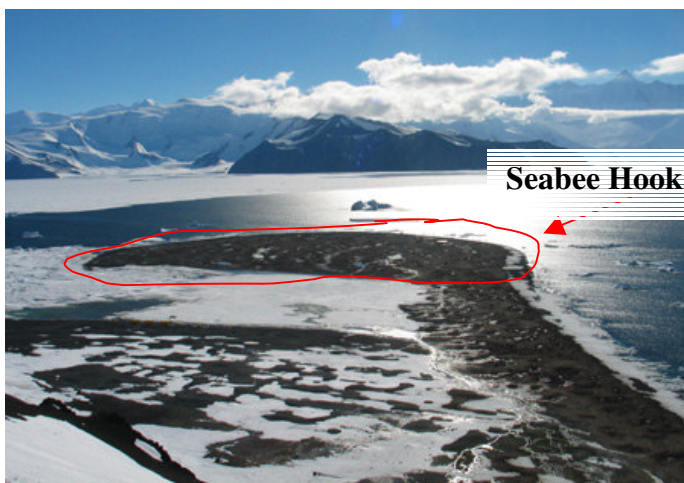


# LGP Baseline Measurements 04/05 Season

## General Site Description

Site Name: Seabee Hook, Cape Hallett



Geographical coordinates	S 72.31825° E 170.21716°.	GPS
Elevation	Up to 5m.asl	estimated
Slope	0~2°	estimated
Date (s) visited: 3 December 2004– 4 February 2005		
Aspect: variable		
Samples taken? Yes, from 5 mounds in the Hook		
Photos taken? Yes, from 4 profiles		
Aerial Photos available? Yes, see <a href="http://www.anta.canterbury.ac.nz">www.anta.canterbury.ac.nz</a>		

## Soil Parameters

Geomorphological characteristics	<input type="checkbox"/> Pro-Glacial <input type="checkbox"/> Nival - Chionophilous <input type="checkbox"/> Periglacial <input type="checkbox"/> Fluvial <input type="checkbox"/> <b>Coastal</b> <input type="checkbox"/> Fell-Field	<input type="checkbox"/> Slope <input type="checkbox"/> Plateau <input type="checkbox"/> Valley <input type="checkbox"/> Landslide <input type="checkbox"/> Scree slope <input type="checkbox"/> Rock wall <input type="checkbox"/> <b>Other</b>
Rock Lithology	<input type="checkbox"/> <b>Siliceous rock</b> <input type="checkbox"/> Calcareous rock	Basalt
Soil Typology	<input type="checkbox"/> Soil Absence <input type="checkbox"/> <b>Soil Presence</b>	<input type="checkbox"/> Mineral soil <input type="checkbox"/> <b>Organic soil</b> <input type="checkbox"/> Other

Surface Lithology	<input type="checkbox"/> Outcropping Rock <input type="checkbox"/> Loose Material <input type="checkbox"/> Glacial <input type="checkbox"/> Fluvial <input type="checkbox"/> Eolic <input type="checkbox"/> <b>Coastal</b> <input type="checkbox"/> Scree Slope, Debris
Surface Texture	<b>5%</b> Blocks ( $\varnothing > 25\text{cm}$ ) <b>30%</b> Pebbles ( $5\text{cm} < \varnothing < 25\text{cm}$ ) <b>60%</b> Gravel ( $0.2\text{cm} < \varnothing < 5\text{cm}$ ) <b>5%</b> Sand and finer material ( $\varnothing < 0.2\text{cm}$ )

### Vegetation

Plants and Lichens	Species type/name <b>n/a</b>
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### Fauna

Mammals	Absent
Birds	Adelie penguins and skuas. Penguins nest in this area. Some skua nests are found, but mostly occur on the Hook when feeding on penguin chicks.
Invertebrates	Unsure.

### Glacial

Ablation/accumulation	N/A
Ice temperature	N/A
Snow pit measurements	N/A

### Aquatic Non-Marine Systems

The intention here is to document the distribution of melt pools, ephemeral streams, ponds and lakes, their melting characteristics and basic limnological features. Required observations combine both one-off and time series and are designed to characterise the pond and its biota as far as is possible without resorting to specialised techniques and equipment (beyond a temperature/conductivity meter).

Type of water body	Ponds
Sketch/map of water body and immediate catchment.	Numerous - Over entire hook area.
Size and depth	Up to 20m <sup>2</sup> , and up to 40cm depth, (estimate)
Inflows and outflows (for non running systems): inflows from snowfall, no outflows, just evaporation.	
Duration and spatial distribution of free water: Small ponds occur over the Hook after snow falls and in some cases throughout the entire summer season.	

Evidence of water level variation? Water levels generally decrease continually over the season as they dry, and increase after snow falls.	
Isolated habitat or part of a connected network: Some ponds are connected to groundwater, whereas others are perched above this level.	
Proximity to other aquatic systems: Some ponds are right next to (~10m) from the coast.	
Any sign of salt or vegetation accumulation around margins: Ponds within the colony are generally high in organic matter from penguins, this dark brown sludge accumulates at margins.	
Range of levels over season (peg or otherwise reference the margin) n/a	
Water sources	<ul style="list-style-type: none"> <li>- 100% Snow,</li> <li>- % Glacier</li> <li>- % Non-glacial Ice</li> <li>- % Other</li> </ul>
Catchment:	<ul style="list-style-type: none"> <li>- Size: Entire hook</li> <li>- Vegetation: coverage 0(%), type (lichen, mosses, vascular, etc....)</li> <li>- Geology (see Soils section)</li> <li>- Geomorphology (see Soils section)</li> <li>- Animal influence (nesting birds, marine mammals, etc): strong form penguins nesting in the area.</li> <li>- Snow and Ice: snow in the area at times.</li> </ul>
Ice cover: (to be recorded at intervals over the season)	<ul style="list-style-type: none"> <li>- permanent ice (if there are records) n/a</li> <li>- up to 2% coverage after light snowfalls.</li> <li>- Up to ~10cm thickness</li> <li>- transparency (clear, dirty ice, snow cover, etc.): snow</li> </ul>
Water properties. (to be recorded at intervals over the season)	<ul style="list-style-type: none"> <li>- Clarity (measured or estimated): very murky.</li> <li>- Colour (measured or estimated): brown/black</li> <li>- Foams (e.g. none, slight, abundant) slight at times.</li> <li>- Conductivity (measured)n/a</li> <li>- Temperature (measured)n/a</li> </ul>
Bed characteristics	<ul style="list-style-type: none"> <li>- Substrate (%) (see soils)</li> <li>- Vegetated (% cover) none.</li> </ul>
Others	Animal observations (rotifers, crustacea, mites etc) none seen
Sample collection and preservation	Samples of groundwater were taken, not the surface water. These samples were filtered and frozen.