

Lamont-Doherty Earth Observatory

LIS2302 - - G400

Grab LOG

2-Letter Ship Abbreviation Cruise or 2-No. Year Leg for EWING grab Number Type

(Example: LIS2301-G100)

Grab Name LIS2302-G400		Date 2022-08-14
Project: LIS 4B		Time 10:29
Ship: Pritchard		Cruise ID/Year: LIS2302
Location LIS		Device van Veen grab
Form completed by F. Nitsche		Institution
Latitude 41° 04.468	Longitude 73° 01.024 W	
Water depth (m) 30 m	Target ID: T-162	

Grab description:

Surface photo	✓
Grain size sample (jar number)	✓ jar 12
Oxidized top (yes, no)	✓
Stiffness (very soft, soft, stiff, very stiff)	soft
Color	dark brownish gray
Mud (absent, rare, common, abundant)	abundant
Sand (absent, rare, common, abundant)	-
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	-
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	mud

Notes:

Lamont-Doherty Earth Observatory

Grab LOG

LIS2302 - - G401

2-Letter Ship Abbreviation LIS Cruise or 2-No. Year 43 Leg for EWING grab Number 401 Type

(Example: LIS2301-G100)

Grab Name LIS2302 - G401		Date 2023-08-14
Project: LIS 4B		Time 10:48
Ship: Pritchard		Cruise ID/ Year: 2302
Location LIS		Device van Veen grab
Form completed by F. N. Tsch		Institution LDEO/Quinn
Latitude 41° 05.752	Longitude 73° 01.081	
Water depth (m) 25.0 m	Target ID: T-169	

Grab description:

Surface photo	✓
Grain size sample (jar number)	jar 25
Oxidized top (yes, no)	✓
Stiffness (very soft, soft, stiff, very stiff)	soft
Color	dark grey
Mud (absent, rare, common, abundant)	abundant
Sand (absent, rare, common, abundant)	rare (fine sand)
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	-
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	mud

Notes:

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Grab LOG

LIS 2302 - - G402

2-Letter Ship Abbreviation Cruise or 2-No. Year Leg for EWING grab Number Type

(Example: LIS2301-G100)

Grab Name LIS 2302 - G402		Date 2023-08-14
Project: LIS 4B		Time 11:04
Ship: Pritchard		Cruise ID/ Year: LIS 2302
Location LIS		Device van Veen grab
Form completed by F. Mitsun		Institution LDEO/ Queens
Latitude 41° 06.338 N	Longitude 73° 02.303 W	
Water depth (m) 21.6	Target ID: T-119	

Grab description:

Surface photo	✓
Grain size sample (jar number)	✓ jar 30
Oxidized top (yes, no)	✓
Stiffness (very soft, soft, stiff, very stiff)	soft
Color	dark gray
Mud (absent, rare, common, abundant)	abundant
Sand (absent, rare, common, abundant)	-
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	✓ rare fragments (1%)
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	mud

Notes:

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Grab LOG

LIS2202 - - G403

2-Letter Ship Abbreviation Cruise or 2-No. Year Leg for EWING grab Number Type

(Example: LIS2301-G100)

Grab Name LIS 23 02 - G 403		Date 2023-08-14
Project: LIS 4B		Time 11:15
Ship: Prifcloud		Cruise ID/ Year: LIS2302
Location LIS		Device Van Veen Grab
Form completed by F. Mitgelen		Institution LDEO / Queens
Latitude 41° 07.234	Longitude 73° 02.384	
Water depth (m) 18.3	Target ID: T-111	

Grab description:

Surface photo	✓
Grain size sample (jar number)	✓ jar 31
Oxidized top (yes, no)	✓
Stiffness (very soft, soft, stiff, very stiff)	soft
Color	dark gray
Mud (absent, rare, common, abundant)	abundant
Sand (absent, rare, common, abundant)	rare (shell fragment)
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	rare (8%)
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	mud

Notes:

whole snail shell (1cm)

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Grab LOG

LIS 2302 - - G 404

2-Letter Ship Abbreviation Cruise or 2-No. Year Leg for EWING grab Number Type

(Example: LIS2301-G100)

Grab Name	LIS 2302 - G 404	Date	2023-08-14
Project:	LIS 4B	Time	11:28
Ship:	Pritchard	Cruise ID/Year:	LIS 2302
Location	LIS	Device	van Veen grab
Form completed by	F. Mitsch	Institution	LDEO / dunn
Latitude	41° 08.290 N	Longitude	73° 02.277 W
Water depth (m)	16.0	Target ID:	T-191

Grab description:

Surface photo	✓
Grain size sample (jar number)	✓ jar 23 23
Oxidized top (yes, no)	✓
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	dark gray
Mud (absent, rare, common, abundant)	abundant
Sand (absent, rare, common, abundant)	-
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	rare (bryozoan pieces)
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	mud

Notes:

Lamont-Doherty Earth Observatory

Grab LOG

LIS2302 - - G405

2-Letter Ship Abbreviation LIS
Cruise or 2-No. Year 2302
Leg for EWING
grab Number
Type

(Example: LIS2301-G100)

Grab Name LIS2302 - G405		Date 2023-08-14
Project: LIS 4B		Time 11:38
Ship: Pritchard		Cruise ID/ Year: LIS 2302
Location LIS		Device van Veen grab
Form completed by F. Mitsch		Institution LDEO/Quercus
Latitude 41° 09.530	Longitude 73° 03.027	
Water depth (m) 14.7	Target ID: T-175	

Grab description:

Surface photo	✓
Grain size sample (jar number)	✓ jar 100
Oxidized top (yes, no)	✓
Stiffness (very soft, soft, stiff, very stiff)	soft
Color	dark green
Mud (absent, rare, common, abundant)	abundant
Sand (absent, rare, common, abundant)	o (rare) - bottom shells
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	rare (few %)
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	mud

Notes:

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Grab LOG

LIS2302 - - G406

2-Letter Ship Cruise or Leg for grab Type
Abbreviation 2-No. Year EWING Number

(Example: LIS2301-G100)

Grab Name	LIS 2302 - G 406	Date	2023-08-14
Project:	LIS 4B	Time	11:47
Ship:	Ritchard	Cruise ID/ Year:	LIS2302
Location	LIS	Device	van Veen grab
Form completed by	F. Nitsch	Institution	CDEO / Auer
Latitude	41° 09.037	Longitude	73° 03.218
Water depth (m)	13.4	Target ID:	T-121

Grab description:

Surface photo	✓
Grain size sample (jar number)	✓ jar 36
Oxidized top (yes, no)	✓
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	dark green
Mud (absent, rare, common, abundant)	abundant
Sand (absent, rare, common, abundant)	-
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	rams (2x)
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	mud

Notes:

Lamont-Doherty Earth Observatory

Grab LOG

LIS2307 - - G407

2-Letter Ship Abbreviation Cruise or 2-No. Year Leg for EWING grab Number Type

(Example: LIS2301-G100)

Grab Name LIS 2302 - G407		Date 2022-08-14
Project: LIS 4B		Time 11:56
Ship: Pritchard		Cruise ID/ Year: LIS2302
Location LIS		Device van Veen Grab
Form completed by F. Mitscher		Institution LDEO / Ram
Latitude 41° 04.419	Longitude 73 03.460	
Water depth (m) 12.4	Target ID: T-152	

Grab description:

Surface photo	✓
Grain size sample (jar number)	✓ jar 3
Oxidized top (yes, no)	✓
Stiffness (very soft, soft, stiff, very stiff)	soft
Color	dark gray
Mud (absent, rare, common, abundant)	abundant
Sand (absent, rare, common, abundant)	rare (5%)
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	abundant (5cm - mm)
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	shelly mud

Notes:

lots of ~~shells~~ snail, brachiopods?
Liam (Liam)

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Grab LOG

L152307 - - G408
 2-Letter Ship Abbreviation Cruise or 2-No. Year Leg for EWING grab Number Type
 (Example: LIS2301-G100)

Grab Name L15 2307 - G408		Date 2023-08-14
Project: L15 4B		Time 12:08
Ship: Pritcgard		Cruise ID/ Year: L152302
Location LIS		Device van Veen grab
Form completed by F. Nitzsche		Institution LDEO / Queen
Latitude 41° 09.341	Longitude 73° 04.675	
Water depth (m) 10.4	Target ID: T-129	

Grab description:

Surface photo	✓
Grain size sample (jar number)	✓ jar 38
Oxidized top (yes, no)	✓
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	dark grey
Mud (absent, rare, common, abundant)	abundant
Sand (absent, rare, common, abundant)	rare
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	common (thin brachiopods)
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	mud

Notes:

Lamont-Doherty Earth Observatory

Grab LOG

LIS 2302 - - G409

2-Letter Ship Abbreviation Cruise or 2-No. Year Leg for EWING grab Number Type

(Example: LIS2301-G100)

Grab Name LIS 2302 - G409		Date 2023-08-14
Project: LIS 4B		Time 12:19
Ship: Princeton		Cruise ID/Year: LIS 2302
Location LIS		Device Van Veen grab
Form completed by F. M. ...		Institution LDEO / Oun
Latitude 41° 09.872	Longitude 73° 03.873	
Water depth (m) 10.4	Target ID: T-4	

Grab description:

Surface photo	✓
Grain size sample (jar number)	✓ 70V 18
Oxidized top (yes, no)	✓
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	dark gray
Mud (absent, rare, common, abundant)	abundant
Sand (absent, rare, common, abundant)	rare
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	shells many - broken
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	yes
Lithology (estimated)	mud

Notes:

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LIS 2302 - - 6410

Grab LOG

2-Letter Ship Abbreviation Cruise or 2-No. Year Leg for EWING grab Number Type

(Example: LIS2301-G100)

Grab Name LIS 2302 - G 410		Date 2023-08-14
Project: LIS 4B		Time 12:28
Ship: Pritchard		Cruise ID/Year: LIS 2302
Location LIS		Device van Veen grab
Form completed by F. Mitsch		Institution LDEO / Queens
Latitude 41° 10.360	Longitude 73° 03.993	
Water depth (m) 10.3	Target ID: T-126	

Grab description:

Surface photo	✓
Grain size sample (jar number)	✓ jar 001
Oxidized top (yes, no)	✓
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	dunk green
Mud (absent, rare, common, abundant)	abundant
Sand (absent, rare, common, abundant)	rare
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	common
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	mud

Notes:

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Grab LOG

LIS2302 - - G411

2-Letter Ship Abbreviation Cruise or 2-No. Year Leg for EWING grab Number Type

(Example: LIS2301-G100)

Grab Name	LIS 2302 - G411	Date	2023-08-14
Project:	LIS 4B	Time	12:40
Ship:	Pritegard	Cruise ID/Year:	LIS2302
Location	LIS	Device	van Veen grab
Form completed by	F. Nitche	Institution	LDEO / Quin
Latitude	41° 10.894	Longitude	73° 02.698
Water depth (m)	10.1	Target ID:	T-90

Grab description:

Surface photo	✓
Grain size sample (jar number)	✓ jar 5
Oxidized top (yes, no)	✓
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	brownish gray
Mud (absent, rare, common, abundant)	-
Sand (absent, rare, common, abundant)	common
Gravel (absent, rare, common, abundant)	common
Pebbles (absent, rare, common, abundant)	common
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	abundant
Oysters (live/dead) (absent, rare, common, abundant)	✗ rare
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	shell hash / sandy gravel

Notes:

also cobble
oyster, clams
cobble has brachiopods

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Grab LOG

LIS 2302 - - G 412

2-Letter Ship Abbreviation Cruise or 2-No. Year Leg for EWING grab Number Type

(Example: LIS2301-G100)

Grab Name	LIS 2302 - G 412	Date	2023-08-14
Project:	L18 4 B	Time	12:49
Ship:	Pritchard	Cruise ID/Year:	LIS 2302
Location	L15	Device	van Veen grab
Form completed by	F. Nitsch	Institution	LDEO (Queen)
Latitude	41° 10.795	Longitude	73° 02.143 W
Water depth (m)	11.2	Target ID:	T-140

Grab description:

Surface photo	✓
Grain size sample (jar number)	✓ jar 37
Oxidized top (yes, no)	✓
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	brunish grey
Mud (absent, rare, common, abundant)	common
Sand (absent, rare, common, abundant)	abundant (medium sand)
Gravel (absent, rare, common, abundant)	rare
Pebbles (absent, rare, common, abundant)	rare
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	common
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	muddy sand

Notes:

q/cr cobbles

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Grab LOG

LIS2302 - - G 413

2-Letter Ship Abbreviation Cruise or 2-No. Year Leg for EWING grab Number Type

(Example: LIS2301-G100)

Grab Name LIS 2302 - G 413		Date 2022-08-14
Project: LIS 4B		Time 12:59
Ship: Pritchard		Cruise ID/ Year:
Location LIS		Device Van Veen grab
Form completed by F. Mitsch		Institution CDEO/Lamont
Latitude 41° 11.386 N	Longitude 73° 02.108 W	
Water depth (m) 10.6	Target ID: T-160	

Grab description:

Surface photo	✓
Grain size sample (jar number)	✓ jar 4
Oxidized top (yes, no)	✓
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	dark gray
Mud (absent, rare, common, abundant)	abundant
Sand (absent, rare, common, abundant)	rare
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	kar
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	mud

Notes:

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Grab LOG

LIS 2302 - - G 414
 2-Letter Ship Cruise or Leg for grab Type
 Abbreviation 2-No. Year EWING Number
 (Example: LIS2301-G100)

Grab Name	LIS 2302 - G 414	Date	2023-08-14
Project:	LIS 4 B	Time	13:09
Ship:	Pritchard	Cruise ID/Year:	LIS2302
Location	LIS - area 4	Device	Van Veen grab
Form completed by	F. Nifal	Institution	CDEO / Queen
Latitude	41° 11.497 N	Longitude	73° 01. 00 023 W
Water depth (m)	8.8 m	Target ID:	T-10

Grab description:

Surface photo	✓
Grain size sample (jar number)	✓ jar 16
Oxidized top (yes, no)	✓
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	dark gray
Mud (absent, rare, common, abundant)	-
Sand (absent, rare, common, abundant)	abundant (coarse)
Gravel (absent, rare, common, abundant)	common
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	common
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	coarse sand

Notes:

a (grab)

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Grab LOG

LIS 2302 - - G415
 2-Letter Ship Abbreviation LIS Cruise or 2-No. Year 2302 Leg for EWING grab Number 415
 (Example: LIS2301-G100)

Grab Name	LIS 2302 - G415	Date	2023-08-18
Project:	LIS 4B	Time	13:20
Ship:	Ritchland	Cruise ID/Year:	LIS2302
Location	LIS area 4	Device	van Veen Grab
Form completed by	F. Nitsch	Institution	LDEO / Queens
Latitude	41° 11.973	Longitude	73° 00.374
Water depth (m)	10.9	Target ID:	T-124

Grab description:

Surface photo	✓
Grain size sample (jar number)	✓ jar 26
Oxidized top (yes, no)	✓
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	dark gray
Mud (absent, rare, common, abundant)	common
Sand (absent, rare, common, abundant)	absent abundant
Gravel (absent, rare, common, abundant)	absent common
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	absent common
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	muddy coars sand

Notes:

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Grab LOG

LIS2302 - - G416

2-Letter Ship Abbreviation Cruise or 2-No. Year Leg for EWING grab Number Type

(Example: LIS2301-G100)

Grab Name	LIS2302 - G416	Date	2023-08-14
Project:	LIS 4B	Time	13:46
Ship:	Pritchard	Cruise ID/Year:	LIS2302
Location	LIS	Device	van Veen grab
Form completed by	F. Ivitscka	Institution	LDEO/Quincy
Latitude	41° 12.254	Longitude	72° 59.744
Water depth (m)	10.1	Target ID:	T-157

Grab description:

Surface photo	✓
Grain size sample (jar number)	✓ jar 17
Oxidized top (yes, no)	✓
Stiffness (very soft, soft, stiff, very stiff)	soft
Color	dark green
Mud (absent, rare, common, abundant)	abundant
Sand (absent, rare, common, abundant)	common fine
Gravel (absent, rare, common, abundant)	
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	common
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	yes -
Lithology (estimated)	sandy mud

Notes:

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Grab LOG

LIS2302 - G417

2-Letter Ship Abbreviation LIS2302
 Cruise or 2-No. Year 02
 Leg for EWING
 grab Number G417
 Type

(Example: LIS2301-G100)

Grab Name LIS2302-G417		Date 2023-02-14
Project: LIS4B		Time 13:57
Ship: Prifeland		Cruise ID/Year: LIS2302
Location LCS		Device Van Veen grab
Form completed by F. Mitsche		Institution LDEO / Quin
Latitude 41 12.766	Longitude 72 59.443	
Water depth (m)	Target ID: T-11	

Grab description:

Surface photo	✓
Grain size sample (jar number)	✓ jar 6
Oxidized top (yes, no)	✓
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	dark gray
Mud (absent, rare, common, abundant)	abundant
Sand (absent, rare, common, abundant)	-
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	abundant (all sizes)
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	yes
Lithology (estimated)	mud

Notes:

Lamont-Doherty Earth Observatory

Grab LOG

US 2302 - - G 418

2-Letter Ship Abbreviation Cruise or 2-No. Year Leg for EWING grab Number Type

(Example: LIS2301-G100)

Grab Name LIS2302-G418		Date 2023-08-14
Project: LIS4B		Time 14:07
Ship: Prichard		Cruise ID/ Year: 2302 LIS2302
Location LIS		Device van Klee Grab
Form completed by F. Mitsch		Institution LDEO/Ocean
Latitude 41° 12.892	Longitude 72° 59.042	
Water depth (m) 8.8	Target ID: T-91	

Grab description:

Surface photo	✓
Grain size sample (jar number)	✓ jar 45
Oxidized top (yes, no)	✓
Stiffness (very soft, soft, stiff, very stiff)	soft
Color	dark grey
Mud (absent, rare, common, abundant)	abundant
Sand (absent, rare, common, abundant)	-
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	-
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	mud

Notes:

Lamont-Doherty Earth Observatory

Grab LOG

LIS 2302 - - G 419

2-Letter Ship Abbreviation Cruise or 2-No. Year Leg for EWING grab Number Type

(Example: LIS2301-G100)

Grab Name LIS 2302-G 419		Date 2023-08-14
Project: LIS 4B		Time 14:16
Ship: Prifekund		Cruise ID/Year: LIS 2307
Location LIS		Device van Veen grab
Form completed by F. Nitzert		Institution LOEUVL Queen
Latitude 41° 13.381	Longitude 72° 58.382	
Water depth (m) 8.4	Target ID: T-198	

Grab description:

Surface photo	✓
Grain size sample (jar number)	✓ jar 81
Oxidized top (yes, no)	✓
Stiffness (very soft, soft, stiff, very stiff)	soft
Color	dark grey
Mud (absent, rare, common, abundant)	abundant
Sand (absent, rare, common, abundant)	-
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	common abundant
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	mud

Notes:

Lamont-Doherty Earth Observatory

Grab LOG

LIS2302 - - G420
 2-Letter Ship Abbreviation LIS2302
 Cruise or 2-No. Year - -
 Leg for EWING -
 grab Number G420
 Type
 (Example: LIS2301-G100)

Grab Name LIS 2302 - G 420	Date 2022-08-14
Project: LIS4B	Time 14:30
Ship: Pristichneustes	Cruise ID/Year: LIS2302
Location LIS	Device von Kuenen grab
Form completed by F. Mitsch	Institution LDEO / Queen
Latitude 41° 12.899	Longitude 72° 56.872
Water depth (m) 9.87	Target ID: T-34

Grab description:

Surface photo	✓
Grain size sample (jar number)	✓ jar 82
Oxidized top (yes, no)	✓
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	dark grey
Mud (absent, rare, common, abundant)	common
Sand (absent, rare, common, abundant)	abundant coarse
Gravel (absent, rare, common, abundant)	rare
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	abundant
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	muddy coarse sand

Notes:

Lamont-Doherty Earth Observatory

Grab LOG

LIS2302 - - G421

2-Letter Ship Abbreviation LIS Cruise or 2-No. Year 2302 Leg for EWING grab Number 421 Type

(Example: LIS2301-G100)

Grab Name LIS 2302-G421	Date 2023-08-14
Project: LIS 4B	Time 14:40
Ship: Pritchard	Cruise ID/Year: LIS2301
Location LIS	Device von Kuen grab
Form completed by F. Nitzsclm	Institution LDEO/ Queens
Latitude 41° 12.616	Longitude 72° 55.874
Water depth (m) 8.8	Target ID: T-68

Grab description:

Surface photo	✓
Grain size sample (jar number)	✓ jar 120
Oxidized top (yes, no)	✓
Stiffness (very soft, soft, stiff, very stiff)	soft
Color	dark grey
Mud (absent, rare, common, abundant)	absent rare
Sand (absent, rare, common, abundant)	common
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	abundant
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	shell hash / sandy mud muddy sand

Notes:

Lamont-Doherty Earth Observatory

Grab LOG

LIS 2302 - - G 422

2-Letter Ship Abbreviation Cruise or 2-No. Year Leg for EWING grab Number Type

(Example: LIS2301-G100)

Grab Name LIS 2302 - G 422		Date 2023-08-14
Project: LIS 4B		Time 14:44
Ship: Pristland		Cruise ID/ Year: LIS 2302
Location LIS		Device van Veen grab
Form completed by F. Nitsch		Institution LDEO / Ocean
Latitude 41.12.803	Longitude 72.55.135	
Water depth (m) 8.6	Target ID: T-84	

Grab description:

Surface photo	✓
Grain size sample (jar number)	✓ jar
Oxidized top (yes, no)	✓
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	dark brownish grey
Mud (absent, rare, common, abundant)	common
Sand (absent, rare, common, abundant)	common (common)
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	abundant
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	muddy, sandy silt hor

Notes:

Lamont-Doherty Earth Observatory

Grab LOG

LIS2302 - - G423

2-Letter Ship Abbreviation Cruise or 2-No. Year Leg for EWING grab Number Type

(Example: LIS2301-G100)

Grab Name LIS 2302 - G423		Date 2020 2023 - 08 - 14
Project: LIS 4B		Time 14:57
Ship: Pritchard		Cruise ID/ Year: LIS2307
Location LIS		Device von Kuenen
Form completed by F. Vitach		Institution LDEO/Quinn
Latitude 41° 13.079	Longitude 72° 55.031 W	
Water depth (m) 8.1	Target ID: T-88	

Grab description:

Surface photo	✓
Grain size sample (jar number)	✓ jar 085
Oxidized top (yes, no)	✓
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	brownish grey
Mud (absent, rare, common, abundant)	common
Sand (absent, rare, common, abundant)	abundant (common)
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	abundant
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	muddy sandy shell hash

Notes:

Lamont-Doherty Earth Observatory

Grab LOG

LIS2302 - - G424

2-Letter Ship Abbreviation Cruise or 2-No. Year Leg for EWING grab Number Type

(Example: LIS2301-G100)

Grab Name LIS 2302 - G 424	Date 2023-08-14
Project: LIS 4B	Time 15:06
Ship: Prifidun	Cruise ID/ Year: LIS2302
Location LIS	Device van Veen grab
Form completed by F. Nifad	Institution LDEO / Queen
Latitude 41° 13.006	Longitude 72° 54.276
Water depth (m) 11.7	Target ID: T-184

Grab description:

Surface photo	✓
Grain size sample (jar number)	✓ jar 125
Oxidized top (yes, no)	✓
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	dark grey
Mud (absent, rare, common, abundant)	common
Sand (absent, rare, common, abundant)	abundant
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	abundant
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	muddy silty sand

Notes:

Lamont-Doherty Earth Observatory

Grab LOG

LIS 2302 - - G 425

2-Letter Ship Abbreviation Cruise or 2-No. Year Leg for EWING grab Number Type

(Example: LIS2301-G100)

Grab Name	LIS 2302 - G 425	Date	2023-08-14
Project:	LIS 4B	Time	15:14
Ship:	Pritchard	Cruise ID/ Year:	LIS 2302
Location	LCS	Device	van Veen grab
Form completed by	F. Nitzsche	Institution	LOED / Lamont
Latitude	41° 12.874	Longitude	72° 54.393
Water depth (m)	11.1	Target ID:	T-199

Grab description:

Surface photo	✓
Grain size sample (jar number)	✓ jar 106
Oxidized top (yes, no)	✓
Stiffness (very soft, soft, stiff, very stiff)	dr. stiff
Color	dark gray
Mud (absent, rare, common, abundant)	common
Sand (absent, rare, common, abundant)	abundant
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	abundant common
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	muddy sand

Notes:

Lamont-Doherty Earth Observatory

Grab LOG

LIS2302 - - G426

2-Letter Ship Abbreviation LIS
Cruise or 2-No. Year 2302
Leg for EWING
grab Number
Type

(Example: LIS2301-G100)

Grab Name	LIS2302 - G426	Date	2022 2023-08-14
Project:	LIS 4B	Time	15:25
Ship:	Britchland	Cruise ID/ Year:	LIS2302
Location	LIS	Device	van Veen grab
Form completed by	F. Vitale	Institution	LD/EO / Ocean
Latitude	41° 12.473	Longitude	72° 54.833
Water depth (m)	8.9	Target ID:	T-33

Grab description:

Surface photo	✓
Grain size sample (jar number)	✓ jar 148
Oxidized top (yes, no)	✓
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	dark grey
Mud (absent, rare, common, abundant)	common
Sand (absent, rare, common, abundant)	abundant
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	common
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	muddy sand

Notes:

Lamont-Doherty Earth Observatory

Grab LOG

LIS 2302 - - G 427

2-Letter Ship Abbreviation LIS
Cruise or 2-No. Year 2302
Leg for EWING
grab Number G 427
Type

(Example: LIS2301-G100)

Grab Name	LIS 2302 - G 427	Date	2023-08-14
Project:	LIS 4B	Time	15:40
Ship:	Pritchard	Cruise ID/ Year:	LIS 2302
Location	LIS	Device	van Veen grab
Form completed by	F. Nitsch	Institution	LDEO / Queens
Latitude	41° 11.719	Longitude	72° 55.837
Water depth (m)	10.9	Target ID:	T-193

Grab description:

Surface photo	✓
Grain size sample (jar number)	✓ jar 147
Oxidized top (yes, no)	✓
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	brunish gray
Mud (absent, rare, common, abundant)	rare
Sand (absent, rare, common, abundant)	abundant
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	abundant
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	sand

Notes:

Lamont-Doherty Earth Observatory

Grab LOG

LIS 2302 - - 6478

2-Letter Ship Abbreviation Cruise or 2-No. Year Leg for EWING grab Number Type

(Example: LIS2301-G100)

Grab Name	LIS 2302	Date	2023-08-14
Project:	LIS 4B	Time	15:05
Ship:	Pritchard	Cruise ID/Year:	LIS 2302
Location	LIS	Device	von Kuen grab
Form completed by	F. Mitsch	Institution	LDEO / Queens
Latitude	41° 11.272	Longitude	72° 56.591
Water depth (m)	13.1	Target ID:	T-47

Grab description:

Surface photo	✓
Grain size sample (jar number)	✓ jar 144
Oxidized top (yes, no)	✓
Stiffness (very soft, soft, stiff, very stiff)	very soft
Color	brnish gray
Mud (absent, rare, common, abundant)	abundant
Sand (absent, rare, common, abundant)	common (fine)
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	common
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	sandy mud

Notes:

Lamont-Doherty Earth Observatory

Grab LOG

LIS2302 - - G429

2-Letter Ship Abbreviation LIS
Cruise or 2-No. Year 2302
Leg for EWING
grab Number G429
Type

(Example: LIS2301-G100)

Grab Name LIS2302-G429	Date 2023-08-14
Project: LIS 4B	Time 16:12
Ship: Pristina	Cruise ID/ Year: LIS2302
Location LIS	Device van Veen grab
Form completed by F. Mitach	Institution LDEO / Queen
Latitude 41° 09.760	Longitude 72° 58.482
Water depth (m) 15.4	Target ID: T-82

Grab description:

Surface photo	✓
Grain size sample (jar number)	✓ jar 145
Oxidized top (yes, no)	✓
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	brownish grey
Mud (absent, rare, common, abundant)	abundant
Sand (absent, rare, common, abundant)	common
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	common
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	sandy mud

Notes:

Lamont-Doherty Earth Observatory

Grab LOG

LIS 2302 - - G 4 ~~230~~
 2-Letter Ship Abbreviation LIS 2302
 Cruise or 2-No. Year
 Leg for EWING
 grab Number
 Type
 (Example: LIS2301-G100)

Grab Name LIS 2302-G 4 230	Date 2022-08-15
Project: LIS 4P	Time 12:03
Ship: Pritchard	Cruise ID/ Year: LIS 2302
Location LI - Min Ham	Device Van Veen pump
Form completed by F. Mita G	Institution CDEO / Qamar
Latitude 41° 13.632	Longitude 72° 56.050
Water depth (m) 6.8	Target ID: no-target

Grab description:

Surface photo	✓
Grain size sample (jar number)	✓ jar 29
Oxidized top (yes, no)	✓
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	black
Mud (absent, rare, common, abundant)	abundant
Sand (absent, rare, common, abundant)	-
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	abundant fornicular
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	no
Lithology (estimated)	mud

Notes:

Lamont-Doherty Earth Observatory

Grab LOG

LIS2302 - - G431

2-Letter Ship Abbreviation Cruise or 2-No. Year Leg for EWING grab Number Type

(Example: LIS2301-G100)

Grab Name LIS2302 - G431		Date 2023-08-15
Project: LIS 4B		Time 17:42
Ship: Profound		Cruise ID/ Year: LIS2302
Location LIS		Device Van Van grab
Form completed by F. N. Feck		Institution LDEO - dunn
Latitude 41° 13.614	Longitude 72° 53.693	
Water depth (m) 9.0	Target ID: T-23	

Grab description:

Surface photo	✓
Grain size sample (jar number)	✓ jar
Oxidized top (yes, no)	✓
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	greenish gray
Mud (absent, rare, common, abundant)	common
Sand (absent, rare, common, abundant)	abundant
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	abundant
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	yes -
Lithology (estimated)	muddy sand

Notes:

Lamont-Doherty Earth Observatory

Grab LOG

LIS 2302 - - G 432

2-Letter Ship Abbreviation Cruise or 2-No. Year Leg for EWING grab Number Type

(Example: LIS2301-G100)

Grab Name	LIS 2302 - G 432	Date	2023-08-15
Project:	LIS 4 B	Time	12:52
Ship:	Pritchard	Cruise ID/ Year:	LIS 2302
Location	LIS	Device	von Kuenen
Form completed by	T. Vitek	Institution	LEO / Oron
Latitude	41° 13.037	Longitude	72° 54.096
Water depth (m)	12.8	Target ID:	T-72

Grab description:

Surface photo	✓
Grain size sample (jar number)	✓ jar 40
Oxidized top (yes, no)	✓
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	black
Mud (absent, rare, common, abundant)	abundant
Sand (absent, rare, common, abundant)	-
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	-
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	yes
Lithology (estimated)	mud

Notes:

Lamont-Doherty Earth Observatory

Grab LOG

LIS2302 - - G433

2-Letter Ship Abbreviation Cruise or 2-No. Year Leg for EWING grab Number Type

(Example: LIS2301-G100)

Grab Name	LIS2302 - G433	Date	2022-08-15
Project:	LIS 4B	Time	13:02
Ship:	Ritcheas	Cruise ID/ Year:	LIS2302
Location	LIS	Device	van Veen grab
Form completed by	F. Nitch	Institution	LDEO / Queens
Latitude	41° 12.715	Longitude	72° 54.176
Water depth (m)	14.7	Target ID:	T-70

Grab description:

Surface photo	✓
Grain size sample (jar number)	✓ jar 28
Oxidized top (yes, no)	✓
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	black
Mud (absent, rare, common, abundant)	abundant
Sand (absent, rare, common, abundant)	rare
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	rare common
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	marl

Notes:

Lamont-Doherty Earth Observatory

Grab LOG

LIS 2302 - - G 434

2-Letter Ship Abbreviation Cruise or 2-No. Year Leg for EWING grab Number Type

(Example: LIS2301-G100)

Grab Name	LIS 2302 - G 434	Date	2023-08-15
Project:	LIS 4B	Time	13:11
Ship:	R/V <i>Challenger</i>	Cruise ID/ Year:	LIS2302
Location	LIS	Device	Van Veen grab
Form completed by	F. Mitche	Institution	LEO / Ocean
Latitude	41° 12.419	Longitude	72° 53.878
Water depth (m)	13.4	Target ID:	T-181

Grab description:

Surface photo	✓
Grain size sample (jar number)	✓ jar 7
Oxidized top (yes, no)	✓
Stiffness (very soft, soft, stiff, very stiff)	✓
Color	gravelly grey
Mud (absent, rare, common, abundant)	rare
Sand (absent, rare, common, abundant)	abundant (coarse)
Gravel (absent, rare, common, abundant)	common
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	common
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	gravelly sand

Notes:

Lamont-Doherty Earth Observatory

Grab LOG

LIS2302 - G435
 2-Letter Ship Abbreviation LIS Cruise or 2-No. Year 2023 Leg for EWING grab Number 435 Type
 (Example: LIS2301-G100)

Grab Name	LIS 2302 - G435	Date	2023-08-15
Project:	LIS 4B	Time	13:21
Ship:	Pritchard	Cruise ID/ Year:	2023a
Location	LIS	Device	von Kuen grab
Form completed by	F. Mitscha	Institution	LDEO / Queens
Latitude	41° 12.114	Longitude	72° 54.541
Water depth (m)	11.8	Target ID:	T-150

Grab description:

Surface photo	✓
Grain size sample (jar number)	✓ jar 84
Oxidized top (yes, no)	✓
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	greenish grey
Mud (absent, rare, common, abundant)	rare
Sand (absent, rare, common, abundant)	abundant
Gravel (absent, rare, common, abundant)	abundant
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	common
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	gravelly coarse sand

Notes:

Lamont-Doherty Earth Observatory

Grab LOG

LIS2302 - - G436

2-Letter Ship Abbreviation Cruise or 2-No. Year Leg for EWING grab Number Type

(Example: LIS2301-G100)

Grab Name	LIS 2302 - G 436	Date	2023-08-15
Project:	LIS 413	Time	13:29
Ship:	Pritchard	Cruise ID/ Year:	LIS2302
Location	LIS	Device	von Van Grab
Form completed by	F. Nitzsche	Institution	LDEO / Ques
Latitude	41° 12.104	Longitude	72° 55.060
Water depth (m)	10.7	Target ID:	T-96

Grab description:

Surface photo	✓
Grain size sample (jar number)	✓ jar 32
Oxidized top (yes, no)	✓
Stiffness (very soft, soft, stiff, very stiff)	
Color	black
Mud (absent, rare, common, abundant)	abundant
Sand (absent, rare, common, abundant)	-
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	abundant (Foraminifera)
Oysters (live/dead) (absent, rare, common, abundant)	abundant
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	yes
Lithology (estimated)	mud

Notes:

Foraminifera

Lamont-Doherty Earth Observatory

Grab LOG

LIS2302 - G437

2-Letter Ship Abbreviation LIS
Cruise or 2-No. Year 2302
Leg for EWING
grab Number G437
Type

(Example: LIS2301-G100)

Grab Name	LIS2302 - G437	Date	2023-08-15
Project:	LIS 4B	Time	13:42
Ship:	Pritchard	Cruise ID/Year:	LIS2302
Location	LIS	Device	van Veen grab
Form completed by	E. N. Tilden	Institution	CDEO / Lamont
Latitude	41° 12.321	Longitude	71° 56.409
Water depth (m)	11.4	Target ID:	T-9

Grab description:

Surface photo	✓
Grain size sample (jar number)	✓ jar 33
Oxidized top (yes, no)	✓
Stiffness (very soft, soft, stiff, very stiff)	soft
Color	greenish gray
Mud (absent, rare, common, abundant)	abundant
Sand (absent, rare, common, abundant)	common fine
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	abundant Foraminifera
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	sandy mud

Notes:

Foraminifera

Lamont-Doherty Earth Observatory

LIS2302 - - G438

Grab LOG

2-Letter Ship Abbreviation Cruise or 2-No. Year Leg for EWING grab Number Type

(Example: LIS2301-G100)

Grab Name	LIS 2302-G 438	Date	2023-08-15
Project:	LIS 4B	Time	13:56
Ship:	RMIT channel	Cruise ID/ Year:	LIS2302
Location	LIS	Device	van Veen grab
Form completed by	F. Mitsch	Institution	LDEO / Queens
Latitude	41° 12.631	Longitude	72° 57.725
Water depth (m)	10.9m	Target ID:	T-40

Grab description:

Surface photo	✓
Grain size sample (jar number)	✓ jar
Oxidized top (yes, no)	✓
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	black
Mud (absent, rare, common, abundant)	abundant
Sand (absent, rare, common, abundant)	-
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	very
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	yes
Lithology (estimated)	mud

Notes:

Lamont-Doherty Earth Observatory

LIS2302 - - G439

Grab LOG

2-Letter Ship Abbreviation Cruise or 2-No. Year Leg for EWING grab Number Type

(Example: LIS2301-G100)

Grab Name	LIS2302-G439	Date	2023-08-15
Project:	LIS 4B	Time	14:05
Ship:	Ritchland	Cruise ID/ Year:	LIS2302
Location	LIS 4B	Device	van Veen grab
Form completed by	F. Mitchell	Institution	CDEO Queens
Latitude	41° 12.314	Longitude	72° 57.764
Water depth (m)	11.5	Target ID:	T-144

Grab description:

Surface photo	✓
Grain size sample (jar number)	✓ jar 19
Oxidized top (yes, no)	✓
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	greenish black
Mud (absent, rare, common, abundant)	abundant
Sand (absent, rare, common, abundant)	-
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	rare
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	mud

Notes:

Lamont-Doherty Earth Observatory

Grab LOG

LIS 2302 - - G 440

2-Letter Ship Abbreviation Cruise or 2-No. Year Leg for EWING grab Number Type

(Example: LIS2301-G100)

Grab Name LIS 2302 - G 440	Date 2022-02-15
Project: LIS 4B	Time 14:19
Ship: Prithvi	Cruise ID/Year: LIS 2302
Location HS	Device van Veen grab
Form completed by F. Mitzel	Institution LDEO / Queens
Latitude 41° 11.638	Longitude 72° 58.667'
Water depth (m) 11.7	Target ID: T-106

Grab description:

Surface photo	✓
Grain size sample (jar number)	✓ jar 115
Oxidized top (yes, no)	✓
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	black
Mud (absent, rare, common, abundant)	abundant
Sand (absent, rare, common, abundant)	-
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	abundant (Lamin)
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	mud

Notes:

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LIS 2302 - - 6441

Grab LOG

2-Letter Ship Abbreviation Cruise or 2-No. Year Leg for EWING grab Number Type

(Example: LIS2301-G100)

Grab Name	LIS 2302 - 6441	Date	2023-08-15
Project:	LIS 4B	Time	14:28:42
Ship:	Priteland	Cruise ID/ Year:	LIS2302
Location	LIJ	Device	van Veen grab
Form completed by	F. Mitsche	Institution	LDEO/ Lamont
Latitude	41.16.432	Longitude	72° 58.415
Water depth (m)	12.3	Target ID:	T-125

Grab description:

Surface photo	✓
Grain size sample (jar number)	✓ jar 98
Oxidized top (yes, no)	✓
Stiffness (very soft, soft, stiff, very stiff)	soft
Color	greenish grey
Mud (absent, rare, common, abundant)	abundant
Sand (absent, rare, common, abundant)	-
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	-
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	mud

Notes:

Lamont-Doherty Earth Observatory

Grab LOG

LIS2302 - - G 442

2-Letter Ship Abbreviation Cruise or 2-No. Year Leg for EWING grab Number Type

(Example: LIS2301-G100)

Grab Name	LIS2302-G442	Date	2023-08-15
Project:	LIS 4B	Time	14:39:36
Ship:	Pritchard	Cruise ID/ Year:	LIS2302
Location	LIS	Device	van Veen grab
Form completed by	F. Mitschke	Institution	LDEO / Queen
Latitude	41° 11.222	Longitude	72° 59.290
Water depth (m)	12.0	Target ID:	T-108

Grab description:

Surface photo	✓
Grain size sample (jar number)	✓ jar 39
Oxidized top (yes, no)	✓
Stiffness (very soft, soft, stiff, very stiff)	soft
Color	greenish gray
Mud (absent, rare, common, abundant)	abundant
Sand (absent, rare, common, abundant)	common medium
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	abundant (Foraminifera) + other
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	sandy mud

Notes:

Foraminifera

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LIS2302 - - G443

Grab LOG

2-Letter Ship Abbreviation Cruise or 2-No. Year Leg for EWING grab Number Type

(Example: LIS2301-G100)

Grab Name	LIS 2302-G443	Date	2023-08-15
Project:	LIS 4B	Time	14:49:36
Ship:	Pritchard	Cruise ID/Year:	LIS2302
Location	LIS	Device	van van Grab
Form completed by	F. Mitgoh	Institution	LDEO/Quinn
Latitude	41° 10.703	Longitude	72° 59.432
Water depth (m)	12.4	Target ID:	T-16

Grab description:

Surface photo	✓
Grain size sample (jar number)	✓ jar 2
Oxidized top (yes, no)	✓
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	greenish gray
Mud (absent, rare, common, abundant)	rare
Sand (absent, rare, common, abundant)	abundant
Gravel (absent, rare, common, abundant)	common
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	common common
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	gravelly coarse sand

Notes:

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LIS2302 - - G444

Grab LOG

2-Letter Ship Abbreviation Cruise or 2-No. Year Leg for EWING grab Number Type

(Example: LIS2301-G100)

Grab Name	LIS2302-G444	Date	2023-08-15
Project:	LIS4B	Time	15: 03:52 03:52
Ship:	Pritchard	Cruise ID/ Year:	LIS2307
Location	LIS	Device	von Neumann grab
Form completed by	F. Mitsch	Institution	LIEO/Quinn
Latitude	41° 10.500 10.502	Longitude	73° 00.373 00.373
Water depth (m)	10.5	Target ID:	T-180

Grab description:

Surface photo	✓
Grain size sample (jar number)	✓ jar 116
Oxidized top (yes, no)	✓
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	greenish gray
Mud (absent, rare, common, abundant)	rare
Sand (absent, rare, common, abundant)	abundant (com)
Gravel (absent, rare, common, abundant)	common
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	abundant
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	gravelly coarse sand

Notes: 1. try missford

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Grab LOG

LIS2302 - - G 445

2-Letter Ship Abbreviation LIS Cruise or 2-No. Year 2302 Leg for EWING grab Number 445 Type

(Example: LIS2301-G100)

Grab Name	LIS 2302 - G 445	Date	2023-08-15
Project	LIS 4B	Time	15:14:22
Ship	Pritchard	Cruise ID/Year	LIS2302
Location	LIS	Device	Van Klee grab
Form completed by	F. Mitche	Institution	LOEO/Queens
Latitude	41° 10.466	Longitude	73° 01.369
Water depth (m)	11.7	Target ID:	T-186

Grab description:

Surface photo	✓
Grain size sample (jar number)	✓ jar 8
Oxidized top (yes, no)	✓
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	greenish gray
Mud (absent, rare, common, abundant)	common common
Sand (absent, rare, common, abundant)	abundant coarse
Gravel (absent, rare, common, abundant)	common
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	common
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	gravelly, muddy coarse sand

Notes:

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Grab LOG

LIS2302 - - G446

2-Letter Ship Abbreviation Cruise or 2-No. Year Leg for EWING grab Number Type

(Example: LIS2301-G100)

Grab Name	LIS2302 - G446	Date	2022-08-15
Project:	LIS 4B	Time	15:23:36
Ship:	Ritchard	Cruise ID/ Year:	LIS2302
Location	LIS	Device	van Veen grab
Form completed by	F. Vitale	Institution	CDEU / Quilms
Latitude	41° 10.855	Longitude	73° 01.369
Water depth (m)	9.6	Target ID:	T-66

Grab description:

Surface photo	✓
Grain size sample (jar number)	✓ jar 136
Oxidized top (yes, no)	✓
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	greenish gray
Mud (absent, rare, common, abundant)	rare
Sand (absent, rare, common, abundant)	abundant coarse
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	abundant
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	coarse sand

Notes:

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Grab LOG

LIS2302 - - G447

2-Letter Ship Abbreviation LIS
Cruise or 2-No. Year 2302
Leg for EWING
grab Number G447
Type

(Example: LIS2301-G100)

Grab Name LIS 2302 - G447		Date 2023-08-15
Project: US 4B		Time 15:32:44
Ship: Pritchard		Cruise ID/Year: LIS2302
Location LIS		Device von um grab
Form completed by F. Nitsche		Institution LDEO / Bann
Latitude 41° 10.522	Longitude 73° 01.759	
Water depth (m) 11.4	Target ID: T-067	

Grab description:

Surface photo	✓
Grain size sample (jar number)	✓ jar 118
Oxidized top (yes, no)	✓
Stiffness (very soft, soft, stiff, very stiff)	soft
Color	greenish gray
Mud (absent, rare, common, abundant)	abundant
Sand (absent, rare, common, abundant)	common fin
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	abundant common
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	sandy mud

Notes:

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Grab LOG

LIS2302 - - G448

2-Letter Ship Abbreviation LIS
Cruise or 2-No. Year 2302
Leg for EWING
grab Number G448
Type

(Example: LIS2301-G100)

Grab Name	G448	Date	2023-08-16
Project:	LIS 4B	Time	11:39:44
Ship:	Pritchard	Cruise ID/Year:	LIS2302
Location	LIS	Device	van Veen grab
Form completed by	F. Mitsch	Institution	CDEO / Queens
Latitude	41° 13.276	Longitude	72° 53.440
Water depth (m)	10.7	Target ID:	T-58

Grab description:

Surface photo	✓
Grain size sample (jar number)	✓ jar 22
Oxidized top (yes, no)	✓
Stiffness (very soft, soft, stiff, very stiff)	soft
Color	greenish gray
Mud (absent, rare, common, abundant)	common
Sand (absent, rare, common, abundant)	abundant medium
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	abundant
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	muddy sand

Notes:

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Grab LOG

LIS 2202 - - G 449

2-Letter Ship Abbreviation Cruise or 2-No. Year Leg for EWING grab Number Type

(Example: LIS2301-G100)

Grab Name	G 449	Date	2022-08-16
Project:	LIS 4B	Time	11:50:17
Ship:	Princeton	Cruise ID/ Year:	LIS2202
Location	LIS	Device	van Veen grab
Form completed by	F. Vitale	Institution	LDEO/UM
Latitude	41° 13.439	Longitude	72° 52.921
Water depth (m)	7.9	Target ID:	T-15

Grab description:

Surface photo	✓
Grain size sample (jar number)	✓ jar 21
Oxidized top (yes, no)	✓
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	grayed green
Mud (absent, rare, common, abundant)	rdm
Sand (absent, rare, common, abundant)	abundant (coarse)
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	rare
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	coarse sand

Notes:

flat worms, highly oxygen

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Grab LOG

LIS2302 - - G450

2-Letter Ship Cruise or Leg for grab Type
Abbreviation 2-No. Year EWING Number

(Example: LIS2301-G100)

Grab Name	G450	Date	2022-08-16
Project:	Pritchard LIS 4B	Time	12:01:36
Ship:	Pritchard	Cruise ID/ Year:	452302
Location	LIS	Device	van Veen grab
Form completed by	F. Nitgala	Institution	LDEO/Queens
Latitude	41° 13.596	Longitude	72° 51.998
Water depth (m)	9.1	Target ID:	T-89

Grab description:

Surface photo	✓
Grain size sample (jar number)	✓ jar 27
Oxidized top (yes, no)	✓
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	greyish green
Mud (absent, rare, common, abundant)	rare
Sand (absent, rare, common, abundant)	abundant to medium
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	common small
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	muddy clay sand

Notes:

Razor clean, highly organic

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Grab LOG

LIS 2302 - - G 451

2-Letter Ship Abbreviation LIS
Cruise or 2-No. Year 2302
Leg for EWING
grab Number G 451
Type

(Example: LIS2301-G100)

Grab Name	G 451	Date	2023-08-16
Project:	LIS 4B	Time	12:11:00
Ship:	Pritcheard	Cruise ID/ Year:	LIS 2302
Location	LIS	Device	Van Veen grab
Form completed by	F. Mitguth	Institution	LDEO / Columbia
Latitude	41° 13.365	Longitude	72° 51.513
Water depth (m)	10.3	Target ID:	T-149

Grab description:

Surface photo	✓
Grain size sample (jar number)	✓ jar 15
Oxidized top (yes, no)	✓
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	grayish green
Mud (absent, rare, common, abundant)	common
Sand (absent, rare, common, abundant)	abundant
Gravel (absent, rare, common, abundant)	common
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	+ -
Shells (absent, rare, common, abundant)	common
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	loam sand

Notes:

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Grab LOG

L152302 - - G452

2-Letter Ship Abbreviation Cruise or 2-No. Year Leg for EWING grab Number Type

(Example: LIS2301-G100)

Grab Name	G452	Date	2023-08-16
Project:	L154B	Time	17:22:34
Ship:	Pritland	Cruise ID/ Year:	L152302
Location	L15	Device	van Veen grab
Form completed by	F. Nitsch	Institution	LDEO/Quinn
Latitude	41° 13.851	Longitude	72° 50.587
Water depth (m)	10.0	Target ID:	T-041

Grab description:

Surface photo	✓
Grain size sample (jar number)	✓ jar 70
Oxidized top (yes, no)	✓
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	greenish blue
Mud (absent, rare, common, abundant)	abundant
Sand (absent, rare, common, abundant)	rare
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	rare common
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	yes
Lithology (estimated)	mud

Notes:

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Grab LOG

LIS2302 - - G453

2-Letter Ship Cruise or Leg for grab Type
Abbreviation 2-No. Year EWING Number

(Example: LIS2301-G100)

Grab Name	G453	Date	2023-08-16
Project:	LIS 4B	Time	12:40:18
Ship:	Pritchard	Cruise ID/ Year:	LIS2302
Location	LIS	Device	von Kuenen grab
Form completed by	F. Mitsch	Institution	LDEO / Ocean
Latitude	41° 14.031	Longitude	72° 48.726
Water depth (m)	11.8	Target ID:	T-77

Grab description:

Surface photo	✓
Grain size sample (jar number)	✓ jar #1
Oxidized top (yes, no)	✓
Stiffness (very soft, soft, stiff, very stiff)	soft very stiff
Color	black
Mud (absent, rare, common, abundant)	abundant
Sand (absent, rare, common, abundant)	rare
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	absent common
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	
Lithology (estimated)	slimy mud

Notes:

organic?

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Grab LOG

US2302 - - G454

2-Letter Ship Abbreviation Cruise or 2-No. Year Leg for EWING grab Number Type

(Example: LIS2301-G100)

Grab Name	G454	Date	2023-08-16
Project:	US4B	Time	12:51:22
Ship:	Ritland	Cruise ID/Year:	US2302
Location	LIS	Device	van Veen grab
Form completed by	F. Mitsche	Institution	DEO / Lamont
Latitude	41° 13.602	Longitude	72° 47.991
Water depth (m)	21.1	Target ID:	T-80

Grab description:

Surface photo	✓
Grain size sample (jar number)	✓ jar 123
Oxidized top (yes, no)	✓
Stiffness (very soft, soft, stiff, very stiff)	soft
Color	grayish brown
Mud (absent, rare, common, abundant)	abundant
Sand (absent, rare, common, abundant)	-
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	rare
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	mud

Notes:

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Grab LOG

LIS2302 - - 6455

2-Letter Ship Abbreviation Cruise or 2-No. Year Leg for EWING grab Number Type

(Example: LIS2301-G100)

Grab Name	G 455	Date	2023-08-16
Project:	LIS 4B	Time	13:05:42/13:07:48
Ship:	Pritchard	Cruise ID/Year:	LIS2302
Location	LIS	Device	van Veen grab
Form completed by	F. Mitsch	Institution	LDEO / Ocean
Latitude	41° 13.733 / 41° 13.741	Longitude	77° 46.628 / 77° 46.626
Water depth (m)	9.3	Target ID:	T-104

Grab description:

Surface photo	✓
Grain size sample (jar number)	- # no sample jar 35
Oxidized top (yes, no)	
Stiffness (very soft, soft, stiff, very stiff)	
Color	
Mud (absent, rare, common, abundant)	-
Sand (absent, rare, common, abundant)	-
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	-
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	
Anthropogenic (brig, coal, slag etc)	
H ₂ S smell (yes, no)	
Lithology (estimated)	

Notes:

1. try clam / but no sample
 2. try grab punch - no sample taken

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Grab LOG

LIS2302 - - 6456

2-Letter Ship Abbreviation LIS
Cruise or 2-No. Year 2302
Leg for EWING
grab Number
Type

(Example: LIS2301-G100)

Grab Name	G456	Date	2023-08-16
Project:	LIS 4B	Time	13:26:50
Ship:	Proteus	Cruise ID/Year:	LIS 2302
Location	L11	Device	van Veen grab
Form completed by	F. Nitsch	Institution	UPEO IQUINN
Latitude	41° 13.020	Longitude	72° 47.238
Water depth (m)	14.5	Target ID:	T-117

Grab description:

Surface photo	✓
Grain size sample (jar number)	✓ jar 131
Oxidized top (yes, no)	✓
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	greenish grey
Mud (absent, rare, common, abundant)	abundant
Sand (absent, rare, common, abundant)	-
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	rare
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	metal

Notes:

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Grab LOG

LIS2302 - - G457

2-Letter Ship Abbreviation Cruise or 2-No. Year Leg for EWING grab Number Type

(Example: LIS2301-G100)

Grab Name	G457	Date	2023-08-16
Project:	LIS 4B	Time	13:38 13:40:28
Ship:	Pritchard	Cruise ID/Year:	LIS2302
Location	LIS	Device	van Veen grab
Form completed by	F. Mitsch	Institution	LDEO / Queens
Latitude	41 12.469/41.12980	Longitude	72 48.053/72.48.051
Water depth (m)	14.1	Target ID:	T-189

Grab description:

Surface photo	✓
Grain size sample (jar number)	✓ jar 159
Oxidized top (yes, no)	✓
Stiffness (very soft, soft, stiff, very stiff)	stiff soft
Color	grayish grey
Mud (absent, rare, common, abundant)	common
Sand (absent, rare, common, abundant)	abundant (course)
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	shards*
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	(sh,ly) muddy sand

Notes: 1. try empty
2. try

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Grab LOG

LIS 2302 - - G458
 2-Letter Ship Cruise or Leg for grab Type
 Abbreviation 2-No. Year EWING Number
 (Example: LIS2301-G100)

Grab Name	G 458	Date	2023-08-16
Project:	LIS 4B	Time	13:53:10
Ship:	Pritchard	Cruise ID/ Year:	LIS2308
Location	LLS	Device	Van Veen grab
Form completed by	F. Vitale	Institution	LD EO / Duer
Latitude	41° 17.287	Longitude	72° 48.925
Water depth (m)	14.8	Target ID:	T-81

Grab description:

Surface photo	✓
Grain size sample (jar number)	✓ jar 149
Oxidized top (yes, no)	✓
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	greyish green
Mud (absent, rare, common, abundant)	abundant
Sand (absent, rare, common, abundant)	varied
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	rare
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	mud

Notes:

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Grab LOG

LIS2302 - - G459

2-Letter Ship Abbreviation Cruise or 2-No. Year Leg for EWING grab Number Type

(Example: LIS2301-G100)

Grab Name	G 459	Date	2023-08-16
Project:	LIS 4B	Time	14:04:00 / 14:06:00 52
Ship:	Pritcheard	Cruise ID/ Year:	LIS2302
Location	LIS	Device	van Veen grab
Form completed by	F. Mitsch	Institution	LDEU / Queens
Latitude	41° 41' 41" N 41° 41' 12.411" N	Longitude	72° 49' 37.41" W 72° 49' 38.1" W
Water depth (m)	14.6	Target ID:	T-133

Grab description:

Surface photo	✓
Grain size sample (jar number)	✓ jar 122
Oxidized top (yes, no)	✓
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	greenish grey
Mud (absent, rare, common, abundant)	abundant
Sand (absent, rare, common, abundant)	-
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	rare
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	mud

Notes: 1. top: curly trigger empty
2. top: good

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Grab LOG

LIS2302 - - G460

2-Letter Ship Abbreviation Cruise or 2-No. Year Leg for EWING grab Number Type

(Example: LIS2301-G100)

Grab Name LIS2302 - G460		Date 2023-08-16
Project: LIS4B		Time 14:14:46
Ship: Pritchard		Cruise ID/Year: LIS2302
Location LIS		Device van Klee grab
Form completed by F. Nitzsch		Institution LDEO/Qu
Latitude 41° 17.518	Longitude 72° 49.918	
Water depth (m) 14.5	Target ID: T-87	

Grab description:

Surface photo	✓
Grain size sample (jar number)	✓ jar 151
Oxidized top (yes, no)	✓
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	green gray
Mud (absent, rare, common, abundant)	abundant
Sand (absent, rare, common, abundant)	-
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	rare
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	mud

Notes:

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Grab LOG

LIS2302 - 6461
 2-Letter Ship Abbreviation LIS2302
 Cruise or 2-No. Year -
 Leg for EWING
 grab Number 6461
 Type
 (Example: LIS2301-G100)

Grab Name LIS2302 - G 461	Date 2023-08-16
Project: LIS 4B	Time 14:26:48
Ship: Pritchard	Cruise ID/ Year: LIS2302
Location LIS	Device von Neumann grab
Form completed by F. Mitschke	Institution LDEU/ dunn
Latitude 41° 13.216	Longitude 72° 50.215
Water depth (m) 12.1	Target ID: T-42

Grab description:

Surface photo	✓
Grain size sample (jar number)	✓ jar 156
Oxidized top (yes, no)	✓
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	gray
Mud (absent, rare, common, abundant)	abundant
Sand (absent, rare, common, abundant)	-
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	✓
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	- mud

Notes:

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Grab LOG

LIS2302 - - G462
 2-Letter Ship Cruise or Leg for grab Type
 Abbreviation 2-No. Year EWING Number
 (Example: LIS2301-G100)

Grab Name	G462	Date	2023-08-16
Project:	LIS4B	Time	14:41:36
Ship:	Pritchard	Cruise ID/ Year:	LIS2302
Location	LIS	Device	van Veen grab
Form completed by	F. Mitsch	Institution	LDEO / Queens
Latitude	41° 12.976	Longitude	72 51.219
Water depth (m)	13.7	Target ID:	T-102

Grab description:

Surface photo	✓
Grain size sample (jar number)	✓ ja 59
Oxidized top (yes, no)	✓
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	greenish grey
Mud (absent, rare, common, abundant)	abundant
Sand (absent, rare, common, abundant)	-
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	common
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	mud

Notes:

big clam

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Grab LOG

LIS2302 - - G463

2-Letter Ship Abbreviation Cruise or 2-No. Year Leg for EWING grab Number Type

(Example: LIS2301-G100)

Grab Name	G463	Date	2023-08-16
Project:	LIS 4B	Time	14:57:48
Ship:	Profilant	Cruise ID/ Year	LIS 2302
Location	LIS	Device	Van Veen grab
Form completed by	F. Nitsche	Institution	CEO / Queen
Latitude	41° 12.501	Longitude	72° 52.404
Water depth (m)	14.8	Target ID:	T-147

Grab description:

Surface photo	✓
Grain size sample (jar number)	✓ jar 120
Oxidized top (yes, no)	✓
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	green grey
Mud (absent, rare, common, abundant)	abundant
Sand (absent, rare, common, abundant)	-
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	com
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	mud

Notes:

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Grab LOG

LIS2302 - - 6464

2-Letter Ship Abbreviation Cruise or 2-No. Year Leg for EWING grab Number Type

(Example: LIS2301-G100)

Grab Name	G 464	Date	2023-08-16
Project:	LIS 4B	Time	15:08:04
Ship:	Pritchard	Cruise ID/ Year:	LIS2302
Location	LIS	Device	van Veen grab
Form completed by	F. M. Ittekkk	Institution	LDEO / Ocean
Latitude	41 12.072	Longitude	72 53.027
Water depth (m)	14.9	Target ID:	T-97

Grab description:

Surface photo	✓
Grain size sample (jar number)	✓ jar 79
Oxidized top (yes, no)	✓
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	green gray
Mud (absent, rare, common, abundant)	abundant
Sand (absent, rare, common, abundant)	common
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	few
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	- sandy mud

Notes:

forms?

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Grab LOG

LIS2302 - - G465

2-Letter Ship Abbreviation LIS Cruise or 2-No. Year 2302 Leg for EWING grab Number 465 Type

(Example: LIS2301-G100)

Grab Name	G465	Date	2023-08-17
Project:	LIS 4B	Time	10:04:30
Ship:	Pritchard	Cruise ID/ Year:	LIS2302
Location	LIS	Device	van Veen, grab
Form completed by	F. Mitsch	Institution	LDEO/Queen
Latitude	41° 03.533	Longitude	72° 59.642
Water depth (m)	33.5	Target ID:	T-54

Grab description:

Surface photo	✓
Grain size sample (jar number)	✓ jar 24
Oxidized top (yes, no)	✓
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	gray green
Mud (absent, rare, common, abundant)	abundant
Sand (absent, rare, common, abundant)	-
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	-
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	mud

Notes:

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Grab LOG

LIS2307 - - G466

2-Letter Ship Abbreviation Cruise or 2-No. Year Leg for EWING grab Number Type

(Example: LIS2301-G100)

Grab Name	G466	Date	2022-08-17
Project:	LIS 4B	Time	10:24:36
Ship:	Pritchard	Cruise ID/ Year:	LIS2307
Location	LIS	Device	Van Veen grab
Form completed by	F. Mitchell	Institution	LOE/Ocean
Latitude	41° 04.408	Longitude	72° 59.185
Water depth (m)	30.5	Target ID:	T-44

Grab description:

Surface photo	✓
Grain size sample (jar number)	✓ jar 20
Oxidized top (yes, no)	✓
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	dark grey
Mud (absent, rare, common, abundant)	abundant
Sand (absent, rare, common, abundant)	common fine
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	-
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	sandy mud

Notes:

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Grab LOG

LIS2302 - - G467

2-Letter Ship Abbreviation Cruise or 2-No. Year Leg for EWING grab Number Type

(Example: LIS2301-G100)

Grab Name	G467	Date	2013-08-17
Project:	LIS4B	Time	10:36:02/10:39:20
Ship:	Pritcheard	Cruise ID/ Year:	LIS2307
Location	LIS	Device	von Klem grab
Form completed by	T. Nitala	Institution	UDEL/Queen
Latitude	41° 04.824/41.09.919	Longitude	72° 59.444/72.99.544
Water depth (m)	28.2	Target ID:	T-24

Grab description:

Surface photo	✓
Grain size sample (jar number)	✓ jar 112
Oxidized top (yes, no)	✓
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	greenish gray
Mud (absent, rare, common, abundant)	abundant
Sand (absent, rare, common, abundant)	rare
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	-
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	sandy mud

Notes: 1. top sample
2. top

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Grab LOG

LIS2307 - - G468

2-Letter Ship Abbreviation LIS
Cruise or 2-No. Year 2307
Leg for EWING
grab Number
Type

(Example: LIS2301-G100)

Grab Name	G 468	Date	2023-08-17
Project:	LIS 4B	Time	10:52:15/40:55:06
Ship:	Pritchard	Cruise ID/ Year:	LIS2307
Location	LIS	Device	van Veen grab
Form completed by	F. Vitale	Institution	LDEO / QM
Latitude	41° 05.253 / 41° 05.252	Longitude	72° 00.444 / 72° 00.523
Water depth (m)	26.3	Target ID:	T-118

Grab description:

Surface photo	
Grain size sample (jar number)	
Oxidized top (yes, no)	
Stiffness (very soft, soft, stiff, very stiff)	
Color	
Mud (absent, rare, common, abundant)	
Sand (absent, rare, common, abundant)	
Gravel (absent, rare, common, abundant)	
Pebbles (absent, rare, common, abundant)	
Leaves (absent, rare, common, abundant)	
Wood (absent, rare, common, abundant)	
Shells (absent, rare, common, abundant)	
Oysters (live/dead) (absent, rare, common, abundant)	
Mussels (absent, rare, common, abundant)	
Living vegetation (absent, rare, common, abundant)	
Anthropogenic (brig, coal, slag etc)	
H ₂ S smell (yes, no)	
Lithology (estimated)	

Notes: 1. try / 10:
2. try / 41:
3. try / 72:

no sample

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Grab LOG

LIS 2303 - - 6469
 2-Letter Ship Abbreviation LIS Cruise or 2-No. Year 2303 Leg for EWING grab Number 6469 Type

(Example: LIS2301-G100)

Grab Name LIS 2303 - 6469	Date 2023-11-15
Project: LIS 4B	Time 11:00 9:08
Ship: Seamount	Cruise ID/ Year: 2023
Location LIS area 4	Device Van Veen Grab
Form completed by F. M. Fitz	Institution LDEO / am
Latitude 41° 1.96246	Longitude 72° 58.20574
Water depth (m) 37.9	Target ID: T-163

Grab description:

Surface photo	✓
Grain size sample (jar number)	✓ jar 129
Oxidized top (yes, no)	no
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	pinkish gray
Mud (absent, rare, common, abundant)	common
Sand (absent, rare, common, abundant)	abundant
Gravel (absent, rare, common, abundant)	common (10%)
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	-
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	sandy muddy sand

Notes:

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Grab LOG

LIS 2303 - - 6470

2-Letter Ship Abbreviation Cruise or 2-No. Year Leg for EWING grab Number Type

(Example: LIS2301-G100)

Grab Name	LIS 2303 - 6470	Date	2023-11-15
Project:	LIS 4B	Time	9:32
Ship:	RV Seawolf	Cruise ID/Year:	2023
Location	LIS area 4	Device	van Kumbach
Form completed by	F. Mitsch	Institution	LDEO / Queen
Latitude	4° 2.2088	Longitude	72° 56.86361
Water depth (m)	37.7	Target ID:	T-130

Grab description:

Surface photo	✓
Grain size sample (jar number)	✓ jar 143
Oxidized top (yes, no)	✓
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	granitic gray
Mud (absent, rare, common, abundant)	abundant
Sand (absent, rare, common, abundant)	rare (fine)
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	-
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	sandy mud

Notes:

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Grab LOG

LIS2302 - - G471
 2-Letter Ship Abbreviation LIS2302
 Cruise or 2-No. Year -
 Leg for EWING -
 grab Number G471
 Type

(Example: LIS2301-G100)

Grab Name LIS23-02 - G471		Date 2023-11-15
Project: LIS 4B		Time 9:49:46
Ship: RV Seawolf		Cruise ID/ Year: LIS2302
Location LIS area 4		Device van Veen grab
Form completed by F. Mitsch		Institution LDEO/ Queens
Latitude 41° 2.7078	Longitude 72° 56.79036 W	
Water depth (m) 35.7	Target ID: T-39	

Grab description:

Surface photo	✓
Grain size sample (jar number)	✓ jar 128
Oxidized top (yes, no)	✓
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	greenish gray
Mud (absent, rare, common, abundant)	abundant
Sand (absent, rare, common, abundant)	common (medium)
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	absent common
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	sandy mud

Notes:

tube worm?

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Grab LOG

LIS2303 - - G472
 2-Letter Ship Abbreviation LIS2303 - Cruise or 2-No. Year - Leg for EWING - grab Number G472 - Type

(Example: LIS2301-G100)

Grab Name LIS2203 - G472	Date 2003-11-15
Project: LIS4B	Time 10:04:53
Ship: RV Seawolf	Cruise ID/Year: LIS2303
Location LISORIA 4	Device von Klem grab
Form completed by F. Nitsche	Institution LDEO / Queens
Latitude 41° 3.2384	Longitude 72° 57.0142
Water depth (m) 32.5	Target ID: T-142

Grab description:

Surface photo	✓
Grain size sample (jar number)	✓ jar 78
Oxidized top (yes, no)	✓
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	greenish grey
Mud (absent, rare, common, abundant)	abundant
Sand (absent, rare, common, abundant)	rare
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	-
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	mud

Notes:

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Grab LOG

LIS2303 - - G473
 2-Letter Ship Abbreviation LIS2303 - - G473
 Cruise or 2-No. Year
 Leg for EWING
 grab Number
 Type

(Example: LIS2301-G100)

Grab Name	LIS2303 - G473	Date	2023-11-15
Project:	LIS 4B	Time	10:17:40
Ship:	RV Seawolf	Cruise ID/Year:	LIS2303
Location	LIS area 4	Device	van Veen grab
Form completed by	F. Mitsche	Institution	LDEO / Queens
Latitude	41° 3.50217	Longitude	72° 57.5160
Water depth (m)	29.5	Target ID:	T-57

Grab description:

Surface photo	✓
Grain size sample (jar number)	✓ jar 9
Oxidized top (yes, no)	✓
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	greenish grey
Mud (absent, rare, common, abundant)	abundant
Sand (absent, rare, common, abundant)	rare (medium)
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	-
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	sandy mud

Notes:

tube worms

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Grab LOG

LIS2303 - - G474
 2-Letter Ship Abbreviation LIS2303
 Cruise or 2-No. Year - -
 Leg for Ewing
 grab Number G474
 Type

(Example: LIS2301-G100)

Grab Name	LIS 2303 - G474	Date	2023-11-15
Project:	LIS 4 B	Time	10:34:44
Ship:	RV Seawolf	Cruise ID/ Year:	LIS2303
Location	LIS area 4	Device	van Veen grab
Form completed by	F. Mitsch	Institution	LDEO / Queens
Latitude	41° 4.02828 N	Longitude	72° 56.70966 W
Water depth (m)	30.1	Target ID:	T-7

Grab description:

Surface photo	✓
Grain size sample (jar number)	✓ jar 133
Oxidized top (yes, no)	✓
Stiffness (very soft, soft, stiff, very stiff)	very soft
Color	greenish gray
Mud (absent, rare, common, abundant)	abundant
Sand (absent, rare, common, abundant)	-
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	-
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	mud

Notes:

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Grab LOG

LIS2303 - - G475
 2-Letter Ship Cruise or Leg for grab Type
 Abbreviation 2-No. Year EWING Number
 (Example: LIS2301-G100)

Grab Name	LIS2303 - G475	Date	2020 2023-11-15
Project:	LIS 4B	Time	10:53:31
Ship:	RV Seawolf	Cruise ID/Year:	LIS2303
Location	LIS area 4	Device	van Veen grab
Form completed by	F. Mitsche	Institution	LDEO / Queens
Latitude	41° 4.69128	Longitude	72° 58.07904
Water depth (m)	24.4	Target ID:	T-151

Grab description:

Surface photo	✓
Grain size sample (jar number)	✓ jar 152
Oxidized top (yes, no)	✓
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	brownish gray
Mud (absent, rare, common, abundant)	common
Sand (absent, rare, common, abundant)	abundant (medium/coarse)
Gravel (absent, rare, common, abundant)	rare
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	rare
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	muddy sand

Notes:

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Grab LOG

LIS2303 - - G476
 2-Letter Ship Abbreviation LIS Cruise or 2-No. Year 2303 Leg for EWING grab Number 476 Type
 (Example: LIS2301-G100)

Grab Name LIS 2303-G476	Date 2023-11-15
Project: LIS 4 B	Time 11:08:46
Ship: RV Seawolf	Cruise ID/Year: LIS2303
Location LIS area 4	Device von Vern grab
Form completed by F. Mitsch	Institution LDEU / Queens
Latitude 41° 5.07378	Longitude 72° 57.53685
Water depth (m) 27.1	Target ID: T-195

Grab description:

Surface photo	✓
Grain size sample (jar number)	✓ jar 157
Oxidized top (yes, no)	✓
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	greenish grey
Mud (absent, rare, common, abundant)	abundant
Sand (absent, rare, common, abundant)	rare
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	rare (fragments)
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	sandy mud

Notes:

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Grab LOG

LIS2303 - - G477
 2-Letter Ship Abbreviation LIS2303
 Cruise or 2-No. Year
 Leg for EWING
 grab Number G477
 Type

(Example: LIS2301-G100)

Grab Name	LIS 2303 - G 477	Date	2023-11-15
Project:	LIS 4B	Time	11:23:20
Ship:	RV Seawolf	Cruise ID/Year:	LIS2303
Location	LIS area 4	Device	Van Veen grab
Form completed by	F. Mitsch	Institution	DEO
Latitude	41° 5.54479	Longitude	77° 56.93496
Water depth (m)	26.9	Target ID:	T-51

Grab description:

Surface photo	✓
Grain size sample (jar number)	✓ jar 160
Oxidized top (yes, no)	✓
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	greenish gray
Mud (absent, rare, common, abundant)	abundant
Sand (absent, rare, common, abundant)	-
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	-
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	mud

Notes:

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Grab LOG

LIS2303 - - G478
 2-Letter Ship Abbreviation Cruise or 2-No. Year Leg for EWING grab Number Type

(Example: LIS2301-G100)

Grab Name LIS2303- G478	Date 2023-11-15
Project: LIS 4B	Time 11:38:14
Ship: RV Seawolf	Cruise ID/Year: LIS2303
Location LIS area 4	Device van Veen grab
Form completed by F. Mitsch	Institution LDEO / Queen
Latitude 41° 6.51780	Longitude 72° 56.80476
Water depth (m) 20.6m	Target ID: T-59

Grab description:

Surface photo	✓
Grain size sample (jar number)	✓ jar
Oxidized top (yes, no)	✓
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	brownish gray
Mud (absent, rare, common, abundant)	common
Sand (absent, rare, common, abundant)	abundant (medium)
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	rare
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	muddy sand

Notes:

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Grab LOG

LIS2303 - - G479
 2-Letter Ship Cruise or Leg for grab Type
 Abbreviation 2-No. Year EWING Number

(Example: LIS2301-G100)

Grab Name LIS2303-G479	Date 2023-11-15
Project: LIS 4B	Time 11:53:49
Ship: RV Stawell	Cruise ID/Year: LIS2303
Location LIS arga 4	Device van Veen grab
Form completed by F. Nitsche	Institution LDEO/Quinn
Latitude 41° 7.50600	Longitude 72° 56.81235
Water depth (m) 20.2	Target ID: T-30

Grab description:

Surface photo	✓
Grain size sample (jar number)	✓ jar
Oxidized top (yes, no)	✓
Stiffness (very soft, soft, stiff, very stiff)	very stiff
Color	brunial gray
Mud (absent, rare, common, abundant)	rare
Sand (absent, rare, common, abundant)	abundant (coars)
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	common
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	sand

Notes:

Some worms

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Grab LOG

LIS2303 - - G480
 2-Letter Ship Cruise or Leg for grab Type
 Abbreviation 2-No. Year EWING Number

(Example: LIS2301-G100)

Grab Name	LIS2303 - G480	Date	2023-11-15
Project:	LIS4B	Time	12:07:30
Ship:	RV Seawolf	Cruise ID/Year:	LIS2303
Location	LIS area 4	Device	van Veen grab
Form completed by	F. Mitsche	Institution	LDEO / Queens
Latitude	41° 8.16851	Longitude	72° 57.4461
Water depth (m)	19.2	Target ID:	T-109

Grab description:

Surface photo	✓
Grain size sample (jar number)	✓ jar 142
Oxidized top (yes, no)	✓
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	greenish gray
Mud (absent, rare, common, abundant)	abundant
Sand (absent, rare, common, abundant)	rare
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	-
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	mud

Notes:

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Grab LOG

LIS2303 - - G481
 2-Letter Ship Cruise or Leg for grab Type
 Abbreviation 2-No. Year EWING Number

(Example: LIS2301-G100)

Grab Name	LIS 2303 - G 481	Date	2023-11-15
Project:	LIS 4B	Time	12:27:32 12:27:32
Ship:	RV Seawolf	Cruise ID/Year:	LIS2303
Location	LIS area 4	Device	von Uexhoeck
Form completed by	F. Nitsch	Institution	LDEO / Queens
Latitude	41° 8.77771 8.72771	Longitude	71° 56.70807 56.18607
Water depth (m)	18.6	Target ID:	T-61

Grab description:

Surface photo	✓
Grain size sample (jar number)	✓ jar 188
Oxidized top (yes, no)	✓
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	greenish grey
Mud (absent, rare, common, abundant)	abundant
Sand (absent, rare, common, abundant)	-
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	-
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	mud

Notes: 1. try did not trip

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Grab LOG

LIS2303 - - G482
 2-Letter Ship Abbreviation LIS2303 - Cruise or 2-No. Year - Leg for EWING - grab Number G482 - Type
 (Example: LIS2301-G100)

Grab Name LIS2303-G482	Date 2023-11-15
Project: LIS4B	Time 12:44:19
Ship: RV Seawave	Cruise ID/Year: LIS2303
Location LIS area 4	Device Van Veen Grab
Form completed by F. Mitscha	Institution CDEO Queens
Latitude 41° 9.29162	Longitude 72° 54.53711
Water depth (m) 18	Target ID: T-98

Grab description:

Surface photo	✓
Grain size sample (jar number)	✓ jar 153
Oxidized top (yes, no)	✓
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	green gray
Mud (absent, rare, common, abundant)	abundant
Sand (absent, rare, common, abundant)	rare (wane)
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	✓ rare
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	mud

Notes:

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Grab LOG

LIS2303 - - G483
 2-Letter Ship Abbreviation LIS2303 Cruise or 2-No. Year - Leg for EWING grab Number G483 Type

(Example: LIS2301-G100)

Grab Name	LIS2303-G483	Date	2023-11-15
Project:	LIS4B	Time	13:38:01
Ship:	RV Seawolf	Cruise ID/Year:	LIS2303
Location	LIS area 4	Device	von Kuenen grab
Form completed by	F. Mitsch	Institution	LDEO CSM
Latitude	41° 9.44593	Longitude	77° 53.40263
Water depth (m)	17	Target ID:	T-50

Grab description:

Surface photo	✓
Grain size sample (jar number)	✓ jar 184
Oxidized top (yes, no)	✓
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	greyish green
Mud (absent, rare, common, abundant)	abundant
Sand (absent, rare, common, abundant)	common
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	none
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	sandy mud

Notes:

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Grab LOG

LIS2303 - - G484
 2-Letter Ship Abbreviation LIS2303
 Cruise or 2-No. Year -
 Leg for EWING -
 grab Number G484
 Type

(Example: LIS2301-G100)

Grab Name	LIS 2303 - G 484	Date	2023-11-15
Project:	LIS4B	Time	13:51:02
Ship:	RV Seawolf	Cruise ID/Year:	LIS 2303
Location	LIS area 4	Device	van Veen grab
Form completed by	F. Nitsch	Institution	LDEO/Quinn
Latitude	41° 9.47633	Longitude	72° 52.38815
Water depth (m)	18.3	Target ID:	T-55

Grab description:

Surface photo	✓
Grain size sample (jar number)	✓ jar #63
Oxidized top (yes, no)	✓
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	green gray
Mud (absent, rare, common, abundant)	abundant
Sand (absent, rare, common, abundant)	rare
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	-
Oysters (live/dead) (absent, rare, common, abundant)	rare
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	mud

Notes:

Lamont-Doherty Earth Observatory

Grab LOG

LIS2303 - - G485

2-Letter Ship Abbreviation	Cruise or 2-No. Year	Leg for EWING	grab Number	Type
LIS	2303	-	G485	

(Example: LIS2301-G100)

Grab Name	LIS 2303 - G485 G485	Date	2023-11-15
Project:	LIS 4B	Time	14:02:22
Ship:	RV Swallow Swallow	Cruise ID/ Year:	LIS 2303
Location	LIS area 4	Device	van Veen grab
Form completed by	F. Mitsch	Institution	LDEO / Queens
Latitude	41° 9.97503	Longitude	72° 51.44601
Water depth (m)	17.9	Target ID:	T-52

Grab description:

Surface photo	✓
Grain size sample (jar number)	✓ jar 138
Oxidized top (yes, no)	✓
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	green-grey
Mud (absent, rare, common, abundant)	abundant
Sand (absent, rare, common, abundant)	common
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	rare
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	sandy mud

Notes:

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Grab LOG

LIS2303 - - G486

2-Letter Ship Abbreviation Cruise or 2-No. Year Leg for EWING grab Number Type

(Example: LIS2301-G100)

Grab Name	LIS2303-G486	Date	2023-11-15
Project:	LIS 4B	Time	14:16:26
Ship:	RV Seawolf	Cruise ID/Year:	LIS2303
Location	LIS area 4	Device	van Veen Grab
Form completed by	F. Mitsch	Institution	LDEO / Queen
Latitude	41° 9.78433	Longitude	72° 052.85129
Water depth (m)	17.4	Target ID:	T-13

Grab description:

Surface photo	✓
Grain size sample (jar number)	✓ jar 200
Oxidized top (yes, no)	✓
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	green gray
Mud (absent, rare, common, abundant)	abundant
Sand (absent, rare, common, abundant)	rare
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	-
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	mud

Notes:

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Grab LOG

LIS2303 - - 6487

2-Letter Ship Abbreviation Cruise or 2-No. Year Leg for EWING grab Number Type

(Example: LIS2301-G100)

Grab Name LIS2303-G487	Date 2023-11-15
Project: LIS4B	Time 14:31:56
Ship: RV Seawolf	Cruise ID/Year: LIS2303
Location LIS area 4	Device van Veen grab
Form completed by F. Mitsch	Institution LDEO / Ocean
Latitude 41° 10.11733	Longitude 72° 54.16531
Water depth (m) 17	Target ID: T-64

Grab description:

Surface photo	✓
Grain size sample (jar number)	✓ jar 183
Oxidized top (yes, no)	✓
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	green gray
Mud (absent, rare, common, abundant)	abundant
Sand (absent, rare, common, abundant)	common
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	common (shells + fragments)
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	piece of coal
H ₂ S smell (yes, no)	-
Lithology (estimated)	sandy mud

Notes:

~~piece of coal~~ small rock /
common live clams

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Grab LOG

LIS2303 - - G488

2-Letter Ship Abbreviation	Cruise or 2-No. Year	Leg for EWING	grab Number	Type

(Example: LIS2301-G100)

Grab Name LIS2303-G488	Date 2023-11-15
Project: LIS 4B	Time 14:46:20
Ship: RV Seawolf	Cruise ID/Year: LIS2303
Location LIS area 4	Device van Veen grab
Form completed by F. Nitsch	Institution LDEO / Queens
Latitude 41° 9.86702	Longitude 72° 54.74156
Water depth (m) 16.8	Target ID: T-172

Grab description:

Surface photo	✓
Grain size sample (jar number)	✓ jar 141
Oxidized top (yes, no)	✓
Stiffness (very soft, soft, stiff, very stiff)	soft
Color	green gray
Mud (absent, rare, common, abundant)	abundant
Sand (absent, rare, common, abundant)	-
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	-
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	mud

Notes:

Lamont-Doherty Earth Observatory

Grab LOG

LIS 2303 - - G489

2-Letter Ship Abbreviation Cruise or 2-No. Year Leg for EWING grab Number Type

(Example: LIS2301-G100)

Grab Name	LIS 2303 - G489	Date	2023-11-15
Project:	LIS 4B	Time	15:01:33
Ship:	RV Seawolf	Cruise ID/ Year:	LIS2303
Location	LIS area 4	Device	van Veen grab
Form completed by	F. Mitsch	Institution	LDEO / Queens
Latitude	41° 9.30172	Longitude	72° 55.23959
Water depth (m)	17.6	Target ID:	T-94

Grab description:

Surface photo	✓
Grain size sample (jar number)	✓ jar
Oxidized top (yes, no)	✓
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	gray green gray
Mud (absent, rare, common, abundant)	abundant
Sand (absent, rare, common, abundant)	-
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	-
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	mud

Notes:

many forams

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Grab LOG

LIS2303 - - G490
 2-Letter Ship Abbreviation LIS2303 - - G490
 Cruise or 2-No. Year
 Leg for EWING
 grab Number
 Type

(Example: LIS2301-G100)

Grab Name LIS2303 - G490	Date 2023-11-15
Project: LIS4B	Time 15:17:06
Ship: R/V Sea wolf	Cruise ID/ Year: LIS2303
Location LIS area 4	Device van Veen grab
Form completed by F. Mitsche	Institution LDEO / Queens
Latitude 41° 9.3692	Longitude 72° 56.4643
Water depth (m) 17	Target ID: T-167

Grab description:

Surface photo	✓
Grain size sample (jar number)	✓ jar 124
Oxidized top (yes, no)	✓
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	green grey
Mud (absent, rare, common, abundant)	abundant
Sand (absent, rare, common, abundant)	-
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	-
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	mud

Notes:

forams

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Grab LOG

LIS2303 - - G491

2-Letter Ship Abbreviation	Cruise or 2-No. Year	Leg for EWING	grab Number	Type

(Example: LIS2301-G100)

Grab Name LIS 2303 - G491		Date 2023-11-15
Project: LIS4B		Time 15:37:42
Ship: RV Seawolf		Cruise ID/ Year: LIS2303
Location LIS area 4		Device von Koenig Core
Form completed by F. Vitale		Institution LDEO / OGS
Latitude 41° 8.78741	Longitude 72° 57.51874	
Water depth (m)	Target ID:	

Grab description:

Surface photo	✓
Grain size sample (jar number)	✓ jar 155
Oxidized top (yes, no)	✓
Stiffness (very soft, soft, stiff, very stiff)	green green stiff
Color	green grey
Mud (absent, rare, common, abundant)	abundant
Sand (absent, rare, common, abundant)	-
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	-
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	mud

Notes: 2 bad ~~trials~~ tries (not triggered) (15:32, 15:35:29)

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Grab LOG

LIS2303 - - G492
 2-Letter Ship Abbreviation LIS2303
 Cruise or 2-No. Year -
 Leg for EWING -
 grab Number G492
 Type

(Example: LIS2301-G100)

Grab Name LIS2303 - G492	Date 2023-11-15
Project: LIS4B	Time 15:52:48
Ship: RV Seamount	Cruise ID/Year: LIS2303
Location LIS area 4	Device van Veen grab
Form completed by F. Vitale	Institution LDEO/Ouins
Latitude 41° 7.69770	Longitude 72° 58.05604
Water depth (m) 17.8	Target ID: T-32

Grab description:

Surface photo	✓
Grain size sample (jar number)	✓ jar
Oxidized top (yes, no)	✓
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	brassy grey
Mud (absent, rare, common, abundant)	-
Sand (absent, rare, common, abundant)	abundant (medium)
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	common
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	sand

Notes:

shell (ribbed mussel?), sand with
 tube worm, ~~hermite crab~~
 hermite crab colony

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Grab LOG

LIS2303 - - 6493

2-Letter Ship Abbreviation	Cruise or 2-No. Year	Leg for EWING	grab Number	Type

(Example: LIS2301-G100)

Grab Name LIS2303-G493	Date 2023-11-15
Project: LIS4B	Time 16:14:25
Ship: RV Seawolf	Cruise ID/Year: LIS2303
Location LIS area 4	Device van Veen grab
Form completed by F. Nitsche	Institution LDEO/Quinn
Latitude 41° 5.71884	Longitude 72° 57.5173
Water depth (m) 26.3	Target ID: T-93

Grab description:

Surface photo	✓
Grain size sample (jar number)	✓ jar 1d4
Oxidized top (yes, no)	✓
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	green gray
Mud (absent, rare, common, abundant)	a smudged
Sand (absent, rare, common, abundant)	-
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	-
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	mud

Notes:

Forams?

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Grab LOG

LIS2303 - - G494

2-Letter Ship Abbreviation	Cruise or 2-No. Year	Leg for EWING	grab Number	Type
LIS	2303	-	G494	

(Example: LIS2301-G100)

Grab Name LIS2303-G494		Date 2023-11-16
Project: LIS 4B		Time 10:15:26
Ship: RV Seawolf		Cruise ID/Year: LIS2303
Location LIS area 4		Device von Vein grab
Form completed by F. Mitsche		Institution LDEO / Queens
Latitude 41° 10.0667	Longitude 72° 51.1466	
Water depth (m) 17.6	Target ID: T-194	

Grab description:

Surface photo	✓
Grain size sample (jar number)	✓ jar 180
Oxidized top (yes, no)	✓
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	green gray
Mud (absent, rare, common, abundant)	abundant
Sand (absent, rare, common, abundant)	-
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	-
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	mud

Notes:

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Grab LOG

LIS2303 - - G495
 2-Letter Ship Abbreviation LIS2303 - Cruise or 2-No. Year - Leg for EWING - grab Number G495 - Type
 (Example: LIS2301-G100)

Grab Name	LIS2303-G495	Date	2023-11-16
Project:	LIS 4B	Time	10:35:05
Ship:	RV Seawolf	Cruise ID/Year:	LIS2303
Location	LIS area 4	Device	von Vern grab
Form completed by	F. Mitsche.	Institution	LDEO/ Queens
Latitude	41° 10.0124	Longitude	71° 49.5643
Water depth (m)	18.9m	Target ID:	T-120

Grab description:

Surface photo	✓
Grain size sample (jar number)	Jar 121
Oxidized top (yes, no)	✓
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	greenish gray
Mud (absent, rare, common, abundant)	mud abundant
Sand (absent, rare, common, abundant)	-
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	-
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	Mud.

Notes:

foraminifera

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Grab LOG

LIS2303 - - 6496

2-Letter Ship Abbreviation Cruise or 2-No. Year Leg for EWING grab Number Type

(Example: LIS2301-G100)

Grab Name	LIS 2303 - G496	Date	2023 - 11 - 16
Project:	LIS 4B	Time	10:47:21
Ship:	RV Seawolf	Cruise ID/Year:	LIS2303
Location	LIS area 4	Device	Van Veen Grab
Form completed by	Tinah Martin	Institution	LDEO / Queens
Latitude	41° 9.643	Longitude	72° 49.1532
Water depth (m)	20m	Target ID:	T-75

Grab description:

Surface photo	✓
Grain size sample (jar number)	jar 179
Oxidized top (yes, no)	yes
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	greenish gray
Mud (absent, rare, common, abundant)	abundant
Sand (absent, rare, common, abundant)	-
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	rare
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	Mud

Notes:

shell fragments or forams?

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Grab LOG

US2303 - - G497
 2-Letter Ship Abbreviation Cruise or 2-No. Year Leg for EWING grab Number Type

(Example: LIS2301-G100)

Grab Name	US2303-G497	Date	2023-11-16
Project:	LIS 4B	Time	11:02:00
Ship:	RV Seawolf	Cruise ID/ Year:	LIS2303
Location	LIS area 4	Device	Van Veen Grab
Form completed by	Tinah Martin	Institution	LDEO/ Queens
Latitude	41.9.8710	Longitude	72.48 4275
Water depth (m)	19.9 m	Target ID:	T-79

Grab description:

Surface photo	✓
Grain size sample (jar number)	Jar 165
Oxidized top (yes, no)	yes
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	greenish gray
Mud (absent, rare, common, abundant)	abundant
Sand (absent, rare, common, abundant)	-
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	-
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	Mud

Notes:

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Grab LOG

LIS2303 - - G498

2-Letter Ship Abbreviation LIS
Cruise or 2-No. Year 2303
Leg for EWING
grab Number
Type

(Example: LIS2301-G100)

Grab Name	LIS2303 - G498	Date	2023 - 11 - 16
Project:	LIS 4B	Time	11:15:57
Ship:	RV Seawolf	Cruise ID/Year:	LIS2303
Location	LIS area 4	Device	Van Veen Grab
Form completed by	Tinah Martin	Institution	LDEO/Queens
Latitude	41° 9.1805	Longitude	72° 47.9499
Water depth (m)	23.3 m	Target ID:	T-73

Grab description:

Surface photo	✓
Grain size sample (jar number)	Jar 170
Oxidized top (yes, no)	yes
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	greenish grey
Mud (absent, rare, common, abundant)	abundant
Sand (absent, rare, common, abundant)	-
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	rare
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	Mud

Notes:

Shells, worm, shell fragments
may have forams

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Grab LOG

LIS2303 - - G499

2-Letter Ship Abbreviation	Cruise or 2-No. Year	Leg for EWING	grab Number	Type
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(Example: LIS2301-G100)

Grab Name LIS2303-G499		Date 2023-11-16
Project: LIS4B		Time 11:33:22
Ship: RV Seawolf		Cruise ID/Year: LIS2303
Location US area 4		Device Van Veen Grab
Form completed by Tina Martin		Institution LDEO/Queens
Latitude 41° 9.4805	Longitude 72° 46.9374	
Water depth (m) 23.5m	Target ID: T36	

Grab description:

Surface photo	✓
Grain size sample (jar number)	Jar 130
Oxidized top (yes, no)	yes
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	greenish grey
Mud (absent, rare, common, abundant)	abundant
Sand (absent, rare, common, abundant)	-
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	-
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	Med

Notes:

2 worms

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Grab LOG

LIS2303 - - G500
 2-Letter Ship Cruise or Leg for grab Type
 Abbreviation 2-No. Year EWING Number

(Example: LIS2301-G100)

Grab Name	LIS2303 - G500	Date	2023 - 11 - 16
Project:	LIS 4B	Time	11:50:31
Ship:	RV Seawolf	Cruise ID/ Year:	LIS2303
Location	LIS area 4	Device	Van Veen Grab
Form completed by	Tinah Martin	Institution	LDEO/Queens
Latitude	41°10.8252	Longitude	72°46.9974
Water depth (m)	17.3m	Target ID:	T-101

Grab description:

Surface photo	✓
Grain size sample (jar number)	Jar 171
Oxidized top (yes, no)	Yes
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	greenish grey
Mud (absent, rare, common, abundant)	abundant
Sand (absent, rare, common, abundant)	-
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	rare fragments
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	Mud

Notes: Shell fragments (very small, mm scale)
 has minor silt

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Grab LOG

LIS 2303 - - G 501

2-Letter Ship Abbreviation	Cruise or 2-No. Year	Leg for EWING	grab Number	Type
LIS	2303		G 501	

(Example: LIS2301-G100)

Grab Name	LIS 2303 - G 501	Date	2023-11-16
Project:	LIS 4 B	Time	12: 32 : 21
Ship:	RV Seawolf	Cruise ID/Year:	LIS 2303
Location	LIS area 4	Device	VanVeen Grab
Form completed by	Tinah Martin	Institution	LDEO / Queens
Latitude	41° 11.1994	Longitude	72° 47.7832
Water depth (m)	16.2 m	Target ID:	T-60

Grab description:

Surface photo	✓
Grain size sample (jar number)	jar 111
Oxidized top (yes, no)	yes
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	greenish grey
Mud (absent, rare, common, abundant)	abundant
Sand (absent, rare, common, abundant)	rare, very fine
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	-
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	Mud

Notes:

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Grab LOG

LIS2303 - - G502
 2-Letter Ship Cruise or Leg for grab Type
 Abbreviation 2-No. Year EWING Number
 (Example: LIS2301-G100)

Grab Name	LIS2303 - G502	Date	2023.11.16
Project:	LIS4B	Time	12:18:34
Ship:	RV Seawolf	Cruise ID/Year:	LIS2303
Location	LIS area 4	Device	Van Veen Grab
Form completed by	Tinah Martin	Institution	LDEO/Queens
Latitude	41°12.2739	Longitude	72°46.9090
Water depth (m)	13.1 m	Target ID:	T-22

Grab description:

Surface photo	✓
Grain size sample (jar number)	Far 135
Oxidized top (yes, no)	yes
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	greenish grey
Mud (absent, rare, common, abundant)	abundant
Sand (absent, rare, common, abundant)	-
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	-
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	Mud

Notes: has silt

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Grab LOG

LIS2303 - - 6503
 2-Letter Ship Cruise or Leg for grab Type
 Abbreviation 2-No. Year EWING Number

(Example: LIS2301-G100)

Grab Name LIS 2303 - 6503	Date 2023-11-16
Project: LIS 4 B	Time 12:37:23
Ship: RV Seawolf	Cruise ID/Year: LIS2303
Location LIS area 4	Device Van Veen Grab
Form completed by Tirah Martin	Institution LDEO/Queens
Latitude 41° 11.7691	Longitude 72° 48.0460
Water depth (m) 14.7m	Target ID: T-192

Grab description:

Surface photo	✓
Grain size sample (jar number)	Jar 169
Oxidized top (yes, no)	yes
Stiffness (very soft, soft, stiff, very stiff)	stiffness
Color	greenish grey
Mud (absent, rare, common, abundant)	abundant
Sand (absent, rare, common, abundant)	-
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	-
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	Mud

Notes:

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Grab LOG

LIS 2303 - - G504
 2-Letter Ship Cruise or Leg for grab Type
 Abbreviation 2-No. Year EWING Number

(Example: LIS2301-G100)

Grab Name LIS 2303 - G504		Date 2023.11.16
Project: LIS 4B		Time 13:25:50
Ship: RV Seawolf		Cruise ID/Year: LIS 2303
Location LIS area 4		Device Van Veen Grab
Form completed by Tina Martin		Institution LDEO/Queens
Latitude 41° 10.9987	Longitude 72° 48.5240	
Water depth (m) 16.1m	Target ID: T-177	

Grab description:

Surface photo	✓
Grain size sample (jar number)	Jar 176
Oxidized top (yes, no)	Yes
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	green grey
Mud (absent, rare, common, abundant)	abundant
Sand (absent, rare, common, abundant)	-
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	-
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	Mud

Notes: possible forams, crab

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Grab LOG

LIS2303 - - G505

2-Letter Ship Abbreviation	Cruise or 2-No. Year	Leg for EWING	grab Number	Type
LIS	2303		G505	

(Example: LIS2301-G100)

Grab Name	LIS2303 - G505	Date	2023 - 11 - 16
Project:	LIS 4B	Time	13:39:26
Ship:	RV Seawolf	Cruise ID/ Year:	LIS2303
Location	LIS area 4	Device	Van Veen Grab
Form completed by	Tenah Martin	Institution	LDEO / Queens
Latitude	41° 11.8845	Longitude	72° 49.1181
Water depth (m)	14.1m	Target ID:	T-165

Grab description:

Surface photo	✓
Grain size sample (jar number)	Jar 193
Oxidized top (yes, no)	Yes
Stiffness (very soft, soft, stiff, very stiff)	Stiff
Color	Green Grey
Mud (absent, rare, common, abundant)	Abundant
Sand (absent, rare, common, abundant)	-
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	-
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	Mud

Notes:

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Grab LOG

LIS 2303 - - G 506

2-Letter Ship Abbreviation	Cruise or 2-No. Year	Leg for EWING	grab Number	Type
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(Example: LIS2301-G100)

Grab Name	LIS2303 - G506	Date	2023.11.16
Project:	LIS4B	Time	13:52:35
Ship:	RV Seawolf	Cruise ID/Year:	LIS 2303
Location	LIS area 4	Device	Van Veen Grab
Form completed by	Finah Martin	Institution	LDEO/Queens
Latitude	41° 11.2180	Longitude	72° 49.8934
Water depth (m)	15.6m	Target ID:	T-179.

Grab description:

Surface photo	✓
Grain size sample (jar number)	Jar 182
Oxidized top (yes, no)	Yes
Stiffness (very soft, soft, stiff, very stiff)	Stiff
Color	Green Gray
Mud (absent, rare, common, abundant)	Abundant
Sand (absent, rare, common, abundant)	-
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	rare
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	Mud

Notes:

clam shell ?

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Grab LOG

LIS 2303 - - G507

2-Letter Ship Abbreviation	Cruise or 2-No. Year	Leg for EWING	grab Number	Type
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(Example: LIS2301-G100)

Grab Name	LIS2303 - G507	Date	2023-11-16
Project:	LIS 4B	Time	14:07:07
Ship:	RV Seawolf	Cruise ID/Year:	LIS2303
Location	LIS area 4	Device	Van Veen Grab
Form completed by	Tinah Martin	Institution	LD/ED/ Queens
Latitude	41° 11.0857	Longitude	72° 51.1440
Water depth (m)	15.5 m	Target ID:	T-154

Grab description:

Surface photo	✓
Grain size sample (jar number)	227
Oxidized top (yes, no)	Yes
Stiffness (very soft, soft, stiff, very stiff)	Stiff
Color	Green Grey
Mud (absent, rare, common, abundant)	Abundant
Sand (absent, rare, common, abundant)	-
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	-
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	Mud

Notes: Silt.

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Grab LOG

LIS2303 - - G508

2-Letter Ship Abbreviation	Cruise or 2-No. Year	Leg for EWING	grab Number	Type

(Example: LIS2301-G100)

Grab Name	LIS 2303 - G508	Date	2023.11.16
Project:	LIS 4B	Time	14:22:04
Ship:	RV Seawolf	Cruise ID/ Year:	LIS2303
Location	LIS area 4	Device	Van Veen Grab
Form completed by	Tinah Martin	Institution	LDED/ Queens
Latitude	41° 10.8623	Longitude	72° 52:4010
Water depth (m)	15.8m	Target ID:	T.74

Grab description:

Surface photo	✓
Grain size sample (jar number)	Jan 177
Oxidized top (yes, no)	Yes
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	Green Grey
Mud (absent, rare, common, abundant)	Abundant
Sand (absent, rare, common, abundant)	rare fine sand
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	-
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	rud

Notes:

rare fine sand

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Grab LOG

LIS2303 - - G509
 2-Letter Ship Abbreviation Cruise or 2-No. Year Leg for EWING grab Number Type
 (Example: LIS2301-G100)

Grab Name	LIS 2303 - G509		Date	2023.11.16
Project:	US 4B		Time	14:31:46
Ship:	RV Seawolf		Cruise ID/Year:	LIS2303
Location	LIS area 4		Device	Van Veen Grab
Form completed by	Tinah Martin		Institution	LDEO / Queens
Latitude	41° 10.4287	Longitude	72° 52.3989	
Water depth (m)	1603 m	Target ID:	T-38	

Grab description:

Surface photo	✓
Grain size sample (jar number)	Jar 034
Oxidized top (yes, no)	Yes
Stiffness (very soft, soft, stiff, very stiff)	Stiff
Color	Green grey
Mud (absent, rare, common, abundant)	Abundant
Sand (absent, rare, common, abundant)	rare
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	rare
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	Mud

Notes:

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Grab LOG

LIS 2303 - - G510

2-Letter Ship Abbreviation	Cruise or 2-No. Year	Leg for EWING	grab Number	Type
LIS	2303	-	G510	

(Example: LIS2301-G100)

Grab Name	LIS 2303 - G510	Date	2023 - 11 - 16
Project:	LIS 4B	Time	14:42:57
Ship:	RV Seawolf	Cruise ID/Year:	LIS2303
Location	LIS area 4	Device	Van Veen Grab
Form completed by	Tinah Martin	Institution	LDEO/Queens
Latitude	41° 10.8687	Longitude	72° 53 0452
Water depth (m)	15.5m	Target ID:	T-17

Grab description:

Surface photo	✓
Grain size sample (jar number)	178
Oxidized top (yes, no)	yes
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	Green Grey
Mud (absent, rare, common, abundant)	abundant
Sand (absent, rare, common, abundant)	-
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	common
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	✓
Lithology (estimated)	Sandy Mud

Notes:

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Grab LOG

LIS 2303 - - G511

2-Letter Ship Abbreviation	Cruise or 2-No. Year	Leg for EWING	grab Number	Type
LIS	2303	-	G511	

(Example: LIS2301-G100)

Grab Name	LIS 2303 - G511	Date	2023.11.16
Project:	LIS 4B	Time	14:52:46
Ship:	RV Seawolf	Cruise ID/Year:	LIS2303
Location	LIS area 4	Device	Van Veen Grab
Form completed by	Tinah Martin	Institution	LDEO/Queens
Latitude	41° 10.9136	Longitude	72° 53.4785
Water depth (m)	15.3 m	Target ID:	T. 49

Grab description:

Surface photo	✓
Grain size sample (jar number)	168
Oxidized top (yes, no)	Yes
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	Grey Green
Mud (absent, rare, common, abundant)	Abundant
Sand (absent, rare, common, abundant)	Common
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	rare
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	Sandy Mud

Notes: Oyster shell very weathered

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Grab LOG

LIS 2303 - - G512
 2-Letter Ship Abbreviation LIS 2303
 Cruise or 2-No. Year
 Leg for EWING
 grab Number
 Type
 (Example: LIS2301-G100)

Grab Name	LIS 2303 - G512	Date	2023.11.16
Project:	LIS 4B	Time	15:04:30
Ship:	RV Seamoff	Cruise ID/Year:	LIS 2303
Location	LIS area 4	Device	Van Veen Grab
Form completed by	Tinah Martin	Institution	LDEO/Queens
Latitude	41° 10.4756	Longitude	72° 54.0518
Water depth (m)	14.7m	Target ID:	T-196

Grab description:

Surface photo	✓
Grain size sample (jar number)	Jar 013
Oxidized top (yes, no)	yes
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	Brownish grey
Mud (absent, rare, common, abundant)	rare
Sand (absent, rare, common, abundant)	abundant
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	abundant
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	Hardy Sand

Notes: gastropods *carpitula fornicata*
 Coarse grey (Sand: medium to coarse)

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Grab LOG

LIS2303 - - G513

2-Letter Ship Abbreviation Cruise or 2-No. Year Leg for EWING grab Number Type

(Example: LIS2301-G100)

Grab Name	LIS 2303 - G513	Date	2023.11.16
Project:	LIS 4B	Time	15:14:18
Ship:	RV Seawolf	Cruise ID/Year:	LIS 2303
Location	LIS area 4	Device	Van Veen Grab
Form completed by	Tinah Martin	Institution	LD&EO / Queens
Latitude	41° 10.8953	Longitude	72° 54.3184
Water depth (m)	13.8m	Target ID:	T-183

Grab description:

Surface photo	✓
Grain size sample (jar number)	jar: 134
Oxidized top (yes, no)	-
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	Brownish grey
Mud (absent, rare, common, abundant)	rare
Sand (absent, rare, common, abundant)	Abundant
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	Common
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	Muddy sand

Notes:

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Grab LOG

LIS2303 - - G514

2-Letter Ship Abbreviation	Cruise or 2-No. Year	Leg for EWING	grab Number	Type

(Example: LIS2301-G100)

Grab Name LIS2303 - G514	Date 2023.11.16
Project: LIS 4B	Time 15:23:51
Ship: RV Seawolf	Cruise ID/Year: LIS2303
Location HS area 4	Device Van Veen Grab
Form completed by Tinalh Martin	Institution IDED / Queens
Latitude 41° 10.7336	Longitude 72° 54.8774
Water depth (m) 14.7m	Target ID: T-71

Grab description:

Surface photo	✓
Grain size sample (jar number)	Jar 132
Oxidized top (yes, no)	Yes
Stiffness (very soft, soft, stiff, very stiff)	Yes
Color	Greenish grey
Mud (absent, rare, common, abundant)	common
Sand (absent, rare, common, abundant)	abundant
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	Common
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	coal
H ₂ S smell (yes, no)	
Lithology (estimated)	Muddy Sand

Notes: Coal gravel size

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Grab LOG

LIS 2303 - - 6515

2-Letter Ship Abbreviation	Cruise or 2-No. Year	Leg for EWING	grab Number	Type

(Example: LIS2301-G100)

Grab Name	LIS 2303 - 6515	Date	2023.11.16
Project:	LIS 4B	Time	15:38:15 - 15:40:00
Ship:	RV Seawolf	Cruise ID/Year:	LIS 2303
Location	LIS area 4	Device	Van Veen Grab
Form completed by	Tinah Martin	Institution	LDEO/Queens
Latitude	41° 10.3224.3315	Longitude	72° 55.5784.5481
Water depth (m)	15.5	Target ID:	T-63

Grab description:

Surface photo	✓
Grain size sample (jar number)	172.
Oxidized top (yes, no)	yes
Stiffness (very soft, soft, stiff, very stiff)	Stiff
Color	Green Grey
Mud (absent, rare, common, abundant)	Abundant
Sand (absent, rare, common, abundant)	-
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	-
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	Mud

Notes:

first try didn't trip

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Grab LOG

LIS2303 - - G516

2-Letter Ship Abbreviation	Cruise or 2-No. Year	Leg for EWING	grab Number	Type
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(Example: LIS2301-G100)

Grab Name	LIS2303-G516	Date	2023.11.16
Project:	LIS 4B	Time	15:52:15
Ship:	RV Seawolf	Cruise ID/Year:	LIS 2303
Location	LIS area 4	Device	Van Veen Grab
Form completed by	Tenah Martin	Institution	LDEO/ Queens
Latitude	41° 10.2398	Longitude	72° 56.6017
Water depth (m)	15.2m	Target ID:	T-173

Grab description:

Surface photo	✓
Grain size sample (jar number)	500 150
Oxidized top (yes, no)	yes
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	Greenish grey
Mud (absent, rare, common, abundant)	Abundant
Sand (absent, rare, common, abundant)	—
Gravel (absent, rare, common, abundant)	—
Pebbles (absent, rare, common, abundant)	—
Leaves (absent, rare, common, abundant)	—
Wood (absent, rare, common, abundant)	—
Shells (absent, rare, common, abundant)	—
Oysters (live/dead) (absent, rare, common, abundant)	—
Mussels (absent, rare, common, abundant)	—
Living vegetation (absent, rare, common, abundant)	—
Anthropogenic (brig, coal, slag etc)	—
H ₂ S smell (yes, no)	—
Lithology (estimated)	Mud

Notes: rare shell fragments

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Grab LOG

LIS 2303 - - G517

2-Letter Ship Abbreviation	Cruise or 2-No. Year	Leg for EWING	grab Number	Type

(Example: LIS2301-G100)

Grab Name LIS 2303 - G516	Date 2023.11.16
Project: LIS 4B	Time 16: 05:00 :06:01
Ship: RV Seawolf	Cruise ID/ Year: LIS 2303
Location LIS area 4	Device Van Veen Grab
Form completed by Tina Martin	Institution LDEO / Queens
Latitude 41° 9.7962 7957	Longitude 72° 57.1928 1373
Water depth (m) 15.7 m	Target ID: T-26

Grab description:

Surface photo	✓
Grain size sample (jar number)	163
Oxidized top (yes, no)	yes
Stiffness (very soft, soft, stiff, very stiff)	Stiff
Color	Gray green
Mud (absent, rare, common, abundant)	Abundant
Sand (absent, rare, common, abundant)	rare and very fine
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	-
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	Mud

Notes: First try didn't trip

Lamont-Doherty Earth Observatory

Grab LOG

LIS 2303 - - G518

2-Letter Ship Abbreviation	Cruise or 2-No. Year	Leg for EWING	grab Number	Type

(Example: LIS2301-G100)

Grab Name	LIS2303 - G518	Date	2023.11.16
Project:	LIS4B	Time	16:14:31
Ship:	RV Seawolf	Cruise ID/Year:	LIS2303
Location	LIS area 4	Device	Van Veen Grab
Form completed by	Tinah Martin	Institution	LDEO/ Queens
Latitude	41° 9.4895	Longitude	72° 57.3695
Water depth (m)	16.3m	Target ID:	T-166

Grab description:

Surface photo	V
Grain size sample (jar number)	158
Oxidized top (yes, no)	Yes
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	Green Grey
Mud (absent, rare, common, abundant)	Abundant
Sand (absent, rare, common, abundant)	Common
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	-
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	Sandy Mud

Notes:

Lamont-Doherty Earth Observatory

Grab LOG

LIS 2303 - - G519

2-Letter Ship Abbreviation	Cruise or 2-No. Year	Leg for EWING	grab Number	Type
LIS	2303	-	G519	

(Example: LIS2301-G100)

Grab Name	LIS 2303 - G519	Date	2023 .11. 17
Project:	LIS 4B	Time	09:04:08
Ship:	RV Seawolf	Cruise ID/Year:	LIS2303
Location	LIS area 4	Device	Van Veen Grab
Form completed by	Tinah Martin	Institution	LDEO/Queens
Latitude	41° 2.7835	Longitude	72° 58.5051
Water depth (m)	38.4 m	Target ID:	T-95

Grab description:

Surface photo	✓
Grain size sample (jar number)	195
Oxidized top (yes, no)	yes
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	Green Grey
Mud (absent, rare, common, abundant)	Abundant
Sand (absent, rare, common, abundant)	rare
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	rare
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	Sandy Mud

Notes:

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Grab LOG

US 2303 - - 9520
 2-Letter Ship Abbreviation Cruise or 2-No. Year Leg for EWING grab Number Type

(Example: LIS2301-G100)

Grab Name	LIS 2303 - 9520		Date	2023.11.17.	
Project:	LIS4B		Time	09:19:59	
Ship:	RV Seawolf		Cruise ID/Year:	LIS 2303	
Location	LIS area 4		Device	Van Green Grab	
Form completed by	Carol Calte		Institution	LDEO/QUEENS	
Latitude	41° 3.92277		Longitude	72° 58.7378	
Water depth (m)	27.5		Target ID:	T-153	

Grab description:

Surface photo	✓
Grain size sample (jar number)	164
Oxidized top (yes, no)	yes.
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	brownish gray
Mud (absent, rare, common, abundant)	common
Sand (absent, rare, common, abundant)	abundant; coarse
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	abundant
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	rare (on shells)
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	mucky sand.

Notes:

worms
 abundant shells w/ barnacles & corals.
 shells on cm scale.

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Grab LOG

LIS2303 - G521

2-Letter Ship Abbreviation	Cruise or 2-No. Year	Leg for EWING	grab Number	Type
LIS	2303		G521	

(Example: LIS2301-G100)

Grab Name LIS2303-G521		Date 2023.11.17
Project: LIS4B		Time 9:32:48
Ship: RV Seawolf		Cruise ID/Year: LIS2303
Location LIS area 4		Device Van Green Grab
Form completed by Carol Calle		Institution LDEO / Queens
Latitude 41° 4.7414	Longitude 72° 58.5362	
Water depth (m) 24.6	Target ID: T-156	

Grab description:

Surface photo	✓
Grain size sample (jar number)	185
Oxidized top (yes, no)	yes
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	greenish gray
Mud (absent, rare, common, abundant)	common
Sand (absent, rare, common, abundant)	abundant; medium.
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	common
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	muddy sand.

Notes:

tubeworms.

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Grab LOG

US 2303 - - G522
 2-Letter Ship Abbreviation Cruise or 2-No. Year Leg for EWING grab Number Type

(Example: LIS2301-G100)

Grab Name US 2301-G522		Date 2023.11.17
Project: US4B		Time 9:41:20
Ship: RV Seawolf		Cruise ID/Year: LIS2303
Location LIS area 4		Device Van Green Grab
Form completed by Carol Calle		Institution LDEO/Queens
Latitude 41° 4.97978	Longitude 72° 58.94318	
Water depth (m) 26.4	Target ID: T-182	

Grab description:

Surface photo	✓
Grain size sample (jar number)	140
Oxidized top (yes, no)	yes
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	greenish gray
Mud (absent, rare, common, abundant)	abundant
Sand (absent, rare, common, abundant)	common; fine
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	common, fragments
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	sandy mud.

Notes:

- shells mm scale

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Grab LOG

US 2303 - - 61523
 2-Letter Ship Cruise or Leg for grab Type
 Abbreviation 2-No. Year EWING Number
 (Example: LIS2301-G100)

Grab Name US2301 - G15203	Date 2023.11.17
Project: US4B	Time 9:52:01
Ship: RV Seawolf	Cruise ID/ Year: US 2303
Location US Area 4	Device Van Green Grab
Form completed by Carol Calle	Institution LDEO/Queens
Latitude 41° S. 3222	Longitude 72° 59.0260
Water depth (m) 26.189	Target ID: T-113

Grab description:

Surface photo	✓
Grain size sample (jar number)	189
Oxidized top (yes, no)	yes.
Stiffness (very soft, soft, stiff, very stiff)	very soft
Color	greenish gray.
Mud (absent, rare, common, abundant)	abundant.
Sand (absent, rare, common, abundant)	rare; very fine.
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	-
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	mud.

Notes:

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Grab LOG

LIS2303 - G1524
2-Letter Ship Abbreviation Cruise or 2-No. Year Leg for EWING grab Number Type
 (Example: LIS2301-G100)

Grab Name LIS2303 G1524		Date 2023.11.17
Project: LIS4B		Time 10:01:33
Ship: R/V Seawolf		Cruise ID/ Year: LIS2303
Location US Area 4		Device Van Veen Grab
Form completed by Carol Calle		Institution LDEO/Queens
Latitude 4° S-5417	Longitude 72° 59.6170	
Water depth (m) 24.9	Target ID: T-86	

Grab description:

Surface photo	✓
Grain size sample (jar number)	187
Oxidized top (yes, no)	yes
Stiffness (very soft, soft, stiff, very stiff)	stiff.
Color	greenish gray
Mud (absent, rare, common, abundant)	abundant
Sand (absent, rare, common, abundant)	rare; fine very fine
Gravel (absent, rare, common, abundant)	
Pebbles (absent, rare, common, abundant)	
Leaves (absent, rare, common, abundant)	
Wood (absent, rare, common, abundant)	
Shells (absent, rare, common, abundant)	
Oysters (live/dead) (absent, rare, common, abundant)	
Mussels (absent, rare, common, abundant)	
Living vegetation (absent, rare, common, abundant)	
Anthropogenic (brig, coal, slag etc)	
H ₂ S smell (yes, no)	
Lithology (estimated)	mud.

Notes:

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Grab LOG

LIS2303 - - G25

2-Letter Ship Abbreviation LIS2303
 Cruise or 2-No. Year
 Leg for EWING
 grab Number
 Type

(Example: LIS2301-G100)

Grab Name LIS2303 G25		Date 2023/11/17
Project: LIS4B		Time 10:19:26
Ship: RV Seawolf		Cruise ID/ Year: LIS2303
Location us area 4		Device Van Veen Corab
Form completed by Ngoc Truong		Institution LDEO / Queens
Latitude 41° 5' 9.18" N	Longitude 72° 58' 28.7" W	
Water depth (m) 25.42	Target ID: T-85	

Grab description:

Surface photo	~
Grain size sample (jar number)	175
Oxidized top (yes, no)	yes
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	greenish gray
Mud (absent, rare, common, abundant)	abundant
Sand (absent, rare, common, abundant)	rare, very fine
Gravel (absent, rare, common, abundant)	
Pebbles (absent, rare, common, abundant)	
Leaves (absent, rare, common, abundant)	
Wood (absent, rare, common, abundant)	
Shells (absent, rare, common, abundant)	
Oysters (live/dead) (absent, rare, common, abundant)	
Mussels (absent, rare, common, abundant)	
Living vegetation (absent, rare, common, abundant)	
Anthropogenic (brig, coal, slag etc)	
H ₂ S smell (yes, no)	
Lithology (estimated)	Mud

Notes:

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Grab LOG

LIS 2303 - - G526

2-Letter Ship Cruise or Leg for grab Type
Abbreviation 2-No. Year EWING Number

(Example: LIS2301-G100)

Grab Name LIS 2303 G526		Date 2023/11/17
Project: LIS 4B		Time 10:31.39
Ship: RV Sea Wolf		Cruise ID/Year: LIS 2303
Location US area 4		Device Van Veen Grab
Form completed by Ngoc Truong		Institution LDEO/Queens
Latitude 41° 6.4442	Longitude 72° 59.13	
Water depth (m) 23.03	Target ID: F12	

Grab description:

Surface photo	✓ 173
Grain size sample (jar number)	173
Oxidized top (yes, no)	yes
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	gray
Mud (absent, rare, common, abundant)	abundant
Sand (absent, rare, common, abundant)	
Gravel (absent, rare, common, abundant)	
Pebbles (absent, rare, common, abundant)	
Leaves (absent, rare, common, abundant)	
Wood (absent, rare, common, abundant)	
Shells (absent, rare, common, abundant)	
Oysters (live/dead) (absent, rare, common, abundant)	
Mussels (absent, rare, common, abundant)	
Living vegetation (absent, rare, common, abundant)	
Anthropogenic (brig, coal, slag etc)	
H ₂ S smell (yes, no)	
Lithology (estimated)	mud

Notes:

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Grab LOG

LIS 2303 - - G527
 2-Letter Ship Cruise or Leg for grab Type
 Abbreviation 2-No. Year EWING Number

(Example: LIS2301-G100)

Grab Name LIS 2303 G527		Date 2023/11/17
Project: LIS 4B		Time 10:45.04
Ship: RV Sea Wolf		Cruise ID/ Year: LIS 2303
Location US area 4		Device Van Veen Grab
Form completed by Ngoc Tuong		Institution LDEO/ Queens
Latitude 41° 6.584	Longitude 72° 58.41	
Water depth (m) 22-83	Target ID: T31	

Grab description:

Surface photo	✓
Grain size sample (jar number)	174
Oxidized top (yes, no)	yes
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	greenish gray
Mud (absent, rare, common, abundant)	abundant
Sand (absent, rare, common, abundant)	
Gravel (absent, rare, common, abundant)	
Pebbles (absent, rare, common, abundant)	
Leaves (absent, rare, common, abundant)	
Wood (absent, rare, common, abundant)	
Shells (absent, rare, common, abundant)	
Oysters (live/dead) (absent, rare, common, abundant)	
Mussels (absent, rare, common, abundant)	
Living vegetation (absent, rare, common, abundant)	
Anthropogenic (brig, coal, slag etc)	
H ₂ S smell (yes, no)	
Lithology (estimated)	mud

Notes: ~~foraminifer~~ foraminifer

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Grab LOG

LIS2303 - - G528
 2-Letter Ship Cruise or Leg for grab Type
 Abbreviation 2-No. Year EWING Number
 (Example: LIS2301-G100)

Grab Name LIS2303 G528		Date 2023/11/17
Project: LIS4B		Time 10:56.41
Ship: RV SeaWolf		Cruise ID/Year: LIS2303
Location US area 4		Device Van Veen Grab
Form completed by Ngoc Truong		Institution LDEO/Queens
Latitude 41° 7.185	Longitude 72° 58.74	
Water depth (m) 21.24	Target ID: T45	

Grab description:

Surface photo	✓
Grain size sample (jar number)	137
Oxidized top (yes, no)	yes
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	greenish gray
Mud (absent, rare, common, abundant)	abundant
Sand (absent, rare, common, abundant)	
Gravel (absent, rare, common, abundant)	
Pebbles (absent, rare, common, abundant)	
Leaves (absent, rare, common, abundant)	
Wood (absent, rare, common, abundant)	
Shells (absent, rare, common, abundant)	
Oysters (live/dead) (absent, rare, common, abundant)	
Mussels (absent, rare, common, abundant)	
Living vegetation (absent, rare, common, abundant)	
Anthropogenic (brig, coal, slag etc)	
H ₂ S smell (yes, no)	
Lithology (estimated)	mucl

Notes: foraminifer

Lamont-Doherty Earth Observatory

Grab LOG

LIS2303 - - G529

2-Letter Ship Cruise or Leg for grab Type
Abbreviation 2-No. Year EWING Number

(Example: LIS2301-G100)

Grab Name LIS2303 G529	Date 2023/11/17
Project: LIS4B	Time 11:07.27
Ship: RV Sea Wolf	Cruise ID/ Year: LIS2303
Location US area 4	Device Van Veen Grab
Form completed by Ngoc Phuong	Institution LDEO / Queens
Latitude 41° 7.126	Longitude 72° 59.82
Water depth (m) 2065	Target ID: T141

Grab description:

Surface photo	✓
Grain size sample (jar number)	181
Oxidized top (yes, no)	yes
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	greenish gray
Mud (absent, rare, common, abundant)	abundant
Sand (absent, rare, common, abundant)	
Gravel (absent, rare, common, abundant)	
Pebbles (absent, rare, common, abundant)	
Leaves (absent, rare, common, abundant)	
Wood (absent, rare, common, abundant)	
Shells (absent, rare, common, abundant)	
Oysters (live/dead) (absent, rare, common, abundant)	
Mussels (absent, rare, common, abundant)	
Living vegetation (absent, rare, common, abundant)	
Anthropogenic (brig, coal, slag etc)	
H ₂ S smell (yes, no)	
Lithology (estimated)	mud

Notes: foraminifera

Lamont-Doherty Earth Observatory

Grab LOG

LIS 2303

6530

2-Letter Ship Abbreviation LIS48
Cruise or 2-No. Year
Leg for EWING
grab Number

(Example: LIS2301-G100)

Grab Name LIS2303 6530		Date 2023/11/17
Project: LIS48		Time 11:17:24
Ship: RVSEAWOLF		Cruise ID/ Year: LIS2303
Location US AREA 4		Device VAN VEEN GRAB
Form completed by THINA SANTOS		Institution LDEO/QUEENS
Latitude 41° 7.52369' N		Longitude 73° 0.62587' W
Water depth (m) 18.707		Target ID: T146

Grab description:

Surface photo	✓
Grain size sample (jar number)	233
Oxidized top (yes, no)	YES
Stiffness (very soft, soft, stiff, very stiff)	STIFF
Color	GREENISH GREY
Mud (absent, rare, common, abundant)	ABUNDANT
Sand (absent, rare, common, abundant)	
Gravel (absent, rare, common, abundant)	
Pebbles (absent, rare, common, abundant)	
Leaves (absent, rare, common, abundant)	
Wood (absent, rare, common, abundant)	
Shells (absent, rare, common, abundant)	
Oysters (live/dead) (absent, rare, common, abundant)	
Mussels (absent, rare, common, abundant)	
Living vegetation (absent, rare, common, abundant)	
Anthropogenic (brig, coal, slag etc)	
H ₂ S smell (yes, no)	
Lithology (estimated)	MUD

Notes:

FORAMINIFER

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Grab LOG

LIS2303 - - 6531
 2-Letter Ship Abbreviation LIS2303 Cruise or 2-No. Year Leg for EWING grab Number 6531 Type
 (Example: LIS2301-G100)

Grab Name LIS2303 6531		Date 2023/11/17
Project: LIS4B		Time 11:30:09
Ship: RVSEAWOLF		Cruise ID/ Year: LIS2303
Location US AREA 4		Device VAN VEEN GRAB
Form completed by TEINA SANTOS		Institution LDEO/QUEENS
Latitude 41° 7.89880' N	Longitude 72° 59.59300' W	
Water depth (m) 1883	Target ID: 1185	

Grab description:

Surface photo	✓
Grain size sample (jar number)	162
Oxidized top (yes, no)	YES
Stiffness (very soft, soft, stiff, very stiff)	STIFF
Color	GREENISH GREY
Mud (absent, rare, common, abundant)	ABUNDANT
Sand (absent, rare, common, abundant)	
Gravel (absent, rare, common, abundant)	
Pebbles (absent, rare, common, abundant)	
Leaves (absent, rare, common, abundant)	
Wood (absent, rare, common, abundant)	
Shells (absent, rare, common, abundant)	
Oysters (live/dead) (absent, rare, common, abundant)	
Mussels (absent, rare, common, abundant)	
Living vegetation (absent, rare, common, abundant)	
Anthropogenic (brig, coal, slag etc)	
H ₂ S smell (yes, no)	
Lithology (estimated)	MUD

Notes:

FORAMINIFER

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Grab LOG

LIS2303

6532

2-Letter Ship Abbreviation LIS2303
 Cruise or 2-No. Year
 Leg for EWING
 grab Number
 Type

(Example: LIS2301-G100)

Grab Name LIS2303 6532		Date 2023/11/17
Project: LIS4B		Time 11:43:09
Ship: RV SEAWOLF		Cruise ID/ Year: LIS2303
Location US AREA 4		Device VAN VEEN GRAB
Form completed by TZINA SANTOS		Institution LDEO/QUEENS
Latitude 41° 8.80370' N		Longitude 72° 59.92479' W
Water depth (m) 16.367		Target ID: T127

Grab description:

Surface photo	✓
Grain size sample (jar number)	228
Oxidized top (yes, no)	YES
Stiffness (very soft, soft, stiff, very stiff)	STIFF
Color	GREENISH GREY
Mud (absent, rare, common, abundant)	ABUNDANT
Sand (absent, rare, common, abundant)	
Gravel (absent, rare, common, abundant)	
Pebbles (absent, rare, common, abundant)	
Leaves (absent, rare, common, abundant)	
Wood (absent, rare, common, abundant)	
Shells (absent, rare, common, abundant)	
Oysters (live/dead) (absent, rare, common, abundant)	
Mussels (absent, rare, common, abundant)	
Living vegetation (absent, rare, common, abundant)	
Anthropogenic (brig, coal, slag etc)	
H ₂ S smell (yes, no)	
Lithology (estimated)	MUD

Notes:

FORAMINIFER

Lamont-Doherty Earth Observatory

Grab LOG

LIS 2303

6533

2-Letter Ship Abbreviation LIS 2303
 Cruise or 2-No. Year
 Leg for EWING
 grab Number

(Example: LIS2301-G100)

Grab Name LIS2303 6533		Date 2023/11/17
Project: LIS48		Time 11:57:03
Ship: RV SEAWOLF		Cruise ID/ Year: LIS2303
Location US AREA 4		Device VAN VEEN GRAB
Form completed by TAINA SANTOS		Institution LDEO/QUEENS
Latitude 41° 9.00/41' N	Longitude 72° 58 72 702' W	
Water depth (m) 14 809	Target ID: T35	

Grab description:

Surface photo	✓
Grain size sample (jar number)	232
Oxidized top (yes, no)	YES
Stiffness (very soft, soft, stiff, very stiff)	STIFF
Color	BROWNISH GREY
Mud (absent, rare, common, abundant)	RARE
Sand (absent, rare, common, abundant)	ABUNDANT, COARSE
Gravel (absent, rare, common, abundant)	
Pebbles (absent, rare, common, abundant)	
Leaves (absent, rare, common, abundant)	
Wood (absent, rare, common, abundant)	
Shells (absent, rare, common, abundant)	COMMON
Oysters (live/dead) (absent, rare, common, abundant)	
Mussels (absent, rare, common, abundant)	
Living vegetation (absent, rare, common, abundant)	
Anthropogenic (brig, coal, slag etc)	
H ₂ S smell (yes, no)	
Lithology (estimated)	SAND

Notes:

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Grab LOG

LIS 2303 - - 6534
 2-Letter Ship Abbreviation LIS 2303
 Cruise or 2-No. Year
 Leg for EWING
 grab Number
 Type
 (Example: LIS2301-G100)

Grab Name LIS2303 6534	Date 2023/11/17
Project: LIS 4B	Time 12:37-50
Ship: RV SEAWOLF	Cruise ID/ Year: LIS2303
Location US AREA 4	Device VAN VEEN GRAB
Form completed by THA SANTOS Ngoc Truong	Institution LDEO/QUEENS
Latitude 41° 11.38	Longitude 72° 53.62
Water depth (m) 14.67	Target ID: T183

Grab description:

Surface photo	✓
Grain size sample (jar number)	167
Oxidized top (yes, no)	yes
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	greenish gray
Mud (absent, rare, common, abundant)	abundant
Sand (absent, rare, common, abundant)	common
Gravel (absent, rare, common, abundant)	
Pebbles (absent, rare, common, abundant)	
Leaves (absent, rare, common, abundant)	
Wood (absent, rare, common, abundant)	
Shells (absent, rare, common, abundant)	common
Oysters (live/dead) (absent, rare, common, abundant)	
Mussels (absent, rare, common, abundant)	
Living vegetation (absent, rare, common, abundant)	
Anthropogenic (brig, coal, slag etc)	
H ₂ S smell (yes, no)	
Lithology (estimated)	sandy mud, fine grain

Notes:

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Grab LOG

LIS2303 - - 6535
 2-Letter Ship Abbreviation LIS2303 Cruise or 2-No. Year Leg for EWING grab Number Type

(Example: LIS2301-G100)

Grab Name LIS2303 6535	Date 2023/11/17
Project: LIS 4B	Time 12:47:30
Ship: RV SEAWOLF	Cruise ID/ Year: LIS 2303
Location US AREA 4	Device VAN VEEN GRAB
Form completed by TEINA SANTOS	Institution LDED/QUEENS
Latitude 41° 11.62544' N	Longitude 72° 53.1194' W
Water depth (m) 14 585	Target ID: T108

Grab description:

Surface photo	✓
Grain size sample (jar number)	161
Oxidized top (yes, no)	YES
Stiffness (very soft, soft, stiff, very stiff)	STIFF
Color	GREENISH GREY
Mud (absent, rare, common, abundant)	ABUNDANT
Sand (absent, rare, common, abundant)	COMMON
Gravel (absent, rare, common, abundant)	
Pebbles (absent, rare, common, abundant)	
Leaves (absent, rare, common, abundant)	
Wood (absent, rare, common, abundant)	
Shells (absent, rare, common, abundant)	COMMON
Oysters (live/dead) (absent, rare, common, abundant)	
Mussels (absent, rare, common, abundant)	
Living vegetation (absent, rare, common, abundant)	
Anthropogenic (brig, coal, slag etc)	
H ₂ S smell (yes, no)	
Lithology (estimated)	SANDY MUD

Notes:

Lamont-Doherty Earth Observatory

Grab LOG

US2303 - - 6536

2-Letter Ship Abbreviation Cruise or 2-No. Year Leg for EWING grab Number Type

(Example: LIS2301-G100)

Grab Name	LIS 2303 - 6536	Date	2023.11.17
Project:	LIS 4B	Time	13:31:49
Ship:	RV Seawolf	Cruise ID/ Year:	LIS2303
Location	LIS area 4	Device	Van Veen Grab
Form completed by	Tinah Martin	Institution	LDEO/Queens
Latitude	41° 12.6282	Longitude	72° 50.6255
Water depth (m)	12.8 m	Target ID:	T.128

Grab description:

Surface photo	✓
Grain size sample (jar number)	230
Oxidized top (yes, no)	yes
Stiffness (very soft, soft, stiff, very stiff)	Stiff
Color	Green Grey
Mud (absent, rare, common, abundant)	Abundant
Sand (absent, rare, common, abundant)	-
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	-
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	Mud

Notes:

One clam shell

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Grab LOG

LIS 2303 - - G537

2-Letter Ship Abbreviation Cruise or 2-No. Year Leg for EWING grab Number Type

(Example: LIS2301-G100)

Grab Name	LIS2303-G537	Date	2023.11.17
Project:	LIS4B	Time	13:41:24
Ship:	RV Seawolf	Cruise ID/Year:	LIS2303
Location	LIS area4	Device	Van Veen Grab
Form completed by	Tinah Martin	Institution	LDEO / Queens
Latitude	41° 12.4996	Longitude	72° 51.3284
Water depth (m)	13.6 13.6m	Target ID:	T-37

Grab description:

Surface photo	✓
Grain size sample (jar number)	231
Oxidized top (yes, no)	yes
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	Greenish grey
Mud (absent, rare, common, abundant)	Abundant
Sand (absent, rare, common, abundant)	-
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	rare
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	Mud

Notes:

foraminifera

Lamont-Doherty Earth Observatory

Grab LOG

LIS2303 - - 6538

2-Letter Ship Abbreviation Cruise or 2-No. Year Leg for EWING grab Number Type

(Example: LIS2301-G100)

Grab Name	LIS2303 - 6538	Date	2023 . 11. 17
Project:	LIS 4 B	Time	13:52:22
Ship:	RV Seawolf	Cruise ID/ Year:	LIS2303
Location	LIS area 4	Device	Van Veen Grab
Form completed by	Tinah Martin	Institution	LDEO / Queens
Latitude	41° 12.1349	Longitude	72° 52.3148
Water depth (m)	13.5 m	Target ID:	T-100

Grab description:

Surface photo	✓
Grain size sample (jar number)	234
Oxidized top (yes, no)	yes
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	Greenish grey
Mud (absent, rare, common, abundant)	Abundant
Sand (absent, rare, common, abundant)	common, medium size
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	common
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	large & rare
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	Sandy Mud

Notes:

large oyster with barnacles

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Grab LOG

LIS2303 - - 6539

2-Letter Ship Abbreviation	Cruise or 2-No. Year	Leg for EWING	grab Number	Type

(Example: LIS2301-G100)

Grab Name	LIS2303 - 6539	Date	2023.11.17
Project:	LIS4B	Time	14:03:47
Ship:	RV Seawolf	Cruise ID/Year:	LIS2303
Location	LIS area 4	Device	Van Veen Grab
Form completed by	Tinah Martin	Institution	LDEO / Queens
Latitude	41° 12.74335	Longitude	72° 53.2028
Water depth (m)	12.3m	Target ID:	T-132

Grab description:

Surface photo	✓
Grain size sample (jar number)	235
Oxidized top (yes, no)	yes
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	greenish grey
Mud (absent, rare, common, abundant)	common
Sand (absent, rare, common, abundant)	Abundant, medium
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	common
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	Muddy Sand

Notes:

Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	Sandy Mud

Notes: 2 large shells

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Grab LOG

LIS2303 - - G540

2-Letter Ship Abbreviation Cruise or 2-No. Year Leg for EWING grab Number Type

(Example: LIS2301-G100)

Grab Name	LIS2303 - G540	Date	2023.11.17
Project:	LIS4B	Time	14:16:07
Ship:	RV Seawolf	Cruise ID/Year:	LIS2303
Location	LIS area 4	Device	Van Veen Grab
Form completed by	Tinah Martin	Institution	LDEO/Queens
Latitude	41° 11.8835	Longitude	72° 53.6848
Water depth (m)	13.7 m	Target ID:	T-174

Grab description:

Surface photo	✓
Grain size sample (jar number)	237
Oxidized top (yes, no)	yes
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	Greenish grey
Mud (absent, rare, common, abundant)	Abundant
Sand (absent, rare, common, abundant)	Common, medium
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	common, fragments
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	✓
Lithology (estimated)	Sandy Mud

Notes: 2 large shells

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Grab LOG

LIS2303 - - 6541

2-Letter Ship Abbreviation	Cruise or 2-No. Year	Leg for EWING	grab Number	Type

(Example: LIS2301-G100)

Grab Name	LIS2303 - 6541	Date	2023.11.17
Project:	LIS4B	Time	14:26:00
Ship:	RV Seawolf	Cruise ID/Year:	LIS2303
Location	LIS area 4	Device	Van Veen Grab
Form completed by	Tinah Martin	Institution	LDEO/Queens
Latitude	41° 11.7813	Longitude	72° 54.4610
Water depth (m)	10.9m	Target ID:	T-161

Grab description:

Surface photo	✓
Grain size sample (jar number)	236
Oxidized top (yes, no)	Yes
Stiffness (very soft, soft, stiff, very stiff)	Stiff
Color	Brownish gray
Mud (absent, rare, common, abundant)	rare
Sand (absent, rare, common, abundant)	Abundant, coarse
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	abundant
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	Sand

Notes:

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Grab LOG

LIS2303 - - G542

2-Letter Ship Abbreviation Cruise or 2-No. Year Leg for EWING grab Number Type

(Example: LIS2301-G100)

Grab Name	LIS2303 - G542	Date	2023.11.17
Project:	LIS 4B	Time	14:34:20
Ship:	RV Seawolf	Cruise ID/Year:	LIS2303
Location	LIS area 4	Device	Van Veen Grab
Form completed by	Tinah Martin	Institution	LDEO/Queens
Latitude	41° 11.3266	Longitude	72° 55.3301
Water depth (m)	12.6 m	Target ID:	T-176

Grab description:

Surface photo	✓
Grain size sample (jar number)	238
Oxidized top (yes, no)	yes
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	Brownish grey
Mud (absent, rare, common, abundant)	rare
Sand (absent, rare, common, abundant)	Abundant
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	Abundant
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	Muddy Sand

Notes:

carpatula fornicata abundant & large

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Grab LOG

LIS2303 - - G543

2-Letter Ship Abbreviation LIS2303
 Cruise or 2-No. Year
 Leg for EWING
 grab Number
 Type

(Example: LIS2301-G100)

Grab Name LIS2303 - G543	Date 2023.11.17
Project: LIS4B	Time 14:26:05
Ship: RV Seawolf	Cruise ID/Year: LIS2303
Location HS area 4	Device Van Veen Grab
Form completed by Tina Martin	Institution LDEO / Queens
Latitude 41° 11.1758	Longitude 72° 55.8184
Water depth (m) 14.1 m	Target ID: T-92

Grab description:

Surface photo	✓
Grain size sample (jar number)	226
Oxidized top (yes, no)	Yes
Stiffness (very soft, soft, stiff, very stiff)	stiff ↓ greenish grey
Color	
Mud (absent, rare, common, abundant)	Abundant
Sand (absent, rare, common, abundant)	Abundant, medium
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	rare, fragments
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	Sandy Mud

Notes: Oyster shell

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Grab LOG

LIS2303 - - G544

2-Letter Ship Abbreviation Cruise or 2-No. Year Leg for EWING grab Number Type

(Example: LIS2301-G100)

Grab Name	LIS2303 - G 544	Date	2023 . 11 . 17
Project:	LIS4B	Time	14 : 56 : 59
Ship:	RV Seawolf	Cruise ID/ Year:	LIS 2303
Location	LIS area 4	Device	Van Veen Grab
Form completed by	Tinah Martin	Institution	LDEO / Queens
Latitude	41° 11.4477	Longitude	72° 56.8696
Water depth (m)	12.5m	Target ID:	T-29

Grab description:

Surface photo	✓
Grain size sample (jar number)	199
Oxidized top (yes, no)	Yes
Stiffness (very soft, soft, stiff, very stiff)	Stiff
Color	Greenish grey
Mud (absent, rare, common, abundant)	Abundant
Sand (absent, rare, common, abundant)	common, fine grain
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	common, fragments
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	Sandy Mud

Notes:

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Grab LOG

LIS2303 - - 6545
 2-Letter Ship Cruise or Leg for grab Type
 Abbreviation 2-No. Year EWING Number
 (Example: LIS2301-G100)

Grab Name LIS2303 - 6545	Date 2023.11.17
Project: LIS4B	Time 15:06:09
Ship: RV Seawolf	Cruise ID/ Year: LIS2303
Location LIS area 4	Device Van Veen Grab
Form completed by Tinal Martin	Institution LDEO/Queens
Latitude 41° 11.9288	Longitude 72° 57.3086
Water depth (m) 11.1m	Target ID: T-2

Grab description:

Surface photo	✓
Grain size sample (jar number)	240
Oxidized top (yes, no)	yes
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	greenish grey
Mud (absent, rare, common, abundant)	Abundant
Sand (absent, rare, common, abundant)	Common, fine grain
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	few large shells, shell fragments
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	Sandy Mud

Notes:

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Grab LOG

LIS2303 - - G546

2-Letter Ship Abbreviation Cruise or 2-No. Year Leg for EWING grab Number Type

(Example: LIS2301-G100)

Grab Name LIS2303 - G546	Date 2023-11-17
Project: LIS4B	Time 15:17:50
Ship: RV Seawolf	Cruise ID/Year: LIS2303
Location LIS area 4	Device Van Veen Grab
Form completed by Tina Martin	Institution LDEO/Queens
Latitude 41° 11.6809	Longitude 72° 57.4821
Water depth (m) 11.5m	Target ID: T-62

Grab description:

Surface photo	✓
Grain size sample (jar number)	196
Oxidized top (yes, no)	Yes
Stiffness (very soft, soft, stiff, very stiff)	Stiff
Color	Greenish gray
Mud (absent, rare, common, abundant)	Abundant
Sand (absent, rare, common, abundant)	Abundant, medium
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	common fragments, few rare large shells
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	Muddy Sand

Notes:

Live clam
Image being switched out.

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Grab LOG

LIS 2303 - - 6547

2-Letter Ship Abbreviation	Cruise or 2-No. Year	Leg for EWING	grab Number	Type
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(Example: LIS2301-G100)

Grab Name	LIS2303 - 6547	Date	2023.11.17
Project:	LIS4B	Time	15:29:59
Ship:	RV Seawolf	Cruise ID/ Year:	LIS2303
Location	LIS area 4	Device	Van Veen Grab
Form completed by	Tinah Martin	Institution	LDEO/Queens
Latitude	41° 11.0776	Longitude	72° 57.6226
Water depth (m)	12.7m	Target ID:	T-78

Grab description:

Surface photo	✓
Grain size sample (jar number)	191
Oxidized top (yes, no)	yes
Stiffness (very soft, soft, stiff, very stiff)	Stiff
Color	Greenish Grey
Mud (absent, rare, common, abundant)	Abundant
Sand (absent, rare, common, abundant)	rare, fine
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	-
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	Mud

Notes:

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Grab LOG

LIS 2303 - - G 548

2-Letter Ship Abbreviation Cruise or 2-No. Year Leg for EWING grab Number Type

(Example: LIS2301-G100)

Grab Name	LIS 2303 - G 548	Date	2023.11.17
Project:	LIS 4B	Time	15:40:21
Ship:	RV Seawolf	Cruise ID/ Year:	LIS2303
Location	LIS area 4	Device	Van Veen Grab
Form completed by	Tinah Martin	Institution	LDPO/QUEENS
Latitude	41° 10.6089	Longitude	72° 58.0336
Water depth (m)	13.5m	Target ID:	T-25

Grab description:

Surface photo	✓
Grain size sample (jar number)	166
Oxidized top (yes, no)	Yes
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	Greenish grey
Mud (absent, rare, common, abundant)	Abundant
Sand (absent, rare, common, abundant)	rare
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	-
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	Mud

Notes:

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Grab LOG

LIS 2303 - - G549

2-Letter Ship Abbreviation LIS Cruise or 2-No. Year 2303 Leg for EWING grab Number 549 Type

(Example: LIS2301-G100)

Grab Name	LIS 2303 - G549	Date	2023.11.17
Project:	LIS 4 B	Time	15:48:26
Ship:	RV Seawolf	Cruise ID/ Year:	LIS2303
Location	LIS area 4	Device	Van Veen Grab
Form completed by	Tirah Martin	Institution	LDEO / Queens
Latitude	41°10.5022	Longitude	72° 58.5954
Water depth (m)	13.4 m	Target ID:	T-134

Grab description:

Surface photo	✓
Grain size sample (jar number)	139
Oxidized top (yes, no)	yes
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	Greenish grey
Mud (absent, rare, common, abundant)	Abundant
Sand (absent, rare, common, abundant)	common, fine grain
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	fragments, common
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	Sandy Mud

Notes:

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Grab LOG

LIS2303 - - G 550

2-Letter Ship Abbreviation LIS
Cruise or 2-No. Year 2303
Leg for EWING
grab Type Number

(Example: LIS2301-G100)

Grab Name LIS2303 - G550	Date 2023.11.17
Project: LIS4B	Time 15:57:14
Ship: RV Seawolf	Cruise ID/Year: LIS2303
Location LIS area 4	Device Van Veen Grab
Form completed by Tina Martin	Institution LDEO/Queens
Latitude 41° 10.1686	Longitude 72° 59.0081
Water depth (m) 13.9m	Target ID: T-19

Grab description:

Surface photo	✓
Grain size sample (jar number)	239
Oxidized top (yes, no)	yes
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	Greenish Grey
Mud (absent, rare, common, abundant)	Abundant,
Sand (absent, rare, common, abundant)	Abundant Coarse
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	rare fragments
Oysters (live/dead) (absent, rare, common, abundant)	2 large shells
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	Sandy Mud

Notes:

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Grab LOG

LIS2303 - - G551

2-Letter Ship Abbreviation Cruise or 2-No. Year Leg for EWING grab Number Type

(Example: LIS2301-G100)

Grab Name	LIS2303 - G551	Date	2023.11.17
Project:	LS4B	Time	16:07:56
Ship:	RV Seawolf	Cruise ID/Year:	LIS2303
Location	LIS area 4	Device	Van Veen Grab
Form completed by	Tinah Martin	Institution	LDEO/ Queens
Latitude	41° 9.9398	Longitude	72° 59.7891
Water depth (m)	12.2m	Target ID:	T-171

Grab description:

Surface photo	✓
Grain size sample (jar number)	229
Oxidized top (yes, no)	yes
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	Brownish grey
Mud (absent, rare, common, abundant)	Rare
Sand (absent, rare, common, abundant)	Abundant Coarse grain
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	-
Oysters (live/dead) (absent, rare, common, abundant)	large shell
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	Sand

Notes:

Lamont-Doherty Earth Observatory

Grab LOG

LIS 2303 - - G552
 2-Letter Ship Cruise or Leg for grab Type
 Abbreviation 2-No. Year EWING Number

(Example: LIS2301-G100)

Grab Name LIS 2303 - G552	Date 2023.11.18
Project: LIS 4B	Time 8:22:24
Ship: R/V Seawolf	Cruise ID/ Year: LIS 2303
Location LIS area 4	Device Van Green Grab
Form completed by Carol Calle	Institution LDEO/Queens
Latitude 41° S. 19 008	Longitude 73° 0.36369
Water depth (m) 25.2	Target ID: T-118

Grab description:

Surface photo	✓
Grain size sample (jar number)	186
Oxidized top (yes, no)	yes
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	greenish gray
Mud (absent, rare, common, abundant)	abundant
Sand (absent, rare, common, abundant)	rare; fine.
Gravel (absent, rare, common, abundant)	
Pebbles (absent, rare, common, abundant)	
Leaves (absent, rare, common, abundant)	
Wood (absent, rare, common, abundant)	
Shells (absent, rare, common, abundant)	
Oysters (live/dead) (absent, rare, common, abundant)	
Mussels (absent, rare, common, abundant)	
Living vegetation (absent, rare, common, abundant)	
Anthropogenic (brig, coal, slag etc)	
H ₂ S smell (yes, no)	
Lithology (estimated)	sandy mud

Notes:

Lamont-Doherty Earth Observatory

Grab LOG

LIS2303
6553

2-Letter Ship Abbreviation	Cruise or 2-No. Year	Leg for EWING	grab Number	Type
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(Example: LIS2301-G100)

Grab Name <u>LIS2303 - 6553</u>		Date <u>2023.11.18</u>
Project: <u>LIS4B</u>		Time <u>8:36:39</u>
Ship: <u>RV Seawolf</u>		Cruise ID/ Year: <u>LIS 2303</u>
Location <u>LIS area 4</u>		Device <u>Van Green Grabs</u>
Form completed by <u>Carol Calle</u>		Institution <u>LDEO/Queens</u>
Latitude <u>41° 6.17418</u>	Longitude <u>73° 0.39319</u>	
Water depth (m) <u>23.1</u>	Target ID: <u>T-107</u>	

Grab description:

Surface photo	✓
Grain size sample (jar number)	220
Oxidized top (yes, no)	yes
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	gray
Mud (absent, rare, common, abundant)	abundant
Sand (absent, rare, common, abundant)	
Gravel (absent, rare, common, abundant)	
Pebbles (absent, rare, common, abundant)	
Leaves (absent, rare, common, abundant)	
Wood (absent, rare, common, abundant)	
Shells (absent, rare, common, abundant)	
Oysters (live/dead) (absent, rare, common, abundant)	
Mussels (absent, rare, common, abundant)	
Living vegetation (absent, rare, common, abundant)	
Anthropogenic (brig, coal, slag etc)	
H ₂ S smell (yes, no)	
Lithology (estimated)	mud

Notes:

Lamont-Doherty Earth Observatory

Grab LOG

LIS2303 - - G554
 2-Letter Ship Cruise or Leg for grab Type
 Abbreviation 2-No. Year EWING Number
 (Example: LIS2301-G100)

Grab Name LIS2303 - G554	Date 11.18.2023
Project: LIS4B	Time 8:52:24
Ship: RV SEAWOLF	Cruise ID/ Year: LIS2303
Location LIS area 4	Device Van Green Grab
Form completed by Carol Calle	Institution LDEO/QUEENS
Latitude 41° 6.89350	Longitude 73° 183152
Water depth (m) 19.3	Target ID: T-170

Grab description:

Surface photo	✓
Grain size sample (jar number)	197
Oxidized top (yes, no)	yes.
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	greenish black
Mud (absent, rare, common, abundant)	abundant
Sand (absent, rare, common, abundant)	rare, fine
Gravel (absent, rare, common, abundant)	
Pebbles (absent, rare, common, abundant)	
Leaves (absent, rare, common, abundant)	
Wood (absent, rare, common, abundant)	
Shells (absent, rare, common, abundant)	
Oysters (live/dead) (absent, rare, common, abundant)	
Mussels (absent, rare, common, abundant)	
Living vegetation (absent, rare, common, abundant)	
Anthropogenic (brig, coal, slag etc)	
H ₂ S smell (yes, no)	
Lithology (estimated)	Mud

Notes:

Lamont-Doherty Earth Observatory

Grab LOG

LIS2303 - - G555
 2-Letter Ship Abbreviation Cruise or 2-No. Year Leg for EWING grab Number Type

(Example: LIS2301-G100)

Grab Name	LIS2303 G555	Date	2023.11.18
Project:	LIS4B	Time	9:05:12
Ship:	RV Seawolf	Cruise ID/ Year:	LIS2303
Location	LIS area 4	Device	Van Green Grab
Form completed by	Carol Calle	Institution	LDEO/Queens
Latitude	41° 7.87210	Longitude	73° 1.73022
Water depth (m)	16.6	Target ID:	T-103

Grab description:

Surface photo	✓	
Grain size sample (jar number)	198	
Oxidized top (yes, no)	yes	
Stiffness (very soft, soft, stiff, very stiff)	stiff	
Color	greenish gray	
Mud (absent, rare, common, abundant)	abundant	
Sand (absent, rare, common, abundant)		
Gravel (absent, rare, common, abundant)		
Pebbles (absent, rare, common, abundant)		
Leaves (absent, rare, common, abundant)		
Wood (absent, rare, common, abundant)		
Shells (absent, rare, common, abundant)		
Oysters (live/dead) (absent, rare, common, abundant)		
Mussels (absent, rare, common, abundant)		
Living vegetation (absent, rare, common, abundant)		
Anthropogenic (brig, coal, slag etc)		
H ₂ S smell (yes, no)		
Lithology (estimated)		Mud

Notes:

Lamont-Doherty Earth Observatory

Grab LOG

LIS2303 - - G556
 2-Letter Ship Cruise or Leg for grab Type
 Abbreviation 2-No. Year EWING Number
 (Example: LIS2301-G100)

Grab Name LIS2303 G556	Date 11.18.2023
Project: LIS4B	Time 9:15:25
Ship: RV Seawolf	Cruise ID/ Year: LIS2303
Location LIS Area 4	Device VCM Open Grab
Form completed by Carol Calle.	Institution LDEO/ Queens.
Latitude 41° 2.36 850	Longitude 73° 1.21164
Water depth (m) 16.1	Target ID: T-5

Grab description:

Surface photo	✓
Grain size sample (jar number)	201
Oxidized top (yes, no)	yes
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	greenish gray
Mud (absent, rare, common, abundant)	abundant
Sand (absent, rare, common, abundant)	-
Gravel (absent, rare, common, abundant)	-
Pebbles (absent, rare, common, abundant)	-
Leaves (absent, rare, common, abundant)	-
Wood (absent, rare, common, abundant)	-
Shells (absent, rare, common, abundant)	-
Oysters (live/dead) (absent, rare, common, abundant)	-
Mussels (absent, rare, common, abundant)	-
Living vegetation (absent, rare, common, abundant)	-
Anthropogenic (brig, coal, slag etc)	-
H ₂ S smell (yes, no)	-
Lithology (estimated)	Mud

Notes:

Lamont-Doherty Earth Observatory

Grab LOG

US2303 - - G557

2-Letter Ship Cruise or Leg for grab Type
 Abbreviation 2-No. Year EWING Number

(Example: LIS2301-G100)

Grab Name US2303 G557	Date 1023.11.18
Project: US4B	Time 9:26:27
Ship: RV Seawolf	Cruise ID/ Year: US2303
Location USavea4	Device van Geen Grab
Form completed by Carol Calle	Institution LDEO / Queens
Latitude 41° 8.92761	Longitude 73° 0.57307
Water depth (m) 15.6	Target ID: T-43

Grab description:

Surface photo	✓
Grain size sample (jar number)	224
Oxidized top (yes, no)	yes
Stiffness (very soft, soft, stiff, very stiff)	stiff stiff
Color	greenish gray
Mud (absent, rare, common, abundant)	abundant
Sand (absent, rare, common, abundant)	
Gravel (absent, rare, common, abundant)	
Pebbles (absent, rare, common, abundant)	
Leaves (absent, rare, common, abundant)	
Wood (absent, rare, common, abundant)	
Shells (absent, rare, common, abundant)	
Oysters (live/dead) (absent, rare, common, abundant)	
Mussels (absent, rare, common, abundant)	
Living vegetation (absent, rare, common, abundant)	
Anthropogenic (brig, coal, slag etc)	
H ₂ S smell (yes, no)	
Lithology (estimated)	Mud

Notes:

Lamont-Doherty Earth Observatory

Grab LOG

LIS2303 - - G558

2-Letter Ship Abbreviation Cruise or 2-No. Year Leg for EWING grab Number Type

(Example: LIS2301-G100)

Grab Name LIS2303 G558		Date 2023.11.18
Project: LIS4B		Time 3:37 09:37:14
Ship: RV Seawolf		Cruise ID/Year: LIS2303
Location LIS area 4		Device Van Green Grab
Form completed by Iris Hsiang		Institution LDEO/Queens
Latitude 41° 9.45921' N	Longitude 73° 1.02944' W	
Water depth (m) 14.239	Target ID: T-6	

Grab description:

Surface photo	yes
Grain size sample (jar number)	223
Oxidized top (yes, no)	yes
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	greenish gray
Mud (absent, rare, common, abundant)	abundant
Sand (absent, rare, common, abundant)	
Gravel (absent, rare, common, abundant)	
Pebbles (absent, rare, common, abundant)	
Leaves (absent, rare, common, abundant)	
Wood (absent, rare, common, abundant)	
Shells (absent, rare, common, abundant)	
Oysters (live/dead) (absent, rare, common, abundant)	
Mussels (absent, rare, common, abundant)	
Living vegetation (absent, rare, common, abundant)	
Anthropogenic (brig, coal, slag etc)	
H ₂ S smell (yes, no)	
Lithology (estimated)	Mud

Notes:

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Grab LOG

L152303 - - G559
 2-Letter Ship Cruise or Leg for grab Type
 Abbreviation 2-No. Year EWING Number
 (Example: LIS2301-G100)

Grab Name <u>G559</u>		Date <u>2023-11-18</u>
Project: <u>L154B</u>		Time <u>09:47:24</u>
Ship: <u>RV seawolf</u>		Cruise ID/Year: <u>L152303</u>
Location <u>L15 area 4</u>		Device <u>van Green Grab</u>
Form completed by <u>Iris Hsiang</u>		Institution <u>LDEO/Queens</u>
Latitude <u>41° 9.73001' N</u>	Longitude <u>73° 0.31057' W</u>	
Water depth (m) <u>15.3</u>	Target ID: <u>T-1</u>	

Grab description:

Surface photo	<u>yes</u>
Grain size sample (jar number)	<u>217</u>
Oxidized top (yes, no)	<u>yes</u>
Stiffness (very soft, soft, stiff, very stiff)	<u>stiff</u>
Color	<u>greenish gray</u>
Mud (absent, rare, common, abundant)	<u>abundant</u>
Sand (absent, rare, common, abundant)	<u>rare</u>
Gravel (absent, rare, common, abundant)	
Pebbles (absent, rare, common, abundant)	
Leaves (absent, rare, common, abundant)	
Wood (absent, rare, common, abundant)	
Shells (absent, rare, common, abundant)	<u>rare fragments</u>
Oysters (live/dead) (absent, rare, common, abundant)	
Mussels (absent, rare, common, abundant)	
Living vegetation (absent, rare, common, abundant)	
Anthropogenic (brig, coal, slag etc)	
H ₂ S smell (yes, no)	
Lithology (estimated)	<u>mud</u>

Notes:

Lamont-Doherty Earth Observatory

Grab LOG

L152303 - G560
 2-Letter Ship Cruise or Leg for grab Type
 Abbreviation 2-No. Year EWING Number
 (Example: LIS2301-G100)

Grab Name G560	Date 2023.11.18
Project: L154B	Time 10:00:08
Ship: R/V seawolf	Cruise ID/Year: L152303
Location L15 area 4	Device Van Green Grab
Form completed by Iris Hsiang	Institution LDEO/Queens
Latitude 41° 10.09132' N	Longitude 73° 1.18443' W
Water depth (m) 12.601	Target ID: T159

Grab description:

Surface photo	yes
Grain size sample (jar number)	225
Oxidized top (yes, no)	yes
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	greenish gray
Mud (absent, rare, common, abundant)	abundant
Sand (absent, rare, common, abundant)	common
Gravel (absent, rare, common, abundant)	
Pebbles (absent, rare, common, abundant)	
Leaves (absent, rare, common, abundant)	
Wood (absent, rare, common, abundant)	
Shells (absent, rare, common, abundant)	abundant fragments
Oysters (live/dead) (absent, rare, common, abundant)	
Mussels (absent, rare, common, abundant)	
Living vegetation (absent, rare, common, abundant)	
Anthropogenic (brig, coal, slag etc)	
H ₂ S smell (yes, no)	
Lithology (estimated)	sandy mud

Notes: centimeter scale razor clam and oyster shell fragments

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Grab LOG

LIS2303 - - G561

2-Letter Ship Abbreviation Cruise or 2-No. Year Leg for EWING grab Number Type

(Example: LIS2301-G100)

Grab Name G561		Date 2023.11.18
Project: LIS4B		Time 10:11:02
Ship: RV Seawolf		Cruise ID/Year: LIS2303
Location LIS area 4		Device Van Green Grab
Form completed by Iris Hsiang		Institution LDEO/Queens
Latitude 41° 10.04612' N	Longitude 73° 1.96370' W	
Water depth (m) 11.921	Target ID: T21	

Grab description:

Surface photo	yes
Grain size sample (jar number)	192
Oxidized top (yes, no)	no yes
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	greenish black
Mud (absent, rare, common, abundant)	abundant
Sand (absent, rare, common, abundant)	
Gravel (absent, rare, common, abundant)	
Pebbles (absent, rare, common, abundant)	
Leaves (absent, rare, common, abundant)	
Wood (absent, rare, common, abundant)	
Shells (absent, rare, common, abundant)	common fragments
Oysters (live/dead) (absent, rare, common, abundant)	
Mussels (absent, rare, common, abundant)	
Living vegetation (absent, rare, common, abundant)	
Anthropogenic (brig, coal, slag etc)	
H ₂ S smell (yes, no)	
Lithology (estimated)	mud

Notes:

Lamont-Doherty Earth Observatory

Grab LOG

LIS2303 - - G562
 2-Letter Ship Cruise or Leg for grab Type
 Abbreviation 2-No. Year EWING Number
 (Example: LIS2301-G100)

Grab Name G562		Date 2023.11.18
Project: LIS 4B		Time 10:23:29
Ship: Rv seawolf		Cruise ID/Year: LIS 2303
Location LIS area 4		Device Van Green Grab
Form completed by Iris Hsiang		Institution LDEO/Queens
Latitude 41° 10.56443' N	Longitude 73° 2.75526' W	
Water depth (m) 9.106	Target ID: T70	

Grab description:

Surface photo	yes
Grain size sample (jar number)	215
Oxidized top (yes, no)	yes
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	brownish gray
Mud (absent, rare, common, abundant)	rare
Sand (absent, rare, common, abundant)	abundant coarse
Gravel (absent, rare, common, abundant)	
Pebbles (absent, rare, common, abundant)	
Leaves (absent, rare, common, abundant)	
Wood (absent, rare, common, abundant)	
Shells (absent, rare, common, abundant)	abundant shells + fragments
Oysters (live/dead) (absent, rare, common, abundant)	
Mussels (absent, rare, common, abundant)	
Living vegetation (absent, rare, common, abundant)	
Anthropogenic (brig, coal, slag etc)	
H ₂ S smell (yes, no)	
Lithology (estimated)	medium sand coarse sand

Notes:

Lamont-Doherty Earth Observatory

Grab LOG

LIS2303

G563

2-Letter Ship Abbreviation Cruise or 2-No. Year Leg for EWING grab Number Type

(Example: LIS2301-G100)

Grab Name G563	Date 2023.11.18
Project: LIS4B	Time 10:36:55
Ship: RV seawolf	Cruise ID/Year: LIS2303
Location LIS area 4	Device Van Green Grab
Form completed by Iris Hsiang	Institution LDEO/Queens
Latitude 41° 9.50982' N	Longitude 73° 2.54378' W
Water depth (m) 12.279	Target ID: T155

Grab description:

Surface photo	yes
Grain size sample (jar number)	213
Oxidized top (yes, no)	yes
Stiffness (very soft, soft, stiff, very stiff)	stiff
Color	greenish gray
Mud (absent, rare, common, abundant)	abundant
Sand (absent, rare, common, abundant)	rare fine
Gravel (absent, rare, common, abundant)	
Pebbles (absent, rare, common, abundant)	
Leaves (absent, rare, common, abundant)	
Wood (absent, rare, common, abundant)	
Shells (absent, rare, common, abundant)	
Oysters (live/dead) (absent, rare, common, abundant)	
Mussels (absent, rare, common, abundant)	
Living vegetation (absent, rare, common, abundant)	
Anthropogenic (brig, coal, slag etc)	
H ₂ S smell (yes, no)	
Lithology (estimated)	Mud

Notes: