







*Plate 3.1-2. Different habitat units at site P4 varying from fines to gravel and cobble are separated by fringing tundra.*



*Plate 3.1-3. The shoreline of site P5 consists of 95% bedrock.*

A total of six habitat units were identified at REF. This shoreline consists of relatively even amounts of gravel (40%), cobble (31%), and fines (20%) with boulders making up the remaining 8% of habitat area (Figure 3.1-5 and Plate 3.1-4). The submerged habitat consists of a narrow shelf which extends 3 to 5 m offshore before a substantial drop-off.



Plate 3.1-4. A view of site REF in Reference Bay.

### 3.1.2 Bathymetric Surveys

Offshore substrates at the five Roberts Bay sites were shown by hydroacoustics and video camera to range from soft mud to bedrock (Plate 3.1-5). Mud substrates comprise the largest amount of area: P1 (81%), P2 and P3 (81%), and P4 and P5 (61%) (Table 3.1-1). Mud substrate tended to be located in deeper water away from the shoreline (Figures 3.1-6 to 3.1-8).

Table 3.1-1. Substrate types identified by Hydroacoustic and Underwater Surveys, Hope Bay Belt Project, 2010

Site	Unclassified	Mud	Fines	Sand and Gravel	Cobble and Larger Rock	Total
Area (m <sup>2</sup> )						
P1	2,251	47,026	0	7,058	1,819	58,154
P2 and P3	2,609	156,193	4,981	21,779	7,283	192,845
P4 and P5	1,394	94,243	6,007	31,396	24,439	157,479
Percent of Total Area by Site						
P1	4	81	0	12	3	100
P2 and P3	1	81	3	11	4	100
P4 and P5	1	60	4	20	15	100

Note: Substrates were unclassified due to shallow water or steep slope: minimum depth = 1 m, maximum slope = 20%.

