APPENDIX 6.1 Summary of Sediment Quality for Routine Marine Sediment Quality Monitoring Station 'SS4' (1999 – 2003)

	Lower Chemical Exceedance Level (LCEL)	Higher Chemical Exceedance Level (UCEL)	1999 - 2003
Particle Size Fractionation (%ww)	---	---	87 (68-96)
Electrochemical Potential (mV)	---	---	-148 (-208 to -81)
Specific Gravity	---	---	---
Total Volatile Solids (%w/w)	---	---	7.4 (7.0-7.9)
Total Solids (%w/w)	---	---	45 (42-51)
Dry Wet Ratio (w/w)	---	---	0.4 (0.4-0.5)
Chemical Oxygen Demand (mg/kg)	---	---	15500 (14000-18000)
Total Carbon (%w/w)	---	---	0.6 (0.5-0.7)
Ammonical Nitrogen (mg/kg)	---	---	5.1 (0.35-9.6)
Total Kjeldahl Nitrogen (mg/kg)	---	---	356 (240-420)
Total Phosphorus (mg/kg)	---	---	192 (160-240)
Total Sulphide (mg/kg)	---	---	48 (15-140)
Total Cyanide (mg/kg)	---	---	<0.1 (<0.1-0.1)
Aluminium (mg/kg)	---	---	34000 (22000-41000)
Arsenic (mg/kg)	12	42	10.1 (8.7-11.0)
Boron (mg/kg)	---	---	30 (20-36)
Cadmium (mg/kg)	1.5	4	<0.1 (<0.1-<0.1)
Chromium (mg/kg)	80	160	38 (26-44)
Copper (mg/kg)	65	110	38 (20-48)

	Lower Chemical Exceedance Level (LCEL)	Higher Chemical Exceedance Level (UCEL)	1999 - 2003
Iron (mg/kg)	---	---	31700 (21000-36000)
Lead (mg/kg)	75	110	44 (25-50)
Manganese (mg/kg)	---	---	585 (370-670)
Mercury (mg/kg)	0.5	1	0.14 (0.08-0.21)
Nickel (mg/kg) (7)	40	40	22 (16-27)
Silver (mg/kg)	1	2	<1.0 (<1.0-1.0)
Zinc (mg/kg)	200	270	112 (75-130)
Total Polychlorinated Biphenyls (PCBs)	23	180	<5 (<5-23)
Low Molecular Weight Polyaromatic Hydrocarbons (PAHs) (µg/kg) (3) (5)	550	3160	13 (N.D.-18)
High Molecular Weight Polyaromatic Hydrocarbons (PAHs) (µg/kg) (4) (5)	1700	9600	120 (28-186)
Polycyclic Aromatic Hydrocarbons (µg/kg)	---	---	---
Polychlorinated Biphenyls (µg/kg)	---	---	---

Notes:

1. Data presented are arithmetic means- data in brackets indicate ranges.
2. All data are based on the analyses of bulk (unsieved) sediment and are reported on a dry weight basis unless stated otherwise.
3. Low molecular weight polyaromatic hydrocarbons (PAHs) include congeners of molecular weight below 200, namely Acenaphthylene, Acenaphthene, Flourene, Phenathrene and Anthracene.
4. High molecular weight polyaromatic hydrocarbons (PAHs) include 10 congeners with molecular weight above 200, namely Fluoranthene, Pyrene, Benzo(a)anthracene, Chrysene, Benzo(b)fluoranthene, Benzo(k)fluorathene, Benzo(a)pyrene, Dibenzo(a,h)anthracene, Benzo(ghi)perylene and Indeno(1,2,3-cd)pyrene.
5. PCBs results are based on sediment samples collected in 1998-2001 only.
6. N.D. Not detected – all congeners are below the detection limit.
7. When the LCEL and UCEL for a contaminant are the same, the contaminant level is considered to have exceeded UCEL if it is greater than the value shown.