

SEABED SURFICIAL SEDIMENT SAMPLING IN THE GRANDE RIVIERE DE LA
BALEINE REGION, SOUTHEASTERN HUDSON BAY

by

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ABSTRACT

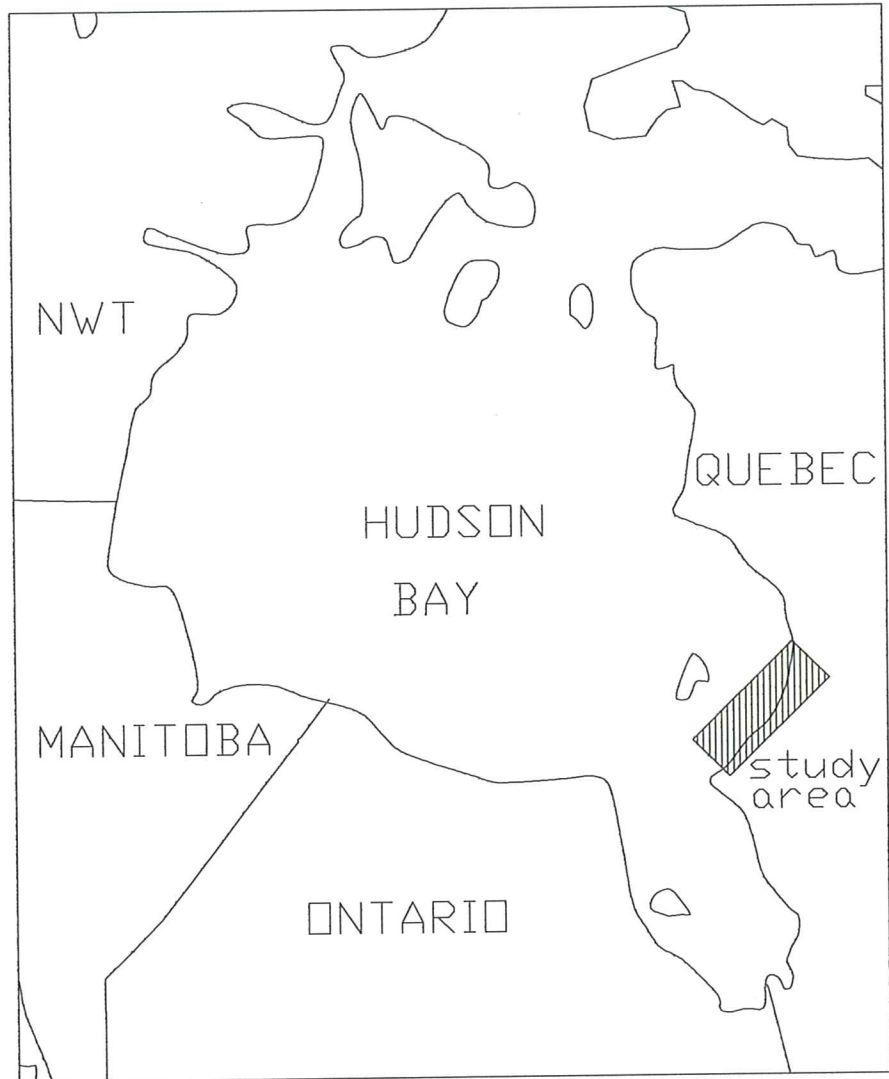
A preliminary regional correlation of the lithostratigraphy for cores and grabs collected in southeastern Hudson Bay in August 1992 from the CSS Hudson (cruise 92-028H) and RV Septentrion (cruise 92-028S) has been determined from 19 boxcores, 48 gravity cores, 106 grabs and 27 camera stations. The lithostratigraphy is based upon the stratigraphic framework of the Hudson Bay region and has been cross-referenced to representative seismic reflection profiles for comparison purposes.

INTRODUCTION

The Atlantic Geoscience Centre, on behalf of the Geological Survey of Canada, undertook the task of collecting the necessary geoscientific data in 1992 required to evaluate the environmental impact on adjacent marine and nearshore areas of the James Bay II development by Hydro-Quebec in northern Quebec. Areas of survey were concentrated in Manitounuk Sound, the Grande Baleine estuary, the vicinity of Petite Baleine and Nastapoka Rivers and in the region offshore. The grabs, cores and bottom photographs presented herein, represent a preliminary interpretation of the lithology and facies of the unconsolidated sedimentary veneer of this region. These data will be utilized in conjunction with biostratigraphic and chronological data to determine the postglacial evolution of this area and rates of sedimentation.

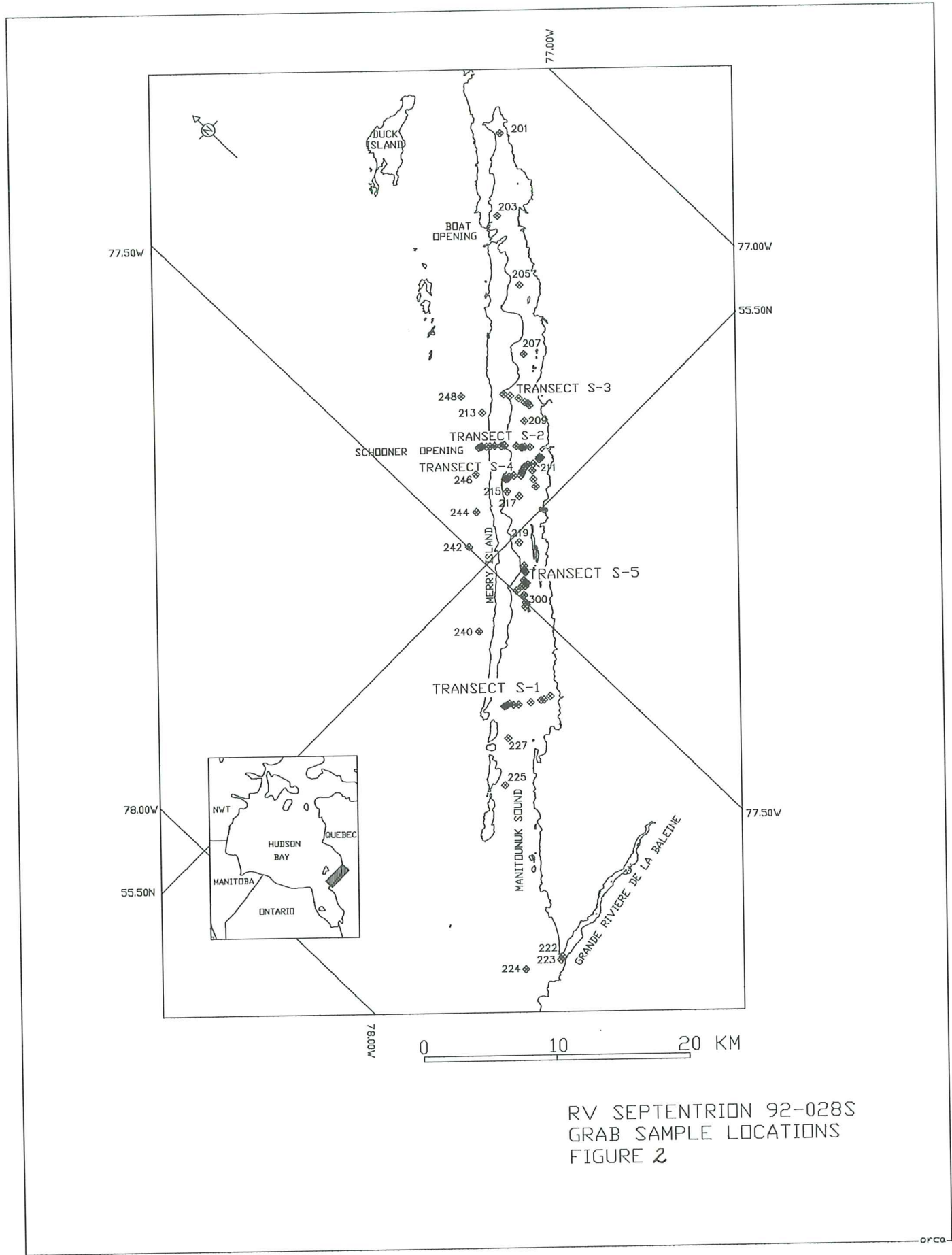
Preliminary unit identifications and correlations presented are based on visual examination and logging of cores and samples, stratigraphic relationships and acoustic character derived from high resolution seismic reflection profiles, in conjunction with biostratigraphic and chronological studies of cores collected previously in the region (Josenhans et al, 1991, Bilodeau et al, 1989). A total of 19 boxcores, 48 gravity cores, 106 grabs and 27 camera stations (locations Tables 1 and 2), have been logged for lithology, colour (Munsell), structure, disturbance and lithological trends (refer to cruise report Amos et al., 1992 for methodology).

Seismo-stratigraphic units have been identified on high resolution seismic reflection profiles, and correlated to several of the cores obtained. The lowermost unit identified as bedrock, forms coast parallel cuestas, with a distinct NE-SW morphological trend. The distribution of the overlying surficial sediments is controlled by the bedrock surface morphology. Immediately overlying the bedrock, a discontinuous, acoustically massive and unstratified unit of variable thickness, is thought to represent glacial till/ice contact sediments. This unit was not penetrated by coring during this project. The overlying acoustically stratified glaciolacustrine/marine sequence, appears to be relatively uniform and can be traced acoustically over large distances. It was sampled by coring nearshore south of Schooner Opening, and as far as 40 km WNW offshore from the Grande riviere de la Baleine estuary. It is represented by rhythmically banded interbedded silty, muds alternating from dark gray to grayish brown layers. The overlying postglacial muds, were found to be highly bioturbated and mottled, with occasional shells, pebbles and stringers of very fine sand. A recent surficial veneer of yellowish brown soupy mud was penetrated at all sample sites, but varied in thickness from a few millimetres to 0.5m. In most instances this aquatungid unit, was blown away by the deployment of the corer or sampling mechanism. This unit has a high organic content and is actively bioturbated.



SOUTHEASTERN HUDSON BAY
CRUISES 92-028H & 92-028S STUDY AREA

FIGURE - 1



RV SEPTENTRION 92-028S
 GRAB SAMPLE LOCATIONS
 FIGURE 2

GRAB SAMPLES COLLECTED ON CRUISES 92-028S AND 92-028H

92-028S RV Septentrion Van Veen grab samples, water depths and preliminary visual descriptions.

During the sampling phase of cruise 92-028S an 8 inch stainless steel Van Veen grab sampler was used. The grab sampler was used to obtain bottom samples as well as a guide for determining wire length and free fall distance for the 3 metre Benthos gravity corer. The following is a summary of the field observations recorded during the cruise listed for the grabs collected at the core sites in the Grande riviere de la Baleine area and at five depth or feature transects of Manitounuk Sound (Figure 2). Five transects were completed with the RV Septentrion (Figure 2) these were: S-1) across outer Manitounuk Sound, S-2) through Schooner Opening to central Manitounuk Sound, S-3) across the northern portion of central Manitounuk Sound from the mainland to Castle Island, S-4) from riviere Kuugapik across central Manitounuk Sound to Merry Island and S-5) from central Manitounuk Sound over the Paint Islands Sill to outer Manitounuk Sound.

Van Veen grab samples at core sites Manitounuk Sound (Figure 2)

#	Water Depth	Description
201	10m	Head of Manitounuk Sound Brown soupy surface layer over gray silt and clay, equivalent core 202
203	19m	Off Boat Opening in Manitounuk Sound 2-3cm tan silt and sand surface layer overlying gray silt and clay, equivalent core 204
205	18m	North end of Castle Island 2-4cm tan sand and silt surface layer overlying gray sandy mud, worm tubes, equivalent core 206
207	25m	South end of Castle Island 4-5cm tan surface layer composed of medium sand, shells and pebbles overlying a gray clay, equivalent core 208
209	29m	Off Schooner Opening in Manitounuk Sound Tan silt and sand surface layer over sticky gray silts and clay with some pebbles, equivalent core 210
211	12.5m	Off riviere Kuugapik, Manitounuk Sound 2-3cm tan silty-sand surface layer over gray silt-clay with pebbles, equivalent core 212
213	58m	Off Schooner Opening (north)

#	Water Depth	Description
		2-4cm of brown fine sand over gray to brown silt and sand. Lots of worms, equivalent core 214
215	23m	Merry island, Manitounuk Sound 4-5cm brown silts-sand surface layer over gray silts and clay. organic debris, clams, equivalent core 216
217	42m	Merry island, Manitounuk Sound 3-5cm brown silts-sand surface layer over gray silt and clay, quite cohesive, worms and organic debris, equivalent core 218
219	42m	Merry island, Manitounuk Sound 1-2cm brown medium to coarse sand surface layer over gray silts-fine sand and organics, worms, clams and some shellhash, sediment at base of grab has an unpleasant smell, also contains one pebble (6x4cm), equivalent core 220
300	17m	Manitounuk Sound - Paint Islands 1.5 Cm tan coloured mud overlying gray mud with black mottling, worm tubes, equivalent core 301
225	24m	Outer Manitounuk Sound Homogenous gray mud, no tan surface layer. Very slight black mottling, few pebbles, no macrobenthos observed, equivalent core 226
227	67m	Outer Manitounuk Sound 2cm tan layer over gray mud, slightly silty, no black mottling, equivalent core 228

Van Veen grab samples at core sites in nearshore trough, offshore Manitounuk Islands (Figure 2)

#	Water Depth	Description
240	33m	Offshore Manitounuk Islands Very thin tan layer over gray mud, equivalent core 241
242	71m	Offshore Manitounuk Islands 1cm tan layer over gray mud, no visible macrobenthos, equivalent core 243
244	70.5m	Offshore Manitounuk Islands 1-2cm tan layer over gray mud, some black mottling, quite stiff, equivalent core 245
246	65m	Offshore Manitounuk Islands 1-2cm tan soupy mud over 5-6cm gray soupy mud over 7-9cm of stiff cohesive gray mud, worms and worm tubes, equivalent core 247
248	92m	Offshore Manitounuk Islands 1cm tan layer over gray mud, worms, equivalent core 249

Van Veen grabs collected in Grande riviere de la Baleine and estuary (Figure 2)

#	Water Depth	Description
222	9m	Grande riviere de la baleine, off the govt. wharf Sample was all sand
223	5m	Grande riviere de la baleine, off the govt. wharf Sample was all sand
224	42m	Grande riviere de la baleine estuary Fine to coarse sand with shell hash, worms, worm tubes on surface, lost some sample because of a rock in the jaws

Van Veen grab sample transects (Figure 2)

Grab transect S-1 - Outer Manitounuk Sound (Figure 2)

This transect is oriented SE-NW from the mainland shore to Merry Island (Figure 3) with sample depths ranging from 12-75m. All samples consist of a 1-2cm veneer of soupy oxidized mud overlying gray mud. Samples contain pebbles, gravel and cobbles toward the Merry Island shore. The consistency of the gray sediments sampled at the deepest point of the transect, station 235, was significantly stiffer and more cohesive than the other samples.

#	Water Depth	Description
229	12m	1cm tan layer over gray mud with a little coarse sand, worms and worm tubes present
230	22m	2cm tan layer over gray mud, some worms
231	35m	2cm tan layer over gray mud, some worms
232	43m	2cm tan layer over gray mud
233	54m	2cm tan surface layer over gray mud, a few shells
234	63m	Slightly pebbly 2cm tan layer over gray mud, some worms and worm tubes
235	75m	2cm tan layer over gray mud, quite cohesive
236	64m	2cm tan layer over gray mud, worms
237	50m	2cm tan layer over gray sandy mud
238	40m	2cm tan layer over gray mud with some gravel and 1 cobble
239	33m	2cm tan layer over gray mud, 1 cobble

Grab transect S-2 - Offshore Schooner Opening to central Manitounuk Sound (Figure 2)

This transect is oriented from Hudson Bay just slightly offshore - through Schooner Opening - into central Manitounuk Sound.

#	Water Depth	Description
250	50m	1cm layer over gray sandy-silt to silty-sand. Cobbles and pebbles, brittle star and worm tubes
251	38m	Sand and cobbles, sampler partly open during recovery due to a cobble stuck in jaws
252	28m	Medium to coarse sand, small pebbles and one worm tube
253	18.5m	Medium to coarse sand with pebbles some shell hash and 1 small fish
254	18m	Brittle stars, mussels and sea urchins on coarse sand and pebbles
255	11.5m	Rock in the jaws, a few cobbles, mussel bed, starfish, worms
256	19m	Rock in the jaws, cobbles with sand with mussel shells and sea urchins attached to cobbles
268	30.5m	Cobbles, gravel and some coarse sand
267	36m	1-2cm tan layer over gray mud with black mottling, worms
266	42m	1-2cm tan layer over gray mud with black mottling. Lots of worms and shell hash
265	32m	1-2cm tan layer grading to reddish brown silty sand over gray mud mottled with black, worm tubes
264	25.5m	1cm tan layer over gray fine to coarse sand with silt, shell hash and worm tubes
263	10m	Gray, black mottled silty fine sand with bivalves and worms

Grab transect 3 - northern central Manitounuk Sound (Figure 2)

This transect is oriented north-northwest to south-southeast from mid Castle Island to the mainland shore. (Figure 2).

#	Water Depth	Description
257	10m	Dark gray medium sand with a strong H ₂ S smell. Worm tubes and shells
258	20m	2cm tan layer (fine sand) over gray mud, layer of coarse sand and shell hash separates the 2 layers
259	31m	1-2cm fine sand layer over thin reddish brown sand layer >1cm over gray mud, worm tubes and small clam on the surface and 1 small crab
260	32m	Sandy very thin tan layer over mottled gray mud, numerous worms
261	20m	Surface tan layer 1 1/2cm thick containing lots of black sand, worms and worm tubes over gray silty sand
262	10m	Light brown layer over gray mud, worms

Grab transect S-4 - Central Manitounuk Sound (Figure 2)

This transect is oriented east - west from the mouth of riviere Kuugapik across central Manitounuk Sound to Merry Island (Figure 2). Samples were collected at approximately 5 metre depth increments.

#	Water Depth	Description
273	5m	Tan layer (silty sand) over gray mud, numerous worms and worm tubes
274	10m	1.5cm tan layer over gray mud, worms and worm tubes, gray mud is more cohesive towards base
272	7m	Little or no tan layer, gray mud, numerous worms, worm tubes and clams
211	12.5m	2-3cm tan silty-sand surface layer over gray silt-clay with pebbles
269	11.5m	1cm fine to medium tan sand over gray mud, 1 cobble (12 cm) with sea cucumber type growth, worms
270	11m	1cm tan layer over gray mud, worms and worm tubes
271	12m	1cm tan layer over gray mud, sparse coarse sand, some 3-4 cm cobbles, worms and worm tubes
275	10.5m	1.5cm tan layer over gray mud, shell hash in the gray layer, some coarser grains in gray mud, worms and worm tubes, one large 20cm rounded cobble
276	14.5m	1.5cm tan layer over gray mud, worms and worm tubes
277	20.5m	2cm slightly coarse grained tan layer over gray mud, worms, worm tubes and clams
278	25m	2cm surface layer of tan mud with pebbles over gray mud (black mottling)
279	30m	3cm tan surface layer grading to reddish brown at base (some coarse material) over gray mud with black mottling, clams, worms and worm tubes
280	35m	2cm tan surface layer grading to reddish brown at base (some coarse material) over gray mud with black mottling, clams, worms and worm tubes
281	41m	1-2cm tan layer containing a few coarse grains over gray

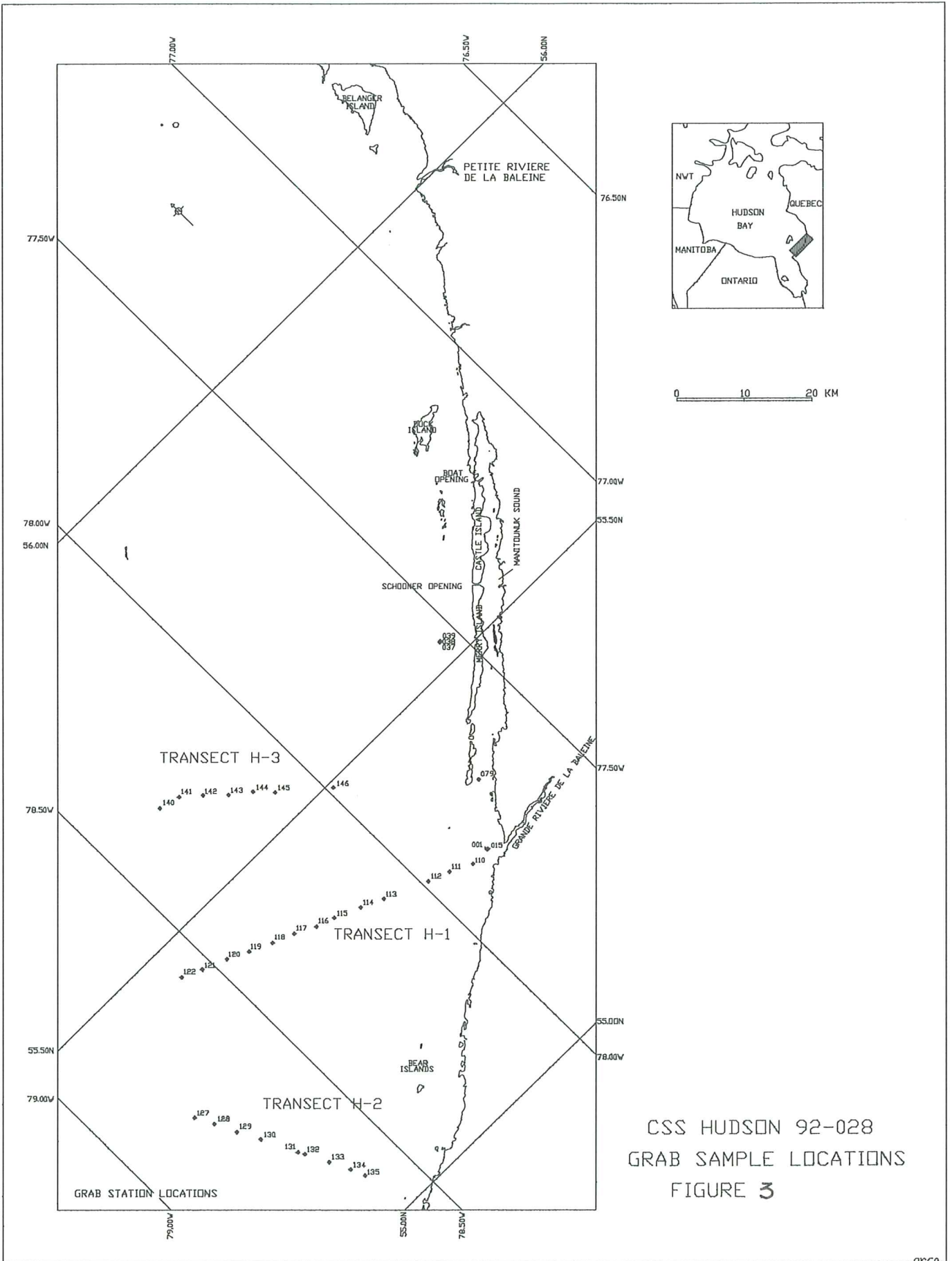
#	Water Depth	Description
		mud with black mottling, worms and worm tubes
282	34m	1-2cm tan mud grading to coarse reddish brown over gray mud with black mottling, worms and worm tubes
283	30.5m	1-2 Cm tan mud grading to coarser reddish brown over gray mud with black mottling, worms and worm tubes
284	24m	1-2 cm tan layer (mud) grading to coarse reddish brown over gray mud with black mottling, a few worm tubes
285	21m	No description

Grab transect S-5 - Paint Islands sill - central to outer Manitounuk Sound (Figure 2)

This transect is oriented along the axis of the Manitounuk Sound from the central sound, across the Paint Islands sill into the outer sound (Samples 219, 286 - 295)(Figure 2). Samples 296 - 300 extend from approximately the centre of the Paint Islands sill westward towards the deeper portion of outer Manitounuk Sound.

#	Water Depth	Description
219	42m	1-2cm brown medium to coarse sand surface layer over gray silts-fine sand and organics, worms, clams and some shellhash, sediment at base of grab has an unpleasant smell, also contains one pebble (6x4cm)
286	48m	Very coarse cobble lag over gray mud with black mottling, no macrobenthos observed
287	41m	Muddy coarse sand with cobbles, small brittle stars and shells
288	35m	No sample, probably exposed bedrock
289	31m	Very rocky bottom, sampler contained 1 boulder
290	28m	Tan coloured muddy sand and cobbles, no macrobenthos
291	27m	Cobbles only, sampler jaws kept open by a cobble, most of sample washed out

#	Water Depth	Description
292	35m	Tan coloured coarse sand with cobbles
293	23m	2 cm tan layer over gray mud with black mottling, some cobbles in the gray material, possibly ice rafted
294	14m	2 cm tan coloured mud over gray mud with a few black pebbles and black mottling, minor amounts of sand throughout the sample.
295	14m	1 cm layer of tan mud over gray sandy mud with black mottling, shell hash and gastropod shell observed
- Transect 5 offset		
296	26m	3 cm tan coloured muddy sand layer with cobbles over gray mud with black mottling, no macrobenthos observed
297	31m	5 cm muddy sand tan coloured layer with cobbles and shell hash, overlying gray mud with black mottling, no other macrobenthos observed
298	42m	3 cm muddy sand tan coloured layer with cobbles and worm tubes, overlying gray mud with black mottling
299	50m	2 cm muddy fine sand tan coloured layer with shell hash, worm tubes and small clams overlying gray mud
300	17m	1.5 Cm tan coloured mud overlying gray mud with black mottling, worm tubes, equivalent core 301



92-028H CSS Hudson Van Veen grab samples, water depths and preliminary visual descriptions (Figure 3).

#	Water Depth	Description
001	32m	Grande riviere de la Baleine delta Brown 2.5YR 4/2 soupy thin veneer with few broken polycheates
037	34m	Off Merry Island Recovered 1 large boulder and 1 small erratic
038	36m	Off Merry Island Sand washed out upon recovery material bagged
039	39m	Off Merry Island First attempt recovered 4 small pebbles (39m w.d.), on second attempt recovered sand (44m w.d.)
079	68m	Mouth of Manitounuk Sound Surficial veneer <1/2cm thick underlain by 5Y5/1 bioturbated clay; veneer 2.5Y4/2; surface contained large polycheates, tubes, starfish, small mollusks

CSS Hudson - offshore grab sample transect H-1 (Figure 3)

#	Water Depth	Description
110	83m	Soupy brown surficial veneer 2.5YR4/2 underlain by gray bioturbated 5y5/1 clay
111	73m	Soupy brown surficial veneer (1cm) underlain by gray bioturbated clay
113	116m	Soupy brown surficial clay veneer underlain by gray bioturbated clay
114	105m	Soupy brown surficial veneer ~1cm underlain by gray bioturbated clay
115	141m	Thin brown surface layer over steel gray clayey to slightly silty sediments
116	165m	Brown surface layer; steel gray clayey sediments only trace of silt - no biological specimens noted
117	181m	Very thin brown surface layer over light medium gray clayey sediments with only a trace of silty sediment
118	186m	Thin brown surface layer underlain by medium gray clayey sediments slightly gritty
119	158m	Thin brown surface layer underlain by medium gray clayey and silty sediments - some sand grains no biological specimens observed
120	116m	Thin brown surface layer over medium gray clayey sediments
121	114m	Thin brown surface layer over medium gray clayey sediments
122	136m	Brown surface layer over medium gray clayey sediments
127	94m	Thin brown layer over med gray clay

CSS Hudson - offshore grab sample transect H-2 (Figure 3)

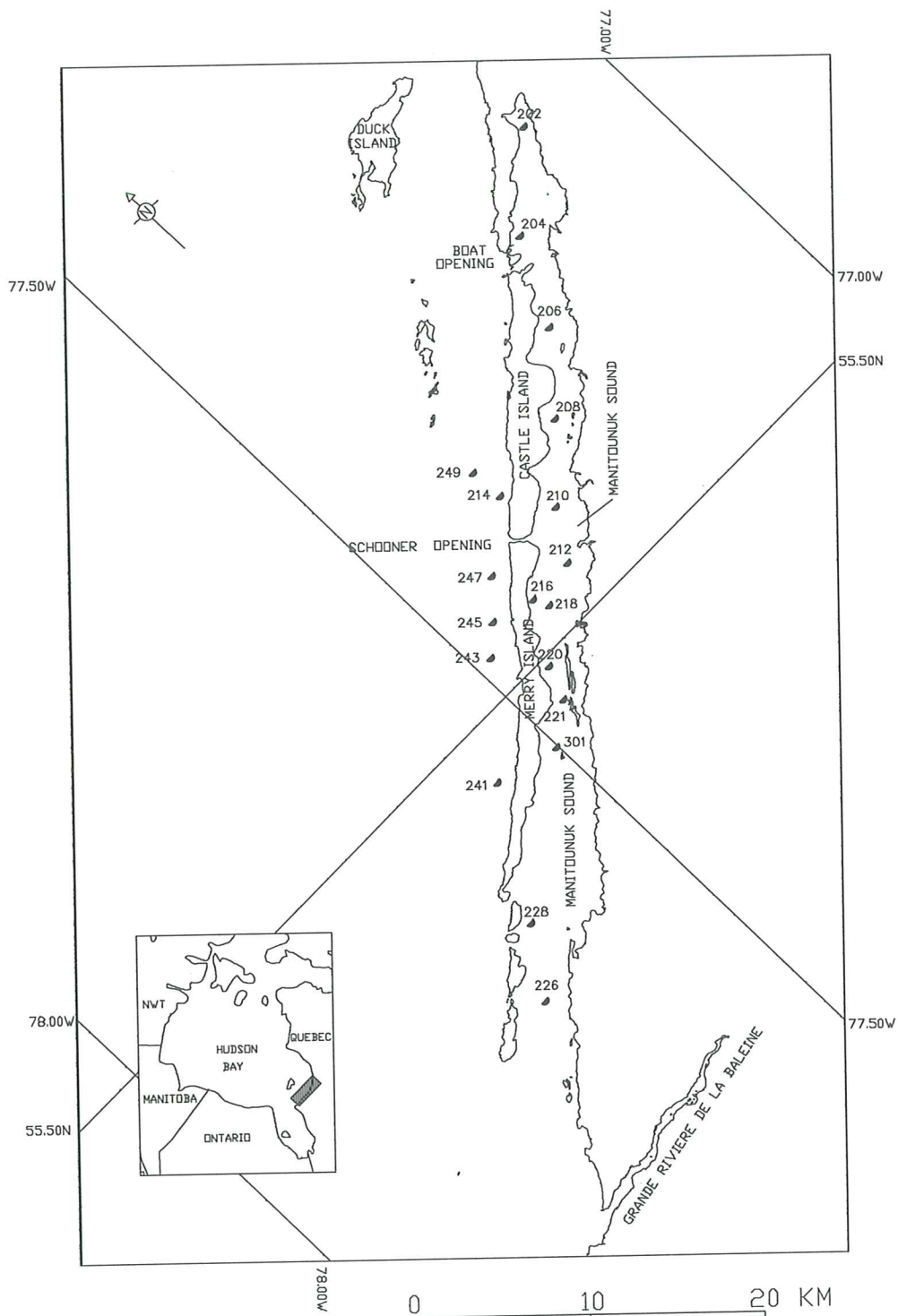
#	Water Depth	Description
128	108m	Thin brown layer over gray clay
129	108m	Thin brown layer over med gray clay
130	140m	Brown ooze over a med gray clay
131	125m	Thin brown layer over med gray clay
132	120m	Thin brown layer taken over med gray clay
133	130m	Medium brown top layer over med gray clay
134	115m	Thin brown layer over med gray clay
135	42m	No description

CSS Hudson - offshore grab sample transect H-3 (Figure 3)

#	Water Depth	Description
140	135m	Soupy brown 2.5Y4/2 pebbly, gravelly, sandy surface layer ~ 4 cm thick underlain by gray 5y4/2 gravelly sandy clay
141	97m	2cm soupy brown 2.5Y4/2 surficial veneer underlain by gray 5y4/2 clay, slightly bioturbated
142	96m	Soupy brown 2.5Y4/2 surficial layer ~2cm thick underlain by gray 5y4/2 clay, slightly bioturbated
143	128m	Soupy brown 2.5Y4/2 surface layer ~2cm underlain by gray 5y4/2 clay; shell fragments on the surface
144	147m	Soupy brown 2.5Y4/2 surficial veneer ~1cm thick underlain by gray 5y4/2 clay
145	145m	Soupy brown 2.5Y4/2 surficial veneer ~2cm thick underlain by gray 5y4/2 clay
146	140m	Soupy brown 2.5Y4/2 surficial veneer underlain by gray 5y4/2 clay

Core sites 1992 southeastern Hudson Bay Program

Data presented in this section represents the current level (August 1993) of completed core analysis excluding geochemical analysis by Buckley et al (1993) presented under separate cover. Data format starts from the seabed down. Where available the order consists of (refer to Appendix 1 for order of station sequence): 1) a representative seismic section and site specific overview, 2) a visual sediment description based on core data 3) box core description and photos, and 5) piston core photos and description and 4) representative bottom photography. LeHigh gravity cores are also available for most sites. These are currently unsplit and awaiting analysis. Camera stations without corresponding cores are grouped together accordingly.



RV SEPTENTRION 92-028S
 GRAVITY CORE LOCATIONS
 FIGURE 4

Cores collected in Manitounuk Sound - RV Septentrion cruise 92-028S

Cores 92-028S-202-218

Cores were collected in northern Manitounuk Sound (Figure 4). Sediments are predominantly a gray (5Y4/1) bioturbated Quaternary clay, overlain by a Recent thin (1-12 cm) oxidized surface veneer often blown away through the action of coring.

Core site 92-028S 202

This core site (Figure 4) is located in shallow water (10 metres) at the head of Manitounuk Sound. Site corresponds to a Sea Carousel site, but due to high winds and following seas no seismic data collected was in this region during the 92-028S Septentrion cruise. Coastal-tidal flat outcrop suggest that the thick undisturbed section of postglacial estuarine and glaciolacustrine sediments continue to the site. At most sites in Manitounuk Sound in water depths shallower than 22 metres a large percentage of the seabed has been disturbed by icekeel scouring.

Cruise Number	Sample Number	Sample Type	Interval
92028S	202	Gravity	0 - 100 cm

Depth (cm)	Visual Description	Munsell Colour	
0	oxidized .5 cm surficial veneer recent deposit - organic transition zone .5-12 cm l'lar clast at 5cm	10YR6/4	
10	shell frag at top of transition gray bioturbated sli. silty clay mottling below 12 cm suggestion of bands of mottling <10% core face	5Y4/1	
20			
30	gray bioturbated sli. 32 cm silty clay aa mottling <15% core face	5Y4/1	
40	small broken shell frag. at 43	5Y4/1	
50	50-52 cm fine l'ear SD lense w/broken shell frag. mottling ↑ below SD to 20% core face		
60	small l'lar clast at 62 cm gray bioturbated clay aa	5Y4/1	
70			
80	shell frag at 81 cm oxidized 10YR4/2 burrows? mottling 25% core face to 90 cm,	5Y4/1	
90	bioturbated clay aa mottling ↓ 10% core face to 97 cm		

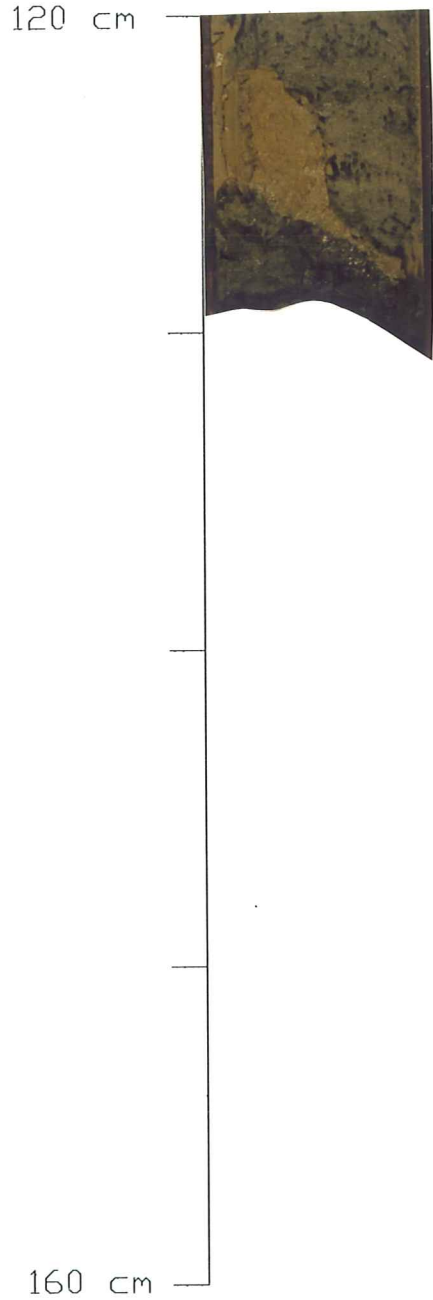
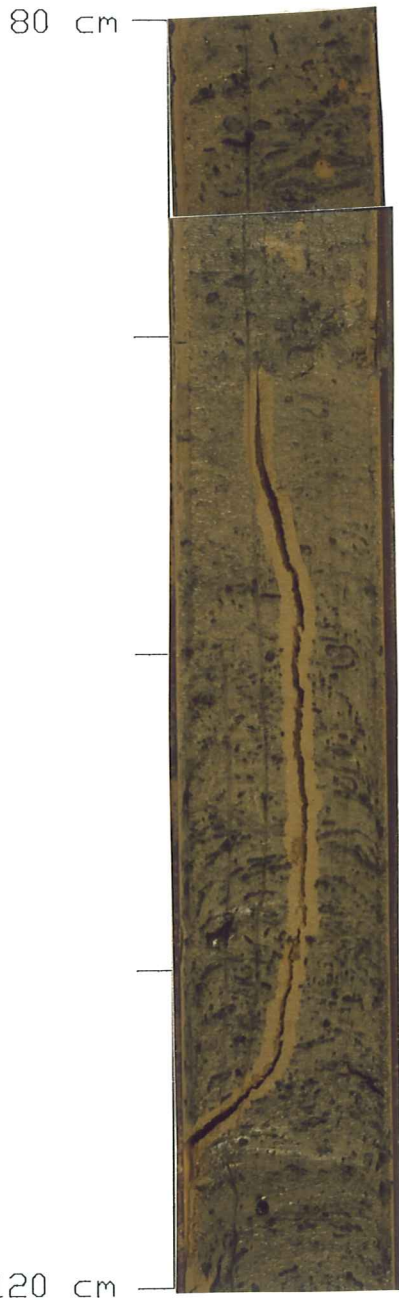
Cruise Number	Sample Number	Sample Type	Interval
92028S	202	Gravity	100 - 130 cm

Depth (cm)	Visual Description	Munsell Colour		
100	gray organic mottled 15% bioturbated clay aa to TD 130 cm	5Y4/1	§	
110	half shell at 108 cm good condition		§	
120	↓ mottling ~ 10% core face 118 cm broken shell frag.		§	
130	Total Depth 130 cm			
140				
150				
160				
170				
180				
190				

Core 92-028S-202
Interval 0-80 cm

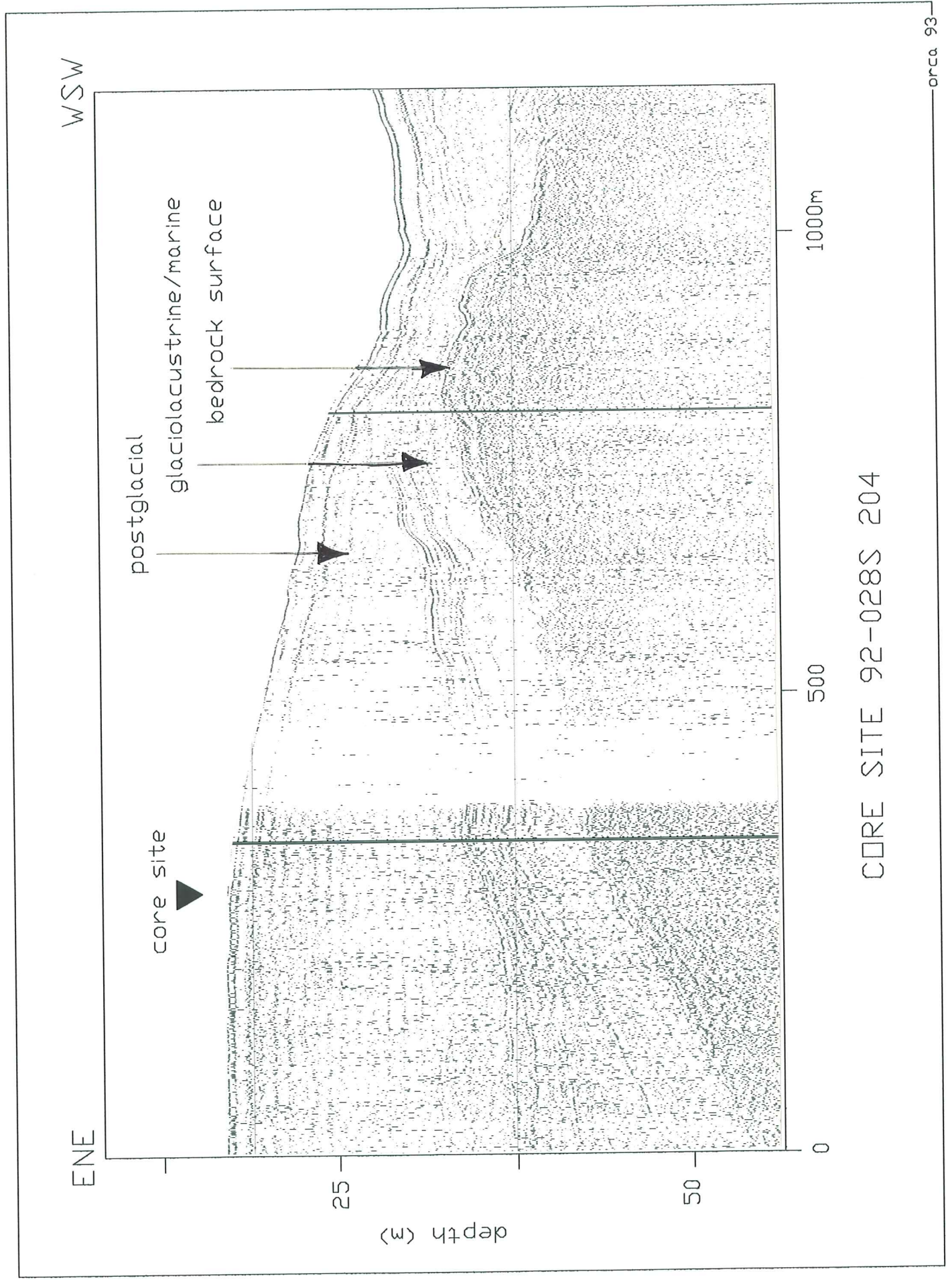


Core 92-028S-202
Interval 80-130 cm



Huntec Sea-Otter boomer seismic section for core site 92-028S-204

This core site is located at the center of inner Manitounuk Sound 2 kilometres ENE off Boat Opening (Figure 4). Core was collected in a thick section of postglacial sediments. Note rapid thinning / non-deposition of postglacial sediments and glaciolacustrine/marine sediment outcrop towards Boat Opening. Non-deposition of postglacial sediments off Boat Opening due to current influence.

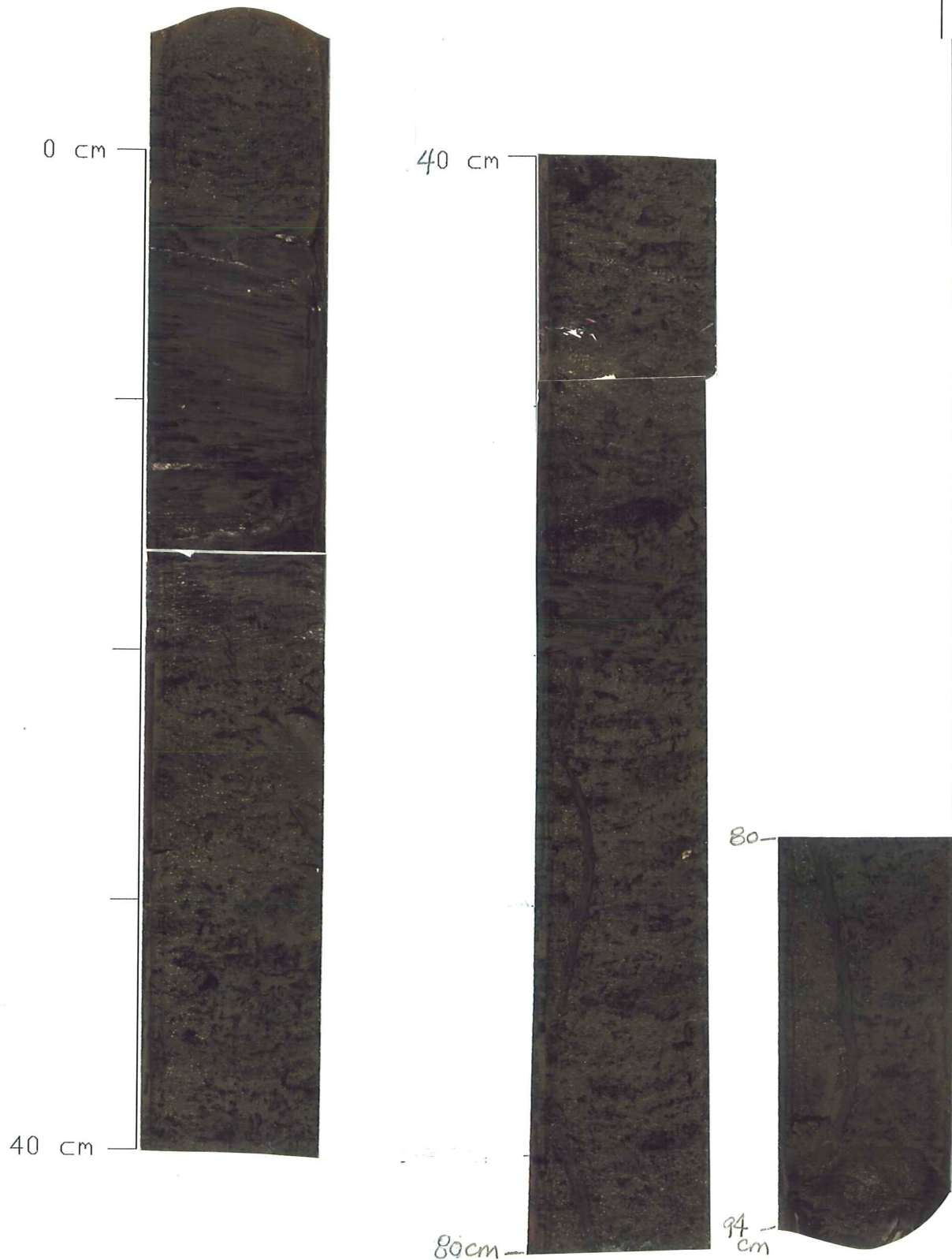


Cruise Number	Sample Number	Sample Type	Interval
92028S	204	Gravity	0 - 91 cm

Depth (cm)	Visual Description	Munsell Colour		
0	hint of surficial veneer at surface; underlain by 5Y5/2 sli. silty clay homogeneous, structureless 0-8 cm <15% mottled	2.5Y4/2 5Y5/2		
10	8-48 cm clay, homogeneous 20% core face mottled			
20				
30	27 cm basalt erratic angular; size 3 x 2 cm			
40				
50	45 cm small <.5 cm granite frag l'ear 48-50 cm clay aa; less mottled <5%			
60	52 cm small <.5 cm basalt frag l'ear; infilled burrow w/fine SD l'ear 50-59 cm clay aa ↑ mottling 25-30% core face 59-83 cm homogeneous clay aa ↓ mottling 20% core face	5Y3/2		
70	shell frag. at 68 cm			
80	clay aa ↓ mottling < 15% core face	5Y5/2		
90	SD/silt lense at 86 cm; silt/v. fine SD lense at 88 cm infilled burrow as noted			
	shells archive half Total Depth 91 cm			

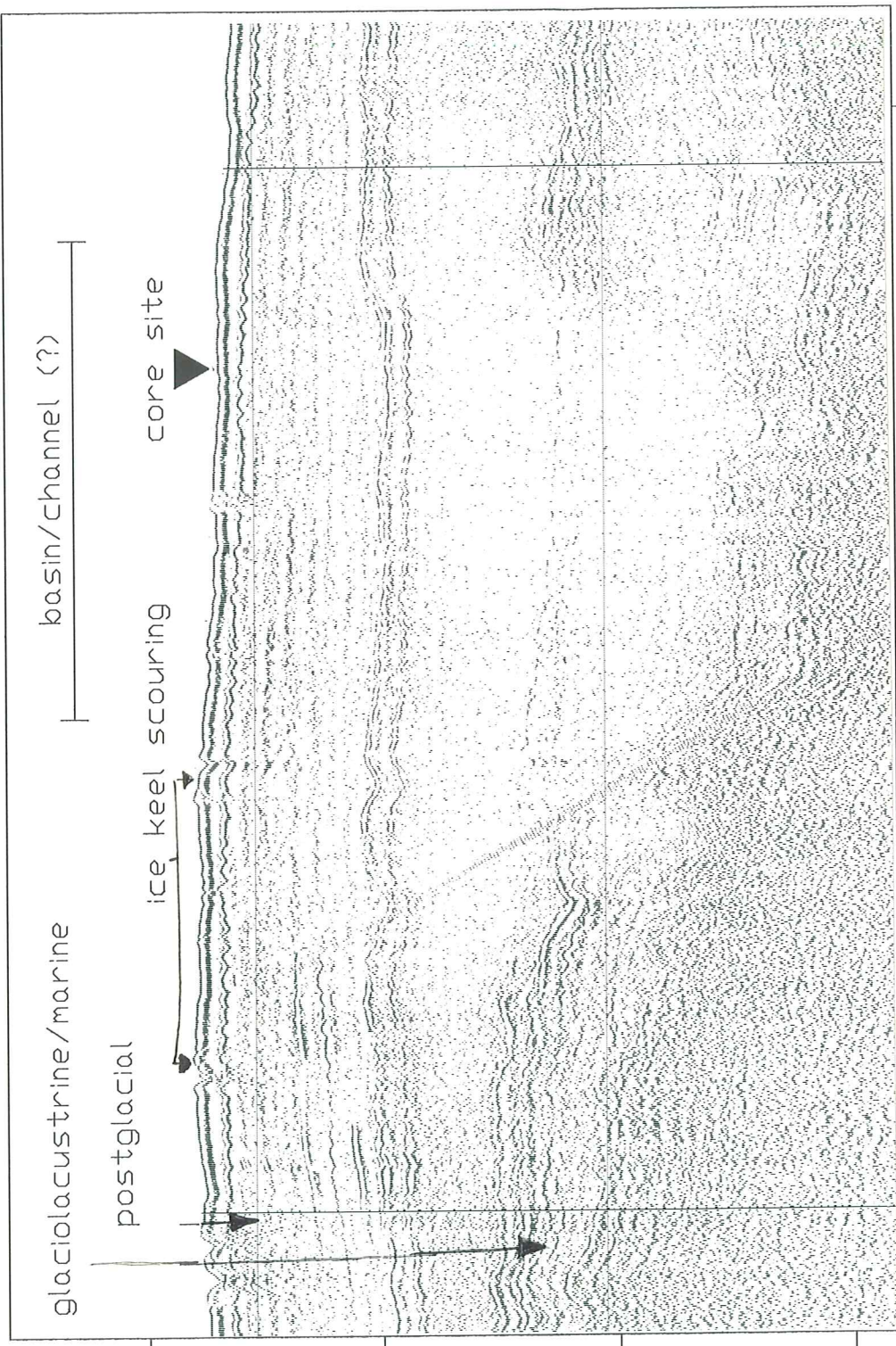
Core 92-028S-204

Interval 0-~~94~~ cm



NE

SW



basin/channel (?)

core site

ice keel scouring

glaciolacustrine/marine

postglacial

depth (m)

25

50

1000m

500

CORE SITE 92-028S 206

Cruise Number	Sample Number	Sample Type	Interval
92028S	206	Gravity	0 - 79 cm

Depth (cm)	Visual Description	Munsell Colour	
0	thin 5 cm upper clay .5 cm -6 cm transition zone w/infilled oxidized burrows as noted 6-16 cm small clast at 5 cm	10YR6/2	
10	6-8 cm mottly 10% core face 8-16 cm ↓ mottling <5 % core face 16-22 cm ↑ mottling 15% core face	5Y5/1	
20	22-23 cm & 26-30 cm little or no mottling		
30	28 cm subl'lar clast alternating pulses of ↑ ↓'ing mottling throughout to 53 cm bioturbated clay aa organic odor	5Y5/1	
40			
50	53 cm little or no mottling to TD 79 cm homogeneous clay aa little or no mottling	5Y5/1	
60	65 cm thin l'lar clast & 67 cm shell half, some mottling <10%		
70	73 cm shell frag.		
80	Total Depth 79 cm		
90			

Core 92-028S-206
Interval 0-79 cm

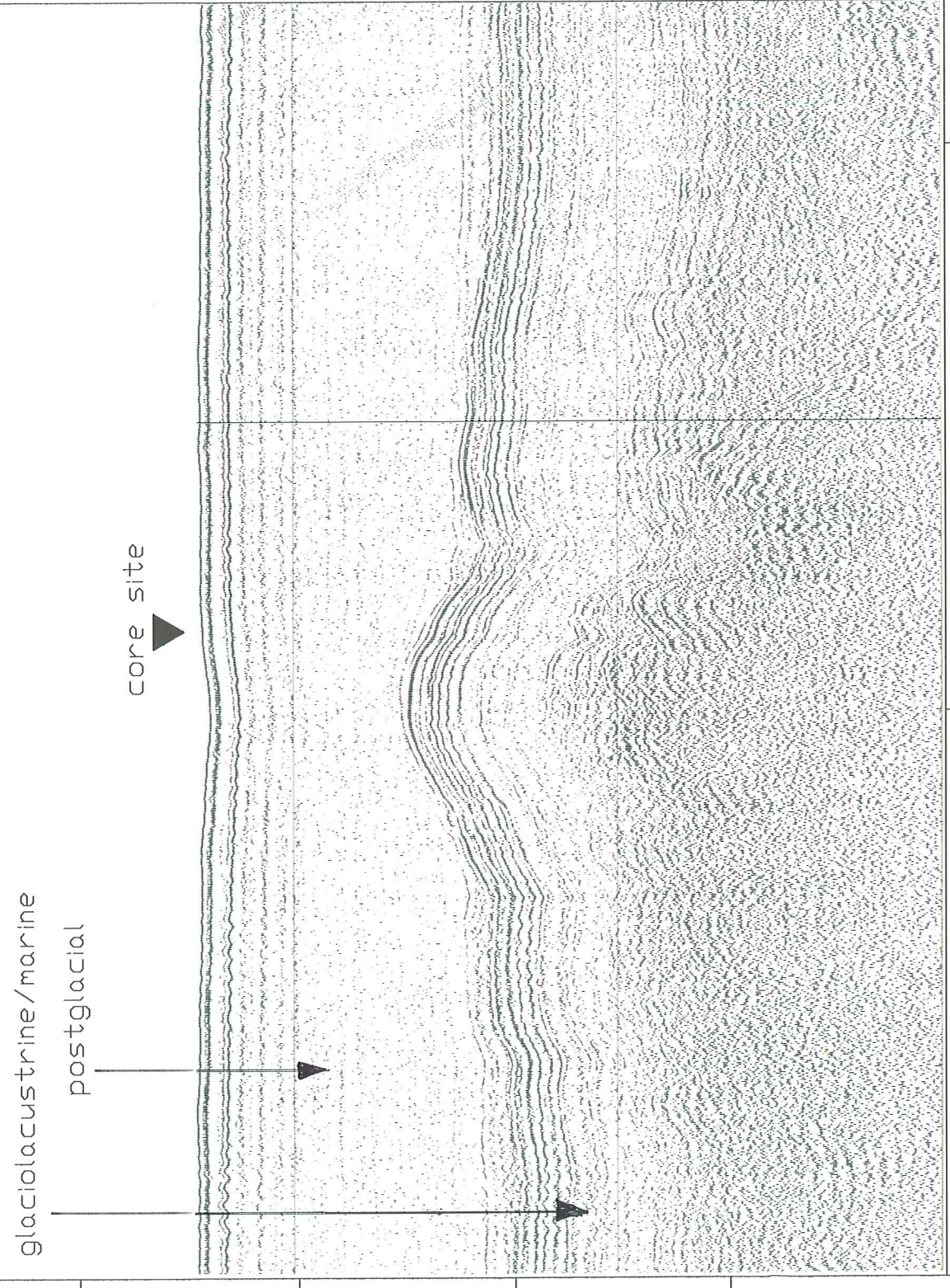


Huntec Sea-Otter boomer seismic section for core site 92-028S-210

This core site is located in central Manitounuk Sound 2.5 kilometres northeast of Schooner Opening (Figure 4). Quaternary thickness varies between 24 and 37 metres. Postglacial sediments at the core site are 13 metres thick.

SW

NE



glaciolacustrine/marine

postglacial

core site

depth (m)

25

50

75

0

500

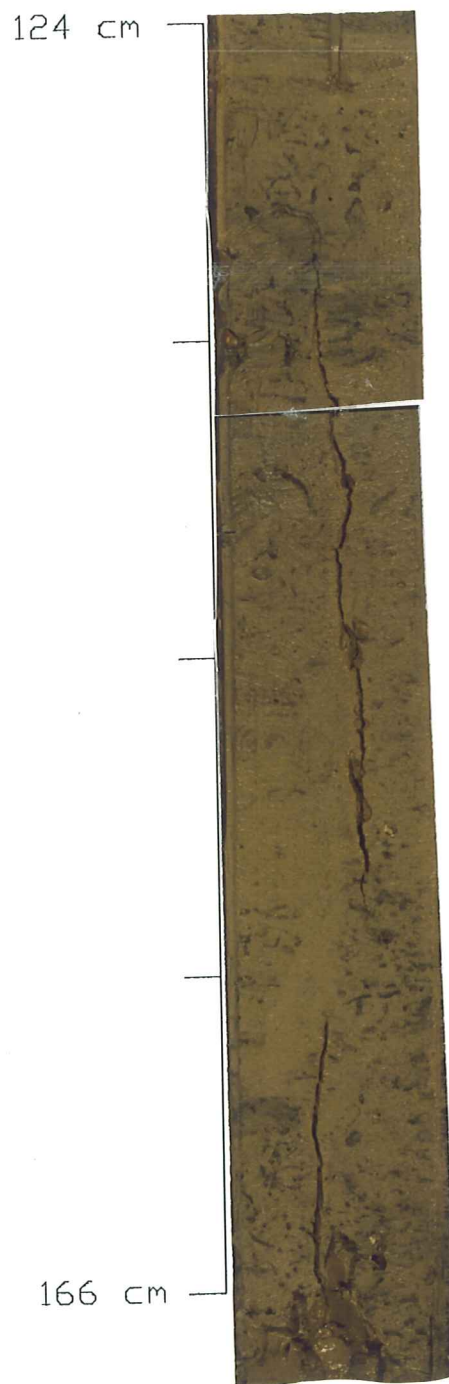
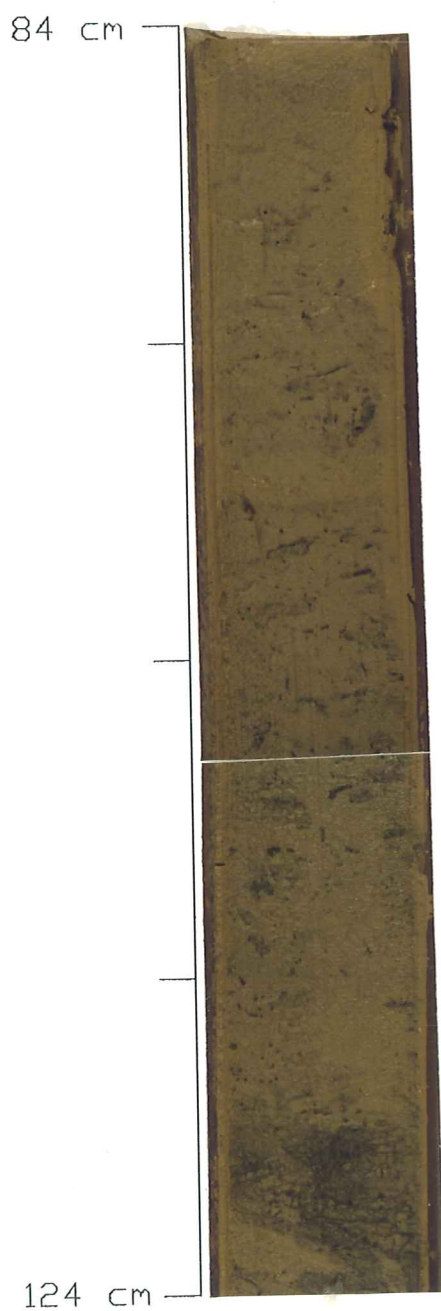
1000m

CORE SITE 92-028S 210

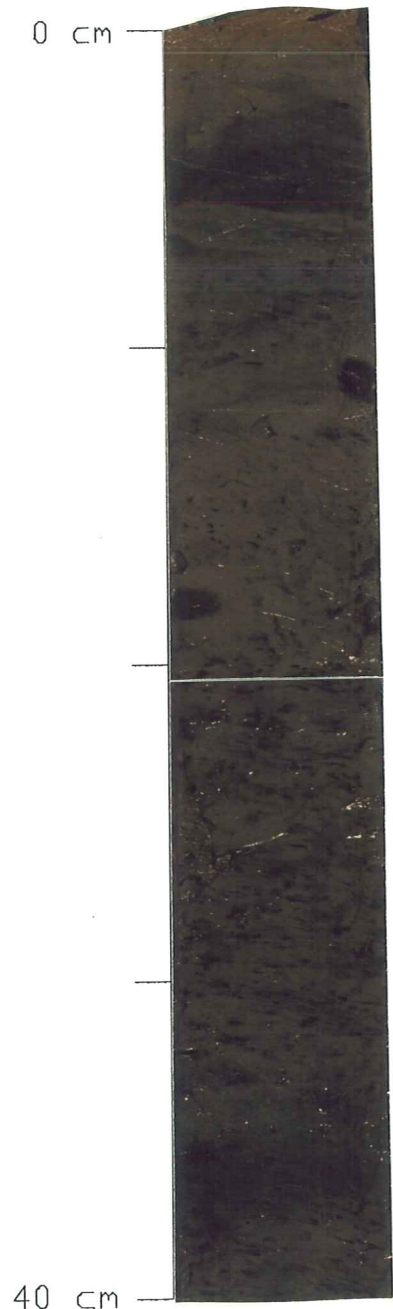
Core 92-028S-210
Interval 0-80 cm



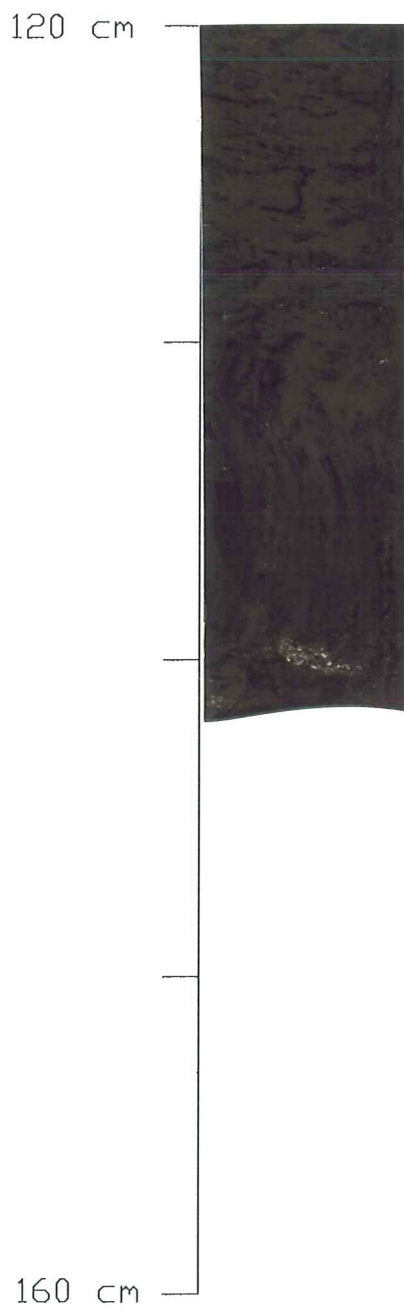
Core 92-028S-210
Interval 84-166 cm






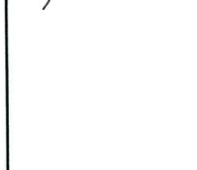





Core 92-028S-212
Interval 0-80 cm



Core 92-028S-212
Interval 80-145 cm

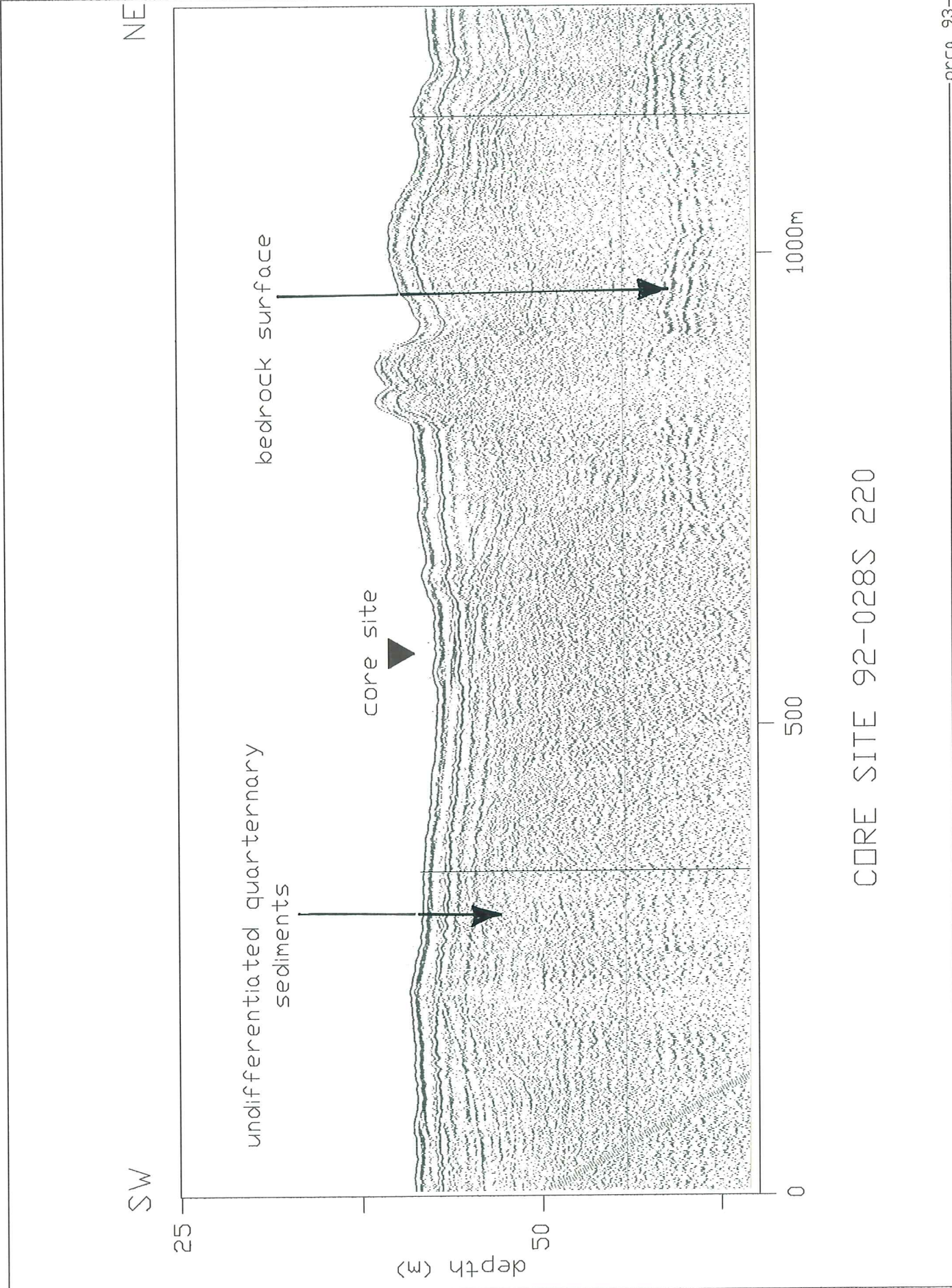


Cruise Number	Sample Number	Sample Type	Interval
92028S	218	Gravity	0 - 100 cm

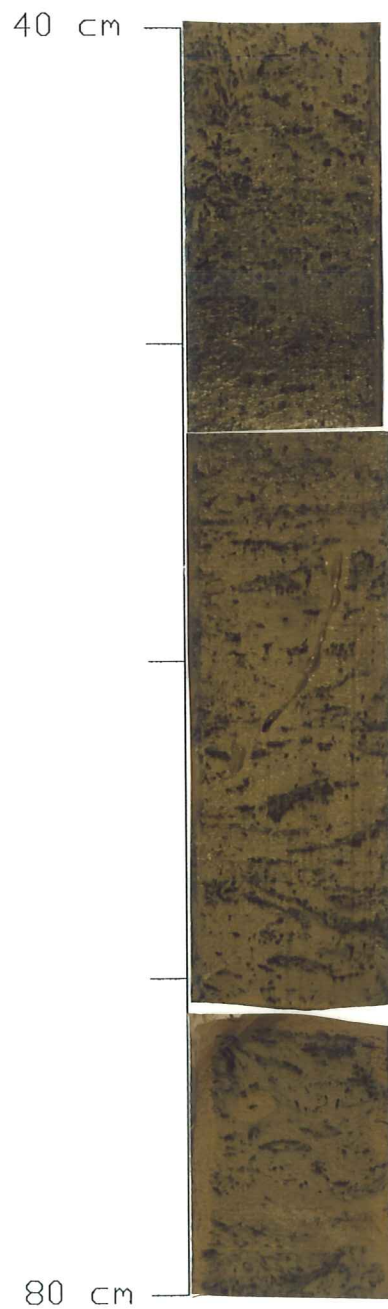
Depth (cm)	Visual Description	Munsell Colour	
0	thin rhind of surficial clay <1 cm thick w/nicely preserved lined burrow transition zone to 4 cm 4-12 cm	10YR5/5	
10			
20	bioturbated gray homogeneous clay	5Y5/2	
30			
40			
50	↓ mottling below 51 cm <10% core face		
60			
70	homogeneous bioturbated clay w/minor mottling throughout to 92 cm <5% at 80 cm the core wisp of mottling as noted	5Y5/2	
80			
90	92-110 cm little or no mottling w/clay matrix		

Cruise Number	Sample Number	Sample Type	Interval
92028S	218	Gravity	100 - 136 cm

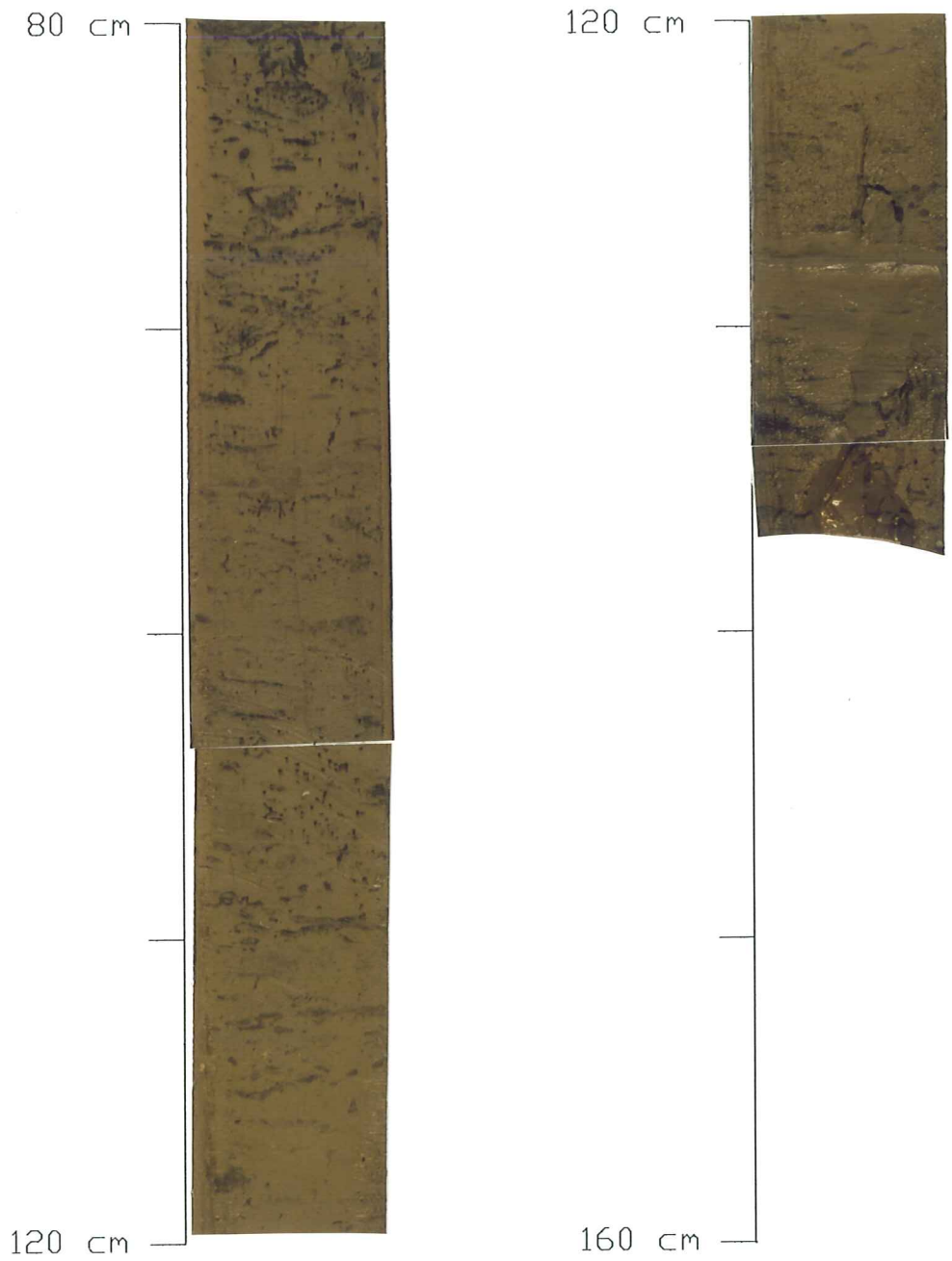
Depth (cm)	Visual Description	Munsell Colour	
100	clay aa 2 thin wisps noted 130-132 cm w/in clay matrix Total Depth 136 cm	5Y5/1 5Y5/1	
110			
120			
130			
140			
150			
160			
170			
180			
190			



Core 92-028S-218
Interval 0-80 cm



Core 92-028S-218
Interval 80-136 cm



Core sites 92-028S-220-221 Manitounuk Sound





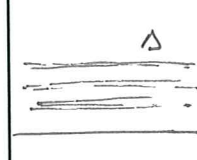
A thin oxidized surficial dark yellowish brown veneer representing Recent accumulation of sediments is underlain by formally frozen clays consisting of rip-up clay clasts and having a " cottage cheese " appearance. An erosional unconformity at the surface of the underlying rhythmite sequence can be identified in both cores at .4 and .14m downcore respectively and is an event that can be traced offshore as a sharp contact. A deformed rhythmically banded (lacustrine?) sequence consisting of interbedded gray clays with original bedding is preserved in places upcore.

Huntec Sea-Otter boomer seismic section for core site 92-028S-220

This core site is just north of Paint Islands sill (Figure 4) between outer and central Manitounuk Sound. Undifferentiated Quaternary sediment thickness varies between 15 and 20 metres.

NO SEISMIC DATA AVAILABLE FOR THE 92-028S-221 CORE SITE

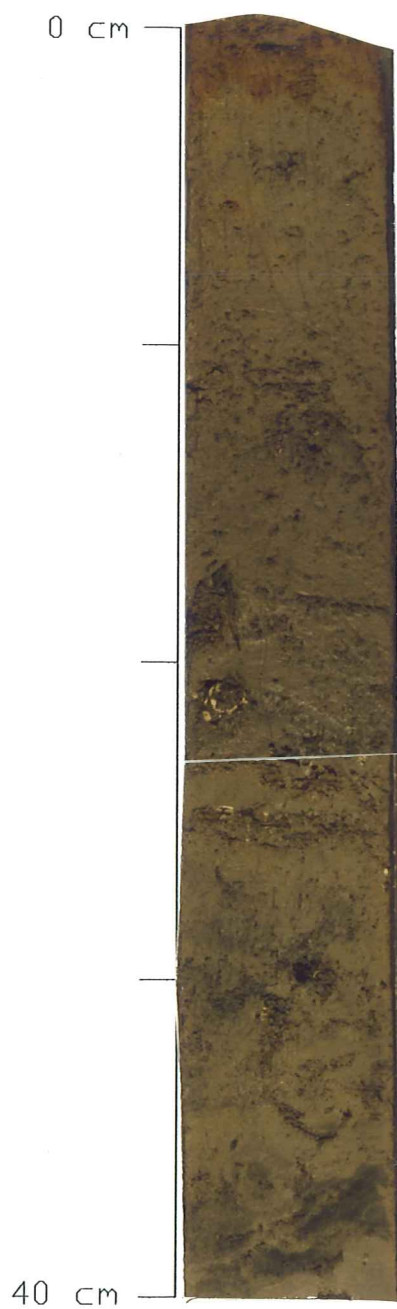
Cruise Number	Sample Number	Sample Type	Interval
92028S	220	Gravity	100 - 146 cm

Depth (cm)	Visual Description	Munsell Colour	
100	large microfault 100-109 cm pulses subtle	5Y5/1	
110	fault at 110 cm		
120	clast small r, at 120 cm pulses more subtle than above	5Y5/1	
130			
140	clast at 137 cm small t Total Depth 146 cm		
150			
160			
170			
180			
190			

Cruise Number	Sample Number	Sample Type	Interval
92028S	220	Gravity	0 - 100 cm

Depth (cm)	Visual Description	Munsell Colour	
0	2 cm thick surficial sandy (30%) clay transition zone 2-12 cm?	10YR4/5	
10	large 1 cm subround clast 2/broken shell frag at 12 cm w/SD coarse lenses in clay fragment of wood at 18 cm	5Y5/1	
20	23-38 cm cheesecake appearance clay sandy <10%		
30	clast at 30 cm subR		
40	38-40 cm coarse SD lense at abrupt contact w/pulses rthymites as noted in 92028S 221; 92028H 081/048 distorted to 55 cm. squeezed or dewatered		
50	matrix clay 10YR5/3 bottom 5Y5/2		
60	microfault 65-68 cm		
70	6 events/cycles to 81 cm contact? change		
80	81-123 cm 16 cycles		
90			

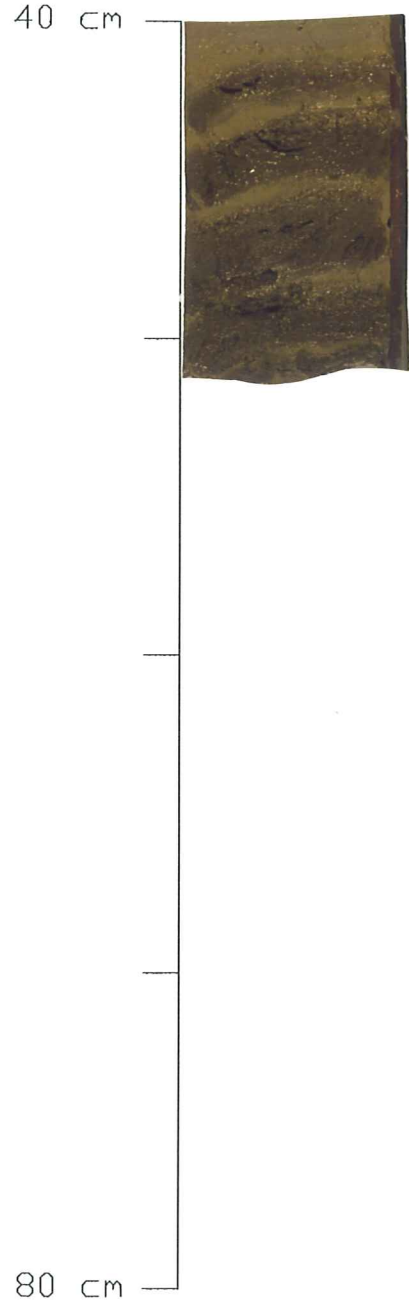
Core 92-028S-220
Interval 0-80 cm



Cruise Number	Sample Number	Sample Type	Interval
92028S	221	Gravity	0 - 50 cm

Depth (cm)	Visual Description	Munsell Colour	
0	.5 cm thin oxidized upper surficial layer sandy clay; transition zone cheesecake appearance (frozen) - sandy (15%) clay w/shells at abrupt 14 cm contact	10YR5/4 5Y5/1	
10	abrupt contact 14 cm w/underlying pulses/rhythmites as noted core 92028H 081/048 matrix clay upper colour 10YR5/3 bottom 5Y5/2 ~ 9 even??		
20			
30		10YR5/1	
40	distinct change of pulses at 40 cm. 4 events (1/2) 5YR4/2 clay separated by 5Y5/1 clay		
50	Total Depth 50 cm		
60			
70			
80			
90			

Core 92-028S-221
Interval 0-50 cm



Core collected in Outer Manitounuk Sound

Core site 92-028S-228

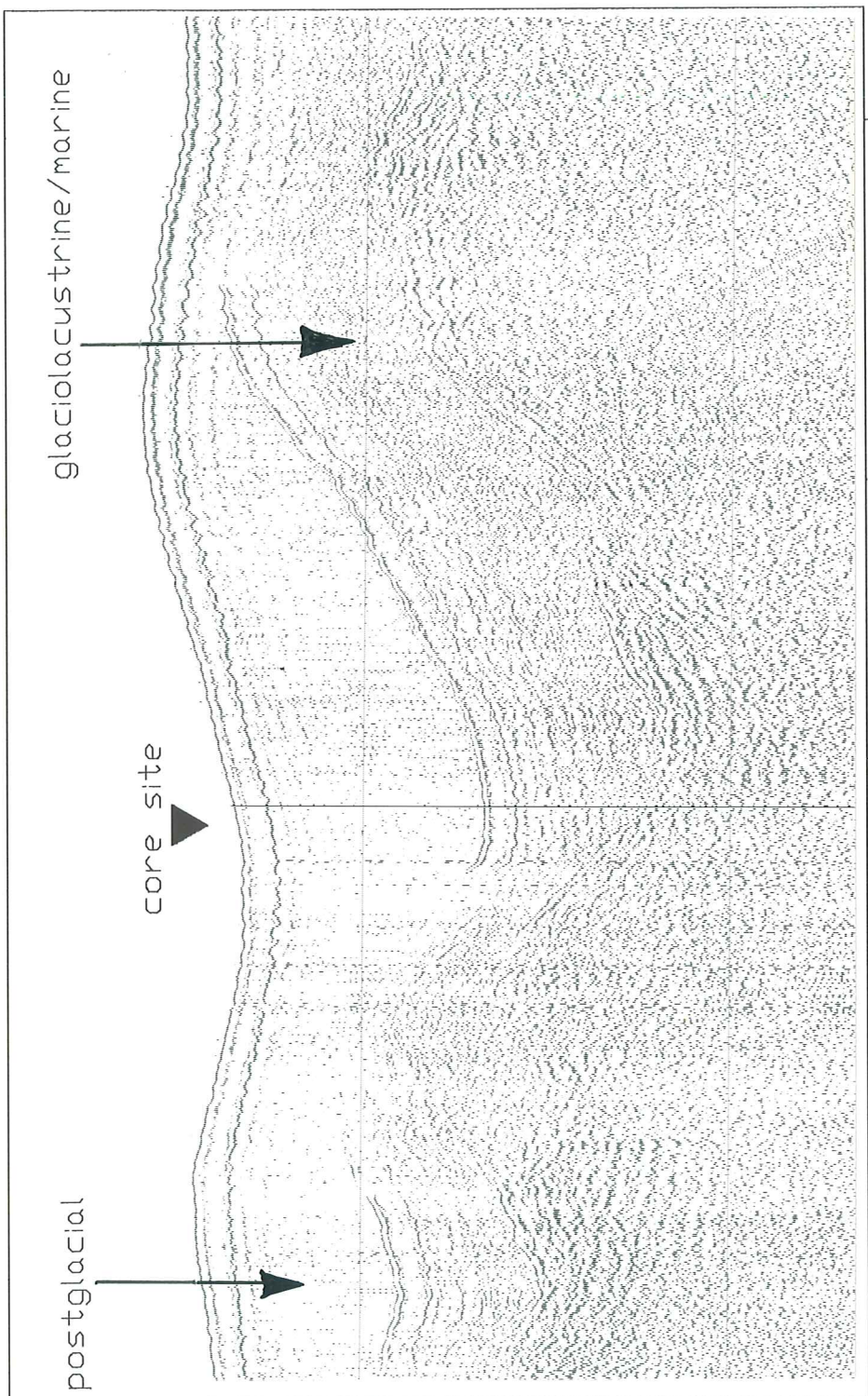
Sediments collected by this core consist of a thin surficial dark yellowish brown Recent veneer underlain by olive gray silty clay with darker gray mottling of varying degrees at the cut core face downcore. Bioturbation varies but distinct cross-burrows are encountered between .7 to 1.1m downcore. The rhythmically banded sequences are not present in the outer sound and may have been marine throughout this period of deposition.

Huntec Sea-Otter boomer seismic section for core site 92-028S-228

This core was collected in postglacial sediments in outer Manitounuk Sound (Figure 4). Note the variable thickness of the postglacial unit versus a fairly uniform thickness of the draped glaciolacustrine/marine sediments.

SW

NE



postglacial

core site

glaciolacustrine/marine

depth (m)

75

100











0

500

1000m

CORE SITE 92-028S 228

Cruise Number	Sample Number	Sample Type	Interval
92028S	228	Gravity	0 - 100 cm

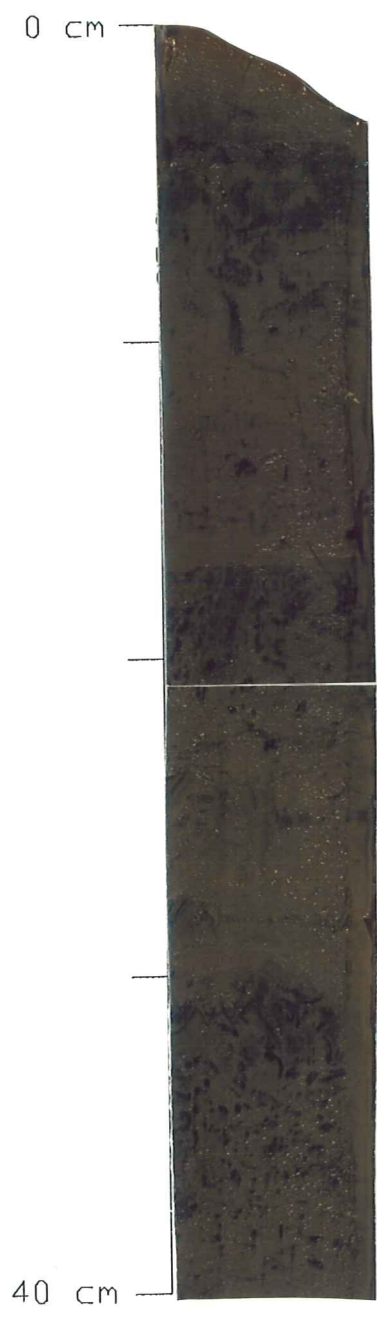
Depth (cm)	Visual Description	Munsell Colour	
0	thin surficial clay veneer underlain by silty (15%) gray clay w/no apparent mottling; .5-3 cm mottled clay 3-10 cm mottled 25% core face; infilled horizontal burrows 6-7 cm	2.5Y4/2 5Y4/2	
10	mottles 5Y3/2; 10-15 cm mottling ↓ <5% core	5Y4/2	
20	16.5 abrupt break 15-16.5 cm 5Y4/2 clay no mottling 16.5-21 cm mottling ↑ 20% core face;	5Y4/2	
30	shell frag at 26 cm f. SD lamina <.5 cm at 27 cm underlain by 5Y4/2 clay to 29 cm 29-38 cm mottled 20% core face;		
40	38-48 cm clay aa <10% mottling 43 cm <u>in situ</u> shell sampled	5Y4/2	
50	48-73 cm mottled 15-20% core face clay		
60			
70	73-146 cm mottled clay aa sli. silty clay occasional shell frag. small blk mottling 5Y2/5 burrow as noted	5Y4/3	
80			
90	x-burrows		

Cruise Number	Sample Number	Sample Type	Interval
92028S	228	Gravity	100 - 146 cm

Depth (cm)	Visual Description	Munsell Colour	
100	102 cm clay lense 5Y4/2 not mottled; also at 108-112 as noted	5Y4/2	
110	clay aa mottled 20-25% core face mottling 5Y3/1	5Y4/2 5Y3/1	
120			
130			
140			
150	Total Depth 146 cm		
160			
170			
180			
190			

Core 92-028S-228

Interval 0-80 cm



Unprocessed core collected by the RV Septentrion in Manitounuk Sound during cruise 92-028S

Huntec Sea-Otter boomer seismic section for core site 92-028S-208

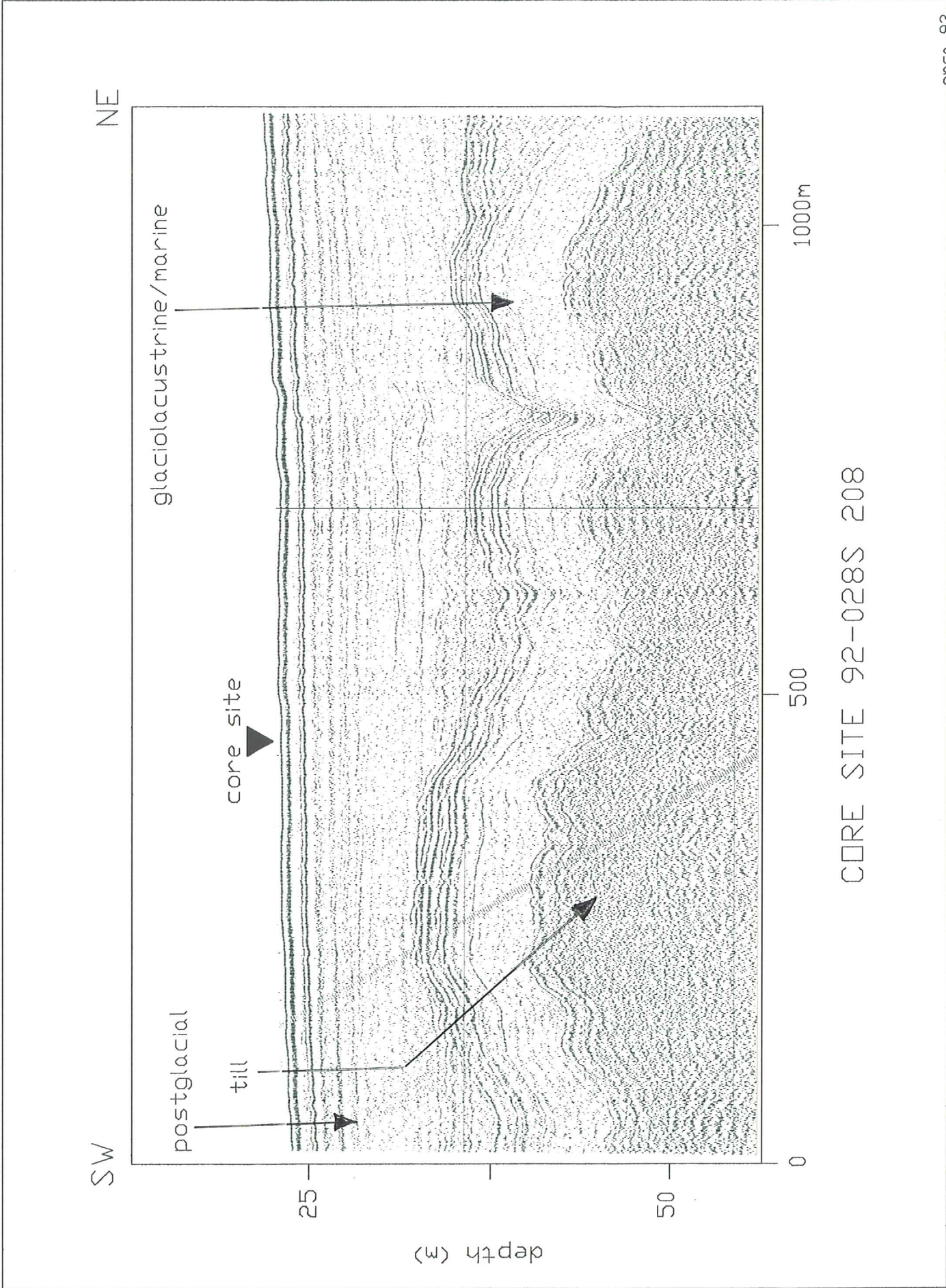
This core was collected at the northern end of central Manitounuk Sound (Figure 4). Total Quaternary sediment thickness is between 25 and 30 metres. Pondered postglacial sediments at the core site exceed 12 metres.

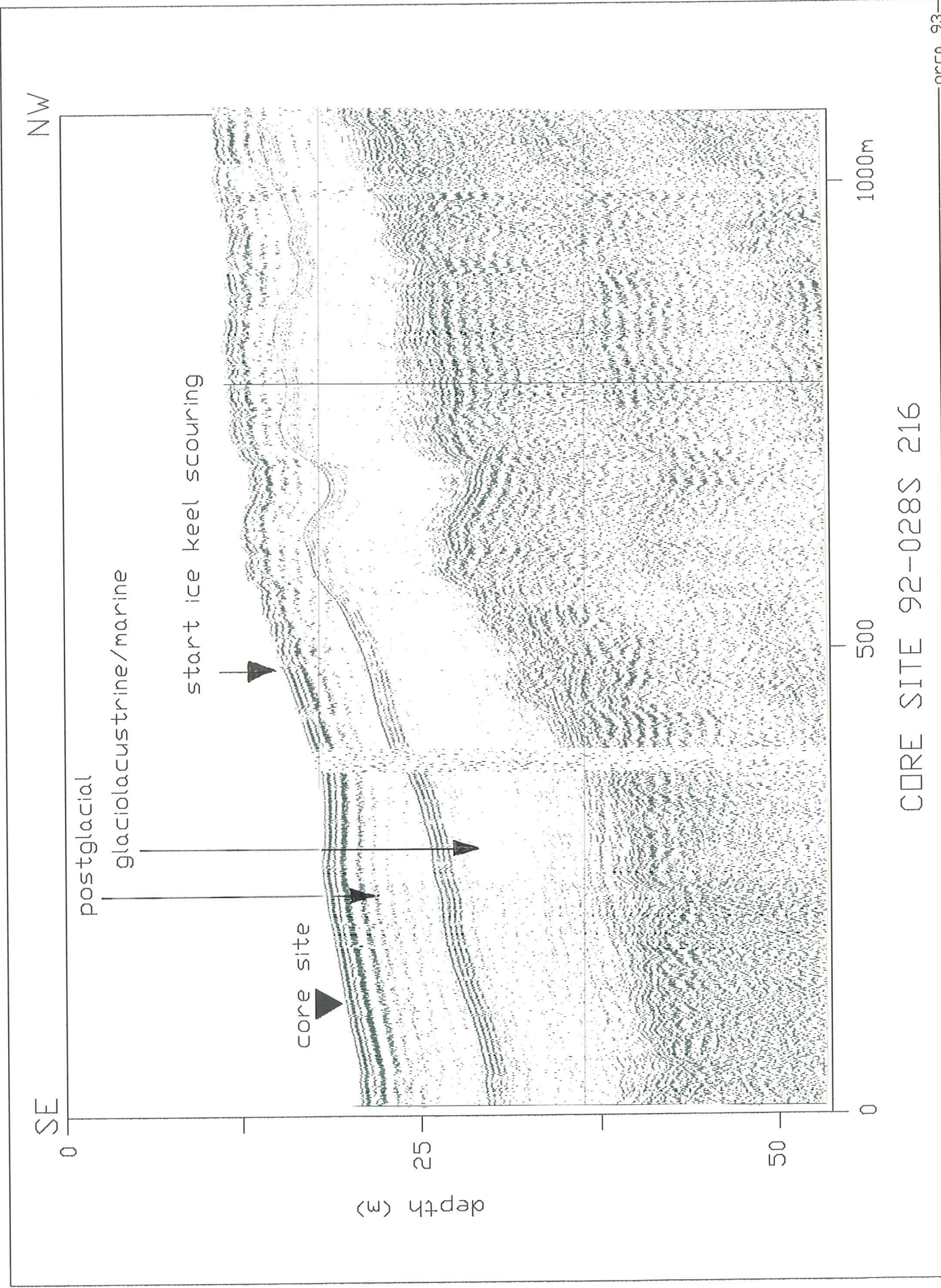
Huntec Sea-Otter boomer seismic section for core site 92-028S-216

This core site is located at the base of the cuesta cliff face of Merry Island, central Manitounuk Sound (Figure 4), in postglacial estuarine sediments. There are approximately 20 metres of Quaternary section, consisting of a discontinuous thin till/ice contact deposit draped by up to 12 metres glaciolacustrine/marine sediment and 8 metres of pondered postglacial estuarine sediments. Note disturbed seabed in less than 15m water depth, caused by icekeel scouring.

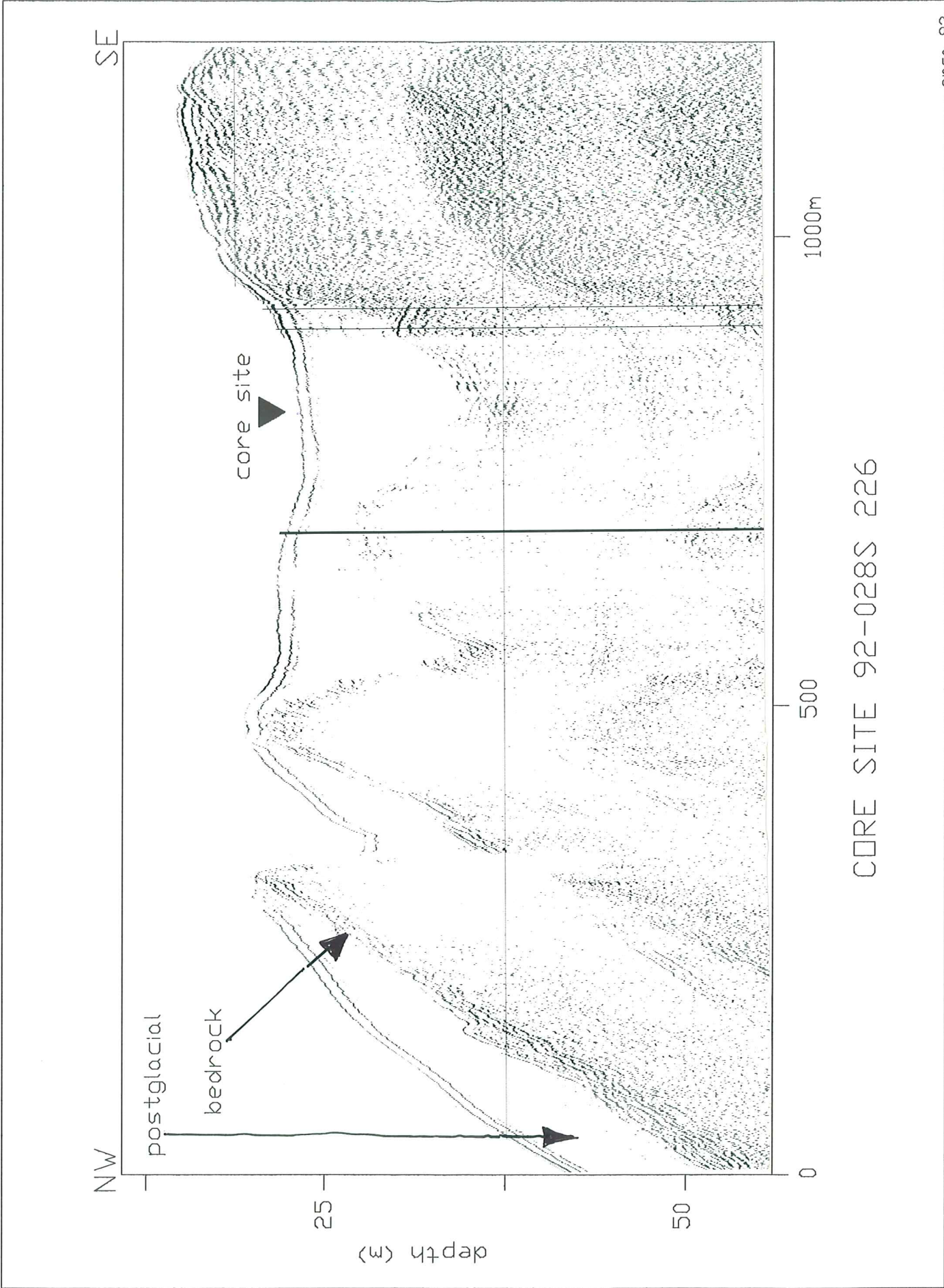
Huntec Sea-Otter boomer seismic section for core site 92-028S-226

This core was collected at the mouth of Manitounuk Sound (Figure 4) 1.5-2 kilometres off the mainland low-slope shore in postglacial sediments.


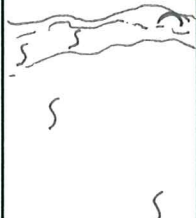
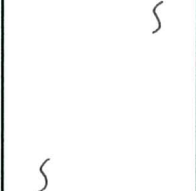

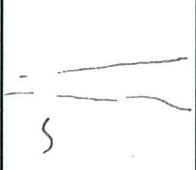










CORE SITE 92-028S 216



Cruise Number	Sample Number	Sample Type	Interval
92028S	210	Gravity	0 - 100 cm

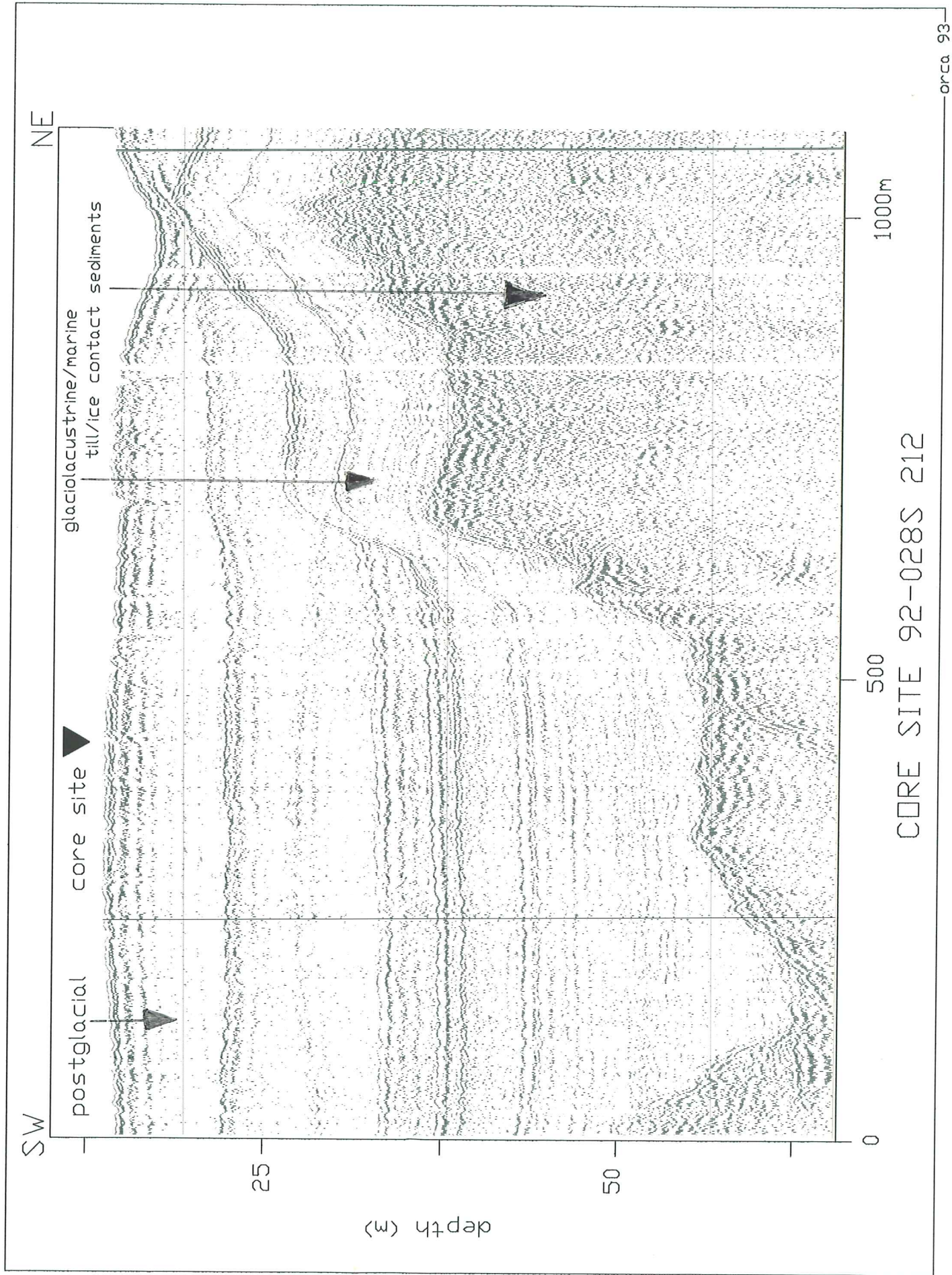
Depth (cm)	Visual Description	Munsell Colour	
0	stained clay sli. sandy as shown infilled burrows w/in 5Y4/1 homogeneous clay broken shell frag. 8 cm ↑ mottling at core surface 25%	10YR5/4 5Y4/1	
10	little or no transition zone below 11 cm ↓ mottling to 10% to 43 cm homogeneous bioturbated clay	5Y4/1 5Y5/1	
20			
30			
40	43 cm		
50	5Y5/1 clay sli. silty lense as shown	5Y5/1	
60	homogeneous clay little or no mottling to 84 cm	5Y4/2	
70			
80		5Y5/2	
90	clay aa w/little or no bioturbation to 117 cm	5Y5/1	

Cruise Number	Sample Number	Sample Type	Interval
92028S	210	Gravity	100 - 166 cm

Depth (cm)	Visual Description	Munsell Colour		
100	homogeneous clay aa	5Y5/1		
110				
120	trace fossil at 117 cm holdfast - photographed for I.D. 117-134 cm sli. ↑ mottling			
130	shell frag. at 125 cm			
140				
150	shell frag. at 149	5Y5/1		
160	shell frag. at 163 cm Total Depth 166 cm			
170				
180				
190				

Huntec Sea-Otter boomer seismic section for core site 92-028S-212

This core site is located just 1.5-2 kilometres seaward of riviere Kuugapik in central Manitounuk Sound in the vicinity of the proposed outfall site (Figure 4). Quaternary sediment thickness in this area locally exceeds 50 metres. The seismic section represents a good example of the problems encountered with mapping the extent and thickness of glaciolacustrine/marine sediments in the area. A strong reflector at 37.5 metres below the sea surface towards the southwest edge of the profile grades into and is associated with the draped character reflectors representing glaciolacustrine/marine sediments towards the northeast. The draped character cannot be traced into the deeper isolated basin (below 42 metres) and resembles a more ponded depositional style. Core was collected in postglacial estuarine sediments exceeding 23 metres thickness, seabed locally disturbed by icekeel scouring.



Cruise Number	Sample Number	Sample Type	Interval
92028S	212	Gravity	0 - 100 cm

Depth (cm)	Visual Description	Munsell Colour	
0	.5 cm surficial veneer compacted worm tube; underlain by 5Y5/2 silty clay 2/reworked surficial veneer; 3.5 cm 5Y2.5/1 clay w/reworked 5Y5/2 silty clay from bioturbation; erratic at 10 cm <10% mottled clay	2.5Y4/2 5Y5/2	
10	large infilled burrow at 17 cm w/halo in 5Y5/2 clay matrix	5Y5/2	
20	shell frag at 20 cm clay aa mottled 20% core face	5Y3/1	
30	grit at 30 cm clay w/10% grit below 35-40 cm; mottled 20%		
40	shell (archive) bottom of liner mottled 25% core face clay aa		
50			
60	infilled burrow at 65 cm 5Y5/2 clay lense as noted 65-70 cm		
70	sli. silty <10% clay, gray mottled 5Y2.5/1 20% core face	5Y4/2	
80	shell (2 cm) - x-radiograph - archive		
90	↓ mottling 90-114 cm 15% core face		

Cruise Number	Sample Number	Sample Type	Interval
92028S	212	Gravity	100 - 145 cm

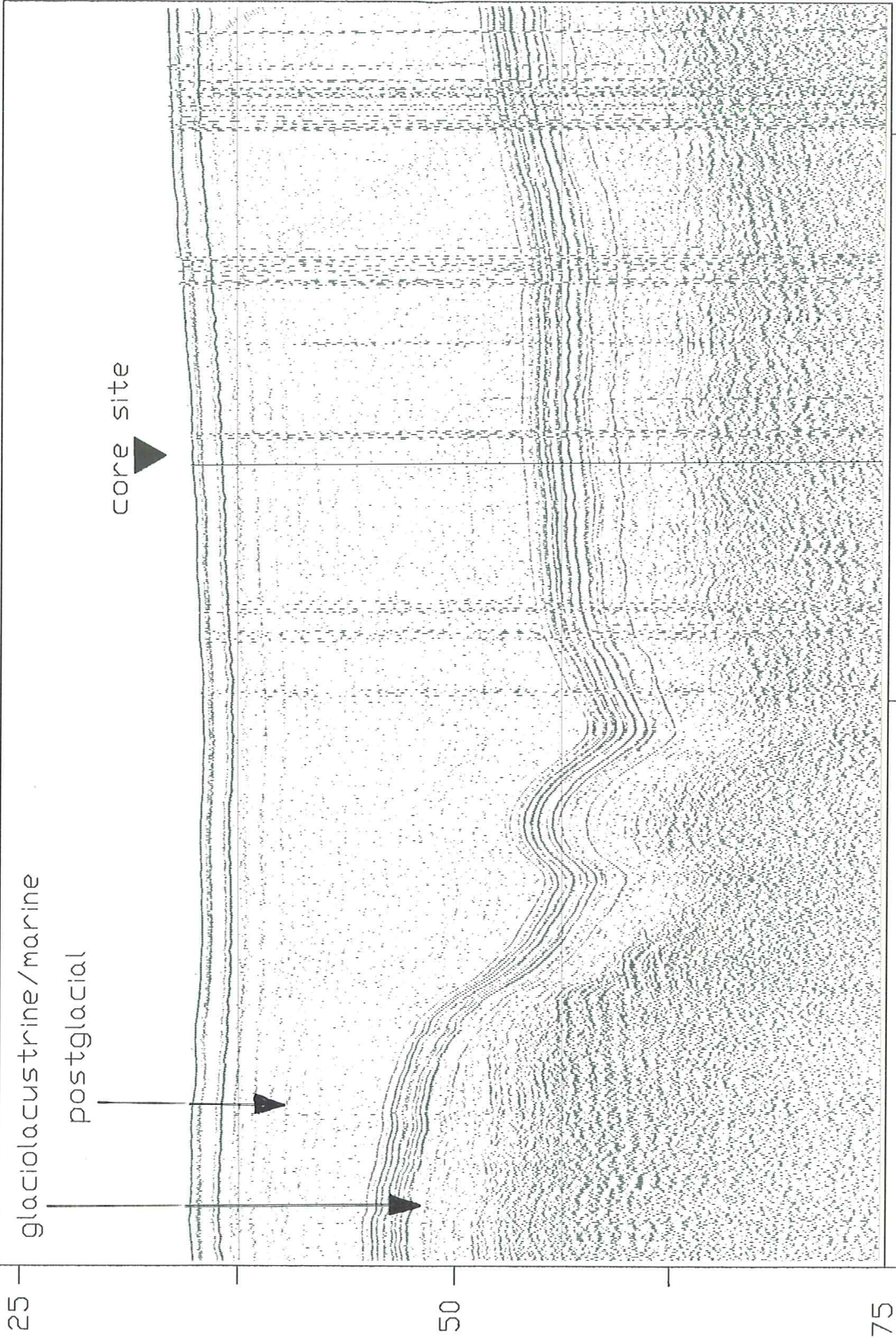
Depth (cm)	Visual Description	Munsell Colour	
100	shell 105 cm? clay aa; mottled 15% core face mottling 5Y2.5/1	5Y4/2	}
110			
120	shell (<.5 cm) - x-ray archive burrow x at 120 cm		}
130			
140	Total Depth 145 cm		}
150			
160			
170			
180			
190			

Huntec Sea-Otter boomer seismic section for core site 92-028S-218

This core was collected in the centre of central Manitounuk Sound midway between Schooner opening and Paint Islands (Figure 4). Quaternary sediments range in thickness from 20 to 32 metres, postglacial sediments at the core site are nearly 20 metres thick. Note well-stratified draped character of the glaciolacustrine/marine sediments mimicking the bedrock surface overlain by ponded basinfill postglacial sediments.

SW

NE



25

50

75

depth (m)

glaciolacustrine/marine

postglacial

core site

1000m

500

CORE SITE 92-028S 218

Unprocessed cores collected by the RV Septentrion offshore Schooner Opening during cruise 92-028S

Huntec Sea-Otter boomer seismic section for core site 92-028S-241

This core was collected in postglacial sediments in an offshore basin just seaward of the Manitounuk Islands towards the southern end of Merry Island (Figure 4).

Huntec Sea-Otter boomer seismic section for core site 92-028S-243

This core was collected in a trough just seaward of central Merry Island (Figure 4). Increased vertical exaggeration was due to paper speed problems in the recorder. Disturbed surface morphology displayed by sediments at the base of the trough are frequently associated with slump deposits.

Huntec Sea-Otter boomer seismic sections for core site 92-028S-245

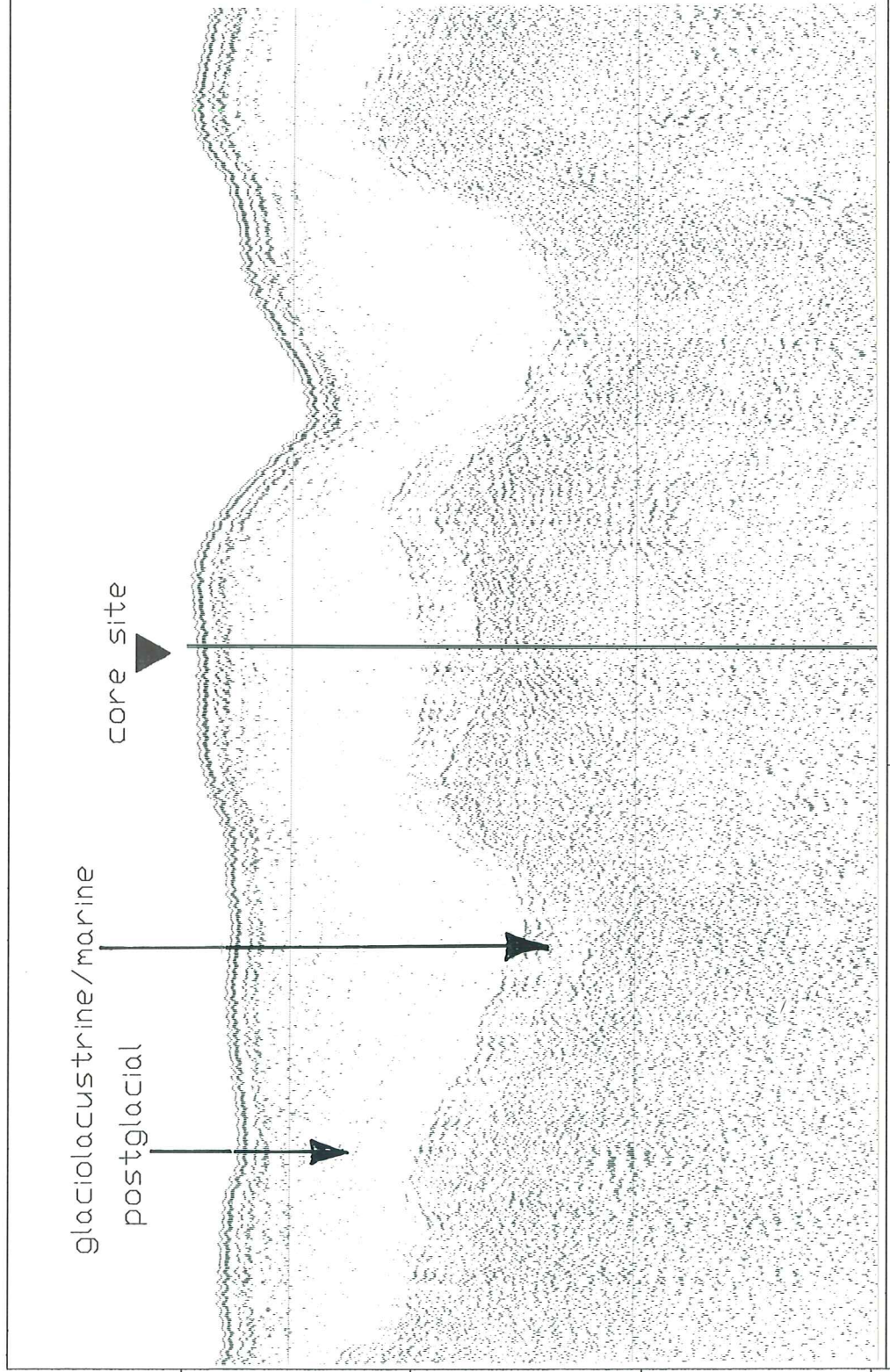
This core was collected in an area of extensive sediment failure/slump deposits 1.5 kilometres west of Merry Island and 6 kilometres southwest of Schooner Opening (Figure 4). Both a trough longitudinal and cross-sectional seismic section are shown. Profiles indicate that the core was collected in transparent, unstratified postglacial sediments. Vertical exaggeration approximately 12x. Northeast-southwest profile shows possible sediment failure scarp and debris flow channel.

Huntec Sea-Otter boomer seismic section for core site 92-028S-247

This core was collected in postglacial sediments which overlie a till ridge approximately 3 kilometres southwest of Schooner Opening (Figure 4).

SW

NE



glaciolacustrine/marine
postglacial

core site

50

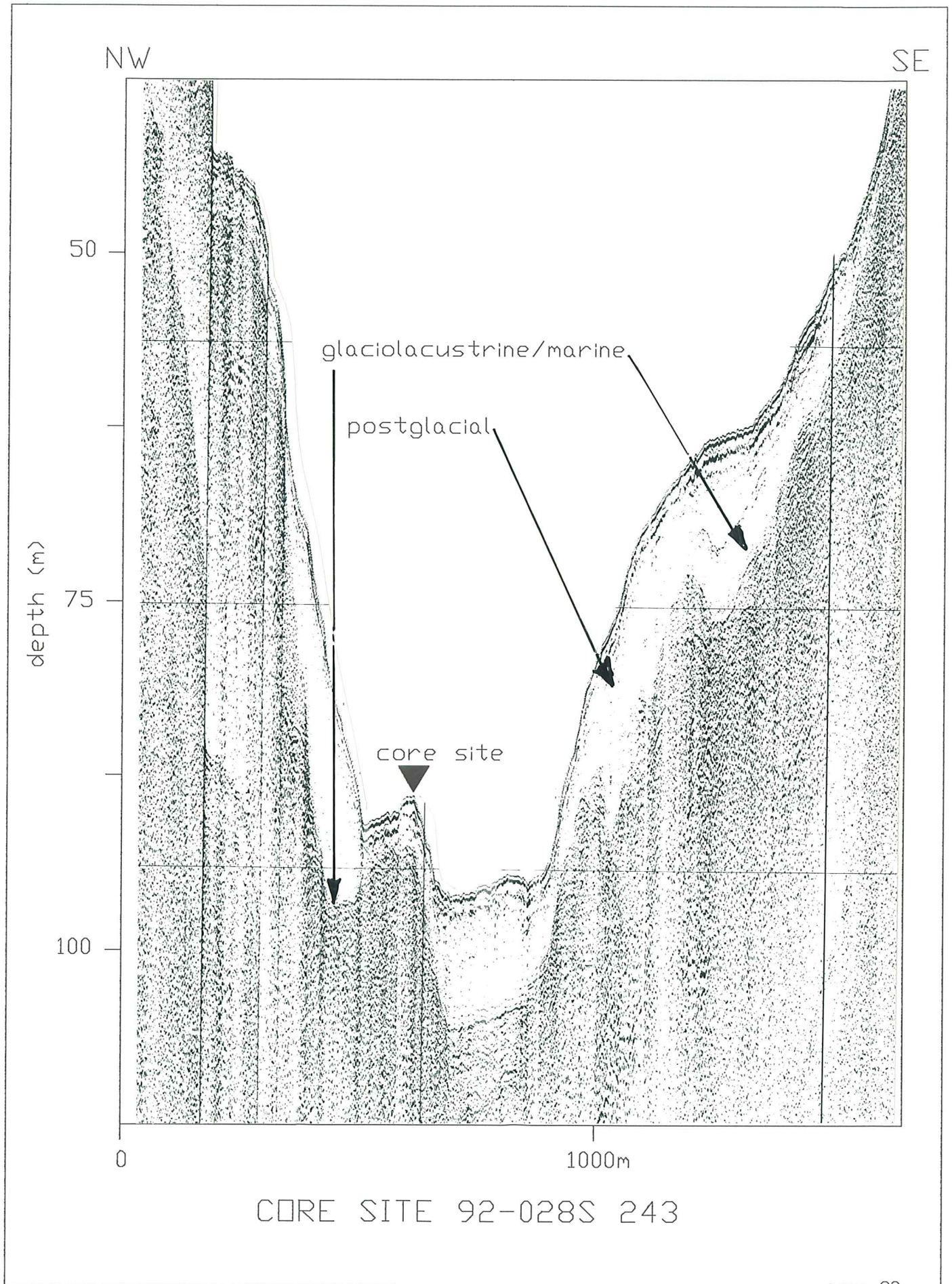
75

0

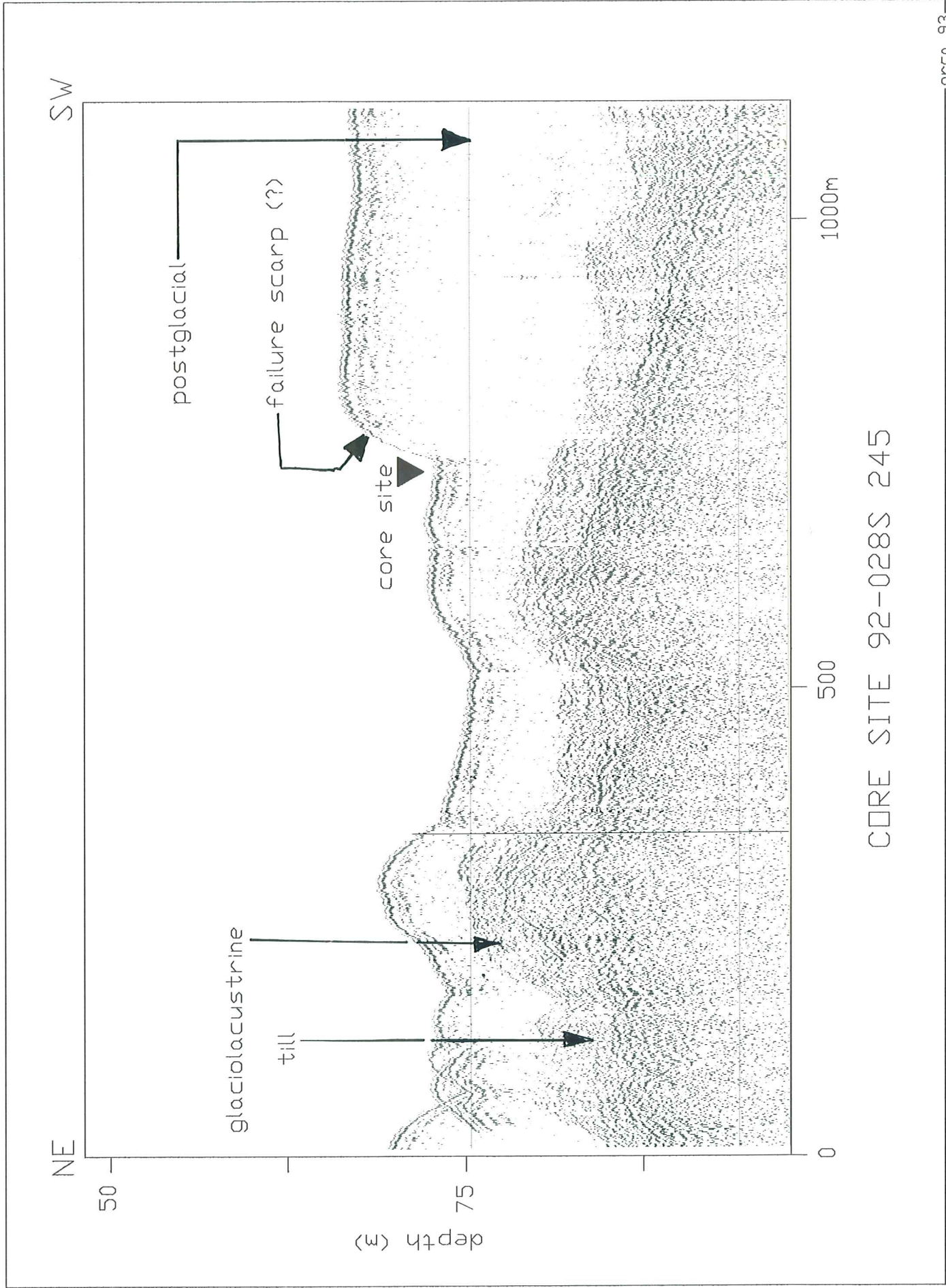
500

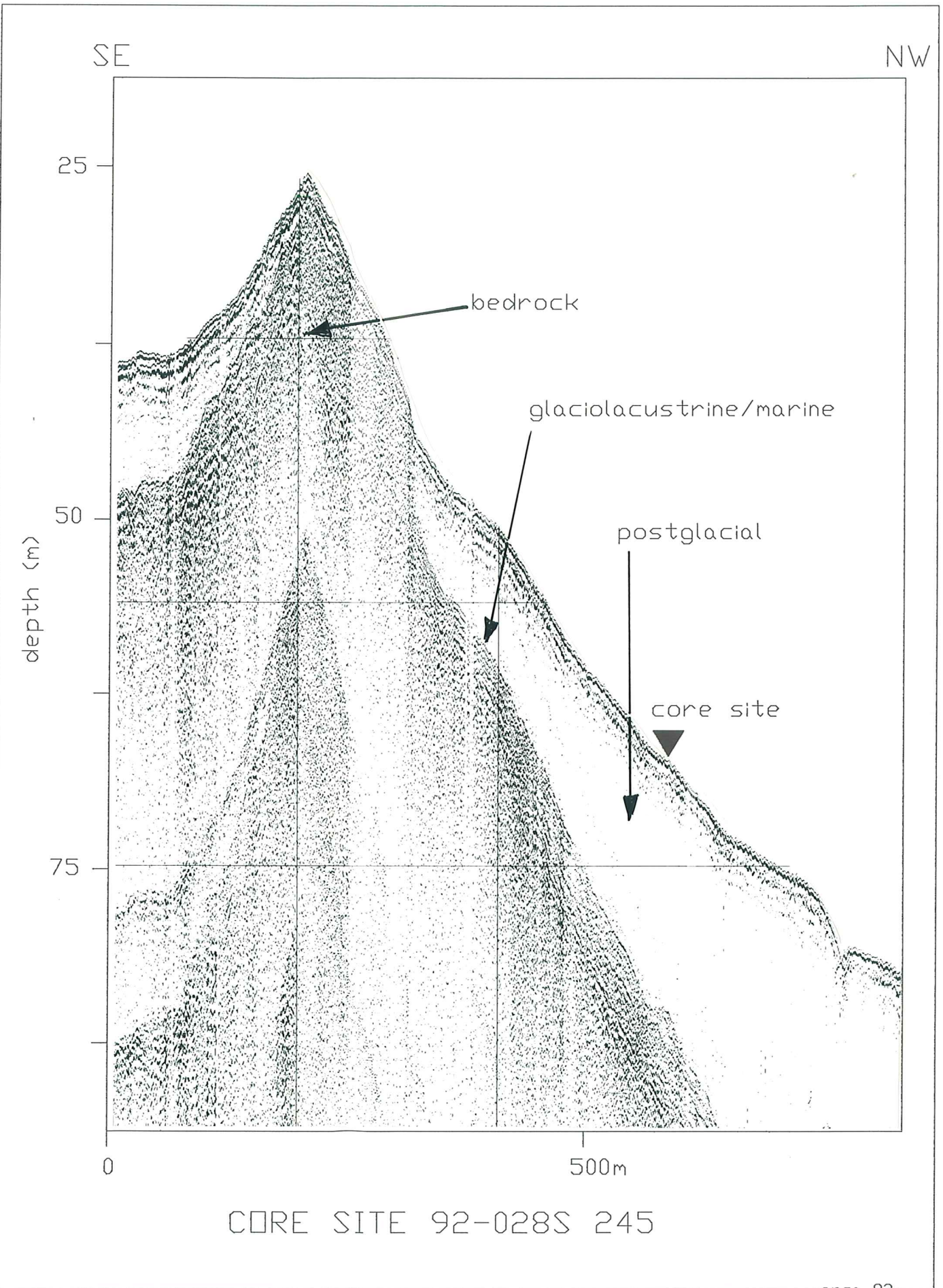
1000m

CORE SITE 92-028S 241



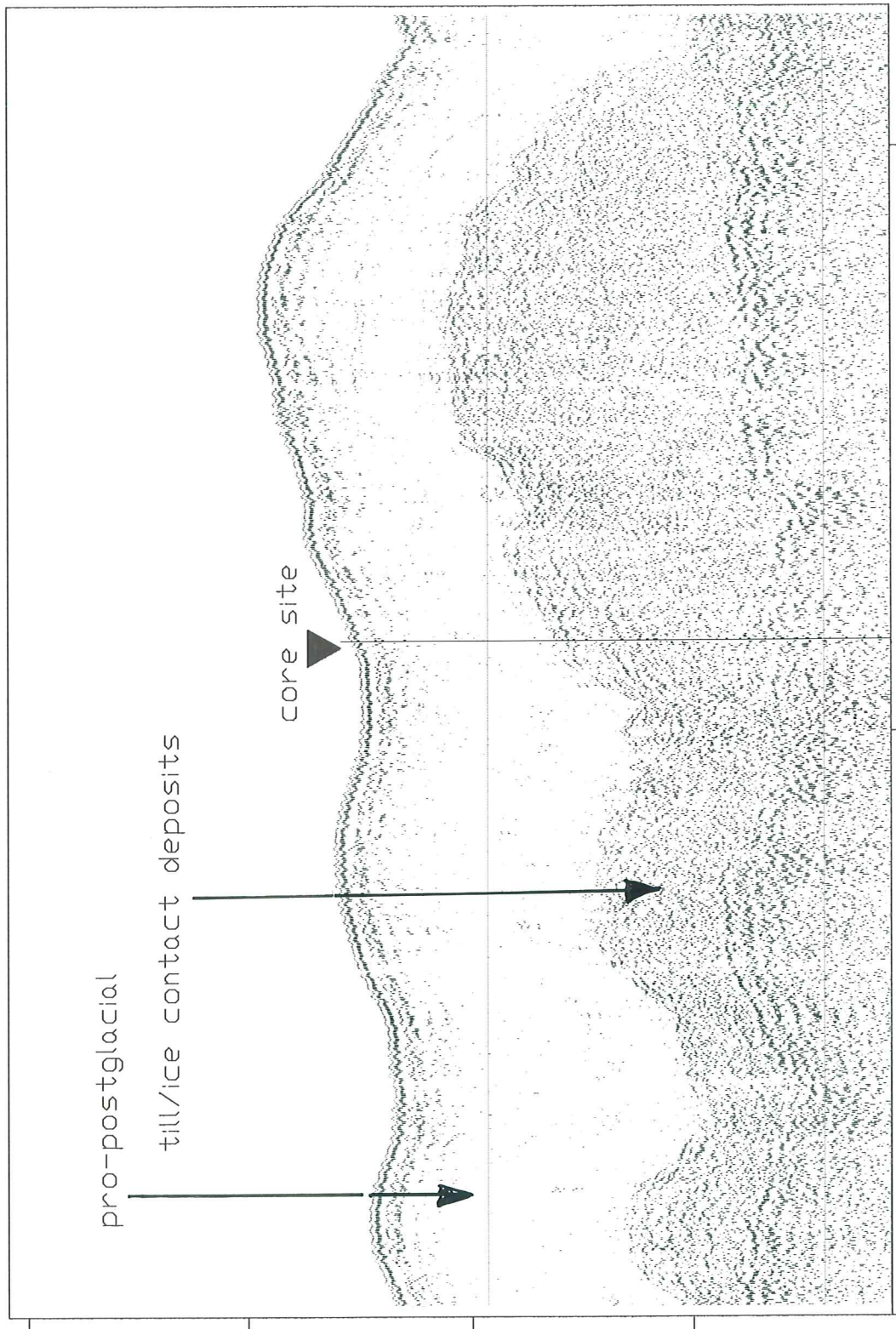
CORE SITE 92-028S 243





SW

NE



1000m

500

0

pro-postglacial

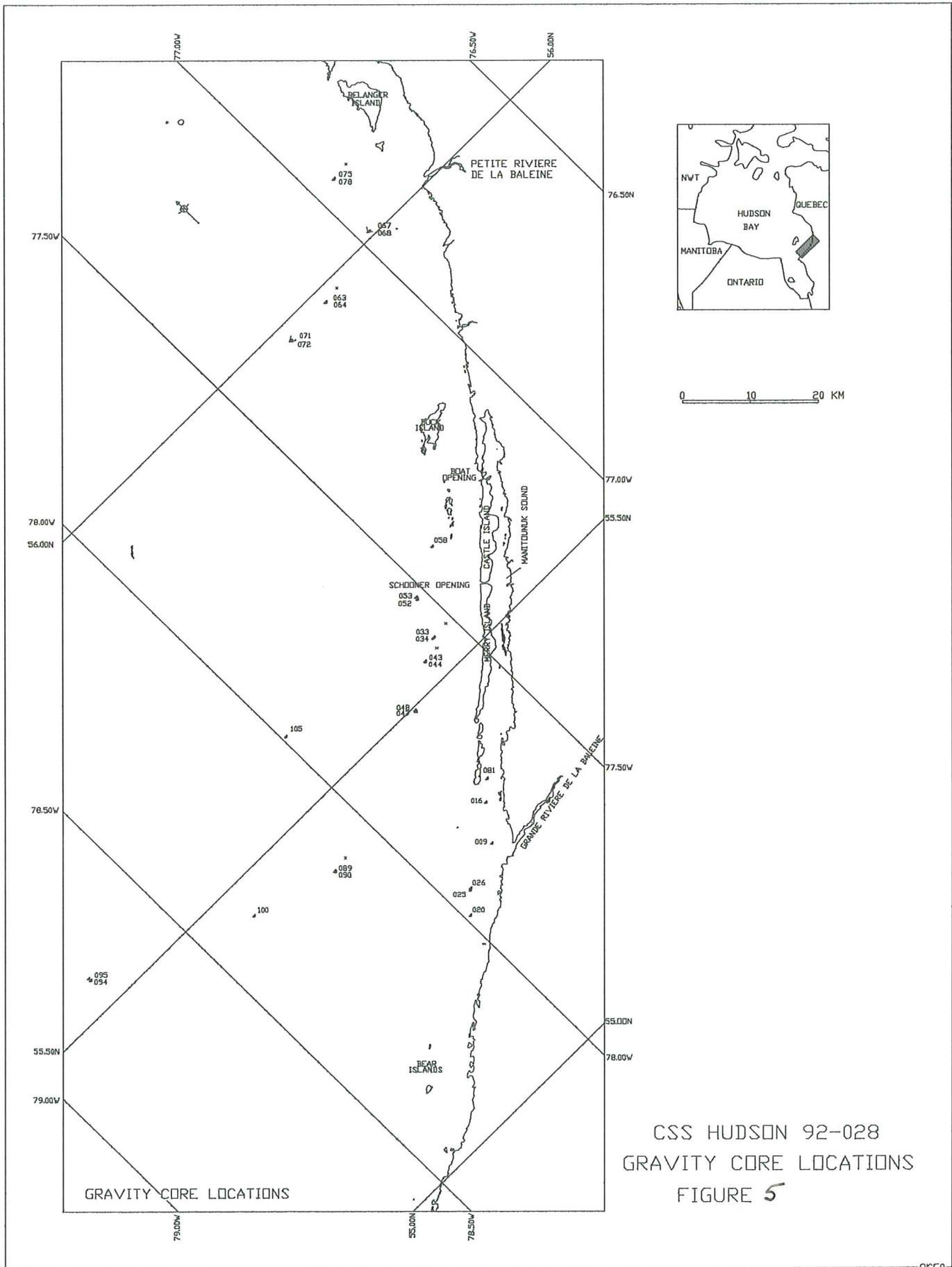
till/ice contact deposits

core site

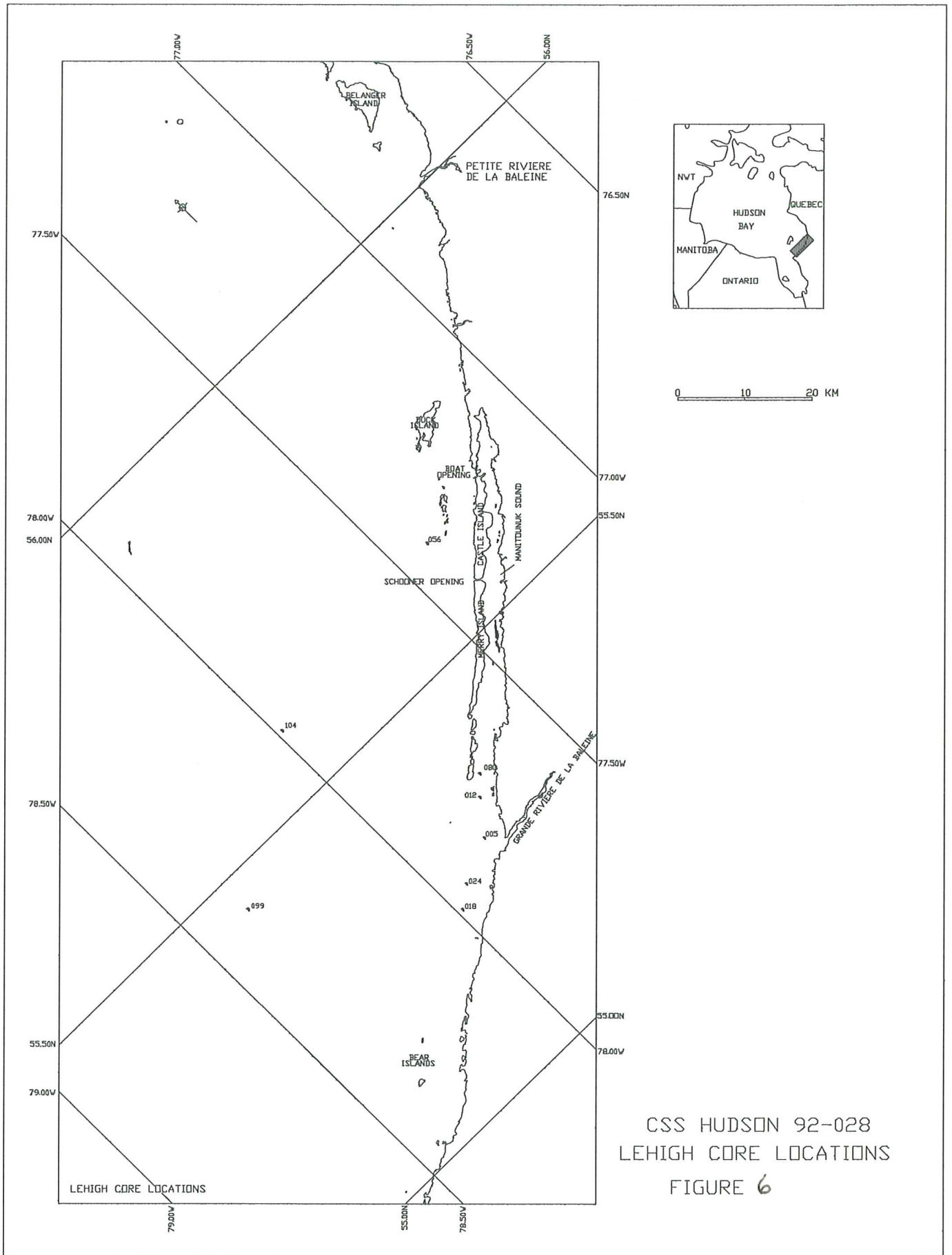
CORE SITE 92-028S 247

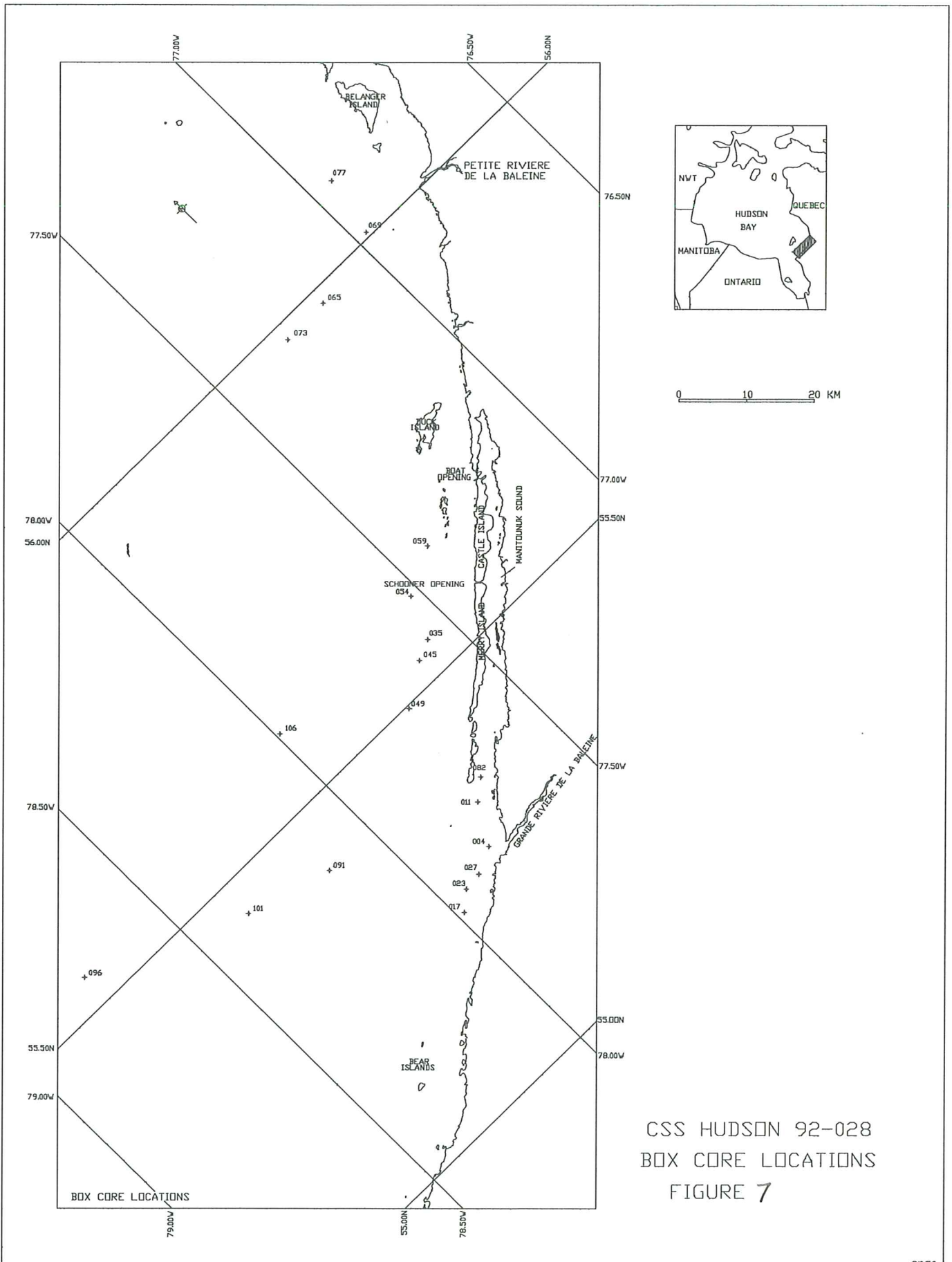
Cores and bottom photographs collected during CSS Hudson cruise 92-028H in the southeastern Hudson Bay region (Figure 5, 6, 7 and 8)

All cores split, described and subsampled to August 1993 are presented in this section (Figures 5, 6 and 7). Representative bottom photographs are also included. A total of 27 camera stations are presented herein. The various locations of these stations are shown in Figure 8. Most stations correspond to locations of the gravity core sites. More than one image is noted in parenthesis in the appendices. Ten photos have no corresponding station core sites, but are included as they depict the highly bioturbated fine grained sediment punctuated by large isolated boulders and cobbles colonized with *Lithothamnia*. Little macrofauna were photographed although worm tubes were common.

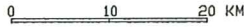
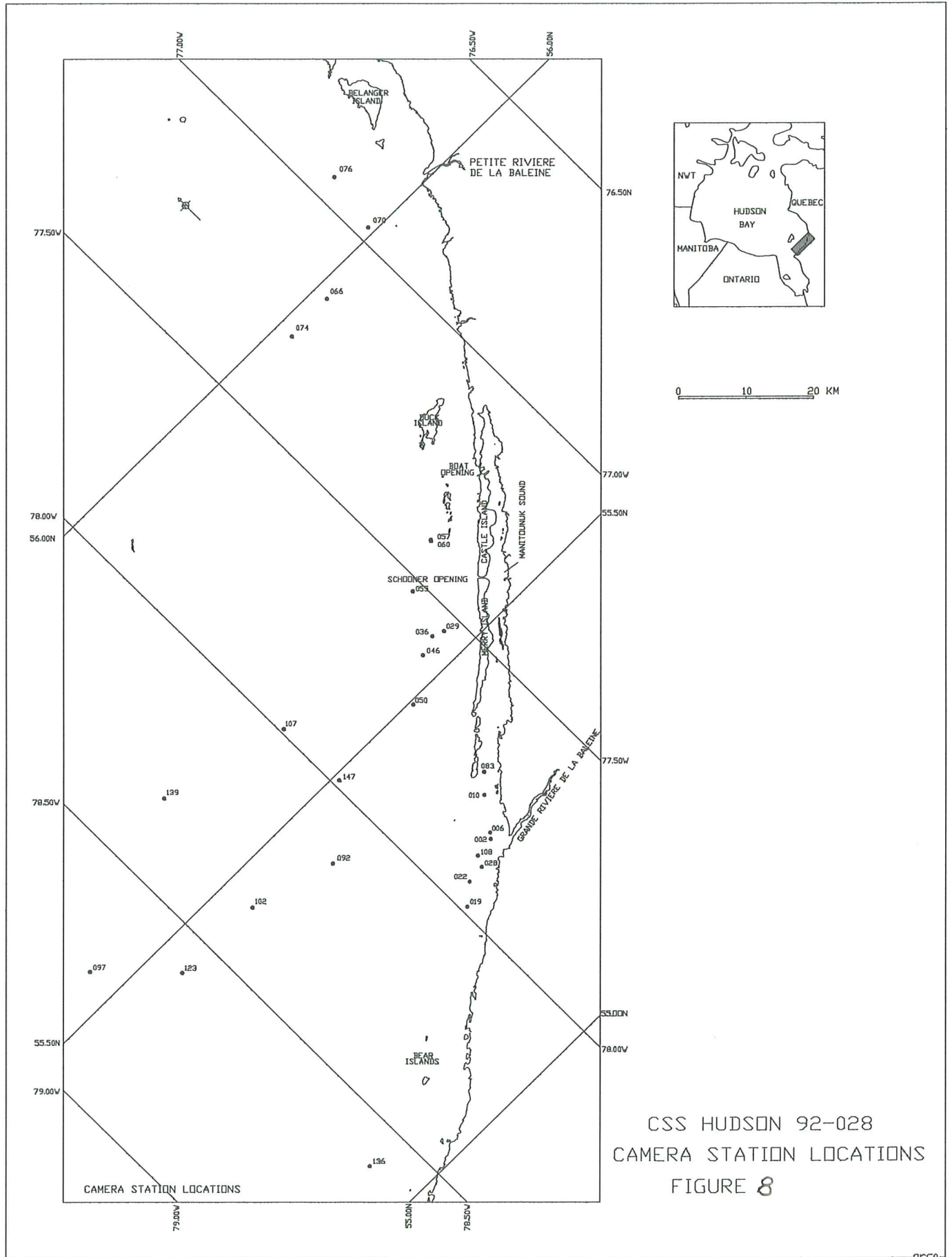


CSS HUDSON 92-028
 GRAVITY CORE LOCATIONS
 FIGURE 5





CSS HUDSON 92-028
 BOX CORE LOCATIONS
 FIGURE 7



CSS HUDSON 92-028
 CAMERA STATION LOCATIONS
 FIGURE 8

Cores collected in the vicinity of the Grande Riviere de la Baleine estuary (Figure 5)

Cores 92-028H-004/005/009/017/023/025/027/081/082/090/091

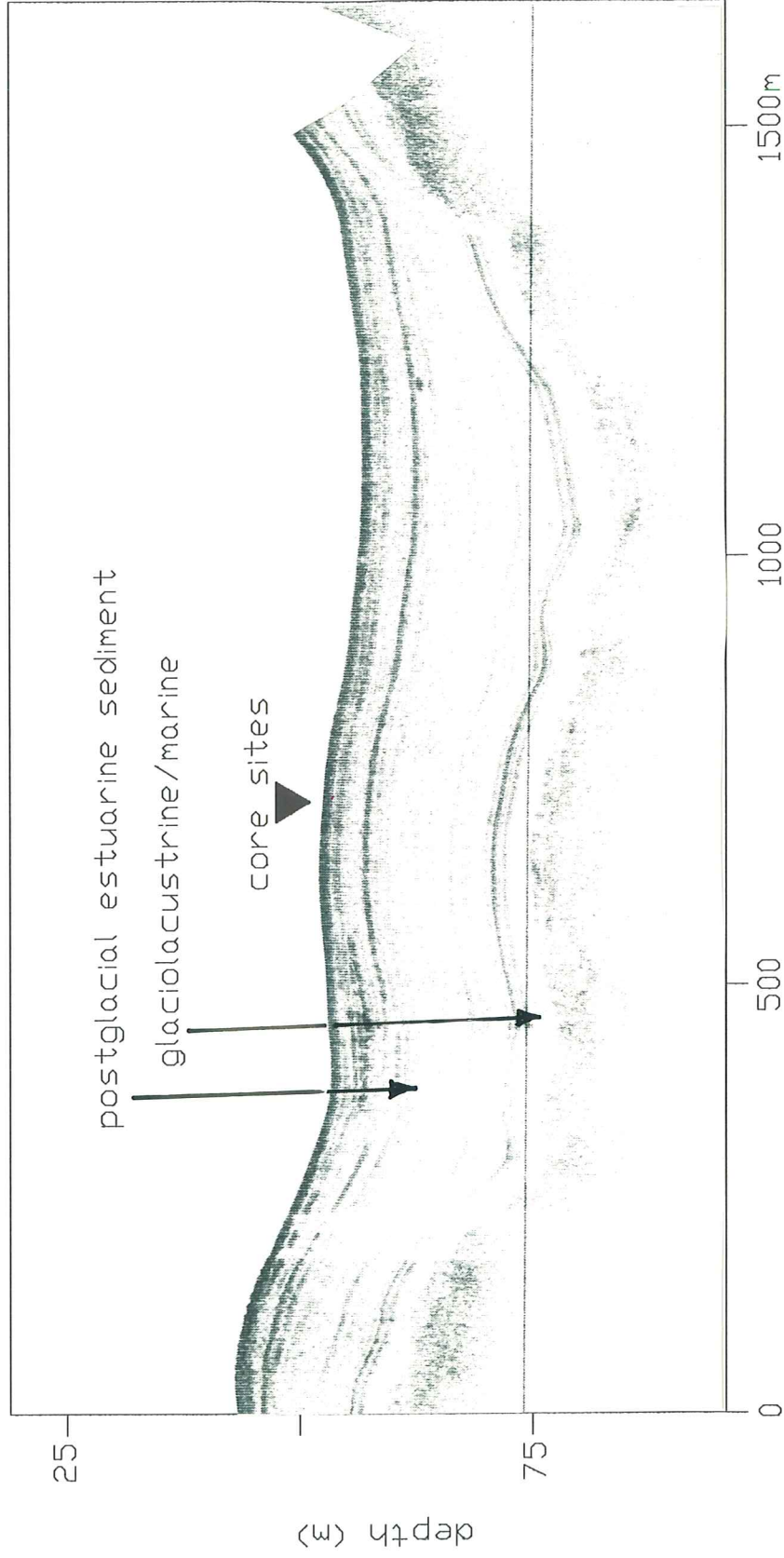
Sediments at these localities consisted of gray silty clay with active worm burrowing underlain by postglacial olive gray bioturbated clays with occasional shells, pebbles, relict borrows and stringers of very fine sand below 1m downcore. At sites 017 to 081 a thin surficial yellowish brown veneer was present over the gray silty clay unit, active borrowing has often incorporated some of this veneer into this underlying unit. Relict trace fossils are more prevalent in lower bioturbated postglacial clays of cores 023, 027 and 081. Below 3.0m in core 081 a rhythmically banded sequence consisting of alternating pulses of silty gray clays and couplets of brown clays is encountered. Laminated silty clay with thin fine silt horizons was encountered below 3.4m grade upwards into the overlying faulted rhythmites as found in core 048 at 4.0m at southern Schooner Opening.

3.5 kHz subbottom profiler and Hunttec Sea-Otter boomer seismic sections for cores sites 92-028H-004-9

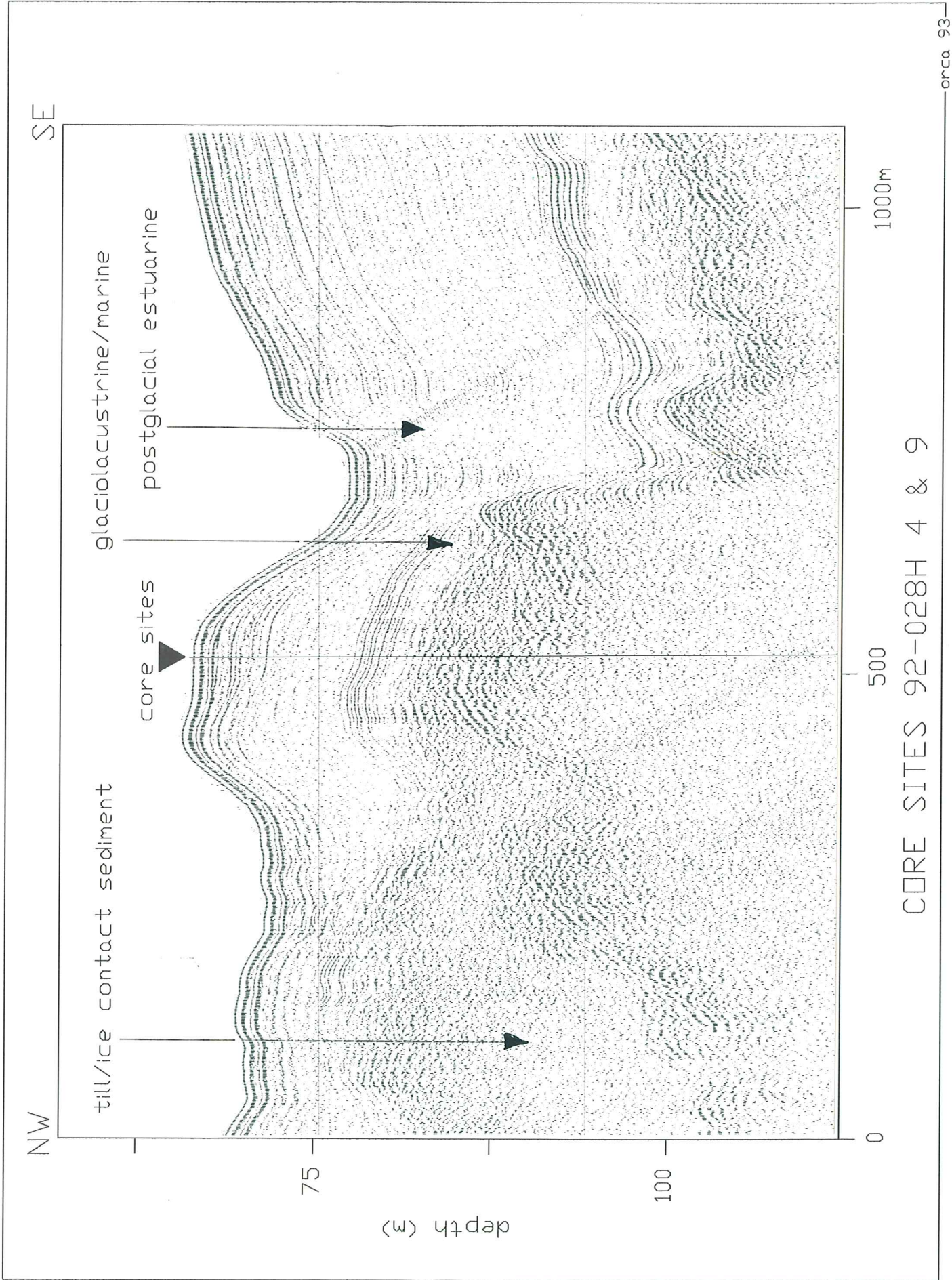
This core was collected 2.5-3 kilometres northwest of the mouth of the Grande riviere de la Baleine (Figure 5). Both a longitudinal (3.5 kHz) and cross-sectional (Sea-Otter boomer) seismic profile are presented for this core site. On the longitudinal (southwest-northeast) profile note the increasing complexity in the upper 5 metres of section: For example, the small ponded basin within the overall regional ponded postglacial sediments. The postglacial sediment thickness ranges from 6 to 30 metres.

NE

SW



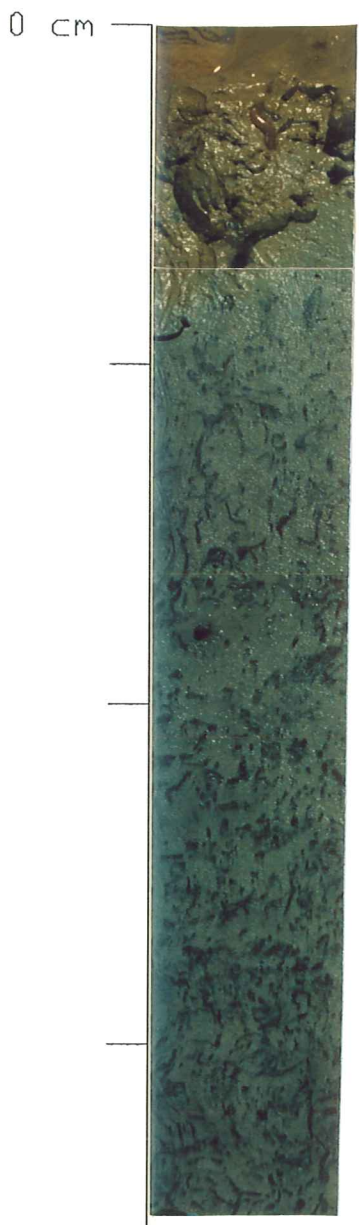
CORE SITES 92-028H 4 & 9





Camera station 92-028H-006
Water depth 43m

Core 92-028H-004
Interval 0-40 cm



50 cm

Cruise Number	Sample Number	Sample Type	Interval
92028H	004	Boxcore B	0 - 40 cm

Depth (cm)	Visual Description	Munsell Colour	
0	olive gray silty clay (<10%) with active burrowers (blood worms)	5Y5/3	
10	transition to underlying bioturbated clay unit @ 5 cm, <1% silt open burrows within 2 cm zone of mixing 5-7 cm	5Y4/2	S
20			S
30			S
40	Total Depth		
50			
60			
70			
80			
90			

Core 92-028H-005
Interval 0-100 cm




Core 92-028H-005
Interval 100-126 cm

100 cm




150 cm

Cruise Number	Sample Number	Sample Type	Interval
92028H	005	Lehigh	0 - 100 cm

Depth (cm)	Visual Description	Munsell Colour	
0	.5 cm SLI silty clay veneer 5Y4/2 soupy clay to 10 cm	2.5Y4/2 5Y4/2	
10	10 cm ↑ mottling clay to 20% core face; cohesive	5Y4/2	}
20			}
30			}
40			
50	48-64 cm ↑ mottling 50-52 cm large worm burrow with oxidized halo 30% core face mottled		
60	clay mottled, homogeneous, cohesive	5Y5/2	}
70	blk mottling 2.5Y3/1		}
80			}
90	88 cm ↓ mottling to 20% core face		}
	shell frag. at 97 cm		}

Cruise Number	Sample Number	Sample Type	Interval
92028H	005	Lehigh	100 - 126 cm

Depth (cm)	Visual Description	Munsell Colour	
100			S
110	108 - 111 cm large infilled worm burrows	5Y5/2	
120	115 cm ↑ mottling to 25% core face		S
122	Small volcanit clasts at 122 cm; mottled clay aa		△
130			△
140			
150			
160			
170			
180			
190			

Core 92-028H-009

Interval 0-100 cm

0 cm



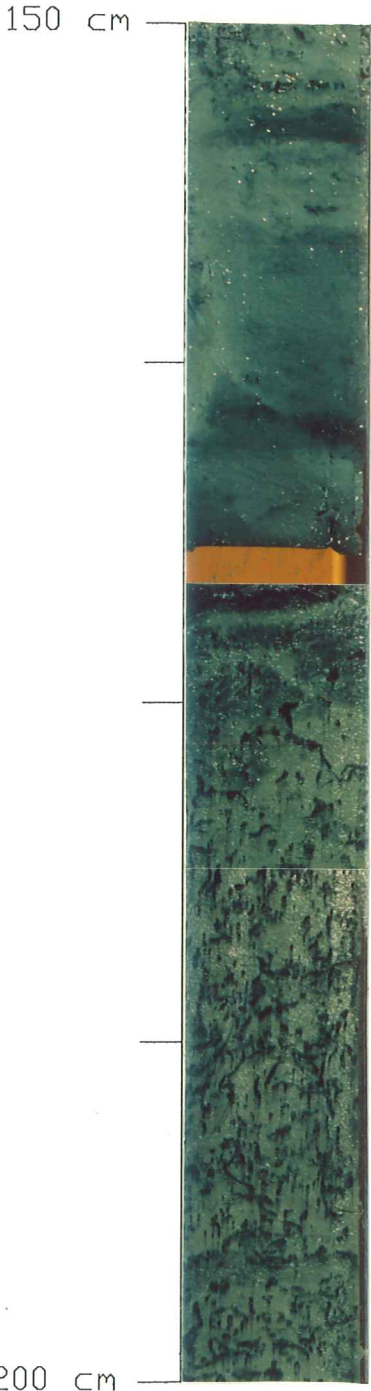
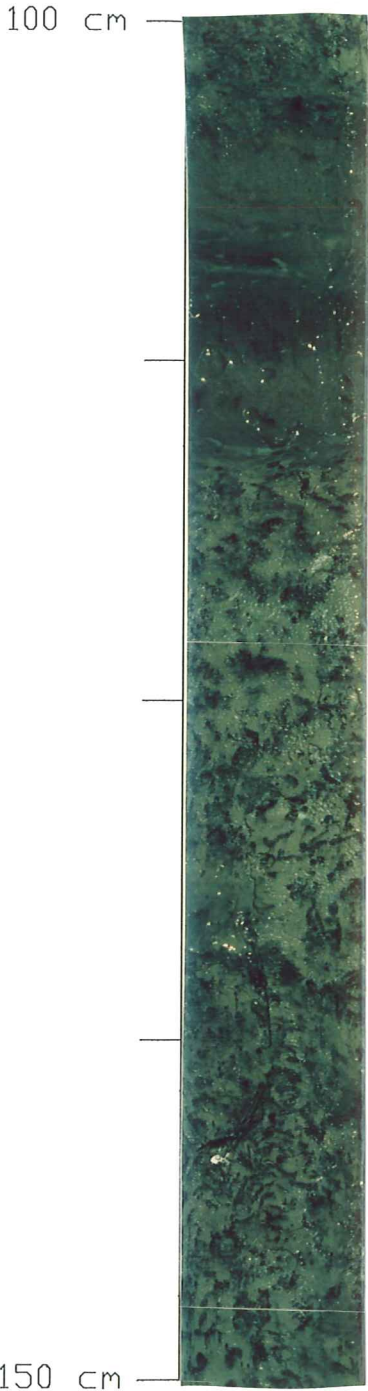
50 cm

50 cm

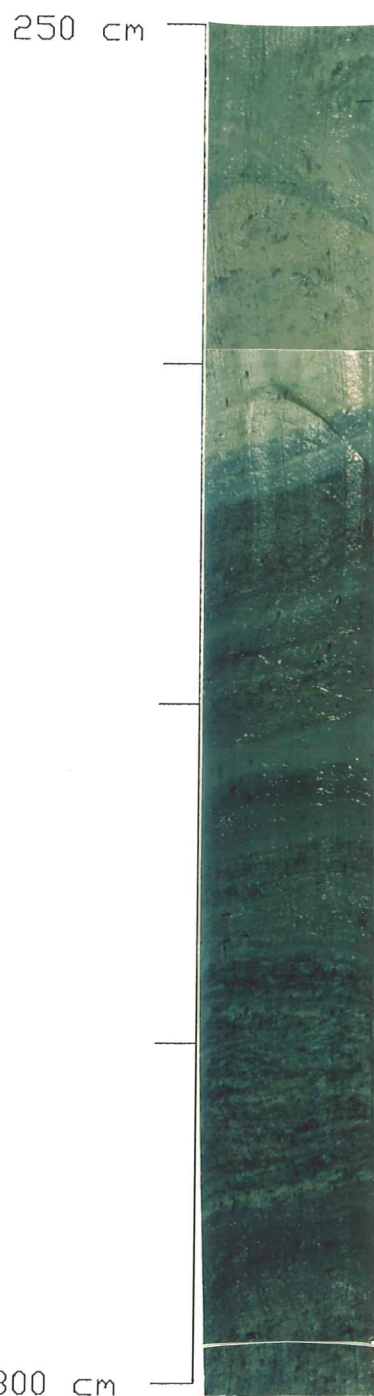
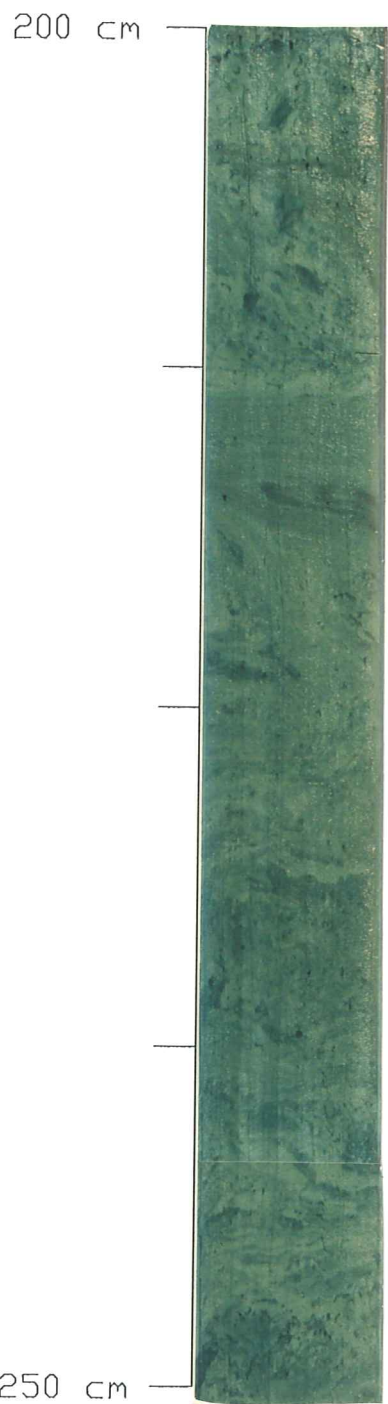


100 cm

Core 92-028H-009
Interval 100-200



Core 92-028H-009
Interval 200-300



Core 92-028H-009
Interval 300-322 cm

300 cm



350 cm









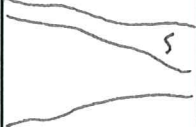

Cruise Number	Sample Number	Sample Type	Interval
92028H	009	Gravity	0 - 100 cm

Depth (cm)	Visual Description	Munsell Colour	
0	stretched olive gray 5Y4/2 - 5 cm sli. biot.	5Y5/2	S
	below 5 cm heavily bioturbated 30-40%	5Y4/2	S
10	surficial veneer above 5 cm sli. colour change	5Y4/2	S
20			S
30			S
40			S
50			S
60			S
70			S
80			S
90			S

Cruise Number	Sample Number	Sample Type	Interval
92028H	009	Gravity	100 - 200 cm

Depth (cm)	Visual Description	Munsell Colour	
100	abrupt contact at 105 cm v.f. SD to 108 cm gradational contact 108 w/silty clay	5Y4/1	
110	v.f. SD at 112 cm to 115 cm 115-116 cm f. clay lense.	SD 5Y5/2	
120	heavily bioturbated clayey silt w/occasional shell frag.		
130			
140			
150	152 cm gradational contact clayey silt aa heavily bioturb.	5Y5/2	
160			
170	blk band of silt 168-170 dk blk band	543/2	
180	170-199 cm highly bioturb. silty clay aa 5Y5/2	5Y5/2	
190			
	199 cm gradational contact		

Cruise Number	Sample Number	Sample Type	Interval
92028H	009	Gravity	200 - 300 cm

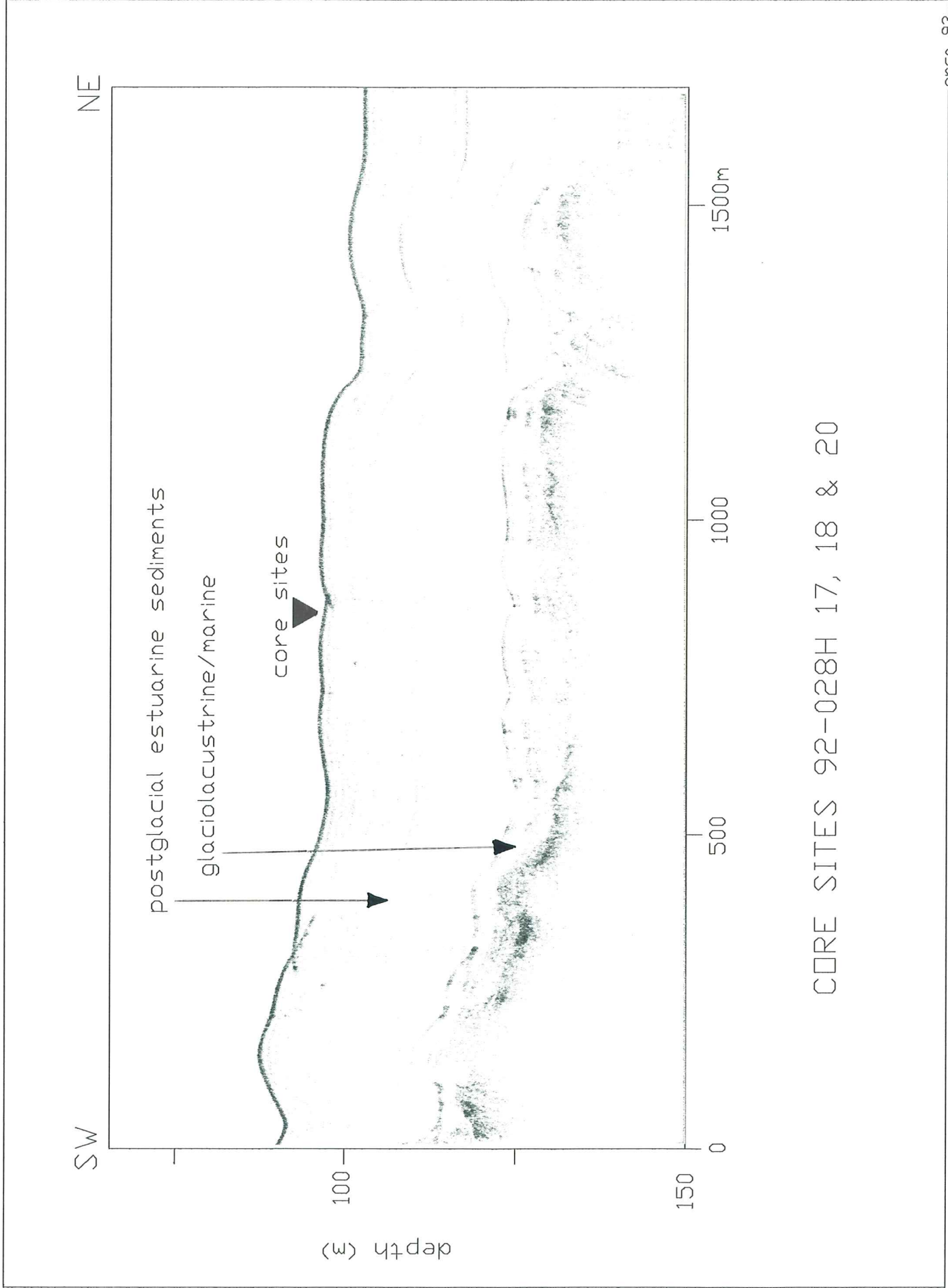
Depth (cm)	Visual Description	Munsell Colour	
200	clay w/relict bioturb.	5Y6/1	
210	clay aa w/flow-in structure b&w 211-212 cm occasional granules	5Y5/1	
220	clay aa w/relict burrowing		
230			
240	possible flow-in structure b&w	5Y5/1	
250			
260	abrupt contact at 263 cm at 260 carbonate clast angular clay band 2.5741. 264-272 ↑ silt content colour change	5Y4/1	
270	some pull down noted on sides below 270 cm alternating 271 cm distinct 1 mm clay lense 5Y6/2		
280	280-290 cm reworked heavily biot. clay aa	5Y4/1	
290	543/1 silty clay lense 290-292 cm heavily bioturbated unit aa at 180-199 cm but more reworked some shell frag at 318	543/1 5Y5/2	

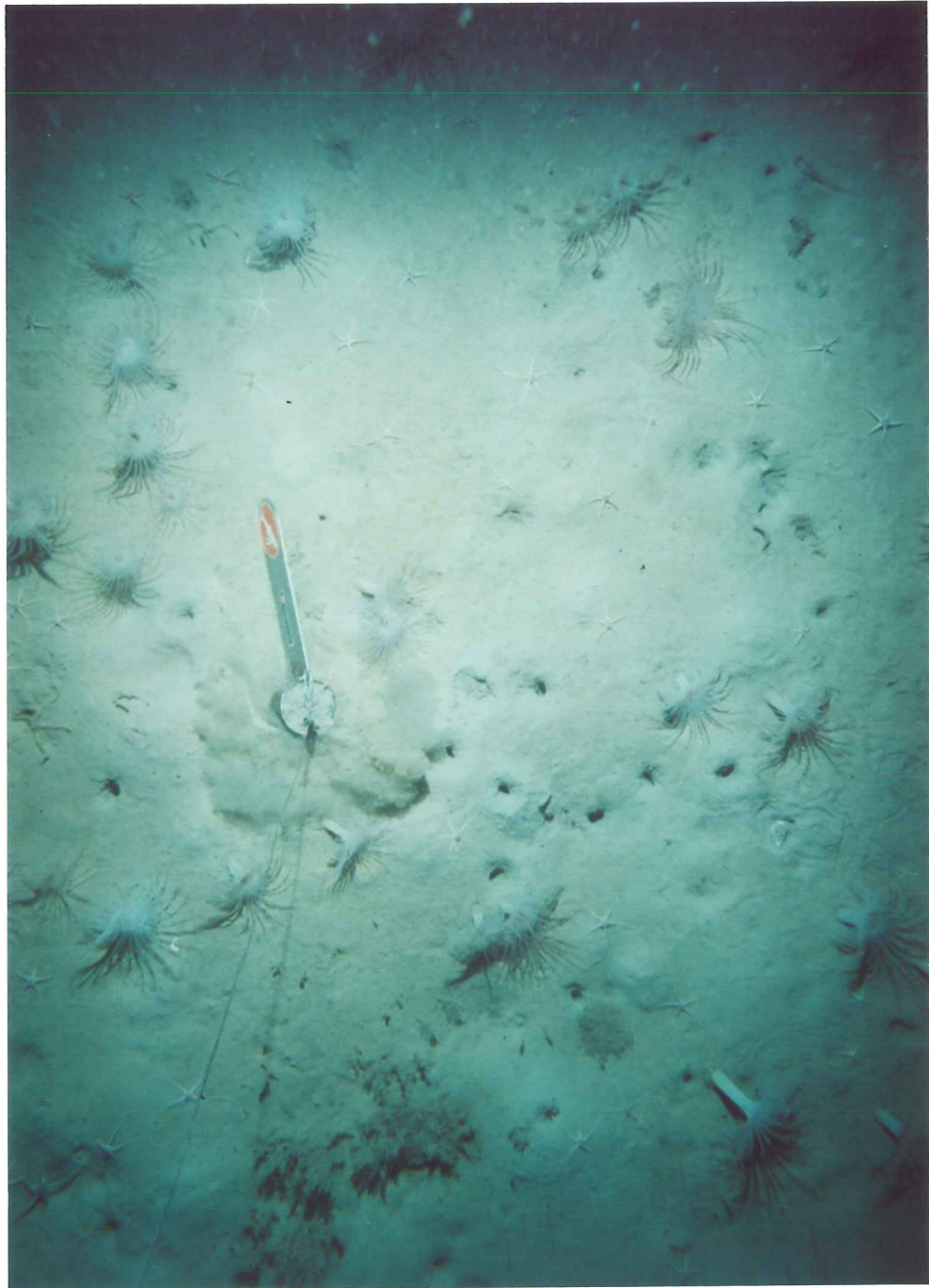
Cruise Number	Sample Number	Sample Type	Interval
92028H	009	Gravity	300 - 322 cm

Depth (cm)	Visual Description	Munsell Colour	
300	322 Total Depth		§
310			§
320			~
330			
340			
350			
360			
370			
380			
390			

3.5 kHz subbottom profiler seismic section for core sites 92-028H-017 to 20

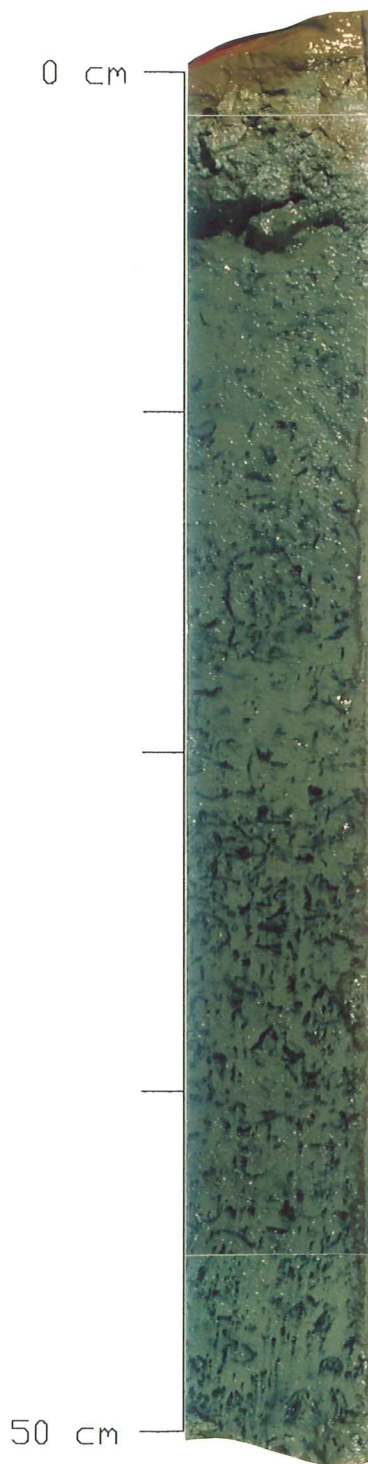
These cores were collected 5 kilometres offshore about 10 kilometres west-southwest of the Grande riviere de la Baleine estuary (Figure 5) in a thick (>40 metres) Quaternary section consisting of 27 metres of postglacial estuarine sediments, 8 metres of glaciolacustrine/marine and greater than 5 metres of till/ice contact deposits. The upper portion of postglacial estuarine sediment appears to be undisturbed and uniform in character.





Camera station	92-028H-019
Box core site	92-028H-017
Water depth	95m

Core 92-028H-017D
Interval 0-50 cm

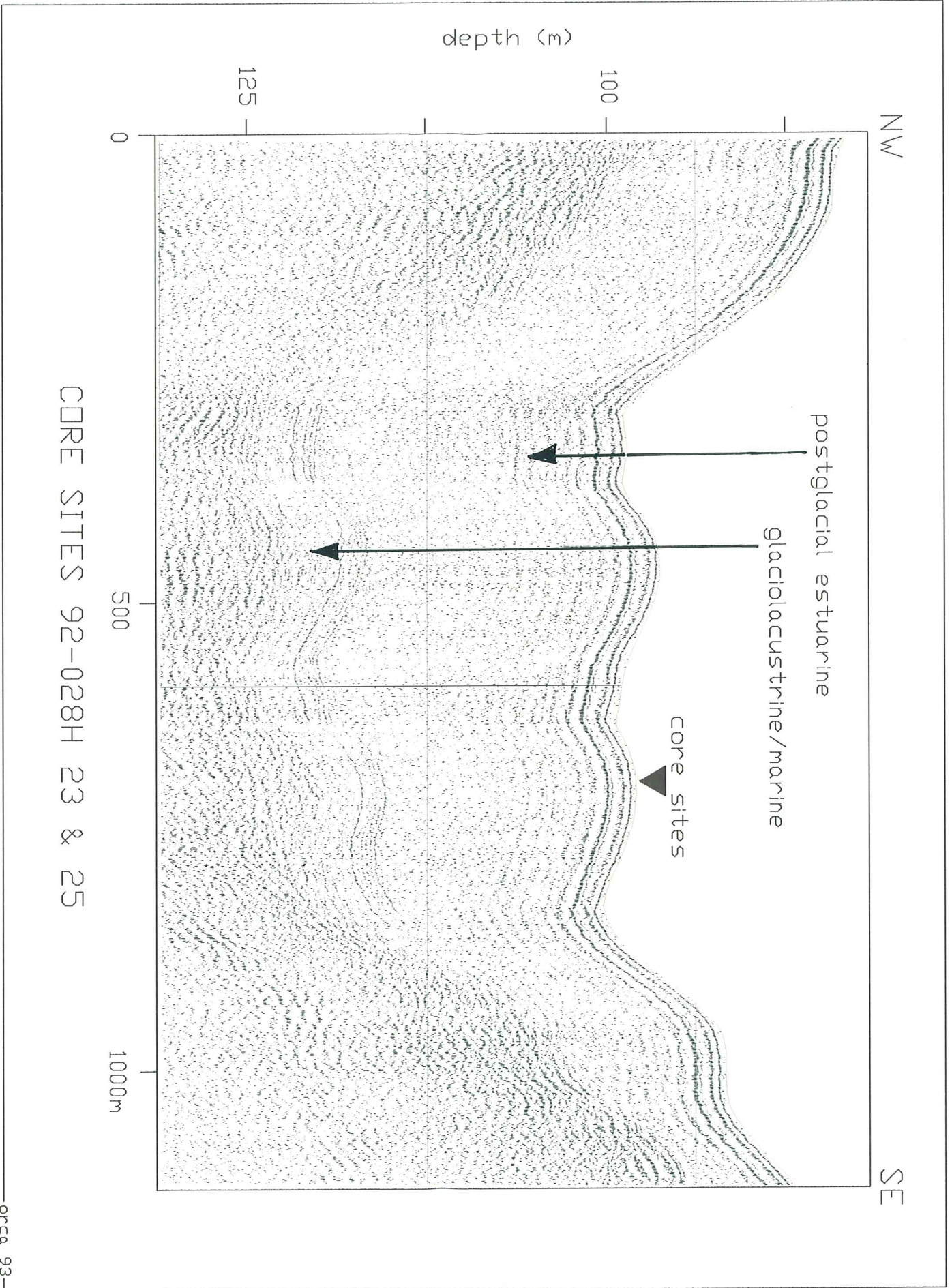


Cruise Number	Sample Number	Sample Type	Interval
92028H	017	Boxcore "D"	0 - 50 cm

Depth (cm)	Visual Description	Munsell Colour	
0	10YR3/4 surficial veneer sli. silty clay 1-2 cm thick transition zone clay - no silt; can see where bioturbators have pulled down veneer into zone below	10YR3/4 10YR4/3 5Y4/3	
10	at 7 cm transition to gray 5Y4/2 bioturbated mottled to 25 cm 20-25% core surface below 25 cm mottles ↑ to 35% core surface		
20			
30		5Y4/2	
40			
50	Total Depth 50 cm		
60			
70			
80			
90			

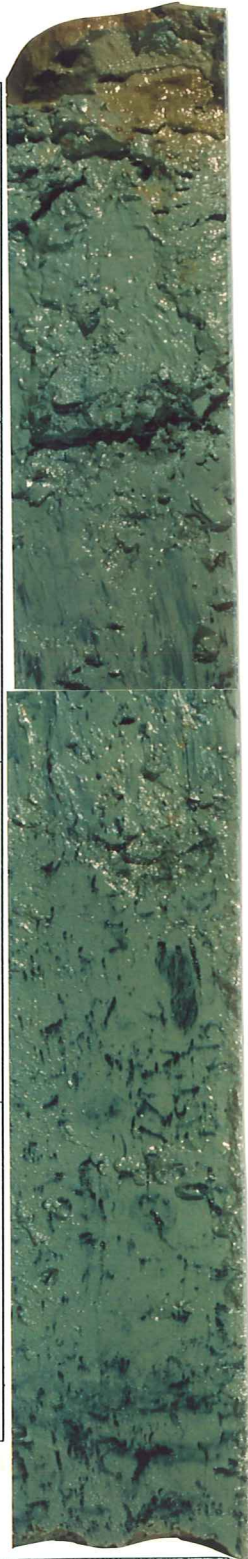
Huntec Sea-Otter boomer seismic section for cores sites 92-028H-023-025

These core sites are located 1.5 kilometres off the mainland coast, 8 kilometres west of the mouth of the Grande riviere de la Baleine (Figure 5) in a region of highly variable distribution and thickness of postglacial estuarine sediments.



Core 92-028H-023B
Interval 0-53 cm

0 cm

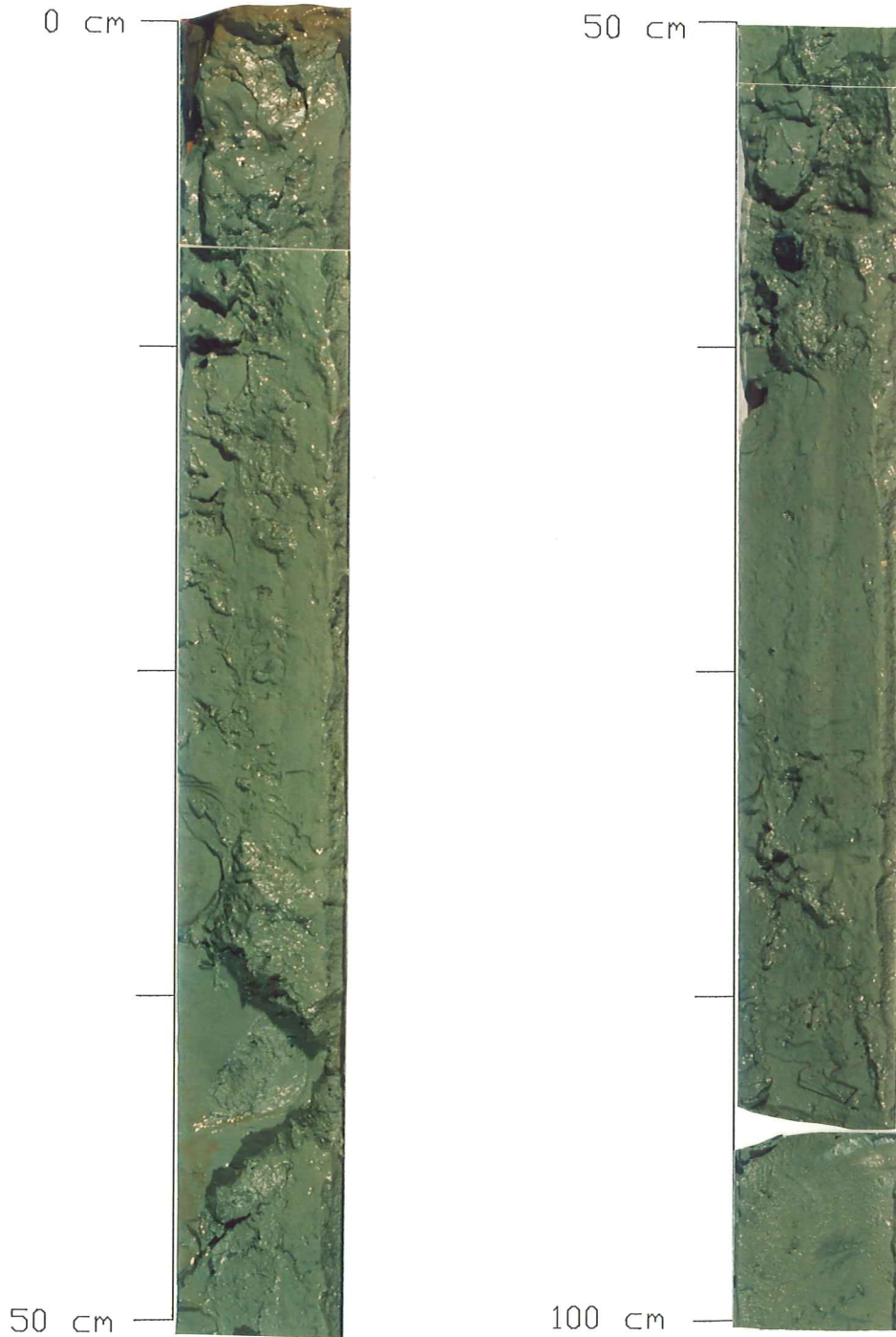


50 cm

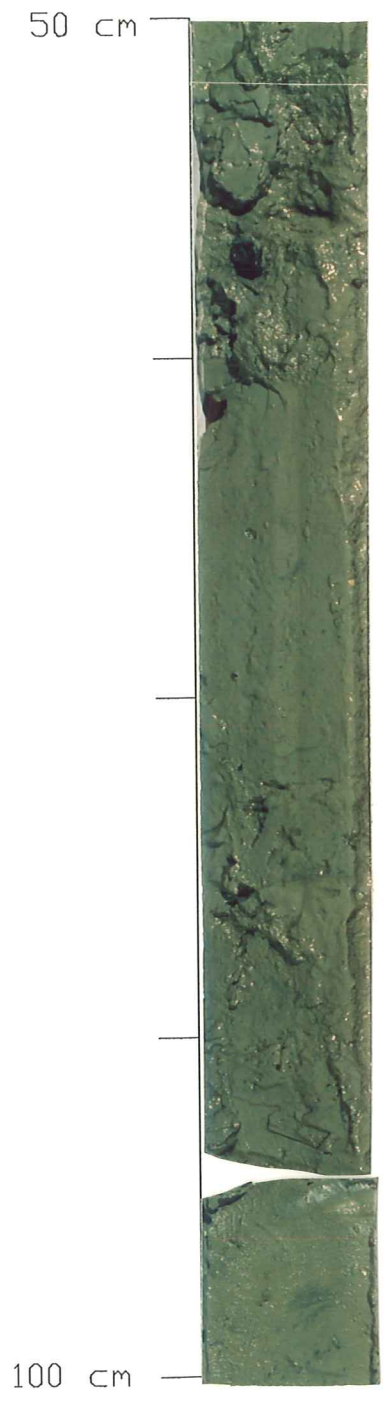
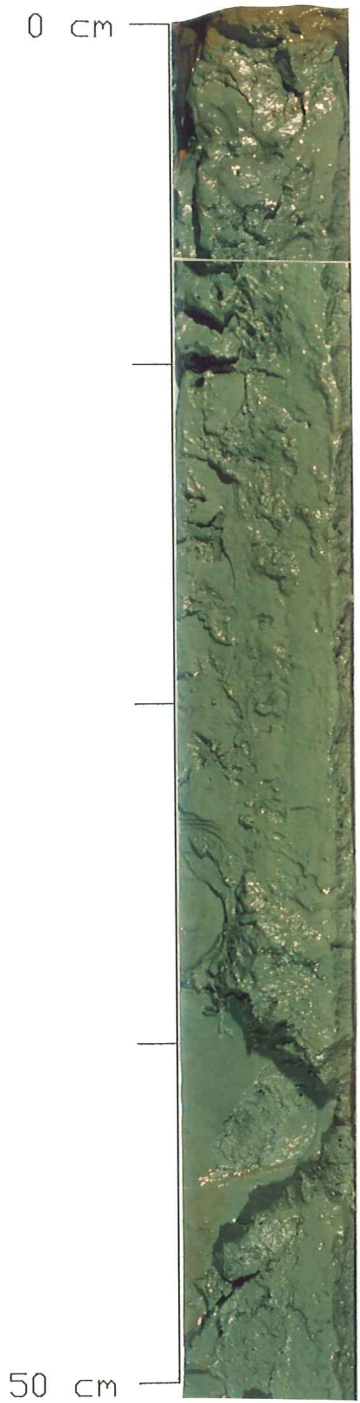
Cruise Number	Sample Number	Sample Type	Interval
92028H	023 (B)	Boxcore	0 - 53 cm

Depth (cm)	Visual Description	Munsell Colour		
0	surficial veneer to 4 cm transition zone to 15 cm sed't tears clay mottled below 15 cm to 48 cm ~ 10% core face at transition can denote bioturbation pulldown of veneer	10YR4/4	<i>wavy</i>	
10		5Y4/3	§	
20		5Y4/1	§	
30			§	
40		open burrow at 43 cm	5Y4/2	⊙ §
50	↑ mottling below 48 cm 20% core face		§	
60				
70				
80				
90				

Core 92-028H-025
Interval 0-100 cm



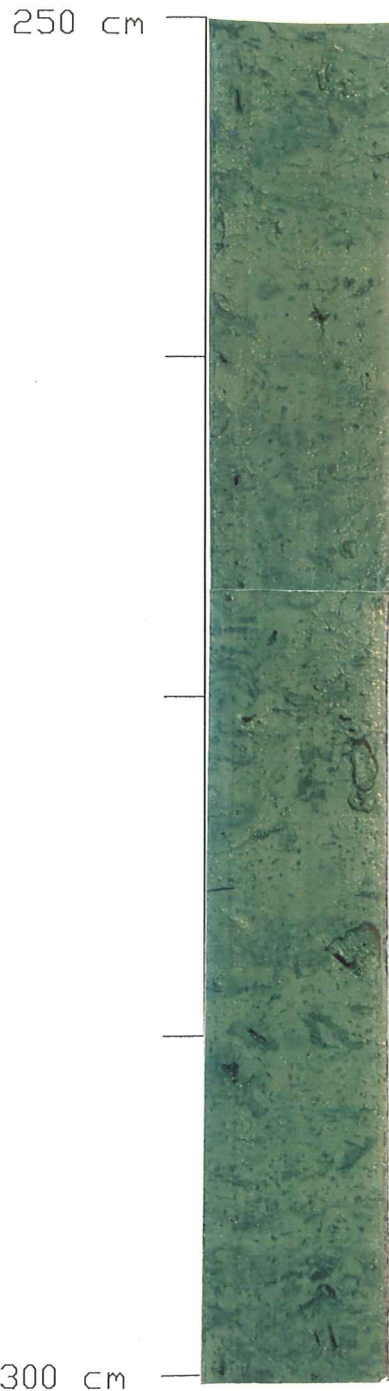
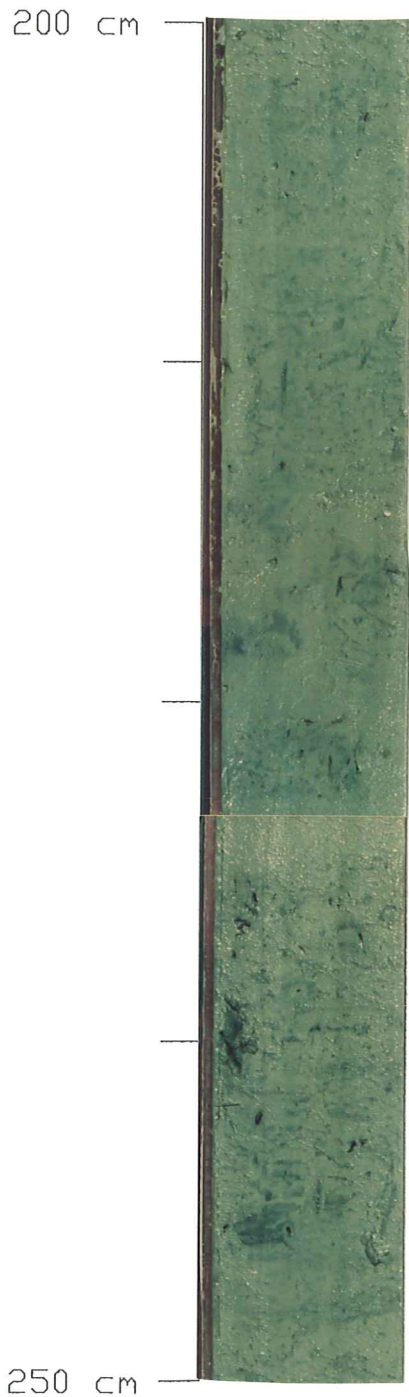
Core 92-028H-025
Interval 0-100 cm



Core 92-028H-025
Interval 100-200

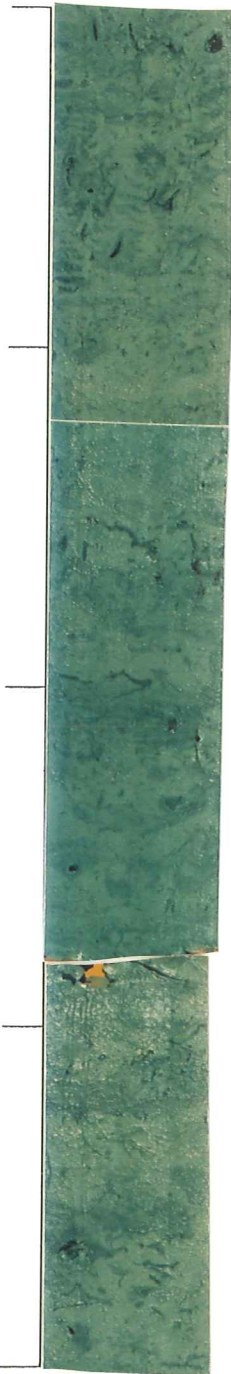


Core 92-028H-025
Interval 200-300

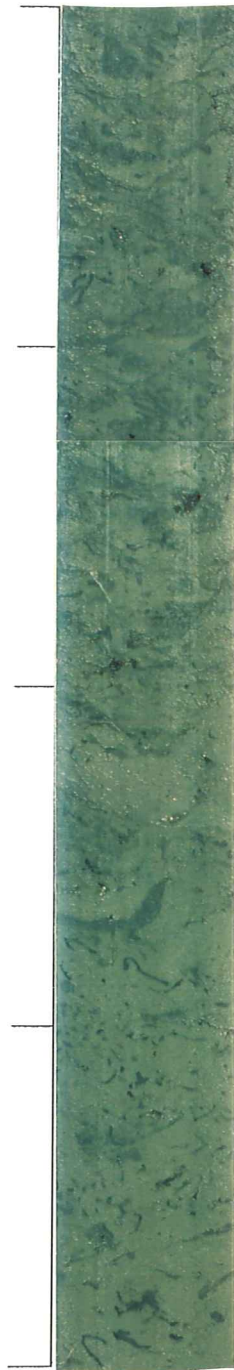


Core 92-028H-025
Interval 300-400

300 cm



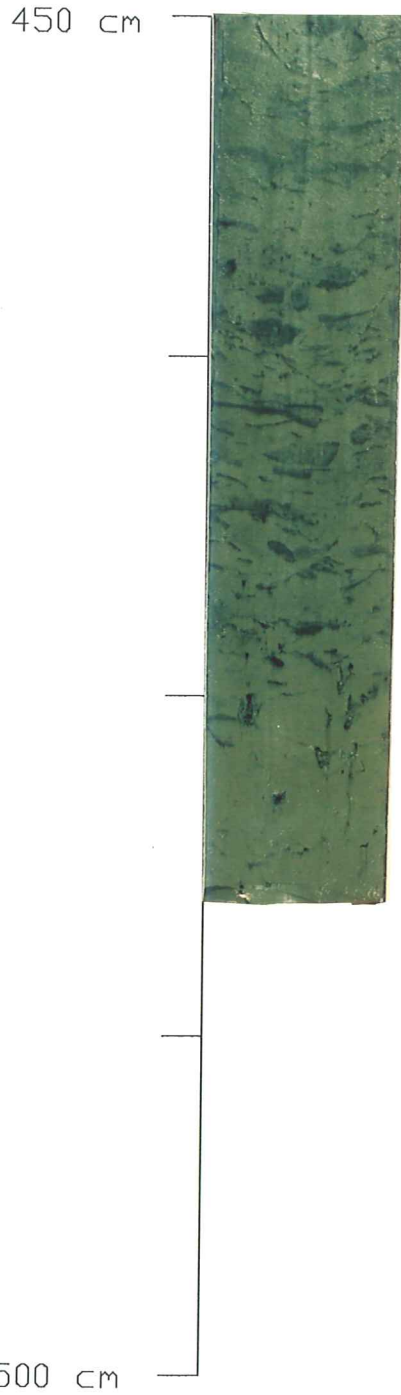
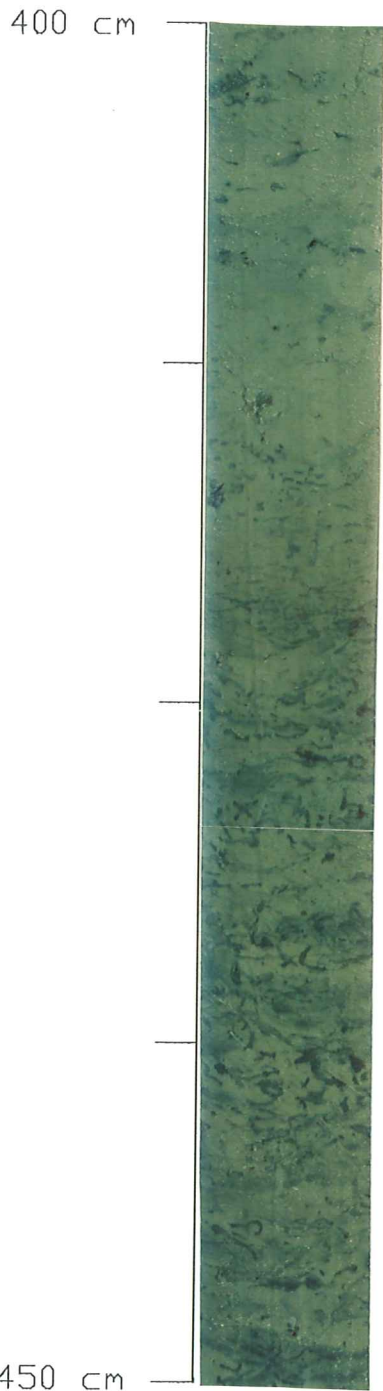
350 cm




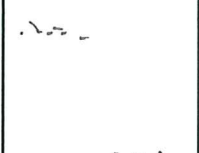
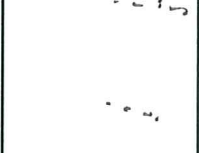
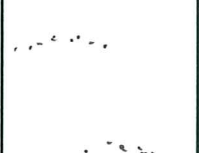
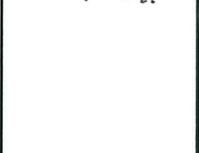
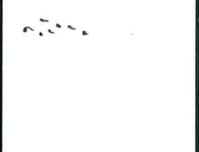
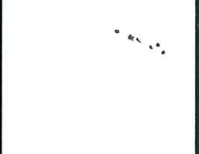



350 cm

400 cm





Core 92-028H-025
Interval 400-482 cm



Cruise Number	Sample Number	Sample Type	Interval
92028H	025	Gravity	0 - 100 cm

Depth (cm)	Visual Description	Munsell Colour	
0	thin surficial veneer clay as before 1 cm	2.5Y4/3	
10	sandy 5Y4/2 clay <10% with <3% granules (grit) homogeneous no visible structures uniform throughout ↓ 'ES in sand content towards bottom	5Y4/2	
20			
30			
40			
50			
60			
70			
80			
90	less sandy than above <3%	5Y5/2	

Cruise Number	Sample Number	Sample Type	Interval
92028H	025	Gravity	100 - 200 cm

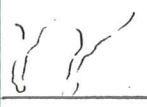
Depth (cm)	Visual Description	Munsell Colour	
100	clay ↓ SD content <1%; homogeneous no visible structures aa		§
110			
120			§
130			§ 
140			
150		5Y5/1	§
160	relict infilled burrows		§ 
170	small shell frag.		§  
180	clay, silt <1% occasion bioturbation traces uniform	5Y5/2	
190			

Cruise Number	Sample Number	Sample Type	Interval
92028H	025	Gravity	200 - 300 cm

Depth (cm)	Visual Description	Munsell Colour	
200	clay aa	5Y5/2	§
210			§
220			
230			§
240			
250			§
260			§
270			§
280			§ § §
290			§

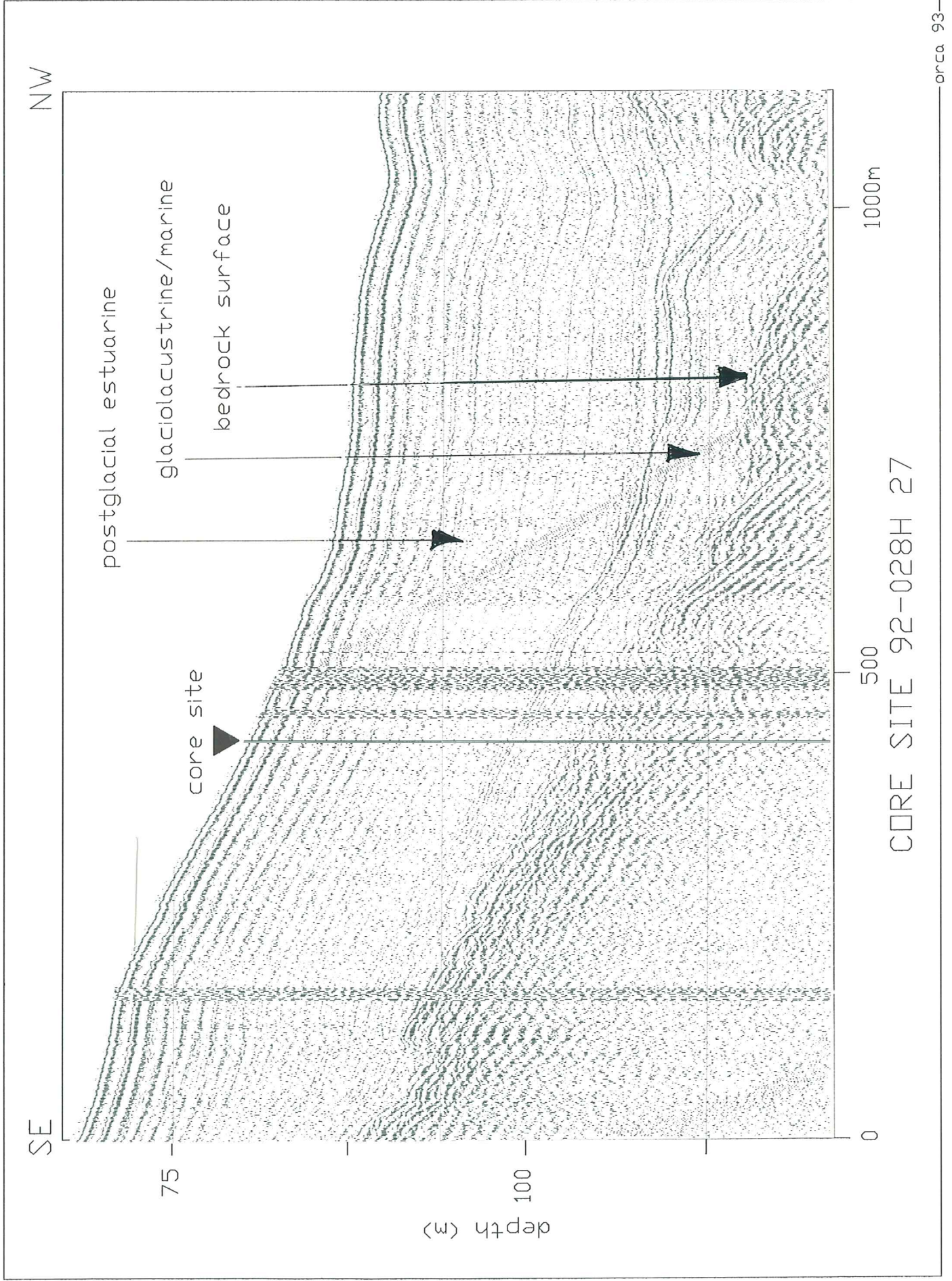
Cruise Number	Sample Number	Sample Type	Interval
92028H	025	Gravity	300 - 400 cm

Depth (cm)	Visual Description	Munsell Colour	
300	clay aa mottled		{
310			{
320		5Y6/2	{
330	clay aa; mottled throughout section to 482 cm few open burrows	5Y6/1	{
340			{
350			{
360			{
370			{
380	colour change within 5Y5/1 clay lense	5Y5/1	{
390			{

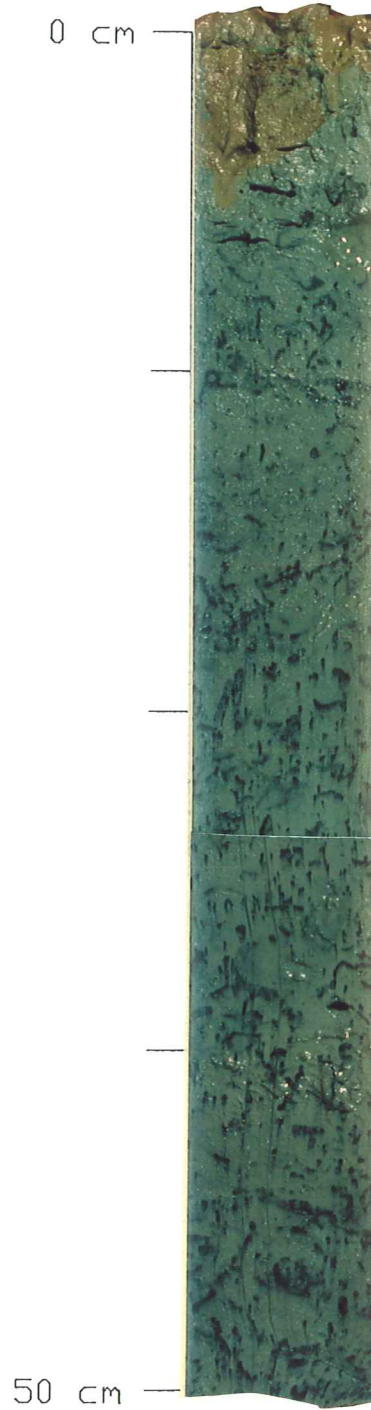
Depth (cm)	Visual Description	Munsell Colour	
400			S
410			S
420	↑ in mottling	5Y4/2	S
430			S
440			S
450			S
460			S
470	474 ↓ in mottling open burrows clay aa	5Y5/2	S
480	Total Depth 482 cm		
490			

Huntec Sea-Otter boomer seismic section for core sites 92-028H-027

A box core site located seaward of the Grande riviere de la Baleine estuary (Figure 5) in postglacial estuarine sediments which grade shorewards into the delta front sediments and seem to represent a more expanded section. Approximately 1.5 kilometres farther seaward, in slightly deeper water, a zone of non-deposition occurs.



Core 92-028H-027B
Interval 0-48 cm



Cruise Number 92028H	Sample Number 027(B)	Sample Type Boxcore (B)	Interval 0-48 cm
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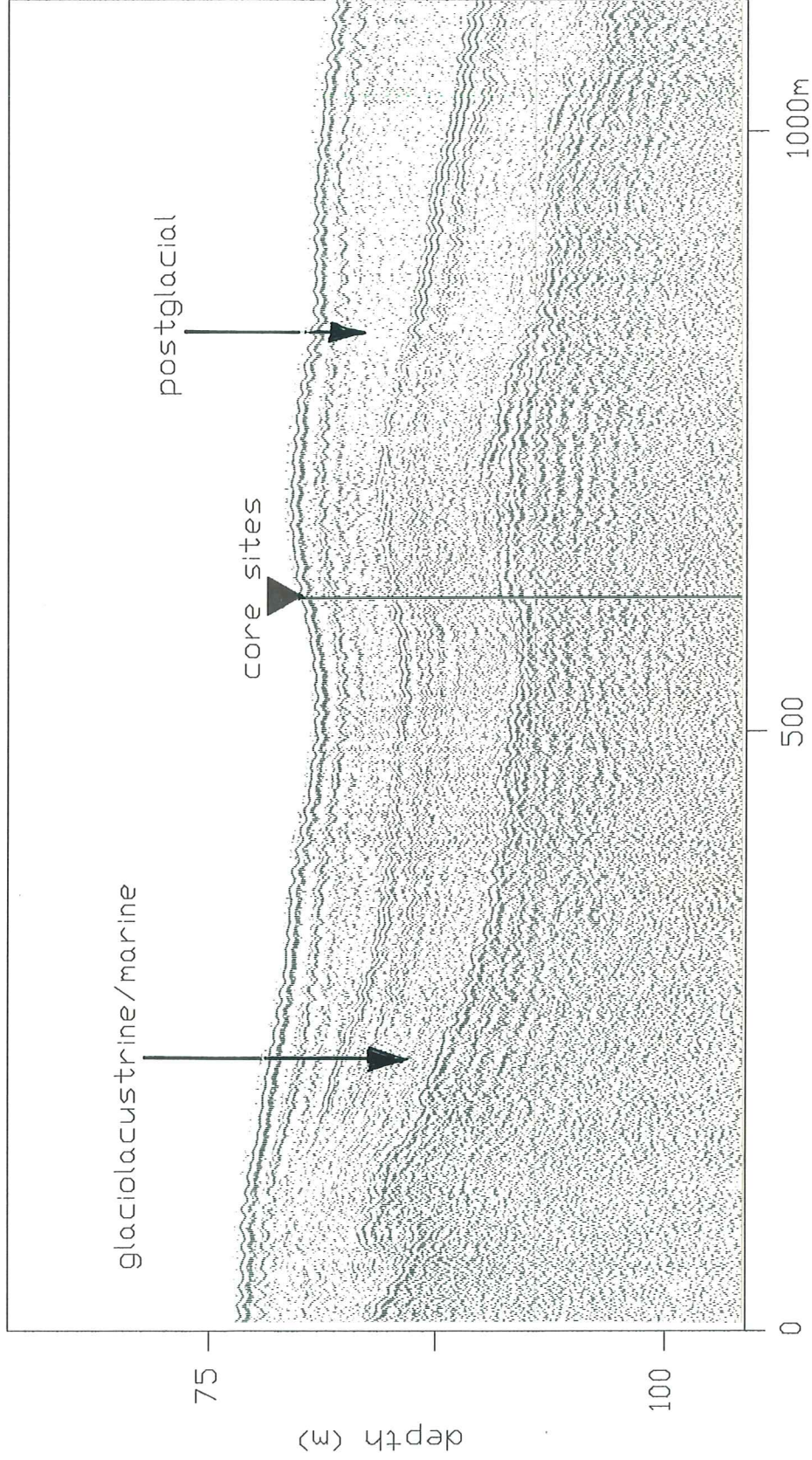
Depth (cm)	Visual Description	Munsell Colour	
0	surficial clay veneer to 3 cm bioturbated with underlying transition zone sli. silty clay <10% 9-18 cm	10YR4/3	
10	mottling 10-15% core face clay 5Y4/2	5Y4/2	
20	18-48 cm mottled clay 30% core face	5Y4/2	
30			
40			
50	Total Depth 48 cm		
60			
70			
80			
90			

Huntec Sea-Otter boomer seismic section for core site 92-028H-081-2

This core site was situated at the centre of a basin at the mouth of Manitounuk Sound (Figure 5). The seismic profile is slightly off site towards deeper water, indicates a decreasing postglacial thickness towards the southwest. Glaciolacustrine/marine sediments maintain a relatively uniform thickness of 5-7 metres while postglacial sediments thin toward the basin edge.

SW

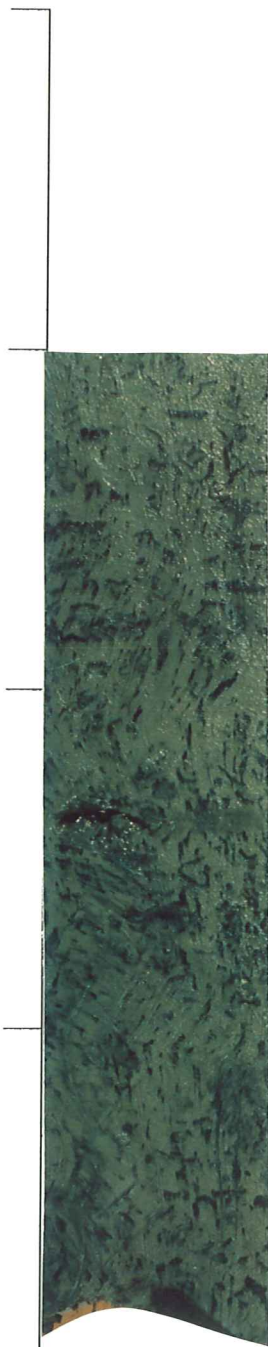
NE



CORE SITES 92-028H 81 & 82

Core 92-028H-082B
Interval 0-46 cm

0 cm

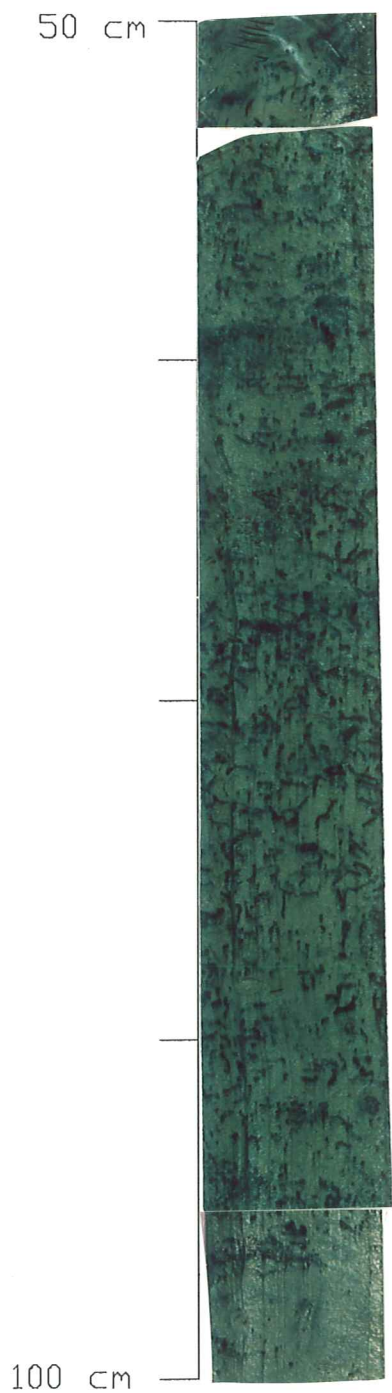
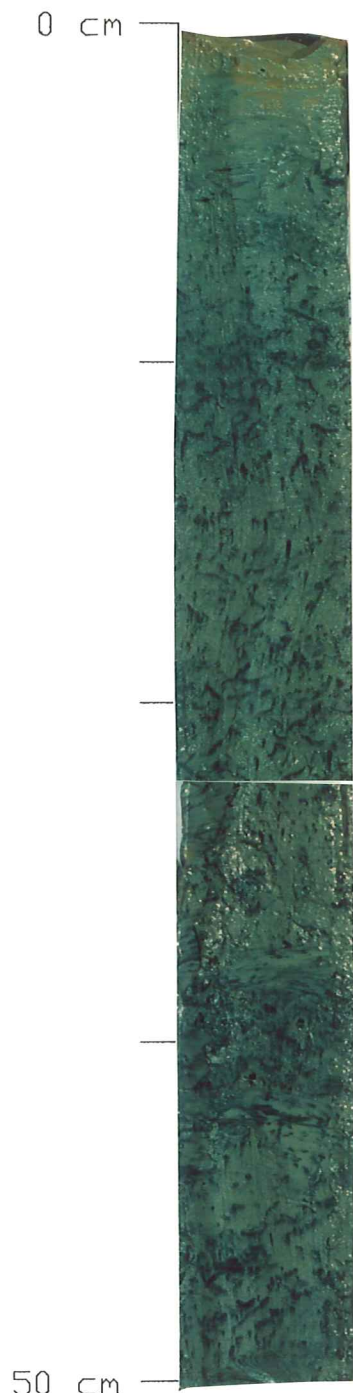


50 cm

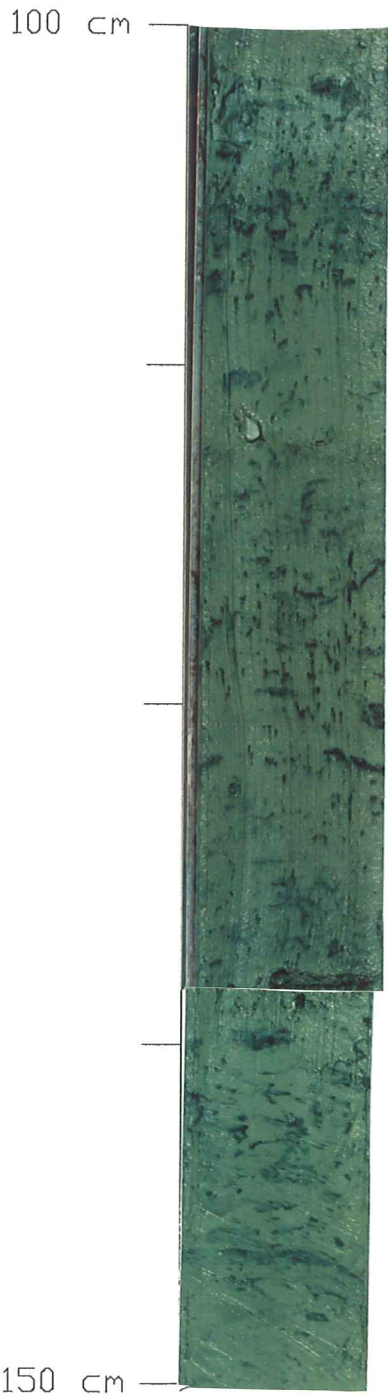
Cruise Number	Sample Number	Sample Type	Interval
92028H	082 B	Boxcore	0 - 46 cm

Depth (cm)	Visual Description	Munsell Colour	
0	0-6 cm surficial veneer 2.5Y4/2, worm tubes mixed into underlying transition underlain by mottled clay 25% mottled core face	5Y5/2	
10			
20			
30			
40			
50			
60			
70			
80			
90			
Total Depth 46 cm			

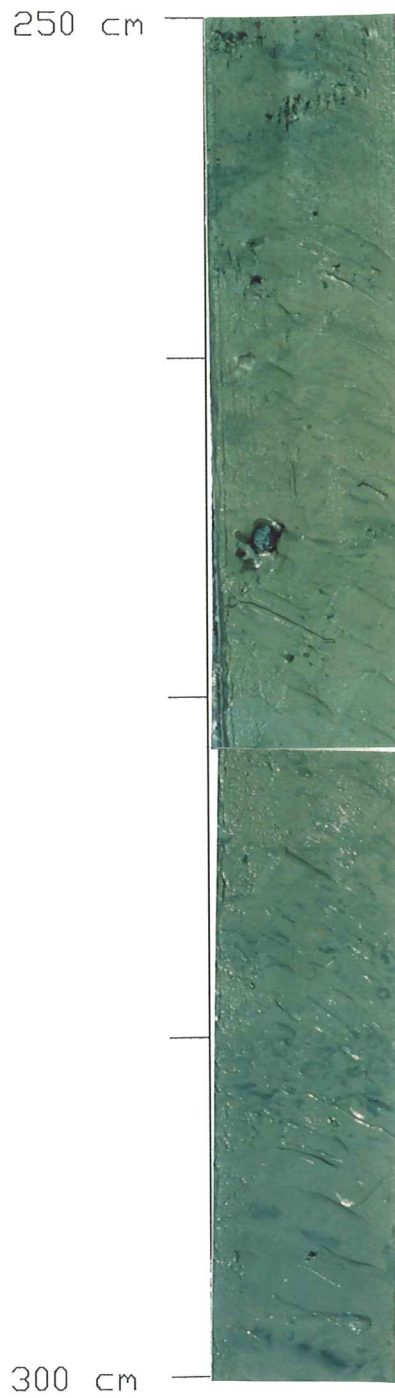
Core 92-028H-081
Interval 0-100 cm



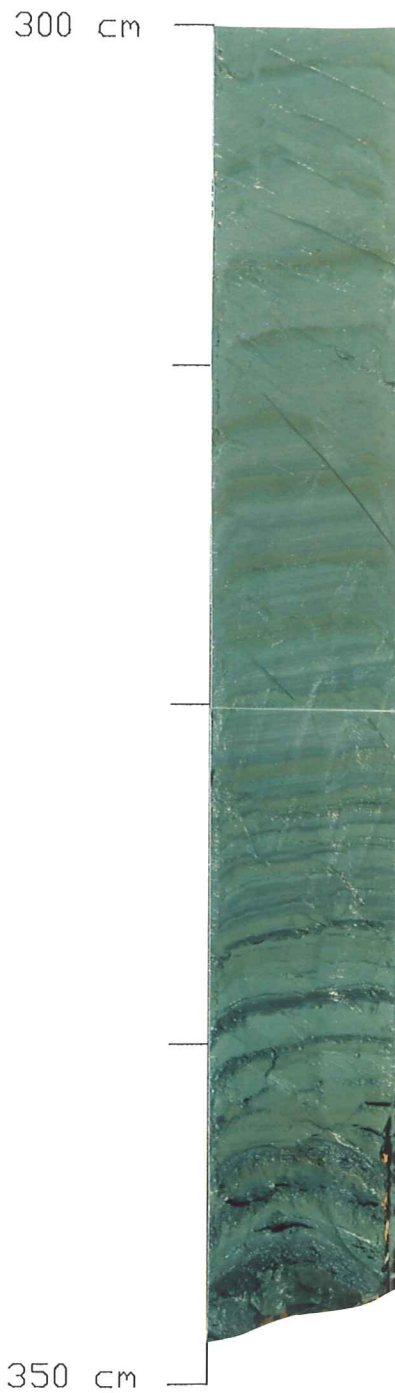
Core 92-028H-081
Interval 100-200



Core 92-028H-081
Interval 200-300



Core 92-028H-081
Interval 300-341 cm









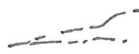
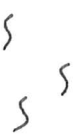

Cruise Number	Sample Number	Sample Type	Interval
92028H	081	Gravity - Benthos	0 - 100 cm

Depth (cm)	Visual Description	Munsell Colour	
0	surficial veneer 1 cm thick w/infilled burrow, silty clay transition 1-4 cm sli. silty clay homogeneous soupy	25Y4/3	
10	4-40 cm homogeneous mottled clay 20% 40-51 cm ↓ mottling 15%	5Y4/2	{
20			{
30			{
40			{
50	infilled burrows at 47 cm mottled clay to 97 cm 35-40%	5Y5/2	{ ⊙ ⊙
60			{
70			{ ⊙
80			{ ⊙
90			{
	97-103 zone w/little no mottling	5Y5/2	{





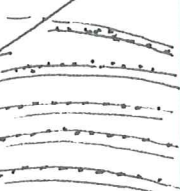
Cruise Number	Sample Number	Sample Type	Interval
92028H	081	Gravity - Benthos	100 - 200 cm

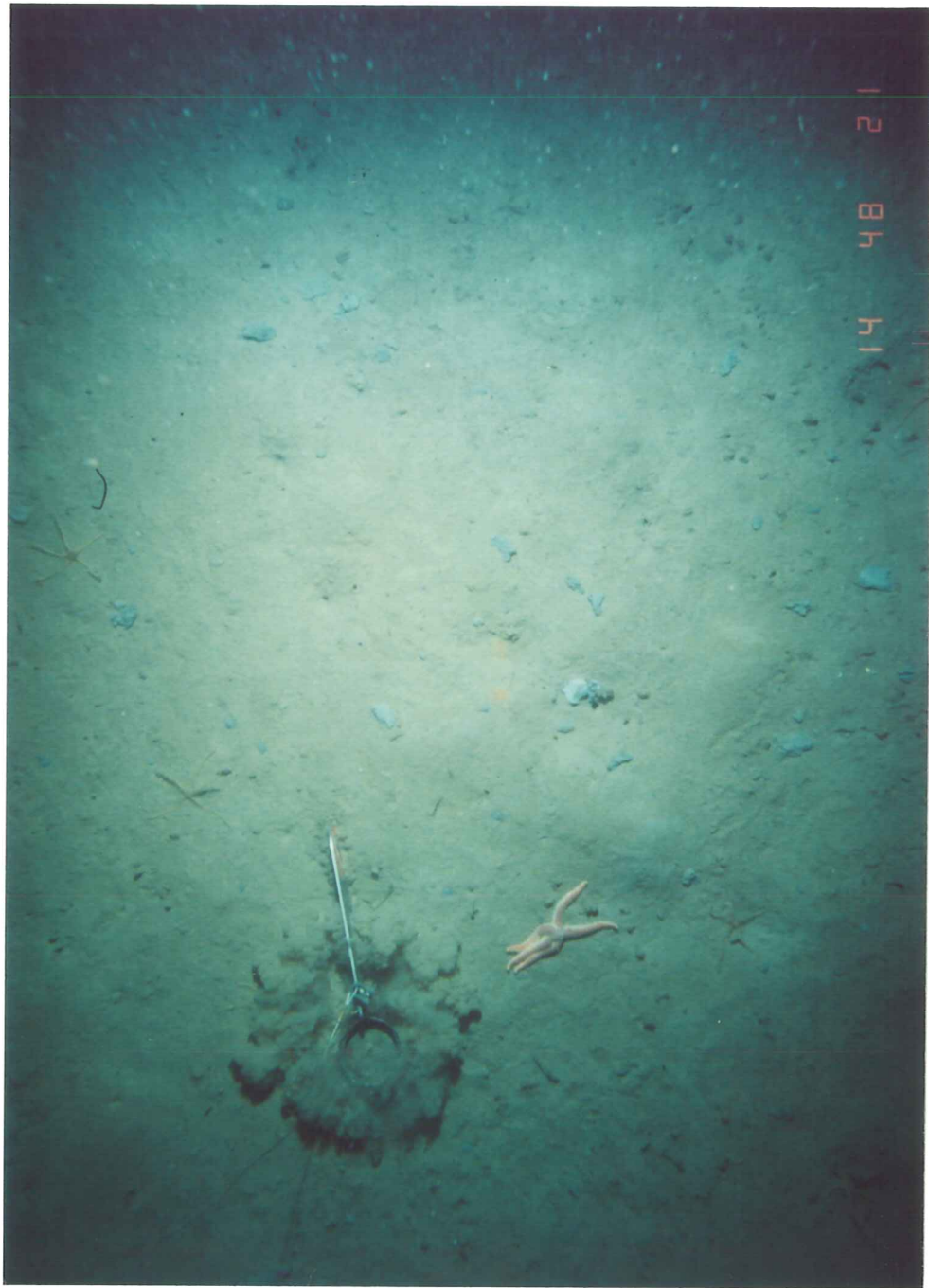
Depth (cm)	Visual Description	Munsell Colour	
100	103-110 ↑ mottling 20%	5Y5/2	§ §
110	110-118 ↓ little or no mottling at core face		§
120			§ ◉
130	shell frag. at 127 cm		§
140	silty clay sense w/shell frags. in main homogeneous 5Y5/2 clay matrix; mottled 10% core face to 145 cm		§ §
150	145-163 cm little mottling <5% few infilled burrows		§ ◉
160	163 trace fossil (?) at 165 cm clay mottling ↑ 15% core face	5Y5/2	§ ◉
170	172		§
180	mottling 178-182 cm 10%		§
190	↓ mottling <10%		§
	trace fossil? at 193 cm	5Y5/2	§

Cruise Number	Sample Number	Sample Type	Interval
92028H	081	Gravity - Benthos	200 - 300 cm

Depth (cm)	Visual Description	Munsell Colour	
200	within clay wisps of blk. organic traces as noted shell frag at 204 cm	5Y5/2	
210	clay homogeneous, structureless little or no mottling ↑ mottling 211-220	5Y5/2	
220	↓ 220 cm - <5% mottling ↑ mottling		
230	231 cm		
240	243 cm hi content silt 248 grit; clay tears at surface with spatula		
250	253 carbonate clast clay matrix	5Y5/2	
260	subtle mottling to 269 cm		
270	269 gray clay 5Y5/1 lense		
280	280 colour change no distinct boundary 280-282 thin zone bioturb. traces btw. 2 coloured clay units; can see 10YR5/1 up into overlying 5Y5/2 clay - subtle mottling throughout	10YR5/1	
290	granite clast at 300 cm rhythmites 300-348		

Cruise Number	Sample Number	Sample Type	Interval
92028H	081	Gravity - Benthos	300 - 348 cm

Depth (cm)	Visual Description	Munsell Colour	
300	pulses/rhythmites more dense below 330 see column 24 alternating in sequence		
310	matrix of main clay upper colour rhytmite 10YR5/3; bottom 5Y5/2 see photo (see core 048 - same event at 400 cm)	10YR6/1 10YR5/3 5Y5/2	
320			
330	rhythmites vary from above sequence w/SD/silt below 336 have v. fine SD fine silt grading up into clay	5Y6/2	
340	SD 5Y5/2 overlying clay 5Y6/2 bottom clay 5Y5/3 clays fall apart along bedding planes	5Y5/2 5Y5/3	
350	Total Depth 348 cm		
360			
370			
380			
390			



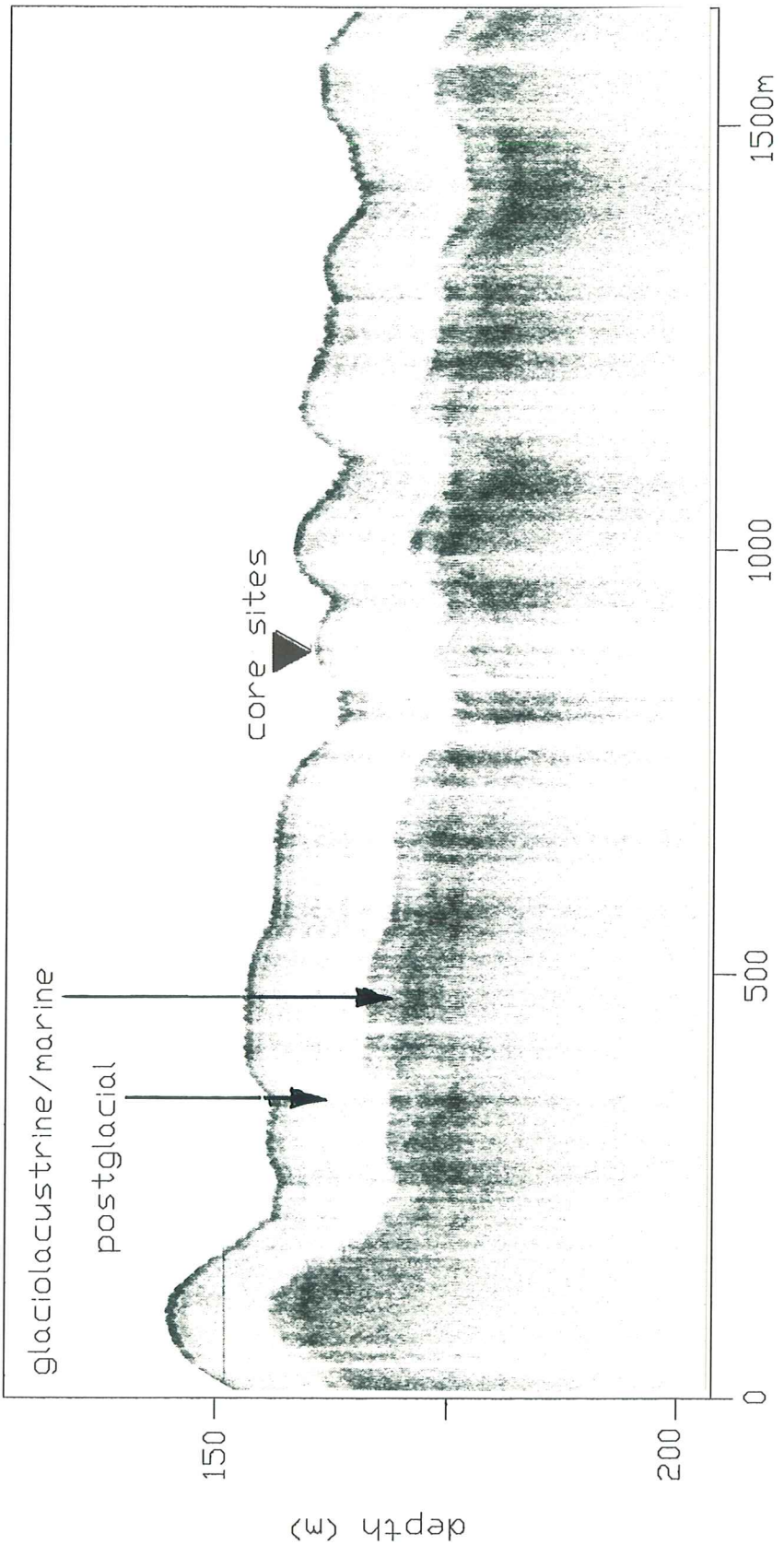
Camera station	92-028H-083
Box core site	92-028H-082
Water depth	69m

3.5 khz subbottom profiler seismic section for core sites 92-028H-090-1

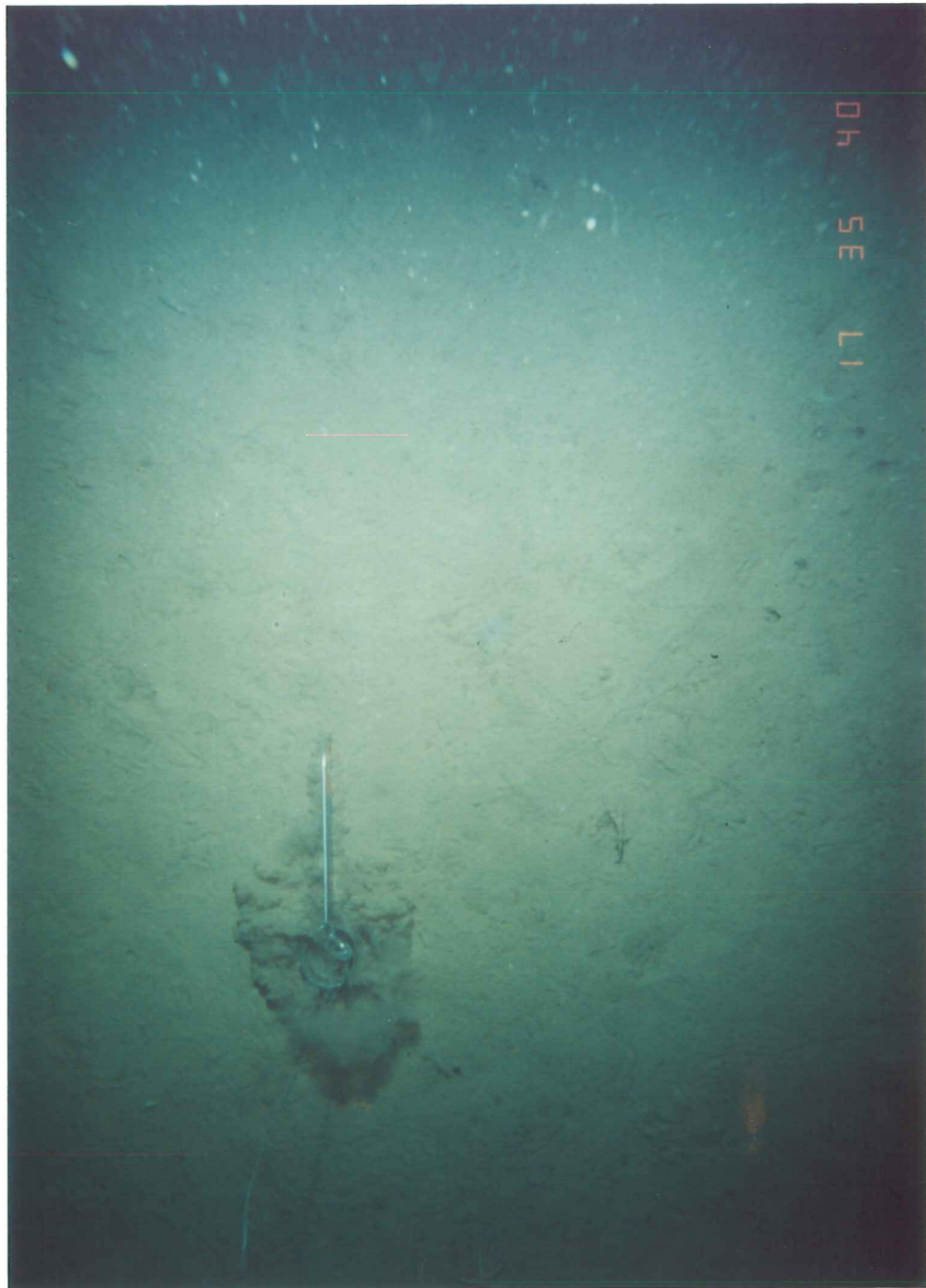
This core was collected in deep offshore basin 25 kilometres northwest of the mouth of the Grande riviere de la Baleine (Figure 5). Note the relatively uniform thickness of Quaternary sediments (15 metres) characteristic of the deeper sections of the offshore troughs. 12 metres of postglacial sediment and 3 metres glaciolacustrine/marine sediments discontinuously overlie thin till/ice contact deposits over bedrock.

SE

NW



CORE SITES 92-028H 90 & 91

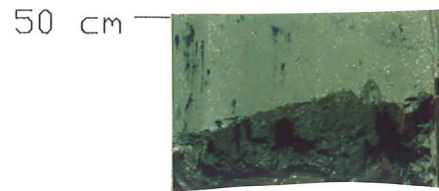
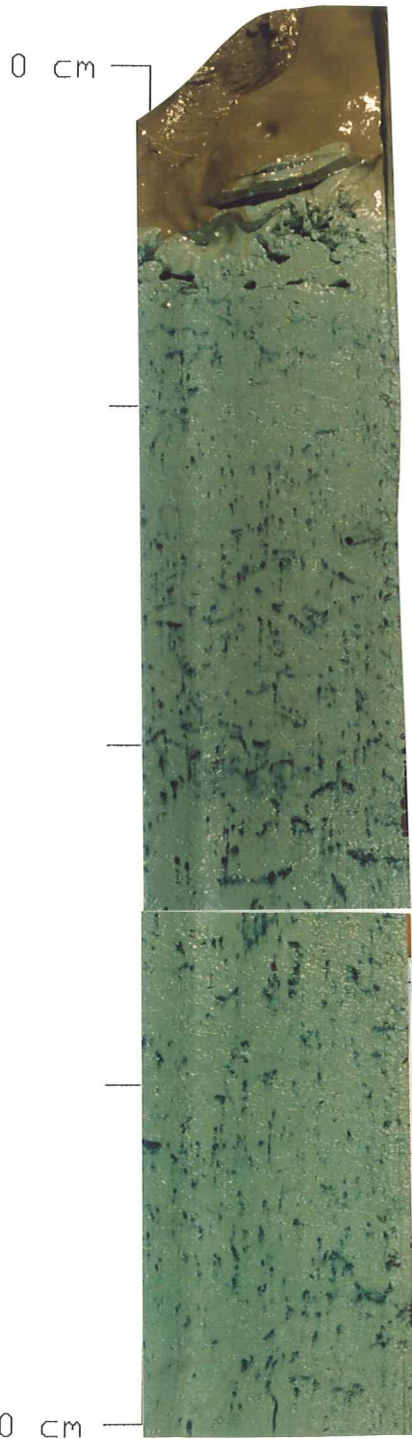


Camera station 92-028H-092

Box core site 92-028H-091

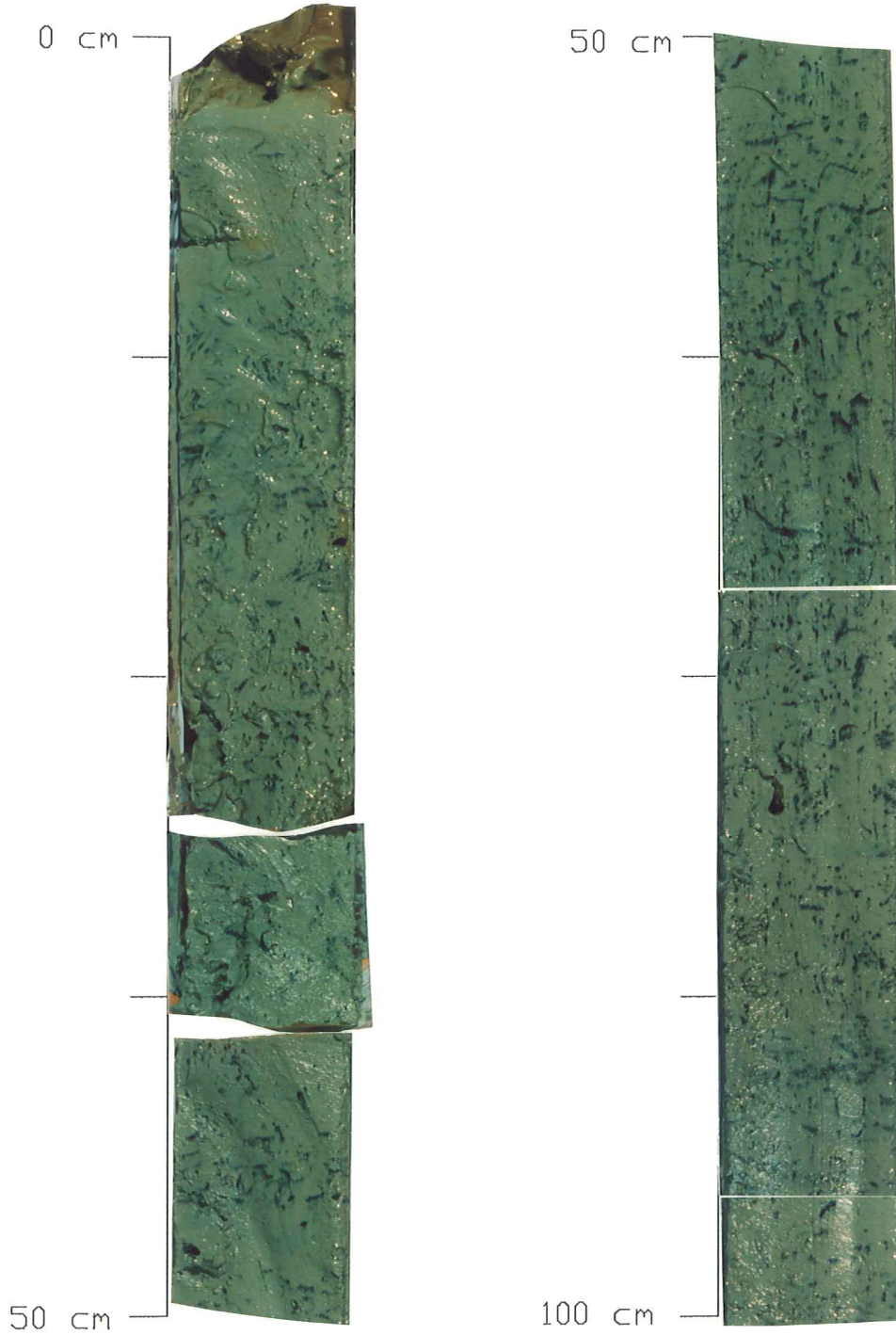
Water depth 163m

Core 92-028H-091B
Interval 0-57 cm



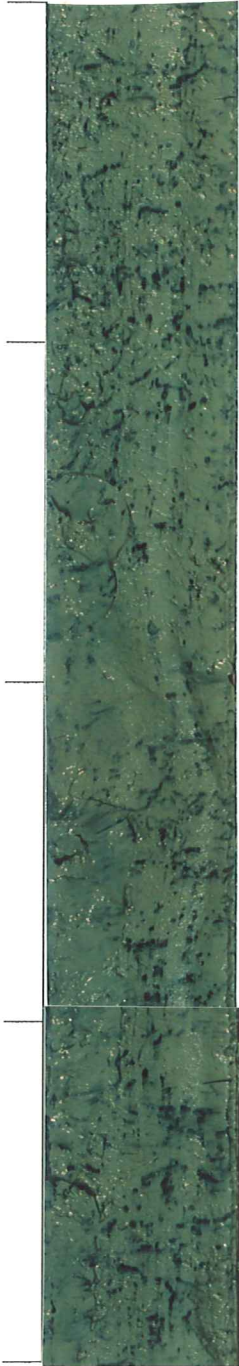
100 cm

Core 92-028H-090
Interval 0-100 cm

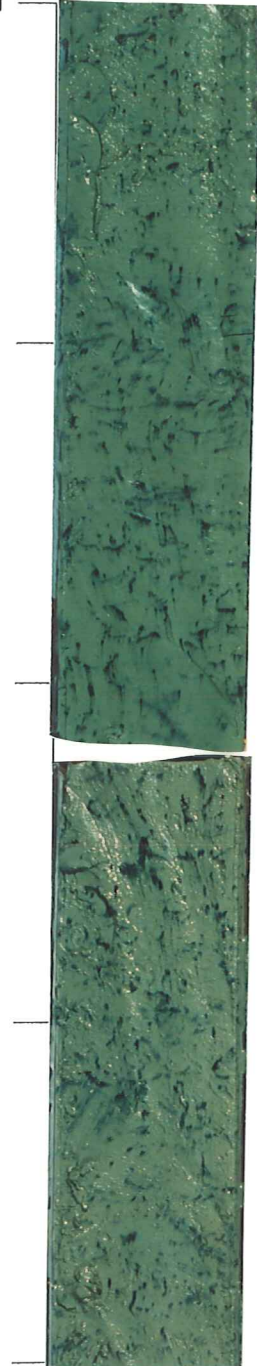


Core 92-028H-090
Interval 100-200

100 cm



150 cm



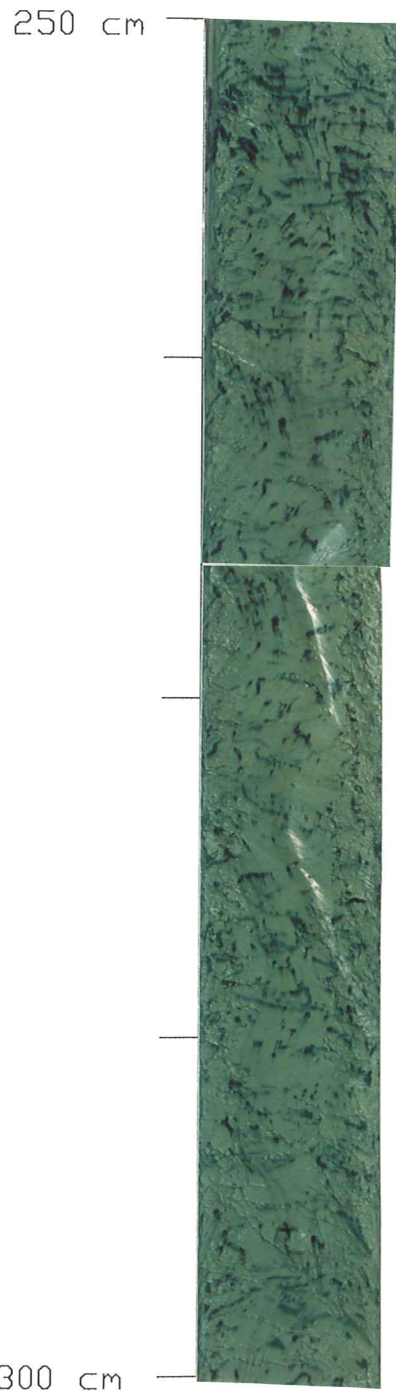
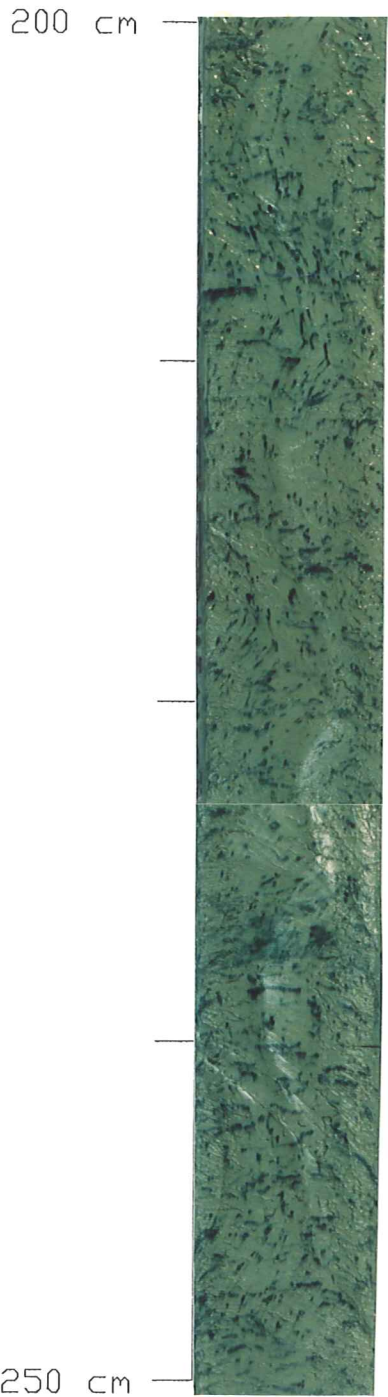
150 cm

200 cm

Cruise Number	Sample Number	Sample Type	Interval
92028H	091 (B)	Boxcore	0 - 57 cm

Depth (cm)	Visual Description	Munsell Colour	
0	0-5 cm surficial veneer sli. silty	10YR4/4	<p>The diagram shows a vertical soil profile with depth markers from 0 to 90 cm. Hand-drawn features include: <ul style="list-style-type: none"> Two small circles with horizontal lines at the top, representing worm burrows, located between 5 and 7 cm depth. Vertical wavy lines (s-curves) indicating mottling or color variations at approximately 7-14 cm, 22-23 cm, 23-51 cm, 40-45 cm, and 50-55 cm. A horizontal line at 57 cm depth, labeled 'Total Depth 57 cm'. </p>
5-7	transition zone with open worm burrows	5Y5/2	
7-14	cm 5Y5/2 mottled clay 10% core face structureless, cohesive		
10			
20	sli. ↑ in mottling 22-23 cm 15%		
23-51	cm bioturbated clay aa	5Y5/2	
30			
40			
50	Total Depth 57 cm		
60			
70			
80			
90			

Core 92-028H-090
Interval 200-300



Core 92-028H-090

Interval 300-350 cm

300 cm



350 cm

Cruise Number	Sample Number	Sample Type	Interval
92028H	090	Gravity - Benthos	0 - 100 cm

Depth (cm)	Visual Description	Munsell Colour		
0	thin surficial veneer 0-3 1 cm transition mottled clay to 29 cm homogeneous structureless from 4-9 cm <10% core face mottled	10YR4/4 5Y5/2	§	
10	9-29 ↑ mottling 20%		§	
20	open burrow at 18 cm	5Y5/2	⊙	
30			§	
40	Section B/C 35-179 cm 5Y5/2 bioturbated cohesive, homogeneous clay, structureless	5Y5/2	§	
50			§	
60			§	
70				
80			§	
90			§	

Cruise Number	Sample Number	Sample Type	Interval
92028H	090	Gravity - Benthos	100 - 200 cm

Depth (cm)	Visual Description	Munsell Colour	
100	clay aa	5Y5/2	}
110			
120			
130			
140			
150			
160			
170			
180	homogeneous clay aa	5Y5/2	
190			

Cruise Number	Sample Number	Sample Type	Interval
92028H	090	Gravity - Benthos	200 - 300 cm

Depth (cm)	Visual Description	Munsell Colour	
200	clay aa mottling 15% core face	5Y4/2	<div style="display: flex; flex-direction: column; align-items: center;"> <div style="margin-bottom: 10px;">}</div> <div style="margin-bottom: 10px;">}</div> <div style="margin-bottom: 10px;">}</div> <div style="margin-bottom: 10px;">}</div> <div style="margin-bottom: 10px;">}</div> <div style="margin-bottom: 10px;">}</div> <div style="margin-bottom: 10px;">}</div> <div style="margin-bottom: 10px;">}</div> <div style="margin-bottom: 10px;">}</div> <div style="margin-bottom: 10px;">}</div> </div>
210			
220			
230			
240	sli. ↑ mottling 241-244 cm 20%		
244			
250			
260	261-264 sli. ↑ in 20% mottling of core face		
270			
280	280 mottling changes <15% core face and continuous worm tubes occasional to TD 350 cm mottling more wispy in appearance as found before	5Y4/2	
290			<div style="display: flex; flex-direction: column; align-items: center;"> <div style="margin-bottom: 10px;">}</div> <div style="margin-bottom: 10px;">}</div> </div>

Cruise Number	Sample Number	Sample Type	Interval
92028H	090	Gravity - Benthos	300 - 350 cm

Depth (cm)	Visual Description	Munsell Colour		
300	Total Depth 350 cm		}	
310			}	
320			}	
330			}	
340			}	
350				
360				
370				
380				
390				

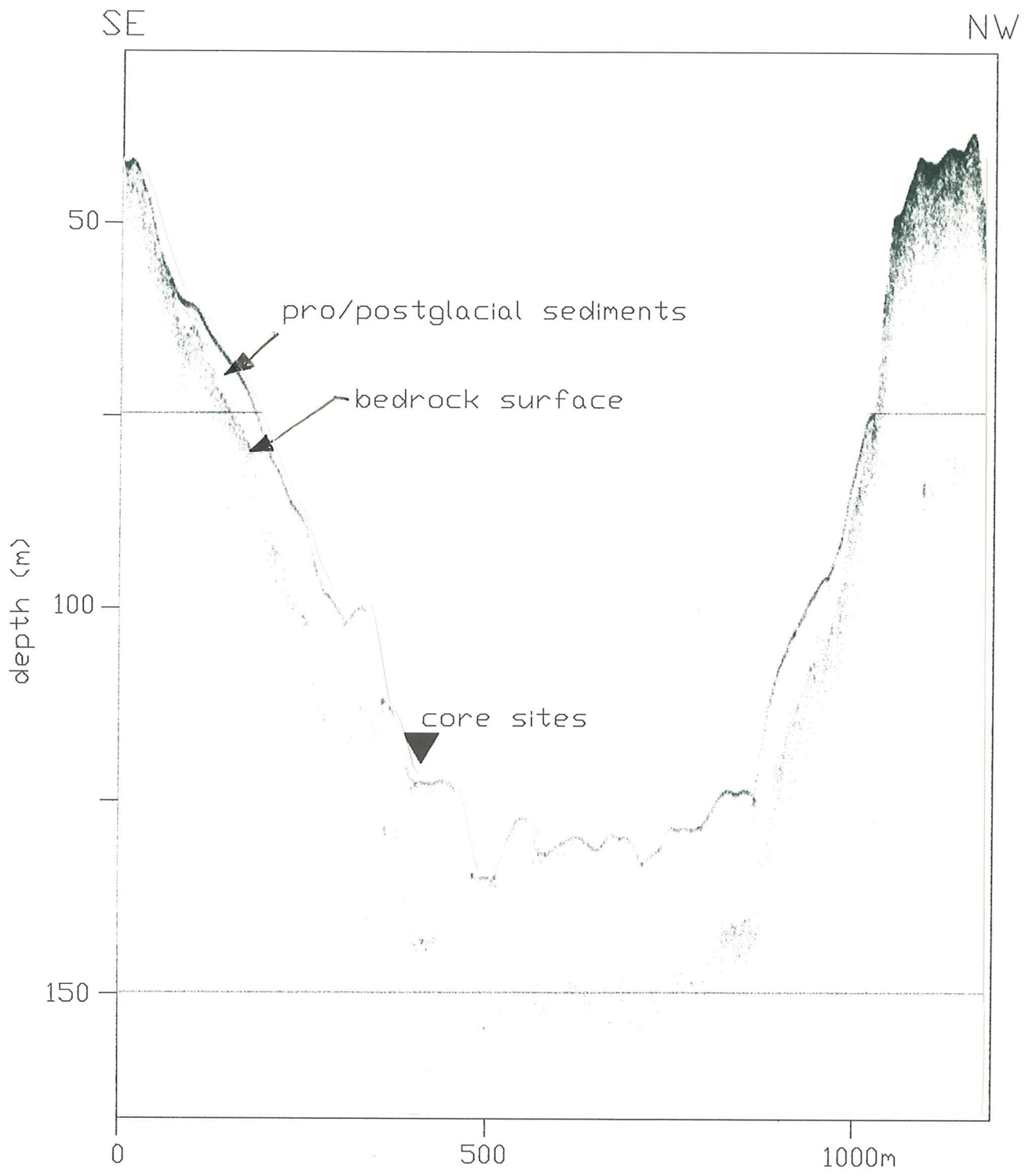
Cores collected seaward off Schooner Opening (Figure 5 and 6)

Cores 92-028H-034/035/044/045/053/058/059

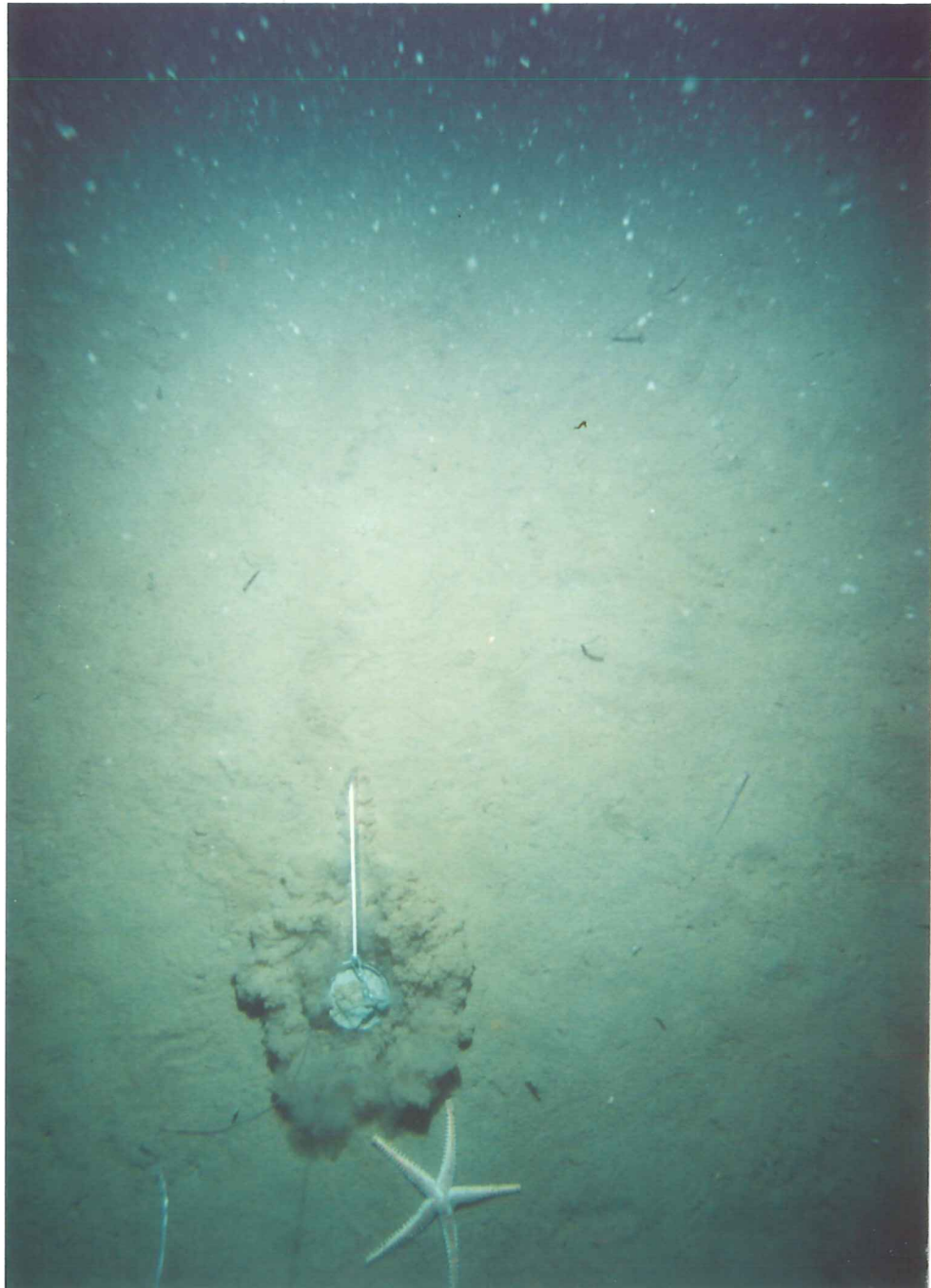
Sediments at these localities consisted of gray silty clay with active worm burrowing underlain by postglacial olive gray bioturbated clays with occasional shells, pebbles, relict borrows and stringers of very fine sand below 1m downcore. Core 053 has a transition from the overlying gray silty clay unit with relict trace fossil traces to rhythmic sedimentation as encountered farther south in cores 045/048/049. At 1.5m however there is an abrupt unconformable contact with a debris flow containing rip-up clasts of clay possibly due to local failure of postglacial sediments nearby at time of deposition.

3.5 kHz subbottom profiler seismic section for core sites 92-028H-034-5

Core site was situated in postglacial sediments in deep offshore trough 7.5 kilometres seaward (west) of central Merry Island. 3.5 kHz profile displays undulating surface morphology on postglacial sediments at the base of the trough these mimic the surface morphology of the underlying till and are therefore not interpreted as slump deposits.

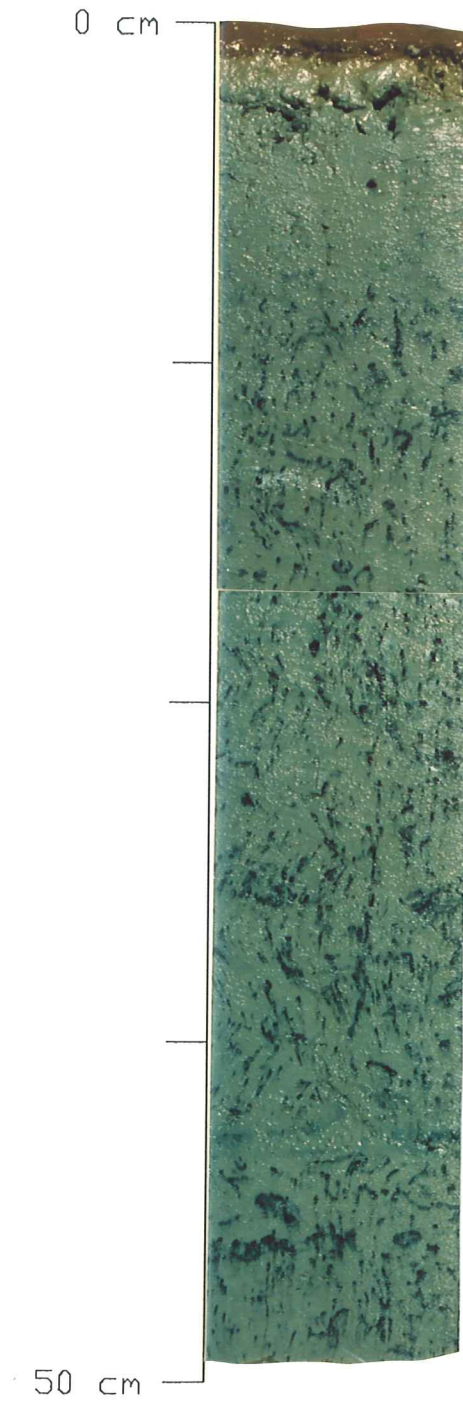


CORE SITES 92-028H 34 & 35





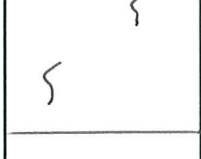




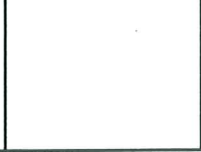


Camera station	92-028H-036
Box core site	92-028H-035
Water depth	137m

Core 92-028H-035B
Interval 0-48 cm



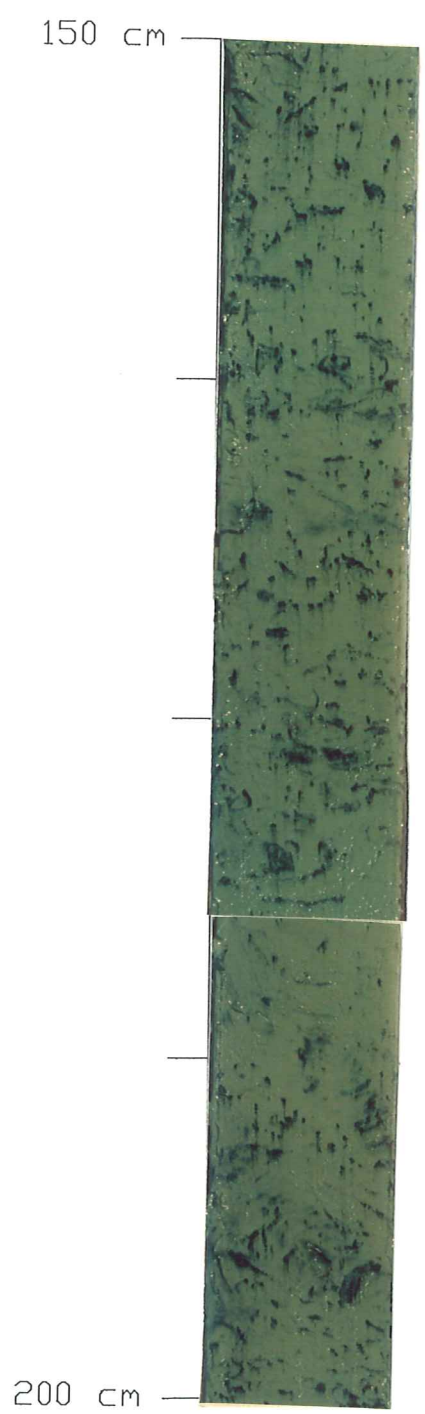
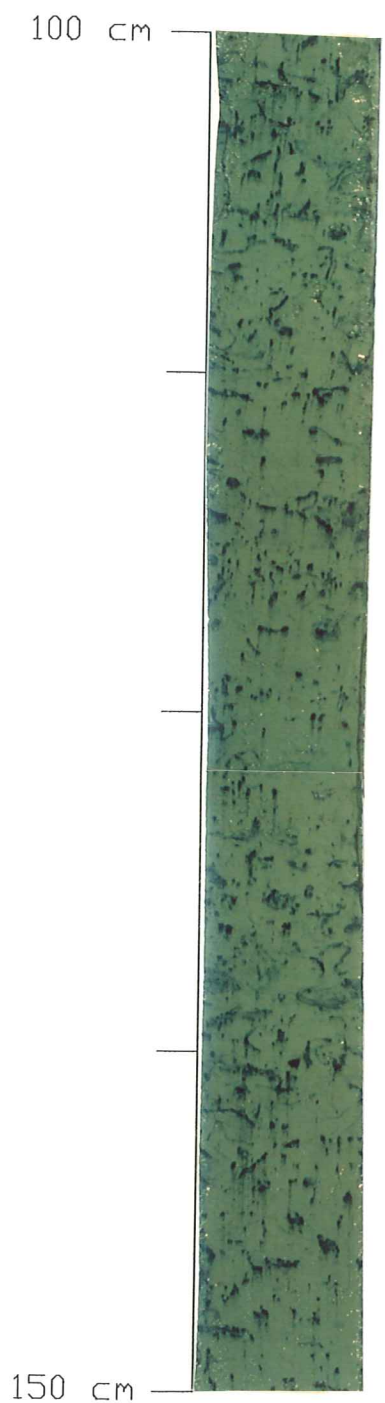
Cruise Number	Sample Number	Sample Type	Interval
92028H	035 (B)	Boxcore B	0 - 48 cm

Depth (cm)	Visual Description	Munsell Colour	
0	.5-.75 cm surficial veneer 10YR3/4, silty (<10%) clay; underlain by 10YR3/5 less silty clay <.5 cm thick; below this clay have 25Y6/3 transition to gray clay (5Y4/2) open burrow at 1.5 cm	10YR3/4 10YR3/5 2.5Y6/3 5Y4/2	
10	transition to bioturbated clay at 9 cm 9-40 cm mottled 5Y4/2 clay 30% of core surface		
20			
30			
40	38-39 thin 5Y4/2 clay - not mottled; below 39		
50	Total Depth 48 cm		
60			
70			
80			
90			

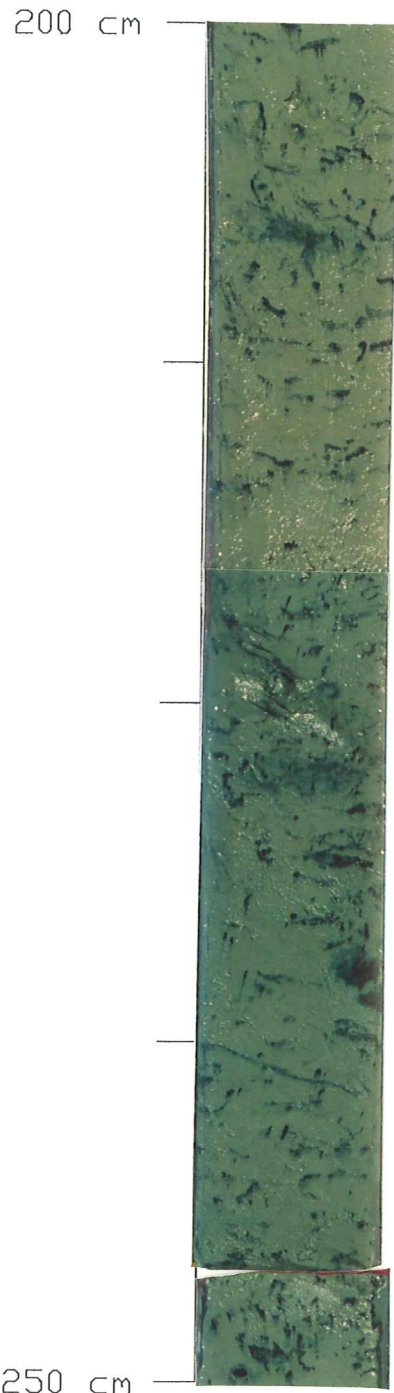
Core 92-028H-034
Interval 0-100 cm



Core 92-028H-034
Interval 100-200



Core 92-028H-034
Interval 200-300



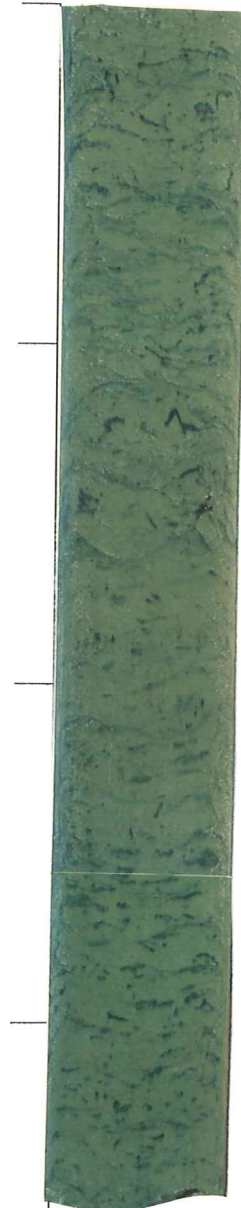
Core 92-028H-034
Interval 300-392 cm

300 cm



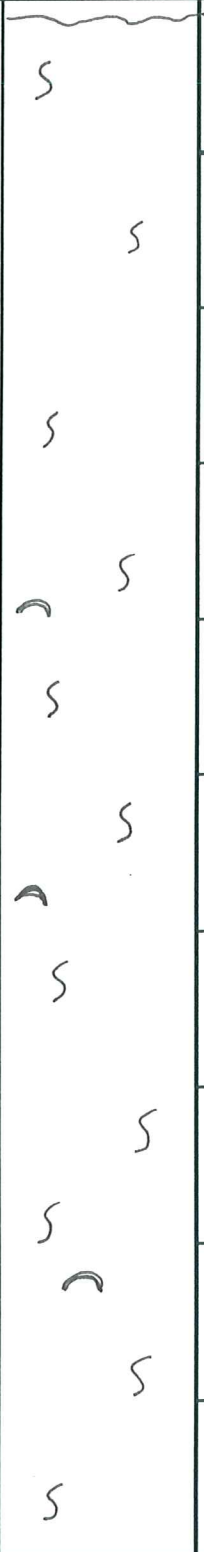
350 cm

350 cm










400 cm




Cruise Number	Sample Number	Sample Type	Interval
92028H	034	Gravity	0 - 100 cm

Depth (cm)	Visual Description	Munsell Colour	
0	thin surficial veneer 1-2 cm underlain by heavily bioturbated silty (<10%) clay, cohesive to 88 cm non structures noted	25Y4/2 5Y4/2	
10			
20			
30			
40	42 cm bivalve <u>in situ</u> sampled Ruz		
50			
60	Shell at 59 cm sampled for Ruz, in situ		
70			
80	1/2 valve at 86 cm		
90	bioturbated silty clay aa	5Y5/2	

Cruise Number	Sample Number	Sample Type	Interval
92028H	034	Gravity	100 - 200 cm

Depth (cm)	Visual Description	Munsell Colour		
100	heavily bioturbated homogeneous sli. silty clay aa to 180 cm		S	
110			 S	
120			S	
130	shell frag. at 34 cm		 S	
140			S S	
150	shell at 150 cm		 S  S	
160			S  S	
170			 S	
180				
190	below 180 cm sli. ↓ in bioturbation CHONDRITES? trace fossil at 208 cm			

Cruise Number	Sample Number	Sample Type	Interval
92028H	034	Gravity	200 - 300 cm

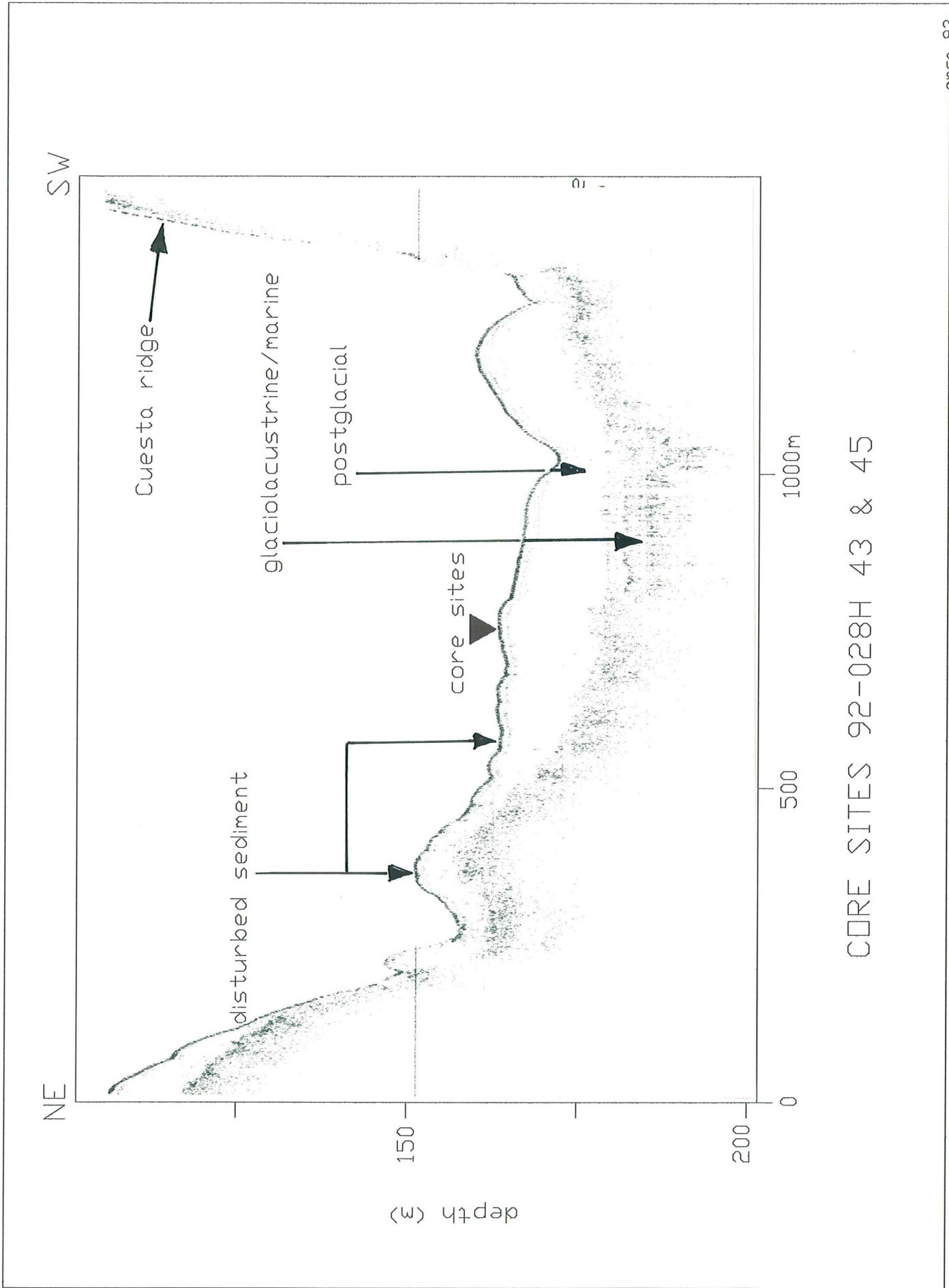
Depth (cm)	Visual Description	Munsell Colour	
200		25Y5/2	S
210			S
220	whole bivalve in situ sampled C14 Ruz		
230	PLANULITES (?) trace fossil at 226 cm 230 cm - backfilled burrow		S
240	5Y5/2 homogeneous clay aa sli. silty open burrow at 245 cm	5Y5/2	 S
250			S
260			S
270			S
280			S
290			 S

Cruise Number	Sample Number	Sample Type	Interval
92028H	034	Gravity	300 - 392 cm

Depth (cm)	Visual Description	Munsell Colour		
300		5Y4/2	§	
310			§	
320			§	
330	shell frag. at 330 cm to 332 highly mottled 332-337 cm sli. mottled		§ —	
340	shell frag. at 340 330-340 cm sli. mottled 340-352 ↓ mottling whole shell - not believed to be in situ		§ —	
350	↑ mottling 352-368 cm		§ §	
360		5Y4/2	§	
370	368-380 cm ↓ mottling		§	
380	380-392 cm ↑ mottling		§	
390	Total Depth 392 cm		§	

3.5 kHz subbottom profiler seismic section for core sites 92-028H-043-5

This core was collected in a deep basin 8 kilometres offshore from Merry Island (Figure 5), cuesta cliff face occurs towards the southwest, core possibly taken in slump area. Note the variable thickness of the postglacial sediment and the disturbed sediment towards the northeast edge. Deposition of the postglacial sediments at the base of the cuesta ridge has resulted in trough and mounds interpreted as the product of a complex bathymetrically influenced current regime. There is greater than 30 metres of Quaternary section of which approximately 15 metres are postglacial or slump deposits.





Camera station	92-028H-046
Box core site	92-028H-045
Water depth	160m

Core 92-028H-045B
Interval 0-48 cm

0 cm



50 cm

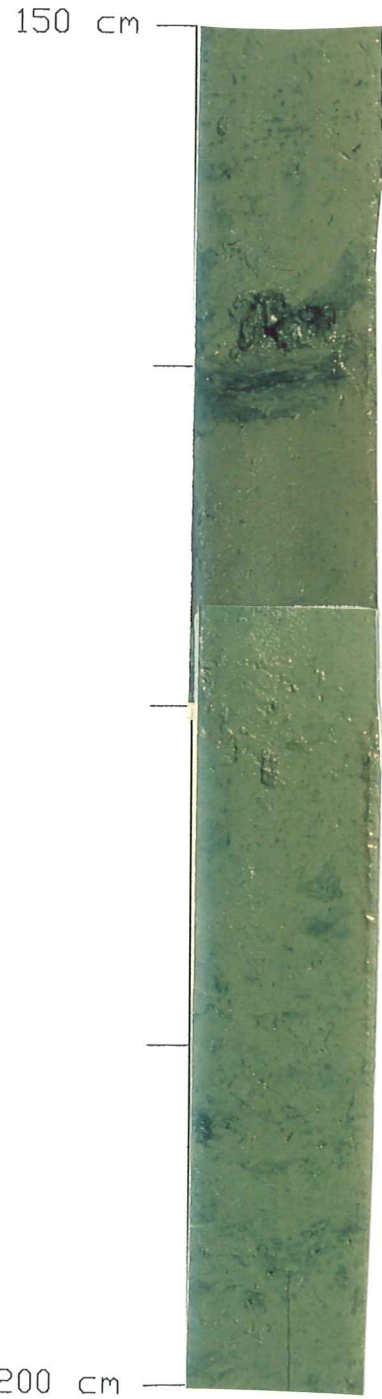
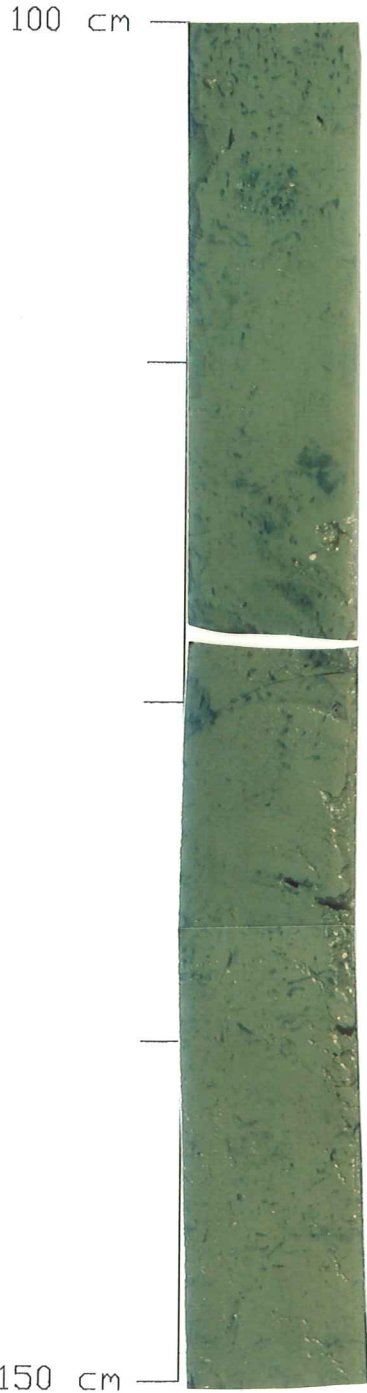
Cruise Number	Sample Number	Sample Type	Interval
92028H	045 (B)	Boxcore (B)	0 - 48 cm

Depth (cm)	Visual Description	Munsell Colour	
0	surficial veneer disturbed 0-3 cm; transition zone w/bioturbation pulling down veneer into top of clay unit at 4 cm	10YR3/4 2.5Y5/3 5Y4/2	
10	at 9 cm bioturbated clay mottled 25% core face to TD 48 cm.		§
20			
30	large shell frag. 26 cm 2 cm diam.	5Y4/2	§
40	clay aa mottled (25%) homogeneous, cohesive structureless		§
50	Total Depth 48 cm		§
60			
70			
80			
90			

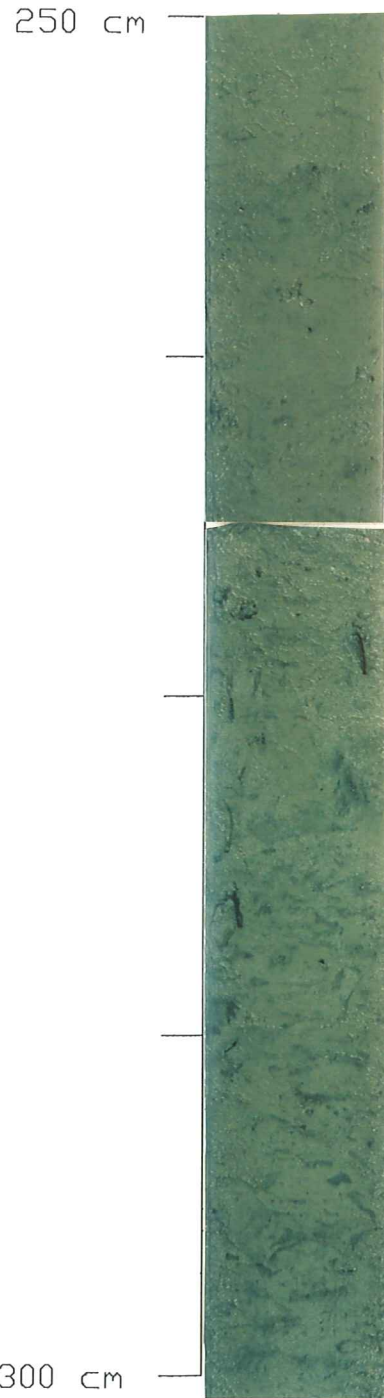
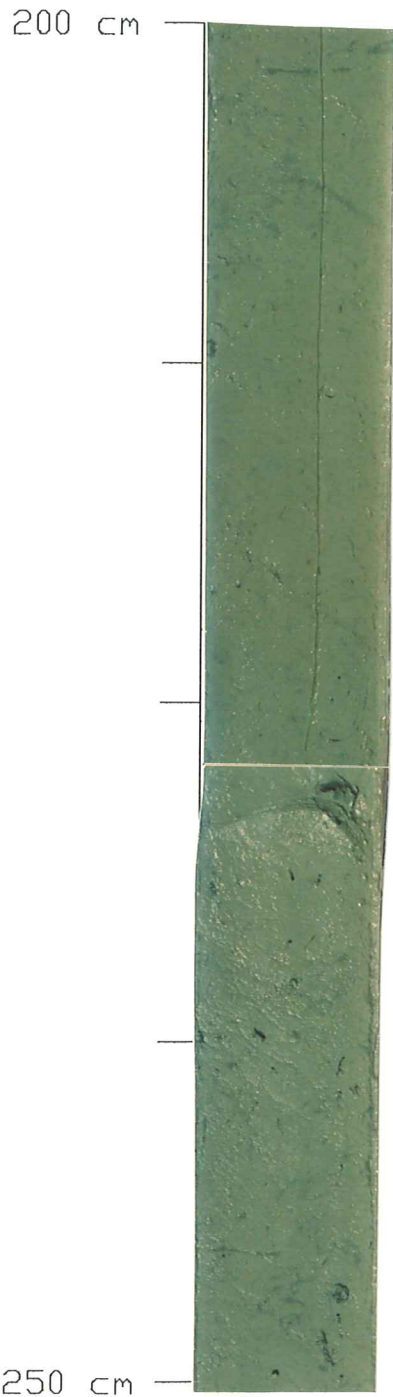
Core 92-028H-044
Interval 0-100 cm



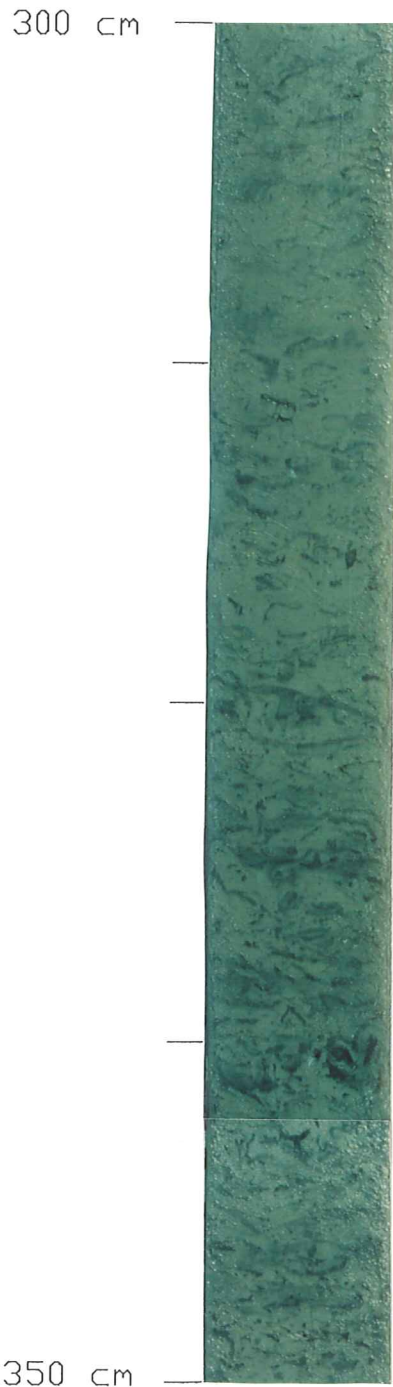
Core 92-028H-044
Interval 100-200



Core 92-028H-044
Interval 200-300



Core 92-028H-044
Interval 300-400



Core 92-028H-044
Interval 400-427 cm



Cruise Number	Sample Number	Sample Type	Interval
92028H	044	Gravity	0 - 100 cm

Depth (cm)	Visual Description	Munsell Colour			
0	25Y5/2 silty clay homogeneous surficial veneer 2-3 cm thick underlain by 5Y5/2 homogeneous clay heavily bioturbated throughout	25Y5/2 5Y5/2	☉	∩	
10	bivalve <u>in situ</u> at 12 cm			∩	
20	open burrow at 20 cm		⊙	∩	
30			∩	∩	
40	broken shell at 37 cm cohesive homogeneous structureless clay aa bioturbated		∩	∩	
50			∩		
60	small carbonate clast at 60 cm bioturbation ↓ 'ing		∩	△	
70					
80					
90					
	infilled burrow at 100 cm		⊙		

Cruise Number	Sample Number	Sample Type	Interval
92028H	044	Gravity	100 - 200 cm

Depth (cm)	Visual Description	Munsell Colour		
100			§	
110	below 110 cm little or no bioturbation to 122 cm			§
120	sli. silty clay aa little bioturbation <20% of core face	5Y5/2	§	
130				§
140			§	
150				§
160	grit w/broken shell small basalt erratic at 158 cm; interval mottling ↓ below 158 cm	5Y4/1	△	· · · · · · · · · ·
170			§	
180	↑ mottling at 184 cm			· · · · ·
190	gritty lense at 192			§

Cruise Number	Sample Number	Sample Type	Interval
92028H	044	Gravity	200 - 300 cm

Depth (cm)	Visual Description	Munsell Colour		
200	sli. silty clay aa soft, cohesive homogeneous		S	
210	212 ↓ mottling			S
220			S	
230	basaltic erratic at 230 cm		△	
240				S
250			S	
260			⊙	
270	↑ mottling below 269-277 cm		S	
280	sli. silty homogeneous clay aa mottled backfilled trace at 284 cm			S
290	at 294 TEICHNITES? trace	5Y6/2		↑

Cruise Number	Sample Number	Sample Type	Interval
92028H	044	Gravity	300 - 400 cm

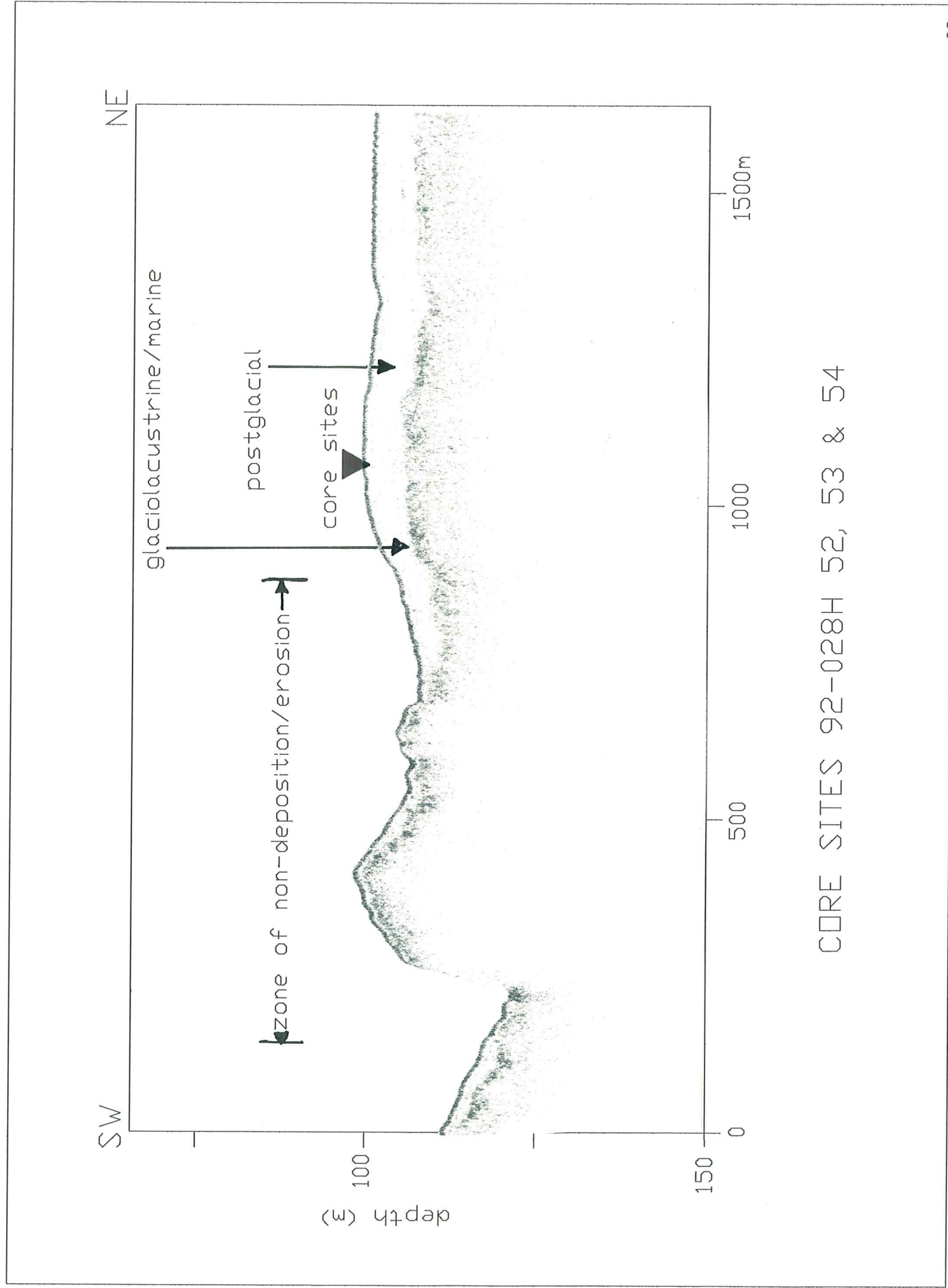
Depth (cm)	Visual Description	Munsell Colour	
300			S
310	backfilled burrow		~~~~~ S
320	↑ mottling		S
330			S
	infilled burrow at 335 cm		~~~~~ S
340			S
	burrows? at 245 cm sampled		S
350			S
360			S
370	backfilled traces at 270, 273 cm		~~~~~ ~~~~~ S
380	280 cm change in mottling ↓		S
390			S
	↑ mottling below 400 - TD		S

Cruise Number	Sample Number	Sample Type	Interval
92028H	044	Gravity	400 - 427 cm

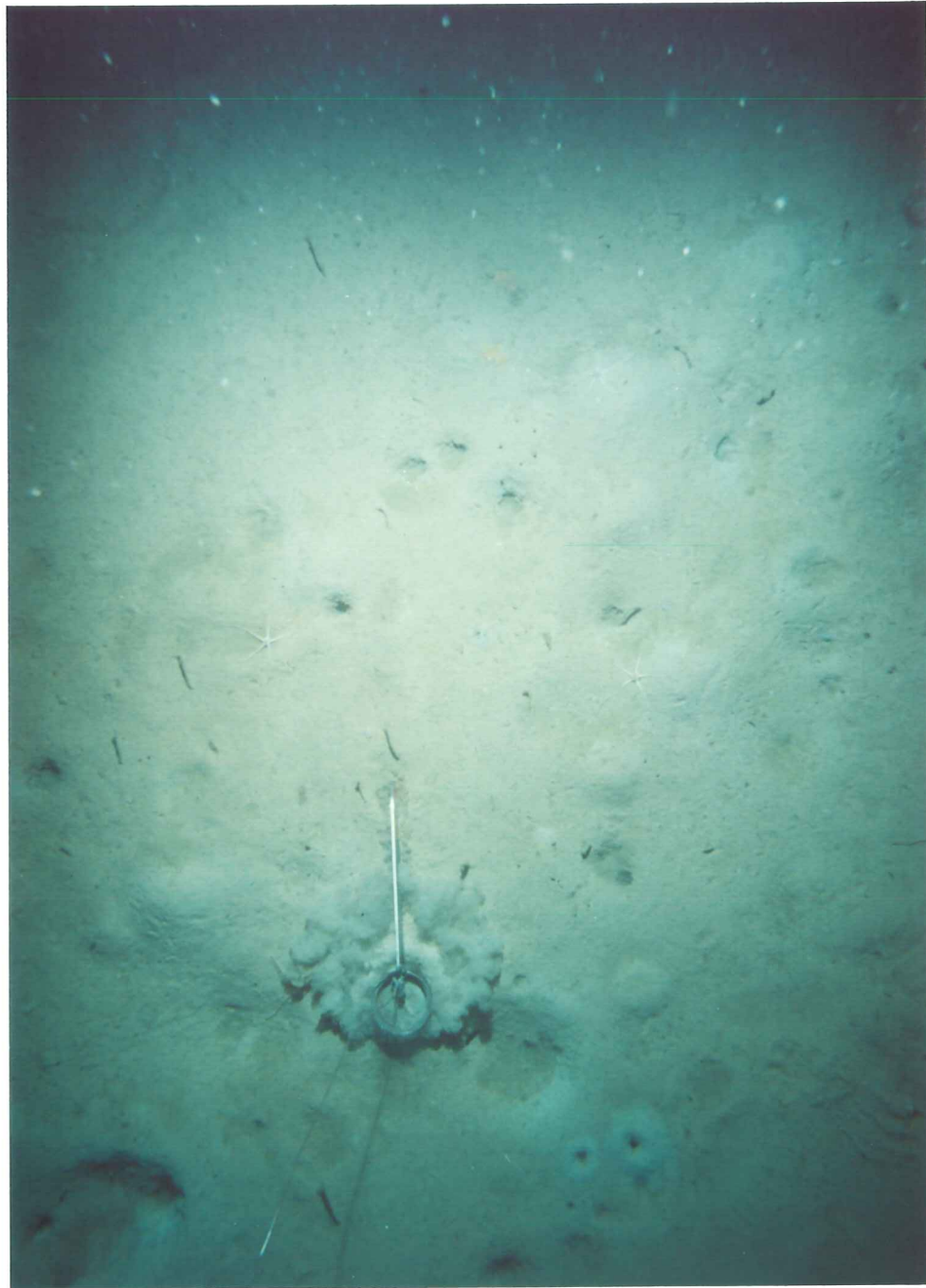
Depth (cm)	Visual Description	Munsell Colour	
400	Total Depth 427 cm	5Y5/2	§
410			§
420			§
430			
440			
450			
460			
470			
480			
490			

3.5 kHz subbottom profiler seismic section for core sites 92-028H-052-4

This core site was located 9 kilometres west of Schooner Opening (figure 5) in area of 5 metres postglacial and 3 metres of glaciolacustrine/marine sediments underlain by till/ice contact deposits. Note lack of bathymetric control over till deposition.



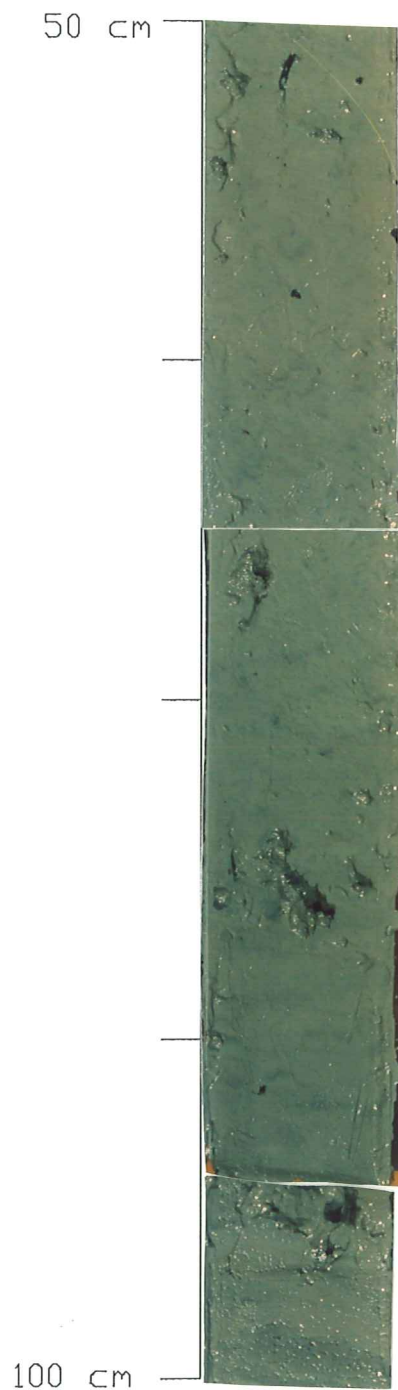
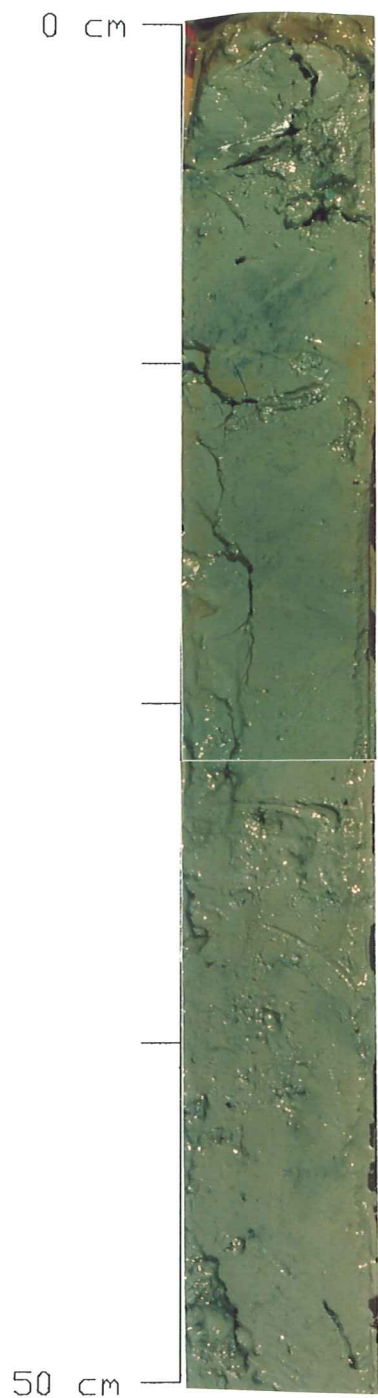
CORE SITES 92-028H 52, 53 & 54



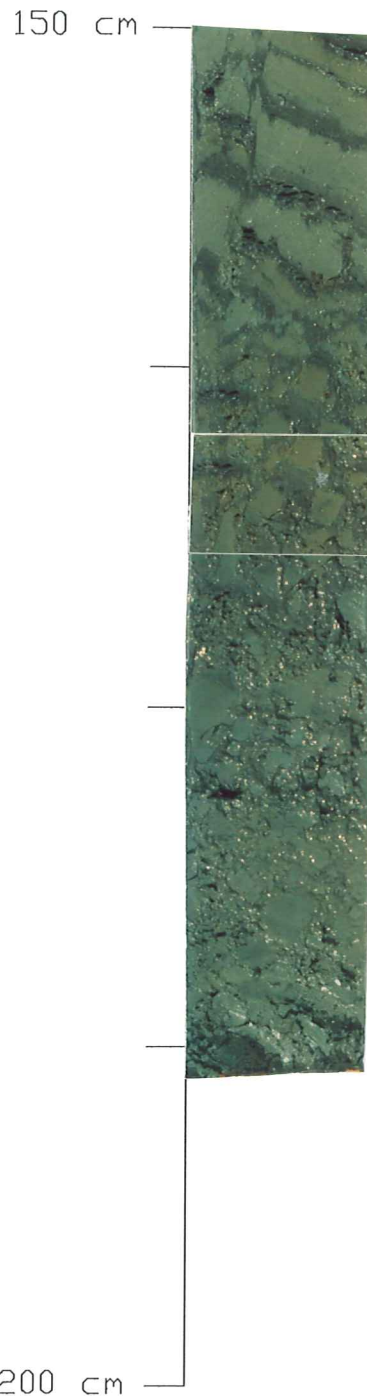
Camera station	92-028H-055
Box core site	92-028H-054
Water depth	163m

Core 92-028H-053

Interval 0-100 cm



Core 92-028H-053
Interval 100-176 cm



Cruise Number	Sample Number	Sample Type	Interval
92028H	053	Gravity - Long	0 - 100 cm

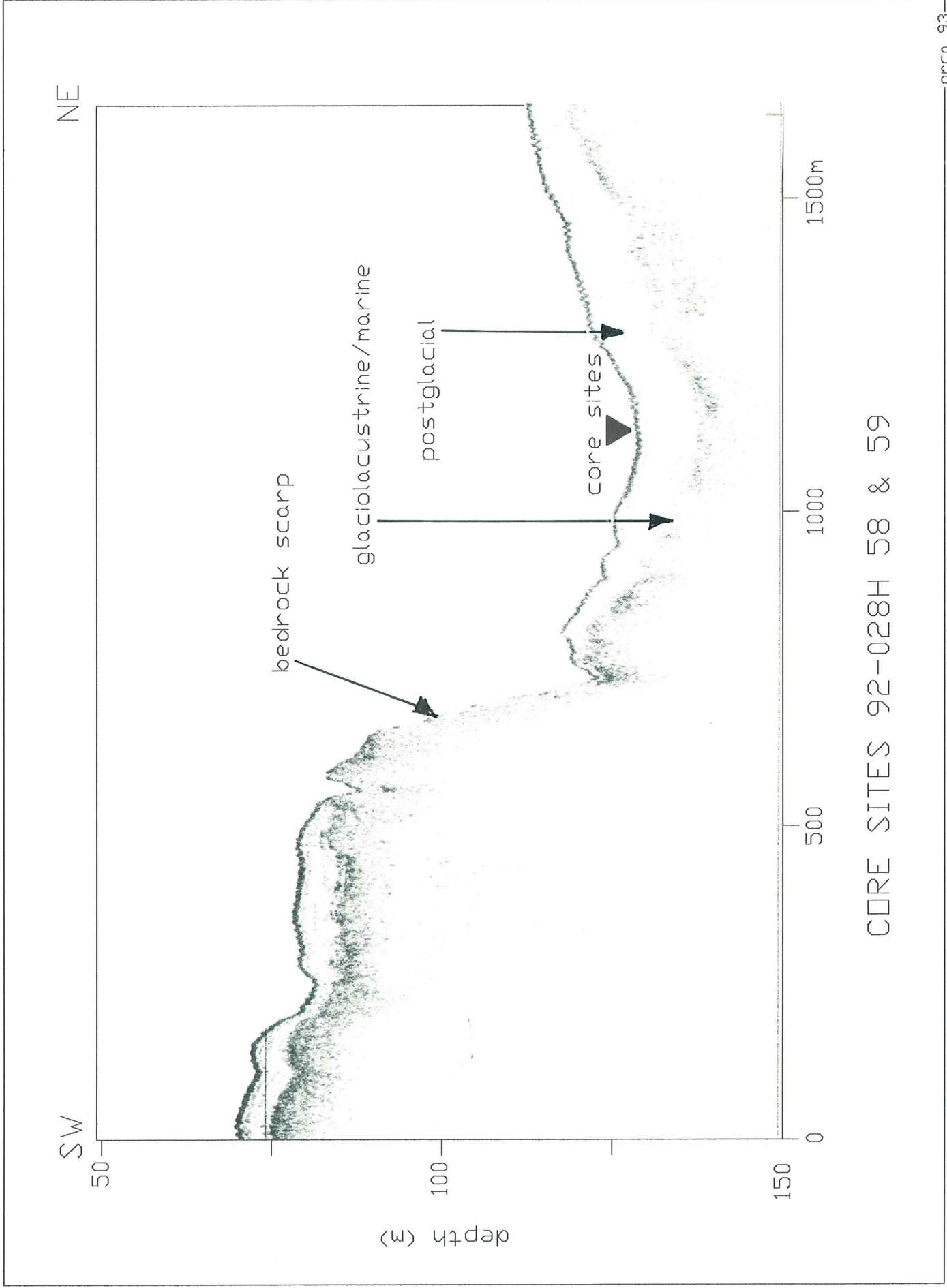
Depth (cm)	Visual Description	Munsell Colour	
0	thin olive green surficial vener silty clay ~ 2 cm underlain by silty clay w/10% grit	5Y5/3 5Y4/2 5Y4/2	
10			
20			
30	broken shell frag.		
40	transition 40 cm clay above, gray is below		
50			
60	↑ mottling		
70			
80	↓ mottling backfilled trace at 80 cm homogeneous structureless clay, silty aa <5%	5Y5/1	
90	gray silty <5% clay transition at 92 cm 92-98 cm gray clay with silty contact at 98 cm	10YR5/1	

Cruise Number	Sample Number	Sample Type	Interval
92028H	053	Gravity - Long	100 - 176 cm

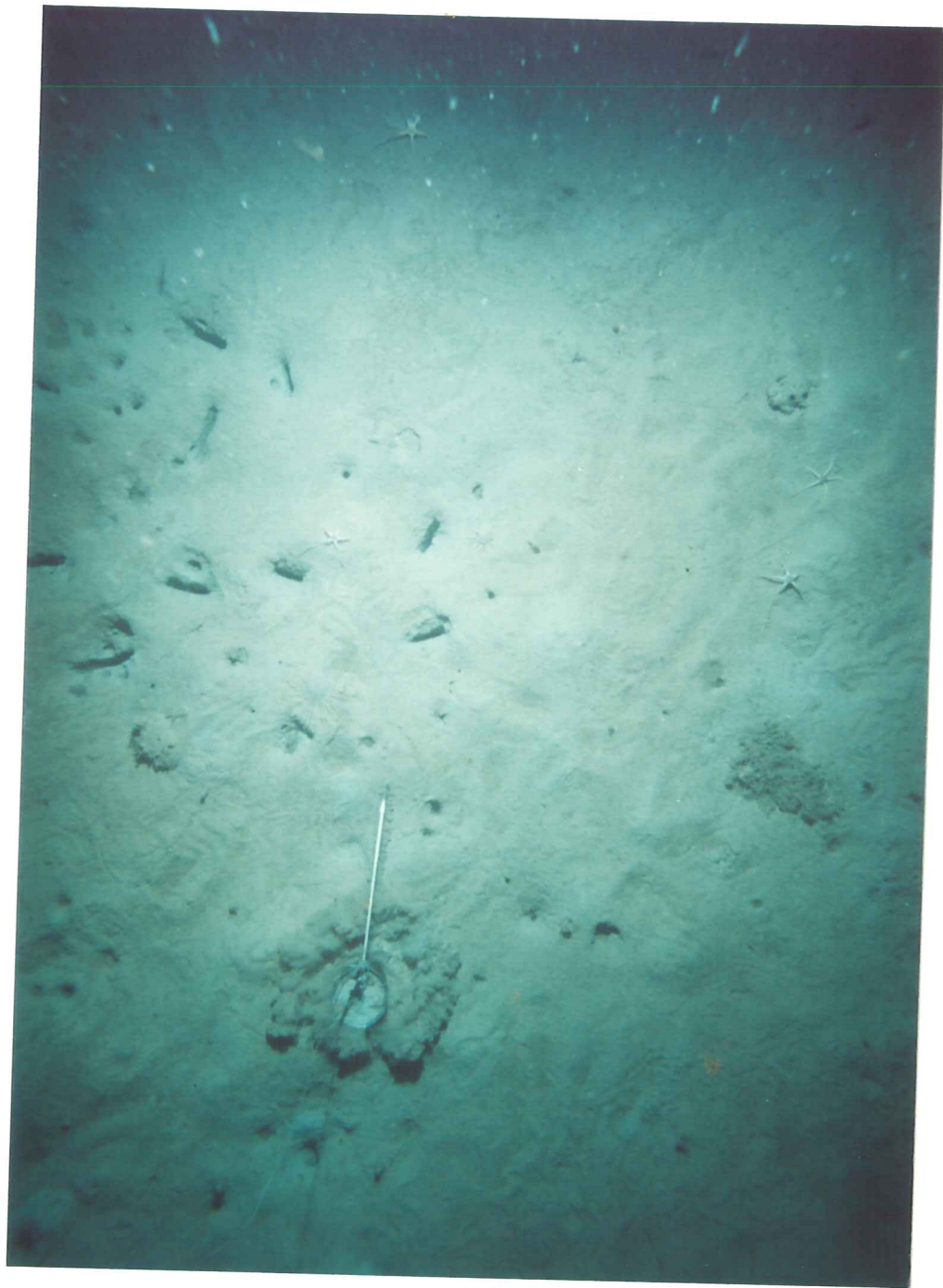
Depth (cm)	Visual Description	Munsell Colour	
100	98-139 cm sequence of rythmites of alternating clay bands 5Y5/3, 5Y5/2, 10YR5/1 8-9 in number		
110			
120			
130			
140	140-153 core disturbance ?	5Y5/2 5Y4/1	
150	unconformable contact 150 cm debris flow w/rip up clasts of clay - local failure by postglacial sed'ts nearby?	5Y5/2	△
160			△
170			△
180	Total Depth 176 cm		△
190			

3.5 kHz subbottom profiler seismic section for core sites 92-028H-058-9

This core site was located 7 kilometres west of Castle Island (Figure 5) in the second offshore trough west of the ridge associated with small islands and exposed rocks 2 kilometres east-northeast of the core site. Note lack of bathymetric control on deposition and the lack of sediment at the base of the bedrock scarp.



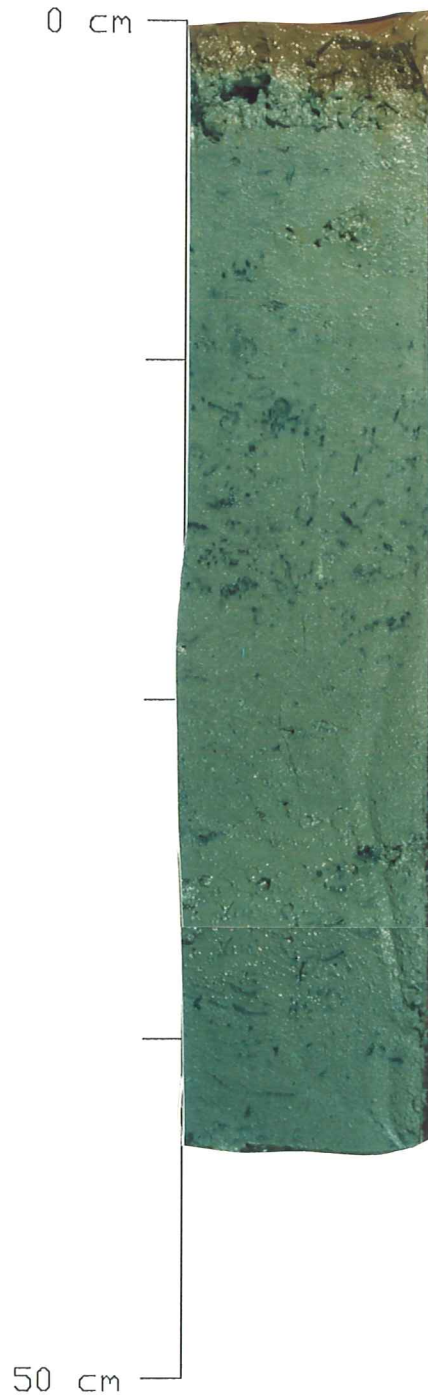
CORE SITES 92-028H 58 & 59




Camera station	92-028H-057
Box core site	92-028H-060
Water depth	90m

Core 92-028H-059B

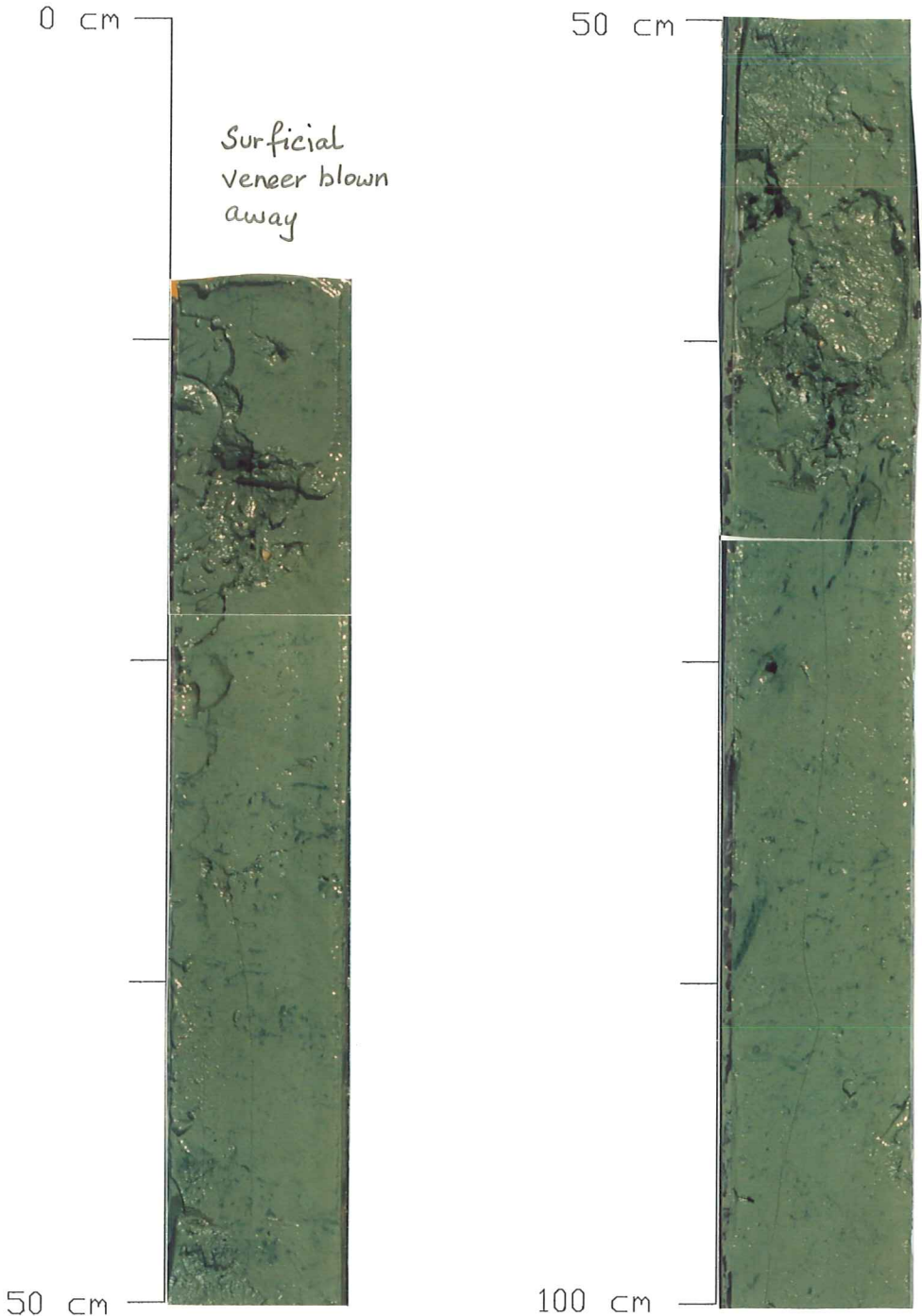
Interval 0-37 cm



Cruise Number	Sample Number	Sample Type	Interval
92028H	059	Boxcore (B)	0 - 37 cm

Depth (cm)	Visual Description	Munsell Colour	
0	surficial veneer 3 cm thick evidence of pulldown by bioturbation into transition clay from 3-5 cm blood worm polychaete shell at 8 cm, 6 cm	10YR4/4	
10	12-22 cm mottled 10% face		S S
20	22-33 cm little or no mottling		S
30			
40	Total Depth 37 cm		S
50			
60			
70			
80			
90			

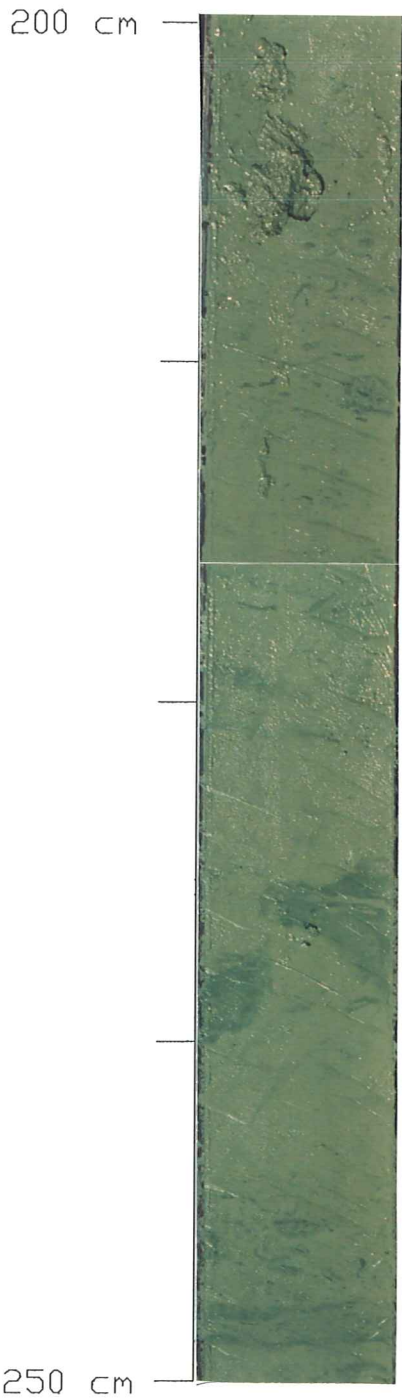
Core 92-028H-058
Interval 0-100 cm



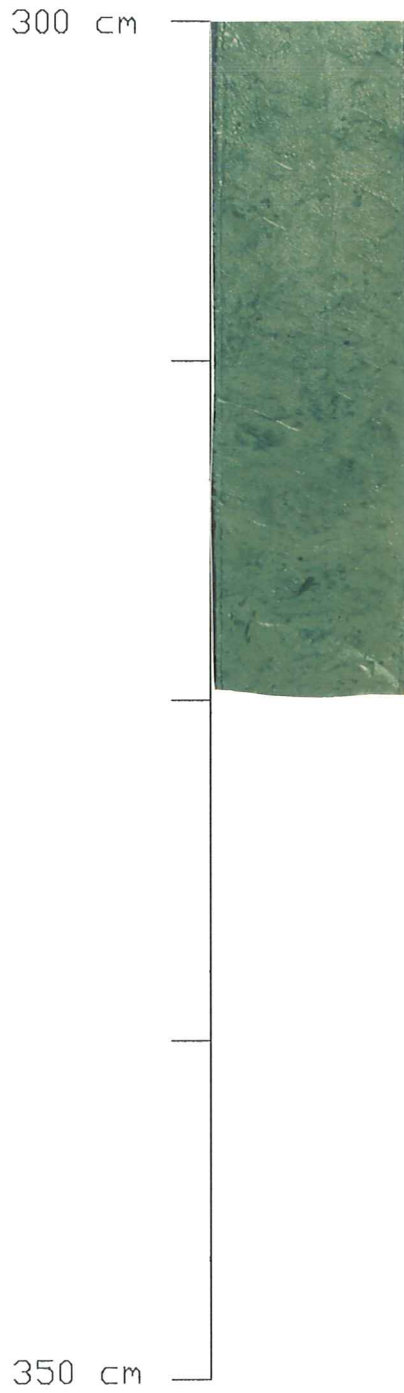
Core 92-028H-058
Interval 100-200



Core 92-028H-058
Interval 200-300



Core 92-028H-058
Interval 300-322 cm



Cruise Number	Sample Number	Sample Type	Interval
92028H	058	Gravity - Long	0 - 100 cm

Depth (cm)	Visual Description	Munsell Colour	
0	surficial veneer blown away - silty clay (10%) cohesive <5% black blebs on core surface - organic odor homogeneous	5Y5/2	
10			
20	silty clay aa;	5Y5/2	S
30			
40	carbonate clast at 32 cm		△
50			
60	whole shell at 55 cm large shell frag.		S
70			
80	worm burrow at 73 cm		S
90			
	large vertical worm at 92 cm		Y

Cruise Number	Sample Number	Sample Type	Interval
92028H	058	Gravity - Long	100 - 200 cm

Depth (cm)	Visual Description	Munsell Colour	
100	↓ silt content below 100 cm		§
110			
120			§
130			
140			§
150			
160	clay aa ↓ silt <2% slightly mottled homogeneous, cohesive	5Y5/2	⊙ ⊙
166	shell frag at 166 cm	5Y5/2	⌒ §
170	sli. silty clay aa; sli. mottled		
180	180-186 trace fossil backfilling?		⌒
190	↑ in mottling below 190 cm to 226		§

Cruise Number	Sample Number	Sample Type	Interval
92028H	058	Gravity - Long	200 - 300 cm

Depth (cm)	Visual Description	Munsell Colour	
200			S
210			
220	below 226 cm little or no mottling		S
230	trace(s) btw 230-234 cm		
240	↑ mottling at 142 cm 5% core face		S S
250	at 147 dk mottled banding		
260	153 trace fossil dendritic in appearance		
270	dk'er thin wisps trace(s)?		
280			
290	mottling ↑ 20% core face		S S

Cruise Number	Sample Number	Sample Type	Interval
92028H	058	Gravity - Long	300 - 322 cm

Depth (cm)	Visual Description	Munsell Colour	
300			§
310	↑mottling to 25% core face		§
320	Total Depth 322 cm		⊖
330			
340			
350			
360			
370			
380			
390			

Cores collected South of Schooner Opening (Figure 5)

Cores 92-028H-048/049

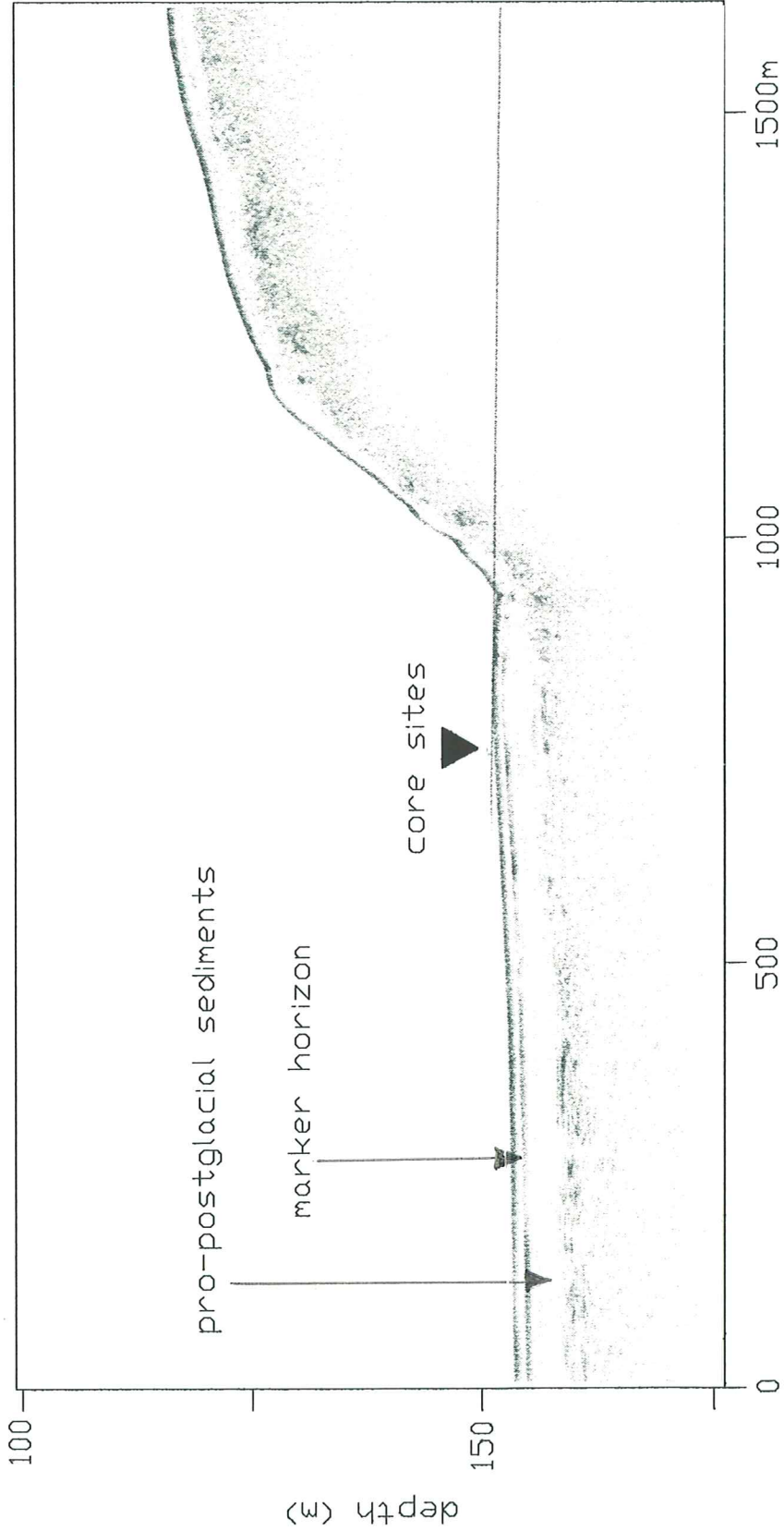
Thin yellowish brown surficial veneer with high water and organic content, grading to an olive gray silty bioturbated, mottled postglacial clay unit with occasional shells, pebbles and stringers of very fine sand. The unit coarsens downcore to sharp contact at 2.6 m where banded mottled gray clay with relict open borrows predominate to 4m. At 4 m there is a sharp contact between this unit and a unit comprised of rhythmically banded interbedded silty dark gray to grayish brown clays. Clay couplets appear to fine upwards. Microfaulting and some dewatering features observed. Bedded clays at 4.4m are less rhythmic in character. A 0.1 m coarse angular sand unit abruptly defines the transition between the overlying rhythmites, from the underlying homogeneous gray clay with distinct thin "flame structures" denoting rapid deposition throughout.

3.5 khz subbottom profiler seismic section for core sites 92-028H-047-9

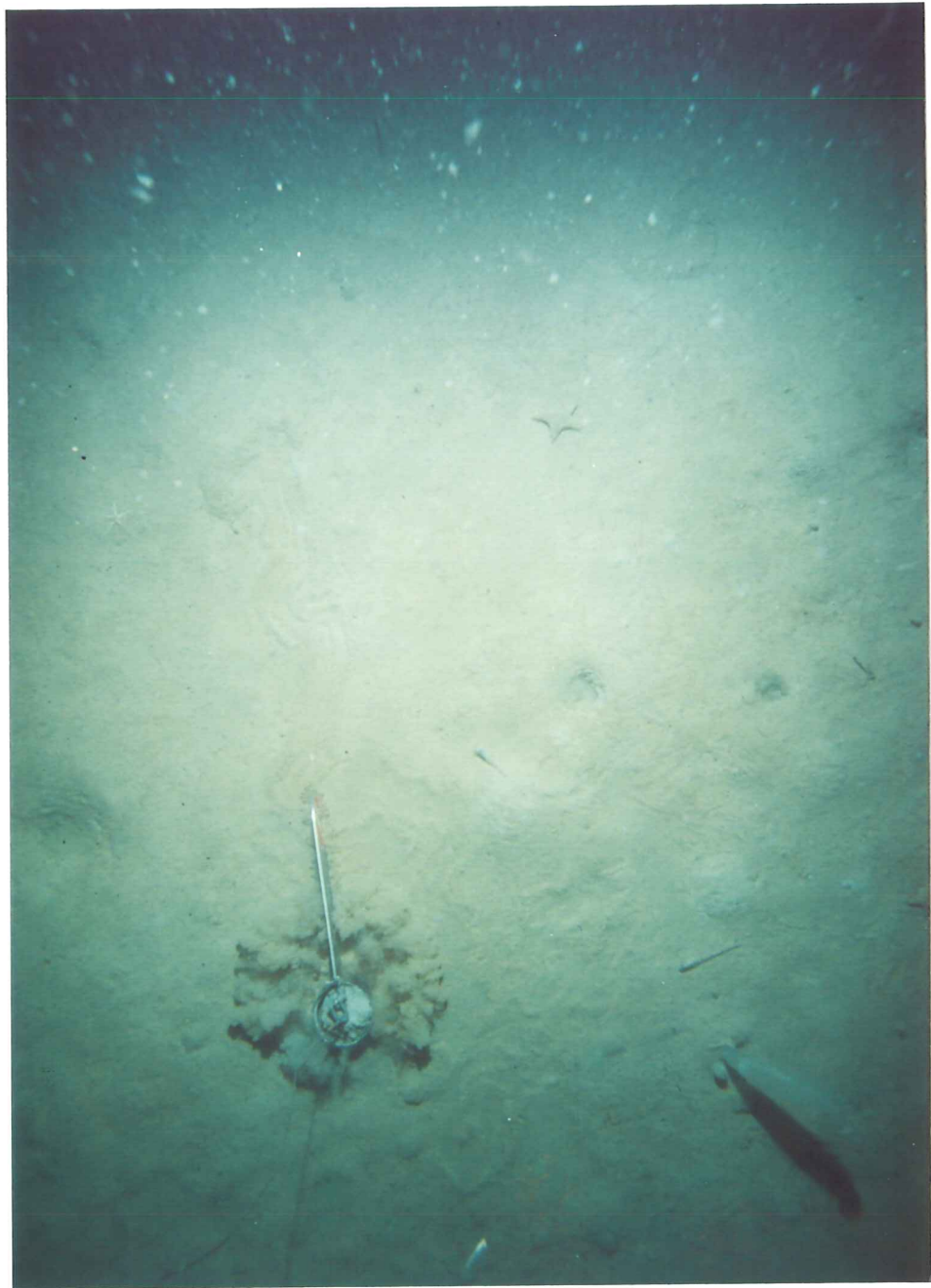
This core site was located 8 kilometres seaward of the southern tip of Merry Island (Figure 5). Note strong reflector 2 metres below seabed in postglacial sediments. This event has been observed on other seismic profiles as well and although not continuous and mappable seems only to occur within a 25-30 kilometre radius from the mouth of the Grande riviere de la Baleine preferentially occurring towards the northwest. It is possible that this unit represents distal deposits from the Grande riviere de la Baleine. (Immediate river outflow indicates strong flow towards the southwest, regional circulation patterns suggest that farther offshore this changes to the north)

NE

SW



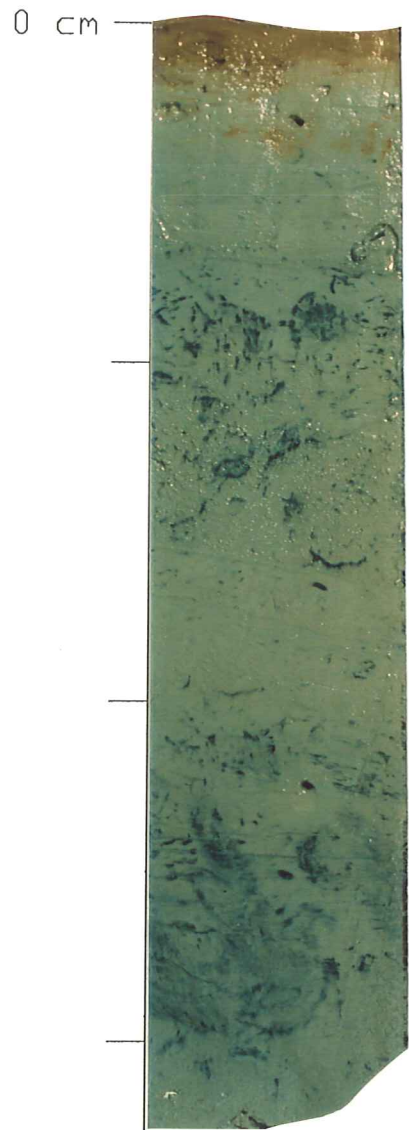
CORE SITES 92-028H 47 & 48



Camera station	92-028H-050
Box core site	92-028H-049
Water depth	150m



Core 92-028H-049B

Interval 0-40 cm

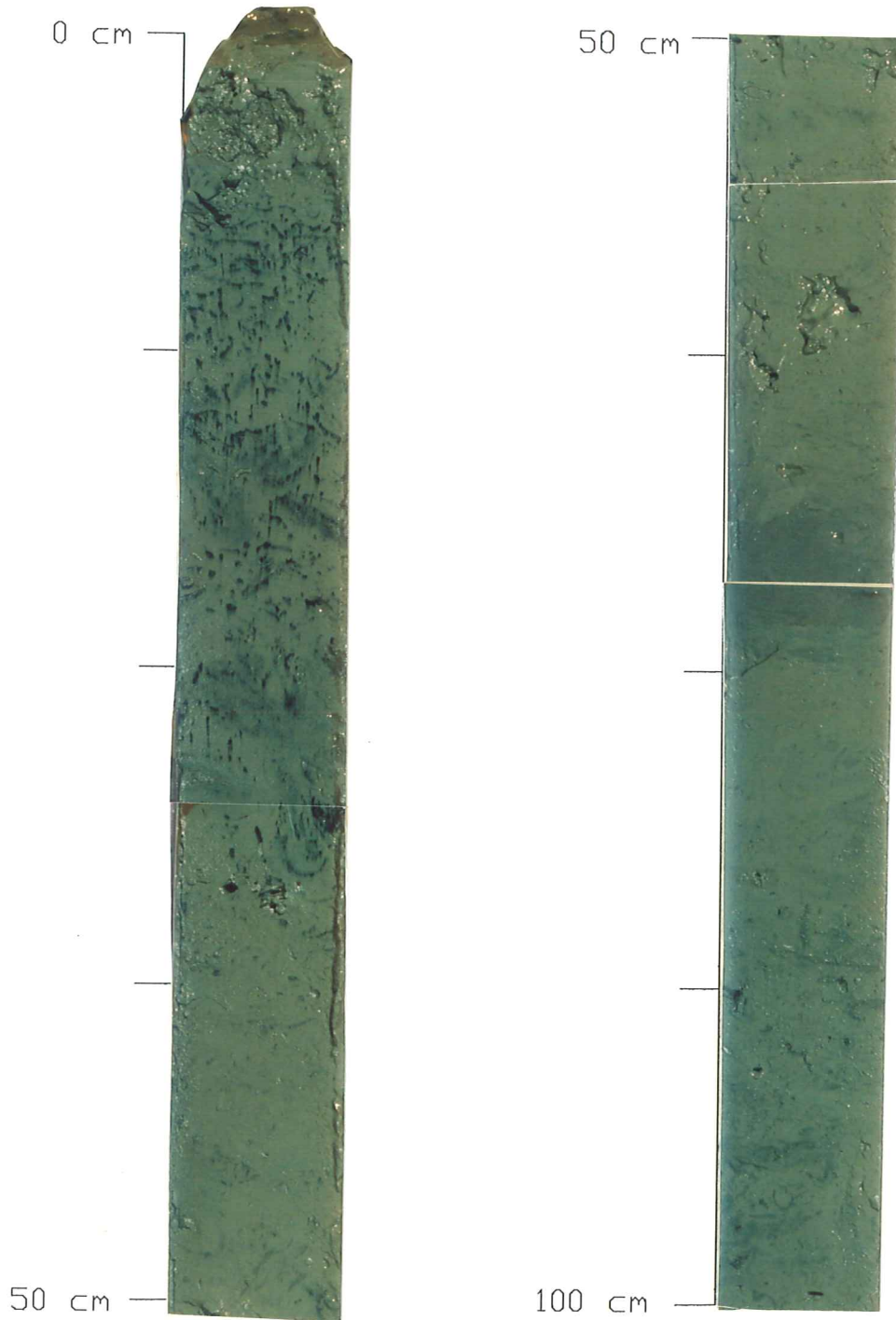


50 cm

Cruise Number	Sample Number	Sample Type	Interval
92028H	049	Boxcore (B)	0 - 40 cm

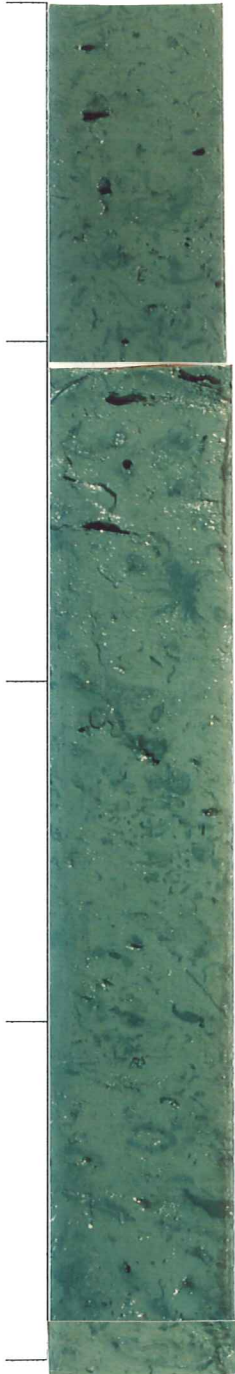
Depth (cm)	Visual Description	Munsell Colour	
0	surficial veneer, sli. silty clay (10-15%); warm tube 1 cm thick; grades to clay 10YR4/4 <.5 cm grades to sli. silty <10% 2.5Y4/3 clay	10YR3/4 10YR4/4 2.5Y4/3	
10	gray 5Y4/2 cohesive structureless clay 2-9 cm transition zone underlain by bioturbated 5Y4/2 clay 9-17 cm; mottled 10% of core face then cohesive structureless clay to 25 cm where mottling ↑ 10% core face	5Y4/2	§
20			§
30	trace fossil backfilled 30-35 cm	5Y4/2	⊙ §
40	shell frags at 38 cm clay below 38 cm structureless, no mottling, v. stiff Total Depth 40 cm		
50			
60			
70			
80			
90			

Core 92-028H-048
Interval 0-100 cm

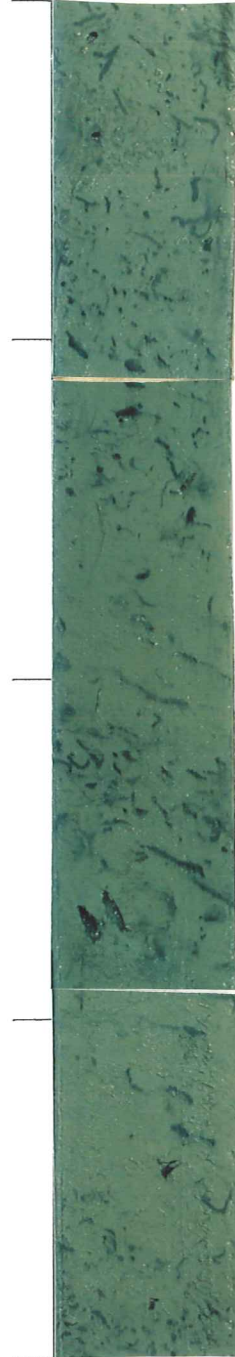


Core 92-028H-048
Interval 100-200

100 cm



150 cm



150 cm

200 cm

Core 92-028H-048
Interval 200-300

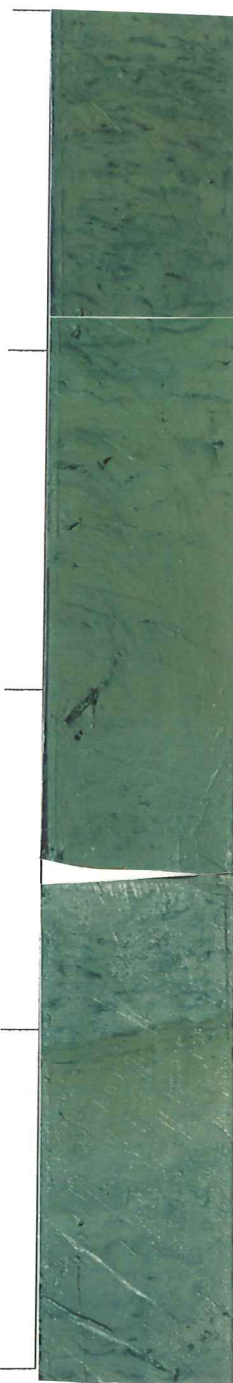


Core 92-028H-048
Interval 300-400

300 cm



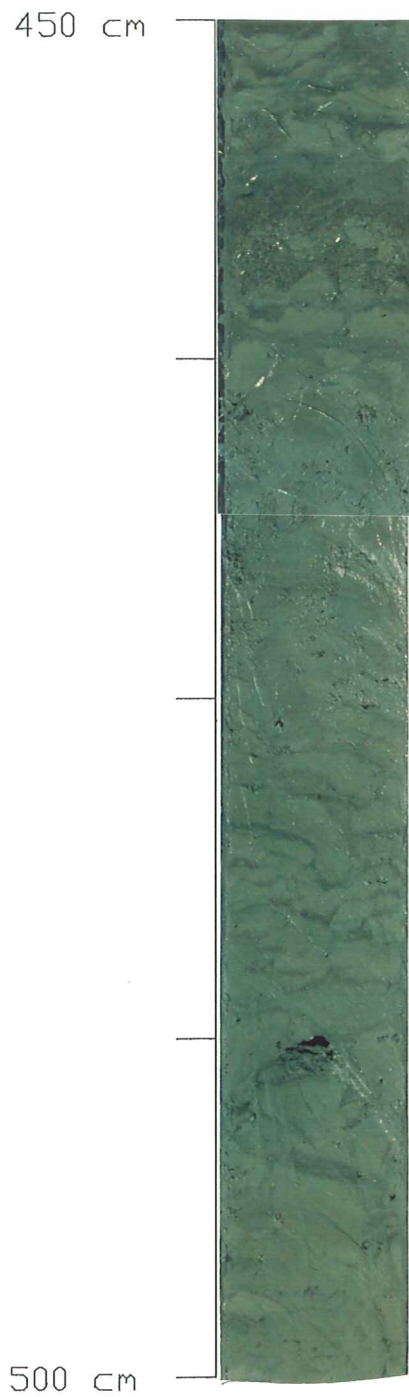
350 cm



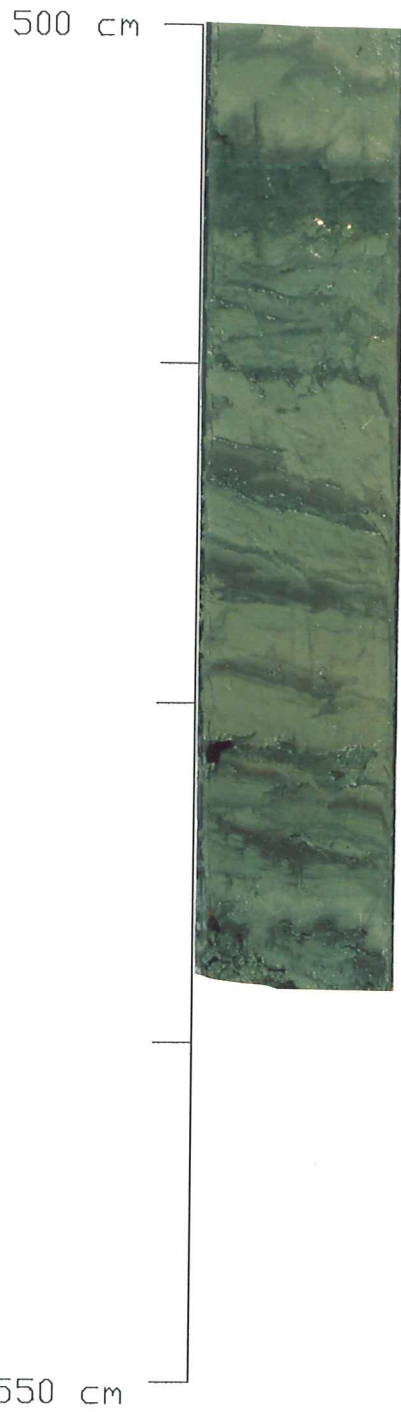
350 cm

400 cm

Core 92-028H-048
Interval 400-500



Core 92-028H-048
Interval 500-529 cm



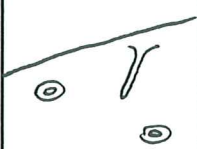



Cruise Number	Sample Number	Sample Type	Interval
92028H	048	Gravity	0 - 100 cm

Depth (cm)	Visual Description	Munsell Colour	
0	surficial veneer ~2 cm flowed out of upper part of core at time of splitting; veneer silty clay - odor /v. organic underlain by olive gray 4 cm thick silty clay to 6 cm gradational contact w/5Y5/2 silty bioturbated clay	2.5Y4/3 5Y5/2	
10			
20			
30	at 30 cm grit and some broken shell debris - locale + open burrow ↓ in bioturbation mottling below to 66 cm		
40			
50	broken shell at 45 cm		
60	upper part of unit bioturbated up into clay v. fine SD lease w/clay abrupt contact at 66 cm 5 cm thick grading to v. fine SD.	5Y5/1	
70			
80	gradational contact into 5Y6/2 clay w/minor mottling to 85 cm where ↑ bioturbation to 111 cm		
90			

Cruise Number	Sample Number	Sample Type	Interval
92028H	048	Gravity - Long	100 - 200 cm

Depth (cm)	Visual Description	Munsell Colour		
100			S	⊙
110			⊙	S
	olive gray 5Y5/2 homogeneous sli. silty <10% clay; mottled w/open burrows	5Y5/2	⊙	
120	122 cm - holdfast trace fossil		✱	S
	shell frag. at 128 cm		⌒	⊙
130				S
	shell frag at 141 large open burrows btw 140-150 cm		⊙	⊙
140			⌒	⊙
	clay homogeneous structureless aa	5Y5/2		S
150			S	
160				
	worm lining at 170 cm 170-177 less mottling		⌒	S
170				⊙
180	open burrows at 184-185 cm 185-198 cm clay less mottled than above/below		⌒	⌒
190				S
	198-224 heavily mottled clay		S	

Cruise Number	Sample Number	Sample Type	Interval
92028H	048	Gravity - Long	200-300

Depth (cm)	Visual Description	Munsell Colour	
200	cohesive; mottled sli. silty clay aa	5Y5/2	§
210			§
220			§
230	olive gray 545/2 homogeneous structure less sli. silty <10% mottled clay		§
240	clay aa; mottled to 245 cm where ↓ 264 cm where <5% of core surface		§
250			§
260	264 abrupt contact and colour change to 274 cm unit has some open burrows less mottling mottled rhythmic	5Y6/2 2.5Y6/1	
270			
280	clay unit w/gradational contact underlain by thin clay unit colour change 278-280 cm below 280 mottled clay 2/worm tubes	5Y5/1	
290	288-292 clay unit w/small carbonate 292 clast. some open burrows gradational contact clay 301	5Y5/1	





Cruise Number 92028H	Sample Number 048	Sample Type Gravity - Long	Interval 300-400
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Depth (cm)	Visual Description	Munsell Colour	
300	trace fossil to be ID'd 5Y4/1 with mottled homogeneous clay aa <20% mottled		
310			
320			
330	gradational contact <5% mottled	5Y5/2	
340			
350	gradational contact to v. mottled	5Y4/2	
360	below 360 cm mottling ↓ and ↑ burrows lining	5Y5/2	
370		5Y5/2	
380	unconformable at 382 cm 5Y5/1 mottled homogeneous clay	5Y5/1 5Y5/2	
390	at 387 transition with underlying clay few burrows		

Cruise Number 92028H	Sample Number 048	Sample Type Gravity - Long	Interval 400-500 cm
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Depth (cm)	Visual Description	Munsell Colour	
400	sandy clay (20%) transition zone? (5Y26/1) clay 402-403 alternating rhymites gray/olive fan 5Y5/3	5Y5/1 (5Y4/1)	
410	dk. gray 5Y4/1 ~ 8 rhymites alternating from 403-426 see A dewatered at 414 cm alternating units gray dk/yellow/gray microfaulting; occasional grit sandy silt lense at 420	5Y5/1 5Y6/1 5Y5/3 5Y4/1	
420	see A rhymites aa	5Y4/1 5Y5/2 5Y5/1	
430			
440	440-454 raped clay depes see photos		
450			
460	sand coarse grading up to med then coarse up to f. clay w/hi sand content; homogeneous mixed no structure	5Y5/1	
470	gray unit	5Y5/1	
480	coarse SD lense at 484 in clay matrix		
490	frame structure	5Y5/2 5Y5/1 5Y5/2	

Cruise Number 92028H	Sample Number 048	Sample Type Gravity - Long	Interval 500-529 cm
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Depth (cm)	Visual Description	Munsell Colour	
500	f. sand, not sharp contact w/underlying alternate units of gray clay of rapid deposition tu507; flame struct.	5Y4/1	
510			
520	SD 5Y5/1 alternating f. SD 1/2 cm t SD clay(s) as flame structure(s) alternating	5Y5/2 5Y4/1- 5Y3/1	
530	Total Depth 529 cm	5Y5/2 5Y4/1- 5Y3/1 5Y5/2	
540			
550			
560			
570			
580			
590			

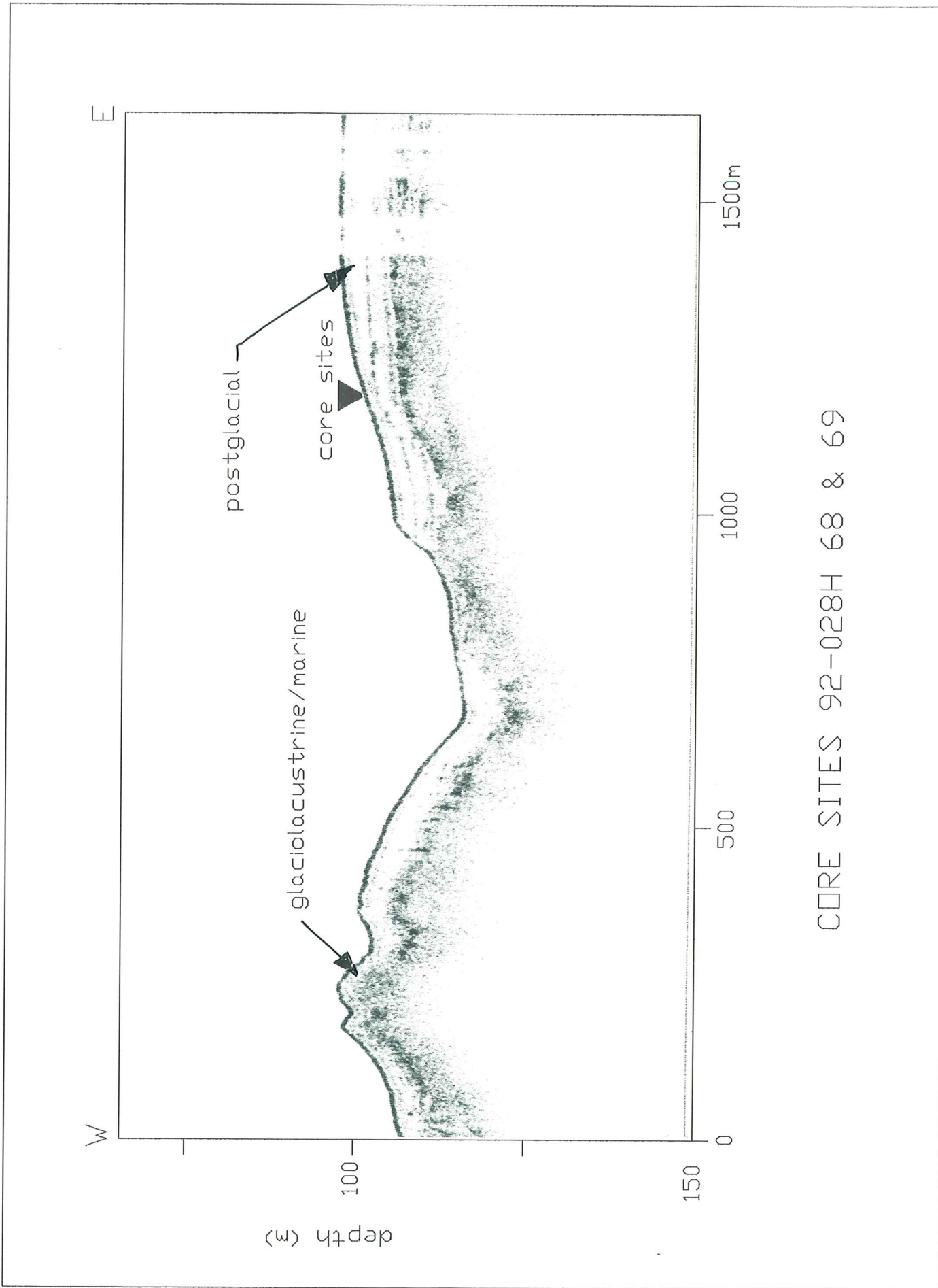
Cores collected in the Petite Riviere de la Baleine region (Figure 5)

Cores 92-028H-068/069/077/078

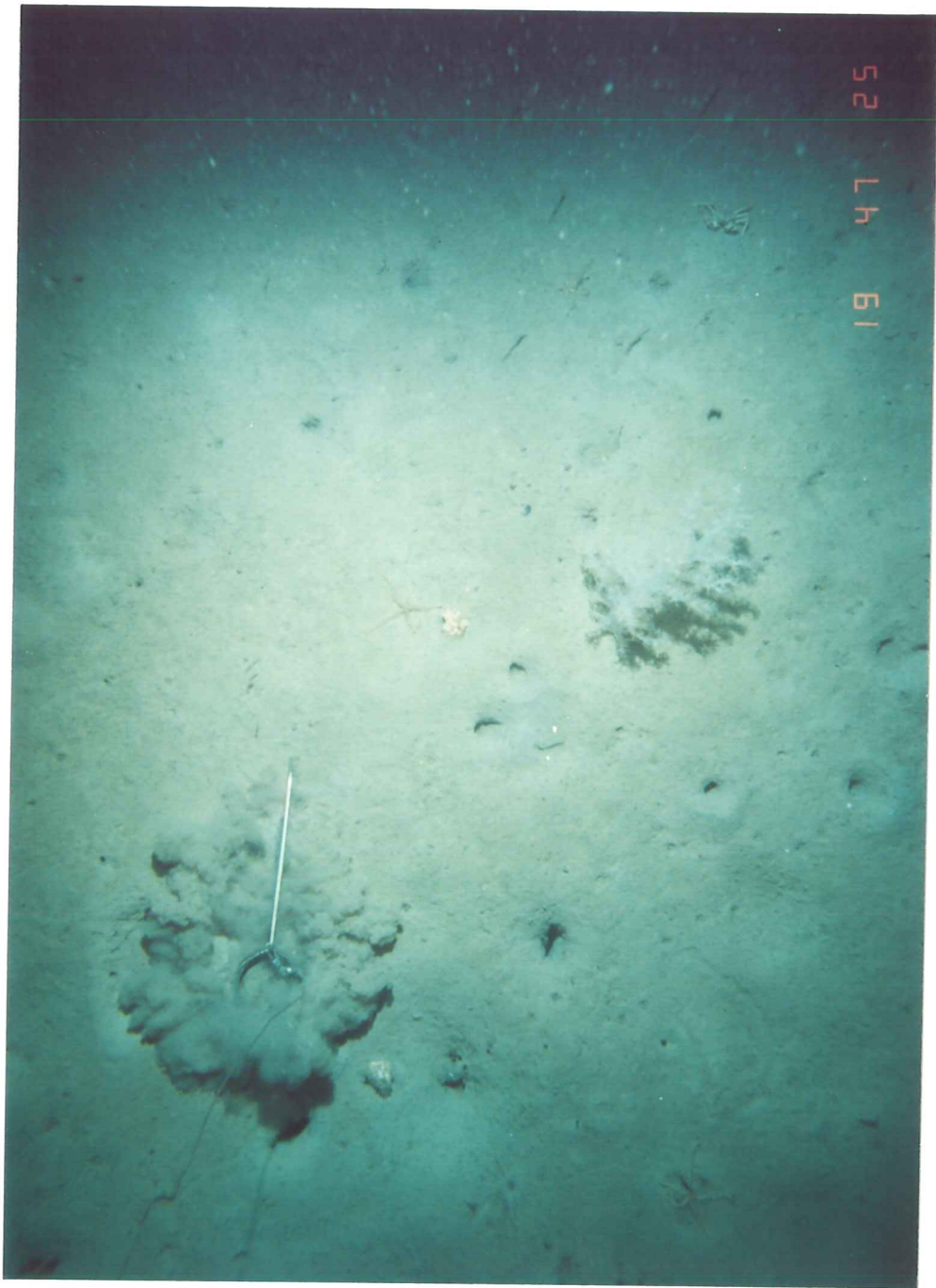
A thin yellowish brown surficial clay veneer of recent origin lies over a gray silty bioturbated, mottled unit containing occasional shell fragments, pebbles and minor stringers of organic material. Much of the veneer and clay unit is absent in core 068; below an unconformity at .22m a gritty gray clay unit gives way downcore to homogeneous cohesive gray clays with occasional trace fossils, relict borrows, shell fragments and organic mottling of varying degrees. Below 3.35m a structureless, cohesive gray bioturbated clay predominates.

3.5 khz subbottom profiler seismic section for core sites 92-028H-068-9

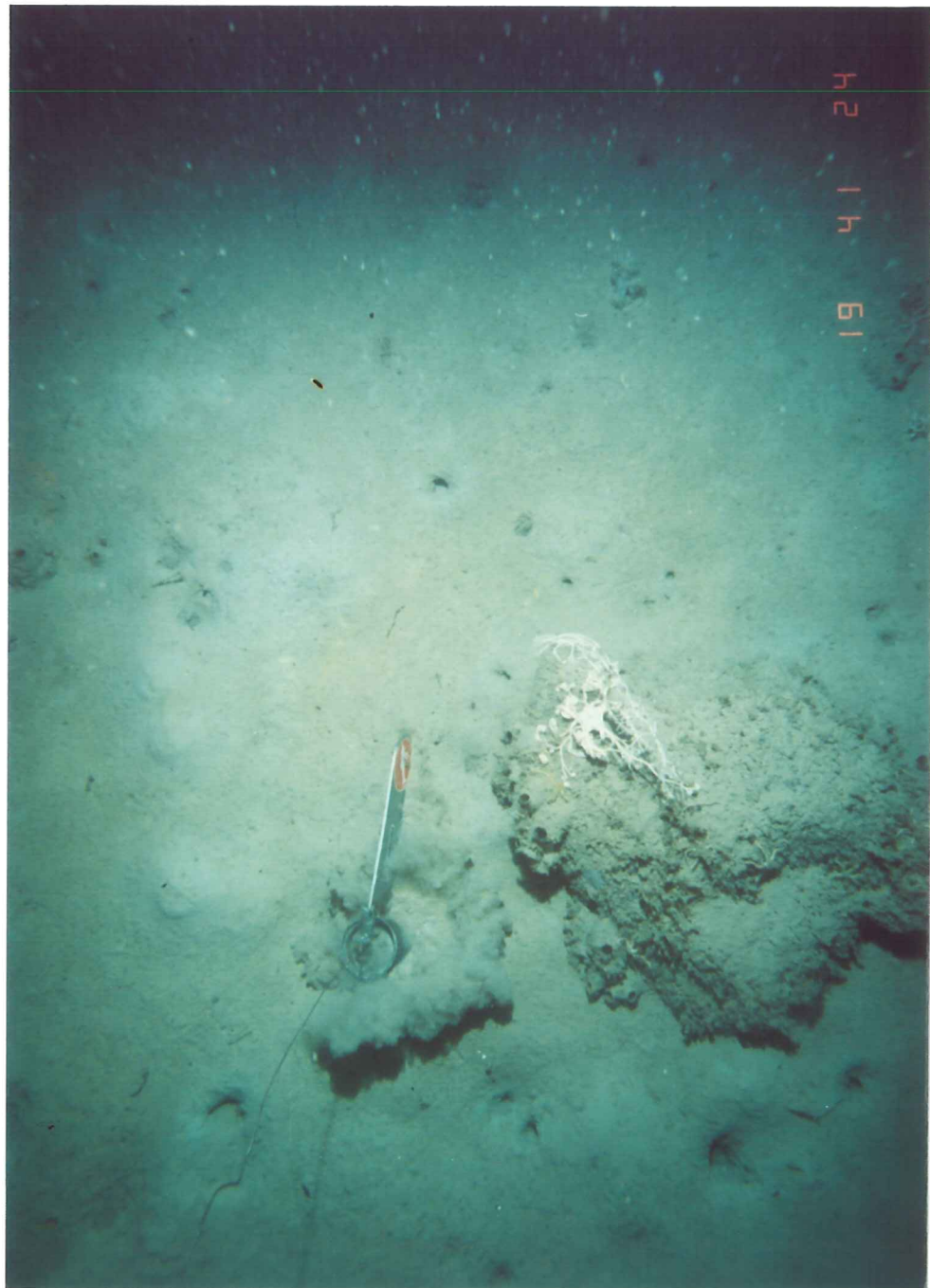
These cores were situated 10 kilometres west of the mouth of the Petite riviere de la Baleine (Figure 5). Note thin postglacial sediments at core site location and thick nearsurface glaciolacustrine/marine sediments in area of non-deposition/erosion.



CORE SITES 92-028H 68 & 69

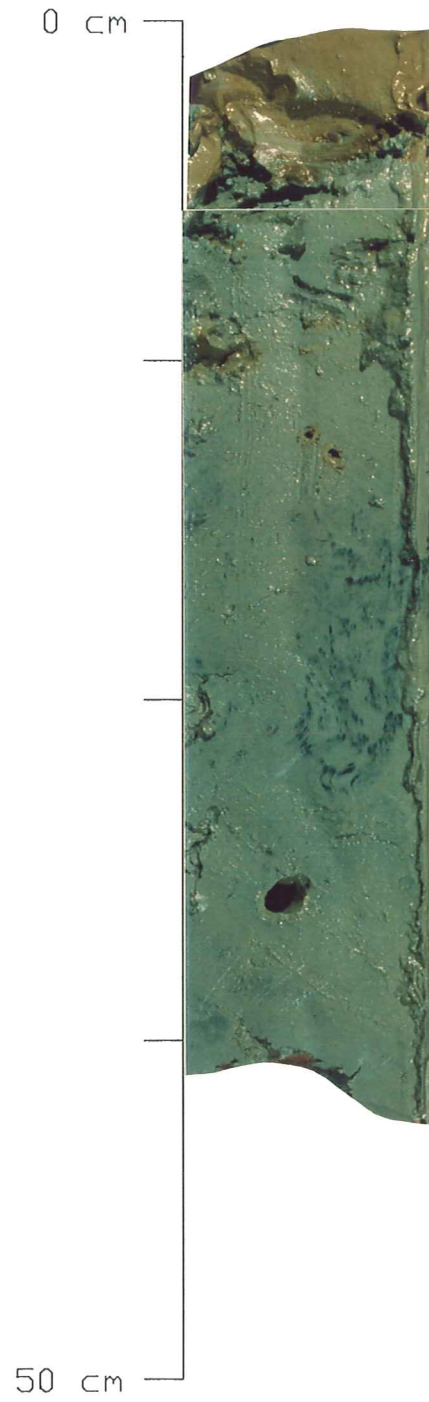


Camera station	92-028H-070
Box core site	92-028H-069
Water depth	97m

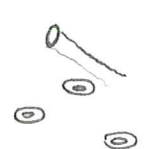






Camera station	92-028H-070
Box core site	92-028H-069
Water depth	97m

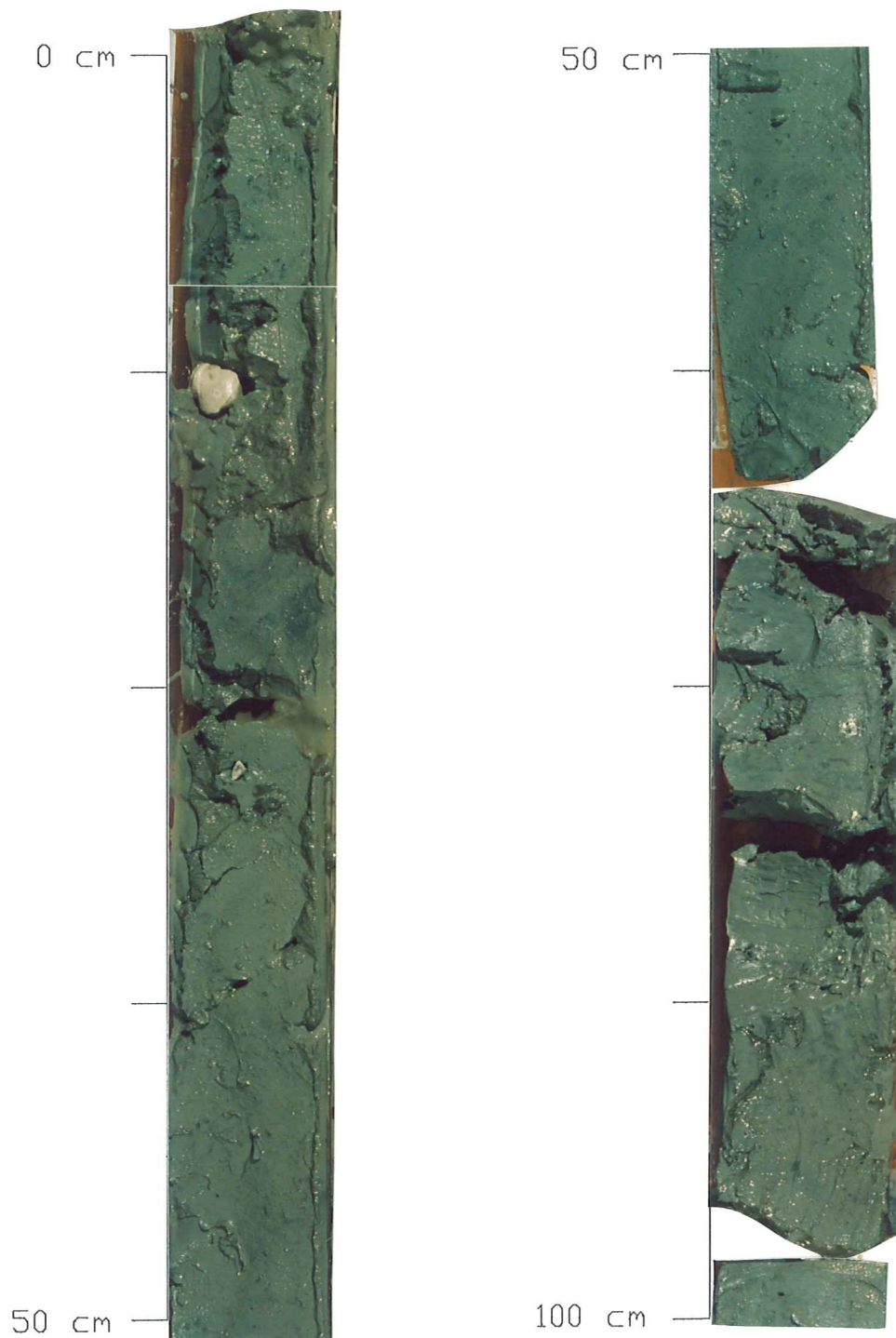
Core 92-028H-069B
Interval 0-37 cm



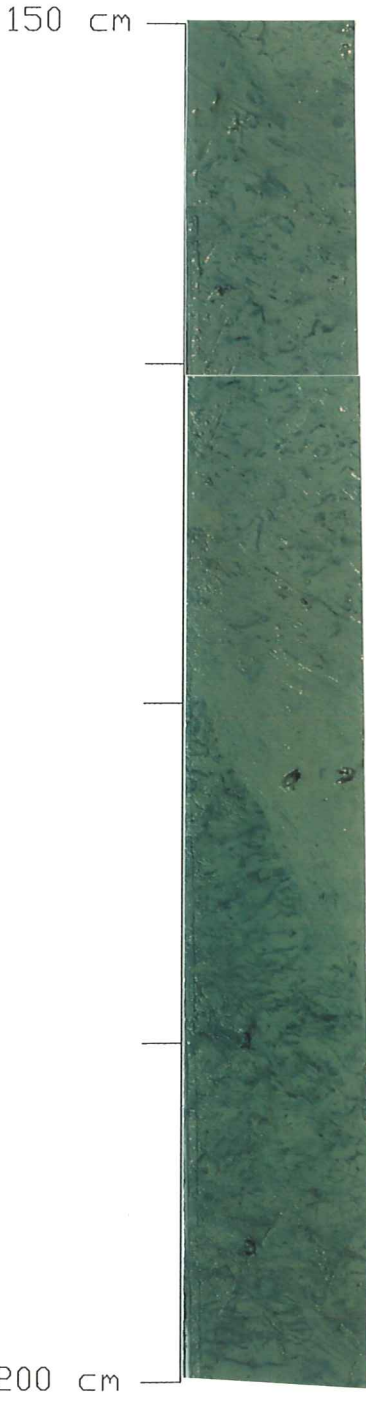
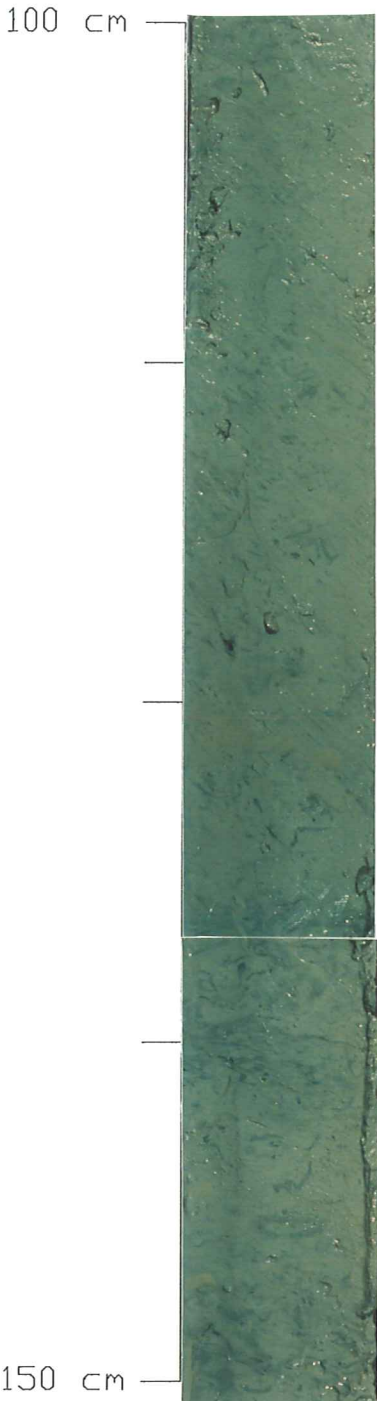
Cruise Number	Sample Number	Sample Type	Interval
92028H	069 (B)	Boxcore	0 - 37 cm

Depth (cm)	Visual Description	Munsell Colour	
0	0-4 cm 2.5Y4/3 surficial veneer w/thin underlying transition zone 4-5 cm grading into 5Y4/2 sli. mottled <10% homogeneous structureless clay horizontal burrows at 8 cm	2.5Y4/3 5Y4/2	
10	infilled burrows 12-13 cm		
20	backfilled trace fossil at 20-26 cm		
30	clay stiff small carbonate clast at 33 cm	5Y4/2	
40	Total Depth 37 cm		
50			
60			
70			
80			
90			

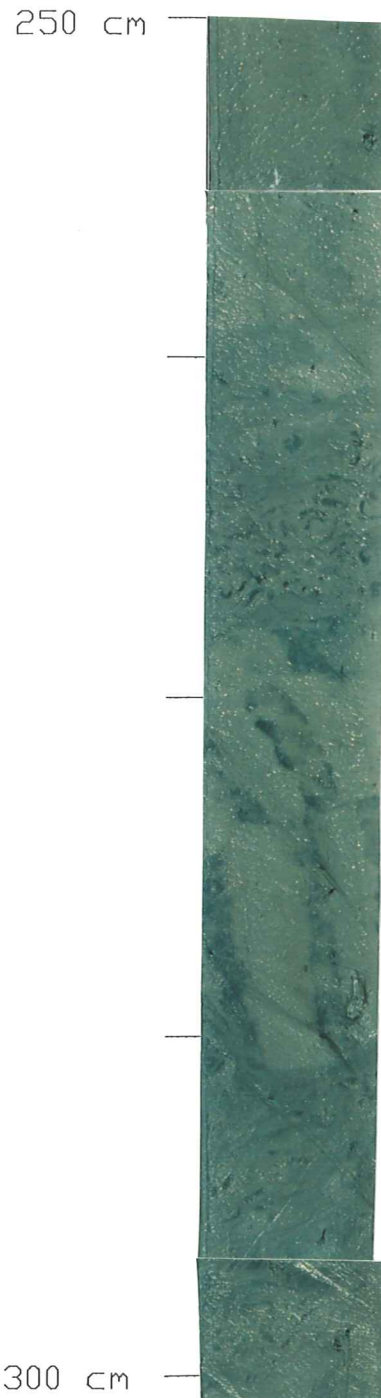
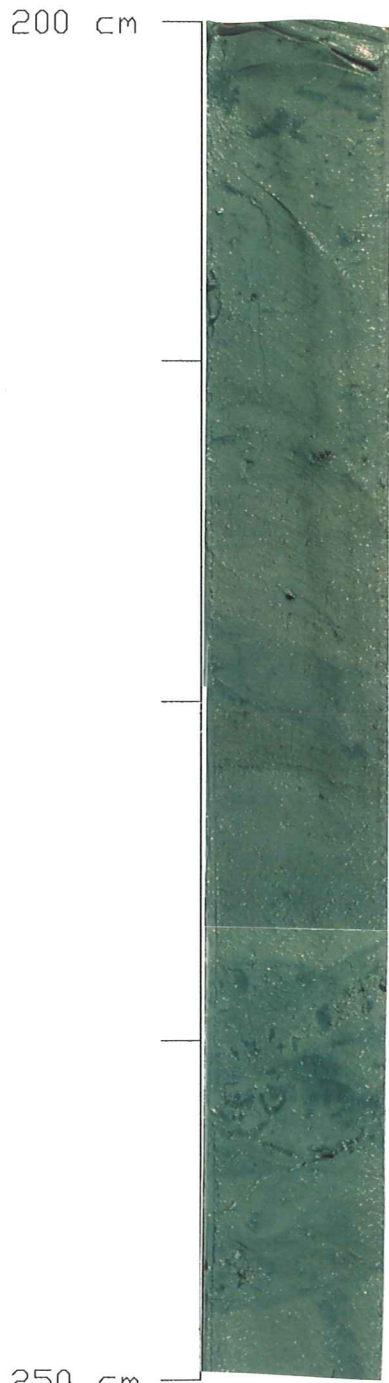
Core 92-028H-068
Interval 0-100 cm



Core 92-028H-068
Interval 100-200



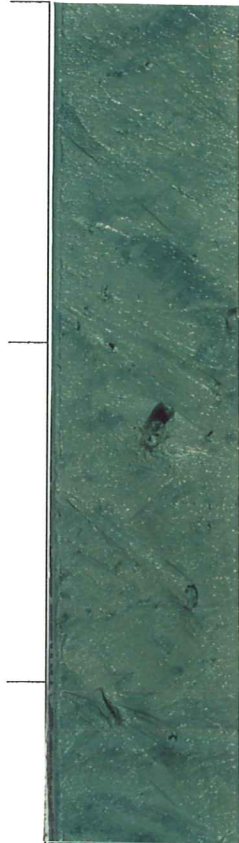
Core 92-028H-068
Interval 200-300



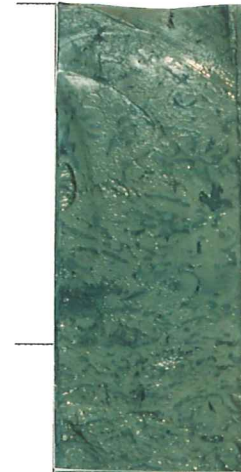
Core 92-028H-068

Interval 300-400

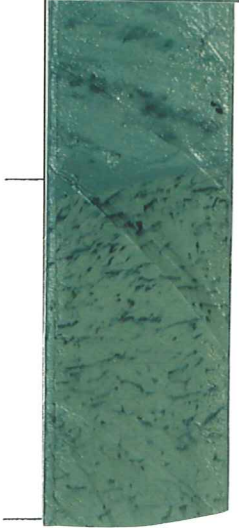
300 cm



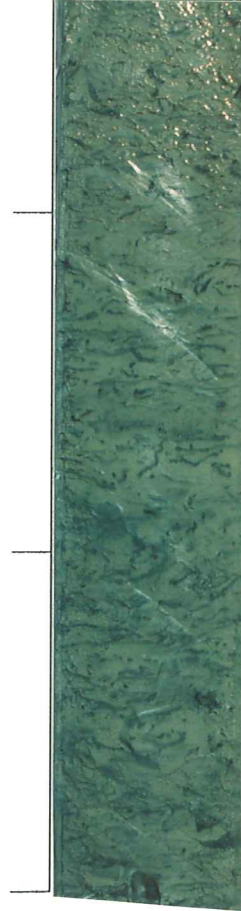
350 cm



350 cm

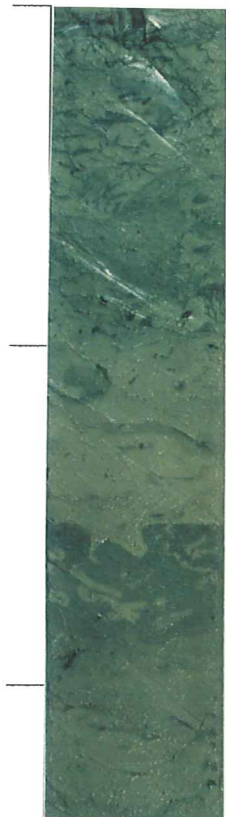


400 cm

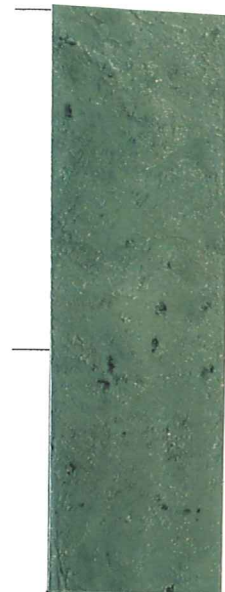


Core 92-028H-068
Interval 400-500

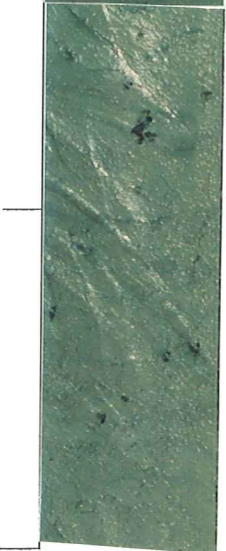
400 cm



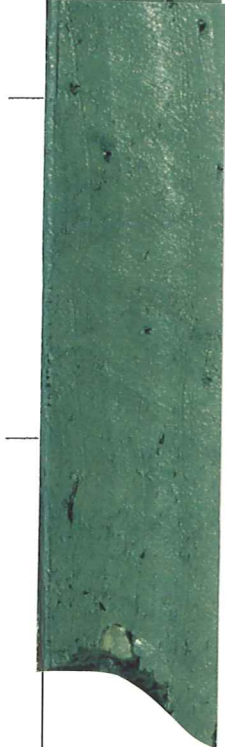
450 cm



450 cm



500 cm







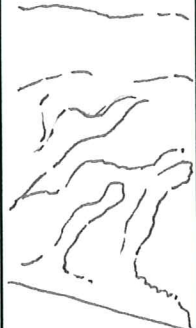


Cruise Number	Sample Number	Sample Type	Interval
92028H	068	Gravity - Benthos	0 - 100 cm

Depth (cm)	Visual Description	Munsell Colour	
0	upper part of core disturbed to 4 cm	5Y5/2	S
10	↑ stiffness below 6 cm 5Y5/2 clay, homogeneous sli. mottled <10%		
20	large carbonate clast at 16 cm	5Y5/2	S △
30	trace fossil at 22 cm abrupt contact of underlying silty clay w/grit carbonate clast large burrow at 26, 38 cm ↑ silt content gradational contact at 30 cm		
40	clay aa; sli. mottled <15%; cohesive, stiff homogeneous structureless	5Y5/2	S
50			
60			S
70	D'-D 71-98 cm disturbed by coring homogeneous, structureless clay	5Y5/2	S
80	shell frag. at 80 cm		⌒
90			

Cruise Number	Sample Number	Sample Type	Interval
92028H	068	Gravity - Benthos	100 - 200 cm

Depth (cm)	Visual Description	Munsell Colour	
100	98-104 ↑ mottling 15% core face homogeneous, bioturbated structureless clay	5Y5/2	§
110			§
120			§
130	128-131 ↓ mottling 131 ↑ mottling to 25% of core face	5Y5/2	§
140	↓ mottling at 140 cm <5% core face to 148 cm		§ ⊙
150	148-171 ↑ mottling to 15% core face		§
160			§
170	168 cm transition from mottled clay to no mottling to 170 cm abrupt contact at 170 cm		§ ----- § §
180	wispy mottling to 195 cm 20% core face	5Y5/2	
190	195 cm few wisps w/in homogeneous structureless clay		

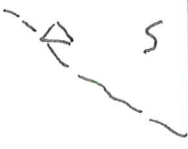










Cruise Number	Sample Number	Sample Type	Interval
92028H	068	Gravity - Benthos	200 - 300 cm

Depth (cm)	Visual Description	Munsell Colour	
200	gray sli. silty clay (<5%) homogeneous sli. mottled	5Y5/2	
210	↑ silt content (10%) worm tube lining	5Y5/2 5Y5/1	
220	224-226 2 cm thick 5Y5/1 clay homogeneous	5Y4/2	
230	132-140 cm silty clay mixed gritty	5Y4/2 5Y4/1 5Y5/1	
240	small clast at 144 cm trace burrow hue of clay dk 'erthan surrounding matrix	5Y5/1	
250			
260	clay aa v. mottled 10% core face 164-168 remnant trace burrows as sketched	5Y5/2	
270			
280	mottled clay <10% core surface	5Y5/2	
290	thin 5Y5/2 clay-homogeneous mixed no mottling		

Cruise Number	Sample Number	Sample Type	Interval
92028H	068	Gravity - Benthos	300 - 400 cm

Depth (cm)	Visual Description	Munsell Colour	
300	homogeneous mixed clay structureless	5Y5/1	
310	backfilled trace fossil 107-114 cm within clay	5Y5/2	<i>(wavy)</i>
320	clay 225 cm with thin wispy mottles as noted	5Y4/2	<i>(wavy)</i>
330	5Y5/1 thin clay unit homogeneous abrupt contact at 335 cm clay-mixed structureless more compact than overlying clay	2.5Y5/2	<i>(wavy)</i>
340			<i>§</i>
350			<i>§</i>
360	clay aa; mottling 30-35% core face	5Y5/1	<i>§</i>
370			<i>§</i>
380	380-390 clay aa; mottling ↑ 40-45% core face		<i>§</i>
390			<i>§</i>

Cruise Number	Sample Number	Sample Type	Interval
92028H	068	Gravity - Benthos	400 - 500 cm

Depth (cm)	Visual Description	Munsell Colour	
400	erratic 403 cm transition zone mottling 20%	5Y5/1	
410	↓ mottling to 5% core face		
420	transition at 420 cm w/bioturbation into underlying unit marked as shown mottling below 420 cm includes clay from above 420 cm; 5Y5/2	5Y5/2	
430	colour change at 427 cm to lt. 'ln 427-440 transition to underlying compacted clay w/occasional worm tube linings 5Y5/1 pinks up as clay oxidized to 5YR5/1	5Y4/1 5Y5/1- 5YR5/1	
440			
450			
460			
470			
480			
490			
	clay aa; oxidized	5Y5/1 5YR5/1	

Cruise Number	Sample Number	Sample Type	Interval
92028H	068	Gravity - Benthos	500 - 511 cm

Depth (cm)	Visual Description	Munsell Colour	
500	catcher split \approx 17 cm thick; estimate TD at 511 cm		5
510	Total Depth 511 cm		5
520			
530			
540			
550			
560			
570			
580			
590			

Cruise Number	Sample Number	Sample Type	Interval
92028H	065 (B)	Gravity - Benthos	0 - 36 cm

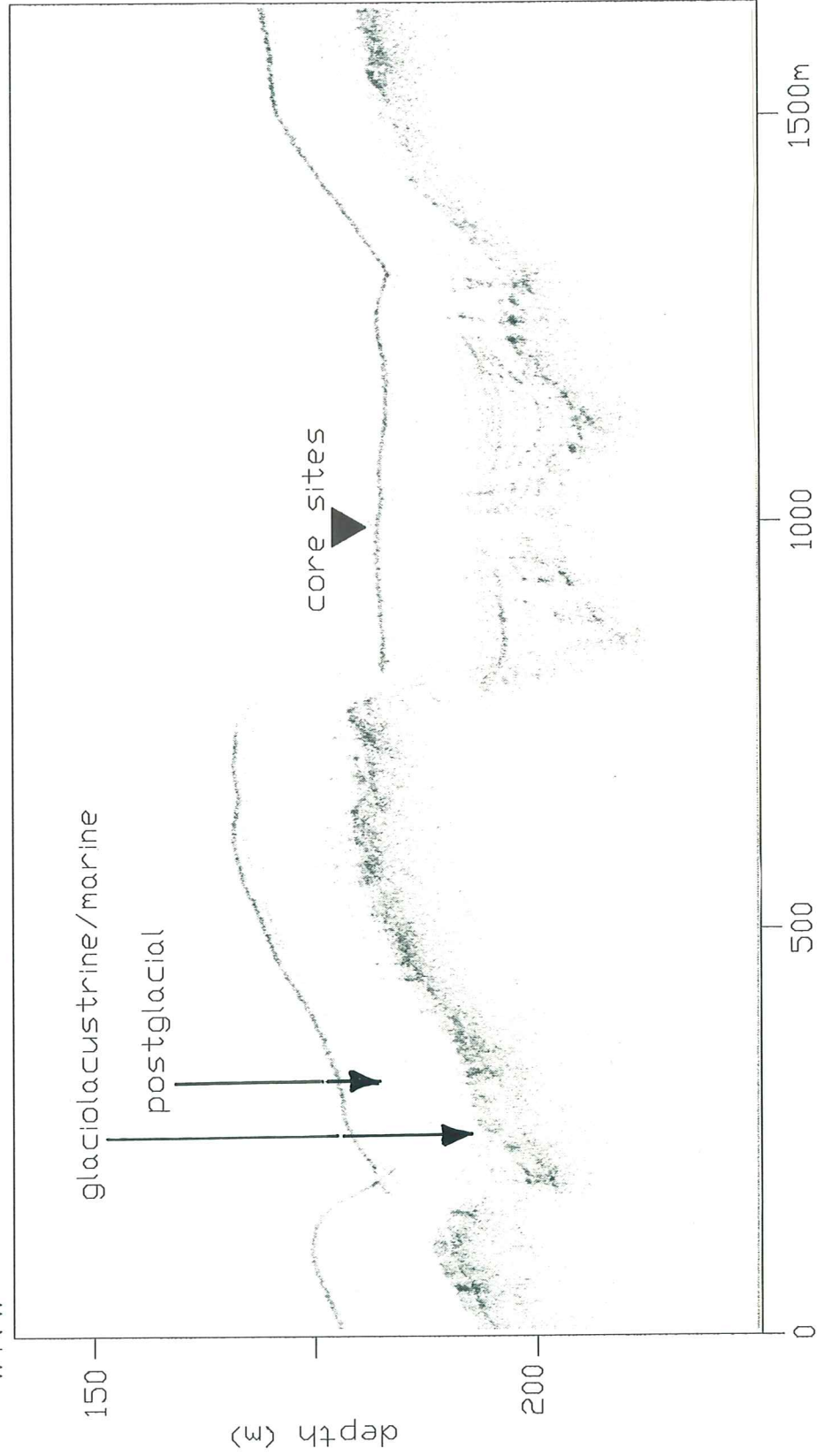
Depth (cm)	Visual Description	Munsell Colour	
0	<p>surficial veneer - clay soupy 0-3 cm; transition zone 3-9 cm; worm still above in transition zone soupy to 9 cm sli. silty clay veneer gives way to 5Y5/1 soupy clay to 33 cm; bioturbated mottled 20% core face</p>	2;5Y4/3	
10		5Y5/2	
20			
30	<p>shell in situ at 33 cm thin 2 cm clay btw. upper and lower mottled unit; open burrow mottled clay below 33 cm aa; 20% of core face Total Depth 36 cm</p>	5Y5/2	
40			
50			
60			
70			
80			
90			

3.5 khz subbottom profiler seismic section for core sites 92-028H-077-8

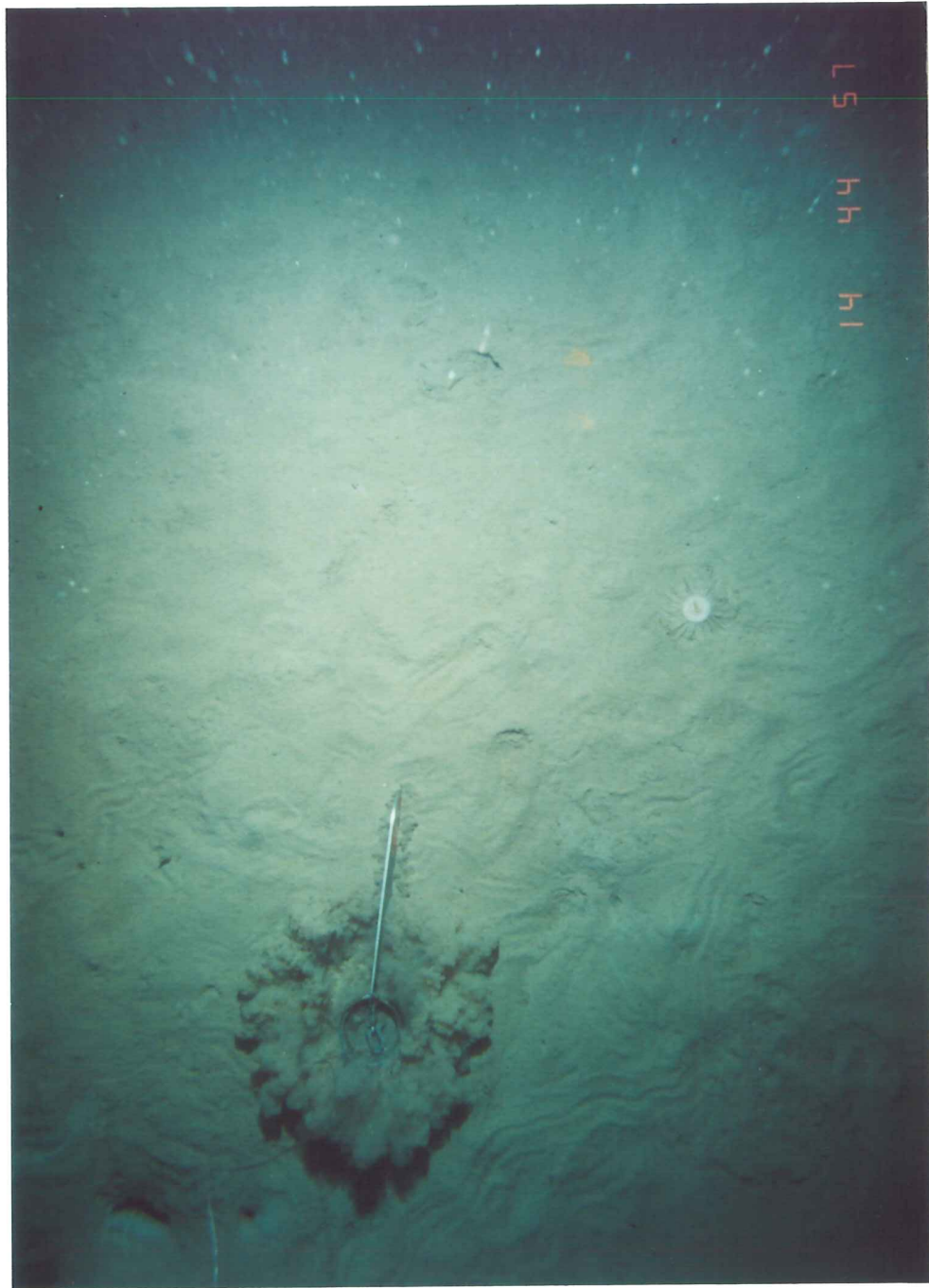
This core site was situated 7.5 kilometres west of Flint Island (Figure 5) approximately 13 kilometres northwest of the Petite riviere de la Baleine estuary. The postglacial section in the region generally displays a uniform thickness. Note the isolated ponded, well stratified deposits at the core site.

ESE

WNW

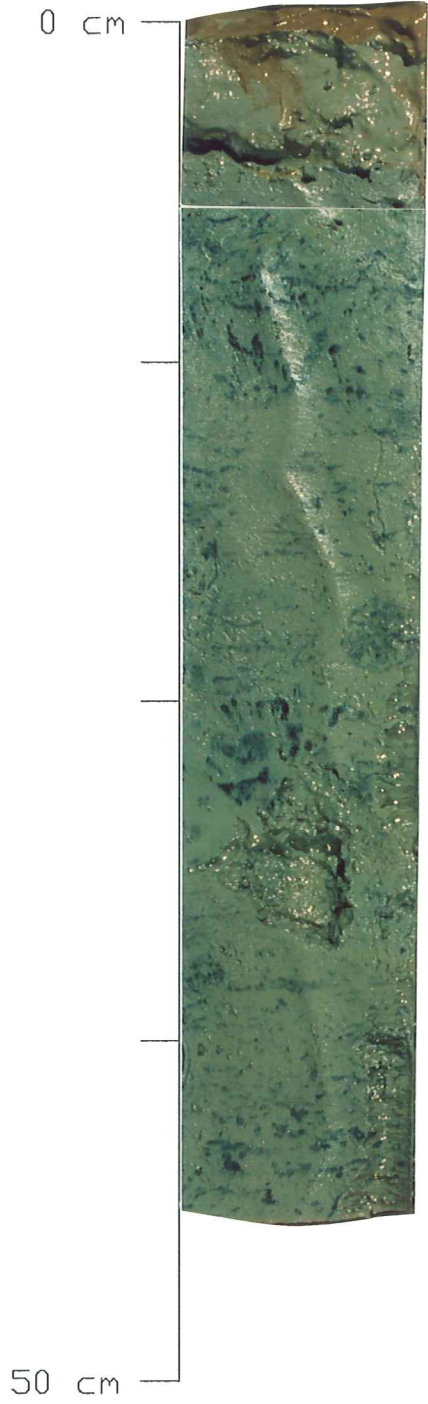


CORE SITES 92-028H 77 & 78





Camera station	92-028H-076
Box core site	92-028H-077
Water depth	182m

Core 92-028H-077B
Interval 0-40 cm



Cruise Number	Sample Number	Sample Type	Interval
92028H	077 (B)	Boxcore	0 - 40 cm

Depth (cm)	Visual Description	Munsell Colour	
0	2 cm surficial veneer 0-2 sli. silty clay transition zone 2-5 cm below 5 cm thin clay w/open burrows to 7 cm below 7 -	2.5Y4/3 5Y5/2	
10			§
20	homogeneous 5Y5/1	5Y5/2	
30	structureless clay with infilled burrow at 25 cm mottling 20% core face to TD 40 cm.	5Y5/2	§
40	Total Depth 40 cm		§
50			
60			
70			
80			
90			

Core 92-028H-078

Interval 0-100 cm

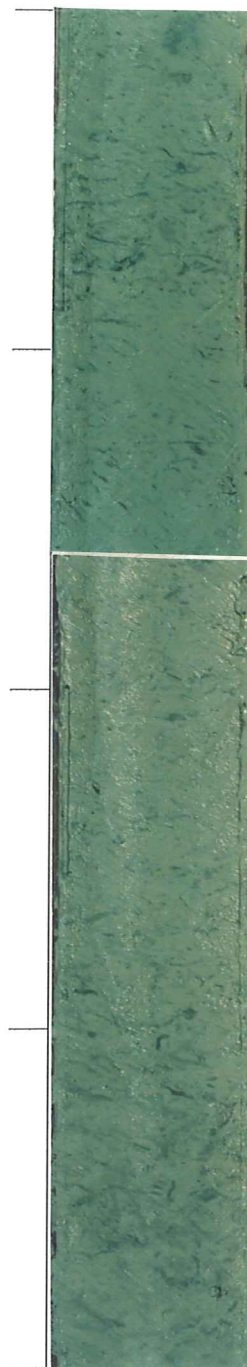


Core 92-028H-078
Interval 100-200

100 cm



150 cm

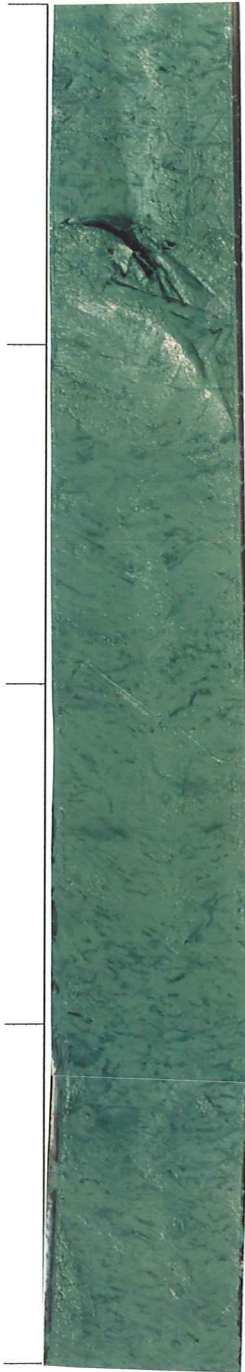


150 cm

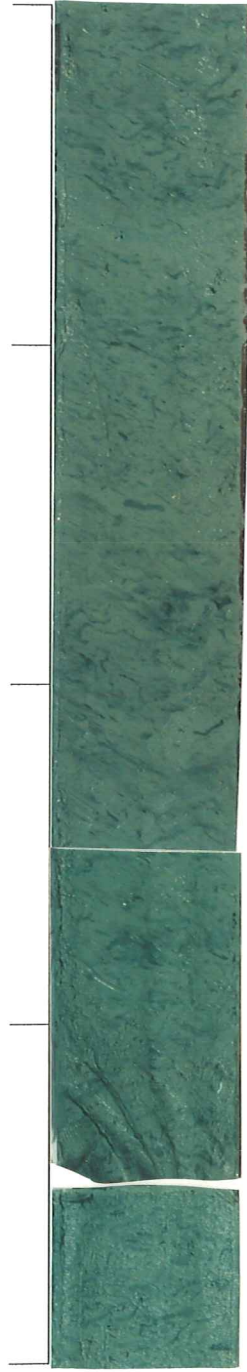
200 cm

Core 92-028H-078
Interval 200-300

200 cm



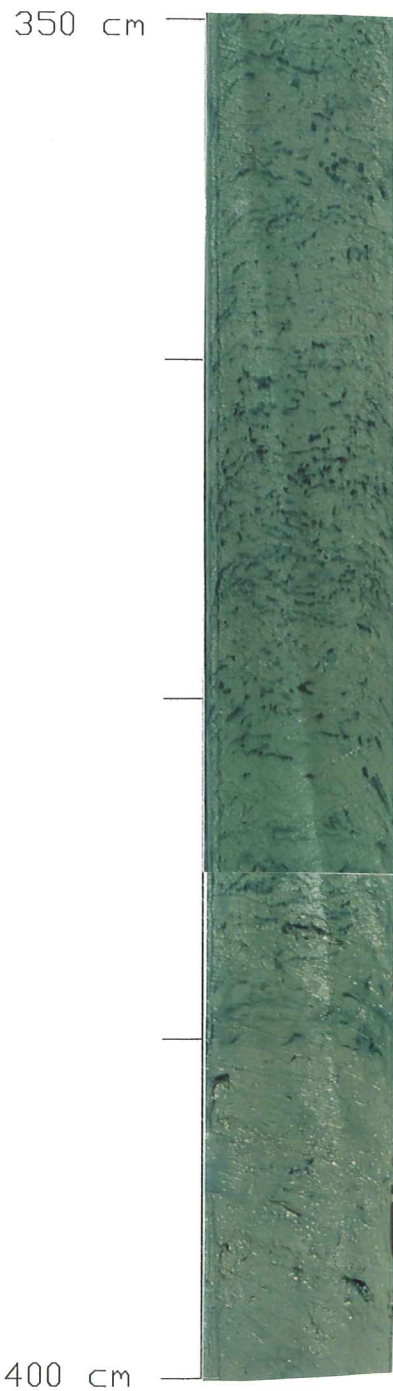
250 cm



250 cm

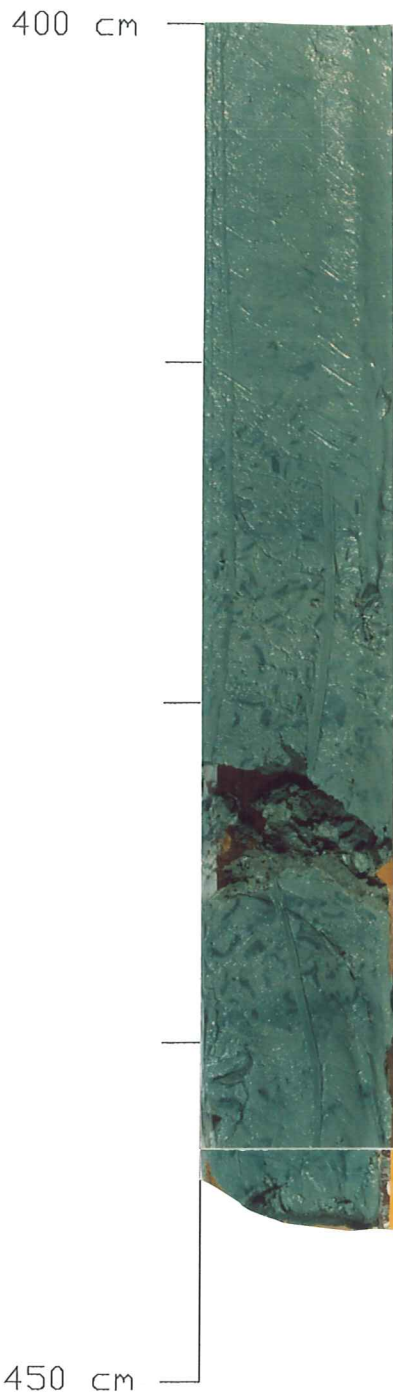
300 cm

Core 92-028H-078
Interval 300-400




Core 92-028H-078

Interval 400-440 cm



Cruise Number	Sample Number	Sample Type	Interval
92028H	078	Gravity - Benthos	0 -100 cm

Depth (cm)	Visual Description	Munsell Colour	
0	surficial veneer blown away \approx 1/2 cm on top silty clay grading to 5Y4/2 homogeneous structureless cohesive clay <10% mottling at surface	10YR4/2 5Y4/2	}
10	13-14cm \uparrow mottling to 20% core face		
20	21 cm - 1 cm thick gritty clay <10% grit 25 cm \uparrow mottling to 10% core face	5Y4/2	} 
30			
40			}
50		5Y4/2	
60			}
70	\uparrow mottling 15%		
80			}
90	clay aa \downarrow mottling to <5%	5Y4/2	


Cruise Number	Sample Number	Sample Type	Interval
92028H	078	Gravity - Benthos	100 - 200 cm

Depth (cm)	Visual Description	Munsell Colour		
100	↑ mottling to 20% core face 109-120 cm		}	
110				
120	120 ↓ mottling <10%	5Y4/2	}	
130	clay aa; mottled <10% core face	5Y5/2	}	
140				
150	clay aa mottling 25% core face	5Y5/2	}	
160				
160	↓ at 160 mottling 5% - 184			
170			}	
180	184-209 cm ↑ mottling 25% core face		}	
190				

Cruise Number	Sample Number	Sample Type	Interval
92028H	078	Gravity - Benthos	200 - 300 cm

Depth (cm)	Visual Description	Munsell Colour		
200				§
210	shell frag at 210 - not <u>in situ</u> sampled for Ruz	5Y5/2	∩	
220	↓ mottling <10% core face		§	
230				§
240	235 cm ↑ mottling 20%	5Y5/2		
250	250		§	
260	155 & 158 cm clay aa not mottled	5Y5/2	==	
270	mottled 20% core face	5Y5/2		§
280				§
290	290-345 cm 5Y5/2 mottled clay aa 35-40% core face	5Y5/2		§

Cruise Number	Sample Number	Sample Type	Interval
92028H	078	Gravity - Benthos	300 - 400 cm

Depth (cm)	Visual Description	Munsell Colour	
300			§
310	35-40% mottling		§
320			§
330			§
340	pinkish hue to 5Y5/2 clay 345 transition zone	5Y5/2	§
350	352 cm clay aa; with <5% mottling 352-361 clay aa w/mottling as above 345 cm ↓ to 15-20%		§
360			§
370			§
380	380-390 5Y5/2 clay aa 15% mottling transition	5Y5/2	§
390	390 cm colour change and polychaete linings to 401 cm from 390-396 clay surface tears as spatula dragged across	10YR5/1	§ 

Cruise Number	Sample Number	Sample Type	Interval
92028H	078	Gravity - Benthos	400 - 440 cm

Depth (cm)	Visual Description	Munsell Colour	
400	homogeneous cohesive clay aa <10% mottling at core face to TD 440 cm	10YR5/1	}
410			
420			
430			
440	Total Depth 440 cm		
450			
460			
470			
480			
490			

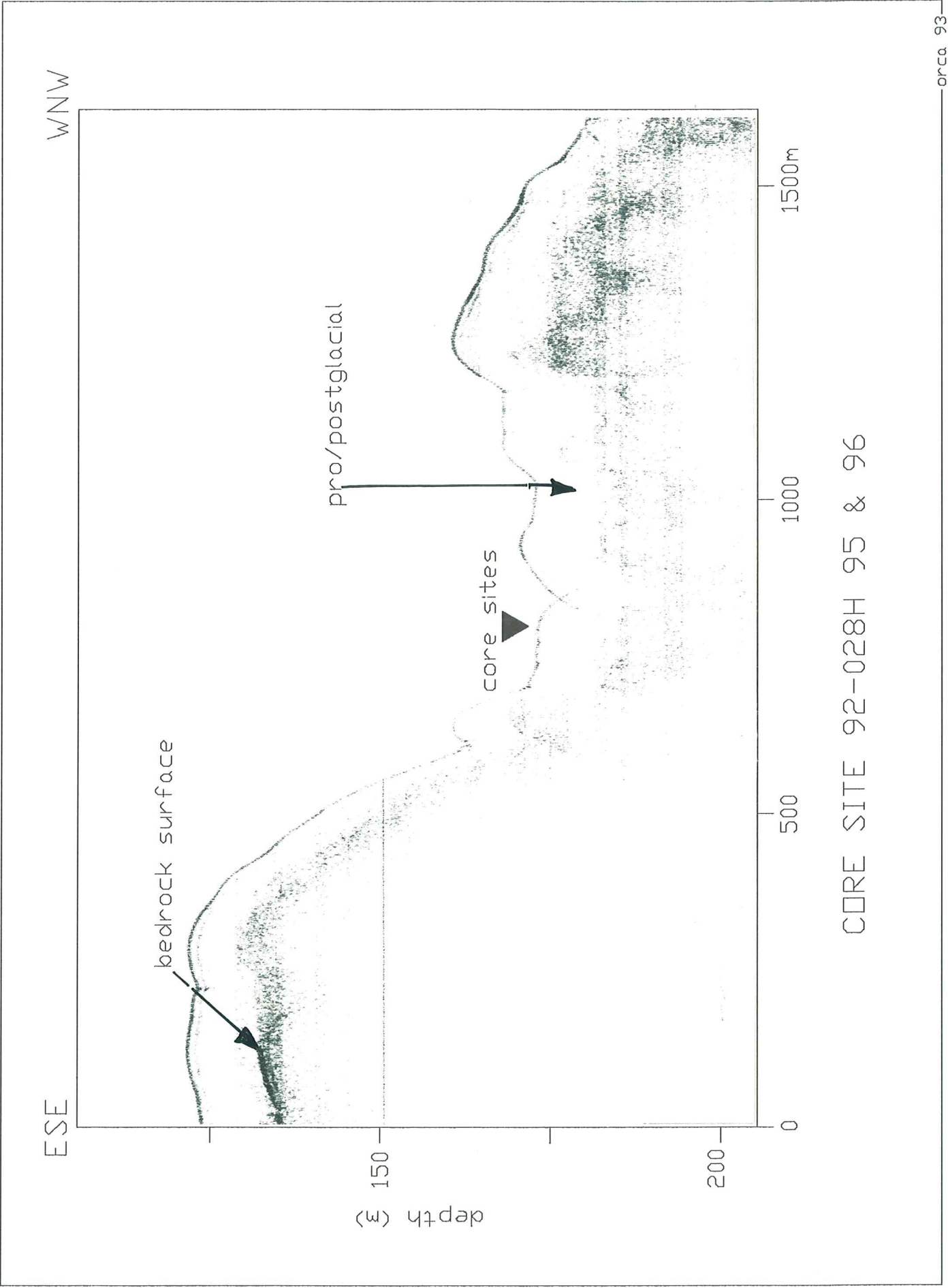
Cores collected offshore Hudson Bay (Figure 5 and 7)

Cores 92-028H-095/096

Sediments in these cores consists of a thin yellowish brown surficial veneer grading into bioturbated, mottled, homogeneous postglacial gray clay with occasional shell fragments, and relict burrows.

3.5 kHz subbottom profiler seismic section for core sites 92-028H-095-6

This core was collected the at the furthest station offshore, approximately 70 kilometres northwest of the Grande riviere de la Baleine estuary and 30 kilometres southeast of the Belcher Islands (Figure 5). Surficial deposits are generally thin in the area with accumulations of glacial and postglacial sediments restricted to isolated deep basins/depressions such as occur at this core site.

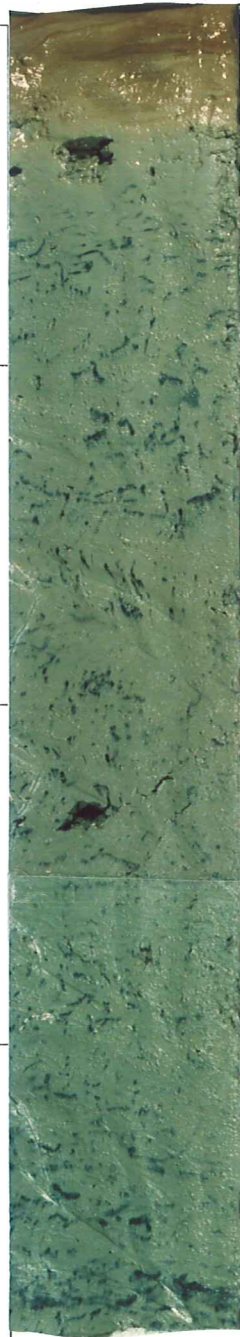




Camera station	92-028H-097
Box core site	92-028H-096
Water depth	175m

Core 92-028H-096B
Interval 0-45 cm

0 cm

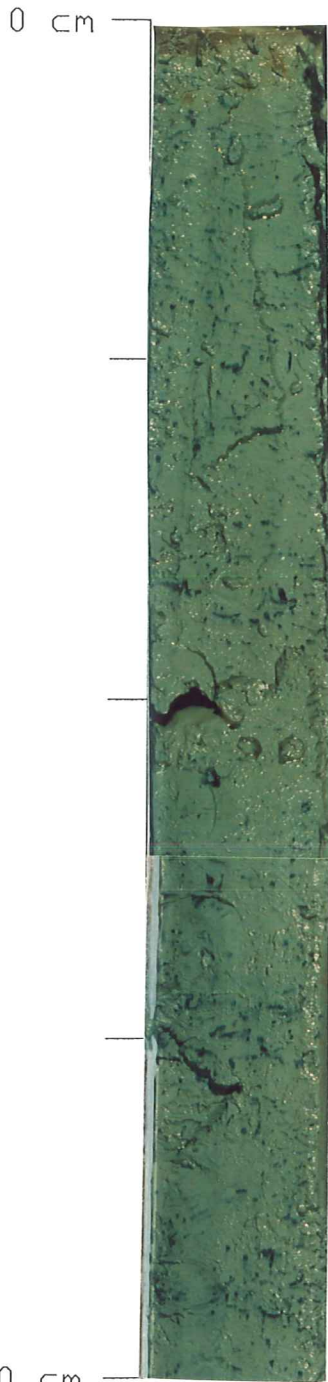


50 cm

Cruise Number	Sample Number	Sample Type	Interval
92028H	096 (B)	Boxcore	0 - 45 cm

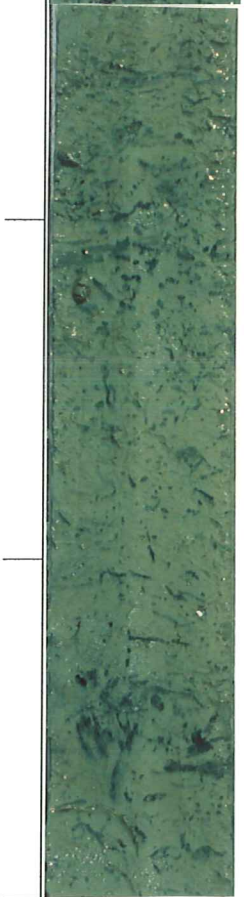
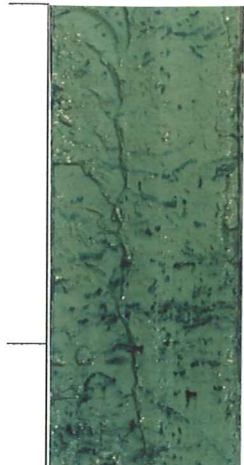
Depth (cm)	Visual Description	Munsell Colour	
0	3 cm silty surficial veneer soupy underlain by soft sli. silty clay 3-6 cm some of the gray clay has been bioturbated up into veneer	10YR3/4 5Y5/2	
10	6-45 cm bioturbated 5Y4/2 homogeneous, structureless clay	5Y4/2	
20	half shell at 21 cm mottling <10% core face		
30			
40	shell at 35-36 cm		
50	44 cm ↑ mottling Total Depth 45 cm		
60			
70			
80			
90			

Core 92-028H-095
Interval 0-100 cm



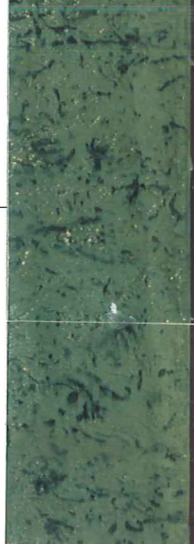
Core 92-028H-095
Interval 100-200

100 cm



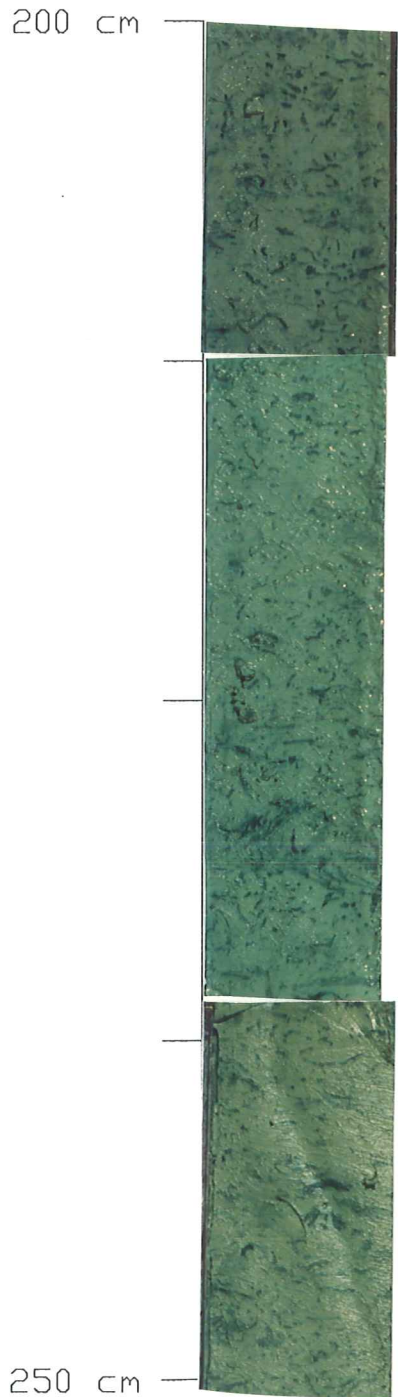
150 cm

150 cm



200 cm

Core 92-028H-095
Interval 200-300



Core 92-028H-095
Interval 300-377 cm



Cruise Number	Sample Number	Sample Type	Interval
92028H	095	Gravity - Benthos	0 - 100 cm

Depth (cm)	Visual Description	Munsell Colour	
0	thin 1 cm surficial veneer sli. silty grading to bioturbated homogeneous clay at 2 cm; v. thin transition zone	2.5Y4/3	
10	homogeneous clay 20% mottled on clay surface	5Y5/2	
20	large open burrow at 24 cm		
30			
40	shell frag. at 37 cm		
50			
60			
70			
80	clay aa homogeneous, structureless washes ?????? v. easily alternating mottling ↑ and ↓ downcore section as noted	5Y5/2	
90	77-91 20% core face		

Cruise Number	Sample Number	Sample Type	Interval
92028H	095	Gravity - Benthos	100 - 200 cm

Depth (cm)	Visual Description	Munsell Colour	
100	91-99 ↓ mottling <5% core face 99-112 ↑ mottling 20%	5Y5/2	§
110	112-141 ↓ mottling 15%		§
120			
130			
140	141-144 ↑ mottling 20% carbonate 144-168 ↓ to 10% mottling		△
150			§
160			
170	168-172 ↑ mottling 25% 172-228 cm TD	5Y5/2	§
180			
190			§

Cruise Number	Sample Number	Sample Type	Interval
92028H	095	Gravity - Benthos	200 - 300 cm

Depth (cm)	Visual Description	Munsell Colour		
200	clay aa	5Y5/2	§	
210			§	
220		5Y5/2		
230	clay aa 228-320 cm mottling 29% core face	5Y5/2	§	
240				
250				
260				
270			§	
280				
290			§	

Cruise Number	Sample Number	Sample Type	Interval
92028H	095	Gravity - Benthos	300 - 377 cm

Depth (cm)	Visual Description	Munsell Colour			
300	above and before colour change mottling still 20%	5Y4/2	§		
310			§		
320			5Y4/1	§	
330				§	
340				§	
350			5Y4/2	§	
360				§	
370				§	
380		Total Depth 377 cm			
390					

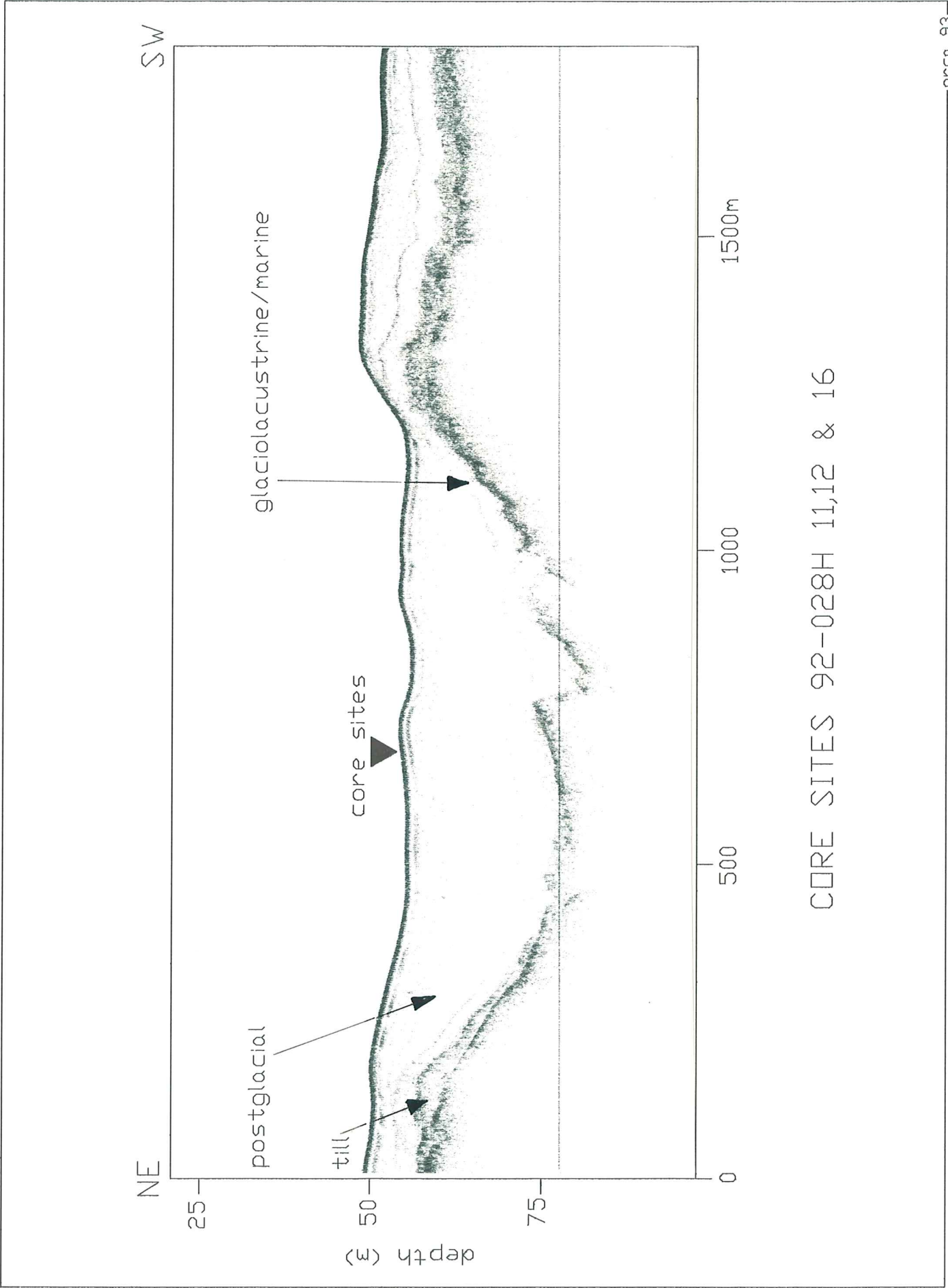
Cores collected just seaward of Manitounuk Sound (Figure 6 and 7)

Cores 92-028H-011/012/016

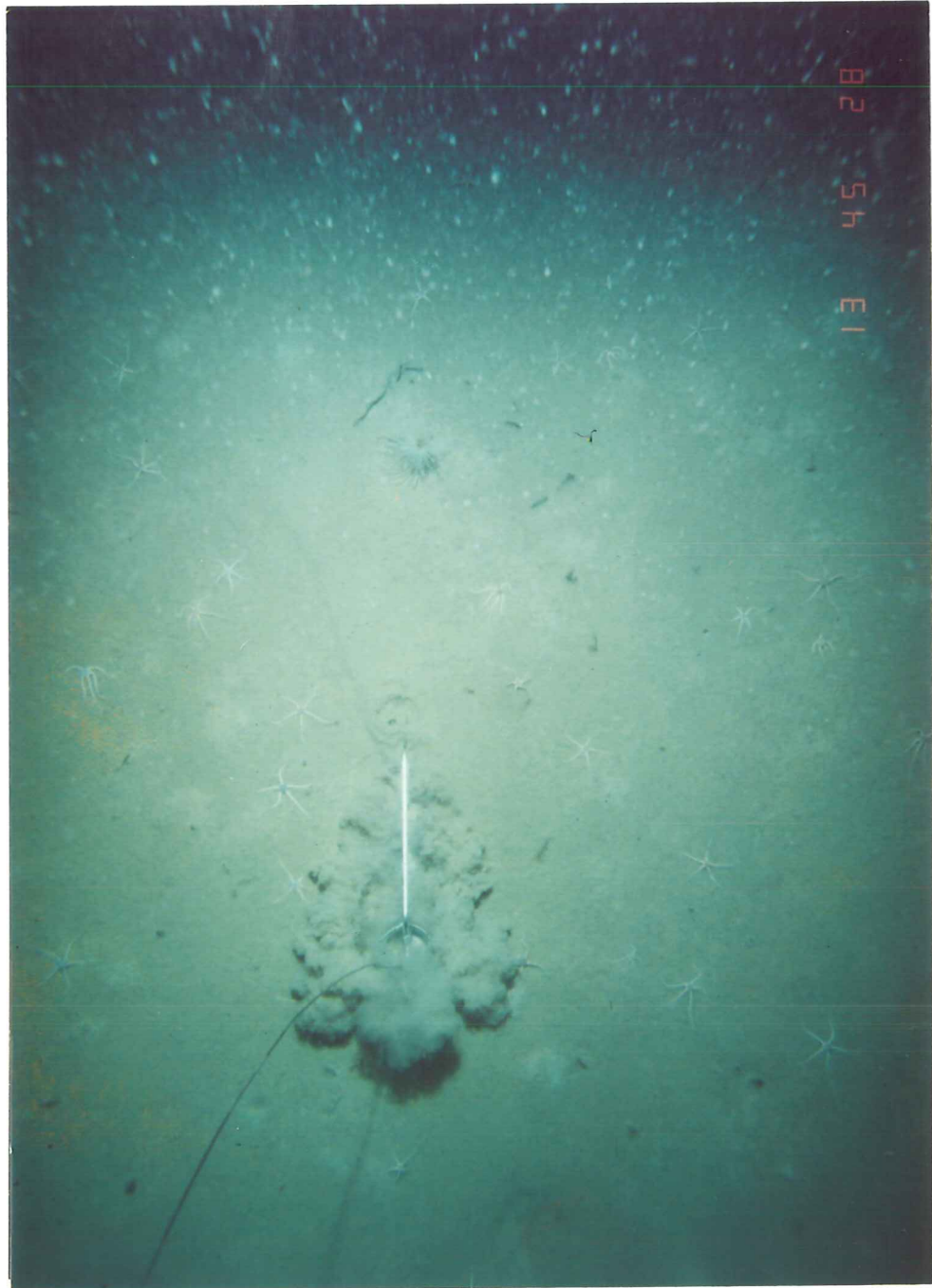
Sediments in these cores consisted of a thin yellowish brown surficial veneer of silty clay grades into gray, mottled postglacial clay. Bioturbation varies downcore. There are occasional shell fragments, pebbles and stringers of organic material throughout the section penetrated.

3.5 kHz subbottom profiler seismic section for core sites 92-028H-011-16

These cores were collected in a thick section of ponded postglacial estuarine sediments just seaward of the mouth of Manitounuk Sound (Figure 5). At the site approximately 20 metres of Quaternary sediments composed of 1.5 metres of discontinuous till/ice contact deposits, 5 metres of glaciolacustrine/marine draped sediments and 13.5 metres of postglacial estuarine sediments. On seismic profile note possible outcrop of glaciolacustrine/marine towards the southwest.



CORE SITES 92-028H 11,12 & 16



Camera station	92-028H-010
Box core site	92-028H-011
Water depth	45m

Core 92-028H-011
Interval 0-36 cm



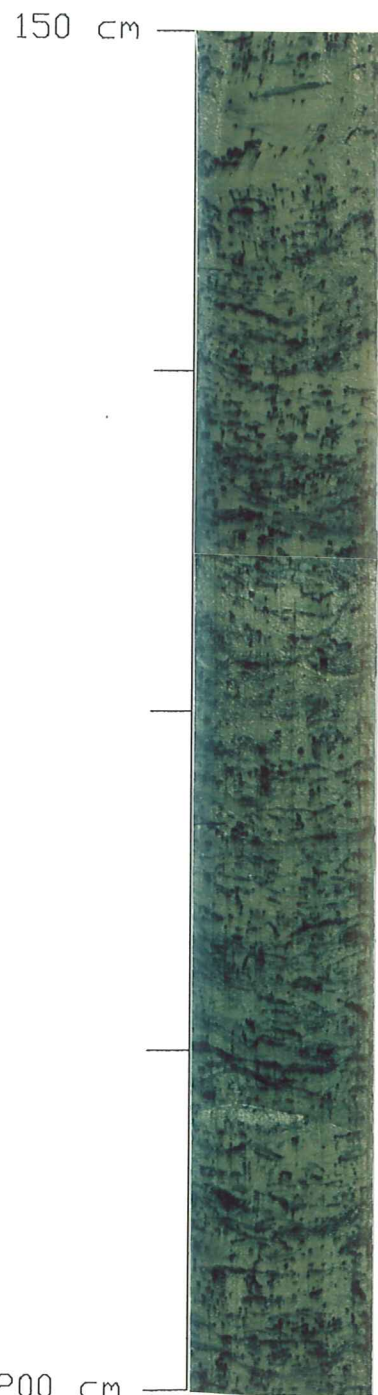
Cruise Number	Sample Number	Sample Type	Interval
92028H	011	Boxcore "D"	0 - 36 cm

Depth (cm)	Visual Description	Munsell Colour	
0	Surficial silty clay <10% veneer dk. yellowish brn. 3 cm transition zone from 3-10 cm 5Y5/3 clay v. little silt <1% mottled <20% of core surface	10YR3/4	
10		5Y5/3	
20	at 20 cm 30% mottled		
30	at 28cm ↓ 25% mottled of core surface to T.D. 36 cm		
40			
50			
60			
70			
80			
90			

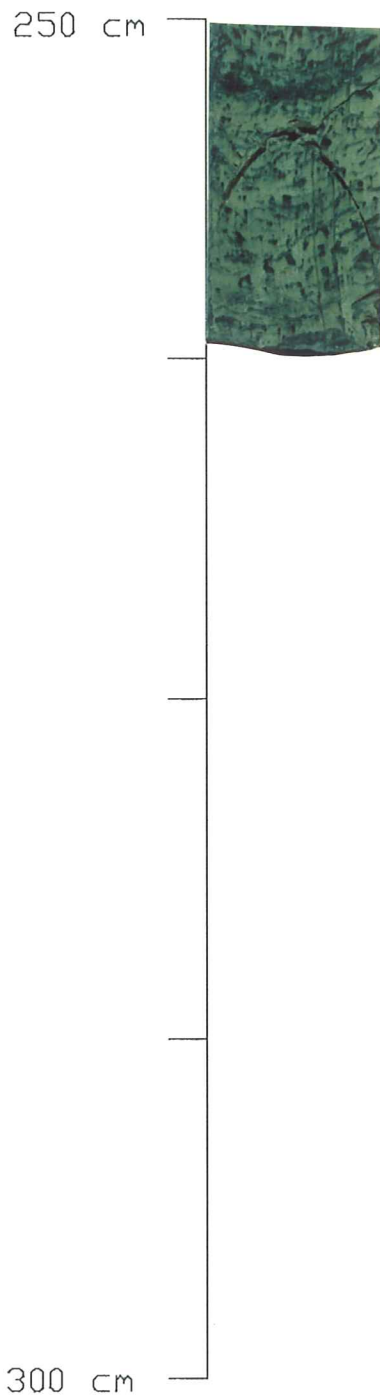
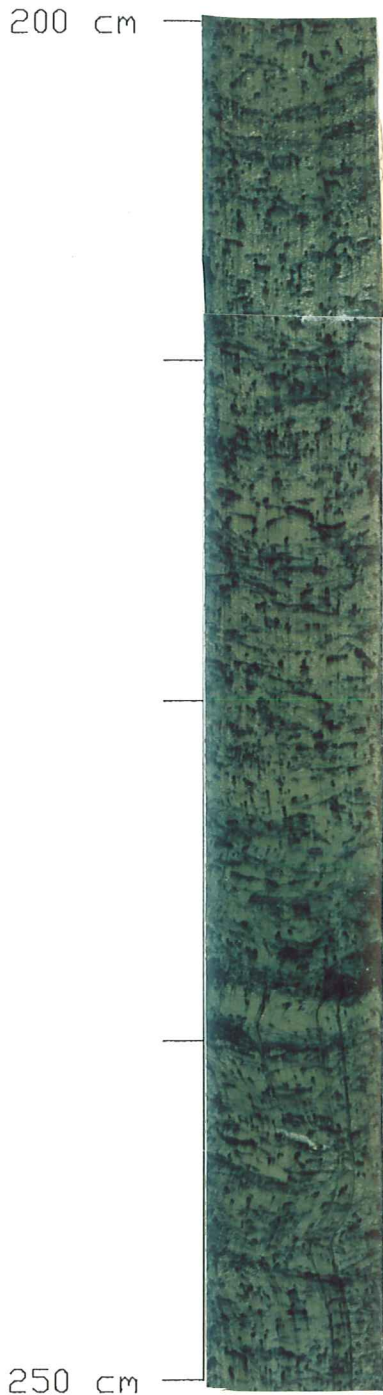
Core 92-028H-016
Interval 0-100 cm



Core 92-028H-016
Interval 100-200



Core 92-028H-016
Interval 200-260






Cruise Number	Sample Number	Sample Type	Interval
92028H	016	Gravity	0 - 100 cm

Depth (cm)	Visual Description	Munsell Colour	
0	contact w/veneer indeterminable v.f. SD below bioturbated silty clay w/occasional recent burrows	5Y5/3	
10		5Y5/2	
20			
30			
40			
50			
60			
70	74-78 colour change ↓ biot. 78-79 cm clay clasts in clay matrix below 79 cm again heavily bioturb. silty clay	5Y4/2 5Y4/1	
80	more cohesive than above unit sli. colour change		
90			

Cruise Number	Sample Number	Sample Type	Interval
92028H	016	Gravity	100 - 200 cm

Depth (cm)	Visual Description	Munsell Colour		
100	clam shell in living position sampled w/wood at 99 cm w/occasional shell hash to 111 cm silty clay aa	5Y5/2	∩	∩
110	111-159 cm bioturbated silty clay aa not as highly bioturbated below 159 cm to TD	5Y5/2	∩	∩
120			∩	
130			∩	
140			∩	
150			∩	
160	159-233 cm ↑ bioturbation silty clay w/laminated (rythmic) banding		∩	
170			∩	
180				
190	basalt erratic 35 x 15 mm no striae noted		∩	△

Cruise Number	Sample Number	Sample Type	Interval
92028H	016	Gravity	200 - 260 cm

Depth (cm)	Visual Description	Munsell Colour	
200			S
210			
220			S
230	233-234 cm blk. banding 1 cm thick 234-235 cm	5Y3/1	
240			S
250			
260	Total Depth 260 cm	5Y4/2	
270			
280			
290			

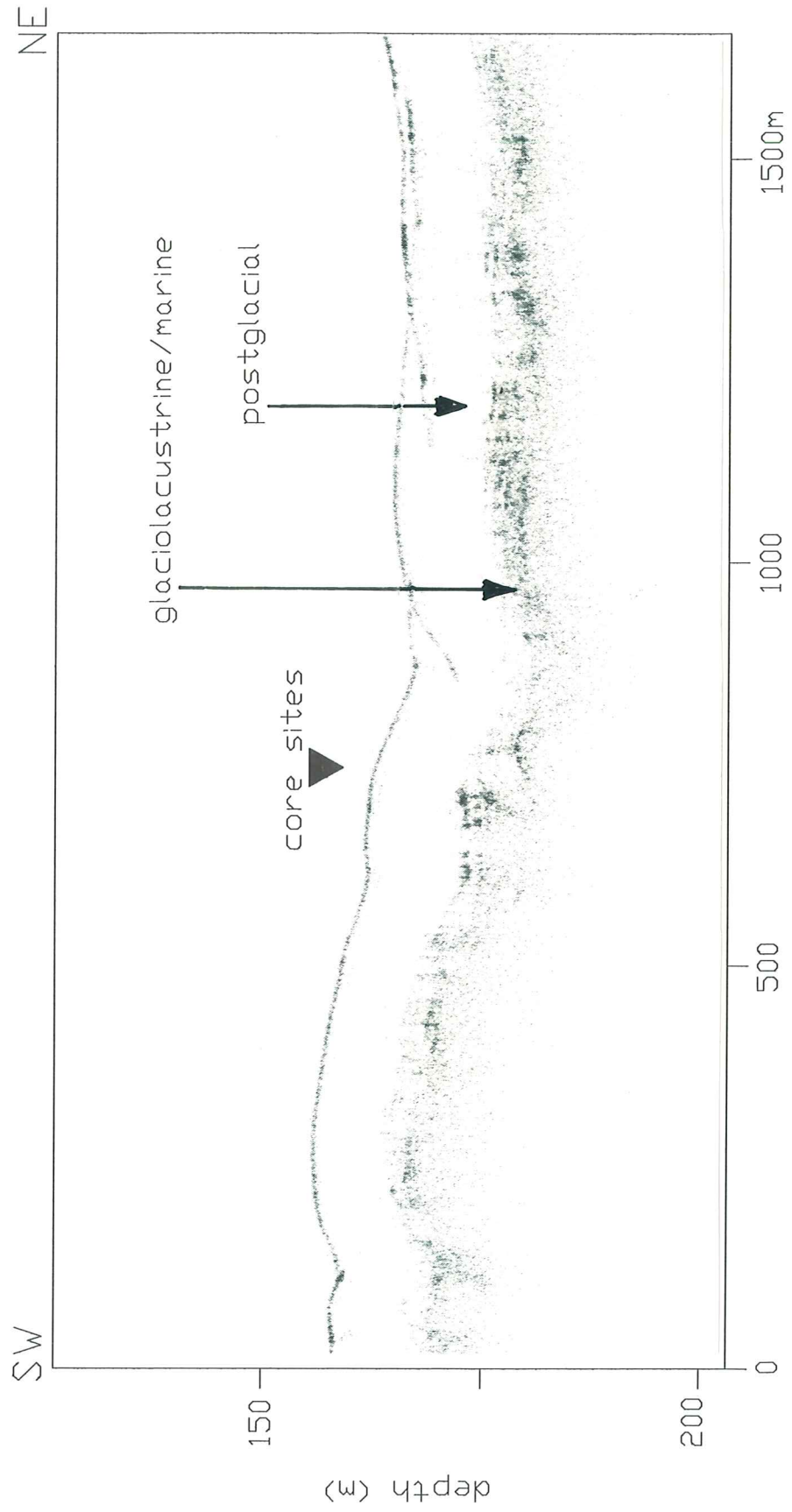
Cores collected in a deep basin 23km west of the mouth of the Petite riviere de la Baleine (Figure 5)

Core sites 92-028H-063/064/065

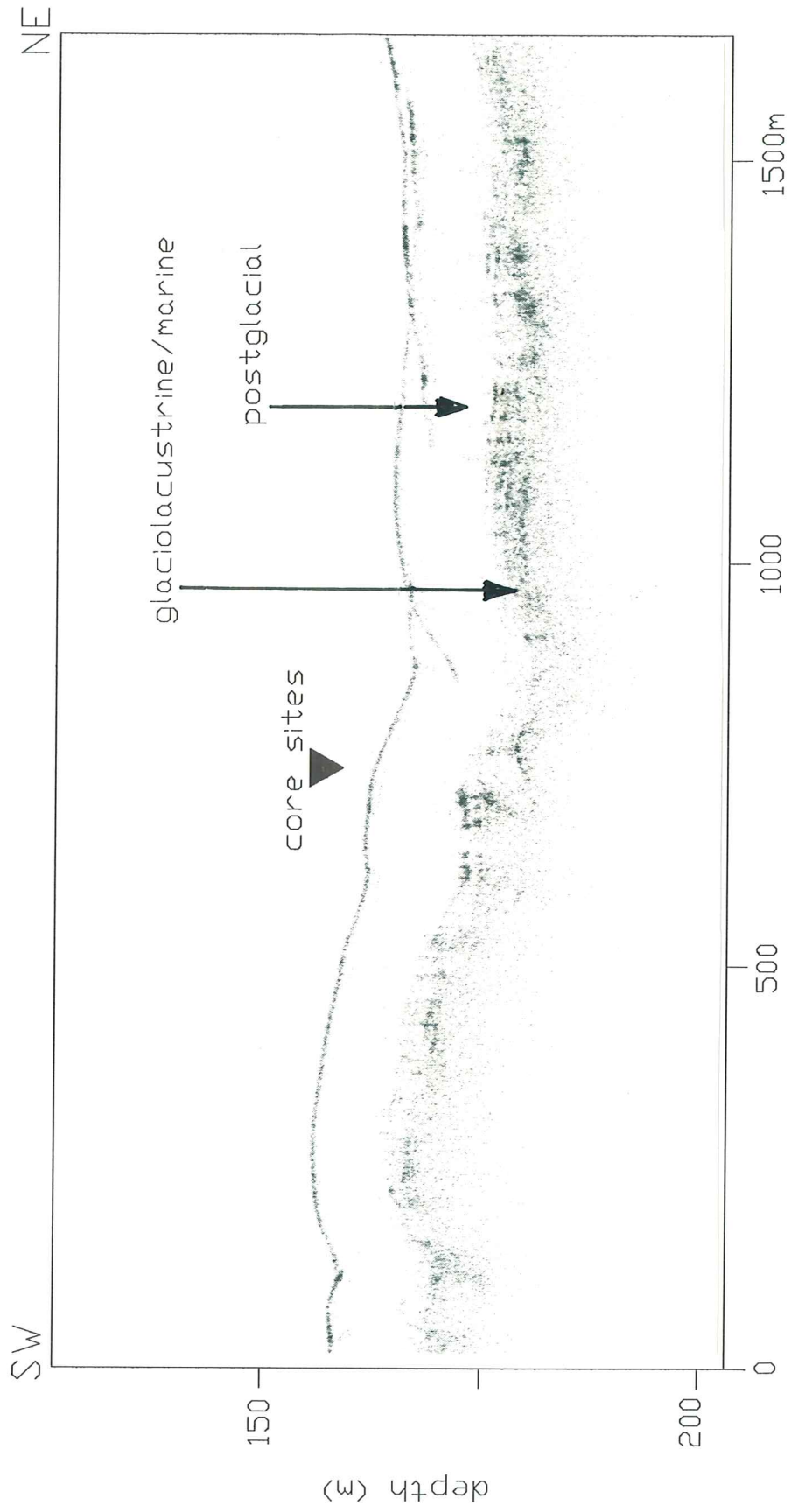
These cores have a thin (2cm) soupy recent deposit of surficial veneer. Below 2cm postglacial stiff gray homogenous, bioturbated mottled clay is encountered to 4m. Often this thin surface veneer is blown away by the action of coring.

3.5 kHz subbottom profiler seismic section for core sites 92-028H-063-5

This core was collected in a deep basin 23 kilometres west of the mouth of the Petite riviere de la Baleine (Figure 5) in a thick (12-15 metres) Quaternary section. Reflectors dipping into postglacial surface from the seabed are interpreted as side-echoes associated with sedimentary furrows (Flood, 1983). These erosional furrows are interpreted as indicating tidally induced current flow in the deeper basins (Josenhans et al, 1991), surface core settings/environment could therefore represent non-deposition or an erosional scenario.

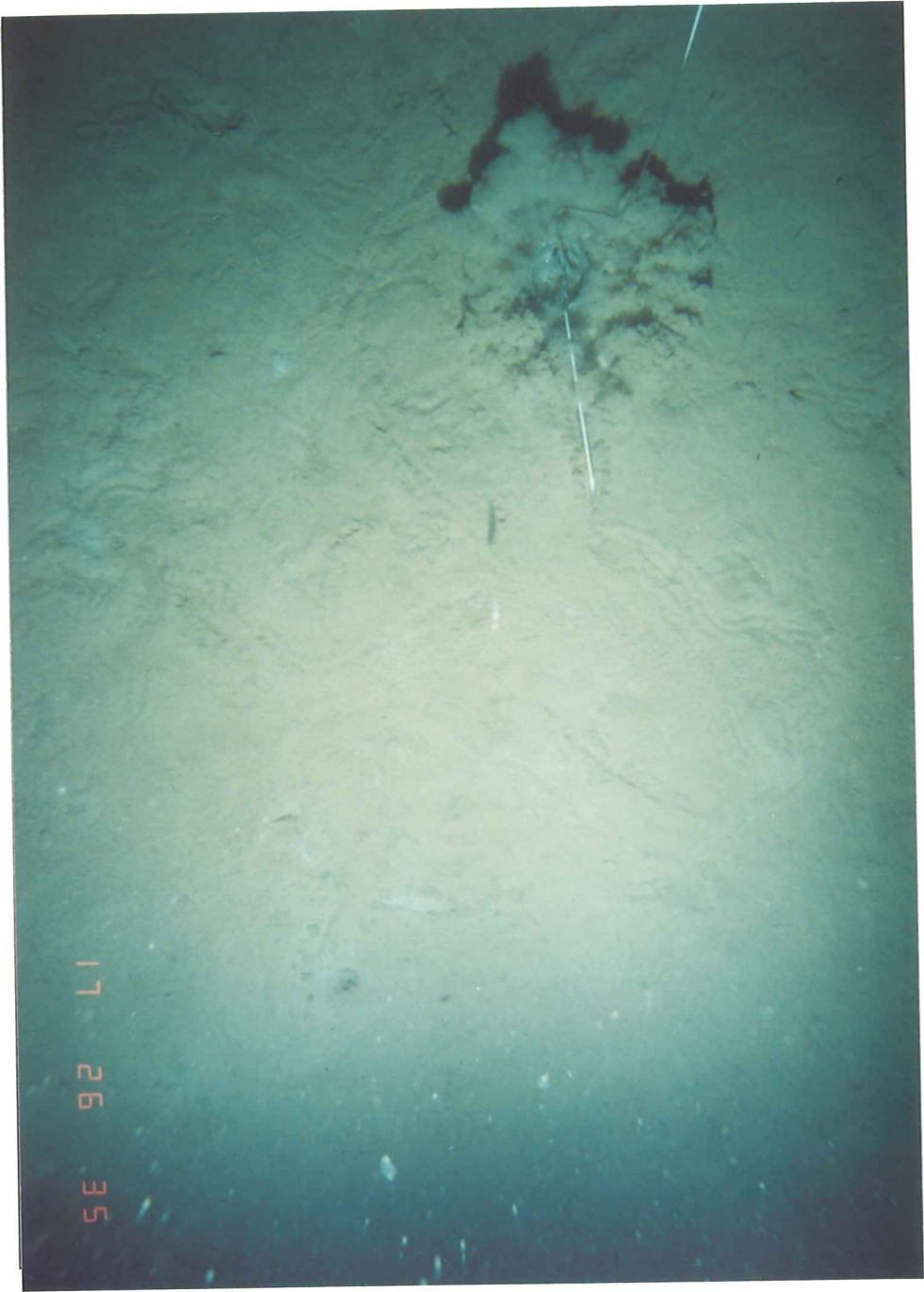


CORE SITES 92-028H 63,64 & 65



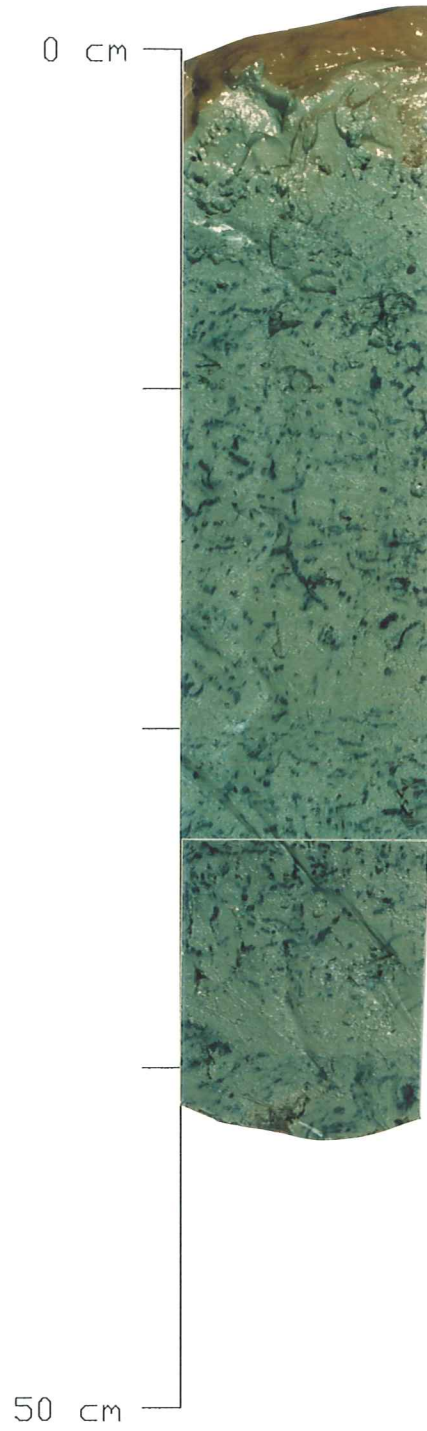
CORE SITES 92-028H 63,64 & 65

Camera station 92-028H-066
Box core site 92-028H-065
Water depth 166m





17 26 35

Core 92-028H-065B
Interval 0-37 cm



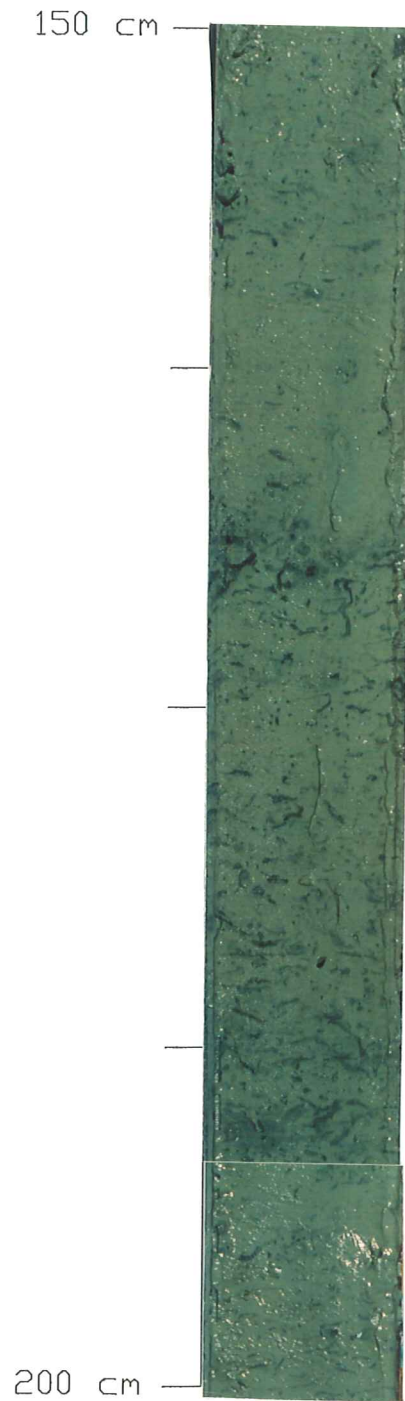
Cruise Number	Sample Number	Sample Type	Interval
92028H	065 (B)	Gravity - Benthos	0-36 10 cm

Depth (cm)	Visual Description	Munsell Colour	
0	surficial veneer - clay soupy 0-3 cm; transition zone 3-9 cm; worm still above in transition zone soupy to 9 cm sli. silty clay veneer gives way to 5Y5/1 soupy clay to 33 cm; bioturbated mottled 20% core face	2.5Y4/3	
10		5Y5/2	\$
20			\$
30	shell <u>in situ</u> at 33 cm thin 2 cm clay btw. upper and lower mottled unit; open burrow mottled clay below 33 cm aa; 20% of core face Total Depth 36 cm	5Y5/2	
40			
50			
60			
70			
80			
90			

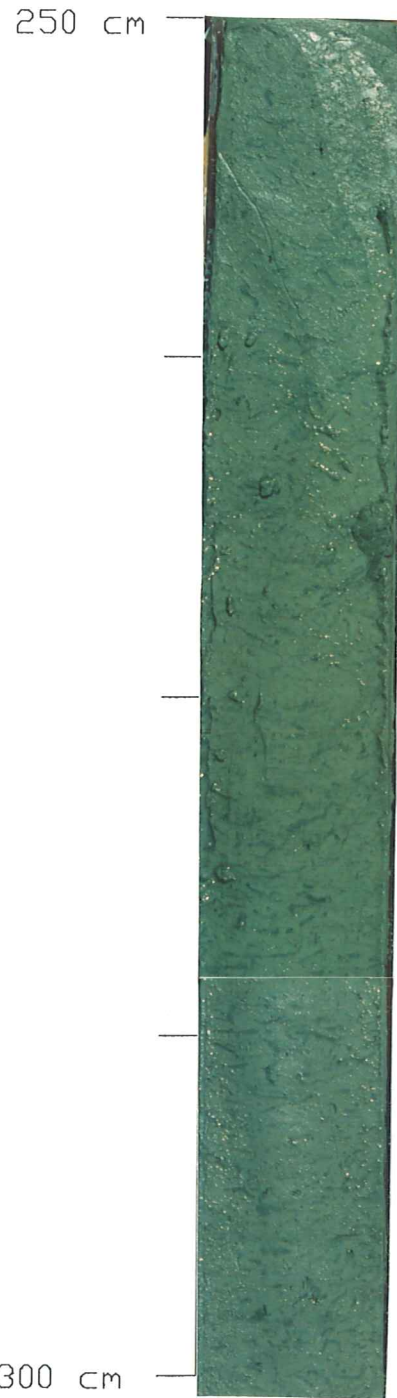
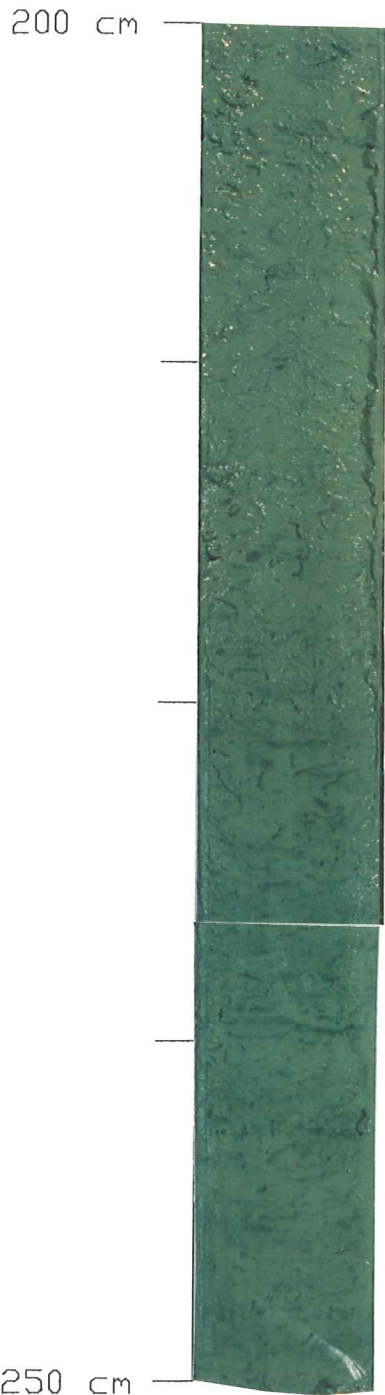
Core 92-028H-064
Interval 0-100 cm



Core 92-028H-064
Interval 100-200

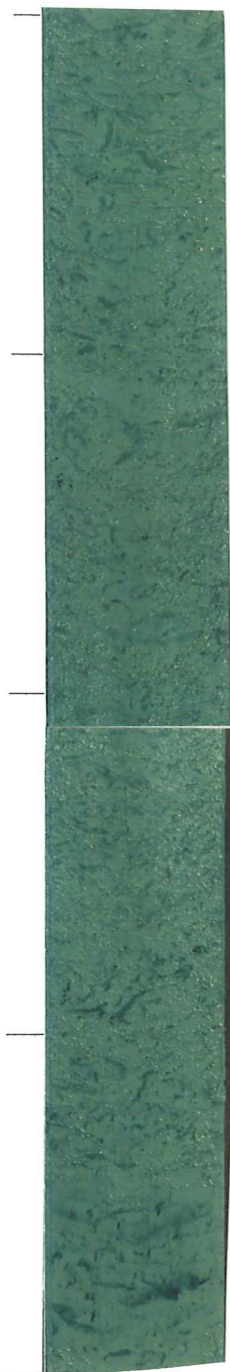


Core 92-028H-064
Interval 200-300

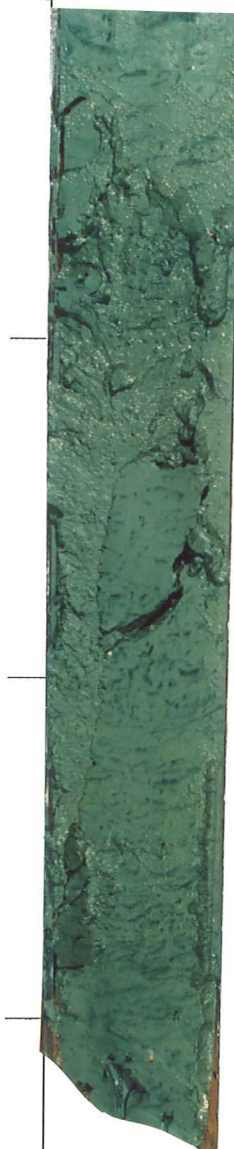


Core 92-028H-064
Interval 300-394 cm

300 cm



350 cm



350 cm

400 cm

Cruise Number	Sample Number	Sample Type	Interval
92028H	064	Gravity - Benthos	0 - 100 cm

Depth (cm)	Visual Description	Munsell Colour	
0	surficial veneer blown away 0-2 cm could be transition zone clay	5Y5/2	
10			
20		5Y5/2	
30	32-36 homogeneous - not 32 stiff clay aa; not mottling ↑ mottly below 36-93 cm no structures stiff		
40			
50			
60			
70			
80		5Y5/2	
90	homogeneous cohesive mottled clay aa 20% core surface		

Cruise Number	Sample Number	Sample Type	Interval
92028H	064	Gravity - Benthos	100 - 200 cm

Depth (cm)	Visual Description	Munsell Colour	
100			§
110			§
120			§
130	↑ mottling 30% core face ↓ below 30 cm mottling 20%		§ § §
140			§
150	clay - no mottling clay aa; 20% mottling	5Y4/2	§
160	164 ↓ mottling <10%		§
170	173-195 cm ↑ mottling 20%		§
180			§
190	195-200 ↑ mottling 35% core face	5Y4/2	§

Cruise Number	Sample Number	Sample Type	Interval
92028H	064	Gravity - Benthos	200 - 300 cm

Depth (cm)	Visual Description	Munsell Colour	
200	clay no mottling 200-201		§
210	clay mottled 20% throughout cohesive; structure less-stiff		§
220			
230			§
240			§
250			
260			§
270			§
280			
290			§

Cruise Number	Sample Number	Sample Type	Interval
92028H	064	Gravity - Benthos	300 - 394 cm

Depth (cm)	Visual Description	Munsell Colour	
300	mottling 20% core face		}
310			
320			
330			
340			
350			
360			
370			
380			
390			
	Total Depth 394 cm		

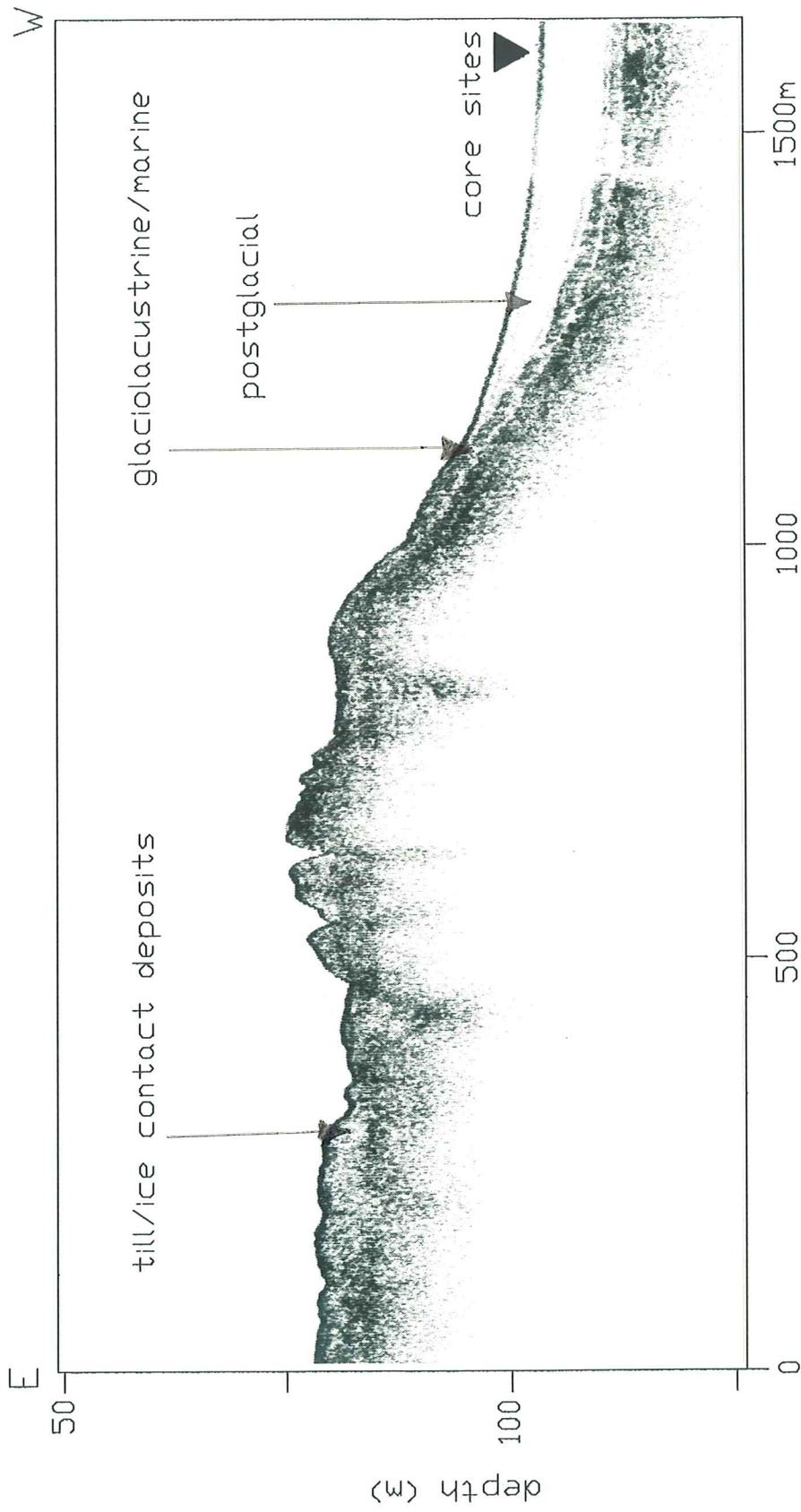
Cores are located in an offshore basin 30 kilometres west of the mouth of the petite riviere de la Baleine (Figure 5).

Core sites 92-028H-071/72/73

These cores have a thin (2cm) soupy recent deposit of surficial veneer. Below 2cm postglacial stiff gray homogenous, bioturbated mottled clay is encountered to 4m. Often this thin surface veneer is blown away by the action of coring.

3.5 kHz subbottom profiler seismic section for core sites 92-028H-071-3

This core was located in an offshore basin 30 kilometres west of the mouth of the petite riviere de la Baleine (Figure 5). Approximately 12 metres of Quaternary sediment; 6 metres of postglacial, 3 metres of glaciolacustrine/marine and 2 metres of till/icecontact deposits were present. Note the pinchout of ponded postglacial sediments, exposed glaciolacustrine/marine grading into (?) or overlying (?) the till/ice contact deposits on the eastern side of the profile.



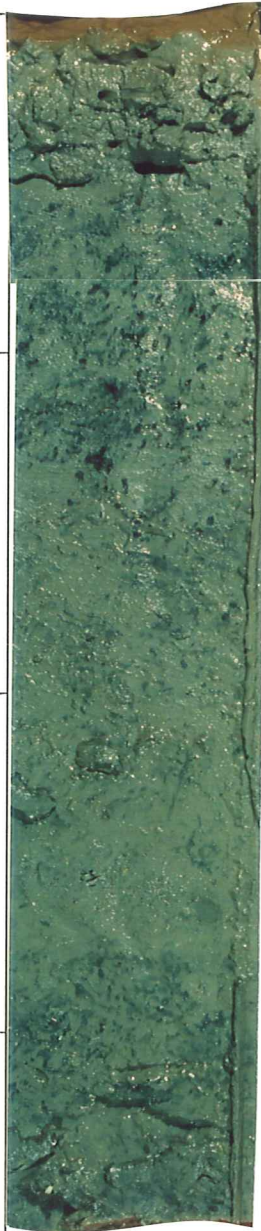
CORE SITE 92-028H 71,72 & 73



Camera station	92-028H-074
Box core site	92-028H-073
Water depth	105m

Core 92-028H-073B
Interval 0-42 cm

0 cm

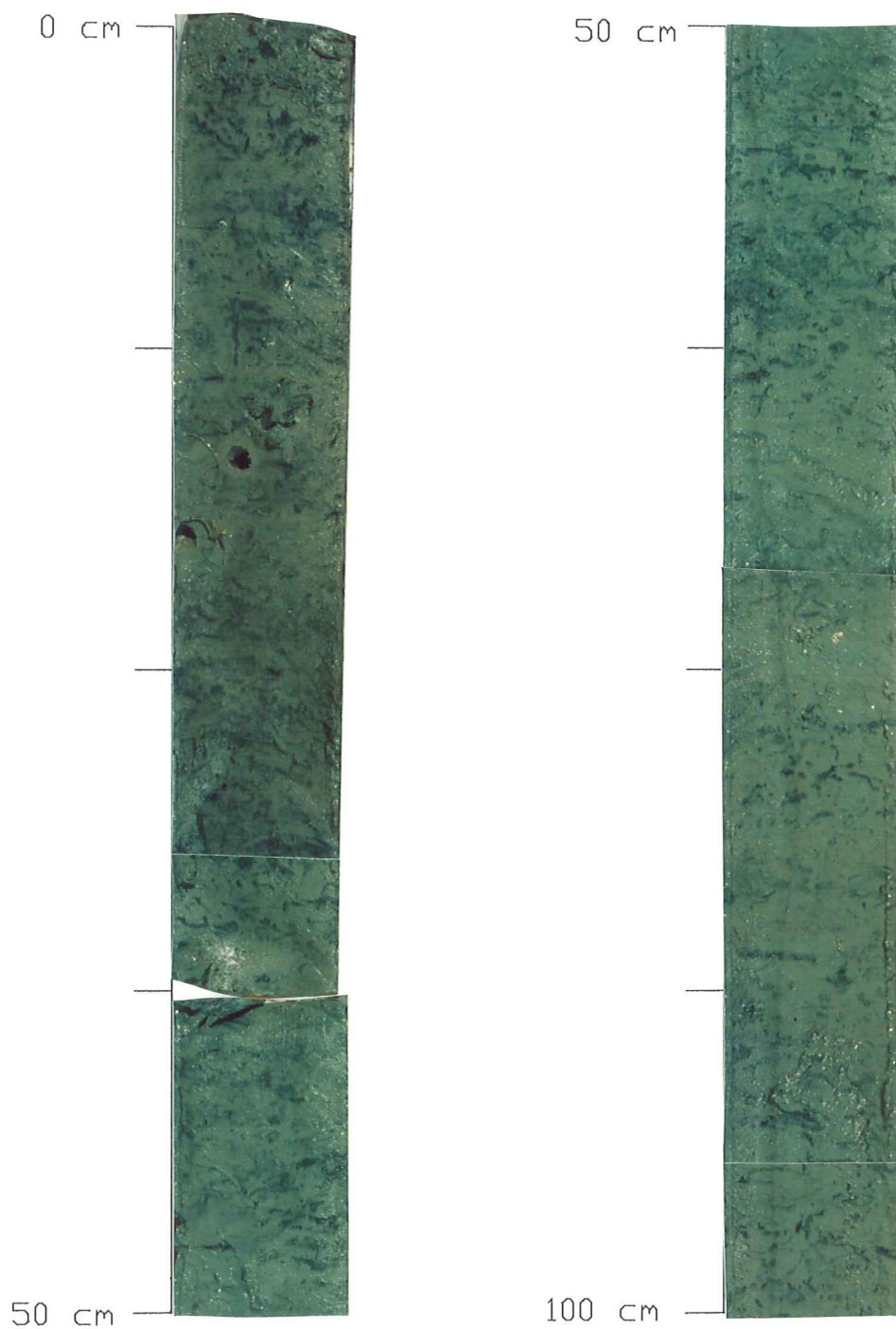


50 cm

Cruise Number	Sample Number	Sample Type	Interval
92028H	073 (B)	Boxcore	0 - 42 cm

Depth (cm)	Visual Description	Munsell Colour	
0	thin surficial veneer 0-2 cm sli. silty clay thin transition zone of 5Y5/1 clay 2-4 cm living worms down to 6 cm bioturbated clay 6 cm-17 cm, mottled 25% of core face	2.5Y4/3 5Y5/1	
10			
20	below 17 cm ↑ stiffness of clay, ↓ in mottling to 10%	5Y4/2	
30	shell frag. 22, 31, 40 cm clay unit stiffer than above mottled unit.		
40	horizontal burrow at 38 cm whole <u>in situ</u> shell sampled at 40 cm for Ruz Total Depth 42 cm	5Y4/2	
50			
60			
70			
80			
90			

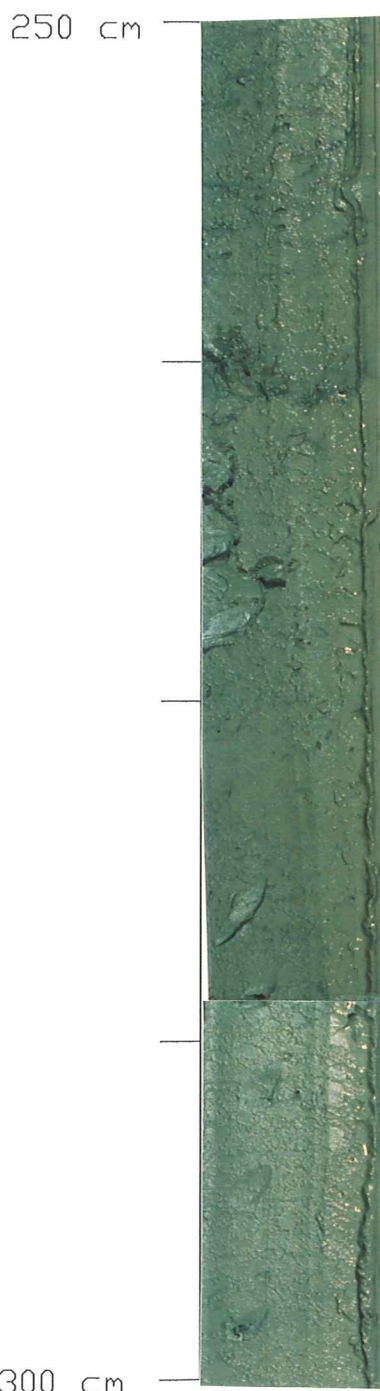
Core 92-028H-072
Interval 0-100 cm



Core 92-028H-072
Interval 100-200



Core 92-028H-072
Interval 200-300



Core 92-028H-072
Interval 300-341 cm

300 cm



350 cm

Cruise Number	Sample Number	Sample Type	Interval
92028H	072	Gravity - Benthos	0 - 100 cm

Depth (cm)	Visual Description	Munsell Colour	
0	upper 4-5 cm disturbed	5Y4/2	§
10	clay, <1% silt homogeneous mottled 25-30% structureless, cohesive		§
20			⊂
30	clay aa; ↑ mottling 35-40%		⊂
40	mottling, clay aa 15% core face	5Y4/2	⊂
50	45-50 less mottled 5% 50-70 ↑ mottling 30%		⊂
60			⊂
70	at 65 pebble	5Y4/2	△
80	↓ 70-75 mottling ↓ 5% shell frag. at 73 cm ↑ 75-78 15% mottling core face 78-112 ↓ mottling 10%	5Y4/2	⊂
90			

Cruise Number	Sample Number	Sample Type	Interval
92028H	072	Gravity - Benthos	100 - 200 cm

Depth (cm)	Visual Description	Munsell Colour	
100	clay aa; homogeneous structureless	5Y4/2	§
110	112-119 ↑ mottling 20% core face		
120	119 ↓-137 cm 10% core face mottling		⊙
130			
140	clay aa 137-153 ↑ 15% mottling core face	5Y4/2	§
150	153 ↑ 162 cm 20% mottling		§
160	162-181 ↓ mottling 10% core face		
170			§
180			
190	mottled clay aa homogeneous, structureless mottled up to 25% of core face	5Y4/2	§

Cruise Number	Sample Number	Sample Type	Interval
92028H	072	Gravity - Benthos	200 - 300 cm

Depth (cm)	Visual Description	Munsell Colour		
200	mottled 25% to 265 cm		§	
210				§
220	shell hash at 220 cm ↓ mottling below 265 cm	5Y4/2	~	
230			§	
240				§
250			§	
260	↓ mottling to <5% core face to 280	5Y4/2		§
270				
280	279 cm ↑ mottling 20% core face			
290	clay aa		§	

Cruise Number	Sample Number	Sample Type	Interval
92028H	072	Gravity - Benthos	300 - 341 cm

Depth (cm)	Visual Description	Munsell Colour	
300	clay aa Total Depth 341 cm	5Y4/2	S
310			
320			
330			
340			
350			
360			
370			
380			
390			

Cores were collected approximately 40km WNW of the Grande riviere de la Baleine estuary (Figure 5, 6 and 7).

Core sites 92-028H-099-101

Sediments in these cores consist of a thin yellowish brown surficial veneer grading into bioturbated, mottled, homogenous postglacial gray clay with occasional shell fragments and relict burrows to 2m downcore. An erosional surface is encountered at the underlying contact with a faulted rhythmite sequence similar to the unit encountered in cores 048 and 053. below 2.5 m in core 100, these alternating clay couplets give way to subrounded to angular clay clasts embedded within a silty clay matrix. This unit has a " cottage cheese" appearance and is similar to that encountered in cores 105 at 3.4m, and further nearshore at the surface of core 221, and at 1.5m in core 053. The event may equate to the glaciolacustrine/marine seismic unit described above. The texture may also be a function of permafrost loading particularly where the two rhythmite sequences appear to be interrupted by deposition of this unit.

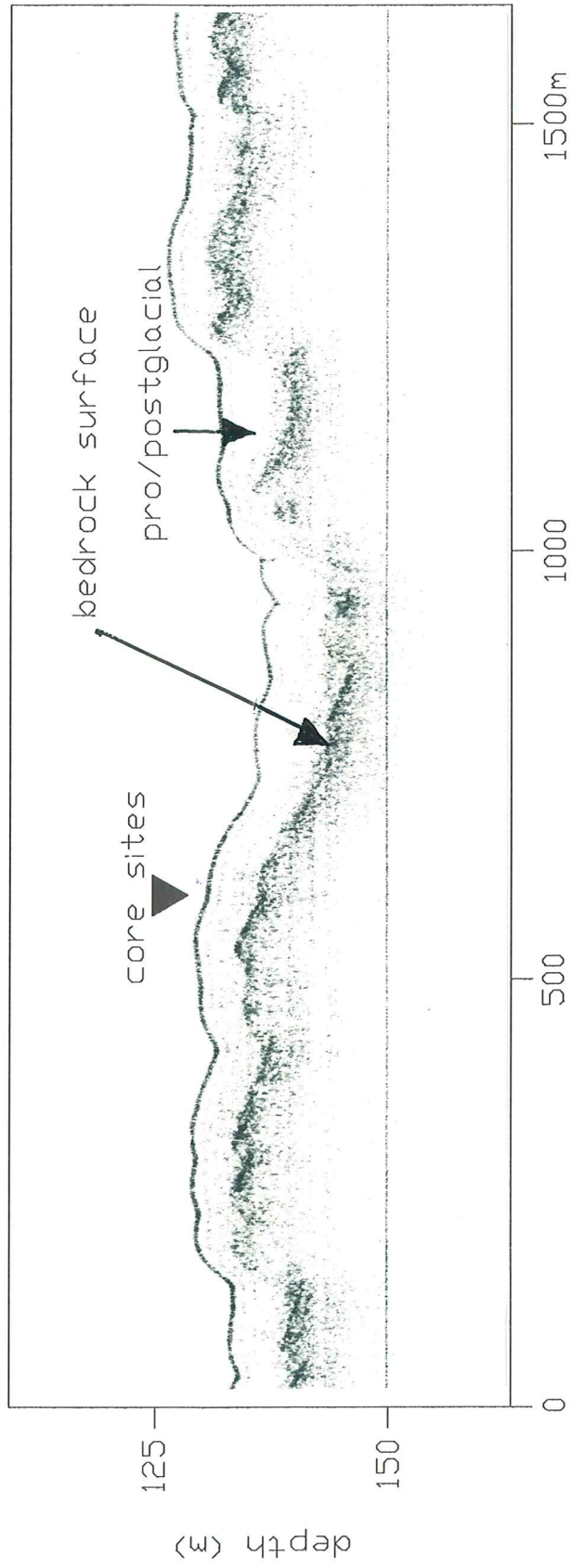
3.5 kHz subbottom profiler seismic section for core sites 92-028H-099-101

These cores were collected approximately 40 kilometres west-northwest of the Grande riviere de la Baleine estuary. Note the thin Quaternary (<5 metres) section representative of the deeper basins of the offshore. Approximately 3 metres of postglacial sediments overlie 2-3 metres of glaciolacustrine/marine sediments which directly overlie bedrock. Till/ice contact deposits are discontinuous.

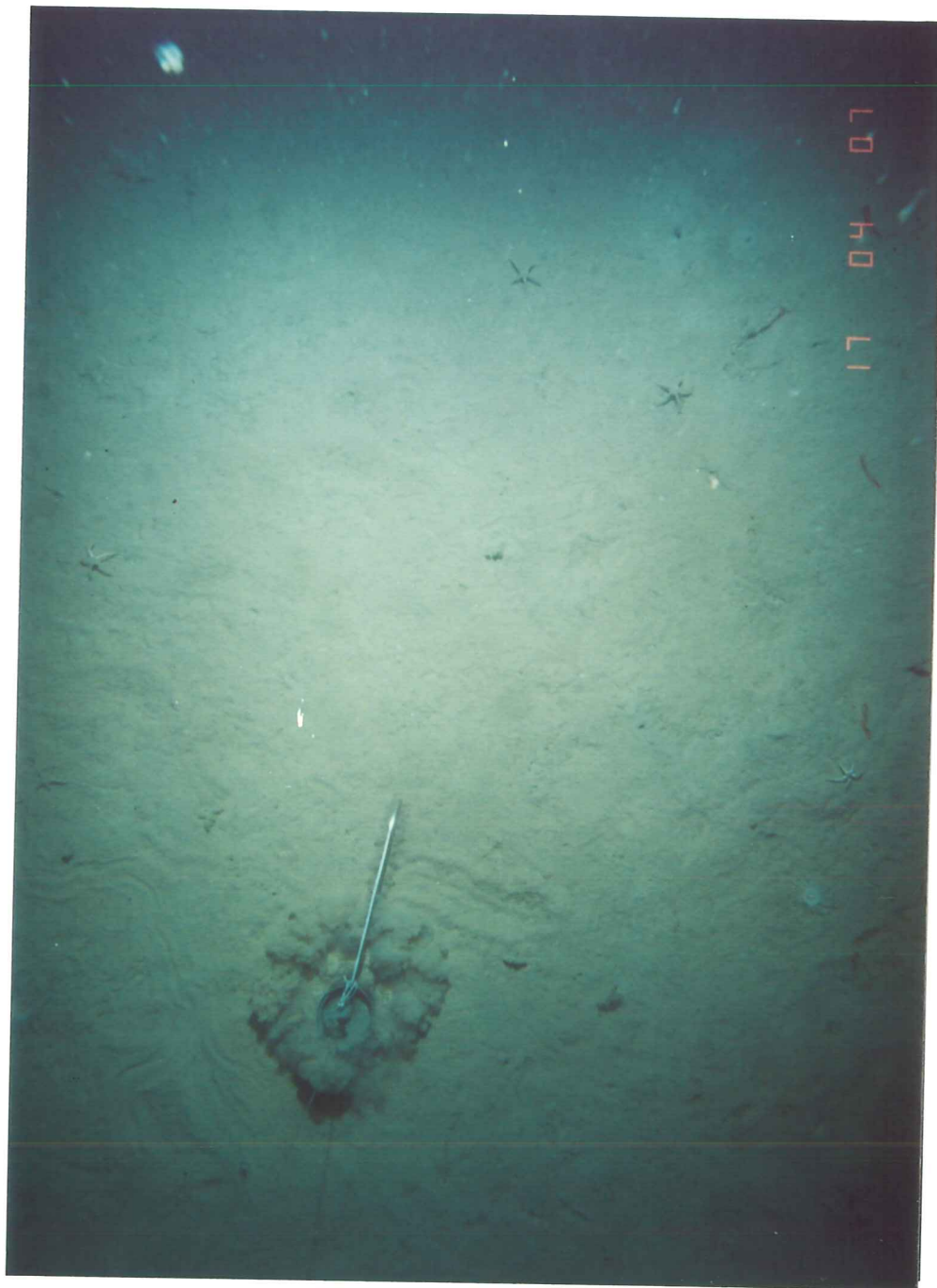
ESE

W

NW

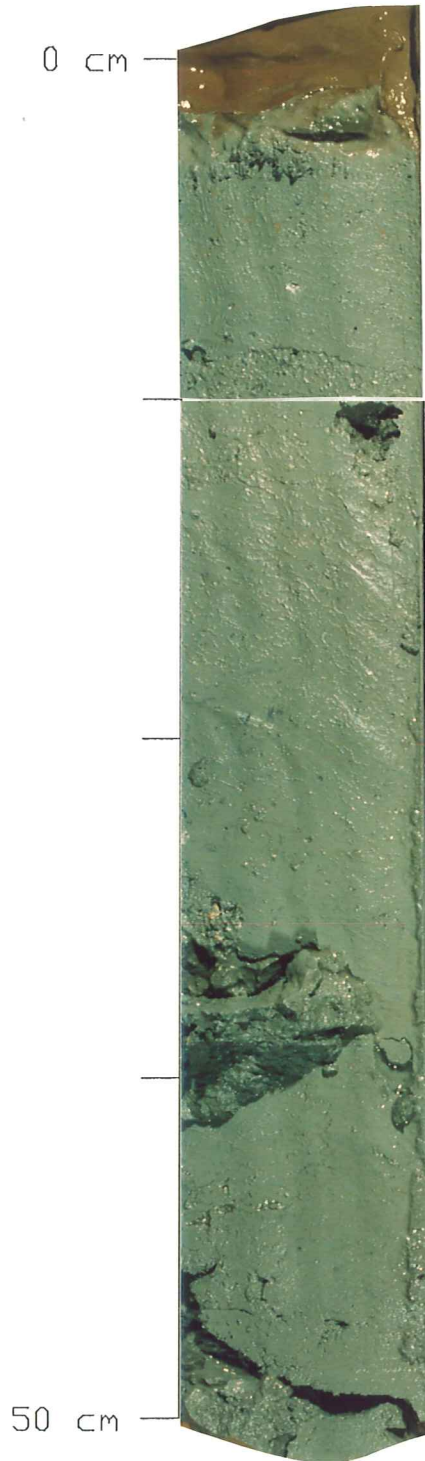


CORE SITES 92-028H 99,100 & 101






Camera station	92-028H-102
Box core site	92-028H-101
Water depth	131m

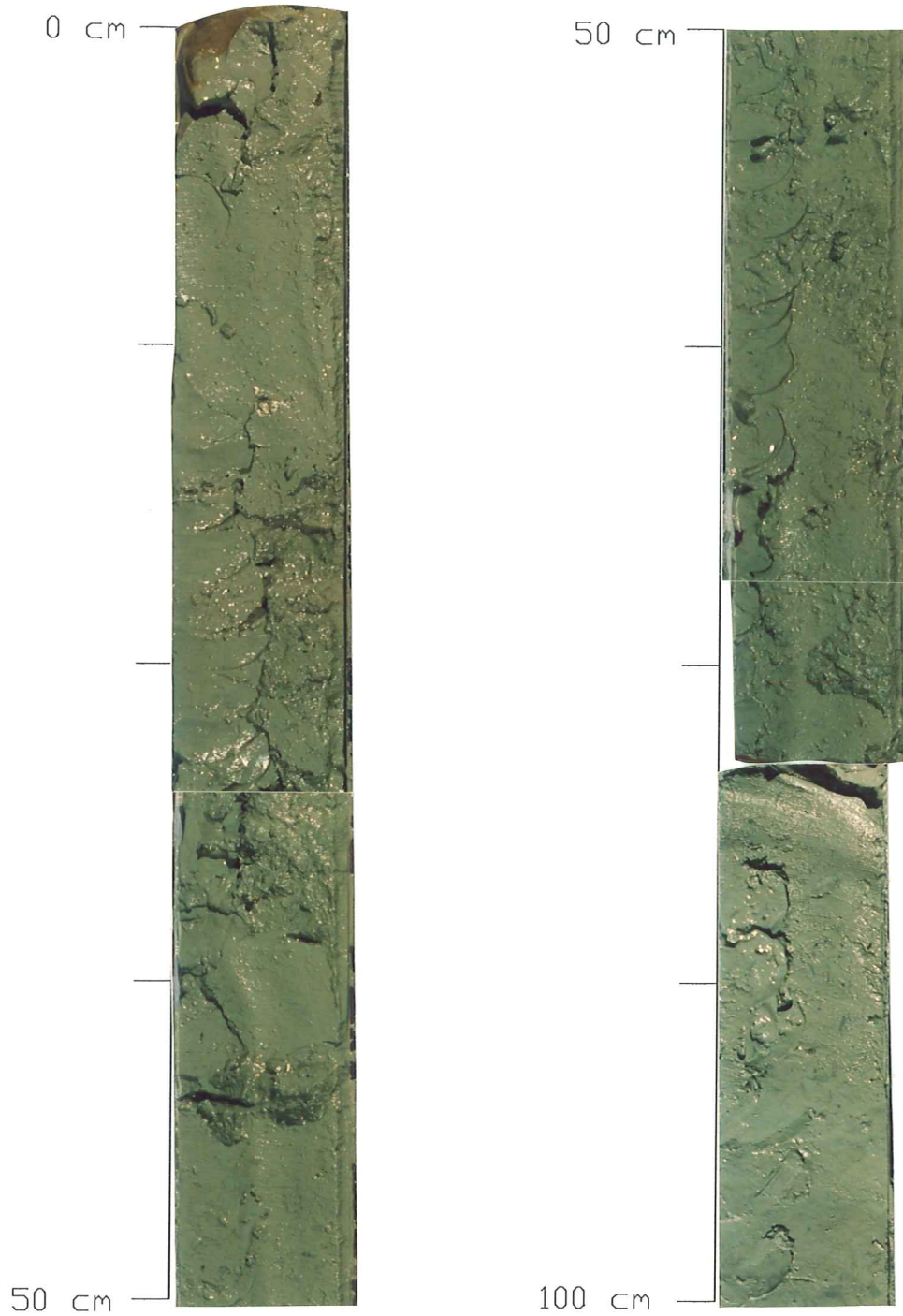
Core 92-028H-101B
Interval 0-47 cm



Cruise Number	Sample Number	Sample Type	Interval
92028H	101 (B)	Boxcore	0 -47 cm

Depth (cm)	Visual Description	Munsell Colour	
0	<p>silty surficial veneer 0 - 5 cm transition btw. veneer clay 5-7 cm underlain by soft 5Y5/2 homogeneous, structureless clay</p>	<p>10YR3/4 5Y5/2</p>	
10	<p>shell frag. at 10 cm carbonate clast 11 cm</p>		
20	clay aa to TD. 47 cm		
30	shell frags. 30, 31 cm		
40			
50	Total Depth 47 cm		
60			
70			
80			
90			

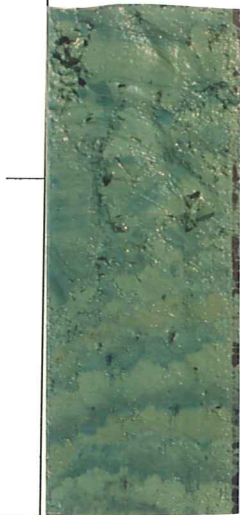
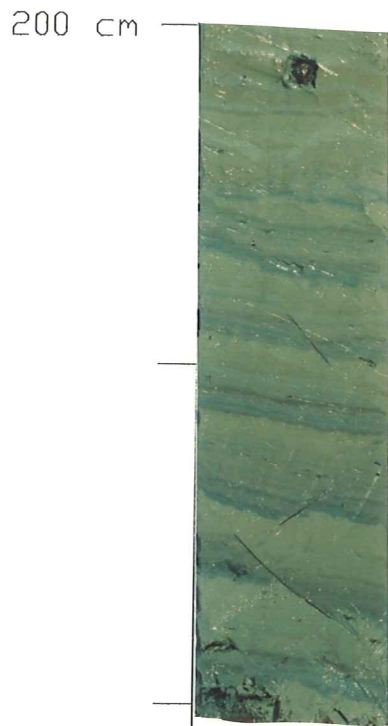
Core 92-028H-100
Interval 0-100 cm



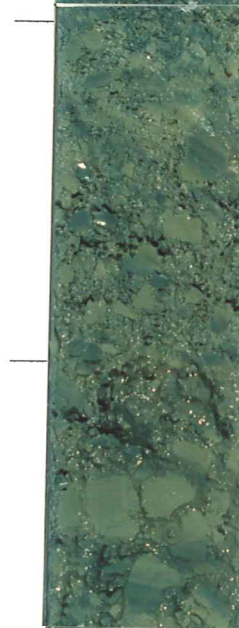
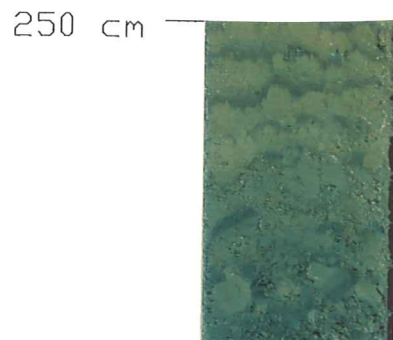
Core 92-028H-100
Interval 100-200



Core 92-028H-100
Interval 200-300



250 cm

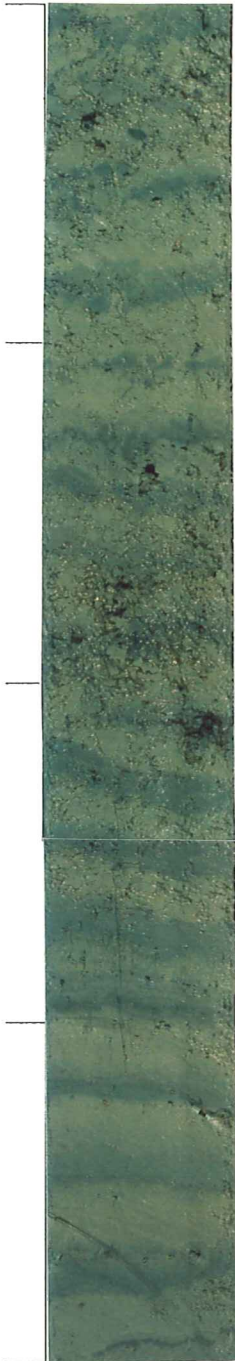


300 cm



Core 92-028H-100
Interval 300-380 cm

300 cm



350 cm



350 cm

400 cm

Cruise Number	Sample Number	Sample Type	Interval
92028H	100	Gravity - Benthos	0 - 100 cm

Depth (cm)	Visual Description	Munsell Colour	
0	thin <1 cm surficial veneer sli. silty clay homogeneous - like transition zone in nearshore cores (?) hint of mottling <5% below 40 cm	2.5Y4/2 5Y5/2	
10	shell frag. at 13 cm		∩
20			§
30	carbvonate clast at 30 cm		△
40			
50			
60			§
70			
80	C-C' 75-78 cm gray clay aa clay aa; sli. mottled <10% core face	5Y5/2	
90			§

Cruise Number	Sample Number	Sample Type	Interval
92028H	100	Gravity - Benthos	100 - 200 cm

Depth (cm)	Visual Description	Munsell Colour	
100		5Y5/2 5Y5/1	
110			
120			
130			
136	136 cm carbonate clast		
140			
150		5Y5/1	
160			
170			
180	↑ postglacial below 192 erosional surface grnish hue to mottled clay; thin wispy mottles 180-183 cm minor grit	5Y4/2	
190	grn hue more pink gry granite clast at 96 cm rthymites below gritty dk gray lense	5Y5/1	

Cruise Number	Sample Number	Sample Type	Interval
92028H	100	Gravity - Benthos	200 - 300 cm

Depth (cm)	Visual Description	Munsell Colour	
200	microfaulting from 203-208 - rhymites alternating - seasonal #8 colours ↑ each rhymite dk to lt. 2.5Y4/4 - 5/4 yellow 5Y6/2 gray 5Y6/1 pink gray	5Y5/2	
210	contact w/underlying sequence at 209 abrupt contact some grit erosional where underlying rhymites cut of #7 couplets colours dk to lt from bottom dk 5Y5/1 - 5Y4/1		
220	5Y5/1 - 5Y5/2 grit/silt/f. clay texture of cottage cheese - permafrost (?) loading		
230	rhythmically banded sequence aa. deformed interbedded silty clay and brown couplets		
240			
250	gradational contact 253 253-298 cm dark gray 5Y5/2 clay broken up into subrounded to angular clasts forming texture of cottage cheese - tears easily when scrapped with spatula - complete	5Y5/2	
260	disruption of ???? unit and between 302 and 303 cm (equivalent to Lake Ojibway sedt's?) glaciomarine dk 5Y5/1-5Y4/1 5Y5/1-5Y5/2	5Y5/1 5Y5/2	
270			
280			
290			
	gradational contact 298 cm		

Cruise Number	Sample Number	Sample Type	Interval
92028H	100	Gravity - Benthos	300 - 380 cm

Depth (cm)	Visual Description	Munsell Colour	
300	rhythmically banded sequence aa consisting of interbedded gray silty clay couplets, fining upwards from .5 cm to 1 cm thick	5Y5/2 - 5Y5/1	
310			
320	gradational contact? 14 couplets noted	5Y5/2 - 5Y5/1	
330			
340			
350			
360	355 beds microfaulted 16 couplets below 355 cm		
370			
380	Total Depth 380 cm		
390			

Cores were collected approximately 20km NW of Neilsen Island (Figure 5 and 7).

Core sites 92-028H-104-106

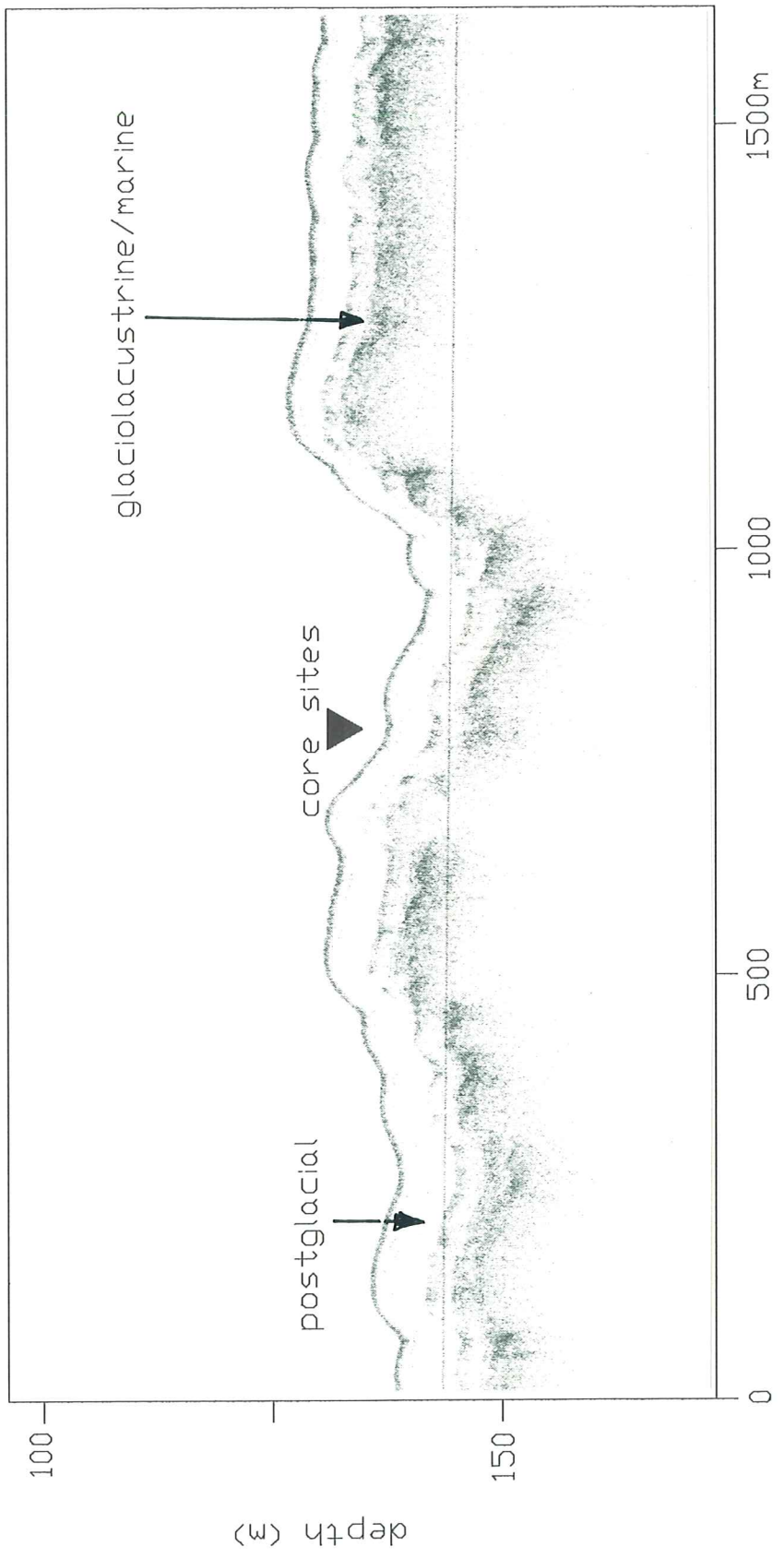
Sediments in these cores have little or no surficial yellowish brown veneer. Almost at the surface, the core penetrates the gray postglacial, homogenous, structureless clay with little or no apparent mottling to 3.16m in core 105. As in cores 048, 081 and 100 there is a sharp contact with rhythmically interbedded clay couplets to 2.98m. A .5m thick section of "clay clasts " embedded in a silty clay matrix gives way to a second rhythmite sequence.

3.5 kHz subbottom profiler seismic section for core sites 92-028H-104-6

This core was collected approximately 20km NW of Neilsen Island (Figure 5) in a representative, offshore, basinal setting. The Quaternary section consists of basal discontinuous thin till/ice contact deposits, conformably draped by 4m of glaciolacustrine/marine sediments then blanketed by 6m seismically transparent to weakly stratified ponded postglacial sediments.

NW

SE

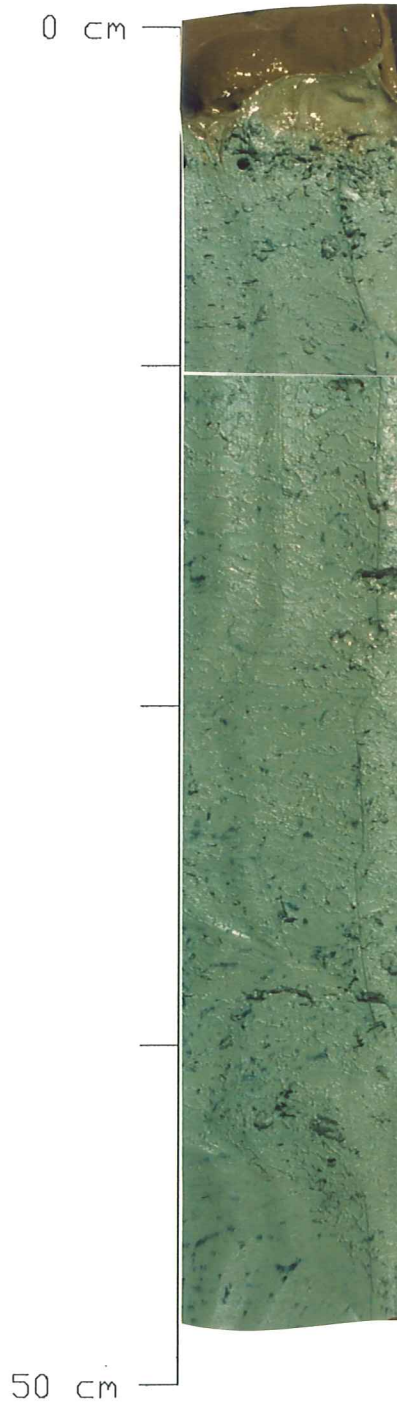


CORE SITES 92-028H 104,105 & 106




Camera station	92-028H-107
Box core site	92-028H-106
Water depth	138m

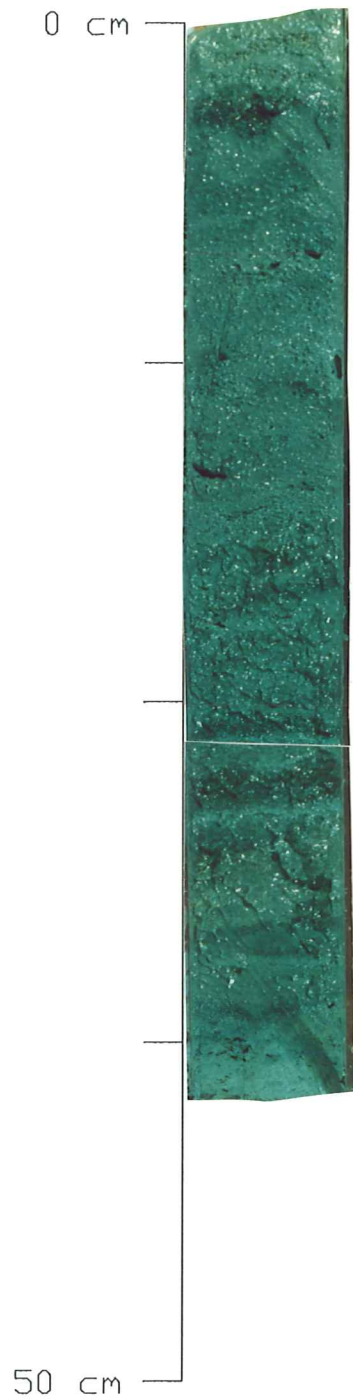
Core 92-028H-106B
Interval 0-41 cm



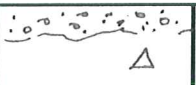

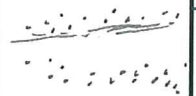


Cruise Number	Sample Number	Sample Type	Interval
92028H	106 (B)	Boxcore	0 - 41 cm

Depth (cm)	Visual Description	Munsell Colour	
0	0-5 cm veneer, silty clay soupy	10YR4/3	
10	5-8 cm transition zone open burrows at 5 cm clay bioturbated into underlying gray 5Y4/2 homogeneous structureless clay mottled to TD 41 cm	5Y4/3	§
20			§
30		5Y4/2	§
40	Total Depth 41 cm		
50			
60			
70			
80			
90			

Core 92-028H-105B
Interval 0-44 cm



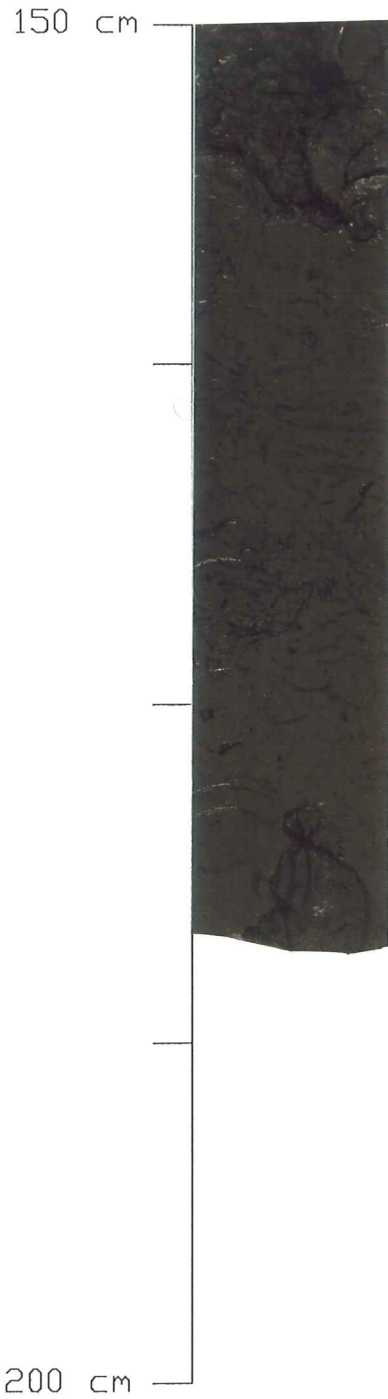
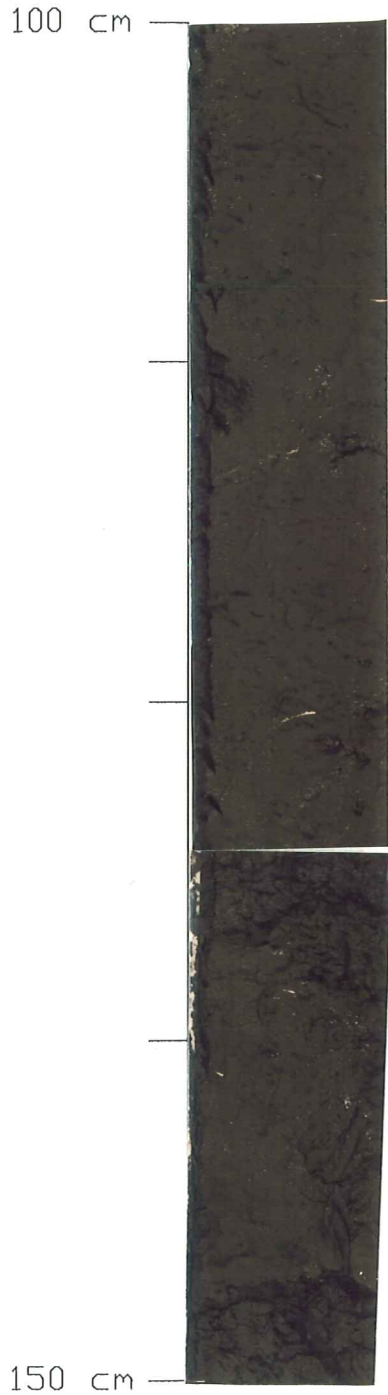
Cruise Number	Sample Number	Sample Type	Interval
92028B	105	Pushcore	0 - 44 cm

Depth (cm)	Visual Description	Munsell Colour	
0	here at surface of core face f. SD 0-4 cm 5Y5/2 coarse SD ice-rafted (last winter) granite 3 cm x	5Y5/3 5Y5/2 5Y3/1 5Y4/1	
10	f. SD w/silty clay matrix small clasts at 11 cm		
20	11 to 19 cm ↑ clay; below 19 cm = 22 cm have silty clay f. SD w/silt 22-29 cm	5Y5/1	
30	at 25 cm has silty SD 29-41 cm alternating SD 5Y3/1 dk 5Y5/1 lt er seasonal?	5Y5/1	
40	shell at 35 cm to 44 silty clay sli. mottled Total Depth 44 cm	5Y5/2	
50			
60			
70			
80			
90			

Core 92-028H-104
Interval 0-100 cm



Core 92-028H-104
Interval 100-177 cm



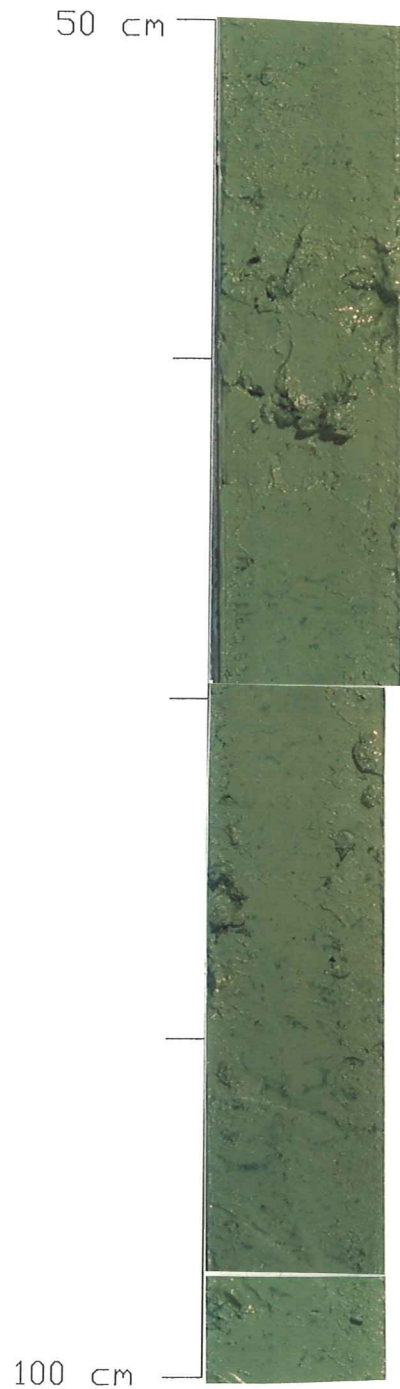
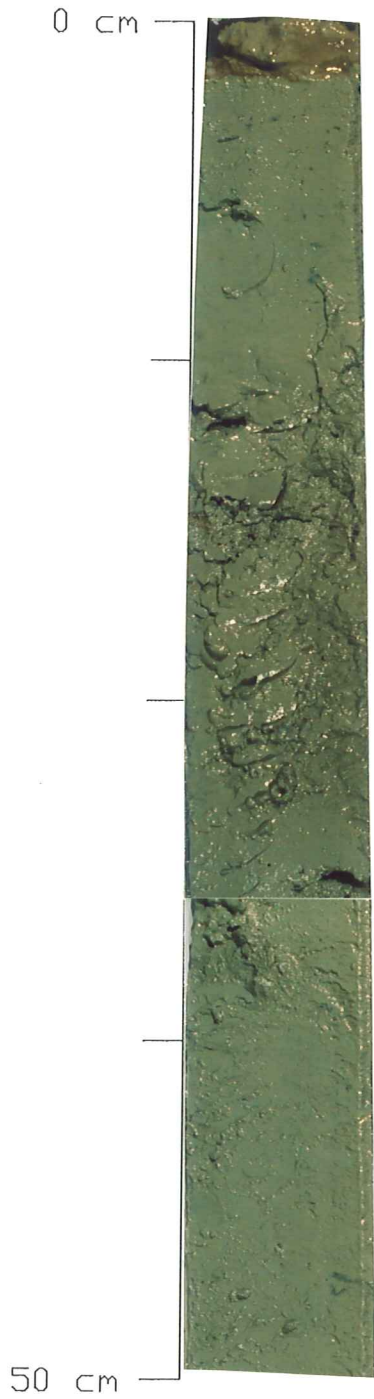
Cruise Number	Sample Number	Sample Type	Interval
92028H	104	Lehigh	0 - 100 cm

Depth (cm)	Visual Description	Munsell Colour	
0	v. thin surficial veneer at surface underlain by <.5 cm 2.5Y6/2 clay underlain in turn by homogeneous clay; structureless, <5% mottled core face	2.5Y4/2 2.5Y6/2 5Y5/2	{
10		5Y5/2	{
20	clay aa homogeneous, structureless, slightly mottled <5% core face		
30			{
40			
50			
60			{
70			
80	clay aa., homogeneous, structureless	5Y5/2	
90			
	clay aa, mottled, trace fossil? <u>chondrites</u>	5Y5/1	

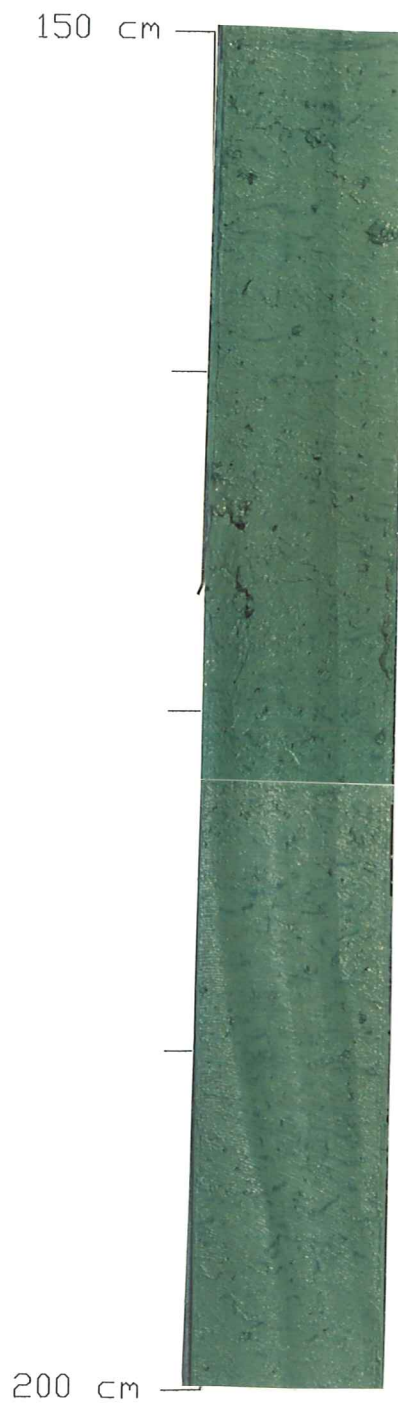
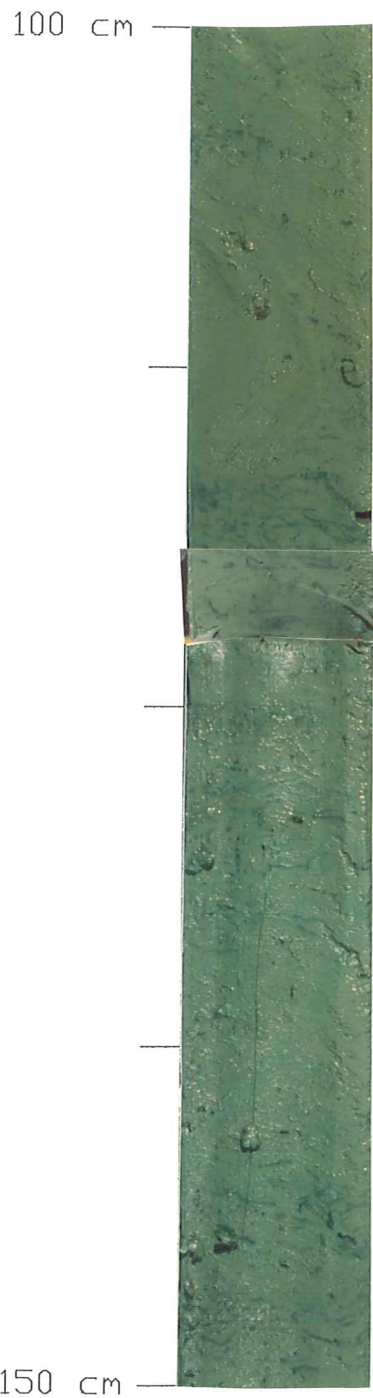
Cruise Number	Sample Number	Sample Type	Interval
92028H	104	Lehigh	100 - 177 cm

Depth (cm)	Visual Description	Munsell Colour	
100	mottled <10% core face	5Y5/1	§
110	@ 112 cm carbonate clast		△
120		5Y5/1	§
130			§
140			§
150		5Y5/1	
160	@ 160 cm biotrace ? <u>Chondrites</u>		⇒⇒§⇒⇒
170			§
180		5Y5/1	
190			

Core 92-028H-105
Interval 0-100 cm



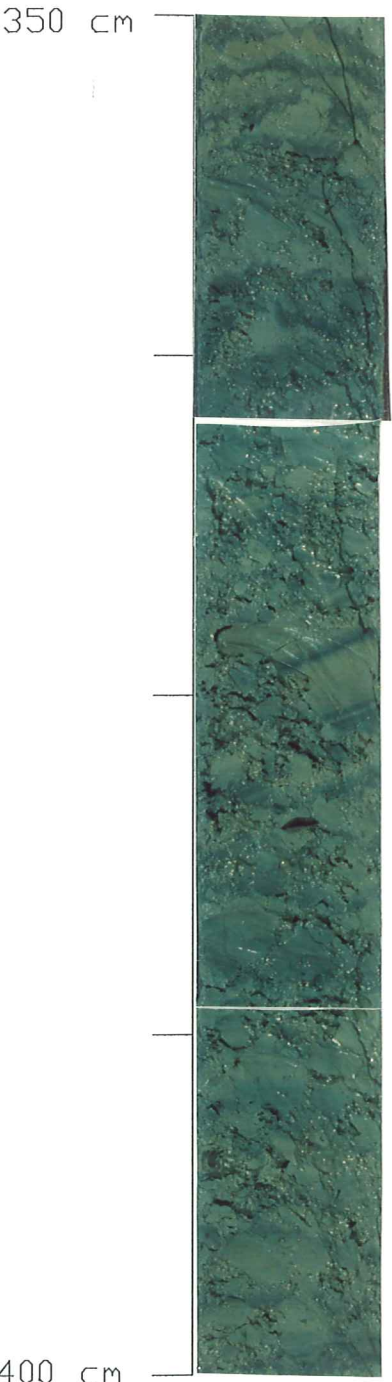
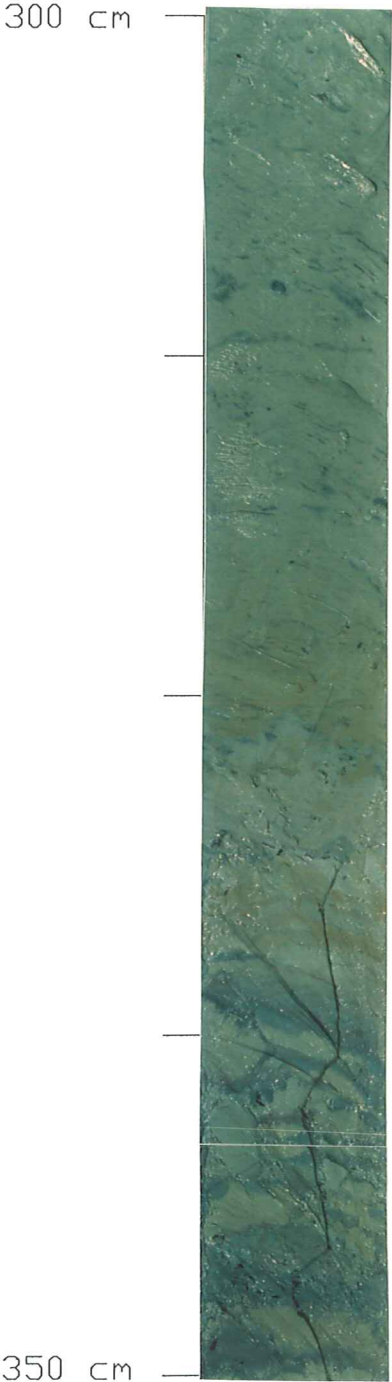
Core 92-028H-105
Interval 100-200



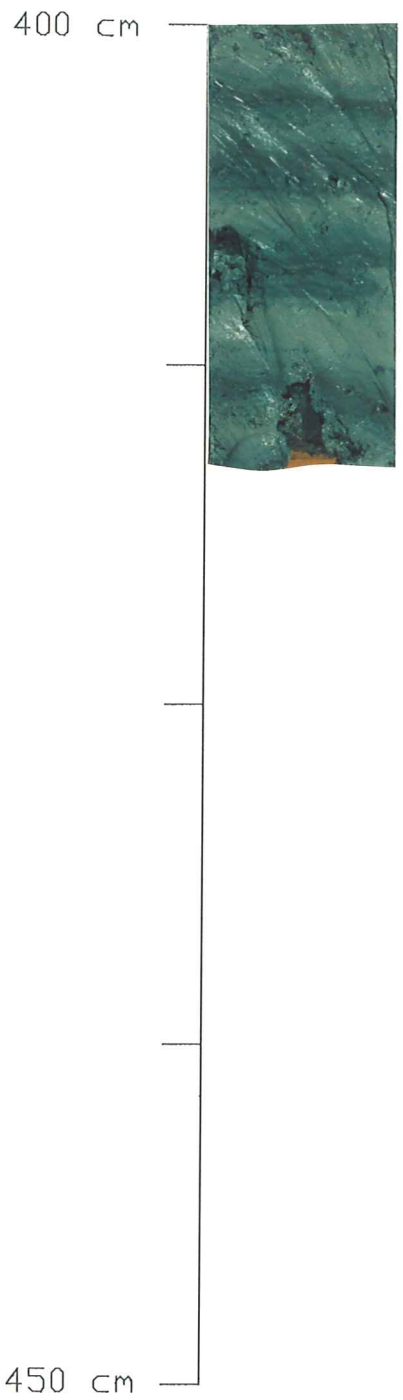
Core 92-028H-105
Interval 200-300





Core 92-028H-105
Interval 300-400



Core 92-028H-105
Interval 400-416 cm



Cruise Number	Sample Number	Sample Type	Interval
92028H	105	Gravity - Benthos	0 - 100 cm

Depth (cm)	Visual Description	Munsell Colour	
0	thin surficial veneer 2.5Y4/2 silty clay to 0-2 cm sharp contact w/underlying	2.5Y4/2	
10	sli. mottled <10% soft to 10 cm small shell frag. at 4 cm clay homogeneous, structureless, sli. mottled to 80 cm; silty	5Y5/2	§
20		5Y5/2	
30			§
40			
50		5Y5/2	§
60			§
70			§
80	↑ in motting on core face <10% large 1/2 shell at 84 cm sampled Ruz	5Y5/2	 §
90			§

Cruise Number	Sample Number	Sample Type	Interval
92028H	105	Gravity - Benthos	100 - 200 cm

Depth (cm)	Visual Description	Munsell Colour	
100	clay aa	5Y4/2	
110	↑ mottling 15% of core face		§
120	115-205 cm homogeneous, structureless gray colour 5Y5/2 sli. mottled clay <10% core face	5Y5/2	
130			§
140			
150		5Y5/2	§
160			
170			
180			§
190			

Cruise Number	Sample Number	Sample Type	Interval
92028H	105	Gravity - Benthos	200 - 300 cm

Depth (cm)	Visual Description	Munsell Colour	
200	thin bed of 5Y5/2 clay aa w/no mottling		S
210	209-232 ↑ mottling 15%		S
220			S
230	232 mottling ↓ <5% core face	5Y4/2	S
240			S
250			
260	258-262 ↑ mottling 10% core face ↓ 262-267 cm mottling <5%	5Y4/2	S
270			S
280			
290			S

Cruise Number	Sample Number	Sample Type	Interval
92028H	105	Gravity - Benthos	300 - 400 cm

Depth (cm)	Visual Description	Munsell Colour	
0			
10	permafrost --> cottage cheese effect?	5Y4/2 5Y4/3	
20	316 gray clay more yellow in hue above deformed rhythmically bedded sedt's as those at bottom of core #100 top of rhythmmites colour ↓ 5Y5/2 grittly at 320 10YR5/1 10YR5/2	5Y5/2	
30	1) deformed sequence w/clay clasts LS clasts 2) rhythmic banded sequence clays - texture of butter 3) deformed cottage cheese - like clay clasts up to 4 x 4 cm in size		
40	5Y5/2 10YR5/1 10YR5/2		
50			
60			
70			
80			
90	4) rhythmic banded sequence clays		

Cruise Number	Sample Number	Sample Type	Interval
92028H	105	Gravity - Benthos	400 - 416 cm

Depth (cm)	Visual Description	Munsell Colour	
400	5) 3rd cottage cheese-like event - colours aa 6) rhythmically bedded sequence clay microfaulting	(5)	
410	1 cm clast granite Total Depth 416 cm	(6)	
420			
430			
440			
450			
460			
470			
480			
490			

Representative bottom photographs collected independently (Figure 8) or at grab station sites (Figures 3 and 8)



Camera station	92-028H-029
Grab sites	92-028H-037-9
Water depth	17m



Camera station 92-028H-029
Grab sites 92-028H-037-9
Water depth 17m

Camera station 92-028H-108
Grab site 92-028H-110
Water depth 87m





Camera station	92-028H-123
Grab site	92-028H-122
Water depth	94m



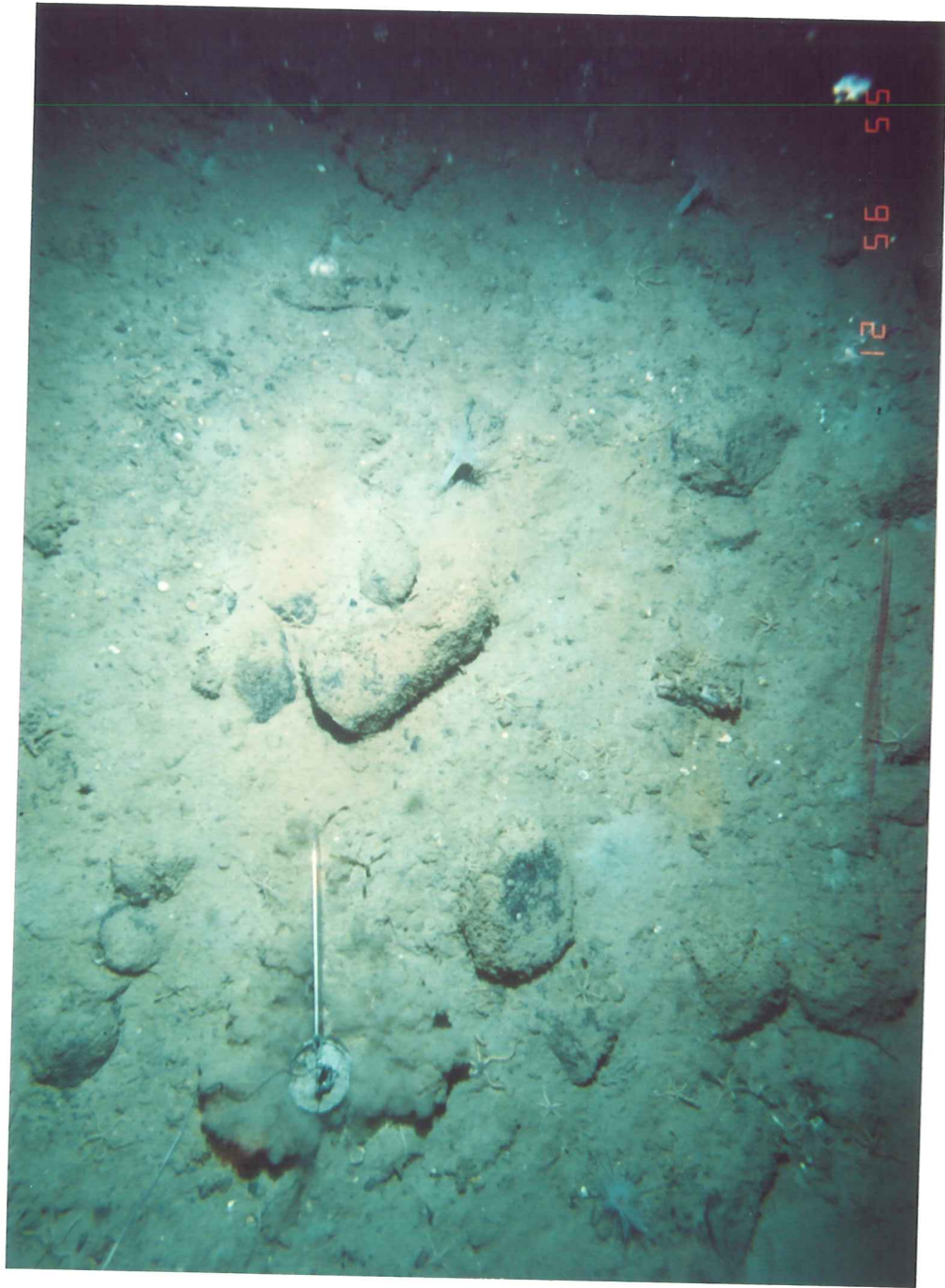
Camera station 92-028H-126
Water depth 109m



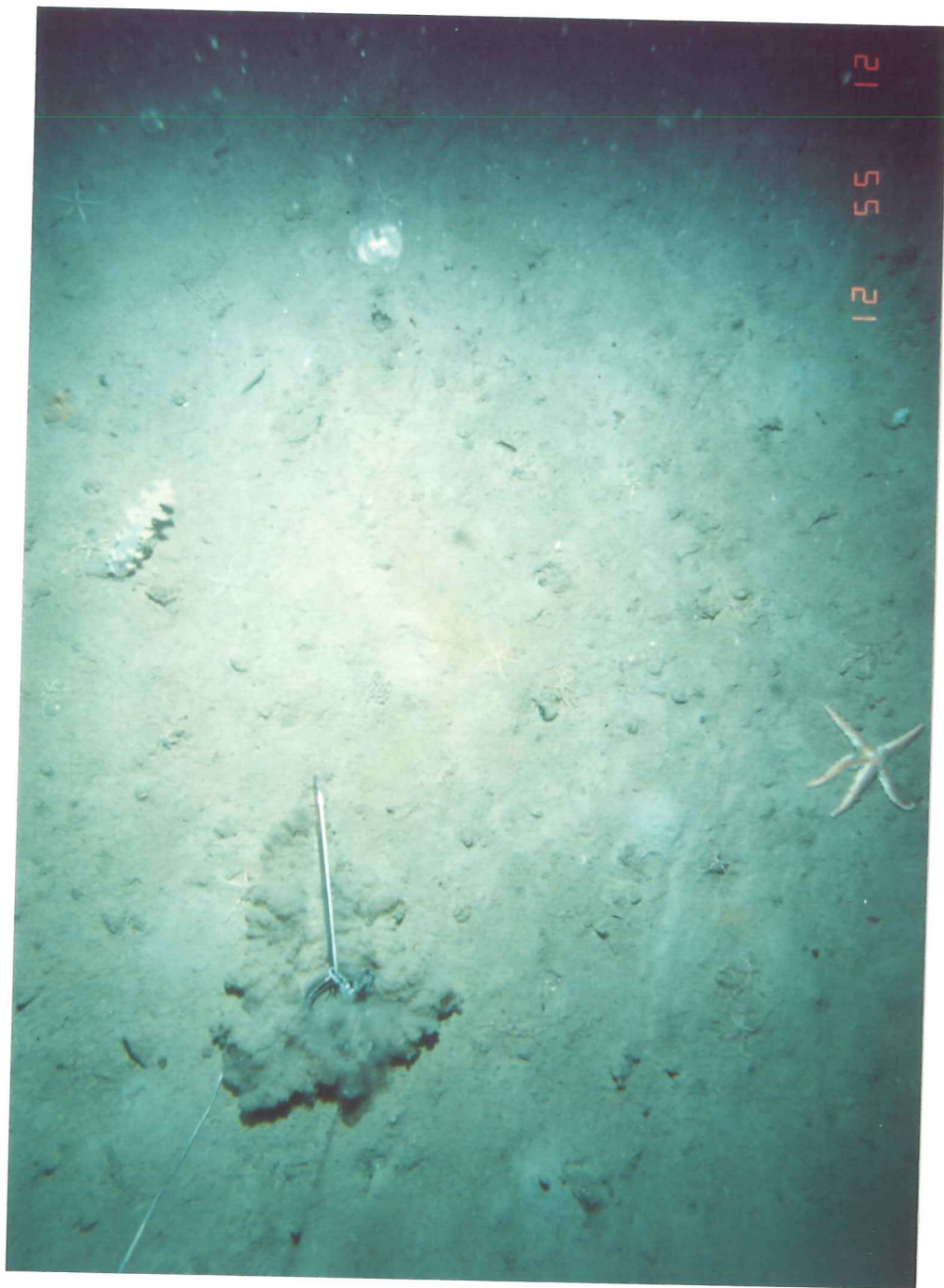
Camera station 92-028H-126
Water depth 109m



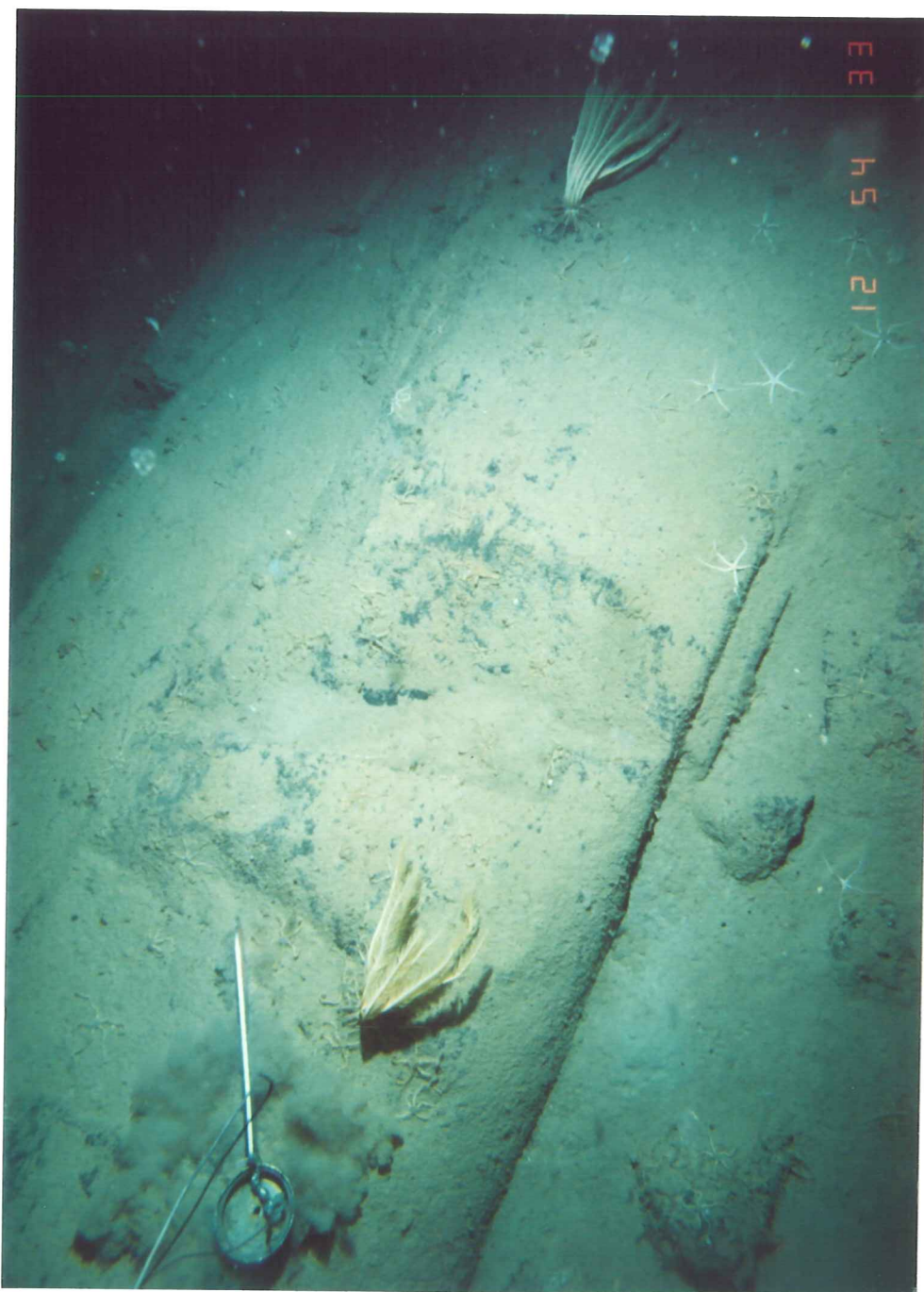
Camera station	92-028H-136
Grab site	92-028H-135
Water depth	45m



Camera station 92-028H-139
Water depth 126m



Camera station 92-028H-139
Water depth 126m



Camera station 92-028H-139
Water depth 126m



Camera station	92-028H-147
Grab site	92-028H-146
Water depth	147m

References

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ATLANTIC GEOSCIENCE CENTRE
DATA SECTION
-SHIP- REPORTING PACKAGE

TABLE 1
TOTAL SAMPLE INVENTORY

CRUISE NUMBER = 92-028
CHIEF SCIENTIST = CARL AMOS
PROJECT NUMBER = GR BAL

<u>SAMPLE NUMBER</u>	<u>SAMPLE TYPE</u>	<u>SAMPLE DAY/TIME</u>	<u>SEISMIC DAY/TIME</u>	<u>LATITUDE</u>	<u>LONGITUDE</u>	<u>DEPTH (M)</u>	<u>GEOGRAPHIC LOCATION</u>
001	GRAB	2281623		55 16.83	77 49.70	32	GRANDE BALEINE DELTA, QUEBEC
002	CAMERA	2281646		55 17.06	77 49.57	41	GRANDE BALEINE DELTA, QUEBEC
003	EXCALIBUR	2281731		55 16.79	77 49.47	32	GRANDE BALEINE DELTA, QUEBEC
004	BOXCORE	2281848	2281800	55 17.28	77 49.38	60	GRANDE BALEINE DELTA, QUEBEC
006	CAMERA	2291343		55 17.48	77 48.95	43	GRANDE BALEINE DELTA, QUEBEC
009	CORE	2291653		55 17.37	77 49.45	61	GRANDE BALEINE DELTA, QUEBEC
010	CAMERA	2291811		55 20.02	77 45.76	45	GRANDE BALEINE OFF NAVER ISLANDS, QUEBEC
011	BOXCORE	2291840	2291235	55 20.15	77 46.06	58	GRANDE BALEINE OFF NAVER ISLANDS, QUEBEC
012	CORE	2291903	2291235	55 20.10	77 45.73	49	GRANDE BALEINE DELTA, QUEBEC
013	WATER	2292131		55 16.76	77 49.56	36	GRANDE BALEINE DELTA, QUEBEC
014	CAROUSEL	2301332		55 16.77	77 49.60	42	GRANDE BALEINE DELTA, QUEBEC
015	GRAB	2301614		55 16.80	77 49.61	37	GRANDE BALEINE DELTA, QUEBEC
016	CORE	2301807	2291235	55 20.15	77 45.82	53	GRANDE BALEINE DELTA, QUEBEC
017	BOXCORE	2301932		55 14.35	77 58.91	96	GRANDE BALEINE DELTA, QUEBEC
018	CORE	2301944		55 14.34	77 59.23	96	GRANDE BALEINE DELTA, QUEBEC
019	CAMERA	2311145		55 14.38	77 59.08	95	GRANDE BALEINE DELTA, QUEBEC

ATLANTIC GEOSCIENCE CENTRE
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TABLE 1
TOTAL SAMPLE INVENTORY

CRUISE NUMBER = 92-028
CHIEF SCIENTIST = CARL AMOS
PROJECT NUMBER = GR BAL

<u>SAMPLE NUMBER</u>	<u>SAMPLE TYPE</u>	<u>SAMPLE DAY/TIME</u>	<u>SEISMIC DAY/TIME</u>	<u>LATITUDE</u>	<u>LONGITUDE</u>	<u>DEPTH (M)</u>	<u>GEOGRAPHIC LOCATION</u>
020	CORE	2311218		55 14.31	77 59.16	96	GRANDE BALEINE DELTA, QUEBEC
021	EXCALIBUR	2311305		55 15.67	77 56.27	79	GRANDE BALEINE DELTA, QUEBEC
022	CAMERA	2311321		55 15.75	77 56.22	70	GRANDE BALEINE DELTA, QUEBEC
023	BOXCORE	2311405		55 15.64	77 56.37	86	GRANDE BALEINE DELTA, QUEBEC
024	CORE	2311419		55 15.62	77 56.25	79	GRANDE BALEINE DELTA, QUEBEC
025	CORE	2311626		55 15.83	77 56.52	77	GRANDE BALEINE DELTA, QUEBEC
026	CORE	2311651		55 15.93	77 56.29	88	GRANDE BALEINE DELTA, QUEBEC
027	BOXCORE	2311916		55 15.79	77 53.45	79	GRANDE BALEINE DELTA, QUEBEC
028	CAMERA	2311943		55 15.91	77 53.43	81	GRANDE BALEINE DELTA, QUEBEC
029	CAMERA	2321152		55 32.22	77 32.55	17	GRANDE BALEINE DELTA, QUEBEC
030	RALPH	2321221		55 32.30	77 32.49	16	GRANDE BALEINE SCHOONER OPENING, QUEBEC
031	SOBS	2321328		55 32.33	77 32.34	17	GRANDE BALEINE SCHOONER OPENING, QUEBEC
032	EXCALIBUR	2321400		55 32.92	77 34.06	123	GRANDE BALEINE DELTA, QUEBEC
033	CORE	2321417		55 32.96	77 34.02	118	GRANDE BALEINE DELTA, QUEBEC
034	CORE	2321436		55 32.93	77 33.85	121	GRANDE BALEINE DELTA, QUEBEC
035	BOXCORE	2321620		55 32.81	77 34.33	138	GRANDE BALEINE DELTA, QUEBEC

ATLANTIC GEOSCIENCE CENTRE
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TABLE 1

CRUISE NUMBER = 92-028
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036	CAMERA	2321647		55 32.67	77 34.35	137	GRANDE BALEINE DELTA, QUEBEC
037	GRAB	2321738		55 31.95	77 32.85	34	GRANDE BALEINE DELTA, QUEBEC
038	GRAB	2321750		55 31.91	77 32.79	36	GRANDE BALEINE DELTA, QUEBEC
039	GRAB	2321809		55 32.06	77 32.75	39	GRANDE BALEINE DELTA, QUEBEC
040	CAROUSEL	2321902		55 31.97	77 32.56	46	GRANDE BALEINE SCHOONER OPENING, QUEBEC
041	WATER	232		55 31.98	77 32.59	42	GRANDE BALEINE DELTA, QUEBEC
042	WATER	2331216		55 31.95	77 32.63	42	GRANDE BALEINE OFF MANITOUKUK ISLANDS, QUEBEC
043	CORE	2331441		55 31.99	77 37.28	160	GRANDE BALEINE OFF MANITOUKUK ISLANDS, QUEBEC
044	CORE	2331613		55 32.04	77 37.26	160	GRANDE BALEINE OFF MANITOUKUK ISLANDS, QUEBEC
045	BOXCORE	2331639		55 32.01	77 37.38	160	GRANDE BALEINE OFF MANITOUKUK ISLANDS, QUEBEC
046	CAMERA	2331706		55 32.01	77 37.32	160	GRANDE BALEINE OFF MANITOUKUK ISLANDS, QUEBEC
047	CORE	2331802		55 29.61	77 43.46	151	GRANDE BALEINE OFF MANITOUKUK ISLANDS, QUEBEC
048	CORE	2331826		55 29.73	77 43.44	151	GRANDE BALEINE OFF MANITOUKUK ISLANDS, QUEBEC
049	BOXCORE	2331855		55 29.75	77 43.44	151	GRANDE BALEINE OFF MANITOUKUK ISLANDS, QUEBEC

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TABLE 1

CRUISE NUMBER = 92-028
CHIEF SCIENTIST = CARL AMOS
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SAMPLE NUMBER	SAMPLE TYPE	SAMPLE DAY/TIME	TOTAL SAMPLE INVENTORY		DEPTH (M)	GEOGRAPHIC LOCATION
			SEISMIC DAY/TIME	LATITUDE		
050	CAMERA	2331927		55 29.67	77 43.44	150 GRANDE BALEINE OFF MANTOUHUK ISLANDS, QUEBEC
051	EXCALIBUR	2341255		55 36.29	77 31.90	97 GRANDE BALEINE OFF SCHOONER OPENING, QUEBEC
052	CORE	2341330		55 36.14	77 31.61	106 GRANDE BALEINE OFF SCHOONER OPENING, QUEBEC
053	CORE	2341357		55 36.34	77 31.53	94 GRANDE BALEINE OFF SCHOONER OPENING, QUEBEC
054	BOXCORE	2341419		55 36.32	77 31.47	95 GRANDE BALEINE OFF SCHOONER OPENING, QUEBEC
055	CAMERA	2341610		55 36.43	77 31.65	103 GRANDE BALEINE OFF SCHOONER OPENING, QUEBEC
056	CORE	2341659		55 38.34	77 24.52	80 GRANDE BALEINE OFF BOAT OPENING, QUEBEC
057	CAMERA	2341720		55 38.43	77 24.42	90 GRANDE BALEINE OFF BOAT OPENING, QUEBEC
058	CORE	2341737		55 38.39	77 24.57	97 GRANDE BALEINE OFF BOAT OPENING, QUEBEC
059	BOXCORE	2341755		55 38.35	77 24.55	97 GRANDE BALEINE OFF BOAT OPENING, QUEBEC
060	CAMERA	2341810		55 38.35	77 24.52	97 GRANDE BALEINE OFF BOAT OPENING, QUEBEC
061	EXCALIBUR	2351433		55 31.42	77 34.48	78 GRANDE BALEINE OFF SCHOONER OPENING, QUEBEC
062	SOBS	2361225		56 00.52	76 56.24	37 PETITE BALEINE QUEBEC

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TABLE 1

CRUISE NUMBER = 92-028
CHIEF SCIENTIST = CARL AMOS
PROJECT NUMBER = GR BAL

TOTAL SAMPLE INVENTORY

<u>SAMPLE NUMBER</u>	<u>SAMPLE TYPE</u>	<u>SAMPLE DAY/TIME</u>	<u>SEISMIC DAY/TIME</u>	<u>LATITUDE</u>	<u>LONGITUDE</u>	<u>DEPTH (M)</u>	<u>GEOGRAPHIC LOCATION</u>
063	CORE	2361610		55 58.81	77 09.88	166	PETITE BALEINE QUEBEC
064	CORE	2361630		55 58.81	77 09.95	166	PETITE BALEINE QUEBEC
065	BOXCORE	2361653		55 58.71	77 09.96	168	PETITE BALEINE QUEBEC
066	CAMERA	2361723		55 58.74	77 09.83	166	PETITE BALEINE QUEBEC
067	CORE	2361823		56 00.49	76 58.18	166	PETITE BALEINE QUEBEC
068	CORE	2361835		56 00.44	76 58.04	96	PETITE BALEINE QUEBEC
069	BOXCORE	2361856		56 00.42	76 58.10	96	PETITE BALEINE QUEBEC
070	CAMERA	2361939		56 00.57	76 58.09	97	PETITE BALEINE QUEBEC
071	CORE	2371155		55 58.59	77 17.52	110	PETITE BALEINE QUEBEC
072	CORE	2371211		55 58.52	77 17.43	103	PETITE BALEINE QUEBEC
073	BOXCORE	2371230		55 58.59	77 17.45	107	PETITE BALEINE QUEBEC
074	CAMERA	2371249		55 58.55	77 17.41	105	PETITE BALEINE QUEBEC
075	CORE	2371430		56 05.51	76 56.28	182	PETITE BALEINE QUEBEC
076	CAMERA	2371441		56 05.47	76 56.28	183	PETITE BALEINE QUEBEC
077	BOXCORE	2371747		56 05.45	76 56.26	180	PETITE BALEINE QUEBEC
078	CORE	2371804		56 05.51	76 56.18	183	PETITE BALEINE QUEBEC
079	GRAB	2391246		55 21.48	77 43.22	68	MOUTH OF MANTOUK, QUEBEC

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TABLE 1

CRUISE NUMBER = 92-028
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PROJECT NUMBER = GR BAL

TOTAL SAMPLE INVENTORY							
<u>SAMPLE NUMBER</u>	<u>SAMPLE TYPE</u>	<u>SAMPLE DAY/TIME</u>	<u>SEISMIC DAY/TIME</u>	<u>LATITUDE</u>	<u>LONGITUDE</u>	<u>DEPTH (M)</u>	<u>GEOGRAPHIC LOCATION</u>
080	CORE	2391323		55 21.48	77 43.24	68	MOUTH OF MANITOUNUK, QUEBEC
081	CORE	2391344		55 21.48	77 43.20	68	MOUTH OF MANITOUNUK, QUEBEC
082	BOXCORE	2391405		55 21.46	77 43.20	68	MOUTH OF MANITOUNUK, QUEBEC
083	CAMERA	2391445		55 21.48	77 43.22	69	MOUTH OF MANITOUNUK, QUEBEC
084	RALPH	2391916		55 21.43	77 43.13	68	MOUTH OF MANITOUNUK, QUEBEC
085	WATER	2392056		55 21.42	77 43.13	57	MOUTH OF MANITOUNUK, QUEBEC
086	SOBS	2401252		55 21.51	77 42.94	64	MOUTH OF MANITOUNUK, QUEBEC
087	EXCALIBUR	2401311		55 21.61	77 42.52	51	MOUTH OF MANITOUNUK, QUEBEC
088	RALPH	2401339		55 21.39	77 43.14	56	MOUTH OF MANITOUNUK, QUEBEC
089	CORE	2401613		55 24.85	78 08.44	160	MOUTH OF MANITOUNUK, QUEBEC
090	CORE	2401630		55 24.80	78 08.41	163	MOUTH OF MANITOUNUK, QUEBEC
091	BOXCORE	2401651		55 24.76	78 08.45	163	MOUTH OF MANITOUNUK, QUEBEC
092	CAMERA	2401734		55 24.86	78 08.41	163	MOUTH OF MANITOUNUK, QUEBEC

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TABLE 1
TOTAL SAMPLE INVENTORY

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<u>SAMPLE NUMBER</u>	<u>SAMPLE TYPE</u>	<u>SAMPLE DAY/TIME</u>	<u>SEISMIC DAY/TIME</u>	<u>LATITUDE</u>	<u>LONGITUDE</u>	<u>DEPTH (M)</u>	<u>GEOGRAPHIC LOCATION</u>
093	WATER	2401807		55 24.92	78 08.44	163	MOUTH OF MANITOUNUK, QUEBEC
094	CORE	2411202		55 32.64	78 44.76	160	SOUTH OF KUGARAPIK RIVER, QUEBEC
095	CORE	2411219		55 32.87	78 44.81	175	OFFSHORE BELCHER ISLANDS QUEBEC
096	BOXCORE	2411237		55 32.70	78 44.80	176	OFFSHORE BELCHER ISLANDS QUEBEC
097	CAMERA	2411310		55 32.69	78 44.83	175	OFFSHORE BELCHER ISLANDS QUEBEC
098	WATER	2411337		55 32.70	78 44.75	175	OFFSHORE BELCHER ISLANDS QUEBEC
099	CORE	2411608		55 26.94	78 21.37	133	OFFSHORE GRANDE BAILEINE BELCHER IS. QUEBEC
100	CORE	2411623		55 26.94	78 21.34	133	OFFSHORE GRANDE BAILEINE BELCHER IS. QUEBEC
101	BOXCORE	2411639		55 26.94	78 21.28	133	OFFSHORE GRANDE BAILEINE BELCHER IS. QUEBEC
102	CAMERA	2411700		55 26.98	78 21.38	131	OFFSHORE GRANDE BAILEINE BELCHER IS. QUEBEC
103	WATER	2411723		55 27.03	78 21.51	130	OFFSHORE GRANDE BAILEINE BELCHER IS. QUEBEC
104	CORE	2411854		55 35.65	77 59.16	145	OFFSHORE GRANDE BAILEINE BELCHER IS.

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105	CORE	2411910		55 35.67	77 59.36	136	OFFSHORE GRANDE BAILEINE BELCHER IS. QUEBEC
106	BOXCORE	2411932		55 35.76	77 59.38	136	OFFSHORE GRANDE BAILEINE BELCHER IS. QUEBEC
107	CAMERA	2411944		55 35.79	77 59.41	138	OFFSHORE GRANDE BAILEINE BELCHER IS. QUEBEC
108	CAMERA	2421505		55 16.82	77 52.63	87	GRAB TRANSECT #2, GRANDE BAILEINE QUEBEC
109	WATER	2421526		55 16.77	77 52.61	85	GRAB TRANSECT #2, GRANDE BAILEINE QUEBEC
110	GRAB	2421542		55 16.77	77 52.65	83	GRAB TRANSECT #2, GRANDE BAILEINE QUEBEC
111	GRAB	2421609		55 17.69	77 55.88	73	GRAB TRANSECT #2, GRANDE BAILEINE QUEBEC
112	GRAB	2421633		55 18.35	77 59.07	70	GRAB TRANSECT #2, GRANDE BAILEINE QUEBEC
113	GRAB	2421715		55 19.93	78 05.47	116	GRAB TRANSECT #2, GRANDE BAILEINE QUEBEC
114	GRAB	2421737		55 20.77	78 08.76	105	GRAB TRANSECT #2, GRAND BAILEINE, QUEBEC
115	GRAB	2422209		55 21.71	78 12.45	141	GRAB TRANSECT #2, GRAND BAILEINE, QUEBEC

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<u>SAMPLE NUMBER</u>	<u>SAMPLE TYPE</u>	<u>SAMPLE DAY/TIME</u>	<u>SEISMIC DAY/TIME</u>	<u>LATITUDE</u>	<u>LONGITUDE</u>	<u>DEPTH (M)</u>	<u>GEOGRAPHIC LOCATION</u>
116	GRAB	2422237		55 22.25	78 15.33	165	GRAB TRANSECT #2, GRAND BALEINE, QUEBEC
117	GRAB	2422302		55 23.11	78 18.37	181	GRAB TRANSECT #2, GRAND BALEINE, QUEBEC
118	GRAB	2422333		55 23.86	78 21.58	186	GRAB TRANSECT #2, GRAND BALEINE, QUEBEC
119	GRAB	243		55 24.70	78 24.96	158	GRAB TRANSECT #2, GRAND BALEINE, QUEBEC
120	GRAB	2430028		55 25.56	78 27.99	116	GRAB TRANSECT #2, GRAND BALEINE, QUEBEC
121	GRAB	2430056		55 26.37	78 31.55	114	GRAB TRANSECT #2, GRAND BALEINE, QUEBEC
122	GRAB	2430126		55 27.10	78 34.51	136	GRAB TRANSECT #2, GRAND BALEINE, QUEBEC
123	CAMERA	2430139		55 27.24	78 35.44	94	GRAB TRANSECT #2, GRAND BALEINE, QUEBEC
124	WATER	2430155		55 27.21	78 35.38	94	GRAB TRANSECT #2, GRAND BALEINE, QUEBEC
125	WATER	2430330		55 18.14	78 48.00	109	GRAB TRANSECT #1, GRAND BALEINE, QUEBEC
127	GRAB	2430408		55 17.95	78 47.87	94	GRAB TRANSECT #2, GRAND BALEINE, QUEBEC
128	GRAB	2430439		55 16.40	78 46.56	108	GRAB TRANSECT #1, GRAND BALEINE, QUEBEC
129	GRAB	2430507		55 14.68	78 45.11	108	GRAB TRANSECT #1, GRAND BALEINE, QUEBEC

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130	GRAB	2430542		55 12.79	78 43.40	140	GRAB TRANSECT #1, GRAND BALEINE, QUEBEC
131	GRAB	2430613		55 09.96	78 41.04	125	GRAB TRANSECT #1, GRAND BALEINE, QUEBEC
132	GRAB	2430648		55 09.28	78 40.41	120	GRAB TRANSECT #1, GRAND BALEINE, QUEBEC
133	GRAB	2430718		55 07.48	78 38.64	130	GRAB TRANSECT #1, GRAND BALEINE, QUEBEC
134	GRAB	2430746		55 05.59	78 37.21	115	GRAB TRANSECT #1, GRAND BALEINE, QUEBEC
135	GRAB	2430809		55 04.42	78 36.35	42	GRAB TRANSECT #1, GRAND BALEINE, QUEBEC
136	CAMERA	2430820		55 04.31	78 36.21	45	GRAB TRANSECT #1, GRAND BALEINE, QUEBEC
137	WATER	2431132		55 04.09	78 36.13	42	GRAB TRANSECT #1, GRAND BALEINE, QUEBEC
138	WATER	2431237		55 38.82	78 18.95	140	GRAB TRANSECT #3, GRAND BALEINE, QUEBEC
139	CAMERA	2431253		55 38.64	78 19.07	133	GRAB TRANSECT #3, GRAND BALEINE, QUEBEC
140	GRAB	2431318		55 38.42	78 19.08	135	GRAB TRANSECT #3, GRAND BALEINE, QUEBEC
141	GRAB	2431405		55 37.94	78 15.95	97	GRAB TRANSECT #3, GRAND BALEINE, QUEBEC
142	GRAB	2431433		55 36.67	78 13.27	96	GRAB TRANSECT #3, GRAND BALEINE, QUEBEC

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CRUISE NUMBER = 92-028
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143	GRAB	2431526		55 35.22	78 10.66	128	GRAB TRANSECT #3, GRAND BALEINE, QUEBEC
144	GRAB	2431646		55 33.99	78 07.81	147	GRAB TRANSECT #3, GRAND BALEINE, QUEBEC
145	GRAB	2431727		55 32.66	78 05.67	145	GRAB TRANSECT #3, GRAND BALEINE, QUEBEC
146	GRAB	2431851		55 29.51	77 59.05	140	GRAB TRANSECT #3, GRAND BALEINE, QUEBEC
147	CAMERA	2431907		55 29.44	77 59.16	140	GRAB TRANSECT #3, GRAND BALEINE, QUEBEC
148	WATER	2431923		55 29.47	77 59.10	147	GRAB TRANSECT #3, GRAND BALEINE, QUEBEC

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TABLE 2

TOTAL SAMPLE INVENTORY

CRUISE NUMBER = 920285
 CHIEF SCIENTIST = J. ZEVEHNUIZEN
 PROJECT NUMBER = GRA DAL

<u>SAMPLE NUMBER</u>	<u>SAMPLE TYPE</u>	<u>SAMPLE DAY/TIME</u>	<u>SEISMIC DAY/TIME</u>	<u>LATITUDE</u>	<u>LONGITUDE</u>	<u>DEPTH (M)</u>	<u>GEOGRAPHIC LOCATION</u>
L61G	GRAB	2191254		53 49.47N	79 29.81W	46.0	JAMES BAY LA GRANDE RIVER ESTUARY
L61C	CORE	2191321		53 49.56N	79 28.93W	46.0	JAMES BAY LA GRANDE RIVER ESTUARY
L62G	GRAB	2191420		53 49.85N	79 25.57W	40.0	JAMES BAY LA GRANDE RIVER ESTUARY
L62C	CORE	2191444		53 49.904	79 25.538	40.0	JAMES BAY LA GRANDE RIVER ESTUARY
L63G	GRAB	2201206		53 51.779	79 20.666	40.0	JAMES BAY LA GRANDE RIVER ESTUARY
L63C	CORE	2201222		53 51.770	79 20.708	40.0	JAMES BAY LA GRANDE RIVER ESTUARY
L64G	GRAB	2201316		53 51.976	79 12.874	33.0	JAMES BAY LA GRANDE RIVER ESTUARY
L64C	CORE	2201318		53 51.973	79 12.830	40.0	JAMES BAY LA GRANDE RIVER ESTUARY
L65G	GRAB	2201406		53 50.992	79 08.955	30.0	JAMES BAY LA GRANDE RIVER ESTUARY
L66G	GRAB	2201428		53 49.341	79 08.473	13.0	JAMES BAY LA GRANDE RIVER ESTUARY
L67G	GRAB	2201531		53 47.931	79 12.822	17.0	JAMES BAY LA GRANDE RIVER ESTUARY
L68G	GRAB	2201624		53 46.501	79 18.041	30.5	JAMES BAY LA GRANDE RIVER ESTUARY
201	GRAB	2401145		55 42.40N	77 05.18W	10	HEAD OF MANITOUNUK SOUND

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TABLE 2
TOTAL SAMPLE INVENTORY

CRUISE NUMBER = 920285
CHIEF SCIENTIST = J. ZEVENHUIZEN
PROJECT NUMBER = GRA BAL

<u>SAMPLE NUMBER</u>	<u>SAMPLE TYPE</u>	<u>SAMPLE DAY/TIME</u>	<u>SEISMIC DAY/TIME</u>	<u>LATITUDE</u>	<u>LONGITUDE</u>	<u>DEPTH (M)</u>	<u>GEOGRAPHIC LOCATION</u>
202	CORE	2401200		55 42.40N	77 05.98W	10.0	HEAD OF MANITOUNUK SOUND
203	GRAB	2401215		55 40.03N	77 10.58W	19.0	BOAT OPENING IN MANITOUNUK SOUND
204	CORE	2401230	2281930	55 40.03N	77 10.58W	19.0	BOAT OPENING IN MANITOUNUK SOUND
205	GRAB	2401245	2281738	55 37.31N	77 13.20W	18.0	NORTH END OF CASTLE ISLAND, MANITOUNUK SOUND
206	CORE	2401300	2281738	55 37.31N	77 13.20W	18.0	NORTH END OF CASTLE ISLAND, MANITOUNUK SOUND
207	GRAB	2401315	2281700	55 35.13N	77 16.72W	25.0	SOUTH END OF CASTLE ISLAND, MANITOUNUK SOUND
208	CORE	2401330	2281700	55 35.13N	77 16.72W	25.0	SOUTH END OF CASTLE ISLAND, MANITOUNUK SOUND
209	GRAB	2401345		55 33.12N	77 20.30W	29.0	SCHOONER OPENING, MANITOUNUK SOUND
210	CORE	2401400		55 33.12N	77 20.30W	29.0	SCHOONER OPENING, MANITOUNUK SOUND
211	GRAB	2401415	2341658	55 31.59N	77 22.14W	12.5	CENTRAL MANITOUNUK SOUND
212	CORE	2401430	2341658	55 31.59N	77 22.14W	12.5	CENTRAL MANITOUNUK SOUND

ATLANTIC GEOSCIENCE CENTRE
DATA SECTION
-SHIP- REPORTING PACKAGE

TABLE 2
TOTAL SAMPLE INVENTORY

CRUISE NUMBER = 920205
CHIEF SCIENTIST = J. ZEVENHUIZEN
PROJECT NUMBER = GRA BAL

<u>SAMPLE NUMBER</u>	<u>SAMPLE TYPE</u>	<u>SAMPLE DAY/TIME</u>	<u>SEISMIC DAY/TIME</u>	<u>LATITUDE</u>	<u>LONGITUDE</u>	<u>DEPTH (M)</u>	<u>GEOGRAPHIC LOCATION</u>
213	GRAB	2401445	2311702	55 34.63N	77 22.02W	58.0	OFF SCHOONER OPENING (NORTH)
214	CORE	2401500	2311702	55 34.63N	77 22.02W	58.0	OFF SCHOONER OPENING (NORTH)
215	GRAB	2401515		55 31.55N	77 24.99W	23.0	MERRY ISLAND, MANITOUK SOUND
216	CORE	2401530		55 31.55N	77 24.99W	23.0	MERRY ISLAND, MANITOUK SOUND
217	GRAB	2401545	2281545	55 31.05N	77 24.60W	42.0	MERRY ISLAND, MANITOUK SOUND
218	CORE	2401600	2281545	55 31.05N	77 24.60W	42.0	MERRY ISLAND, MANITOUK SOUND
219	GRAB	2401615		55 29.60N	77 27.10W	42.0	MERRY ISLAND, MANITOUK SOUND TERRI (GB14)
220	CORE	2401630		55 29.60N	77 27.10W	42.0	MERRY ISLAND, MANITOUK SOUND
221	CORE	2401700		55 28.60N	77 27.90W	23.0	MERRY ISLAND, MANITOUK SOUND
222	GRAB	2411140		55 15.99N	77 47.20W	9.0	GRANDE RIVIERE DE LA BALETNE
223	GRAB	2411148		55 15.96N	77 47.46W	5.0	GRANDE RIVIERE DE LA BALETNE
224	GRAB	2411216		55 16.73N	77 49.77W	42.0	GRANDE RIVIERE DE LA BALETNE ESTUARY
225	GRAB	2411305		55 22.863	77 40.947	24.0	OUTER MANITOUK SOUND
226	CORE	2411314		55 22.190	77 40.952	24.0	OUTER MANITOUK SOUND

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TABLE 2

TOTAL SAMPLE INVENTORY

CRUISE NUMBER = 920285
CHIEF SCIENTIST = J. ZEVENHUIZEN
PROJECT NUMBER = GRA BAL

<u>SAMPLE NUMBER</u>	<u>SAMPLE TYPE</u>	<u>SAMPLE DAY/TIME</u>	<u>SEISMIC DAY/TIME</u>	<u>LATITUDE</u>	<u>LONGITUDE</u>	<u>DEPTH (M)</u>	<u>GEOGRAPHIC LOCATION</u>
227	GRAB	2411338		55 24.165	77 38.250	67.0	OUTER MANITOUNUK SOUND
228	CORE	2411350		55 24.283	77 38.322	71.0	OUTER MANITOUNUK SOUND
229	GRAB	2411432		55 24.150	77 33.803	12.0	OUTER MANITOUNUK SOUND, GRAB TRANSECT 1
230	GRAB	2411441		55 24.237	77 34.325	22.0	OUTER MANITOUNUK SOUND, GRAB TRANSECT 1
231	GRAB	2411447		55 24.310	77 34.500	35.0	OUTER MANITOUNUK SOUND, GRAB TRANSECT 1
232	GRAB	2411455		55 24.548	77 35.145	43.0	OUTER MANITOUNUK SOUND, GRAB TRANSECT 1
233	GRAB	2411503		55 24.849	77 35.898	54.0	OUTER MANITOUNUK SOUND, GRAB TRANSECT 1
234	GRAB	2411511		55 24.995	77 36.167	63.0	OUTER MANITOUNUK SOUND, GRAB TRANSECT 1
235	GRAB	2411519		55 25.152	77 36.322	75.0	OUTER MANITOUNUK SOUND, GRAB TRANSECT 1
236	GRAB	2411528		55 25.178	77 36.470	64.0	OUTER MANITOUNUK SOUND, GRAB TRANSECT 1
237	GRAB	2411537		55 25.177	77 36.550	50.0	OUTER MANITOUNUK SOUND, GRAB TRANSECT 1

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TABLE 2
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CRUISE NUMBER = 920285
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PROJECT NUMBER = GRA BAL

<u>SAMPLE NUMBER</u>	<u>SAMPLE TYPE</u>	<u>SAMPLE DAY/TIME</u>	<u>SEISMIC DAY/TIME</u>	<u>LATITUDE</u>	<u>LONGITUDE</u>	<u>DEPTH (M)</u>	<u>GEOGRAPHIC LOCATION</u>
238	GRAB	2411545		55 25.202	77 36.633	40.0	OUTER MANITOUNUK SOUND, GRAB TRANSECT 1
239	GRAB	2411553		55 25.235	77 36.730	33.0	OUTER MANITOUNUK SOUND, GRAB TRANSECT 1
240	GRAB	2411801	2312020	55 28.232	77 33.963	33.0	OFFSHORE MANITOUNUK ISLANDS
241	CORE	2411811	2312020	55 28.222	77 33.858	50.0	OFFSHORE MANITOUNUK ISLANDS
242	GRAB	2411843	2311935	55 31.050	77 29.917	71.0	OFFSHORE MANITOUNUK ISLANDS
243	CORE	2411858	2311935	55 31.188	77 29.018	83.0	OFFSHORE MANITOUNUK ISLANDS
244	GRAB	2411912	2311920	55 31.860	77 27.646	70.5	OFFSHORE MANITOUNUK ISLANDS
245	CORE	2411922	2311920	55 31.947	77 27.465	68.0	OFFSHORE MANITOUNUK ISLANDS
246	GRAB	2411941	2311900	55 32.990	77 25.667	65.0	OFFSHORE MANITOUNUK ISLANDS
247	CORE	2411950	2311900	55 33.020	77 25.625	68.5	OFFSHORE MANITOUNUK ISLANDS
248	GRAB	2412018		55 35.740	77 22.217	92.0	OFFSHORE MANITOUNUK ISLANDS
249	CORE	2412028	2311830	55 35.772	77 22.122	94.0	OFFSHORE MANITOUNUK ISLANDS, N. OF SCHOONER OPENING

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TABLE 2
TOTAL SAMPLE INVENTORY

CRUISE NUMBER = 920285
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PROJECT NUMBER = GRA BAL

<u>SAMPLE NUMBER</u>	<u>SAMPLE TYPE</u>	<u>SAMPLE DAY/TIME</u>	<u>SEISMIC DAY/TIME</u>	<u>LATITUDE</u>	<u>LONGITUDE</u>	<u>DEPTH (M)</u>	<u>GEOGRAPHIC LOCATION</u>
250	GRAB	2412051		55 33.700	77 24.077	50.0	SCHOONER OPENING ON THE OFFSHORE SIDE. TRANSECT 2
251	GRAB	2412101		55 33.662	77 23.918	38.0	SCHOONER OPENING ON THE OFFSHORE SIDE. TRANSECT 2
252	GRAB	2412107		55 33.630	77 23.843	28.0	SCHOONER OPENING ON THE OFFSHORE SIDE. TRANSECT 2
253	GRAB	2412107		55 33.500	77 23.622	18.5	SCHOONER OPENING ON THE OFFSHORE SIDE. TRANSECT 2
254	GRAB	2412118		55 33.407	77 23.418	18.0	OUTSIDE ENTRAN- CE TO SCHOONER OPENING. TRANSECT 2
255	GRAB	2412123		55 33.275	77 23.162	11.5	SCHOONER OPENING, NID CHANNEL. TRANSECT 2
256	GRAB	2412128		55 33.072	77 22.827	19.0	SCHOONER OPENING AT MANITOUNUK SHO. TRANSECT 2
257	GRAB	2421143		55 34.537	77 19.925	10.0	MIDDLE MANITOUNUK SHO. TRANSECT 3
258	GRAB	2421151		55 34.302	77 19.675	20.0	MIDDLE MANITOUNUK SHO. TRANSECT 3
259	GRAB	2421158		55 33.975	77 19.357	31.0	MIDDLE MANITOUNUK SHO. TRANSECT 3
260	GRAB	2421207		55 33.673	77 19.263	32.0	MIDDLE MANITOUNUK SHO. TRANSECT 3

ATLANTIC GEOSCIENCE CENTRE
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TABLE 2
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CRUISE NUMBER = 920205
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PROJECT NUMBER = GRA BAL

<u>SAMPLE NUMBER</u>	<u>SAMPLE TYPE</u>	<u>SAMPLE DAY/TIME</u>	<u>SEISMIC DAY/TIME</u>	<u>LATITUDE</u>	<u>LONGITUDE</u>	<u>DEPTH (M)</u>	<u>GEOGRAPHIC LOCATION</u>
261	GRAB	2421213		55 33.540	77 19.143	20.0	MIDDLE MANITOUKUK SHO. TRANSECT 3
262	GRAB	2421219		55 33.433	77 19.202	10.0	MIDDLE MANITOUKUK SHO. TRANSECT 3
263	GRAB	2421243		55 32.180	77 21.403	10.0	MIDDLE MANITOUKUK SHO. SCHOONER TRANS 2 (CONT)
264	GRAB	2421253		55 32.352	77 21.663	25.5	MIDDLE MANITOUKUK SHO. SCHOONER TRANS 2 (CONT)
265	GRAB	2421300		55 32.400	77 21.808	32.0	MIDDLE MANITOUKUK SHO. SCHOONER TRANS 2 (CONT)
266	GRAB	2421306		55 32.438	77 21.900	42.0	MIDDLE MANITOUKUK SHO. SCHOONER TRANS 2 (CONT)
267	GRAB	2421325		55 32.622	77 22.055	36.0	MIDDLE MANITOUKUK SHO. SCHOONER TRANS 2 (CONT)
268	GRAB	2421333		55 33.000	77 22.618	30.5	MIDDLE MANITOUKUK SHO. SCHOONER TRANS 2 (CONT)
269	GRAB	2421356		55 30.845	77 23.232	11.5	RIVIERE KUUGAPIK
270	GRAB	2421403		55 31.127	77 22.957	11.0	RIVIERE KUUGAPIK
271	GRAB	2421410		55 31.423	77 22.553	12.0	RIVIERE KUUGAPIK
272	GRAB	2421417		55 31.605	77 21.475	7.0	MIDDLE OF MANITOUKUK SHO TRANSECT 4

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TABLE 2
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CRUISE NUMBER = 920205
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PROJECT NUMBER = GRA BAL

<u>SAMPLE NUMBER</u>	<u>SAMPLE TYPE</u>	<u>SAMPLE DAY/TIME</u>	<u>SEISMIC DAY/TIME</u>	<u>LATITUDE</u>	<u>LONGITUDE</u>	<u>DEPTH (M)</u>	<u>GEOGRAPHIC LOCATION</u>
273	GRAB	2421423		55 31.537	77 21.415	5.0	MIDDLE OF MANITOUNUK SHO TRANSECT 4
274	GRAB	2421428		55 31.552	77 21.588	10.0	MIDDLE OF MANITOUNUK SHO TRANSECT 4
275	GRAB	2421437		55 31.727	77 22.438	10.5	MIDDLE OF MANITOUNUK SHO TRANSECT 4
276	GRAB	2421443		55 31.770	77 22.710	14.5	MIDDLE OF MANITOUNUK SHO TRANSECT 4
277	GRAB	2421449		55 31.727	77 22.882	20.5	MIDDLE OF MANITOUNUK SHO TRANSECT 4
278	GRAB	2421455		55 31.708	77 23.050	25.0	MIDDLE OF MANITOUNUK SHO TRANSECT 4
279	GRAB	2421501		55 31.660	77 23.217	30.0	MIDDLE OF MANITOUNUK SHO TRANSECT 4
280	GRAB	2421508		55 31.622	77 23.420	35.0	MIDDLE OF MANITOUNUK SHO TRANSECT 4
281	GRAB	2421517		55 31.835	77 23.783	41.0	MIDDLE OF MANITOUNUK SHO TRANSECT 4
282	GRAB	2421524		55 31.935	77 24.082	34.0	MIDDLE OF MANITOUNUK SHO TRANSECT 4AL
283	GRAB	2421531		55 31.925	77 24.268	30.5	MIDDLE OF MANITOUNUK SHO TRANSECT 4
284	GRAB	2421538		55 31.973	77 24.405	24.0	MIDDLE OF MANITOUNUK SHO TRANSECT 4
285	GRAB	2421545		55 31.977	77 24.370	21.0	MIDDLE OF MANITOUNUK SHO TRANSECT 4

ATLANTIC GEOSCIENCE CENTRE
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PROJECT NUMBER = GRA BAL

<u>SAMPLE NUMBER</u>	<u>SAMPLE TYPE</u>	<u>SAMPLE DAY/TIME</u>	<u>SEISMIC DAY/TIME</u>	<u>LATITUDE</u>	<u>LONGITUDE</u>	<u>DEPTH (M)</u>	<u>GEOGRAPHIC LOCATION</u>
286	GRAB	2421641		55 28.837	77 28.093	48.0	MIDDLE OF MANITOUNUK SHO TO OUTER MAN SHO, TRANSECT 5
287	GRAB	2421655		55 28.702	77 28.312	41.0	MIDDLE OF MANITOUNUK SHO TO OUTER MAN SHO, TRANSECT 5
288	GRAB	2421659		55 28.705	77 28.353	35.0	MIDDLE OF MANITOUNUK SHO TO OUTER MAN SHO, TRANSECT 5
289	GRAB	2421702		55 28.643	77 28.365	31.0	MIDDLE OF MANITOUNUK SHO TO OUTER MAN SHO, TRANSECT 5
290	GRAB	2421705		55 28.605	77 28.387	28.0	MIDDLE OF MANITOUNUK SHO TO OUTER MAN SHO, TRANSECT 5
291	GRAB	2421712		55 28.417	77 28.898	27.0	MIDDLE OF MANITOUNUK SHO TO OUTER MAN SHO, TRANSECT 5
292	GRAB	2421716		55 28.203	77 29.143	35.0	MIDDLE OF MANITOUNUK SHO TO OUTER MAN SHO, TRANSECT 5
293	GRAB	2421724		55 27.973	77 29.680	23.0	MIDDLE OF MANITOUNUK SHO TO OUTER MAN SHO, TRANSECT 5
294	GRAB	2421731		55 27.603	77 30.068	14.0	MIDDLE OF MANITOUNUK SHO TO OUTER MAN SHO, TRANSECT 5
295	GRAB	2421737		55 27.577	77 30.275	14.0	MIDDLE OF MANITOUNUK SHO TO OUTER MAN SHO, TRANSECT 5

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ATLANTIC GEOSCIENCE CENTRE
DATA SECTION
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TABLE 2
TOTAL SAMPLE INVENTORY

CRUISE NUMBER = 920285
CHIEF SCIENTIST = J. ZEVENHUIZEN
PROJECT NUMBER = GRA BAL

<u>SAMPLE NUMBER</u>	<u>SAMPLE TYPE</u>	<u>SAMPLE DAY/TIME</u>	<u>SEISMIC DAY/TIME</u>	<u>LATITUDE</u>	<u>LONGITUDE</u>	<u>DEPTH (M)</u>	<u>GEOGRAPHIC LOCATION</u>
296	GRAB	2421748		55 28.242	77 28.893	26.0	MIDDLE OF MANITOUKUK SMO TO OUTER MAN SND, TRANS 5A
297	GRAB	2421755		55 28.273	77 28.947	31.0	MIDDLE OF MANITOUKUK SMO TO OUTER MAN SND, TRANS 5A
298	GRAB	2421807		55 28.298	77 29.332	42.0	MIDDLE OF MANITOUKUK SMO TO OUTER MAN SND, TRANS 5A
299	GRAB	2421814		55 28.317	77 29.830	50.0	MIDDLE OF MANITOUKUK SMO TO OUTER MAN SND, TRANS 5A
300	GRAB	2421822		55 27.693	77 30.007	17.0	PAINT ISLANDS, MANITOUKUK SOUND
301	CORE	2421830		55 27.688	77 30.133	17.0	PAINT ISLANDS, MANITOUKUK SOUND

APPENDIX 1

92028S- Manitounuk Sound

Core photos and visual description for 92028S202
Core seismic profile 92028S204
Core photos and visual description for 92028S204
Core seismic profile 92028S206
Core photographs and visual description for 92028S206
Core seismic profile 92028S210
Core photographs and visual descriptions for 92028S210
Core seismic profiles 92028S212
Core photographs and visual description for 92028S212
Core seismic profile for 92028S218
Core photographs and visual description 92028S218

Manitounuk Sound

Core seismic profile for 92028S220
Core photographs and visual descriptions for 92028S220 and 221

Outer Manitounuk Sound

Core seismic profile for 92028S228
Core photographs and visual descriptions for 92028S228
Core seismic profiles 92028S208, 216 and 226

Schooner Opening

Core seismic profiles for 92028S241, 243, 245 - (2) and 247

92028H - Grande Riviere de la Baleine

Core seismic profile 92028H004 and 009 - (2)
Camera Station photo 92028H 006
Core photographs and visual descriptions for 92028H004, 005 and 009
Core seismic profile for 92028H017, 018 and 020
Camera Station photo 92028H019
Core photographs and visual descriptions for 92028H017D
Core seismic profile for 92028H023 and 025
Core photographs and visual descriptions for 92028H023B and 025
Core seismic profile for 92028H027
Core photographs and visual description for 92028H027B
Mouth of Manitounuk Sound
Core seismic profile for 92028H081 and 082
Camera Station photo 92028H083
Core photographs and visual descriptions for 92028H082B and 081
Core seismic profile for 92028H090 and 091
Camera Station photo 92028H092
Core photographs and visual descriptions for 92028H091B and 090

Seaward off Schooner Opening

Core seismic profile 92028H034 and 035
Camera Station photo 92028H036
Core photographs and visual descriptions for 92028H035B and 034
Core seismic profile for 92028H043 and 045
Camera Station photo 92028H046
Core photographs and visual descriptions for 92028H045B and 044

West of Schooner Opening

Core seismic profile 92028H052, 053 and 054
Camera Station photo 92028H055
Core photographs and visual descriptions for 92028H053
Core seismic profile for 92028H058 and 059
Camera Station photo 92028H057
Core photographs and visual descriptions for 92028H059B and 058

South of Schooner Opening

Core seismic profile for 92028H047 and 048
Camera Station photo 92028H050
Core photographs and visual descriptions for 92028H049B and 048

Petite Riviere de la Baleine

Core seismic profile for 92028H068 and 069
Camera Station photos 92028H070 - (2)
Core photographs and visual descriptions for 92028H069B and 068
visual descriptions for 92028H065B

West of Flint Island

Core seismic profile for 92028H077 and 078
Camera Station photo 92028H076
Core photographs and visual descriptions for 92028H077B and 078

Offshore Hudson Bay

Core seismic profile for 92028H095 and 096
Camera Station photo 92028H097
Core photographs and visual descriptions for 92028H096B and 095

Seaward of Manitounuk Sound

Core seismic profile for 92028H011, 012 and 016
Camera Station photo for 92028H010
Core photographs and visual descriptions for 92028H011 and 016

West of the Mouth of the Petite riviere de la Baleine

Core seismic profile for 92028H063, 064 and 065

Camera Station photo for 92028H066
Core photographs and visual descriptions for 92028H065B and 064
Core seismic profile for 92028H071, 072 and 073
Camera Station photo for 92028H074
Core photographs and visual descriptions for 92028H073B and 072

WNW of the Grande riviere de la Baleine estuary

Core seismic profile for 92028H099, 100 and 101
Camera Station photo for 92028H102
Core photographs and visual description for 92028H101B and 100

NW Neilson Island

Core seismic profile for 92028H104, 105 and 106
Camera Station photo for 92028H107
Core photographs and visual descriptions for 92028H106B, 105B, 104 and 105

Camera Station photos without accompanying boxcore or cores:

Camera station photos for 92028H029 - (2)
Camera station photo for 92028H108
Camera station photo for 92028H123
Camera station photo for 92028H126
Camera station photo for 92028H136
Camera station photos for 92028H139 - (3)
Camera station photo for 92028H147