 54.7' N LONGITUDE 86° 02.0' W  
 CORRECTED DEPTH 22 fm PDR DEPTH 21 fm  
 DATE TAKEN 6-23-76 DATE OPENED 3-31-77  
 DATE DESCRIBED 3-31-77 DATE PHOTOGRAPHED \_\_\_\_\_  
 DESCRIBED BY T. Haines CORE LENGTH 42 cm  
 PENETRATION 75 cm FLOW-IN 0 cm

SUMMARY OF CORE:

Medium to fine shelly quartzose sand, grayish olive(10Y 4/2), firm & low moisture content; grains are clean, moderate molluscan shell debris content towards lower end of core; no visible sedimentary or biogenic structures evident; coarse fraction analysis shows large abundance of quartz present with common amount of molluscan shells/shell debris, and rare amounts of planktonic & benthonic foraminifera, sponge spicules, manganese & opaque minerals.

INTERVAL	DESCRIPTION
0-42 cm (core bottom)	Medium to fine shelly quartzose sand, grayish olive(10Y 4/2); low moisture, no visible structures evident, very low molluscan shell debris content at bottom of core; sand grains clean.

CORE NUMBER 10

CRUISE IG-19

DENSITY MEASUREMENTS ON CORE EXTRACTIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
1	15 cm	7.92	6.14	1.70	0.70	1.78	Clean sand
2	35	8.25	6.61	1.70	0.70	1.64	

MGC 10 02 5 0 0 1

RE: 5%

AMON: 5-50%

50-100%

RE 10

IG-19

Sample Depth

20 cm

FORAMS-PLANKTONIC

FORAMS-BENTHONIC

RADIOLARIA

DIATOMS

PTEROPODS

Sponge spicules

OSTRACODS

MOLLUSC

CORALLINE ALGAE

CORAL

BRYOZOA

QUARTZ

FELDSPAR

IRONSTONE

MANGANESE

OPAQUE MINERALS

ROCK FRAGMENTS

OTHER

echinoid spines R.

MCC 10 025 00 1

RE: 5%

MON: 5-50%

: 50-100%

RE 10  
C. IG-19

Sample Depth

FORAMS-PLANKTONIC

FORAMS-BENTHONIC

RADIOLARIA

DIATOMS

PTEROPODS

SPONGE SPICULES

SILICOFLAGELLATES

COCCOLITHS

DISCOASTERS

IRONSTONE

OPAQUE MINERALS

QUARTZ

MANGANESE

ZEOLITE

ASH SHARDS

OTHER

10082001

131

GRAPHIC CORE LOG

MCG 10025001

Core Number 10

Cruise IG-19

Core Cap Samples  
B = Bottom of Section  
T = Top of Section

CORE SECTIONS

Top



\* = Coarse fraction/smear slide location.



CORE NUMBER 10 CRUISE IG-19

INTERVAL OR LOCATION OF SAMPLE	ESTIMATED VOLUME OF SAMPLE	TAKEN BY	SAMPLING PURPOSE	PERSON AND/OR COMPANY RECEIVING SAMPLE(S) FOR INTENDED RESEARCH
Refer to page on "Density Measurements" for precise locations	approx. 1 cc.	T. Haines	wet-bulk density	U. S. Navy to receive density results (UT-MSI contracted to do density measurements)

MCG 10 025 00 1

CORE NUMBER 11 CRUISE IG 19-3  
 LATITUDE 29° 50.8' N LONGITUDE 86° 06.7' W  
 CORRECTED DEPTH 23 fm PDR DEPTH 22 fm  
 DATE TAKEN 6-24-76 DATE OPENED 3-31-77  
 DATE DESCRIBED 3-31-77 DATE PHOTOGRAPHED \_\_\_\_\_  
 DESCRIBED BY T. Haines CORE LENGTH 277 cm  
 PENETRATION 277+ cm FLOW-IN 0 cm

SUMMARY OF CORE: medium to fine muddy quartz algal sand, dark greenish gray (5GY 4/1); soft & moist; no visible sedimentary or biogenic structures evident; middle unit is a medium fine to fine quartz-shelly sand, greenish gray (5GY 6/1); firm & moist with no visible sedimentary or biogenic structures evident; bottom unit is a coarse to very coarse shelly algal sand, greenish gray (5GY 6/1); very little grain-to-grain cohesion with moderate amounts of large bivalves/shell fragments present in random locations having worm tube encrustation and small barnacles cemented to some of them; coarse fraction analysis indicates a large abundance of coralline algae in upper & lower units and absent from the middle unit sample taken at 20 cm; common amount of molluscan shell/shell debris noted in upper & lower units and abundant in middle unit; quartz in common in upper & middle units and rare in lower unit; rare amounts of planktonic & benthonic (except common at 100 cm sample) foraminifera, pteropods, sponge spicules, ostracods, manganese, opaque minerals, & echinoid spines.

INTERVAL	DESCRIPTION
0-14 cm	medium to fine muddy quartz algal sand, dark greenish gray (5GY 4/1); soft & moist; no visible sedimentary or biogenic structures are evident; abundant percentages of coralline algae occur through entire unit. Basal contact a sharp change in color, texture, and composition.
14-24 cm	medium fine to fine quartz-shelly sand, greenish gray (5GY 6/1); firm & moist; clean grains with no significant mud content and no visible sedimentary or biogenic structures evident; large amount of molluscan shells/shell debris visible. Basal contact a gradual change in texture & composition.
24-227 cm (core bottom)	coarse to very coarse shelly algal sand, greenish gray (5GY 6/1); very low grain-to-grain cohesion & sparse moisture content; randomly distributed large bivalves/bivalve debris with worm tube encrustation & barnacles are noted in this unit.

ORE NUMBER 11

CRUISE IG-19

DENSITY MEASUREMENTS ON CORE EXTRACTIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
1	15 cm	8.03	6.53	1.40	0.40	1.50	
2	35	8.22	6.23	1.60	0.40	1.66	
3	55	8.00	6.70	1.20	0.40	1.63	Increasingly coarse with depth
4	75	7.27	5.92	1.30	0.40	1.50	
5	95	7.53	6.47	1.30	0.50	1.33	
6	120	6.88	6.01	0.90	0.20	1.24	Too coarse for sampling remainder of core

MGG 11020001



AREA: 5%

AMON: 5-50%

IG-19

RE 11

IG-19

Sample Depth

FORAMS-PLANKTONIC

FORAMS-BENTHONIC

RADIOLARIA

DIATOMS

PTEROPODS

SPONGE SPICULES

SILICOFLAGELLATES

COCCOLITHS

DISCOASTERS

IRONSTONE

OPAQUE MINERALS

QUARTZ

MANGANESE

ZEOLITE

ASH SHARDS

OTHER

1000000000

GRAPHIC CORE LOG

MCG 10025001

Core Cap Samples

B = Bottom of Section

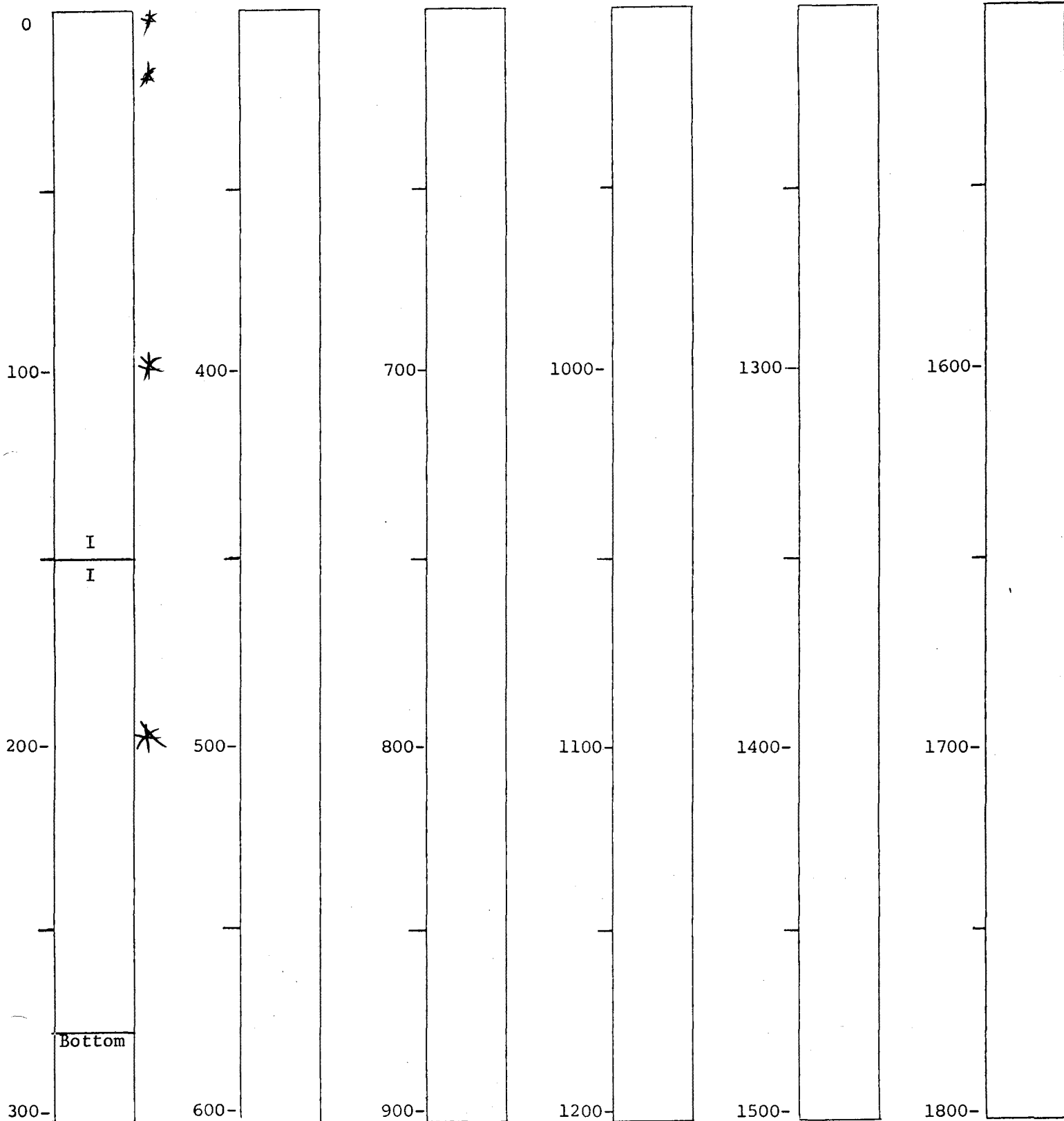
T = Top of Section

Core Number 11

Cruise IG-19

CORE SECTIONS

Top



\* = Coarse fraction/smear slide location.

CORE NUMBER 11 CRUISE IG-19

INTERVAL OR LOCATION OF SAMPLE	ESTIMATED VOLUME OF SAMPLE	TAKEN BY	SAMPLING PURPOSE	PERSON AND/OR COMPANY RECEIVING SAMPLE(S) FOR INTENDED RESEARCH
Refer to page on "Density Measurements" for precise locations	approx. 1 cc.	T. Haines	wet-bulk density	U. S. Navy to receive density results(UT-MSI contracted to do density measurements)

MCG 10 02 00 1

CORE NUMBER	<u>12</u>	CRUISE	<u>IG 19-3</u>
LATITUDE	<u>29° 48.7' N</u>	LONGITUDE	<u>86° 09.4' W</u>
CORRECTED DEPTH	<u>25 fm</u>	PDR DEPTH	<u>24 fm</u>
DATE TAKEN	<u>6-24-76</u>	DATE OPENED	<u>3-31-77</u>
DATE DESCRIBED	<u>3-31-77</u>	DATE PHOTOGRAPHED	<u>                    </u>
DESCRIBED BY	<u>T. Haines</u>	CORE LENGTH	<u>46 cm</u>
PENETRATION	<u>100 cm</u>	FLOW-IN	<u>0 cm</u>

SUMMARY OF CORE: very coarse to medium quartz-shelly algal sand, grayish olive (10Y 4/2); firm with low moisture content; a thin(1 cm thick) band of non-algal quartz-shelly sand is present at 30 cm as a thin interbed within this larger quartz-shelly algal sand unit; moderate amount of coralline algae noted through remainder of core; coarse fraction analysis indicates common amounts of molluscan shells/shell debris, coralline algae, and rare to common amounts of benthonic foraminifera & quartz; rare amounts of planktonic foraminifera, pteropods, sponge spicules, ostracods, bryzoa, manganese, opaque minerals, rock fragments, and echinoid spines are also noted.

INTERVAL	DESCRIPTION
0-46 cm (core bottom)	very coarse to medium quartz-shelly algal sand, grayish olive (10Y 4/2); firm with low moisture content; a thin band of quartz-shelly sand void of algal material occurs as a 1 cm thick interbed at 30 cm; coralline algae is visible in moderate amounts through entire core; no visible biogenic structures evident.



CORE NUMBER 12

CRUISE IG-19

DENSITY MEASUREMENTS ON CORE EXTRACTATIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
1	15 cm	7.66	6.27	1.60	0.60	1.39	very coarse-grained
2	35	8.12	6.46	1.50	0.40	1.66	very coarse-grained

MCC 10 025 00 1



RE: 5%

COMMON: 5-50%

PERCENT: 50-100%

12

Sample Depth

FORAMS-PLANKTONIC

FORAMS-BENTHONIC

RADIOLARIA

DIATOMS

PTEROPODS

SPONGE SPICULES

SILICOFLAGELLATES

COCCOLITHS

DISCOASTERS

IRONSTONE

OPAQUE MINERALS

QUARTZ

MANGANESE

ZEOLITE

ASH SHARDS

OTHER

MS 10025001

GRAPHIC CORE LOG

MCG 10 025001

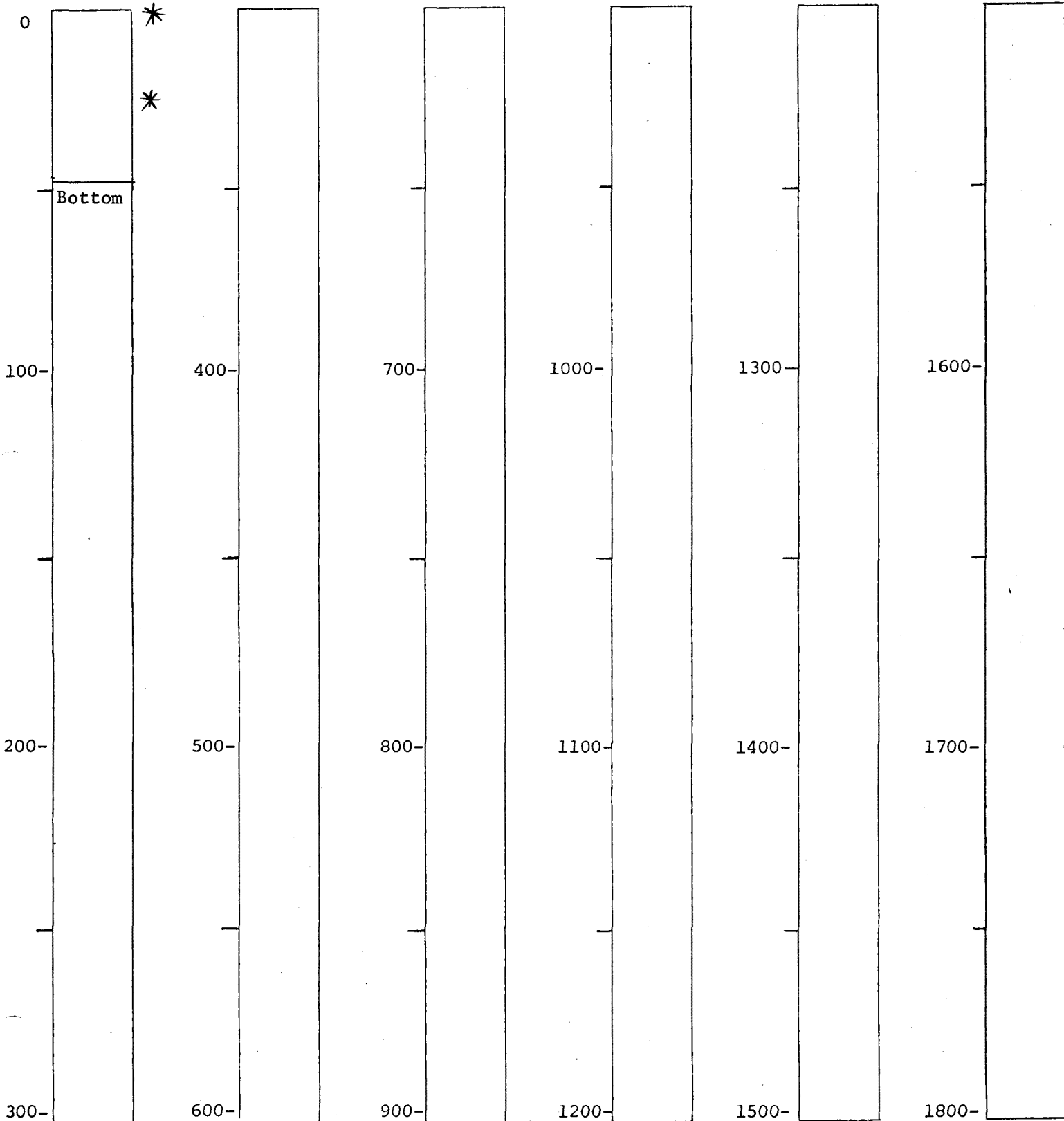
Core Number 12

Cruise IG-19

Core Cap Samples  
B = Bottom of Section  
T = Top of Section

CORE SECTIONS

Top



\* = Coarse fraction/smear slide location.

INTERVAL OR LOCATION OF SAMPLE	ESTIMATED VOLUME OF SAMPLE	TAKEN BY	SAMPLING PURPOSE	PERSON AND/OR COMPANY RECEIVING SAMPLE(S) FOR INTENDED RESEARCH
Refer to page on "Density Measurements" for precise locations	approx. 1 cc.	T. Haines	wet-bulk density	U. S. Navy to receive density results(UT-MSI contracted to do density measurements)

MCG 10 023 001

CORE NUMBER	13	CRUISE	IG 19-3
LATITUDE	29° 46.4' N	LONGITUDE	86° 12.6' W
CORRECTED DEPTH	29 fm	PDR DEPTH	28 fm
DATE TAKEN	6-24-76	DATE OPENED	8-31-76
DATE DESCRIBED	9-1-76	DATE PHOTOGRAPHED	
DESCRIBED BY	K. McMillen	CORE LENGTH	154 cm
PENETRATION	154+ cm	FLOW-IN	0 cm

SUMMARY OF CORE: very coarse to medium quartz-shelly to shelly sand, light olive gray(5Y 5/2) at top to olive gray(5Y 3/2) at base; loose clean grains; thickbedded & graded uniformly from coarse at bottom to finer toward top; upper unit mud-free with large molluscan shell fragments evident; middle unit is medium quartzose shelly muddy sand, light olive gray (5Y 5/2); firm with sharp upper contact; moderate amount of coralline algae and molluscan shells/shell fragments visible; lower unit is very coarse shelly sand, olive gray (5Y 3/2), thickbedded with no visible sedimentary or biogenic structures evident.

INTERVAL	DESCRIPTION
0-112 cm	very coarse to medium quartz-shelly to shelly sand, light olive gray(5Y 5/2) at top to olive gray(5Y 3/2) at base; loose sand with sharp lower contact although a lobe of very coarse sand is carried along liner's edge to 121 cm(probably as a result of coring); unit is thickbedded & graded uniformly from bottom to top both in size & color; no visible sedimentary or biogenic structures evident; CaCO <sub>3</sub> nearly 100% at base; sand at base has large mollusc fragments but is mostly coralline algae with some echinoderm debris; unit is approximately 90-100% sand, very clean with many grains in lower one-third exhibiting some degree of manganese coating. Basal contact a sharp change in texture.
112-140 cm	medium quartz-shelly muddy sand, light olive gray(5Y 5/2), firm and thickbedded with sharp upper contact; no visible sedimentary or biogenic structures evident; CaCO <sub>3</sub> approximately 90%; unit contains well distributed large molluscan shells and coralline algae(very coarse in size). Basal contact a sharp change in texture & composition.
140-154 cm (core bottom)	very coarse shelly sand, olive gray(5Y 3/2); loose sand with no visible sedimentary or biogenic structures evident; CaCO <sub>3</sub> nearly 100%; large molluscan shell fragments & coralline algae noted in common to abundant amounts; manganese stains on some grains.

Samples taken on September 29, 1976

CORE NUMBER 13 Avg. Density 1.59

CRUISE IG 19

DENSITY MEASUREMENTS ON CORE EXTRACTIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
1	15 cm	8.13	6.65	1.32	0.50	1.80 <sup>25</sup>	firm, sandy moist increasing grain coarseness and shell fragments.
2.	35	7.90	6.40	1.40	0.50	1.67 <sup>172</sup>	firm, sandy moist increasing grain coarseness and shell fragments.
3	55	7.73	5.95	1.55	0.50	1.70 <sup>159</sup>	firm, sandy moist increasing grain coarseness and shell fragments.
4	80	7.46	5.90	1.72	0.60	1.39 <sup>148</sup>	very coarse shelly sand; very little water.
5.	95	8.14	6.65	1.70	0.60	1.35 <sup>147</sup>	very coarse grained w/shell fragments.
6.	115	8.30	6.64	1.49	0.50	1.68 <sup>153</sup>	medium coarse grained
7.	135	7.43	5.88	1.55	0.55	1.55 <sup>164</sup>	large shell fragments in matrix of medium to coarse sand, moist.

MCG 10000001







GRAPHIC CORE LOG

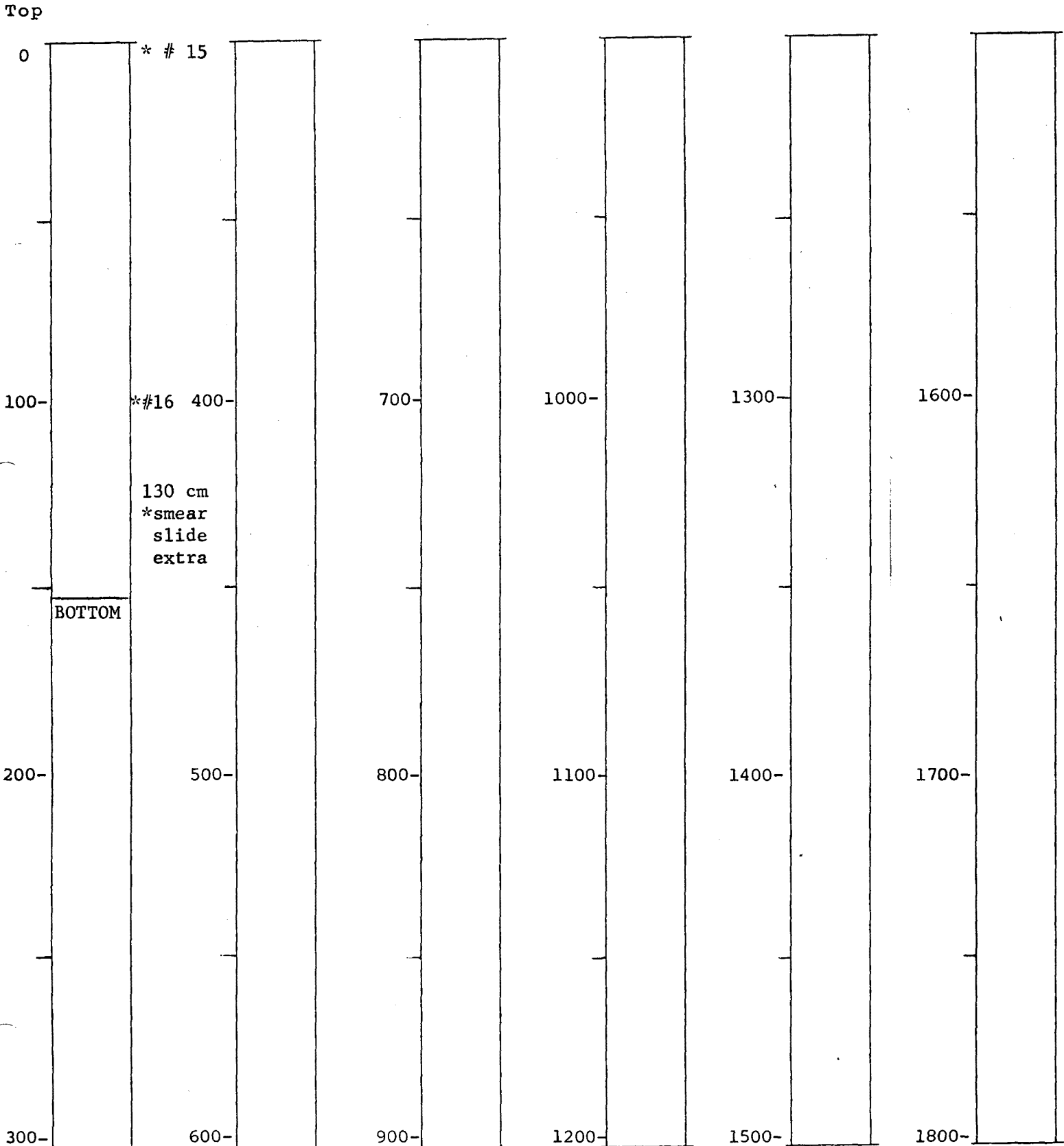
MGG 10 025001

Core Number 13

Cruise IG 19

Core Cap Samples  
B = Bottom of Section  
T = Top of Section

CORE SECTIONS



\* = Coarse fraction (more than 150 microns)

MGC 10025001

CORE NUMBER 13

CRUISE IG-19

INTERVAL OR LOCATION OF SAMPLE	ESTIMATED VOLUME OF SAMPLE	TAKEN BY	SAMPLING PURPOSE	PERSON AND/OR COMPANY RECEIVING SAMPLE(S) FOR INTENDED RESEARCH
Refer to page on "Density Measurements" for precise locations	approx. 1 cc.	T. Haines	wet-bulk density	U. S. Navy to receive density results (UT-MSI contracted to do density measurements)

CORE NUMBER	<u>14</u>	CRUISE	<u>IG 19-3</u>
LATITUDE	<u>29° 44.3' N</u>	LONGITUDE	<u>86° 15.4' W</u>
CORRECTED DEPTH	<u>36 fm</u>	PDR DEPTH	<u>35 fm</u>
DATE TAKEN	<u>6-24-76</u>	DATE OPENED	<u>4-1-77</u>
DATE DESCRIBED	<u>4-1-77</u>	DATE PHOTOGRAPHED	_____
DESCRIBED BY	<u>T. Haines</u>	CORE LENGTH	<u>306 cm</u>
PENETRATION	<u>110 cm.</u>	FLOW-IN	<u>196 cm.</u>

## SUMMARY OF CORE:

Coarse to medium fine algal quartz shelly sand grayish olive (10Y 4/2), semi-soft and low moisture; weak grain-to-grain cohesion and quartz grains are clean. Large amounts of molluscan shells & shell fragments are evident in random locations through core & increase to abundant towards base of core; coarse fraction analysis indicates common amounts of molluscan shells/shell debris (abundant in 300 cm sample), rare to common coralline algae and quartz, common benthonic foraminifera, rare planktonic foraminifera, common manganese, and rare amounts of pteropods, sponge spicules, ostracods, bryzoa, opaque minerals, rock fragments, and echinoid spines; no visible sedimentary or biogenic structures evident.

INTERVAL	DESCRIPTION
0-306 cm (core bottom)	Coarse to medium fine algal quartz shelly sand, grayish olive (10Y 4/2), semi-soft, low moisture content; low grain-to-grain cohesion. Large volume of molluscan shell fragments present in random locations. No visible structures are evident.

CORE NUMBER 14

CRUISE IG-19

DENSITY MEASUREMENTS ON CORE EXTRACTIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
1	15 cm	7.86	6.28	1.60	0.60	1.58	Coarse grained
2	35	7.85	6.24	1.50	0.40	1.46	Coarse grained
3	55	8.28	6.62	1.50	0.40	1.51	Coarse grained
4	75	7.69	6.25	1.40	0.50	1.60	Low volume of sedimentation this sample area; coarse
5	95	8.25	6.62	1.40	0.40	1.63	Coarse grained
6	115	8.33	6.70	1.60	0.60	1.63	Coarse grained
7	135	7.88	6.06	1.50	0.50	1.82	Coarse grained
8	155	8.11	6.47	1.60	0.60	1.64	
9	175	7.97	6.05	1.50	0.40	1.75	
10	195	7.59	5.95	1.60	0.60	1.64	Slight decrease in grain-size & low mud percentage
11	215	8.53	6.73	1.40	0.40	1.80	Slight decrease in grain-size & low mud percentage
12	235	8.24	6.43	1.40	0.40	1.81	
13	255	7.33	5.98	1.40	0.60	1.69	Coarse-grained
14	275	7.85	6.63	1.30	0.60	1.74	Coarse-grained
15	295	7.74	6.02	1.60	0.60	1.72	Coarse-grained

MCG 16 005 00 1



RE: 5%

MON: 5-50%

ORE: 50-100%

14

ORE IC-19

Sample Depth

FORAMS-PLANKTONIC

FORAMS-BENTHONIC

RADIOLARIA

DIATOMS

PTEROPODS

SPONGE SPICULES

SILICOFLAGELLATES

COCCOLITHS

DISCOASTERS

IRONSTONE

OPAQUE MINERALS

QUARTZ

MANGANESE

ZEOLITE

ASH SHARDS

OTHER

NOV 10 02 00 1

GRAPHIC CORE LOG

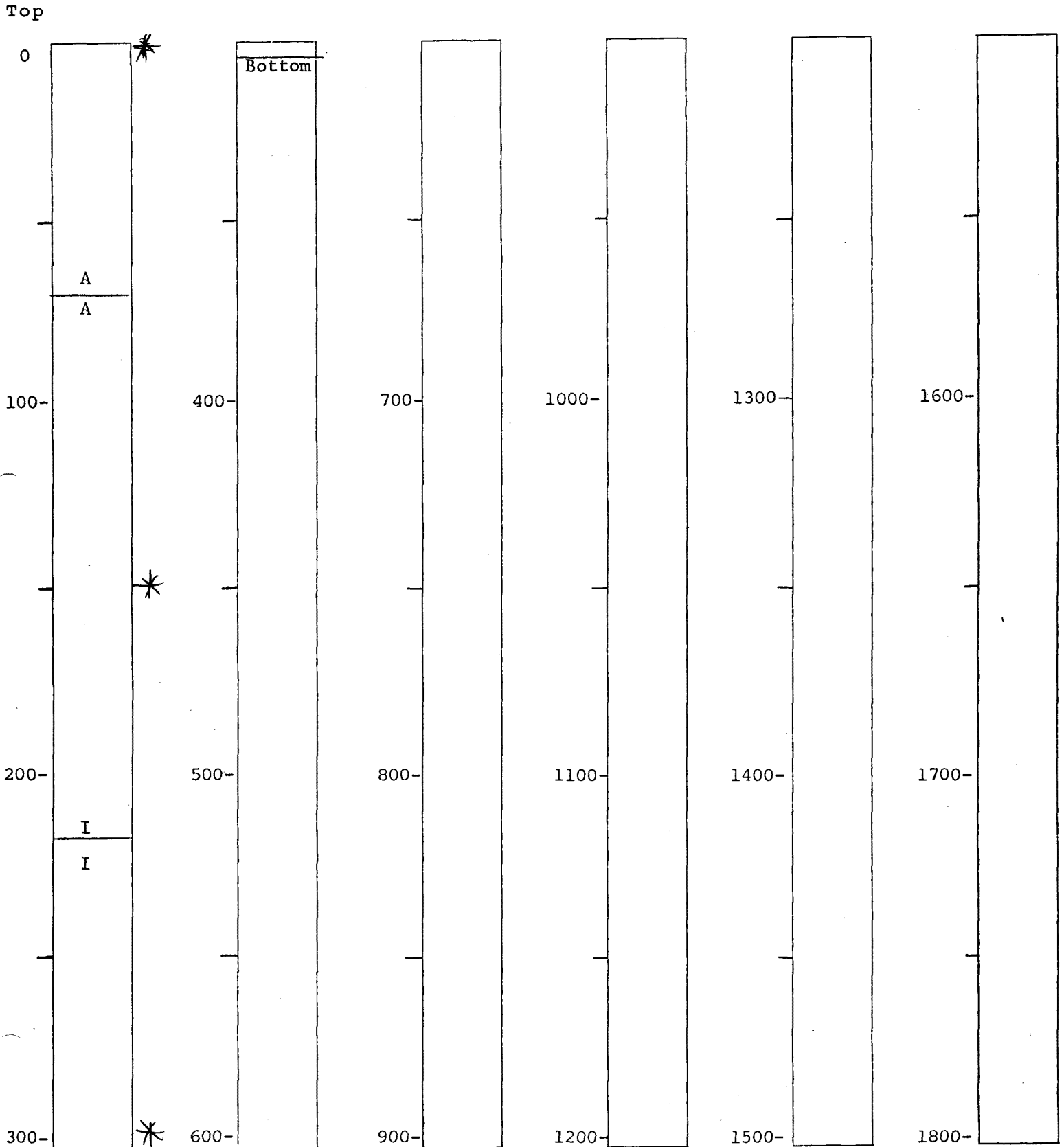
MCG 10025001

Core Number 14

Cruise IG-19

Core Cap Samples  
B = Bottom of Section  
T = Top of Section

CORE SECTIONS



\* = Coarse fraction/smear slide location.



CORE NUMBER 14 CRUISE IG-19

INTERVAL OR LOCATION OF SAMPLE	ESTIMATED VOLUME OF SAMPLE	TAKEN BY	SAMPLING PURPOSE	PERSON AND/OR COMPANY RECEIVING SAMPLE(S) FOR INTENDED RESEARCH
Refer to page on "Density Measurements" for precise locations	approx. 1 cc.	T. Haines	wet-bulk density	U. S. Navy to receive density results(UT-MSI contracted to do density measurements)

MSI 10025001

CORE NUMBER	15	CRUISE	IG 19-3
LATITUDE	29° 42.5' N	LONGITUDE	86° 17.6' W
CORRECTED DEPTH	49 fm	FDR DEPTH	47 fm
DATE TAKEN	6-24-76	DATE OPENED	4-5-77
DATE DESCRIBED	4-5-77	DATE PHOTOGRAPHED	
DESCRIBED BY	T. Haines	CORE LENGTH	283 cm
PENETRATION	283+ cm	FLOW-IN	0 cm

SUMMARY OF CORE: medium fine to very fine silty shelly quartzose sand, dark greenish gray(5GY 4/1), semi-firm & very moist; this uppermost unit bears moderate amounts of macroscopic molluscan shell debris; intermediate unit(42 to 215 cm) is a medium to fine muddy quartz-shelly sand, light grayish olive(10Y 5/2), semi-soft & moist; burrowed locally; sharp upper contact; lower unit is a medium fine to fine muddy quartzose shelly manganese rich sand, dark greenish gray(5GY 4/1), semi-firm & moderate to low moisture content; occasional mottling with more mud content in burrows; large molluscan shell fragments present in random locales; coarse fraction analysis shows common to abundant molluscan shells/shell debris, rare to common benthonic foraminifera and quartz, rare to abundant manganese(coatings and infillings), and rare amounts of planktonic foraminifera, pteropods, ostracods, sponge spicules, coralline algae, opaque minerals, echinoid spines, and mica flakes.

INTERVAL	DESCRIPTION
0-42 cm	medium fine to very fine silty shelly quartzose sand, dark greenish gray(5GY 4/1), semi-firm & very moist, sandy overall texture with moderate amounts of macroscopic molluscan and echinoid shell debris; no visible sedimentary or biogenic structures noted in this unit. Basal contact a sharp change in color, texture, and composition.
42-215 cm	medium to fine muddy quartz-shelly sand, light grayish olive (10Y 5/2), semi-soft & moist; mottling occurs between 90 and 100 cm with fill material colored dark greenish gray(5GY 4/1) closely resembling that of above unit; very vague mottling noted at 200 cm also displaying a dark greenish gray silty sandy fill material. Basal contact a gradual change in color, texture, and composition.
215-283 cm (core bottom)	medium fine to fine muddy quartzose shelly manganese-rich sand, dark greenish gray(5GY 4/1), semi-firm & moderate to low moisture content with occasional mottling noted throughout this unit exhibiting a slightly higher mud content and colored light grayish olive(10Y 5/2) closely resembling unit material from 42 to 215 cm; large fragments of molluscan shells occur at 225, 237, 260, 270, & 280 cm

NOG 10 02 5 00 1

CORE NUMBER 15

CRUISE IG-19

DENSITY MEASUREMENTS ON CORE EXTRACTATIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
1	15 cm	7.79	6.17	1.50	0.50	1.62	Very sandy texture
2	35	8.21	6.49	1.60	0.60	1.72	Very sandy texture
3	55	8.07	6.47	1.60	0.60	1.60	Change in sediment unit slight increase in mud content
4	75	8.29	6.70	1.50	0.50	1.59	
5	95	8.02	6.45	1.50	0.50	1.57	
6	115	8.33	6.54	1.60	0.50	1.62	
7	135	7.71	6.05	1.60	0.60	1.66	
8	155	7.66	5.99	1.60	0.60	1.67	
9	175	8.08	6.44	1.60	0.60	1.64	
10	195	8.36	6.69	1.60	0.60	1.67	
11	215	8.20	6.48	1.60	0.60	1.72	Mottling present in this sampling area; more sandy
12	235	7.81	6.05	1.60	0.60	1.76	Sedimentary unit change sandy texture
13	255	8.06	6.41	1.60	0.60	1.65	
14	275	7.22	6.30	1.10	0.50	1.53	Low volume due to air pocket under surface; possible volume error

AREA: 5%

COMMON: 5-50%

DEPTH: 50-100%

ORE  
15  
10. IG-19

Sample Depth

Sample Depth	0 cm	100 cm	250 cm	OTHER
FORAMS-PLANKTONIC		R	R	
FORAMS-BENTHONIC	C	R	C	
RADIOLARIA				
DIATOMS				
PTEROPODS	R	R	R	
SPONGE SPICULES	R	R	R	
OSTRACODS	R	R	R	
MOLLUSC	C	A	C	
CORALLINE ALGAE		R		
CORAL				
BRYOZOA				
QUARTZ	C	R	R	
FELDSPAR				
IRONSTONE				
MANGANESE	A	R	A	
OPAQUE MINERALS	R	R	R	
ROCK FRAGMENTS				
OTHER				mica flakes R. echinoid spines R. mica flakes R. echinoid spines R. crustacean debris R. echinoid spines R.

MOG 10 405 001

ARE: 5%

COMMON: 5-50%

RARE: 50-100%

CORE 15  
IG-19

Sample Depth

FORAMS-PLANKTONIC

FORAMS-BENTHONIC

RADIOLARIA

DIATOMS

PTEROPODS

SPONGE SPICULES

SILICOFLAGELLATES

COCCOLITHS

DISCOASTERS

IRONSTONE

OPAQUE MINERALS

QUARTZ

MANGANESE

ZEOLITE

ASH SHARDS

OTHER

T 0 0 0 0 0 1

161

GRAPHIC CORE LOG

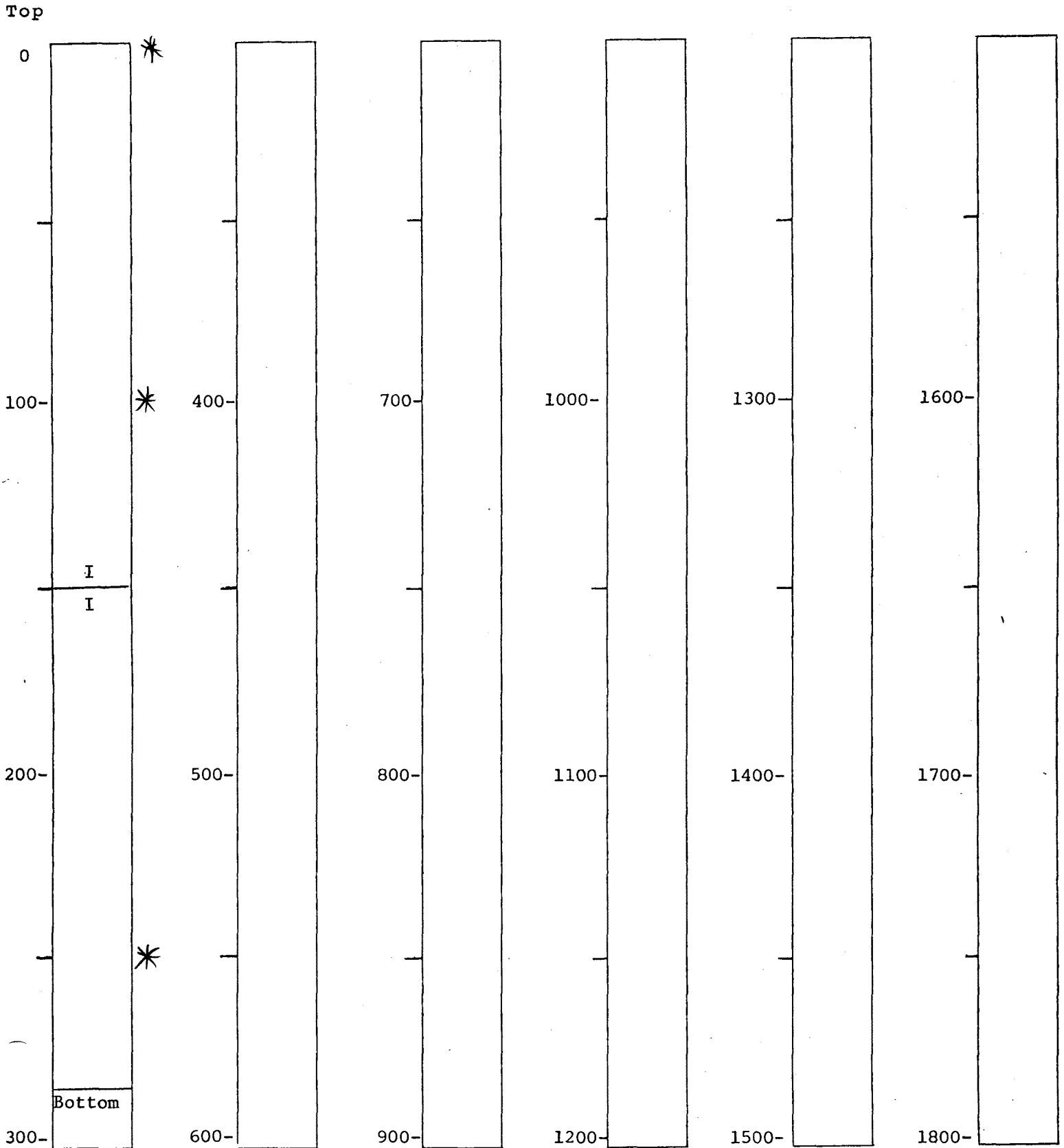
MGC 10 928 001

Core Number 15

Cruise IG-19

Core Cap Samples  
B = Bottom of Section  
T = Top of Section

CORE SECTIONS



CORE NUMBER 15 CRUISE IG-19

INTERVAL OR LOCATION OF SAMPLE	ESTIMATED VOLUME OF SAMPLE	TAKEN BY	SAMPLING PURPOSE	PERSON AND/OR COMPANY RECEIVING SAMPLE(S) FOR INTENDED RESEARCH
Refer to page on "Density Measurements" for precise locations	approx. 1 cc.	T. Haines	wet-bulk density	U. S. Navy to receive density results(UT-MSI contracted to do density measurements)

MCG 10 025001

CORE NUMBER	16	CRUISE	IG 19-3
LATITUDE	29° 40.5' N	LONGITUDE	86° 20.8' W
CORRECTED DEPTH	59 fm	PDR DEPTH	57 fm
DATE TAKEN	6-24-76	DATE OPENED	4-8-77
DATE DESCRIBED	4-8-77	DATE PHOTOGRAPHED	
DESCRIBED BY	T. Haines	CORE LENGTH	446 cm
PENETRATION	460 cm	FLOW-IN	0 cm

SUMMARY OF CORE: medium to fine shelly foraminiferal sandy mud, grayish olive (10Y 4/2), semi-firm & low moisture content with moderate amount of macroscopic well distributed molluscan & echinoid shell debris; top unit has sharp basal contact with a medium coarse to fine manganese-rich shelly sandy mud at 182 cm; this shelly unit (182 to 260 cm) exhibits many large bivalves (some encrusted with worm tubes, some clean) & low amounts of burrowing are noted; shelly unit followed by a medium fine to fine shelly foraminiferal sandy mud, dusky yellow green (5GY 5/2), moderately firm & moist with few macroscopic molluscan shell fragments evident; lowermost unit (415 to 446 cm) is a fine to very fine shelly foraminiferal sandy mud, dusky yellow green (5Y 5/2), semi-firm & low moisture content; no visible sedimentary structures evident in any of the units; coarse fraction analysis indicates common to abundant amounts of molluscan shell material, with rare to common amounts of planktonic & benthonic foraminifera and manganese, and rare percentages of pteropods, ostracods, sponge spicules, bryzoa, quartz, mica flakes, echinoid spines & shell debris, and glauconite.

INTERVAL	DESCRIPTION
0-182 cm	medium to fine shelly foraminiferal sandy mud, grayish olive (10Y 4/2), semi-firm & low moisture content; moderate volume of well distributed macroscopic molluscan & echinoid shell debris; no visible sedimentary or biogenic structures evident. Basal contact a sharp change in color, texture, & composition.
182-260 cm	medium coarse to fine manganese-rich shelly sandy mud, dark greenish gray (5GY 4/1), semi-firm & moist; this unit probable shelly interbed between two more sandy units; numerous large bivalves present in random locations some are encrusted with worm tubes and others are clean (reworking?); occasional mottling from burrowing in this unit occurs in random locations with a fine sandy muddy fill material colored grayish olive (10Y 4/2) which closely resembles material in unit directly above (0-182 cm). Basal contact a gradual change in color, texture, and composition.
260-415 cm	medium fine to fine shelly foraminiferal sandy mud, dusky yellow green (5GY 5/2), moderately firm & moist; no visible sedimentary or biogenic structures evident; low amount of macroscopic molluscan shell debris present in well distributed random locations. Basal contact a sharp textural change.
415-446 cm (core bottom)	fine to very fine shelly foraminiferal sandy mud, dusky yellow green (5Y 5/2), semi-firm & low moisture content; no visible sedimentary or biogenic structures evident; unit is homogeneous.



CORE NUMBER 16

CRUISE IG-19

DENSITY MEASUREMENTS ON CORE EXTRACTATIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
1	15 cm	8.30	6.62	1.50	0.50	1.68	
2	35	7.94	6.26	1.60	0.60	1.68	
3	55	7.82	6.16	1.60	0.60	1.66	
4	75	7.63	5.92	1.60	0.60	1.71	
5	95	8.18	6.40	1.50	0.50	1.78	
6	115	7.88	6.23	1.50	0.50	1.65	
7	135	7.74	6.03	1.50	0.50	1.71	
8	155	7.69	5.98	1.50	0.50	1.71	
9	175	7.90	6.23	1.50	0.50	1.67	
10	195	7.47	6.42	1.00	0.40	1.75	Very shelly in this area; sample volume low
11	215	7.88	6.19	1.40	0.40	1.69	Very coarse and shelly
12	235	7.86	5.98	1.00	0.50	3.76	Very difficult sample retrieved, probable volume error
13	255	8.01	6.22	1.40	0.40	1.79	Very sandy texture, change in unit
14	275	7.89	6.20	1.40	0.40	1.69	Very sandy texture,
15	295	7.86	6.18	1.50	0.50	1.68	Very sandy texture,
16	315	7.77	6.61	1.20	0.50	1.66	Very sandy texture,
17	334	7.64	6.49	1.20	0.50	1.64	Very sandy texture,
18	355	8.35	6.66	1.60	0.60	1.69	
19	375	7.71	6.07	1.60	0.60	1.64	New plunger sampling device used here to end of core

CORE NUMBER 16

CRUISE IG-19

DENSITY MEASUREMENTS ON CORE EXTRACTATIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
20	395 cm	7.15	6.10	1.20	0.50	1.50	Low volume of sediment at this point in liner
21	415	7.96	6.23	1.60	0.60	1.73	Sediment change; mud content increase
22	435	8.00	6.29	1.40	0.40	1.71	

MCG 10 028 00 1



AREA: 5%

COMMON: 5-50%

BIOTING: 50-100%

ORE 16  
O. IC-19

Sample Depth

FORAMS-PLANKTONIC

FORAMS-BENTHONIC

RADIOLARIA

DIATOMS

PTEROPODS

SPONGE SPICULES

SILICOFLAGELLATES

COCCOLITHS

DISCOASTERS

IRONSTONE

OPAQUE MINERALS

QUARTZ

MANGANESE

ZEOLITE

ASH SHARDS

OTHER

1000000001

GRAPHIC CORE LOG

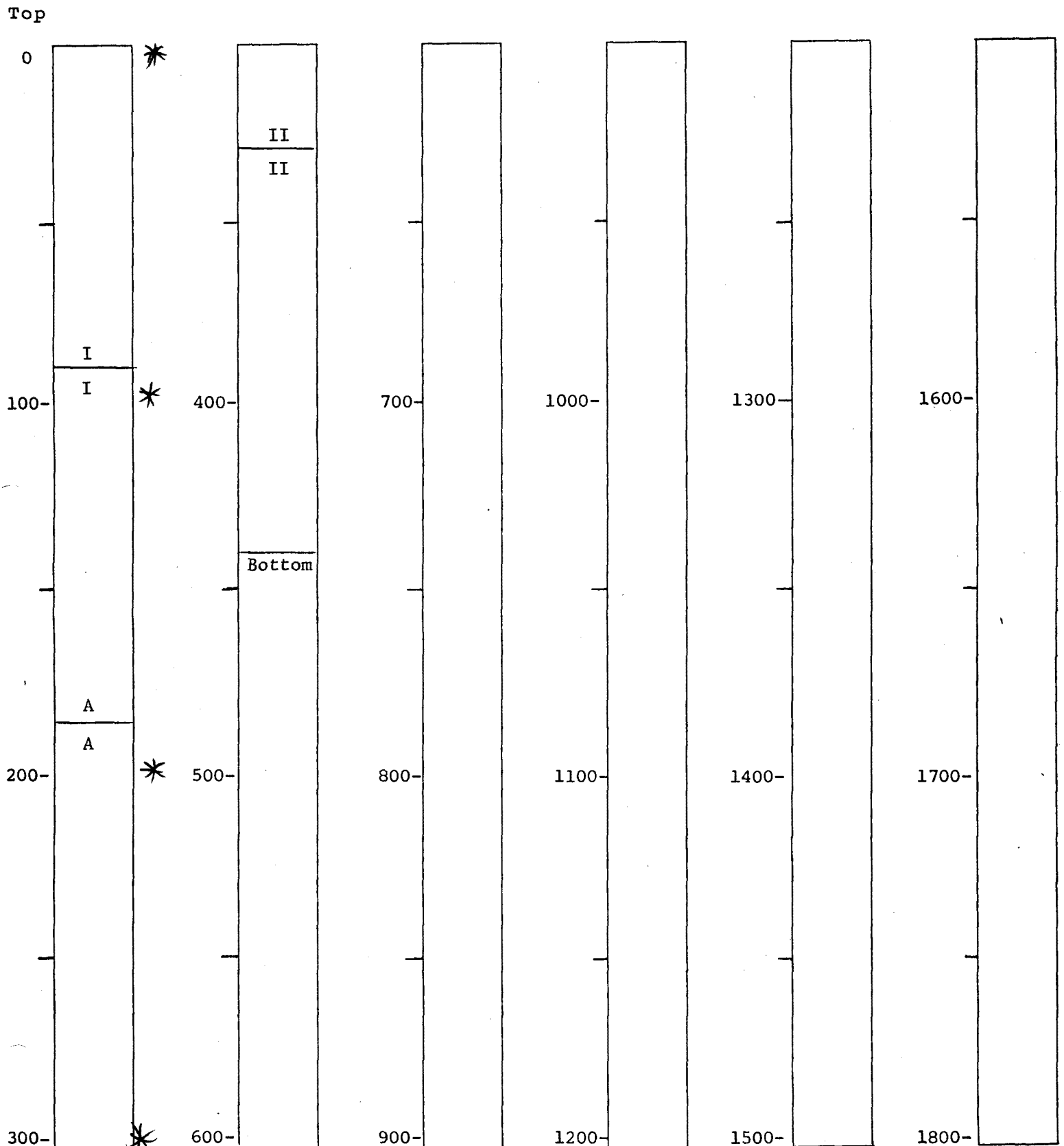
MGC 10025001

Core Number 16

Cruise IG-19

Core Cap Samples  
B = Bottom of Section  
T = Top of Section

CORE SECTIONS



\* = Coarse fraction/smear slide location.

CORE NUMBER 16

CRUISE IG-19

INTERVAL OR LOCATION OF SAMPLE	ESTIMATED VOLUME OF SAMPLE	TAKEN BY	SAMPLING PURPOSE	PERSON AND/OR COMPANY RECEIVING SAMPLE(S) FOR INTENDED RESEARCH
Refer to page on "Density Measurements" for precise locations	approx. 1 cc.	T. Haines	wet-bulk density	U. S. Navy to receive density results (UT-MSI contracted to do density measurements)

NOG 14025001

CORE NUMBER	17	CRUISE	IG 19-3
LATITUDE	29° 38.1' N	LONGITUDE	86° 23.3' W
CORRECTED DEPTH	68 fm	PDR DEPTH	65 fm
DATE TAKEN	6-24-76	DATE OPENED	4-14-77
DATE DESCRIBED	4-14-77	DATE PHOTOGRAPHED	
DESCRIBED BY	T. Haines	CORE LENGTH	509 cm
PENETRATION	500 cm	FLOW-IN	0 cm

SUMMARY OF CORE: very fine shelly foraminiferal sandy mud, grayish olive (10Y 4/2), very soft & moderately moist, mottled upper 4 cm; macroscopic molluscan and echinoid shell debris present in low amounts in top unit(0-176 cm); intermediate unit is a medium to fine shelly manganese-rich foraminiferal sandy mud, dark greenish gray(5GY 4/1), semi-soft & moist; burrowed; some molluscan shell debris visible; gradational lower contact; lowermost unit is a fine to very fine shelly foraminiferal sandy mud, grayish olive(10Y 4/2), firm & moist; localized burrowing episodes present; no visible sedimentary structures are evident in any of the units; coarse fraction analysis shows common amounts of planktonic & benthonic foraminifera and molluscan shells/shell debris, and rare to common manganese(coatings & infillings), with rare percentages of pteropods, ostracods, sponge spicules, quartz, glauconite, and echinoid spines & shell debris.

INTERVAL	DESCRIPTION
0-176 cm	very fine foraminiferal sandy mud, grayish olive(10Y 4/2), very soft & moderately moist; vague evidence of a slightly darker grayish olive(10Y 3/2) mottled area is visible from 0 to 4 cm in this unit (possibly due to oxidation); small echinoid & molluscan shell fragments are noted in well distributed random locales; gradual increase in amount of sand size material with depth. Basal contact a gradual change in color, texture, and composition.
176-230 cm	medium to fine shelly manganese-rich foraminiferal sandy mud, dark greenish gray(5GY 4/1), semi-soft & moist; large pectins(5 cm diameter) present at 193 and 200 cm; no visible sedimentary structures are evident; low amounts of macroscopic molluscan shell debris occur through entire unit; grayish olive(10Y 4/2) colored mottling occurs from 205 cm to base of unit. Basal contact a gradual change in color, texture, and composition.
230-509 cm (core bottom)	fine to very fine shelly foraminiferal sandy mud, grayish olive (10Y 4/2), firm & moist; well distributed mottling colored dark greenish gray(5GY 4/1) noted to depth of 280 cm with a fill material similar to the sandy mud matrix of preceding unit(176 to 230 cm); intense mottling colored greenish gray(5GY 6/1) occurs from 360 to 410 cm and in lesser amounts to end of core and has a slightly higher concentration of mud than surrounding matrix of this unit; low amounts of macroscopic molluscan and echinoid shell debris occur at random well distributed locations within the entire unit; no visible sedimentary structures evident.

CORE NUMBER 17

CRUISE IG-19

DENSITY MEASUREMENTS ON CORE EXTRACTATIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
1	15 cm	7.62	6.05	1.50	0.50	1.57	Very soft; fine-grained
2	35	8.09	6.53	1.50	0.50	1.56	
3	55	8.22	6.61	1.40	0.40	1.61	
4	75	7.94	6.30	1.50	0.50	1.64	
5	95	7.70	6.09	1.40	0.40	1.61	
6	115	8.07	6.45	1.50	0.50	1.62	
7	135	7.71	6.06	1.50	0.50	1.65	
8	155	7.87	6.20	1.50	0.50	1.67	
9	175	7.70	6.01	1.40	0.40	1.69	Increase in firmness; sediment unit change
10	195	8.23	6.51	1.30	0.30	1.72	Molluscan shell fragments in sampling area hampering penetration
11	215	7.60	6.04	1.40	0.40	1.56	Sandy texture, firm
12	235	7.66	6.00	1.40	0.40	1.66	
13	255	7.39	6.26	1.20	0.40	1.41	Plunger slippage; volume error probable
14	275	8.29	6.61	1.40	0.40	1.68	
15	295	8.03	6.44	1.40	0.40	1.59	
16	315	8.42	6.76	1.40	0.40	1.66	
17	335	8.50	6.81	1.40	0.40	1.69	
18	353	8.20	6.49	1.40	0.40	1.71	
19	375	7.90	6.61	1.20	0.40	1.61	Softer underlying material below surface
20	395	7.66	6.01	1.40	0.40	1.65	Increased mud content; decrease in overall firmness
21	415	8.47	6.72	1.40	0.40	1.75	



CORE NUMBER 17CRUISE IG-19

## DENSITY MEASUREMENTS ON CORE EXTRACTIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC BEG	CC END	WET BULK DENSITY	PROBLEMS/ OBSERVATIONS
22	435 cm	8.23	6.52	1.40	0.40	1.71	
23	455	8.33	6.59	1.30	0.30	1.74	
24	475	7.83	6.16	1.40	0.40	1.67	Sandy texture filled burrow at sample site
25	495	7.94	6.30	1.30	0.30	1.64	

MCC 10 000 00 1



ARE: 5%

COMMON: 5-50%

RIND: 50-100%

ORE 17

NO. IG-19

Sample Depth

FORAMS-PLANKTONIC

FORAMS-BENTHONIC

RADIOLARIA

DIATOMS

PTEROPODS

SPONGE SPICULES

SILICOFLAGELLATES

COCCOLITHS

DISCOASTERS

IRONSTONE

OPAQUE MINERALS

QUARTZ

MANGANESE

ZEOLITE

ASH SHARDS

OTHER

1005001

175

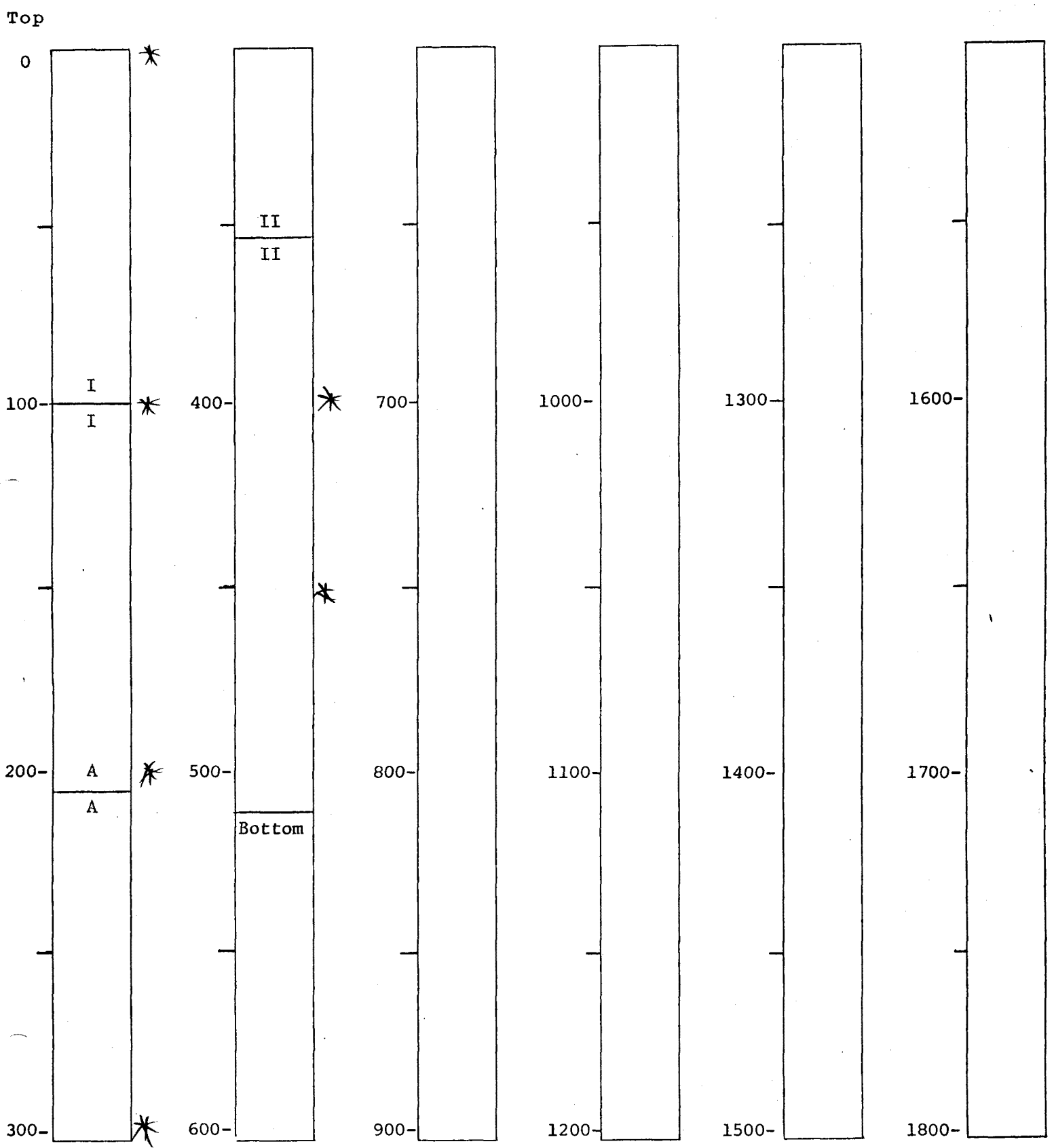
GRAPHIC CORE LOG MCG 10 025 00 1

Core Number 17

Cruise IG-19

Core Cap Samples  
B = Bottom of Section  
T = Top of Section

CORE SECTIONS



INTERVAL OR LOCATION OF SAMPLE	ESTIMATED VOLUME OF SAMPLE	TAKEN BY	SAMPLING PURPOSE	PERSON AND/OR COMPANY RECEIVING SAMPLE(S) FOR INTENDED RESEARCH
Refer to page on "Density Measurements" for precise locations	approx. 1 cc.	T. Haines	wet-bulk density	U. S. Navy to receive density results (UT-MSI contracted to do density measurements)

MCG 10 025001

CORE NUMBER	<u>18</u>	CRUISE	<u>IG 19-3</u>
LATITUDE	<u>0° 29' 36.5" N</u>	LONGITUDE	<u>0° 86' 25.8" W</u>
CORRECTED DEPTH	<u>78 fm</u>	PDR DEPTH	<u>75 fm</u>
DATE TAKEN	<u>6-24-76</u>	DATE OPENED	<u>9-14-76</u>
DATE DESCRIBED	<u>9-14-76</u>	DATE PHOTOGRAPHED	<u></u>
DESCRIBED BY	<u>T. Haines</u>	CORE LENGTH	<u>554 cm</u>
PENETRATION	<u>650 cm</u>	FLOW-IN	<u>0 cm</u>

SUMMARY OF CORE: medium fine to fine foraminiferal sandy mud, grayish olive green (5GY 3/2), soft & moist at top with increasing firmness with depth; top unit(0 to 127 cm) homogeneous with few open burrows; intermediate unit(127-254 cm) is a medium to fine pteropod-bearing foraminiferal sandy mud, dusky yellow green(5GY 5/2), soft to firm as depth in unit increases; unit contacts are gradual at top and bottom; intermediate unit burrowed locally with some large molluscan & echinoid shell fragments visible; next deeper unit is a fine shelly foraminiferal sandy mud, grayish olive(10Y 4/2), mottled from burrowing, and 1 cm thick shelly sandy lamina noted at 365 cm; lowermost unit(410-554 cm) is a fine to very fine shelly foraminiferal sandy mud, grayish olive(10Y 4/2), firm, burrowed with higher mud content than overlying units; coarse fraction analysis indicates mostly abundant(common in 500 cm sample) amount of planktonic foraminifera, with rare amounts of pteropods and molluscan shell debris which increase to common at approximately 400 cm), and rare amounts of sponge spicules, ostracods, quartz, manganese(only present to 300 cm), glauconite, mica flakes, & echinoid spines & shell debris.

INTERVAL	DESCRIPTION
0-127 cm	medium fine to fine foraminiferal sandy mud, grayish olive green (5Y 5/2), soft & moist at top becoming increasingly firmer with depth; lower contact vague and gradational; open burrows noted at 24, 80, & 90 cm; several large molluscan and echinoid shell fragments present in random locations within the unit; no visible sedimentary structures evident. Basal contact a gradual change in color, texture, & composition.
127-254 cm	medium to fine pteropod-bearing foraminiferal sandy mud, dusky yellow green(5GY 3/2), soft to firm with increased depth; upper & lower contacts vague; burrowing noted from 127 to 200 cm; thin laminae of molluscan & echinoid shells/shell fragments occur between 140 and 145 cm and again between 180 and 200 cm. Basal contact a gradual change in color, texture, & composition.
254-410 cm	fine shelly foraminiferal sandy mud, grayish olive(10Y 4/2), semi-firm to firm with increasing depth; vague upper contact, lower contact texturally sharp; burrowing occurs from 254 to 404 cm with a slightly larger grain size sandy mud fill material colored dusky yellow green(5GY 5/2); a 1 cm lamina of large molluscan & echinoid shell fragments noted at 365 cm; gastropods noted at 388 and 398 cm. Basal contact a sharp textural change.
410-554 cm (core bottom)	fine to very fine shelly foraminiferal sandy mud, grayish olive (10Y 4/2), firm with sharp increase in mud content at upper contact through entire unit; burrows with grayish olive(10Y 4/2) fill

INTERVAL	DESCRIPTION
410-554 cm (core bottom)  (cont'd)	material with higher sand size material concentration than surrounding matrix occur to a depth of 460 cm; large molluscan shells noted to a depth of 490 cm in low amounts and smaller fragments are visible from 500 to 550 cm; no sedimentary structures evident.

MCG 10 025901

RE NUMBER 18

CRUISE IG-19

DENSITY MEASUREMENTS ON CORE EXTRACTATIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
1	15 cm	9.70	6.00	2.95	0.60	1.57	
2	35	9.86	6.40	2.90	0.45	1.41	watery
3	55	8.77	5.95	2.25	0.40	1.52	
4	75	9.54	5.85	3.00	0.70	1.60	
5	95	9.29	6.50	2.50	0.68	1.53	
6	115	8.44	5.87	2.00	0.38	1.59	
7	175	9.02	6.55	1.62	0.30	1.87	grains coarse, loosely compacted;unreliable
8	195	7.82	6.00	1.46	0.42	1.75	?
9	215	7.42	5.87	2.50	1.58	1.68	?
10	235	8.97	6.35	2.15	0.60	1.69	?
11	260	7.40	6.00	1.22	0.30	1.52	
12	283	7.27	6.18	1.12	0.50	1.76	
13	300	7.35	5.90	1.36	0.50	1.69	
14	321	7.65	6.38	1.20	0.45	1.69	
15	340	7.85	6.50	1.27	0.50	1.75	
16	360	7.82	6.65	1.22	0.50	1.63	
17	380	8.10	6.45	1.59	0.50	1.51	
18	400	7.23	5.85	1.34	0.50	1.64	
19*	420	7.95	6.40	1.26	0.30	1.60	grain size fine, sampling condition good
20	440	8.00	6.20	1.40	0.28	1.61	
21	460	8.20	7.00	1.60	0.50	1.09	
22	480	8.20	6.94	1.62	0.50	1.13	
23	500	7.65	5.60	1.50	0.49	2.03	
24	520	7.93	6.96	1.40	0.40	0.97	
25	540	8.17	7.00	1.62	0.50	1.04	

\* samples 19-25 weighed 12 hours after taken

MO 10025001





SMEAR SLIDE ANALYSIS

RARE: 5%  
 COMMON: 5-50%  
 ABUN: 50-100%  
 CORE NO.

SAMPLE NO.

- FORAMS-PLANKTONIC
- FORAMS-BENTHONIC
- RADIOLARIA
- DIATOMS
- PTEROPODS
- SPONGE SPICULES
- SILICOFLAGELLATES
- COCCOLITHS
- DISCASTERS
- IRONSTONE
- OPAQUE MINERALS
- QUARTZ
- MANGANESE
- ZEOLITE
- ASH SHARDS
- OTHER

MGS 10025001

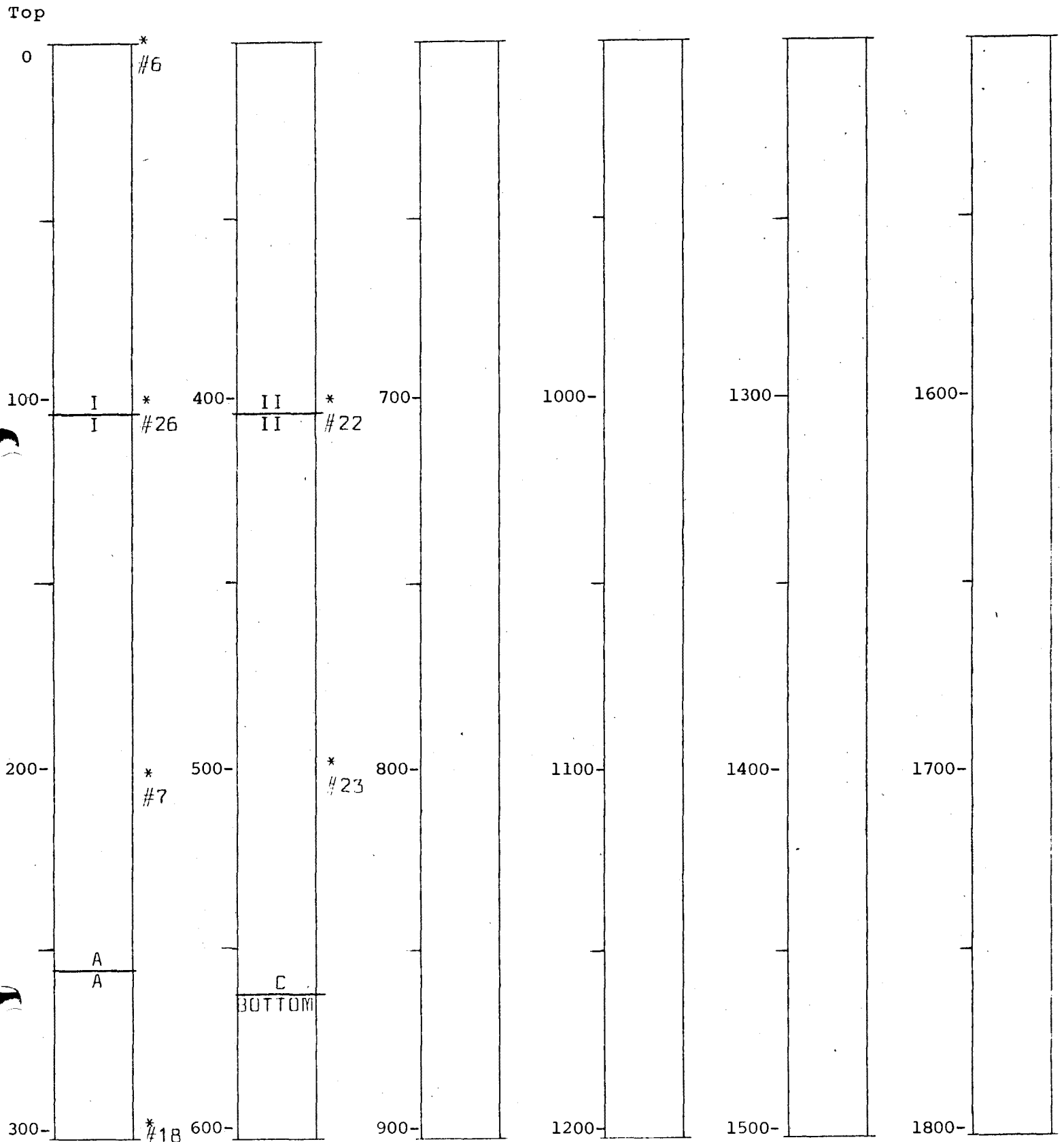
GRAPHIC CORE LOG

Core Number 18

Cruise IG-19

Core Cap Samples  
B = Bottom of Section  
T = Top of Section

CORE SECTIONS



\* = Coarse fraction (for analysis)

CORE NUMBER 18

CRUISE IG-19

INTERVAL OR LOCATION OF SAMPLE	ESTIMATED VOLUME OF SAMPLE	TAKEN BY	SAMPLING PURPOSE	PERSON AND/OR COMPANY RECEIVING SAMPLE(S) FOR INTENDED RESEARCH
Refer to page on "Density Measurements" for precise locations	approx. 1 cc.	T. Haines	wet-bulk density	U. S. Navy to receive density results(UT-MSI contracted to do density measurements)

NOV 1962 001

CORE NUMBER	<u>19</u>	CRUISE	<u>IG-19</u>
LATITUDE	<u>29°34'N</u>	LONGITUDE	<u>86°28.8'W</u>
CORRECTED DEPTH	<u>                    </u>	PDR DEPTH	<u>87 fms</u>
DATE TAKEN	<u>6-24-76</u>	DATE OPENED	<u>4-15-77</u>
DATE DESCRIBED	<u>4-15-77</u>	DATE PHOTOGRAPHED	<u>                    </u>
DESCRIBED BY	<u>T. Haines</u>	CORE LENGTH	<u>1101 cm</u>
PENETRATION	<u>945 cm</u>	FLOW-IN	<u>0 cm</u>

## SUMMARY OF CORE:

Fine to very fine foraminiferal sandy mud, dark greenish gray (5GY 4/1), soft, to very fine foraminiferal sandy clay, dusky yellow green (5GY 5/2) semi-soft and moist at approximately 300 cm grading into a slightly more sandy mud from 550 cm to bottom of core; mottling occurs in certain units in lower core; molluscan and echinoid shells and shell debris are found sparsely in certain areas and are concentrated into thin shell beds in other locales; no visible structures evident.

INTERVAL	DESCRIPTION
0-5 cm	Fine to very fine foraminiferal sandy mud, dark greenish gray (5GY 4/1); soft and moist, no visible structures evident; small fragments of calcareous material present. Basal contact a gradual color change.
5-152 cm	Fine to very fine foraminiferal sandy mud, dusky yellow green (5GY 5/2); soft and moist, no visible structures evident; liner collapsed from 40 to 70 cm and sediment volume is low and poorly distributed in liner having small gaps at 101 to 107 cm and 113 to 120 cm (probably occurring during coring operation). Sediment from 40 to 70 cm is very soft and watery. Basal contact a definite change in texture and color.
152-290 cm	Medium fine to very fine foraminiferal sandy mud dark grayish olive (10Y 3/2); firm and moderately moist, mottling is evident through unit with even distribution having dusky yellow green (5GY 5/2) fill material; no visible structures evident. Basal contact a sharp change in texture, color and composition.
290-555 cm	Very fine foraminiferal sandy clay, dusky yellow green (5GY 5/2); semi-soft and moderately moist; 292-305 cm shows relic reef material fragments and large molluscan and echinoid shell debris; moderate burrowing is evident in this unit with very sandy fill material (foraminifera-rich) resembling above unit texturally; slight increase in sand size material occurs at 440 cm material becoming slightly more firm with depth. Basal contact a gradual change in color, texture and composition.

INTERVAL	DESCRIPTION
555-1101 cm (core bottom)	Medium to fine foraminiferal sandy mud, grayish olive (10Y 4/2); firm and low-moisture content; extensive mottling throughout, fill material is finer than surrounding matrix; many large bivalves present from 618 through 642 cm (thin shell bed) again from 690-695 cm, 720-730 cm, 740-758 cm, and 930 cm. Mottling colored light dusky yellow green (5GY 6/2) is present at 837 and 895 cm with fill material finer than surrounding matrix. Further mottling of same color occurs from 980 cm to end of core.

MCG 10 8 11 00 1

CORE NUMBER 19

CRUISE IG-19

DENSITY MEASUREMENTS ON CORE EXTRACTIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
1	15 cm	8.21	6.71	1.30	0.30	1.50	
2	35	8.17	6.62	1.40	0.40	1.55	
3	55	7.52	6.29	1.30	0.40	1.37	Sediment very soft; this is in collapsed liner area
4	75	8.21	6.66	1.40	0.40	1.55	
5	95	7.78	6.09	1.30	0.30	1.69	
6	110	8.13	6.42	1.40	0.40	1.71	
7	135	7.74	6.01	1.30	0.30	1.73	
8	155	7.73	5.99	1.40	0.40	1.74	
9	175	7.22	6.20	1.40	0.80	1.70	
10	195	7.87	6.11	1.40	0.40	1.76	
11	215	8.44	6.71	1.40	0.40	1.73	
12	235	8.23	6.51	1.40	0.40	1.72	Very sandy and firm
13	255	8.07	6.29	1.40	0.40	1.78	Very sandy and firm
14	275	7.97	6.19	1.40	0.40	1.78	
15	293	8.19	6.44	1.50	0.50	1.75	Less sandy, softer and more clayey change in unit
16	315	8.11	6.44	1.30	0.30	1.67	Clayey
17	335	7.87	6.20	1.50	0.50	1.67	
18	355	8.41	6.76	1.50	0.50	1.65	
19	375	8.14	6.44	1.40	0.40	1.70	
20	395	8.22	6.60	1.40	0.40	1.62	
21	415	8.09	6.44	1.40	0.40	1.65	
22	435	8.28	6.66	1.50	0.50	1.62	
23	455	8.01	6.31	1.40	0.40	1.70	
24	475	8.40	6.75	1.50	0.50	1.65	

CORE NUMBER 19

CRUISE IG-19

DENSITY MEASUREMENTS ON CORE EXTRACTIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
25	495cm	8.35	6.68	1.40	0.40	1.67	
26	515	8.11	6.47	1.40	0.40	1.64	
27	535	7.53	6.15	1.20	0.40	1.73	
28	555	8.19	6.53	1.60	0.60	1.66	
29	575	8.44	6.65	1.40	0.40	1.79	More sandy texture, sediment unit change
30	595	7.42	5.97	1.20	0.40	1.81	
31	615	8.00	6.19	1.40	0.40	1.81	
32	635	8.41	6.71	1.50	0.50	1.70	Muddy matrix around large bivalves.
33	655	8.05	6.22	1.40	0.40	1.83	
34	675	7.91	6.18	1.40	0.40	1.73	
35	695	8.14	6.41	1.40	0.40	1.73	
36	715	7.69	6.00	1.40	0.40	1.69	
37	735	7.86	6.25	1.40	0.40	1.61	
38	756	8.11	6.40	1.50	0.50	1.71	
39	775	8.35	6.63	1.50	0.50	1.72	
40	795	8.03	6.26	1.40	0.40	1.77	
41	815	8.32	6.62	1.40	0.40	1.70	
42	835	8.49	6.76	1.40	0.40	1.73	
43	855	7.70	6.00	1.40	0.40	1.70	
44	875	8.11	6.44	1.50	0.50	1.67	
45	895	7.70	6.02	1.40	0.40	1.68	Sampled within mottled area
46	915	8.10	6.41	1.40	0.40	1.69	
7	935	8.10	6.41	1.40	0.40	1.69	
48	953	8.37	6.66	1.40	0.40	1.71	

1001



CORE NUMBER 19

CRUISE IG-19

DENSITY MEASUREMENTS ON CORE EXTRACTATIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
49	975 cm	7.88	6.20	1.40	0.40	1.68	
50	995	8.36	6.62	1.40	0.40	1.74	
51	1015	8.18	6.46	1.40	0.40	1.72	
52	1035	8.04	6.27	1.40	0.40	1.77	
53	1055	7.87	6.03	1.40	0.40	1.84	
54	1075	7.96	6.03	1.50	0.50	1.93	Small bivalve fell from syringe increasing volume may cause volume error
55	1095	8.30	6.57	1.50	0.50	1.73	



AREA: 5%

COMMON: 5-50%

BIOTURB: 50-100%

CORE 19  
C. IG-19

Sample Depth

FORAMS-PLANKTONIC

FORAMS-BENTHONIC

RADIOLARIA

DIATOMS

PTEROPODS

SPONGE SPICULES

SILICOFLAGELLATES

COCCOLITHS

DISCOASTERS

IRONSTONE

OPAQUE MINERALS

QUARTZ

MANGANESE

ZEOLITE

ASH SHARDS

OTHER

NO. 10 08 5 00 1



INTERVAL OR LOCATION OF SAMPLE	ESTIMATED VOLUME OF SAMPLE	TAKEN BY	SAMPLING PURPOSE	PERSON AND/OR COMPANY RECEIVING SAMPLE(S) FOR INTENDED RESEARCH
Refer to page on "Density Measurements" for precise locations	approx. 1 cc.	T. Haines	wet-bulk density	U. S. Navy to receive density results(UT-MSI contracted to do density measurements)

MGG 10 025001

CORE NUMBER 20 CRUISE IG 19-3  
 LATITUDE 29° 33.7' N LONGITUDE 86° 30.3' W  
 CORRECTED DEPTH 104 fm PDR DEPTH 100 fm  
 DATE TAKEN 6-25-76 DATE OPENED 4-20-77  
 DATE DESCRIBED 4-20-77 DATE PHOTOGRAPHED \_\_\_\_\_  
 DESCRIBED BY T. Haines CORE LENGTH 1070 cm  
 PENETRATION 1180 cm FLOW-IN 0 cm

SUMMARY OF CORE:

Medium fine to fine foraminiferal sandy mud, grayish olive (10Y 4/2) soft and moist at top of core; units down core exhibit both finer and coarser particle size; all units appear to be foraminiferal sandy muds with low amounts of molluscan and echinoid shell and shell debris well distributed. No visible structures evident other than a few thin foram-rich laminae (1 cm thick) between 350 and 400 cm; coarse fraction analysis indicates common to abundant planktonic foraminifera through entire core with common amounts of benthonic foraminifera; rare to common molluscan shell/shell fragments; rare amounts of pteropods, ostracods, sponge spicules, mangnaese, glauconite, echinoid spines & shell debris, and mica flakes are also present

INTERVAL	DESCRIPTION
0-70 cm	<p>Medium fine to fine foraminiferal sandy mud, grayish olive (10Y 4/2) soft and moist; no structures evident; moderate amount of scattered molluscan shell and shell debris through unit.</p> <p>Basal contact a gradual textural change.</p>
70-350 cm	<p>Very fine foraminiferal sandy mud, grayish olive (10Y 4/2); very soft and moist, no visible structures evident. Liner severely collapsed from 104 to 184 cm. Low to moderate amount of molluscan &amp; echinoid shell and shell debris found well distributed through unit. Unit is graded toward bottom to fine particles.</p> <p>Basal contact a sharp change in color and texture.</p>
350-420 cm	<p>Medium fine to fine foraminiferal sandy mud, dark greenish gray (5GY 5/1), semi-firm and moist; foram-rich (1 cm thick) laminae present at 369 and 402 cm.; sparse, well distributed molluscan and echinoid shell debris present through unit.</p> <p>Basal contact a gradual color change.</p>
420-560 cm	<p>Medium fine to fine foraminiferal sandy mud, dusky yellow green (5GY 5/2), semi-firm and moist, no structures visible; low amounts of molluscan and echinoid shell content present.</p> <p>Basal contact a gradual change in color and texture.</p>

INTERVAL	DESCRIPTION
560-610 cm	Fine to very fine foraminiferal sandy mud, light grayish olive (10Y 5/2); semi-firm and moist; no visible structures evident, low amount of molluscan and echinoid shell debris throughout unit.  Basal contact a gradual change in color.
610-680 cm	Fine to very fine foraminiferal sandy mud, grayish olive (10Y 4/2), semi-firm and moist; no visible structures evident; large oyster at 611 cm. Other smaller molluscan and echinoid shell debris; no structure visible; occasional mottling with very fine clayey fill material colored light olive gray (5 Y 5/2).  Basal contact a gradual change in color and texture.
680-1070 cm (core bottom)	Medium fine to fine foraminiferal sandy mud, light grayish olive (10Y 5/2); semi-firm and moderate to low moisture content; small amount of molluscan and echinoid shell debris present in this unit well distributed throughout. Large oyster shell (3 cm diameter) present at 1027 cm.

MGC 10 02 5 00 1

\*\*\*\*\* NO. 19: Liner severely collapsed from 104 cm \*\*\*\*\*  
 \*\*\*\*\* to 184 cm and density samples from this \*\*\*\*\*  
 \*\*\*\*\* zone were not possible, except at 175 cm \*\*\*\*\*  
 \*\*\*\*\*  
 \*\*\*\*\*

190

CORE NUMBER 20

CRUISE IG-19

DENSITY MEASUREMENTS ON CORE EXTRACTIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
1	15 cm	7.72	6.44	1.20	0.40	1.60	
2	35	8.58	6.81	1.40	0.40	1.77	
3	55	8.28	6.58	1.40	0.40	1.70	
4	75	8.19	6.46	1.40	0.40	1.73	
5	95	8.27	6.60	1.40	0.40	1.67	
6	175	8.35	6.72	1.40	0.40	1.63	No samples possible between 104 and 170cm due to collapsed liner
7	195	7.94	6.22	1.40	0.40	1.72	
8	215	8.09	6.44	1.50	0.50	1.65	
9	235	8.14	6.45	1.40	0.40	1.69	
10	255	7.68	6.02	1.50	0.50	1.66	
11	275	8.21	6.52	1.50	0.50	1.69	
12	295	8.03	6.35	1.50	0.50	1.68	
13	315	8.12	6.45	1.40	0.40	1.67	
14	335	7.95	6.27	1.40	0.40	1.68	
15	355	7.41	5.96	1.20	0.40	1.81	Sediment unit change
16	375	8.24	6.48	1.50	0.50	1.76	
17	395	8.20	6.42	1.50	0.50	1.78	
18	415	8.34	6.61	1.50	0.50	1.73	
19	435	8.35	6.62	1.50	0.50	1.73	
20	455	8.40	6.73	1.50	0.50	1.67	
21	475	8.00	6.29	1.50	0.50	1.71	
22	495	7.93	6.25	1.50	0.50	1.68	
3	515	8.22	6.49	1.40	0.40	1.73	

MGS 1002500



CORE NUMBER 20

CRUISE IG-19

DENSITY MEASUREMENTS ON CORE EXTRACTATIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
24	535 cm	8.11	6.40	1.50	0.50	1.71	
25	555	8.26	6.58	1.50	0.50	1.68	
26	575	7.64	6.00	1.50	0.50	1.64	
27	595	7.86	6.18	1.60	0.60	1.68	
28	615	8.11	6.43	1.50	0.50	1.68	
29	635	8.13	6.46	1.50	0.50	1.67	
30	655	8.45	6.64	1.40	0.40	1.81	
31	675	7.77	6.05	1.40	0.40	1.72	
32	695	8.30	6.63	1.40	0.40	1.67	
33	715	7.75	6.45	1.20	0.40	1.63	
34	735	8.03	6.30	1.40	0.40	1.73	
35	755	8.26	6.47	1.50	0.50	1.79	
36	775	7.92	6.26	1.50	0.50	1.66	
37	795	7.75	6.04	1.40	0.40	1.71	
38	815	8.30	6.61	1.50	0.50	1.69	
39	835	8.38	6.65	1.40	0.40	1.73	
40	855	8.16	6.44	1.40	0.40	1.72	
41	875	8.03	6.30	1.40	0.40	1.73	
42	895	8.04	6.30	1.40	0.40	1.74	
43	915	8.04	6.32	1.40	0.40	1.72	
44	935	7.75	6.02	1.50	0.50	1.73	
45	955	8.12	6.42	1.40	0.40	1.70	
46	975	8.03	6.34	1.50	0.50	1.69	
47	995	7.32	6.29	1.00	0.40	1.72	
48	1015	8.20	6.44	1.40	0.40	1.76	

MCC 10 0 2 5 0 0 1

CORE NUMBER 20

CRUISE IG-19

DENSITY MEASUREMENTS ON CORE EXTRACTATIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
49	1035	8.16	6.43	1.40	0.40	1.73	
50	1055	7.70	6.01	1.50	0.50	1.69	Plunger slippage may cause vol. error

MCS 10025001



ARE: 5%

COMMON: 5-50%

BUND: 50-100%

ORE 20

C. IG-19

Sample Depth

FORAMS-PLANKTONIC

FORAMS-BENTHONIC

RADIOLARIA

DIATOMS

PTEROPODS

SPONGE SPICULES

SILICOFLAGELLATES

COCCOLITHS

DISCOASTERS

IRONSTONE

OPAQUE MINERALS

QUARTZ

MANGANESE

ZEOLITE

ASH SHARDS

OTHER

MS 10025001

GRAPHIC CORE LOG

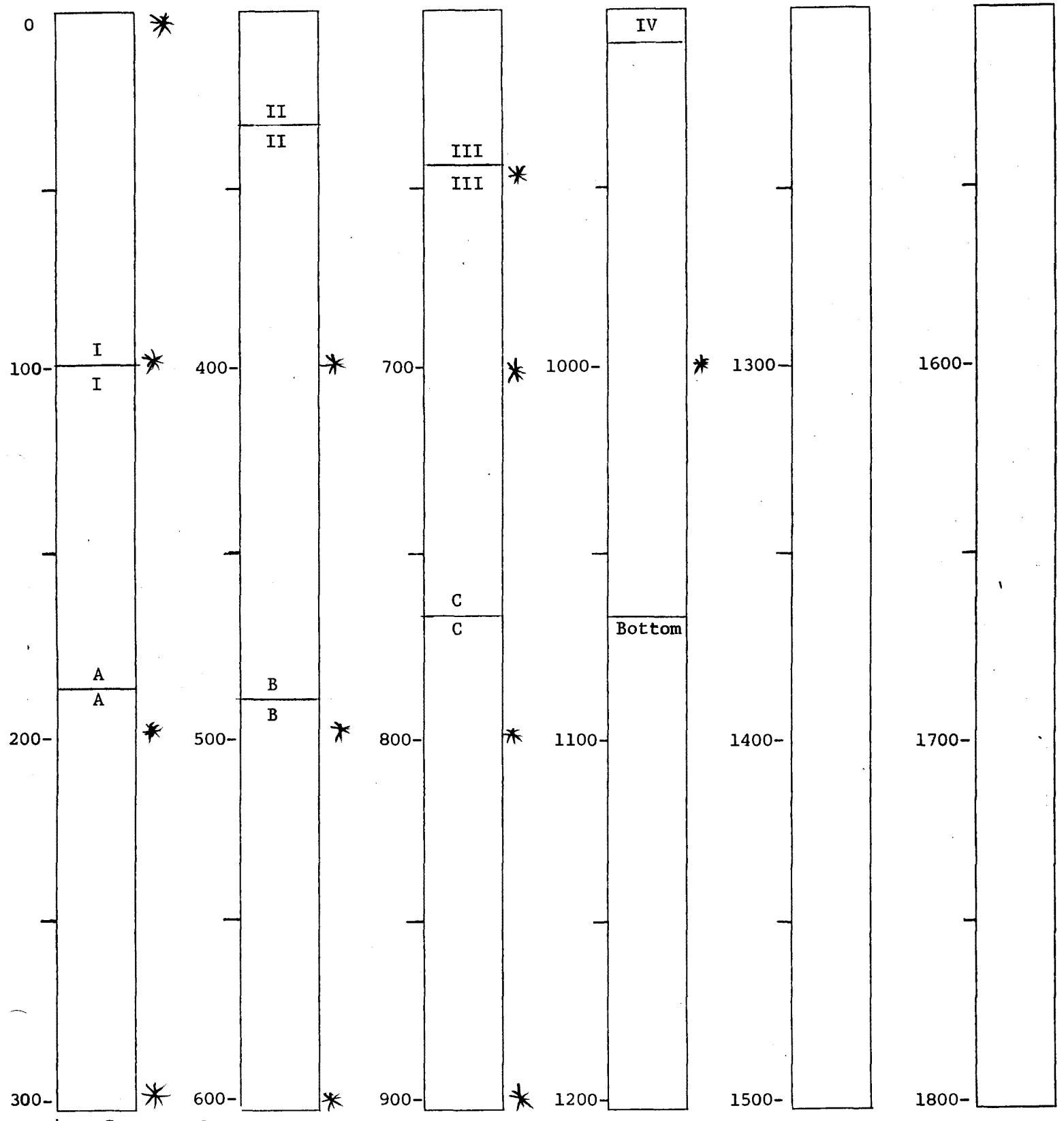
MCG 10 025 00 1  
Core Cap Samples  
B = Bottom of Section  
T = Top of Section

Core Number 20

Cruise IG-19

\*\*\* Collapsed liner from  
Top 104 cm to 184 cm

CORE SECTIONS



\* = Coarse fraction/smear slide location.

CORE NUMBER

20

CRUISE

IG-19

INTERVAL OR LOCATION OF SAMPLE	ESTIMATED VOLUME OF SAMPLE	TAKEN BY	SAMPLING PURPOSE	PERSON AND/OR COMPANY RECEIVING SAMPLE(S) FOR INTENDED RESEARCH
Refer to page on "Density Measurements" for precise locations	approx. 1 cc.	T. Haines	wet-bulk density	U. S. Navy to receive density results(UT-MSI contracted to do density measurements)

MCC 10 0 1 1 0 1

CORE NUMBER 21 CRUISE IG 19 - 3  
 LATITUDE 29° 30.3' N LONGITUDE 86° 33.4' W  
 CORRECTED DEPTH 121 fm PDR DEPTH 117 fm  
 DATE TAKEN 6-25-76 DATE OPENED 4-25-77  
 DATE DESCRIBED 4-25-77 DATE PHOTOGRAPHED \_\_\_\_\_  
 DESCRIBED BY T. Haines CORE LENGTH 1120 cm  
 PENETRATION 1175 cm FLOW-IN 0 cm

## SUMMARY OF CORE:

Very fine foraminiferal sandy mud, dusky yellow green (5GY 5/2), soft and moist becoming a very fine foraminiferal sandy muddy clay at 140 to 170 cm. Remainder of core to 700 cm is a medium to very fine foraminiferal sandy mud, light grayish olive (10Y 5/2), no visible structures evident. Low amounts of molluscan and echinoid shell debris present in most of the core; from 700 cm to end of core is a repetitive clayey-sandy bedding sequence with mottling present in well-distributed locations; coarse fraction analysis shows common amounts of planktonic & benthonic foraminifera, rare to common molluscan shell debris, and rare amounts of pteropods, sponge spicules, ostracods, quartz, manganese, mica flakes, echinoid spines & shell debris, and glauconite, with rare pyrite (from 800 cm to end of core).

INTERVAL	DESCRIPTION
0-140 cm	Very fine foraminiferal sandy mud, dusky yellow green (5GY 5/2), soft and moist. No visible structures evident. Low amount of molluscan and echinoid shells and shell fragments evident with random distribution in this unit; slightly more coarse (foram concentration) laminae present in an area ranging from 100 to 115 cm being of same color as surrounding matrix showing a marked textural difference only. Basal contact a gradual change in color and composition.
140-170 cm	Very fine foraminiferal sandy muddy clay, dark greenish gray (5GY 4/1), soft, moist. No visible structures evident. Some mottling (slightly more sandy fill material than surrounding matrix), colored dusky yellow green (5GY 5/2) is present through this unit.  Basal contact a gradual color, texture and composition change.
170-702 cm	Medium to very fine foraminiferal sandy mud, light grayish olive (10Y 5/2); semi-soft and low moisture. No visible structures evident. Molluscan and echinoid shell content low and evenly distributed through this unit. Scattered mottled areas are present down to 195 cm and fill material is primarily sandy (foram-rich) textured. Also, sandy filled burrows found at 470, 500, 545, and an area of intense mottling from 620 to 658 cm also exhibiting foram-rich fill material surrounded by muddy matrix. 572 to 620 cm has mottling colored greenish gray (5GY 6/1) with finer fill material than surrounding matrix. A 3 cm diameter bivalve present at 562 cm along side a 2 cm diameter benthonic gastropod. Basal contact a gradual change in texture

INTERVAL	DESCRIPTION
702-830 cm	<p>Very fine foraminiferal sandy muddy clay; light grayish olive (10Y 5/2); semi-soft and lightly moist. Medium (2 cm) to large (5 cm) bivalves present at 708, 721, and 740 cm in this unit; echinoid shell debris present in small pieces and well distributed. Chondrites burrows are present beginning at 703 cm and occur in low amounts throughout. Basal contact a gradual change in texture and composition.</p>
830-880 cm	<p>Fine to very fine foraminiferal sandy mud, light grayish olive (10Y 5/2), semi-firm and low moisture content. This unit appears higher in foram content than above unit (a possible sandy bedding plane between two more clayey units). Mottling is present with a finer fill material colored greenish gray (5GY 6/1) resembling mottling material from 572 to 620 cm. Low molluscan and echinoid shell content present through unit. Basal contact a gradual texture and composition change.</p>
880-1050 cm	<p>Very fine foraminiferal sandy muddy clay, light grayish olive (10Y 5/2); semi-soft and low moisture content. Very homogeneous lutitic material with only occasional filled sandy burrows found well distributed through unit. Chondrites burrowing low to moderate in occurrence and well distributed through unit. Mottling colored greenish gray (5GY 6/1) with very fine fill material found well distributed through unit.</p> <p>Basal contact a gradual change in color, texture and composition.</p>
1050-1120 cm (core bottom)	<p>Medium to fine foraminiferal sandy mud, dark yellowish gray (5Y 6/2) firm and sparsely moist; mottling from 1050 to 1092 cm colored greenish gray (5GY 6/1) and has finer fill material than surrounding material. Mottling is also present between 1100 and 1116 cm colored olive gray (5Y 4/1) with fill material being of same texture as surrounding matrix. A 2.5 cm thick clayey laminar bedding plane is present from 1080 to 1082 cm, colored greenish gray (5GY 6/1). Some shell debris (molluscan and echinoid) is visible in upper 25 cm of this unit.</p>



CORE NUMBER 21

CRUISE IG-19

DENSITY MEASUREMENTS ON CORE EXTRACTIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
1	15 cm	8.22	6.72	1.40	0.40	1.50	Very soft; muddy
2	35	8.03	6.54	1.40	0.40	1.49	
3	55	8.02	6.48	1.40	0.40	1.54	
4	75	8.02	6.43	1.40	0.40	1.59	
5	95	7.66	6.08	1.40	0.40	1.58	
6	115	8.21	6.64	1.40	0.40	1.57	
7	135	8.34	6.67	1.40	0.40	1.67	
8	155	7.84	6.20	1.40	0.40	1.64	Sediment unit change, claye
9	175	7.89	6.21	1.40	0.40	1.68	
10	195	8.11	6.45	1.40	0.40	1.66	Sediment unit change; in- crease in sandy texture
11	215	8.11	6.42	1.40	0.40	1.69	Echinoid shell fragments ma cause volume error
12	235	8.11	6.48	1.40	0.40	1.63	Slight plunger slippage may cause volume error
13	255	8.00	6.29	1.40	0.40	1.71	
14	275	7.80	6.20	1.40	0.40	1.60	
15	295	7.62	6.03	1.40	0.40	1.59	
16	315	8.32	6.72	1.40	0.40	1.60	
17	335	8.31	6.72	1.40	0.40	1.59	
18	355	7.79	6.24	1.40	0.40	1.55	
19	375	8.34	6.78	1.40	0.40	1.56	
20	395	7.65	6.02	1.40	0.40	1.63	
21	415	8.33	6.71	1.40	0.40	1.62	
22	435	8.16	6.56	1.60	0.60	1.60	Changing syringe
23	455	8.22	6.64	1.50	0.50	1.58	

NOV 10 1965

CORE NUMBER 21CRUISE IG-19

## DENSITY MEASUREMENTS ON CORE EXTRACTATIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
24	475	7.96	6.32	1.50	0.50	1.64	
25	495	7.73	6.13	1.50	0.50	1.60	
26	515	8.00	6.46	1.50	0.50	1.54	
27	535	8.17	6.54	1.50	0.50	1.63	
28	555	8.04	6.45	1.60	0.60	1.59	
29	575	8.27	6.60	1.50	0.50	1.67	Mottled area; fine fill material
30	595	7.92	6.28	1.50	0.50	1.64	
31	615	7.65	6.00	1.50	0.50	1.65	
32	635	7.86	6.18	1.50	0.50	1.68	Foram-rich burrow in sampling area
33	655	8.15	6.41	1.50	0.50	1.74	Foram-rich burrow in sampling area
34	675	7.86	6.23	1.50	0.50	1.63	
35	695	7.55	5.96	1.50	0.50	1.59	
36	715	7.44	5.92	1.50	0.50	1.52	Clayey; sediment unit change
37	735	7.89	6.29	1.50	0.50	1.60	
38	755	8.10	6.47	1.60	0.60	1.63	
39	775	8.20	6.59	1.60	0.60	1.61	
40	795	8.04	6.45	1.50	0.50	1.59	
41	815	8.20	6.49	1.60	0.60	1.71	
42	835	8.13	6.48	1.40	0.40	1.65	Slight increase in sand size particles; sediment unit change
43	855	8.39	6.65	1.50	0.50	1.74	
44	875	8.17	6.43	1.40	0.40	1.74	
45	895	8.53	6.81	1.40	0.40	1.72	Clayey; sediment unit change

CORE NUMBER 21

CRUISE IG-19

DENSITY MEASUREMENTS ON CORE EXTRACTATIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
46	915 cm	7.92	6.28	1.40	0.40	1.64	
47	935	8.35	6.66	1.40	0.40	1.69	
48	955	8.04	6.43	1.40	0.40	1.61	
49	975	7.99	6.28	1.40	0.40	1.71	
50	995	8.25	6.60	1.40	0.40	1.65	
51	1015	7.95	6.32	1.40	0.40	1.63	
52	1035	8.30	6.66	1.40	0.40	1.64	
53	1055	8.11	6.43	1.40	0.40	1.68	Increasingly more sandy; sediment unit change
54	1075	8.24	6.53	1.40	0.40	1.71	
55	1095	8.00	6.28	1.40	0.40	1.72	
56	1115	7.80	6.23	1.30	0.30	1.57	

10025001



ARE: 5%
COMMON: 5-50%
LOC. ID: 50-100%
ORE 21
NO. 1G-19
Sample Depth
FORAMS-PLANKTONIC
FORAMS-BENTHONIC
RADIOLARIA
DIATOMS
PTEROPODS
SPONGE SPICULES
SILICOFLAGELLATES
COCCOLITHS
DISCOASTERS
IRONSTONE
OPAQUE MINERALS
QUARTZ
MANGANESE
ZEOLITE
ASH SHARDS
OTHER

NO. 10085001

GRAPHIC CORE LOG

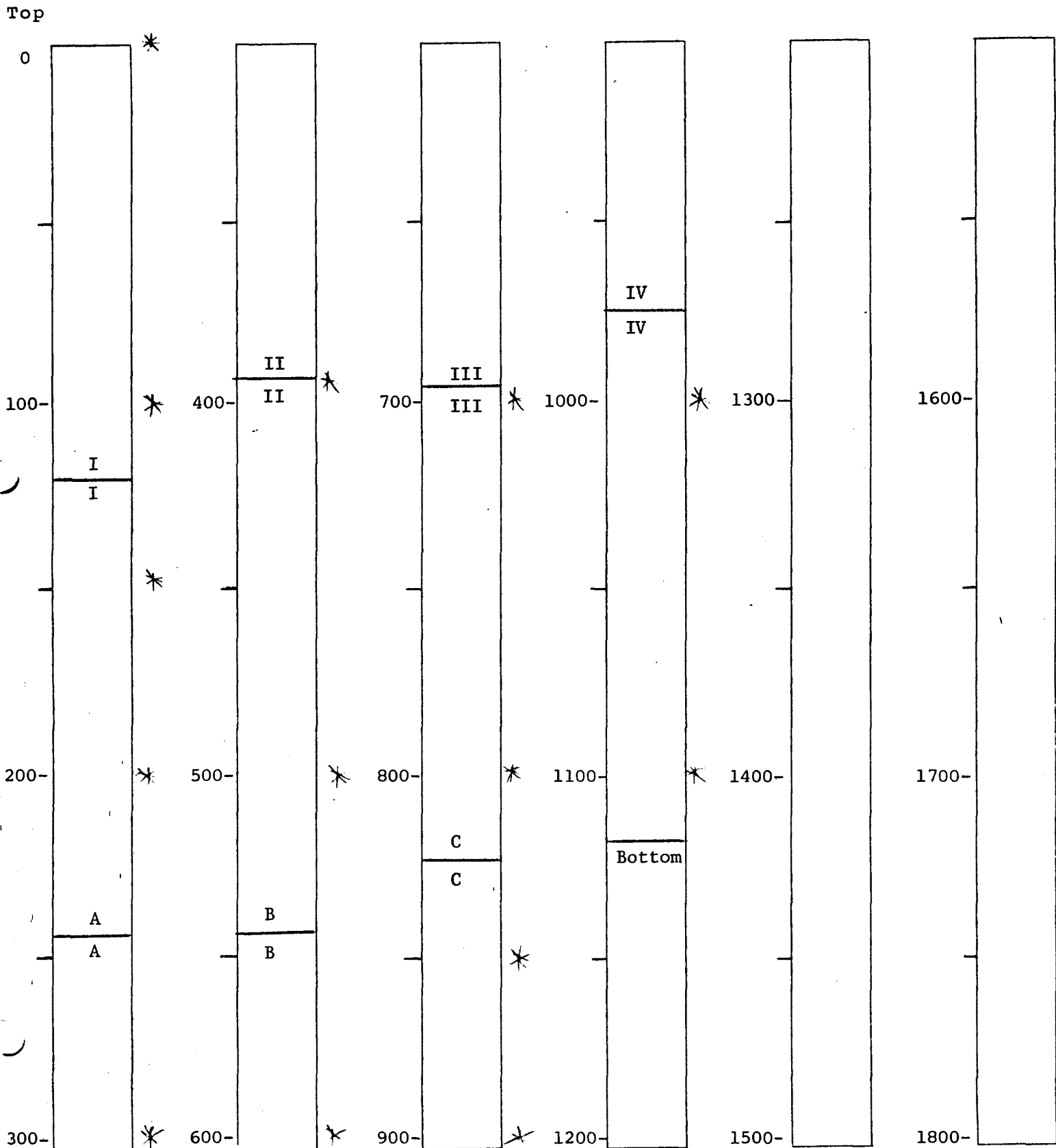
NOG 3102-001

Core Number 21

Cruise IG-19

Core Cap Samples  
B = Bottom of Section  
T = Top of Section

CORE SECTIONS



CORE NUMBER 21

CRUISE IG-19

INTERVAL OR CATION OF SAMPLE	ESTIMATED VOLUME OF SAMPLE	TAKEN BY	SAMPLING PURPOSE	PERSON AND/OR COMPANY RECEIVING SAMPLE(S) FOR INTENDED RESEARCH
Refer to page on "Density Measurements" for precise locations	approx. 1 cc.	T. Haines	wet-bulk density	U. S. Navy to receive density results(UT-MSI contracted to do density measurements)

NOV 1968

CORE NUMBER	22	CRUISE	IG 19 - 3
LATITUDE	29° 28.6' N	LONGITUDE	86° 35.2' W
CORRECTED DEPTH	142 fm	PDR DEPTH	137 fm
DATE TAKEN	6-25-76	DATE OPENED	4-29-77
DATE DESCRIBED	4-29-77	DATE PHOTOGRAPHED	
DESCRIBED BY	T. Haines	CORE LENGTH	1023 cm
PENETRATION	1175 cm	FLOW-IN	0 cm

SUMMARY OF CORE:

Very fine foraminiferal sandy mud, light olive gray (5Y 5/2). Very soft and moist at top of core along liners edge with an internal sediment column toward center of liner being a dark greenish gray (5GY 4/1) mottled foraminiferal sandy mud. Some large echinoid fragments present. Slight textural variations occur throughout the core with sediment becoming a fine to very fine foraminiferal sandy mud dusky yellow green (5 GY 5/2) from 25 to 130 cm with chondrites burrowing noted between 120 and 130 cm. The unit from 130 to 215 cm shows presence of foram rich mottled areas from 190 to 215 cm. Bottom unit is also mottled and has chondrites burrows as well; coarse fraction analysis indicates common amounts of planktonic and benthonic foraminifera, and rare to occasionally common amounts of molluscan shells/shell debris, and rare amounts of pteropods, ostracods, sponge spicules, quartz, manganese, opaque minerals, echinoid spines & shell debris, mica flakes, glauconite, and pyrite(beginning at 600 cm then to end of core); no visible sedimentary structures evident.

INTERVAL	DESCRIPTION
0-25 cm	Very fine foraminiferal sandy mud; light olive gray (5Y 5/2); very soft and moist. Color change on inner portion of core to dark greenish gray (5GY 4/1) mottled areas. Large echinoid shell fragments present from 20 to 25 cm. No visible structures evident.  Basal contact a gradual change in color and texture.
25-130 cm	Fine to very fine foraminiferal sandy mud dusky yellow green (5GY 5/2), soft and moist. Clay pellets present as fill material in mottled areas from 50 to 100 cm. Chondrites burrowing is evident between 120 and 130 cm.  Basal contact a gradual change in color and texture.
130-215 cm	Medium fine to very fine foraminiferal sandy mud, dark greenish gray (5GY 4/1), soft, and moist. No visible structures evident. Small amount of molluscan shell debris present. Increase in foram-rich mottled areas from 190 to 215 cm.  Basal contact a gradual change in color and texture.
215-1023 cm (core bottom)	Fine to very fine foraminiferal sandy mud, light grayish olive (10Y 5/2), soft and moderate to low moisture content. Moderate amount of mottling colored greenish gray (5GY 6/1) is present throu



INTERVAL	DESCRIPTION
215-1023 cm (continued)	<p>unit. Fill material is slightly finer-grained than surrounding matrix. Molluscan and echinoid shell debris are well distributed through this unit in low percentages. No visible structures are evident. Coarsely grained foram rich mottled areas are present from 305 to 320 cm in this unit texturally differing from surrounding material but exhibits same coloration. Low amounts of chondrites burrowing is present through this unit. Amount of sand size material decreases with depth as material becomes semi-clayey. From 978 cm to bottom of core there is increase in sand-size particles and sandy filled burrows.</p>

NOV 19 1975 00 1

CORE NUMBER 22

CRUISE IG-19

DENSITY MEASUREMENTS ON CORE EXTRACTATIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
1	15 cm	8.15	6.67	1.50	0.50	1.48	
2	35	7.63	6.13	1.40	0.40	1.50	
3	55	8.03	6.47	1.40	0.40	1.56	
4	75	8.08	6.56	1.40	0.40	1.52	
5	95	7.75	6.25	1.50	0.50	1.50	
6	115	7.80	6.22	1.50	0.50	1.58	
7	135	7.61	6.00	1.60	0.60	1.61	Slightly softer more muddy; sediment unit change
8	155	8.25	6.48	1.40	0.40	1.77	
9	175	7.94	6.25	1.40	0.40	1.69	
10	195	7.98	6.23	1.40	0.40	1.75	
11	215	8.52	6.74	1.40	0.40	1.78	
12	235	7.94	6.24	1.40	0.40	1.70	
13	255	7.62	5.98	1.40	0.40	1.64	
14	275	8.13	6.46	1.40	0.40	1.67	
15	295	8.28	6.61	1.40	0.40	1.67	
16	315	8.36	6.67	1.40	0.40	1.69	Foram-rich filled burrow
17	335	8.12	6.43	1.40	0.40	1.69	
18	355	7.85	6.23	1.40	0.40	1.62	
19	375	8.06	6.40	1.40	0.40	1.66	
20	395	8.18	6.53	1.40	0.40	1.65	
21	415	8.12	6.47	1.40	0.40	1.65	
22	435	7.59	6.00	1.40	0.40	1.59	
23	455	7.81	6.22	1.40	0.40	1.59	

M. 10 30 3 00 1

CORE NUMBER 22

CRUISE IG-19

DENSITY MEASUREMENTS ON CORE EXTRACTIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
24	475 cm	7.88	6.27	1.40	0.40	1.61	
25	495	8.29	6.65	1.40	0.40	1.64	
26	515	8.32	6.68	1.40	0.40	1.64	
27	535	8.35	6.71	1.40	0.40	1.64	
28	555	8.07	6.44	1.40	0.40	1.63	
29	575	8.29	6.63	1.40	0.40	1.66	
30	595	8.25	6.58	1.40	0.40	1.67	
31	615	8.24	6.58	1.40	0.40	1.66	
32	635	7.90	6.24	1.50	0.50	1.66	
33	655	7.67	6.02	1.40	0.40	1.65	
34	675	8.06	6.42	1.40	0.40	1.64	
35	695	7.67	6.01	1.40	0.40	1.66	
36	715	7.94	6.28	1.50	0.50	1.66	
37	735	7.83	6.13	1.50	0.50	1.70	
38	755	8.33	6.64	1.40	0.40	1.69	
39	775	8.19	6.50	1.40	0.40	1.69	
40	795	7.95	6.26	1.40	0.40	1.69	
41	815	7.84	6.24	1.40	0.40	1.60	
42	835	7.95	6.35	1.40	0.40	1.60	
43	855	7.85	6.23	1.40	0.40	1.62	
44	875	7.98	6.32	1.40	0.40	1.66	
45	895	7.90	6.29	1.40	0.40	1.61	
46	915	8.08	6.43	1.40	0.40	1.65	
47	935	8.18	6.59	1.50	0.50	1.59	
48	955	7.61	6.00	1.40	0.40	1.61	

NOV 10 07 50 01

CORE NUMBER 22

CRUISE IG-19

DENSITY MEASUREMENTS ON CORE EXTRACTIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
49	975 cm	8.27	6.61	1.50	0.50	1.66	Slight increase in sand size material
50	995	7.71	5.96	1.50	0.50	1.75	
51	1015	8.37	6.70	1.50	0.50	1.67	

NOG 10 005 00 1





GRAPHIC CORE LOG

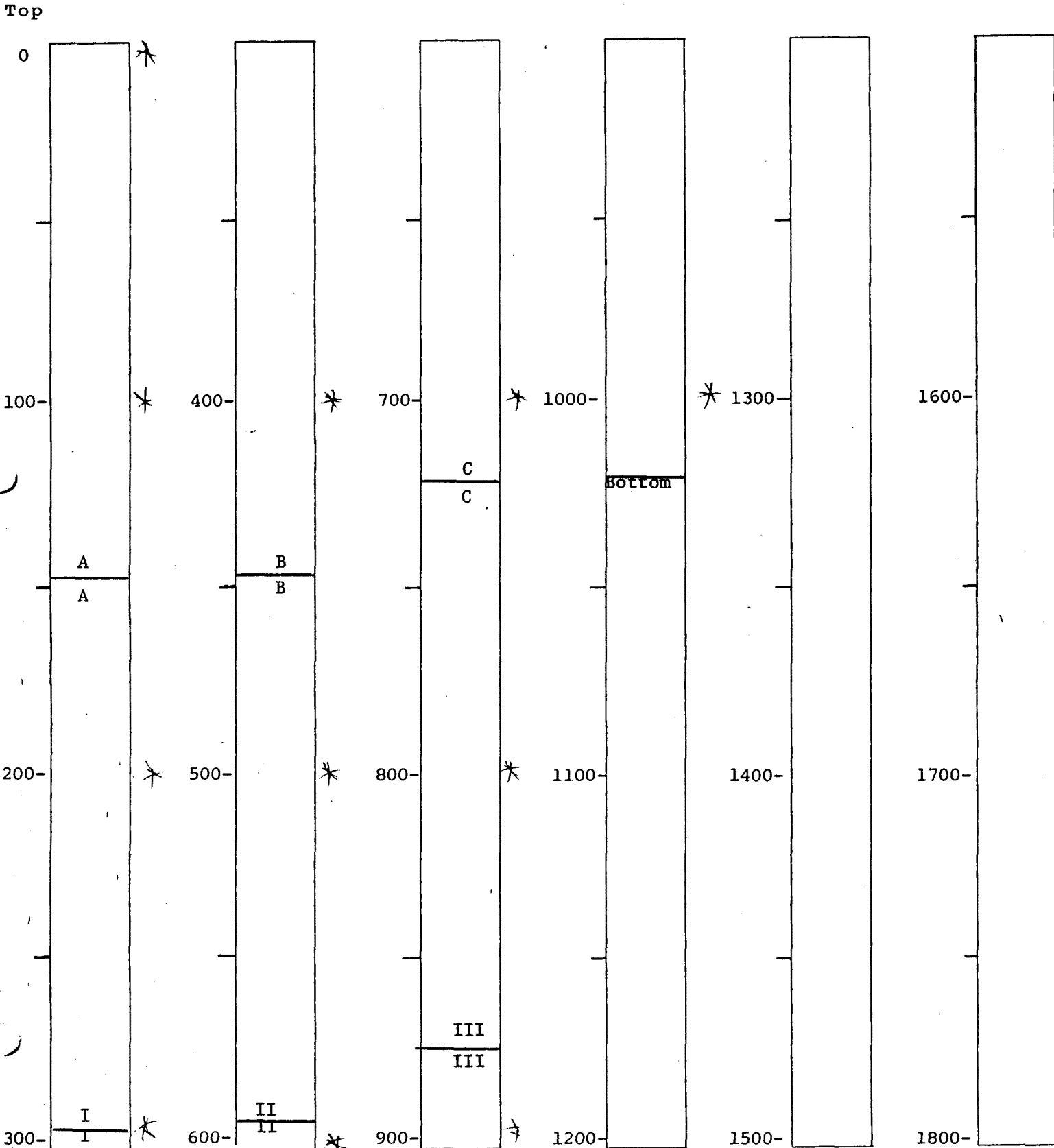
MOG 10 22 5 00 1

Core Number 22

Cruise IG-19

Core Cap Samples  
B = Bottom of Section  
T = Top of Section

CORE SECTIONS



\* = Coarse fraction/smear slide location.

CORE NUMBER 22

CRUISE IG-19

INTERVAL OR LOCATION OF SAMPLE	ESTIMATED VOLUME OF SAMPLE	TAKEN BY	SAMPLING PURPOSE	PERSON AND/OR COMPANY RECEIVING SAMPLE(S) FOR INTENDED RESEARCH
Refer to page on "Density Measurements" for precise locations	approx. 1 cc.	T. Haines	wet-bulk density	U. S. Navy to receive density results(UT-MSI contracted to do density measurements)

MCG 10 02 5 00 1



CORE NUMBER 23 CRUISE IG 19-3  
 LATITUDE 29° 26.8' N LONGITUDE 86° 38.6' W  
 CORRECTED DEPTH 168 fm PDR DEPTH 162 fm  
 DATE TAKEN 6-25-76 DATE OPENED 5-2-77  
 DATE DESCRIBED 5-2-77 DATE PHOTOGRAPHED \_\_\_\_\_  
 DESCRIBED BY T. Haines CORE LENGTH 1035 cm  
 PENETRATION 1080 cm FLOW-IN 0 cm

SUMMARY OF CORE:

Very fine foraminiferal sandy mud, dark greenish gray (5GY 4/1), very soft and moist at top of core. Very few molluscan shell fragments in top 35 cm. Small amounts of molluscan and echinoid shell debris occur through remainder of core as well as mottling. Fill material in the mottled areas occurs both as very fine silty-clayey textures as well as a foram-rich fill material. The sediment eventually becomes a foraminiferal sandy muddy clay at 805 cm and the presence of chondrites burrowing occurs in low to moderate amounts within deepest unit of this core. No visible structures were evident; coarse fraction analysis indicates common amounts of planktonic and benthonic foraminifera, rare to common amounts of molluscan shells/shell debris, and rare percentages of pteropods, ostracods, sponge spicules, quartz, manganese, opaque minerals (present in sample at 700 cm only), echinoid spines & shell debris, mica flakes, pyrite, and glauconite (100 cm sample only).

INTERVAL	DESCRIPTION
0-35 cm	Very fine foraminiferal sandy mud, dark greenish gray (5GY 4/1); very soft and moist. No visible structures evident. Low content of very small fragments of molluscan shells.  Basal contact a gradual color change.
35-82 cm	Very fine foraminiferal sandy mud, grayish olive (10Y 4/2); very soft and moist. No visible structures evident. Small amount of molluscan shell debris present with one large visible bivalve at 68 cm.  Basal contact a sharp change in color.
82-280 cm	Very fine foraminiferal sandy mud, dark greenish gray (5GY 4/1); very soft and moist. Small amounts of molluscan and echinoid shell debris present through unit at random locations. Indistinct mottled colored grayish olive (10Y 4/2) is present from top of this unit down to 100 cm and is same texture as surrounding material. Lobe of material along the edge of liner, light olive gray (5Y 5/2) and closed burrow, light olive gray at 100 and 220 cm.  Basal contact a gradual change in color.
280-805 cm	Fine to very fine foraminiferal sandy mud, light grayish olive (10Y 5/2), soft and moist. Small amount of molluscan shell debris.

INTERVAL	DESCRIPTION
280-805 cm (continued)	Intense mottling from 420 to 555 cm colored greenish gray (5GY 6/1), with fill material having a more clayey fine fill material texture than surrounding material. Firmness increases with depth after 555 cm. Coarse foram-rich mottling occurs from 735 to 805 cm tapering to edge of liner.
805-1035 cm (core bottom)	Basal contact a gradual change in color, texture and composition.
	Very fine foraminiferal sandy muddy clay, greenish gray (5GY 5/1), soft and low moisture content. Chondrites burrowing is present and well distributed in this unit in moderate to low amounts. A trace of molluscan shell debris also noted.

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NOV 10 02 50 00

CORE NUMBER 23

CRUISE IG-19

DENSITY MEASUREMENTS ON CORE EXTRACTIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
1	15 cm.	8.08	6.61	1.40	0.40	1.47	Very soft
2	35	7.96	6.45	1.40	0.40	1.51	
3	55	8.10	6.57	1.60	0.60	1.53	
4	75	8.13	6.58	1.60	0.60	1.55	
5	95	7.73	6.34	1.50	0.50	1.39	Slightly more water content sediment unit change
6	115	7.52	6.00	1.40	0.40	1.52	
7	135	8.20	6.66	1.40	0.40	1.54	
8	154	8.26	6.70	1.40	0.40	1.56	
9	175	7.95	6.44	1.40	0.40	1.51	
10	195	7.76	6.28	1.50	0.50	1.48	
11	215	7.70	6.22	1.40	0.40	1.48	
12	235	7.99	6.46	1.40	0.40	1.53	
13	255	8.16	6.63	1.40	0.40	1.53	
14	275	8.02	6.49	1.40	0.40	1.53	
15	295	8.16	6.62	1.40	0.40	1.54	
16	315	7.99	6.43	1.50	0.50	1.56	
17	335	8.14	6.49	1.40	0.40	1.65	Some molluscan shell debris in sample
18	355	8.00	6.44	1.40	0.40	1.56	
19	375	8.20	6.64	1.40	0.40	1.56	
20	395	7.82	6.24	1.40	0.40	1.58	
21	415	8.12	6.50	1.50	0.50	1.62	
22	435	8.02	6.43	1.40	0.40	1.59	Intensely mottled area , clayey fill material

MCG 10 02 00 1

CORE NUMBER 23

CRUISE IG-19

DENSITY MEASUREMENTS ON CORE EXTRACTATIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
23	455 cm	7.75	6.15	1.40	0.40	1.60	Intensely mottled area, clayey fill material
24	475	7.90	6.28	1.40	0.40	1.62	Intensely mottled area, clayey fill material
25	495	7.89	6.27	1.40	0.40	1.62	Intensely mottled area, clayey fill material
26	515	8.05	6.46	1.40	0.40	1.59	Intensely mottled area, clayey fill material
27	535	7.86	6.25	1.40	0.40	1.61	Intensely mottled area, clayey fill material
28	555	7.94	6.30	1.40	0.40	1.64	Intensely mottled area, clayey fill material
29	575	7.97	6.33	1.40	0.40	1.64	Increased sandy texture, mottling present
30	595	8.24	6.62	1.40	0.40	1.62	Increasing firmness with depth; decreasing moisture content with depth
31	615	8.06	6.43	1.40	0.40	1.63	
32	635	8.43	6.82	1.40	0.40	1.61	
33	655	8.07	6.44	1.40	0.40	1.63	
34	675	8.29	6.67	1.40	0.40	1.62	
35	695	8.08	6.42	1.40	0.40	1.66	
36	715	8.02	6.42	1.40	0.40	1.60	Some molluscan shell debris in sample
37	734	8.41	6.75	1.40	0.40	1.66	
38	755	8.28	6.61	1.40	0.40	1.67	
39	775	7.63	6.03	1.40	0.40	1.60	Increase in clayey material
40	795	8.03	6.43	1.40	0.40	1.60	Sediment unit change to a clayey texture

CORE NUMBER 23

CRUISE IG-19

DENSITY MEASUREMENTS ON CORE EXTRACTIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
41	815 cm	8.20	6.58	1.30	0.30	1.62	
42	835	8.05	6.46	1.40	0.40	1.59	
43	855	7.84	6.26	1.40	0.40	1.58	
44	875	8.02	6.42	1.40	0.40	1.60	
45	895	8.04	6.42	1.50	0.50	1.62	
46	915	7.63	6.04	1.50	0.50	1.59	
47	935	8.22	6.59	1.50	0.50	1.63	
48	955	8.22	6.59	1.50	0.50	1.63	
49	975	7.88	6.24	1.50	0.50	1.64	
50	995	8.27	6.64	1.50	0.50	1.63	
51	1015	8.25	6.60	1.50	0.50	1.65	
52	1030	8.10	6.47	1.40	0.40	1.63	

MCG 10 02 200 1





GRAPHIC CORE LOG

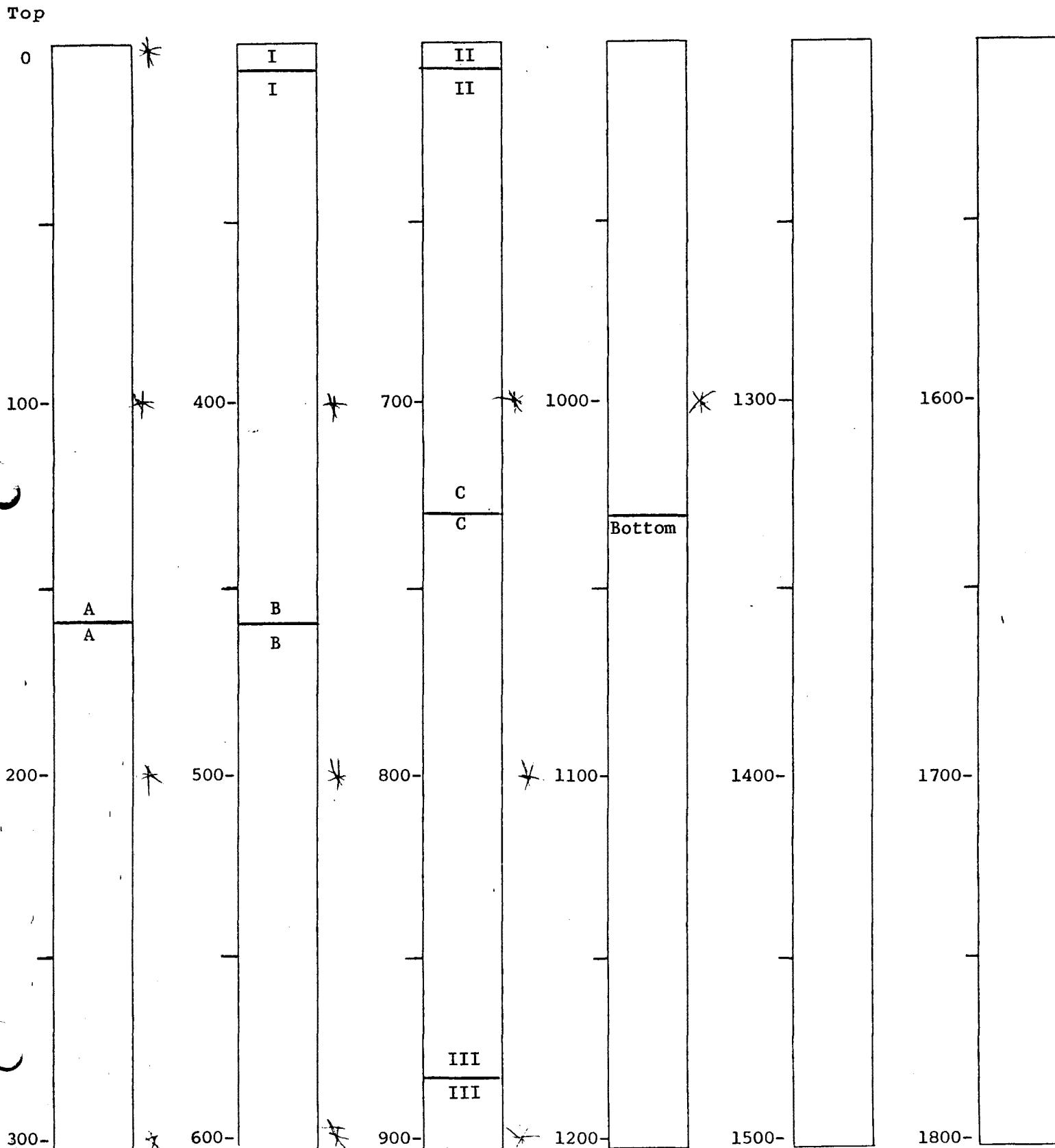
MCC 10025001

Core Number 23

Cruise IG-19

Core Cap Samples  
B = Bottom of Section  
T = Top of Section

CORE SECTIONS



\* = Coarse fraction/smear slide location.



CORE NUMBER 23

CRUISE IG-19

INTERVAL OR LOCATION OF SAMPLE	ESTIMATED VOLUME OF SAMPLE	TAKEN BY	SAMPLING PURPOSE	PERSON AND/OR COMPANY RECEIVING SAMPLE(S) FOR INTENDED RESEARCH
Refer to page on "Density Measurements" for precise locations	approx. 1 cc.	T. Haines	wet-bulk density	U. S. Navy to receive density results (UT-MSI contracted to do density measurements)

MCC 10 01500 1

CORE NUMBER	<u>24</u>	CRUISE	<u>IG 19-3</u>
LATITUDE	<u>29° 25.4' N</u>	LONGITUDE	<u>86° 40.3' W</u>
CORRECTED DEPTH	<u>197 fm</u>	PDR DEPTH	<u>190 fm</u>
DATE TAKEN	<u>6-25-76</u>	DATE OPENED	<u>6-31-77</u>
DATE DESCRIBED	<u>8-8-77</u>	DATE PHOTOGRAPHED	<u>                    </u>
DESCRIBED BY	<u>T. Haines</u>	CORE LENGTH	<u>1063 cm</u>
PENETRATION	<u>1130 cm</u>	FLOW-IN	<u>0 cm</u>

SUMMARY OF CORE:

Medium fine to fine foraminiferal sandy mud, light olive gray (5Y 5/2), soft and moist at top of core; increasing firmness with depth, chondrites burrowing evident in lower units of core from 672 to 1063 cm; mottling with both fine fill material and foram-rich fill material are present in core. Molluscan and echinoid shell fragments are present in low amounts in upper and bottom units, but not visible in 672-885 cm unit; no visible structures evident in any unit; 672-885 cm is a foraminiferal sandy clay between two foraminiferal sandy mud units; coarse fraction analysis indicates common to abundant planktonic foraminifera, common benthonic foraminifera, rare to common molluscan shells/shell debris, with rare percentages of pteropods, ostracods, sponge spicules, quartz, manganese, opaque minerals (in 900 cm sample only), echinoid spines & shell debris, mica flakes, and pyrite.

INTERVAL	DESCRIPTION
0 - 672 cm	Medium fine to fine foraminiferal sandy mud, light olive gray (5Y 5/2) soft and moist; no visible structures evident. Small fragments of molluscan shells are well distributed in low amounts through this unit. Echinoid shell fragments present at 169 cm. Increasing firmness and decreasing water content with depth. Low amounts of light olive gray (5Y 5/1) mottling occurs beginning at 440 cm and changes color to light grayish olive (10Y 5/2) at 540 cm; at 642 and 672 cm foram-rich closed burrows are present. Basal contact a gradual change in color, texture and composition.
672-885 cm	Very fine foraminiferal sandy clay, greenish gray (5GY 6/1), firm and low moisture content, chondrites burrows are well distributed in low amounts. Scattered mottling colored light grayish olive (10Y 5/2) is present. No visible structures are evident. Basal contact a gradual change in texture and composition.
885-1063 cm (core bottom)	Medium fine to fine foraminiferal sandy mud, greenish gray (5GY 6/1), firm and low moisture content. No visible structures evident. Chondrites burrows present in low amounts and are well distributed through unit. Scattered small amounts of molluscan shell debris is evident through entire unit.

NO. 00020001

ORE NUMBER 24

CRUISE IG-19

DENSITY MEASUREMENTS ON CORE EXTRACTATIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
1	15 cm	7.89	6.43	1.40	0.40	1.46	
2	35	7.84	6.44	1.50	0.50	1.40	
3	55	7.76	6.33	1.50	0.50	1.43	
4	75	7.47	5.97	1.50	0.50	1.50	
5	95	7.97	6.53	1.50	0.50	1.44	
6	115	7.68	6.20	1.50	0.50	1.48	
7	135	8.09	6.64	1.50	0.50	1.45	
8	155	8.07	6.61	1.50	0.50	1.46	
9	175	7.78	6.27	1.50	0.50	1.51	
10	195	7.80	6.28	1.50	0.50	1.52	
11	215	8.19	6.72	1.50	0.50	1.47	
12	235	8.07	6.60	1.50	0.50	1.47	
13	255	8.07	6.59	1.50	0.50	1.48	
14	275	7.71	6.25	1.50	0.50	1.46	
15	295	7.46	5.96	1.50	0.50	1.50	
16	315	7.76	6.28	1.50	0.50	1.48	
17	335	7.94	6.44	1.50	0.50	1.50	
18	355	7.74	6.26	1.50	0.50	1.48	
19	375	7.99	6.50	1.50	0.50	1.49	
20	395	8.09	6.61	1.50	0.50	1.48	
21	415	7.53	6.03	1.50	0.50	1.50	
22	435	7.91	6.45	1.50	0.50	1.46	
23	455	7.73	6.24	1.50	0.50	1.49	
24	475	7.56	6.08	1.50	0.50	1.48	
25	495	7.77	6.23	1.40	0.40	1.54	

NOV 10 02 50 01

ORE NUMBER 24CRUISE IG-19

## DENSITY MEASUREMENTS ON CORE EXTRACTIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
26	515 cm	8.00	6.46	1.50	0.50	1.54	
27	535	7.79	6.28	1.40	0.40	1.51	
28	555	8.24	6.69	1.50	0.50	1.55	
29	575	7.52	5.98	1.40	0.40	1.54	
30	595	7.53	5.97	1.40	0.40	1.56	
31	615	7.65	6.42	1.20	0.40	1.54	
32	633	8.34	6.73	1.50	0.50	1.61	
33	655	7.80	6.21	1.40	0.40	1.59	
34	675	7.79	6.20	1.50	0.50	1.59	
35	695	8.03	6.45	1.40	0.40	1.58	
36	715	7.83	6.28	1.50	0.50	1.55	
37	735	8.28	6.71	1.60	0.60	1.57	
38	755	7.88	6.32	1.50	0.50	1.56	
39	775	8.00	6.43	1.60	0.60	1.57	
40	795	8.34	6.73	1.50	0.50	1.61	
41	815	8.06	6.47	1.50	0.50	1.59	
42	835	8.21	6.63	1.50	0.50	1.58	
43	855	7.88	6.27	1.50	0.50	1.61	
44	875	8.05	6.44	1.50	0.50	1.61	
45	895	7.99	6.44	1.40	0.40	1.55	
46	915	7.86	6.29	1.40	0.40	1.57	
47	935	8.00	6.46	1.40	0.40	1.54	
48	955	8.00	6.44	1.50	0.50	1.56	
49	975	8.14	6.55	1.40	0.40	1.59	
50	995	8.08	6.48	1.50	0.50	1.60	

MCS 10 025 00 1

ORE NUMBER 24

CRUISE IG-19

DENSITY MEASUREMENTS ON CORE EXTRACTATIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
51	1015 cm	7.90	6.30	1.50	0.50	1.60	
52	1035	7.90	6.30	1.50	0.50	1.60	
53	1055	8.09	6.46	1.40	0.40	1.63	

MOG 10 025 00 1





GRAPHIC CORE LOG

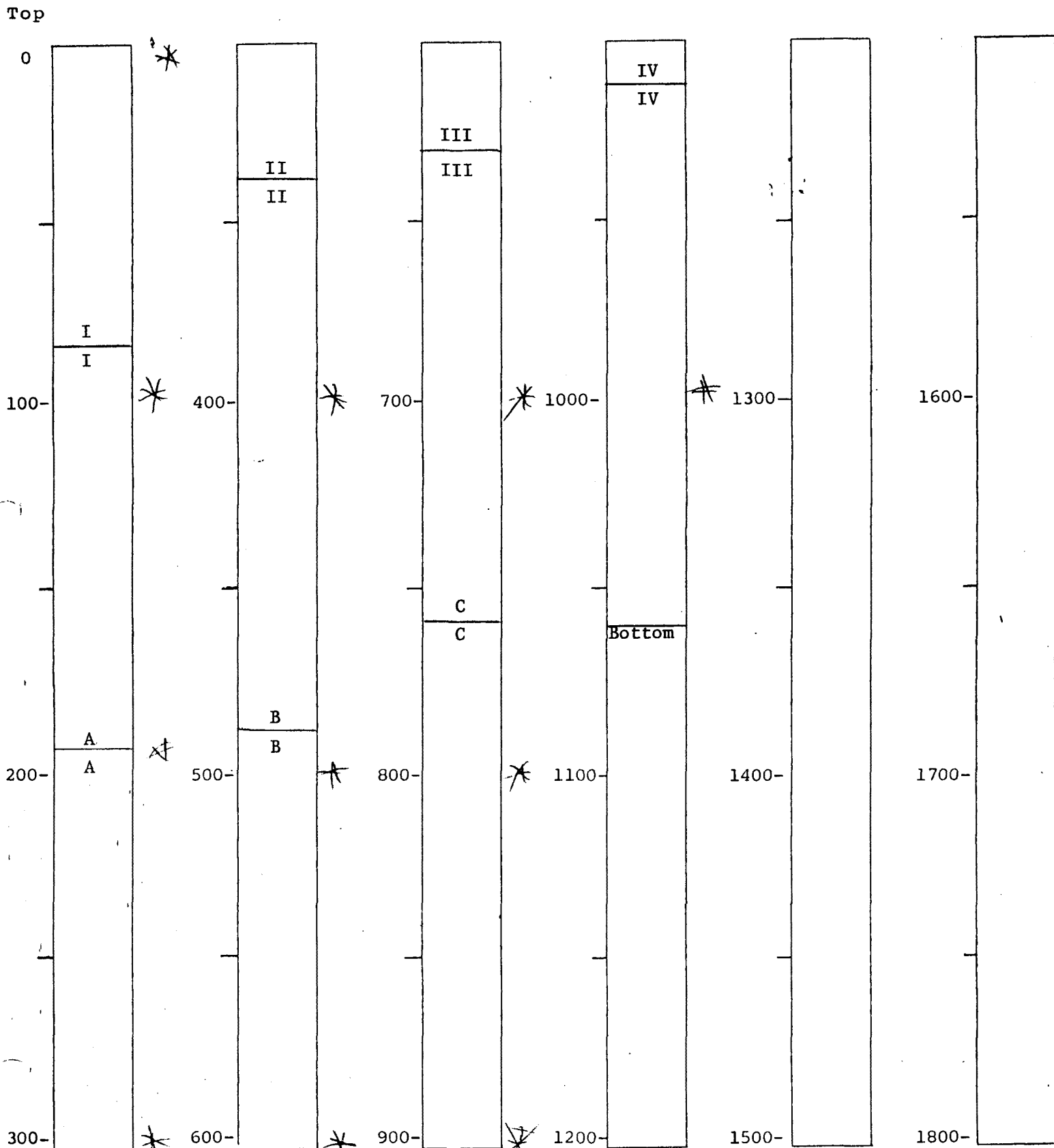
MCG 10 025 001

Core Number 24

Cruise IG-19

Core Cap Samples  
B = Bottom of Section  
T = Top of Section

CORE SECTIONS



\* = Coarse fraction/smear slide location.



CORE NUMBER 24

CRUISE IG 19-3

INTERVAL OR LOCATION OF SAMPLE	ESTIMATED VOLUME OF SAMPLE	TAKEN BY	SAMPLING PURPOSE	PERSON AND/OR COMPANY RECEIVING SAMPLE(S) FOR INTENDED RESEARCH
Refer to page on "Density Measurements" for precise locations	approx. 1 cc.	T. Haines	wet-bulk density	U.S. Navy to receive density results(UT-MSI contracted to do density measurements)

MCG 10025001

CORE NUMBER 25 CRUISE IG-19  
 LATITUDE 29° 23.9' N LONGITUDE 86° 42.8' W  
 CORRECTED DEPTH 218 fm PDR DEPTH 211 fm  
 DATE TAKEN 6-25-76 DATE OPENED 7-5-77  
 DATE DESCRIBED 8-8-77 DATE PHOTOGRAPHED \_\_\_\_\_  
 DESCRIBED BY T. Haines CORE LENGTH 1040 cm  
 PENETRATION 926 cm FLOW-IN 114 cm

SUMMARY OF CORE: Fine to very fine foraminiferal sandy mud, light olive gray (5Y 5/2), soft and moist. No visible structures evident. Mottling present both with very fine and with a foram-rich fill material; echinoid and molluscan shell debris evident in every unit; chondrites burrowing present in low amounts in each unit; all units are foraminiferal sandy muds but 610-675 cm unit is finer textured than top and bottom units; coarse fraction analysis indicates abundant to common amounts of planktonic foraminifera, common benthonic foraminifera, and rare percentages of pteropods, ostracods, sponge spicules (present only in sample taken at 600 cm), molluscan shells/shell fragments, quartz, manganese, echinoid spines & shell debris, pyrite, mica flakes, and oolites (100 cm sample only).

INTERVAL	DESCRIPTION
0 - 610 cm	Fine to very fine foraminiferal sandy mud, light olive gray (5Y 5/2), soft and moist; no visible structures evident. Small fragments of molluscan and echinoid shells are present through unit in low amounts. Small amounts of well distributed mottling colored light olive gray (5Y 5/1) are present and have a texture resembling the surrounding fine-grained matrix; sparse amounts of chondrites burrows begin at 340 cm in this unit; mottling colored light grayish olive (10Y 5/2) is present beginning at 512 cm and has an increase in foram-rich burrows as well as molluscan and echinoid shell debris; increasing firmness with depth. Basal contact a gradual change in color and texture.
610-765 cm	Very fine foraminiferal sandy mud, greenish gray (5GY 6/1) firm and low moisture content. Low amounts of echinoid and molluscan shell fragments present through entire unit at random locales; low amounts of well distributed chondrites burrowing is evident. Basal contact a gradual change in texture.
765-1040 cm (core bottom)	Fine to very fine foraminiferal sandy mud, greenish gray (5GY 6/1), very firm and low moisture content; scattered molluscan and echinoid shell debris present in low amounts; low percentage of chondrites burrows found through unit; dark greenish gray (5GY 5/1) mottling present through unit with a finer fill material than texture of surrounding material; no visible structure evident; beginning at 963 cm large foram-rich filled burrows occur in low to moderate numbers (note that flow in from near 926 cm to bottom of core).

239

ORE NUMBER 25

CRUISE IG-19

DENSITY MEASUREMENTS ON CORE EXTRACTATIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET	PROBLEMS/ OBSERVATIONS
						BULK DENSITY	
1	15 cm	7.85	6.42	1.40	0.40	1.43	
2	35	7.52	6.05	1.40	0.40	1.47	
3	55	7.90	6.47	1.50	0.50	1.43	
4	75	7.90	6.47	1.40	0.40	1.43	
5	95	7.70	6.24	1.50	0.50	1.46	
6	115	8.15	6.68	1.50	0.50	1.47	
7	135	8.13	6.68	1.50	0.50	1.45	
8	155	7.89	6.43	1.50	0.50	1.46	
9	175	7.48	5.97	1.50	0.50	1.51	
10	195	7.91	6.40	1.50	0.50	1.51	
11	215	7.83	6.29	1.50	0.50	1.54	
12	235	8.34	6.81	1.50	0.50	1.53	
13	255	8.00	6.46	1.50	0.50	1.54	
14	275	7.52	5.97	1.50	0.50	1.55	
15	295	7.83	6.29	1.50	0.50	1.54	
16	315	8.11	6.62	1.50	0.50	1.49	
17	335	8.06	6.58	1.50	0.50	1.48	
18	355	8.06	6.61	1.50	0.50	1.48	
19	375	7.89	6.40	1.50	0.50	1.49	
20	395	7.93	6.43	1.50	0.50	1.50	
21	415	8.00	6.48	1.50	0.50	1.52	
22	435	7.76	6.21	1.50	0.50	1.55	
23	455	7.52	6.23	1.40	0.50	1.43	
24	475	7.95	6.43	1.50	0.50	1.52	Becoming very clayey
25	495	7.73	6.23	1.50	0.50	1.50	

VIC 10025001



ORE NUMBER 25

CRUISE IG-19

DENSITY MEASUREMENTS ON CORE EXTRACTATIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
51	1015 cm	7.56	6.00	1.50	0.50	1.56	
52	1035	7.99	6.43	1.30	0.30	1.56	

MGG 10 0 2 5 0 0 1





GRAPHIC CORE LOG

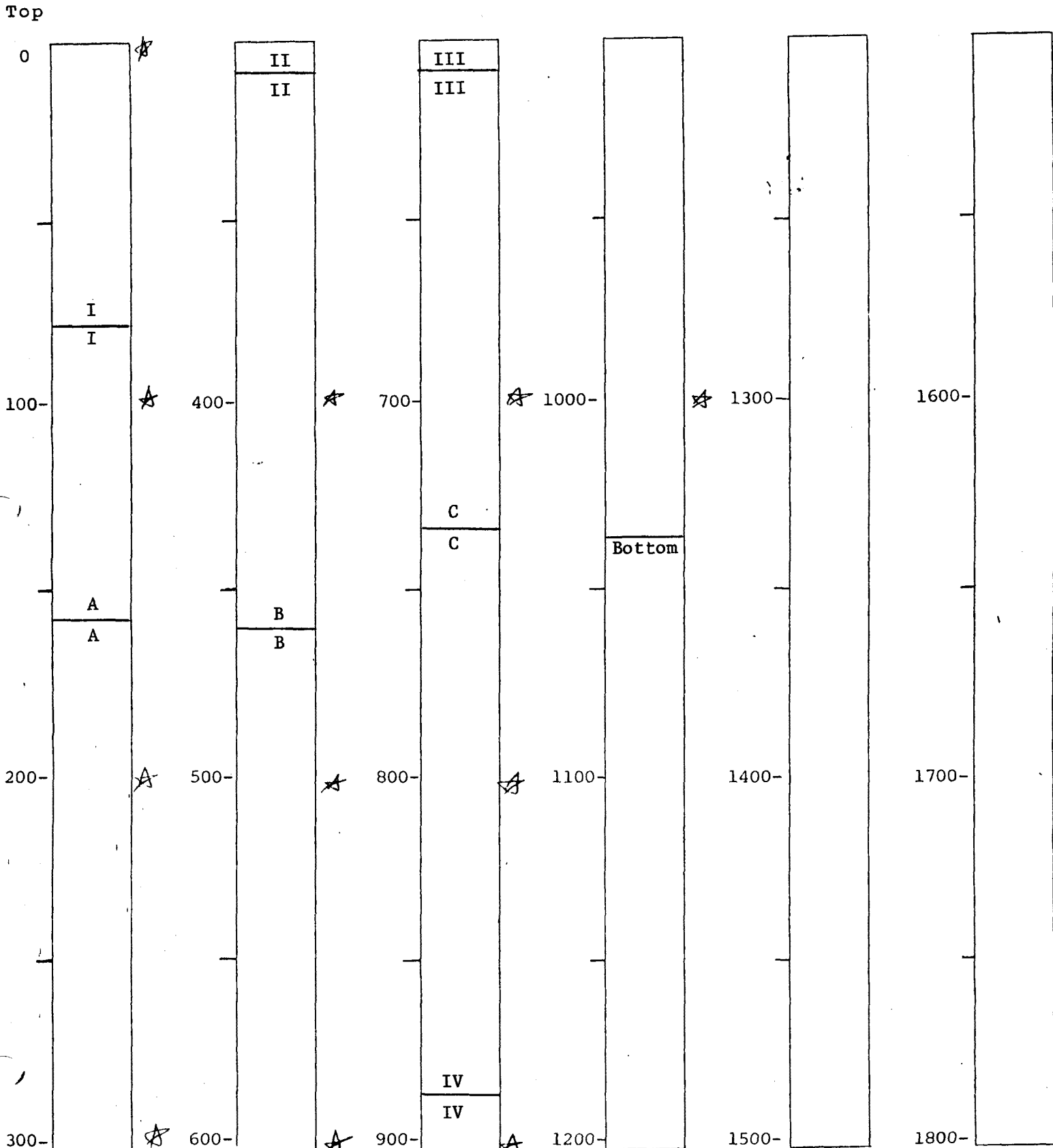
NO 10 02 5 00 3

Core Number 25

Cruise IG-19

Core Cap Samples  
B = Bottom of Section  
T = Top of Section

CORE SECTIONS





CORE NUMBER 25

CRUISE IG 19-3

INTERVAL OR LOCATION OF SAMPLE	ESTIMATED VOLUME OF SAMPLE	TAKEN BY	SAMPLING PURPOSE	PERSON AND/OR COMPANY RECEIVING SAMPLE(S) FOR INTENDED RESEARCH
Refer to page on "Density Measurements" for precise locations	approx. 1 cc.	T. Haines	wet-bulk density	U.S. Navy to receive density results (UT-MSI contracted to do density measurements)

MOG 10 02500 1

CORE NUMBER 26 CRUISE IG 19-3  
 LATITUDE 29° 20.7' N LONGITUDE 86° 45.5' W  
 CORRECTED DEPTH 236 fm PDR DEPTH 229 fm  
 DATE TAKEN 6-25-76 DATE OPENED 7-6-77  
 DATE DESCRIBED 8-9-77 DATE PHOTOGRAPHED \_\_\_\_\_  
 DESCRIBED BY T. Haines CORE LENGTH 1014 cm  
 PENETRATION 948 cm FLOW-IN 66 cm

SUMMARY OF CORE:

Fine to very fine foraminiferal sandy mud light olive gray (5Y 5/2), soft and very moist at top of core. A very fine foraminiferal sandy clay unit colored light olive gray (5Y 4/2) is present at 685 to 921 cm and is firm and sparsely moist. The lower most unit is a fine to very fine foraminiferal sandy mud, also light olive gray (5Y 4/2), exhibiting a large increase in size and number of foraminifera. Chondrites burrowing is visible in each lithologic unit from 598 cm to bottom of core. Molluscan and echinoid shell debris occurs in very low amounts in certain units with a random distribution. Mottling of various colors occurs in varying amounts in each unit; coarse fraction analysis indicates common amounts of planktonic (abundant in samples from 0 and 300 cm) & benthonic foraminifera, and rare percentages of pteropods, ostracods, molluscan shells/shell debris, quartz, manganese, opaque minerals, echinoid spines & shell debris, pyrite, and mica flakes.

INTERVAL	DESCRIPTION
0-598 cm	Fine to very fine foraminiferal sandy mud, light olive gray (5Y 5/2), soft and very moist. No visible structures evident. Very little molluscan and echinoid shell debris in upper 40 cm of this unit and no visible shell debris below 40 cm. Mottled area colored olive gray (5Y 4/2) beginning at 278 cm. Increasing firmness with increase depth. Basal contact a gradual change in color.
598 -685 cm	Fine to very fine foraminiferal sandy mud, grayish olive (10Y 4/2), firm and low moisture content. No visible structures evident. Chondrites burrows are present in low amounts through this unit. Mottling colored light olive gray (5Y 4/2) is present from 608 to 632 cm. Basal contact a gradual change in color, texture and composition.
685 - 921 cm	Very fine foraminiferal sandy clay, light olive gray (5Y 4/2) very firm and low moisture content. Unit is mottled throughout in moderate amounts with light olive gray (5Y 5/2) lutitic material similar in texture to surrounding material. Foram-rich fill material colored dark gray (N 3) in a filled burrow at 784 cm. Low amounts of chondrites burrows are well distributed through unit. Mottling colored light olive gray (5Y 6/1) is present from 845 to 872 cm with very fine grained fill material similar to surrounding matrix. No visible structures evident. Sparse amounts of molluscan and echinoid shell fragments visible at random locations in this unit. Basal contact a gradual change in texture and composition.

INTERVAL	DESCRIPTION
921 - 1014 cm (Core bottom)	Fine to very fine foraminiferal sandy mud, light olive gray (5Y 4/2), very firm and low moisture content. Increase in amount of visible foraminifera as compared to above unit. Mottling colored greenish gray (5GY 6/1) is intense in this unit with fill material similar in texture to surrounding material. Probable flow-in present from approximately 948 cm to bottom. Chondrites burrows present in low amounts. Low percentages of molluscan shell debris present at random locations. No visible structures evident. Several foram-rich dark gray (N 3) colored fill material inside closed burrows is visible at top of this unit.

NOG 10 025 001

ORE NUMBER 26

CRUISE IG-19

DENSITY MEASUREMENTS ON CORE EXTRACTIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
1	15 cm	7.39	5.96	1.40	0.40	1.43	Sandy texture
2	35	8.08	6.70	1.40	0.40	1.38	Increased clayey texture
3	55	8.09	6.64	1.40	0.40	1.45	Clayey
4	75	7.63	6.22	1.40	0.40	1.41	
5	95	7.64	6.23	1.40	0.40	1.41	
6	115	8.03	6.63	1.40	0.40	1.40	
7	135	7.73	6.29	1.40	0.40	1.44	
8	155	7.64	6.18	1.50	0.50	1.46	
9	175	7.69	6.23	1.50	0.50	1.46	
10	195	7.94	6.47	1.50	0.50	1.47	
11	215	7.55	6.06	1.40	0.40	1.49	
12	235	7.45	5.98	1.40	0.40	1.47	
13	255	7.79	6.30	1.50	0.50	1.49	
14	275	7.93	6.43	1.50	0.50	1.50	
15	295	8.16	6.68	1.40	0.40	1.48	
16	315	8.21	6.65	1.40	0.40	1.56	
17	335	7.76	6.27	1.40	0.40	1.49	
18	355	7.54	5.98	1.40	0.40	1.56	
19	375	8.18	6.66	1.50	0.50	1.52	
20	395	7.95	6.45	1.50	0.50	1.50	
21	415	8.33	6.76	1.50	0.50	1.57	
22	435	7.49	6.02	1.50	0.50	1.47	
23	455	7.50	6.00	1.50	0.50	1.50	
24	475	7.79	6.33	1.50	0.50	1.46	
25	495	7.90	6.46	1.50	0.50	1.44	

ORE NUMBER 26

CRUISE IG-19

DENSITY MEASUREMENTS ON CORE EXTRACTIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
26	515 cm	7.97	6.50	1.50	0.50	1.47	
27	535	8.04	6.56	1.50	0.50	1.48	
28	555	7.55	6.05	1.50	0.50	1.50	
29	575	7.92	6.45	1.50	0.50	1.47	
30	595	7.51	5.99	1.50	0.50	1.52	
31	615	8.18	6.66	1.50	0.50	1.52	
32	635	8.10	6.59	1.50	0.50	1.51	
33	655	7.99	6.49	1.50	0.50	1.50	
34	675	7.76	6.28	1.50	0.50	1.48	
35	695	7.61	6.10	1.50	0.50	1.51	
36	716	7.46	5.98	1.50	0.50	1.48	
37	735	8.24	6.76	1.40	0.40	1.48	
38	755	7.49	5.99	1.50	0.50	1.50	
39	775	7.94	6.44	1.50	0.50	1.50	
40	795	8.18	6.66	1.50	0.50	1.52	
41	815	7.74	6.25	1.50	0.50	1.49	
42	835	8.24	6.68	1.50	0.50	1.56	
43	855	7.53	5.96	1.50	0.50	1.57	
44	875	7.93	6.42	1.50	0.50	1.51	
45	895	8.17	6.62	1.50	0.50	1.55	
46	915	8.04	6.49	1.50	0.50	1.55	Increased sandy texture and firmness
47	935	8.01	6.47	1.50	0.50	1.54	
48	955	7.65	6.04	1.50	0.50	1.61	
49	975	7.88	6.29	1.50	0.50	1.59	
50	995	7.91	6.34	1.50	0.50	1.57	

MCC 10 02 5 00 1



ARE: 5%

COMMON: 5-50%

IG: 50-100%

ORE 26

IG 19-3

Sample Depth

FORAMS-PLANKTONIC

FORAMS-BENTHONIC

RADIOLARIA

DIATOMS

PTEROPODS

SPONGE SPICULES

SILICOFLAGELLATES

COCCOLITHS

DISCOASTERS

IRONSTONE

OPAQUE MINERALS

QUARTZ

MANGANESE

ZEOLITE

ASH SHARDS

OTHER

1000000

GRAPHIC CORE LOG

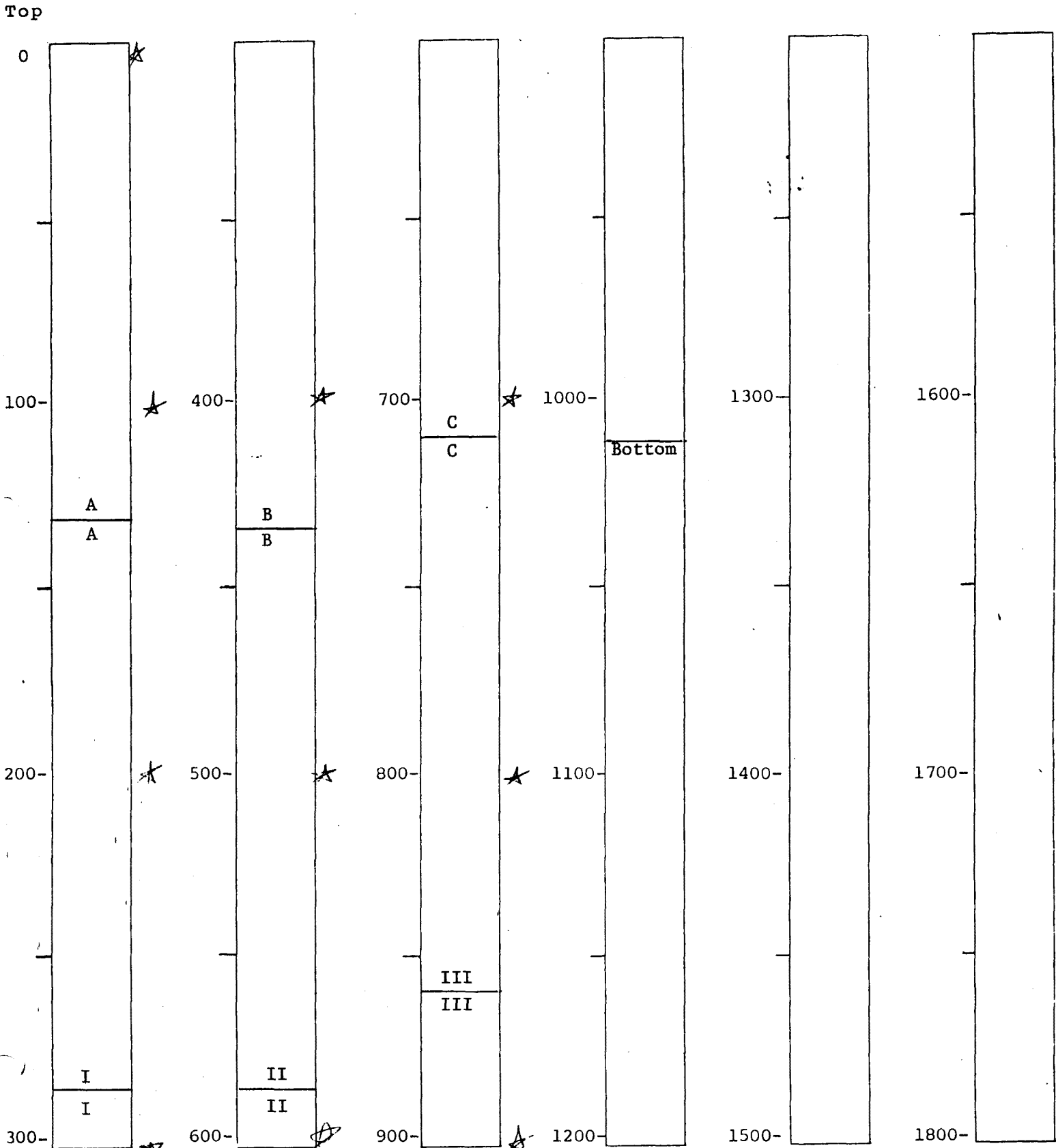
NOV 10 01 30 01

Core Number 26

Cruise IG-19

Core Cap Samples  
B = Bottom of Section  
T = Top of Section

CORE SECTIONS



\* = Coarse fraction/smear slide location.



CORE NUMBER 26

CRUISE IG 19-3

INTERVAL OR LOCATION OF SAMPLE	ESTIMATED VOLUME OF SAMPLE	TAKEN BY	SAMPLING PURPOSE	PERSON AND/OR COMPANY RECEIVING SAMPLE(S) FOR INTENDED RESEARCH
Refer to page on "Density Measurements" for precise locations	approx. 1 cc.	T. Haines	wet-bulk density	U.S. Navy to receive density results(UT-MSI contracted to do density measurements)

MCG 10 02 0001

CORE NUMBER 27 CRUISE IG 19-3  
 LATITUDE 29° 16.5' N LONGITUDE 86° 44.9' W  
 CORRECTED DEPTH 247 fm PDR DEPTH 240 fm  
 DATE TAKEN 6-26-76 DATE OPENED 7-7-77  
 DATE DESCRIBED 8-4-77 DATE PHOTOGRAPHED \_\_\_\_\_  
 DESCRIBED BY T. Haines CORE LENGTH 1018 cm  
 PENETRATION 1075 cm FLOW-IN 0 cm

SUMMARY OF CORE:

Fine to very fine foraminiferal sandy mud, light olive gray (5Y 5/2), increasing firmness with depth. All units are foraminiferal sandy muds varying with color, consistency, and composition. Chondrites burrowing evident from 527 cm to end of core increasingly more common with depth. Small molluscan shells and shell debris occur in low percentages with random distribution in all units of core; coarse fraction analysis indicates common planktonic (abundant in samples taken at 0 and 1000 cm) & benthonic foraminifera, with rare percentages of pteropods, ostracods, molluscan shells/shell debris, quartz, manganese, opaque minerals, pyrite, echinoid spines & shell debris, and mica flakes.

MCG 10 00 00 1

INTERVAL	DESCRIPTION
0 - 28 cm	Fine to very fine foraminiferal sandy mud, light olive gray (5Y 5/2); semi-soft and moist, no visible structures evident. Small molluscan shell fragments present in this unit. No visible echinoid debris present. Basal contact an indistinct change in color.
28 - 527 cm	Fine to very fine foraminiferal sandy mud, greenish gray (5GY 6/1), semi-soft and moist. No visible structures evident. Scattered molluscan shells and shell debris present through unit. No visible echinoid debris evident; fecal pellet material in a filled burrow at 83 cm. Material in this unit is very homogeneous. A very soft clay laminar layer 2.5 cm thick is present with some similar material in mottled areas within 20 cm above and below this unit also colored olive gray (5Y 4/1). Basal contact a gradual change in color & texture.
527 - 695 cm	Very fine foraminiferal sandy mud, light olive gray (5Y 5/2), semi-firm and low moisture content. Chondrites burrows present in low amounts and well distributed through unit. Small fragments of molluscan shells present in low percentages. No visible structures evident. Basal contact a gradual change in color.
695-920 cm	Very fine foraminiferal sandy mud, light olive gray (5Y 5/1), semi-firm and low moisture content. Chondrites burrowing evident in low percentages. Intense mottling from 775 to 855 cm with grayish olive (10Y 4/2) fill material having same texture as surrounding matrix. Sparse amounts of well distributed molluscan shell debris present in this unit. Increasing firmness with depth. Basal contact a gradual change in texture and color.

INTERVAL	DESCRIPTION
920-1018 cm (Core Bottom)	Fine to very fine foraminiferal sandy mud, pale olive (10Y 6/2), firm and very little moisture content. Chondrites burrows common through entire unit. Forams becoming very abundant as compared to previous percentages in above units. Foram-rich laminae (1 cm thick) present from 1000 to 1005 cm. Only occasional molluscan shell fragments evident.

MOG 18 025 001

ORE NUMBER 27

CRUISE IG-19

DENSITY MEASUREMENTS ON CORE EXTRACTATIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
1	15 cm	7.42	6.23	1.30	0.40	1.32	
2	35	7.35	5.97	1.40	0.40	1.38	
3	55	7.69	6.29	1.40	0.40	1.40	
4	75	7.88	6.52	1.40	0.40	1.36	
5	95	7.85	6.47	1.40	0.40	1.38	
6	115	7.82	6.46	1.40	0.40	1.36	
7	135	7.39	5.98	1.40	0.40	1.41	
8	155	7.76	6.41	1.50	0.50	1.35	
9	175	7.80	6.43	1.50	0.50	1.37	
10	195	7.89	6.50	1.50	0.50	1.39	
11	215	8.17	6.77	1.50	0.50	1.40	
12	235	8.17	6.74	1.50	0.50	1.43	
13	255	7.68	6.27	1.40	0.40	1.41	
14	275	8.07	6.66	1.40	0.40	1.41	
15	295	7.97	6.54	1.50	0.50	1.43	
16	315	7.75	6.34	1.50	0.50	1.41	
17	335	7.40	5.98	1.50	0.50	1.42	
18	355	7.78	6.31	1.50	0.50	1.47	
19	375	7.78	6.32	1.50	0.50	1.46	
20	395	7.78	6.29	1.50	0.50	1.49	
21	415	7.98	6.45	1.50	0.50	1.53	
22	435	7.95	6.46	1.50	0.50	1.49	
23	455	7.78	6.22	1.50	0.50	1.56	
24	475	8.30	6.69	1.50	0.50	1.61	
25	495	7.92	6.33	1.50	0.50	1.59	

MISS 10 02 5 00 1

ORE NUMBER 27

CRUISE IG-19

DENSITY MEASUREMENTS ON CORE EXTRACTATIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
26	515 cm	8.04	6.51	1.50	0.50	1.53	
27	535	7.91	6.39	1.50	0.50	1.52	
28	555	7.49	5.97	1.50	0.50	1.52	
29	575	7.93	6.45	1.50	0.50	1.48	
30	595	8.07	6.63	1.50	0.50	1.44	
31	615	7.77	6.26	1.50	0.50	1.51	
32	635	8.00	6.45	1.50	0.50	1.55	
33	655	7.89	6.40	1.50	0.50	1.49	
34	675	7.68	6.22	1.50	0.50	1.46	
35	695	7.78	6.26	1.50	0.50	1.52	
36	715	7.56	5.98	1.50	0.50	1.58	
37	735	7.47	5.98	1.50	0.50	1.49	
38	755	7.77	6.30	1.50	0.50	1.47	
39	775	8.05	6.51	1.50	0.50	1.54	
40	795	7.99	6.51	1.50	0.50	1.48	
41	815	7.72	6.24	1.50	0.50	1.48	
42	835	7.92	6.41	1.50	0.50	1.51	
43	855	7.95	6.46	1.50	0.50	1.49	
44	875	8.17	6.71	1.50	0.50	1.46	
45	895	7.55	6.05	1.50	0.50	1.50	
46	915	8.05	6.54	1.50	0.50	1.51	
47	935	8.12	6.62	1.50	0.50	1.50	
48	955	8.02	6.49	1.50	0.50	1.53	
49	975	7.99	6.44	1.50	0.50	1.55	
50	995	7.84	6.31	1.50	0.50	1.53	
51	1015	7.84	6.23	1.50	0.50	1.61	

MGG 10025001

COARSE-FRACTION ANALYSIS

Rare: 5%	FORAMS-PLANKTONIC	FORAMS-BENTHONIC	RADIOLARIA	DIATOMS	PTEROPODS	SPONGE SPICULES	OSTRACODS	MOLLUSC	CORALLINE ALGAE	CORAL	BRYOZOA	QUARTZ	FELDSPAR	MANGANESE	IRONSTONE	OPAQUE MINERALS	ROCK FRAGMENTS	OTHER
Common: 5-50%																		
und: 50-100%																		
Core No: 27																		
Cruise:IG 19-3																		
Sample Depth																		
0 cm	A	C			R							R						pyrite R.
100 cm	C	C			R							R		R				echinoid spines & shell debris R. mica flakes R., pyrite R.
200 cm	C	C			R		R	R						R				echinoid spines & shell debris R. mica flakes R., pyrite R.
300 cm	C	C			R		R	R				R		R				mica flakes R., pyrite R.
400 cm	C	C																pyrite R.
500 cm	C	C			R		R	R				R			R			echinoid spines R., pyrite R.
600 cm	C	C			R		R					R				R		pyrite R.
700 cm	C	C			R			R						R				mica flakes R., pyrite R.
800 cm	C	C			R			R				R						echinoid spines R., pyrite R. mica flakes R.
900 cm	C	C			R							R						echinoid spines R., pyrite R.
1000 cm	A	C			R													pyrite R.

NOV 10 0 15 00 1



GRAPHIC CORE LOG

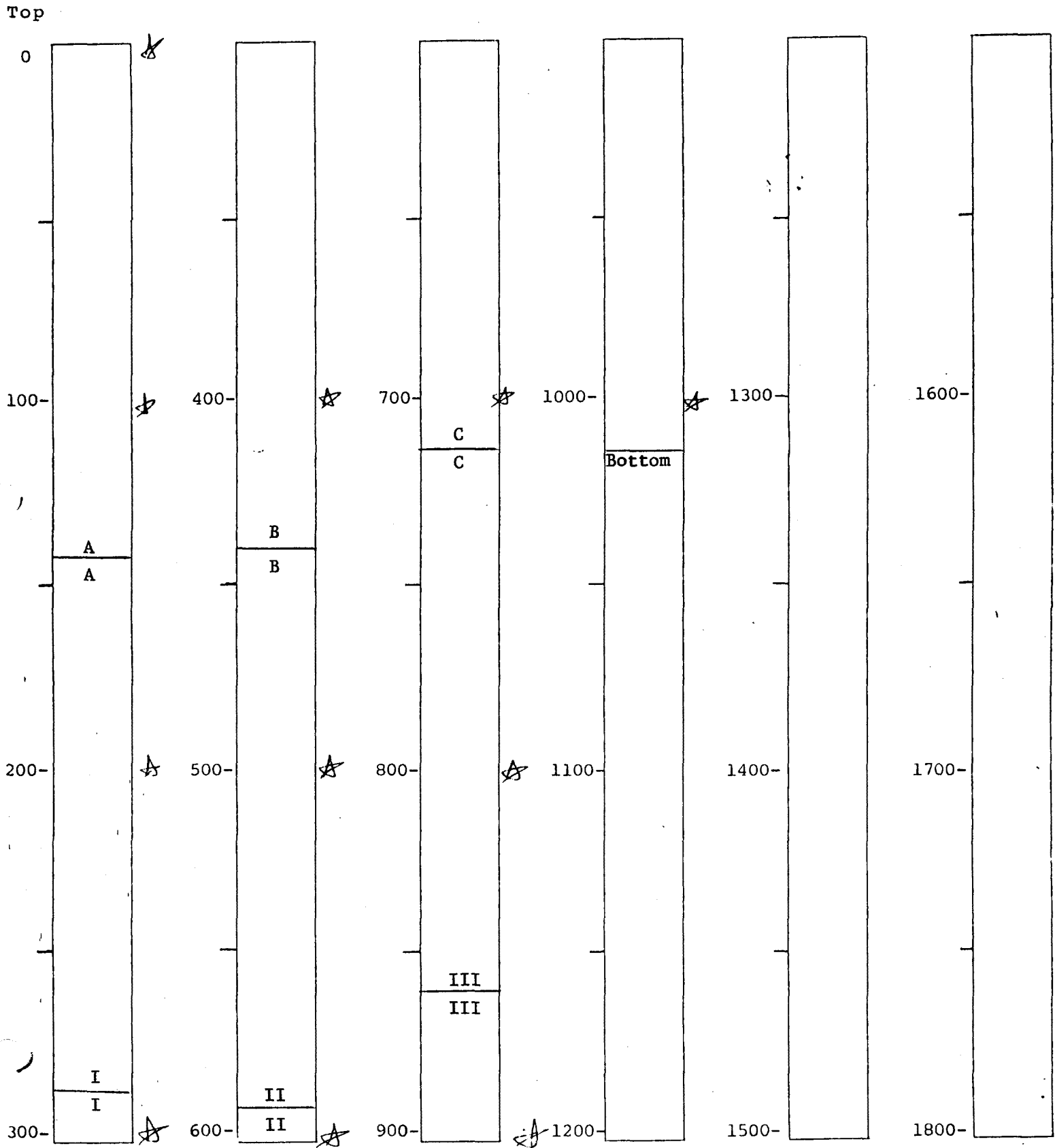
MCG 10 02 00 1

Core Number 27

Cruise IG-19

Core Cap Samples  
B = Bottom of Section  
T = Top of Section

CORE SECTIONS



\* = Coarse fraction/smear slide location.



CORE NUMBER 27

CRUISE IG 19-3

INTERVAL OR LOCATION OF SAMPLE	ESTIMATED VOLUME OF SAMPLE	TAKEN BY	SAMPLING PURPOSE	PERSON AND/OR COMPANY RECEIVING SAMPLE(S) FOR INTENDED RESEARCH
Refer to page on "Density Measurements" for precise locations	approx. 1 cc.	T. Haines	wet-bulk density	U.S. Navy to receive density results(UT-MSI contracted to do density measurements)

NOV 10 02 30 00 1

CORE NUMBER 28 CRUISE IG 19-3  
 LATITUDE 29° 14.9' N LONGITUDE 86° 47.9' W  
 CORRECTED DEPTH 261 fm PDR DEPTH 255 fm  
 DATE TAKEN 6-26-76 DATE OPENED 7-7-77  
 DATE DESCRIBED 8-10-77 DATE PHOTOGRAPHED \_\_\_\_\_  
 DESCRIBED BY T. Haines CORE LENGTH 1012 cm  
 PENETRATION 1080 cm FLOW-IN 0 cm

SUMMARY OF CORE:

Fine to very fine foraminiferal sandy mud, greenish gray (5GY 6/1) soft and moist at top of core. No visible structures evident. Two very fine foraminiferal sandy clay units present, the deeper with chondrites burrows. Deepest unit of core is a fine to very fine foraminiferal sandy mud, greenish gray (5GY 6/1), very firm with sparse moisture content. Molluscan and echinoid shell fragments present in low amounts and randomly distributed through core. Chondrites burrowing present from 460 cm to end of core. Foram-rich filled burrows present between 500 and 505 cm; coarse fraction analysis indicates common amounts of planktonic (except abundant in samples at 0 and 1000 cm) & benthonic foraminifera, with rare percentages of pteropods, ostracods, molluscan shells/shell debris, quartz, manganese opaque minerals, echinoid spines, mica flakes, and pyrite.

INTERVAL	DESCRIPTION
0 - 170 cm	Fine to very fine foraminiferal sandy mud, greenish gray (5GY 6/1), soft and moist. Scattered molluscan and echinoid shell debris present in low amounts. Randomly located foram-filled burrows present in this unit, dark greenish gray (5GY 5/1) mottled areas with same texture material as surrounding matrix are present from 110 to 135 cm. No visible structures evident. Basal contact a gradual change in texture, color and composition.
170-460 cm	Very fine foraminiferal sandy clay, light olive gray (5Y 6/2), soft and moist; lutitic material very homogeneous. An occasional scattering of molluscan and echinoid shell fragments is visible. Mottling in this unit is colored light olive gray (5Y 5/2 and 5Y 4/2) and has similar fill material texture to that of surrounding material. No visible structures present. Basal contact a gradual change in color.
460-970 cm	Very fine foraminiferal sandy clay, light olive gray (5Y 6/1), semi-firm and moderate to low moisture content. Chondrites burrows are visible in this unit. Foram-rich fill material in closed burrows between 500 and 505 cm. Mottling present beginning at 600 cm and is colored light olive gray (5Y 5/2) and mottling colored dark yellowish brown (10YR 4/2) occurs in low amounts from 570 cm and is randomly distributed through this unit. Increasing firmness with depth. Basal contact a gradual change in color, texture, and composition.

100 100 300 1

INTERVAL	DESCRIPTION
970-1012 cm (core bottom)	Fine to very fine foraminiferal sandy mud, greenish gray (5GY 6/1), firm and sparse moisture content. Mottled areas throughout unit colored light olive gray (5Y 5/2) and occur in moderate amounts. Low amounts of well distributed molluscan shell fragments are visible. Chondrites burrowing is present. Size and number of foraminifera is larger than in above unit.

DENSITY MEASUREMENTS ON CORE EXTRACTATIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
1	15 cm	7.72	6.29	1.50	0.50	1.43	
2	35	8.06	6.61	1.50	0.50	1.45	
3	55	7.80	6.36	1.40	0.50	1.44	
4	75	7.61	6.30	1.50	0.50	1.31	Much softer texture; muddy and very moist
5	95	8.02	6.63	1.50	0.50	1.39	
6	115	7.40	5.99	1.50	0.50	1.41	
7	135	7.94	6.47	1.50	0.50	1.47	
8	155	7.66	6.23	1.50	0.50	1.43	
9	175	7.40	5.96	1.50	0.50	1.44	
10	195	8.23	6.80	1.40	0.40	1.43	
11	215	7.44	6.01	1.50	0.50	1.43	
12	235	7.86	6.45	1.50	0.50	1.41	
13	255	8.28	6.77	1.40	0.40	1.51	
14	275	7.91	6.42	1.50	0.50	1.49	
15	295	7.47	5.99	1.50	0.50	1.48	
16	315	7.96	6.44	1.50	0.50	1.52	
17	335	8.13	6.64	1.50	0.50	1.49	
18	355	7.87	6.28	1.50	0.50	1.59	
19	375	8.02	6.44	1.50	0.50	1.58	
20	395	7.90	6.34	1.50	0.50	1.56	
21	415	7.86	6.32	1.50	0.50	1.54	
22	435	7.90	6.30	1.50	0.50	1.60	
23	455	7.93	6.44	1.50	0.50	1.49	
24	475	7.48	5.99	1.50	0.50	1.49	
25	495	8.13	6.62	1.50	0.50	1.51	

NOG 30 025001

ORE NUMBER 28

CRUISE IG-19

DENSITY MEASUREMENTS ON CORE EXTRACTATIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
26	515 cm	7.90	6.46	1.40	0.40	1.44	
27	535	7.95	6.47	1.50	0.50	1.48	
28	555	8.22	6.73	1.50	0.50	1.49	
29	575	7.95	6.46	1.50	0.50	1.49	
30	595	7.96	6.46	1.50	0.50	1.50	
31	615	7.74	6.25	1.50	0.50	1.49	
32	635	8.24	6.74	1.50	0.50	1.50	
33	655	8.24	6.75	1.50	0.50	1.49	
34	675	8.17	6.62	1.50	0.50	1.55	
35	695	7.97	6.45	1.50	0.50	1.52	
36	713	7.69	6.17	1.50	0.50	1.52	
37	735	8.19	6.73	1.50	0.50	1.46	
38	755	7.73	6.25	1.50	0.50	1.48	
39	775	7.89	6.43	1.50	0.50	1.46	
40	795	8.18	6.73	1.50	0.50	1.45	
41	815	7.45	5.99	1.50	0.50	1.46	
42	835	7.97	6.55	1.50	0.50	1.42	
43	855	7.47	6.02	1.50	0.50	1.45	
44	875	8.08	6.60	1.50	0.50	1.48	
45	895	7.76	6.25	1.50	0.50	1.51	
46	915	8.13	6.64	1.50	0.50	1.49	
47	935	8.16	6.64	1.50	0.50	1.52	
48	955	8.18	6.68	1.50	0.50	1.50	
49	975	8.24	6.68	1.50	0.50	1.56	
50	995	8.06	6.49	1.50	0.50	1.57	

MGC 10 023 00 1

Rare: 5%	Common: 5-50%	and: 50-100%	Core No: 28	Cruise: IG 19-3	Sample Depth	FORAMS-PLANKTONIC	FORAMS-BENTHONIC	RADIOLARIA	DIATOMS	PTEROPODS	SPONGE SPICULES	OSTRACODS	MOLLUSC	CORALLINE ALGAE	CORAL	BRYOZOA	QUARTZ	FELDSPAR	MANGANESE	IRONSTONE	OPAQUE MINERALS	ROCK FRAGMENTS	OTHER	
					0 cm	A	C			R													mica flakes R.	
					100 cm	C	C			R			R									R	mica flakes R., pyrite R.	
					200 cm	C	C			R		R	C											pyrite R.
					300 cm	C	C			R			R											echinoid spines R., pyrite R.
					400 cm	C	C			R			R											mica flakes R., pyrite R.
					500 cm	C	C			R		R	R											pyrite R.
					600 cm	C	C			R			R							R				pyrite R.
					700 cm	C	C			R			R									R		pyrite R.
					800 cm	C	C			R			R											pyrite R.
					900 cm	C	C			R			R											pyrite R.
					1000 cm	A	C			R			R											pyrite R.

MG 10 02 00 1

267

ARE: 5%

COMMON: 5-50%

BIOM: 50-100%

ORE 28

IG 19-3

Sample Depth

FORAMS-PLANKTONIC	FORAMS-BENTHONIC	RADIOLARIA	DIATOMS	PTEROPODS	SPONGE SPICULES	SILICOFLAGELLATES	COCCOLITHS	DISCOASTERS	IRONSTONE	OPAQUE MINERALS	QUARTZ	MANGANESE	ZEOLITE	ASH SHARDS	OTHER

300 10 025 00 1

000 10 023 00 1

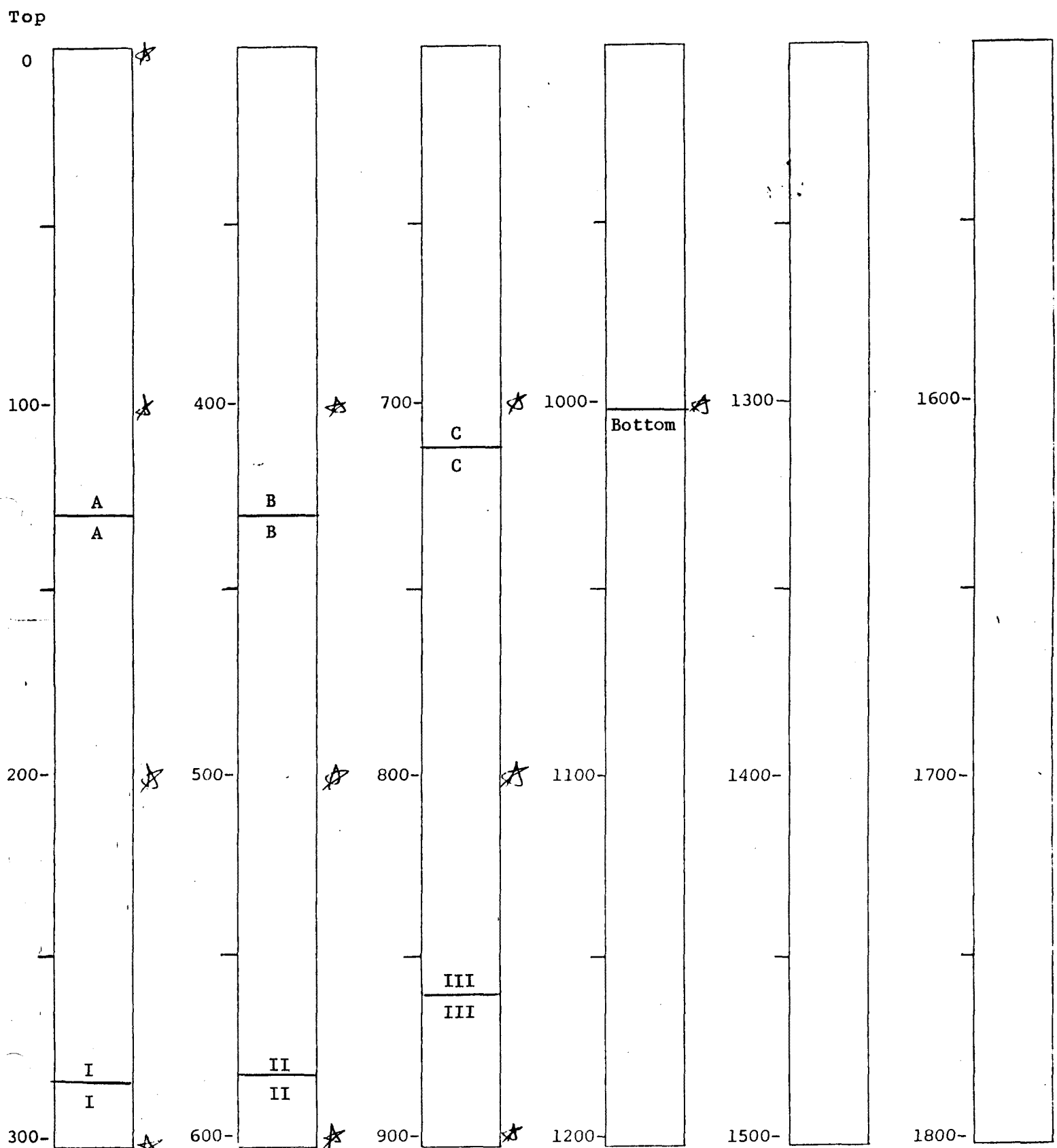
GRAPHIC CORE LOG

Core Number 28

Cruise IG-19

Core Cap Samples  
B = Bottom of Section  
T = Top of Section

CORE SECTIONS



\* = Coarse fraction/smear slide location.



CORE NUMBER 28

CRUISE IG 19-3

INTERVAL OR LOCATION OF SAMPLE	ESTIMATED VOLUME OF SAMPLE	TAKEN BY	SAMPLING PURPOSE	PERSON AND/OR COMPANY RECEIVING SAMPLE(S) FOR INTENDED RESEARCH
Refer to page on "Density Measurements" for precise locations	approx. 1 cc.	T. Haines	wet-bulk density	U.S. Navy to receive density results (UT-MSI contracted to do density measurements)

NOV 10 1962 3 00 PM

CORE NUMBER	<u>29</u>	CRUISE	<u>IG 19-3</u>
LATITUDE	<u>29° 11.8' N</u>	LONGITUDE	<u>86° 50.5' W</u>
CORRECTED DEPTH	<u>278 fm</u>	PDR DEPTH	<u>272 fm</u>
DATE TAKEN	<u>6-26-76</u>	DATE OPENED	<u>7-11-77</u>
DATE DESCRIBED	<u>8-10-77</u>	DATE PHOTOGRAPHED	_____
DESCRIBED BY	<u>T. Haines</u>	CORE LENGTH	<u>1000 cm</u>
PENETRATION	<u>1100 cm</u>	FLOW-IN	<u>0 cm</u>

SUMMARY OF CORE:

Very fine foraminiferal sandy clay, light olive gray (5Y 5/2), very soft and moist. Scattered mottled areas throughout entire core. Chondrites burrowing begins at 330 cm and continues in low amounts to the end of core. The two deepest units are fine to very fine foraminiferal sandy muds semi-firm to firm and sparsely moist. All units exhibit mottling to some degree. Molluscan shell debris present in low amounts in each unit. Several small open burrows visible in uppermost unit. Foram-rich closed burrows found below 442 cm; coarse fraction analysis indicates common amounts of planktonic(except abundant in samples taken at 0 and 995 cm) & benthonic foraminifera, rare to common molluscan shells/shell debris, and rare amounts of pteropods, ostracods, quartz, opaque minerals(found only in sample at 900 cm), mica flakes(500 cm sample only), and pyrite.

INTERVAL	DESCRIPTION
0 - 260 cm	Very fine foraminiferal sandy clay, light olive gray (5Y 5/2), soft and moist. Scattered mottling colored dark greenish gray (5GY 5/1) is visible in low amounts through this unit. Molluscan shell debris present in small amounts. Several open burrows visible. No visible structures evident. Material is lutitic and homogeneous. Basal contact a change in color.
260-442 cm	Very fine foraminiferal sandy clay, dark greenish gray (5GY 5/1), very soft and moist. Chondrites burrowing begins at 330 cm. Olive gray (5Y 5/1) mottling present in low amounts in this layer. Basal contact a gradual change in color, texture and composition.
442-882 cm	Fine to very fine foraminiferal sandy mud, light olive gray (5Y 6/1), moderately firm with low moisture content. Scattered foram-rich closed burrows present in random areas in the unit. Chondrites burrowing present in low amounts. Increasing firmness with depth. Mottled areas colored light olive gray (5Y 5/2) occur beginning at 809 cm and are 4 to 6 cm long. One mottled area at 822 cm is a diagonal band 2 cm wide crossing from one liner's edge to the opposite side. Basal contact a gradual change in color and texture.
882-1000 cm (core bottom)	Fine to very fine foraminiferal sandy mud, light greenish gray (5GY 7/1), firm and sparsely moist. Chondrites burrowing present in low amounts throughout this unit. Mottled areas present throughout are colored greenish gray (5GY 6/1), with a texture

INTERVAL	DESCRIPTION
882-1000 cm (continued)	similar to surrounding material. Large mottled area (8 cm in length) present at 903 cm and colored light olive gray (5Y 5/2) with a very fine-grained fill material.

CORE NUMBER 29

CRUISE IG-19

DENSITY MEASUREMENTS ON CORE EXTRACTATIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
1	15 cm	8.04	6.62	1.50	0.50	1.42	
2	35	7.88	6.51	1.50	0.50	1.37	
3	55	7.82	6.44	1.50	0.50	1.38	
4	75	8.17	6.78	1.50	0.50	1.39	
5	95	7.66	6.32	1.50	0.50	1.34	
6	115	7.87	6.50	1.50	0.50	1.37	
7	135	7.44	6.00	1.50	0.50	1.44	
8	155	8.02	6.58	1.50	0.50	1.44	
9	175	8.25	6.80	1.50	0.50	1.45	
10	195	8.10	6.63	1.50	0.50	1.47	
11	215	7.46	5.97	1.50	0.50	1.49	
12	235	7.82	6.24	1.50	0.50	1.58	
13	255	8.15	6.72	1.50	0.50	1.43	
14	275	7.68	6.24	1.50	0.50	1.44	
15	295	7.82	6.28	1.50	0.50	1.54	
16	315	8.28	6.75	1.50	0.50	1.53	
17	335	7.54	6.02	1.50	0.50	1.52	
18	355	7.83	6.29	1.50	0.50	1.54	
19	375	7.57	6.02	1.50	0.50	1.55	
20	395	8.00	6.46	1.50	0.50	1.54	
21	415	8.29	6.75	1.50	0.50	1.54	
22	435	7.54	5.99	1.50	0.50	1.55	
23	455	7.98	6.45	1.50	0.50	1.53	
24	475	7.89	6.40	1.50	0.50	1.49	
25	495	7.59	6.12	1.50	0.50	1.47	

NOV 10 00 00 00 1

ORE NUMBER 29

CRUISE IG-19

DENSITY MEASUREMENTS ON CORE EXTRactions FOR REFLECTION PROPERTY ANALYSIS

( $CC_{BEG.} - CC_{END} = CC_{TOTAL\ USED}$ )

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
26	515 cm	7.54	6.02	1.50	0.50	1.52	
27	535	7.97	6.45	1.50	0.50	1.52	
28	555	7.99	6.48	1.50	0.50	1.51	
29	575	8.25	6.72	1.50	0.50	1.53	
30	595	8.25	6.76	1.50	0.50	1.49	
31	615	8.04	6.54	1.50	0.50	1.50	
32	635	7.85	6.32	1.50	0.50	1.53	
33	655	7.97	6.45	1.50	0.50	1.52	
34	675	7.97	6.46	1.50	0.50	1.51	
35	695	7.54	6.04	1.50	0.50	1.50	
36	715	8.28	6.76	1.50	0.50	1.52	
37	735	7.74	6.22	1.50	0.50	1.52	
38	755	7.89	6.36	1.50	0.50	1.53	
39	775	7.97	6.47	1.50	0.50	1.50	
40	795	8.04	6.54	1.50	0.50	1.50	
41	815	7.73	6.24	1.50	0.50	1.49	
42	835	8.29	6.80	1.50	0.50	1.49	
43	855	7.89	6.35	1.50	0.50	1.54	
44	875	7.81	6.29	1.50	0.50	1.52	
45	895	7.84	6.31	1.50	0.50	1.53	
46	915	8.04	6.51	1.50	0.50	1.53	
47	935	8.02	6.43	1.50	0.50	1.59	
48	955	8.21	6.66	1.50	0.50	1.55	
49	975	7.91	6.37	1.50	0.50	1.54	
50	995	7.91	6.37	1.50	0.50	1.54	

Rare: 5%	Common: 5-50%	Core No: 29	Sample Depth	FORAMS-PLANKTONIC	FORAMS-BENTHONIC	RADIOLARIA	DIATOMS	PTEROPODS	SPONGE SPICULES	OSTRACODS	MOLLUSC	CORALLINE ALGAE	CORAL	BRYOZOA	QUARTZ	FELDSPAR	MANGANESE	IRONSTONE	OPAQUE MINERALS	ROCK FRAGMENTS	OTHER
	Ind: 50-100%	Cruise: IG 19-3	0 cm	A	C			R													
			100 cm	C	C			R			C										pyrite R.
			200 cm	C	C			R		R	R				R						pyrite R.
			300 cm	C	C			R		R	R				R						pyrite R.
			400 cm	C	C			R			R				R						pyrite R.
			500 cm	C	C			R			R										pyrite R., mica flakes R.
			600 cm	C	C			R			R				R						pyrite R.
			700 cm	C	C			R			R				R						pyrite R.
			800 cm	C	C			R			R				R						pyrite R.
			900 cm	C	C			R											R		pyrite R.
			995 cm	A	C			R			R										pyrite R.

NO. 1000000000

ARE: 58

COMMON: 5-50%

IG 50-100%

ORE 29

IG 19-3

Sample Depth

FORAMS-PLANKTONIC

FORAMS-BENTHONIC

RADIOLARIA

DIATOMS

PTEROPODS

SPONGE SPICULES

SILICOFLAGELLATES

COCCOLITHS

DISCOASTERS

IRONSTONE

OPAQUE MINERALS

QUARTZ

MANGANESE

ZEOLITE

ASH SHARDS

OTHER

NO. 10025001

GRAPHIC CORE LOG

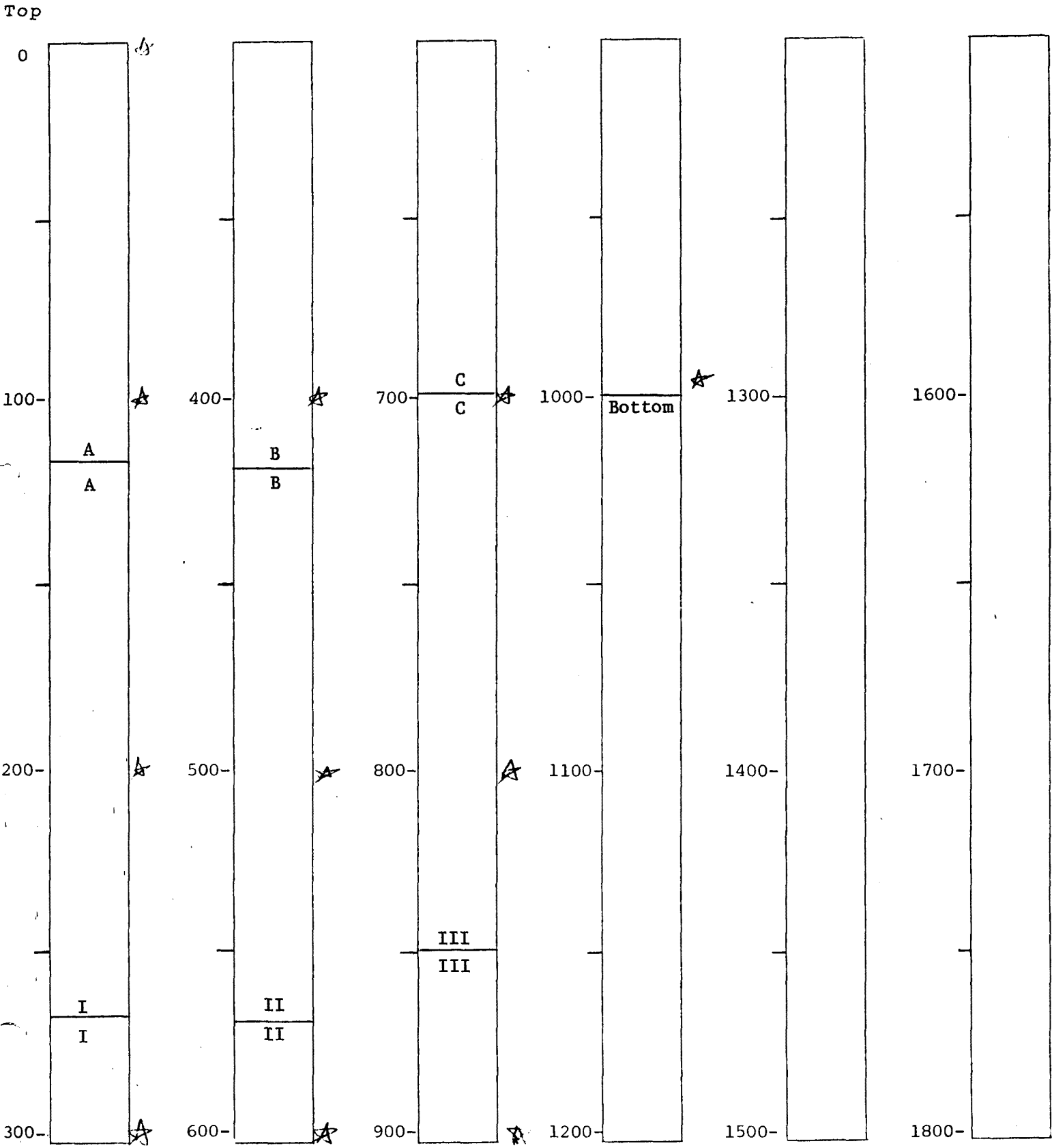
MCG 10025901

Core Number 29

Cruise IG-19

Core Cap Samples  
B = Bottom of Section  
T = Top of Section

CORE SECTIONS



\* = Coarse fraction/smear slide location



CORE NUMBER 29

CRUISE IG 19-3

INTERVAL OR LOCATION OF SAMPLE	ESTIMATED VOLUME OF SAMPLE	TAKEN BY	SAMPLING PURPOSE	PERSON AND/OR COMPANY RECEIVING SAMPLE(S) FOR INTENDED RESEARCH
Refer to page on "Density Measurements" for precise locations	approx. 1 cc.	T. Haines	wet-bulk density	U.S. Navy to receive density results(UT-MSI contracted to do density measurements)

NOV 10 02 50 03

CORE NUMBER	<u>30</u>	CRUISE	<u>IG 19-3</u>
LATITUDE	<u>29° 10.4' N</u>	LONGITUDE	<u>86° 54.4' W</u>
CORRECTED DEPTH	<u>303 fm</u>	PDR DEPTH	<u>297 fm</u>
DATE TAKEN	<u>6-26-76</u>	DATE OPENED	<u>7-13-77</u>
DATE DESCRIBED	<u>8-11-77</u>	DATE PHOTOGRAPHED	_____
DESCRIBED BY	<u>T. Haines</u>	CORE LENGTH	<u>996 cm</u>
PENETRATION	<u>1035 cm</u>	FLOW-IN	<u>0 cm</u>

## SUMMARY OF CORE:

MGG 10 02 5 00 1

Medium fine to very fine foraminiferal sandy mud, dark greenish gray (5GY 5/1), soft and moist at top of core with several scattered open burrows below 85 cm and small amounts of molluscan shell debris; from 153-515 cm two very fine foraminiferal sandy clay units differing in color only, each has mottled areas as well as chondrites burrows and small fragments of molluscan shells. Deepest unit is a medium fine to fine foraminiferal sandy mud, greenish gray (5GY 6/1), firm with sparse moisture content, chondrites burrowing present and small amounts of molluscan shell debris. Several 0.5 cm layers of very fine foraminiferal sandy clay are present at 428, 445, and 503 cm. differing in color from the adjacent sediment; coarse fraction analysis indicates a common amount of planktonic (abundant at 0 cm sample) & benthonic foraminifera, with rare amounts of pteropods, ostracods, molluscan shells/shell debris, quartz, opaque minerals, pyrite, mica flakes, and echinoid spines.

INTERVAL	DESCRIPTION
0 - 153 cm	Medium fine to very fine foraminiferal sandy mud, dark greenish gray (5GY 5/1), soft and moist, no visible structures evident. Low amounts of well distributed molluscan shell and shell debris present. Small open burrows visible below 85 cm. Basal contact a gradual change in color, texture and composition.
153-331 cm	Very fine foraminiferal sandy clay, light grayish olive (10Y 5/2); very soft and moist. Moderate to intense mottling colored olive gray (5Y 4/1) is present through unit; no visible structures evident. Very low amounts of scattered molluscan shell fragments are randomly distributed in this unit. Basal contact a gradual change in color.
331-515 cm	Very fine foraminiferal sandy clay, light olive gray (5Y 5/1), very soft and moist. No visible structures evident. Low amount of randomly distributed molluscan shells and shell fragments. Chondrites burrowing is visible in low amounts through entire unit; 0.5 cm thick bands of very fine grained olive gray (5Y 4/1) foraminiferal sandy clay are visible at 428, 445 and 503 cm differing in color from surrounding material. Basal contact a gradual change in color, texture and composition.
515-926 cm	Fine to very fine foraminiferal sandy mud, light olive gray (5Y 6/1) semi-firm and moderate moisture content. Mottling colored light olive gray (5Y 6/2) is present in low amounts and well distributed in this unit. Low amounts of well distributed chondrites burrows

INTERVAL	DESCRIPTION
515-926 cm (continued)	are visible through entire unit. Mottling colored dark yellowish brown (10YR 4/2) occurs from 712-753 cm and 887-895 cm in low to moderate amounts. Mottling colored light olive gray (5Y 6/2) occurs from 828 to 848 cm in low amounts. Basal contact a gradual change in color and texture.
926-996 cm (core bottom)	Medium fine to fine foraminiferal sandy mud, greenish gray (5GY 6/1), firm and low moisture content. Low amounts of well distributed molluscan shell fragments present. Chondrites burrowing evident in low amounts. Mottled areas colored dark yellowish brown (10YR 4/2) are present from 930 to 945 cm in low amounts. No visible structures evident.

MCC 10 02 800 1

280

CORE NUMBER 30CRUISE IG-19

## DENSITY MEASUREMENTS ON CORE EXTRACTIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
1	15 cm	7.63	6.21	1.50	0.50	1.42	
2	35	8.16	6.70	1.50	0.50	1.46	
3	55	7.43	6.02	1.50	0.50	1.41	
4	75	7.88	6.52	1.50	0.50	1.36	
5	95	7.83	6.47	1.50	0.50	1.36	
6	113	7.79	6.44	1.50	0.50	1.35	
7	135	7.85	6.46	1.50	0.50	1.39	
8	155	7.90	6.46	1.50	0.50	1.44	
9	175	8.10	6.66	1.50	0.50	1.44	
10	195	8.03	6.61	1.50	0.50	1.42	
11	215	7.54	6.08	1.50	0.50	1.46	
12	235	7.42	5.96	1.50	0.50	1.46	
13	255	7.71	6.24	1.50	0.50	1.47	
14	275	7.47	5.98	1.50	0.50	1.49	
15	295	8.14	6.54	1.50	0.50	1.60	
16	315	7.79	6.30	1.50	0.50	1.49	
17	335	8.15	6.63	1.50	0.50	1.52	
18	355	8.30	6.75	1.50	0.50	1.55	
19	375	8.22	6.66	1.50	0.50	1.56	
20	395	8.03	6.46	1.50	0.50	1.57	
21	415	8.33	6.66	1.50	0.50	1.67	
22	435	7.54	5.98	1.50	0.50	1.56	
23	455	8.18	6.59	1.50	0.50	1.59	
24	475	8.22	6.63	1.50	0.50	1.59	
25	495	7.64	5.98	1.50	0.50	1.66	

MCC

10 22 5 0 0 1

CORE NUMBER 30CRUISE IG-19

## DENSITY MEASUREMENTS ON CORE EXTRACTIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC BEG	CC END	WET	PROBLEMS/ OBSERVATIONS
						BULK DENSITY	
26	515 cm	7.75	6.21	1.50	0.50	1.54	
27	535	7.53	6.02	1.50	0.50	1.51	
28	555	8.10	6.57	1.50	0.50	1.53	
29	575	7.80	6.31	1.50	0.50	1.49	
30	595	7.90	6.45	1.50	0.50	1.45	
31	615	7.83	6.36	1.50	0.50	1.47	
32	635	7.57	6.08	1.50	0.50	1.49	
33	655	8.10	6.65	1.50	0.50	1.45	
34	675	8.08	6.57	1.50	0.50	1.51	
35	693	8.12	6.63	1.50	0.50	1.49	
36	715	7.57	6.07	1.50	0.50	1.50	
37	735	7.83	6.25	1.50	0.50	1.58	
38	755	7.74	6.25	1.50	0.50	1.49	
39	775	7.82	6.31	1.50	0.50	1.51	
40	795	8.32	6.79	1.50	0.50	1.53	
41	815	8.28	6.75	1.50	0.50	1.53	
42	835	8.19	6.62	1.50	0.50	1.57	
43	855	7.73	6.20	1.50	0.50	1.53	
44	875	8.13	6.61	1.50	0.50	1.52	
45	895	7.68	6.11	1.50	0.50	1.57	
46	915	7.57	6.04	1.50	0.50	1.53	
47	935	7.46	5.91	1.50	0.50	1.55	
48	955	8.33	6.80	1.50	0.50	1.53	
49	975	7.99	6.45	1.50	0.50	1.54	

MSD 10000001



ARE: 5%

COMMON: 5-50%

1: 50-100%

ORE 30

IG 19-3

Sample Depth

FORAMS-PLANKTONIC

FORAMS-BENTHONIC

RADIOLARIA

DIATOMS

PTEROPODS

SPONGE SPICULES

SILICOFLAGELLATES

COCCOLITHS

DISCOASTERS

IRONSTONE

OPAQUE MINERALS

QUARTZ

MANGANESE

ZEOLITE

ASH SHARDS

OTHER

1000000001

MCG 10 02 5 00 1

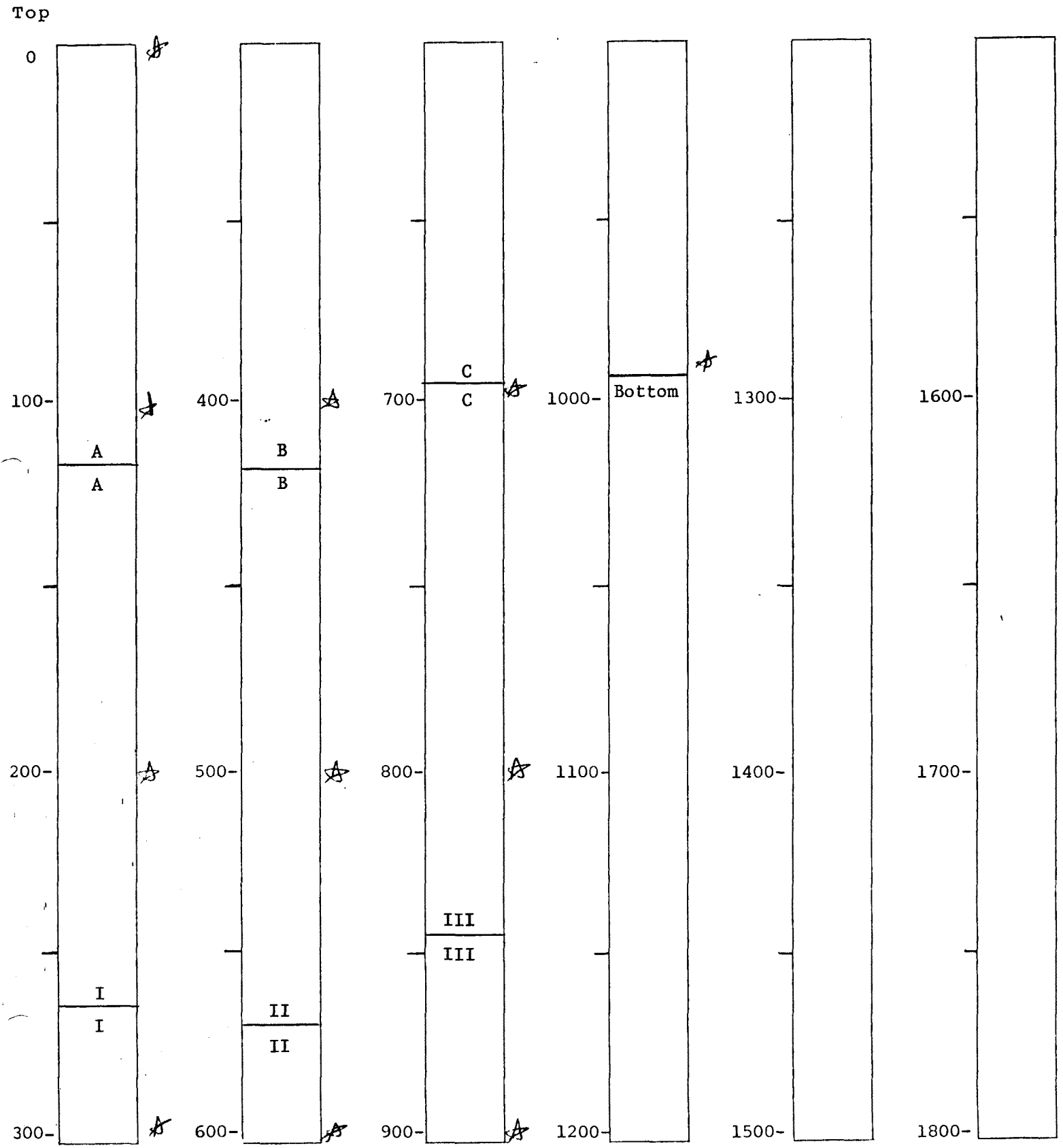
GRAPHIC CORE LOG

Core Number 30

Cruise IG-19

Core Cap Samples  
B = Bottom of Section  
T = Top of Section

CORE SECTIONS





CORE NUMBER 30

CRUISE IG 19-3

INTERVAL OR LOCATION OF SAMPLE	ESTIMATED VOLUME OF SAMPLE	TAKEN BY	SAMPLING PURPOSE	PERSON AND/OR COMPANY RECEIVING SAMPLE(S) FOR INTENDED RESEARCH
Refer to page on "Density Measurements" for precise locations	approx. 1 cc.	T. Haines	wet-bulk density	U.S. Navy to receive density results(UT-MSI contracted to do density measurements)

NOV 1964

CORE NUMBER 31 CRUISE \_\_\_\_\_  
 LATITUDE 29° 08.1' N LONGITUDE 86° 55.0' W  
 CORRECTED DEPTH 324 fm PDR DEPTH 318 fm  
 DATE TAKEN 6-26-76 DATE OPENED 7-14-77  
 DATE DESCRIBED 8-4-77 DATE PHOTOGRAPHED \_\_\_\_\_  
 DESCRIBED BY T. Haines CORE LENGTH 980 cm  
 PENETRATION 1040 cm FLOW-IN 0 cm

SUMMARY OF CORE:

Fine to very fine foraminiferal sandy mud, greenish gray (5GY 6/1), soft and moist at top becoming a foraminiferal sandy clay at 168 to 693 cm and then remaining units to end of core are foraminiferal sandy muds. Chondrites burrows are present in low amounts in most of the units becoming slightly more common in deepest unit. A few foram-rich burrows are present in lower one-third of core. Molluscan shell fragments are visible in lower most unit of core; coarse fraction analysis indicates common amounts of planktonic (except abundant in sample at 0 cm) & benthonic foraminifera, pteropods, ostracods, molluscan shells/shell debris, manganese, sponge spicules, opaque minerals, pyrite, mica flakes, and echinoid spines.

INTERVAL	DESCRIPTION
0-168 cm	Fine to very fine foraminiferal sandy mud, greenish gray (5GY 6/1), soft and moist. Occasional mottling colored light grayish olive (10Y 5/2) is evident from 80 to 120 cm. No visible shell debris evident. Very few chondrites burrows present from 118 to end of unit. No visible structures evident. Basal contact a distinct change in color, texture and composition.
168-245 cm	Very fine foraminiferal sandy clay, light olive gray (5Y 5/1), very soft and moderate moisture content. Intense mottling colored light olive gray (5Y 5/2) is present through unit with heavier concentrations from 168 to 208 cm and 235 to 245 cm. Very homogeneous material; no visible structures evident. Basal contact a change in color.
245-660 cm	Very fine foraminiferal sandy clay, greenish gray (5GY 6/1), very soft and moderately moist. Some mottling present in small amounts and colored light olive gray (5Y 5/2) as in above unit fill material of the same texture as the surrounding matrix. Low percentages of chondrites burrows are present with even distribution in this unit. Basal contact a gradual change in color.
660-693 cm	Very fine foraminiferal sandy clay, dark pale yellowish brown (10YR 5/2), semi-firm and sparse moisture content. No visible structures evident. Chondrites burrowing present in low percentages. No shell fragments visible. Basal contact a gradual change in color texture and composition.

INTERVAL	DESCRIPTION
693-825 cm	Fine to very fine foraminiferal sandy mud, light olive gray (5Y 6/1), firm and sparse moisture content. Mottling present through unit with fill material colored light olive gray (5Y 5/2), having same general texture as surrounding material also at 719 cm a foram-rich fill material in a closed burrow; at 770 cm mottled area colored dark pale yellowish brown (10YR 5/2). No visible structures evident. Basal contact a gradual color change.
825-886 cm	Fine to very fine foraminiferal sandy mud, light olive gray (5Y 4/2), firm and low moisture content. Moderate mottling colored light olive gray (5Y 6/1) is present and well distributed through unit. Chondrites burrows present in low amounts. No visible structures evident. Basal contact a gradual change in color.
886-980 cm (core bottom)	Fine to very fine foraminiferal sandy mud, greenish gray (5GY 6/1), firm and sparse moisture content. Chondrites burrowing found in low to moderate amounts. Mottling colored light olive gray (5Y 6/1) is present through unit. Burrows filled with foram-rich material are present from 960-970 cm. Small amounts of molluscan shell debris is present through this unit. No visible structures evident.

CORE NUMBER 31CRUISE IG-19

## DENSITY MEASUREMENTS ON CORE EXTRACTIONS FOR REFLECTION PROPERTY ANALYSIS

 $(CC_{BEG.} - CC_{END} = CC_{TOTAL USED})$ 

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
1	15 cm	7.60	6.17	1.50	0.50	1.43	
2	35	7.71	6.23	1.50	0.50	1.48	
3	55	8.07	6.64	1.50	0.50	1.43	
4	75	8.11	6.69	1.50	0.50	1.42	
5	95	7.67	6.32	1.50	0.50	1.35	
6	115	7.54	6.12	1.50	0.50	1.42	
7	135	8.26	6.79	1.50	0.50	1.47	
8	155	8.12	6.66	1.50	0.50	1.46	
9	175	7.75	6.25	1.50	0.50	1.50	
10	195	7.75	6.30	1.50	0.50	1.45	
11	215	8.05	6.50	1.50	0.50	1.55	
12	235	8.26	6.74	1.50	0.50	1.52	
13	255	7.65	6.08	1.50	0.50	1.57	
14	275	7.96	6.48	1.50	0.50	1.48	
15	295	7.73	6.23	1.50	0.50	1.50	
16	315	8.17	6.62	1.50	0.50	1.55	
17	335	7.92	6.32	1.50	0.50	1.60	
18	355	7.52	5.98	1.50	0.50	1.54	
19	375	8.23	6.56	1.50	0.50	1.67	
20	395	7.70	6.10	1.50	0.50	1.60	
21	415	7.87	6.22	1.50	0.50	1.65	
22	435	8.28	6.68	1.50	0.50	1.60	
23	455	8.04	6.44	1.50	0.50	1.60	
24	475	8.22	6.61	1.50	0.50	1.61	
25	495	7.87	6.29	1.50	0.50	1.58	

MCC 10 025 00 1

CORE NUMBER 31

CRUISE IG-19

DENSITY MEASUREMENTS ON CORE EXTRACTATIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
26	515 cm	8.26	6.74	1.50	0.50	1.52	
27	535	8.17	6.68	1.50	0.50	1.49	
28	555	7.72	6.21	1.50	0.50	1.51	
29	575	8.03	6.55	1.50	0.50	1.48	
30	595	7.89	6.36	1.50	0.50	1.53	
31	615	8.17	6.63	1.50	0.50	1.54	
32	635	8.10	6.57	1.50	0.50	1.53	
33	655	7.92	6.41	1.50	0.50	1.51	
34	675	8.30	6.70	1.50	0.50	1.60	
35	695	7.87	6.41	1.50	0.50	1.46	
36	715	7.51	6.00	1.50	0.50	1.51	
37	735	8.07	6.60	1.50	0.50	1.47	
38	755	8.06	6.57	1.50	0.50	1.49	
39	775	8.22	6.71	1.50	0.50	1.51	
40	795	7.48	5.98	1.50	0.50	1.50	
41	815	8.16	6.66	1.50	0.50	1.50	
42	835	7.71	6.20	1.50	0.50	1.51	
43	855	7.94	6.44	1.50	0.50	1.50	
44	875	7.94	6.40	1.50	0.50	1.54	
45	895	7.64	6.12	1.50	0.50	1.52	
46	915	7.94	6.45	1.50	0.50	1.49	
47	935	8.26	6.74	1.50	0.50	1.52	
48	955	7.45	5.92	1.50	0.50	1.53	
49	975	7.67	6.14	1.50	0.50	1.53	

Rare: 5%	Common: 5-50%	nd: 50-100%	Core No: 31	Cruise: IG 19-3	Sample Depth	FORAMS-PLANKTONIC	FORAMS-BENTHONIC	RADIOLARIA	DIATOMS	PTEROPODS	SPONGE SPICULES	OSTRACODS	MOLLUSC	CORALLINE ALGAE	CORAL	BRYOZOA	QUARTZ	FELDSPAR	MANGANESE	IRONSTONE	OPAQUE MINERALS	ROCK FRAGMENTS	OTHER
					0 cm	A	C					R									R		pyrite R.
					100 cm	C	C			R		R	R				R				R		mica flakes R., pyrite R.
					200 cm	C	C			R			R				R		R		R		mica flakes R., pyrite R.
					300 cm	C	C										R						mica flakes R., pyrite R.
					400 cm	C	C			R							R						mica flakes R., pyrite R.
					500 cm	C	C			R		R	R				R						echinoid spines R., pyrite R., mica flakes R.
					600 cm	C	C			R		R	R				R						echinoid spines R., pyrite R.
					700 cm	C	C			R	R		R				R						echinoid spines R., pyrite R.
					800 cm	C	C			R			R										echinoid spines R., pyrite R.
					900 cm	C	C			R		R	R								R		echinoid spines R., pyrite R.

NOV 10 02 5 00 J.

ARE: 5%

COMMON: 5-50%

1 /: 50-100%

ORE 31

. IG 19-3

Sample Depth

FORAMS-PLANKTONIC

FORAMS-BENTHONIC

RADIOLARIA

DIATOMS

PTEROPODS

SPONGE SPICULES

SILICOFLAGELLATES

COCCOLITHS

DISCOASTERS

IRONSTONE

OPAQUE MINERALS

QUARTZ

MANGANESE

ZEOLITE

ASH SHARDS

OTHER

1009301

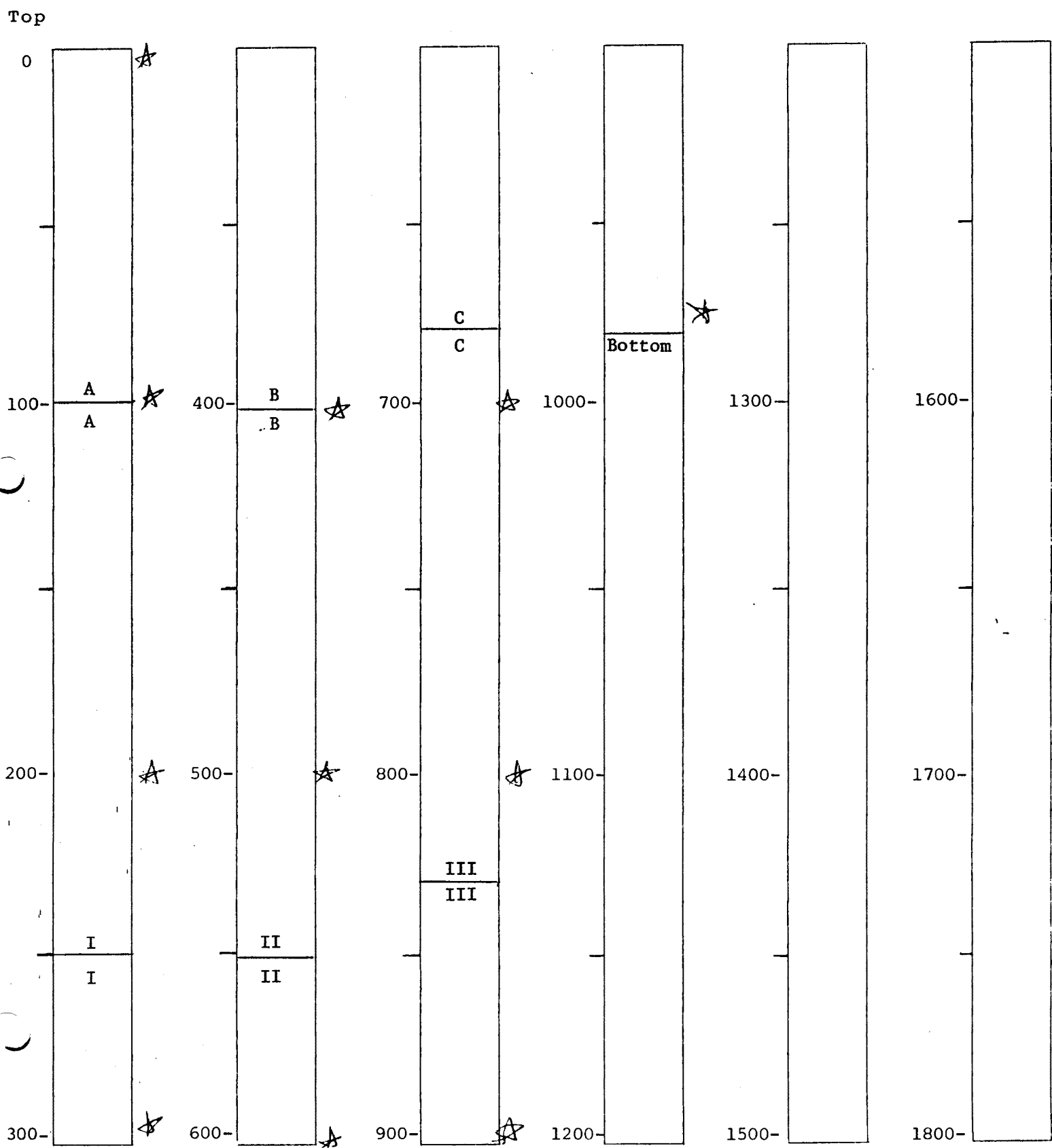
GRAPHIC CORE LOG

Core Number 31

Cruise IG-19

Core Cap Samples  
B = Bottom of Section  
T = Top of Section

CORE SECTIONS



\* = Coarse fraction/smear slide location.



CORE NUMBER 31

CRUISE IG 19-3

INTERVAL OR LOCATION OF SAMPLE	ESTIMATED VOLUME OF SAMPLE	TAKEN BY	SAMPLING PURPOSE	PERSON AND/OR COMPANY RECEIVING SAMPLE(S) FOR INTENDED RESEARCH
Refer to page on "Density Measurements" for precise locations	approx. 1 cc.	T. Haines	wet-bulk density	U.S. Navy to receive density results(UT-MSI contracted to do density measurements)

NOV 10 02 3 00 1

CORE NUMBER 32 CRUISE IG 19-3  
 LATITUDE 29° 05.8' N LONGITUDE 86° 56.4' W  
 CORRECTED DEPTH 349 fm PDR DEPTH 342 fm  
 DATE TAKEN 6-26-76 DATE OPENED 7-15-77  
 DATE DESCRIBED 8-11-77 DATE PHOTOGRAPHED \_\_\_\_\_  
 DESCRIBED BY T. Haines CORE LENGTH 1021 cm  
 PENETRATION 955 cm FLOW-IN 66 cm

SUMMARY OF CORE:

Fine to very fine foraminiferal sandy mud, dark greenish gray (5GY 5/1), soft and moist. A very fine foraminiferal sandy clay, light olive gray (5Y 5/1), present from 150-478 cm and remainder of core is fine to very fine foraminiferal sandy muds varying in color from dark greenish gray (5GY 5/1) to greenish gray (5GY 6/1). Chondrites burrowing and mottling present in all units. Scattered molluscan shell debris present in low amounts. Possibly some very fine grained laminar 1.0 cm diameter bedding planes evident near 330 cm and at 511 cm; coarse fraction analysis indicates common amounts of planktonic(except abundant in sample at 0 cm) & benthonic foraminifera, and rare percentages of pteropods, sponge spicules, ostracods, molluscan shells/shell debris, quartz, opaque minerals, mica flakes, and pyrite.

NOV 10 02 3 00 1

INTERVAL	DESCRIPTION
0-150 cm	Fine to very fine foraminiferal sandy mud, dark greenish gray (5GY 5/1), soft and moist. No visible structures evident. Mottling present from 75 to 91 cm colored light olive gray (5Y 5/2) and has very fine grained fill material. Occasional open burrows present in this unit from top to 125 cm. Chondrites burrowing visible at random locations in low amounts. Low amounts of well distributed molluscan and sparse amounts of echinoid fragments present. Basal contact a gradual change in color, texture and composition.
150-478 cm	Very fine foraminiferal sandy clay light olive gray (5Y 5/1) very soft and moist. Mottling colored olive gray (5Y 4/1) present in low amounts through unit. Chondrites burrowing visible in very low amounts. Material is very homogeneous and lutitic. No visible structures evident; 332-363 cm mottled areas colored greenish gray (5GY 6/1) some of which are possible bedding planes 0.5 cm thick differing from adjacent material in color. Basal contact a gradual change in color, texture and composition.
478-840 cm	Fine to very fine foraminiferal sandy mud, dark greenish gray (5GY 5/1) semi-firm and moderately moist. Olive gray (5Y 4/1) 1 cm thick band of very fine grained material present at 511 cm. Chondrites burrows present at random in low percentages. Occasional mottling colored olive gray (5Y 4/1) is visible throughout the unit; 625-655 cm and 772-796 cm mottled areas colored dark yellowish brown (10YR 4/2) increasing firmness with depth; 740-750 cm a large burrow network colored olive gray (5Y 4/1) and light olive gray (5Y 5/2). Basal contact a sharp change in color.

205

INTERVAL	DESCRIPTION
840-1021 cm (core bottom)	Fine to very fine foraminiferal sandy mud, greenish gray (5GY 6/1), firm and sparsely moist. No visible structures evident. Dark greenish gray (5GY 5.5/1). Mottling is present in low amounts through unit. Chondrites burrows present in low amounts, molluscan shell debris very rare and randomly distributed. A dark gray (N 3) foram-rich filled burrow visible at 893 cm. Probable flow-in noted from 955 cm to end of core.

MCC 10 02 5 0 0 1

CORE NUMBER 32

CRUISE IG-19

DENSITY MEASUREMENTS ON CORE EXTRACTIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
1	15 cm	7.32	5.96	1.50	0.50	1.36	
2	35	7.21	5.84	1.50	0.50	1.37	
3	55	7.57	6.22	1.50	0.50	1.35	
4	75	7.62	6.26	1.50	0.50	1.36	
5	95	7.32	5.94	1.50	0.50	1.38	
6	115	7.44	6.00	1.50	0.50	1.44	
7	135	7.15	5.72	1.50	0.50	1.43	
8	155	7.45	6.02	1.50	0.50	1.43	
9	175	7.72	6.31	1.50	0.50	1.41	
10	195	7.41	6.00	1.50	0.50	1.41	
11	215	7.18	5.68	1.50	0.50	1.50	
12	235	7.40	5.90	1.50	0.50	1.50	
13	255	7.39	5.90	1.50	0.50	1.49	
14	275	7.53	6.03	1.50	0.50	1.50	
15	295	7.52	5.95	1.50	0.50	1.57	
16	315	7.45	5.90	1.50	0.50	1.55	
17	335	7.53	5.95	1.50	0.50	1.58	
18	355	7.33	5.72	1.50	0.50	1.61	Increased firmness of clay material
19	375	7.52	6.00	1.50	0.50	1.52	
20	395	7.82	6.22	1.50	0.50	1.60	
21	415	7.50	5.95	1.50	0.50	1.55	
22	435	7.28	5.74	1.50	0.50	1.54	
23	455	7.41	5.77	1.50	0.50	1.64	
24	475	7.27	5.62	1.50	0.50	1.65	
25	495	7.36	5.67	1.50	0.50	1.69	

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ORE NUMBER 32

CRUISE IG-19

DENSITY MEASUREMENTS ON CORE EXTRACTATIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
26	515 cm	7.66	6.16	1.50	0.50	1.50	
27	535	7.43	5.95	1.50	0.50	1.48	
28	555	7.59	6.06	1.50	0.50	1.53	
29	575	7.66	6.06	1.50	0.50	1.60	
30	593	7.43	5.87	1.50	0.50	1.56	
31	615	7.50	5.95	1.50	0.50	1.55	
32	635	7.67	6.05	1.50	0.50	1.62	
33	655	7.24	5.71	1.50	0.50	1.53	
34	675	7.36	5.84	1.50	0.50	1.52	
35	695	7.60	6.07	1.50	0.50	1.53	
36	715	7.54	5.99	1.50	0.50	1.55	
37	735	7.42	5.92	1.50	0.50	1.50	
38	755	7.37	5.87	1.50	0.50	1.50	
39	775	7.31	5.81	1.50	0.50	1.50	
40	795	7.71	6.14	1.50	0.50	1.57	
41	815	7.41	5.88	1.50	0.50	1.53	
42	835	7.47	5.95	1.50	0.50	1.52	
43	855	7.58	6.07	1.50	0.50	1.51	
44	875	7.39	5.89	1.50	0.50	1.50	
45	895	7.10	5.59	1.50	0.50	1.51	
46	915	7.23	5.68	1.50	0.50	1.55	
47	935	7.46	5.90	1.50	0.50	1.56	
48	955	7.49	5.95	1.50	0.50	1.54	
49	975	7.40	5.87	1.50	0.50	1.53	
50	995	7.47	5.90	1.50	0.50	1.57	
51	1015	7.60	6.06	1.50	0.50	1.54	

MGC 10 02 5 00 1





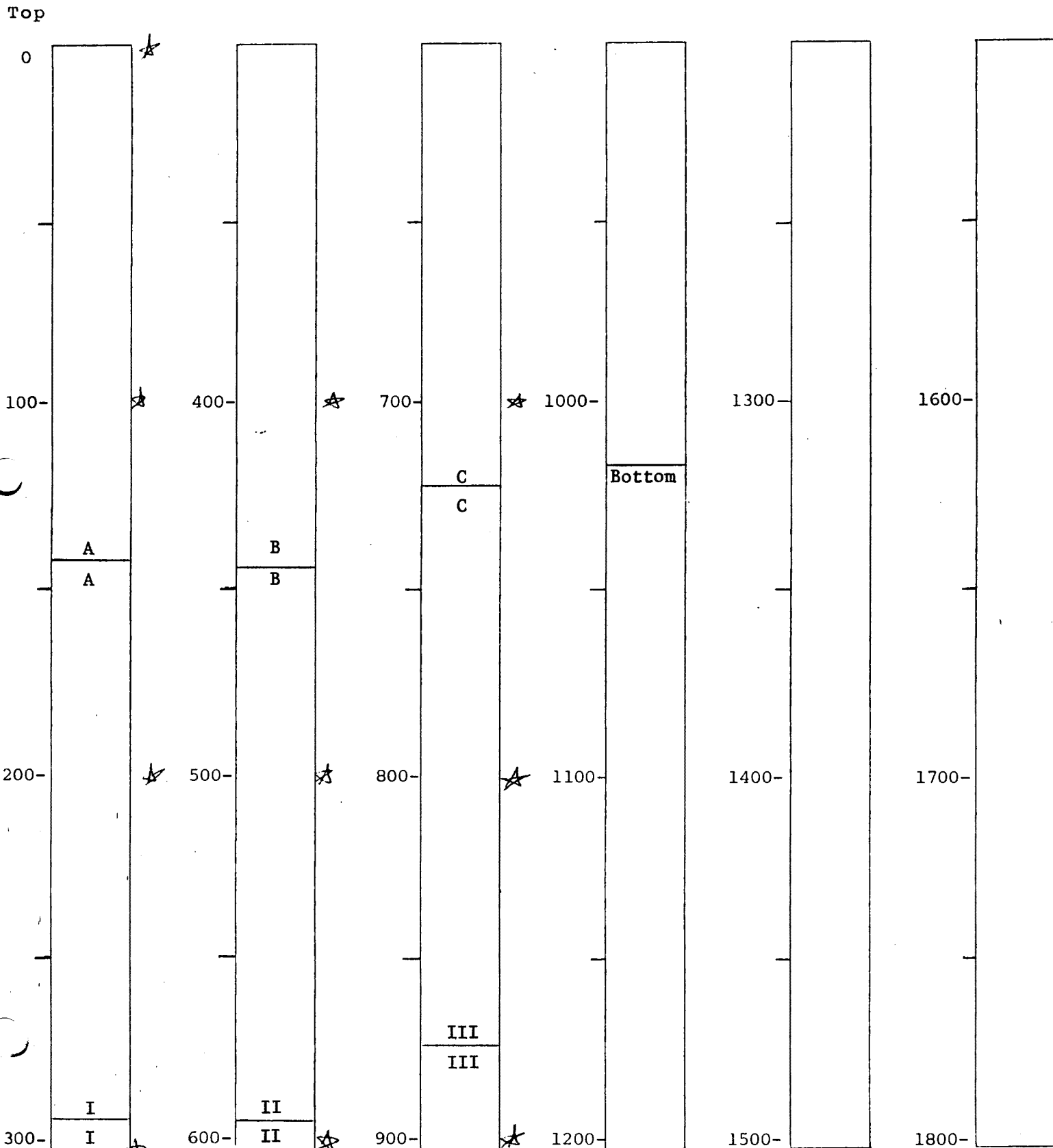
GRAPHIC CORE LOG **MRC 10 01 01**

Core Number 32

Cruise IG-19

Core Cap Samples  
B = Bottom of Section  
T = Top of Section

CORE SECTIONS





INTERVAL OR LOCATION OF SAMPLE	ESTIMATED VOLUME OF SAMPLE	TAKEN BY	SAMPLING PURPOSE	PERSON AND/OR COMPANY RECEIVING SAMPLE(S) FOR INTENDED RESEARCH
Refer to page on "Density Measurements" for precise locations	approx. 1 cc.	T. Haines	wet-bulk density	U.S. Navy to receive density results (UT-MSI contracted to do density measurements)

CORE NUMBER	33	CRUISE	IG 19-3
LATITUDE	29° 03.2' N	LONGITUDE	86° 57.5' W
CORRECTED DEPTH	375 fm	PDR DEPTH	368 fm
DATE TAKEN	6-26-76	DATE OPENED	7-18-77
DATE DESCRIBED	8-12-77	DATE PHOTOGRAPHED	
DESCRIBED BY	T. Haines	CORE LENGTH	987 cm
PENETRATION	938 cm	FLOW-IN	49 cm

## SUMMARY OF CORE:

Fine to very fine foraminiferal sandy mud, greenish gray (5GY 6/1), soft and moist; 56-835 cm is a thick very fine grained foraminiferal sandy clay, dark greenish gray (5GY 5/1) soft and moist. Chondrites burrowing and mottling present in this lutitic unit. Deepest unit is a fine to very fine foraminiferal sandy mud greenish gray (5GY 6/1) firm and sparsely moist. Chondrites burrows and mottling present in this unit. No visible structures evident; coarse fraction analysis shows common amounts of planktonic (abundant at 0, 500, and 900 cm) & benthonic foraminifera, with rare amounts of pteropods, molluscan shells/shell debris, quartz, manganese, opaque minerals, pyrite, mica flakes, and echinoid spines.

INTERVAL	DESCRIPTION
0-56 cm	Fine to very fine foraminiferal sandy mud, greenish gray (5GY 6/1), soft and moist. No visible structures evident. Basal contact a gradual change in color, texture and composition.
56-835 cm	Very fine foraminiferal sandy clay, dark greenish gray (5GY 5/1), soft and moist. Mottled areas colored dark greenish gray (5GY 4/1) present in low amounts well distributed through unit. Chondrites burrowing evident in low amounts. Mottled areas colored dark yellowish brown (10YR 4/2) occur at 530 cm and 615-645 cm. Basal contact a gradual change in color, texture and composition.
835-987 cm (core bottom)	Fine to very fine foraminiferal sandy mud, greenish gray (5GY 6/1), firm and low moisture content. Mottling colored dark yellowish brown (10YR 4/2) occurs from 835 to 870 cm in low amounts and has a very fine grained fill material. Low percentages of chondrites burrows are present and well distributed through unit. Scattered molluscan shell debris present in low amounts. Probable flow-in present from 938 cm to end of core. Small amounts of light grayish olive (10Y 5/2) mottling present in the unit from 890 to 940 cm.

300 10 02 5 00 1

ORE NUMBER 33

CRUISE IG-19

DENSITY MEASUREMENTS ON CORE EXTRACTIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
26	515 cm	7.64	6.16	1.50	0.50	1.48	
27	535	7.09	5.58	1.50	0.50	1.51	
28	555	7.29	5.73	1.50	0.50	1.56	
29	575	7.53	6.03	1.50	0.50	1.50	
30	595	7.64	6.11	1.50	0.50	1.53	
31	615	7.57	6.04	1.50	0.50	1.53	
32	635	7.42	5.90	1.50	0.50	1.52	
33	655	7.21	5.72	1.50	0.50	1.49	
34	675	7.78	6.26	1.50	0.50	1.52	
35	695	7.51	6.02	1.50	0.50	1.49	
36	715	7.69	6.17	1.50	0.50	1.52	
37	735	7.35	5.88	1.50	0.50	1.47	
38	755	7.40	5.90	1.50	0.50	1.50	
39	775	7.25	5.72	1.50	0.50	1.53	
40	795	7.90	6.32	1.50	0.50	1.58	
41	815	7.24	5.67	1.50	0.50	1.57	
42	835	7.42	5.94	1.50	0.50	1.48	
43	855	7.40	5.89	1.50	0.50	1.51	
44	875	7.46	6.02	1.50	0.50	1.44	
45	895	7.57	6.08	1.50	0.50	1.49	
46	915	7.54	6.02	1.50	0.50	1.52	
47	935	7.44	5.93	1.50	0.50	1.51	
48	955	7.29	5.82	1.50	0.50	1.47	
49	975	7.14	5.66	1.50	0.50	1.48	

ENC 10 02 5 00 1

CORE NUMBER 33

CRUISE IG-19

DENSITY MEASUREMENTS ON CORE EXTRACTATIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
1	15 cm	7.37	5.94	1.50	0.50	1.43	
2	35	7.35	5.93	1.50	0.50	1.42	
3	55	7.59	6.13	1.50	0.50	1.46	
4	75	7.40	5.95	1.50	0.50	1.45	
5	95	7.35	5.92	1.50	0.50	1.43	
6	115	7.42	5.95	1.50	0.50	1.47	
7	135	7.08	5.65	1.50	0.50	1.43	
8	155	6.89	5.40	1.50	0.50	1.49	
9	175	7.70	6.22	1.50	0.50	1.48	
10	195	7.68	6.18	1.50	0.50	1.50	
11	215	7.65	6.15	1.50	0.50	1.50	
12	235	7.47	5.96	1.50	0.50	1.51	
13	255	7.72	6.15	1.50	0.50	1.57	
14	275	7.45	5.83	1.50	0.50	1.62	
15	295	7.39	5.74	1.50	0.50	1.65	
16	315	7.84	6.26	1.50	0.50	1.58	
17	335	7.59	6.01	1.50	0.50	1.58	
18	355	7.66	6.02	1.50	0.50	1.64	
19	375	7.62	6.02	1.50	0.50	1.60	
20	395	7.28	5.64	1.50	0.50	1.64	
21	415	7.36	5.73	1.50	0.50	1.63	
22	435	7.87	6.27	1.50	0.50	1.60	
23	455	7.68	6.03	1.50	0.50	1.65	
24	475	7.53	5.99	1.50	0.50	1.54	
25	495	7.42	5.93	1.50	0.50	1.49	

NOV 10 08 50 01

Rare: 5%	Common: 5-50%	and: 50-100%	Core No: 33	Cruise: IG 19-3	Sample Depth	FORAMS-PLANKTONIC	FORAMS-BENTHONIC	RADIOLARIA	DIATOMS	PTEROPODS	SPONGE SPICULES	OSTRACODS	MOLLUSC	CORALLINE ALGAE	CORAL	BRYOZOA	QUARTZ	FELDSPAR	MANGANESE	IRONSTONE	OPAQUE MINERALS	ROCK FRAGMENTS	OTHER
					0 cm	A	C		R	R		R									R		
					100 cm	C	C		R	R		R					R		R		R		echinoid spines R., pyrite R., mica flakes R.
					200 cm	C	C		R			R									R		pyrite R.
					300 cm	C	C					R					R				R		coarse fraction 1% pyrite R.
					400 cm	C	C					R					R						pyrite R.
					500 cm	A	C		R			R					R						pyrite R., mica flakes R.
					600 cm	C	C		R			R					R						pyrite R.
					700 cm	C	C		R			R					R						pyrite R.
					800 cm	C	C					R									R		coarse fraction 1% pyrite R.
					900 cm	A	C		R			R					R				R		pyrite R.

NOV 10 08 30 1



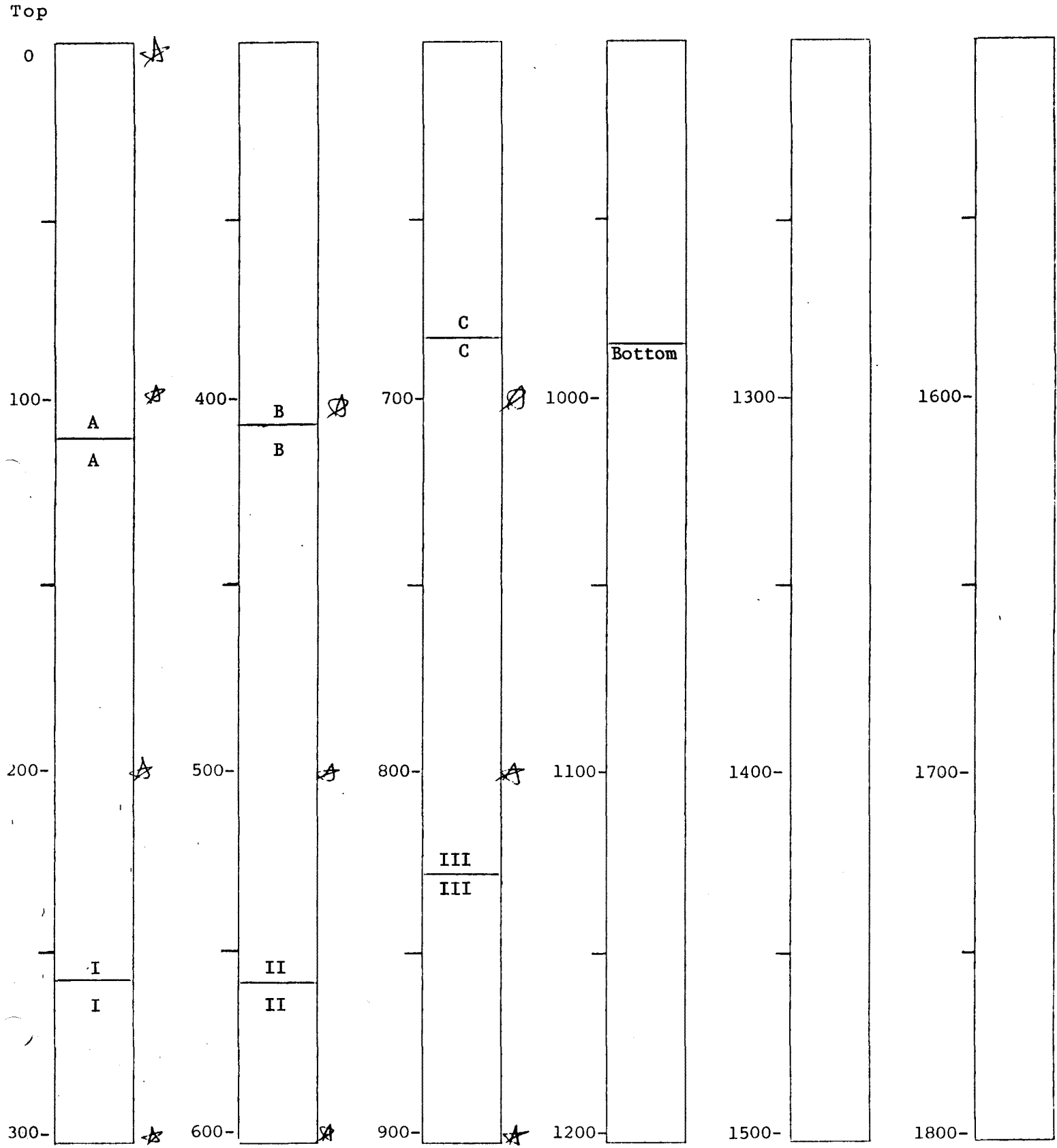
GRAPHIC CORE LOG

Core Number 33

Cruise IG-19

Core Cap Samples  
B = Bottom of Section  
T = Top of Section

CORE SECTIONS



\* = Coarse fraction/gear slide location

CORE NUMBER 33

CRUISE IG 19-3

INTERVAL OR LOCATION OF SAMPLE	ESTIMATED VOLUME OF SAMPLE	TAKEN BY	SAMPLING PURPOSE	PERSON AND/OR COMPANY RECEIVING SAMPLE(S) FOR INTENDED RESEARCH
Refer to page on "Density Measurements" for precise locations	approx. 1 cc.	T. Haines	wet-bulk density	U.S. Navy to receive density results(UT-MSI contracted to do density measurements)

MCG 10 02 5 00 1



ORE NUMBER 34

CRUISE IG-19

DENSITY MEASUREMENTS ON CORE EXTRACTIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG.</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
51	1015 cm	7.96	6.43	1.50	0.50	1.53	
52	1035	8.13	6.59	1.50	0.50	1.54	
53	1050	8.23	6.63	1.50	0.50	1.60	

REC 10 5 25 00 1





MSG 10 02 5 0 0 1

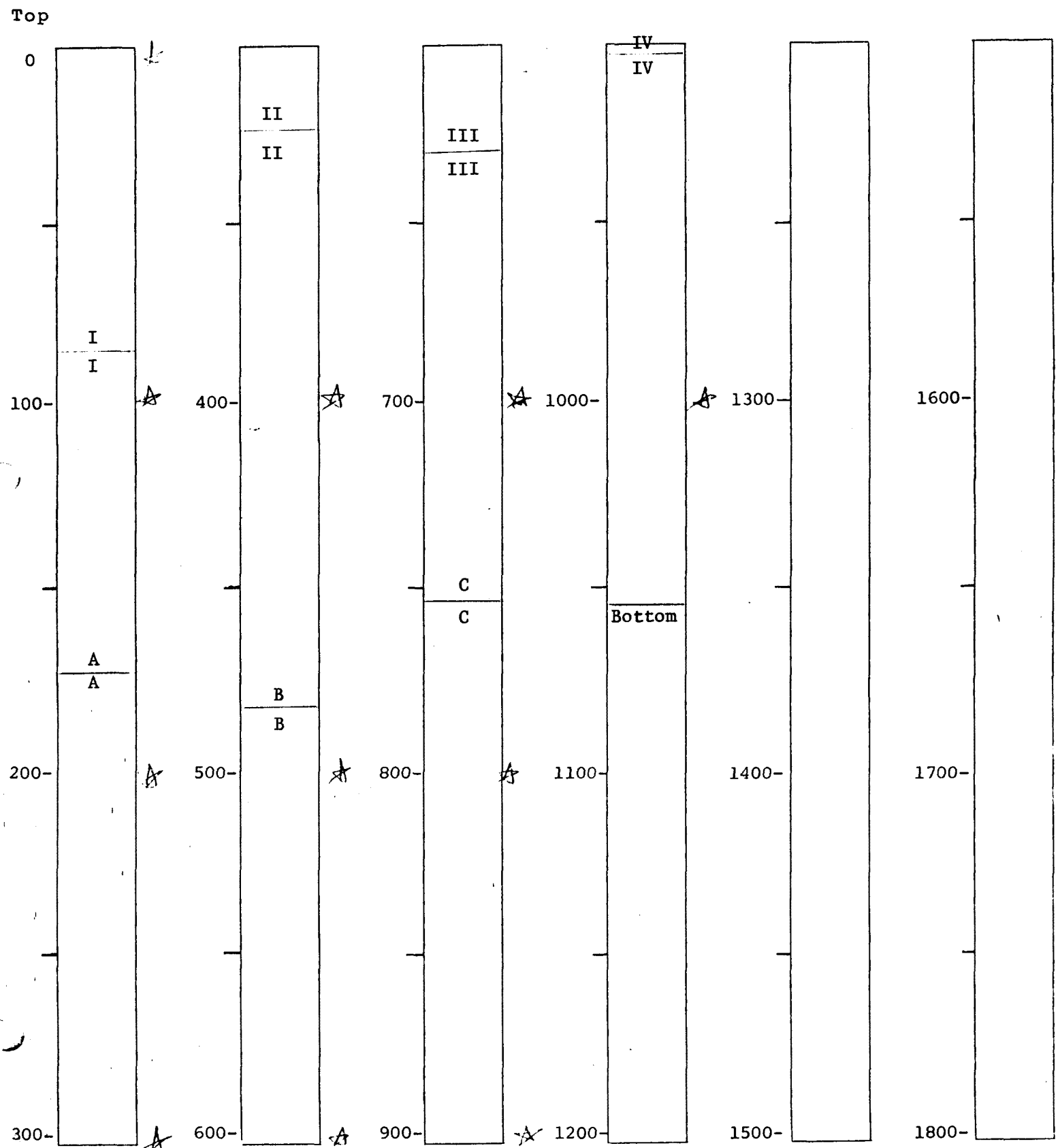
GRAPHIC CORE LOG

Core Number 34

Cruise IG-19

Core Cap Samples  
B = Bottom of Section  
T = Top of Section

CORE SECTIONS



\* = Coarse fraction/smear slide location.

CORE NUMBER

34

CRUISE

IG 19-3

313

INTERVAL OR LOCATION OF SAMPLE	ESTIMATED VOLUME OF SAMPLE	TAKEN BY	SAMPLING PURPOSE	PERSON AND/OR COMPANY RECEIVING SAMPLE(S) FOR INTENDED RESEARCH
Refer to page on "Density Measurements" for precise locations	approx. 1 cc.	T. Haines	wet-bulk density	U.S. Navy to receive density results(UT-MSI contracted to do density measurements)

MCG 10 023 00 1

CORE NUMBER 34 CRUISE IG 19-3  
 LATITUDE 29° 02.5' N LONGITUDE 87° 01.4' W  
 CORRECTED DEPTH 406 fm PDR DEPTH 398 fm  
 DATE TAKEN 6-27-76 DATE OPENED 7-19-77  
 DATE DESCRIBED 8-14-77 DATE PHOTOGRAPHED \_\_\_\_\_  
 DESCRIBED BY T. Haines CORE LENGTH 1053 cm  
 PENETRATION 1135 cm FLOW-IN 0 cm

## SUMMARY OF CORE:

Fine to very fine foraminiferal sandy mud, dark greenish gray (5GY 5/1); very soft and moist. No visible structures or mottling evident. From 28 cm to end of core is very fine foraminiferal sandy clays with variance in color. Mottling and chondrites burrowing is present in each of these five units. Several small open burrows visible between 28 and 100 cm. Clayey units are very lutitic and homogeneous. No shell debris visible; coarse fraction analysis indicates common amounts of planktonic & benthonic foraminifera, and rare amounts of pteropods, ostracods, molluscan shells/shell debris, quartz, echinoid spines, mica flakes, pyrite, and opaque minerals.

INTERVAL	DESCRIPTION
0-28 cm	Fine to very fine foraminiferal sandy mud, dark greenish gray (5GY 5/1), very soft and moist. No visible structures evident. No molluscan shell fragments visible. Basal contact a gradual change in color, texture and composition.
28-143 cm	Very fine foraminiferal sandy clay, light olive gray (5Y 4/2), very soft and moist. Mottled areas colored light olive gray (5Y 5/2) are present from 41 to 85 cm in moderate amounts. Well distributed chondrites burrows present in low numbers. Widely scattered small open burrows averaging 0.3 cm in diameter are visible through this unit as deep as 100 cm. Basal contact a gradual color change.
143-498 cm	Very fine foraminiferal sandy clay, olive gray (5Y 4/1), very soft and moist. Randomly distributed mottling colored light olive gray (5Y 4/2) in this unit; very homogeneous lutitic material in this unit. Basal contact a sharp color change.
498-576 cm	Very fine foraminiferal sandy clay, dark yellowish brown (10YR 4/2), very soft and moist. No visible structures evident. Very few sand sized particles visible; very lutitic homogeneous sediment; very few visible signs of chondrites burrows. Basal contact a gradual change in color.
576-931 cm	Very fine foraminiferal sandy clay, dark yellowish gray (5Y 6/2); soft and moderate moisture content. Small mottled areas colored

INTERVAL	DESCRIPTION
576 - 931 cm (continued)	dark yellowish brown (10YR 4/2) are present through this entire unit. Chondrites burrowing evident through entire unit in low well distributed numbers. No visible structures evident.
931-1053 cm (core bottom)	Very fine foraminiferal sandy clay, light olive gray (5Y 5/2), semi-firm and low moisture content. Mottling in this unit is very common and varies from dark yellowish gray (5Y 6/2) to dark yellowish brown (10YR 4/2), the latter being confined to the zone between 1000 and 1035 cm. From 1035 cm to end of core, moderate mottling colored olive gray (5Y 4/1) is present. Chondrites burrowing evident through entire unit in low numbers.

MCC 10 025 00 1

CORE NUMBER 34

CRUISE IG-19

DENSITY MEASUREMENTS ON CORE EXTRACTATIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
1	15 cm	7.13	5.73	1.50	0.50	1.40	
2	35	7.39	6.04	1.50	0.50	1.35	
3	55	7.25	5.90	1.50	0.50	1.35	
4	75	7.33	5.95	1.50	0.50	1.38	
5	95	7.43	6.03	1.50	0.50	1.40	
6	115	7.53	6.13	1.50	0.50	1.40	
7	135	7.31	5.89	1.50	0.50	1.42	
8	155	7.13	5.72	1.50	0.50	1.41	
9	173	7.56	5.98	1.50	0.40	1.58	
10	195	7.41	5.89	1.50	0.50	1.52	
11	215	7.35	5.88	1.50	0.50	1.47	
12	235	7.34	5.88	1.50	0.50	1.46	
13	255	7.41	5.94	1.50	0.50	1.47	
14	275	7.64	6.17	1.50	0.50	1.47	
15	295	7.57	6.14	1.50	0.50	1.43	
16	315	7.47	5.96	1.50	0.50	1.51	
17	335	7.45	5.94	1.50	0.50	1.51	
18	355	7.72	6.16	1.50	0.50	1.56	
19	375	7.46	5.89	1.50	0.50	1.57	
20	395	7.78	6.15	1.50	0.50	1.63	
21	415	7.82	6.28	1.50	0.50	1.54	
22	435	7.93	6.33	1.50	0.50	1.60	
23	455	7.50	5.93	1.50	0.50	1.57	
24	475	7.66	6.06	1.50	0.50	1.60	
25	495	7.18	5.60	1.50	0.50	1.58	

300 16 02 5 00 3



ORE NUMBER 34

CRUISE IG-19

DENSITY MEASUREMENTS ON CORE EXTRACTATIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
26	515	7.36	5.71	1.50	0.50	1.65	
27	535	7.61	5.90	1.50	0.50	1.71	
28	555	7.73	6.04	1.50	0.50	1.69	
29	575	7.54	5.91	1.50	0.50	1.63	
30	595	7.46	6.01	1.50	0.50	1.45	
31	615	7.49	6.03	1.50	0.50	1.46	
32	635	7.62	6.15	1.50	0.50	1.47	
33	655	7.30	5.80	1.50	0.50	1.50	
34	675	7.50	5.89	1.50	0.50	1.61	
35	695	7.33	5.76	1.50	0.50	1.57	
36	715	7.93	6.37	1.50	0.50	1.56	
37	735	7.59	6.06	1.50	0.50	1.53	
38	755	7.25	5.72	1.50	0.50	1.53	
39	775	7.67	6.10	1.50	0.50	1.57	
40	795	7.47	6.00	1.50	0.50	1.47	
41	815	7.82	6.33	1.50	0.50	1.49	
42	835	8.00	6.54	1.50	0.50	1.46	
43	855	7.73	6.25	1.50	0.50	1.48	
44	875	7.43	5.92	1.50	0.50	1.51	
45	895	7.53	6.01	1.50	0.50	1.52	
46	915	7.79	6.30	1.50	0.50	1.49	
47	935	8.14	6.63	1.50	0.50	1.51	
48	955	7.85	6.45	1.50	0.50	1.40	
49	975	7.95	6.47	1.50	0.50	1.48	
50	995	8.10	6.62	1.50	0.50	1.48	

10 025 00 1

CORE NUMBER	<u>35</u>	CRUISE	<u>IG 19-3</u>
LATITUDE	<u>28° 59.7' N</u>	LONGITUDE	<u>87° 04.5' W</u>
CORRECTED DEPTH	<u>433 fm</u>	PDR DEPTH	<u>425 fm</u>
DATE TAKEN	<u>6-27-76</u>	DATE OPENED	<u>7-20-77</u>
DATE DESCRIBED	<u>8-5-77</u>	DATE PHOTOGRAPHED	_____
DESCRIBED BY	<u>T. Haines</u>	CORE LENGTH	<u>1018 cm</u>
PENETRATION	<u>1135 cm</u>	FLOW-IN	<u>0 cm</u>

## SUMMARY OF CORE:

Fine foraminiferal sandy mud, greenish gray (5GY 6/1) soft and moist at top of core, from 200-910 cm a very fine foraminiferal sandy clay olive gray (5Y 4/1) to light olive gray (5Y 5/2) and soft. Chondrites burrowing present from 110 cm to end of core in low amounts. Bottom unit of core is a fine to very fine foraminiferal sandy mud. Low molluscan shell debris content present in some of the units. Mottling occurs in all units below 200 cm. Some bedding evident at 203, 245, 266 and 278 cm ranging in thickness from 1.5 to 4 cm, open burrows noted in uppermost unit from 60-127 cm and again in second unit at 277 cm; coarse fraction analysis indicates common amounts of both planktonic & benthonic foraminifera occur throughout entire record, with rare percentages noted in several or all samples studied of the following: pteropods, ostracods, sponge spicules, molluscan shells/shell debris, opaque minerals, pyrite, mica flakes, and echinoid spines.

INTERVAL	DESCRIPTION
0-200 cm	Fine foraminiferal sandy mud, greenish gray (5GY 6/1), soft and moist; homogeneous material. Small amounts of molluscan shell debris present at 79 cm. Several small open burrows present from 60 to 127 cm ranging up to 0.5 cm in diameter. Sparse occurrences of chondrites burrowing evident from 110 to 200 cm. No visible structures evident. Basal contact a distinct change in color, texture and composition.
200-420 cm	Very fine foraminiferal sandy clay, olive gray (5Y 4/1), very soft and moderately moist; very lutitic homogeneous material. A 4.5 cm thick band of greenish gray (5GY 6/1) material closely resembling above unit is present cutting diagonally through unit from 203 to 245 cm (severe dip angle probable result of coring). Elongated open burrow present at 277 cm (4 X 0.5 cm) some small clay pellets partially filling burrow. Mottled bedding also present at 245, 266, and 278 cm. Basal contact a distinct change in color.
420-910 cm	Very fine foraminiferal sandy clay, light olive gray (5Y 5/2), soft and moderately moist; lutitic homogeneous material. Slight amounts of small molluscan shell debris occur with random distribution through this unit. Chondrites burrowing is present in low amounts. Scattered mottling colored olive gray (5Y 4/1) is present through unit in low amounts having same texture in fill material as is surrounding material. Sandy textured fill material in a burrow at 518 cm. Mottled zone from 760 to 770 cm is colored semi-dark yellowish brown (10YR 5/2) and texture of fill material is same as surrounding

INTERVAL	DESCRIPTION
420-910 cm (continued)	matrix. A mottled location of this same color and texture also occurs at 804 and from 875 to 910 cm, increasing firmness and decreasing moisture content with depth. Basal contact a gradual change in texture and composition.
910-1018 cm (core bottom)	Fine to very fine foraminiferal sandy mud; light olive gray (5Y 5/2), firm and low moisture content. Chondrites burrowing present in low percentages. Mottling colored semi-dark yellowish brown (10YR 5/2) is present to 950 cm and closely resembles mottling of above unit with respect to color, texture and fill material is finer than surrounding material in this unit. No visible structures evident.

CORE NUMBER 35CRUISE IG-19

## DENSITY MEASUREMENTS ON CORE EXTRACTIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
1	15 cm	7.43	6.04	1.50	0.50	1.39	
2	35	7.79	6.42	1.50	0.50	1.37	
3	55	7.73	6.34	1.50	0.50	1.39	
4	75	7.88	6.49	1.50	0.50	1.39	
5	95	8.01	6.61	1.50	0.50	1.40	
6	115	7.66	6.21	1.50	0.50	1.45	
7	135	8.09	6.62	1.50	0.50	1.47	
8	155	7.98	6.47	1.50	0.50	1.51	
9	175	7.86	6.45	1.50	0.50	1.41	
10	195	8.07	6.64	1.50	0.50	1.43	
11	215	7.50	6.03	1.50	0.50	1.47	
12	235	8.08	6.59	1.50	0.50	1.49	
13	255	8.15	6.64	1.50	0.50	1.51	
14	275	8.24	6.73	1.50	0.50	1.51	
15	295	7.74	6.26	1.50	0.50	1.48	
16	315	8.09	6.60	1.50	0.50	1.49	
17	335	7.54	6.00	1.50	0.50	1.54	
18	355	8.02	6.54	1.50	0.50	1.48	
19	375	7.63	6.08	1.50	0.50	1.55	
20	395	7.79	6.28	1.50	0.50	1.51	
21	415	7.62	6.06	1.50	0.50	1.56	
22	435	8.09	6.48	1.50	0.50	1.61	
23	455	8.24	6.65	1.50	0.50	1.59	
24	475	8.00	6.45	1.50	0.50	1.55	
25	495	8.19	6.60	1.50	0.50	1.59	

MGG 10 025 001

CORE NUMBER 35

CRUISE IG-19

DENSITY MEASUREMENTS ON CORE EXTRACTATIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
26	515	7.85	6.22	1.50	0.50	1.63	
27	535	8.10	6.48	1.50	0.50	1.62	
28	555	7.62	6.00	1.50	0.50	1.62	
29	575	8.21	6.64	1.50	0.50	1.57	
30	595	7.91	6.22	1.50	0.50	1.69	
31	615	8.30	6.65	1.50	0.50	1.65	
32	635	7.96	6.26	1.50	0.50	1.70	
33	655	8.21	6.52	1.50	0.50	1.69	
34	675	8.35	6.63	1.50	0.50	1.72	
35	695	8.45	6.81	1.50	0.50	1.64	
36	715	7.85	6.34	1.50	0.50	1.51	
37	735	7.78	6.31	1.50	0.50	1.47	
38	755	8.17	6.58	1.50	0.50	1.59	
39	775	7.77	6.25	1.50	0.50	1.52	
40	795	8.03	6.49	1.50	0.50	1.54	
41	815	8.09	6.49	1.50	0.50	1.60	
42	835	7.55	6.00	1.50	0.50	1.55	
43	855	7.77	6.23	1.50	0.50	1.54	
44	875	7.47	5.93	1.50	0.50	1.54	
45	895	7.47	5.93	1.50	0.50	1.54	
46	915	8.12	6.51	1.50	0.50	1.61	
47	935	8.26	6.70	1.50	0.50	1.56	
48	955	7.78	6.28	1.50	0.50	1.50	
49	975	7.55	6.00	1.50	0.50	1.55	
50	995	8.18	6.67	1.50	0.50	1.51	

CORE NUMBER 35

CRUISE IG-19

DENSITY MEASUREMENTS ON CORE EXTRACTATIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
51	1015 cm	7.64	6.08	1.50	0.50	1.56	

MGC 10 025 00 1







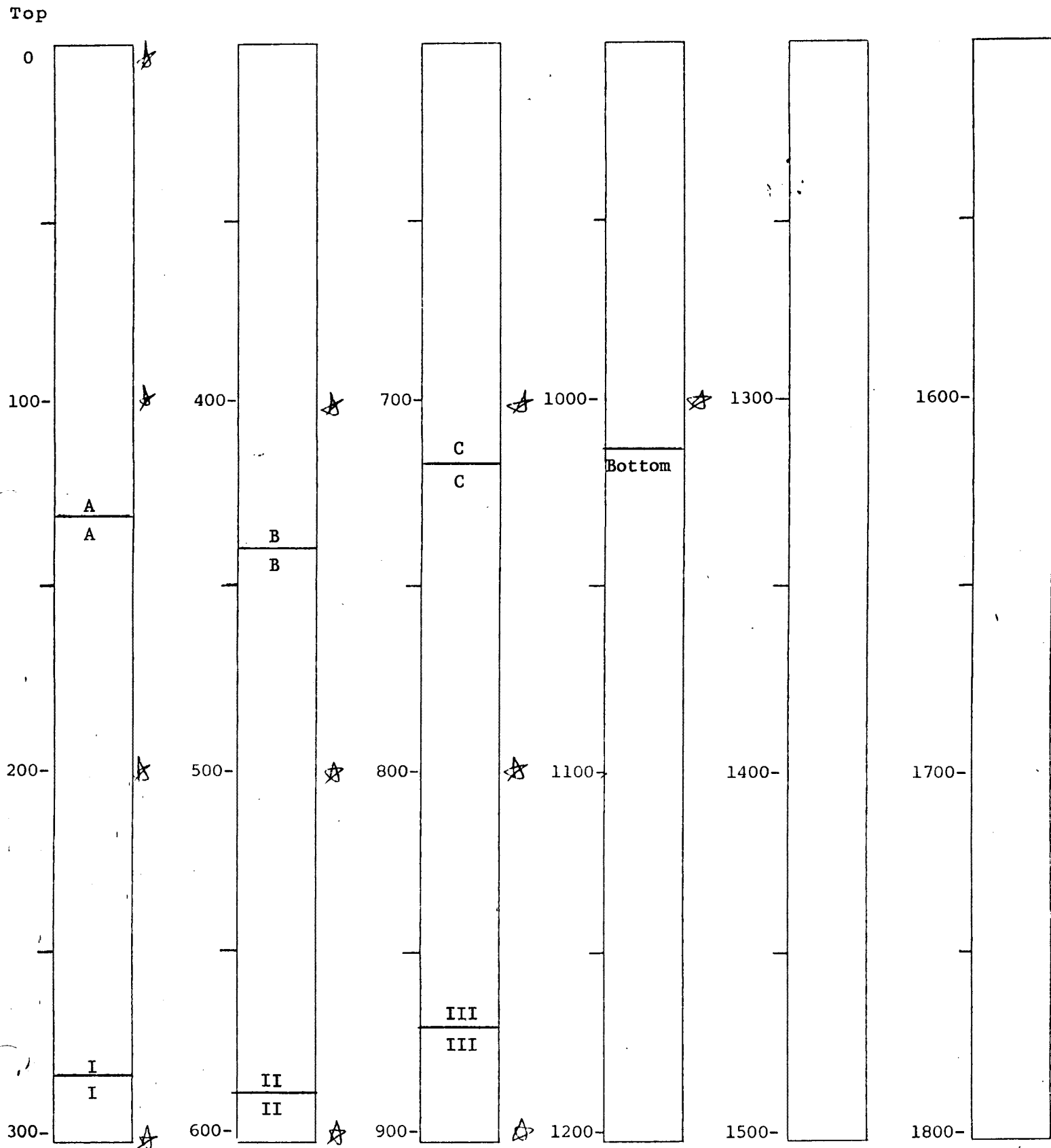
GRAPHIC CORE LOG

Core Number 35

Cruise IG-19

Core Cap Samples  
B = Bottom of Section  
T = Top of Section

CORE SECTIONS



\* = Coarse fraction/smear slide location.

CORE NUMBER

35

CRUISE

IG 19-3

INTERVAL OR LOCATION OF SAMPLE	ESTIMATED VOLUME OF SAMPLE	TAKEN BY	SAMPLING PURPOSE	PERSON AND/OR COMPANY RECEIVING SAMPLE(S) FOR INTENDED RESEARCH
Refer to page on "Density Measurements" for precise locations	approx. 1 cc.	T. Haines	wet-bulk density	U.S. Navy to receive density results(UT-MSI contracted to do density measurements)

MCG 10 025 00 1

CORE NUMBER	36	CRUISE	IG 19-3
LATITUDE	28° 57.7' N	LONGITUDE	87° 06.4' W
CORRECTED DEPTH	451 fm	PDR DEPTH	442 fm
DATE TAKEN	6-27-76	DATE OPENED	7-22-77
DATE DESCRIBED	8-16-77	DATE PHOTOGRAPHED	
DESCRIBED BY	T. Haines	CORE LENGTH	983 cm
PENETRATION	1160 cm	FLOW-IN	0 cm

SUMMARY OF CORE:

Fine to very fine foraminiferal sandy mud, greenish gray (5GY 6/1), very soft and moist at top. No visible structures evident. From 32 cm down to end of core there are foraminiferal sandy clay units varying in color from each other. Low amounts of scattered molluscan shell debris in upper unit and rare to nil in lower units. Chondrites burrowing is visible in all units except very top unit of core. Mottling occurs in low to moderate amounts and varies in color in each unit. Several horizontal 1 cm thick laminae areas are noted in 32-121 cm unit and again between 710 and 780 cm in the deepest unit; coarse fraction analysis indicates common amounts of both planktonic & benthonic foraminifera present in all samples with rare amounts (present in various samples) of radiolaria, pteropods, ostracods, molluscan shells/shell debris, quartz, opaque minerals, mica flakes, and rare to common amounts of pyrite.

INTERVAL	DESCRIPTION
0-32 cm	Fine to very fine foraminiferal sandy mud, greenish gray (5GY 6/1), very soft and moist. No visible structures evident. Moderate amount of well distributed mottled areas colored light olive gray (5Y 5/2) are present in this unit. Small amounts of molluscan shell debris evident in random locales. Basal contact a gradual change in color, texture and composition.
32-121 cm	Very fine foraminiferal sandy clay, light olive gray (5Y 5/2), very soft and moist. Mottling moderate to intense in this layer between 50 and 75 cm and colored greenish gray (5GY 6/1) to light olive gray (5Y 5/1) with a fine textured fill material which is similar to surrounding material. Large shell fragments from a mollusc present at 62 cm. Chondrites burrowing occurs in sparse numbers through unit beginning at 85 cm. A 1 cm thick laminar clayey layer colored greenish gray (5GY 6/1) is present at 74 cm. Basal contact a gradual change in color.
121-214 cm	Very fine foraminiferal sandy clay, dark greenish gray (5GY 5/1), very soft and moist. Large 1 cm thick mottled areas arranged in a horizontal pattern are abundant in this unit. Probably due to burrowing and the fill material is colored light grayish olive (10Y 5/2). Chondrites burrows present in low amounts. Basal contact a sharp change in color.
214-295 cm	Very fine foraminiferal sandy clay, light olive gray (5Y 5/2), very soft and moist. No visible structures evident. Chondrites burrowing

INTERVAL	DESCRIPTION
214-295 cm (continued)	well distributed in low numbers. A gradual darkening to a color between olive gray (5Y 4/1) and dark greenish gray (5GY 4/1) occurs from 230 to 248 cm where original light olive gray coloration is resumed. A dark greenish gray (5GY 5/1) mottled location at 215 cm in this unit. Further mottling also colored dark greenish gray is present from 265 to 291 cm in low well distributed numbers. Basal contact a sharp color change.
295-505 cm	Very fine foraminiferal sandy clay olive gray (5Y 4/2), very soft and moist, mottled areas colored between olive gray (5Y 4/1) and dark greenish gray (5GY 4/1) are present in low numbers through entire unit. Sharp change in color at 333 cm from a color between olive gray and dark greenish gray to an olive gray (5Y 4/2). The unit gradually darkens and original color resumes at the base of each darker zone; this reoccurs at 350, 392, 412 and 445 cm. Chondrites burrowing occurs through entire unit in low percentages. Basal contact a gradual change in color.
505-634 cm	Very fine foraminiferal sandy clay, dark yellowish brown (10YR 4/2), soft and moist. Sparse amounts of chondrites burrowing is evident. Occasional mottling is present colored semi-dark yellowish brown (10YR 5/2). No visible structures evident. From 622 to 634 cm there is a gradual lighter color change to semi-dark yellowish brown (10YR 5/2) occurs. Basal contact a distinct change in color.
634-983 cm (core bottom)	Fine to very fine foraminiferal sandy clay, light olive gray (5Y 6/1) semi-firm and low moisture content. Mottled area from 645 to 650 cm is colored dark yellowish gray (5Y 6/2). Mottling colored dark yellowish brown (10YR 4/2) is present from 685 to 695 cm and 780 cm in low amounts then in moderate amounts from 795 to 832 cm with clayey fill material except sandy at 815-832 cm. Bands of mottled areas 1 cm thick (similar to layers 1 cm thick in the 32-121 cm unit) colored light olive gray (5Y 5/1) are present between 710 and 780 cm in low amounts with a slightly sandy textured fill material.

MCC 10 025 00 1

ORE NUMBER 36CRUISE IG-19

## / DENSITY MEASUREMENTS ON CORE EXTRACTATIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/ OBSERVATIONS
1	15 cm	8.00	6.61	1.50	0.50	1.39	Using osmotic knife to separate core halves
2	35	7.62	6.19	1.50	0.50	1.43	
3	55	7.57	6.21	1.50	0.50	1.36	
4	75	7.69	6.22	1.50	0.50	1.47	
5	95	8.15	6.68	1.50	0.50	1.47	
6	115	7.90	6.46	1.50	0.50	1.44	
7	135	7.42	6.00	1.50	0.50	1.42	
8	155	8.06	6.58	1.50	0.50	1.48	
9	175	8.12	6.66	1.50	0.50	1.46	
10	195	7.45	6.00	1.50	0.50	1.45	
11	215	8.17	6.66	1.50	0.50	1.51	
12	235	8.09	6.52	1.40	0.40	1.57	Low sediment volume in line at this sample area
13	254	8.02	6.50	1.50	0.50	1.52	
14	275	7.70	6.22	1.50	0.50	1.48	
15	295	8.15	6.65	1.50	0.50	1.50	
16	315	7.69	6.20	1.50	0.50	1.49	
17	335	8.19	6.69	1.50	0.50	1.50	
18	355	7.87	6.24	1.50	0.50	1.63	
19	375	7.50	5.93	1.50	0.50	1.57	
20	395	7.63	6.11	1.50	0.50	1.52	
21	415	7.63	6.02	1.50	0.50	1.61	
22	435	8.33	6.70	1.50	0.50	1.63	
23	455	8.30	6.60	1.50	0.50	1.70	
24	475	8.33	6.63	1.50	0.50	1.70	
25	495	7.75	6.06	1.50	0.50	1.69	

ORE NUMBER 36

CRUISE IG-19

DENSITY MEASUREMENTS ON CORE EXTRACTATIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
26	515 cm	8.30	6.65	1.50	0.50	1.65	
27	535	8.11	6.47	1.50	0.50	1.64	
28	555	8.07	6.50	1.50	0.50	1.57	
29	575	7.80	6.19	1.50	0.50	1.61	
30	595	8.27	6.60	1.50	0.50	1.67	
31	615	7.66	5.99	1.50	0.50	1.67	
32	635	7.89	6.29	1.50	0.50	1.60	
33	655	7.94	6.40	1.50	0.50	1.54	
34	675	8.01	6.47	1.50	0.50	1.54	
35	695	7.88	6.30	1.50	0.50	1.58	
36	715	7.88	6.34	1.50	0.50	1.54	
37	735	8.07	6.53	1.50	0.50	1.54	
38	755	8.02	6.46	1.50	0.50	1.56	
39	775	7.98	6.40	1.50	0.50	1.58	
40	795	8.16	6.59	1.50	0.50	1.57	
41	815	8.38	6.76	1.50	0.50	1.62	
42	835	7.75	6.25	1.50	0.50	1.50	
43	855	7.94	6.44	1.50	0.50	1.50	
44	875	7.99	6.43	1.50	0.50	1.56	
45	895	7.64	6.14	1.50	0.50	1.50	
46	915	7.73	6.19	1.50	0.50	1.54	
47	935	7.94	6.46	1.50	0.50	1.48	
48	955	7.78	6.29	1.50	0.50	1.49	
49	975	7.84	6.41	1.50	0.50	1.43	

BASIC 10 00 00 1

Rare: 5%

Common: 5-50%

Abundant: 50-100%

Core No: 36

Cruise: IG 19-3

Sample Depth

Sample Depth	FORAMS-PLANKTONIC	FORAMS-BENTHONIC	RADIOLARIA	DIATOMS	PTEROPODS	SPONGE SPICULES	OSTRACODS	MOLLUSC	CORALLINE ALGAE	CORAL	BRYOZOA	QUARTZ	FELDSPAR	MANGANESE	IRONSTONE	OPAQUE MINERALS	ROCK FRAGMENTS	OTHER
0 cm	C	C	R		R		R					R				R		
100 cm	C	C			R							R				R		pyrite R., mica flakes R.
200 cm	C	C			R													pyrite R., mica flakes R.
300 cm	C	C																coarse fraction 1% pyrite R., mica flakes R.
400 cm	C	C																pyrite R., mica flakes R.
500 cm	C	C			R													pyrite R.
600 cm	C	R																coarse fraction 1% pyrite C.
700 cm	C	C			R		R R					R						mica flakes R.
800 cm	C	C					R					R						mica flakes R., pyrite R.
900 cm	C	C			R		R					R						mica flakes R., pyrite R.





MCG 1002500

GRAPHIC CORE LOG

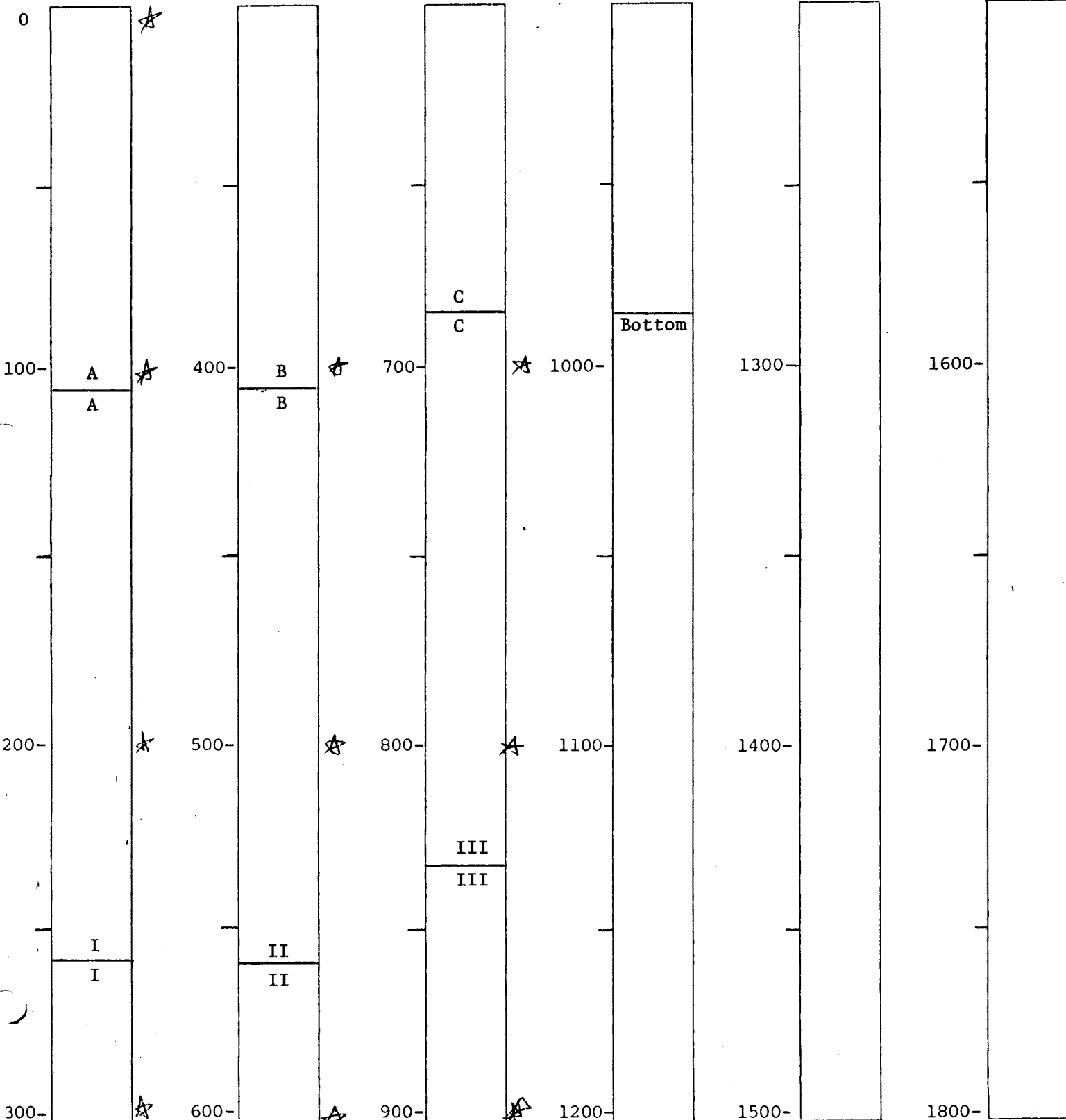
Core Number 36

Cruise IG-19

Core Cap Samples  
B = Bottom of Section  
T = Top of Section

CORE SECTIONS

Top



\* = Coarse fraction/smear slide location

INTERVAL OR LOCATION OF SAMPLE	ESTIMATED VOLUME OF SAMPLE	TAKEN BY	SAMPLING PURPOSE	PERSON AND/OR COMPANY RECEIVING SAMPLE(S) FOR INTENDED RESEARCH
Refer to page in "Density Measurements" for precise locations	approx. 1 cc.	T. Haines	wet-bulk density	U.S. Navy to receive density results(UT-MSI contracted to do density measurements)

MCG 10025001

CORE NUMBER	<u>37</u>	CRUISE	<u>IG 19-3</u>
LATITUDE	<u>28° 55.1' N</u>	LONGITUDE	<u>87° 10.0' W</u>
CORRECTED DEPTH	<u>480 fm</u>	PDR DEPTH	<u>471 fm</u>
DATE TAKEN	<u>6-27-76</u>	DATE OPENED	<u>7-25-77</u>
DATE DESCRIBED	<u>8-16-77</u>	DATE PHOTOGRAPHED	_____
DESCRIBED BY	<u>T. Haines</u>	CORE LENGTH	<u>902 cm</u>
PENETRATION	<u>1135 cm</u>	FLOW-IN	<u>0 cm</u>

SUMMARY OF CORE:

Medium fine to very fine foraminiferal sandy mud, greenish gray (5GY 6/1); soft, moist, and unburrowed; 37-80 cm is also a foraminiferal sandy mud, of finer texture and is mottled (burrowed) intensely from 45 to 60 cm. Occasional molluscan shell debris and very low numbers of chondrites burrows. Remainder of units are very fine foraminiferal sandy clays of various colors and all are mottled with different colors of fill material being either fine clayey or slightly sandy in texture. Thin laminar clayey mottled layers are present between 135 and 162 cm and again from 235-298 cm; coarse fraction analysis indicates common amounts of both planktonic (abundant in 0 cm sample) & benthonic foraminifera, and rare amounts of pteropods, ostracods, sponge spicules, molluscan shells/shell debris, quartz, ironstone, opaque minerals, pyrite, echinoid spines, and mica flakes.

INTERVAL	DESCRIPTION
0-37 cm	Medium fine to fine foraminiferal sandy mud, greenish gray (5GY 6/1), very soft and moist. No visible structures evident. No visible evidence of mottling or shell debris. Basal contact a gradual change in color and texture.
37-80 cm	Fine to very fine foraminiferal sandy mud, light olive gray (5Y 5/2), very soft and moist. This unit mottled intensely from 45 to 60 cm and colored greenish gray (5GY 6/1). A few chondrites burrows visible in lower half of this unit. Occasional molluscan shell debris noted. No visible structures evident. Basal contact a gradual change in color, texture and composition.
80-529 cm	Very fine foraminiferal sandy clay, light olive gray (5Y 5/1), very soft and moist. Moderate mottled banding (bedding? several centimeters thick on the average) colored olive gray (5Y 4/1) occurs regularly through this unit separating material of the original color of this unit. Laminae (1 cm thick band) colored light olive gray (5Y 5/2) occurs at 135, 152, and 162 cm with a slightly sandy textured fill material. Low amounts of chondrites burrowing is visible throughout this unit in random locales. The olive gray horizontal banding terminates sharply at 185 cm and a resumption of the original light olive gray (5Y 5/1) clay begins. A gradual darkening to olive gray (5Y 4/2) occurs repeatedly at 235, 260, 275 to 280, and 290 to 298 cm, and each instance there is a sharp lower contact color change to the original light olive gray (5Y 5/1). Basal contact a distinct change in color.

INTERVAL	DESCRIPTION
529-600 cm	<p>Very fine foraminiferal sandy clay, dark yellowish brown (10YR 4/2), semi-soft and low moisture content. Laminar mottled layers exhibiting very fine clayey texture very similar to surrounding material are visible in moderate to high amounts to end of the unit. The mottled layers are colored semi-dark yellowish brown (10YR 5/2) and light olive gray (5Y 5/1). This banding is 0.5 cm thick on the average. Very sparse amount of chondrites burrows in this unit. Basal contact a distinct color change.</p>
600-902 cm (core bottom)	<p>Very fine foraminiferal sandy clay, light olive gray (5Y 5/1), semi-firm and low moisture content. Chondrites burrowing is visible with an increase in occurrence from 780 cm to bottom of core. Widespread mottled areas colored dark yellowish brown (10YR 5/2) occur at 640 to 650 cm, 720 to 730 cm and 750 to 780 cm with a very fine clayey fill material. Further mottled areas colored olive gray (5Y 4/2) occur less frequently through this unit as deep as 735 cm and have a sandy textured fill material. Olive gray (5Y 4/1) colored mottling is extensive from 860 cm to end of core and is intermixed with some light olive gray (5Y 5/2) sediment of a slightly more sandy texture.</p>

ORE NUMBER 37

CRUISE IG-19

DENSITY MEASUREMENTS ON CORE EXTRACTATIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
1	15 cm	7.86	6.59	1.50	0.50	1.27	Extremely soft & watery
2	35	7.61	6.19	1.50	0.50	1.42	Soft
3	55	7.66	6.32	1.50	0.50	1.34	
4	75	7.99	6.64	1.50	0.50	1.35	
5	95	7.83	6.44	1.50	0.50	1.39	
6	115	7.85	6.44	1.50	0.50	1.41	
7	135	7.90	6.50	1.50	0.50	1.40	
8	155	8.03	6.55	1.50	0.50	1.48	
9	175	8.06	6.62	1.50	0.50	1.44	
10	195	7.92	6.45	1.50	0.50	1.47	
11	215	7.55	6.05	1.50	0.50	1.50	
12	233	8.30	6.73	1.50	0.50	1.57	
13	255	7.91	6.42	1.50	0.50	1.49	
14	275	7.81	6.25	1.50	0.50	1.56	
15	295	8.17	6.64	1.50	0.50	1.53	
16	315	7.98	6.43	1.50	0.50	1.55	
17	335	8.34	6.76	1.50	0.50	1.58	
18	355	8.04	6.44	1.50	0.50	1.60	
19	375	8.10	6.46	1.50	0.50	1.64	
20	395	8.30	6.61	1.50	0.50	1.69	
21	415	8.04	6.45	1.50	0.50	1.59	
22	435	8.03	6.40	1.50	0.50	1.63	
23	455	7.30	5.67	1.50	0.50	1.63	
24	474	8.05	6.46	1.50	0.50	1.59	
25	495	8.00	6.29	1.50	0.50	1.71	

ORE NUMBER 37

CRUISE IG-19

DENSITY MEASUREMENTS ON CORE EXTRACTATIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
26	515 cm	7.67	6.03	1.50	0.50	1.64	
27	535	8.03	6.35	1.50	0.50	1.68	
28	555	7.45	5.81	1.50	0.50	1.64	
29	575	7.62	5.97	1.50	0.50	1.65	
30	595	7.74	6.05	1.50	0.50	1.69	
31	615	8.08	6.66	1.50	0.50	1.42	
32	635	8.16	6.59	1.50	0.50	1.47	
33	655	8.06	6.56	1.50	0.50	1.50	
34	675	7.49	5.88	1.50	0.50	1.61	
35	695	7.55	6.00	1.50	0.50	1.55	
36	715	7.46	5.88	1.50	0.50	1.58	
37	735	7.30	5.74	1.50	0.50	1.56	
38	756	7.70	6.11	1.50	0.50	1.59	
39	775	7.45	5.88	1.50	0.50	1.57	
40	795	7.57	6.03	1.50	0.50	1.54	
41	815	7.60	6.08	1.50	0.50	1.52	
42	835	7.42	5.88	1.50	0.50	1.54	
43	855	7.55	6.03	1.50	0.50	1.52	
44	875	7.53	5.90	1.50	0.50	1.63	
45	895	7.53	5.89	1.50	0.50	1.64	

Sample Depth	FORAMS-PLANKTONIC	FORAMS-BENTHONIC	RADIOLARIA	DIATOMS	PTEROPODS	SPONGE SPICULES	OSTRACODS	MOLLUSC	CORALLINE ALGAE	CORAL	BRYOZOA	QUARTZ	FELDSPAR	MANGANESE	IRONSTONE	OPAQUE MINERALS	ROCK FRAGMENTS	OTHER
0 cm	A	C			R	R												echinoid spines R. mica flakes R.
100 cm	C	C										R			R			pyrite R.
200 cm	C	C			R	R R	R R	R				R						pyrite R., mica flakes R.
300 cm	C	C			R			R				R						echinoid spines R., pyrite R., mica flakes R.
400 cm	C	C										R						coarse fraction 1% pyrite R.
500 cm	C	C			R			R						R				
600 cm	C	C					R R	R R				R						pyrite R., mica flakes R.
700 cm	C	C					R R	R R				R			R			pyrite R.
800 cm	C	C			R		R R	R R								R		pyrite R.
900 cm	C	C			R		R R	R R				R						echinoid spines R., pyrite R.

RARE = 5%  
COMMON=5-50%  
UN=50-100%  
CORE  
NO: 37  
CRUISE  
NO: IG 19-3  
Sample Depth

FORAMS-PLANKTONIC

FORAMS-BENTHONIC

RADIOLARIA

DIATOMS

PTEROPODS

SPONGE SPICULES

SILICIFLAGELLATES

COCCOLITHS

DISCOASTERS

IRONSTONE

OPAQUE MINERALS

QUARTZ

MANGANESE

ZEOLITE

ASH SHARDS

OTHER

IGC 19 02 5 00 1



NOG 10 02 5 00 1

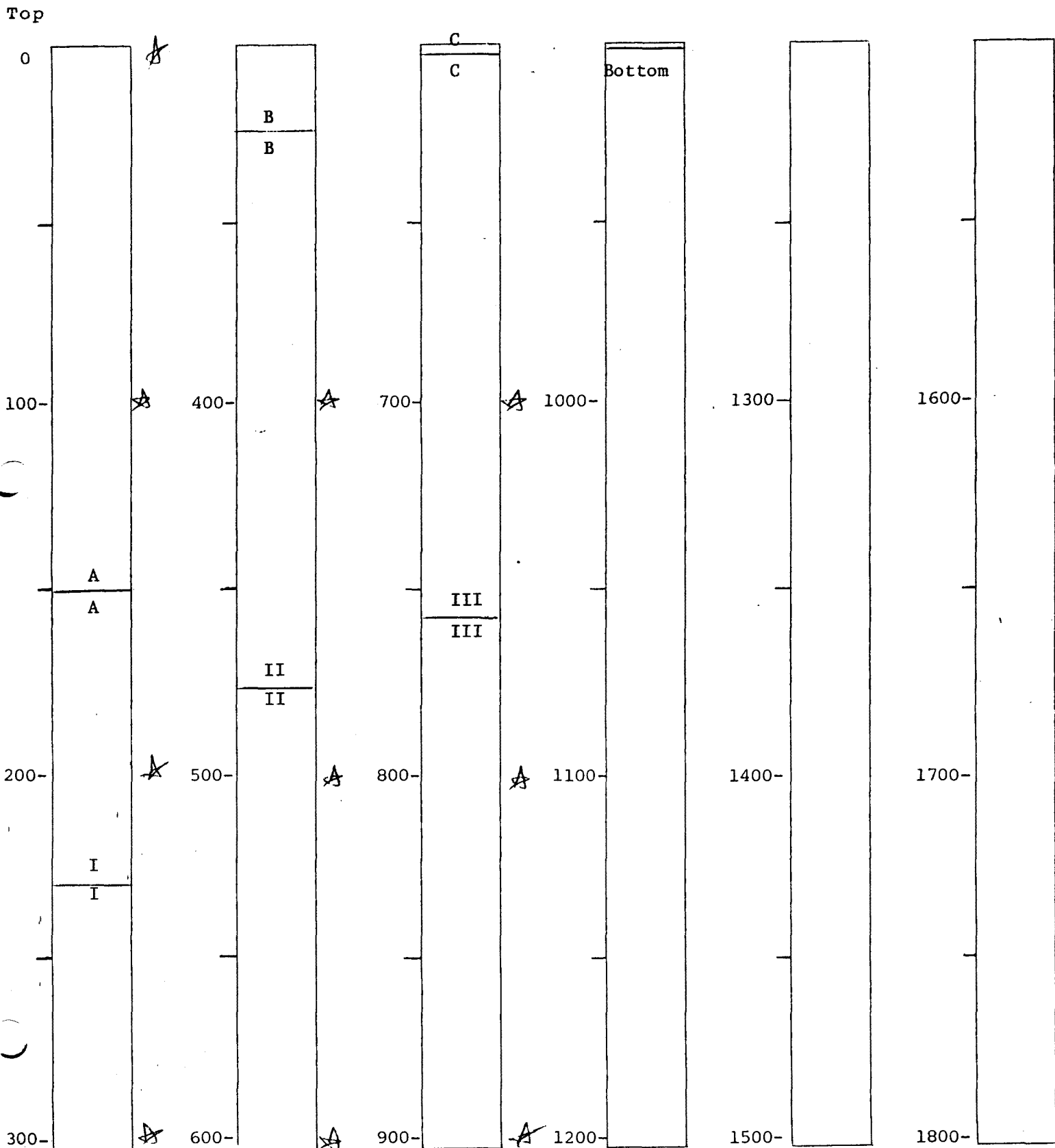
GRAPHIC CORE LOG

Core Number 37

Cruise IG-19

Core Cap Samples  
B = Bottom of Section  
T = Top of Section

CORE SECTIONS



\* = Coarse fraction/smear slide location

INTERVAL OR LOCATION OF SAMPLE	ESTIMATED VOLUME OF SAMPLE	TAKEN BY	SAMPLING PURPOSE	PERSON AND/OR COMPANY RECEIVING SAMPLE(S) FOR INTENDED RESEARCH
Refer to page on "Density Measurements" for precise locations	approx. 1 cc.	T. Haines	wet-bulk density	U.S. Navy to receive density results(UT-MSI contracted to do density measurements)

MSC 16 025001

CORE NUMBER 38 CRUISE IG 19-3  
 LATITUDE 28° 53.0' N LONGITUDE 87° 12.5' W  
 CORRECTED DEPTH 513 fm PDR DEPTH 503 fm  
 DATE TAKEN 6-27-76 DATE OPENED 7-26-77  
 DATE DESCRIBED 8-16-77 DATE PHOTOGRAPHED \_\_\_\_\_  
 DESCRIBED BY T. Haines CORE LENGTH 986 cm  
 PENETRATION 1000 cm FLOW-IN 0 cm

SUMMARY OF CORE:

Fine to very fine foraminiferal sandy mud, semi-dark greenish gray (5GY 5.5/1), very soft and moist, and burrowed (mottled); few molluscan shell fragments visible. Remainder of lower units are all very fine foraminiferal sandy clays varying in color from each other. All units are mottled from burrowing and all contain some chondrites burrowing. Several open burrows between 70 and 82 cm varying in size from 0.25 cm to 2.50 cm in diameter. Laminar bedding of clayey material having a different color than surrounding sediment occurs between 575 and 650 cm. Lower clayey units are primarily homogeneous and lutitic in consistency; coarse fraction analysis indicates common amounts of planktonic (abundant in 0 cm sample) & benthonic foraminifera, with rare amounts of pteropods, quartz, ironstone, pyrite, mica flakes, and echinoid spines located in various samples.

INTERVAL	DESCRIPTION
0-53 cm	Fine to very fine foraminiferal sandy mud, semi-dark greenish gray (5GY 5/1), very soft and moist. No visible structures evident. Few small fragments of molluscan shells visible in random locales. Mottling colored greenish gray (5GY 6/1) present between 5 and 25 cm and between 38 and 48 cm. Basal contact a gradual change in color, texture and composition.
53-85 cm	Very fine foraminiferal sandy clay, light olive gray (5Y 5/2), very soft and moist. Intense mottling colored semi-dark greenish gray (5GY 5.5/1) is well distributed through unit. Occasional molluscan shell fragments evident in lower part of unit. Several open burrows present between 70 and 82 cm, ranging in size from 0.25 cm to 2.50 cm in diameter. Basal contact a gradual change in color.
85-571 cm	Very fine foraminiferal sandy clay. Very light olive gray (5Y 5.5/2) very soft and moist. Color of sediment gradually darkens with depth to a semi-dark greenish gray (5GY 5/1) and then returns to the original very light olive gray sediment coloration. This sequence occurs frequently throughout this unit. A 1 cm thick laminar bedding plane colored light olive gray (5Y 5/2) is present at 140 cm and exhibits a filling material with a more sandy texture than surrounding sediment. Chondrites burrowing is evident in small amounts through this unit. Increasing firmness with depth. Material is very lutitic and homogeneous. Basal contact a distinct change in color.

INTERVAL	DESCRIPTION
571-650 cm	Very fine foraminiferal sandy clay, light olive gray (5Y 5/1) semi-soft and moist. Mottled laminar bedding of clayey textured material colored olive gray (5Y 4/1) is present from 575 to 650 cm. Chondrites burrowing visible in low numbers through entire unit. Scattered molluscan shell fragments in low amounts are present in random areas. At 622 cm a thin (0.5 cm) laminar band of dark yellowish brown (10YR 4/2) present having a very fine textured clay fill material. Basal contact a distinct change in color.
650-695 cm	Very fine foraminiferal sandy clay, dark yellowish brown (10YR 4/2), semi-firm and low moisture content. No visible structures evident. Low percentage of mottling colored light olive gray (5Y 5/1) is present at very top 10 cm of this unit. Chondrites burrowing nil. Very few tiny fragments of molluscan shells present in bottom few centimeters of the unit. Basal contact a gradual change in color.
695-986 cm (core bottom)	Very fine foraminiferal sandy clay, semi-dark yellowish brown (10YR 5/2), semi-firm and low moisture content. Chondrites burrowing present in low numbers through entire unit. Pale brown (5YR 5/2) mottling having a very fine clayey fill material occurs at 740 cm and from 815 to 830 cm. No visible structures evident.

CORE NUMBER 38

CRUISE IG-19

DENSITY MEASUREMENTS ON CORE EXTRACTATIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC BEG	CC END	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
1	15 cm	7.30	5.90	1.50	0.50	1.40	
2	35	7.64	6.28	1.50	0.50	1.36	
3	55	7.40	6.06	1.50	0.50	1.34	
4	75	7.04	5.74	1.50	0.50	1.30	
5	95	7.38	6.01	1.50	0.50	1.37	
6	115	7.13	5.72	1.50	0.50	1.41	
7	135	7.16	5.74	1.50	0.50	1.42	
8	155	7.10	5.70	1.50	0.50	1.40	
9	175	7.39	6.00	1.50	0.50	1.39	
10	195	7.51	6.05	1.50	0.50	1.46	
11	215	7.36	5.91	1.50	0.50	1.45	
12	235	7.41	6.00	1.50	0.50	1.41	
13	255	7.55	6.05	1.50	0.50	1.50	
14	275	7.51	5.99	1.50	0.50	1.52	
15	295	7.47	5.88	1.50	0.50	1.59	
16	315	7.81	6.32	1.50	0.50	1.49	
17	335	7.49	6.02	1.50	0.50	1.47	
18	355	7.58	6.03	1.50	0.50	1.55	
19	375	7.55	6.05	1.50	0.50	1.59	
20	395	7.46	5.96	1.50	0.50	1.50	
21	415	7.59	5.96	1.50	0.50	1.63	
22	435	7.50	5.88	1.50	0.50	1.62	
23	455	7.44	5.87	1.50	0.50	1.57	
24	475	7.25	5.60	1.50	0.50	1.65	
25	495	7.40	5.77	1.50	0.50	1.63	

CORE NUMBER 38

CRUISE IG-19

DENSITY MEASUREMENTS ON CORE EXTRACTIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
26	515 cm	7.61	5.94	1.50	0.50	1.67	
27	535	7.48	5.83	1.50	0.50	1.65	
28	555	7.56	5.90	1.50	0.50	1.66	
29	575	7.69	5.99	1.50	0.50	1.70	
30	595	7.55	5.90	1.50	0.50	1.65	
31	615	7.67	6.05	1.50	0.50	1.62	
32	635	7.46	5.81	1.50	0.50	1.65	
33	655	7.69	5.98	1.50	0.50	1.71	
34	675	7.63	5.89	1.50	0.50	1.74	
35	695	7.72	5.99	1.50	0.50	1.73	
36	715	7.83	6.14	1.50	0.50	1.69	
37	735	7.74	6.05	1.50	0.50	1.69	
38	755	7.57	5.90	1.50	0.50	1.67	
39	775	7.40	5.90	1.50	0.50	1.50	
40	795	7.58	6.02	1.50	0.50	1.56	
41	815	7.27	5.69	1.50	0.50	1.58	
42	835	6.91	5.29	1.50	0.50	1.62	
43	855	7.60	6.04	1.50	0.50	1.56	
44	875	7.52	5.88	1.50	0.50	1.64	
45	895	7.89	6.31	1.50	0.50	1.58	
46	915	7.42	5.86	1.50	0.50	1.56	
47	935	7.42	5.87	1.50	0.50	1.55	
48	955	7.52	6.00	1.50	0.50	1.52	
49	975	7.64	6.11	1.50	0.50	1.53	

Rare: 5%  
 Common: 5-50%  
 Abund: 50-100%  
 Core No: 38  
 Cruise: IG 19-3  
 Sample Depth

	FORAMS-PLANKTONIC	FORAMS-BENTHONIC	RADIOLARIA	DIATOMS	PTEROPODS	SPONGE SPICULES	OSTRACODS	MOLLUSC	CORALLINE ALGAE	CORAL	BRYOZOA	QUARTZ	FELDSPAR	MANGANESE	IRONSTONE	OPAQUE MINERALS	ROCK FRAGMENTS	OTHER
0 cm	A	C			R										R			
100 cm	C	C			R							R						pyrite R.
200 cm	A	C																coarse fraction 1% pyrite R.
300 cm	C	C																coarse fraction 1% mica flakes R.
400 cm	C	C										R						mica flakes R., pyrite R.
500 cm	C	C																pyrite R., mica flakes R.
600 cm	C	C																coarse fraction 1% pyrite R.
700 cm	C	C										R						coarse fraction 1% pyrite R.
800 cm	C	C										R						echinoid spines R., pyrite R. mica flakes R.
900 cm	C	C			R							R						mica flakes R., pyrite R.

RARE = 5%

COMMON=5-50%

ABUNDANT=50-100%

CORE  
NO: 38  
CRUISE  
NO: IG 19-3  
Sample Depth

FORAMS-PLANKTONIC

FORAMS-BENTHONIC

RADIOLARIA

DINOFLEKES

PTEROPODS

SPONGE SPICULES

SILICIFLAGELLATES

COCCOLITHS

DISCOASTERS

IRONSTONE

OPAQUE MINERALS

QUARTZ

MANGANESE

ZEOLITE

ASH SHARDS

OTHER

10 02 5 00 3



GRAPHIC CORE LOG

NOG 10 0 2 5 0 0 1

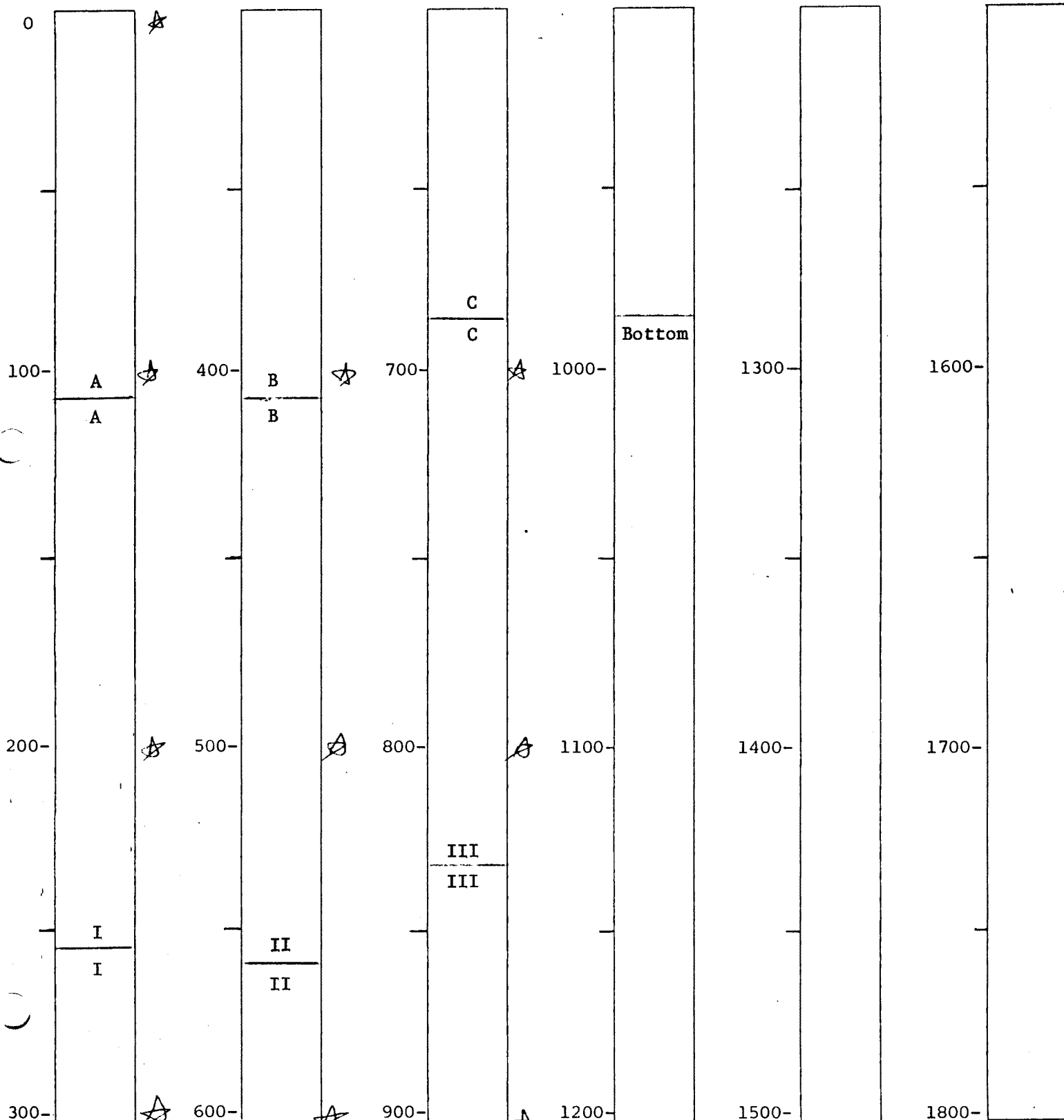
Core Number 38

Cruise IG-19

Core Cap Samples  
B = Bottom of Section  
T = Top of Section

CORE SECTIONS

Top



\* = Coarse fraction/smear slide location.

INTERVAL OR LOCATION OF SAMPLE	ESTIMATED VOLUME OF SAMPLE	TAKEN BY	SAMPLING PURPOSE	PERSON AND/OR COMPANY RECEIVING SAMPLE(S) FOR INTENDED RESEARCH
Refer to page on "Density measurements" for precise locations	approx. 1 cc.	T. Haines	wet-bulk density	U.S. Navy to receive density results (UT-MSI contracted to do density measurements)

MCC 10 02 5 00 1

CORE NUMBER	<u>39</u>	CRUISE	<u>IG 19-3</u>
LATITUDE	<u>28° 51.2' N</u>	LONGITUDE	<u>87° 14.0' W</u>
CORRECTED DEPTH	<u>550 fm</u>	PDR DEPTH	<u>540 fm</u>
DATE TAKEN	<u>6-27-76</u>	DATE OPENED	<u>7-27-77</u>
DATE DESCRIBED	<u>8-5-77</u>	DATE PHOTOGRAPHED	<u></u>
DESCRIBED BY	<u>T. Haines</u>	CORE LENGTH	<u>917 cm</u>
PENETRATION	<u>1135 cm</u>	FLOW-IN	<u>0 cm</u>

## SUMMARY OF CORE:

Fine foraminiferal sandy mud, greenish gray (5GY 6/1) soft and moist on the top 88 cm of core. Mottling occurs in every unit in low amounts. Molluscan shell fragments occur in some units. Chondrites burrowing is noted in each unit in a low amount; 88 to 725 cm is a foraminiferal sandy clay zone composed of two units differing primarily in color. Deepest unit is a foraminiferal sandy mud; coarse fraction analysis indicates common to abundant planktonic foraminifera, common benthonic foraminifera, with rare occurrences of radiolaria (in 0 cm sample only), ostracods, molluscan shells/shell debris, quartz, opaque minerals, pyrite, mica flakes, and echinoid spines.

INTERVAL	DESCRIPTION
0-88 cm	Fine foraminiferal sandy mud, greenish gray (5GY 6/1), soft and moist. Moderate amount of mottling colored semi-dark greenish gray (5GY 5/1) occurs between 15 and 25 cm, and 50-75 cm, no structures visible. Very little percentage of molluscan shell fragments present in random locations. Basal contact a gradual change in color, texture and composition.
88-638 cm	Very fine foraminiferal sandy clay, light grayish olive (10Y 5/2), soft and moderately moist. Small elongated open burrow at 139 cm. Only an occasional mottled area colored grayish olive (10Y 4/2) and at 180-185 cm an intensely mottled segment colored light olive gray (5Y 5/2). Both types of mottling have fine clayey fill material. Sparse scattering of chondrites burrows is evident through entire unit. Very lutitic and homogeneous material in this unit. Gradual increase in firmness with depth. Mottled areas from 590 to end of unit are present in small amounts colored light olive gray (5Y 5/1) and have fine fill material similar to surrounding matrix. Basal contact a gradual change in color.
638-725 cm	Very fine foraminiferal sandy clay, light olive gray (5Y 5/1), semi-soft and low moisture content. Light grayish olive (10Y 5/2) banding present from 654 to bottom of unit having a fill material texture that is similar to surrounding matrix. Low amount of chondrites burrows present. No shell fragments visible. Very homogeneous material. Basal contact a gradual change in color, texture and composition.

INTERVAL	DESCRIPTION
725-917 cm (core bottom)	Fine to very fine foraminiferal sandy mud, light olive gray (5Y 5/1), soft and low moisture content. Chondrites burrowing present in small randomly distributed amounts. Small molluscan shell fragments present in very low amounts well distributed in unit. Mottling colored dark yellowish brown (10YR 4/2) is present at 818 cm and 898-908 cm having fill material of a similar texture to surrounding matrix. No visible structures evident.

MCG 10 025 00 1

CORE NUMBER 39

CRUISE IG-19

DENSITY MEASUREMENTS ON CORE EXTRACTIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
1	15 cm	7.31	6.03	1.50	0.50	1.28	
2	35	7.65	6.27	1.50	0.50	1.38	
3	55	7.82	6.50	1.50	0.50	1.32	
4	73	7.68	6.40	1.50	0.50	1.28	
5	95	7.83	6.40	1.50	0.50	1.43	
6	115	7.44	6.00	1.50	0.50	1.44	
7	135	7.92	6.49	1.50	0.50	1.43	
8	155	7.43	6.00	1.50	0.50	1.43	
9	175	7.37	5.91	1.50	0.50	1.46	
10	195	7.19	5.69	1.50	0.50	1.50	
11	215	7.74	6.28	1.50	0.50	1.46	
12	235	7.41	5.96	1.50	0.50	1.45	
13	255	7.47	6.00	1.50	0.50	1.47	
14	275	7.57	6.01	1.50	0.50	1.56	
15	295	7.13	5.65	1.50	0.50	1.48	
16	315	7.22	5.62	1.50	0.50	1.60	
17	335	7.52	5.97	1.50	0.50	1.55	
18	355	7.76	6.21	1.50	0.50	1.55	
19	375	7.47	5.90	1.50	0.50	1.57	Slight plunger slippage; possible volume error
20	395	7.56	6.02	1.50	0.50	1.54	
21	415	7.35	5.67	1.50	0.50	1.68	
22	435	7.61	5.99	1.50	0.50	1.62	
23	455	7.63	5.83	1.50	0.50	1.80	Increase in firmness of clayey material
24	475	7.73	6.06	1.50	0.50	1.67	
25	495	7.77	6.18	1.50	0.50	1.71	

NCG 10005001

354

ORE NUMBER 39

CRUISE IG-19

DENSITY MEASUREMENTS ON CORE EXTRACTIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET	PROBLEMS/ OBSERVATIONS
						BULK DENSITY	
26	515 cm	7.85	6.17	1.50	0.50	1.68	
27	535	7.60	5.92	1.50	0.50	1.68	
28	555	7.42	5.82	1.50	0.50	1.60	
29	575	7.64	6.03	1.50	0.50	1.61	
30	595	7.81	6.14	1.50	0.50	1.67	
31	615	7.71	6.04	1.50	0.50	1.67	
32	635	7.91	6.25	1.50	0.50	1.66	
33	655	7.64	5.95	1.50	0.50	1.69	
34	675	8.10	6.36	1.50	0.50	1.74	
35	695	7.99	6.30	1.50	0.50	1.69	
36	715	8.03	6.31	1.50	0.50	1.72	
37	735	7.39	5.70	1.50	0.50	1.69	
38	755	7.32	5.85	1.50	0.50	1.47	
39	775	7.41	5.90	1.50	0.50	1.51	
40	796	7.48	5.99	1.50	0.50	1.49	
41	815	7.60	5.98	1.50	0.50	1.62	
42	835	7.66	6.10	1.50	0.50	1.56	
43	855	7.79	6.13	1.50	0.50	1.66	
44	875	7.89	6.30	1.50	0.50	1.59	
45	895	7.68	6.01	1.50	0.50	1.67	Very firm material
46	915	7.41	5.86	1.50	0.50	1.55	Very firm material

3100 10 00 5 00 1







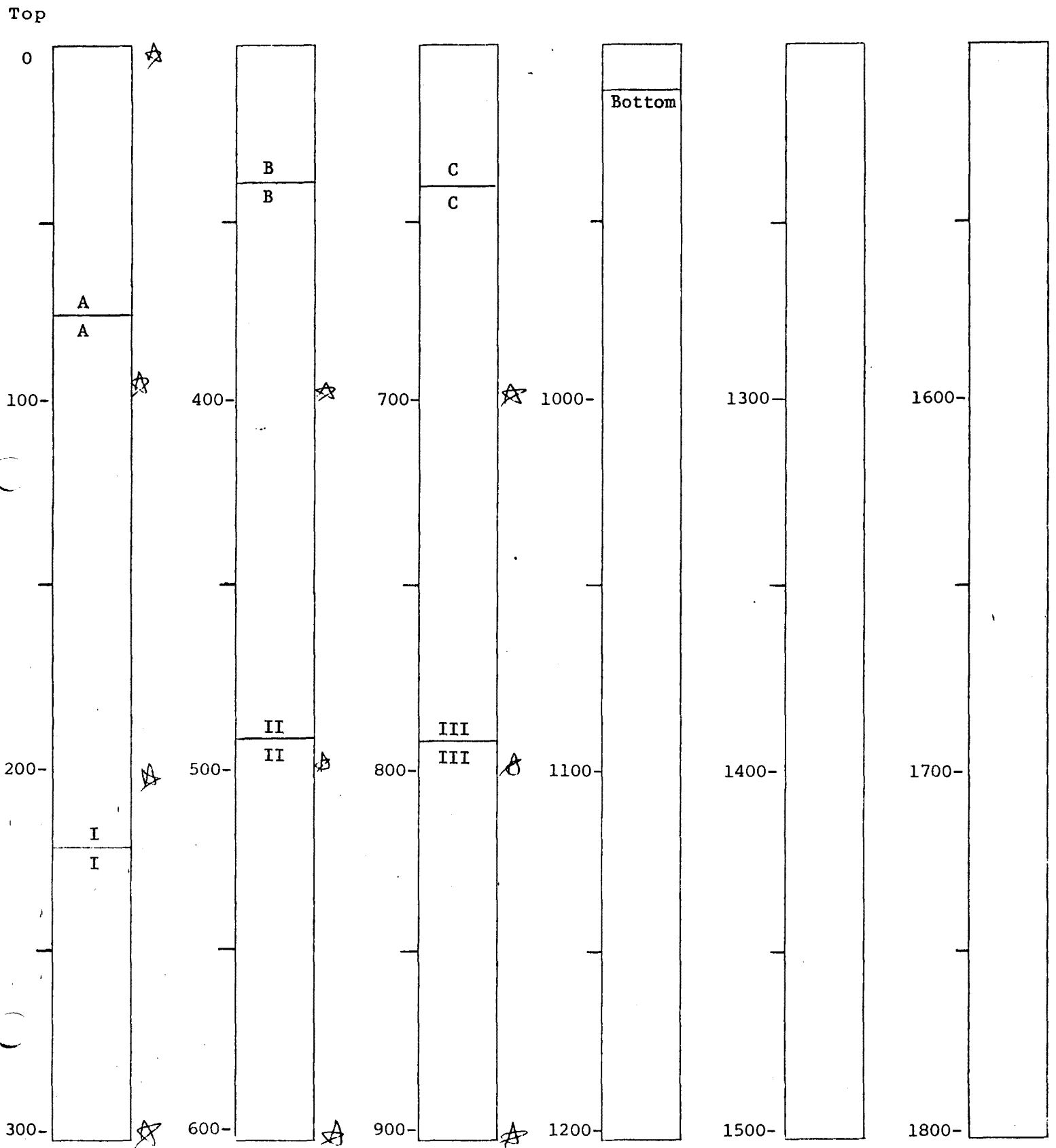
GRAPHIC CORE LOG

Core Number 39

Cruise IG-19

Core Cap Samples  
B = Bottom of Section  
T = Top of Section

CORE SECTIONS



INTERVAL OR LOCATION OF	ESTIMATED VOLUME OF SAMPLE	TAKEN BY	SAMPLING PURPOSE	PERSON AND/OR COMPANY RECEIVING SAMPLE(S) FOR INTENDED RESEARCH
<p>Refer to page in "Density measurements" for precise locations</p>	<p>approx. 1 cc.</p>	<p>T. Haines</p>	<p>wet-bulk density</p>	<p>U.S. Navy to receive density results(UT-MSI contracted to do density measurements)</p>

1000000000

CORE NUMBER 40 CRUISE IG 19-3  
 LATITUDE 29° 32.1' N LONGITUDE 87° 43.6' W  
 CORRECTED DEPTH 27 fm PDR DEPTH 26 fm  
 DATE TAKEN 6-28-76 DATE OPENED 11-22-76  
 DATE DESCRIBED 11-22-76 DATE PHOTOGRAPHED \_\_\_\_\_  
 DESCRIBED BY T. Haines CORE LENGTH 174 cm  
 PENETRATION 140 cm FLOW-IN 0 cm

SUMMARY OF CORE: Medium fine to fine quartzose sand, olive gray (5Y 3/2), clean, moderately firm, slight grading to coarser material toward bottom of core, thick bed with no structures visible, mollusc shell content throughout core is low and distribution is random; coarse fraction analysis indicates abundant amounts of quartz, and rare percentages of planktonic & benthonic foraminifera, pteropods, ostracods, molluscan shells/shell debris, manganese, glauconite, echinoid spines, and color minerals.

0 - 174 cm (core bottom) medium fine to fine quartzose sand, olive gray (5Y 3/2), clean, moderately firm, homogeneous; no visible structures, lobe of light olive gray (5Y 5/2) quartzose sand extends down edge of liner to end of core and differs only in the presence of mud with the sand. This differential is probably due to settling in the liner from water slosh; unit is graded to slightly larger grain size towards lower end of core, very low mollusc shell content until 95 cm and then only moderately low random distribution, large bivalve at 170 cm.

MCG 10 025 00 1

ORE NUMBER 40

CRUISE IG-19-3

DENSITY MEASUREMENTS ON CORE EXTRACTIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
1	20 cm.	9.53	7.79	1.60	0.60	1.74	Clean, sandy
2	40 cm.	9.44	7.78	1.60	0.60	1.66	Increasing firmness with depth
3	60 cm.	9.49	7.89	1.60	0.60	1.60	
4	80 cm.	9.60	8.00	1.60	0.60	1.60	
5	100 cm.	9.84	8.22	1.50	0.50	1.62	
6	120 cm.	9.60	7.95	1.60	0.60	1.65	
7	140 cm.	8.75	7.08	1.60	0.60	1.67	Very firm sand

MCC 10025001



SMEAR SLIDE ANALYSIS

262

CORE: 58 NO: 5-508 HOLE: 50-1008 REEF: 40 IG 19-3 Sample Depth	FORAMS-PLANKTONIC
	FORAMS-BENTHONIC
	RADIOLARIA
	DIATOMS
	PTEROPODS
	SPONGE SPICULES
	SILICOFLAGELLATES
	COCCOLITHS
	DISCOASTERS
	IRONSTONE
	OPAQUE MINERALS
	QUARTZ
	MANGANESE
	ZEOLITE
	ASH SHARDS
	OTHER

NOV 10 07 5 00 1

MCG 10915901

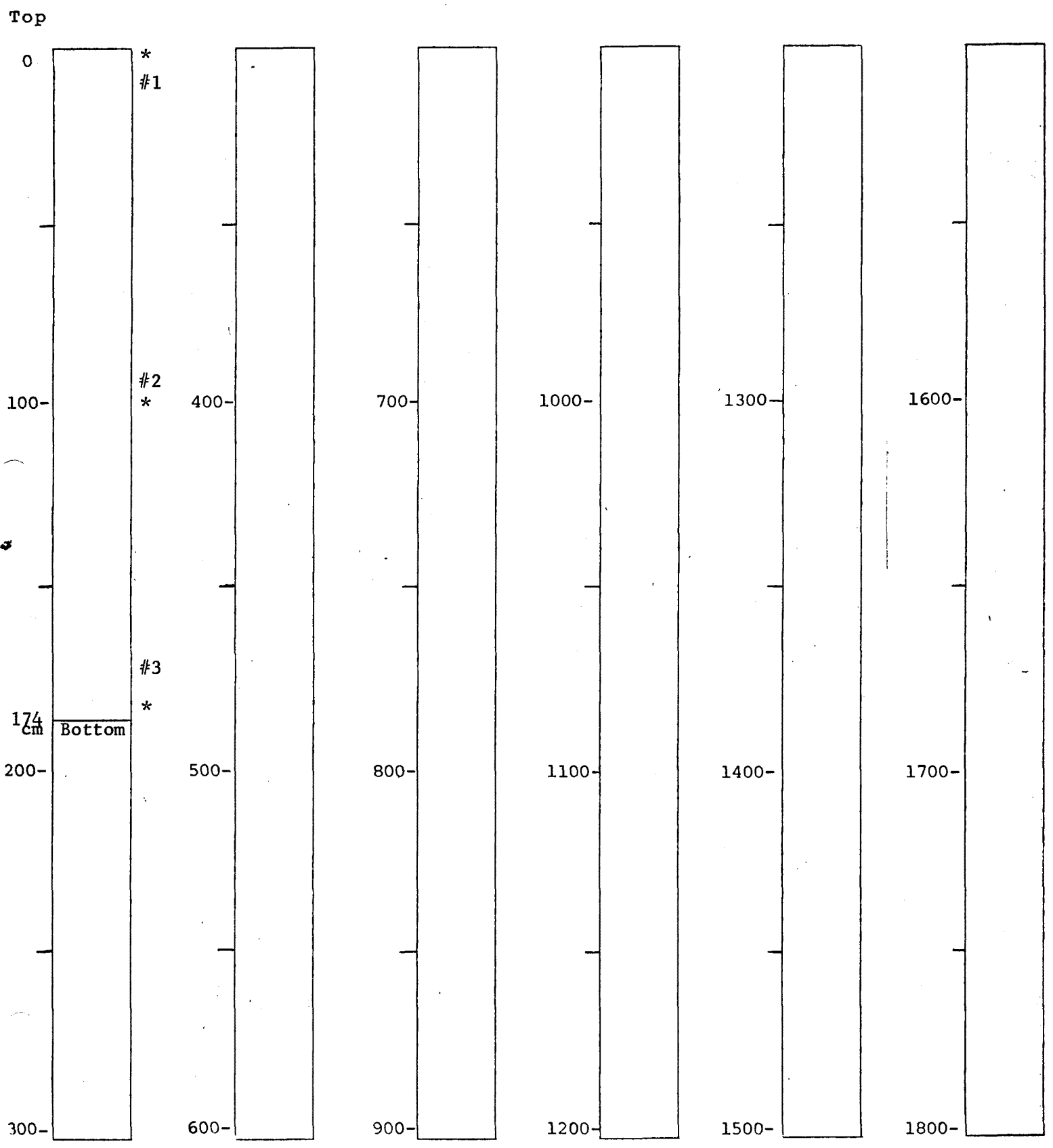
GRAPHIC CORE LOG

Core Number 40

Cruise IG - 19

Core Cap Samples  
B = Bottom of Section  
T = Top of Section

CORE SECTIONS



\* Core Section 1 to 3 are from the same location

CORE NUMBER

40

CRUISE

IG-19

INTERVAL OR LOCATION OF SAMPLE	ESTIMATED VOLUME OF SAMPLE	TAKEN BY	SAMPLING PURPOSE	PERSON AND/OR COMPANY RECEIVING SAMPLE(S) FOR INTENDED RESEARCH
Refer to page on "Density Measurements" for precise locations	approx. 1 cc.	T. Haines	wet-bulk density	U. S. Navy to receive density results (UT-MSI contracted to do density measurements)
0-23 cm	200 gm	T. Haines		Frank Van Markhoren

MCC 10 20 1991



CORE NUMBER	<u>41</u>	CRUISE	<u>IG 19-3</u>
LATITUDE	<u>29<sup>o</sup> 32.4' N</u>	LONGITUDE	<u>87<sup>o</sup> 40.6' W</u>
CORRECTED DEPTH	<u>28 fm</u>	PDR DEPTH	<u>27 fm</u>
DATE TAKEN	<u>6-28-76</u>	DATE OPENED	<u>11-23-76</u>
DATE DESCRIBED	<u>11-23-76</u>	DATE PHOTOGRAPHED	_____
DESCRIBED BY	<u>T. Haines</u>	CORE LENGTH	<u>220 cm</u>
PENETRATION	<u>105 cm</u>	FLOW-IN	<u>0 cm</u>

SUMMARY OF CORE: Coarse to medium fine quartz sand to quartz-shelly sand, olive black at top to olive gray toward bottom, clean, loose, no visible structures, moderate to sparse mollusc shells and shell debris, larger mollusc shells found in lower unit of core, some manganese coatings on small percentage of grains, very abundant quartz content throughout core; rare percentages of planktonic & benthonic foraminifera, pteropod glauconite, and echinoid spines also noted in coarse fraction analysis.

0 - 35 cm.	coarse to medium fine quartzose sand, olive black (5Y 2/1), moist clean, firm, no unit visible, lobe of light olive gray (5Y 5/2) clean sand of same texture extends along liner edge to 55 cm. (probably due to settling of sediment during coring), moderate mollusc shell debris present with random distribution. Basal contact a gradual change in color and composition, and texture.
35 - 220 cm (core bottom)	very coarse to medium fine quartz-shelly sand, olive gray (5Y 3/2), clean loose sand, moist moderately firm, no visible units evident, slight increasing volume in mollusc shells and shell fragments than found in above unit, large bivalve shell fragments at 60 to 210 cm., all evenly distributed through the unit. Large pectins at 60, 80, 110, 140, and 215 cm., two large benthonic gastropods occur at 75 and 90 cm. both in excellent condition, large echinoid shell fragment found at 160cm., shells in this unit are both worm tube encrusted and non-encrusted (suggesting sediment reworking possibilities); 2 cm. long coral (colonial) fragment at 120 cm.

MGC 1002 5-1-76

364

CORE NUMBER 41

CRUISE IG - 19-3

DENSITY MEASUREMENTS ON CORE EXTRACTIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
1	15 cm.	9.56	7.91	1.90	0.90	1.65	Firm, clean sand
2	35 cm.	10.09	8.12	1.70	0.50	1.64	
3	57 cm.	9.51	7.82	1.60	0.60	1.69	
4	80 cm.	9.31	8.19	1.10	0.40	1.60	Large shell fragment hampering sample retrieval
5	100 cm.	9.44	7.79	1.60	0.60	1.65	small volume salvaged
6	120 cm.	9.86	8.26	1.70	0.70	1.60	
7	140 cm.	8.96	7.73	1.20	0.50	1.75	Settling void under surface causing lower volume
8	160 cm.	8.81	7.12	1.50	0.50	1.69	
9	175 cm.	9.90	8.26	1.70	0.70	1.64	
10	195 cm.	9.39	7.75	1.70	0.170	1.64	
11	215 cm.	9.54	7.86	1.50	0.50	1.68	

MCS 10 07 66 01



AREA: 5%	
CON: 5-50%	
BOUND: 50-100%	
DEPTH: 41	
IG 19-3	
Sample Depth	
FORAMS-PLANKTONIC	
FORAMS-BENTHONIC	
RADIOLARIA	
DIATOMS	
PTEROPODS	
SPONGE SPICULES	
SILICOFLAGELLATES	
COCCOLITHS	
DISCOASTERS	
IRONSTONE	
OPAQUE MINERALS	
QUARTZ	
MANGANESE	
ZEOLITE	
ASH SHARDS	
OTHER	

MCS: 10 5 5 00 1

GRAPHIC CORE LOG

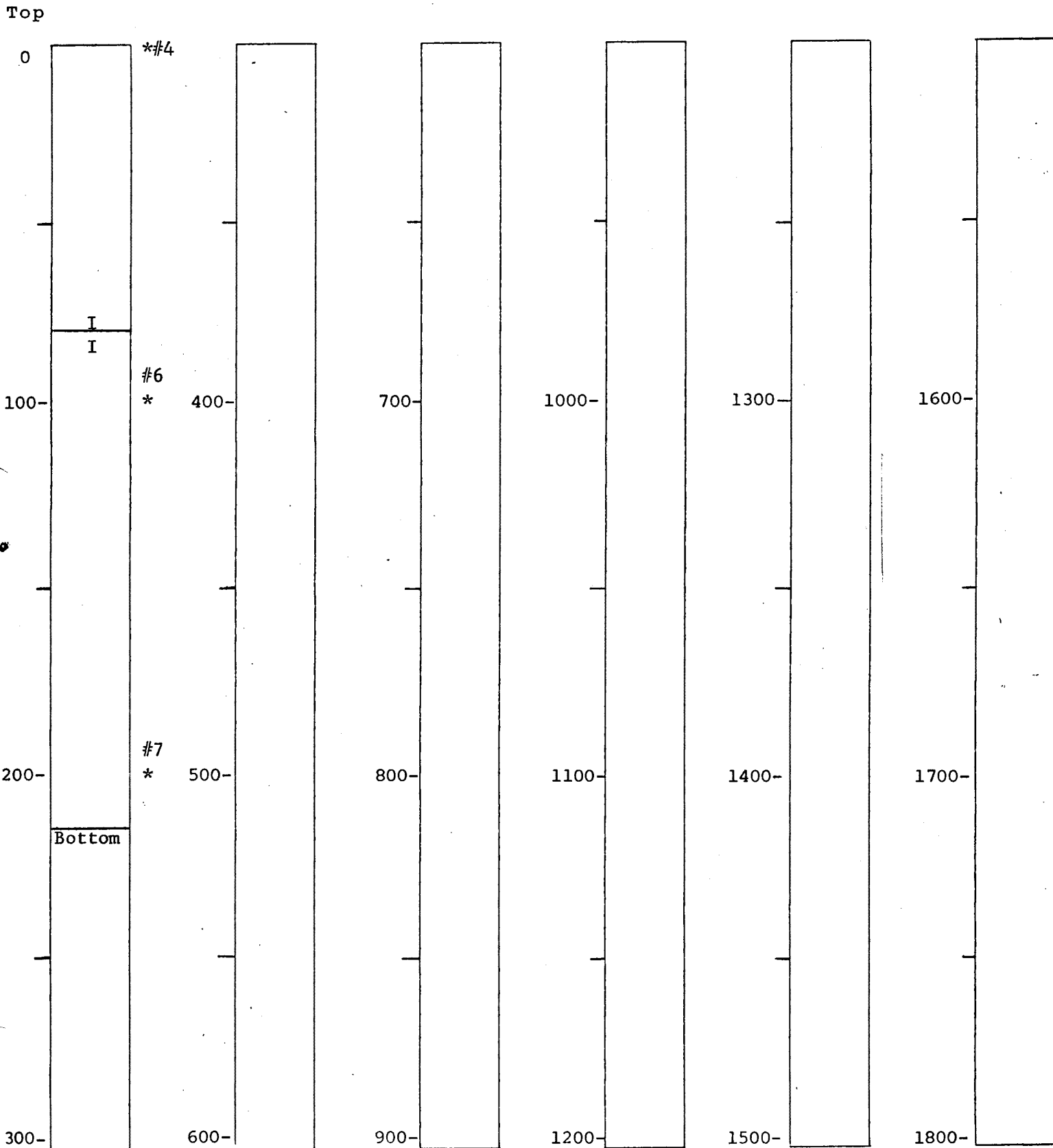
MCG 10 015 00 1

Core Number 41

Cruise IG - 19-3

Core Cap Samples  
B = Bottom of Section  
T = Top of Section

CORE SECTIONS



\* = Coarse fraction (near slide location)

CORE NUMBER

41

CRUISE

IG-19-3

INTERVAL OR LOCATION OF SAMPLE	ESTIMATED VOLUME OF SAMPLE	TAKEN BY	SAMPLING PURPOSE	PERSON AND/OR COMPANY RECEIVING SAMPLE(S) FOR INTENDED RESEARCH
Refer to page on "Density Measurements" for precise locations	approx. 1 cc.	T. Haines	wet-bulk density	U. S. Navy to receive density results (UT-MSI contracted to do density measurements)
0-22 cm	200 gm	T. Haines		Frank Van Markhoren

MCC 10 02 500 1

CORE NUMBER 42 CRUISE IG 19-3  
 LATITUDE 29° 33.2' N LONGITUDE 87° 37.4' W  
 CORRECTED DEPTH 30 fm PDR DEPTH 29 fm  
 DATE TAKEN 6-28-76 DATE OPENED 11-23-76  
 DATE DESCRIBED 11-23-76 DATE PHOTOGRAPHED \_\_\_\_\_  
 DESCRIBED BY T. Haines CORE LENGTH 187 cm  
 PENETRATION 115 cm. FLOW-IN 0 cm.

SUMMARY OF CORE: Coarse to medium quartz shelly sand, olive gray (5Y 3/2) at top to grayish olive green (5GY 3/2) towards bottom, clean, moderately firm, loose grains, no visible structures, moderate to low amounts of mollusc shell debris, coralline algae and bryzoans, manganese and iron staining on some grains, quartz content gradually increases lower two-thirds of core; rare amounts of planktonic(found in 0 cm INTERVAL sample only) & benthonic DESCRIPTION foraminifera noted also.

INTERVAL	DESCRIPTION
0 - 33 cm.	coarse to medium quartz-shelly sand, olive gray (5Y 3/2), clean, moist, moderately firm, loose grains, graded to coarser material with depth, lobes of grayish olive (10Y 4/2) clean shelly sand extend down edges of liner to 55 cm. possibly due to coring, and covers the top 3 cm. of the core itself, throughout core moderately large volume of well distributed molluscan shells and debris are present, presence of coralline algae in low amounts also well distributed, no visible structures present. Basal contact an indistinct change in color.
33 - 187 cm. (core bottom)	coarse to medium quartz shelly sand, grayish olive green (5Y 3/2), clean, moist moderately firm, loose grains, no visible structures evident, mollusc shells and coralline algae still present in moderate and low volumes respectively, large (5 cm. diameter), pectin worm tube encrusted located at 186 cm. at bottom of core.

NOV 10 1976

CORE NUMBER 42

CRUISE IG - 19-3

DENSITY MEASUREMENTS ON CORE EXTRACTIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
1	15 cm.	8.85	7.13	1.50	0.40	1.56	clean, very moist sand some shell debris
2	35 cm.	9.73	8.19	1.50	0.50	1.54	
3	55 cm.	9.31	7.70	1.50	0.50	1.61	slight decrease in firmness
4	75 cm.	9.30	7.68	1.50	0.50	1.62	
5	95 cm.	8.80	8.18	0.90	0.50	1.55	very soft underlying material low volume obtained
6	115 cm.	9.26	7.76	1.50	0.50	1.50	
7	135 cm.	9.30	7.68	1.50	0.50	1.62	
8	155 cm.	9.45	7.85	1.50	0.50	1.60	
9	175 cm.	9.73	8.18	1.40	0.40	1.55	

MCG 10015001





CORE: 5%	
N: 5-50%	
HOLE: 50-100%	
CORE: 42	
IG 19-3	
Sample Depth	
FORAMS-PLANKTONIC	
FORAMS-BENTHONIC	
RADIOLARIA	
DIATOMS	
PTEROPODS	
SPONGE SPICULES	
SILICOFLAGELLATES	
COCCOLITHS	
DISCOASTERS	
IRONSTONE	
OPAQUE MINERALS	
QUARTZ	
MANGANESE	
ZEOLITE	
ASH SHARDS	
OTHER	

MCC 100000001

GRAPHIC CORE LOG

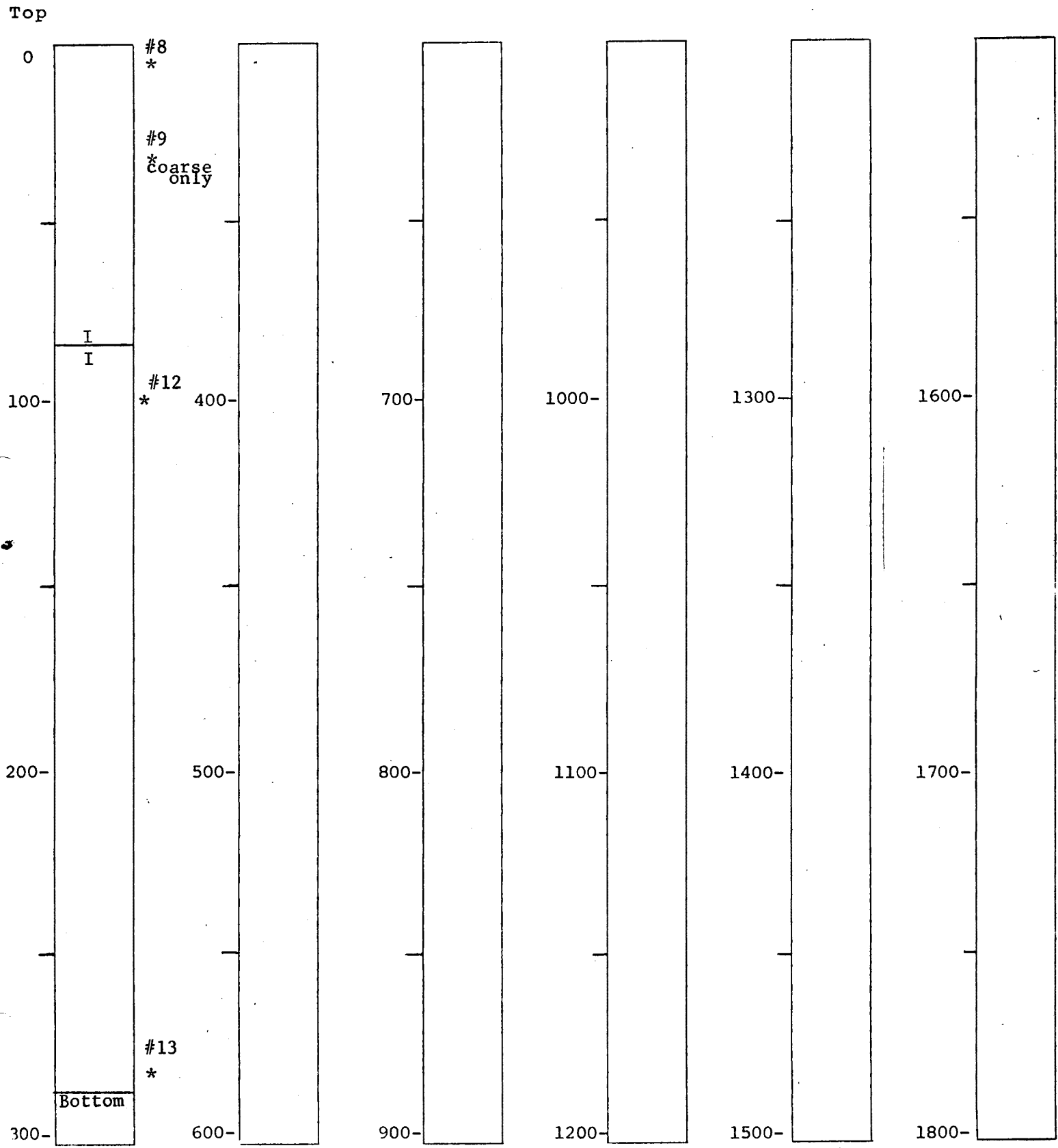
MCG 10 000 001

Core Number 42

Cruise IG-19-3

Core Cap Samples  
B = Bottom of Section  
T = Top of Section

CORE SECTIONS



CORE NUMBER 42

CRUISE IG-19-3

INTERVAL OR LOCATION OF SAMPLE	ESTIMATED VOLUME OF SAMPLE	TAKEN BY	SAMPLING PURPOSE	PERSON AND/OR COMPANY RECEIVING SAMPLE(S) FOR INTENDED RESEARCH
Refer to page on "Density Measurements" for precise locations	approx. 1 cc.	T. Haines	wet-bulk density	U. S. Navy to receive density results(UT-MSI contracted to do density measurements)
every 20 cm.	approx. 5 cc.	S. Addy	geochemical analyses	Dr. Sunit Addy, UT-MSI
0-27 cm	200 gm	T. Haines		Frank Van Markhoren

MGC 19925 101

CORE NUMBER 43 CRUISE IG 19-3  
 LATITUDE 29° 33.3' N LONGITUDE 87° 34.9' W  
 CORRECTED DEPTH 33 fm PDR DEPTH 32 fm  
 DATE TAKEN 6-28-76 DATE OPENED 10-15-76  
 DATE DESCRIBED 10-15-76 DATE PHOTOGRAPHED \_\_\_\_\_  
 DESCRIBED BY T. Haines CORE LENGTH 52 cm  
 PENETRATION 100 cm. FLOW-IN 0 cm

SUMMARY OF CORE: Medium to very coarse shelly sand olive gray (5Y 3/2), loose, clean, increase in coarseness with depth, mottling randomly occurs throughout core, fill material being finer grained than surrounding matrix, middle of core has a concentration of shell fragments, possible bedding indication; coarse fraction analysis shows rare to common amounts of planktonic & benthonic foraminifera, molluscan & echinoid debris, and rare amounts of pteropods, coralline algae, manganese, opaque minerals, DESCRIPTION and glauconite; quartz becomes abundant with increased depth.

- 0-20 cm. Medium to very coarse shelly sand, olive gray (5Y 3/2); loose, mostly clean with some iron staining ~ 15% of quartz grains, no visible structures present; 15-20 cm. a large filled burrow, mottling color of olive black (5Y 2/1), material in burrow same approximate size as surrounding material. Basal contact a sharp change in composition, texture & color.
- 20-46 cm. Fine to very coarse shelly muddy sand, moderate olive brown (5Y 4/4) firm, intense abundance of large molluscan shells & shell fragments. The medium sandy material matrix is grayish olive (10Y 4/2) surrounding most of the larger molluscs, muddy material is moist soft and grayish olive green (5GY 3/2). The high concentration of shells in this unit may indicate bedding. Basal contact a sharp change in composition.
- 46-52 cm. Medium to coarse sand grayish olive (10Y 4/2), few coarse mollusc shells and/or shell fragments. No visible structures evident. Quartz grain size has become notably coarser.

(core bottom)

CORE NUMBER 43

CRUISE IG 19-3

DENSITY MEASUREMENTS ON CORE EXTRACTIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
1	20 cm	8.13	6.47	1.59	0.49		coarse loose sandy matrix, low moisture  too many coarse large frags of shells for sample extraction

MCC 10 000 00 1



SMEAR SLIDE ANALYSIS

TAKE: 5%  
 COMMON: 5-50%  
 BUN: 50-100%  
 CORE NO.  
 43  
 IG 19-3  
 SAMPLE NO.

- FORAMS-PLANKTONIC
- FORAMS-BENTHONIC
- RADIOLARIA
- DIATOMS
- PTEROPODS
- SPONGE SPICULES
- SILICOFLAGELLATES
- COCCOLITHS
- DISCASTERS
- IRONSTONE
- OPAQUE MINERALS
- QUARTZ
- MANGANESE
- ZECLITE
- ASH SHARDS
- OTHER

MAG 100-500x



MGG 1005001

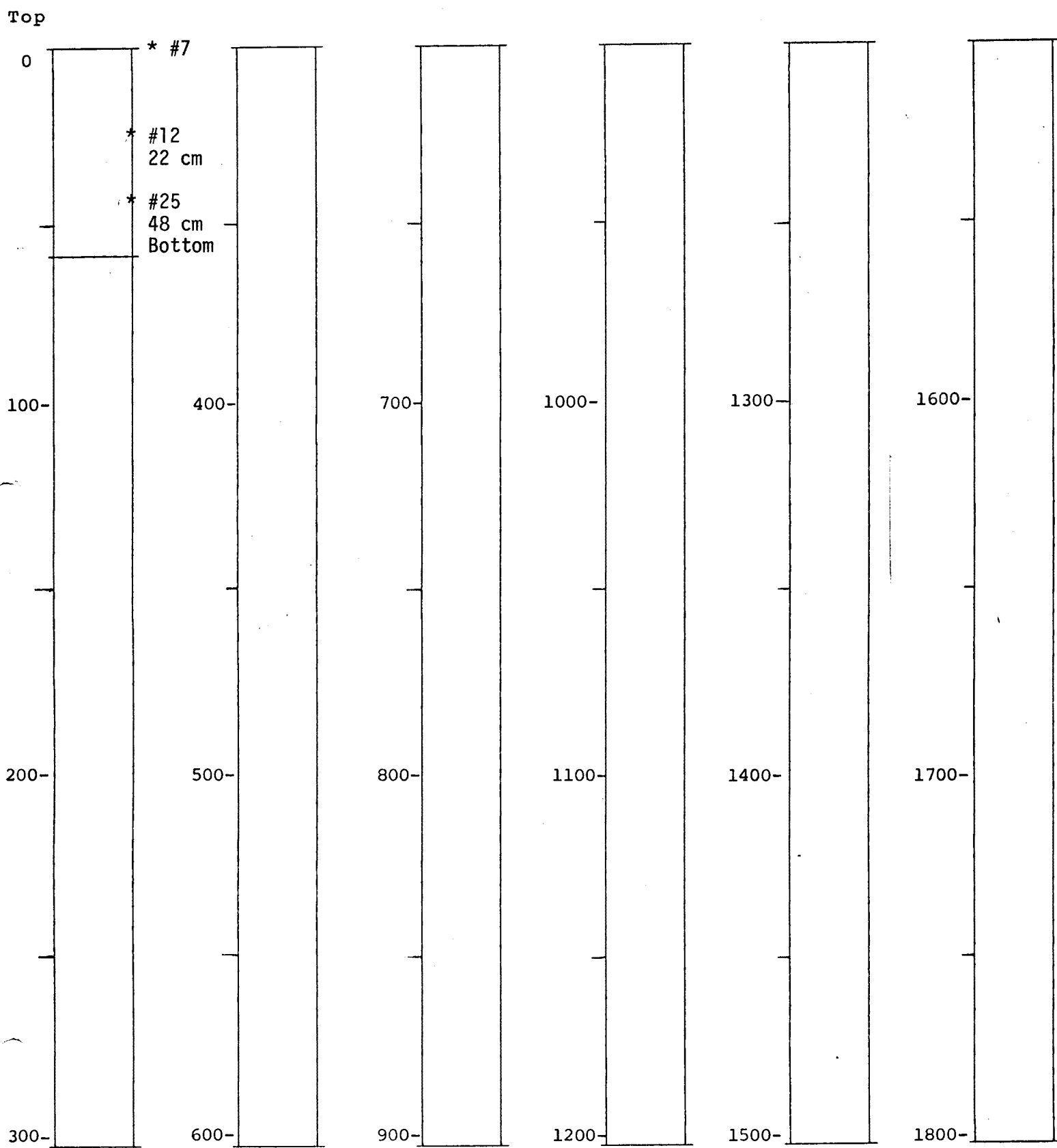
GRAPHIC CORE LOG

Core Number 43

Cruise IG 19-3

Core Cap Samples  
B = Bottom of Section  
T = Top of Section

CORE SECTIONS



\* = Coarse fraction (more than 100 microns)

CORE NUMBER 43 CRUISE IG-19-3

INTERVAL OR LOCATION OF SAMPLE	ESTIMATED VOLUME OF SAMPLE	TAKEN BY	SAMPLING PURPOSE	PERSON AND/OR COMPANY RECEIVING SAMPLE(S) FOR INTENDED RESEARCH
Refer to page on "Density Measurements" for precise locations	approx. 1 cc.	T. Haines	wet-bulk density	U. S. Navy to receive density results (UT-MSI contracted to do density measurements)
0-30 cm	200 gm	T. Haines		Frank Van Markhoren

NOV 18 02 00 1

CORE NUMBER	<u>44</u>	CRUISE	<u>IG 19-3</u>
LATITUDE	<u>29<sup>o</sup> 35.4' N</u>	LONGITUDE	<u>87<sup>o</sup> 31.0' W</u>
CORRECTED DEPTH	<u>37 fm</u>	PDR DEPTH	<u>36 fm</u>
DATE TAKEN	<u>6-28-76</u>	DATE OPENED	<u>10-1-76</u>
DATE DESCRIBED	<u>10-1-76</u>	DATE PHOTOGRAPHED	<u>                    </u>
DESCRIBED BY	<u>T. Haines</u>	CORE LENGTH	<u>82 cm</u>
PENETRATION	<u>100 cm</u>	FLOW-IN	<u>0 cm</u>

SUMMARY OF CORE: medium quartz-shelly muddy sand, very dark greenish gray (5GY 5/1), firm & moist, no visible sedimentary or biogenic structures evident; intermediate unit(13 to 35 cm) is a medium to very coarse quartz-shelly mud, grayish olive green (5GY 3/2), moderately firm to firm & low moisture content, sharp upper contact, lower contact gradational, no visible sedimentary or biogenic structures evident; lowermost unit is a medium quartz-shelly to shelly muddy sand, very dark greenish gray(5GY 5/1), firm, burrowed in moderate amounts from 65 to 80 cm; coarse fraction analysis indicates common to abundant amounts of quartz, rare to common molluscan shells/shell debris, coralline algae, common amounts of benthonic foraminifera and manganese, and rare percentages of planktonic foraminifera, sponge spicules, coral, feldspar, opaque minerals, and glauconite.

INTERVAL	DESCRIPTION
0-13 cm	medium quartz-shelly muddy sand, very dark greenish gray(5GY 5/1), firm & moist; lobe of material in this unit extends along liner's edge to 25 cm(probably due to settling while in storage); no visible sedimentary or biogenic structures evident; large molluscan shells/shell fragments present in low numbers. Basal contact a sharp change in color, texture, & composition.
13-35 cm	medium to very coarse quartz-shelly mud, grayish olive green (5GY 3/2), moderately firm to firm with low moisture content; increase in number of molluscan shells/shell fragments noted in this unit in well distributed random locations; no visible sedimentary or biogenic structures evident. Basal contact a sharp change in color, texture, & composition.
35-82 cm (core bottom)	medium quartz-shelly to shelly muddy sand, very dark greenish gray(5GY 5/1), firm & moderately moist, large molluscan shells/shell fragments(primarily bivalves) commonplace; burrowing present between 65 and 80 cm; no sedimentary structures are evident.

BICC 1 1 1 1 1 1 1 1 1 1

CORE NUMBER 44

CRUISE IG-19-3

DENSITY MEASUREMENTS ON CORE EXTRactions FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VTAL. NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
1	10 cm	8.22	6.47	1.55	0.55	1.75	very firm; penetration difficult
2	30	7.30	6.52	0.71	0.30	1.90	extremely coarse grain size with large shells
3	50	7.58	6.42	1.20	0.50	1.66	very low penetration
4	70	7.72	6.51	1.22	0.50	1.68	firm sand, low moisture

MCS 10 005 60 1



SMEAR SLIDE ANALYSIS

Abundance: 5%

COMMON: 5-50%

RARE: 50-100%

CORE NO.

44

IG 19-3

SAMPLE NO.

Sample No.	5 cm	25 cm	70 cm	FORAMS-PLANKTONIC	FORAMS-BENTHONIC	RADIOLARIA	DIATOMS	PTEROPODS	SPONGE SPICULES	SILICOFLAGELLATES	COCCOLITHS	DISCOASTERS	IRONSTONE	OPAQUE MINERALS	QUARTZ	MANGANESE	ZECLITE	ASH SHARDS	OTHER		
	R	R	R						R					R	A	C				mica flakes R	
	C	R	C											R	C	C					coralline algae C
									R						A	C					mica flakes R

NO. 10 0000001

GRAPHIC CORE LOG

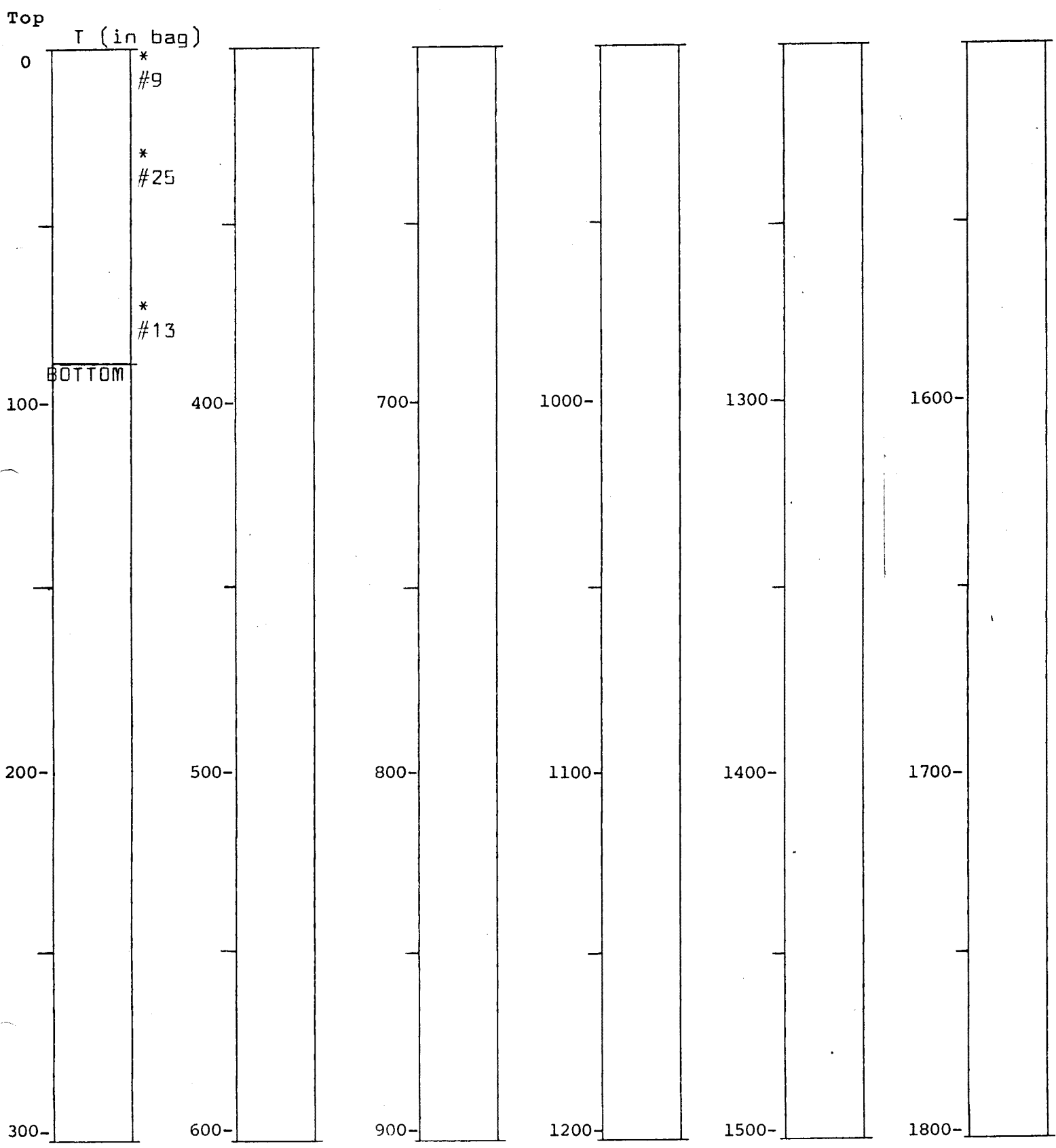
MCG 10025901

Core Number 44

Cruise IG-19-3

Core Cap Samples  
B = Bottom of Section  
T = Top of Section

CORE SECTIONS



\* = Coarse fraction (w/ ...)





CORE NUMBER

44

CRUISE

IG-19-3

INTERVAL OR LOCATION OF SAMPLE	ESTIMATED VOLUME OF SAMPLE	TAKEN BY	SAMPLING PURPOSE	PERSON AND/OR COMPANY RECEIVING SAMPLE(S) FOR INTENDED RESEARCH
Refer to page on "Density Measurements" for precise locations	approx. 1 cc.	T. Haines	wet-bulk density	U. S. Navy to receive density results (UT-MSI contracted to do density measurements)
0-21 cm	200 gms	T. Haines		Frank Van Markhoren

MCG 10 000001

CORE NUMBER 45 CRUISE IG 19-3  
 LATITUDE 29° 37.0' N LONGITUDE 87° 26.7' W  
 CORRECTED DEPTH 40 fm PDR DEPTH 38 fm  
 DATE TAKEN 6-28-76 DATE OPENED 11-29-76  
 DATE DESCRIBED 11-29-76 DATE PHOTOGRAPHED \_\_\_\_\_  
 DESCRIBED BY T. Haines CORE LENGTH 155 cm.  
 PENETRATION 163 cm. FLOW-IN 0 cm.

SUMMARY OF CORE: medium to coarse shelly muddy sand dark olive brown (5Y 3/4) at top to medium fine to very coarse shelly algal sandy mud dark greenish gray (5G 4/1) toward lower two-thirds of core, gradual increase in quartz content toward bottom of core, low mollusc shell fragment content, decreasing benthonic foram content with depth, no planktonic forams, manganese coatings on some grains, increase in coralline algae with depth.

INTERVAL	DESCRIPTION
0 - 41 cm	medium to coarse shelly muddy sand, dark olive brown (5Y 3/4), firm, little moisture, no visible structures, mottling present random through unit and colored olive gray (5Y 3/2) and slightly muddier consistency; molluscan shell debris moderate to low percentage and no large shells present. Basal contact a sharp change in color, texture and composition.
41 - 155 cm (core bottom)	medium fine to very coarse shelly algal sandy mud, dark greenish gray (5G 4/1), firm, moist, molluscan shells and shell debris very common (some larger bivalves present at random locations), a 1 cm band of mud at 59 cm. is possible thin bed within unit, another mud layer at 102-109 cm. also possible thin bed within unit. Apparently many shell fragments and grains are manganese coated, coralline algae randomly distributed through unit in moderate amounts, most of coarse material is well covered with a thick mud coating.

NOG 10000001

CORE NUMBER 45

CRUISE IG-19-3

DENSITY MEASUREMENTS ON CORE EXTRACTIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
1	20 cm.	9.46	7.88	1.50	0.50	1.58	Loose cohesion
2	40	9.22	7.67	1.00	0.40	2.58	Very dense clay with some coarse shell debris poor penetration and volume accuracy
3	60	9.05	7.95	0.90	0.40	2.20	coarse debris causing poor penetration
4	80	8.74	7.78	1.00	0.50	1.92	an increase in very coarse debris in mud matrix; poor volume, poor accuracy
5	100	9.27	7.73	0.90	0.40	3.08	"
6	120	8.54	7.71	0.90	0.40	1.66	"
7	140	8.08	7.76	0.60	0.30	1.06	"

NO. 10 02 3 00 1

Sample Depth	FORAMS-PLANKTONIC	FORAMS-BENTHONIC	RADIOLARIA	DIATOMS	PTEROPODS	SPONGE SPICULES	OSTRACODS	MOLLUSC	CORALLINE ALGAE	CORAL	BRYOZOA	QUARTZ	FELDSPAR	IRONSTONE	MANGANESE	OPAQUE MINERALS	ROCK FRAGMENTS	OTHER
0 cm.		C			R			R	R	R	R	R						carb. frags. C echin. spines R iron-coated grains C
100 cm.		R			R	R	R	R	C			C						echin. spines R glauconite R carb. frags. R
155 cm.		R					R	R	A			C						echin. spines R glauconite R carb. frags. R iron-coated grains R

BIGG 10 10 10 1

AREA: 5%	
N: 5-50%	
BOUND: 50-100%	
DEPTH: 0.45	
IG 19-3	
Sample Depth	
FORAMS-PLANKTONIC	
FORAMS-BENTHONIC	
RADIOLARIA	
DIATOMS	
PTEROPODS	
SPONGE SPICULES	
SILICOFLAGELLATES	
COCCOLITHS	
DISCOASTERS	
IRONSTONE	
OPAQUE MINERALS	
QUARTZ	
MANGANESE	
ZEOLITE	
ASH SHARDS	
OTHER	

MCC 1000000000

GRAPHIC CORE LOG

MCG 10025001

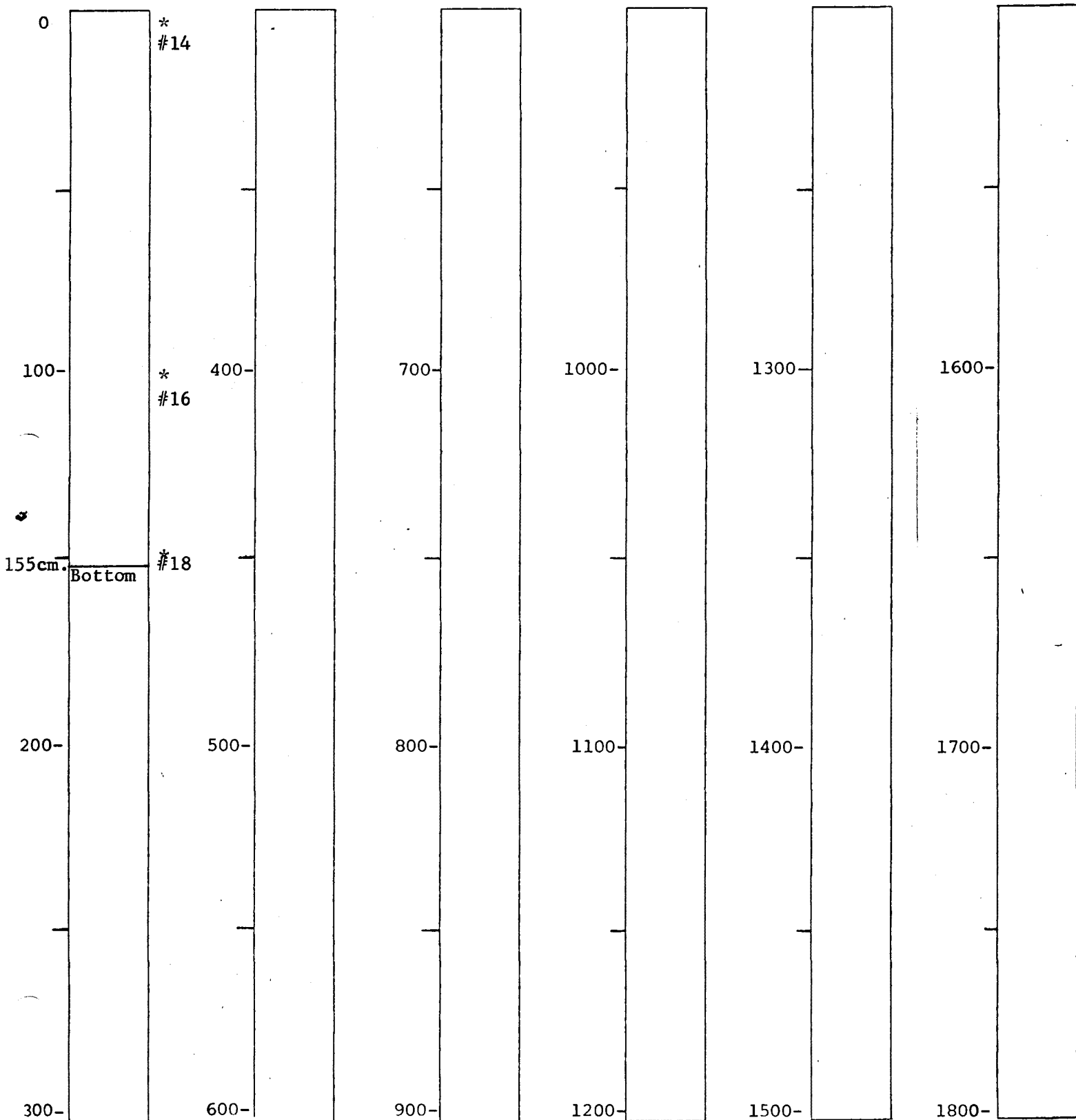
Core Number 45

Cruise IG-19-3

Core Cap Samples  
B = Bottom of Section  
T = Top of Section

CORE SECTIONS

Top



\* Coarse fraction (mm)

CORE NUMBER

45

CRUISE

IG-19-3

INTERVAL OR LOCATION OF SAMPLE	ESTIMATED VOLUME OF SAMPLE	TAKEN BY	SAMPLING PURPOSE	PERSON AND/OR COMPANY RECEIVING SAMPLE(S) FOR INTENDED RESEARCH
Refer to page on "Density Measurements" for precise locations	approx. 1 cc.	T. Haines	wet-bulk density	U. S. Navy to receive density results(UT-MSI contracted to do density measurements)
0-30 cm	200 gms	T. Haines		Frank Van Markhoren

MCC 10 02 3 00 3

CORE NUMBER 46 CRUISE IG 19-3  
 LATITUDE 29° 37.7' N LONGITUDE 87° 23.6' W  
 CORRECTED DEPTH 37 fm PDR DEPTH 36 fm  
 DATE TAKEN 6-28-76 DATE OPENED 11-30-76  
 DATE DESCRIBED 11-30-76 DATE PHOTOGRAPHED \_\_\_\_\_  
 DESCRIBED BY T. Haines CORE LENGTH 286 cm.  
 PENETRATION 300 cm. FLOW-IN 0 cm.

SUMMARY OF CORE: Medium to coarse shelly sand, olive gray (5Y 3/2), soft loose cohesion, low mollusc shell fragment content, coralline algae increasing with depth, small quartz volume, increasing coarseness with depth, carbonate debris common, few planktonic forams in first 100 cm., benthonic forams common in core, manganese and iron coating some grains, rare amounts of pteropods, sponge spicules, and ostracods also noted.

INTERVAL	DESCRIPTION
0 - 12 cm.	Medium to coarse shelly sand, olive gray (5Y 3/2), soft low moisture, loose grains, no visible structures, some molluscan shell debris, dark color is probable indication of manganese coated grains. Basal contact a definite color, texture, and composition change.
12-23 cm.	Medium coarse to coarse shelly sand, light olive brownish gray (5Y 5/4), soft with little moisture, loose grains, no visible structures, grains slightly coarser than previous unit and light brownish appearance may indicate iron coatings on some grains. Basal contact a sharp change in color, texture, and composition.
23-286 cm. (core bottom)	Medium to very coarse shelly muddy algal sand, olive gray (5Y 3/2), much like 0-12 cm. zone except very wet, soft, and more coarse fragments of algae and mollusc shell debris, a faint 3 cm. band of light olive brownish gray (5Y 5/4) material extends through middle of core to 59 cm. having slightly finer material than surrounding material, burrow at 65 cm., molluscan shell debris found at random locations through unit, large branching coral (3 cm. wide at base) located at 115 cm. random distribution of carbonate aggregates located through this unit, no visible structures evident.



CORE NUMBER 46

CRUISE IG-19-3

DENSITY MEASUREMENTS ON CORE EXTRACTIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
1	20 cm.	9.23	7.81	1.50	0.50	1.42	Very loose cohesion, sand size particles
2	40	9.04	7.71	1.30	0.50	1.66	Coarse and watery material
3	65	8.34	7.80	0.70	0.30	1.35	Very coarse, poor volume obtained, very watery
4	80	9.18	7.80	1.20	0.50	1.97	Watery, coarse grained
5	100	8.71	7.11	1.30	0.50	2.00	Watery, coarse grained
6	120	9.10	7.80	1.20	0.50	1.86	Coarse grained, slightly firmer, wet
7	140	9.03	8.15	1.00	0.50	1.76	Very coarse, wet
8	160	9.72	7.81	1.40	0.40	1.91	"
9	180	9.56	8.23	1.20	0.50	1.90	"
10	200	8.62	7.13	1.20	0.40	1.86	"
11	216	9.47	8.14	1.20	0.40	1.66	"
12	240	9.20	7.72	1.30	0.50	1.85	"
13	260	9.15	7.70	1.30	0.50	1.81	"
14	280	8.81	7.78	1.10	0.50	1.72	"

MCC 10 01 100 1



RE: 5%

CON: 5-50%

NO. : 50-100%

ORE 46

IG 19-3

Sample Depth

FORAMS-PLANKTONIC

FORAMS-BENTHONIC

RADIOLARIA

DIATOMS

PTEROPODS

SPONGE SPICULES

SILICOFLAGELLATES

COCCOLITHS

DISCOCASTERS

IRONSTONE

OPAQUE MINERALS

QUARTZ

MANGANESE

ZEOLITE

ASH SHARDS

OTHER

MCC 10-11-61

GRAPHIC CORE LOG

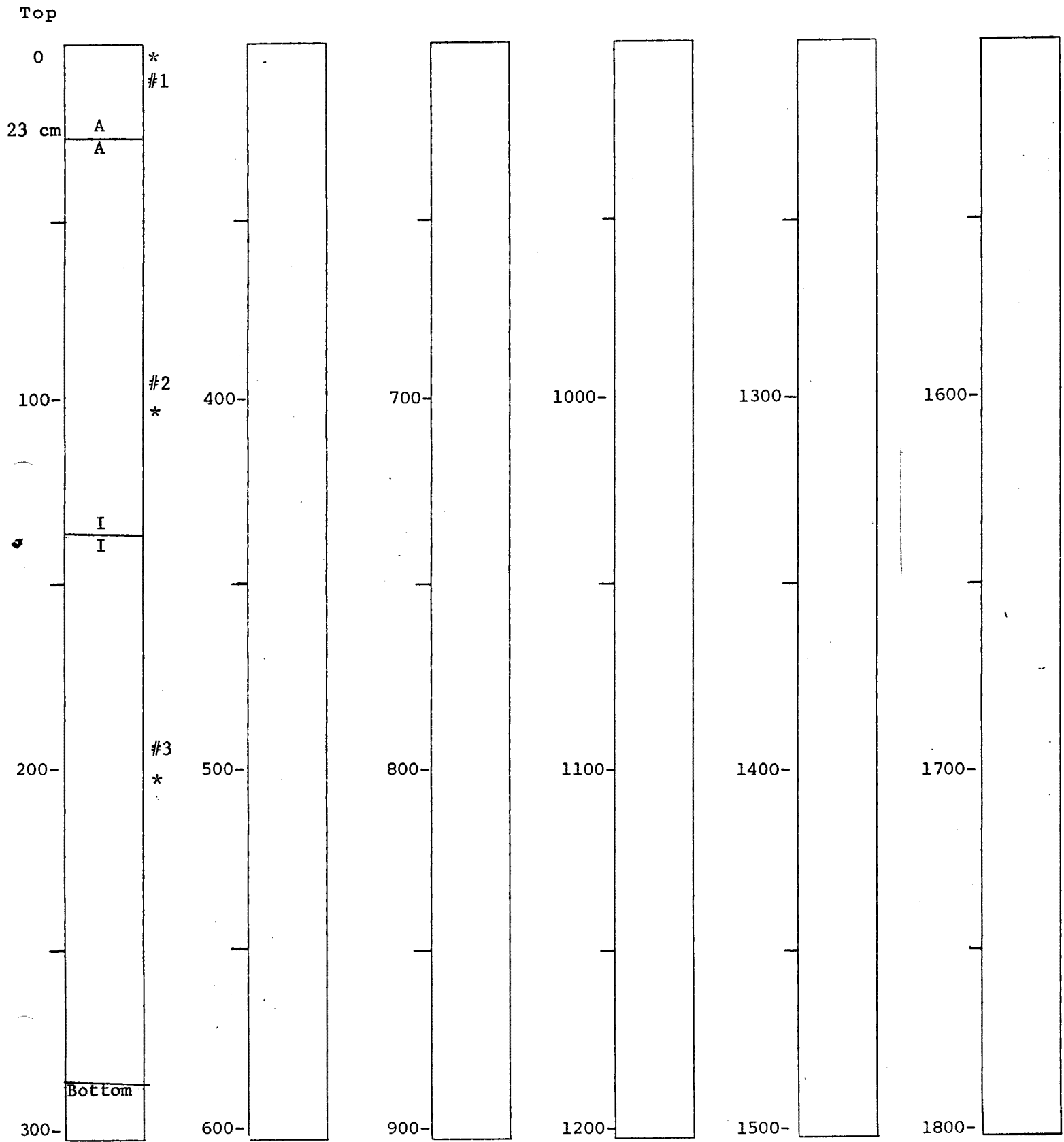
MCG 10035001

Core Number 46

Cruise IG-19-3

Core Cap Samples  
B = Bottom of Section  
T = Top of Section

CORE SECTIONS



\* = Coarse fraction/linear slide location

CORE NUMBER 46

CRUISE IG-19-3

INTERVAL OR LOCATION OF SAMPLE	ESTIMATED VOLUME OF SAMPLE	TAKEN BY	SAMPLING PURPOSE	PERSON AND/OR COMPANY RECEIVING SAMPLE(S) FOR INTENDED RESEARCH
Refer to page on "Density Measurements" for precise locations	approx. 1 cc.	T. Haines	wet-bulk density	U. S. Navy to receive density results(UT-MSI contracted to do density measurements)
0-23 cm	200 gms	T. Haines		Frank Van Markhoren

BIOC 10 02 3 00 1

CORE NUMBER 47 CRUISE IG 19-3  
 LATITUDE 29° 37.6' N LONGITUDE 87° 20.0' W  
 CORRECTED DEPTH 51 fm PDR DEPTH 49 fm  
 DATE TAKEN 6-28-76 DATE OPENED 12-1-76  
 DATE DESCRIBED 12-1-76 DATE PHOTOGRAPHED \_\_\_\_\_  
 DESCRIBED BY T. Haines CORE LENGTH 390 cm.  
 PENETRATION 390+ cm FLOW-IN 0 cm.

SUMMARY OF CORE: Medium coarse to coarse shelly sand to shelly algal sand to shell algal sandy mud from top to bottom, light olive brownish gray at top to grayish olive toward bottom, mud content increases with depth, iron coated benthonic forams in upper unit, manganese coated benthonic forams in lower units. No visible structures, localized burrowing present in lower units, low molluscan shell content few planktonic forams near top.

INTERVAL	DESCRIPTION
0 - 15 cm.	Medium coarse to coarse shelly sand, light olive brownish gray (5Y 5/4), loose, moderately firm particles, no visible structures, low molluscan shell debris, iron staining probable cause for coloration. Basal contact a sharp change in color, texture, and composition.
15 - 340 cm.	Medium fine to coarse shelly muddy algal sand, dark greenish gray (5GY 4/1), firm, coarse material throughout at 45, 72, and 106 cm. closed burrows occur, large bivalve at 80 cm., no visible structures evident, manganese coated grains probable in this unit, carbonate material common, gradual increase in mud content with depth. Basal contact a gradual change in color, texture, and composition.
340 - 390 cm. (core bottom)	Fine to medium coarse shelly algal sandy mud, grayish olive, soft and very moist, no visible structures, burrows filled with very fine mud having virtually no coarse material are found at 350, 360, and 372 cm., low volume of mollusc shell fragments, coralline algae present in low to moderate amounts.

MCG 10 12 1976

ORE NUMBER 47

CRUISE IG-19-3

DENSITY MEASUREMENTS ON CORE EXTRACTATIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WFT BULK DENSITY	PROBLEMS/OBSERVATIONS
1	15 cm.	8.53	7.14	1.40	0.40	1.39	Loose cohesion, coarse
2	35	9.59	7.81	1.50	0.50	1.78	Increased firmness, more mud content
3	55	9.92	8.20	1.50	0.50	1.72	
4	75	8.86	7.81	1.20	0.50	1.50	Coarseness increased
5	95	9.77	7.94	1.50	0.50	1.83	
6	115	8.77	7.70	1.00	0.40	1.78	Coarse fragment in sample making exact volume difficult
7	135	8.90	7.88	1.10	0.40	1.46	"
8	155	9.47	7.73	1.40	0.40	1.74	
9	175	9.23	7.80	1.20	0.30	1.59	
10	195	8.60	7.93	0.80	0.40	1.68	Very coarse, penetration gained little volume of sample
11	215	9.05	8.09	1.00	0.40	1.60	
12	235	9.47	8.32	1.20	0.40	1.44	
13	255	9.44	7.78	1.40	0.40	1.66	
14	275	8.90	8.18	0.90	0.40	1.44	
15	295	8.71	7.70	1.00	0.40	1.68	
16	315	8.68	7.76	1.00	0.40	1.53	
17	335	9.39	8.17	1.10	0.40	1.74	
18	355	9.16	7.81	1.30	0.50	1.68	
19	375	9.96	8.18	1.50	0.50	1.78	clayey

MCC 10 02 0 0 1

Sample Depth	FORAMS-PLANKTONIC	FORAMS-BENTHONIC	RADIOLARIA	DIATOMS	PTEROPODS	SPONGE SPICULES	OSTRACODS	MOLLUSC	CORALLINE ALGAE	CORAL	BRYOZOA	QUARTZ	FELDSPAR	IRONSTONE	MANGANESE	OPAQUE MINERALS	ROCK FRAGMENTS	OTHER
0 cm.	R	C			R		R	R	R			R			R			carb. frags. C glauconite R echin. spines R
100 cm.	R	C			R	R	R	R	C			R			C			echin. spines R carb. frags. C glauconite R
200 cm.		C			R	R	R	R	R			R			C			carb. frags. C echin. spines R
300 cm.		C			R	R	R	R	R			R			C			carb. frags. C echin. spines R glauconite R
385 cm.	R	C			R	R	R	R	R			R			C			glauconite R echin. spines R carb. frags. C

404

MCG 10 02 7 00 1



RE: 5%

N: 5-50%

UND: 50-100%

RE 47

IG 19-3

Sample Depth

FOPAMS-PLANKTONIC

FOPAMS-BENTHONIC

RADIOLARIA

DIATOMS

PTEROPODS

SPONGE SPICULES

SILICOFLAGELLATES

COCCOLITHS

DISCOASTERS

IRONSTONE

OPAQUE MINERALS

QUARTZ

MANGANESE

ZEOLITE

ASH SHARDS

OTHER

10027001

405

GRAPHIC CORE LOG

MCC 1003001

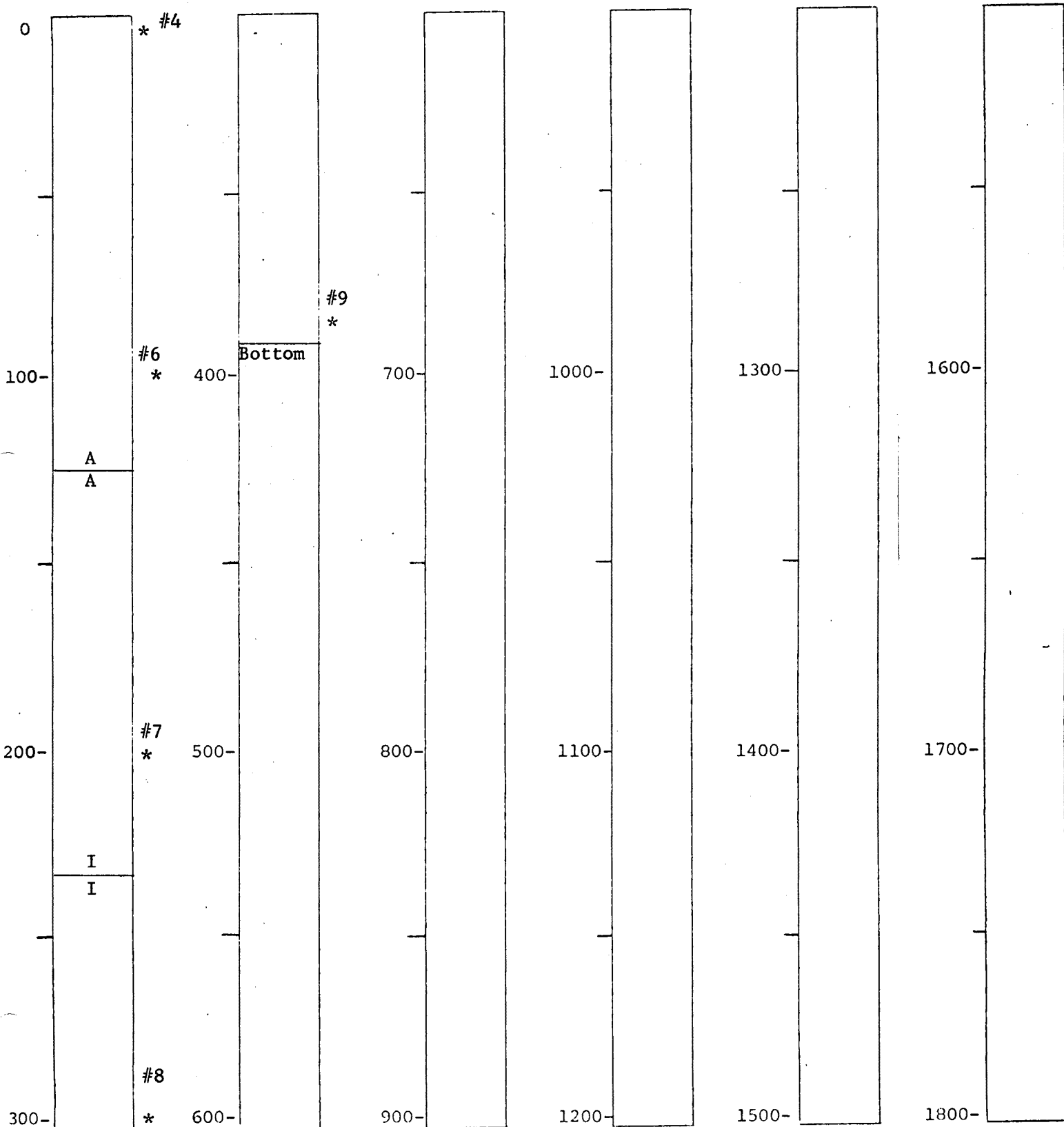
Core Number 47

Cruise IG-19-3

Core Cap Samples  
B = Bottom of Section  
T = Top of Section

CORE SECTIONS

Top



CORE NUMBER 47

CRUISE IG-19-3

INTERVAL OR LOCATION OF SAMPLE	ESTIMATED VOLUME OF SAMPLE	TAKEN BY	SAMPLING PURPOSE	PERSON AND/OR COMPANY RECEIVING SAMPLE(S) FOR INTENDED RESEARCH
Refer to page on "Density Measurements" for precise locations	approx. 1 cc.	T. Haines	wet-bulk density	U. S. Navy to receive density results (UT-MSI contracted to do density measurements)
every 20 cm.	approx. 5 cc.	S. Addy	geochemical analyses	Dr. Sunit Addy, UT-MSI
0-28 cm	200 gms	T. Haines		Frank Van Markhoren

MSI 10024001

CORE NUMBER 48 CRUISE IG 19-3  
 LATITUDE 29° 38.0' N LONGITUDE 87° 17.3' W  
 CORRECTED DEPTH 118 fm PDR DEPTH 114 fm  
 DATE TAKEN 6-28-76 DATE OPENED 12-3-76  
 DATE DESCRIBED 12-3-76 DATE PHOTOGRAPHED \_\_\_\_\_  
 DESCRIBED BY T. Haines CORE LENGTH 427 cm.  
 PENETRATION 530 cm. FLOW-IN 0 cm.

SUMMARY OF CORE: Fine to very fine foraminiferal sandy mud, grayish olive (10Y 4/2) soft, minor volume of mollusc shell debris, occasional mottling with sandy fill material, this unit underlain by a shelly foraminiferal sandy mud sequence also mottled with sandy material, recurring foraminiferal sandy mud and shelly foraminiferal sandy mud layers follow below this unit, large semi-consolidated clay spheroid found at 355 cm. marking contact between pelagic sediment and terrigenous sediment, lowest layer being a fine to very fine sandy terrigenous mud with possible thin sandy interbedding at 392 and 405 cm.

INTERVAL	DESCRIPTION
0 -145 cm.	Fine to very fine foraminiferal sandy mud grayish olive (10Y 4/2), soft, moist no visible structures evident, few scattered small molluscan shell fragments, echinoid shell fragments found at 30, 55, 80 and 126 cm., unit is homogeneous occasional mottling from burrowing occurs between 100 and 110 cm. fill material being slightly more coarse and sandy and is dark greenish gray (5GY 4/1) in color possibly having manganese coated grains; basal contact a gradual change in color, texture and composition.
145-201 cm.	Medium to fine shelly foraminiferal sandy mud, dark greenish gray (5GY 4/1), soft to moderately to moderately soft, moist, mottling is moderately intense through unit and fill material is more sandy than surrounding material possible 1.5 cm thick thin sandy layer at 168 cm colored greenish black (5G 2/1), scattered tiny molluscs and mollusc shell fragments are visible, no structures evident. Basal contact a gradual change in color and texture, and composition.
201-222cm.	Fine to very fine foraminiferal sandy mud, grayish olive (10Y 4/2), soft, moist; no visible structures, shell debris low volume in this unit. Basal contact a gradual change in color, texture and composition.
222-288 cm.	This unit resembles 145-201 cm. unit. Basal contact a sharp change in color, texture and composition.
288-360 cm.	Medium to fine muddy foraminiferal sand, greenish black (5G 2/1) moderately firm, moist, random mottling in this layer with grayish olive (10Y 4/2) fill material being a fine to very fine foraminiferal mud, no visible structures, manganese stained grains present on sand size particles in this unit. 355 cm. a large grayish olive consolidated spheroid of silt and clay with some possible rock component found, diameter slightly less than liner. Basal contact a sharp change in color, texture and composition.

INTERVAL	DESCRIPTION
360-427 cm (core bottom)	fine to very fine terrigenous mud, dark greenish gray (5GY 4/1), moist & soft; homogeneous with occasional rimmed mottling (possibly rind burrows) encircling fill material which is of same composition as adjacent matrix; thin sand layers (1.5 cm thick) present at 392 and 405 cm; echinoid shell debris noted at 412 cm in a localized area.

NOV 10 09 500 1

CORE NUMBER 48

CRUISE IG-19-3

DENSITY MEASUREMENTS ON CORE EXTRACTIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
1	20 cm.	9.06	7.77	1.35	0.50	1.52	Very clayey, soft
2	40	9.38	7.76	1.40	0.40	1.62	
3	60	9.11	7.86	1.30	0.50	1.56	
4	80	9.43	8.28	1.30	0.55	1.53	
5	100	9.41	7.75	1.40	0.40	1.66	
6	120	8.88	7.72	1.20	0.40	1.45	
7	140	8.89	7.74	1.20	0.50	1.64	
8	160	9.02	7.74	1.20	0.50	1.82	
9	180	9.46	7.78	1.40	0.40	1.68	
10	200	9.24	7.73	1.30	0.40	1.68	
11	220	9.78	8.16	1.50	0.50	1.62	
12	240	8.85	7.81	1.00	0.40	1.73	
13	260	9.11	7.71	1.30	0.50	1.75	
14	280	9.25	8.18	1.00	0.40	1.78	
15	300	9.02	7.77	1.10	0.40	1.78	
16	320	8.79	7.74	1.00	0.40	1.75	
17	340	8.52	7.13	1.20	0.40	1.74	Muddy sand
18	360	9.44	7.69	1.60	0.60	1.75	Very clayey to end of core
19	380	9.36	7.58	1.60	0.60	1.78	
20	400	9.78	7.91	1.60	0.60	1.87	
21	420	9.61	7.71	1.40	0.40	1.90	Slight dehydration & oxidation along edges of liner

10000001

RE: 5%

COMMON: 5-50%

50-100%

RE 48

Sample Depth

Sample Depth	FORAMS-PLANKTONIC	FORAMS-BENTHONIC	RADIOLARIA	DIATOMS	PTEROPODS	SPONGE SPICULES	OSTRACODS	MOLLUSC	CORALLINE ALGAE	CORAL	BRYOZOA	QUARTZ	FELDSPAR	IRONSTONE	MANGANESE	OPAQUE MINERALS	ROCK FRAGMENTS	OTHER
0 cm.	A	C			R	R		R				R						glaucinite C echin. spines R
100 cm.	A	C			R	R		C				C						glaucinite C echin. spines R
200 cm.	A	C			R	R	R	R				C						glaucinite C echin. spines R
300 cm.	C	C			R	R	R	C				C						glaucinite C echin. spines R
400 cm.	R	R			R			R				A						glaucinite C iron coatings R

LOG TO DEPTH

RE: 5%

N: 5-50%

50-100%

CORE  
48

IG 19-3

Sample Depth

FORAMS-PLANKTONIC

FORAMS-BENTHONIC

RADIOLARIA

DIATOMS

PTEROPODS

SPONGE SPICULES

SILICOFAGELLATES

COCCOLITHS

DISCASTERS

IRONSTONE

OPAQUE MINERALS

QUARTZ

MANGANESE

ZEOLITE

ASH SHARDS

OTHER

1000000001



GRAPHIC CORE LOG

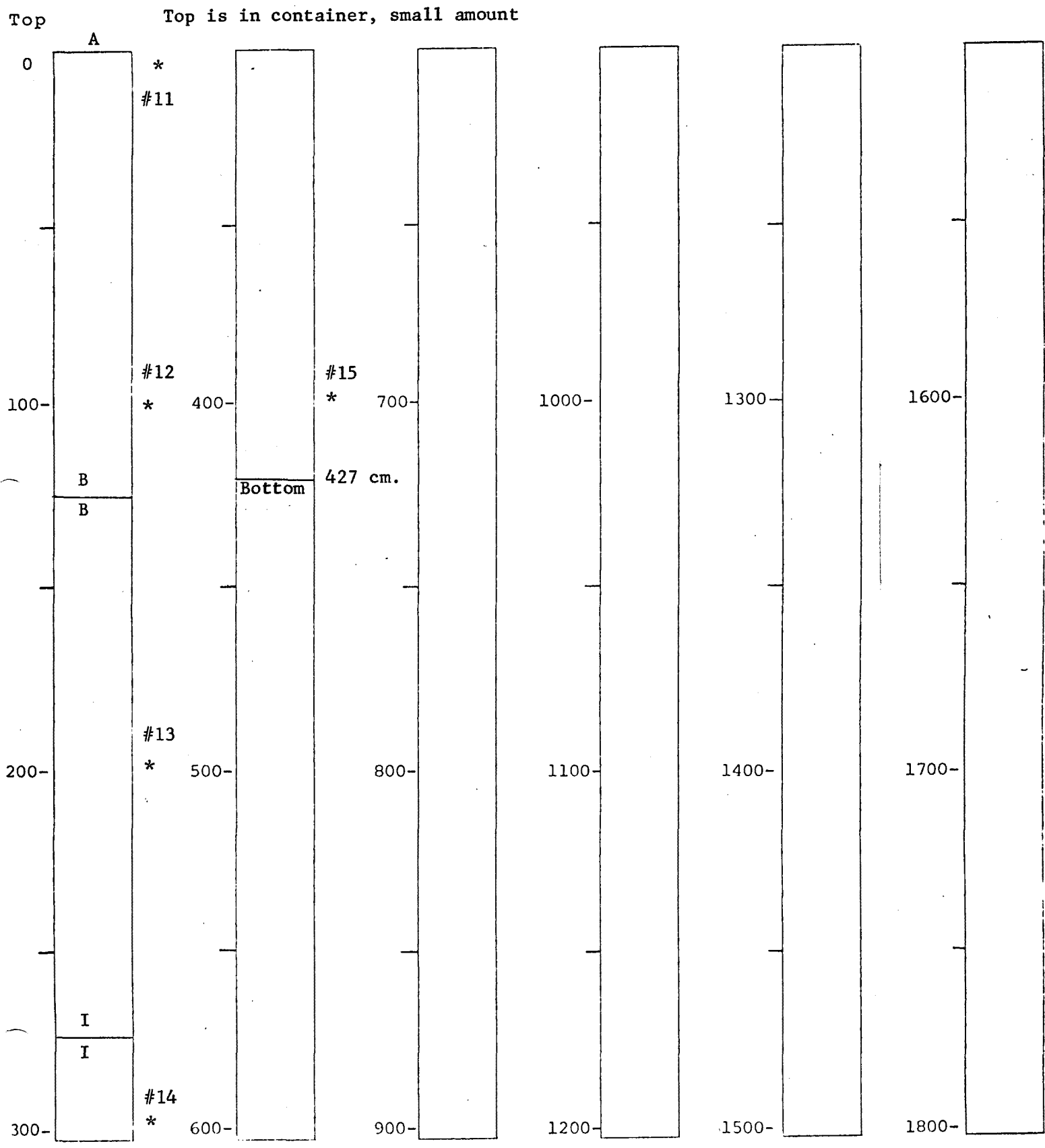
NOV 10 01 30 01

Core Number 48

Cruise IG-19-3

Core Cap Samples  
B = Bottom of Section  
T = Top of Section

CORE SECTIONS



CORE NUMBER 48

CRUISE IG-19-3

INTERVAL OR LOCATION OF SAMPLE	ESTIMATED VOLUME OF SAMPLE	TAKEN BY	SAMPLING PURPOSE	PERSON AND/OR COMPANY RECEIVING SAMPLE(S) FOR INTENDED RESEARCH
Refer to page on "Density Measurements" for precise locations	approx. 1 cc.	T. Haines	wet-bulk density	U. S. Navy to receive density results(UT-MSI contracted to do density measurements)
0-30 cm	200 gms	T. Haines		Frank Van Markhoren

MCG 1 3 0 0 0 0 0 0 0

CORE NUMBER 49 CRUISE IG 19-3  
 LATITUDE 29° 59.4' N LONGITUDE 85° 56.9' W  
 CORRECTED DEPTH 19 fm PDR DEPTH 18 fm  
 DATE TAKEN 6-30-76 DATE OPENED 10-7-76  
 DATE DESCRIBED 10-7-76 DATE PHOTOGRAPHED \_\_\_\_\_  
 DESCRIBED BY T. Haines CORE LENGTH 100 cm  
 PENETRATION 100+ cm FLOW-IN 0 cm

SUMMARY OF CORE: medium fine to very fine shelly quartzose sand, grayish olive (10Y 4/2), firm & low moisture content, molluscan shells/shell debris visible; no visible sedimentary or biogenic structures evident; lower unit is a medium to fine shelly quartzose sand, grayish olive(10Y 4/2), firm with moderate moisture content, more macroscopic molluscan shells/shell fragments than upper unit; burrowing evenly distributed varying in color from adjacent matrix; coarse fraction analysis indicates abundant amounts of quartz, common planktonic foraminifera, and rare amounts of benthonic foraminifera, sponge spicules, molluscan shells/shell debris, opaque minerals, glauconite, and echinoid spines & shell fragments.

INTERVAL	DESCRIPTION
0-56 cm	medium fine to very fine shelly quartzose sand, grayish olive (10Y 4/2), firm & low moisture content; few macroscopic molluscan shell fragments present in random areas in this unit; no visible sedimentary or biogenic structures evident; unit is homogeneous. Basal contact a gradual change in texture.
56-100 cm (core bottom)	medium to fine shelly quartzose sand, grayish olive(10Y 4/2), firm & moderately moist; moderate number of large molluscan shell fragments noted between 80 and 100 cm; unit is moderately burrowed( <u>Planolites</u> probable) with fill material similar to surrounding matrix differing only in color; sand-rich aggregates present in area between 85 and 100 cm.

MCG 10 10 10 10 1

CORE NUMBER 49

Avg. Density = 1.73

CRUISE IG-19-3

DENSITY MEASUREMENTS ON CORE EXTRACTATIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
1	20 cm	8.10	6.36	1.75	0.75	1.74	penetration good
2	40 cm	8.62	6.35	1.80	0.50	1.74	penetration difficult sand firm & little moisture well packed
3	60 cm	8.03	6.40	1.27	0.30	1.68	
4	80 cm	8.75	6.63	1.60	0.40	1.76	

NO. 1001001



RARE = 5%

COMMON=5-50%

ABUNDANT=50-100%

CORE NO: 49  
CRUISE NO: IG 19-3  
Sample Depth

FORAMS-PLANKTONIC

FORAMS-BENTHONIC

RADIOLARIA

DINOFITS

PTEROPODS

SPONGE SPICULES

SILICIFLAGELLATES

COCCOLITHS

DISCOASTERS

IRONSTONE

OPAQUE MINERALS

QUARTZ

MANGANESE

ZEOLITE

ASH SHARDS

OTHER

418

NO. 1

GRAPHIC CORE LOG

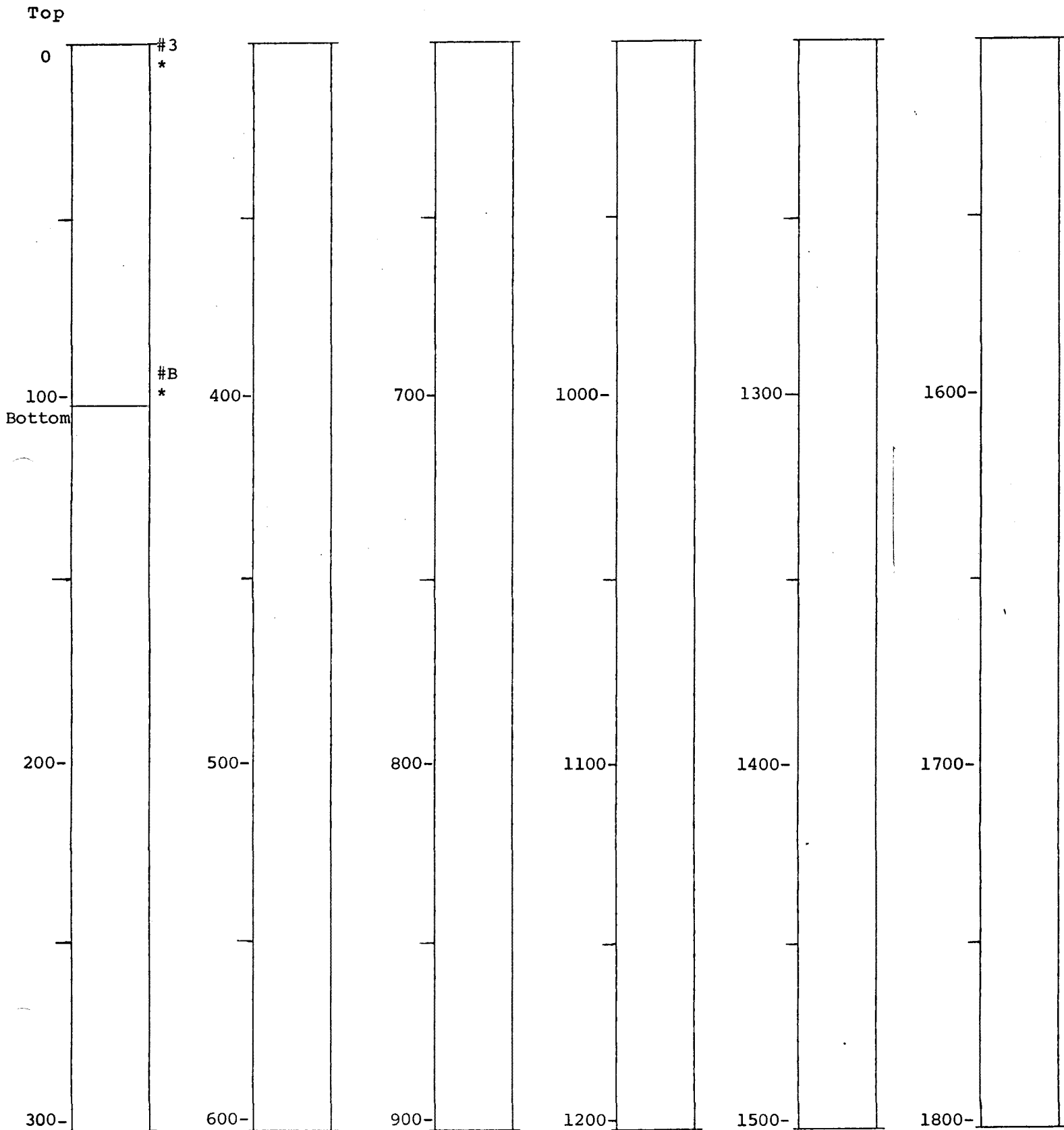
MCC 100.500 1

Core Number 49

Cruise IG-19-3

Core Cap Samples  
B = Bottom of Section  
T = Top of Section

CORE SECTIONS



\* = Coarse fraction (near slide location)

CORE NUMBER 49

CRUISE IG-19-3

INTERVAL OR LOCATION OF SAMPLE	ESTIMATED VOLUME OF SAMPLE	TAKEN BY	SAMPLING PURPOSE	PERSON AND/OR COMPANY RECEIVING SAMPLE(S) FOR INTENDED RESEARCH
Refer to page on "Density Measurements" for precise locations	approx. 1 cc.	T. Haines	wet-bulk density	U. S. Navy to receive density results (UT-MSI contracted to do density measurements)
0-35 cm	200 gms	T. Haines		Frank Van Markhoren

6 10 00 300 1



CORE NUMBER <u>50</u>	CRUISE <u>IG 19-4</u>
LATITUDE <u>29° 57.7' N</u>	LONGITUDE <u>86° 00.4' W</u>
CORRECTED DEPTH <u>16 fm</u>	PDR DEPTH <u>15 fm</u>
DATE TAKEN <u>6-30-76</u>	DATE OPENED <u>10-4-76</u>
DATE DESCRIBED <u>10-4-76</u>	DATE PHOTOGRAPHED _____
DESCRIBED BY <u>T. Haines</u>	CORE LENGTH <u>135 cm</u>
PENETRATION <u>135+ cm</u>	FLOW-IN <u>0 cm</u>

SUMMARY OF CORE: medium fine to very fine shelly quartzose sand, light olive gray(5Y 6/1), firm & low moisture content with no visible sedimentary or biogenic structures evident; lower contact gradational; lowermost unit is a medium to coarse shelly quartzose sand, yellowish gray(5Y 8/1) to light olive gray(5Y 6/1), firm & sparse moisture content with numerous large molluscan shells/shell fragments, irregular bulbous quartz-rich elongated aggregates noted in large number below 85 cm; coarse fraction analysis indicates an abundance of quartz, common benthonic foraminifera and molluscan shells/shell debris, with rare amounts of planktonic foraminifera, sponge spicules, coral, manganese, glauconite, and echinoid spines & shell debris.

INTERVAL	DESCRIPTION
0-70cm	medium fine to very fine shelly quartzose sand, light olive gray, (5Y 6/1), firm & low moisture content; homogeneous with no visible sedimentary or biogenic structures evident; lower contact is gradational; few molluscan shells/shell fragments visible in random locations. Basal contact a gradual change in color and texture.
70-135 cm (core bottom)	medium to coarse shelly quartzose sand, yellowish gray(5Y 8/1) to light olive gray(5Y 6/1), firm & sparsely moist; large molluscan shells/shell fragments present in this unit in moderate amounts; shelly sandy irregular elongated aggregates present in moderate to intense numbers between 85 cm and end of core; a 5 cm diameter rock fragment noted at 100 cm encrusted with worm tubes; cementation of the material in these aggregates is siliceous.

NOV 1 1976

CORE NUMBER 50CRUISE IG-19-4

## DENSITY MEASUREMENTS ON CORE EXTRACTIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
1	10 cm	7.38	5.83	1.50	0.60	1.72	clean quartz sand
2	30	7.73	6.49	1.45	0.60	1.46	clean quartz sand
3	50	7.88	6.19	1.60	0.51	1.55	sand is excessively loose measurement of accurate volume difficult
4*	70	6.66	6.02	0.95	0.50	1.42	very coarse shell debris, penetration is difficult and minimal

\* Penetration beyond 70 cm not possible due to size of shells and density of large sand aggregates.

NCG 10 012 00 1





GRAPHIC CORE LOG

MCG 13073001

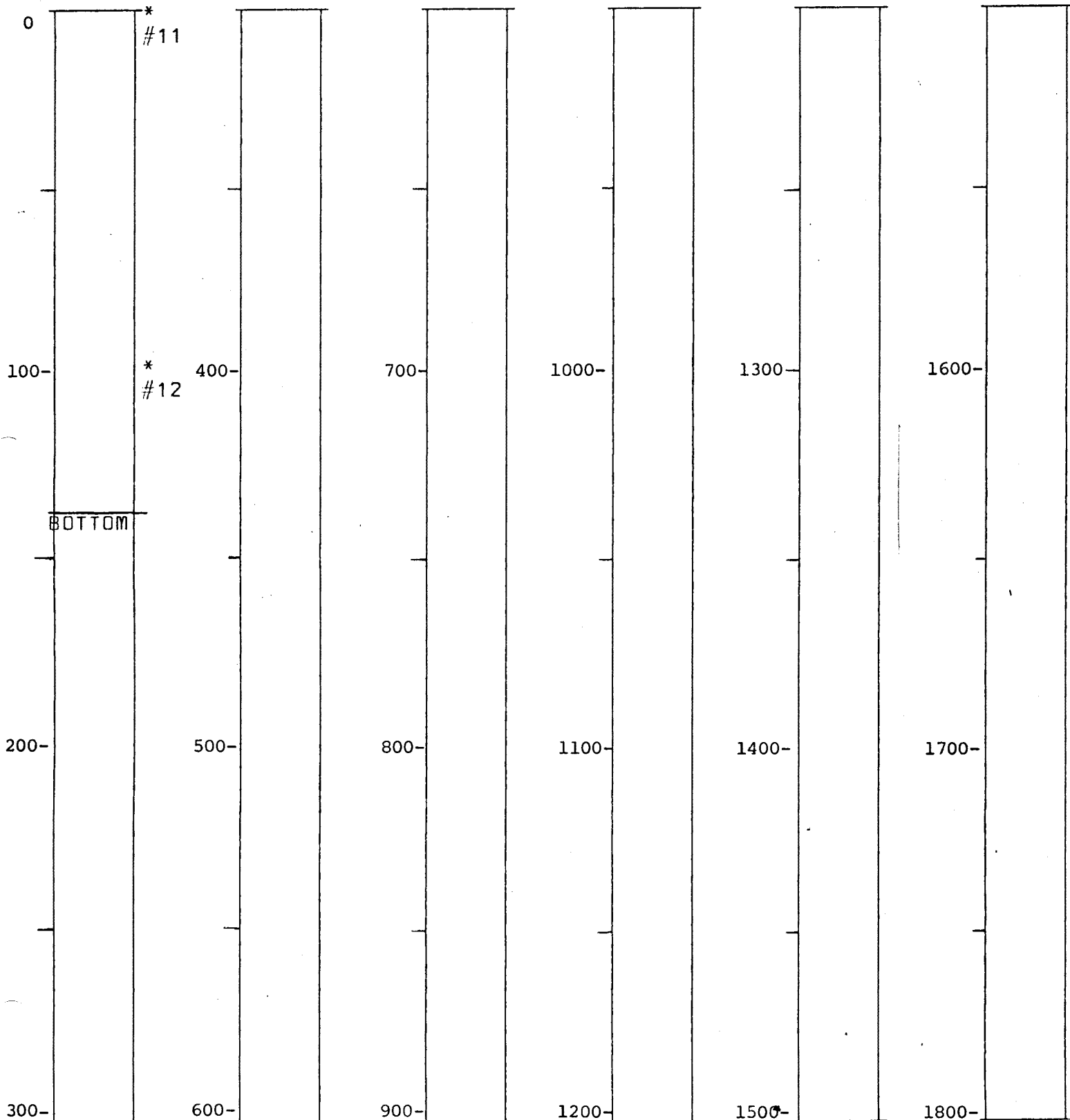
Core Number 50

Cruise IG-19-4

Core Cap Samples  
B = Bottom of Section  
T = Top of Section

CORE SECTIONS

Top



\* = Coarse fraction/mean slide location

CORE NUMBER 50

CRUISE IG-19-4

INTERVAL OR CATION OF SAMPLE	ESTIMATED VOLUME OF SAMPLE	TAKEN BY	SAMPLING PURPOSE	PERSON AND/OR COMPANY RECEIVING SAMPLE(S) FOR INTENDED RESEARCH
Refer to page on "Density Measurements" for precise locations	approx. 1 cc.	T. Haines	wet-bulk density	U. S. Navy to receive density results(UT-MSI contracted to do density measurements)
0-31 cm	200 gms	T. Haines		Frank Van Markhoren

MSI 11020003

CORE NUMBER	<u>51</u>	CRUISE	<u>IG 19-4</u>
LATITUDE	<u>29° 56.6' N</u>	LONGITUDE	<u>86° 03.8' W</u>
CORRECTED DEPTH	<u>18 fm</u>	PDR DEPTH	<u>17 fm</u>
DATE TAKEN	<u>6-30-76</u>	DATE OPENED	<u>9-10-76</u>
DATE DESCRIBED	<u>9-10-76</u>	DATE PHOTOGRAPHED	<u>                    </u>
DESCRIBED BY	<u>McMillen/Haines</u>	CORE LENGTH	<u>84 cm</u>
PENETRATION	<u>84+ cm</u>	FLOW-IN	<u>0 cm</u>

SUMMARY OF CORE: coarse shelly quartzose sand, yellowish gray(5Y 7/2), firm with loose clean grains; thickbedded upper unit exhibits no sedimentary or biogenic structures; lower unit is a very coarse shelly quartzose sand, yellowish gray(5Y 7/2), loose grains with low moisture content; numerous irregular rod-shaped coarse quartz sand and carbonate fragment aggregates occur throughout lower unit in common to high amounts; no visible sedimentary or biogenic structures evident in lower unit; coarse fraction analysis indicates an abundance of quartz, rare to common mol-luscan shells/shell debris(common in lower unit sample of aggregate), and rare amounts of glauconite.

INTERVAL	DESCRIPTION
0-50 cm	coarse shelly quartzose sand, yellowish gray(5Y 7/2), firm with loose grains, clean grains, homogeneous thickbedded unit with no sedimentary or biogenic structures visible; CaCO <sub>3</sub> = 50% and quartz sand = 50% approximately; few benthonic forams and no planktonic foraminifera are visible, common gastropods and echinoderm spines(deep-water) are present in random locations. Basal contact a gradual change in texture.
50-84 cm (core bottom)	very coarse shelly quartzose sand, yellowish gray(5Y 7/2), loose grains with low moisture content; very poorly sorted; large number of quartz sand and carbonate fragment aggregates present in this unit, cementation is siliceous; upper contact is indistinct; few gastropods, worn benthonic forams(Elphidium sp., rotaloids) these possible concretionary masses or lithified burrows are rod-shaped, composed of quartz sand and carbonate fragments, irregular and bulbous outlines.

## SAMPLES TAKEN ON SEPT. 30, 1976

CORE NUMBER 51

AVG. DENSITY = 1.61

CRUISE IG 19-4

## DENSITY MEASUREMENTS ON CORE EXTRACTIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC BEG	CC END	WET BULK DENSITY	PROBLEMS/ OBSERVATIONS
3	5 cm	7.60	6.68	1.45	0.45	0.92	very firm coarse sand and shell fragments
1	20	8.30	5.98	1.55	0.55	2.32	"
2	40	8.32	5.97	1.90	0.50	1.56	
4	50	7.84	6.18	1.32	0.32	1.66	
							*beyond 50 cm too coarsely grained with extensive large aggregates 1" to 1½" so no measurements possible

NOV 13 09 00 01





RARE = 5%

COMMON=5-50%

ABUN=50-100%

Core  
NO: 51  
CRUISE  
NO: IG 19-4  
Sample Depth

FORAMS-PLANKTONIC

FORAMS-BENTHONIC

RADIOLARIA

DIATOMS

PTEROPODS

SPONGE SPICULES

SILICIFLAGELLATES

COCCOLITHS

DISCORDITES

IRONSTONE

OPAQUE MINERALS

QUARTZ

MANGANESE

ZEOLITE

ASH SHARDS

OTHER

NO: 105001

GRAPHIC CORE LOG

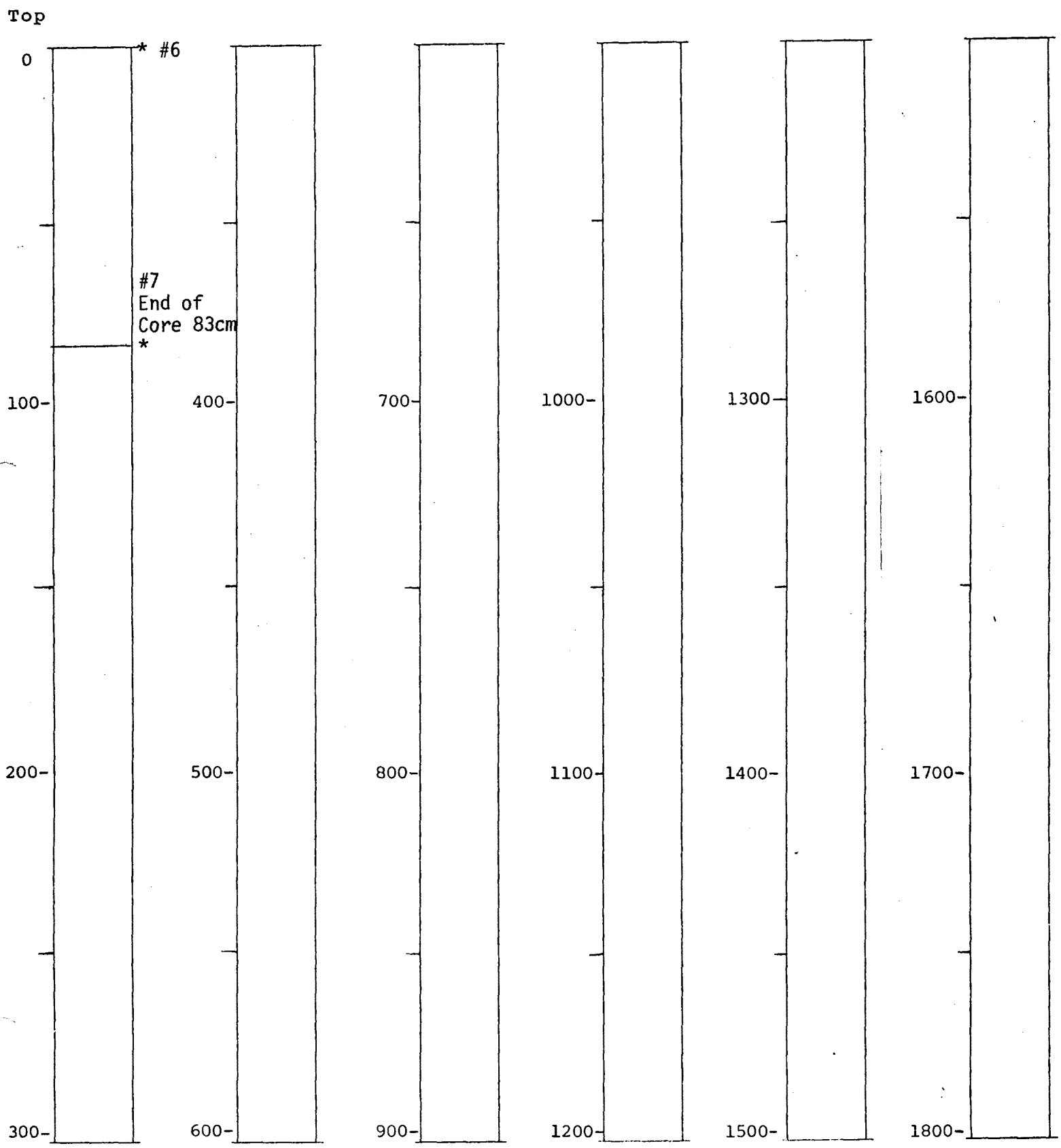
NO. 1000001

Core Number 51

Cruise IG-19-4

Core Cap Samples  
B = Bottom of Section  
T = Top of Section

CORE SECTIONS



\* Coarse fraction ( > 0.075 mm )

CORE NUMBER 51 CRUISE IG-19 -4

INTERVAL OR LOCATION OF SAMPLE	ESTIMATED VOLUME OF SAMPLE	TAKEN BY	SAMPLING PURPOSE	PERSON AND/OR COMPANY RECEIVING SAMPLE(S) FOR INTENDED RESEARCH
Refer to page on "Density Measurements" for precise locations	approx. 1 cc.	T. Haines	wet-bulk density	U. S. Navy to receive density results(UT-MSI contracted to do density measurements)
0-23 cm	200 gms	T. Haines		Frank Van Markhoren

NOV 10 1960

CORE NUMBER 52 CRUISE IG 19-4  
 LATITUDE 29° 55.6' N LONGITUDE 86° 07.2' W  
 CORRECTED DEPTH 21 fm PDR DEPTH 20 fm  
 DATE TAKEN 6-30-76 DATE OPENED 10-8-76  
 DATE DESCRIBED 10-8-76 DATE PHOTOGRAPHED \_\_\_\_\_  
 DESCRIBED BY T. Haines CORE LENGTH 197 cm  
 PENETRATION 197+ cm FLOW-IN 0 cm

SUMMARY OF CORE: medium coarse to coarse quartz shelly sand, soft to very soft, dark greenish gray(5GY 4/1), numerous large molluscan shells/shell fragments visible with few randomly scattered filled burrows; lower contact to intermediate unit is sharp; 55 to 65 cm is a medium to fine quartz algal shelly sand, dark greenish gray(5GY 4/1) exhibits firmness & lower water content, moderate amounts of small molluscan shell fragments noted throughout this intermediate unit; lowermost unit(65 to 197 cm) is a coarse to very coarse shelly algal sand, dark greenish gray(5GY 4/1), loose grains with large amount of coralline algae; burrowed at 90 and 125 cm with a fine grained sandy fill material; coarse fraction analysis indicates rare to common quartz and manganese, common molluscan shells/shell debris, and benthonic foraminifera, and rare to common to abundant coralline algae(abundant at base of core), and rare amounts of planktonic foraminifera, pteropods, sponge spicules, ironstone, and echinoid spines & shell fragments; no sedimentary structures visible in any of the units.

INTERVAL	DESCRIPTION
0-55 cm	medium coarse to coarse quartz shelly sand, dark greenish gray (5GY 4/1), soft to very soft & watery; large molluscan shells/shell fragments present in moderate amounts; few poorly defined filled burrows(slightly finer grained fill material than surrounding matrix) noted in random areas. Basal contact a sharp change in texture and composition.
55-65 cm	medium to fine quartz algal shelly sand, dark greenish gray (5GY 4/1), firm & moderately moist; shell fragments present in common amounts and very small in size; no sedimentary or biogenic structures visible within this unit. Basal contact a sharp change in texture & composition.
65-197 cm (core bottom)	coarse to very coarse shelly algal sand, dark greenish gray (5GY 4/1), loose grains with low moisture content; large filled burrow at 90 cm colored dusky yellow green(5GY 5/2) and at 125 cm colored dark greenish gray(5GY 4/1) each exhibiting a fine grained fill material; coralline algae noted in abundance throughout this unit; no visible sedimentary structures evident.

MCC 10 023 001

CORE NUMBER 52

CRUISE IG-19-4

DENSITY MEASUREMENTS ON CORE EXTRACTIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
1	20cm	7.00	6.45	0.97	0.40	0.96	extreme loose packing and very coarse particles
2.	40cm	7.00	6.43	0.97	0.50	1.21	very coarse loose in syringe compaction is poor.
3.	60cm	8.20	6.69	1.60	0.50	1.37	finer grains penetration more cohesive
4.	80 cm	7.11	5.98	1.24	0.50	1.53	coarse grain and shell frag. loose compaction.
5.	100cm	7.50	6.41	1.29	0.50	1.38	very loose
6.	120cm	7.50	6.38	1.40	0.50	1.24	extremely loose coralline algae
7.	140cm	6.89	5.99	1.17	0.50	1.34	coarse, still loose
8.	158cm	7.89	6.64	1.50	0.50	1.25	less coarse, looseness still present moist.
9.	180cm	7.47	6.02	1.73	0.50	1.17	loose

MCC 10 02 00 1



ARE: 5%  
 COMMON: 5-50%  
 F. C.: 50-100%  
 CORE  
 NO. 52  
 IC 19-4  
 Sample Depth

- FORAMS-PLANKTONIC
- FORAMS-BENTHONIC
- RADIOLARIA
- DIATOMS
- PTEROPODS
- SPONGE SPICULES
- SILICOFLAGELLATES
- COCCOLITHS
- DISCOASTERS
- IRONSTONE
- OPAQUE MINERALS
- QUARTZ
- MANGANESE
- ZEOLITE
- ASH SHARDS
- OTHER

0010000001



GRAPHIC CORE LOG

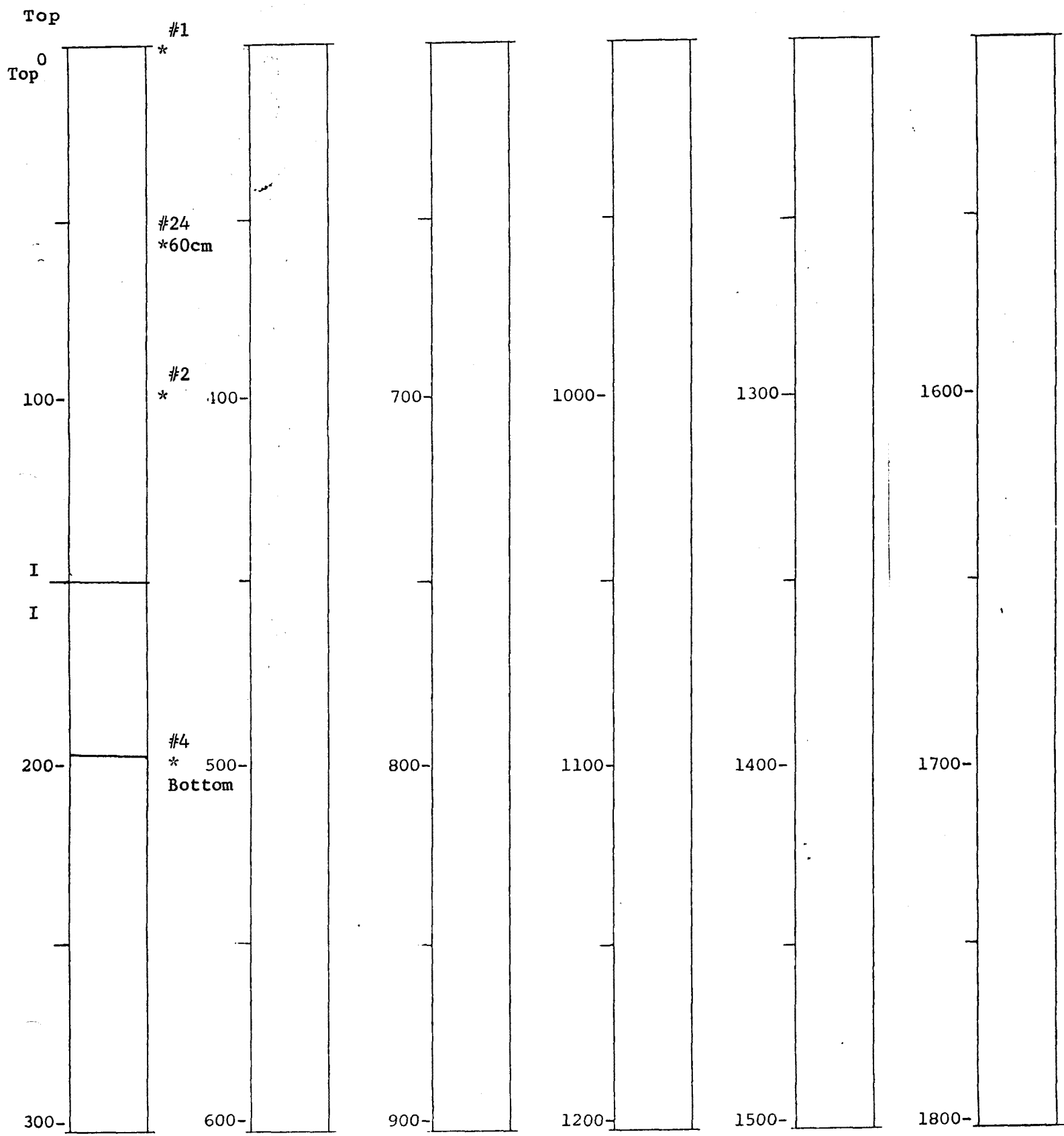
MGG 10 000001

Core Number 52

Cruise IG-19-4

Core Cap Samples  
B = Bottom of Section  
T = Top of Section

CORE SECTIONS



\* = Coarse fraction (less than 0.063 mm)

SAMPLE DISIRIBUTION FROM CORES

489

CORE NUMBER 52

CRUISE IG-19 -4

INTERVAL OR LOCATION OF SAMPLE	ESTIMATED VOLUME OF SAMPLE	TAKEN BY	SAMPLING PURPOSE	PERSON AND/OR COMPANY RECEIVING SAMPLE(S) FOR INTENDED RESEARCH
Refer to page on "Density Measurements" for precise locations	approx. 1 cc.	T. Haines	wet-bulk density	U. S. Navy to receive density results(UT-MSI contracted to do density measurements)
0-26 cms	200 gms	T. Haines		Frank Van Markhoren

NOV 10 1961

CORE NUMBER 53 CRUISE IG 19-4  
 LATITUDE 29° 57.1' N LONGITUDE 86° 10.1' W  
 CORRECTED DEPTH 24 fm PDR DEPTH 23 fm  
 DATE TAKEN 6-30-76 DATE OPENED 10-20-76  
 DATE DESCRIBED 10-20-76 DATE PHOTOGRAPHED \_\_\_\_\_  
 DESCRIBED BY T. Haines CORE LENGTH 194 cm  
 PENETRATION 194+ cm FLOW-IN 0 cm

SUMMARY OF CORE: fine to coarse shelly sand, grayish olive green (5GY 3/2), moist, moderately firm, mottling is present throughout entire core, molluscan shell fragments present in moderate amount with random distribution of large pecten shells, coralline algae also present decreasing with depth slightly; coarse fraction analysis indicates rare to abundant molluscan shells/shell debris & coralline algae, common manganese, benthonic forams, and rare amounts of planktonic forams, pteropods, sponge spicules, quartz, glauconite, coral, and echinoid spines & shell debris.

0-194 (core bottom) fine to coarse shelly sand, grayish olive green (5GY 3/2), moist, moderately firm, mottling of a slightly finer material randomly occurs down core at 5, 15, 68, 75, 90, 110, 133 and 160 cm. and is grayish olive (10Y 4/2), of a moist and slightly soft consistency. There is moderate shell fragment (molluscan) content well distributed in this unit, very large pecten shells found at 110, 120, 175, 180 and 190 cm (worm tube encrusted at 190 cm) and ranging in size from 2 to 6 cm across. Generally, throughout the core, coarse material includes a moderate amount of coralline algae, no units visible.

MSC 10015001

CORE NUMBER 53CRUISE IG-19-4

## DENSITY MEASUREMENTS ON CORE EXTRACTIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
1	15 cm	8.40	7.12	1.44	0.50	1.36	loose, coarse grains
2	35 cm	8.75	8.80	1.12	0.50	1.53	loose, v-coarse
3	55	8.09	7.20	1.15	0.50	1.37	loose, v-coarse
4	75	10.03	8.20	1.60	0.50	1.66	coarse
5	95	10.29	8.31	1.70	0.50	1.65	coarse
6	115	8.55	7.07	1.45	0.50	1.56	small shell fragment pulled in with sample at cutting point of 0.50
7	135	9.34	7.69	1.50	0.50	1.65	coarse
8	155	9.36	8.13	1.30	0.50	1.54	in a filled burrow
9	185	8.86	8.26	0.70	0.30	1.50	large shells; obstruction to sample penetration

MGG 10015001



AREA: 5%

CONCENT: 5-50%

DEPTH: 50-100%

DATE

53

IG 19-4

Sample Depth

FORAMS-PLANKTONIC

FORAMS-BENTHONIC

RADIOLARIA

DIATOMS

PTEROPODS

SPONGE SPICULES

SILICOFLAGELLATES

COCCOLITHS

DISCOASTERS

IRONSTONE

OPAQUE MINERALS

QUARTZ

MANGANESE

ZEOLITE

ASH SHARDS

OTHER

MCG 10000001

GRAPHIC CORE LOG

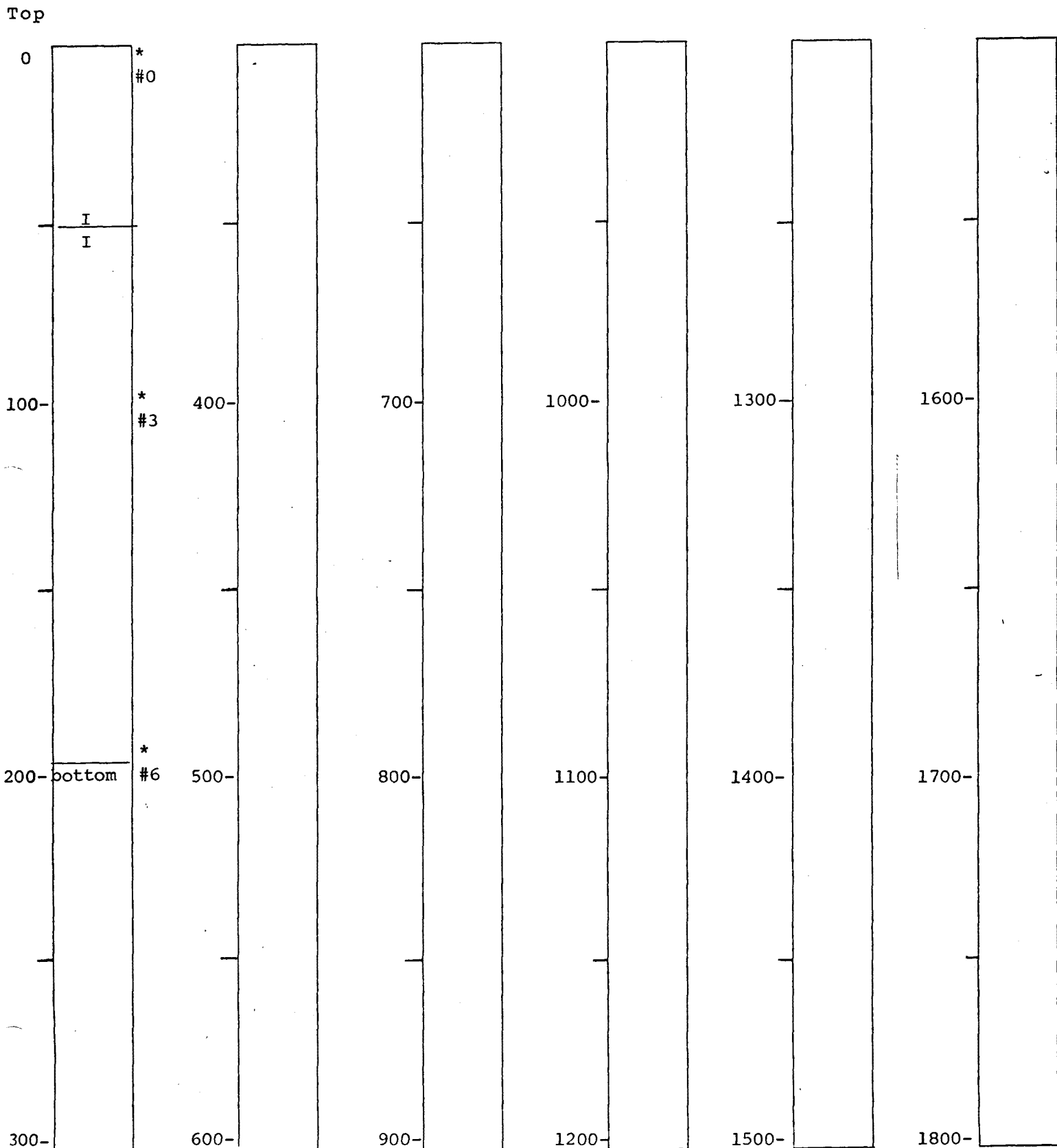
MCG 10030001

Core Number 53

Cruise IG-19-4

Core Cap Samples  
B = Bottom of Section  
T = Top of Section

CORE SECTIONS



\* = Coarse fraction/smear slide location.

CORE NUMBER 53 CRUISE IG-19-4

INTERVAL OR LOCATION OF SAMPLE	ESTIMATED VOLUME OF SAMPLE	TAKEN BY	SAMPLING PURPOSE	PERSON AND/OR COMPANY RECEIVING SAMPLE(S) FOR INTENDED RESEARCH
Refer to page on "Density Measurements" for precise locations	approx. 1 cc.	T. Haines	wet-bulk density	U. S. Navy to receive density results (UT-MSI contracted to do density measurements)
0-29 cm	200 gms	T. Haines		Frank Van Markhoren

MCG 10 023 001



CORE NUMBER 54 CRUISE IG 19-4  
 LATITUDE 29° 55.6' N LONGITUDE 86° 13.7' W  
 CORRECTED DEPTH 29 fm PDR DEPTH 28 fm  
 DATE TAKEN 6-30-76 DATE OPENED 10-21-76  
 DATE DESCRIBED 10-21-76 DATE PHOTOGRAPHED \_\_\_\_\_  
 DESCRIBED BY T. Haines CORE LENGTH 265 cm.  
 PENETRATION 265+ cm FLOW-IN 0 cm.

SUMMARY OF CORE: Fine to very fine sandy mud, grayish olive (10Y 4/2) to dusky yellow green (5GY 3/2), graded toward bottom of core. Molluscan shells and shell fragments increase in number and size with depth, some mottling occurring beyond 100 cm. with manganese coatings present in low amount as coatings over forams and carbonate fragments.

INTERVAL	DESCRIPTION
0 - 8 cm.	Fine to very fine sandy mud, grayish olive (10Y 4/2), moderately soft, very moist, no structures visible; very few visible shell fragments, basal contact a sharp change in color and composition.
8 - 88	Fine to very fine shelly sandy mud, dusky yellow green (5GY 5/2), soft and moderately moist, increase in number and size of shell fragments and introduction of large bivalves and other, molluscan shells at 20, 35, 60, 70, 80, and 85 cm. No sedimentary structures visible within this unit. Basal contact a sharp change in color texture, and composition.
88 - 98	Medium to fine muddy sand, dark greenish gray (5GY 4/1), firm moist no visible structures. A definite sand bed with moderate amount of small shell debris. Homogeneous zone. Basal contact a sharp change in color, texture and composition.
98 - 255	fine to very fine shelly sandy mud, dusky yellow green(5GY 5/2), firm & moderately moist; large gastropod at 113 cm measuring 3 cm width, in perfect condition. 205-255 cm. occasional mottling of a grayish olive (10Y 4/2), and increased firmness with depth. Basal contact a sharp change in color, texture, composition.
255 - 265 (core bottom)	Fine to very coarse shelly muddy sand grayish olive (10Y 4/2), firm moderate moisture, many coarse grains and shells. Shell fragments of molluscan fauna present. Large blackish spherical masses are present in small amounts.

MGG 10 01 8 00 1

CORE NUMBER 54

CRUISE IG-19-4

DENSITY MEASUREMENTS ON CORE EXTRACTIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
1	20 cm.	8.68	7.75	1.02	0.50	1.78	Sandy
2	40	8.20	7.08	1.28	0.49	1.42	
3	60	9.16	7.74	1.35	0.50	1.67	
4	80	9.55	7.90	1.50	0.50	1.65	Several large shells around sampling area making penetration difficult
5A	95	7.58	5.96	1.40	0.50	1.80	Sand layer sample
5	100	9.47	7.71	1.55	0.50	1.67	
6	120	9.26	8.00	1.40	0.50	1.40	
7	140	9.38	7.68	1.60	0.60	1.70	Increasing firmness ↓
8	165	9.44	7.77	1.50	0.50	1.67	
9	185	9.56	7.86	1.60	0.60	1.70	
10	205	8.43	7.73	0.88	0.40	1.46	Shell below surface hampering sample penetration
11	225	9.90	8.23	1.50	0.50	1.67	
12	240	9.40	7.80	1.50	0.50	1.60	
13	260	8.79	8.14	0.70	0.30	1.62	Very coarse, low penetration

MCG 10025001

WE: 5%

WIN: 5-50%

UND: 50-100%

RE

54

IG 19-4

Sample Depth

Sample Depth	FORAMS-PLANKTONIC	FORAMS-BENTHONIC	RADIOLARIA	DIATOMS	PTEROPODS	SPONGE SPICULES	OSTRACODS	MOLLUSC	CORALLINE ALGAE	CORAL	BRYOZOA	QUARTZ	FELDSPAR	IRONSTONE	MANGANESE	OPAQUE MINERALS	ROCK FRAGMENTS	OTHER
#1 3 cm.	C	R			R	R		C				C			R			glauc. R carb. frags. A echin. spines R
#2 11 cm.	C	R				R		C				C			R			echin. spines R glauc. R carb. frags. R
#3 86 cm.	C	R				R		C				R			R			glauc. R echin. spines R carb. frags. R
#6 95 cm.	R	C				R		R				C			R	C		glauc. R echin. spines R carb. frags. R
#4 100 cm.	R	C				R		C	R			C			R			glauc. R echin. spines R carb. frags. R
#8 200 cm.	C	R			R	R		C				R			R			echin. spines R glauc. R carb. frags. R
#9 260 cm.	R	C				R		C	R			C			R	R		echin. spines R glauc. R carb. frags. R

MGG 1002001

SMEAR SLIDE ANALYSIS

448

VRE: 5% CN: 5-50% BUND: 50-100% CORE 54 IG 19-4 Sample Depth	FORAMS-PLANKTONIC
	FORAMS-BENTHONIC
	RADIOLARIA
	DIATOMS
	PTEROPODS
	SPONGE SPICULES
	SILICOFLAGELLATES
	COCCOLITHS
	DISCOASTERS
	IRONSTONE
	OPAQUE MINERALS
	QUARTZ
	MANGANESE
	ZEOLITE
	ASH SHARDS
	OTHER

MCG 10020001

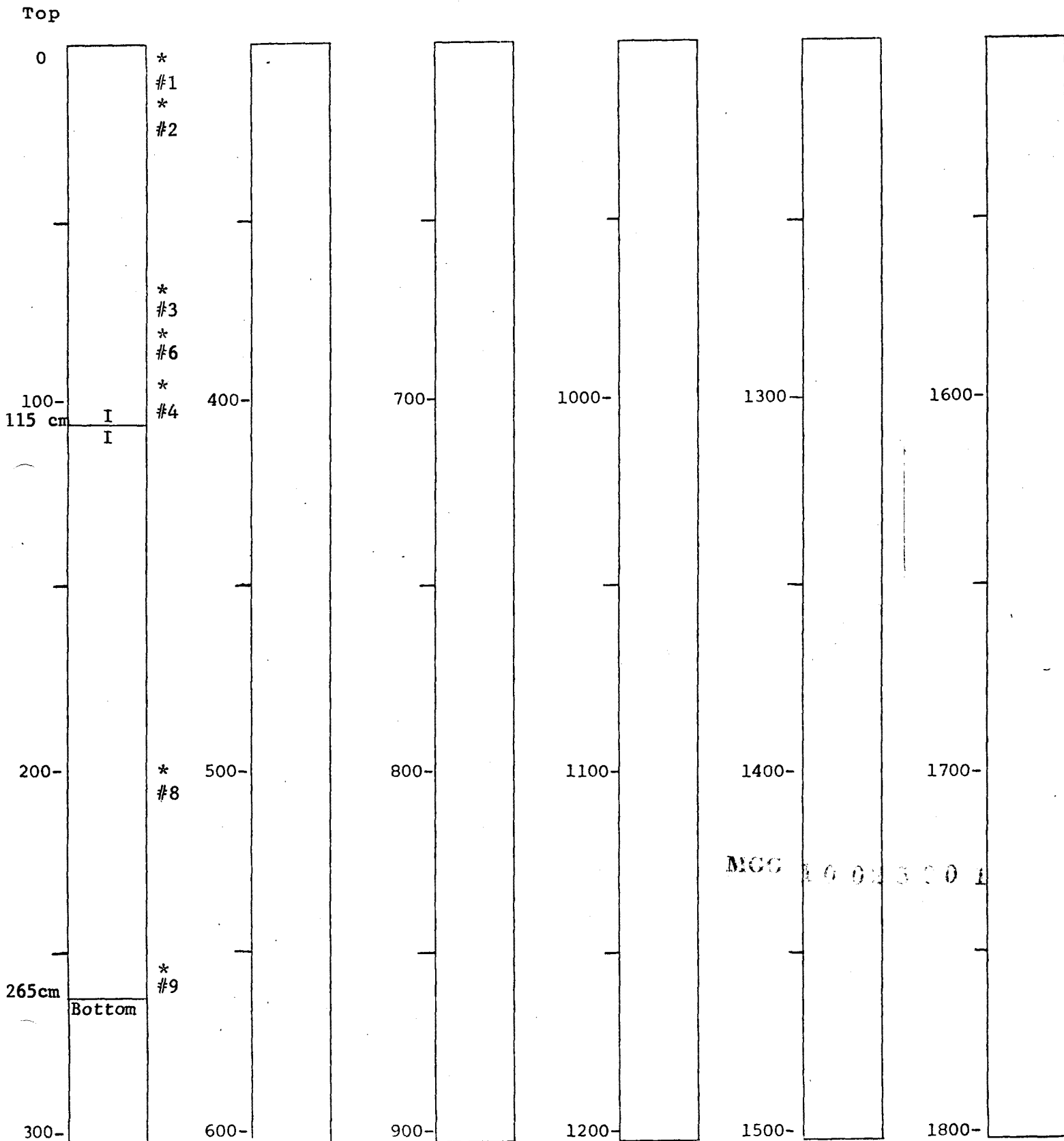
GRAPHIC CORE LOG

Core Number 54

Cruise IG-19-4

Core Cap Samples  
B = Bottom of Section  
T = Top of Section

CORE SECTIONS



CORE NUMBER 54

CRUISE IG-19 - 4

INTERVAL OR LOCATION OF SAMPLE	ESTIMATED VOLUME OF SAMPLE	TAKEN BY	SAMPLING PURPOSE	PERSON AND/OR COMPANY RECEIVING SAMPLE(S) FOR INTENDED RESEARCH
Refer to page on "Density Measurements" for precise locations	approx. 1 cc.	T. Haines	wet-bulk density	U. S. Navy to receive density results (UT-MSI contracted to do density measurements)
0-35 cm	200 gms	T. Haines		Frank Van Markhoren.

NOV 1961

CORE NUMBER 55 CRUISE IG 19-4  
 LATITUDE 29° 54.9' N LONGITUDE 86° 17.2' W  
 CORRECTED DEPTH 36 fm PDR DEPTH 35 fm  
 DATE TAKEN 6-30-76 DATE OPENED 10-22-76  
 DATE DESCRIBED 10-22-76 DATE PHOTOGRAPHED \_\_\_\_\_  
 DESCRIBED BY T. Haines CORE LENGTH 390 cm.  
 PENETRATION 460 cm. FLOW-IN 0 cm.

SUMMARY OF CORE: Fine to very fine sandy mud, grayish olive (10Y 4/2) graded to coarser shelly mud, with depth, size of molluscan shell fragments also graded with depth, burrowing found in lower unit of core, overall presence of dark grains (manganese coatings and opaque minerals).

INTERVAL	DESCRIPTION
0 - 293 cm.	Fine to very fine sandy mud, grayish olive (10Y 4/2), moderately soft moderate moisture, no structures visible, random distribution of molluscan shell fragments through unit. Homogeneous matrix. Large solitary coral at 120 cm. with slight encrusting of worm tubes, measures 3 cm. in length. Basal contact a sharp change in texture, color, and composition.
293 - 320 cm.	Medium to very coarse shelly sandy mud, dusky yellow green (5GY 5/2) no structures visible, moderately firm, many large molluscan shell fragments. Basal contact a sharp change in texture, composition, and color.
320 - 390 cm. (core bottom)	Fine to coarse sandy shelly mud, grayish olive (10Y 4/2), firm, extensive burrowing present with fill material slightly higher in mud content than surrounding material, large benthonic gastropod in perfect condition at 330 cm. Manganese coated bivalve at 375 cm. bivalve fragments without manganese coating at 379 cm., increasing dark minerals (manganese coated grains?) with depth.

MCG 10000001

CORE NUMBER 55

CRUISE IG-19-4

DENSITY MEASUREMENTS ON CORE EXTRACTATIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
1	20 cm.	9.30	7.81	1.41	0.50		
2	40	9.08	7.94	1.10	0.40		
3	60	9.76	8.30	1.35	0.50		
4	80	9.37	7.79	1.43	0.50		
5	100	9.50	7.84	1.40	0.40		
6	120	9.08	7.79	1.19	0.40		
7	140	9.26	7.80	1.38	0.50		
8	160	9.57	7.85	1.50	0.50		
9	180	9.45	7.72	1.50	0.50		
10	200	9.91	8.23	1.50	0.50		
11	220	9.26	7.69	1.50	0.50		
12	240	9.37	8.18	1.26	0.50		Large shell fragment inside sample
13	260	9.32	7.71	1.50	0.50		
14	280	9.29	7.70	1.40	0.40		
15	300	7.96	7.11	0.95	0.40		Very coarse shell frags: under-lying sample surface
16	320	9.43	7.76	1.50	0.50		
17	340	8.89	7.13	1.40	0.40		
18	360	8.88	7.84	1.00	0.40		Coarse, penetration shallow
19	380	9.96	8.14	1.40	0.45		Coarse

MCC 10 02 5 00 1



CORE NUMBER 55

CRUISE IG-19 -4

INTERVAL OR LOCATION OF SAMPLE	ESTIMATED VOLUME OF SAMPLE	TAKEN BY	SAMPLING PURPOSE	PERSON AND/OR COMPANY RECEIVING SAMPLE(S) FOR INTENDED RESEARCH
Refer to page on "Density Measurements" for precise locations	approx. 1 cc.	T. Haines	wet-bulk density	U. S. Navy to receive density results(UT-MSI contracted to do density measurements)
0-33 cm	200 gms	T. Haines		Frank Van Markhoren

FIGG 10 02 5 00 1

WRE: 5%

N: 5-50%

50-100%

RE  
55  
IG 19-4  
Sample Depth

Sample Depth	FORAMS-PLANKTONIC	FORAMS-BENTHONIC	RADIOLARIA	DIATOMS	PTEROPODS	SPONGE SPICULES	OSTRACODS	MOLLUSC	CORALLINE ALGAE	CORAL	BRYOZOA	QUARTZ	FELDSPAR	IRONSTONE	MANGANESE	OPAQUE MINERALS	ROCK FRAGMENTS	OTHER
0 cm.	A	C			R	R		C				R			R	R		echin. spines R carb. frags. R glaucinite R
100 cm.	C	C			R	R		C				C			R	R		echin. spines R carb. frags. C glaucinite
200 cm.	C	C			R	R		C				C			R	R		echin. spines R carb. frags. R glaucinite R
300 cm.	C	C			R	R		C	R			R			C	R		echin. spines R glaucinite R carb. frags. R
390 cm.	C	A				R		R	R			R			C	C		echin. spines R carb. frags. R glaucinite R

00 1000000

ARE: 5%

ON: 5-50%

IG: 50-100%

ORE

55

IG 19-4  
Sample Depth

FORAMS-PLANKTONIC

FORAMS-BENTHONIC

RADIOLARIA

DIATOMS

PTEROPODS

SPONGE SPICULES

SILICOFLAGELLATES

COCCOLITHS

DISCOASTERS

IRONSTONE

OPAQUE MINERALS

QUARTZ

MANGANESE

ZEOLITE

ASH SHARDS

OTHER

10000001

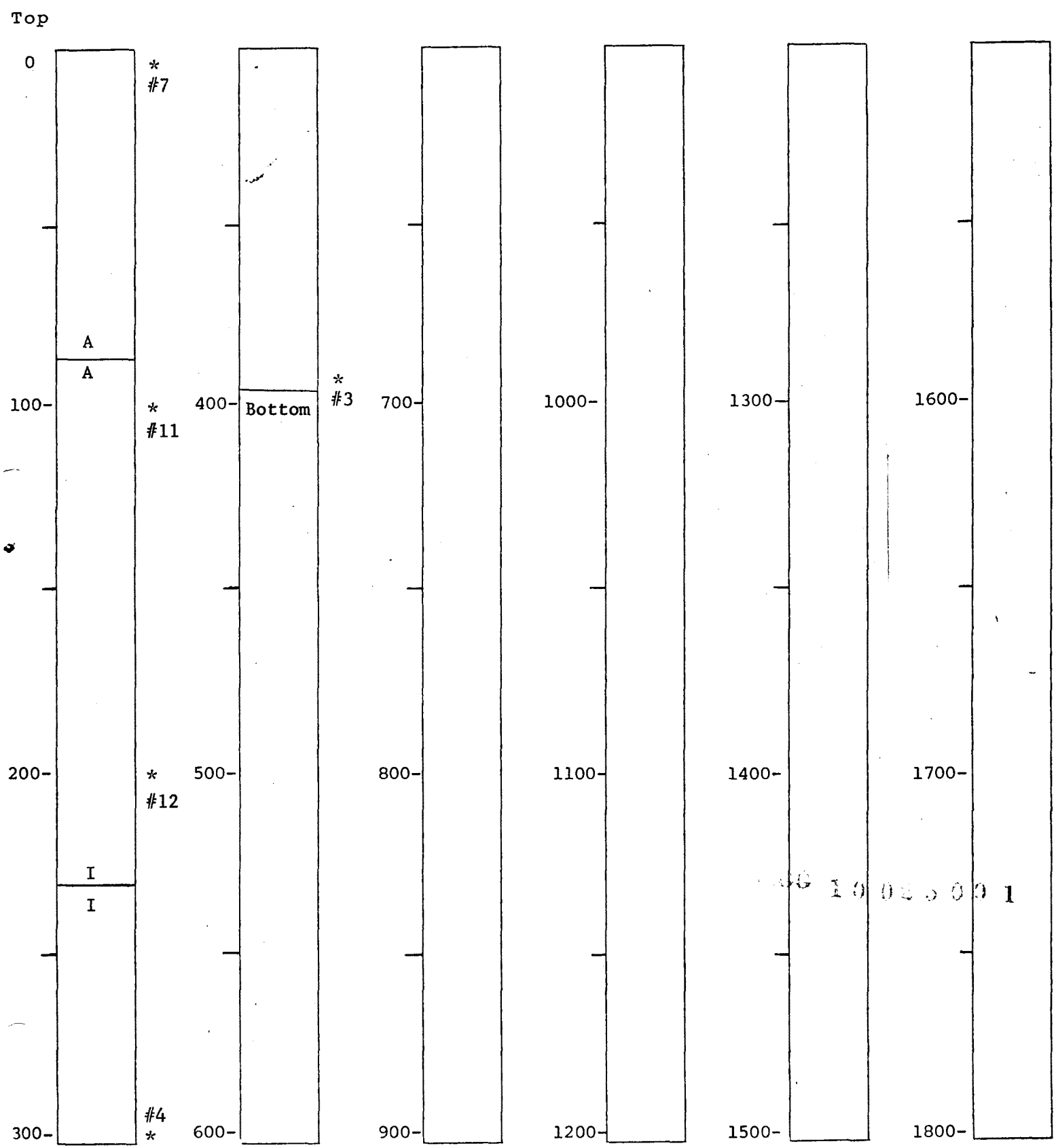
GRAPHIC CORE LOG

Core Number 55

Cruise IG-19-4

Core Cap Samples  
B = Bottom of Section  
T = Top of Section

CORE SECTIONS



\* = Coarse fraction/smear slide location

CORE NUMBER 56 CRUISE IG 19-4  
 LATITUDE 29° 54.7' N LONGITUDE 86° 20.1' W  
 CORRECTED DEPTH 37 fm PDR DEPTH 36 fm  
 DATE TAKEN 6-30-76 DATE OPENED 11-1-76  
 DATE DESCRIBED 11-1-76 DATE PHOTOGRAPHED \_\_\_\_\_  
 DESCRIBED BY T. Haines CORE LENGTH 440 cm.  
 PENETRATION 460 cm. FLOW-IN 0 cm.

SUMMARY OF CORE: Medium to very coarse sandy shelly mud to sandy mud, grayish olive (10Y 4/2) to light olive gray (5Y 5/2) to medium greenish gray (5GY 7/1), mollusca shells and shell fragments present throughout core varying in size and abundance, mottling found in core at various intervals in discontinuous pattern. Coralline algae is present in small amounts, manganese coating common on forams and carbonate fragments.

INTERVAL	DESCRIPTION
0 - 140 cm.	med. to fine foram sandy shelly mud, grayish olive(10Y 4/2), semi-soft, no units divisible, well distributed molluscan shell fragments with a large bivalve at 32 cm. slight increase in abundance of molluscan shell fragments from 80 to 100 cm. but not evident as a bedding sequence. Moisture from 80 to 100 cm. drops off sharply and firmness increases from 110 cm. increased mud content occurs possible bedding but not in sharp textural contrast with adjoining material. Basal contact a gradual change in color, texture and composition.
140-225cm.	med. to v. coarse shelly foraminiferal sandy mud, colored a light olive gray (5Y 3/2), moist moderately soft, large abundance of molluscan shell fragments and shells. Localized areas of mottling found at 155, 160, 170, and 200 cm. fill material is grayish olive (10Y 4/2) and lacks large shell fragments and has slightly higher mud content than surrounding material. No structures visible; basal contact a sharp change in color and composition, and texture.
225-258cm.	med. fine to fine foram sandy mud, medium greenish gray(5GY 7/1), firm & moist; large pieces of coral present in moderate amount. Large shell fragments present but in lesser abundance than above unit. No structures visible. Basal contact a sharp change in color, texture and composition.
258-272cm.	med. to v. coarse shelly foram sandy mud, med. greenish gray(5GY 7/1) semi-firm & moderately moist; small numbers of visible molluscan shells/shell debris. Basal contact a gradual change in color, texture & composition.
272-440 cm (core bottom)	medium fine to fine foraminiferal sandy mud, medium greenish gray (5GY 7/1), firm & moist, high mud concentration and few visible molluscan shell fragments evident.

IG 10 023 00 1

ORE NUMBER 56

CRUISE IG-19-4

DENSITY MEASUREMENTS ON CORE EXTRACTATIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
1	20 cm.	8.94	7.17	1.45	0.45	1.77	
2	40	9.55	7.82	1.45	0.45	1.73	
3	60	9.83	8.16	1.45	0.45	1.67	
4	80	8.93	7.20	1.45	0.45	1.73	
5	100	8.86	7.13	1.45	0.45	1.73	
6	125	10.06	8.21	1.40	0.40	1.85	Surface shell debris hampering penetration
7	145	9.29	7.86	1.30	0.50	1.78	Shelly & coarse-grained Difficult penetration
8	165	9.25	7.82	1.25	0.40	1.68	
9	185	9.43	7.81	1.50	0.50	1.62	Loose compaction & coarse-grained
10	205	9.69	7.85	1.45	0.45	1.84	
11	220	8.69	7.90	0.90	0.40	1.58	Extremely shelly, poor penetration
12	260	9.25	7.70	1.25	0.40	1.82	
13	290	8.68	7.75	1.00	0.60	2.30	Very large volume of coral & bryzoans from this sample to end of core, penetration difficult
14	310	8.69	7.76	1.00	0.50	1.86	
15	330	8.64	7.78	0.90	0.40	1.72	
16	350	8.96	8.20	0.95	0.45	1.52	
17	370	8.41	7.76	0.70	0.30	1.62	
18	390	8.54	7.74	1.00	0.50	1.60	
19	410	8.77	7.78	1.10	0.50	1.65	
20	432	9.29	7.69	1.50	0.50	1.60	No coral obstructing penetration

MGG 10 02 5 00 1

COARSE-FRACTION

RE: 5% ON: 5-50% : 50-100% RE 56 IG 19-4 mple Depth	FORAMS-PLANKTONIC	FORAMS-BENTHONIC	RADIOLARIA	DIATOMS	PTEROPODS	SPONGE SPICULES	OSTRACODS	MOLLUSC	CORALLINE ALGAE	CORAL	BRYOZOA	QUARTZ	FELDSPAR	IRONSTONE	MANGANESE	OPAQUE MINERALS	ROCK FRAGMENTS	OTHER	
0 cm.	C	C				R	C	R			R			R	R			echin. spines R glauconite R carb. frags. R	
100 cm.	C	C			R	R	C	R			R			C	R			echin. spines R carb. frags. R glauconite R	
200 cm.	C	A			R	R	C	R			R			C	R			echine. spines carb. frags. R glauconite R	
245 cm.	C	C			R	R	C				R			R	R			echin. spines R carb. frags. C glauconite R	
300 cm.	C	C				R	C				R			R				carb. frags. C echin. spines R	
400 cm.	C	R				R	C							R				echin. spines R carb. frags. A glauconite R	

MCC 10 02 001

RE: 5%	
ON: 5-50%	
Sample Depth: 50-100%	
RE 56	
IC 19-4	
Sample Depth	
FORAMS-PLANKTONIC	
FORAMS-BENTHONIC	
RADIOLARIA	
DIATOMS	
PTEROPODS	
SPONGE SPICULES	
SILICOFLAGELLATES	
COCCOLITHS	
DISCOASTERS	
IRONSTONE	
OPAQUE MINERALS	
QUARTZ	
MANGANESE	
ZEOLITE	
ASH SHARDS	
OTHER	

MCC 10011001



GRAPHIC CORE LOG

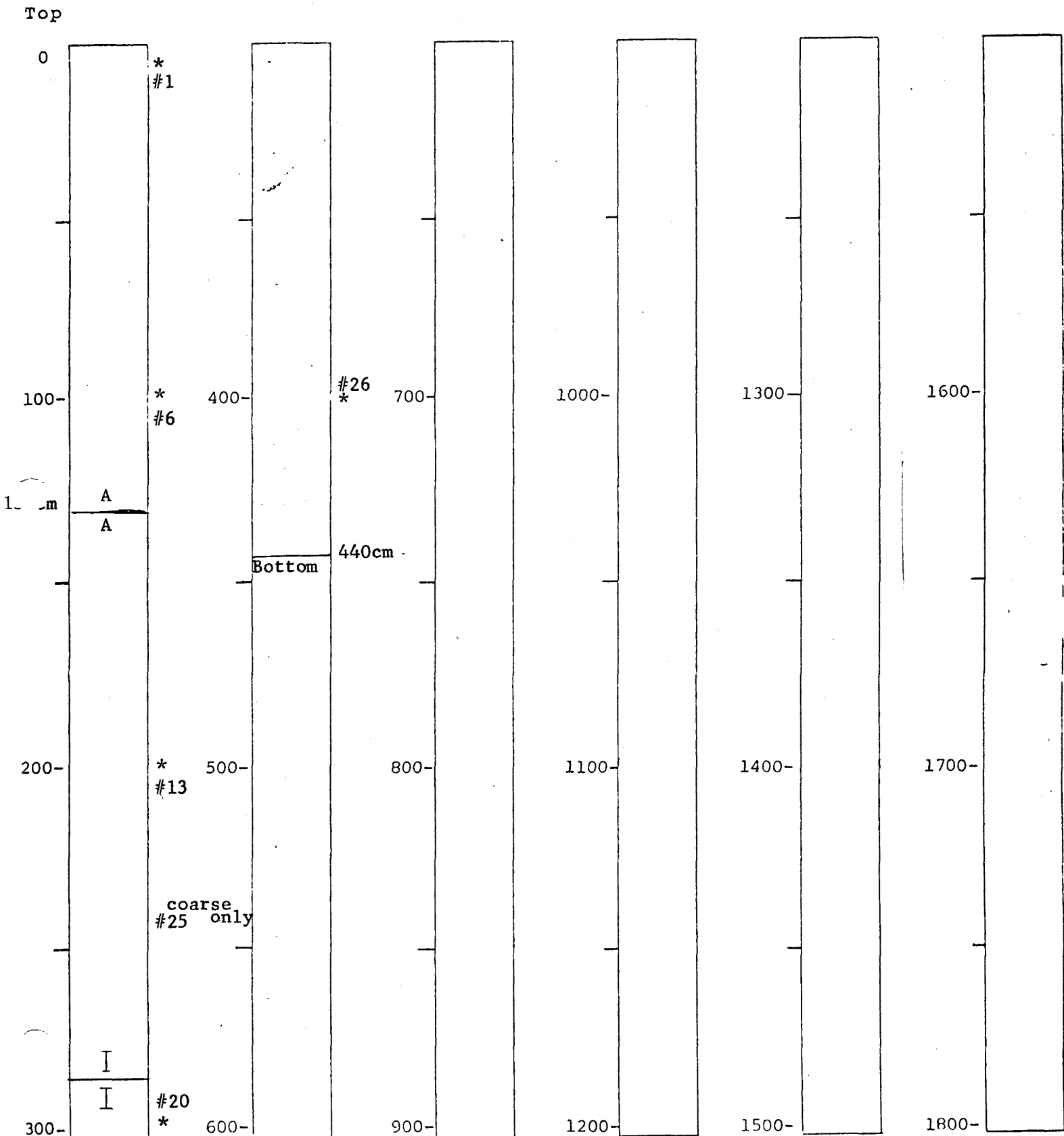
MGG 10 02 500 1

Core Number 56

Cruise IG-19-4

Core Cap Samples  
B = Bottom of Section  
T = Top of Section

CORE SECTIONS



CORE NUMBER 56CRUISE IG-19-4

INTERVAL OR LOCATION OF SAMPLE	ESTIMATED VOLUME OF SAMPLE	TAKEN BY	SAMPLING PURPOSE	PERSON AND/OR COMPANY RECEIVING SAMPLE(S) FOR INTENDED RESEARCH
Refer to page on "Density Measurements" for precise locations	approx. 1 cc.	T. Haines	wet-bulk density	U. S. Navy to receive density results (UT-MSI contracted to do density measurements)
every 50 cm.	approx. 10-15 cc.	S. Addy	geochemical analyses	Dr. Sunit Addy, UT-MSI
every 20 cm.	approx. 5 cc.	S. Addy	geochemical analyses	Dr. Sunit Addy, UT-MSI
0-26 cm	200 gms	T. Haines		Frank Van Markhoren

MGC 100-5001

CORE NUMBER 57 CRUISE IG 19-4  
 LATITUDE 29° 52.5' N LONGITUDE 86° 23.3' W  
 CORRECTED DEPTH 40 fm PDR DEPTH 38 fm  
 DATE TAKEN 7-1-76 DATE OPENED 11-2-76  
 DATE DESCRIBED 11-2-76 DATE PHOTOGRAPHED \_\_\_\_\_  
 DESCRIBED BY T. Haines CORE LENGTH 353 cm.  
 PENETRATION 353+ cm FLOW-IN 0 cm

SUMMARY OF CORE: Medium to coarse shelly sand to shelly sandy mud, olive gray (5Y 3/2) to grayish olive (10Y 4/2), to light olive gray (5Y 5/2), molluscan shells and shell fragments found throughout core varying in size and abundance coralline algae present and increasingly abundant with depth, benthonic forams far more common than planktonic forams manganese coatings on many forams and increase with depth, possible presence of phosphate coatings and/or opaque minerals common in deeper units.

	DESCRIPTION
0 - 20 cm.	Medium to coarse shelly sand, olive gray (5Y 3/2), wet soft, molluscan shell fragments and some coralline algae present. No large shells visible in this unit. No structures visible. Basal contact a sharp change in color, texture and composition (lobe of this zone extends along side of core to 30 cm. probably due to coring)
20 - 40 cm.	Fine to coarse shelly forams sandy mud, grayish olive (10Y 4/2), moist & moderately soft, shell fragments are larger and introduction of unbroken molluscs in this layer. Mud content higher in this zone, slightly more coralline algae visible. Basal contact a sharp change in color texture and composition.
40 - 48 cm.	Medium to coarse shelly muddy sand, light olive gray (5Y 5/2), moist, soft, similar to 0-20 cm. zone with the exception of a higher mud content again no large molluscan shells present, only shell debris. Basal contact a sharp change in color, texture, and composition.
48 - 58 cm.	Fine to coarse shelly forams sandy mud, grayish olive green (10Y 4/2), similar to description for unit 20-40 cm. Basal contact sharp change in color, texture and composition.
58 - 70 cm.	Medium to coarse shelly sand, olive gray (5Y 3/2), very similar description to 0 - 20 cm. layer. Basal contact a sharp change in color, texture, and composition
70 - 103cm.	fine to coarse shelly forams sandy mud, grayish olive green (10Y 4/2), semi-firm & moderately moist; no visible structures evident. Basal contact a sharp change in color, texture, & composition.
103-111 cm	medium to coarse foraminiferal algal sand, olive gray (5Y 3/2), firm & moist, few mollusc fragments visible; high coralline algae content evident. Basal contact a sharp change in color, texture & composition
111-145 cm	fine to coarse shelly forams sandy mud, grayish olive green (10Y 4/2), firm & low moisture content; no visible sedimentary or biogenic structures evident. Basal contact a sharp change in color, texture, and composition.

INTERVAL	DESCRIPTION
145-353 cm (core bottom)	medium to coarse foraminiferal algal sand, olive gray(5Y 3/2), firm & moderately moist; abundance of coralline algal material noted throughout entire unit; large intact bivalves noted at 270, 280, 300, 315, and 345 cm; coralline algal aggregates occur in moderately low amounts from 200 to 350 cm ranging from 0.5 to 1.5 cm diameter with a semi-spherical morphology in most instances; closed burrows noted at 210, 218, and 230 cm exhibiting a higher mud content than surrounding matrix with this muddy fill material colored a grayish olive(10Y 4/2); no visible sedimentary structures evident.

MCC 10000001

CORE NUMBER 57

CRUISE IG-19-4

DENSITY MEASUREMENTS ON CORE EXTRACTIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
1	15 cm.	9.97	8.33	1.60	0.60	1.64	
2	35	9.29	7.71	1.50	0.50	1.58	Underlying shell debris making penetration difficult
3	55	9.37	7.71	1.50	0.50	1.66	
4	75	8.89	7.80	1.10	0.50	1.81	Coralline algae making penetration difficult
5	105	9.45	7.76	1.60	0.60	1.69	Coarse-grained
6	125	9.63	7.80	1.50	0.50	1.83	
7	145	10.12	8.23	1.50	0.50	1.89	Loose & coarse grained
8	165	9.47	7.75	1.50	0.50	1.72	Loose & coarse grained
9	190	9.56	7.90	1.50	0.50	1.66	Very loose & coarse for remainder of core samples
10	215	8.93	7.78	1.10	0.50	1.91	Watery, loose, very coarse
11	250	9.39	7.87	1.50	0.50	1.52	Almost no cohesion, high amounts of coralline algae
12	265	8.66	7.12	1.40	0.50	1.71	
13	285	8.55	7.20	1.30	0.50	1.68	
14	305	9.17	7.75	1.30	0.50	1.77	
15	325	9.41	7.73	1.40	0.50	1.86	
16	345	9.92	8.17	1.60	0.50	1.59	

MGG 100-3001





GRAPHIC CORE LOG

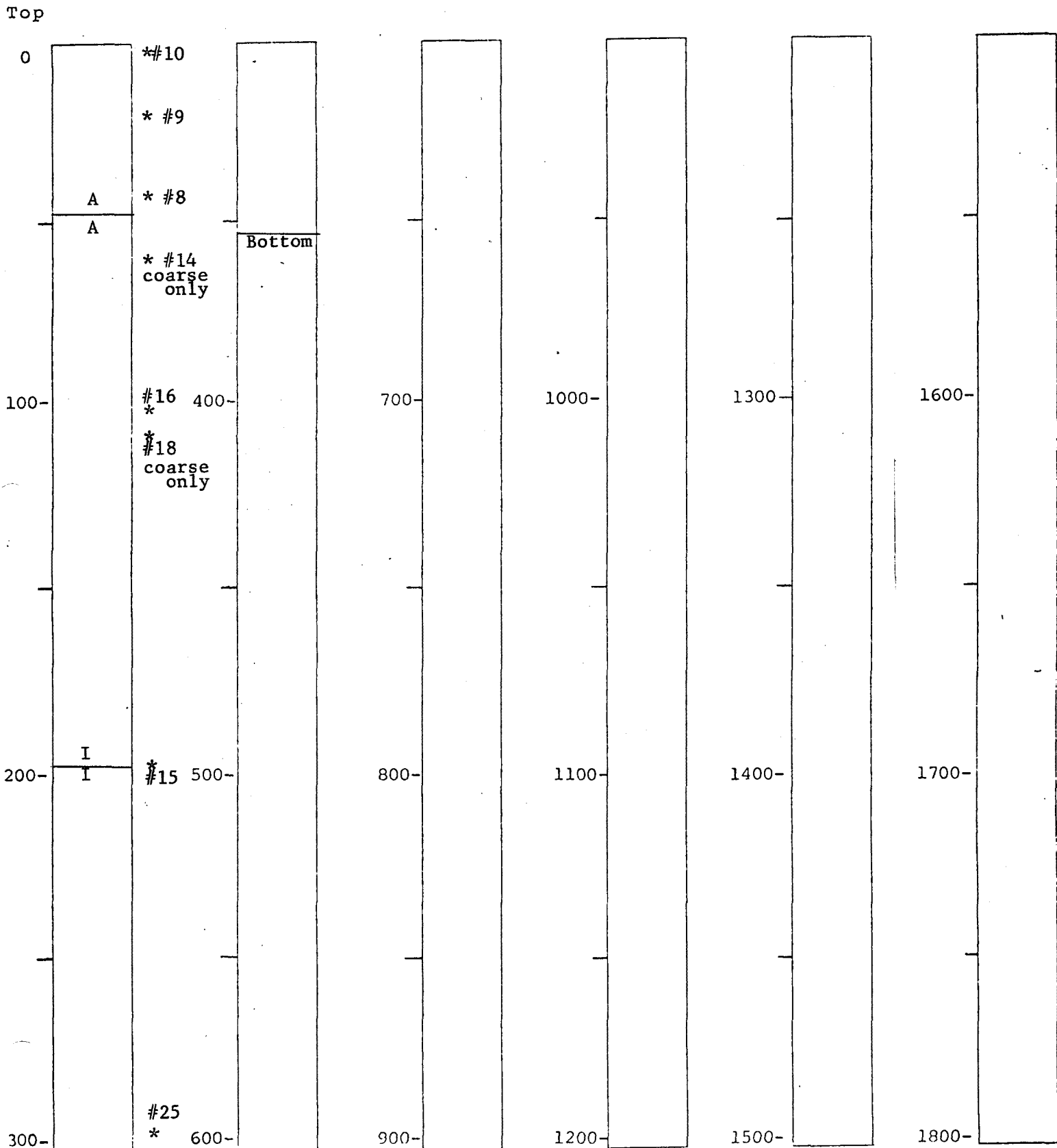
MCG 10025001

Core Number 57

Cruise IG-19-4

Core Cap Samples  
B = Bottom of Section  
T = Top of Section

CORE SECTIONS





CORE NUMBER

57

CRUISE

IG-19 -4

INTERVAL OR LOCATION OF SAMPLE	ESTIMATED VOLUME OF SAMPLE	TAKEN BY	SAMPLING PURPOSE	PERSON AND/OR COMPANY RECEIVING SAMPLE(S) FOR INTENDED RESEARCH
Refer to page on "Density Measurements" for precise locations	approx. 1 cc.	T. Haines	wet-bulk density	U. S. Navy to receive density results (UT-MSI contracted to do density measurements)
0-26 cm	200 gms	T. Haines		Frank Van Markhoren

MCG 13025001

CORE NUMBER 58 CRUISE IG 19-4  
 LATITUDE 29° 52.0' N LONGITUDE 86° 27.1' W  
 CORRECTED DEPTH 40 fm PDR DEPTH 38 fm  
 DATE TAKEN 7-1-76 DATE OPENED 11-3-76  
 DATE DESCRIBED 11-3-76 DATE PHOTOGRAPHED \_\_\_\_\_  
 DESCRIBED BY T. Haines CORE LENGTH 305 cm  
 PENETRATION 125 cm ? FLOW-IN 180 cm ?

SUMMARY OF CORE: medium to coarse foram algal sand, olive gray(5Y 3/2), moist, moderate to very loose grain to grain cohesion, random distribution of mottling found down to 155 cm, fill material is grayish olive (10Y 4/2) and has a moderate mud content as well as coarse material, molluscan shells and shell fragments common increasingly coarse with depth, manganese coated benthonic forams common; coralline algae common.

INTERVAL	DESCRIPTION
0 - 305 cm (Core bottom)	medium to coarse foram algal sand, olive gray(5Y 3/2), moist, moderately loose, mottling occurs frequently down to 155 cm, with fill material having moderate amounts of mud in addition to the coarser grained sediments. The fill material is grayish olive (10 Y 4/2), molluscan shells and shell fragments common throughout unit. Coralline algae is common and has even distribution through unit, large benthonic gastropod at 80 cm in perfect condition, large bivalve at 198 cm one in excellent condition and the other worm tube encrusted (suggests reworking of sediments or possible flow in phenomena) most grains are coated with manganese to form the overall olive gray coloration.

100 001

CORE NUMBER 58CRUISE IG-19-4

## DENSITY MEASUREMENTS ON CORE EXTRACTIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	BULK DENSITY WET	PROBLEMS/ OBSERVATIONS
1	20 cm	8.80	7.73	1.30	0.50	1.33	loosely compacted, coarse grained, watery
2	40 cm	9.71	7.93	1.60	0.40	1.48	loosely compacted, coarse grained, watery
3	60	9.37	7.68	1.60	0.50	1.54	burrow material, increased mud content
4	80	9.63	8.23	1.20	0.50	2.00	underlying shell debris making penetration difficult compaction increased
5	100	9.65	7.70	1.50	0.40	1.77	
6	120	9.57	7.99	1.30	0.40	1.75	
7	145	8.57	8.02	0.80	0.40	1.38	mud content nil, extremely loose and coarse-grained retrieval difficult
8	165	8.82	7.82	1.10	0.40	1.43	extremely loose & coarse grained sample tends to slide out of syringe when extruded
9	185	8.55	7.09	1.40	0.50	1.62	Cohesion between particles improving
10	205	8.68	7.10	1.40	0.40	1.58	
11	225	9.30	7.80	1.40	0.50	1.66	
12	245	9.53	7.88	1.40	0.40	1.65	
13	270	9.03	7.75	1.30	0.47	1.54	extremely loose compaction
14	285	9.44	7.80	1.50	0.50	1.64	extremely loose & coarse
15	300	8.97	7.12	1.50	0.50	1.85	

NOV 10 07:00 1





GRAPHIC CORE LOG

MCC 10 07 500 1

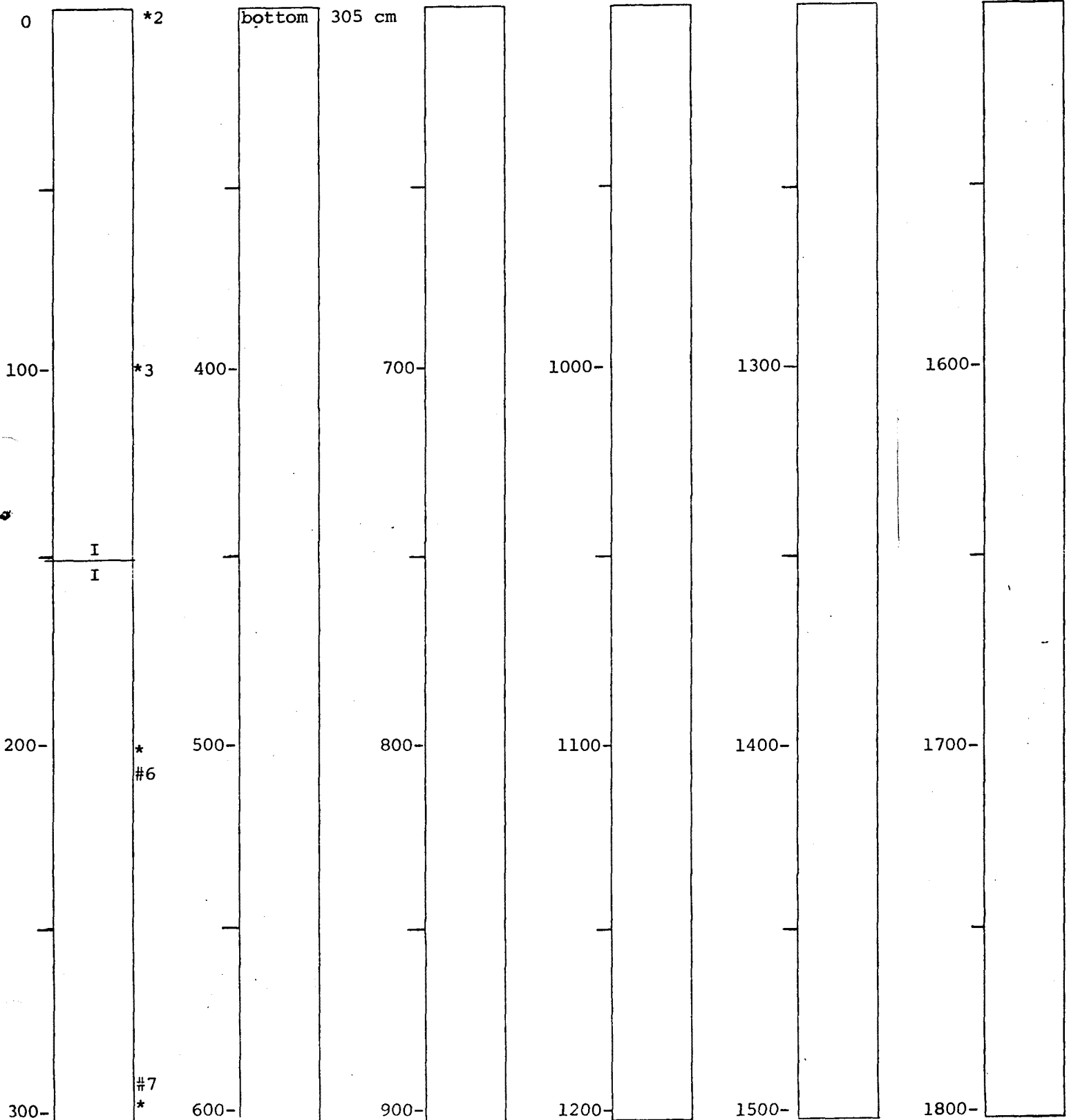
Core Number 58

Cruise IG-19-4

Core Cap Samples  
B = Bottom of Section  
T = Top of Section

CORE SECTIONS

Top



Core fraction (weight) ...

CORE NUMBER 58 CRUISE IG-19-4

INTERVAL OR LOCATION OF SAMPLE	ESTIMATED VOLUME OF SAMPLE	TAKEN BY	SAMPLING PURPOSE	PERSON AND/OR COMPANY RECEIVING SAMPLE(S) FOR INTENDED RESEARCH
Refer to page on "Density Measurements" for precise locations	approx. 1 cc.	T. Haines	wet-bulk density	U. S. Navy to receive density results (UT-MSI contracted to do density measurements)
0-35 cm	200 gms	T. Haines		Frank Van Markhoren

MGC 10 011 194

CORE NUMBER 59 CRUISE IG 19-4  
 LATITUDE 29° 51.5' N LONGITUDE 86° 30.5' W  
 CORRECTED DEPTH 51 fm PDR DEPTH 49 fm  
 DATE TAKEN 7-1-76 DATE OPENED 11-5-76  
 DATE DESCRIBED 11-5-76 DATE PHOTOGRAPHED \_\_\_\_\_  
 DESCRIBED BY T. Haines CORE LENGTH 269 cm.  
 PENETRATION 269+ cm FLOW-IN 0 cm.

SUMMARY OF CORE: Medium to very coarse algal muddy sand to algal sandy mud, varying in color from grayish olive at top (10Y 4/2) to greenish black at the bottom (5G 2/1) wet, moderately soft to firm, moderately high coralline algae and molluscan shell fragment percentages, manganese coated grains increasingly more common with increased depth. No visible structures evident within the units.

INTERVAL	DESCRIPTION
0 - 112 cm.	medium to very coarse algal muddy sand, grayish olive (10Y 4/2), wet and moderately soft, no structures visible, high coralline algae content, molluscan shell fragments small and well distributed through unit, unit is graded, 3 cm. diameter pectin with worm tube encrustings located at 70 cm. also an aggregate of coralline algae located at 85 cm. approximately 1.5 cm. spheroid. Basal contact a gradual change in color, composition and texture.
112-162 cm.	medium to very coarse algal sandy mud, dark greenish gray (5GY 4/1) watery, moderately firm, molluscan shells and shell debris common, coralline algae and algal clusters are common, no structures visible. Basal contact a sharp change in color and composition.
162-269 cm. (core bottom)	medium to very coarse algal muddy sand greenish black (5G 2/1), watery, moderately soft to firm, mottling randomly distributed from 170 to 210 cm. with fill material being slightly more muddy than surrounding material and colored grayish olive (10Y 4/2); well distributed coralline algae and algal clusters large bivalve at 260 cm. molluscan shells and shell fragments common throughout unit. No visible structures manganese coatings on many grains in the unit.

NOG 10015001



ORE NUMBER 59

CRUISE IG-19-4

DENSITY MEASUREMENTS ON CORE EXTRACTIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WGT BULK DENSITY	PROBLEMS/ OBSERVATIONS
1	15 cm.	9.39	7.72	1.40	0.50	1.86	Coarsely-grained
2	35	9.74	7.70	1.50	0.40	1.85	Watery
3	55	9.70	7.88	1.50	0.40	1.65	Watery and coarse
4	75	8.96	7.12	1.60	0.60	1.84	Coarse-grained
5	95	9.54	7.79	1.40	0.50	1.94	Watery, increased firmness
6	115	10.14	8.22	1.50	0.50	1.92	Very coarse penetration difficult through firm material
7	125	9.27	7.75	1.40	0.50	1.69	
8	145	8.34	7.07	1.30	0.50	1.59	Penetration difficult, very coarse material
9	165	9.30	7.89	1.30	0.40	1.57	Manganese coatings abundant packing
10	190	8.95	8.06	1.00	0.50	1.78	
11	210	9.63	7.75	1.50	0.50	1.88	Very firm, coarse
12	230	9.89	7.94	1.50	0.40	1.77	Very firm, coarse
13	255	8.23	7.14	1.10	0.50	1.82	Many coarse shell fragment hamper sampling

MCG 10 020 001





GRAPHIC CORE LOG

NOG 10 025 00 1

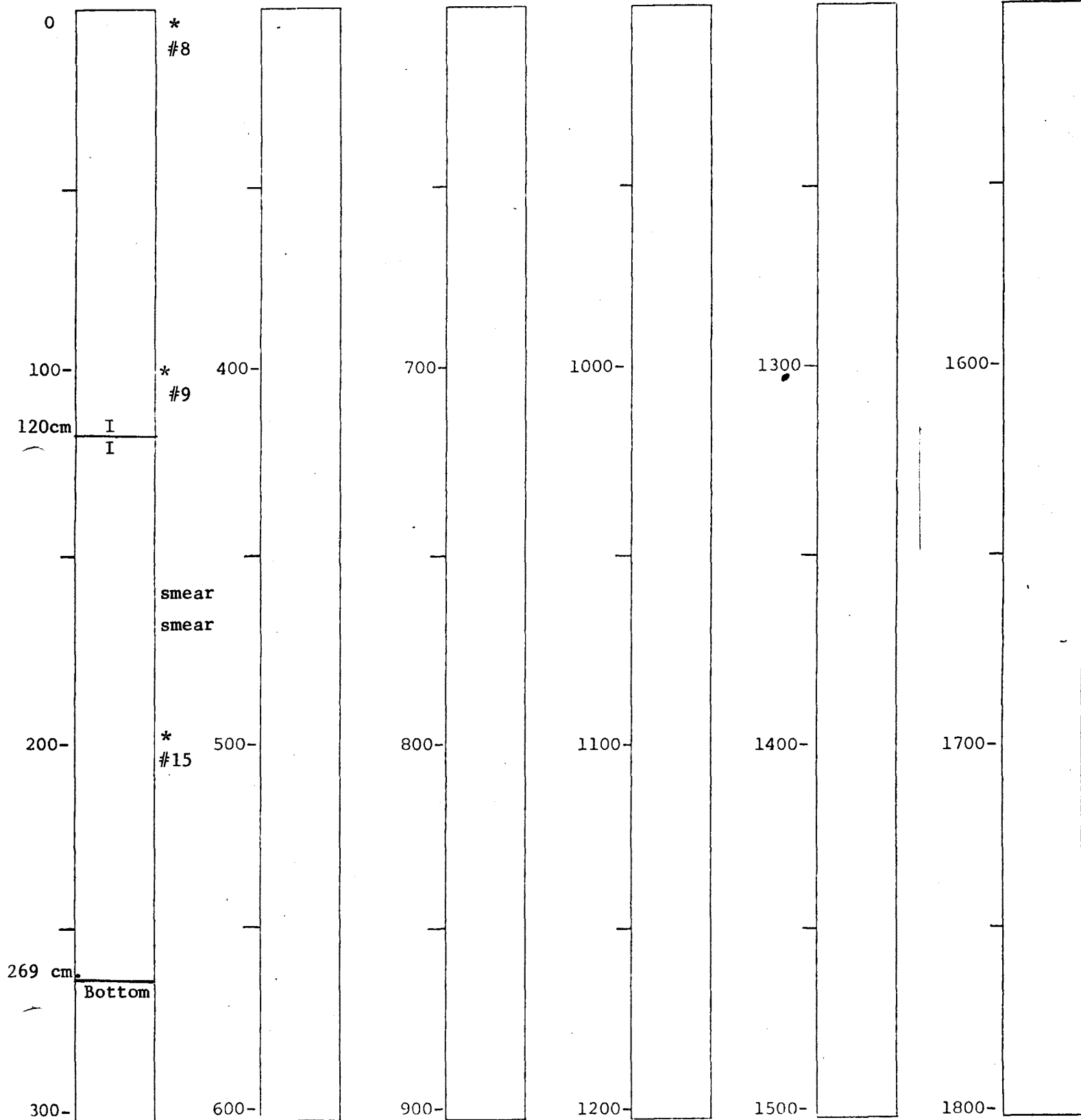
Core Number 59

Cruise IG-19-4

Core Cap Samples  
B = Bottom of Section  
T = Top of Section

CORE SECTIONS

Top



CORE NUMBER

59

CRUISE

IG-19-4

INTERVAL OR LOCATION OF SAMPLE	ESTIMATED VOLUME OF SAMPLE	TAKEN BY	SAMPLING PURPOSE	PERSON AND/OR COMPANY RECEIVING SAMPLE(S) FOR INTENDED RESEARCH
Refer to page on "Density Measurements" for precise locations	approx. 1 cc.	T. Haines	wet-bulk density	U. S. Navy to receive density results (UT-MSI contracted to do density measurements)
0-22 cm	200 gms	T. Haines		Frank Van Markhoren

NOV 10 1958

CORE NUMBER 60 CRUISE IG 19-4  
 LATITUDE 29° 51.2' N LONGITUDE 86° 33.8' W  
 CORRECTED DEPTH 59 fm PDR DEPTH 57 fm  
 DATE TAKEN 7-1-76 DATE OPENED 11-8-76  
 DATE DESCRIBED 11-8-76 DATE PHOTOGRAPHED \_\_\_\_\_  
 DESCRIBED BY T. Haines CORE LENGTH 349 cm.  
 PENETRATION 430 cm. FLOW-IN 0 cm.

SUMMARY OF CORE: Fine to very fine foraminiferal sandy mud to shelly muddy foraminiferal sand, dark greenish gray (5G 4/1) to grayish olive (10Y 4/2), soft and moist to moderately firm; mid-section of core coarser than units above and below, planktonic foraminifera abundant in all units, molluscan shell fragments common manganese and glauconite coatings on many grains increasing with depth, possible crossbedding located in lower unit of core along with few scattered areas of mottling from burrowing.

INTERVAL	DESCRIPTION
0 - 10 cm.	fine to very fine foraminiferal sandy mud, dark greenish gray (5G 4/1) very moist, no visible structures, this zone contains a small percentage of small molluscan shells and shell fragments. Basal contact a distinct change in color.
10 - 191 cm.	fine to very fine foraminiferal sandy mud, grayish olive (10Y 4/2), very moist, soft, homogenous mixture with no visible structures. A low percentage of small molluscan shells and shell fragments well distributed within the unit (very similar to above unit but has probably been less oxidized therefore differing in color, slightly). Large benthonic gastropod at 165 and a bivalve (3 cm. diameter) at 170 cm. Large shell fragments of echinoderm found at 185 cm. Very little deterioration of these shells indicating possible reworking of sediments and reducing environment. Basal contact a sharp change in color, texture and composition.
191 - 265 cm.	medium coarse to medium fine shelly muddy foraminiferal sand, dark greenish gray, (5GY 4/1), moist, firm, high shell debris content (mollusc) possible bedding plane, large molluscan shell fragments in moderate number well distributed through unit, large worm tube and barnacle encrusted pecten at 260 cm., manganese coatings on many grains in this unit. Basal contact a sharp change in color, texture, and composition.
265 - 349 cm. (core bottom)	medium fine to fine foraminiferal sandy mud, grayish olive (10Y 4/2), slightly moist, firm, mottling intense from 265 - 272 cm. (possible crossbedding) this material of medium coarse texture, sandy and dark greenish gray (5GY 4/1) in color localized mottling of same color and texture occur at 290, 322 and 343 cm. and are approximately 2 cm. in diameter (probably burrows), large well preserved pair of benthonic gastropods found at 309 cm., and a bivalve found at 322 cm. no visible structures evident in this unit, scattered small molluscan shells and shell fragments are present in low percentage throughout unit.

CORE NUMBER 60

CRUISE IG-19-4

DENSITY MEASUREMENTS ON CORE EXTRACTIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
1	15 cm.	8.50	7.21	1.50	0.70	1.61	Very soft penetration escaping air from plunger around sample
2	35	9.18	7.78	1.50	0.60	1.55	
3	55	8.36	7.17	1.20	0.40	1.49	
4	75	9.15	7.78	1.40	0.60	1.71	Plunger slippage, possible error with escaping air
5	95	9.36	7.75	1.50	0.50	1.61	Good sample
6	115	8.65	7.11	1.60	0.60	1.54	Air leaking through sample plunger moves sample does not
7	135	9.15	7.85	1.50	0.75	1.73	Stopping when air starts to leak from plunger
8	155	8.80	7.76	1.10	0.50	1.73	
9	175	9.62	8.20	1.30	0.50	1.77	
10	195	8.79	7.88	1.00	0.40	1.52	Coarse material, loose compaction
11	215	9.61	7.89	1.50	0.50	1.72	Sandy, firm, improved cohesion
12	235	9.48	7.77	1.50	0.50	1.71	Coarse underlying shell fragments and coarse material in sample
13	255	9.54	7.71	1.50	0.50	1.83	Penetration slightly difficult due to coarse material
14	275	8.89	7.15	1.60	0.60	1.74	Firm and sandy, possible crossbedding layer
15	295	8.64	7.89	1.50	1.05	1.67	Stopped when slippage first occurred when air escaped from plunger, clayey
16	315	9.24	7.71	1.40	0.50	1.70	No slippage, clayey
17	335	8.47	7.10	1.30	0.50	1.71	Clayey, no slippage

MCC 10 02 00 1





RE: 5%

IN: 5-50%

UND: 50-100%

RE 60

IC 19-4

Sample Depth

FORAMS-PLANKTONIC

FORAMS-BENTHONIC

RADIOLARIA

DIATOMS

PTEROPODS

SPONGE SPICULES

SILICOFLAGELLATES

COCCOLITHS

DISCASTERS

IRONSTONE

OPAQUE MINERALS

QUARTZ

MANGANESE

ZEOLITE

ASH SHARDS

OTHER

MCS 10000001

GRAPHIC CORE LOG

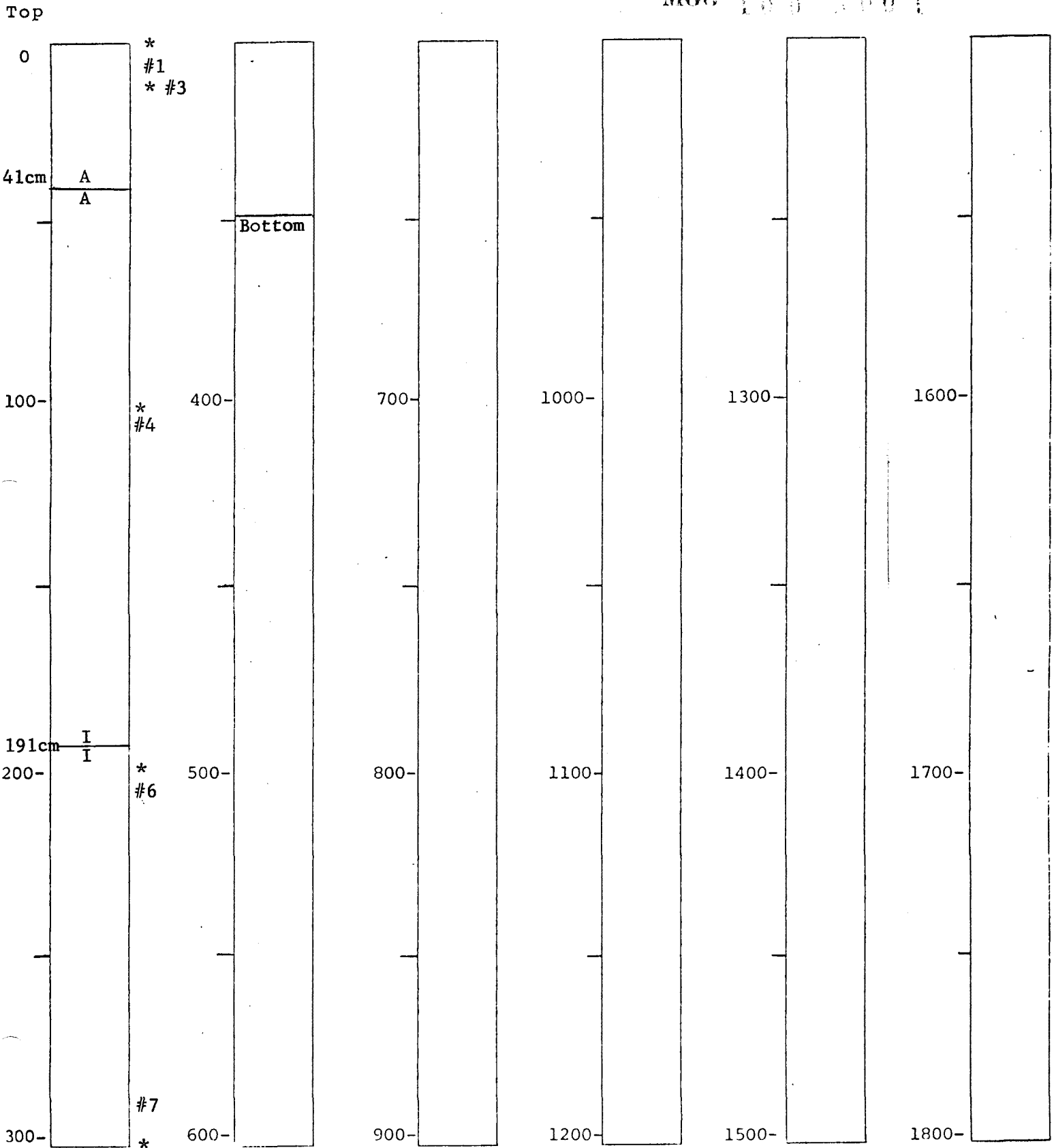
Core Number 60

Cruise IG-19-4

Core Cap Samples  
B = Bottom of Section  
T = Top of Section

CORE SECTIONS

MGC 100 300 1



CORE NUMBER 60

CRUISE IG-19 -4

INTERVAL OR LOCATION OF SAMPLE	ESTIMATED VOLUME OF SAMPLE	TAKEN BY	SAMPLING PURPOSE	PERSON AND/OR COMPANY RECEIVING SAMPLE(S) FOR INTENDED RESEARCH
Refer to page on "Density Measurements" for precise locations	approx. 1 cc.	T. Haines	wet-bulk density	U. S. Navy to receive density results (UT-MSI contracted to do density measurements)
0-29 cm	200 gms	T. Haines		Frank Van Markhoren

MCG 10 5 2 0 0 3

CORE NUMBER 61 CRUISE IG 19-4  
 LATITUDE 29° 49.2' N LONGITUDE 86° 37.1' W  
 CORRECTED DEPTH 67 fm PDR DEPTH 64 fm  
 DATE TAKEN 7-1-76 DATE OPENED 11-10-76  
 DATE DESCRIBED 11-10-76 DATE PHOTOGRAPHED \_\_\_\_\_  
 DESCRIBED BY T. Haines CORE LENGTH 467 cm  
 PENETRATION 570 cm FLOW-IN 0 cm

SUMMARY OF CORE: medium fine to very fine foraminiferal sandy mud, grayish olive green(5GY 3/2), soft & moist becoming a medium fine to very coarse shelly muddy sand at 115 to 255 cm, colored dark greenish gray (5GY 4/1) with gradational upper & lower contacts; this unit overlies a fine to very fine shelly foraminiferal sandy mud unit, grayish olive(10Y 4/2), semi-soft & moist, burrowed; lowermost unit is a medium coarse to medium fine foraminiferal shelly muddy sand, dark greenish gray(5GY 4/1), firm & slightly moist; burrowed; no sedimentary structures evident within these units.

MCG 10 00 00 1

INTERVAL	DESCRIPTION
0-6 cm	medium fine to very fine foraminiferal sandy mud, grayish olive green(5GY 3/2); soft & moist; no visible sedimentary or biogenic structures evident; small amounts of macroscopic molluscan shells/shell debris noted in random locations. Basal contact a distinct change in color & texture.
6-23 cm	medium to very fine foraminiferal sandy mud, grayish olive(10Y 4/2), semi-soft & moist; this zone of core less oxidized than above material which probably accounts for difference in color; open burrows noted at 12 and 15 cm; no visible sedimentary structures evident. Basal contact a distinct change in color & texture.
23-25 cm	medium fine to very fine foraminiferal sandy mud, grayish olive green(5GY 3/2); very soft & watery; a single open burrow is present; no visible sedimentary structures evident. Basal contact a definite change of color & texture.
25-115 cm	medium to very fine foraminiferal sandy mud, grayish olive(10Y 4/2), moderately soft & moist; no visible sedimentary structures evident; very similar to unit at 6 to 23 cm with respect to color, texture, & composition; lower contact vague and gradational. Basal contact a gradual change in color, texture, & composition.
115-255 cm	medium fine to very coarse shelly muddy sand, dark greenish gray (5GY 4/1); firm & slightly damp with occasional burrowing which exhibits a finer grained fill material colored grayish olive (10Y 4/2); numerous large pecten & bivalves & associated shell

INTERVAL	DESCRIPTION
115-255 cm (cont'd)	debris occur throughout this unit between 120 and 145 cm, and in slightly lesser amounts below this zone; moderately high concentration of manganese staining/coating on forams and shell fragments noted in this unit; no visible sedimentary or biogenic structures evident. Basal contact a gradual change in texture, color, & composition.
255-372 cm	fine to very fine shelly foraminiferal sandy mud, grayish olive (10Y 4/2); semi-soft to soft & moist; large amounts of bivalves and molluscan shell fragments noted from 255 to 275 cm; several spherical worm tube aggregates cemented upon carbonate material are noted in this unit ranging in size from 2 to 3 cm in diameter; occasional burrows present with a grayish olive(10Y 4/2) colored fill material which is much more coarse than surrounding matrix; small molluscan shell fragments scattered in random locations in moderate to low amounts; no visible sedimentary structures evident. Basal contact a sharp change in color, texture, and composition.
372-467 cm (core bottom)	medium coarse to medium fine shelly muddy sand, dark greenish gray(5GY 4/1); firm & slightly moist; burrowing present throughout unit in moderately high percentages with fill material exhibiting higher mud content than surrounding matrix and colored grayish olive(10Y 4/2); no visible sedimentary structures evident.

M.C.C. 10000 01

CORE NUMBER 61

CRUISE IG-19-4

DENSITY MEASUREMENTS ON CORE EXTRACTIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC BEG	CC END	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
1	15 cm	8.51	7.79	0.95	0.50	1.60	low penetration volume
2	35	8.98	7.65	1.30	0.50	1.66	
3	55	8.63	7.04	1.50	0.50	1.59	slight plunger slippage
4	75	9.64	8.20	1.35	0.50	1.69	
5	95	9.05	7.72	1.30	0.50	1.66	
6	115	8.43	7.14	1.30	0.50	1.61	
7	143	9.25	7.68	1.40	0.50	1.74	
8	160	8.74	7.68	0.90	0.50	2.65	volume retrieval low penetration difficult, firm compaction
9	180	8.41	7.13	1.30	0.50	1.60	sandy, little moisture
10	200	8.88	7.78	1.10	0.50	1.83	firm compaction
11	220	9.57	7.82	1.55	0.55	1.77	
12	240	9.53	7.82	1.70	0.70	1.71	
13	260	9.02	7.79	1.20	0.50	1.75	
14	280	8.76	7.14	1.80	0.80	1.62	very clayey
15	305	8.65	7.85	1.00	0.50	1.60	clayey some coarse shell fragments
16	325	9.45	7.76	1.60	0.60	1.69	
17	345	9.28	7.70	1.70	0.85	1.85	plunger slippage possible error in volume estimation
18	365	7.80	7.11	0.70	0.30	1.72	coarse underlying debris making penetration difficult
19	385	9.89	8.19	1.50	0.50	1.70	coarse underlying debris
20	405	8.84	7.18	1.50	0.50	1.66	sandy & coarse debris
21	425	8.82	7.07	1.70	0.70	1.75	sandy, very little coarse debris
22	445	10.00	8.20	1.70	0.70	1.80	muddy sand, firm
23	465	8.72	7.02	1.60	0.60	1.70	

MCC 10000001

COARSE-FRACTION ANALYSIS

4011

Sample Depth	FORAMS-PLANKTONIC	FORAMS-BENTHONIC	RADIOLARIA	DIATOMS	PTEROPODS	SPONGE SPICULES	OSTRACODS	MOLLUSC	CORALLINE ALGAE	CORAL	BRYOZOA	QUARTZ	FELDSPAR	IRONSTONE	MANGANESE	OPAQUE MINERALS	ROCK FRAGMENTS	OTHER
0 cm	A	R			R	R	R	R				R			R			echin spine R glauc. C carb frags. R
100 cm	A	R			R	R		R				R			C			glauc. C ech. sp. R carb. frags. R
120 cm	C	R			R	R	R	C			R	R			C			glauc. C ech. spines R carb. frags. R
200 cm	C	R			R	R	R	C			R	R			R			glauc. C ech. spines R carb. frags. R
300 cm	C	C			R	R	R	C			R	R			R			ech. spines and shell frags. R glauc. R carb. frags. R
370 cm	C	R			R	R	R	C			R	R			C			ech. spines R carb. frags R glauc. R
380 cm	C	C			R	R	R	C			R	R			C			ech. spines and frags. R carb. frags. R glauc. R
400 cm	C	C			R	R	R	C			R	R			C			ech. spines and frags. R glauc. R

MCG 100-100-01

AREA: 5%

CON: 5-50%

ROUND: 50-100%

DIRE

. 61

IG 19-4

Sample Depth

FORAMS-PLANKTONIC

FORAMS-BENTHONIC

RADIOLARIA

DIATOMS

PTEROPODS

SPONGE SPICULES

SILICOFLAGELLATES

COCCOLITHS

DISCOASTERS

IRONSTONE

OPAQUE MINERALS

QUARTZ

MANGANESE

ZEOLITE

ASH SHARDS

OTHER

M100 100005001



GRAPHIC CORE LOG

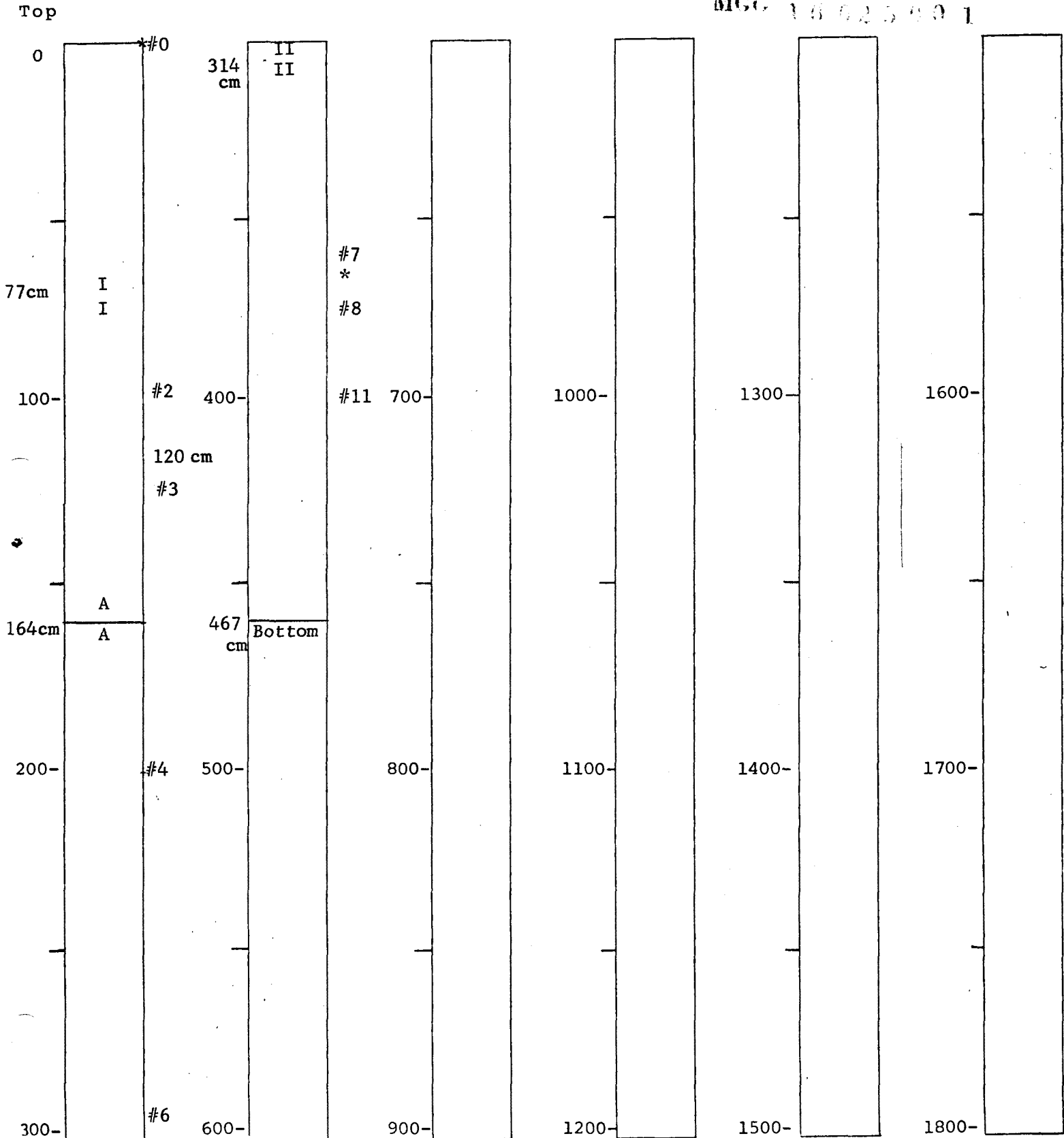
Core Number 61

Cruise IG-19-4

Core Cap Samples  
B = Bottom of Section  
T = Top of Section

CORE SECTIONS

MGG 10025001



CORE NUMBER 61

CRUISE IG-19 -4

INTERVAL OR LOCATION OF SAMPLE	ESTIMATED VOLUME OF SAMPLE	TAKEN BY	SAMPLING PURPOSE	PERSON AND/OR COMPANY RECEIVING SAMPLE(S) FOR INTENDED RESEARCH
Refer to page on "Density Measurements" for precise locations	approx. 1 cc.	T. Haines	wet-bulk density	U. S. Navy to receive density results(UT-MSI contracted to do density measurements)
0-31 cm	200 gms	T. Haines		Frank Van Markhoren

NOV 10 0 00 00 1

CORE NUMBER 62 CRUISE IG 19-4  
 LATITUDE 29° 48.2' N LONGITUDE 86° 40.0' W  
 CORRECTED DEPTH 75 fm PDR DEPTH 72 fm  
 DATE TAKEN 7-1-76 DATE OPENED 11-12-76  
 DATE DESCRIBED 11-12-76 DATE PHOTOGRAPHED \_\_\_\_\_  
 DESCRIBED BY T. Haines CORE LENGTH 908 cm.  
 PENETRATION 908+ cm FLOW-IN 0 cm

SUMMARY OF CORE fine to very fine foram sandy mud, a dark greenish gray (5GY 4/1) soft to firm, separated by coarser laminar bedding units of shelly muddy sand having coarser mollusc shell debris and carbonate fragments; glauconite common in upper units (decreasing with depth) coating many planktonic forams; benthonic forams show increase in percentage toward lower end of core; mottling found to be restricted to certain units in core.

INTERVAL	DESCRIPTION
0 - 10 cm.	fine to very fine foraminiferal sandy mud, dark greenish gray (5GY 4/1), very moist, soft, no visible structures, small percentage of molluscan shell debris present. Basal contact a gradual color change.
10 - 130 cm.	fine to very fine foraminiferal sandy mud, grayish olive (10Y 4/2), very soft and moist, no visible structures, graded to slightly coarser material (molluscan shell fragments) at bottom of unit, this unit apparently less oxidized than above unit accounting for variation in color; random distribution of small molluscan shell fragments throughout unit in increasing amounts toward base of unit, large bivalves located at 125 and 140 cm, some of which are heavily encrusted with worm tubes and others are not. Basal contact a sharp change in color, texture, and composition.
130 - 183 cm.	medium coarse to medium fine shelly muddy foraminiferal sand, grayish olive green (5GY 3/2), moist and moderately firm, moderate volume of mollusc shell debris, overall sandy texture, no visible structures evident, manganese coated grains common. Basal contact very sharp change in color, texture, and composition.
183 - 360 cm.	fine to very fine foraminiferal sandy mud, grayish olive (10Y 4/2), moist, soft to moderately firm, mottling randomly occurs through this unit with fill material being coarser sandy texture colored dark greenish gray (5GY 4/1) probably resulting from burrowing activity; no visible structures, few very small mollusc shells and shell fragments are present distributed evenly within entire unit. Basal contact a gradual change in color texture and composition.
360 - 653 cm.	medium coarse to medium fine shelly muddy foraminiferal sand, grayish olive green (5GY 3/2); semi-firm & moist; moderate amount of molluscan shells/shell debris present; no visible sedimentary or biogenic structures evident; upper contact gradational, lower contact sharp. Basal contact a sharp change in color, texture, and composition.

INTERVAL	DESCRIPTION
653-701 cm	coarse to fine shelly foraminiferal sandy mud, light dusky yellow green(5GY 6/2), soft to firm & moist; no visible sedimentary structures evident; burrowing with very fine fill material colored dusky yellow green(5GY 5/2) noted in low amounts with random location throughout unit; moderate number of macroscopic molluscan shells/shell debris noted with even distribution within this unit. Basal contact a definite change in texture & composition.
701-711 cm	medium to fine shelly muddy foraminiferal sand, light dusky yellow green(5GY 6/2); firm & very moist; manganese-coated grains(forams & shell fragments) common; no visible sedimentary or biogenic structures evident. Basal contact a distinct change in texture & composition.
711-908 cm (core bottom)	coarse to fine shelly foraminiferal sandy mud, light dusky yellow green(5GY 6/2); semi-firm & moist; macroscopic molluscan shells/shell fragments common in this unit; worm tube encrusted carbonate fragments present in common numbers.

MOG 10 00500 1

ORE NUMBER 62

CRUISE IG-19 - 4

DENSITY MEASUREMENTS ON CORE EXTRACTIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
1	15 cm.	9.20	7.88	1.20	0.40	1.65	Clayey
2	35	8.70	7.15	1.50	0.50	1.55	Clayey
3	55	9.36	7.75	1.50	0.50	1.61	Escaping air, possible volume error
4	75	8.88	7.81	1.10	0.50	1.78	Escaping air, possible volume error
5	95	8.47	7.13	1.50	0.65	1.58	
6	120	9.46	7.76	1.50	0.50	1.70	Some coarse debris in sample
7	145	9.13	7.75	1.20	0.40	1.72	
8	165	9.16	7.76	1.20	0.40	1.75	
9	185	9.38	8.14	1.20	0.50	1.77	
10	205	9.25	7.76	1.30	0.40	1.66	
11	225	8.51	7.16	1.30	0.40	1.50	
12	245	9.29	7.78	1.30	0.40	1.67	
13	265	9.39	7.91	1.30	0.40	1.64	
14	285	8.33	7.67	0.65	0.30	1.88	Escaping air from original volume taken, last of sample accurate volume measurement
15	305	8.80	7.15	1.40	0.40	1.65	
16	325	8.70	7.10	1.50	0.50	1.60	
17	345	8.29	7.10	1.30	0.60	1.70	
18	365	9.12	7.80	1.20	0.40	1.65	
19	385	9.33	7.77	1.30	0.40	1.73	
20	405	8.95	7.71	1.30	0.50	1.55	MCC 10 02 500 1
21	425	9.21	7.73	1.40	0.50	1.64	
22	444	9.27	7.74	1.30	0.40	1.70	
23	465	9.50	7.81	1.40	0.40	1.69	

DENSITY MEASUREMENTS ON CORE EXTRACTIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
24	485	8.95	7.75	1.20	0.50	1.71	
25	505	9.51	7.79	1.40	0.40	1.72	
26	525	9.42	8.14	1.30	0.50	1.60	
27	545	9.36	7.75	1.50	0.50	1.61	Watery, moderately coarse
28	565	9.39	8.18	1.20	0.40	1.51	Moderate coarse shell debris, watery
29	585	9.32	7.65	1.50	0.50	1.67	Good sample volume, medium muddy sand
30	605	9.49	7.75	1.40	0.40	1.74	
31	625	9.69	7.96	1.40	0.40	1.73	Widely varied readings beyond this point due to possible compression of sediments
32	650	9.22	7.65	1.40	0.40	1.57	
33	670	8.22	7.79	0.50	0.30	2.15	Large carbonate fragments in plunger taking up vol. sample volume poor. Clayey and watery
34	690	8.75	7.84	1.20	0.70	1.82	
35	710	9.47	7.80	1.40	0.40	1.67	Sandy & firm
36	730	8.33	7.65	0.70	0.30	1.70	Coarse material taking up sample volume, poor penetration
37	750	8.31	7.19	1.00	0.40	1.87	
38	790	9.01	7.76	1.20	0.40	1.56	This sample deeper than next sample depth
39	770	9.44	8.10	1.30	0.60	1.91	
40	810	9.20	7.70	1.30	0.40	1.67	
41	830	8.35	7.77	0.75	0.40	1.66	Poor penetration coarse material in mud matrix
42	850	8.85	7.85	1.10	0.40	1.43	Coarse aggregates of worm tubes and shell debris poor accuracy in insertion
43	870	8.44	7.79	0.70	0.40	2.17	
44	890	9.67	7.91	1.40	0.40	1.76	

MCC 10 025 00 1



RE: 5%

N: 5-50%

UND: 50-100%

RE 62

IG 19-4

Sample Depth

FORAMS-PLANKTONIC

FORAMS-BENTHONIC

RADIOLARIA

DIATOMS

PTEROPODS

SPONGE SPICULES

SILICOFLAGELLATES

COCCOLITHS

DISCOASTERS

IRONSTONE

OPAQUE MINERALS

QUARTZ

MANGANESE

ZEOLITE

ASH SHAPDS

OTHER

NO. 1000-1000-1000



**\*\*\*NOTE:** Large worm tube aggregate caused long gap in core from 645-762 cm. This has been subtracted from the good core so that original estimate of 1025 cm. of core now measured Core Cap Sample to be 908 cm.  
B = Bottom of Section  
T = Top of Section

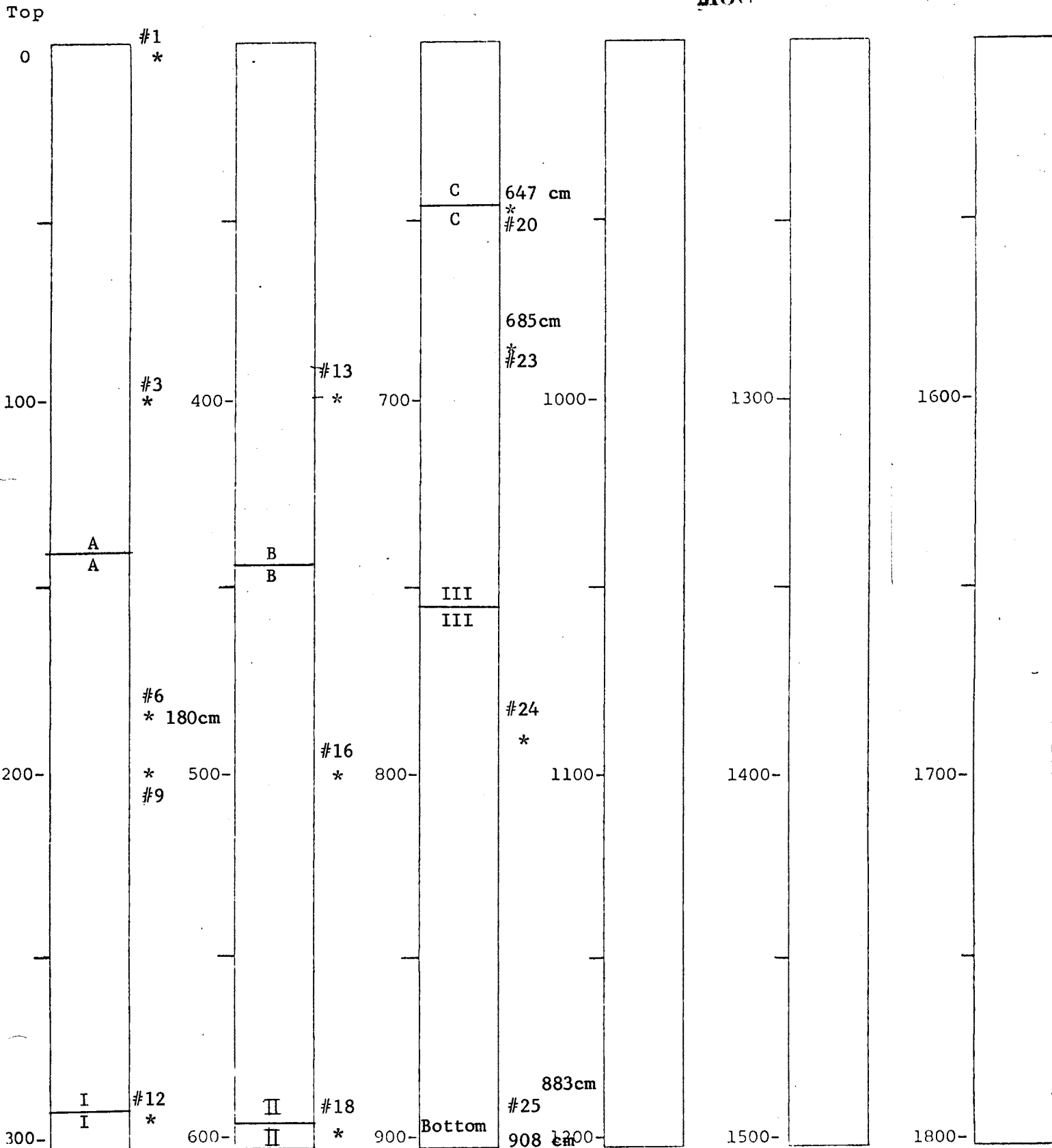
GRAPHIC CORE LOG

Core Number 62

Cruise IG-19 - 4

CORE SECTIONS

MCG.



CORE NUMBER 62

CRUISE IG-19-4

INTERVAL OR LOCATION OF SAMPLE	ESTIMATED VOLUME OF SAMPLE	TAKEN BY	SAMPLING PURPOSE	PERSON AND/OR COMPANY RECEIVING SAMPLE(S) FOR INTENDED RESEARCH
Refer to page on "Density Measurements" for precise locations	approx. 1 cc.	T. Haines	wet-bulk density	U. S. Navy to receive density results (UT-MSI contracted to do density measurements)
0-22 cm	200 gms	T. Haines		Frank Van Markhoren

MCC 10 02 00 01

CORE NUMBER	<u>63</u>	CRUISE	<u>IG 19-4</u>
LATITUDE	<u>29° 47.0' N</u>	LONGITUDE	<u>86° 43.7' W</u>
CORRECTED DEPTH	<u>83 fm</u>	PDR DEPTH	<u>80 fm</u>
DATE TAKEN	<u>7-1-76</u>	DATE OPENED	<u>3-23-77</u>
DATE DESCRIBED	<u>3-23-77</u>	DATE PHOTOGRAPHED	<u>                    </u>
DESCRIBED BY	<u>T. Haines</u>	CORE LENGTH	<u>1026 cm</u>
PENETRATION	<u>1026+ cm</u>	FLOW-IN	<u>0 cm</u>

SUMMARY OF CORE: medium fine to fine shelly foraminiferal sandy mud, dusky yellow green(5GY 5/2), very soft & moist top unit of core(0 to 163 cm); textural changes account for separation of core record into units from 163 to 449 cm and 449 to 680 cm which are both shelly foraminiferal sandy muds; from 680 to 721 cm is a coarse to medium fine quartzose foraminiferal sandy shelly mud, dark greenish gray (5GY 5/1) exhibiting numerous macroscopic molluscan shells/shell fragments throughout; lowermost unit is a medium to fine quartzose shelly foraminiferal mud, dusky yellow green(5GY 5/2), very moist but firm; coarse fraction analysis indicates mostly common amounts of planktonic & benthonic foraminifera and molluscs, with rare to common amounts of glauconite & quartz, and mostly rare percentages of pteropods, ostracods, sponge spicules, echinoid spines & shell debris, mica flakes and the occasional presence of bryzoa, rock fragments, and pyrite noted in some samples; no visible sedimentary structures evident in any unit; burrowing noted in selected units.

INTERVAL	DESCRIPTION
0-163 cm	medium fine to fine shelly foraminiferal sandy mud, dusky yellow green(5GY 5/2), very soft & moist; no visible sedimentary or biogenic structures evident; large mollusc shells present in random locations within unit. Basal contact a gradual change in texture.
163-449 cm	fine shelly foraminiferal sandy mud, dusky yellow green(5GY 5/2), semi-soft & moist; textural mottling(filled burrows) present at random well-distributed locales exhibiting a coarser grained fill material than surrounding matrix; no visible sedimentary structures evident. Basal contact a gradual change in texture.
449-680 cm	medium coarse to fine shelly foraminiferal sandy mud, dusky yellow green(5GY 5/2), semi-firm & low moisture content; upper & lower contacts gradational; no visible sedimentary or biogenic structures evident. Basal contact a gradual change in color, texture, and composition.
680-721 cm	coarse to medium fine quartzose foraminiferal sandy shelly mud, dark greenish gray(5GY 5/1), firm with low moisture content; molluscan shell fragments larger in size & more common than in previous units; no visible sedimentary or biogenic structures evident. Basal contact gradual change in color, texture, & composition.

504

INTERVAL	DESCRIPTION
721-1026 cm (core bottom)	medium to fine quartzose shelly foraminiferal sandy mud, dusky yellow green(5GY 5/2), firm & very moist; some localized molluscan and echinoid shell debris visible in small fragments; no visible sedimentary or biogenic structures evident.

MGS 10 02 5 0 1

CORE NUMBER 63

CRUISE IG-19-4

DENSITY MEASUREMENTS ON CORE EXTRACTIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
1	15 cm	7.70	6.08	1.40	0.40	1.62	Very soft
2	35	7.41	5.82	1.30	0.30	1.59	
3	55	7.54	5.98	1.30	0.30	1.56	
4	75	7.51	5.84	1.40	1.40	1.67	
5	95	7.63	5.97	1.40	1.40	1.66	
6	115	7.26	6.09	1.10	0.40	1.67	Coarse shell material causing low volume retrieval
7	135	7.65	5.95	1.40	0.40	1.70	Medium sandy texture, some shell debris.
8	155	7.79	6.18	1.50	0.50	1.61	Change in bedding to finer texture sediment
9	175	7.67	6.00	1.50	0.50	1.67	
10	195	7.53	5.88	1.50	0.50	1.65	
11	215	7.62	5.90	1.50	0.50	1.72	
12	235	7.34	5.63	1.40	0.40	1.71	
13	255	7.71	6.01	1.40	0.40	1.70	
14	275	7.37	5.70	1.50	0.50	1.67	
15	293	7.93	6.27	1.40	0.40	1.66	
16	315	7.64	5.95	1.40	0.40	1.69	Shell debris hampering sample retrieval
17	335	6.96	5.68	1.20	0.40	1.60	Loose compaction, coarse shell debris
18	355	6.52	5.95	0.75	0.45	1.90	Coarse shells in mud matrix penetration difficult
19	375	7.81	6.37	1.30	0.40	1.60	
20	395	7.06	6.27	0.90	0.40	1.58	

MCG 3 1 6 2 2 0 1

CORE NUMBER 63

CRUISE IG-19-4

DENSITY MEASUREMENTS ON CORE EXTRACTIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
21	415 cm	7.80	6.16	1.40	0.40	1.64	Slight plunger slippage, possible volume loss
22	435	7.52	5.90	1.40	0.40	1.62	
23	455	7.72	6.02	1.30	0.30	1.70	
24	475	7.36	5.70	1.30	0.30	1.66	
25	495	7.72	6.07	1.40	0.40	1.65	
26	515	7.64	5.93	1.50	0.50	1.71	
27	535	7.76	6.05	1.50	0.50	1.71	
28	555	7.82	6.05	1.50	0.50	1.77	
29	575	8.00	6.31	1.50	0.50	1.69	
0	595	7.93	6.26	1.40	0.40	1.67	
31	615	8.19	6.48	1.50	0.50	1.71	
32	635	8.22	6.41	1.60	0.60	1.81	MGC 10.000001
33	655	8.23	6.44	1.60	0.60	1.79	
34	675	8.15	6.45	1.40	0.40	1.70	
35	695	8.15	6.41	1.50	0.50	1.74	Change in bedding to coarser material
36	715	7.30	6.21	1.00	0.40	1.82	
37	735	8.40	6.67	1.40	0.40	1.73	
38	755	8.51	6.74	1.30	0.30	1.77	
39	775	7.75	6.32	1.40	0.40	1.43	Plunger slippage evident, volume error probable
40	795	8.31	6.47	1.50	0.50	1.84	
41	815	6.77	5.97	0.90	0.40	1.60	Very sandy & loosely packed
42	835	7.94	6.28	1.20	0.40	1.66	
43	855	7.98	6.61	1.40	0.40	1.37	Penetration difficult with coarse particles, vol. error probable

CORE NUMBER 63

CRUISE IG-19-4

DENSITY MEASUREMENTS ON CORE EXTRACTIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
44	875 cm	7.60	6.62	1.00	0.40	1.63	Coarse shell debris, harder penetration
45	895	8.14	6.40	1.40	0.40	1.74	
46	915	7.08	6.47	0.70	0.40	2.03	Vol. estimation inaccurate due to shell debris in sample.
47	935	7.92	6.13	1.40	0.40	1.79	
48	955	7.85	6.08	1.40	0.40	1.77	
49	975	7.92	6.51	1.20	0.40	1.76	
50	995	8.39	6.53	1.40	0.40	1.86	
51	1015	7.21	5.97	1.00	0.30	1.77	

MCG 10 01 100 1

Sample Depth	FORAMS-PLANKTONIC	FORAMS-BENTHONIC	RADIOLARIA	DIATOMS	PTEROPODS	SPONGE SPICULES	OSTRACODS	MOLLUSC	CORALLINE ALGAE	CORAL	BRYOZOA	QUARTZ	FELDSPAR	IRONSTONE	MANGANESE	OPAQUE MINERALS	ROCK FRAGMENTS	OTHER
0 cm	C	R			R	R	R	C				R			R			echinoid spines & shell debris R. glauconite C., mica flakes R.
100 cm	C	C			R	R	R	C			R	R						echinoid spines & shell debris R. glauconite C., mica flakes R.
200 cm	C	C			R	R	R	C				R			R			echinoid spines & shell debris R. glauconite C., mica flakes R.
300 cm	C	C			R	R	R	C			R	R			C		R	echinoid spines & shell debris R. glauconite C., mica flakes R.
400 cm	C	C			R	R	R	C			R	R			R			echinoid spines & shell debris R. glauconite R., mica flakes R.
500 cm	C	C			R	R	R	C				R			R			echinoid spines & shell debris R. glauconite R., mica flakes R.
600 cm	C	C			R	R	R	C				R			R			echinoid spines & shell debris R. glauconite R., mica flakes R.
700 cm	C	C			R	R	R	C				C			R			echinoid spines & shell debris R. glauconite R., mica flakes R.
800 cm	C	C			R	R	R	C				C			R			echinoid spines & shell debris R. glauconite R., mica flakes R.
900 cm	C	C			R	R	R	C			R	C			R			echinoid spines & shell debris R. glauconite R., mica flakes R.
1000 cm	C	C			R	R	R	C			R	C			R			echinoid spines & shell debris R. glauconite R., mica flakes R., pyrite R.

MCG 1000 01



ARE: 5%

COMMON: 5-50%

D: 50-100%

ORE 63

IG-19-4

Sample Depth

FORAMS-PLANKTONIC

FORAMS-BENTHONIC

RADIOLARIA

DIATOMS

PTEROPODS

SPONGE SPICULES

SILICOFLAGELLATES

COCCOLITHS

DISCOASTERS

IRONSTONE

OPAQUE MINERALS

QUARTZ

MANGANESE

ZEOLITE

ASH SHARDS

OTHER

NGO 1000001

GRAPHIC CORE LOG

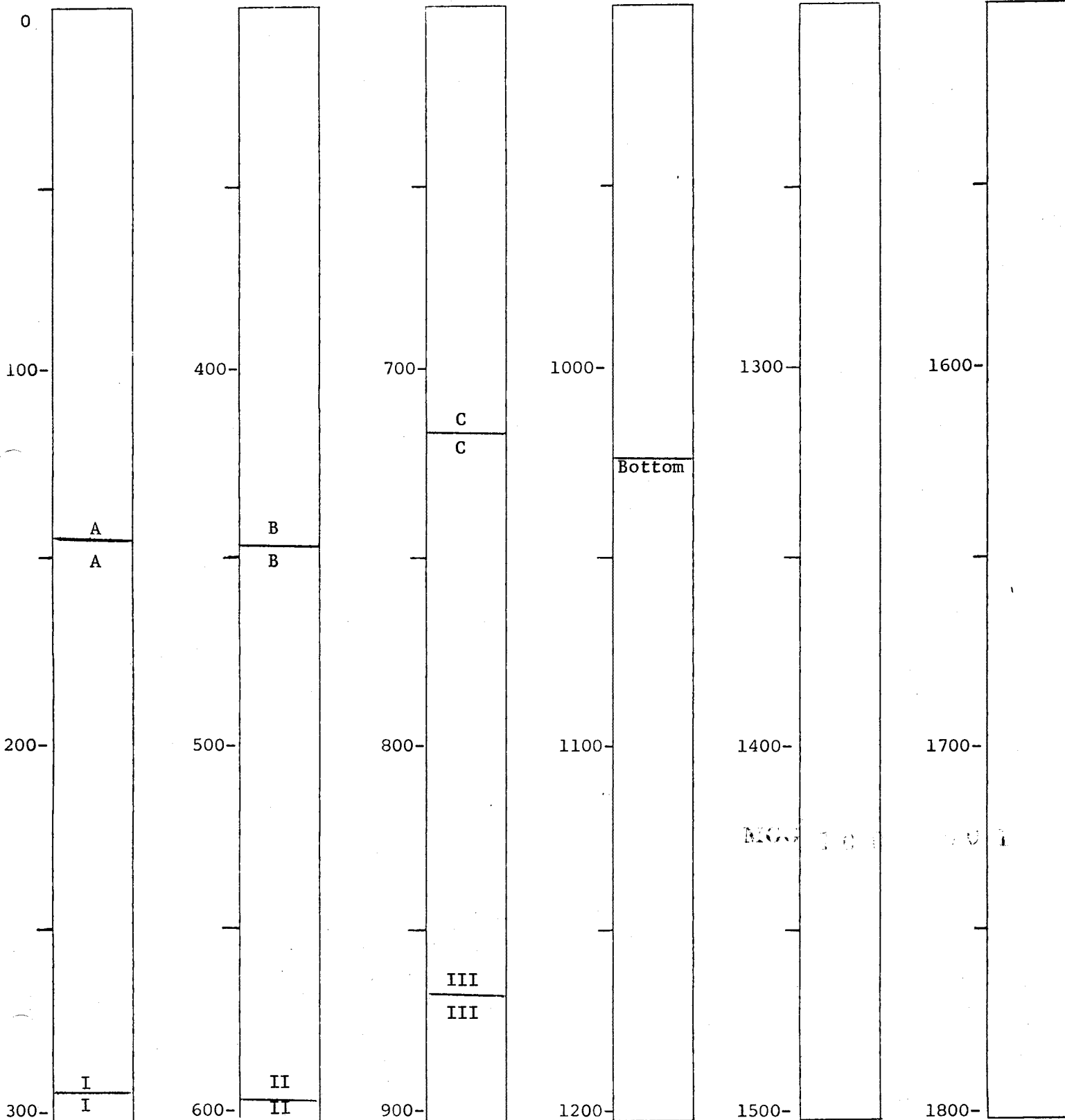
Core Number 63

Cruise IG-19-4

Core Cap Samples  
B = Bottom of Section  
T = Top of Section

CORE SECTIONS

Top



\* = Coarse fraction/shear slide location.

INTERVAL OR LOCATION OF SAMPLE	ESTIMATED VOLUME OF SAMPLE	TAKEN BY	SAMPLING PURPOSE	PERSON AND/OR COMPANY RECEIVING SAMPLE(S) FOR INTENDED RESEARCH
Refer to page on "Density Measurements" for precise locations	approx. 1 cc.	T. Haines	wet-bulk density	U. S. Navy to receive density results(UT-MSI contracted to do density measurements)
0-30 cm	200 gms	T. Haines		Frank Van Markhoren

MCG 10 02 8 00 1

CORE NUMBER 64 CRUISE IG 19-4  
 LATITUDE 29° 46.5' N LONGITUDE 86° 47.3' W  
 CORRECTED DEPTH 90 fm PDR DEPTH 87 fm  
 DATE TAKEN 7-1-76 DATE OPENED 3-21-77  
 DATE DESCRIBED 3-21-77 DATE PHOTOGRAPHED \_\_\_\_\_  
 DESCRIBED BY T. Haines CORE LENGTH 984 cm  
 PENETRATION 984+ cm FLOW-IN 0 cm

SUMMARY OF CORE: medium fine to fine shelly foraminiferal sandy mud, dark greenish gray(5GY 4/1), very soft & moist with a distinct color change to grayish olive(10Y 4/2) in unit from 25 to 335 cm; next deeper unit is a medium to fine foraminiferal sandy shelly mud, dark greenish gray(5GY 4/1), semi-soft & moderately moist exhibits increase in size & number of molluscan shell fragments with moderate amounts of mottling present to 375 cm; 408 to 580 cm is a medium to fine shelly foraminiferal sandy mud, grayish olive(10Y 4/2), semi-soft & moderately moist, followed by a coarse to fine foraminiferal sandy shelly mud, grayish olive(10Y 4/2) semi-firm & moderately low moisture content from 580 to 630 cm; lowermost unit(630 to 984 cm) is a medium to fine shelly foraminiferal sandy mud, also grayish olive(10Y 4/2); coarse fraction analysis indicates common amounts of planktonic & benthonic foraminifera and molluscan shells/shell debris, glauconite common at top & at 100 cm samples and is rare to bottom; rare amounts of pteropods, ostracods, sponge spicules, mangnaese, quartz, mica flakes, echinoid spines & shell debris, and rock fragments. DESCRIPTION are also noted.

INTERVAL	DESCRIPTION
0-25 cm	medium fine to fine shelly foraminiferal sandy mud, dark greenish gray(5GY 4/1), very soft & watery; gradational color change at lower contact; no visible sedimentary or biogenic structures evident. Basal contact a gradual change in color.
25-335 cm	medium fine to fine shelly foraminiferal sandy mud, grayish olive (10Y 4/2), soft & very moist; no visible sedimentary or biogenic structures evident; this unit varies from 0 to 25 cm unit only in color and a slight reduction in water content. Basal contact a gradual change in color, texture, & composition.
335-408 cm	medium to fine foraminiferal sandy shelly mud, dark greenish gray (5GY 4/1), semi-soft & moderate moisture content; moderate amount of mottling occurs to depth of 375 cm; molluscan shell debris present in greater amounts and actual grain size in this unit than previously noted in above units; no visible sedimentary structures evident. Basal contact a gradual change in color & composition.
408-580 cm	medium to fine shelly foraminiferal sandy mud, grayish olive (10Y 4/2), semi-soft & moderately moist; slight increase in amount of macroscopically visible planktonic foraminifera noted; molluscan shell fragments common; no visible sedimentary or biogenic structures evident. Basal contact a gradual change in composition & texture.

INTERVAL	DESCRIPTION
580-630 cm	coarse to fine foraminiferal sandy shelly mud, grayish olive (10Y 4/2), semi-firm & moderately low in moisture content; unit acts as a shelly interbedding between two sandy foram-rich muddy units; molluscan shell fragments are present in random well distributed areas; no visible sedimentary or biogenic structures evident within this unit. Basal contact a gradual change in texture and composition.
630-984 cm (core bottom)	medium to fine shelly foraminiferal sandy mud, grayish olive (10Y 4/2), very firm & low moisture content; sandy texture through entire unit; occasional mottling noted in random locations; common amounts of molluscan shell fragments present; no visible sedimentary structures evident in this unit; overall grain size appears to be less coarse than 580 to 630 cm unit.

CORE NUMBER 64

CRUISE IG-19-4

DENSITY MEASUREMENTS ON CORE EXTRACTATIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
1	15 cm	7.26	5.70	1.40	0.40	1.56	
2	35	7.60	6.03	1.40	0.40	1.57	
3	55	7.60	6.03	1.40	0.40	1.57	
4	75	7.63	5.90	1.40	0.40	1.73	
5	95	7.60	5.93	1.40	0.40	1.67	
6	115	7.83	6.14	1.40	0.40	1.69	
7	135	7.57	5.82	1.30	0.30	1.75	
8	155	7.67	5.88	1.40	0.40	1.79	
9	175	7.78	6.00	1.30	0.30	1.78	Large bivalves near sampling area
10	195	7.36	5.62	1.30	0.30	1.74	"
11	215	7.79	6.15	1.50	0.50	1.64	
12	235	7.31	5.63	1.60	0.60	1.68	
13	253	7.54	5.86	1.40	0.40	1.68	
14	275	7.77	6.07	1.50	0.50	1.70	
15	295	7.49	5.82	1.40	0.40	1.67	
16	315	7.83	6.16	1.40	0.40	1.67	
17	335	7.34	5.67	1.30	0.30	1.67	Bedding contact near sampling area
18	355	7.47	5.72	1.40	0.40	1.75	
19	375	7.38	5.65	1.30	0.30	1.73	Mottled sampled area
20	395	6.87	6.04	1.00	0.50	1.66	Low volume in liner at this point
21	415	7.34	5.70	1.40	0.40	1.64	Small areas of molluscan shell debris common
22	435	7.72	6.00	1.50	0.50	1.72	

MCG 19 02 0 00 1

CORE NUMBER 64

CRUISE IG-19-4

DENSITY MEASUREMENTS ON CORE EXTRACTIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
23	455 cm	7.42	5.70	1.50	0.50	1.72	
24	475	7.91	6.17	1.40	0.40	1.74	Less forams, more clayey sample
25	495	7.62	5.91	1.40	0.40	1.71	Increased forams
26	515	7.80	6.13	1.40	0.40	1.67	
27	535	7.62	5.87	1.40	0.40	1.75	
28	555	7.87	6.11	1.40	0.40	1.76	
29	575	7.44	5.70	1.40	0.40	1.74	
30	595	6.60	5.72	0.80	0.30	1.76	Shelley interbed is coarse with shell debris Poor extraction
31	615	7.06	6.14	0.80	0.30	1.84	" " Poor extraction
32	635	7.92	6.19	1.40	0.40	1.73	Sandy texture
33	655	7.68	5.90	1.40	0.40	1.78	
34	675	7.54	5.73	1.40	0.40	1.81	
35	695	7.57	5.80	1.40	0.40	1.77	
36	715	7.38	5.64	1.40	0.40	1.74	
37	735	7.45	5.74	1.40	0.40	1.71	
38	755	7.92	6.14	1.50	0.50	1.78	
39	775	8.03	6.29	1.40	0.40	1.74	
40	795	7.51	5.70	1.40	0.40	1.81	
41	819	7.70	5.95	1.50	0.50	1.75	Large oyster shell at 815 cm
42	835	7.74	5.99	1.50	0.50	1.75	
43	855	8.09	6.39	1.60	0.60	1.70	

CORE NUMBER 64

CRUISE IG-19-4

DENSITY MEASUREMENTS ON CORE EXTRACTATIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
44	875 cm	7.43	5.65	1.50	0.50	1.78	
45	895	8.08	6.32	1.40	0.40	1.76	
46	915	7.90	6.16	1.40	0.40	1.74	
47	935	7.69	5.94	1.40	0.40	1.75	
48	955	7.66	5.87	1.40	0.40	1.79	
49	975	7.90	6.07	1.0	0.0	1.83	

G 10 025 00 1



CORE: 5% COMMON: 5-50% D: 50-100% CORE 64 IG-19-4 Sample Depth	FORAMS-PLANKTONIC	FORAMS-BENTHONIC	RADIOLARIA	DIATOMS	PTEROPODS	SPONGE SPICULES	OSTRACODS	MOLLUSC	CORALLINE ALGAE	CORAL	BRYOZOA	QUARTZ	FELDSPAR	IRONSTONE	MANGANESE	OPAQUE MINERALS	ROCK FRAGMENTS	OTHER
0 cm	C	C			R	R	R	C				R			R			echinoid spines & shell debris R. glauconite C., mica flakes R.
100 cm	C	C			R	R	R	C				R			R			echinoid spines & shell debris R. glauconite C., mica flakes R.
200 cm	C	C			R	R	R	C				R			R			echinoid spines & shell debris R. glauconite R., mica flakes R.
300 cm	C	C			R	R	R	C				R			R			echinoid spines & shell debris R. glauconite R., mica flakes R.
400 cm	C	C			R	R	R	C				R			R		R	echinoid spines & shell debris R. glauconite R., mica flakes R.
500 cm	A	C			R	R	R	C				R			R		R	echinoid spines & shell debris R. glauconite R., mica flakes R.
600 cm	C	C			R	R	R	C			R	R			R		R	echinoid spines & shell debris R. glauconite R., mica flakes R.
700 cm	C	C			R	R	R	C				R			R			echinoid spines & shell debris R. glauconite R., mica flakes R.
800 cm	C	C			R	R	R	C			R	R			R			echinoid spines & shell debris R. glauconite R., mica flakes R.
900 cm	C	C			R	R	R	C				R			R			echinoid spines & shell debris R. glauconite R., mica flakes R.

2169 10 0 6 0 1

AREA: 5%

COMMON: 5-50%

DEPTH: 50-100%

CORE 64

NO. IG-19-4

Sample Depth

FORAMS-PLANKTONIC

FORAMS-BENTHONIC

RADIOLARIA

DIATOMS

PTEROPODS

SPONGE SPICULES

SILICOFLAGELLATES

COCCOLITHS

DISCOASTERS

IRONSTONE

OPAQUE MINERALS

QUARTZ

MANGANESE

ZEOLITE

ASH SHARDS

OTHER

100 001

GRAPHIC CORE LOG

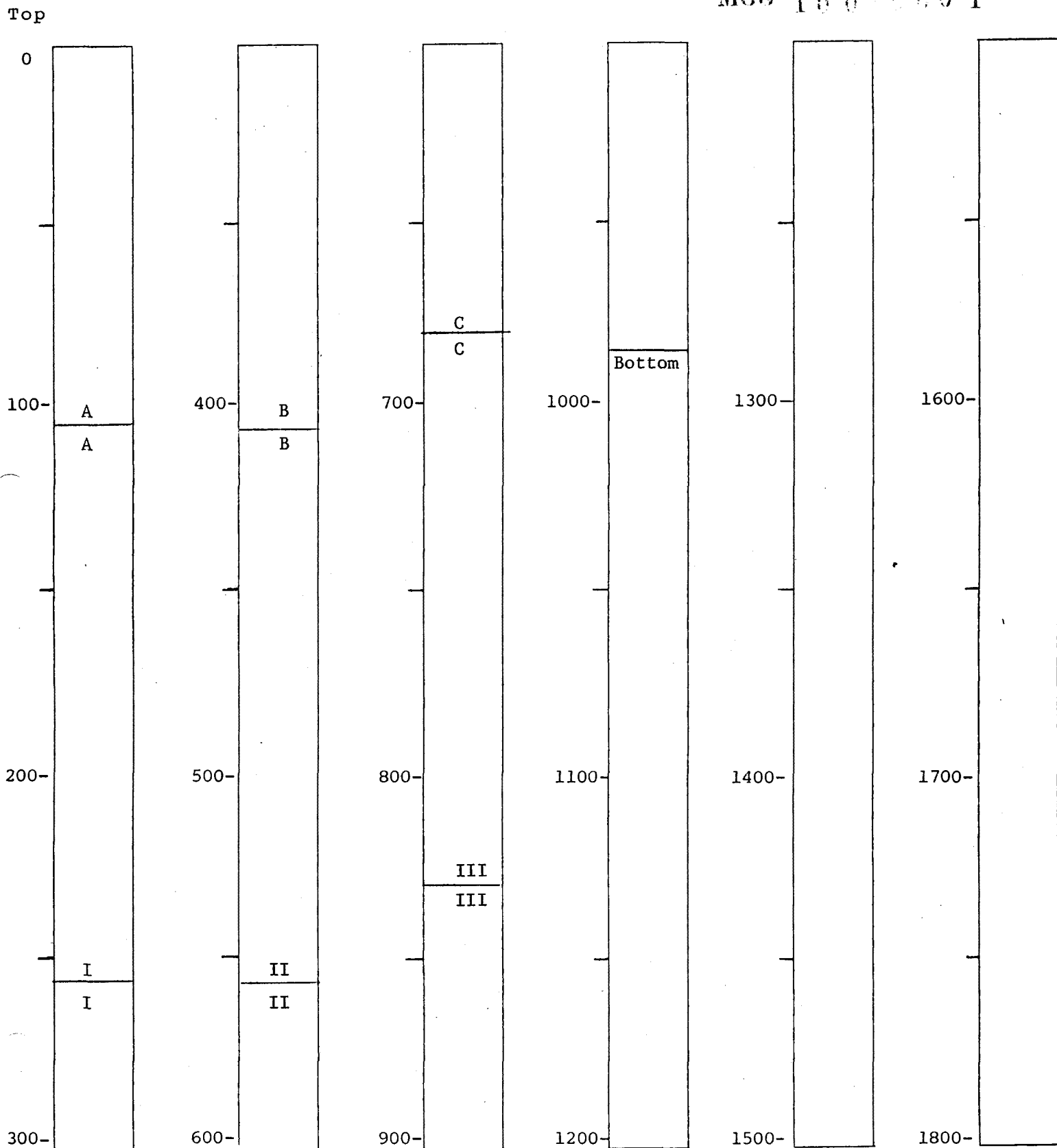
Core Number 64

Cruise IG-19-4

Core Cap Samples  
B = Bottom of Section  
T = Top of Section

CORE SECTIONS

MCG 100-0001



\* = Coarse fraction/smear slide location.

CORE NUMBER

64

CRUISE

IG-19-4

INTERVAL OR LOCATION OF SAMPLE	ESTIMATED VOLUME OF SAMPLE	TAKEN BY	SAMPLING PURPOSE	PERSON AND/OR COMPANY RECEIVING SAMPLE(S) FOR INTENDED RESEARCH
Refer to page on "Density Measurements" for precise locations	approx. 1 cc.	T. Haines	wet-bulk density	U. S. Navy to receive density results (UT-MSI contracted to do density measurements)
0-30 cm	200 gms	T. Haines		Frank Van Markhoren

MCG 10 020001

CORE NUMBER 65 CRUISE IG-19-4  
 LATITUDE 29° 45.8' N LONGITUDE 86° 50.4' W  
 CORRECTED DEPTH 98 fm PDR DEPTH 94 fm  
 DATE TAKEN 7-1-76 DATE OPENED 10-11-76  
 DATE DESCRIBED 10-11-76 DATE PHOTOGRAPHED \_\_\_\_\_  
 DESCRIBED BY T. Haines CORE LENGTH 1002 cm  
 PENETRATION 1070 cm FLOW-IN 0 cm

SUMMARY OF CORE: fine to very fine foraminiferal sand, dark greenish gray(5 GY 5/1) to dusky yellow green(5 GY 5/2), soft, moist, moderate mottling with scattered shell debris (molluscan) as well as large shells forming probable shell bedding.

INTERVAL	DESCRIPTION
0-175 cm	fine to very fine sandy mud, dark greenish gray(5 GY 4/1) soft, moist, no distinct structures divisible, homogeneous mud with random appearance of bivalve shells 1 to 2 cm diameter with worm casts encrusting the shells, singular large worm cast found at 70 cm. Basal contact a sharp change in color and composition.
175-220 cm	fine sandy mud to sandy clay, dark greenish gray(5 GY 4/1), sandy mud filling burrows inter-bedded(finely laminated) with fine sandy clay also greenish gray, mottling intense in this unit, small shell debris randomly distributed, no sedimentary structures present other than the sand-clay sequence mentioned. Basal contact a sharp change in color and composition.
220-274 cm	very similar to the unit at 0 to 175 cm, with respect to color and composition, a slight increase in clay content and softer consistency is evident, no visible structures evident. Lower contact a gradual change in color.
274-350 cm	fine to very fine sandy mud, dusky yellow green(5 GY 5/2), soft, moist, moderate mottling from burrowing with coarser material filling burrows having increase in firmness, bivalves and other mollusc shells and shell fragments are found at random locations in the unit. Basal contact a gradual change in color.
350-424 cm	fine sandy mud, dark greenish gray(5 GY 4/1), with slight amount of burrowing, soft to firm with depth, large oyster shell at 393 cm., encrusted severely with worm tubes. Basal contact a gradual change in color.
424-1002 cm (core bottom)	fine sandy mud, dusky yellow green(5 GY 5/2), firm, low low moisture content, random scattered large bivalve shell thin shell bed at 520 cm and at 565 cm, mostly consisting of large bivalves and other molluscs, no visible structures evident, moderate burrowing present throughout unit with fill material slightly less muddy of a greenish gray color (5 GY 6/1), large molluscs from 650 to 690 cm in abundance within a sandy mud matrix, most of the shells are oyster and exhibit severe worm tube encrustation, other mollusc shells at 855, 870, 890, 955, and 990 cm.

CORE NUMBER 65

CRUISE IG-19-4

DENSITY MEASUREMENTS ON CORE EXTRACTIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
1	15 cm	7.24	5.97	1.40	0.60	1.59	
2	35	7.26	6.02	1.48	0.50	1.27	escaping air behind sample causing difficulty
3	55	7.00	6.50	0.70	0.38	1.56	low volume obtained
4	75	6.52	5.97	0.66	0.30	1.53	low volume obtained
5	95	7.18	6.41	0.93	0.45	1.60	low volume obtained
6	115	7.86	6.50	1.32	0.50	1.65	
7	130	6.69	6.05	0.95	0.50	1.42	
8	150	6.74	5.96	1.02	0.50	1.50	
9	170	7.74	6.50	1.31	0.50	1.53	
10	190	7.85	6.39	1.58	0.60	1.49	
11	210	7.96	6.52	1.53	0.58	1.51	
12	230	7.54	6.36	1.63	0.92	1.66	
13	250	7.47	5.99	1.40	0.50	1.64	
14	265	7.92	6.51	1.36	0.50	1.64	
15	285	7.32	5.92	1.39	0.50	1.57	
16	305	7.50	5.96	1.45	0.50	1.62	
17	325	8.07	6.61	1.38	0.50	1.66	
18	345	7.25	6.01	1.28	0.50	1.59	
19	365	7.22	6.51	1.40	0.95	1.58	escaping air behind sample causing difficulty
20	385	7.17	6.41	0.90	0.40	1.52	shell obstructing penetration
21	405	7.30	6.49	0.92	0.40	1.55	
22	425	8.61	6.45	1.80	0.50	1.66	clayey
23	445	7.84	5.97	1.63	0.50	1.65	clayey
24	465	8.14	6.48	1.51	0.51	1.66	clayey
25	485	7.97	5.94	1.75	0.50	1.62	clayey
26	505	7.98	6.05	1.75	0.50	1.54	plunger slippage with escaping air
27	525	7.59	6.02	1.70	0.70	1.57	
28	545	8.26	6.56	1.52	0.50	1.66	
29	560	6.74	5.91	0.88	0.40	1.72	
30	580	8.00	6.36	1.40	0.40	1.64	
31	600	7.21	6.54	0.70	0.30	2.23	low moisture, penetration difficult
32	620	6.99	5.96	1.05	0.40	1.58	
33	645	7.22	6.49	1.00	0.40	1.21	shell debris
34	660	7.25	5.98	1.27	0.50	1.65	
35	710	7.41	6.18	1.03	0.30	1.68	
36	730	6.91	6.02	0.81	0.31	1.78	shell debris
37	750	7.02	5.85	1.00	0.30	1.67	
38	770	8.07	6.35	1.50	0.50	1.72	
39	790	7.66	5.89	1.51	0.45	1.67	
40	815	7.70	5.95	1.65	0.65	1.75	

MGC 10000001

CORE NUMBER 65

CRUISE IG-19-4

DENSITY MEASUREMENTS ON CORE EXTRACTIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC BEG	CC END	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
41	835	7.83	6.39	1.25	0.40	1.69	
42	855	7.00	6.00	0.91	0.30	1.64	
43	875	7.57	5.86	1.29	0.30	1.72	
44	895	6.63	5.91	0.65	0.20	1.60	
45	915	8.07	6.36	1.34	0.30	1.64	
46	937	6.91	6.02	1.50	1.00	1.78	escaping air behind sample causing difficulty
47	955	7.53	6.43	0.95	0.30	1.69	
48	975	7.38	6.34	0.92	0.30	1.67	
49	995	7.49	5.95	1.29	0.40	1.73	

MGC 10 000001

## COARSE-FRACTION ANALYSIS

RARE: 5%  
COMMON: 5-50%  
ABUND: 50-100%

CORE  
NO.

65  
IG 19-4

SAMPLE NO.	COARSE-FRACTION ANALYSIS																	
	FORAMS - PLANKTONIC	FORAMS - BENTHONIC	RADIOLARIA	DIATOMS	PTERPODS	SPONGE SPICULES	OSTRACODES	MOLLUSC	CORALLINE ALGAE	CORAL	BRYOZOA	QUARTZ	FELDSPAR	IRONSTONE	MANGANESE	OPAQUE MINERALS	ROCK FRAGMENTS	OTHER
0 cm	A	R			R	R		R			R				R			glauc. L echin. R
100 cm	A	R			R			C			R				R			glauc. L ech.sp. R mica R
200 cm	C				R			C			R				R			glauc. R ech.sp. R mica
300 cm	C				R	R		C						R				same as at 200 cm.
360 cm	A	R			R	R		C						R				same
400 cm	A	R				R		C						R				ech.sp. R glauc. R mica
500 cm	A	R			R	R		C						R				ech.sp. R glauc. R mica
600 cm	A					R		C						R				same as at 500 cm.
700 cm	C					R		C						R				same
800 cm	C				R			C						R				same
900 cm	A	R			R	R		C						R				same
1000 cm	A	R			R	R		C						C				same

MGG 10 01 00 1



SMEAR SLIDE ANALYSIS

RARE: 5%

COMMON: 5-50%

BUN: 50-100%

CORE NO. 65

IC 19-4

SAMPLE NO.

FORAMS-PLANKTONIC

FORAMS-BENTHONIC

RADIOLARIA

DIATOMS

PTEROPCDS

SPONGE SPICULES

SILICOFLAGELLATES

COCCOLITHS

DISCASTERS

IRONSTONE

OPAQUE MINERALS

QUARTZ

MANGANESE

ZECLITE

ASH SHARDS

OTHER

NO. 1000001

GRAPHIC CORE LOG

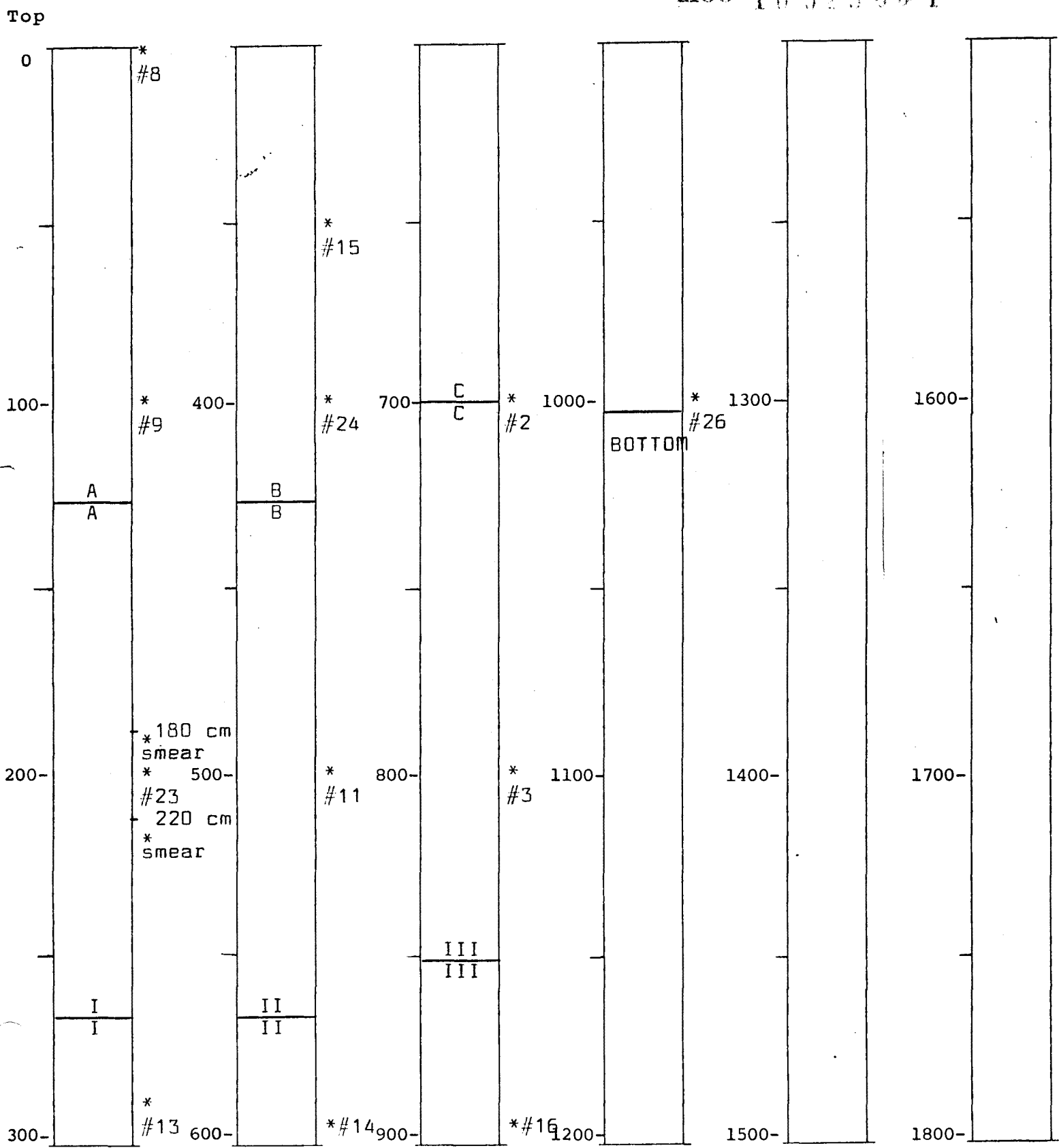
Core Number 65

Cruise IG-19-4

Core Cap Samples  
B = Bottom of Section  
T = Top of Section

CORE SECTIONS

MGG 10025001



\* - Coarse fraction (over 150 microns)

CORE NUMBER 65

CRUISE IG-19 -4

INTERVAL OR LOCATION OF SAMPLE	ESTIMATED VOLUME OF SAMPLE	TAKEN BY	SAMPLING PURPOSE	PERSON AND/OR COMPANY RECEIVING SAMPLE(S) FOR INTENDED RESEARCH
Refer to page on "Density Measurements" for precise locations	approx. 1 cc.	T. Haines	wet-bulk density	U. S. Navy to receive density results(UT-MSI contracted to do density measurements)
every 50 cm.	approx. 10-15 cc.	S. Addy	geochemical analyses	Dr. Sunit Addy, UT-MSI
0-40 cm	200 gms	T. Haines		Frank Van Markhoren

BIGG 10 02 8 00 1

CORE NUMBER	66	CRUISE	IG 19-4
LATITUDE	29° 45.8' N	LONGITUDE	86° 55.0' W
CORRECTED DEPTH	105 fm	PDR DEPTH	101 fm
DATE TAKEN	7-1-76	DATE OPENED	3-18-77
DATE DESCRIBED	3-18-77	DATE PHOTOGRAPHED	
DESCRIBED BY	T. Haines	CORE LENGTH	1033 cm
PENETRATION	1070 cm	FLOW-IN	0 cm

SUMMARY OF CORE: fine shelly foraminiferal sandy mud, dark greenish gray(5GY 4/1), soft & moderately moist; change in unit at 20 to 466 cm to a medium to fine shelly foraminiferal sandy mud, grayish olive(10Y 4/2), having moderate amount of molluscan shell/shell debris content throughout; 466 to 710 cm is a fine to very fine foraminiferal sandy muddy clay, grayish olive(10Y 4/2), having a general zone of increased concentration of benthonic forams & larger molluscan shells between 510 and 530 cm; lowermost unit is a medium fine to fine foraminiferal sandy mud, grayish olive(10Y 4/2); no visible sedimentary or biogenic structures evident in any unit; coarse fraction analysis indicates common amounts of planktonic & benthonic foraminifera and molluscan shells/shell debris, with rare amounts of pteropods(common in 500 cm sample), sponge spicules, ostracods, quartz, echinoid spines & shell debris, mica flakes, and glauconite; intermittent appearance in rare percentages are noted for diatoms(top sample only) and opaque minerals and pyrite.

INTERVAL	DESCRIPTION
0-20 cm	fine shelly foraminiferal sandy mud, dark greenish gray(5GY 4/1), soft with moderate moisture content; no visible sedimentary or biogenic structures evident; moderate amounts of molluscan shells/shell debris noted through this unit. Basal contact a gradual change in color and texture.
20-466 cm	medium to fine shelly foraminiferal sandy mud, grayish olive(10Y 4/2) semi-soft & low moisture content; high concentration of forams from 230 to 248 cm within this unit; molluscan shell debris common and well distributed through unit; no visible sedimentary or biogenic structures evident. Basal contact a gradual change in texture.
466-710 cm	fine to very fine foraminiferal sandy muddy clay, grayish olive (10Y 4/2), semi-soft & low moisture content; 510 to 530 cm is an increase in concentration of benthonic foraminifera and large bivalve shells/shell debris in a horizontally oriented accumulation layer within this primarily lutitic unit; no visible biogenic structures evident. Basal contact a gradual change in texture.
710-1033 cm (core bottom)	medium to fine foraminiferal sandy mud, grayish olive(10Y 4/2), moderately firm and low moisture content; moderate amounts of visible molluscan shells/shell debris occur throughout this unit; no visible sedimentary or biogenic structures evident.

CORE NUMBER 66

CRUISE IG-19-4

DENSITY MEASUREMENTS ON CORE EXTRACTIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
1	15 cm	7.53	5.96	1.50	0.50	1.57	Soft and damp
2	35	7.56	5.94	1.50	0.50	1.62	
3	55	7.33	5.71	1.60	0.60	1.62	
4	75	7.28	5.66	1.60	0.60	1.62	
5	95	7.31	5.63	1.50	0.50	1.68	
6	115	7.90	6.21	1.60	0.60	1.69	
7	135	7.63	5.88	1.50	0.50	1.75	
8	151	7.28	6.05	1.60	0.60	1.77	
9	175	7.97	6.28	1.50	0.50	1.69	
10	195	7.64	6.14	1.50	0.50	1.50	New syringe used here
11	215	7.33	5.68	1.40	0.40	1.65	
12	235	7.73	6.14	1.40	0.40	1.59	Foram layer, sandy texture
13	255	7.49	5.80	1.40	0.40	1.69	
14	275	7.43	5.83	1.40	0.40	1.60	
15	295	7.69	6.07	1.40	0.40	1.62	
16	315	7.46	5.86	1.40	0.40	1.60	
17	335	7.61	6.03	1.40	0.40	1.58	Sandy texture; foram-rich sampling zone
18	355	7.55	5.91	1.40	0.40	1.64	Sandy below surface
19	375	7.32	5.72	1.40	0.40	1.60	
20	395	7.56	5.86	1.40	0.40	1.70	
21	415	7.54	5.90	1.40	0.40	1.64	
22	435	7.62	5.93	1.40	0.40	1.69	Increase in firmness

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CORE NUMBER 66

CRUISE IG-19-4

DENSITY MEASUREMENTS ON CORE EXTRACTIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
23	454 cm	7.32	5.69	1.40	0.40	1.63	
24	475	7.54	5.85	1.40	0.40	1.69	
25	495	7.75	6.10	1.40	0.40	1.65	
26	515	7.34	6.30	1.00	0.40	1.73	Reef and molluscan material in sample area, volume low
27	535	7.51	5.74	1.60	0.60	1.77	Finer texture sandy material
28	555	7.63	5.92	1.30	0.30	1.71	
29	575	7.65	5.91	1.40	0.40	1.74	
30	595	7.60	5.93	1.40	0.40	1.67	
31	615	7.67	6.07	1.50	0.50	1.60	
32	635	7.45	5.89	1.50	0.50	1.56	Several large bivalves within sampling area
33	655	7.27	5.69	1.40	0.40	1.58	
34	675	7.62	6.03	1.40	0.40	1.59	
35	695	7.62	6.00	1.50	0.50	1.62	
36	715	7.38	5.63	1.40	0.40	1.75	Increased foram concentration layer
37	735	7.61	5.89	1.30	0.30	1.72	"
38	755	7.48	5.71	1.40	0.40	1.77	
39	775	7.69	6.00	1.40	0.40	1.69	
40	795	7.42	5.71	1.40	0.40	1.71	
41	815	7.39	5.96	1.30	0.30	1.43	
42	835	7.29	5.91	1.20	0.40	1.73	Low moisture
43	855	8.00	6.29	1.40	0.40	1.71	

MGC 10000001

CORE NUMBER 66

CRUISE IG-19 -4

DENSITY MEASUREMENTS ON CORE EXTRACTATIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
44	875 cm	7.44	6.06	1.40	0.40	1.38	Plunger slippage causing possible volume error
45	895	7.75	6.02	1.40	0.40	1.73	
46	915	7.90	6.18	1.40	0.40	1.72	
47	935	7.43	5.71	1.40	0.40	1.72	
48	955	7.74	6.04	1.40	0.40	1.70	
49	975	7.63	5.91	1.30	0.30	1.72	
50	995	7.75	6.05	1.40	0.40	1.70	
51	1015	7.32	5.64	1.40	0.40	1.68	

CORE: 5%  
 COMMON: 5-50%  
 D: 50-100%  
 CORE 66  
 IG-19-4  
 Sample Depth

	FORAMS-PLANKTONIC	FORAMS-BENTHONIC	RADIOLARIA	DIATOMS	PTEROPODS	SPONGE SPICULES	OSTRACODS	MOLLUSC	CORALLINE ALGAE	CORAL	BRYOZOA	QUARTZ	FELDSPAR	IRONSTONE	MANGANESE	OPAQUE MINERALS	ROCK FRAGMENTS	OTHER
0 cm	C	C		R	R	R	R	C				R						glauconite C., mica flakes R., echinoid spines & shell debris R.
100 cm	C	C			R	R	R	C				R				R		glauconite C., mica flakes R., echinoid spines & shell debris R.
200 cm	C	C			R		R	C				R						glauconite R., mica flakes R., echinoid spines & shell debris R. pyrite R.
300 cm	C	C			R		R	C				R			R			glauconite R., mica flakes R., echinoid spines & shell debris R. pyrite R.
400 cm	C	C			R	R	R	C				R			R			echinoid spines & shell debris R. glauconite R., mica flakes R., pyrite R.
500 cm	C	R			C	R	R	C				R			R			echinoid spines & shell debris R. glauconite R., mica flakes R., pyrite R.
600 cm	C	C			R		R	C				R			R			echinoid spines & shell debris R. glauconite R., mica flakes R., pyrite R.
700 cm	C	C			R	R	R	C				R			R			echinoid spines & shell debris R. glauconite R., mica flakes R. pyrite R.
800 cm	C	C			R		R	C				R			R			echinoid spines & shell debris R. glauconite R., mica flakes R.
900 cm	C	C			R	R		C				R			R			echinoid spines & shell debris R. glauconite R., mica flakes R.
1000 cm	C	C			R	R	R	C				R			R			echinoid spines & shell debris R. glauconite R., mica flakes R.



ARE: 5%

COMMON: 5-50%

50-100%

ORE

0. 66

IG -19-4

Sample Depth

FORAMS-PLANKTONIC

FORAMS-BENTHONIC

RADIOLARIA

DIATOMS

PTEROPODS

SPONGE SPICULES

SILICOFLAGELLATES

COCCOLITHS

DISCOASTERS

IRONSTONE

OPAQUE MINERALS

QUARTZ

MANGANESE

ZEOLITE

ASH SHARDS

OTHER

MCG 10005101

GRAPHIC CORE LOG

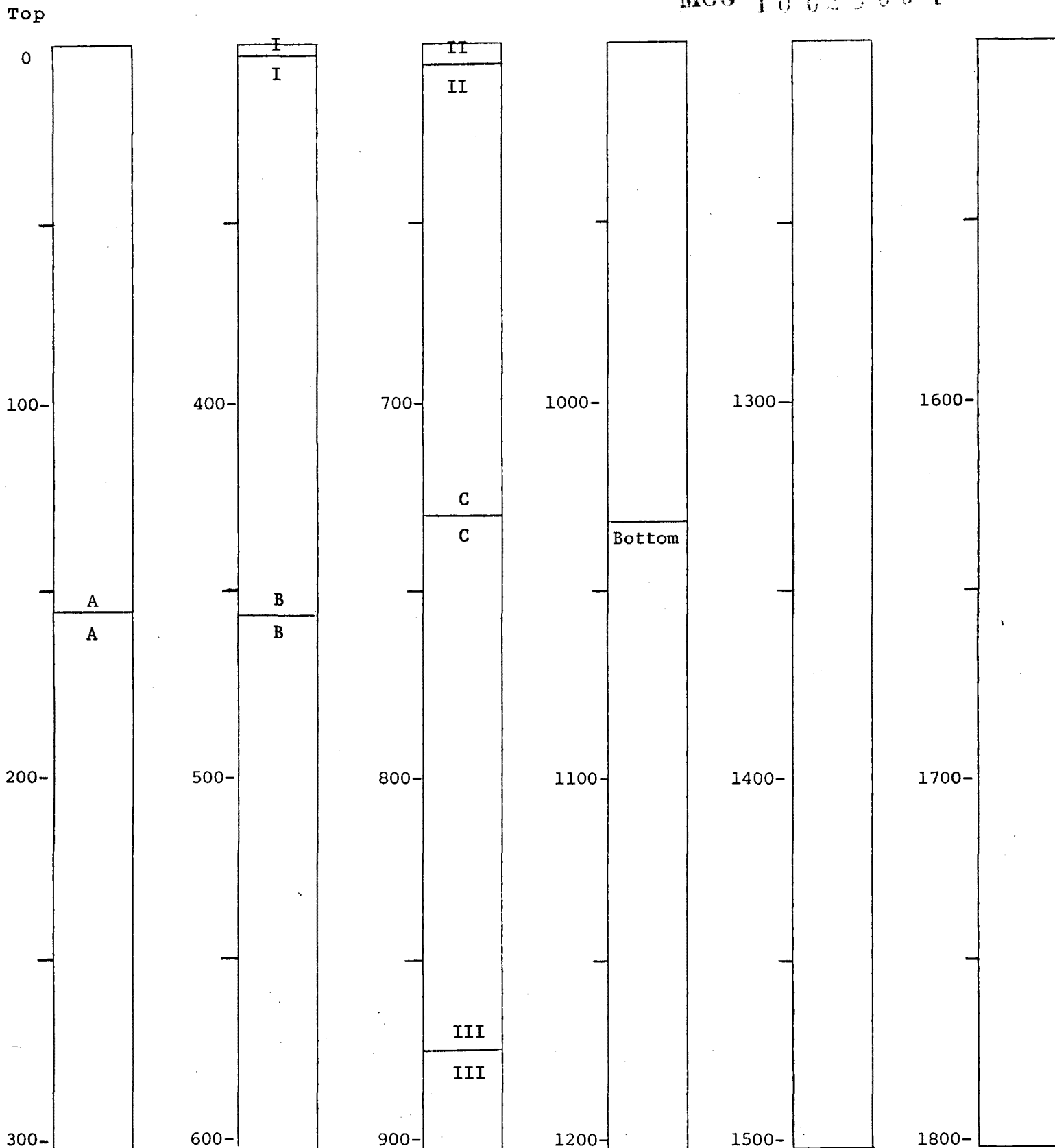
Core Number 66

Cruise IG-19-4

Core Cap Samples  
B = Bottom of Section  
T = Top of Section

CORE SECTIONS

MGG 10 02 30 01



\* = Coarse fraction/smear slide location.

CORE NUMBER 66 CRUISE IG-19-4

INTERVAL OR CATION OF SAMPLE	ESTIMATED VOLUME OF SAMPLE	TAKEN BY	SAMPLING PURPOSE	PERSON AND/OR COMPANY RECEIVING SAMPLE(S) FOR INTENDED RESEARCH
Refer to page on "Density Measurements" for precise locations	approx. 1 cc.	T. Haines	wet-bulk density	U. S. Navy to receive density results(UT-MSI contracted to do density measurements)
0-25 cm	200 gms	T. Haines		Frank Van Markhoren

MCG 10018001

CORE NUMBER	<u>67</u>	CRUISE	<u>IG 19-4</u>
LATITUDE	<u>29° 43.2' N</u>	LONGITUDE	<u>86° 56.1' W</u>
CORRECTED DEPTH	<u>111 fm</u>	PDR DEPTH	<u>107 fm</u>
DATE TAKEN	<u>7-2-76</u>	DATE OPENED	<u>3-14-77</u>
DATE DESCRIBED	<u>3-14-77</u>	DATE PHOTOGRAPHED	_____
DESCRIBED BY	<u>T. Haines</u>	CORE LENGTH	<u>1054 cm</u>
PENETRATION	<u>1100 cm</u>	FLOW-IN	<u>0 cm</u>

SUMMARY OF CORE: Very fine foraminiferal sandy mud, dark greenish gray (5Y 4/1) at top to a medium to fine shelly foraminiferal sandy mud, grayish olive (10Y 4/2) in middle region of core and grading into fine foraminiferal sandy clay towards bottom of core; pelagic sediment present throughout core with planktonic and benthonic foraminifera being common in all units, some molluscan and echinoid shell debris present with random distribution, also a few bivalves were found unbroken, algal reef material penetrated near 700 cm surrounded by a very fine lutitic matrix, manganese common in middle portions of core and diminishing at top and bottom, quartz is rare through entire core showing little indication of a large terrigenous sediment source.

INTERVAL	DESCRIPTION
0-13 cm	Very fine foraminiferal sandy mud, dark greenish gray (5Y 4/1); very soft and moist; no visible structures evident; low molluscan content and no echinoid shell debris present. Basal contact a gradual change in color and texture.
13-140 cm	Fine to very fine foraminiferal sandy mud, grayish olive (10Y 4/2); soft and moist. Larger shell fragments of molluscan and echinoid fauna with some smaller whole bivalve shells at random locations through this unit. Basal contact a sharp change in texture and composition.
140-205 cm	Medium to fine shelly foraminiferal sandy mud, grayish olive (10Y 4/2); moderately soft, sparse moisture; larger volume of sand size material in this unit than above. Molluscan shells and shell debris randomly distributed in low to moderate amounts. This unit may be a possible sandy interbed between finer layers of sediment. Low echinoid shell volume noted in lower end of unit. Basal contact a distinct textural and compositional change.
205-585 cm	Fine to very fine foraminiferal sandy shelly mud, grayish olive (10Y 4/2); soft and moist; occasional molluscan shells and shell fragments are present in this unit in random locations, a large oyster shell (3 cm across) present at 300 cm and 332 cm. A pecten (2 cm across) is present at 405 cm. Occasional mottling evident

INTERVAL	DESCRIPTION
585-1054 cm (core bottom)	<p>(continued from page 1)</p> <p>through unit with both sand size fill material as well as fine fill material. Basal contact a gradual change in texture and composition.</p> <p>Very fine foraminiferal sandy clay, grayish olive (10Y 4/2); semi-soft and low moisture content. Isolated mottled areas are present between 595 and 610 cm and also at 620 cm; all sand size fill material. Very low amount of molluscan and echinoid shell debris present at 617 cm. Chondrites burrowing beginning to appear at 625 cm. Large number of shattered echinoid shell fragments at 655 cm. Large spheroids of old relic algal reef material (worm tube encrusted) present at 700 cm and at 725 cm each being approximately 5 cm in diameter. Smaller fragments are scattered from 735 to 775 cm. These pieces of reef material are surrounded by a very homogeneous lutitic sediment matrix. This possibly represents a shelly clayey carbonate-rich laminar bedding within this clayey unit, or an indication of reworking.</p>

MCG 10033001

CORE NUMBER 67

CRUISE IG-19-4

DENSITY MEASUREMENTS ON CORE EXTRACTATIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
1	15 cm	7.86	6.41	1.40	0.40	1.45	Very soft, moist
2	35	7.96	6.48	1.30	0.30	1.48	Soft
3	55	7.49	5.96	1.40	0.40	1.53	Soft
4	75	8.04	6.52	1.40	0.40	1.52	Soft
5	95	7.68	6.13	1.40	0.40	1.55	
6	115	8.18	6.62	1.40	0.40	1.56	
7	135	7.97	6.37	1.40	0.40	1.60	
8	155	8.04	6.37	1.40	0.40	1.67	
9	173	8.17	6.46	1.40	0.40	1.71	
10	195	8.19	6.52	1.40	0.40	1.67	
11	215	8.06	6.41	1.40	0.40	1.65	
12	235	8.01	6.39	1.30	0.30	1.62	
13	255	7.76	6.14	1.30	0.30	1.62	
14	275	7.62	5.99	1.30	0.30	1.63	
15	295	7.34	5.75	1.30	0.30	1.59	
16	315	7.38	6.38	1.00	0.40	1.66	Low volume, very muddy sample
17	335	7.67	6.37	1.20	0.40	1.63	Large oyster shell gorged out large groove from 330cm to 378 cm in sediment column. Sample volumes as a result are low from 335 to 375 cm
18	355	7.31	6.01	1.20	0.40	1.63	
19	375	8.03	6.39	1.40	0.40	1.64	
20	395	8.13	6.52	1.40	0.40	1.61	
21	415	7.99	6.38	1.40	0.40	1.61	
22	435	8.17	6.55	1.30	0.30	1.62	

MCG 10000001

CORE NUMBER 67

CRUISE IG-19-4

DENSITY MEASUREMENTS ON CORE EXTRACTATIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
23	455 cm	7.87	6.62	1.20	0.40	1.56	Air pocket in sediment below surface; low volume
24	475	7.99	6.38	1.30	0.30	1.61	
25	495	8.06	6.38	1.50	0.50	1.68	
26	515	8.11	6.44	1.40	0.40	1.67	
27	535	8.11	6.41	1.40	0.40	1.70	
28	555	8.37	6.65	1.40	0.40	1.72	
29	575	8.25	6.57	1.40	0.40	1.68	
30	595	8.37	6.66	1.50	0.50	1.71	Clayey
31	615	8.18	6.46	1.40	0.40	1.72	Clayey, firm, low moisture
32	635	8.33	6.64	1.40	0.40	1.69	
33	655	8.26	6.61	1.40	0.40	1.65	
34	675	7.52	5.89	1.50	0.50	1.63	
35	695	7.29	5.69	1.40	0.40	1.60	
36	717	7.55	5.90	1.40	0.40	1.65	Many reef fragments in sample area
37	735	7.39	6.39	1.00	0.40	1.67	Many reef fragments in sample area
38	752	6.97	5.93	1.00	0.40	1.73	Many reef fragments in sample area
39	775	8.11	6.40	1.30	0.30	1.71	
40	795	8.22	6.53	1.50	0.50	1.69	
41	815	7.56	5.86	1.50	0.50	1.70	
42	835	7.65	6.00	1.40	0.40	1.65	
43	855	7.56	5.88	1.40	0.40	1.68	
44	875	7.60	5.94	1.40	0.40	1.66	

MGC 10 025001

CORE NUMBER 67CRUISE IG-19-4

## DENSITY MEASUREMENTS ON CORE EXTRACTATIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC BEG	CC END	WET	PROBLEMS/ OBSERVATIONS
						BULK DENSITY	
45	895 cm	7.73	6.14	1.50	0.50	1.59	
46	915	7.53	5.90	1.50	0.50	1.63	
47	935	7.78	6.10	1.40	0.40	1.68	
48	955	7.53	5.88	1.40	0.40	1.65	
49	975	8.02	6.30	1.40	0.40	1.72	
50	995	7.44	5.73	1.40	0.40	1.71	
51	1015	7.66	5.93	1.50	0.50	1.73	
52	1035	7.66	5.95	1.40	0.40	1.71	

MGC 10025001



Sample Depth	FORAMS-PLANKTONIC	FORAMS-BENTHONIC	RADIOLARIA	DIATOMS	PTEROPODS	SPONGE SPICULES	OSTRACODS	MOLLUSC	CORALLINE ALGAE	CORAL	BRYOZOA	QUARTZ	FELDSPAR	IRONSTONE	MANGANESE	OPAQUE MINERALS	ROCK FRAGMENTS	OTHER
0 cm	A	C			R	R		R				R			C			Glaucinite R, echin. spines R, mica flakes R, pyrite coatings R
100 cm	A	C			R	R	R	R				R			R			Glaucinite C, echin. spines R, mica flakes R, pyrite coatings R
200 cm	C	C			R	R	R	R				R			C			Glaucinite C, echin. spines & frags R, mica flakes R, pyrite coatings R
300 cm	C	C			R		R	C				R			C			Glaucinite C, echin. spines & frags R, mica flakes R, pyrite coatings R
400 cm	C	C			R		R	R				R			C			Glaucinite R, echin. spines R, mica flakes R, pyrite coatings R
500 cm	C	C			R	R	R	C				R			C			Glaucinite R, echin. spines R, mica flakes R, pyrite coatings R
600 cm	C	C			R	R	R	R				R			C			Glaucinite R, echin. spines R, mica flakes C, pyrite coatings C
700 cm	C	C			R	R	R	C							C			Echinoid spines R, mica flakes R, pyrite coatings R
800 cm	C	C			R	R	R	R				R			R			Glaucinite R, echin. spines R, mica flakes R, pyrite coatings R
900 cm	C	C			R		R	R				R			R			Glaucinite R, echin. spines R, mica flakes R, pyrite coatings R
1000 cm	C	C			R		R	R				R			R			Glaucinite R, echin. spines R, mica flakes R, pyrite coatings R

1000 1000 1000

ARE: 5%

COMMON: 5-50%

W.D: 50-100%

CORE 67  
NO. IG-19-4

Sample Depth

FORAMS-PLANKTONIC

FORAMS-BENTHONIC

RADIOLARIA

DIATOMS

PTEROPODS

SPONGE SPICULES

SILICOFLAGELLATES

COCCOLITHS

DISCOASTERS

IRONSTONE

OPAQUE MINERALS

QUARTZ

MANGANESE

ZEOLITE

ASH SHARDS

OTHER

NO. 10 DE 1904

541

GRAPHIC CORE LOG

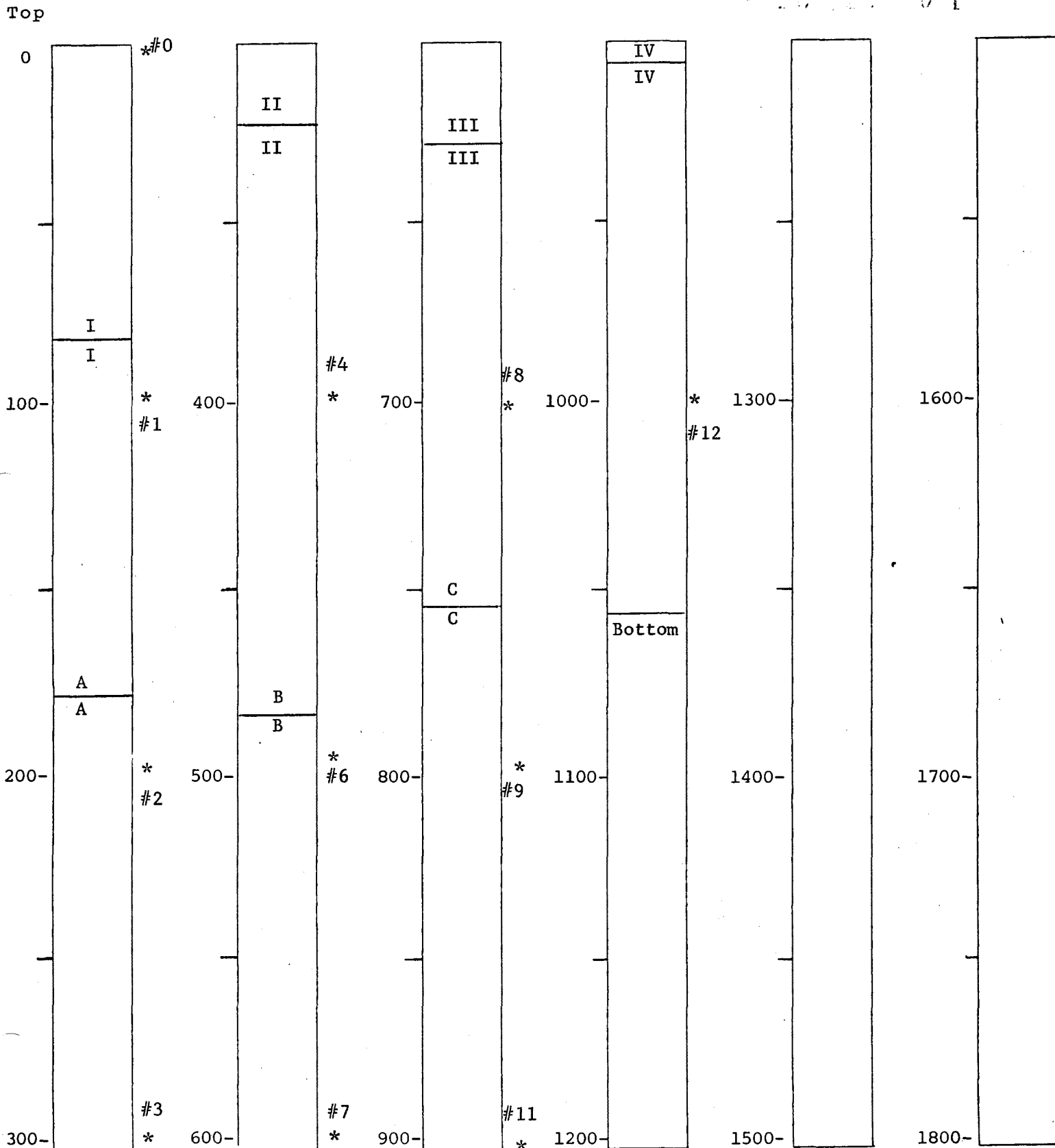
Core Number 67

Cruise IG-19-4

Core Cap Samples  
B = Bottom of Section  
T = Top of Section

CORE SECTIONS

1966 10 10 1



\* = Coarse fraction/smear slide location.

INTERVAL OR LOCATION OF SAMPLE	ESTIMATED VOLUME OF SAMPLE	TAKEN BY	SAMPLING PURPOSE	PERSON AND/OR COMPANY RECEIVING SAMPLE(S) FOR INTENDED RESEARCH
Refer to page on "Density Measurements" for precise locations	approx. 1 cc.	T. Haines	wet-bulk density	U. S. Navy to receive density results(UT-MSI contracted to do density measurements)
0-21 cm	200 gms	T. Haines		Frank Van Markhoren

MCG 10020001

CORE NUMBER 68 CRUISE IG 19-4  
 LATITUDE 29° 42.9' N LONGITUDE 86° 59.7' W  
 CORRECTED DEPTH 119 fm PDR DEPTH 115 fm  
 DATE TAKEN 7-2-76 DATE OPENED 3-7-77  
 DATE DESCRIBED 3-7-77 DATE PHOTOGRAPHED \_\_\_\_\_  
 DESCRIBED BY T. Haines CORE LENGTH 1124 cm  
 PENETRATION 1124+ cm FLOW-IN 0 cm

SUMMARY OF CORE: Very fine foraminiferal sandy mud, olive gray (5Y 3/2) soft and very moist at top of core becoming fine to very fine foraminiferal sandy mud grayish olive (10Y 4/2) semi-soft low moisture content with depth; planktonic forams abundant at top of core with benthonic forams common, low amount of glauconite present throughout entire core, manganese grains show an increase in number toward the 400 to 500 cm range with low volume at top and bottom of core. Quartz is rare in sedimentary column until 1000 cm where it is found in abundance and is found as clear, iron stained, and smoky variations. Pyrite coated forams and echinoid spines are common from 800 cm to end of core.

MGG 10000001

INTERVAL	DESCRIPTION
0-15 cm.	Very fine foraminiferal sandy mud, olive gray (5Y 3/2); very soft and watery; no visible structures evident; no shell fragments. Basal contact a gradual change in color and composition.
15-330 cm.	Very fine foraminiferal sandy mud, grayish olive (10Y 4/2). No visible structures evident, tiny molluscan shell fragments present in this unit in low percentage with random distribution. Collapsed liner from 62 to 172 cm having lower sediment volume and exhibits no visible changes in coloration or composition but slightly more watery in random locations. Occasional mottling at 190 to 210 cm and again at 320 cm. Large bivalves at 270 and 293 cm. Basal contact gradual change in texture and composition.
330-790 cm.	Fine to very fine foraminiferal sandy mud, grayish olive (10 Y 4/2). No visible structures, semi-soft, low moisture, small echinoid shell debris present through unit. Random distribution of small molluscan shell fragments in low volumes, random mottling within this layer. Some mottling from burrowing has sandy fill material, others have fine grained material. Basal contact a gradual color and texture change.
790-1124 cm. (core bottom)	Very fine foraminiferal sandy clay, light grayish olive (10Y 5/2); firm, low moisture content; occasional mottling present, small

INTERVAL	DESCRIPTION
(cont'd) 790-1124 cm (core bottom)	amount of echinoid shell debris in random locations through unit; burrow fill material slightly more sandy than surrounding material, chondrites burrowing is found commonly between 820 and 955 cm but also occurs in the remainder of this unit in lesser abundance, unit is homogeneous (possibly top of Pleistocene bedding) coarse fraction yields low volume of material in the samples taken at 900, 1000, and 1100 cm.

MCG 10000001

\*\*\*\*\* 62 to 172 cm liner is severely collapsed and density  
 \*\*\*\*\* samples from this zone are not possible

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CORE NUMBER 68

CRUISE IG-19-4

DENSITY MEASUREMENTS ON CORE EXTRACTATIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC BEG	CC END	WET	PROBLEMS/ OBSERVATIONS	
						BULK DENSITY		
1	15 cm	7.47	6.06	1.40	0.40	1.41	Very soft and watery	
2	35	8.04	6.60	1.40	0.40	1.44		
3	55	7.80	6.41	1.40	0.40	1.39		
4	185	7.55	6.07	1.30	0.30	1.48		
5	205	7.89	6.34	1.30	0.30	1.55		
6	225	8.04	6.52	1.40	0.40	1.52		
7	245	7.62	5.96	1.40	0.40	1.66		
8	265	7.94	6.48	1.40	0.40	1.46		
9	285	8.00	6.53	1.40	0.40	1.47		
10	305	8.13	6.50	1.40	0.40	1.63		
11	325	8.00	6.41	1.40	0.40	1.59	Decrease in moisture	
12	345	7.56	5.93	1.40	0.40	1.63		
13	365	8.02	6.44	1.40	0.40	1.58		
14	385	7.77	6.21	1.40	0.40	1.56		
15	405	8.01	6.40	1.30	0.30	1.61		
16	425	7.19	5.95	1.20	0.40	1.55		Crack mark from drying near this sample area
17	445	7.65	5.95	1.40	0.40	1.70		
18	465	8.27	6.61	1.50	0.50	1.66		MGG 10025001
19	485	7.85	6.23	1.50	0.50	1.62		
20	505	8.26	6.62	1.50	0.50	1.64		
21	525	7.63	5.91	1.50	0.50	1.72	Crack mark from drying near sample area	
22	543	7.70	6.09	1.50	0.50	1.61		
23	565	8.34	6.65	1.50	0.50	1.69	Crack mark from drying near sample area	

CORE NUMBER 68

CRUISE IG-19-4

DENSITY MEASUREMENTS ON CORE EXTRACTIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
24	585 cm	8.20	6.50	1.40	0.40	1.70	Crack mark from drying near sample area
25	605	8.30	6.65	1.40	0.40	1.65	Crack mark from drying near sample area
26	625	7.76	6.13	1.30	0.30	1.63	Crack mark from drying near sample area
27	645	7.36	5.73	1.40	0.40	1.63	
28	665	8.25	6.62	1.40	0.40	1.63	
29	685	7.44	5.78	1.40	0.40	1.66	Increasing firmness
30	705	8.02	6.39	1.40	0.40	1.63	↓
31	725	8.32	6.63	1.30	0.30	1.69	
32	745	8.10	6.43	1.40	0.40	1.67	
33	765	8.34	6.67	1.40	0.40	1.67	
34	785	8.28	6.62	1.40	0.40	1.66	
35	805	8.14	6.42	1.40	0.40	1.72	Clayey, Pleistocene contact ?
36	825	8.10	6.44	1.50	0.50	1.66	Clayey, Pleistocene contact?
37	845	7.69	6.13	1.60	0.60	1.56	Clayey, Pleistocene contact?
38	865	7.80	6.17	1.50	0.50	1.63	Clayey, Pleistocene contact?
39	885	7.44	5.83	1.50	0.50	1.61	Clayey, Pleistocene contact?
40	905	8.00	6.36	1.50	0.50	1.64	Clayey, Pleistocene contact?
41	925	8.05	6.43	1.40	1.40	1.62	Clayey, Pleistocene contact?
42	945	8.28	6.68	1.50	0.50	1.60	Clayey, Pleistocene contact?
43	965	8.06	6.45	1.50	0.50	1.61	Clayey, Pleistocene contact?
44	985	8.08	6.44	1.50	0.50	1.64	Core split with electric knife on this liner portion
45	1005	8.04	6.44	1.50	0.50	1.60	Core split with electric knife on this liner portion
46	1025	8.10	6.51	1.50	0.50	1.59	Wire shear used here to end of core



CORE NUMBER 68

CRUISE IG-19-4

DENSITY MEASUREMENTS ON CORE EXTRACTATIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
47	1045 cm	7.75	6.13	1.50	0.50	1.62	
48	1065	7.56	5.95	1.50	0.50	1.61	
49	1085	7.74	6.14	1.50	0.50	1.60	
50	1105	8.17	6.53	1.50	0.50	1.64	
51	1120	8.20	6.54	1.50	0.50	1.66	

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GRAPHIC CORE LOG

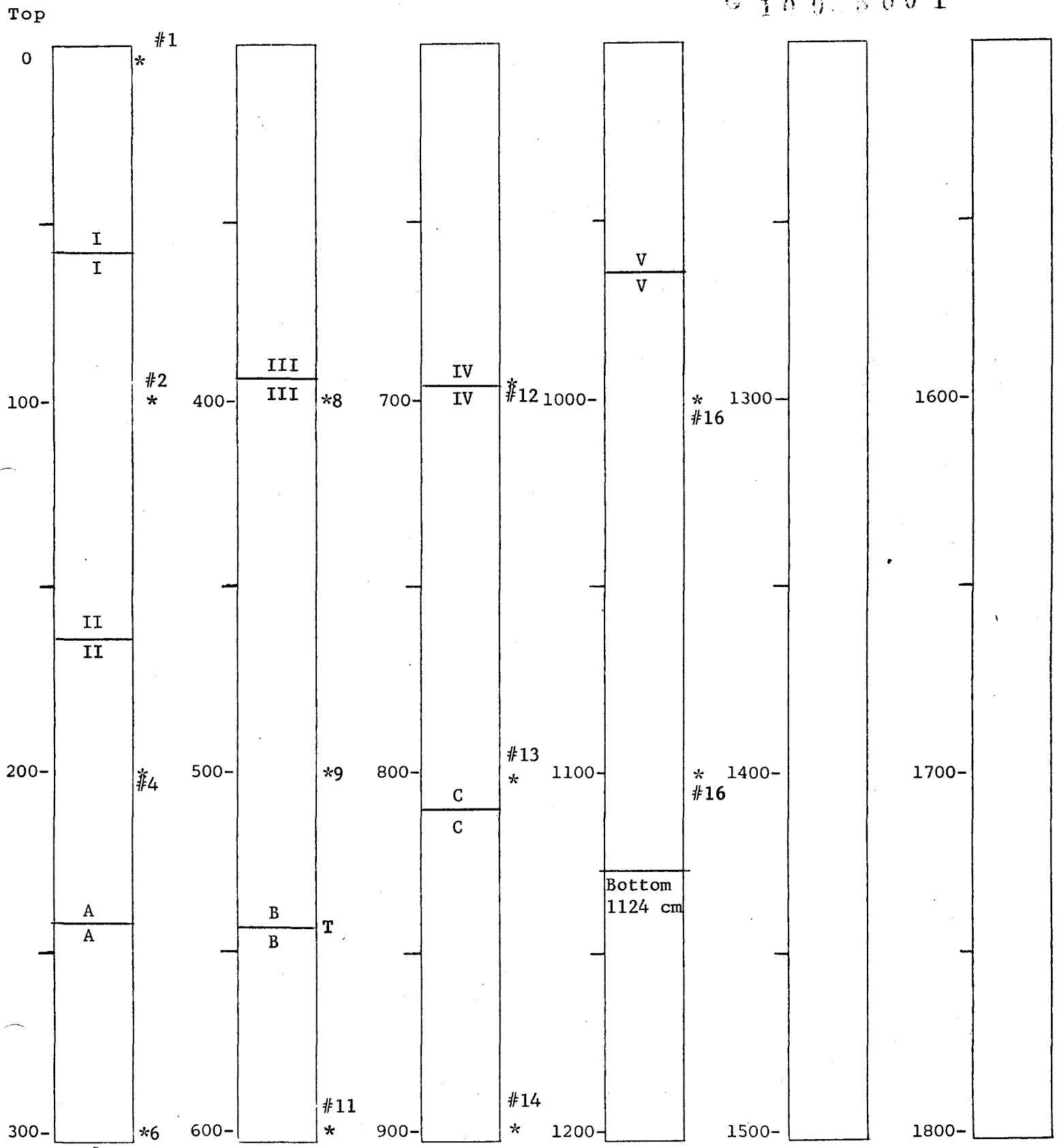
Core Number 68

Cruise IG-19-4

Core Cap Samples  
B = Bottom of Section  
T = Top of Section

CORE SECTIONS

10005001



\* = Coarse fraction/smear slide location.

INTERVAL OR LOCATION OF SAMPLE	ESTIMATED VOLUME OF SAMPLE	TAKEN BY	SAMPLING PURPOSE	PERSON AND/OR COMPANY RECEIVING SAMPLE(S) FOR INTENDED RESEARCH
Refer to page on "Density Measurements" for precise locations	approx. 1 cc.	T. Haines	wet-bulk density	U. S. Navy to receive density results (UT-MSI contracted to do density measurements)
0-27 cm	200 gms	T. Haines		Frank Van Markhoren

MCG 10025001

CORE NUMBER 69 CRUISE IG 19-4  
 LATITUDE 29° 42.5' N LONGITUDE 87° 03.8' W  
 CORRECTED DEPTH 124 fm PDR DEPTH 120 fm  
 DATE TAKEN 7-2-76 DATE OPENED 12-22-76  
 DATE DESCRIBED 12-22-76 DATE PHOTOGRAPHED \_\_\_\_\_  
 DESCRIBED BY T. Haines CORE LENGTH 992 cm.  
 PENETRATION 1110 cm. FLOW-IN 0 cm.

SUMMARY OF CORE: Very fine foraminiferal sandy mud, very dark greenish gray (5GY 3/1) at top becoming grayish olive (10Y 4/2) and firmer with depth, various units having increase in less fine grains. Quartz content low, planktonic and benthonic forams very common throughout, pyrite coated forams occur in low two-thirds of core in moderate to low amounts, molluscan shell debris moderate to low in very small fragments, glauconite present throughout in predominately low volumes. Mottling occurs within certain units, some burrowing  
 (continued on next page)

DEPTH	DESCRIPTION
0 - 22 cm.	Very fine foraminiferal sandy mud, very dark greenish gray (5GY 3/1) very soft and moist, no visible structures evident, no evidence of molluscan or echinoid shell debris. Basal contact a gradual change in color, texture, and composition.
22-220 cm.	Fine to very fine shelly foraminiferal sandy mud, grayish olive (10Y 4/2), soft to semi-soft and moist, no visible structures evident, unit is graded into slightly coarser material with depth, molluscan shell debris in low amount well distributed. Occasional mottling with even distribution in this unit, sandy burrows at 160 and 198 cm., echinoid fragments at 182 cm. Basal contact a sharp change in color, texture, and composition.
220-280 cm.	Very fine foraminiferal sandy clay, dark greenish gray (5GY 4/1), slightly firm and moist, large burrow with sandy grayish olive material as above unit found at 226 cm. and a smaller burrow at 238 cm., low amounts of molluscan shell debris in this unit, and sparse randomly located chondrites burrows. Basal contact an indistinct change in color, texture and composition.
280-370 cm.	Fine to very fine foraminiferal sandy mud, grayish olive (10Y 4/2), semi-firm and moist, similar to the 22 to 220 cm. unit. Scattered molluscan shell debris found throughout this unit, no visible structures evident, mottling occurs throughout unit, occasional presence of sandy burrows at random locations throughout. Basal contact a gradual change in texture.
370-680 cm.	Very fine foraminiferal sandy mud, grayish olive (10Y 4/2) semi-soft and moist, very low amount of molluscan shell debris, 405 - 415 slightly more sandy material present (possible sandy interbedding), mottling present in unit in moderate amount and well distributed, sandy burrows at 380 and at 404 cm. also at 452, 472, 480, 490, and 500 cm. Occasional sighting of large fragments or whole shells of molluscan bivalves at 440, 460 and 493 cm., also random distribution of echinoid fragments in low amounts through unit, mottling becomes moderately intense beginning at 510 cm. and ending at 530 cm., firmness increases with depth. Basal contact a gradual change in texture and composition.

CORE NUMBER 69 CRUISE IG 19-4 554  
 LATITUDE \_\_\_\_\_ LONGITUDE \_\_\_\_\_  
 CORRECTED DEPTH \_\_\_\_\_ PDR DEPTH \_\_\_\_\_  
 DATE TAKEN \_\_\_\_\_ DATE OPENED \_\_\_\_\_  
 DATE DESCRIBED \_\_\_\_\_ DATE PHOTOGRAPHED \_\_\_\_\_  
 DESCRIBED BY \_\_\_\_\_ CORE LENGTH \_\_\_\_\_  
 PENETRATION \_\_\_\_\_ FLOW-IN \_\_\_\_\_

SUMMARY OF CORE: activity evident, also some thin laminae sandy interbedded sequence in lower units of core.

INTERVAL	DESCRIPTION
680-855 cm.	Fine to very fine foraminiferal sandy mud, grayish olive (10Y 4/2), moderately firm, unit graded to slightly more coarse material with depth, mollusc debris scattered in small volumes through unit, random distribution of very thin sand bedding units (laminar) occur through this unit. Basal contact a gradual change in color, texture and composition.
855-992 cm. (core bottom)	Very fine foraminiferal sandy clay, dark dusky yellow green (5GY 4/2), firm, no structures visible, occasional burrows through unit with sandy fill material, chondrites burrows found at random in low amount, very small number of molluscan and echinoid shells.

MCC 100 100 100

CORE NUMBER 69

CRUISE IG-19-4

DENSITY MEASUREMENTS ON CORE EXTRACTIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
1	15 cm.	7.66	6.42	1.30	0.40		Very soft
2	35	7.85	6.38	1.40	0.40		
3	55	7.44	5.94	1.40	0.40		
4	75	7.20	6.20	1.20	0.50		Watery & soft
5	95	7.91	6.37	1.40	0.40		
6	115	7.72	6.21	1.50	0.50		
7	135	7.94	6.38	1.50	0.50		
8	155	7.94	6.39	1.50	0.50		
9	175	7.97	6.43	1.40	0.40		
10	195	7.73	6.14	1.40	0.40		
11	215	7.81	6.57	1.20	0.40		Low volume of material in core at this location, soft
12	235	8.17	6.49	1.50	0.50		Clayey, firmer
13	255	8.09	6.46	1.40	0.40		
14	275	7.89	6.42	1.30	0.40		
15	295	7.61	5.94	1.40	0.40		
16	315	7.97	6.35	1.40	0.40		
17	335	7.57	5.91	1.40	0.40		
18	355	8.15	6.54	1.40	0.40		
19	375	8.15	6.56	1.40	0.40		
20	395	7.95	6.41	1.40	0.40		
21	415	7.72	6.13	1.40	0.40		Less firm
22	435	7.76	6.13	1.50	0.50		
23	455	8.07	6.43	1.60	0.60		
24	475	8.15	6.45	1.40	0.40		Sampling a filled burrow, sandy
25	495	8.08	6.40	1.50	0.50		

0101 10 0-3-00 1



DRE NUMBER 69

CRUISE IG-19-4

DENSITY MEASUREMENTS ON CORE EXTRACTIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
26	515 cm.	8.12	6.44	1.50	0.50		
27	535	7.52	5.86	1.50	0.50		
28	555	7.61	5.95	1.60	0.60		
29	575	8.06	6.40	1.60	0.60		
30	595	7.79	6.15	1.60	0.60		
31	615	8.04	6.37	1.60	0.60		
32	635	8.00	6.37	1.50	0.50		
33	655	8.12	6.45	1.50	0.50		
34	675	7.62	5.94	1.50	0.50		
35	695	7.74	6.11	1.60	0.60		Samples in this liner drier and firmer than others
36	715	7.55	5.94	1.50	0.50		
37	735	7.63	5.96	1.40	0.40		
38	755	8.03	6.37	1.50	0.50		
39	775	8.27	6.63	1.60	0.60		
40	795	7.62	5.92	1.60	0.60		
41	815	8.13	6.45	1.40	0.40		
42	835	8.06	6.39	1.50	0.50		
43	855	8.30	6.67	1.50	0.50		
44	875	8.11	6.42	1.30	0.30		
45	895	8.02	6.38	1.40	0.40		MCG 10 023001
46	915	8.23	6.55	1.40	0.40		
47	935	8.09	6.41	1.40	0.40		
48	955	7.44	5.79	1.50	0.50		
49	975	7.59	5.92	1.40	0.40		
50	988	8.33	6.66	1.40	0.40		

Sample Depth	FORAMS-PLANKTONIC	FORAMS-BENTHONIC	RADIOLARIA	DIATOMS	PTEROPODS	SPONGE SPICULES	OSTRACODS	MOLLUSC	CORALLINE ALGAE	CORAL	BRYOZOA	QUARTZ	FELDSPAR	IRONSTONE	MANGANESE	OPAQUE MINERALS	ROCK FRAGMENTS	OTHER
0 cm.	A	C			R	R	R	R				R			R			echinoid spines R, glauconite R, mica flakes R
100 cm.	C	C			R	R	R	R				R			R			echinoid spines R, glauconite C, mica flakes
200 cm.	C	C			R	R	R	C				R						echinoid spines R, glauconite C, mica flakes R, pyrite coatings R
300 cm.	C	C			R	R	R	C				R				R		echinoid spines R, glauconite R, mica flakes R, pyrite coatings R
400 cm.	C	C			R			R				R						echinoid spines R, glauconite R, mica flakes R, pyrite coatings R
500 cm.	C	C			R		R	R				R						echinoid spines R, glauconite R, mica flakes R, pyrite coatings C
600 cm.	C	C			R		R	C							R			echinoid spines R, glauconite R, mica flakes R, pyrite coatings R
700 cm.	C	C			R		R	R							R			echinoid spines R, glauconite R, mica flakes R, pyrite coatings R
800 cm.	C	C					R	R				R			R			echinoid spines R, glauconite R, mica flakes R, pyrite coatings R
900 cm.	C	C			R		R	R				C						echinoid spines R, glauconite R, mica flakes R, pyrite coatings R
990 cm.	C	C			R			R				R				R		echinoid spines R, glauconite R, mica flakes R, pyrite coatings R

MCG 10 2 1 1 1 1



GRAPHIC CORE LOG

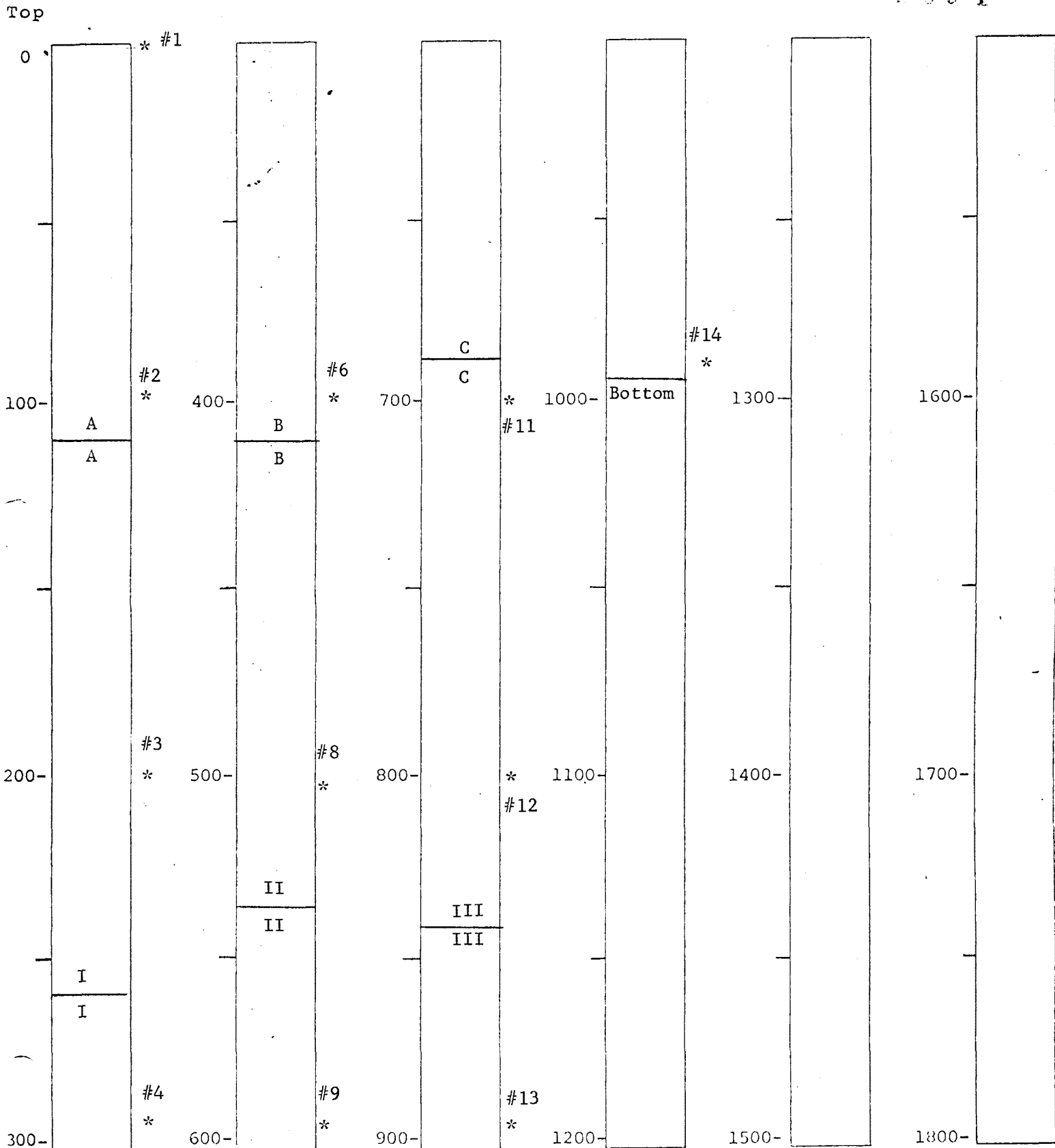
Core Number 69

Cruise IG-19-4

Core Cap Samples  
B = Bottom of Section  
T = Top of Section

CORE SECTIONS

ASST. ... 001



CORE NUMBER 69

CRUISE IG-19-4

INTERVAL OR LOCATION OF SAMPLE	ESTIMATED VOLUME OF SAMPLE	TAKEN BY	SAMPLING PURPOSE	PERSON AND/OR COMPANY RECEIVING SAMPLE(S) FOR INTENDED RESEARCH
Refer to page on "Density Measurements" for precise locations	approx. 1 cc.	T. Haines	wet-bulk density	U. S. Navy to receive density results (UT-MSI contracted to do density measurements)
0-38 cm	200 gms	T. Haines		Frank Van Markhoren

MCC 10/10/50

CORE NUMBER 70 CRUISE IG 19-4  
 LATITUDE 29° 41.7' N LONGITUDE 87° 07.3' W  
 CORRECTED DEPTH 129 fm PDR DEPTH 125 fm  
 DATE TAKEN 7-2-76 DATE OPENED 12-17-76  
 DATE DESCRIBED 12-17-76 DATE PHOTOGRAPHED \_\_\_\_\_  
 DESCRIBED BY T. Haines CORE LENGTH 1031 cm.  
 PENETRATION 1031+ cm FLOW-IN 0 cm.

SUMMARY OF CORE: Fine to very fine shelly foraminiferal sandy mud to foraminiferal sandy mud alternate layers, greenish black (5G 2/1), at top to grayish olive (10Y 4/2) and dark greenish gray (5GY 4/1) in lower units. Mottling present in certain units, overall mollusc and echinoid shell content is moderate to low and tends to be small fragments, sandy laminar bedding evident in lower units of core, a quartz and foraminiferal sandy clay unit encountered at 836 cm.; foraminifera

INTERVAL	DESCRIPTION (continued on next page)
0 - 15 cm.	Very fine foraminiferal sandy mud, greenish black (5G 2/1), moist and soft, no visible structures evident, very low well distributed amounts of small shell debris of molluscs present, unit becoming firmer towards base. Basal contact a gradual change in color, texture, and composition.
15-160 cm.	Fine to very fine shelly foraminiferal sandy mud, grayish olive (10Y 4/2), semi-soft and moderately moist, occasional burrowing in this unit with finer material inside mottling present from 15 to 30 cm. as light olive gray (5Y 5/2). Also mottling occurs again at 145 cm. having almost same coloration as surrounding material, large bivalves and echinoid fragments present in this unit with random distribution. Basal contact a gradual change in color, texture, and composition.
160-285 cm.	Very fine foraminiferal sandy mud, dark greenish gray (5GY 4/1), soft and moderate moisture, no visible structures are evident, very few molluscan shells or shell fragments are present, one small bivalve (1 cm. diameter) located at 230 cm. and echinoid shell fragment present at 240 cm., lower sand fraction content in this unit than above unit. Basal contact a gradual change in color, texture, and composition.
285-342 cm.	Fine to very fine shelly foraminiferal sandy mud, grayish olive (10Y 4/2), moderately soft and moist, no structures visible, echinoid and molluscan shell fragments at 295 cm., this unit resembles the 15 to 160 cm. unit very closely. Basal contact a sharp textural and compositional change.
342-366 cm.	Very fine foraminiferal sandy mud, grayish olive (10Y 4/2), soft, moist, a muddy interbed having only isolated molluscan shell and shell debris at 365 cm. and echinoid shell fragments at 345 and 365 cm. very homogeneous with few random spaced chondrites burrows. Basal contact a sharp textural and compositional change.

CORE NUMBER 70 CRUISE IG-19 -4 002  
 LATITUDE \_\_\_\_\_ LONGITUDE \_\_\_\_\_  
 CORRECTED DEPTH \_\_\_\_\_ PDR DEPTH \_\_\_\_\_  
 DATE TAKEN \_\_\_\_\_ DATE OPENED \_\_\_\_\_  
 DATE DESCRIBED \_\_\_\_\_ DATE PHOTOGRAPHED \_\_\_\_\_  
 DESCRIBED BY \_\_\_\_\_ CORE LENGTH \_\_\_\_\_  
 PENETRATION \_\_\_\_\_ FLOW-IN \_\_\_\_\_

SUMMARY OF CORE: present with planktonic forms being abundant near top of core and decreasing to common with depth and benthonic forams are common in top units.

INTERVAL	DESCRIPTION
366-382 cm.	Fine to very fine shelly foraminiferal sandy mud, grayish olive (10Y 4/2), moderately soft and moist, a sandy bed resembling the unit at 285 to 342 cm., small amounts of widely scattered tiny molluscan shells and shell fragments are present throughout unit, no visible structures evident. Basal contact a sharp textural and compositional change.
382-516 cm.	Very fine foraminiferal sandy mud, grayish olive (10Y 4/2), soft and moist, few sand size particles visible and very isolated bivalves and echinoid shells present, sandy material filling burrows from 395 to 405 cm. and again at 437 to 450 cm., small bivalves at 396 and 431 cm. Basal contact an indistinct change in texture and composition.
516-572 cm.	Fine to very fine shelly foraminiferal sandy mud, grayish olive (10Y 4/2), moderately soft and moist, a sandy bedding sequence (laminar) resembling the 285 to 342 cm. unit, low amounts of well distributed molluscan and echinoid shell debris present, some mottling located throughout unit with fill material having virtually no sandy sized components, base of this unit overlies next unit is a steeply dipping angular fashion tapering over a 22 cm. distance down core liner from one side to opposite side. Basal contact a sharp (steeply dipping) change in color, texture, and composition.
572-660 cm.	Very fine foraminiferal sandy mud, light dark greenish gray (5GY 5/1) soft and moist, decrease in sand size grains in this unit, filled burrows at 645 cm. having sandy texture, occasional molluscan debris occurs toward low half of unit in sparse amount. Basal contact a gradual (non-dipping) change in color, texture, and composition.
660-836 cm.	Fine to very fine shelly foraminiferal sandy mud grayish olive (10Y 4/2), firm, low moisture, moderate mottling with material similar to above unit 572 to 660 cm. is present and evenly distributed through unit. Molluscan shells and shell debris slightly more common in this unit. At 685-690 cm. two horizontal very sandy layers occur, a possible thin laminar bedding sequence, these interbeds very firm, overall increase in firmness with depth

CORE NUMBER 70 CRUISE IG-19-4 163  
 LATITUDE \_\_\_\_\_ LONGITUDE \_\_\_\_\_  
 CORRECTED DEPTH \_\_\_\_\_ PDR DEPTH \_\_\_\_\_  
 DATE TAKEN \_\_\_\_\_ DATE OPENED \_\_\_\_\_  
 DATE DESCRIBED \_\_\_\_\_ DATE PHOTOGRAPHED \_\_\_\_\_  
 DESCRIBED BY \_\_\_\_\_ CORE LENGTH \_\_\_\_\_  
 PENETRATION \_\_\_\_\_ FLOW-IN \_\_\_\_\_

SUMMARY OF CORE:

INTERVAL	DESCRIPTION
	<p>in this unit, sandy burrows located at 752 and 840 cm., numerous echinoid shell fragments at 768 cm. and small bivalves (1 cm. diam.) found at 710 and 754 cm., moderate chondrites mottling present and evenly distributed throughout this unit. Basal contact steeply dipping interface (may be due to coring) crossing from one side of liner at 836 cm. to other side of liner at 956 cm. Basal contact a very sharp change in texture and composition.</p>
<p>836-1031 cm. (core bottom)</p>	<p>Very fine quartzose foraminiferal sandy clay, grayish olive (10Y 4/2), moderately soft and moist, no visible structures evident, coarse fraction volume nil, very homogeneous lutitic material to end of core.</p>

MCC 10 02 8 00 1



561

ORE NUMBER 70

CRUISE IG-19-4

DENSITY MEASUREMENTS ON CORE EXTRACTIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
1	15 cm.	9.20	7.75	1.40	0.40	1.45	
2	35	9.26	7.83	1.40	0.40	1.43	
3	55	9.21	7.74	1.40	0.40	1.47	
4	75	9.25	7.76	1.40	0.40	1.49	
5	95	9.19	7.67	1.40	0.40	1.52	
6	115	9.15	7.63	1.60	0.60	1.52	
7	135	9.33	7.79	1.40	0.40	1.54	
8	155	9.31	7.73	1.50	0.50	1.58	Some shell debris in sample
9	175	8.71	7.08	1.50	0.50	1.63	
10	195	9.38	7.73	1.50	0.50	1.65	
11	215	9.18	7.64	1.50	0.50	1.54	
12	235	9.74	8.18	1.50	0.50	1.56	
13	255	8.64	7.07	1.60	0.60	1.57	
14	275	9.37	7.73	1.60	0.60	1.64	
15	295	9.75	8.19	1.50	0.50	1.56	
16	315	9.68	8.07	1.50	0.50	1.61	
17	335	9.35	7.73	1.60	0.60	1.62	
18	355	9.37	7.83	1.50	0.50	1.54	
19	375	9.39	7.79	1.50	0.50	1.60	More sandy sample
20	395	9.30	7.79	1.50	0.50	1.51	
21	415	9.25	7.69	1.50	0.50	1.56	
22	435	9.27	7.71	1.50	0.50	1.56	
23	455	9.73	8.18	1.50	0.50	1.55	MGC 10 02 00 1
24	475	9.67	8.09	1.50	0.50	1.58	
25	495	9.47	7.82	1.50	0.50	1.65	

DENSITY MEASUREMENTS ON CORE EXTRACTIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WGT BULK DENSITY	PROBLEMS/OBSERVATIONS
26	515 cm.	9.54	7.96	1.60	0.60	1.58	
27	535	9.38	7.71	1.60	0.60	1.67	
28	555	9.33	7.71	1.60	0.60	1.62	
29	575	9.38	7.76	1.50	0.50	1.62	
30	595	9.47	7.86	1.60	0.60	1.61	Slight increased clay content
31	615	9.42	7.75	1.60	0.60	1.67	Slight increased clay content
32	635	8.74	7.13	1.50	0.50	1.61	
33	655	9.38	7.76	1.50	0.50	1.62	
34	675	9.41	7.77	1.50	0.50	1.64	
35	690	9.90	8.22	1.50	0.50	1.68	Thin laminar sandy interbedding here
36	715	9.42	7.81	1.50	0.50	1.61	
37	735	9.32	7.72	1.50	0.50	1.60	
38	755	9.30	7.74	1.60	0.60	1.56	
39	775	9.20	7.60	1.50	0.50	1.60	
40	795	9.33	7.73	1.50	0.50	1.60	
41	815	9.32	7.74	1.60	0.60	1.58	Slight increase in firmness and sand size grains low moisture content
42	835	9.34	7.76	1.60	0.60	1.58	
43	855	9.15	7.57	1.60	0.60	1.58	
44	875	9.22	7.68	1.50	0.50	1.54	
45	895	9.28	7.63	1.60	0.60	1.65	
46	915	9.43	7.80	1.60	0.60	1.63	MCC 10 00 00 1
47	935	9.39	7.77	1.60	0.60	1.62	
48	955	9.36	7.75	1.60	0.60	1.61	This sample pierced interface of sandy layer and lutitic layer

ORE NUMBER 70

CRUISE IG-19-4 560

DENSITY MEASUREMENTS ON CORE EXTRACTIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
49	975	9.12	7.69	1.50	0.50	1.43	Both sandy & clayey
50	995	8.64	7.06	1.60	0.60	1.58	Very clayey
51	1015	9.71	8.13	1.60	0.60	1.58	Very clayey

MGG 10 025 00 1

ARE: 5%  
 COMMON: 5-50%  
 BOUND: 50-100%  
 CORE  
 O. 70  
 IG 19-4  
 Sample Depth

FORAMS-PLANKTONIC  
 FORAMS-BENTHONIC  
 RADIOLARIA  
 DIATOMS  
 PTEROPODS  
 SPONGE SPICULES  
 OSTRACODS  
 MOLLUSC  
 CORALLINE ALGAE  
 CORAL  
 BRYOZOA  
 QUARTZ  
 FELDSPAR  
 IRONSTONE  
 MANGANESE  
 OPAQUE MINERALS  
 ROCK FRAGMENTS

OTHER

0 cm.	A	C			R	R	R	C						R						glaucinite R, echinoid spines R mica flakes R
100 cm.	A	C			R	R	R	C						R						glaucinite R, echinoid spines R mica flakes R
200 cm.	C	C			R	R	R	C						R						glaucinite R, echinoid spines R mica flakes R
300 cm.	C	C			R	R	R	R						R						glaucinite R, echinoid spines R mica flakes R, pyrite coatingsR
400 cm.	C	C			R	R	R	R						R						glaucinite R, echinoid spines R mica flakes R, pyrite coatings
500 cm.	C	C			R	R	R	R						R						glaucinite R, echinoid spines R mica flakes R, pyrite coatingsR
600 cm.	C	C			R	R	R	R						R						glaucinite R, echinoid spines R mica flakes R, pyrite coatingsR
700 cm.	C	C			R	R	R	R						R						glaucinite R, echinoid spines R mica flakes R, pyrite coatingsR
800 cm.	C	C			R	R	R	R						R						glaucinite R, echinoid spines R mica flakes R, pyrite coatingsR
900 cm.	C	R			R	R	R	R						R						glaucinite R, echinoid spines R mica flakes R, pyrite coatingsR
1000 cm.	C	C			R		R	R						C						glaucinite R, echinoid spines R mica flakes R, pyrite coatings.

MGG 10 025 00 1

ARE: 5%

COMMON: 5-50%

BOUND: 50-100%

ORE

O. 70

IG 19-4

Sample Depth

FORAMS-PLANKTONIC

FORAMS-BENTHONIC

RADIOLARIA

DIATOMS

PTEROPODS

SPONGE SPICULES

SILICOFAGELLATES

COCCOLITHS

DISCOASTERS

IRONSTONE

OPAQUE MINERALS

QUARTZ

MANGANESE

ZEOLITE

ASH SHARDS

OTHER

508

APR 19 1964

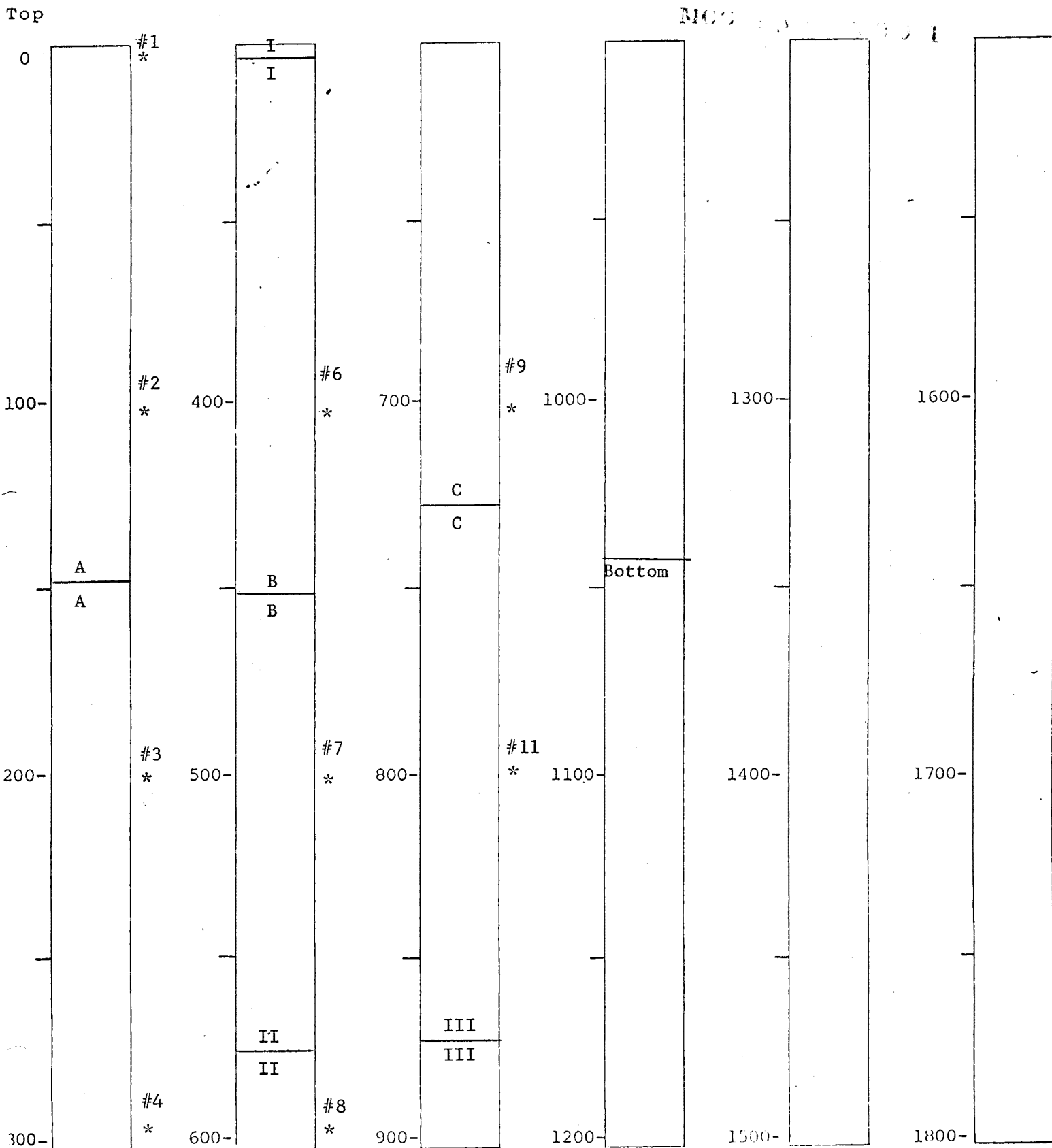
GRAPHIC CORE LOG

Core Number 70

Cruise IG-19-4

Core Cap Samples  
B = Bottom of Section  
T = Top of Section

CORE SECTIONS



CORE NUMBER 70 CRUISE IG-19-4

INTERVAL OR LOCATION OF SAMPLE	ESTIMATED VOLUME OF SAMPLE	TAKEN BY	SAMPLING PURPOSE	PERSON AND/OR COMPANY RECEIVING SAMPLE(S) FOR INTENDED RESEARCH
Refer to page on "Density Measurements" for precise locations	approx. 1 cc.	T. Haines	wet-bulk density	U. S. Navy to receive density results (UT-MSI contracted to do density measurements)
0-26 cm	200 gms	T. Haines		Frank Van Markhoren

MCS 1100 11

571

CORE NUMBER 71 CRUISE IG 19-4  
 LATITUDE 29° 39.2' N LONGITUDE 87° 10.5' W  
 CORRECTED DEPTH 138 fm PDR DEPTH 133 fm.  
 DATE TAKEN 7-2-76 DATE OPENED 12-13-76  
 DATE DESCRIBED 12-13-76 DATE PHOTOGRAPHED \_\_\_\_\_  
 DESCRIBED BY T. Haines CORE LENGTH 893 cm.  
 PENETRATION 1150 cm. FLOW-IN 0 cm.

SUMMARY OF CORE: Fine to very fine foraminiferal sandy mud, grayish olive (10Y 4/2) with increasing shell content with depth down to 500 cm., from 319 to 495 cm. a sequence of shelly foraminiferal sandy mud and shelly muddy foraminiferal sand beds are present in laminar orientation, few shells beyond 495 cm. where contact with terrigenous clay, a dark greenish gray (5GY 4/1) homogeneous material begins. This clay remains a thick unit to end of core,

INTERVAL	DESCRIPTION (continued on next page)
0-8 cm.	Very fine foraminiferal sandy mud, olive gray (5Y 3/2), very soft and moist, no visible structures or shell debris. Basal contact a gradual change in color, texture, and composition.
8-160 cm.	Fine to very fine shelly foraminiferal sandy mud, grayish olive (10Y 4/2), moderately soft, moist, burrowing evident with fill material slightly more sandy and shelly than surrounding matrix, burrows occur randomly, at 56 cm. burrow is filled with elliptical fecal pellets only, molluscan and echinoid shell debris in low amounts occurs with even distribution in this unit, from 140 cm. mottling becomes dark greenish gray (5GY 4/1), is virtually free of sand size material, very thin dark greenish gray (also sand free), clay layer present, less than 0.5 cm. thick, basal contact a sharp change in color and texture.
160-319 cm.	Fine to very fine shelly foraminiferal sandy clay, medium olive gray (5Y 4/2), moist and soft, occasional molluscan and echinoid shell debris in random locations, well distributed chondrites burrows evident, a 14 cm. lobe of light olive gray (5Y 5/2) clayey material occurs from 304 - 318 cm. along edge of liner protruding into half of liner width, no visible structures evident, in this unit underlying areas in density samples show color becoming dark greenish gray (5GY 4/1) at 0.5 to 1.0 cm. below surface. Basal contact an abrupt change in color, texture, and composition.
319 - 350 cm.	Medium to fine shelly foraminiferal sandy mud, grayish olive (10Y 4/2), moderately soft, low moisture, burrowing low and well distributed with fill material more coarse than surrounding matrix, some echinoid and molluscan shell debris present. Basal contact a gradual change in texture.
350-375 cm.	Medium to fine shelly muddy foraminiferal sand, slightly firm, low moisture, interwoven sand and mud laminar bedding in this unit well distributed echinoid and molluscan shell debris. Basal contact a gradual textural change.



CORE NUMBER 71 CRUISE IG 19-4  
 LATITUDE \_\_\_\_\_ LONGITUDE \_\_\_\_\_  
 CORRECTED DEPTH \_\_\_\_\_ PDR DEPTH \_\_\_\_\_  
 DATE TAKEN \_\_\_\_\_ DATE OPENED \_\_\_\_\_  
 DATE DESCRIBED \_\_\_\_\_ DATE PHOTOGRAPHED \_\_\_\_\_  
 DESCRIBED BY \_\_\_\_\_ CORE LENGTH \_\_\_\_\_  
 PENETRATION \_\_\_\_\_ FLOW-IN \_\_\_\_\_

SUMMARY OF CORE: increasing quartz with depth, planktonic and benthonic foraminifera common to 600 cm, then slight decrease primarily in planktonic forams; mica and pyrite occur from 500 cm to end of core in rare to common percentages, increasing in numbers with increasing depth; glauconite occurs in common to rare amounts and decreases frequency with depth.

INTERVAL	DESCRIPTION
350-425 cm	medium to fine shelly foraminiferal sandy mud, grayish olive (10Y 4/2), moderately soft with low moisture content; occasional evidence of burrowing (textural mottling where fill material is coarser than surrounding matrix); echinoid and molluscan shell debris visible in low amounts. Basal contact a gradual change in composition and color.
425-434 cm	medium to fine shelly muddy foraminiferal sand, dark greenish gray (5GY 4/1), slightly firm & low moisture content; cyclic sandy and muddy laminae noted in this unit; well distributed molluscan and echinoid shell debris noted in moderate amounts; no visible biogenic structures evident. Basal contact a sharp textural and color change.
434-467 cm	medium to fine shelly foraminiferal sandy mud, grayish olive (10Y 4/2), semi-firm & low moisture content; small amounts of burrowing noted in random locations with coarser fill material than surrounding matrix; molluscan and echinoid shell debris noted in moderate amounts; no visible sedimentary structures evident. Basal contact a gradual change in color and texture.
467-495 cm	medium to fine shelly muddy foraminiferal sand, firm & low moisture content; sandy and muddy laminae occur in cyclic pattern within this unit; echinoid and molluscan shell debris occur in moderate amounts in random locations; no visible biogenic structures evident; this unit colored dark greenish gray (5GY 4/1). Basal contact a gradual change in texture.

INTERVAL	DESCRIPTION
495-893 cm (core bottom)	very fine terrigenous clay(or lutite), dark greenish gray(5GY 4/1), moderately firm and low moisture content; chondrites burrowing noted in common well-distributed amounts; occasional small burrow exhibits a foraminiferal sandy fill material; molluscan shell fragments rare in this unit.

MCC 10 02 00 1

ORE NUMBER 71

CRUISE IG-19-4

DENSITY MEASUREMENTS ON CORE EXTRACTIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
1	15 cm.	8.89	7.68	1.20	0.40	1.51	
2	35	9.18	7.72	1.40	0.40	1.46	
3	55	8.53	7.05	1.40	0.40	1.48	
4	75	9.32	7.80	1.40	0.40	1.52	
5	95	8.63	7.10	1.40	0.40	1.53	
6	115	9.19	7.67	1.40	0.40	1.52	
7	135	9.23	7.72	1.40	0.40	1.51	
8	155	9.44	7.83	1.40	0.40	1.61	Some coarse shell debris in sample zone possible volum error
9	175	9.16	7.70	1.30	0.40	1.62	
10	195	9.27	7.83	1.30	0.40	1.60	
11	215	9.39	7.76	1.50	0.50	1.63	
12	234	8.62	7.07	1.50	0.50	1.55	
13	255	8.65	7.10	1.60	0.60	1.55	
14	275	9.29	7.72	1.50	0.50	1.57	
15	295	9.25	7.62	1.40	0.40	1.63	
16	315	9.69	8.12	1.40	0.40	1.57	
17	325	8.43	7.16	1.20	0.40	1.59	
18	345	8.72	7.08	1.40	0.40	1.64	
19	365	9.12	7.70	1.30	0.40	1.58	Sand beds
20	390	9.35	7.79	1.40	0.40	1.56	Occasional drying cracks in core
21	415	9.22	7.61	1.40	0.40	1.61	
22	435	9.36	7.74	1.40	0.40	1.62	Slight plunger slippage upon sample extruding
23	455	8.78	7.18	1.40	0.40	1.60	
24	475	9.36	7.68	1.40	0.40	1.68	

ENCLOSURE 1

DENSITY MEASUREMENTS ON CORE EXTRACTIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
25	495 cm.	9.38	7.73	1.40	0.40	1.65	
26	515	9.39	7.79	1.60	0.60	1.60	Clayey
27	535	9.47	7.79	1.70	0.70	1.68	Clayey
28	555	9.35	7.73	1.40	0.40	1.62	Liner collapsed in this sample area possibly affecting density
29	575	9.43	7.81	1.60	0.60	1.62	
30	595	9.53	7.91	1.70	0.70	1.62	
31	615	9.77	8.19	1.70	0.70	1.58	
32	635	9.32	7.69	1.60	0.60	1.63	
33	655	9.38	7.76	1.60	0.60	1.62	
34	675	9.35	7.75	1.70	0.70	1.60	
35	695	9.50	7.88	1.50	0.50	1.62	
36	715	9.43	7.79	1.50	0.50	1.64	
37	735	9.32	7.70	1.50	0.50	1.62	
38	755	9.47	7.88	1.60	0.60	1.59	
39	775	9.46	7.86	1.60	0.60	1.60	
40	795	8.63	7.06	1.50	0.50	1.57	
41	815	9.29	7.69	1.50	0.50	1.60	
42	835	9.38	7.74	1.50	0.50	1.64	
43	855	8.71	7.12	1.50	0.50	1.59	
44	875	9.83	8.20	1.60	0.60	1.63	
45	890	9.39	7.79	1.60	0.60	1.60	

100 101

RE: 5%  
 SAND: 5-50%  
 FINE SAND: 50-100%  
 CORE 71  
 LOG 19-4  
 Sample Depth

FORAMS-PLANKTONIC	FORAMS-BENTHONIC	RADIOLARIA	DIATOMS	PTEROPODS	SPONGE SPICULES	OSTRACODS	MOLLUSC	CORALLINE ALGAE	CORAL	BRYOZOA	QUARTZ	FELDSPAR	IRONSTONE	MANGANESE	OPAQUE MINERALS	ROCK FRAGMENTS
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OTHER

0 cm.	C	C		R	R	R	R				R						glauconite R, echinoid spines R, mica flakes R
100 cm.	C	C		R	R	R	C				R						glauconite C, echinoid spines R, mica flakes R
200 cm.	C	C		R	R	R	R				R						glauconite C, echinoid spines R, mica flakes R
300 cm.	C	C		R	R	R	C				R						glauconite C, echinoid spines R, mica flakes R
400 cm.	C	C		R	R	R	C				R			R			glauconite R, echinoid spines R, mica flakes R
500 cm.	C	C		R	R	R	R				C			R			glauconite R, echinoid spines R, mica flakes R, pyrite coatings R
600 cm.	C	C		R			R				C						glauconite R, echinoid spines R, mica flakes C, pyrite coatings R
700 cm.	R	R		R			R				C						glauconite R, echinoid spines R, mica flakes C, pyrite R
800 cm.	C	C		R		R	R				C						glauconite R, echinoid spines R, mica flakes C, pyrite R
890 cm.	R	C				R	R				C		R	R			glauconite R, echinoid spines R, mica flakes C, pyrite C

MCC 10000001

RE: 5%

CON: 5-50%

UND: 50-100%

RE

71

IG 19-4

Sample Depth

FORAMS-PLANKTONIC

FORAMS-BENTHONIC

RADIOLARIA

DIATOMS

PTEROPODS

SPONGE SPICULES

SILICOFLAGELLATES

COCCOLITHS

DISCOASTERS

IRONSTONE

OPAQUE MINERALS

QUARTZ

MANGANESE

ZEOLITE

ASH SHARDS

OTHER

100.0001

GRAPHIC CORE LOG

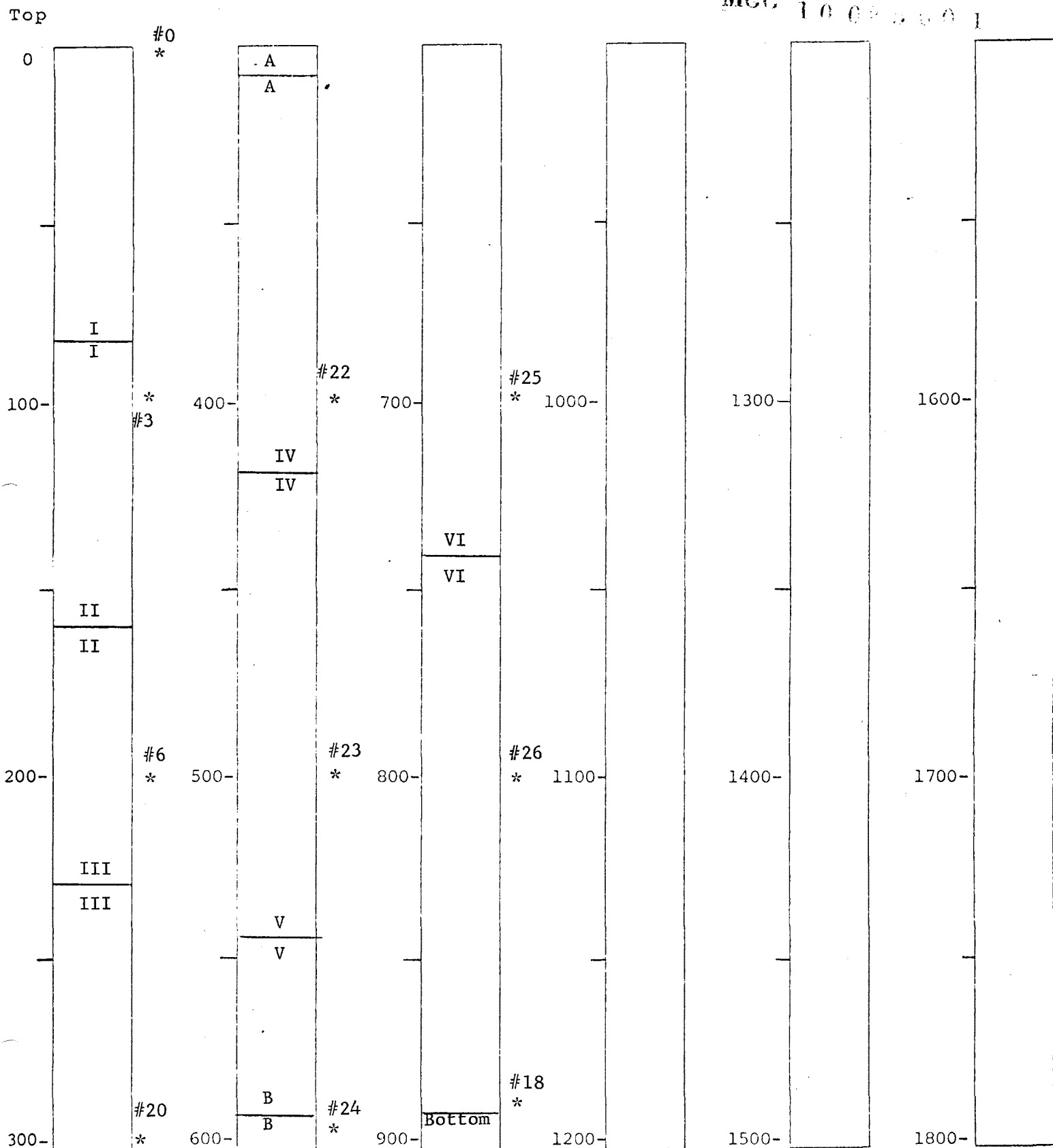
Core Number 71

Cruise IG-19-4

Core Cap Samples  
B = Bottom of Section  
T = Top of Section

CORE SECTIONS

MCC 1002001



CORE NUMBER 71 CRUISE IG-19-4

INTERVAL OR LOCATION OF SAMPLE	ESTIMATED VOLUME OF SAMPLE	TAKEN BY	SAMPLING PURPOSE	PERSON AND/OR COMPANY RECEIVING SAMPLE(S) FOR INTENDED RESEARCH
Refer to page on "Density Measurements" for precise locations	approx. 1 cc.	T. Haines	wet-bulk density	U. S. Navy to receive density results(UT-MSI contracted to do density measurements)
0-28 cm	200 gms	T. Haines		Frank Van Markhoren

NOV 10 1964



CORE NUMBER 72 CRUISE IG 19-4  
 LATITUDE 29° 39.4' N LONGITUDE 87° 14.4' W  
 CORRECTED DEPTH 131 fm PDR DEPTH 127 fm  
 DATE TAKEN 7-2-76 DATE OPENED 12-7-76  
 DATE DESCRIBED 12-7-76 DATE PHOTOGRAPHED \_\_\_\_\_  
 DESCRIBED BY T. Haines CORE LENGTH 959 cm.  
 PENETRATION 1100 cm. FLOW-IN 0 cm.

SUMMARY OF CORE: Very fine foraminiferal sandy mud, dark greenish gray (5GY 4/1), increasing coarseness with depth due to shell fragments, sparse overall volume of shell debris, planktonic and benthonic foraminifera common in upper 5 meters with planktonics tapering off in lower 4 meters. Very fine terrigenous clay layer occurs from 440 cm. to end of core having abundance of fine quartz grains, muscovite common, and traces of pyrite coated forams and pteropods, glauconite varies from rare to

INTERVAL	DESCRIPTION (continued on next page)
0 - 32 cm.	Very fine foraminiferal sandy mud, dark greenish gray (5GY 4/1), very soft, homogeneous, no visible structures, only a few mollusc shells visible near top of unit. Basal contact a gradual change in color, texture, and composition.
32-168 cm.	Medium fine to very fine shelly foraminiferal sandy mud, grayish olive (10Y 4/2), soft, no visible structures, mollusc shell debris low percentage and well distributed, echinoid shell debris at 59cm., bivalves at 37 cm. unit is graded to slightly more sandy material with depth, slight 13 cm. open gap in core from 77 to 90 cm. should be noted; there was difficulty in splitting this portion of core due to partial collapse of liner section from 160 to 180 cm. Basal contact a gradual change in color, texture, and composition.
168-195 cm.	Medium to fine shelly muddy foraminiferal sand, dark greenish gray (5GY 4/1), soft to moderately firm, no visible structures, manganese coated grains appear present in moderate volume, localized concentrations of muddy or more sandy material are present within this unit. Basal contact a gradual change in color, texture and composition.
195-255 cm.	medium fine to very fine shelly foraminiferal sandy mud, grayish olive(10Y 4/2), soft & moist; occasional bivalve(1cm diameter) to be found along with rare amounts of echinoid shell debris; sandy filled burrows and thin sandy laminae noted in this unit in random locations. Basal contact a gradual change in texture and composition.
255-335 cm.	Very fine foraminiferal sandy mud, grayish olive (10Y 4/2), soft, homogeneous, virtually no shells or shell fragments visible in this unit, only an occasional bivalve, no visible structures. Basal contact a gradual change in texture and composition.

CORE NUMBER 72 CRUISE IG-19-4

LATITUDE \_\_\_\_\_ LONGITUDE \_\_\_\_\_

CORRECTED DEPTH \_\_\_\_\_ PDR DEPTH \_\_\_\_\_

DATE TAKEN \_\_\_\_\_ DATE OPENED \_\_\_\_\_

DATE DESCRIBED \_\_\_\_\_ DATE PHOTOGRAPHED \_\_\_\_\_

DESCRIBED BY \_\_\_\_\_ CORE LENGTH \_\_\_\_\_

PENETRATION \_\_\_\_\_ FLOW-IN \_\_\_\_\_

SUMMARY OF CORE: common throughout core, manganese coated grains rare throughout core, occasional sandy burrows or thin bedding units are visible; burrowing present in 335 to 440 cm. unit, and remainder of core has chondrites burrows.

INTERVAL	DESCRIPTION
335-440 cm.	Very similar to 195-255 cm. unit, increase in molluscan shell debris and sand size material. Mottling from burrowing found from 338 to 358 cm. and at 370 with random well distributed mottling to bottom of unit, bivalve fragments at base of unit. Basal contact a sharp change in color, texture, and composition.
440-959 cm. (core bottom)	Very fine sandy terrigenous clay, medium dark greenish gray (5GY 5/1) semi-soft, low moisture, upper 20 cm. intensely burrowed with fill material resembling 335-440 cm. unit; tiny blackish high organic content chondrites burrows present in moderate percentage of unit and are randomly distributed. Localized mottling from burrowing is present at 475, 480, 487, 495, 500, and 505 cm. Very little coarse material in sand fraction. Echinoid debris at 590 and 646 cm.

MCG 10 625 00 1

DENSITY MEASUREMENTS ON CORE EXTRACTIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
1	15 cm.	8.83	8.04	1.10	0.50	1.31	Soft and moist
2	35	8.96	7.74	1.30	0.50	1.52 <sup>1.42</sup>	25 cm
3	55	9.17	7.75	1.40	0.40	1.42 <sup>1.46</sup>	
4	75	9.14	7.69	1.40	0.40	1.45 <sup>1.42</sup>	
5	95	9.15	7.76	1.50	0.50	1.39 <sup>1.41</sup>	
6	115	8.89	7.79	1.20	0.40	1.38 <sup>1.43</sup>	
7	135	8.93	7.86	1.10	0.40	1.53 <sup>1.52</sup>	
8	155	9.04	7.72	1.20	0.40	1.65 <sup>1.58</sup>	
9	175	8.72	7.62	1.10	0.40	1.57 <sup>1.63</sup>	
10	195	8.32	7.82	0.70	0.40	1.66 <sup>1.56</sup>	Low amount of core in liner here causing low volume retrieval
11	215	8.73	7.86	1.00	0.40	1.45 <sup>1.57</sup>	
12	235	9.40	7.80	1.40	0.40	1.60 <sup>1.53</sup>	
13	255	9.20	7.65	1.40	0.40	1.55 <sup>1.55</sup>	
14	275	9.09	7.75	1.30	0.40	1.49 <sup>1.52</sup>	
15	295	9.12	7.75	1.30	0.40	1.52 <sup>1.49</sup>	
16	315	8.90	7.74	1.20	0.40	1.45 <sup>1.48</sup>	
17	335	9.09	7.92	1.20	0.40	1.46 <sup>1.49</sup>	
18	355	8.82	7.73	1.10	0.40	1.56 <sup>1.50</sup>	
19	375	9.15	7.81	1.30	0.40	1.49 <sup>1.56</sup>	Slight increase in water content, near end of liner
20	395	9.48	7.85	1.60	0.60	1.63 <sup>1.58</sup>	Decrease moistness in this liner
21	415	9.38	7.76	1.50	0.50	1.62 <sup>1.63</sup>	
22	435	9.31	7.67	1.40	0.40	1.64 <sup>1.60</sup>	
23	455	9.44	7.91	1.40	0.40	1.53 <sup>1.57</sup>	
24	475	9.28	7.75	1.50	0.50	1.53 <sup>1.54</sup>	MCG 10 02 8 00 1
25	495	9.20	7.64	1.50	0.50	1.56 <sup>1.54</sup>	

CORE NUMBER 72

CRUISE IG-19-4

DENSITY MEASUREMENTS ON CORE EXTRACTIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET		PROBLEMS/ OBSERVATIONS
						BULK DENSITY		
26	515	9.71	8.19	1.50	0.50	1.52	1.54	
27	535	9.30	7.76	1.50	0.50	1.54	1.54	
28	555	9.42	7.85	1.60	0.60	1.57	1.56	
29	575	9.31	7.73	1.60	0.60	1.58	1.52	
30	595	9.40	7.80	1.60	0.60	1.60	1.60	
31	615	9.46	7.84	1.60	0.60	1.62	1.61	
32	635	9.23	7.61	1.60	0.60	1.62	1.63	
33	655	9.38	7.72	1.60	0.60	1.66	1.63	
34	675	9.36	7.76	1.60	0.60	1.60	1.63	
35	695	9.37	7.75	1.50	0.50	1.62	1.61	
36	715	9.41	7.81	1.60	0.60	1.60	1.60	
37	735	9.28	7.69	1.50	0.50	1.59	1.60	
38	755	9.71	8.09	1.60	0.60	1.62	1.60	
39	775	9.40	7.80	1.60	0.60	1.60	1.60	
40	795	9.38	7.80	1.60	0.60	1.58	1.58	
41	815	9.33	7.76	1.60	0.60	1.57	1.58	
42	835	9.44	7.85	1.60	0.60	1.59	1.60	
43	855	8.74	7.10	1.60	0.60	1.64	1.61	
44	875	9.31	7.71	1.60	0.60	1.60	1.62	
45	895	9.31	7.70	1.60	0.60	1.61	1.61	
46	915	9.31	7.70	1.60	0.60	1.61	1.62	
47	935	9.47	7.83	1.60	0.60	1.64	1.62	
48	955	8.82	7.21	1.50	0.50	1.61	1.63	940

NOV 10 03 00 00

Sample Depth	FORAMS-PLANKTONIC	FORAMS-BENTHONIC	RADIOLARIA	DIATOMS	PTEROPODS	SPONGE SPICULES	OSTRACODS	MOLLUSC	CORALLINE ALGAE	CORAL	BRYOZOA	QUARTZ	FELDSPAR	IRONSTONE	MANGANESE	OPAQUE MINERALS	ROCK FRAGMENTS	OTHER
0 cm.	C	C			R	R		R				R						glauconite C echinoid spines R
100 cm.	C	C			R	R	R	C				R			R			glauconite R echinoid spines R
200 cm.	C	C			R	R	R	C				R			R			glauconite C echinoid spines R
300 cm.	R	C			R	R	R	R				R						glauconite C echinoid spines R
400 cm.	C	C			R	R	R	C				R			R			glauconite R echinoid spines R mica flakes R
500 cm.	C	C			R		R	R				C			R			glauconite R echinoid spines R mica flakes C
600 cm.	R	C			R			R				C						glauconite R echinoid spines R mica flakes R
700 cm.	R	C			R		R	R				C			R			glauconite R echinoid spines R mica flakes C
800 cm.	R	C			R		R	R				A			R			glauconite R echinoid spines R mica flakes C pyrite coated forams R
900 cm.	R	R			R		R	R				A			R			glauconite R echinoid spines R mica flakes C pyrite coated forams R

1000 1000 1000

PER: 5%

CON: 5-50%

IND: 50-100%

RE 72

IG 19-4

Sample Depth

FORAMS-PLANKTONIC

FORAMS-BENTHONIC

RADIOLARIA

DIATOMS

PTEROPODS

SPONGE SPICULES

SILICOFLAGELLATES

COCCOLITHS

DISCOASTERS

IRONSTONE

OPAQUE MINERALS

QUARTZ

MANGANESE

ZEOLITE

ASH SHAPDS

OTHER

NOG 10 02 00 1

585

GRAPHIC CORE LOG

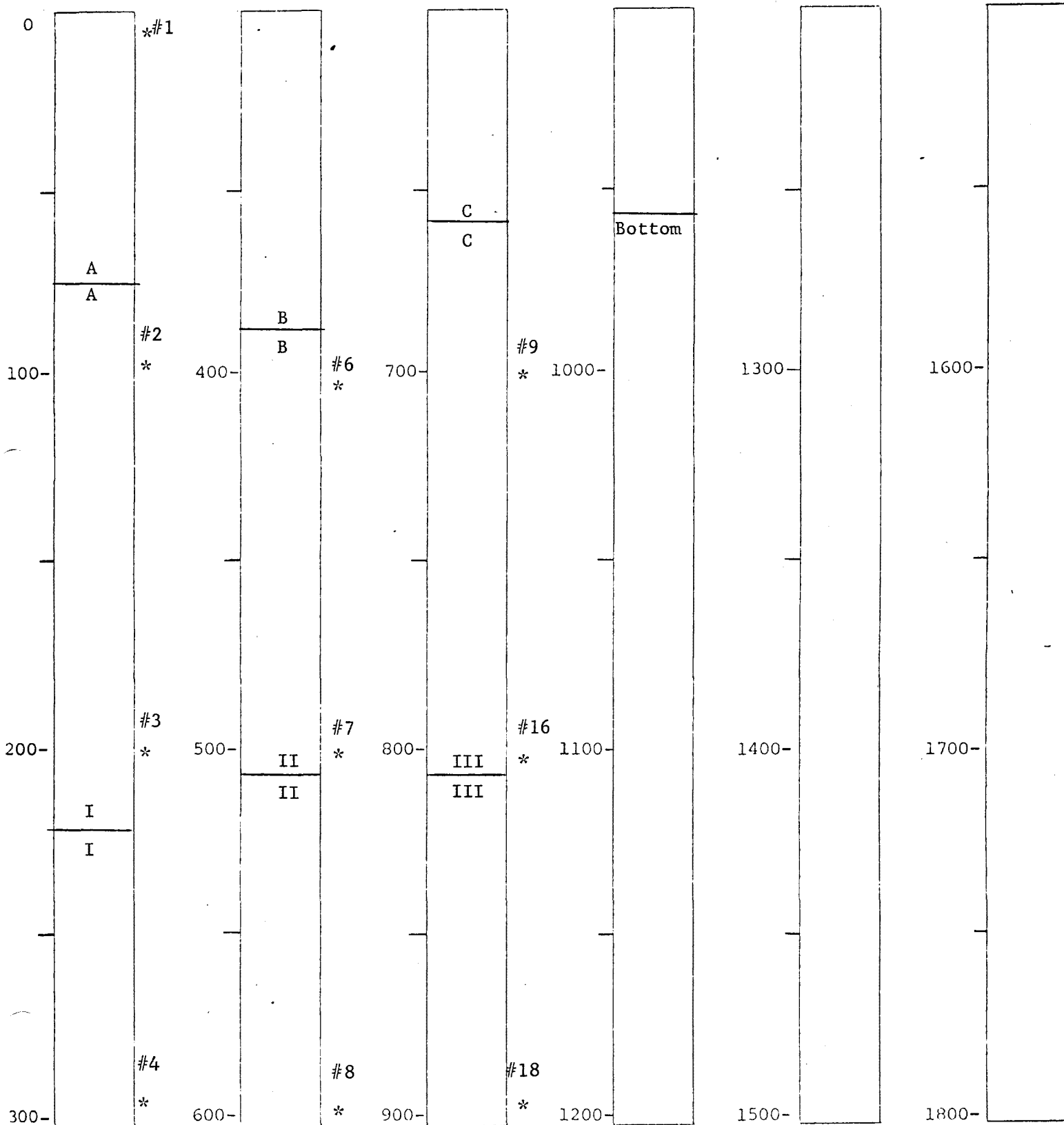
Core Number 72

Cruise IG-19-4

Core Cap Samples  
B = Bottom of Section  
T = Top of Section

CORE SECTIONS

Top



CORE NUMBER 72 CRUISE IG-19-4

DEPTH OR LOCATION OF SAMPLE	ESTIMATED VOLUME OF SAMPLE	TAKEN BY	SAMPLING PURPOSE	PERSON AND/OR COMPANY RECEIVING SAMPLE(S) FOR INTENDED RESEARCH
Refer to page on "Density Measurements" for precise locations	approx. 1 cc.	T. Haines	wet-bulk density	U. S. Navy to receive density results(UT-MSI contracted to do density measurements)
0-46 cm	200 gms	T. Haines		Frank Van Markhoren

NOV 1964



CORE NUMBER	<u>73</u>	CRUISE	<u>IG 19-4</u>
LATITUDE	<u>29° 39.3' N</u>	LONGITUDE	<u>86° 17.4' W</u>
CORRECTED DEPTH	<u>55 fm</u>	PDR DEPTH	<u>53 fm.</u>
DATE TAKEN	<u>7-3-76</u>	DATE OPENED	<u>4-12-77</u>
DATE DESCRIBED	<u>4-12-77</u>	DATE PHOTOGRAPHED	<u>                    </u>
DESCRIBED BY	<u>T. Haines</u>	CORE LENGTH	<u>865 cm</u>
PENETRATION	<u>1000 cm</u>	FLOW-IN	<u>0 cm</u>

## SUMMARY OF CORE:

Medium to fine muddy shelly sand, grayish olive (10Y 4/2) at top of core to a coarse to medium fine muddy shelly algal sand of same color to 250 cm. Muddy shelly sand units separated by muddy shelly algal sand layers are interacting from 250 cm to end of core; no visible structures evident; overall very coarse sediment; mostly a semi-firm and watery consistency maintained throughout core; coarse fraction analysis indicates common and/or abundant amounts of molluscan shells and coralline algae through entire core, common amounts of manganese from 300 cm to end of core, common benthonic foraminifera from 200 cm to end of core, and rare amounts of planktonic foraminifera, pteropods, ostracods, sponge spicules, quartz (except common at 300 cm), opaque minerals, rock fragments, echinoid spines & shell debris, mica flakes, and possible phosphate material (at 100 and 300 cm sample sites).

INTERVAL	DESCRIPTION
0-32 cm	Medium to fine muddy shelly sand, grayish olive (10Y 4/2); semi-firm and very watery; no visible structures evident, numerous very small shell fragments from molluscs.  Basal contact an indistinct texture and composition change.
32-250 cm	Coarse to medium fine muddy shelly algal sand, grayish olive (10Y 4/2); semi-firm and very watery; no visible structures evident; one large mottled burrow at 145 cm (approx. 6 cm diameter) with increased mud content and is more intensely colored grayish olive than surrounding matrix; increasingly coarse with depth.  Basal contact a distinct color and texture change.
250-350 cm	Medium coarse to fine shelly sandy mud, dark greenish gray (5GY 5/1) semi-firm and very moist; mottled areas having a larger fine sandy mud accumulation are well distributed through this unit.  Basal contact an indistinct change in texture and composition.
350-536 cm	Very coarse to medium fine shelly algal sandy mud, dark greenish gray (5GY 5/1) firm and watery; very coarse pieces of coralline algae in muddy matrix. No visible structures evident; large benthonic gastropod (3 cm long) at 520 cm.  Basal contact a gradual texture change.

INTERVAL	DESCRIPTION
536-865 cm (core bottom)	Medium to fine sandy shelly mud, dark greenish gray (5GY 5/1), moderately firm and watery; no visible structures evident; slight trace of small fragments of molluscan shells found in random locations. Gradual increase in coarseness with depth.

NOV 1960

CORE NUMBER 73

CRUISE IG-19-4

DENSITY MEASUREMENTS ON CORE EXTRACTIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
1	15 cm	7.94	6.37	1.60	0.60	1.57 1.55	Very sandy material; watery
2	35	8.06	6.54	1.60	0.60	1.52 1.53	Increased coarseness; new sediment unit
3	55	7.94	6.45	1.50	0.50	1.49 1.48	Gradually increasing in coarseness with depth
4	75	8.19	6.76	1.50	0.50	1.43 1.48	
5	95	7.54	6.01	1.40	0.40	1.53 1.49	Very coarse
6	115	8.16	6.64	1.60	0.60	1.52 1.50	Very coarse
7	135	7.20	6.04	1.30	0.50	1.45 1.48	Very coarse
8	155	7.62	6.45	1.20	0.40	1.46 1.48	Weak grain to grain cohesion; sediment loosely compacted
9	175	7.23	6.16	1.20	0.50	1.53 1.51	Weak grain to grain cohesion; sediment loosely compacted
10	195	7.50	6.27	1.20	0.40	1.54 1.56	Weak grain to grain cohesion; sediment loosely compacted
11	215	6.59	5.94	0.90	0.50	1.62 1.55	Very difficult penetration through coarse material
12	235	7.43	6.23	1.30	0.50	1.50 1.59	
13	255	7.14	6.31	1.00	0.50	1.66 1.62	Increased mud content; coarse material still present
14	275	7.93	6.22	1.60	0.60	1.71 1.69	Less coarse material
15	315	7.73	6.71	1.10	0.50	1.70 1.72	No sufficient amount of sample available at 295 cm
16	335	7.71	5.97	1.50	0.50	1.74 1.71	
17	355	7.14	6.46	0.80	0.40	1.70 1.68	Texture change increased coarseness
18	375	8.38	6.78	1.50	0.50	1.60 1.68	
19	395	7.94	6.54	1.30	0.50	1.75 1.66	

CORE NUMBER 73

CRUISE IG-19-4

DENSITY MEASUREMENTS ON CORE EXTRACTIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
20	415 cm	7.35	6.04	1.30	0.50	1.64 <del>1.68</del>	
21	435	7.30	6.14	1.20	0.50	1.66 <del>1.69</del>	
22	455	7.92	6.50	1.30	0.50	1.78 <del>1.71</del>	Very coarse, low volume obtained
23	475 cm	7.22	6.54	0.70	0.30	1.70 <del>1.74</del>	Very coarse; little sample obtained
24	495	7.86	6.46	1.20	0.40	1.75 <del>1.69</del>	
25	515	7.58	6.45	1.10	0.40	1.61 <del>1.71</del>	
26	535	7.61	6.18	1.20	0.40	1.78 <del>1.72</del>	Slightly less coarse
27	555	7.45	6.04	1.20	0.40	1.76 <del>1.74</del>	Increase in mud content; change in sediment unit
28	575	8.46	6.29	1.30	0.00	1.67 <del>1.75</del>	Entire sandy sample slid from syringe into vial
29	595	7.50	6.04	1.30	0.50	1.82 <del>1.79</del>	
30	615	8.01	6.32	1.40	0.50	1.87 <del>1.82</del>	
31	635	8.61	6.65	1.40	0.30	1.78 <del>1.81</del>	
32	655	7.35	5.93	1.30	0.50	1.78 <del>1.82</del>	
33	675	6.92	5.97	1.00	0.50	1.90 <del>1.80</del>	Very coarse coralline algae in sample
34	695	7.86	6.66	1.20	0.50	1.71 <del>1.68</del>	
35	715	7.59	6.59	1.00	0.30	1.43 <del>1.64</del>	Very coarse, low volume obtained
36	735	7.78	6.59	1.00	0.30	1.70 <del>1.59</del>	Very coarse, low volume obtained
37	755	7.78	6.48	1.20	0.40	1.63	Very coarse, low volume obtained
						760 1.87	
38	775	7.12	6.41	0.50	0.30	3.55	Very coarse and very soft material watery
						???	omit

592

CORE NUMBER 73

CRUISE IG-19-4

DENSITY MEASUREMENTS ON CORE EXTRACTATIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
39	795	7.60	6.69	1.20	0.80	2.27	?
40	815	7.56	6.44	1.00	0.40	1.87	} 1.8 Very coarse; plunger slip-page possible vol. error
41	835	7.01	5.97	1.00	0.40	1.73	
42	855	7.39	6.68	1.00	0.70	2.37	

MGC 100-0001



ARE: 5%

COMMON: 5-50%

RARE: 50-100%

ORE 73  
C. IG-19

Sample Depth

FORAMS-PLANKTONIC

FORAMS-BENTHONIC

RADIOLARIA

DIATOMS

PTEROPODS

SPONGE SPICULES

SILICOFLLAGELLATES

COCCOLITHS

DISCOASTERS

IRONSTONE

OPAQUE MINERALS

QUARTZ

MANGANESE

ZEOLITE

ASH SHARDS

OTHER

1000000000

GRAPHIC CORE LOG

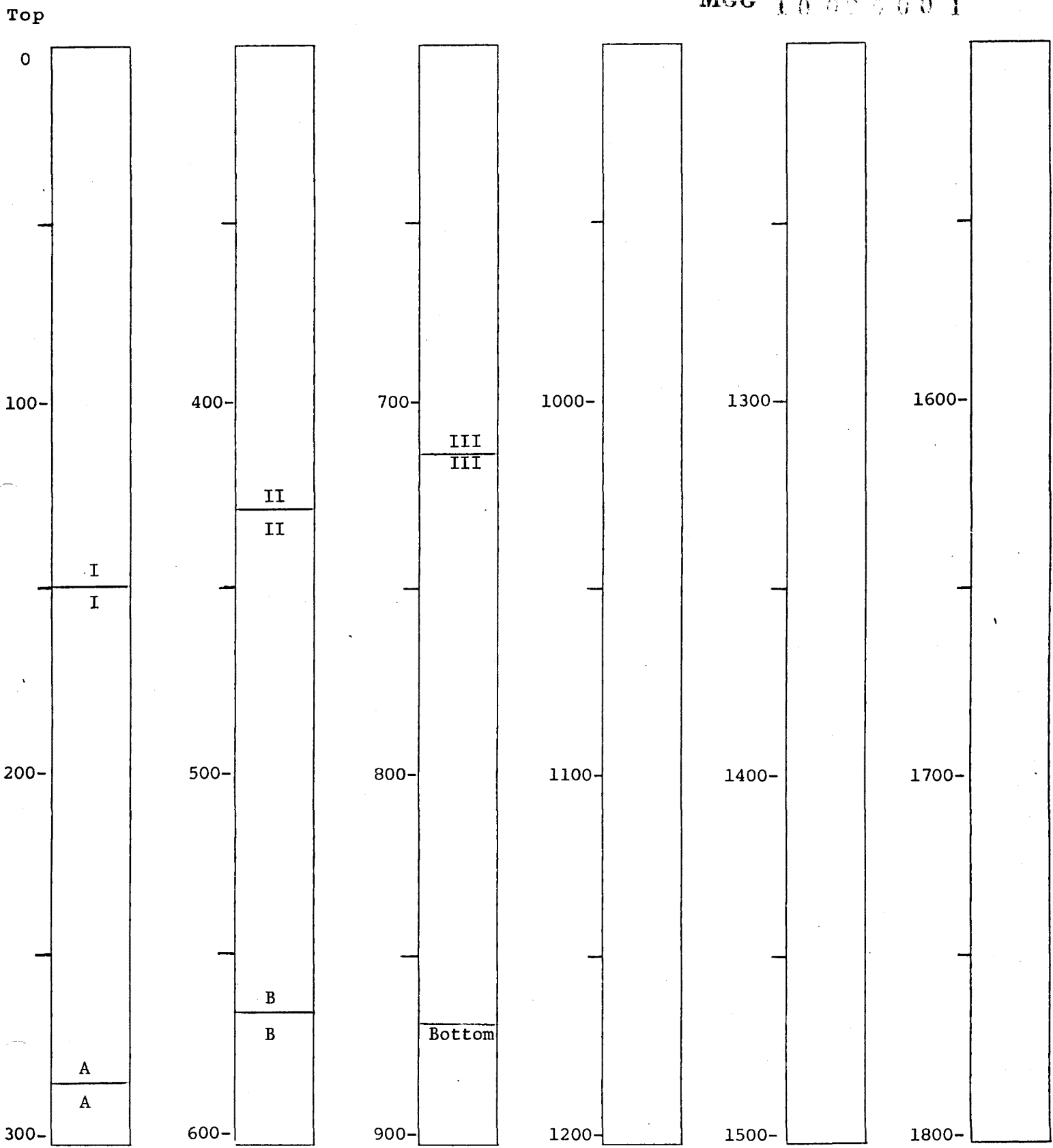
Core Number 73

Cruise IG-19-4

Core Cap Samples  
B = Bottom of Section  
T = Top of Section

CORE SECTIONS

MGG 10000001



\* = Coarse fraction/smear slide location.



INTERVAL OR LOCATION OF SAMPLE	ESTIMATED VOLUME OF SAMPLE	TAKEN BY	SAMPLING PURPOSE	PERSON AND/OR COMPANY RECEIVING SAMPLE(S) FOR INTENDED RESEARCH
Refer to page on "Density Measurements" for precise locations	approx. 1 cc.	T. Haines	wet-bulk density	U. S. Navy to receive density results(UT-MSI contracted to do density measurements)

MCC 1000001

597

CORE NUMBER 74 CRUISE IG 19-4  
 LATITUDE 29° 33.3' N LONGITUDE 86° 26.9' W  
 CORRECTED DEPTH 94 fm PDR DEPTH 90 fm  
 DATE TAKEN 7-3-76 DATE OPENED 4-18-77  
 DATE DESCRIBED 4-18-77 DATE PHOTOGRAPHED \_\_\_\_\_  
 DESCRIBED BY T. Haines CORE LENGTH 1072 cm  
 PENETRATION 1072+ cm FLOW-IN 0 cm

SUMMARY OF CORE:

Fine to very fine foraminiferal sandy/ <sup>mud</sup> dusky yellow green (5GY 5/2) soft and moist with low molluscan shell and shell debris; this change is due to a very fine foraminiferal sandy muddy clay from approximately 3 to 5.5 meters then becoming a fine foraminiferal sandy mud grayish olive (10Y 4/2) towards lower third of core; low molluscan shell content present with random distribution; mottling occurs within specific locales of these units with fill material resembling texture and color of preceding unit; overall, there were no visible structures evident; coarse fraction analysis indicates common amounts of planktonic & benthonic foraminifera and molluscan shells/shell debris, with rare to common amounts of glauconite and mica flakes, and rare amounts of pteropods, ostracods, sponge spicules, quartz (except common at 600 cm), manganese, echinoid spines & shell debris, and pyrite.

ISSG 10025001

INTERVAL	DESCRIPTION
0-282 cm	<p>Fine to very fine foraminiferal sandy mud, dusky yellow green (5GY 5/2), soft and moist; 0 to 3 cm is a slightly darker dark greenish gray (5GY 4/1); no visible structures evident; low molluscan shell debris.</p> <p>Basal contact an indistinct change in texture and composition.</p>
282-550 cm	<p>Very fine foraminiferal sandy muddy clay; dusky yellow green (5GY 5/2); soft and moist; occasional burrows with sandy fill material are present at random locations in this unit; no visible structures are evident; large bivalves present at 290 and at 295 cm.</p> <p>Basal contact a gradual change in color, texture and composition.</p>
550-850 cm	<p>Medium to fine foraminiferal sandy mud, dark greenish gray (5GY 4/1) firm, moist; mottled a dusky yellow green with fill material finer than surrounding matrix; low molluscan shell content scattered at random with large bivalves at 598, 632 cm; large close burrow (fine fill material) at 622-632 cm. No visible structures evident. Basal contact a gradual change in color and texture.</p>
850-1072 cm (core bottom)	<p>Fine to very fine foraminiferal sandy mud, grayish olive (10Y 4/2); soft and moist; 850 to 865 cm is very watery sandy mud pocket in liner; archive portion of liner at this point is nearly empty (work half of liner is full); no visible structures evident; small burrows present at 895 cm fill material finer than surrounding matrix and colored dark greenish gray (5GY 5/1).</p>

CORE NUMBER 74

CRUISE IG-19-4

DENSITY MEASUREMENTS ON CORE EXTRACTATIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
1	15 cm	7.78	6.31	1.50	0.50	1.47	Very soft; muddy
2	35	7.24	5.99	1.20	0.40	1.56	
3	55	7.55	6.02	1.50	0.50	1.53	
4	75	8.08	6.42	1.40	0.40	1.66	
5	75	7.98	6.34	1.60	0.60	1.64	
6	115	7.72	6.22	1.30	0.40	1.66	
7	135	7.68	6.04	1.50	0.50	1.64	
8	155	8.13	6.35	1.50	0.50	1.78	
9	175	8.19	6.44	1.40	0.40	1.75	
10	195	8.22	6.62	1.30	0.40	1.60	
11	215	7.96	6.21	1.50	0.50	1.75	
12	235	8.01	6.23	1.40	0.40	1.78	
13	255	7.73	5.97	1.40	0.40	1.76	
14	275	8.36	6.58	1.40	0.40	1.78	
15	295	7.62	6.03	1.40	0.40	1.59	Sediment change; clayey
16	315	7.96	6.28	1.40	0.40	1.68	
17	335	8.09	6.41	1.40	0.40	1.68	
18	355	8.27	6.62	1.50	0.50	1.65	
19	375	7.72	6.08	1.40	0.40	1.64	
20	395	8.25	6.63	1.40	0.40	1.62	
21	415	7.94	6.30	1.40	0.40	1.64	
22	435	7.86	6.23	1.50	0.50	1.63	
23	455	7.69	6.03	1.50	0.50	1.66	
24	475	8.21	6.59	1.50	0.50	1.62	
25	493	8.37	6.74	1.40	0.40	1.63	

WET BULK DENSITY

MGC 1000 0001

CORE NUMBER 74CRUISE IG-19-4

## DENSITY MEASUREMENTS ON CORE EXTRACTIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
26	515 cm	7.98	6.37	1.50	0.50	1.61 <del>1.64</del>	
27	535	7.87	6.18	1.50	0.50	1.69 <del>1.68</del>	
28	555	8.05	6.48	1.30	0.40	1.74 <del>1.69</del>	Sediment change; more sandy texture
29	575	8.32	6.67	1.40	0.40	1.65 <del>1.75</del>	
30	595	8.32	6.46	1.40	0.40	1.86 <del>1.74</del>	
31	615	7.88	6.16	1.40	0.40	1.72 <del>1.76</del>	
32	635	8.15	6.44	1.50	0.50	1.71 <del>1.71</del>	
33	655	8.44	6.74	1.40	0.40	1.70 <del>1.72</del>	
34	675	7.99	6.25	1.40	0.40	1.74 <del>1.72</del>	
35	695	8.19	6.48	1.50	0.50	1.71 <del>1.70</del>	
36	715	7.16	6.00	1.10	0.40	1.66 <del>1.71</del>	Submerged shell debris hampering penetration
37	735	8.20	6.45	1.50	0.50	1.75 <del>1.73</del>	
38	755	8.12	6.33	1.40	0.40	1.79 <del>1.74</del>	
39	775	8.11	6.44	1.50	0.50	1.67 <del>1.73</del>	
40	795	8.10	6.38	1.40	0.40	1.72 <del>1.68</del>	
41	815	7.76	6.28	1.40	0.30	1.64 <del>1.69</del>	
42	835	7.35	6.32	1.00	0.40	1.72 <del>1.67</del>	Crack marks near sample area; volume retrieved is low
43	855	7.58	6.42	1.20	0.50	1.66 <del>1.68</del>	Very watery sand, mud sediment change
44	875	8.29	6.64	1.40	0.40	1.65 <del>1.69</del>	
45	895	8.10	6.49	1.40	0.40	1.61 <del>1.62</del>	
46	915	7.83	6.23	1.40	0.40	1.60 <del>1.62</del>	
47	935	8.30	6.64	1.50	0.50	1.66 <del>1.62</del>	

MCG 10 01 1000 1

CORE NUMBER 74

CRUISE IG-19-4

DENSITY MEASUREMENTS ON CORE EXTRACTIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC BEG	CC END	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
48	955	7.59	5.98	1.40	0.40	1.61 1.62	
49	975	7.81	6.23	1.40	0.40	1.58 1.57	
50	995	7.72	6.66	1.10	0.40	1.51 1.56	Coarse underlying material hampering penetration
51	1015	7.85	6.26	1.40	0.40	1.59 1.60	
52	1035	7.73	6.03	1.40	0.40	1.70 1.67	
53	1055	8.35	6.64	1.40	0.40	1.71 1.69	
54	1070	7.40	6.41	1.00	0.40	1.63 1.68 1.65	Coarse underlying material hampering penetration

MCG 100 0001



GRAPHIC CORE LOG

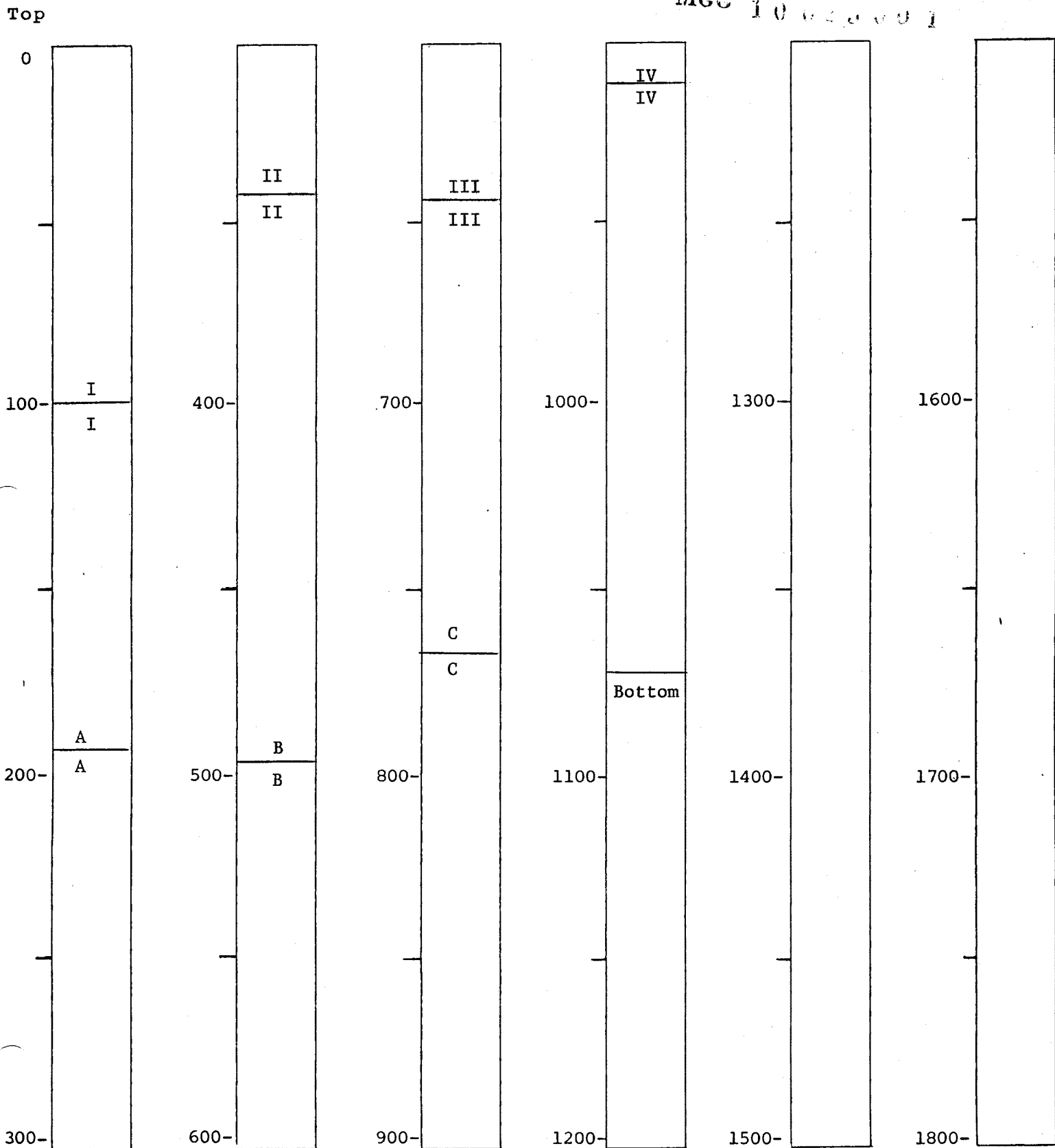
Core Number 74

Cruise IG-19-4

Core Cap Samples  
B = Bottom of Section  
T = Top of Section

CORE SECTIONS

MGC 10 000 001



\* = Coarse fraction/smear slide location.

ARE : 5%

COMMON : 5-50%

DEPTH : 50-100%

ORE  
IC-19  
74

Sample Depth

FORAMS-PLANKTONIC

FORAMS-BENTHONIC

RADIOLARIA

DIATOMS

PTEROPODS

SPONGE SPICULES

SILICOFLAGELLATES

COCCOLITHS

DISCOASTERS

IRONSTONE

OPAQUE MINERALS

QUARTZ

MANGANESE

ZEOLITE

ASH SHARDS

OTHER

MCC 1000000000



INTERVAL OR LOCATION OF SAMPLE	ESTIMATED VOLUME OF SAMPLE	TAKEN BY	SAMPLING PURPOSE	PERSON AND/OR COMPANY RECEIVING SAMPLE(S) FOR INTENDED RESEARCH
Refer to page on "Density Measurements" for precise locations	approx. 1 cc.	T. Haines	wet-bulk density	U. S. Navy to receive density results (UT-MSI contracted to do density measurements)

MGG 10 10 10 10 10

CORE NUMBER <u>75</u>	CRUISE <u>IG 19-4</u>
LATITUDE <u>29° 24.4' N</u>	LONGITUDE <u>86° 36.1' W</u>
CORRECTED DEPTH <u>176 fm</u>	PDR DEPTH <u>170 fm</u>
DATE TAKEN <u>7-3-76</u>	DATE OPENED <u>8-4-77</u>
DATE DESCRIBED <u>8-4-77</u>	DATE PHOTOGRAPHED _____
DESCRIBED BY <u>T. Haines</u>	CORE LENGTH <u>1038 cm</u>
PENETRATION <u>1070 cm</u>	FLOW-IN <u>0 cm</u>

SUMMARY OF CORE:

Fine to very fine foraminiferal sandy mud, dark greenish gray (5GY 4/1) very soft consistency at top of core increasing firmness with depth. No visible structures evident. Molluscan and echinoid shell debris present in low amounts through entire core. Chondrites burrows are present in low proportions in core from 250 to 804 cm and is common in bottom unit of core. All units in core are foraminiferal sandy muds except deepest unit which is a foraminiferal sandy clay; coarse fraction analysis indicates common to abundant planktonic foraminifera, common(rare in top sample only) benthonic foraminifera, with rare amounts of pteropods, ostracods, sponge spicules, molluscan shells/shell debris (except common in 500 cm sample), quartz, manganese, echinoid spines & shell debris, mica flakes, glauconite, pyrite(primarily coatings or infillings), and amber colored disc-shaped glassy particles(possible platelets of organic origin).

INTERVAL	DESCRIPTION
0 - 250 cm	<p>Very fine foraminiferal sandy mud, dark greenish gray (5GY 4/1), very soft and moist. No visible structures evident in this unit. Small molluscan shells and shell fragments occur evenly distributed through unit in very low numbers. Sediment is basically homogeneous.</p> <p>Basal contact a gradual change in color and texture.</p>
250-445 cm	<p>Fine to very fine foraminiferal sandy mud, light grayish olive (10Y 5/2); semi-soft and moderate moisture content. Chondrites burrows are present in low amounts and are well distributed through this unit. Mottling colored greenish gray (5GY 6/1) occurs commonly in this unit with a very fine fill material somewhat clayey in texture. Low amounts of molluscan shell fragment present in closed burrows 0.5 cm in diameter through unit. Other shell fragments occur at random locations in low amounts. Echinoid shell debris present in small amounts in this unit after 340 cm; 382 to 427 cm exhibits an increase in sandy burrows and a thin 1 cm laminar bedding surface. An occasional sandy textured closed burrow is present below 427 cm in this unit. Basal contact a definite change in color.</p> <p style="text-align: right;">MCG 1000000000</p>
445-700 cm	<p>Fine to very fine foraminiferal sandy mud, greenish gray (5GY 6/1); semi-soft and moderately moist. Occasional molluscan shell debris present through unit. Sandy textured filled burrow at 506 cm.</p>

INTERVAL	DESCRIPTION
445-700 cm (continued)	Liner is collapsed from 530 to 570 cm. Light greenish gray (5GY 7/1) mottled zones present at 628-640 cm and 670-690 cm increasing firmness with depth. Basal contact an indistinct change in texture and color.
700-804 cm	Very fine foraminiferal sandy mud, pale olive (10Y 6/2), firm and low moisture content. Small echinoid and molluscan shell fragments are evident through unit in sparse amounts. Mottling occurs rarely in this unit and is present with both sandy and fine textured fill material. Basal contact a sharp change in composition and color.
804-1038 cm (core bottom)	Very fine foraminiferal sandy clay, greenish gray (5GY 6/1); firm and low moisture content. Foram-rich mottling common from top of unit to 868 cm. Chondrites burrowing common through entire unit. Occasional mottling with fine fill material colored pale olive (10Y 6/2) is present in low amounts well distributed through unit. Randomly distributed molluscan and echinoid shell debris is present in low amounts to bottom of core.

MCG 10 000 000

607

ORE NUMBER 75

CRUISE IG-19-4

DENSITY MEASUREMENTS ON CORE EXTRACTIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
1	15 cm	7.40	6.22	1.20	0.40	1.48 1.47	Very soft
2	35	7.87	6.41	1.40	0.40	1.46 1.47	
3	55	7.61	6.15	1.30	0.30	1.46 1.46	
4	75	7.47	6.02	1.40	0.40	1.45 1.48	
5	95	7.75	6.23	1.40	0.40	1.52 1.48	
6	115	7.94	6.48	1.40	0.40	1.46 1.49	
7	135	8.07	6.58	1.50	0.50	1.49 1.48	
8	155	8.12	6.63	1.40	0.40	1.49 1.50	
9	175	7.63	6.12	1.40	0.40	1.51 1.49	
10	195	7.92	6.44	1.40	0.40	1.48 1.50	
11	215	7.95	6.44	1.40	0.40	1.51 1.50	
12	235	7.74	6.23	1.50	0.50	1.51 1.51	
13	255	7.53	6.03	1.40	0.40	1.50 1.50	Sediment unit change; increased firmness; more sand texture
14	275	8.02	6.54	1.40	0.40	1.48 1.50	
15	295	7.95	6.43	1.40	0.40	1.52 1.50	
16	315	8.00	6.49	1.30	0.30	1.51 1.52	Possible volume error
17	335	7.97	6.44	1.40	0.40	1.53 1.52	
18	355	7.78	6.25	1.40	0.40	1.53 1.53	
19	375	8.25	6.72	1.40	0.40	1.53 1.53	
20	395	7.96	6.43	1.40	0.40	1.53 1.55	
21	415	7.88	6.30	1.40	0.40	1.58 1.56	
22	435	7.93	6.35	1.50	0.50	1.58 1.58	
23	455	7.88	6.31	1.50	0.50	1.57 1.59	
24	475	8.23	6.62	1.50	0.50	1.61 1.59	
25	495	8.24	6.64	1.40	0.40	1.60 1.60	

WET BULK DENSITY (3)

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ORE NUMBER 75

CRUISE IG-19-4

DENSITY MEASUREMENTS ON CORE EXTRACTIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
26	515 cm	7.70	6.11	1.40	0.40	1.59 1.58	
27	538	7.41	6.63	0.90	0.40	1.56 1.68	Collapsed liner from 520 to 570 cm. affecting density
28	555	7.46	6.33	1.10	0.50	1.88 1.66	
29	575	7.89	6.35	1.50	0.50	1.54 1.68	
30	595	7.59	5.97	1.40	0.40	1.62 1.58	
31	615	8.02	6.44	1.50	0.50	1.58 1.60	
32	635	7.56	5.97	1.50	0.50	1.59 1.58	
33	655	8.22	6.65	1.50	0.50	1.57 1.60	
34	675	8.39	6.75	1.50	0.50	1.64 1.60	
35	695	7.62	6.03	1.60	0.60	1.59 1.58	
36	715	7.75	6.25	1.50	0.50	1.50 1.57	
37	735	8.06	6.43	1.50	0.50	1.63 1.57	
38	755	8.17	6.60	1.60	0.50	1.57 1.62	
39	775	8.07	6.42	1.50	0.50	1.65 1.60	
40	795	7.61	6.03	1.50	0.50	1.58 1.61	
41	815	7.83	6.23	1.60	0.60	1.60 1.61	
42	835	8.19	6.55	1.50	0.50	1.64 1.63	
43	855	8.02	6.37	1.60	0.60	1.65 1.63	
44	875	7.76	6.16	1.50	0.50	1.60 1.61	
45	905	7.87	6.28	1.60	0.60	1.59 1.61	
46	925	8.43	6.80	1.50	0.50	1.63 1.61	
47	945	8.25	6.65	1.50	0.50	1.60 1.60	
48	965	8.29	6.71	1.50	0.50	1.58 1.58	
49	985	8.03	6.46	1.50	0.50	1.57 1.57	
50	1005	7.90	6.35	1.50	0.50	1.55 1.58	

MGG 100 5001

609

ORE NUMBER 75

CRUISE IG-19-4

DENSITY MEASUREMENTS ON CORE EXTRACTIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
51	1025 cm	7.86	6.23	1.50	0.50	1.63 1.62 1.64	
52	1035	8.32	6.65	1.50	0.50	1.67	

MGG 10 00 00

Rare: 5%  
 Common: 5-50%  
 Abundant: 50-100%  
 Core No: 75  
 Cruise: IG 19-4  
 Sample Depth

	FORAMS-PLANKTONIC	FORAMS-BENTHONIC	RADIOLARIA	DIATOMS	PTEROPODS	SPONGE SPICULES	OSTRACODS	MOLLUSC	CORALLINE ALGAE	CORAL	BRYOZOA	QUARTZ	FELDSPAR	MANGANESE	IRONSTONE	OPAQUE MINERALS	ROCK FRAGMENTS	OTHER
0 cm	A	R			R	R	R	R						R				echinoid spines & shell debris R. mica flakes R.
100 cm	C	C			R		R	R				R		R				echinoid spines & shell debris R. mica flakes R.
200 cm	C	C			R		R	R				R		R				echinoid spines & shell debris R. mica flakes R., pyrite infilling R.
300 cm	C	C			R		R	R				R		R				echinoid spines & shell debris R., mica flakes R., amber discs R., pyrite infillings R.
400 cm	A	C			R	R	R	R				R		R				echinoid spines & shell debris R., mica flakes R., pyrite infillings R.
500 cm	A	C			R	R	R	C				R		R				echinoid spines & shell debris R., mica flakes R., pyrite-coated rods R.
600 cm	C	C			R	R	R	R				R						echinoid spines & shell debris R., mica flakes R., pyrite infillings R.
700 cm	C	C			R	R	R	R				R		R				echinoid spines & shell debris R., mica flakes R., pyrite infillings R.
800 cm	C	C			R	R	R	R				R		R				echinoid spines & shell debris R., glauconite R., mica flakes R., pyrite infillings R.
900 cm	C	C			R		R	R				R		R				echinoid spines & shell debris R., glauconite R., mica flakes R., pyrite R.
1000 cm	C	C			R		R	R				R		R				echinoid spines & shell debris R., mica flakes R., glauconite R., pyrite R.

671

RARE = 5%

COMMON=5-50%

ABUN=50-100%

CORE  
NO: 75  
CRUISE  
NO: IG 19-4  
Sample Depth

FORAMS-PLANCTONIC	FORAMS-BENTHONIC	RADIOLARIA	DIAZONS	PTERIODS	SPONGE SPICULES	SILICOFLAGELLATES	COCCOLITHS	DISCOASTERS	IRONSTONE	OPAQUE MINERALS	QUARTZ	MANGANESE	ZEOLITE	ASH SHARDS	OTHER

MCC



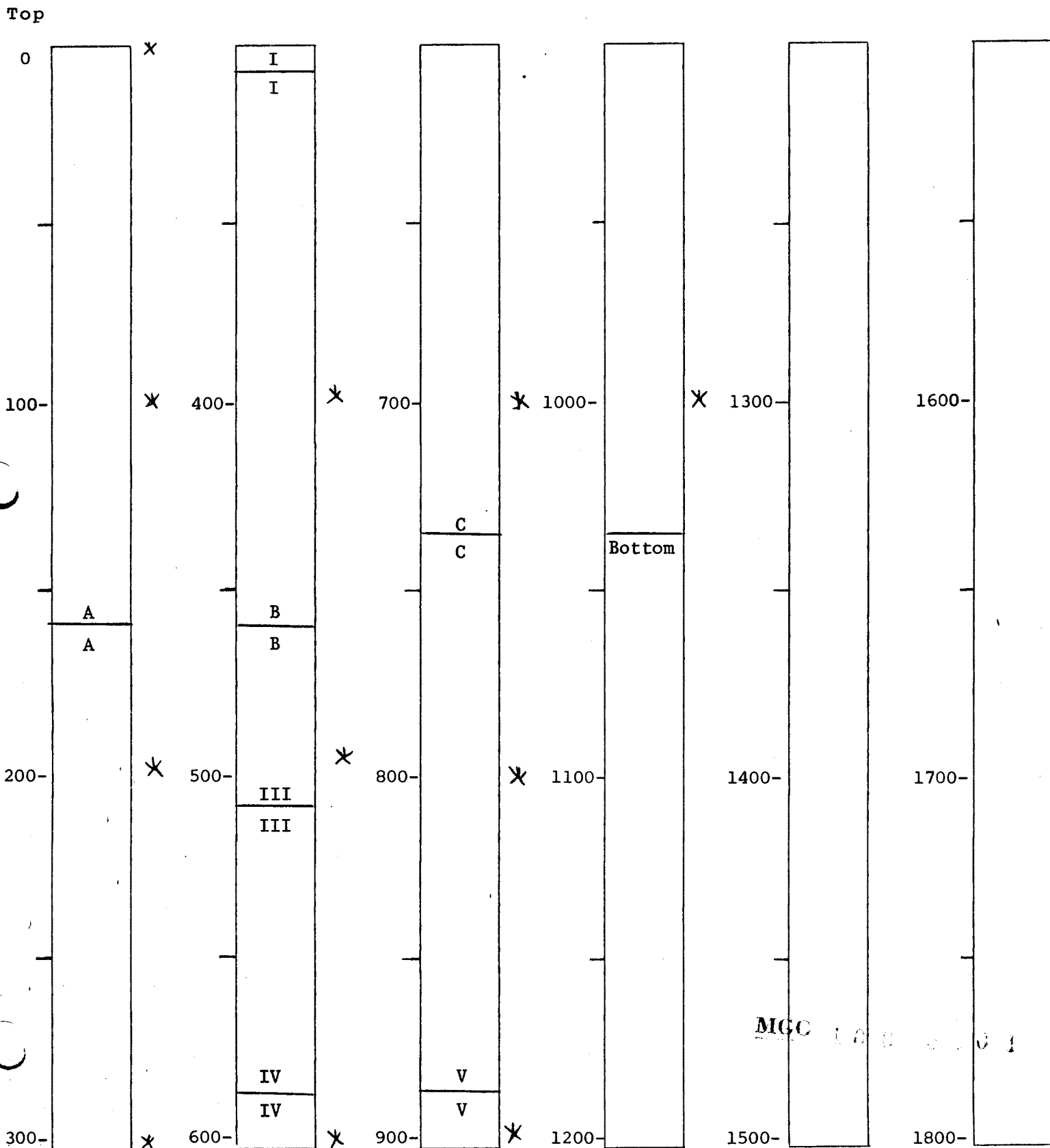
# GRAPHIC CORE LOG

Core Number 75

Cruise IG-19-4

Core Cap Samples  
B = Bottom of Section  
T = Top of Section

## CORE SECTIONS



\* = Coarse fraction/smear slide location.

BORE NUMBER

75

CRUISE

IG 19-4

INTERVAL OR LOCATION OF SAMPLE	ESTIMATED VOLUME OF SAMPLE	TAKEN BY	SAMPLING PURPOSE	PERSON AND/OR COMPANY RECEIVING SAMPLE(S) FOR INTENDED RESEARCH
Refer to page in "Density measurements" for precise locations	approx. 1 cc.	T. Haines	wet-bulk density	U.S. Navy to receive density results(UT-MSI contracted to do density measurements)

REC-100-10001

CORE NUMBER 76 CRUISE IG 19-4  
 LATITUDE 29° 14.9' N LONGITUDE 87° 00.8' W  
 CORRECTED DEPTH 472 fm PDR DEPTH 463 fm  
 DATE TAKEN 7-3-76 DATE OPENED 7-28-77  
 DATE DESCRIBED 8-17-77 DATE PHOTOGRAPHED \_\_\_\_\_  
 DESCRIBED BY T. Haines CORE LENGTH 1010 cm  
 PENETRATION 1150 cm FLOW-IN 0 cm

SUMMARY OF CORE:

All units are very fine foraminiferal sandy clays varying in color primarily; chondrites burrowing is visible on all units except the 0-25 cm unit which has a higher foraminifera content than the other units. Evidence of mottling is seen in all units except 0-25 cm top unit. Small amounts of molluscan shell debris present in certain lithologic units. Scaphapods present at 202 and 275 cm. Repetitive color banding sequence of light grayish olive (10Y 5/2) and olive gray (5Y 4/1) is present from 420 to 685 cm. Possible bedding plane of clayey sediment in the 130-688 unit located at 206 cm and is 1 cm thick colored light olive gray (5Y 5/2); coarse fraction analysis indicates abundant to common planktonic foraminifera, rare to common benthonic foraminifera, and rare amounts of pteropods, ostracods (intermittently), sponge spicules (200 and 900 cm sample sites only), molluscan shell debris (200 cm sample site only), quartz, ironstone (500 and 800 sample sites only), manganese, opaque minerals (200 and 300 cm samples only), echinoid spines, mica flakes, pyrite & pyrite infillings (except common in 800 cm sample), and amber disc-shaped platelets.

INTERVAL	DESCRIPTION
0-25 cm	Very fine foraminiferal sandy clay, semi-dark greenish gray (5GY 5/1), very soft and moist. No visible structures evident. Unmottled and no visible signs of shell debris. Basal contact a gradual color change.
25-130 cm	Very fine foraminiferal sandy clay, light olive gray (5Y 5/2), very soft and moist. Moderate amount of mottling colored light olive gray (5Y 4/2) is evenly distributed through unit. Very low numbers of chondrites burrows at random locations are noted; no visible shell fragments. Basal contact a gradual change in color.
130-688 cm	Very fine foraminiferal sandy clay, light grayish olive (10Y 5/2), very soft and moist. Light olive gray (5Y 5/2) mottling is evident from 195 to 210 cm, 250, 360, and 380 cm. Mottled area at 206 cm is laminar band across diameter of core (possible bedding plane); chondrites burrowing present in low well distributed amounts. Some molluscan shell debris visible at 274 cm. Scaphapods present at 202 and 275 cm ranging from 2 to 3.5 cm in length. A gradual darkening and abrupt lightening of sediment color occurs beginning at 420 cm as color darkens to an olive gray (5Y 4/1) and resumes original light grayish olive (10Y 5/2). Basal contact a gradual change in color.
688-853 cm	Very fine foraminiferal sandy clay, light olive gray (5Y 5/2), semi-

INTERVAL	DESCRIPTION
688-853 cm (continued)	soft and low moisture content. Very lutitic homogeneous sediment consistency; some mottling colored dark yellowish brown (10YR 4/2) present at 745 cm and 820 cm. Mottling colored olive gray (5Y 5/1) occurs at 816 cm.
853-1010 cm (core bottom)	Very fine foraminiferal sandy clay, light olive gray (5Y 5/1), semi-firm and very little moisture content. Dark yellowish brown banded mottling present between 865 and 880 cm and at 900, 920, and 930 cm. Chondrites burrowing present in low amounts to end of core. Small amounts of scattered molluscan shell debris is visible in random locations. No visible structures evident.

MCG 10000001

610

ORE NUMBER 76

CRUISE IG-19-4

DENSITY MEASUREMENTS ON CORE EXTRACTIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
1	15 cm	7.28	5.97	1.50	0.50	1.31	Soft
2	35	7.36	6.04	1.50	0.50	1.32	
3	55	7.37	6.01	1.50	0.50	1.36	Very soft
4	75	7.37	6.08	1.50	0.50	1.29	Very soft
5	95	7.30	6.02	1.50	0.50	1.28	
6	115	7.30	6.03	1.50	0.50	1.27	
7	133	6.94	5.66	1.50	0.50	1.28	
8	155	7.18	5.80	1.50	0.50	1.38	
9	175	7.28	5.90	1.50	0.50	1.38	
10	195	7.07	5.72	1.50	0.50	1.35	
11	215	7.36	5.97	1.50	0.50	1.39	
12	235	7.24	5.87	1.50	0.50	1.37	
13	255	7.23	5.82	1.50	0.50	1.41	
14	275	7.21	5.82	1.50	0.50	1.39	
15	295	7.22	5.82	1.50	0.50	1.40	
16	315	7.48	6.05	1.50	0.50	1.43	
17	335	7.31	5.90	1.50	0.50	1.41	
18	355	7.29	5.83	1.50	0.50	1.46	
19	375	7.64	6.20	1.50	0.50	1.44	
20	395	7.48	6.04	1.50	0.50	1.44	
21	415	7.70	6.31	1.50	0.50	1.39	
22	434	7.54	6.08	1.50	0.50	1.46	
23	455	7.83	6.32	1.50	0.50	1.51	
24	475	7.34	5.85	1.50	0.50	1.49	
25	495	7.56	6.03	1.50	0.50	1.53	

MCG 100

CORE NUMBER 76

CRUISE IG-19-4

DENSITY MEASUREMENTS ON CORE EXTRACTATIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
26	515 cm	7.41	5.93	1.50	0.50	1.48	
27	535	7.39	5.88	1.50	0.50	1.51	
28	555	7.21	5.69	1.50	0.50	1.52	
29	575	7.38	5.85	1.50	0.50	1.53	
30	595	7.28	5.69	1.50	0.50	1.59	
31	615	7.50	5.88	1.50	0.50	1.62	
32	635	7.68	6.00	1.50	0.50	1.68	
33	655	7.52	5.87	1.50	0.50	1.65	
34	675	7.88	6.27	1.50	0.50	1.61	
35	695	7.54	6.00	1.50	0.50	1.54	
36	715	7.64	6.00	1.50	0.50	1.64	
37	735	7.40	5.83	1.50	0.50	1.57	
38	755	7.37	5.74	1.50	0.50	1.63	
39	775	7.73	6.09	1.50	0.50	1.64	
40	795	7.68	6.09	1.50	0.50	1.59	
41	815	7.50	5.89	1.50	0.50	1.61	
42	835	7.98	6.30	1.50	0.50	1.68	
43	855	7.47	5.81	1.50	0.50	1.66	
44	875	7.86	6.18	1.50	0.50	1.68	
45	895	7.30	5.68	1.50	0.50	1.62	
46	915	7.29	5.75	1.50	0.50	1.54	
47	935	7.53	6.02	1.50	0.50	1.51	
48	955	7.15	5.66	1.50	0.50	1.49	
49	975	7.66	6.21	1.50	0.50	1.45	
50	995	7.40	5.91	1.50	0.50	1.49	

MGS 10

Rare: 5%																		
Common: 5-50%																		
Abund: 50-100%																		
Core No: 76																		
Cruise: IG 19-4																		
Sample Depth	FORAMS-PLANKTONIC	FORAMS-BENTHONIC	RADIOLARIA	DIATOMS	PTEROPODS	SPONGE SPICULES	OSTRACODS	MOLLUSC	CORALLINE ALGAE	CORAL	BRYOZOA	QUARTZ	FELDSPAR	MANGANESE	IRONSTONE	OPAQUE MINERALS	ROCK FRAGMENTS	OTHER
0 cm	A	C			R		R					R		R				echinoid spines R., mica flakes R., pyrite infillings R.
100 cm	C	C			R		R					R		R				echinoid spines R., pyrite & pyrite infillings R., mica flakes R.
200 cm	C	C			R	R		R				R				R		echinoid spines R., pyrite & pyrite infillings R., mica flakes R.
300 cm	C	C			R		R					R				R		echinoid spines R., mica flakes R., pyrite & pyrite infillings R., amber disc-shaped platelets R.
400 cm	C	C			R		R					R		R				mica flakes R., pyrite & pyrite infillings R., amber disc-shaped platelets R.
500 cm	A	C			R		R					R		R	R			mica flakes R., pyrite & pyrite infillings R., amber disc-shaped platelets R.
600 cm	C	C			R							R		R				coarse fraction 1% pyrite & pyrite infillings R., amber disc-shaped platelets R.
700 cm	C	C			R		R					R						coarse fraction 1% pyrite infillings R., amber disc-shaped platelets R.
800 cm	A	R			R							R			R			coarse fraction 1% pyrite & pyrite infillings R., amber disc-shaped platelets R.
900 cm	C	C			R	R						R		R				mica flakes R., pyrite infillings R.
1000 cm	A	C			R							R		R				pyrite & pyrite infillings R., mica flakes R.

MCC 1000 1000





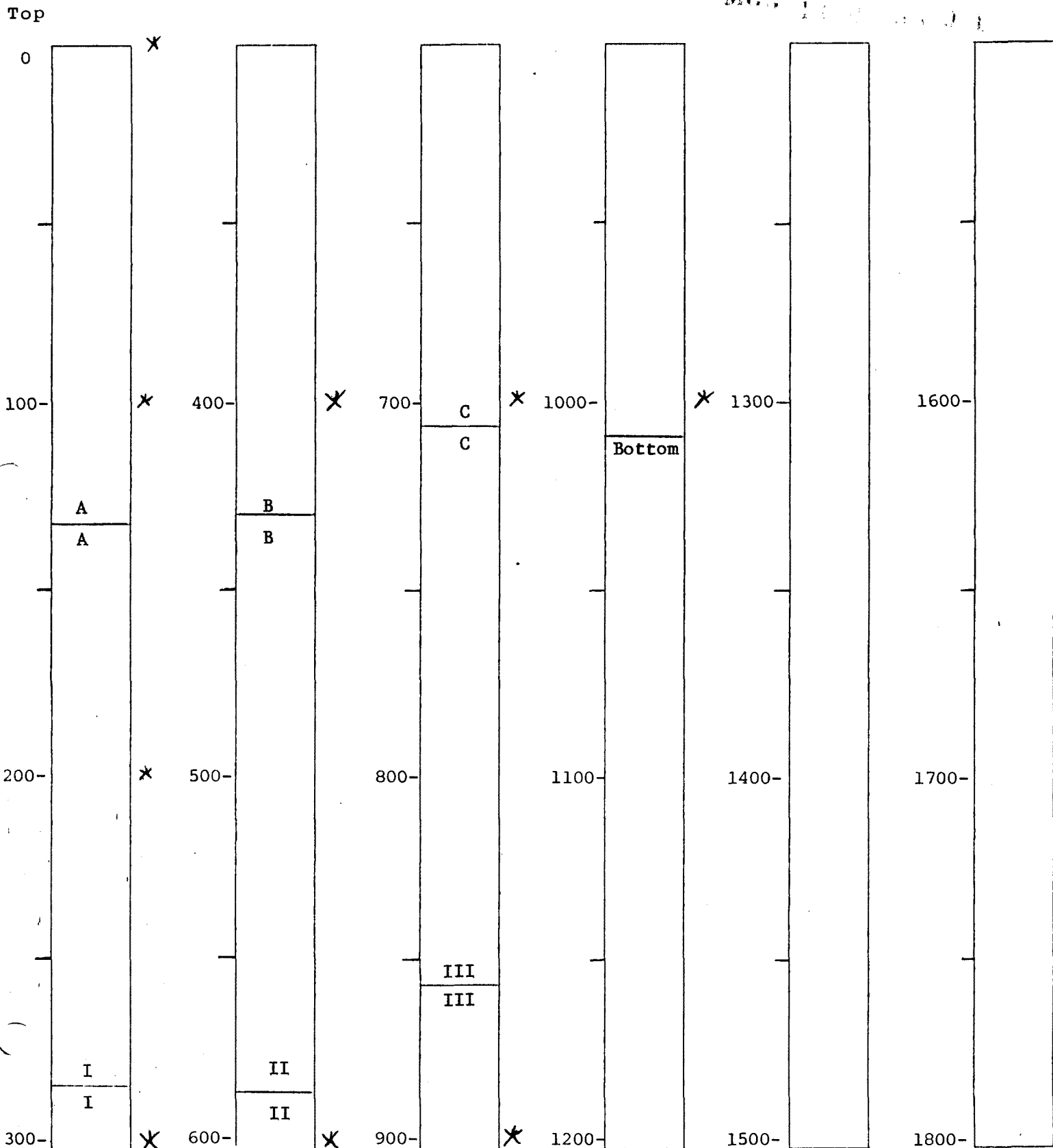
GRAPHIC CORE LOG

Core Number 76

Cruise IG-19-4

Core Cap Samples  
B = Bottom of Section  
T = Top of Section

CORE SECTIONS



\* = Coarse fraction/smear slide location

CORE NUMBER

76

CRUISE

IG 19-4

INTERVAL OR LOCATION OF SAMPLE	ESTIMATED VOLUME OF SAMPLE	TAKEN BY	SAMPLING PURPOSE	PERSON AND/OR COMPANY RECEIVING SAMPLE(S) FOR INTENDED RESEARCH
Refer to page on "Density Measurements" for precise locations	approx. 1 cc.	T. Haines	wet-bulk density	U.S. Navy to receive density results (UT-MSI contracted to do density measurements)

MCS

CORE NUMBER 77 CRUISE IG 19-4  
 LATITUDE 29° 14.1' N LONGITUDE 87° 00.5' W  
 CORRECTED DEPTH 505 fm PDR DEPTH 495 fm  
 DATE TAKEN 7-3-76 DATE OPENED 7-29-77  
 DATE DESCRIBED 8-17-77 DATE PHOTOGRAPHED \_\_\_\_\_  
 DESCRIBED BY T. Haines CORE LENGTH 727 cm  
 PENETRATION 840 cm FLOW-IN 0 cm

SUMMARY OF CORE:

Very fine foraminiferal sandy clay, light olive gray (5Y 5/1) very soft and moist at top 10 cm of core followed by a fine to very fine foraminiferal sandy mud light olive gray (5Y 5/2) with a much larger number of sand size particles; all lower units below 48 cm are very fine foraminiferal sandy clays. There is chondrites burrowing in low amounts in units from 48 to 626 cm and moderate amounts in the deepest unit from 626 to 727 cm. No mottling in upper two units (0-10 cm and 10-48 cm) but mottling is visible in the lower units. A piece of petrified wood 2 to 3 cm in length is present at 650 cm and a very coarse granule layer 0.5 cm thick is present at 689 cm; coarse fraction analysis indicates common to abundant planktonic foraminifera (except rare in a coarse clay pebble sample taken at 689 cm), common benthonic foraminifera, rare to common ironstone and pyrite & pyrite infillings, and rare amounts of pteropods, ostracods, sponge spicules, quartz, manganese, opaque minerals, molluscan shell debris, mica flakes, glauconite, and amber disc-shaped platelets; common amount of gypsum is noted in clay pebbles in 689 cm sample taken in a coarse clay granule layer 0.5 cm thick.

INTERVAL	DESCRIPTION
0 - 10 cm	Very fine foraminiferal sandy clay, light olive gray (5Y 5/1), very soft and moist. No visible structures or mottling evident. Some scattered black grains present on surface in random locations. Basal contact a sharp change in composition and texture and a gradual color change.
10-48 cm	Fine to very fine foraminiferal sandy mud, light olive gray (5Y 5/2), very soft and moist. Large amount of sand-size material present in top portion of unit down to 38 cm and reduced sand size particle numbers to end of unit. No visible structures evident. Basal contact a gradual change in texture and composition.
48-260 cm	Very fine foraminiferal sandy clay, light olive gray (5Y 5/2), very soft and moist. Very homogeneous lutitic material. Low amounts of localized mottling is present from 48 to 59 cm, colored olive gray (5Y 4/1). Chondrites burrowing is present in low amounts. Basal contact a gradual change in color.
260-504 cm	Very fine foraminiferal sandy clay, light olive gray (5Y 5/1), very soft and moist. Repetitive color darkening cycles beginning at 325 cm are present with a change of color to light olive gray (5Y 4/2) and resuming the original (5Y 5/1) light olive gray. Chondrites burrowing is present in low amounts as is widely scattered molluscan shells and shell debris. Material in this lithologic unit is very homogeneous and lutitic in consistency. Basal contact a gradual change in color.

023

INTERVAL	DESCRIPTION
504-626 cm	Very fine foraminiferal sandy clay, light olive gray (5Y 5/2), semi-soft and low moisture content. Chondrites burrowing occurs through entire unit in low amounts. Otolith present at 577 cm. Slight increase in number of sand size particles after 580 cm. No visible structures evident. Basal contact a sharp change in color.
626-727 cm (core bottom)	Very fine foraminiferal sandy clay, grayish olive (10Y 4/2), extremely firm with very low water content. Moderate amounts of chondrites burrowing is visibly evident throughout this unit. Petrified wood chip is located at 650 cm and is colored dark gray (N3). A 0.5 cm thick laminar layer of very coarse granules colored olive gray (5Y 4/1) to dark greenish gray (5GY 4/1) is present at 689 cm.

MCG 10 3 19 69

624

CORE NUMBER 77

CRUISE IG-19-4

DENSITY MEASUREMENTS ON CORE EXTRACTATIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
1	15 cm	7.88	6.50	1.50	0.50	1.38	
2	35	7.81	6.42	1.50	0.50	1.39	
3	55	7.85	6.49	1.50	0.50	1.36	
4	75	7.90	6.50	1.50	0.50	1.40	
5	95	7.41	5.99	1.50	0.50	1.42	
6	115	7.37	5.93	1.50	0.50	1.44	
7	135	7.70	6.18	1.50	0.50	1.52	
8	155	8.03	6.53	1.50	0.50	1.50	
9	175	7.50	5.94	1.50	0.50	1.56	
10	195	7.96	6.45	1.50	0.50	1.51	
11	215	7.51	5.94	1.50	0.50	1.57	
12	235	8.09	6.55	1.50	0.50	1.54	
13	255	7.50	5.96	1.50	0.50	1.54	
14	275	8.18	6.64	1.50	0.50	1.54	
15	295	7.59	6.06	1.50	0.50	1.53	
16	315	7.94	6.41	1.50	0.50	1.53	
17	335	7.59	6.05	1.50	0.50	1.54	
18	355	8.03	6.51	1.50	0.50	1.52	
19	375	7.97	6.41	1.50	0.50	1.56	
20	395	7.66	5.95	1.50	0.50	1.71	
21	415	7.99	6.42	1.50	0.50	1.57	
22	435	8.09	6.48	1.50	0.50	1.61	
23	455	8.06	6.45	1.50	0.50	1.61	
24	475	7.56	5.87	1.50	0.50	1.69	
25	495	7.58	5.92	1.50	0.50	1.66	

MCG 10 02 1961

625

CORE NUMBER 77

CRUISE IG-19-4

DENSITY MEASUREMENTS ON CORE EXTRACTATIONS FOR REFLECTION PROPERTY ANALYSIS

(CC<sub>BEG.</sub> - CC<sub>END</sub> = CC<sub>TOTAL USED</sub>)

VIAL NUMBER	SAMPLE DEPTH	FULL WEIGHT	EMPTY WEIGHT	CC <sub>BEG</sub>	CC <sub>END</sub>	WET BULK DENSITY	PROBLEMS/OBSERVATIONS
26	515 cm	7.42	5.92	1.50	0.50	1.50	
27	535	7.93	6.46	1.50	0.50	1.47	
28	555	7.47	5.96	1.50	0.50	1.51	
29	574	7.70	6.19	1.50	0.50	1.51	
30	595	7.44	5.91	1.50	0.50	1.53	
31	615	7.49	5.91	1.50	0.50	1.58	
32	635	8.22	6.56	1.50	0.50	1.66	Extremely hard clayey material lithologic change of unit
33	655	8.26	6.50	1.50	0.50	1.76	
34	675	8.15	6.42	1.50	0.50	1.73	
35	695	8.14	6.38	1.50	0.50	1.76	
36	715	7.74	6.05	1.50	0.50	1.69	

MCG 15







GRAPHIC CORE LOG

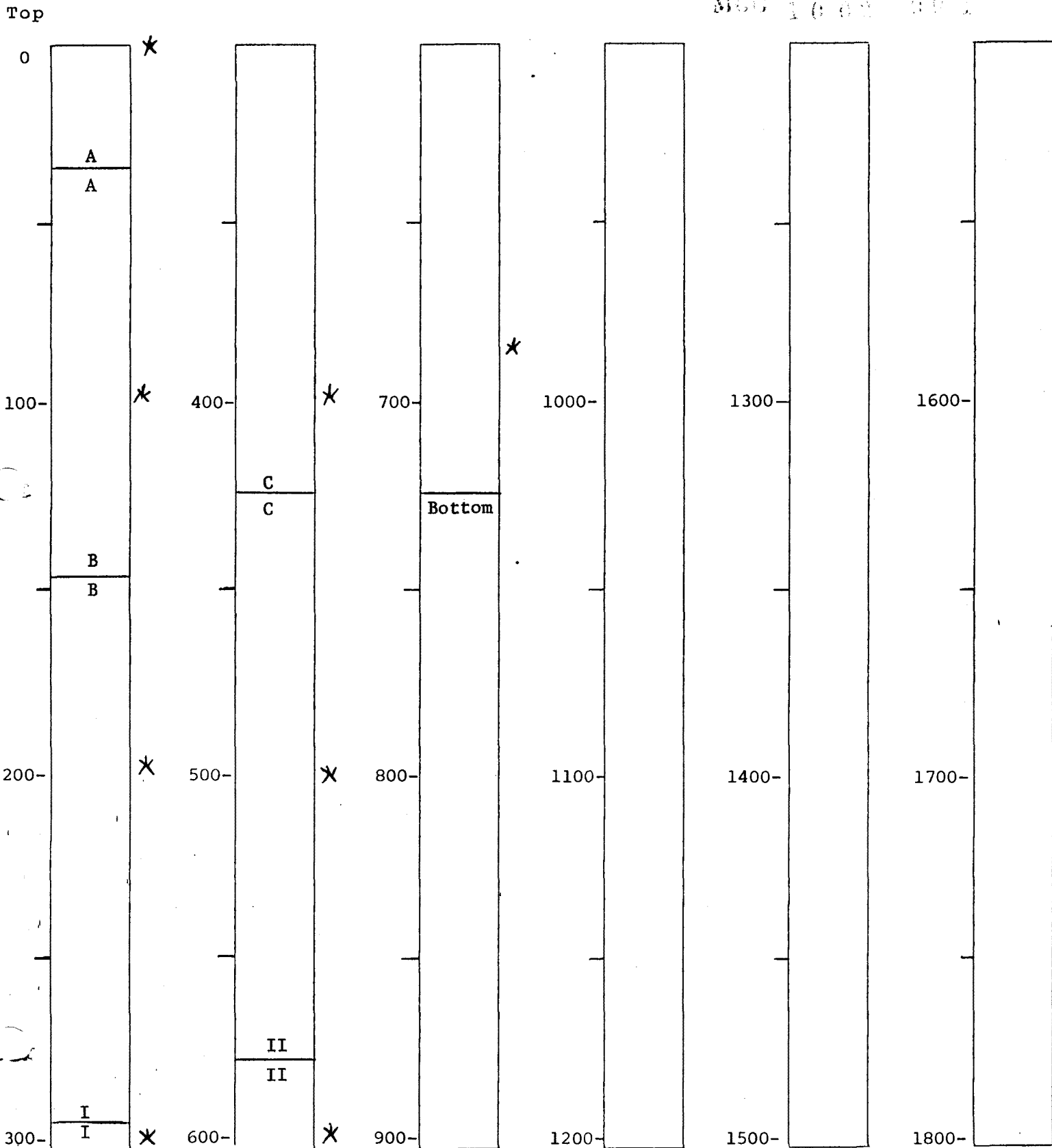
Core Number 77

Cruise IG-19-4

Core Cap Samples  
B = Bottom of Section  
T = Top of Section

CORE SECTIONS

MOG 1000 000



\* = Coarse fraction/smear slide location

CORE NUMBER

77

CRUISE

IG 19-4

629

INTERVAL OR LOCATION OF SAMPLE	ESTIMATED VOLUME OF SAMPLE	TAKEN BY	SAMPLING PURPOSE	PERSON AND/OR COMPANY RECEIVING SAMPLE(S) FOR INTENDED RESEARCH
Refer to page on "Density Measurements" for precise locations	approx. 1 cc.	T. Haines	wet-bulk density	U.S. Navy to receive density results (UT-MSI contracted to do density measurements)



THE UNIVERSITY OF TEXAS  
MARINE SCIENCE INSTITUTE  
GEOPHYSICS LABORATORY  
GALVESTON, TEXAS 77550

ALCC 10 02 5 000

700 The Strand  
713 765-2173

May 3, 1978

Core Top samples For Shell Oil Development

Core I. D.	Corr. Water Depth (Fathoms)	Int. or Location of Sample	Vol. Taken	Taken by	Purpose	Person or Company to do Research Frank Van Markhoren
04	10	0-10 cm	65 gm	T. Haines	Ostracod Research	Shell Oil
05	12	0-9 cm	"	"	"	"
06	16	0-10 cm	"	"	"	"
07	18	0-11 cm	"	"	"	"
08	19	0-9 cm	"	"	"	"
09	21	0-21 cm	"	"	"	"
10	22	0-14 cm	"	"	"	"
11	23	0-12 cm	"	"	"	"
12	25	0-9 cm	"	"	"	"
13	29	0-12 cm	"	"	"	"
14	36	0-8 cm	"	"	"	"
15	49	0-10 cm	"	"	"	"
16	59	0-17 cm	"	"	"	"
17	68	0-11 cm	"	"	"	"
18	78	0-11 cm	"	"	"	"
19	90	0-10 cm	"	"	"	"
20	104	0-10 cm	"	"	"	"
21	121	0-10 cm	"	"	"	"
22	142	0-10 cm	"	"	"	"
23	168	0-10 cm	"	"	"	"
24	197	0-11 cm	"	"	"	"
25	218	0-11 cm	"	"	"	"
26	236	0-14 cm	"	"	"	"
27	247	0-26 cm	"	"	"	"
28	261	0-15 cm	"	"	"	"
29	278	0-11 cm	"	"	"	"
30	303	0-12 cm	"	"	"	"
31	324	0-11 cm	"	"	"	"
32	349	0-11 cm	"	"	"	"
33	375	0-12 cm	"	"	"	"
34	406	0-12 cm	"	"	"	"
35	433	0-13 cm	"	"	"	"
36	451	0-13 cm	"	"	"	"
37	480	0-15 cm	"	"	"	"
38	513	0-12 cm	"	"	"	"
39	550	0-22 cm	"	"	"	"

Core Top Samples For Shell Oil Development

Core I. D.	Water Depth (Fathoms)	Int. or Location of Sample	Vol. Taken	Taken By	Purpose	Person or Company to do Research
					Ostracod Research	Frank Van Markhore
40	26	0-23 cm	200 gm	T. Haines		Shell Oil
41	27	0-22 cm	"	"	"	"
42	29	0-27 cm	"	"	"	"
43	32	0-30 cm	"	"	"	"
44	36	0-21 cm	"	"	"	"
45	38	0-30 cm	"	"	"	"
46	36	0-23 cm	"	"	"	"
47	49	0-28 cm	"	"	"	"
48	114	0-30 cm	"	"	"	"
49	18	0-35 cm	"	"	"	"
50	15	0-31 cm	"	"	"	"
51	17	0-23 cm	"	"	"	"
52	20	0-26 cm	"	"	"	"
53	23	0-29 cm	"	"	"	"
54	28	0-35 cm	"	"	"	"
55	35	0-33 cm	"	"	"	"
56	36	0-26 cm	"	"	"	"
57	38	0-26 cm	"	"	"	"
58	38	0-35 cm	"	"	"	"
59	49	0-22 cm	"	"	"	"
60	57	0-29 cm	"	"	"	"
61	64	0-31 cm	"	"	"	"
62	72	0-22 cm	"	"	"	"
63	80	0-30 cm	"	"	"	"
64	87	0-30 cm	"	"	"	"
65	94	0-40 cm	"	"	"	"
66	101	0-25 cm	"	"	"	"
67	107	0-21 cm	"	"	"	"
68	115	0-27 cm	"	"	"	"
69	120	0-38 cm	"	"	"	"
70	125	0-26 cm	"	"	"	"
71	133	0-28 cm	"	"	"	"
72	127	0-46 cm	"	"	"	"

AUG 1 1951

by EWB

The following samples were taken from core IG-19 - 39. All will have textural (grain size distribution) analyses and total carbonate analyses. Also subsamples of each are being prepared for total organic carbon and stable carbon isotope analyses. About 1/4 of the samples will also have total organic matter analyses by peroxide oxidation.

depth in core in cm	
5-10	318-322
18-22	330-334
28-32	353-357
40-44	393-397
50-54	433-437
59-61	453-457
64-66	473-477
70-74	493-497
79-81	513-517
88-92	533-537
94-96	553-557
99-101	573-577
108-110	593-597
118-120	633-637
130-132	673-677
148-152	693-697
159-161	713-717
164-166	733-737
169-171	753-757
180-182	743-747
189-191	773-777
200-205	790-794
230-234	812-816
244-246	853-857
254-256	892-896
273-277	
293-297	

[5 to 10 cc each sample]

All samples were approximately 1/2 the width of the working half of the core.

EWB

I anticipate taking a similar suite of samples for the same purposes from Core IG-19 - 27. This is the formal request for so doing.

NOV 14 1963

DENSITY SAMPLES FROM THE  
NORTHEASTERN GULF OF MEXICO PISTON CORES

IG-19

<u>Box #1</u>	<u>Core I.D.</u>	<u># of Vials</u>		<u>Core I.D.</u>	<u># of Vials</u>
Top Tier:	49	1-4	Bottom Tier:	56	1-11
	50	1-4		57	1-16
	51	1-4		58	1-15
	52	1-9		59	1-13
	53	1-9		60	1-17
	54	1-13			
	55	1-19			
	56	12-20			

<u>Box #2</u>	<u>Core I.D.</u>	<u># of Vials</u>		<u>Core I.D.</u>	<u># of Vials</u>
Top Tier:	40	1-8	Bottom Tier:	47	1-6
	41	1-11		48	1-21
	42	1-9		71	1-45
	43	1			
	44	1-4			
	45	1-7			
	46	1-14			
	47	7-19			

<u>Box #3</u>	<u>Core I.D.</u>	<u># of Vials</u>		<u>Core I.D.</u>	<u># of Vials</u>
Top Tier:	62	1-44	Bottom Tier:	72	1-48
	04	1-14		13	1-7

<u>Box #4</u>	<u>Core I.D.</u>	<u># of Vials</u>		<u>Core I.D.</u>	<u># of Vials</u>
Top Tier:	61	6-23	Bottom Tier:	70	1-51
	18	1-25		61	1-5

<u>Box #5</u>	<u>Core I.D.</u>	<u># of Vials</u>		<u>Core I.D.</u>	<u># of Vials</u>
Top Tier:	66	1-51	Bottom Tier:	68	1-26
	68	27-50		69	1-50

<u>Box #6</u>	<u>Core I.D.</u>	<u># of Vials</u>		<u>Core I.D.</u>	<u># of Vials</u>
Top Tier:	63	23-51	Bottom Tier:	63	1-22
	01	1-13		64	1-49
	02	1-11			
	05	1-15			

<u>Box #7</u>	<u>Core I.D.</u>	<u># of Vials</u>		<u>Core I.D.</u>	<u># of Vials</u>
Top Tier:	15	5-15	Bottom Tier:	06	1-9
	16	1-22		07	1-17
	73	1-40 only		08	1-14
				09	1-3
				10	1-2
				11	1-6
				12	1-2
				14	1-15
				15	1-4

<u>Box #8</u>	<u>Core I.D.</u>	<u># of Vials</u>		<u>Core I.D.</u>	<u># of Vials</u>
Top Tier:	19	46-55	Bottom Tier:	73	41-42
	74	1-54		17	1-25
				19	1-45

<u>Box #9</u>	<u>Core I.D.</u>	<u># of Vials</u>		<u>Core I.D.</u>	<u># of Vials</u>
Top Tier:	21	23-56	Bottom Tier:	20	1-50
	22	1-38 only		21	1-22

<u>Box #10</u>	<u>Core I.D.</u>	<u># of Vials</u>		<u>Core I.D.</u>	<u># of Vials</u>
Top Tier:	75	8-52	Bottom Tier:	22	39-51
	24	1-27 only		23	1-52
				75	1-7

<u>Box #11</u>	<u>Core I.D.</u>	<u># of Vials</u>		<u>Core I.D.</u>	<u># of Vials</u>
Top Tier	25	47-52	Bottom Tier:	24	28-53
	26	1-50		25	1-46
	27	1-16 only			

<u>Box #12</u>	<u>Core I.D.</u>	<u># of Vials</u>		<u>Core I.D.</u>	<u># of Vials</u>
Top Tier:	28	38-50	Bottom Tier:	27	17-51
	29	1-50		28	1-37
	30	1-9 only			

<u>Box #13</u>	<u>Core I.D.</u>	<u># of Vials</u>		<u>Core I.D.</u>	<u># of Vials</u>
Top Tier:	31	33-49	Bottom Tier:	30	10-49
	32	1-51		31	1-32
	33	1-4 only			

<u>Box #14</u>	<u>Core I.D.</u>	<u># of Vials</u>		<u>Core I.D.</u>	<u># of Vials</u>
Top Tier:	34	28-53	Bottom Tier:	33	5-49
	35	1-46 only		34	1-27

<u>Box #15</u>	<u>Core I.D.</u>	<u># of Vials</u>		<u>Core I.D.</u>	<u># of Vials</u>
Top Tier:	37	19-45	Bottom Tier:	35	47-51
	38	1-45 only		36	1-49
				37	1-18

<u>Box #16</u>	<u>Core I.D.</u>	<u># of Vials</u>		<u>Core I.D.</u>	<u># of Vials</u>
Top Tier:	76	23-50	Bottom Tier:	38	46-49
	77	1-36		39	1-46
				76	1-22

<u>Box #17</u>	<u>Core I.D.</u>	<u># of Vials</u>		<u>Core I.D.</u>	<u># of Vials</u>
Top Tier:	65	1-49	Bottom Tier:	67	1-52



MOMENT (G):	MEAN	ST.DEV.	SKEW	KURT	% SAND	% SILT	% CLAY	% >10PHI
IG19 65 10-	5.92	3.22	1.01	-0.13	34.31	41.80	3.89	14.60
IG19 65 25-30	6.20	3.39	0.94	-0.52	32.78	40.44	26.78	19.06
IG19 65 45-50	5.66	3.21	1.25	0.38	35.73	44.68	19.59	15.42
IG19 65 55-60	5.37	3.00	1.36	0.92	40.34	43.11	16.55	12.65
IG19 65 70-75	5.39	3.10	1.32	0.83	37.26	45.58	17.16	12.92
IG19 65 80-85	5.09	2.71	1.05	0.78	39.55	43.30	17.14	3.46
IG19 65 85-90	5.57	3.22	1.23	0.45	36.36	44.51	19.13	14.87
IG19 65 90-95	5.22	2.87	1.54	1.68	38.67	47.10	14.23	10.46
IG19 65 95-100	5.17	2.99	1.45	1.34	41.52	43.87	14.62	11.16
IG19 65 105-110	4.99	2.98	1.56	1.73	45.71	41.09	13.20	11.08
IG19 65 125-130	5.35	2.96	1.47	1.32	35.12	49.99	14.89	11.93
IG19 65 155-160	4.82	3.21	1.09	1.19	45.18	41.32	13.50	10.59
IG19 65 160-165	5.11	3.10	1.35	1.11	44.06	40.72	15.22	11.67
IG19 65 165-170	5.44	3.19	1.23	0.57	41.36	40.68	17.95	13.83
IG19 65 170-173	5.15	2.61	0.82	0.29	38.82	42.60	18.59	0.00
IG19 65 173-176	5.67	3.31	1.00	0.03	39.70	40.51	20.79	15.17
IG19 65 177-180	6.28	3.53	0.80	-0.69	29.67	44.01	26.32	21.30
IG19 65 180-185	6.37	3.62	0.75	-0.74	28.75	43.92	27.33	24.01

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GRAIN SIZE DATA  
IG 19-65

10 cm thru 565 cm.

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IG19 65 185-1 MOMENT (G):	MEAN 6.81	ST.DEV. 3.55	SKEW 0.61	KURT -1.02	% SAND 21.94	% SILT 42.91	% CLAY 35.15	% >10PHI 24.73
IG19 65 190-195 MOMENT (G):	MEAN 6.62	ST.DEV. 3.45	SKEW 0.71	KURT -0.79	% SAND 22.59	% SILT 47.69	% CLAY 29.73	% >10PHI 22.24
BAD GROUP (GR=1)								
IG19 65 195-200 MOMENT (G):	MEAN 6.64	ST.DEV. 3.49	SKEW 0.69	KURT -0.85	% SAND 24.84	% SILT 45.49	% CLAY 29.67	% >10PHI 23.16
IG19 65 205-210 MOMENT (G):	MEAN 6.53	ST.DEV. 3.62	SKEW 0.60	KURT -0.88	% SAND 30.20	% SILT 39.81	% CLAY 29.99	% >10PHI 23.10
IG19 65 425-430 MOMENT (G):	MEAN 5.90	ST.DEV. 3.72	SKEW 0.70	KURT -0.64	% SAND 37.94	% SILT 35.95	% CLAY 26.10	% >10PHI 19.85
IG19 65 435-440 MOMENT (G):	MEAN 6.70	ST.DEV. 3.77	SKEW 0.45	KURT -0.94	% SAND 27.15	% SILT 38.34	% CLAY 34.51	% >10PHI 27.39
IG19 65 445-450 MOMENT (G):	MEAN 7.00	ST.DEV. 3.68	SKEW 0.42	KURT -1.23	% SAND 28.43	% SILT 36.27	% CLAY 35.29	% >10PHI 26.80
IG19 65 505-510 MOMENT (G):	MEAN 5.89	ST.DEV. 3.65	SKEW 0.79	KURT -0.49	% SAND 40.26	% SILT 35.12	% CLAY 24.62	% >10PHI 20.02
IG19 65 510-515 MOMENT (G):	MEAN 5.81	ST.DEV. 3.40	SKEW 1.00	KURT -0.16	% SAND 38.90	% SILT 38.18	% CLAY 22.92	% >10PHI 17.25
IG19 65 515-520 MOMENT (G):	MEAN 6.03	ST.DEV. 3.56	SKEW 0.85	KURT -0.55	% SAND 41.35	% SILT 31.49	% CLAY 27.17	% >10PHI 19.84
IG19 65 525-530 MOMENT (G):	MEAN 6.02	ST.DEV. 3.37	SKEW 1.03	KURT -0.29	% SAND 37.06	% SILT 39.30	% CLAY 23.64	% >10PHI 18.56
IG19 65 530-535 MOMENT (G):	MEAN 5.79	ST.DEV. 3.76	SKEW 0.74	KURT -0.55	% SAND 45.42	% SILT 30.21	% CLAY 24.37	% >10PHI 20.08
IG19 65 535-540 MOMENT (G):	MEAN 5.71	ST.DEV. 3.29	SKEW 1.20	KURT 0.11	% SAND 44.49	% SILT 33.47	% CLAY 22.04	% >10PHI 16.29
IG19 65 540-545 MOMENT (G):	MEAN 5.46	ST.DEV. 3.19	SKEW 1.31	KURT 0.58	% SAND 46.36	% SILT 34.50	% CLAY 19.06	% >10PHI 14.15
IG19 65 545-550 MOMENT (G):	MEAN 5.18	ST.DEV. 3.29	SKEW 1.19	KURT 0.63	% SAND 49.30	% SILT 33.57	% CLAY 18.05	% >10PHI 13.19
IG19 65 555-560 MOMENT (G):	MEAN 5.62	ST.DEV. 3.25	SKEW 1.25	KURT 0.28	% SAND 44.93	% SILT 34.71	% CLAY 20.36	% >10PHI 15.60
IG19 65 560-565 MOMENT (G):	MEAN 5.41	ST.DEV. 3.17	SKEW 1.34	KURT 0.66	% SAND 45.34	% SILT 36.20	% CLAY 18.46	% >10PHI 13.63

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