



APPENDIX B

CMP FOR PROPOSED HOMEBUSH BAY BRIDGE CONSTRUCTION

Document Reference: ERM Additional Site Investigation, 2006

Site / Report Reference: Western Shore / Appendix B - 6

Included Information: Figure of sample locations; results tables

TABLE 1
Schedule of Laboratory Analysis
Burroway Rd, Homebush Bay, NSW

Sample ID	Sample Depth (m)	Sampling Date	PID (ppmV)	Metals	PAHs	TPH	BTEX	OCPs	OPPs	PCBs
SB38	0.3	20-Jun-06	1.2	X	X	X	X	X	X	X
SB38	0.8	20-Jun-06	1.6	X	X	X	X	X	X	X
SB40	0.3	20-Jun-06	1.7	X	X	X	X	X	X	X
SB40	1.0	20-Jun-06	2.1	X	X	X	X	X	X	X
SB41	0.5	21-Jun-06	1.1	X	X	X	X	X	X	X
SB41	1.8	21-Jun-06	2.5	X	X	X	X	X	X	X
SB42	0.4	21-Jun-06	2.4	X	X	X	X	X	X	X
SB42	1.6	21-Jun-06	2.2	X	X	X	X	X	X	X
SB43	0.5	21-Jun-06	2.6	X	X	X	X	X	X	X
SB43	1.5	21-Jun-06	2.4	X	X	X	X	X	X	X
SB44	0.4	21-Jun-06	2.1	X	X	X	X	X	X	X
SB44	1.6	21-Jun-06	3.1	X	X	X	X	X	X	X
SB45	0.3	20-Jun-06	2.1	X	X	X	X	X	X	X
SB45	0.7	20-Jun-06	2.1	X	X	X	X	X	X	X
SB46	0.5	21-Jun-06	1.8	X	X	X	X	X	X	X
SB46	1.7	21-Jun-06	2.5	X	X	X	X	X	X	X
SB47	0.8	21-Jun-06	1.9	X	X	X	X	X	X	X
SB47	1.8	21-Jun-06	2.4	X	X	X	X	X	X	X
SB48	0.3	21-Jun-06	1.8	X	X	X	X	X	X	X
SB48	1.8	21-Jun-06	1.9	X	X	X	X	X	X	X
SB49	0.6	20-Jun-06	2.9	X	X	X	X	X	X	X
SB49	2.9	20-Jun-06	3.0	X	X	X	X	X	X	X
SB50	0.5	21-Jun-06	2.0	X	X	X	X	X	X	X
SB50	1.8	21-Jun-06	2.6	X	X	X	X	X	X	X
SB51	0.9	21-Jun-06	2.9	X	X	X	X	X	X	X
SB51	1.9	21-Jun-06	1.9	X	X	X	X	X	X	X
SB52	0.3	21-Jun-06	3.6	X	X	X	X	X	X	X
SB52	1.4	21-Jun-06	3.5	X	X	X	X	X	X	X
SB57	0.6	22-Jun-06	3.2	X	X	X	X	X	X	X
SB57	1.5	22-Jun-06	3.5	X	X	X	X	X	X	X
SB64	0.4	20-Jun-06	1.1		X	X	X			
SB64	1.1	20-Jun-06	1.2		X	X	X			
SB65	0.2	20-Jun-06	0.4		X	X	X			
SB65	0.4	20-Jun-06	1.8		X	X	X			
SB65	1.5	20-Jun-06	0.7		X	X	X			
SB66	0.4	20-Jun-06	1.1		X	X	X			
SB66	1.0	20-Jun-06	1.3		X	X	X			

TABLE 1
Schedule of Laboratory Analysis
Burroway Rd, Homebush Bay, NSW

Sample ID	Sample Depth (m)	Sampling Date	PID (ppmV)	Metals	PAHs	TPH	BTEX	OCPs	OPPs	PCBs
SB67	0.4	20-Jun-06	0.0		X	X	X			
SB67	1.5	20-Jun-06	0.0		X	X	X			
SB68	0.5	22-Jun-06	3.1		X	X	X			
SB69	0.6	22-Jun-06	1.5		X	X	X			
SB69	0.9	22-Jun-06	2.8		X	X	X			
SB70	0.7	22-Jun-06	1.7		X	X	X			
SB70	1.0	22-Jun-06	1.1		X	X	X			
SB71	0.7	22-Jun-06	2.4		X	X	X			
SB71	1.0	22-Jun-06	2.9		X	X	X			
SB72	0.7	22-Jun-06	1.3		X	X	X			
SB73	0.7	22-Jun-06	1.5		X	X	X			
SB73	1.0	22-Jun-06	1.1		X	X	X			
SB74	0.4	22-Jun-06	1.0		X	X	X			
SB74	0.8	22-Jun-06	0.9		X	X	X			
SB75	0.5	22-Jun-06	2.1		X	X	X			
SB76	0.2	22-Jun-06	1.8		X	X	X			
SB76	0.8	22-Jun-06	1.7		X	X	X			
SB77	0.7	22-Jun-06	2.2		X	X	X			
SB77	1.0	22-Jun-06	1.4		X	X	X			
SB78	0.7	22-Jun-06	1.3		X	X	X			
SB78	1.0	22-Jun-06	1.5		X	X	X			
<i>QA/ QC Samples</i>										
D200606-01	-	20-Jun-06	-		X	X	X			
D200606-02	-	20-Jun-06	-		X	X	X			
D210606-03	-	21-Jun-06	-	X	X	X	X	X	X	X
D220606-01	-	22-Jun-06	-		X	X	X			
D220606-02	-	22-Jun-06	-	X	X	X	X	X	X	X
D220606-03	-	22-Jun-06	-		X	X	X			
Trip Blank	-	20-Jun-06	-	X		X	X			
Trip Spike	-	20-Jun-06	-			X	X			
Rinsate Blank	-	22-Jun-06	-		X	X		X	X	X

TABLE 2
Laboratory Results for Inorganics in Soil (mg/kg)
Burroway Rd, Homebush Bay, NSW

Location	Depth (m)	Arsenic	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Zinc
EQL		1	0.1	1	2	2	0.05	1	5
NEPM 1999 HIL D		400	80	400	4000	1200	60	2400	28000
SB38	0.3	5	0.2	11	22	38	0.14	9	42
SB38	0.8	23	0.2	41	55	250	1.7	10	210
SB40	0.3	7	0.2	25	8	22	0.08	4	14
SB40	1	17	0.4	38	37	140	0.73	9	160
SB41	0.5	19	0.3	28	45	170	0.98	8	180
SB41	1.8	4	<0.1	6	4	15	<0.05	1	14
SB42	0.4	6	<0.1	27	4	17	0.09	2	6
SB42	1.6	3	<0.1	3	12	27	0.08	2	27
SB43	0.5	3	<0.1	14	3	12	<0.05	<1	<5
SB43	1.5	9	<0.1	5	9	27	0.12	2	23
SB44	0.4	4	<0.1	19	3	17	<0.05	<1	<5
SB44	1.6	14	<0.1	8	15	52	0.36	3	48
SB45	0.3	8	0.1	5	18	48	0.11	3	31
SB45	0.7	13	0.3	22	35	150	0.67	6	150
SB46	0.5	4	<0.1	3	17	40	0.13	2	38
SB46	1.7	3	<0.1	3	11	55	0.13	2	38
SB47	0.8	4	<0.1	4	17	43	0.17	2	51
SB47	1.8	5	<0.1	3	12	34	0.11	2	21
SB48	0.3	5	<0.1	13	3	14	<0.05	<1	5
SB48	1.8	5	<0.1	4	7	33	0.06	1	20
SB49	0.6	9	<0.1	12	22	57	0.15	2	44
SB49	2.9	18	0.3	30	29	84	0.39	8	120
SB50	0.5	2	<0.1	3	20	64	0.18	1	37
SB50	1.8	5	<0.1	3	4	13	<0.05	1	11
SB51	0.9	14	0.3	24	44	220	1.3	7	170
SB51	1.9	6	<0.1	14	28	14	0.05	7	53
SB52	0.3	5	<0.1	20	7	26	0.08	1	12
SB52	1.4	8	<0.1	6	12	24	0.15	4	45
SB57	0.6	5	<0.1	6	13	35	0.08	3	30

TABLE 2
Laboratory Results for Inorganics in Soil (mg/kg)
Burroway Rd, Homebush Bay, NSW

Location	Depth (m)	Arsenic	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Zinc
EQL		1	0.1	1	2	2	0.05	1	5
NEPM 1999 HIL D		400	80	400	4000	1200	60	2400	28000
SB57	1.5	3	<0.1	3	5	12	<0.05	1	14
<i>QA/ QC Samples</i>									
D200606-02		20	0.4	37	37	120	0.52	10	150
D210606-03		5	<0.1	24	5	16	0.07	2	<5
D220606-02		10	<1	8	14	87	<0.1	2	30
Trip Blank		<1	<0.1	5	<2	<2	<0.05	<1	<5

TABLE 3
Laboratory Results for TPH/ BTEX in Soil (mg/kg)
Burroway Rd, Homebush Bay, NSW

Location	Depth (m)	Benzene	Toluene	Ethylbenzene	m- & p-xylene	o-xylene	Total Xylene	TPH C ₆ -C ₉	TPH C ₁₀ -C ₁₄	TPH C ₁₅ -C ₂₈	TPH C ₂₉ -C ₃₆	TPH C ₁₀ -C ₃₆
EQL		0.2	0.5	0.5	1	0.5		10	50	100	100	
NSW EPA 1994 Service Station Guidelines		1	130	50			25	65				1000
SB38	0.3	<0.2	<0.5	<0.5	<1	<0.5	nd	<10	<50	<100	<100	nd
SB38	0.8	<0.2	<0.5	<0.5	<1	<0.5	nd	<10	<50	340	270	610
SB40	0.3	<0.2	<0.5	<0.5	<1	<0.5	nd	<10	<50	<100	<100	nd
SB40	1	<0.2	<0.5	<0.5	<1	<0.5	nd	<10	<50	<100	<100	nd
SB41	0.5	<0.2	<0.5	<0.5	<1	<0.5	nd	<10	<50	220	100	320
SB41	1.8	<0.2	<0.5	<0.5	<1	<0.5	nd	<10	<50	<100	<100	nd
SB42	0.4	<0.2	<0.5	<0.5	<1	<0.5	nd	<10	<50	<100	<100	nd
SB42	1.6	<0.2	<0.5	<0.5	<1	<0.5	nd	<10	<50	<100	<100	nd
SB43	0.5	<0.2	<0.5	<0.5	<1	<0.5	nd	<10	<50	<100	<100	nd
SB43	1.5	<0.2	<0.5	<0.5	<1	<0.5	nd	<10	<50	<100	<100	nd
SB44	0.4	<0.2	<0.5	<0.5	<1	<0.5	nd	<10	<50	<100	<100	nd
SB44	1.6	<0.2	<0.5	<0.5	<1	<0.5	nd	<10	<50	120	<100	120
SB45	0.3	<0.2	<0.5	<0.5	<1	<0.5	nd	<10	<50	<100	<100	nd
SB45	0.7	<0.2	<0.5	<0.5	<1	<0.5	nd	<10	<50	<100	<100	nd
SB46	0.5	<0.2	<0.5	<0.5	<1	<0.5	nd	<10	<50	<100	<100	nd
SB46	1.7	<0.2	<0.5	<0.5	<1	<0.5	nd	<10	<50	<100	<100	nd
SB47	0.8	<0.2	<0.5	<0.5	<1	<0.5	nd	<10	<50	200	<100	200
SB47	1.8	<0.2	<0.5	<0.5	<1	<0.5	nd	<10	<50	<100	<100	nd
SB48	0.3	<0.2	<0.5	<0.5	<1	<0.5	nd	<10	<50	<100	<100	nd
SB48	1.8	<0.2	<0.5	<0.5	<1	<0.5	nd	<10	<50	<100	<100	nd
SB49	0.6	<0.2	<0.5	<0.5	<1	<0.5	nd	<10	<50	<100	<100	nd
SB49	2.9	<0.2	<0.5	<0.5	<1	<0.5	nd	<10	<50	460	390	850
SB50	0.5	<0.2	<0.5	<0.5	<1	<0.5	nd	<10	<50	<100	<100	nd
SB50	1.8	<0.2	<0.5	<0.5	<1	<0.5	nd	<10	<50	<100	<100	nd
SB51	0.9	<0.2	<0.5	<0.5	<1	<0.5	nd	<10	<50	<100	130	130
SB51	1.9	<0.2	<0.5	<0.5	<1	<0.5	nd	<10	<50	<100	<100	nd
SB52	0.3	<0.2	<0.5	<0.5	<1	<0.5	nd	<10	<50	<100	<100	nd
SB52	1.4	<0.2	<0.5	<0.5	<1	<0.5	nd	<10	<50	<100	<100	nd
SB57	0.6	<0.2	<0.5	<0.5	<1	<0.5	nd	<10	<50	<100	<100	nd
SB57	1.5	<0.2	<0.5	<0.5	<1	<0.5	nd	<10	<50	<100	<100	nd
SB64	0.4	<0.2	<0.5	<0.5	<1	<0.5	nd	<10	<50	<100	<100	nd
SB64	1.1	<0.2	<0.5	<0.5	<1	<0.5	nd	<10	<50	<100	<100	nd
SB65	0.2	<0.2	<0.5	<0.5	<1	<0.5	nd	<10	120	920	820	1860
SB65	0.4	<0.2	<0.5	<0.5	<1	<0.5	nd	<10	150	690	<100	840
SB65	1.5	<0.2	<0.5	<0.5	<1	<0.5	nd	<10	<50	<100	<100	nd
SB66	0.4	<0.2	<0.5	<0.5	<1	<0.5	nd	<10	<50	<100	<100	nd
SB66	1	<0.2	<0.5	<0.5	<1	<0.5	nd	<10	<50	<100	<100	nd
SB67	0.4	<0.2	<0.5	<0.5	<1	<0.5	nd	<10	<50	<100	<100	nd
SB67	1.5	<0.2	<0.5	<0.5	<1	<0.5	nd	<10	<50	<100	<100	nd
SB68	0.5	<0.2	<0.5	<0.5	<1	<0.5	nd	<10	<50	<100	<100	nd
SB69	0.6	<0.2	<0.5	<0.5	<1	<0.5	nd	<10	<50	<100	<100	nd
SB69	0.9	<0.2	<0.5	<0.5	<1	<0.5	nd	<10	<50	<100	<100	nd
SB70	0.7	<0.2	<0.5	<0.5	<1	<0.5	nd	<10	<50	<100	<100	nd
SB70	1	<0.2	<0.5	<0.5	<1	<0.5	nd	<10	<50	<100	<100	nd
SB71	0.7	<0.2	<0.5	<0.5	<1	<0.5	nd	<10	<50	<100	<100	nd

TABLE 3
Laboratory Results for TPH/ BTEX in Soil (mg/kg)
Burroway Rd, Homebush Bay, NSW

Location	Depth (m)	Benzene	Toluene	Ethylbenzene	m- & p-xylene	o-xylene	Total Xylene	TPH C ₆ -C ₉	TPH C ₁₀ -C ₁₄	TPH C ₁₅ -C ₂₈	TPH C ₂₉ -C ₃₆	TPH C ₁₀ -C ₃₆
EQL		0.2	0.5	0.5	1	0.5		10	50	100	100	
NSW EPA 1994 Service Station Guidelines		1	130	50			25	65				1000
SB71	1	<0.2	<0.5	<0.5	<1	<0.5	nd	<10	<50	<100	<100	nd
SB72	0.7	<0.2	<0.5	<0.5	<1	<0.5	nd	<10	<50	<100	<100	nd
SB73	0.7	<0.2	<0.5	<0.5	<1	<0.5	nd	<10	<50	<100	<100	nd
SB73	1	<0.2	<0.5	<0.5	<1	<0.5	nd	<10	<50	<100	<100	nd
SB74	0.4	<0.2	<0.5	<0.5	<1	<0.5	nd	<10	<50	<100	<100	nd
SB74	0.8	<0.2	<0.5	<0.5	<1	<0.5	nd	<10	<50	110	<100	110
SB75	0.5	<0.2	<0.5	<0.5	<1	<0.5	nd	<10	<50	<100	<100	nd
SB76	0.2	<0.2	<0.5	<0.5	<1	<0.5	nd	<10	<50	140	270	410
SB76	0.8	<0.2	<0.5	<0.5	<1	<0.5	nd	<10	<50	<100	<100	nd
SB77	0.7	<0.2	<0.5	<0.5	<1	<0.5	nd	<10	<50	690	1580	2270
SB77	1	<0.2	<0.5	<0.5	<1	<0.5	nd	<10	<50	110	310	420
SB78	0.7	<0.2	<0.5	<0.5	<1	<0.5	nd	<10	<50	<100	<100	nd
SB78	0.95	<0.2	<0.5	<0.5	<1	<0.5	nd	<10	<50	<100	<100	nd
<i>QA/ QC Samples</i>												
D200606-01		<0.2	<0.5	<0.5	<1	<0.5	nd	<10	<50	<100	<100	nd
D200606-02		<0.2	<0.5	<0.5	<1	<0.5	nd	<10	<50	625	465	1090
D210606-03		<0.2	<0.5	<0.5	<1	<0.5	nd	<10	<50	270	<100	270
D220606-01		<0.2	<0.2	<0.2	<0.2	<0.2	nd	<2	<50	<100	<100	nd
D220606-02		<0.2	<0.2	<0.2	<0.2	<0.2	nd	<2	<50	120	<100	nd
D220606-03		<0.2	<0.2	<0.2	<0.2	<0.2	nd	<2	<50	<100	<100	nd
Trip Blank		0.89	0.88	0.86	0.87	0.86	nd	0.84	na	na	na	na
Trip Spike		<0.2	<0.5	<0.5	<1	<0.5	nd	<10	na	na	na	na
Rinsate Blank		na	na	na	na	na	na	na	<50	<200	<50	nd

Laboratory Results for PAHs in Soil (mg/kg)
Burrumbidgee Rd, Homebush Bay, NSW

Location	EQC	Depth (m)	Naphthalene	Acenaphthylene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Benzo(a)anthracene	Chrysene	Benzo(b)fluoranthene	Benzo(a)pyrene	Indeno(1,2,3-c,d)pyrene	Dibenz(a,h)anthracene	Benzo(g,h,i)perylene	Total PAHs
			0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	
NYFM 1999 HIL D																		80
SB38		0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	nd
SB38		0.8	2.3	0.5	0.5	1.7	8.7	3.3	26	27	13	8.1	16	11	6.9	1.1	5.7	133.8
SB40		0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	nd
SB40		1	<0.5	<0.5	<0.5	<0.5	1.2	0.6	4.6	6	1.8	1.7	4	2.3	1.7	<0.5	1.5	25.4
SB41		0.5	1.8	2.4	<0.5	0.8	5.3	2.4	16	17	7.5	6.8	12	8.5	3.6	0.7	4.5	91.3
SB41		1.8	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	nd
SB42		0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	nd
SB42		1.6	<0.5	<0.5	<0.5	0.5	2.9	1.1	6.3	5.8	2.6	1.9	3	2.4	<0.5	<0.5	<0.5	28.8
SB43		0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	nd
SB43		1.5	<0.5	<0.5	<0.5	<0.5	0.8	<0.5	2.9	2.8	1	0.7	2	1	0.5	<0.5	<0.5	11.7
SB44		0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	nd
SB44		1.6	0.6	<0.5	<0.5	0.5	2.7	1.1	14	14	5.1	3.6	8	5.1	2.4	0.5	1.9	59.5
SB45		0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.8	0.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.5
SB45		0.7	<0.5	<0.5	<0.5	<0.5	1.1	<0.5	3	3.1	1	1	2	1.2	0.6	<0.5	<0.5	13.5
SB46		0.5	<0.5	<0.5	<0.5	<0.5	4	1.1	9.2	8.3	3.7	2.6	5	3.1	1.6	<0.5	1.3	40.1
SB46		1.7	<0.5	<0.5	<0.5	<0.5	2	0.8	4.1	3.6	2	1.3	2	1.3	0.7	<0.5	0.6	12.7
SB47		0.8	<0.5	<0.5	<0.5	<0.5	2.7	1.3	8.4	8.3	2.7	2.1	12	8.6	3.2	0.7	90.4	90.4
SB47		1.8	<0.5	<0.5	<0.5	<0.5	2.4	1	7.6	7.1	2.8	2.2	4	2.9	1.4	<0.5	1.1	32.5
SB48		0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	nd
SB48		1.8	<0.5	<0.5	<0.5	<0.5	1.4	7.1	2	11	9.2	2.7	2.1	2.3	1	<0.5	0.8	43.6
SB49		0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	3.2	3	1.3	0.9	2	1.1	0.6	<0.5	0.6	13.9
SB49		2.9	0.83	1.3	0.55	0.55	5.1	1.85	21	23	7.3	8.7	16.5	11	3.95	0.9	7.45	111.78
SB50		0.5	<0.5	<0.5	<0.5	<0.5	1.7	0.5	4	4	2.1	1.6	3	1.9	1.3	<0.5	1.1	21.2
SB50		1.8	<0.5	<0.5	<0.5	<0.5	1.3	0.6	3.2	3.1	1.5	1.2	6	1.4	0.9	<0.5	0.7	15.6
SB51		0.9	0.5	<0.5	<0.5	<0.5	2.1	0.9	8	8.2	2.6	2.2	2	2	1.6	<0.5	1.3	36.7
SB51		1.9	<0.5	<0.5	<0.5	<0.5	1.1	<0.5	0.9	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	2.3
SB52		0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	nd
SB52		1.4	<0.5	<0.5	<0.5	<0.5	0.7	<0.5	3.5	2.6	1	0.8	3	1	0.5	<0.5	<0.5	nd
SB57		0.0	<0.5	<0.5	<0.5	<0.5	1.8	0.6	7.8	3.7	1.7	1.6	3	1.7	0.7	<0.5	0.9	19.5
SB57		1.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	nd
SB64		0.4	<0.5	<0.5	<0.5	<0.5	1.1	<0.5	1.7	1.3	0.6	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	5.2
SB64		1.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.9	0.9	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.8
SB65		0.3	<0.5	<0.5	<0.5	0.5	1.9	0.6	3	2.4	1	0.9	1	0.9	0.5	<0.5	<0.5	12.8
SB65		0.4	<0.5	<0.5	<0.5	<0.5	2.4	1.3	8.3	6.6	3	1.8	3	1.9	1.4	<0.5	1	30.7
SB65		1.5	<0.5	<0.5	<0.5	<0.5	0.7	<0.5	1.8	1.9	0.7	0.5	1	0.7	0.5	<0.5	<0.5	8.8
SB66		0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	16.3
SB66		1	<0.5	<0.5	<0.5	<0.5	0.7	0.7	0.7	0.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.4
SB67		0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	nd
SB67		1.5	<0.5	<0.5	<0.5	<0.5	1.6	0.6	3.7	3.4	1.6	1.1	2	1.4	0.8	<0.5	0.7	16.9
SB68		0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	nd
SB69		0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	nd
SB69		0.9	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	nd
SB70		0.7	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	1.2	1.1	0.5	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	nd
SB70		1	0.5	0.5	<0.5	<0.5	1.8	0.6	4.9	4.6	2.4	2.1	4	2.4	1.3	<0.5	0.5	26
SB71		0.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	nd
SB71		1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	nd
SB72		0.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5
SB73		0.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	nd
SB73		1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	nd
SB74		0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	nd
SB74		0.8	0.7	2.1	<0.5	1.5	12	3.1	18	16	8.2	7.2	12	8	3.7	0.6	4.5	97.6
SB75		0.5	<0.5	<0.5	<0.5	<0.5	2.1	0.8	4	4	2.1	2.3	4	2.8	1.4	<0.5	2	23.5
SB76		0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	nd
SB76		0.8	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	nd
SB77		0.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.1
SB77		1	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	3.2	1.2	0.6	0.7	1	0.8	<0.5	<0.5	<0.5	6.7
SB78		0.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	nd
SB78		0.95	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	0.8	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	2.2
Q4-Q7 Samples																		
D200606-01			<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	nd
D200606-02		1	1.2	0.7	0.3	9.1	2.0	27.05	32.15	13.9	14.15	13.9	14.15	17.4	10.3	1.3	12.75	171.4
D210606-03			<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	nd
D230606-01			<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	nd
D230606-02		3.6	4.1	3.6	0.8	11.8	29.1	21.2	8.8	4.1	8.8	4.1	9.2	8	0.7	3.2	3.2	92.8
D220606-03			<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	nd
Residue Blank			<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	nd

TABLE 5

Laboratory Results for OPPs and OCPs in Soil (mg/kg)
Burrunway Rd, Homebush Bay, NSW

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Laboratory Results for OCPs and OPPS in Soil (mg/kg)

CLA' OK' Samples

TABLE 6
Laboratory Results for PCBs in Soil (mg/kg)
Burroway Rd, Homebush Bay, NSW

Location	Depth (m)	Arochlor 1016	Arochlor 1232	Arochlor 1242	Arochlor 1248	PCB 1254	PCB 1260	Total PCBs
EQL		0.5	0.5	0.5	0.5	500	500	
NEPM 1999 HIL D								40
SB38	0.3	<0.5	<0.5	<0.5	<0.5	<500	<500	nd
SB38	0.8	<0.5	<0.5	<0.5	<0.5	<500	<500	nd
SB40	0.3	<0.5	<0.5	<0.5	<0.5	<500	<500	nd
SB40	1	<0.5	<0.5	<0.5	<0.5	<500	<500	nd
SB41	0.5	<0.5	<0.5	<0.5	<0.5	<500	<500	nd
SB41	1.8	<0.5	<0.5	<0.5	<0.5	<500	<500	nd
SB42	0.4	<0.5	<0.5	<0.5	<0.5	<500	<500	nd
SB42	1.6	<0.5	<0.5	<0.5	<0.5	<500	<500	nd
SB43	0.5	<0.5	<0.5	<0.5	<0.5	<500	<500	nd
SB43	1.5	<0.5	<0.5	<0.5	<0.5	<500	<500	nd
SB44	0.4	<0.5	<0.5	<0.5	<0.5	<500	<500	nd
SB44	1.6	<0.5	<0.5	<0.5	<0.5	<500	<500	nd
SB45	0.3	<0.5	<0.5	<0.5	<0.5	<500	<500	nd
SB45	0.7	<0.5	<0.5	<0.5	<0.5	<500	<500	nd
SB46	0.5	<0.5	<0.5	<0.5	<0.5	<500	<500	nd
SB46	1.7	<0.5	<0.5	<0.5	<0.5	<500	<500	nd
SB47	0.8	<0.5	<0.5	<0.5	<0.5	<500	<500	nd
SB47	1.8	<0.5	<0.5	<0.5	<0.5	<500	<500	nd
SB48	0.3	<0.5	<0.5	<0.5	<0.5	<500	<500	nd
SB48	1.8	<0.5	<0.5	<0.5	<0.5	<500	<500	nd
SB49	0.6	<0.5	<0.5	<0.5	<0.5	<500	<500	nd
SB49	2.9	<0.5	<0.5	<0.5	<0.5	<500	<500	nd
SB50	0.5	<0.5	<0.5	<0.5	<0.5	<500	<500	nd
SB50	1.8	<0.5	<0.5	<0.5	<0.5	<500	<500	nd
SB51	0.9	<0.5	<0.5	<0.5	<0.5	<500	<500	nd
SB51	1.9	<0.5	<0.5	<0.5	<0.5	<500	<500	nd
SB52	0.3	<0.5	<0.5	<0.5	<0.5	<500	<500	nd
SB52	1.4	<0.5	<0.5	<0.5	<0.5	<500	<500	nd
SB57	0.6	<0.5	<0.5	<0.5	<0.5	<500	<500	nd
SB57	1.5	<0.5	<0.5	<0.5	<0.5	<500	<500	nd

Laboratory Results for PCBs in Soil (mg/kg)
Burroway Rd, Homebush Bay, NSW

[illegible]

TABLE 7
Laboratory QA/QC Results Summary (mg/kg)
Burroway Rd, Homebush Bay, NSW

Location	Primary	Secondary	SB67	D200606-01		SB49	D200606-02		SB42	D210606-03		SB72	D220606-01		SB57	D220606-02		SB70	D220606-03	
Depth	Lab EQL	Lab EQL	0.4	(Intra-lab)	%RPD	2.9	(Intra-lab)	%RPD	0.4	(Intra-lab)	%RPD	0.7	(Inter-lab)	%RPD	0.6	(Inter-lab)	%RPD	0.7	(Inter-lab)	%RPD
Metals																				
Arsenic	1	1	-	-		18	20	11%	6	5	18%	-	-		5	10	67%	-	-	
Cadmium	0.1	0.1	-	-		0.3	0.4	29%	<0.1	<0.1	-	-	-		<0.1	<1	-	-	-	
Chromium	1	1	-	-		30	37	21%	27	24	12%	-	-		6	8	29%	-	-	
Copper	2	2	-	-		29	37	24%	4	5	22%	-	-		13	14	7%	-	-	
Lead	2	2	-	-		84	120	35%	17	16	6%	-	-		35	87	85%	-	-	
Mercury	0.05	0.05	-	-		0.39	0.52	29%	0.09	0.07	25%	-	-		0.08	<0.1	22%	-	-	
Nickel	1	1	-	-		8	10	22%	2	2	0%	-	-		3	2	40%	-	-	
Zinc	5	5	-	-		120	150	22%	6	<5	82%	-	-		30	30	0%	-	-	
BTEX and TPH																				
Benzene	0.2	0.2	<0.2	<0.2	-	<0.2	<0.2	-	<0.2	<0.2	-	<0.2	<0.2	-	<0.2	<0.2	-	<0.2	<0.2	-
Toluene	0.5	0.2	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.2	-	<0.5	<0.2	-	<0.5	<0.2	-
Ethylbenzene	0.5	0.2	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.2	-	<0.5	<0.2	-	<0.5	<0.2	-
m- & p-xylene	1	0.2	<1	<1	-	<1	<1	-	<1	<1	-	<1	<0.2	-	<1	<0.2	-	<1	<0.2	-
o-xylene	0.5	0.2	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.2	-	<0.5	<0.2	-	<0.5	<0.2	-
TPH C 6 - C 9 Fraction	10	2	<10	<10	-	<10	<10	-	<10	<10	-	<10	<2	-	<10	<2	-	<10	<2	-
TPH C10 - C14 Fraction	50	50	<50	<50	-	<50	<50	-	<50	<50	-	<50	<50	-	<50	<50	-	<50	<50	-
TPH C15-C28 Fraction	100	100	<100	<100	-	460	625	30%	<100	270	92%	<100	<100	-	<100	120	-	<100	<100	-
TPH C29-C36 Fraction	100	100	<100	<100	-	390	465	18%	<100	<100	-	<100	<100	-	<100	<100	-	<100	<100	-
PAHs																				
Naphthalene	0.5	0.5	<0.5	<0.5	-	0.85	1	16%	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	0.8	46%	<0.5	<0.5	-
Acenaphthylene	0.5	0.5	<0.5	<0.5	-	1.3	1.2	8%	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	3.6	151%	<0.5	<0.5	-
Acenaphthene	0.5	0.5	<0.5	<0.5	-	0.55	0.7	19%	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-
Fluorene	0.5	0.5	<0.5	<0.5	-	0.55	0.5	10%	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	0.8	46%	<0.5	<0.5	-
Phenanthrene	0.5	0.5	<0.5	<0.5	-	5.1	9.05	56%	<0.5	<0.5	-	<0.5	<0.5	-	1.8	11.8	147%	0.6	<0.5	82%
Anthracene	0.5	0.5	<0.5	<0.5	-	1.85	2.0	6%	<0.5	<0.5	-	<0.5	<0.5	-	0.6	4.1	149%	<0.5	<0.5	-
Fluoranthene	0.5	0.5	<0.5	<0.5	-	21	27.05	25%	<0.5	<0.5	-	0.5	<0.5	0%	3.8	20.1	136%	1.2	<0.5	82%
Pyrene	0.5	0.5	<0.5	<0.5	-	23	32.15	33%	<0.5	<0.5	-	<0.5	<0.5	-	3.7	21.2	141%	1.1	<0.5	75%
Benz(a)anthracene	0.5	0.5	<0.5	<0.5	-	7.3	13.9	62%	<0.5	<0.5	-	<0.5	<0.5	-	1.7	8.8	135%	0.5	<0.5	67%
Chrysene	0.5	0.5	<0.5	<0.5	-	8.7	14.15	48%	<0.5	<0.5	-	<0.5	<0.5	-	1.6	6.7	123%	0.5	<0.5	67%
Benzo(b)&(k)fluoranthene	1	1	<1	<1	-	16.5	27.5	50%	<1	<1	-	<1	na	-	3	9.20	102%	<1	na	-
Benzo(a) pyrene	0.5	0.5	<0.5	<0.5	-	11	17.4	45%	<0.5	<0.5	-	<0.5	<0.5	-	1.7	8	130%	0.6	<0.5	82%
Indeno(1,2,3-c,d)pyrene	0.5	0.5	<0.5	<0.5	-	5.95	10.5	55%	<0.5	<0.5	-	<0.5	<0.5	-	0.7	2.8	120%	<0.5	<0.5	-
Dibenz(a,h)anthracene	0.5	0.5	<0.5	<0.5	-	0.9	1.3	36%	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	0.7	95%	<0.5	<0.5	-
Benzo(g,h,i)perylene	0.5	0.5	<0.5	<0.5	-	7.45	12.75	52%	<0.5	<0.5	-	<0.5	<0.5	-	0.9	3.2	112%	<0.5	<0.5	-
OCPs and OPPs																				
4,4-DDE	0.05	0.05	-	-		<0.05	<0.05	-	<0.05	<0.05	-	-	-		<0.05	<0.05	-	-	-	
a-BHC	0.05	0.05	-	-		<0.05	<0.05	-	<0.05	<0.05	-	-	-		<0.05	<0.05	-	-	-	
Aldrin	0.05	0.05	-	-		<0.05	<0.05	-	<0.05	<0.05	-	-	-		<0.05	<0.05	-	-	-	
Azinophos methyl	0.5	0.05	-	-		<0.5	<0.5	-	<0.5	<0.5	-	-	-		<0.5	<0.05	-	-	-	
b-BHC	0.05	0.05	-	-		<0.05	<0.05	-	<0.05	<0.05	-	-	-		<0.05	<0.05	-	-	-	
Chlorpyrifos	0.5	0.05	-	-		<0.5	<0.5	-	<0.5	<0.5	-	-	-		<0.5	<0.05	-	-	-	
cis-Chlordane	0.05	0.05	-	-		<0.05	<0.05	-	<0.05	<0.05	-	-	-		<0.05	<0.05	-	-	-	
Coumaphos	0.5	0.5	-	-		<1	<0.5	-	<0.5	<0.5	-	-	-		<0.5	na	-	-	-	
d-BHC	0.05	0.05	-	-		<0.05	<0.05	-	<0.05	<0.05	-	-	-		<0.05	<0.05	-	-	-	
DDD	0.05	0.05	-	-		<0.05	<0.05	-	<0.05	<0.05	-	-	-		<0.05	<0.05	-	-	-	
DDT	0.2	0.2	-	-		<0.2	<0.2	-	<0.2	<0.2	-	-	-		<0.2	<0.2	-	-	-	
Demeton (total)	1	1	-	-		<1	<1	-	<1	<1	-	-	-		<1	na	-	-	-	
Diazinon	0.5	0.05	-	-		<0.5	<0.5	-	<0.5	<0.5	-	-	-		<0.5	<0.05	-	-	-	
Dichlorvos	0.5	0.05	-	-		<0.5	<0.5	-	<0.5	<0.5	-	-	-		<0.5	<0.05	-	-	-	

TABLE 7
Laboratory QA/QC Results Summary (mg/kg)
Burroway Rd, Homebush Bay, NSW

Location	Primary Lab EQL	Secondary Lab EQL	SB67 0.4	D200606-01 (Intra-lab)	%RPD	SB49 2.9	D200606-02 (Intra-lab)	%RPD	SB42 0.4	D210606-03 (Intra-lab)	%RPD	SB72 0.7	D220606-01 (Inter-lab)	%RPD	SB57 0.6	D220606-02 (Inter-lab)	%RPD	SB70 0.7	D220606-03 (Inter-lab)	%RPD
Dieldrin	0.05	0.05	-	-	-	<0.05	<0.05	-	<0.05	<0.05	-	-	-	-	<0.05	<0.05	-	-	-	-
Dimethoate	0.5	0.05	-	-	-	<0.5	<0.5	-	<0.5	<0.5	-	-	-	-	<0.5	<0.05	-	-	-	-
Disulfoton	0.5	0.5	-	-	-	<0.5	<0.5	-	<0.5	<0.5	-	-	-	-	<0.5	na	-	-	-	-
Endosulfan I	0.05	0.05	-	-	-	<0.05	<0.05	-	<0.05	<0.05	-	-	-	-	<0.05	<0.05	-	-	-	-
Endosulfan II	0.05	0.05	-	-	-	<0.05	<0.05	-	<0.05	<0.05	-	-	-	-	<0.05	<0.05	-	-	-	-
Endosulfan sulphate	0.05	0.05	-	-	-	<0.05	<0.05	-	<0.05	<0.05	-	-	-	-	<0.05	<0.05	-	-	-	-
Endrin	0.05	0.05	-	-	-	<0.05	<0.05	-	<0.05	<0.05	-	-	-	-	<0.05	<0.05	-	-	-	-
Ethoprop	0.5	0.5	-	-	-	<0.5	<0.5	-	<0.5	<0.5	-	-	-	-	<0.5	na	-	-	-	-
Fenitrothion	0.5	0.5	-	-	-	<0.5	<0.5	-	<0.5	<0.5	-	-	-	-	<0.5	na	-	-	-	-
Fenthion	0.5	0.05	-	-	-	<0.5	<0.5	-	<0.5	<0.5	-	-	-	-	<0.5	<0.05	-	-	-	-
g-BHC (Lindane)	0.05	0.05	-	-	-	<0.05	<0.05	-	<0.05	<0.05	-	-	-	-	<0.05	<0.05	-	-	-	-
Heptachlor	0.05	0.05	-	-	-	<0.05	<0.05	-	<0.05	<0.05	-	-	-	-	<0.05	<0.05	-	-	-	-
Heptachlor epoxide	0.05	0.05	-	-	-	<0.05	<0.05	-	<0.05	<0.05	-	-	-	-	<0.05	<0.05	-	-	-	-
Hexachlorobenzene	0.05	0.05	-	-	-	<0.05	<0.05	-	<0.05	<0.05	-	-	-	-	<0.05	<0.05	-	-	-	-
Malathion	0.5	0.05	-	-	-	<0.5	<0.5	-	<0.5	<0.5	-	-	-	-	<0.5	<0.05	-	-	-	-
Methoxychlor	0.2	0.2	-	-	-	<0.2	<0.2	-	<0.2	<0.2	-	-	-	-	<0.2	<0.2	-	-	-	-
Methyl parathion	0.5	0.2	-	-	-	<1	<0.5	-	<0.5	<0.5	-	-	-	-	<0.5	<0.2	-	-	-	-
Mevinphos (Phosdrin)	0.5	0.5	-	-	-	<0.5	<0.5	-	<0.5	<0.5	-	-	-	-	<0.5	na	-	-	-	-
Monocrotophos	0.5	0.2	-	-	-	<0.5	<0.5	-	<0.5	<0.5	-	-	-	-	<0.5	<0.2	-	-	-	-
Parathion	0.5	0.2	-	-	-	<0.5	<0.5	-	<0.5	<0.5	-	-	-	-	<0.5	<0.2	-	-	-	-
Phorate	0.5	0.5	-	-	-	<0.5	<0.5	-	<0.5	<0.5	-	-	-	-	<0.5	na	-	-	-	-
Prothiofos	0.5	0.05	-	-	-	<0.5	<0.5	-	<0.5	<0.5	-	-	-	-	<0.5	<0.05	-	-	-	-
Ronnel	0.5	0.5	-	-	-	<0.5	<0.5	-	<0.5	<0.5	-	-	-	-	<0.5	na	-	-	-	-
Stirophos	0.5	0.5	-	-	-	<1	<0.5	-	<0.5	<0.5	-	-	-	-	<0.5	na	-	-	-	-
trans-chlordane	0.05	0.05	-	-	-	<0.05	<0.05	-	<0.05	<0.05	-	-	-	-	<0.05	<0.05	-	-	-	-
PCBs																				
Arochlor 1016	0.5	0.5	-	-	-	<0.5	<0.5	-	<0.5	<0.5	-	-	-	-	<0.5	na	-	-	-	-
Arochlor 1232	0.5	0.5	-	-	-	<0.5	<0.5	-	<0.5	<0.5	-	-	-	-	<0.5	na	-	-	-	-
Arochlor 1242	0.5	0.5	-	-	-	<0.5	<0.5	-	<0.5	<0.5	-	-	-	-	<0.5	na	-	-	-	-
Arochlor 1248	0.5	0.5	-	-	-	<0.5	<0.5	-	<0.5	<0.5	-	-	-	-	<0.5	na	-	-	-	-
PCB 1254	500	500	-	-	-	<500	<500	-	<500	<500	-	-	-	-	<500	na	-	-	-	-
PCB 1260	500	500	-	-	-	<500	<500	-	<500	<500	-	-	-	-	<500	na	-	-	-	-

Identifies where RPD results >50% where one or both values exceed ten times the EQL
or where RPD results >75% where one or both values fall between five and ten times the EQL
or where RPD results >100% where one or both values fall below five times the EQL

NB. Results of anomalous %RPDs are included in Annex F.

TABLE 8
Soil Exceedences of NEPM HIL 'D' and NSW EPA (1994) Guidelines (mg/kg)
Burroway Rd, Homebush Bay, NSW

Location				SB38	SB41	SB44	SB47	SB49	SB57	SB65	SB74	SB77
Depth (m)	EQL	NSW EPA 1994 Service Station Guidelines	NEPM 1999 HIL D	0.8	0.5	1.6	0.8	2.9	0.6	0.2	0.8	0.7
TPH C10 - C36 (Sum of total)		1000						850		1860		2270
Benzo(a) pyrene	0.5		4	11	8.5	5.1	8.6	11	8		8	
PAHs (Sum of total)			80	133.8	91.3		99.8	112	92.6		97.6	

 Shaded concentrations are greater than 250% of the relevant criteria

Source: ADI Limited



0 30m
Approximate only

Building
Grassed area
Landscaped area

Former Building Location
Fence

SB19 Exceedence at Existing Soil Sampling Location
SB53 Proposed Soil Sampling Location

Figure 2 Soil Sampling Locations

1 Burroway Road, Homebush Bay



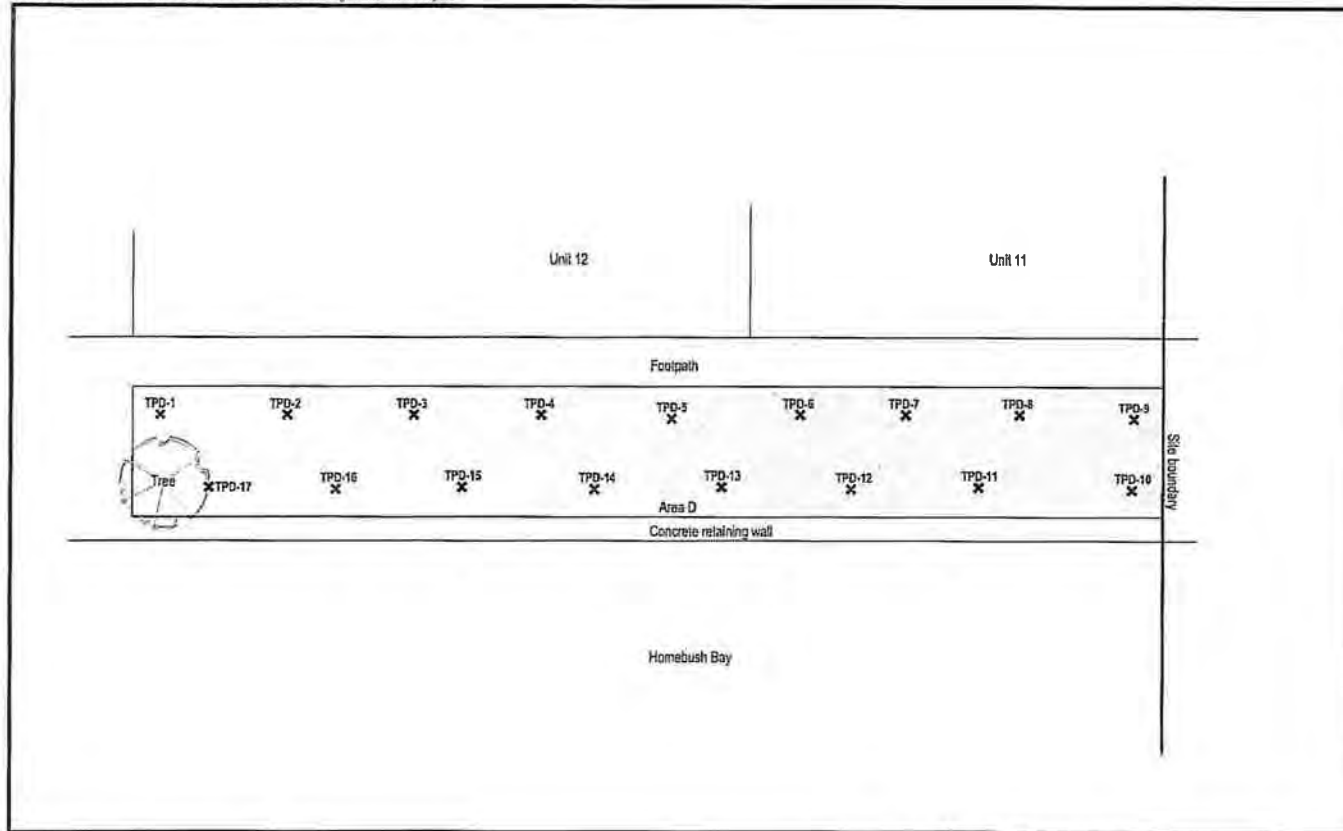
APPENDIX B

CMP FOR PROPOSED HOMEBUSH BAY BRIDGE CONSTRUCTION

Document Reference: ERM Tankpit validation and additional site investigation, 2003

Site / Report Reference: Western Shore / Appendix B - 7

Included Information: Figure of sample locations; Results tables



0 10m
Approximate only

- x TPD Sampling Locations
- x TPD Analysed Sampling Locations

Figure 5 Area D Sample Locations

UST Removal and Site Investigation,
1 Bennelong Road, Homebush Bay

Annex C

Summary Tables - Site
Investigation.

TABLE 1
Inorganics in Soils (mg/kg)
Site Investigation of 'Area A' and 'D' - 1 Bennelong Road, HOMEBUSH BAY, NSW

Sample ID	Depth (m)	Sampling Date	PID	Arsenic	Cadmium	Chromium	Copper	Nickel	Lead	Zinc	Mercury
EOL				1	1	1	1	1	1	1	0.1
Assessment Criteria				400	80	400	4000	2400	1200	28000	60
NEPM (1999) 'D' HIL											
Area D											
TPD-1	0.2	31-Mar-03	1.6	3	<0.1	6	5	2	6	20	<0.05
TPD-5	0.2	31-Mar-03	0	56	0.2	91	74	10	60	320	0.1
TPD-9	1.1	31-Mar-03	1.6	6	<0.1	3	4	1	11	14	<0.05
TPD-12	1.1	31-Mar-03	1.6	10	<0.1	2	2	<1	8	12	0.06
TPD-14	0.2	31-Mar-03	0	80	0.3	130	110	11	64	510	0.15
TPD-16	1	31-Mar-03	1.6	5	<0.1	2	<2	<1	44	7	<0.05
Area A											
TPA-1	0.1	31-Mar-03	10	4	0.1	9	16	7	97	97	0.17
TPA-1	1	31-Mar-03	6	23	0.1	26	24	4	61	60	0.37
TPA-2	0.3	31-Mar-03	10	6	<0.1	10	20	4	52	59	0.08
TPA-2	1	31-Mar-03	6	23	<0.1	37	38	8	19	51	<0.05
TPA-3	0.2	31-Mar-03	2	86	0.2	120	110	46	49	250	0.1
TPA-3	1.4	31-Mar-03	9.4	26	0.4	36	25	7	66	110	0.36
TPA-4	0.3	31-Mar-03	3	7	0.1	12	43	6	69	74	0.17
TPA-4	1	31-Mar-03	8	24	0.2	26	24	6	69	75	0.37
TPA-5	0.3	31-Mar-03	3	27	0.4	71	92	110	54	370	0.27
TPA-5	0.6	31-Mar-03	3	5	<0.1	14	12	4	27	45	<0.05
TPA-6	0.2	31-Mar-03	3.2	71	0.2	110	88	40	33	140	0.16
TPA-6	1.1	31-Mar-03	5.2	18	<0.1	8	15	3	26	38	0.18

TABLE 2
BTEX (benzene, toluene, ethyl benzene and xylene) & Total Petroleum Hydrocarbons (TPH) in Soil (mg/kg)
Site Investigation of 'Area D' - 1 Bennelong Road, HOMEBUSH BAY, NSW

Sample ID	Depth (m)	Sampling Date	PID	Benzene	Toluene	Ethylbenzene	Xylene (total)	TPH (C ₆ -C ₉)	TPH (C ₁₀ -C ₁₄)	TPH (C ₁₅ -C ₂₈)	TPH (C ₂₉ -C ₃₆)	TPH (Total C ₁₀ -C ₃₆)
EQ				0.2	0.2	0.2	0.4	2	50	100	100	NA
Assessment Criteria NSW EPA (1994)				1	1.4	3.1	14	65	ns	ns	ns	1000
Area D												
TPD-1	1	31/3/03	1.6	<0.2	<0.5	<0.5	<1.5	<10	<50	<100	<100	-
TPD-5A	1.3	31/3/03	1.6	<0.2	<0.5	<0.5	<1.5	<10	<50	<100	<100	-
TPD-9	1.1	31/3/03	1.6	<0.2	<0.5	<0.5	<1.5	<10	<50	<100	<100	-
TPD-12	1.1	31/3/03	1.6	<0.2	<0.5	<0.5	<1.5	<10	<50	<100	<100	-
TPD-14	1.1	31/3/03	1.8	<0.2	<0.5	<0.5	<1.5	<10	<50	<100	<100	-
TPD-16	1	31/3/03	1.6	<0.2	<0.5	<0.5	<1.5	<10	<50	<100	<100	-

TABLE 3
Phenols in Soil (mg/kg)
Site Investigation of 'Area D' - 1 Bennelong Road, HOMEBUSH BAY, NSW

Sample ID	Depth (m)	Sampling Date	Phenol	2-chlorophenol	2-methylphenol	4-methylphenol	2-nitrophenol	2,4-dimethylphenol	2,4-dichlorophenol	4-chloro-3-methylphenol	2,4,6-trichlorophenol	2,4,5-trichlorophenol	Pentachlorophenol	Sum of reported phenols
EQL			0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1	-
Assessment Criteria														
NEPM (1999) - 'D' SIL			34000	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	-
Area D														
TPD-1	1	31/3/03	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	-
TPD-5A	1.3	31/3/03	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	-
TPD-9	1.1	31/3/03	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	-
TPD-12	1.1	31/3/03	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	-
TPD-14	1.1	31/3/03	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	-
TPD-16	1	31/3/03	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	-



APPENDIX B

CMP FOR PROPOSED HOMEBUSH BAY BRIDGE CONSTRUCTION

Document Reference: PB Technical Paper 10, 2002

Site / Report Reference: Homebush Bay / Appendix B - 8

Included Information: Figure of Homebush Bay bathymetry

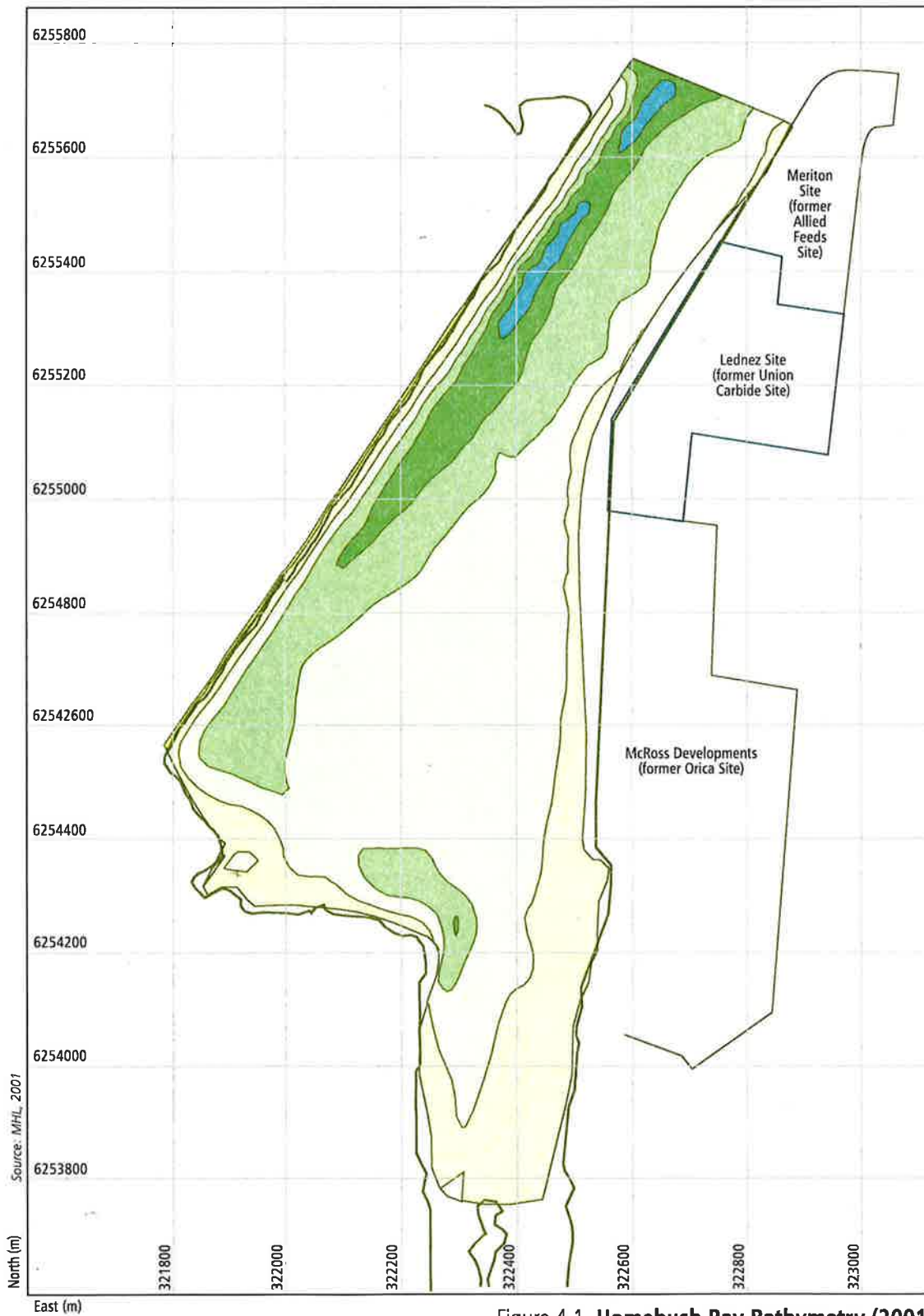
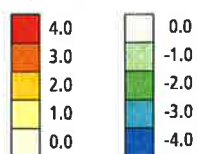


Figure 4.1 Homebush Bay Bathymetry (2001)

Depth (m) - Datum : Indian Spring Low Water (ISLW)





APPENDIX B

CMP FOR PROPOSED HOMEBUSH BAY BRIDGE CONSTRUCTION

Document Reference: PB Technical Paper 3, 2002

Site / Report Reference: Homebush Bay / Appendix B - 9

Included Information: Figure of changes in bathymetry from 1978 - 2001

EXTENT OF CONTAMINATION IN HOMEBUSH BAY

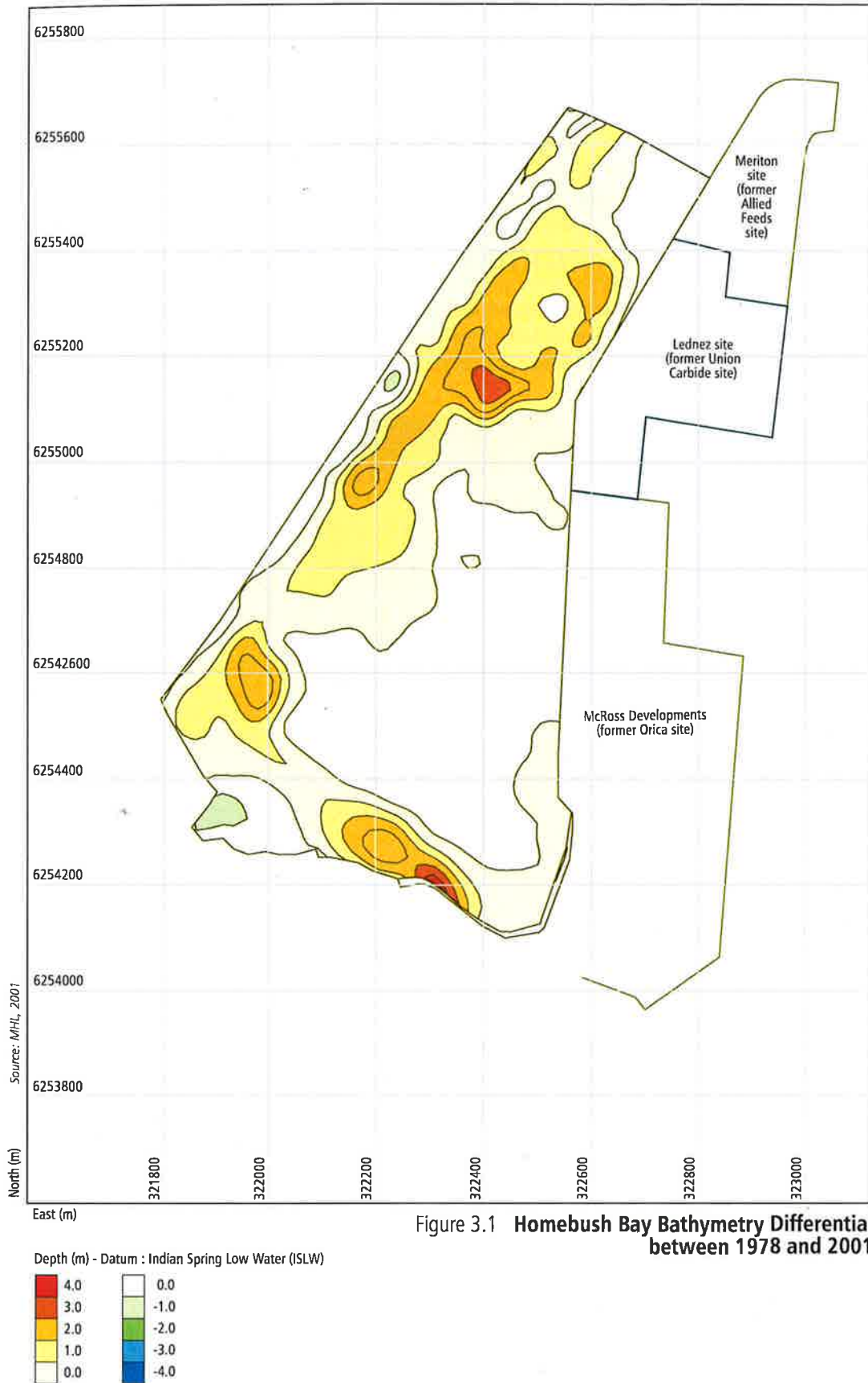


Figure 3.1 Homebush Bay Bathymetry Differential between 1978 and 2001



APPENDIX B

CMP FOR PROPOSED HOMEBUSH BAY BRIDGE CONSTRUCTION

Document Reference: PB Main EIS Report, 2002

Site / Report Reference: Homebush Bay / Appendix B - 10

Included Information: Water quality sample locations and results

8.3 Surface Water

8.3.1 Site Hydrology and Drainage Patterns

Previous remediation work on the Lednez site has resulted in the current landform. As shown in **Figure 8.5**, significant features include:

- an L-shaped basin considerably lower than its immediate surrounds at a level of less than one metre Australian Height Datum is located in the central portion of the site and drains to an outlet structure at the south-west end
- a mound rising to a level higher than nine metres Australian Height Datum located to the north of the L-shaped basin.

As part of the earlier remediation work, the Lednez site surface was rehabilitated and stabilised. Poor vegetation cover currently exists over much of the Lednez site, except for the lower south-west portion of the L-shaped basin, which is frequently under water. The area acts as a sediment basin, ensuring that surface water sediments are trapped before water is discharged into Homebush Bay.

Natural drainage from the Lednez site and immediate surrounds is generally from Walker Street in the east, which is located along a ridgeline, to Homebush Bay in the west (see **Figure 8.5**). Ground levels at Walker Street are of the order of 14 metres Australian Height Datum falling over a distance of approximately 320 metres to about three metres Australian Height Datum at the seawall.

About 5.8 hectares of the Lednez site, extending back up to Walker Street, drains into the L-shaped basin. Discharge from the basin is via an outlet structure into the bay. The remainder of the site drains directly to the bay.

Walker Street runs parallel to the railway line and is located approximately 25 metres to the west of the line. The strip of land between the street and the railway falls westwards to the street. Due to the longitudinal gradient of the street, which crests at the Lednez site, any run-off from this area is directed north and south along the street away from the Lednez site. Run-off from this area would have no impact on the site.

The land to the east of the railway line falls towards the east. Run-off from this area has no impact on the Lednez site.

8.3.2 Surface Water Quality

In 1997, AGC Woodward-Clyde undertook an environmental investigation in relation to the former Orica site to assess the potential environmental impacts of remediation of that site.

That project included limited monitoring of surface water quality at Homebush Bay to determine whether the quality of the discharge from the Orica site complied with EPA pollution control limits. Monitoring was conducted from December 1994 to 1997.

Results showed that concentrations of oil and grease (between less than two milligrams per litre and five milligrams per litre) and non-filterable residue (between less than two milligrams per litre and 17 milligrams per litre) were below the EPA licence limits of 10 milligrams per litre for oil and grease and 50 milligrams per litre for non-filterable residue.

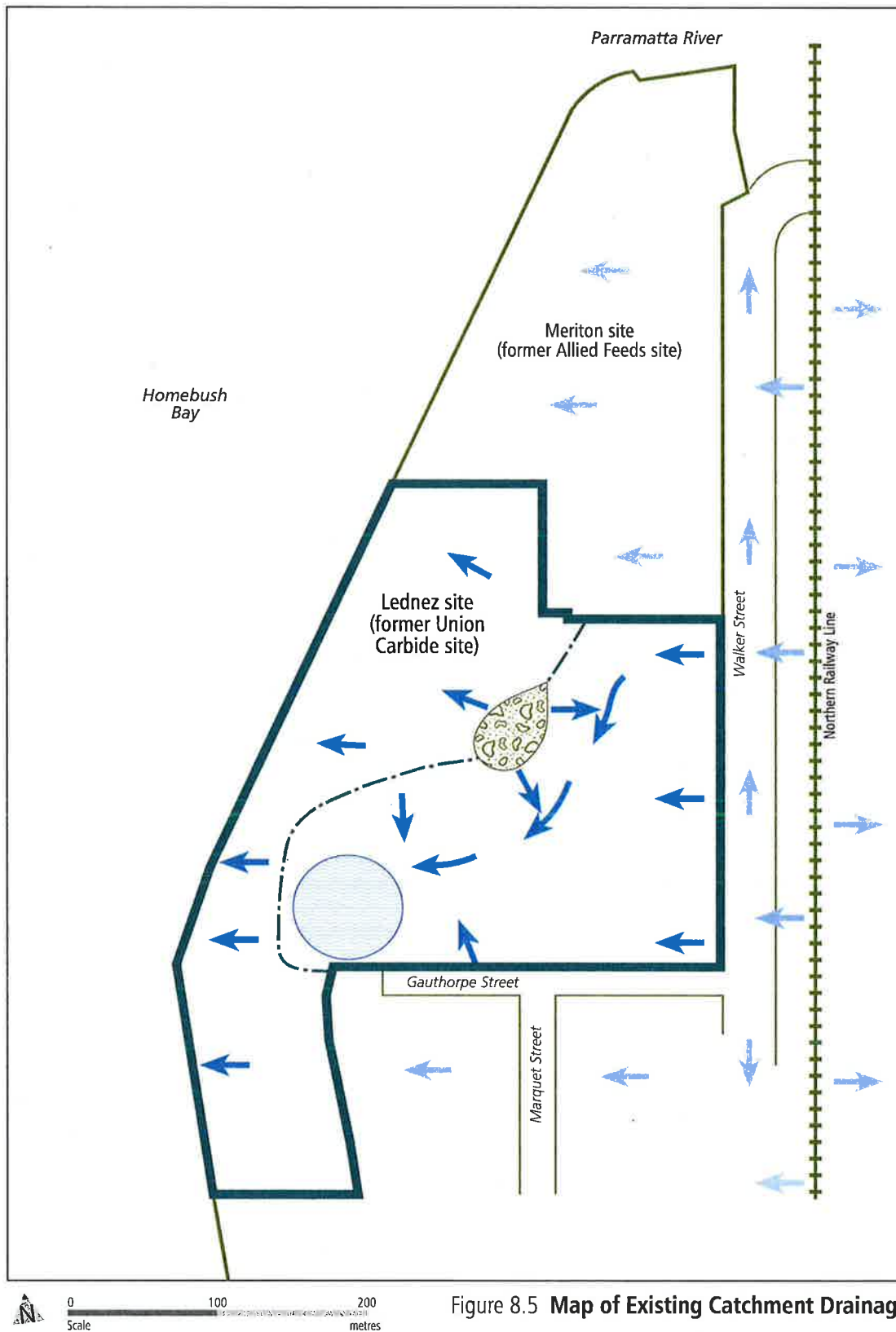


Figure 8.5 Map of Existing Catchment Drainage

-  Lednez site boundary
-  Existing mound at greater than nine metres above Australian Height Datum
-  Existing low spot used as sediment basin at less than one metre above Australian Height Datum

-  Clean water off-site
-  Dirty water on-site
-  Ridge line which acts to divide surface water flow

Water Quality Sampling, 2002

As part of this EIS, a surface water study was undertaken by PB for the purpose of providing a snapshot of water quality conditions at Homebush Bay. The study took place during February and March 2002 and included both wet weather and dry weather sampling events with analysis for a range of nutrients, metals and organic compounds, including dioxins.

Surface water sampling during wet weather conditions was undertaken on 8 February 2002. Due to breakage of sampling bottles during transit, all three sites were re-sampled for dioxin analysis on 13 March 2002. Dry weather sampling was undertaken on 27 March 2002. On both occasions, surface water samples were collected from three locations along the shore of the Lednez site, to provide an indication of bay water quality variability. Sampling locations are shown in **Figure 8.6**. The results of field tests and laboratory analysis are presented in **Table 8.2**, **Table 8.3** and **Table 8.4**.

As can be seen from **Tables 8.2, 8.3** and **8.4**, with a few notable exceptions the sample analyses are generally consistent with the values set out in the *Australian and New Zealand Guidelines for Fresh and Marine Water Quality* (ANZECC, 2000), although comparative guidelines were not available for all analytes. Those values that exceeded the trigger value limits are considered consistent with past industrial activity carried out at the site.

The following summarises the Homebush Bay water quality results:

- total nitrogen and phosphorus exceeded the adopted water quality criteria in all samples
- endrin exceeded the adopted water quality criterion for sample WQ2W (wet weather)
- lead and zinc exceeded the adopted water quality criterion for all samples
- copper exceeded the adopted criterion for all wet weather samples and for WQ2D (dry weather)
- mercury exceeded the adopted water quality criteria for all dry weather samples
- dioxin and furan results are elevated and exceed the only available guideline value (Canadian Water Quality Guidelines, CCME, 1999, 2001) for all samples, with particularly high results for WQ2 under both wet and dry conditions.

In summary, water quality in Homebush Bay adjacent to the Lednez site is generally fair, but poor in terms of dioxin concentrations. The water is also elevated in terms of nutrients, metals and some organic compounds. Overall, the results of wet weather sampling indicate slightly lower chemical concentrations than those from dry weather sampling.

Water quality results for sampling point WQ2 show markedly higher concentration of most contaminants than at other locations under both wet and dry conditions.

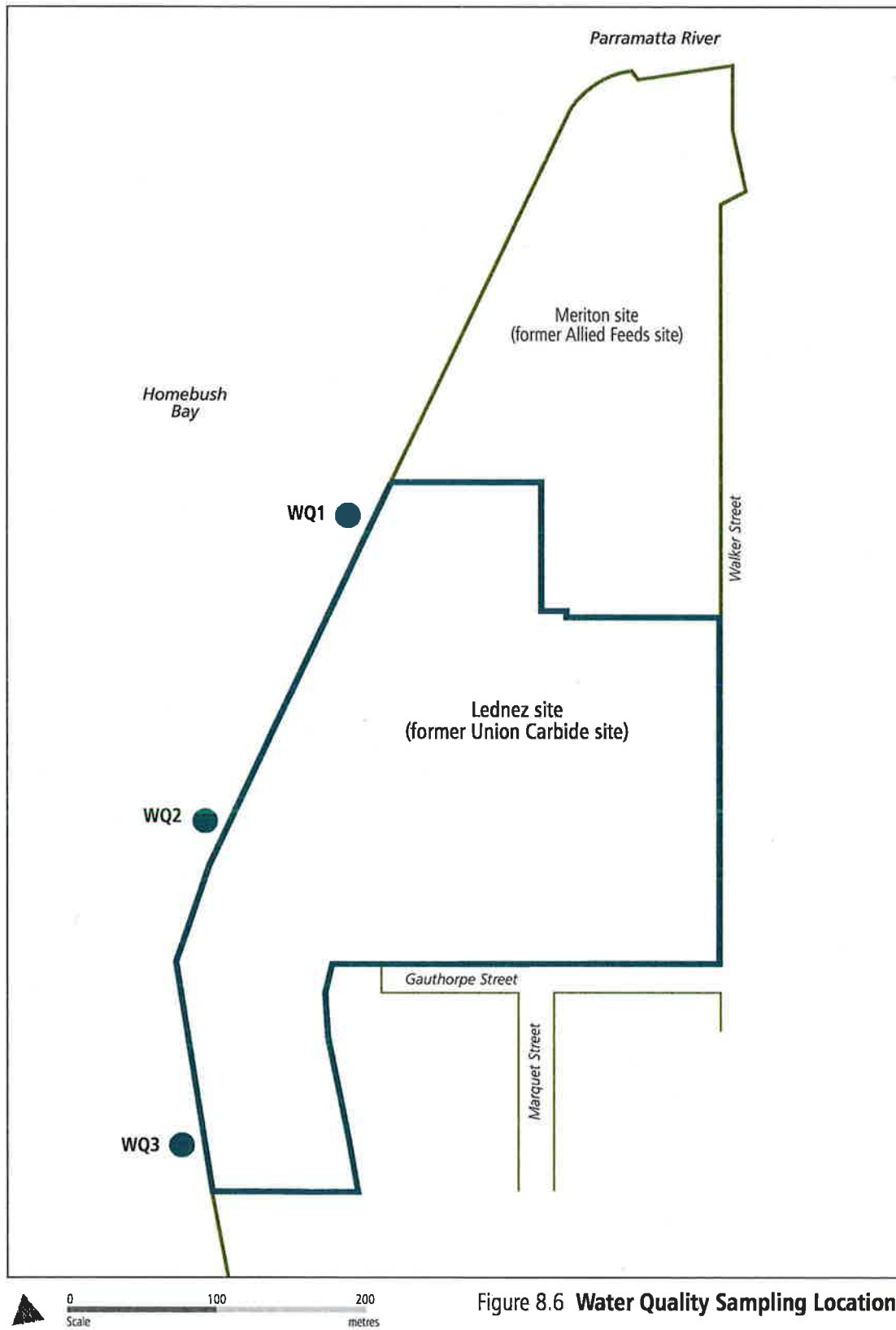


Table 8.2 Wet Weather Results

Analyte	Units	PQL	Samples from Homebush Bay			ANZECC 2000 Water quality criteria
			WQ1	WQ2	WQ3	
Turbidity	NTU	0.1	23	68	26	NA
Suspended solids	mg/l	1	18	130	21	NA
Total nitrogen	mg/l	0.1	2	2	2	0.3 ¹
Nitrate as N	mg/l	0.01	0.83	0.73	0.79	0.015 ¹
Nitrite as N	mg/l	0.01	0.06	0.06	0.06	NA
TKN	mg/l	0.1	1.2	1.2	1.2	NA
Total phosphorus	mg/l	0.01	0.16	0.28	0.17	0.03 ¹
Ammonia as Nitrogen	mg/l	0.1	0.31	0.35	0.34	0.91 ²
TPH	µg/L	20	ND	ND	ND	NA
Benzene	µg/L	0.5	1.2	ND	ND	500
Toluene	µg/L	1	ND	ND	ND	NA
Ethylbenzene	µg/L	1	ND	ND	ND	NA
Xylenes	µg/L	2	ND	ND	ND	NA
Naphthalene	µg/L	0.1	ND	ND	ND	50 ²
Total PAHs	µg/L	0.1	ND	ND	ND	NA
Dieldrin	µg/L	0.01	0.02	0.02	ND	NA
Endrin	µg/L	0.01	ND	0.02	ND	0.004 ²
DDE	µg/L	0.01	ND	0.03	ND	NA
DDD	µg/L	0.01	0.12	0.44	ND	NA
DDT	µg/L	0.01	0.02	0.05	ND	NA
Phenol	µg/L	5	ND	ND	ND	400 ²
2-Chlorophenol	µg/L	5	ND	ND	ND	NA
Other phenolic compounds	µg/L	5	ND	ND	ND	NA
HCB	µg/L	0.01	ND	ND	ND	NA
Other OC/OP pesticides	µg/L	10	ND	ND	ND	NA
Lead	µg/L	20	9	24	12	4.4 ²
Zinc	µg/L	10	70	80	40	15 ²
Nickel	µg/L	5	8	7	6	7 ²
Cadmium	µg/L	0.5	ND	ND	ND	0.7 ²
Copper	µg/L	5	12	16	9	1.3 ²

Table 8.2 Continuation

Analyte	Units	PQL	Samples from Homebush Bay			ANZECC 2000 Water quality criteria
			WQ1	WQ2	WQ3	
Arsenic	µg/L	2	7	7	7	NA
Mercury	µg/L	0.05	0.07	0	0	0.1 ²
Chlorobenzene	µg/L	1	3	ND	ND	NA
Other chlorobenzene compounds	µg/L	1	0	ND	ND	NA

Notes: 1. ANZECC, 2000. Default Trigger Values – Environmental Stressors, Estuaries
 2. ANZECC, 2000. Default Trigger Values – Toxicants, Marine Waters
 3. µg/L is micrograms per litre
 4. mg/L is milligrams per litre
 5. NTU –nominal turbidity units
 Shaded values exceed the adopted criteria
 PQL Practical quantification limit; ND: not detected; NA: none available

Table 8.3 Dry Weather Results

Analyte	Units	PQL	Samples from Homebush Bay			ANZECC 2000 Water Quality Criteria
			WQ1	WQ2	WQ3	
Turbidity	NTU	0.1	80	180	130	NA
Suspended solids	mg/l	1	340	750	570	NA
Total nitrogen	mg/l	0.1	1.2	5.2	1.2	0.3 ¹
Nitrate as N	mg/l	0.01	0.01	0.01	0.01	0.015 ¹
Nitrite as N	mg/l	0.01	ND	ND	ND	NA
TKN	mg/l	0.1	1.2	5.2	1.2	NA
Total Phosphorus	mg/l	0.01	0.39	4	0.71	0.03 ¹
Ammonia as N	mg/l	0.1	0.15	0.53	0.1	0.91 ²
TPH	µg/L	20	40	ND	ND	NA
Benzene	µg/L	0.5	27	ND	ND	500 ²
Toluene	µg/L	1	ND	ND	ND	NA
Ethylbenzene	µg/L	1	ND	ND	ND	NA
Xylenes	µg/L	2	ND	ND	ND	NA
Naphthalene	µg/L	0.1	2.4	0.4	ND	50 ²
Total PAHs	µg/L	0.1	5.2	14	3.2	NA
Dieldrin	µg/L	0.01	* <0.1	* <0.1	* <0.1	NA
Endrin	µg/L	0.01	* <0.1	* <0.1	* <0.1	0.004 ²
DDE	µg/L	0.01	0.24	0.74	* <0.1	NA
DDD	µg/L	0.01	5.6	8.6	0.22	NA

Table 8.3 Continuation

Analyte	Units	PQL	Samples from Homebush Bay			ANZECC 2000 Water quality criteria
			WQ1	WQ2	WQ3	
DDT	µg/L	0.01	1.2	0.49	* < 0.1	NA
Phenol	µg/L	5	ND	ND	ND	400 ²
2-Chlorophenol	µg/L	5	ND	ND	ND	NA
Other phenolic compounds	µg/L	5	ND	ND	ND	NA
HCB	µg/L	10	470	620	* < 0.1	NA
Other OC/OP pesticides	µg/L	10	ND	ND	ND	NA
Lead	µg/L	20	101	299	164	4.4 ²
Zinc	µg/L	10	150	580	270	15 ²
Nickel	µg/L	5	* < 100	* < 100	* < 100	7 ²
Cadmium	µg/L	0.5	* < 100	* < 100	* < 100	0.7 ²
Copper	µg/L	5	* < 100	128	* < 100	1.3 ²
Arsenic	µg/L	2	* < 100	* < 100	* < 100	NA
Mercury	µg/L	0.05	0.26	0.48	0.26	0.1 ²
Chlorobenzene	µg/L	1	50	2	ND	NA
Other chlorobenzene compounds	µg/L	1	76	2	ND	NA

Notes: 1. ANZECC, 2000. Default Trigger Values – Environmental Stressors, Estuaries

2. ANZECC, 2000. Default Trigger Values – Toxicants, Marine Waters

3. µg/L is micrograms per litre

4. mg/L is milligrams per litre

5. NTU –nominal turbidity units

Shaded values exceed the adopted criteria

PQL Practical Quantification Limit; ND: not detected; NA: none available

* PQL raised due to matrix interference

Table 8.4 Dioxin Results

Analyte	Units	Wet weather results			Dry weather results			Water quality criteria
		WQ1	WQ2	WQ3	WQ1	WQ2	WQ3	
2378 TCDF	pg/L	7.9	130	14	44	8.0	5.2	NA
Total TCDF	pg/L	660	5,200	560	1,200	140	180	NA
2,3,7,8-TCDD	pg/L	320	6,100	330	1,200	220	140	NA
Total TCDD	pg/L	1,300	10,000	940	2,200	530	290	NA
Total PeCDF	pg/L	760	5,500	1200	2,700	420	180	NA
Total PeCDD	pg/L	780	6,500	1000	2,200	410	230	NA
Total HxCDF	pg/L	1,300	15,000	2400	4,800	880	590	NA
Total HxCDD	pg/L	1,900	40,000	2500	11,000	2,500	1,700	NA
Total HpCDF	pg/L	3,400	53,000	5000	13,000	2,600	1,900	NA
Total HpCDD	pg/L	17,000	360,000	22000	110,000	25,000	18,000	NA
OCDF	pg/L	5,600	60,000	7800	17,000	3,500	2,300	NA
OCDD	pg/L	130,000	2,000,000	160000	670,000	170,000	120,000	NA
Total dioxins and furans	pg/L	163,000	2,560,000	203,000	834,000	206,000	145,000	NA
Total toxic equivalence	pg/L	690	12,100	815	3,080	652	445	101

- Notes:
1. Canadian Water Quality Guidelines
 2. NA – no available
 3. pg/L is picograms per litre. The ANZECC 2000 guidelines do not provide a guideline value for dioxins. The only guideline value available is 0.01 nanograms per litre (or 10 picograms per litre) of 2,3,7,8-TCDD toxicity equivalents from the Canadian Water Quality Guidelines for the Protection of Aquatic Life (CCME, 1999, 2001).



APPENDIX B

CMP FOR PROPOSED HOMEBUSH BAY BRIDGE CONSTRUCTION

Document Reference: PB Technical Paper 3, 2002

Site / Report Reference: Homebush Bay / Appendix B - 11

Included Information: Parametric Inc. and AWT Ensign results

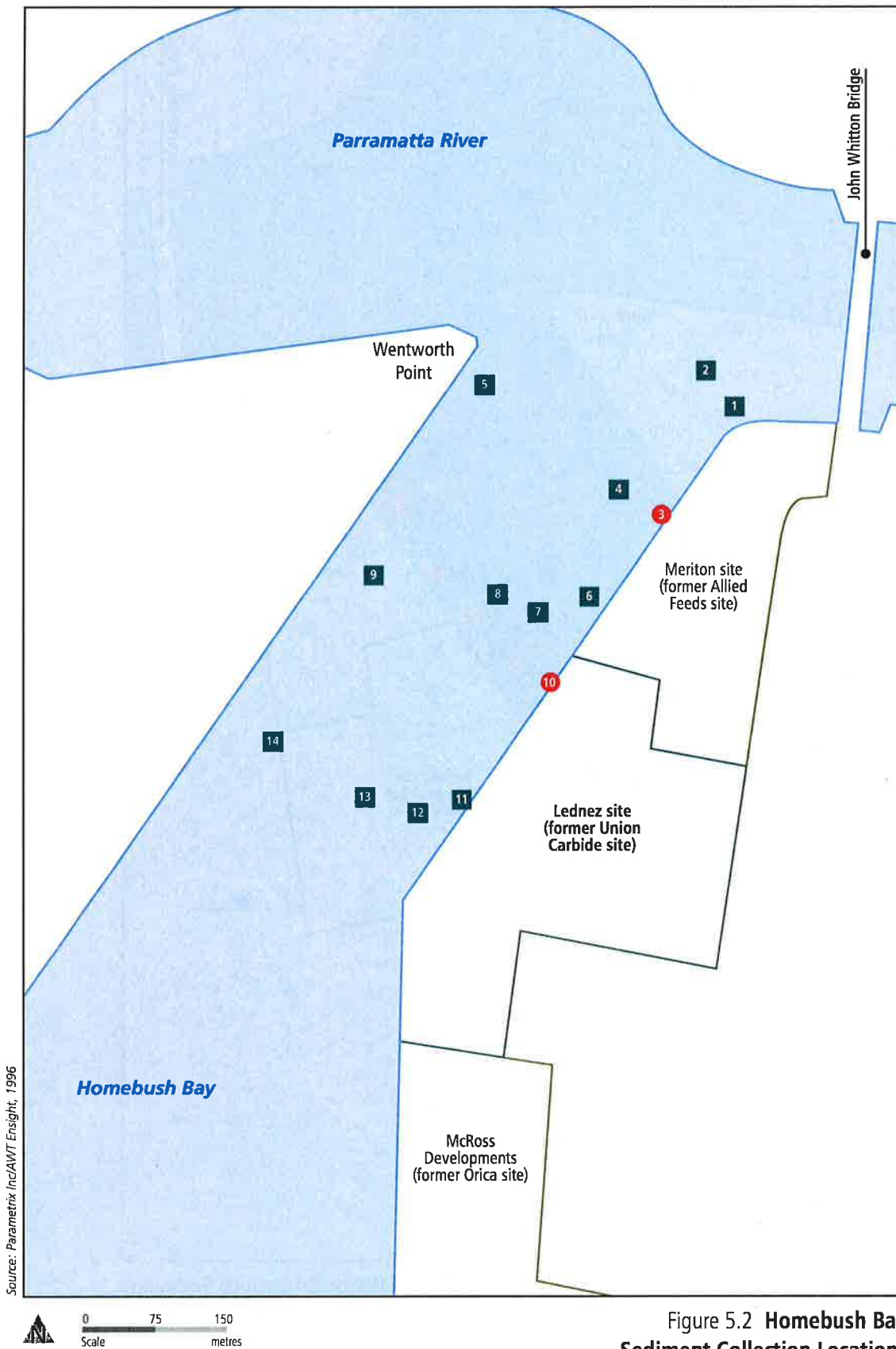
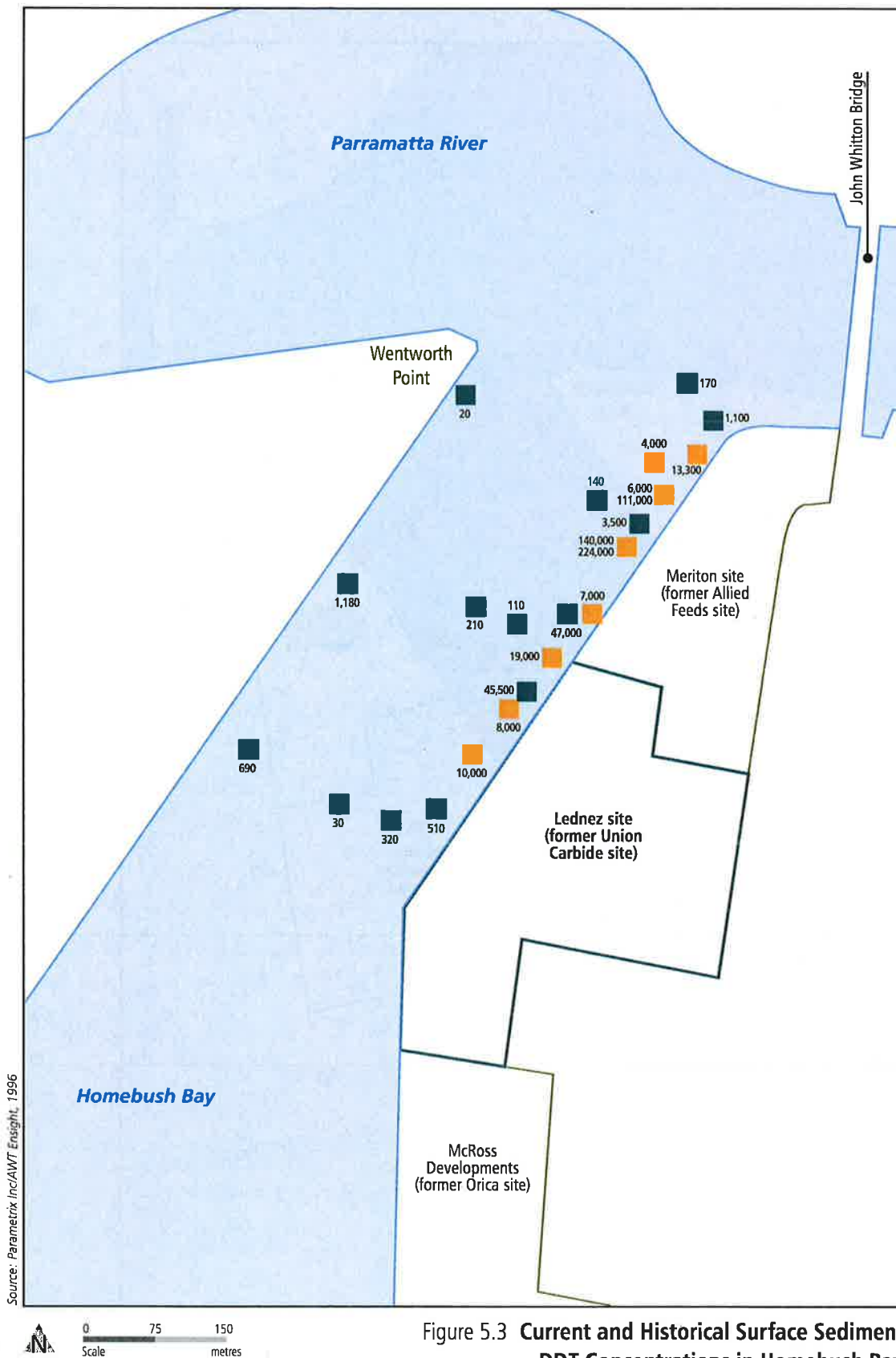


Figure 5.2 Homebush Bay
Sediment Collection Locations

Note: Numbers represent sampling locations (station) numbers.

- 1 Core samples
- 1 Surface samples



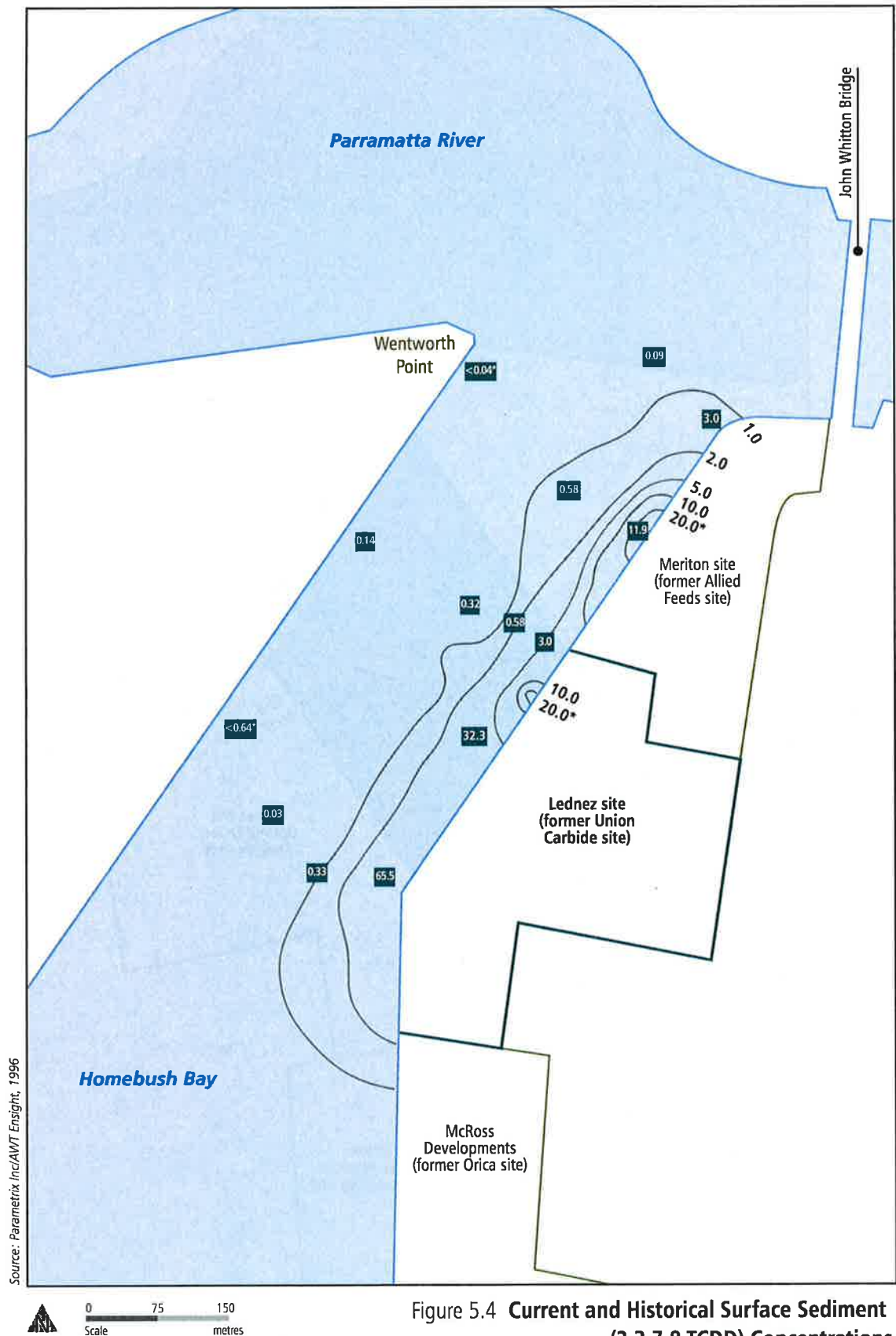


Figure 5.4 Current and Historical Surface Sediment (2,3,7,8-TCDD) Concentrations

0.33 Parametrix screening level risk assessment sample location

0.33 Current 2, 3, 7, 8-TCDD concentrations

— Previous 2, 3, 7, 8-TCDD concentration contours

Notes: * Represents 0.5 of analytical detection limit.
Concentrations in µg/kg dry weight.

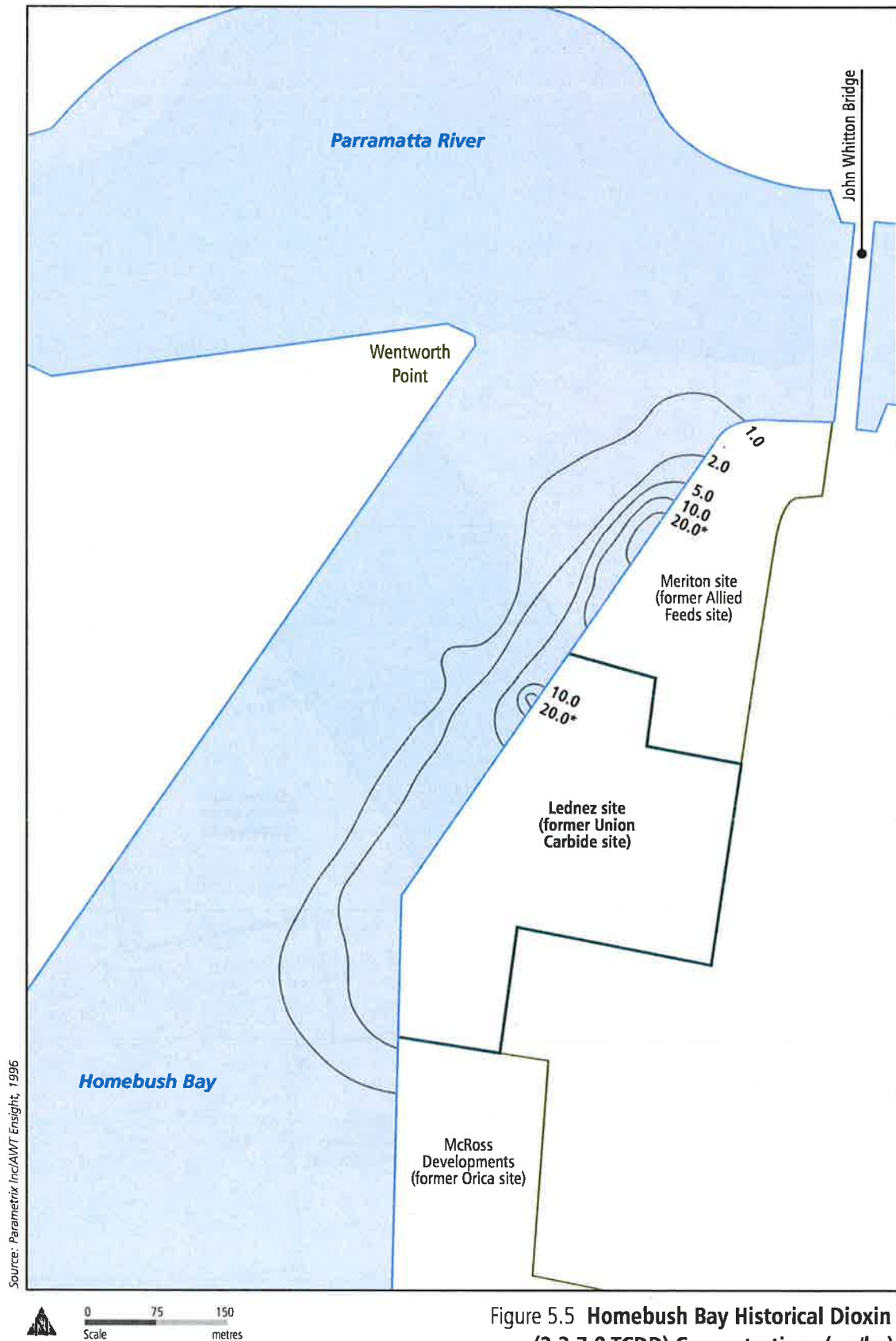


Figure 5.5 Homebush Bay Historical Dioxin
(2,3,7,8-TCDD) Concentrations ($\mu\text{g/kg}$)
Depth: 0 - 75mm

— Historical 2, 3, 7, 8-TCDD concentration contours

Notes: * Represents 0.5 of analytical detection limit.
Concentrations in $\mu\text{g/kg}$ dry weight.

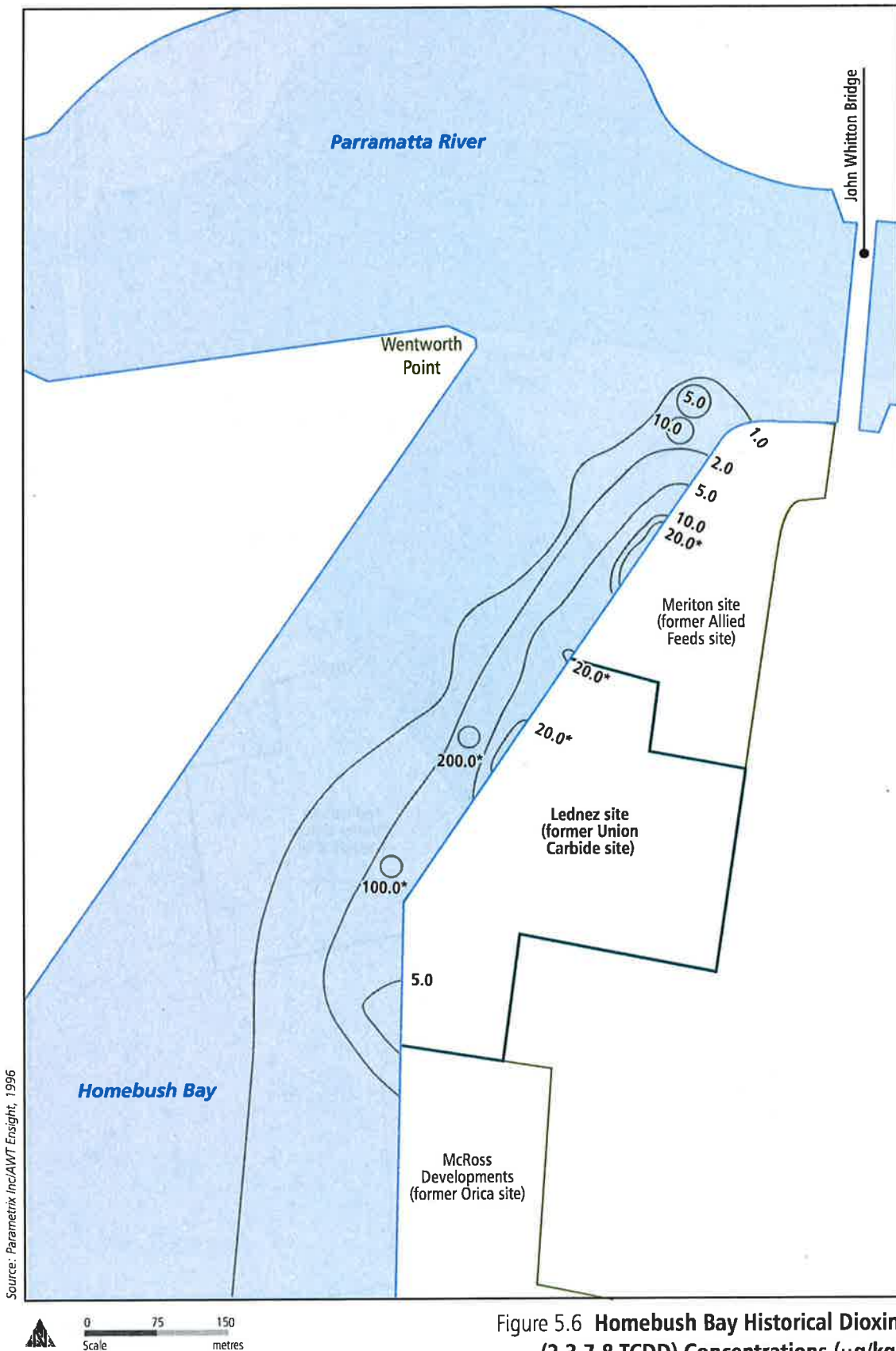
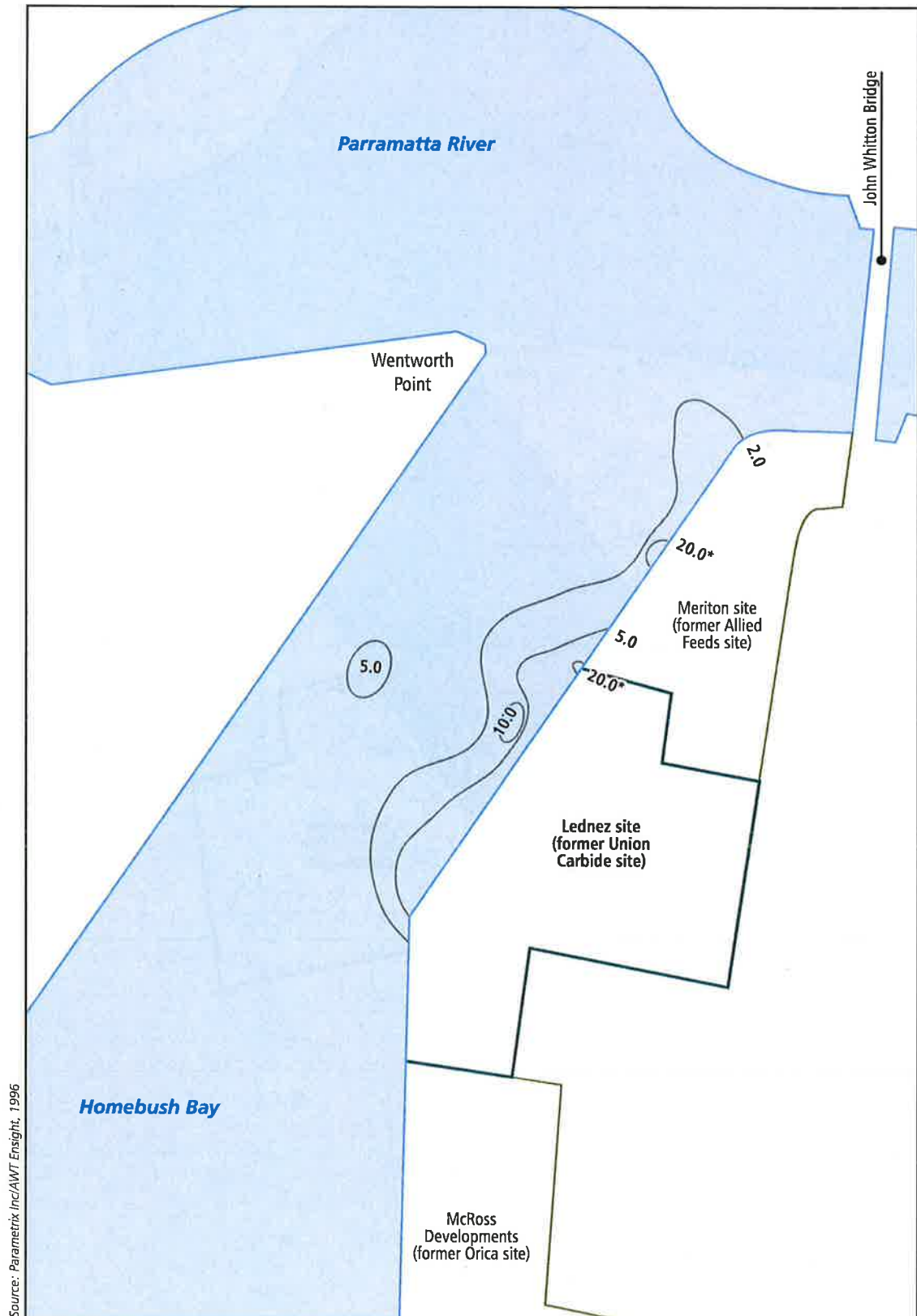


Figure 5.6 **Homebush Bay Historical Dioxin (2,3,7,8-TCDD) Concentrations ($\mu\text{g/kg}$)**
Depth: 100 - 350mm

— Historical 2, 3, 7, 8-TCDD concentration contours

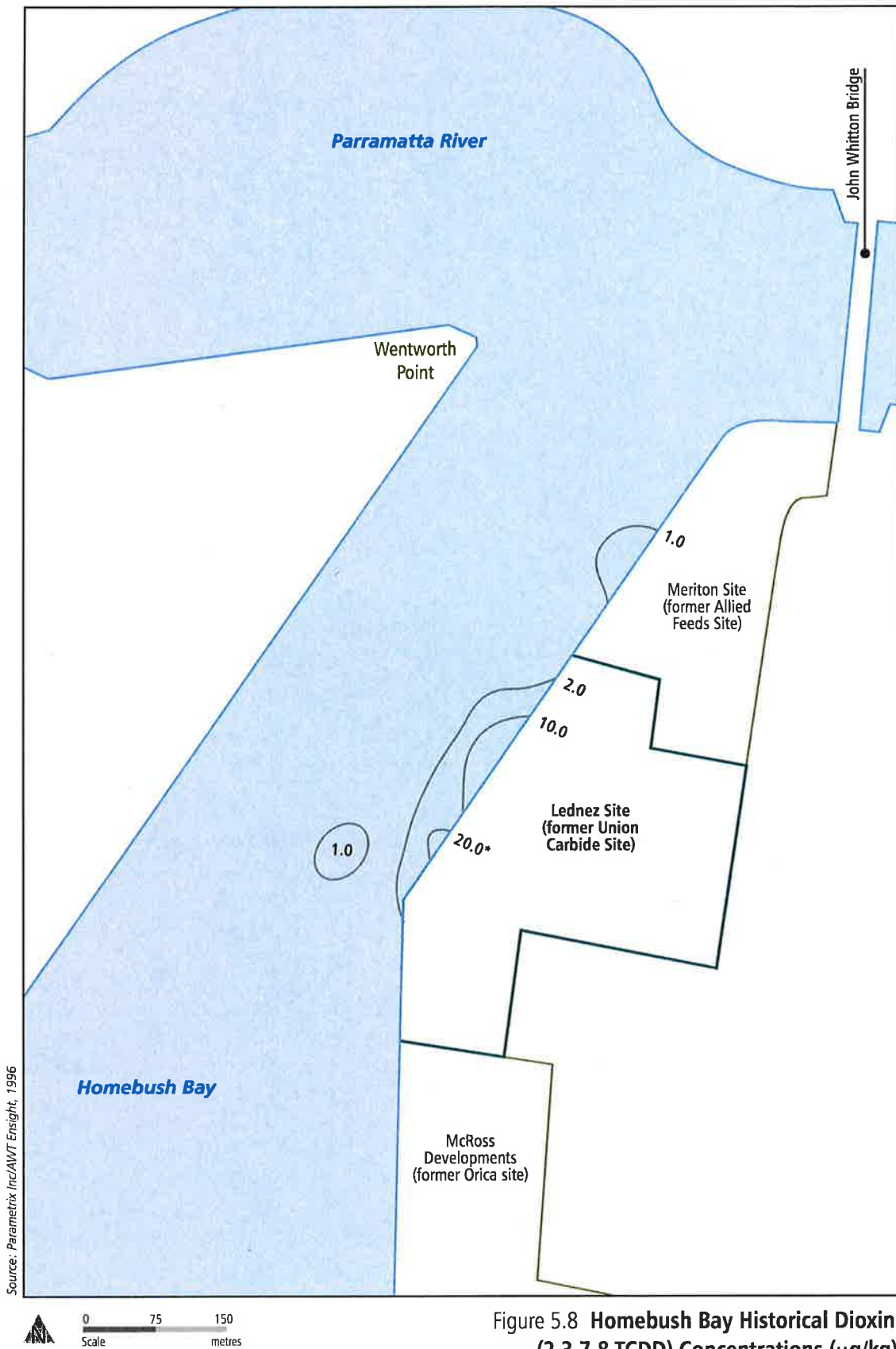
Notes: * Represents 0.5 of analytical detection limit.
Concentrations in $\mu\text{g/kg}$ dry weight.



— Historical 2, 3, 7, 8-TCDD concentration contours

Figure 5.7 **Homebush Bay Historical Dioxin (2,3,7,8-TCDD) Concentrations ($\mu\text{g}/\text{kg}$)**
Depth: 400 - 700mm

Notes: * Represents 0.5 of analytical detection limit.
Concentrations in $\mu\text{g}/\text{kg}$ dry weight.



**Figure 5.8 Homebush Bay Historical Dioxin
(2,3,7,8-TCDD) Concentrations ($\mu\text{g/kg}$)
Depth: 700+ mm**

— Historical 2, 3, 7, 8-TCDD concentration contours

Notes: * Represents 0.5 of analytical detection limit.
Concentrations in $\mu\text{g/kg}$ dry weight.



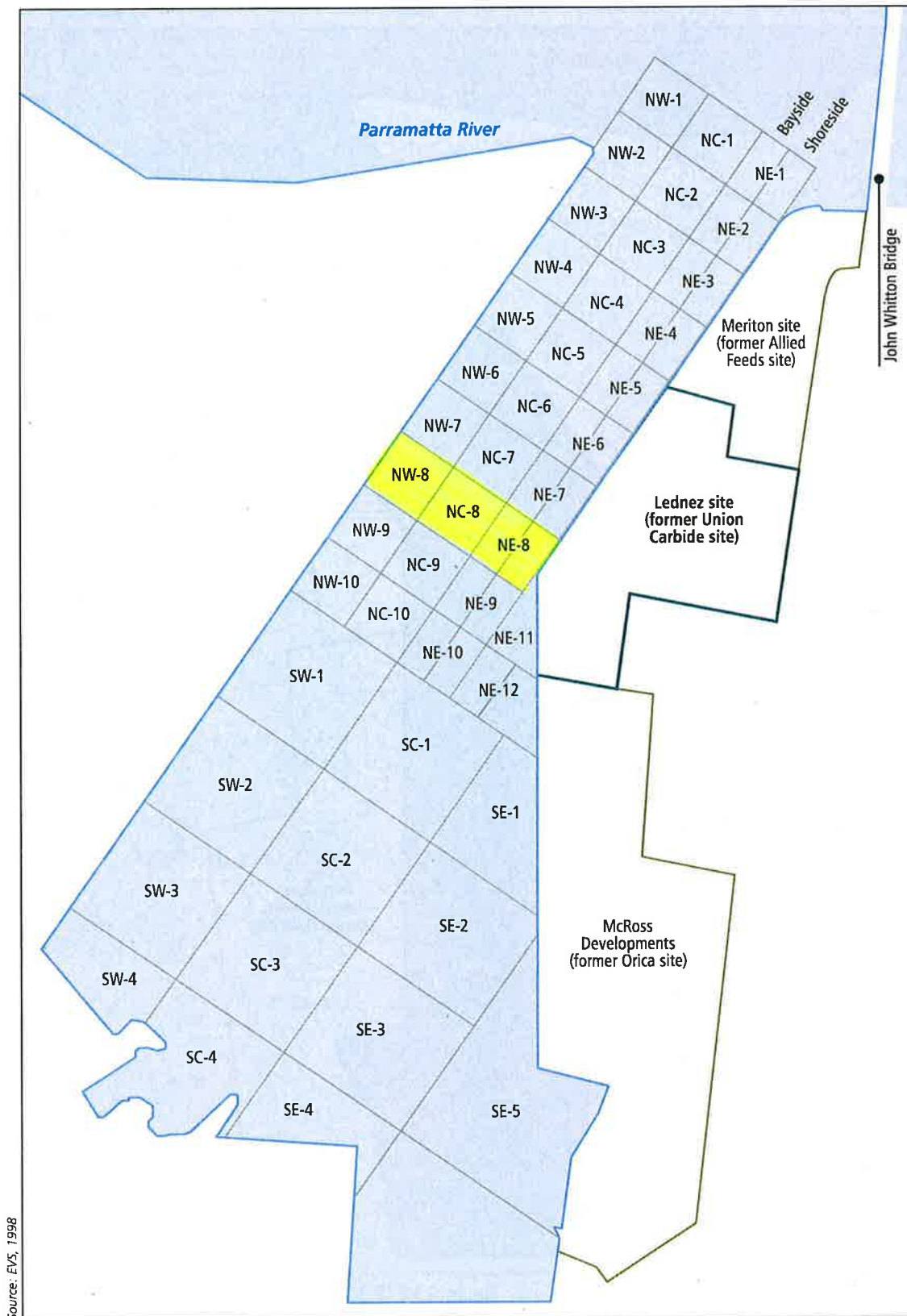
APPENDIX B

CMP FOR PROPOSED HOMEBUSH BAY BRIDGE CONSTRUCTION

Document Reference: PB Technical Paper 3, 2002

Site / Report Reference: Homebush Bay / Appendix B - 12

Included Information: EVS results

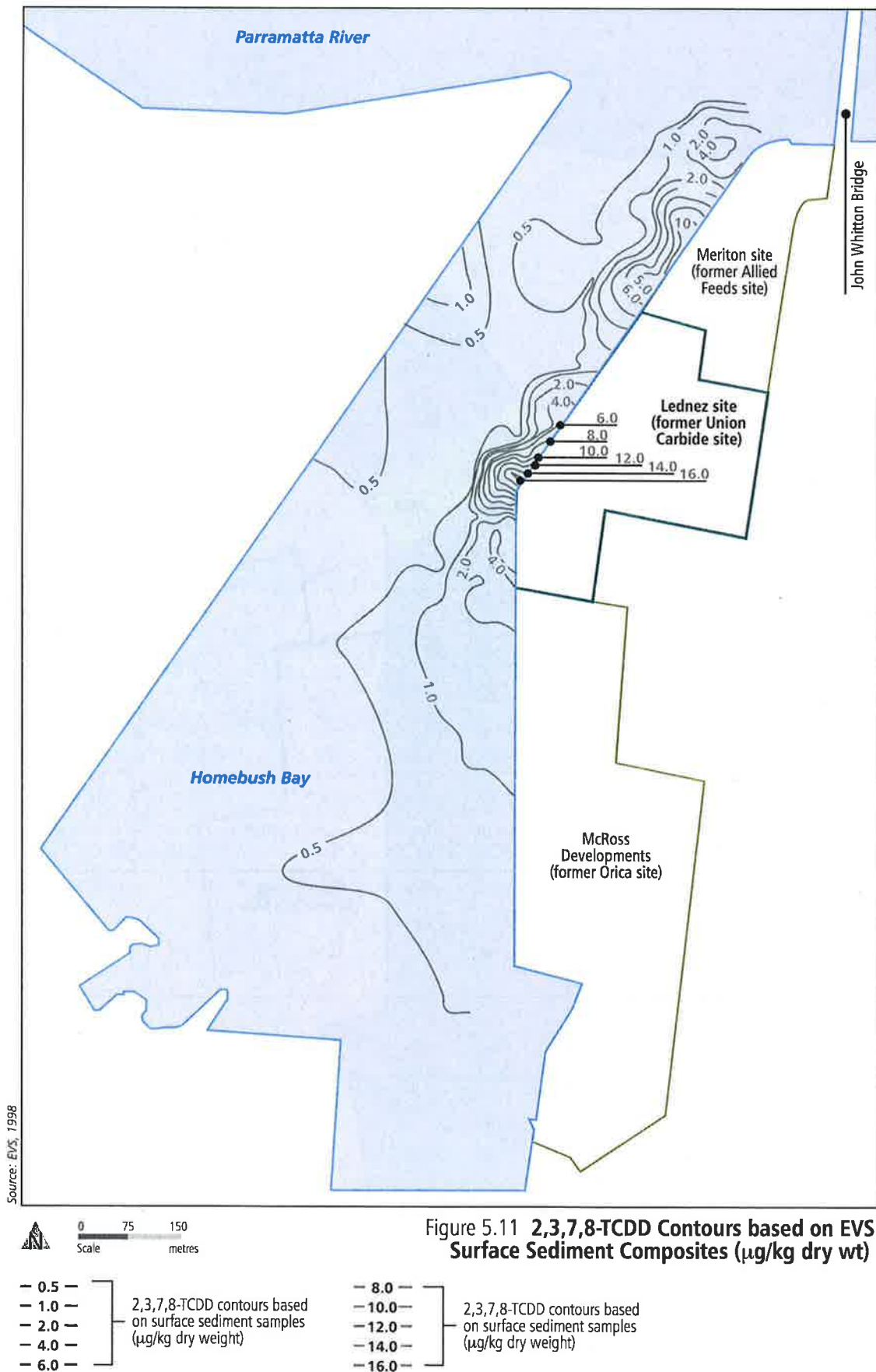


0 75 150
Scale metres

Figure 5.9 Sampling Grid Identifiers for 1997 Field Investigation

NE-1 Grid cell identifier (after EVS, 1998)

 Grid cell border



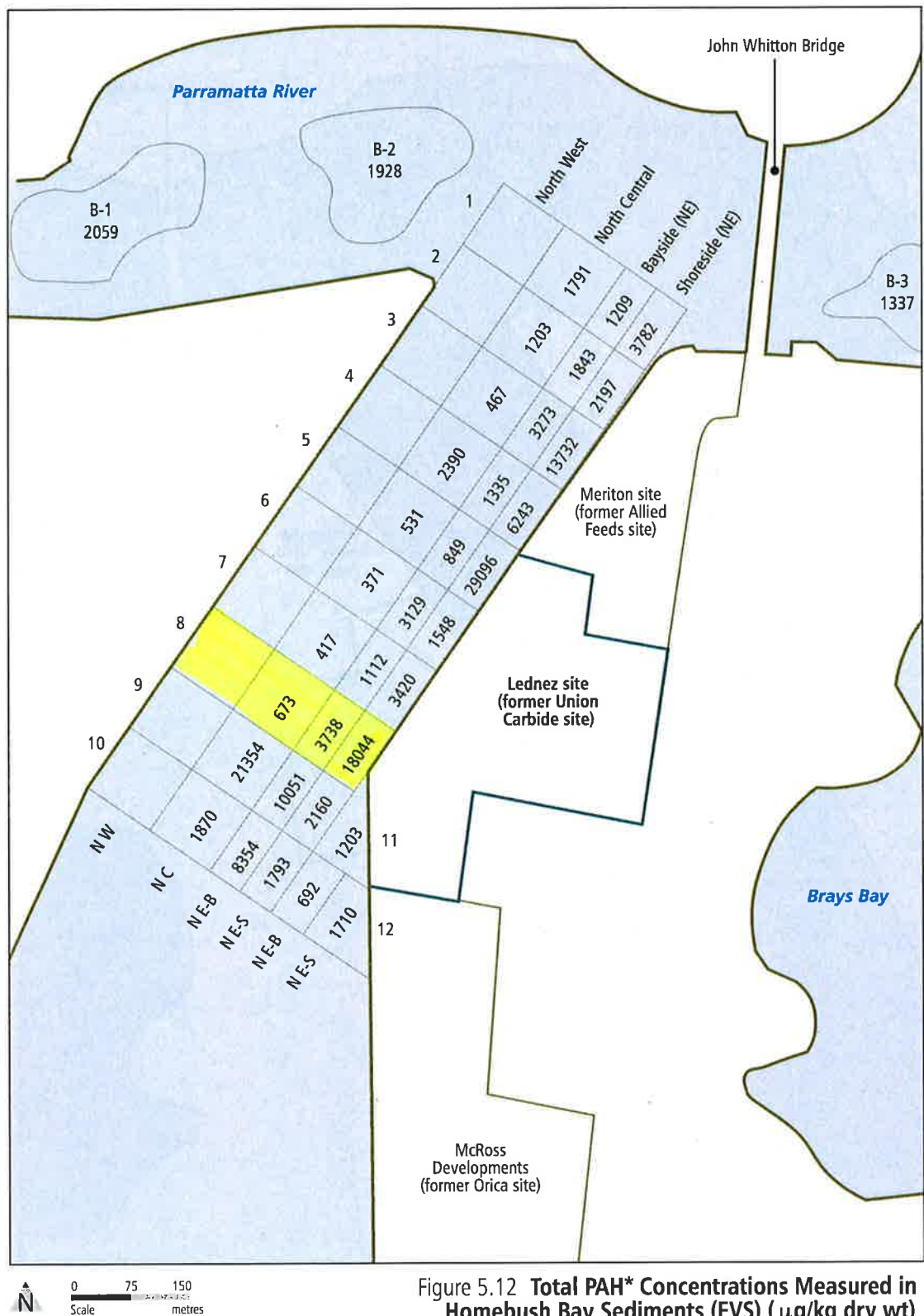
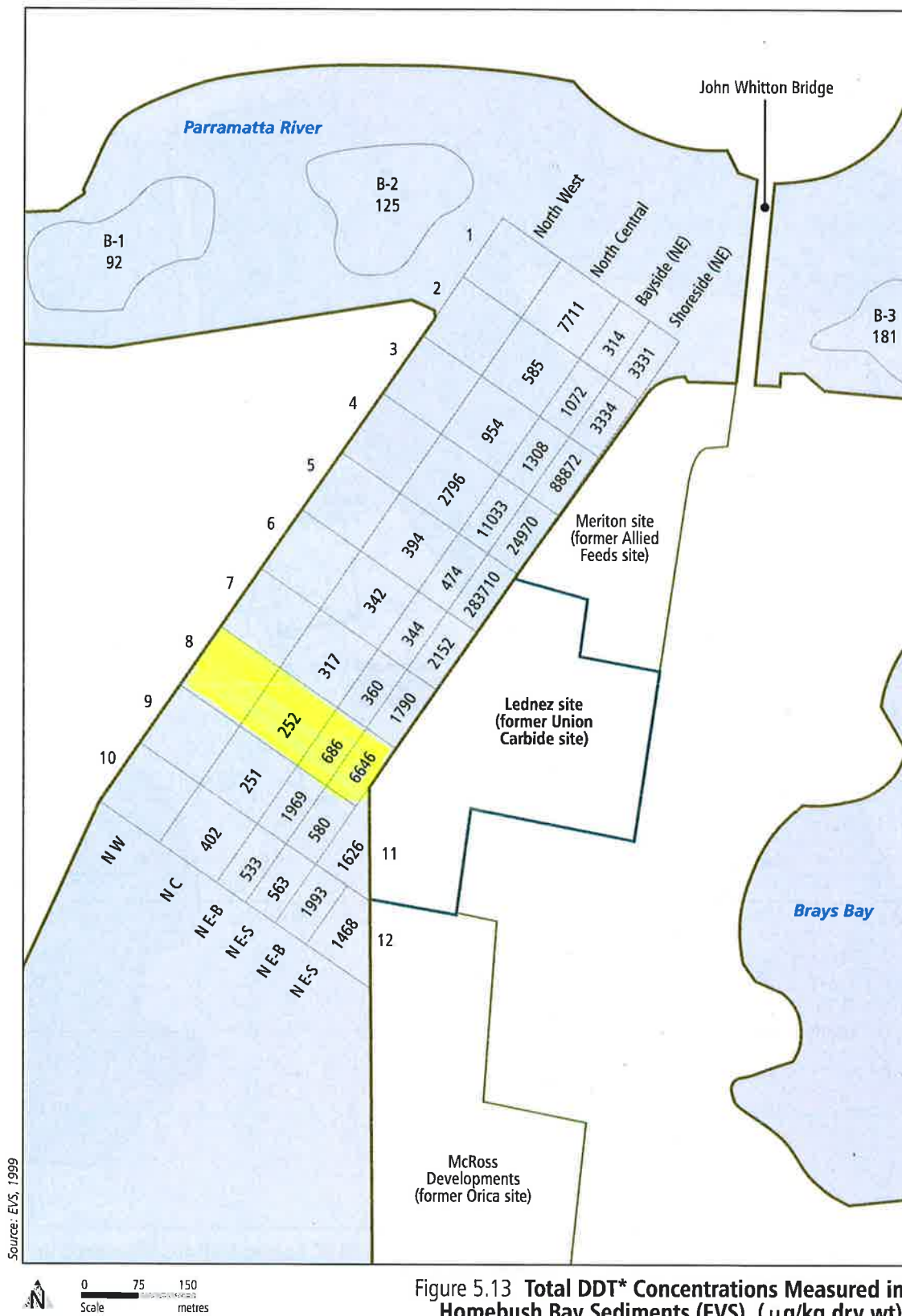
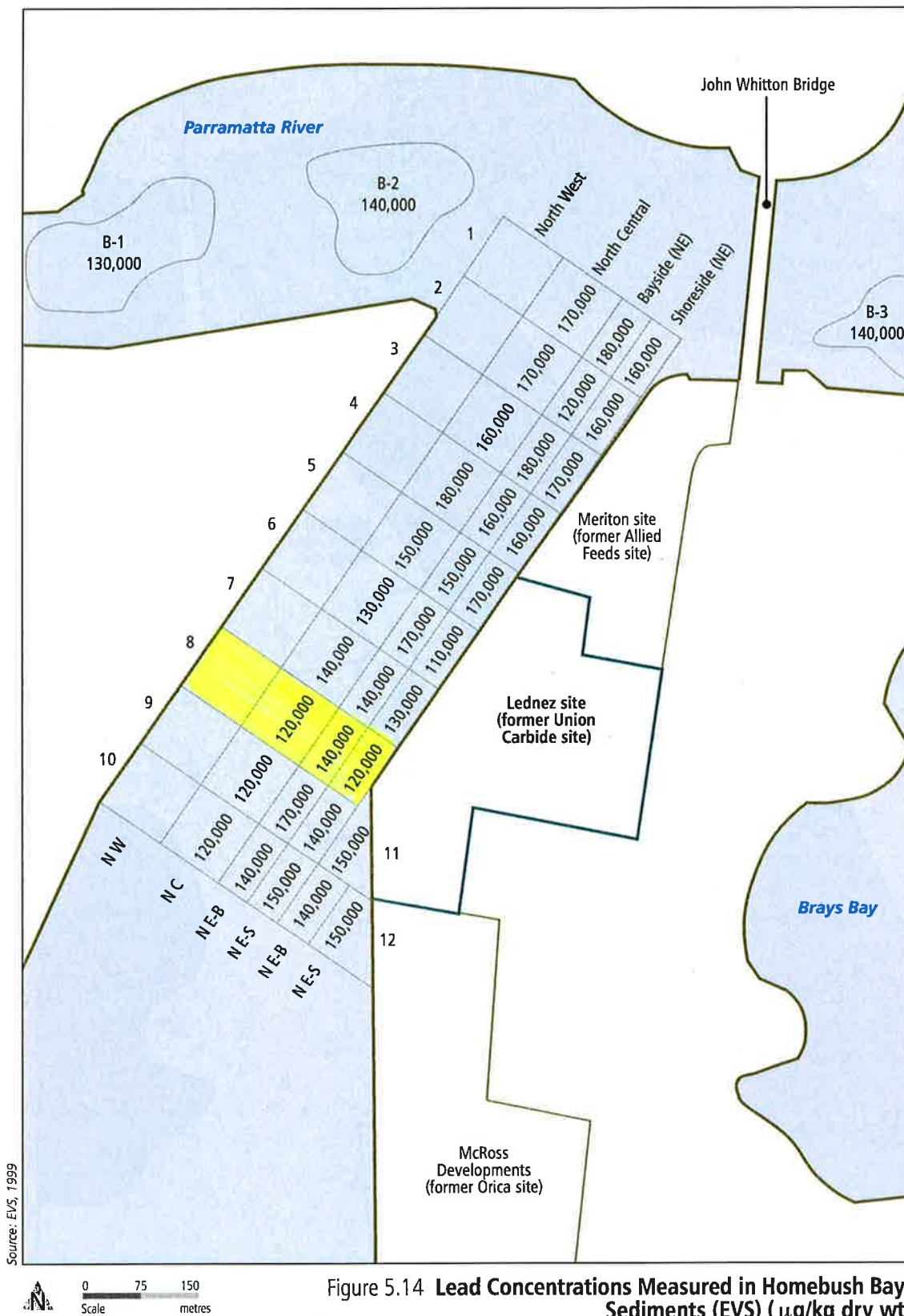


Figure 5.12 Total PAH* Concentrations Measured in Homebush Bay Sediments (EVS) ($\mu\text{g/kg}$ dry wt)

* PAH includes the following compounds: acenaphthene, acenaphthylene, anthracene, benz(a)anthracene, flourene, flueranthene, naphthalene, phenanthrene and pyrene.





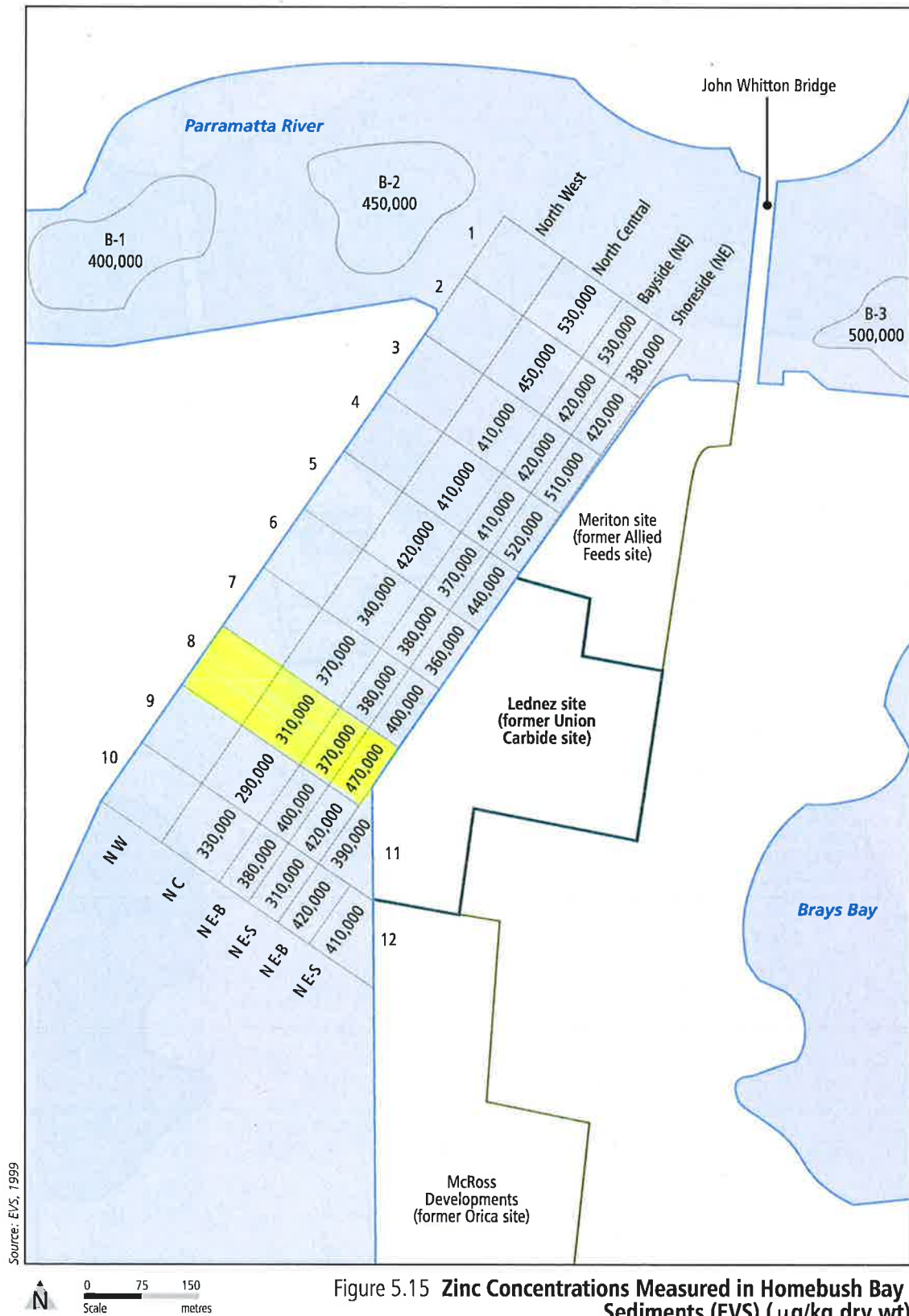


Table 6: Contaminant concentrations in northeast and north-central sections of Homebush Bay, and adjacent Parramatta River areas.

GRID AREA	NE-S N = 12		NE-B N = 11		NC N = 10		B N = 3	
	MEAN	SD	MEAN	SD	MEAN	SD	MEAN	SD
Dioxins and Furans (ng/g dry wt)								
2,3,7,8-TCDD	4.54	5.16	0.94	0.83	0.34	0.24	0.16	0.08
Chlorinated Benzenes (µg/kg dry wt)								
1,3 dichlorobenzene	1858	2889	109	71	44.34	27.85	19.61	4.78
1,4 dichlorobenzene	48326	92993	458	239	223	105	201	49.11
1,2 dichlorobenzene	15968	37210	69	49	23.00	4.83	52.97	30.13
1,2,3, trichlorobenzene	3931	10987	17	7	17.00	4.83	16.67	11.55
1,2,4,5 Tetrachlorobenzene'	24338	56026	95	54	297	838	32.43	23.47
1,2,3,4 Tetrachlorobenzene'	75358	176521	113	70	35.64	13.77	54.24	62.70
Pentachlorobenzene	22425	51793	42	20	17.89	8.45	9.78	4.18
Substituted Phenols (µg/kg dry wt)								
3-methylphenol	7.1	2.0	6.4	2.6	3.6	1.8	8.7	0.5
PAHs (µg/kg dry wt)								
1-Chloronaphthalene	2.07	3.47	0.39	0.25	1.49	1.22	1.06	1.37
2-Chloronaphthalene	29.77	58.15	0.58	0.54	0.95	1.20	0.38	0.39
Naphthalene	2472	4442	11.8	8.99	9.40	1.48	<10	-
Acenaphthylene	82.54	39.51	111	94.91	113	214	96.72	55.25
Acenaphthene	496	854	23.12	16.23	14.63	21.63	11.53	0.89
Fluorene	309	535	40.4	34.4	42.74	88.1	21.5	2.05
Phenanthrene	978	1313	417	441	443	963	199	32.89
Anthracene	331	389	159	143	149	305	80.27	13.01
Fluoranthene	968	855	877	921	866	1833	413	81.32
Pyrene	1092	550	1093	972	974	1910	669	150
Benz(a)anthracene	352	161	515	532	505	1117	284	64.71
Total	7114		3247		3073		1785	
Chlorinated Pesticides (µg/kg dry wt)								
Gamma-BHC (Lindane)	2.03	2.93	0.73	0.29	0.47	0.30	1.00	0.87
Total Chlordane	13.12	5.19	16.31	10.11	20.49	5.42	23.53	8.50
Dieldrin	16.69	23.00	7.09	2.81	7.72	2.43	10.63	1.10
Endrin	6.49	2.75	4.91	0.54	4.15	3.95	6.00	1.00
Total Endosulphan	7.08	2.57	8.64	7.45	4.10	1.10	4.67	0.58
Total DDT	34920	82274	1826	3116	1400	2347	133	45.26
Trace Elements (mg/kg dry wt)								
Arsenic	0.78	0.50	0.77	0.17	1.28	0.58	0.46	0.12
Barium	125	116	38.12	17.70	21.98	6.15	24.10	2.28
Boron	11.17	1.84	13.01	4.05	11.86	1.93	12.31	1.53
Cadmium	1.17	0.30	1.12	0.29	0.87	0.19	0.96	0.05
Cobalt	3.66	1.01	3.29	0.52	3.06	0.45	3.10	0.31
Chromium	89.50	24.22	96.09	26.32	83.60	28.13	117	37.17
Copper	4.81	5.35	6.68	3.97	13.12	6.27	5.93	2.68
Iron	7750	2057	7164	1004	7220	587	8533	1332
Lead	149	21.09	154	19.63	146	23.19	137	5.77
Molybdenum	0.04	0.05	0.03	0.01	0.07	0.04	0.03	0.00
Nickel	9.90	2.79	7.38	1.00	6.39	0.90	6.71	0.94
Selenium	0.10	0.01	0.10	0.01	0.12	0.02	0.10	0.00
Silver	0.05	0.00	0.05	0.00	0.05	0.00	0.05	0.00
Tin	0.39	0.19	0.54	0.14	0.69	0.17	0.54	0.04
Vanadium	18.25	1.58	18.86	1.87	17.04	2.54	18.69	0.99
Zinc	420	60	407	45	386	73	450	50

SD = Standard deviation **Note:** Non-detected values have been replaced by the detection limit in above statistics.



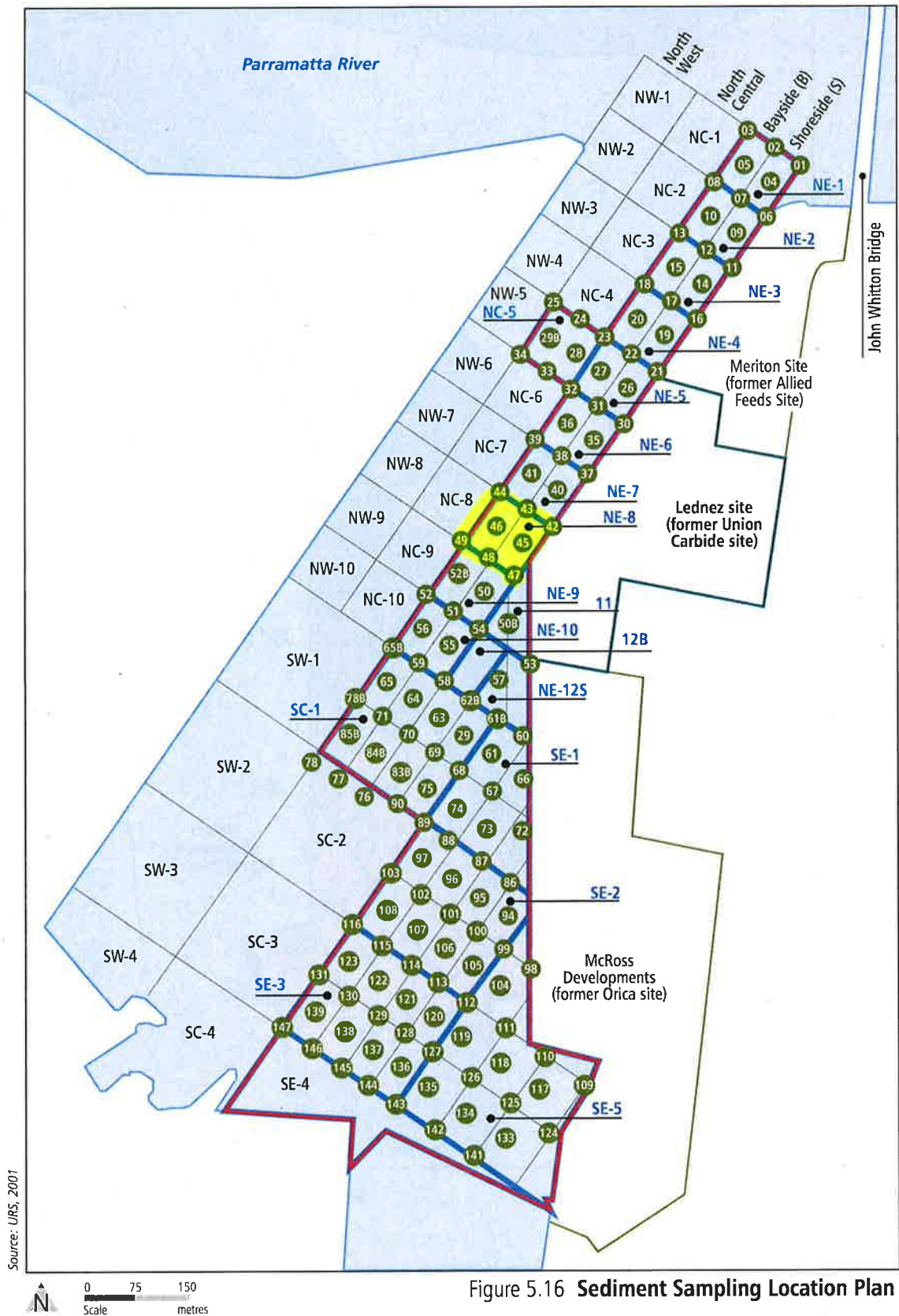
APPENDIX B

CMP FOR PROPOSED HOMEBUSH BAY BRIDGE CONSTRUCTION

Document Reference: PB Technical Paper 3, 2002

Site / Report Reference: Homebush Bay / Appendix B - 13

Included Information: URS results



- ① Sediment sampling location and sample identification
- NE-1 Grid cell identifier (after EVS, 1998)

- Grid cell border
- Study area

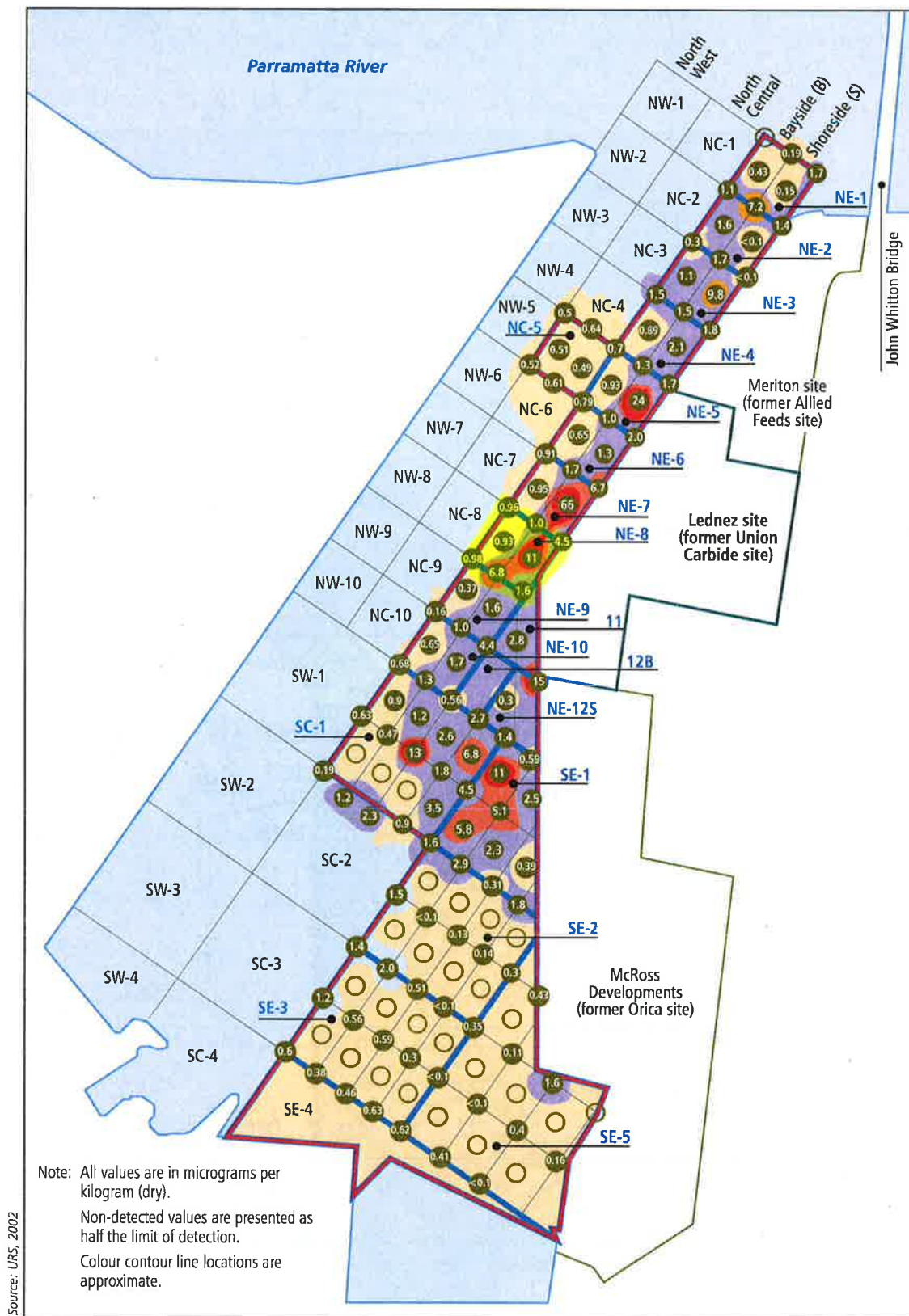
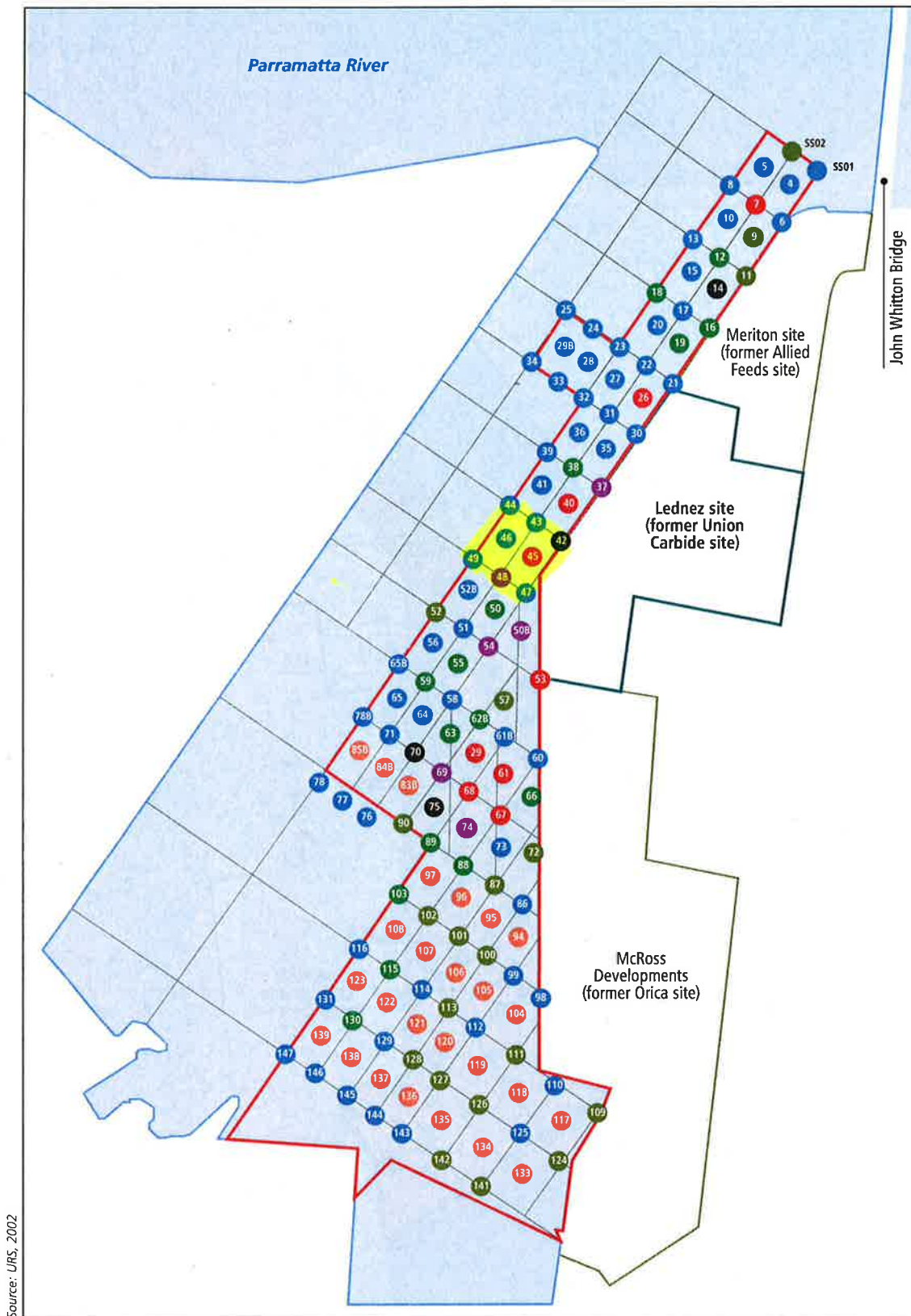


Figure 5.17 2,3,7,8-TCDD in Surface Sediments
0-0.1 Metres Depth

N
0 75 150
Scale metres

- Sediment sampling location and 2,3,7,8-TCDD concentration (micrograms per kilogram)
- Samples not analysed
- NE-1 Grid cell identifier (after EVS, 1998)
- Grid cell border
- Study area

- less than 1.0 micrograms per kilogram
- less than 5.0 to greater than 1.0 micrograms per kilogram
- less than 10.0 to greater than 5.0 micrograms per kilogram
- less than 20.0 to greater than 10.0 micrograms per kilogram
- greater than 20.0 micrograms per kilogram



Source: URS, 2002

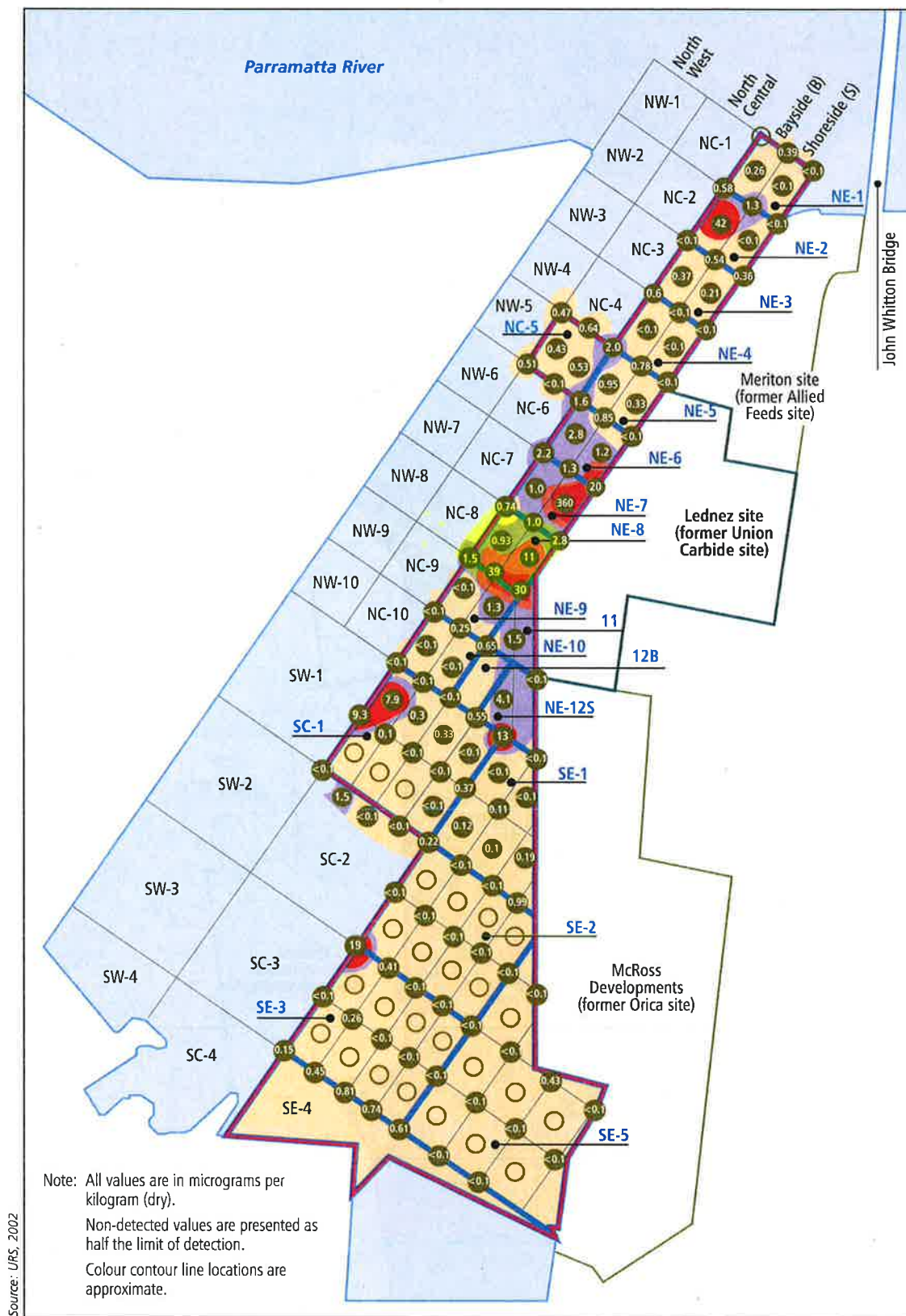


- Grid cell border
- Study area
- 133 Not analysed
- Sediment sampling locations

- 142 <1µg/kg I-TEQ
- 143 <1-5µg/kg I-TEQ
- 130 <6-10µg/kg I-TEQ

- 74 <11-15µg/kg I-TEQ
- 75 <16-20µg/kg I-TEQ
- 67 >20µg/kg I-TEQ

Figure 5.17a I-TEQ µg/kg
Depth 0.0-0.1m



0 75 150
 Scale metres

- Sediment sampling location and 2,3,7,8-TCDD concentration (micrograms per kilogram)
- Samples not analysed
- NE-1 Grid cell identifier (after EVS, 1998)
- Grid cell border
- Study area

- less than 1.0 micrograms per kilogram
- less than 5.0 to greater than 1.0 micrograms per kilogram
- less than 10.0 to greater than 5.0 micrograms per kilogram
- less than 20.0 to greater than 10.0 micrograms per kilogram
- greater than 20.0 micrograms per kilogram

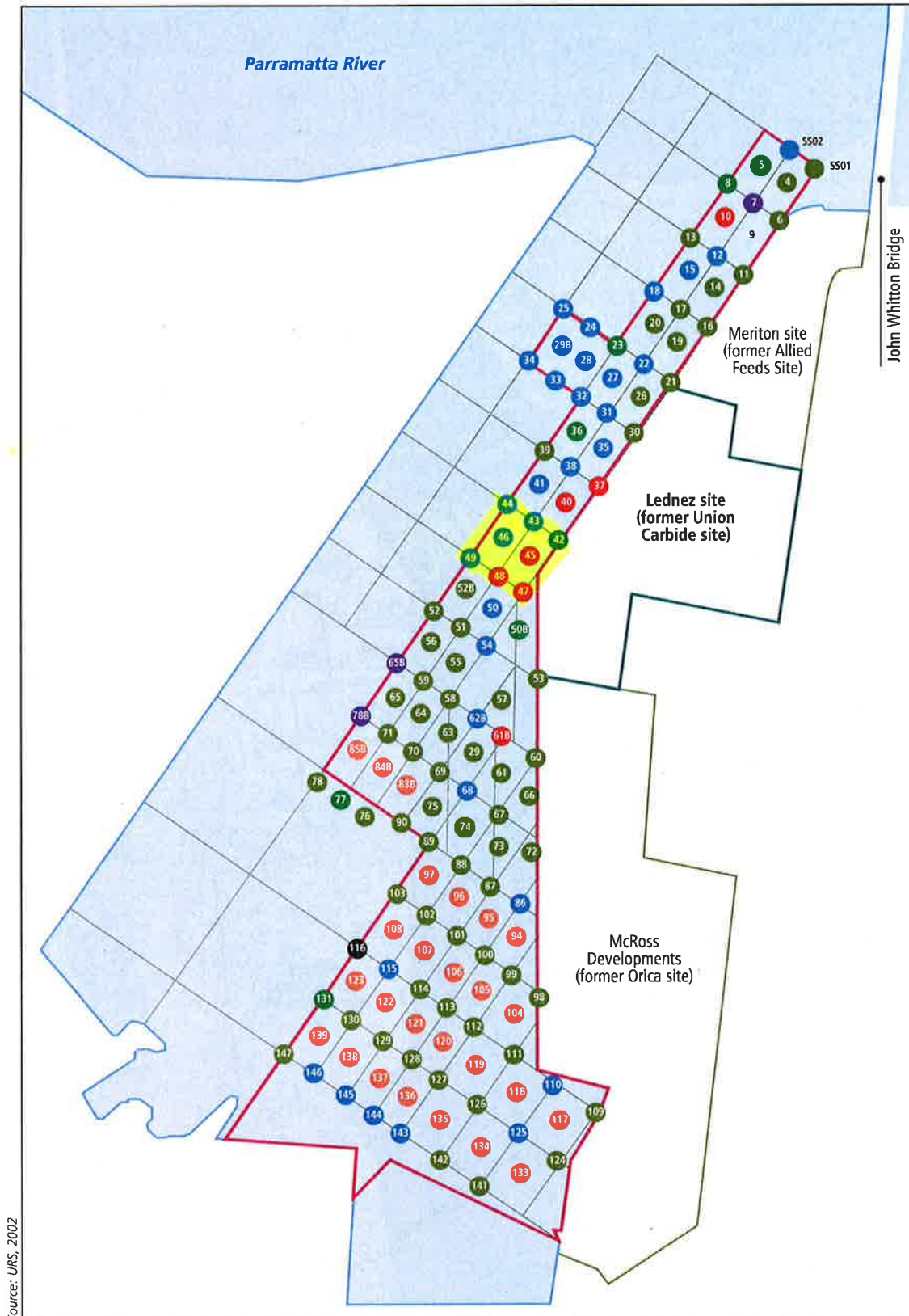


Figure 5.18a I-TEQ $\mu\text{g/kg}$
Depth 0.4-0.5m

0 75 150
Scale metres

Grid cell border

Study area

Not analysed

Sediment sampling locations

<1 $\mu\text{g/kg}$ I-TEQ

<1-5 $\mu\text{g/kg}$ I-TEQ

<6-10 $\mu\text{g/kg}$ I-TEQ

<11-15 $\mu\text{g/kg}$ I-TEQ

<16-20 $\mu\text{g/kg}$ I-TEQ

>20 $\mu\text{g/kg}$ I-TEQ

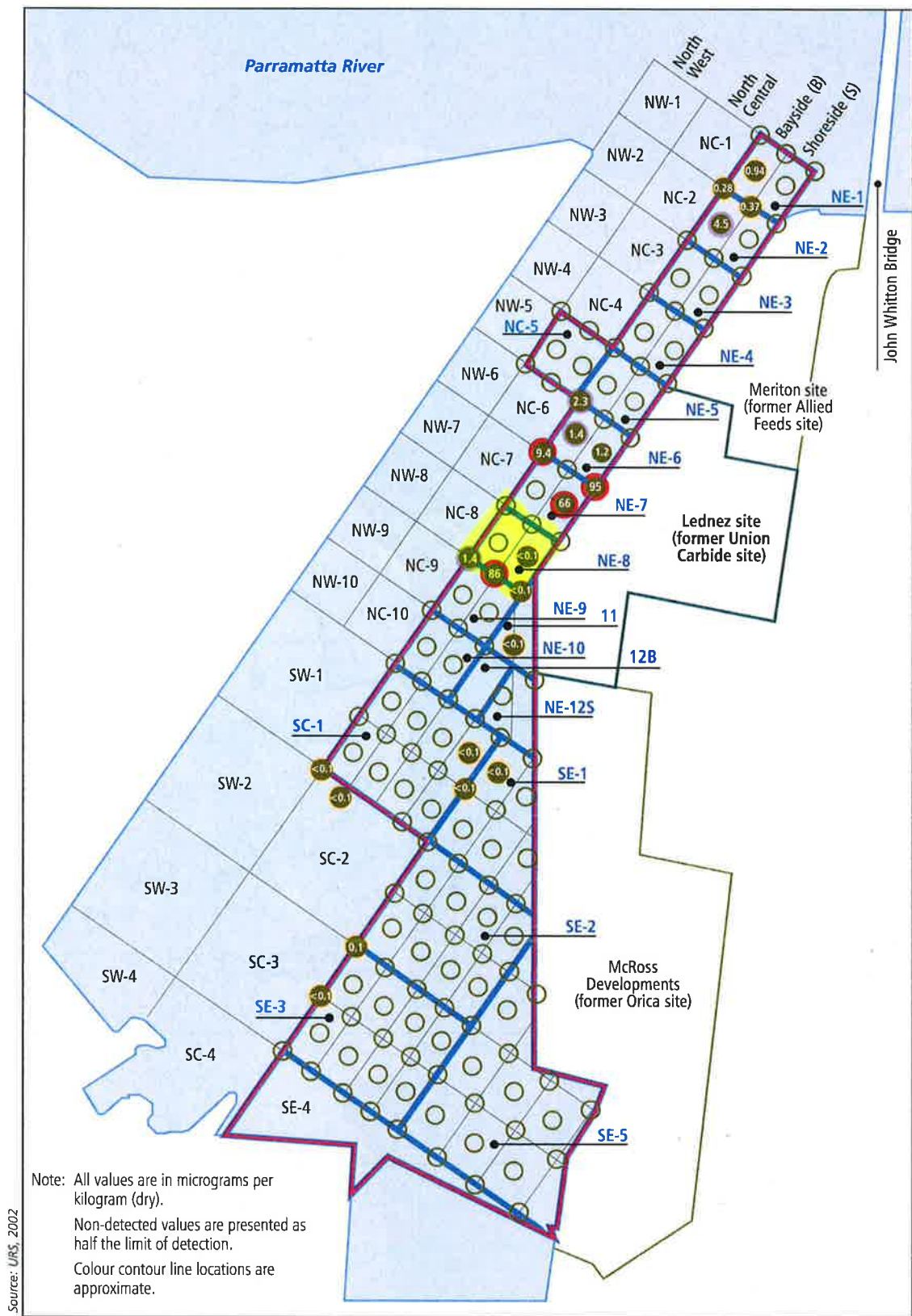


Figure 5.19 2,3,7,8-TCDD in Subsurface Sediments
0.9-1.0 Metres Depth

- 0.1 Sediment sampling location and 2,3,7,8-TCDD concentration (micrograms per kilogram)
- Samples not analysed
- NE-1 Grid cell identifier (after EVS, 1998)
- Grid cell border
- Study area

- less than 1.0 micrograms per kilogram
- less than 5.0 to greater than 1.0 micrograms per kilogram
- less than 10.0 to greater than 5.0 micrograms per kilogram
- less than 20.0 to greater than 10.0 micrograms per kilogram
- greater than 20.0 micrograms per kilogram

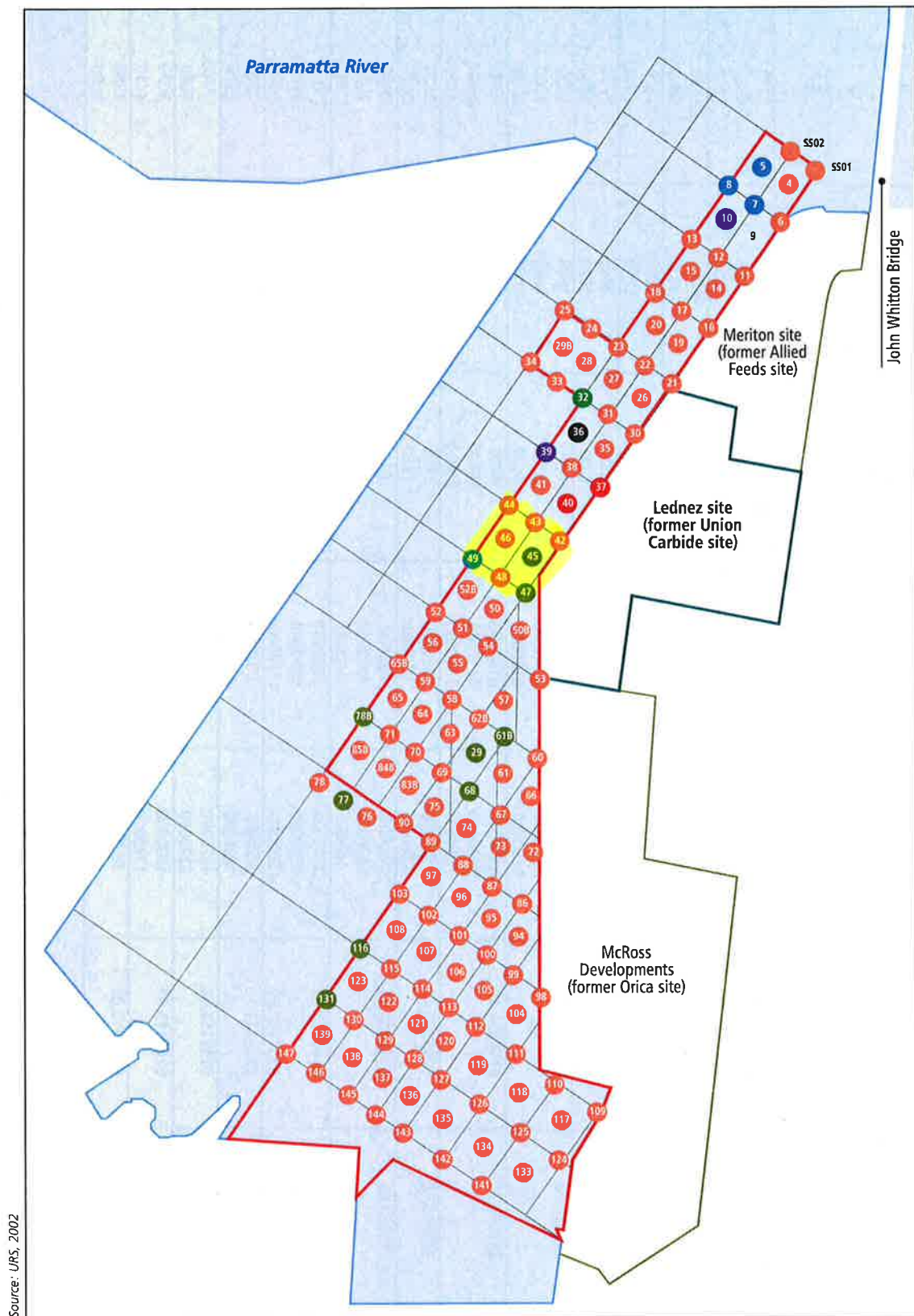


Figure 5.19a I-TEQ $\mu\text{g/kg}$
Depth 0.9-1.0m



- Grid cell border
- Study area
- Not analysed
- Sediment Sampling locations

- 142 <1 $\mu\text{g/kg}$ I-TEQ
- 143 <1-5 $\mu\text{g/kg}$ I-TEQ
- 130 <6-10 $\mu\text{g/kg}$ I-TEQ
- 74 <11-15 $\mu\text{g/kg}$ I-TEQ
- 75 <16-20 $\mu\text{g/kg}$ I-TEQ
- 67 >20 $\mu\text{g/kg}$ I-TEQ

Table 1. Concentrations of Dioxins in Sediment Samples

Sample ID	Date Sampled	Eastings	Northings	Sum of PCDD/PCDF ¹ (pg/g)	Sum of PCDD/PCDF ² (pg/g)	2,3,7,8-TCDD (pg/g)	Total 1-TEQ ¹ (pg/g)	Total 1-TEQ ² (pg/g)
SS32_0.0-0.1	12/02/2001	322576.19	6255362.98	799000	799000	790	2260	2270
SS32_0.4-0.5	12/02/2001			1600000	1600000	1600	4480	4510
SS32_0.9-1.0	12/02/2001	322576.19	6255362.98	1760000	1760000	2300	5550	5570
SS33_0.0-0.1	12/02/2001	322539.75	6255389.25	544000	544000	610	1670	1690
SS33_0.4-0.5	12/02/2001			31200	31300	<100	38.5	93.5
SS34_0.0-0.1	9/02/2001	322501.62	6255415.52	322000	322000	520	1280	1280
SS34_0.4-0.5	9/02/2001			373000	373000	510	1310	1310
SS35_0.0-0.1	22/02/2001	322609.23	6255283.32	1380000	1380000	1300	3740	3750
SS35_0.4-0.5	22/02/2001			1380000	1380000	1200	3620	3630
SS36_0.0-0.1	21/02/2001	322570.26	6255310.45	683000	683000	650	1960	1960
SS36_0.4-0.5	21/02/2001			2770000	2770000	2800	7680	7700
SS36_0.9-1.0	21/02/2001			2130000	2130000	1400	18100	18100
SS37_0.0-0.1	12/02/2001	322603.78	6255231.47	4150000	4150000	6700	15100	15100
SS37_0.4-0.5	12/02/2001			5110000	5110000	20000	29500	29600
SS37_0.9-1.0	12/02/2001			7300000	7310000	95000	141000	141000
SS38_0.0-0.1	8/02/2001	322563.48	6255260.45	2520000	2520000	1700	5510	5520
SS38_0.4-0.5	8/02/2001			960000	960000	1300	3410	3420
SS39_0.0-0.1	8/02/2001	322523.65	6255288.41	763000	763000	910	2450	2460
SS39_0.4-0.5	8/02/2001			2580000	2580000	2200	7050	7070
SS39_0.9-1.0	8/02/2001			442000	442000	9400	11900	11900
SS40_0.0-0.1	9/02/2001	322556.70	6255203.68	3330000	3330000	66000	74100	74100
SS40_0.4-0.5	9/02/2001			6290000	6290000	360000	380000	380000
SS40_0.9-1.0	9/02/2001	322556.70	6255203.68	13800000	13800000	66000	103000	103000
SS41_0.0-0.1	9/02/2001	322517.72	6255234.18	953000	953000	950	2910	2920
SS41_0.4-0.5	9/02/2001			1020000	1020000	1000	2950	2970
SS42_0.0-0.1	9/02/2001	322552.46	6255153.68	4670000	4670000	4500	17300	17400
SS42_0.4-0.5	9/02/2001			3370000	3370000	2800	9060	9080
SS43_0.0-0.1	7/02/2001	322510.94	6255185.03	1000000	1000000	1000	3020	3030
SS43_0.4-0.5	7/02/2001			1390000	1390000	1800	4390	4410
SS44_0.0-0.1	8/02/2001	322470.27	6255213.00	657000	658000	960	2270	2280
SS44_0.4-0.5	8/02/2001			650000	651000	740	2010	2060

Table 1. Concentrations of Dioxins in Sediment Samples

Sample ID	Date Sampled	Easting	Northings	Sum of PCDD/PCDF ¹ (pg/g)	Sum of PCDD/PCDF ² (pg/g)	2,3,7,8-TCDD (pg/g)	Total I-TEQ ¹ (pg/g)	Total I-TEQ ² (pg/g)
SS45_0.0-0.1	12/02/2001	322505.01	6255126.56	35900000	35900000	11000	153000	154000
SS45_0.4-0.5	12/02/2001			20600000	20600000	8300	51300	51600
SS45_0.9-1.0	12/02/2001			63400	63800	<50	78	113
SS46_0.0-0.1	8/02/2001	322465.19	6255157.07	1070000	1070000	930	2780	2850
SS46_0.4-0.5	8/02/2001			995000	996000	1000	2820	2890
SS47_0.0-0.1	12/02/2001	322501.62	6255079.11	1150000	1150000	1600	3640	3650
SS47_0.4-0.5	12/02/2001			9300000	9310000	30000	97100	97400
SS47_0.9-1.0	12/02/2001			18900	18900	<60	66.3	97.2
SS48_0.0-0.1	8/02/2001	322458.41	6255108.77	1730000	1730000	6800	12400	12400
SS48_0.4-0.5	8/02/2001			9350000	9350000	39000	60900	60900
SS48_0.9-1.0	8/02/2001			22000000	22000000	88000	238000	238000
SS49_0.0-0.1	8/02/2001	322416.88	6255138.43	667000	667000	980	2310	2320
SS49_0.4-0.5	8/02/2001			872000	872000	1500	3080	3090
SS49_0.9-1.0	8/02/2001			453000	453000	1400	3480	3500
SS50_0.0-0.1	9/02/2001	322455.01	6255053.69	3150000	3150000	1600	8000	8010
SS50_0.4-0.5	9/02/2001			141000	141000	1300	1600	1610
SS50B_0.0-0.1	20/02/2001	322492.30	6255012.17	3540000	3540000	2800	11500	11500
SS50B_0.4-0.5	20/02/2001			3830000	3830000	1500	6350	6370
SS50B_0.9-1.0	20/02/2001	322492.30	6255012.17	169000	169000	32	320	328
SS51_0.0-0.1	12/02/2001	322406.72	6255031.66	2380000	2380000	1000	4680	4740
SS51_0.4-0.5	12/02/2001			55600	55700	250	323	326
SS52_0.0-0.1	12/02/2001	322384.35	6255063.86	124000	124000	160	394	412
SS52_0.4-0.5	12/02/2001			66000	66100	<30	71.4	90.3
SS52B_0.0-0.1	21/02/2001	322413.49	6255084.19	643000	643000	370	1550	1560
SS52B_0.4-0.5	21/02/2001			22600	22600	<9	36.7	43.2
SS53_0.0-0.1	12/02/2001	322516.34	6254952.84	4750000	4750000	15000	24800	24900
SS53_0.4-0.5	12/02/2001			127000	127000	320	564	568
SS54_0.0-0.1	9/02/2001	322446.54	6255003.70	4200000	4200000	4400	14600	14600
SS54_0.4-0.5	9/02/2001			213000	213000	650	1120	1120
SS55_0.0-0.1	9/02/2001	322399.94	6254976.58	4600000	4600000	1700	9180	9200
SS55_0.4-0.5	9/02/2001			154000	154000	<70	262	301

Table 1. Concentrations of Dioxins in Sediment Samples

Sample ID	Date Sampled	Easting	Northings	Sum of PCDD/PCDF ¹ (pg/g)	Sum of PCDD/PCDF ² (pg/g)	2,3,7,8-TCDD (pg/g)	Total I-TEQ ¹ (pg/g)	Total I-TEQ ² (pg/g)
SS56_0.0-0.1	9/02/2001	322360.11	6255006.24	603000	603000	680	1950	1950
SS56_0.4-0.5	9/02/2001			37800	37900	<20	40	58.4
SS57_0.0-0.1	12/02/2001	322485.52	6254913.03	286000	286000	300	900	901
SS57_0.4-0.5	12/02/2001			2980000	2980000	4100	10700	10800
SS58_0.0-0.1	12/02/2001	322390.11	6254924.30	381000	381000	560	1350	1350
SS58_0.4-0.5	12/02/2001			68200	68300	<90	92.2	139
SS59_0.0-0.1	12/02/2001	322352.09	6254955.15	4000000	4000000	1300	8120	8140
SS59_0.4-0.5	12/02/2001			105000	105000	<40	193	215
SS60_0.0-0.1	12/02/2001	322512.63	6254843.03	308000	308000	590	1270	1280
SS60_0.4-0.5	12/02/2001			17200	17200	69	89.8	95.1
SS61_0.0-0.1	12/02/2001	322464.21	6254816.32	17600000	17600000	11000	42900	43000
SS61_0.4-0.5	12/02/2001			77900	77900	29	156	159
SS61B_0.0-0.1	20/02/2001	322470.79	6254870.87	2200000	2200000	1400	5370	5400
SS61B_0.4-0.5	20/02/2001			2610000	2610000	13000	32200	32200
SS61B_0.9-1.0	20/02/2001	322470.79	6254870.87	49600	49800	8.5	69	79
SS62B_0.0-0.1	20/02/2001	322429.70	6254900.04	2980000	2980000	2700	9260	9280
SS62B_0.4-0.5	20/02/2001			345000	345000	550	1240	1240
SS63_0.0-0.1	11/02/2001	322384.20	6254869.66	2610000	2610000	2600	10300	10300
SS63_0.4-0.5	11/02/2001			303000	303000	330	957	961
SS64_0.0-0.1	11/02/2001	322345.30	6254895.22	1610000	1610000	1200	4020	4080
SS64_0.4-0.5	11/02/2001			264000	264000	300	823	827
SS65_0.0-0.1	11/02/2001	322303.06	6254927.45	770000	770000	900	2310	2320
SS65_0.4-0.5	11/02/2001			55600	55700	<80	83.1	124
SS65B_0.0-0.1	20/02/2001	322309.45	6254985.65	494000	494000	680	1710	1710
SS65B_0.4-0.5	20/02/2001			2240000	2240000	7900	12100	12200
SS66_0.0-0.1	14/02/2001	322507.55	6254778.53	2240000	2240000	2500	6940	6960
SS66_0.4-0.5	14/02/2001			68200	68300	<80	103	151
SS67_0.0-0.1	16/02/2001	322455.32	6254765.20	13300000	13300000	5100	33500	33700
SS67_0.4-0.5	16/02/2001			65700	65700	110	204	210
SS68_0.0-0.1	13/02/2001	322414.20	6254794.09	7290000	7290000	4500	26700	26900
SS68_0.4-0.5	13/02/2001			360000	360000	370	1150	1160
SS68_0.9-1.0	13/02/2001			93400	93500	<80	139	187

Table 1. Concentrations of Dioxins in Sediment Samples

Sample ID	Date Sampled	Eastings	Northings	Sum of PCDD/PCDF ¹ (pg/g)	Sum of PCDD/PCDF ² (pg/g)	2,3,7,8-TCDD (pg/g)	Total I-TEQ ¹ (pg/g)	Total I-TEQ ² (pg/g)
SS69_0.0-0.1	13/02/2001	322375.31	6254822.98	4520000	4520000	1800	12800	12900
SS69_0.4-0.5	13/02/2001			37300	37300	<20	48.7	62
SS70_0.0-0.1	14/02/2001	322337.52	6254849.66	5230000	5230000	13000	20000	20000
SS70_0.4-0.5	14/02/2001			41700	42000	<20	50.5	70.3
SS71_0.0-0.1	13/02/2001	322297.51	6254876.32	521000	521000	470	1570	1580
SS71_0.4-0.5	13/02/2001			30500	30500	22	68.8	72.5
SS72_0.0-0.1	14/02/2001	322508.18	6254729.67	220000	220000	390	867	870
SS72_0.4-0.5	14/02/2001			219000	219000	190	699	700
SS73_0.0-0.1	14/02/2001	322454.21	6254699.63	1720000	1720000	2300	5340	5350
SS73_0.4-0.5	14/02/2001			200000	200000	100	445	448
SS74_0.0-0.1	14/02/2001	322407.53	6254732.96	2400000	2400000	5800	10600	10600
SS74_0.4-0.5	14/02/2001			96000	96000	120	249	255
SS75_0.0-0.1	13/02/2001	322363.08	6254760.75	8650000	8650000	3500	17500	17600
SS75_0.4-0.5	13/02/2001			31400	31400	<20	42.5	54.6
SS76_0.0-0.1	14/02/2001	322276.25	6254763.35	1450000	1450000	2300	5230	5240
SS76_0.4-0.5	14/02/2001			28900	29000	<10	39.8	46.3
SS77_0.0-0.1	14/02/2001	322237.27	6254792.44	1110000	1110000	1200	3250	3260
SS77_0.4-0.5	14/02/2001			2570000	2570000	1500	8250	8270
SS77_0.9-1.0	14/02/2001	322237.27	6254792.44	91800	91900	<10	123	130
SS78_0.0-0.1	14/02/2001	322197.48	6254826.31	111000	111000	190	385	397
SS78_0.4-0.5	14/02/2001			61100	61200	<30	95.1	112
SS78B_0.0-0.1	20/02/2001	322254.17	6254907.45	142000	143000	630	1330	1330
SS78B_0.4-0.5	20/02/2001			2060000	2060000	9300	12900	13000
SS78B_0.9-1.0	20/02/2001	322254.17	6254907.45	57200	57400	<20	60	80
SS86_0.0-0.1	15/02/2001	322474.18	6254625.97	1410000	1410000	1800	4590	4610
SS86_0.4-0.5	15/02/2001			1010000	1010000	990	2860	2860
SS87_0.0-0.1	15/02/2001	322445.32	6254645.17	322000	322000	310	933	936
SS87_0.4-0.5	15/02/2001			44400	44500	<20	65.5	81.9
SS88_0.0-0.1	14/02/2001	322396.42	6254680.73	2600000	2600000	2900	8480	8490
SS88_0.4-0.5	14/02/2001			38400	38500	<20	50.2	61.3
SS89_0.0-0.1	14/02/2001	322357.52	6254709.63	3660000	3660000	1600	8490	8500
SS89_0.4-0.5	14/02/2001			421000	421000	270	921	923

Table 1. Concentrations of Dioxins in Sediment Samples

Sample ID	Date Sampled	Eastings	Northings	Sum of PCDD/PCDF ¹ (pg/g)	Sum of PCDD/PCDF ² (pg/g)	2,3,7,8-TCDD (pg/g)	Total I-TEQ ¹ (pg/g)	Total I-TEQ ² (pg/g)
SS90_0.0-0.1	14/02/2001	322315.20	6254737.62	2630000	2630000	900	5360	5370
SS90_0.4-0.5	14/02/2001			37200	37300	<10	49.8	56.9
SS98_0.0-0.1	15/02/2001	322501.51	6254494.06	588000	588000	430	1490	1490
SS98_0.4-0.5	15/02/2001			21400	21500	<10	31	39.9
SS99_0.0-0.1	15/02/2001	322461.12	6254522.17	89400	89400	300	431	437
SS99_0.4-0.5	15/02/2001			15500	15600	<10	20.2	29.9
SS100_0.0-0.1	15/02/2001	322420.86	6254551.15	267000	267000	190	654	657
SS100_0.4-0.5	15/02/2001			27400	27400	<90	50.4	96.9
SS101_0.0-0.1	16/02/2001	322392.52	6254570.24	112000	112000	130	311	312
SS101_0.4-0.5	16/02/2001			38600	38700	<50	58.8	85.3
SS102_0.0-0.1	16/02/2001	322343.33	6254604.10	129000	129000	<80	203	243
SS102_0.4-0.5	16/02/2001			34400	34500	<10	45.4	52.3
SS103_0.0-0.1	15/02/2001	322300.47	6254633.56	3970000	3970000	1500	9690	9720
SS103_0.4-0.5	15/02/2001			62500	62500	<80	96.3	137
SS109_0.4-0.5	16/02/2001	322566.57	6254326.04	46700	46700	<30	57.7	74.5
SS110_0.0-0.1	16/02/2001	322496.93	6254376.22	1140000	1140000	1600	3980	4000
SS110_0.4-0.5	16/02/2001			364000	364000	430	1190	1200
SS111_0.0-0.1	16/02/2001	322450.50	6254409.29	119000	119000	110	321	323
SS111_0.4-0.5	16/02/2001			16300	16300	<30	24.8	43.2
SS112_0.0-0.1	17/02/2001	322403.73	6254442.00	385000	385000	350	1040	1040
SS112_0.4-0.5	17/02/2001			30500	30500	<70	43.9	81.2
SS113_0.0-0.1	17/02/2001	322365.25	6254470.67	171000	171000	<100	280	332
SS113_0.4-0.5	17/02/2001			24500	24600	<70	44.1	82.3
SS114_0.0-0.1	16/02/2001	322335.82	6254491.05	602000	602000	510	1530	1550
SS114_0.4-0.5	16/02/2001			17300	17400	<10	26.8	36
SS115_0.0-0.1	17/02/2001	322289.73	6254526.25	2670000	2670000	2000	8180	8180
SS115_0.4-0.5	17/02/2001			420000	420000	410	1370	1370
SS116_0.0-0.1	16/02/2001	322246.02	6254555.95	774000	774000	1400	2920	2930
SS116_0.4-0.5	16/02/2001			683000	683000	19000	20400	20400
SS116_0.9-1.0	16/02/2001			148000	149000	<200	221	323
SS124_0.0-0.1	16/02/2001	322511.40	6254252.46	202000	202000	160	539	542
SS124_0.4-0.5	16/02/2001			27000	27100	<40	39.6	61.5

Table 1. Concentrations of Dioxins in Sediment Samples

Sample ID	Date Sampled	Easting	Northing	Sum of PCDD/PCDF ¹ (pg/g)	Sum of PCBD/PCDF ² (pg/g)	2,3,7,8-TCDD (pg/g)	Total I-TEQ ¹ (pg/g)	Total I-TEQ ² (pg/g)
SS125_0.0-0.1	17/02/2001	322444.53	6254300.23	838000	838000	1400	3070	3080
SS125_0.4-0.5	17/02/2001			95400	95400	<100	148	198
SS126_0.0-0.1	19/02/2001	322396.76	6254334.26	60600	60600	<8	79.5	87.5
SS126_0.4-0.5	19/02/2001			66500	66700	<20	88.1	102
SS127_0.0-0.1	19/02/2001	322350.20	6254367.11	60100	60100	<20	94.8	106
SS127_0.4-0.5	19/02/2001			64000	64100	<5	83.9	89
SS128_0.0-0.1	19/02/2001	322311.38	6254394.57	243000	243000	300	764	770
SS128_0.4-0.5	19/02/2001			61300	61400	<30	77.4	101
SS129_0.0-0.1	19/02/2001	322282.73	6254414.28	580000	581000	590	1970	1980
SS129_0.4-0.5	19/02/2001			61200	61300	<60	82.4	120
SS130_0.0-0.1	20/02/2001	322233.17	6254448.90	2480000	2480000	560	5960	5990
SS130_0.4-0.5	20/02/2001			228000	228000	260	659	664
SS131_0.0-0.1	20/02/2001	322190.78	6254479.35	463000	463000	1200	2270	2280
SS131_0.4-0.5	20/02/2001			3600000	3600000	500	7320	7360
SS131_0.9-1.0	20/02/2001		6254479.35	74600	74700	<6	84	92
SS141_0.0-0.1	17/02/2001	322384.82	6254218.42	59700	59800	<70	106	142
SS141_0.4-0.5	17/02/2001			15800	15800	<10	27	33.4
SS142_0.0-0.1	17/02/2001	322330.25	6254250.67	38200	38300	410	490	496
SS142_0.4-0.5	17/02/2001			16300	16400	<10	32.5	45.9
SS143_0.0-0.1	17/02/2001	322291.69	6254285.30	531000	531000	620	1690	1710
SS143_0.4-0.5	17/02/2001			572000	573000	610	1770	1780
SS144_0.0-0.1	17/02/2001	322252.87	6254314.56	473000	473000	630	1650	1650
SS144_0.4-0.5	17/02/2001			412000	412000	740	1640	1640
SS145_0.0-0.1	17/02/2001	322224.81	6254334.26	473000	473000	460	1400	1410
SS145_0.4-0.5	17/02/2001			574000	574000	810	1970	1970
SS146_0.0-0.1	17/02/2001	322177.04	6254367.70	381000	381000	380	1140	1150
SS146_0.4-0.5	17/02/2001			435000	435000	450	1300	1310
SS147_0.0-0.1	19/02/2001	322133.46	6254399.35	373000	373000	600	1400	1410
SS147_0.4-0.5	19/02/2001			237000	237000	<300	465	618

Table 1. Concentrations of Dioxins in Sediment Samples

Sample ID	Date Sampled	Easting	Northings	Sum of PCDD/PCDF ¹ (pg/g)	Sum of PCDD/PCDF ² (pg/g)	2,3,7,8-TCDD (pg/g)	Total I-TEQ ¹ (pg/g)	Total I-TEQ ² (pg/g)
SS1_0.0-0.1	22/02/2001	322916.24	6255689.32	1290000	1290000	1700	4020	4040
SS1_0.4-0.5	22/02/2001			55200	55300	<50	80.8	116
SS2_0.0-0.1	22/02/2001	322879.13	6255715.58	165000	165000	190	501	504
SS2_0.4-0.5	22/02/2001			337000	337000	390	1060	1060
SS4_0.0-0.1	21/02/2001	322870.76	6255663.52	658000	658000	950	1980	1990
SS4_0.4-0.5	21/02/2001			43900	43900	34	128	131
SS5_0.0-0.1	22/02/2001	322833.46	6255689.44	904000	904000	430	2070	2080
SS5_0.4-0.5	22/02/2001			2870000	2870000	260	7540	7560
SS5_0.9-1.0	22/02/2001	322833.46	6255689.44	515000	515000	940	2070	2110
SS6_0.0-0.1	21/02/2001	322865.13	6255611.40	891000	891000	1400	3340	3350
SS6_0.4-0.5	21/02/2001			10600	10700	<10	10.3	20
SS7_0.0-0.1	22/02/2001	322826.04	6255638.98	2570000	2570000	7200	11800	11800
SS7_0.4-0.5	22/02/2001			4070000	4080000	1300	13800	14000
SS7_0.9-1.0	22/02/2001	322826.04	6255638.98	325000	325000	370	1040	1040
SS8_0.0-0.1	22/02/2001	322789.51	6255664.74	1160000	1160000	1100	3200	3200
SS8_0.4-0.5	22/02/2001			3710000	3710000	580	7340	7350
SS8_0.9-1.0	22/02/2001	322789.51	6255664.74	896000	897000	280	1760	1790
SS9_0.0-0.1	21/02/2001	322818.60	6255582.63	32500	33000	88	139	152
SS10_0.0-0.1	22/02/2001	322780.61	6255611.00	1580000	1580000	1600	4240	4240
SS10_0.4-0.5	22/02/2001			4040000	4050000	42000	51400	51400
SS10_0.9-1.0	22/02/2001	322780.61	6255611.00	2530000	2530000	4500	11700	11800
SS11_0.0-0.1	21/02/2001	322812.27	6255533.74	375000	375000	88	840	846
SS11_0.4-0.5	21/02/2001			125000	125000	360	625	628
SS12_0.0-0.1	21/02/2001	322772.08	6255561.74	3650000	3650000	1700	7580	7600
SS12_0.4-0.5	22/02/2001			374000	374000	540	1480	1490
SS13_0.0-0.1	22/02/2001	322735.19	6255587.86	896000	896000	300	1690	1700
SS13_0.4-0.5	22/02/2001			12100	12100	<10	14.8	22.9
SS14_0.0-0.1	21/02/2001	322765.38	6255507.62	5670000	5670000	9800	19900	20000
SS14_0.4-0.5	21/02/2001			107000	107000	210	461	464
SS15_0.0-0.1	22/02/2001	322728.11	6255535.24	1980000	1980000	1100	4790	4800
SS15_0.4-0.5	22/02/2001			484000	484000	370	1160	1160
SS16_0.0-0.1	20/02/2001	322760.88	6255457.99	3380000	3380000	1800	7860	7870
SS16_0.4-0.5	20/02/2001			122000	122000	53	288	289

Table 1. Concentrations of Dioxins in Sediment Samples

Sample ID	Date Sampled	Easting	Northing	Sum of PCDD/PCDF ¹ (pg/g)	Sum of PCDD/PCDF ² (pg/g)	2,3,7,8-TCDD (pg/g)	Total 1-TEQ ¹ (pg/g)	Total 1-TEQ ² (pg/g)
SS17_0.0-0.1	21/02/2001	322720.69	6255486.72	1630000	1630000	1500	4490	4500
SS17_0.4-0.5	21/02/2001			50900	50900	67	135	135
SS18_0.0-0.1	21/02/2001	322682.70	6255513.23	2350000	2350000	1500	5990	6000
SS18_0.4-0.5	21/02/2001			759000	759000	600	2110	2110
SS19_0.0-0.1	20/02/2001	322713.98	6255430.74	2120000	2120000	2100	5910	5930
SS19_0.4-0.5	20/02/2001			121000	121000	65	319	334
SS20_0.0-0.1	20/02/2001	322674.90	6255462.10	2890000	2890000	890	4950	4970
SS20_0.4-0.5	20/02/2001			198000	198000	60	487	491
SS21_0.0-0.1	21/02/2001	322710.61	6255381.42	544000	544000	1700	2790	2800
SS21_0.4-0.5	21/02/2001			206000	206000	92	499	504
SS22_0.0-0.1	21/02/2001	322667.84	6255410.97	927000	927000	1300	3470	3480
SS22_0.4-0.5	21/02/2001			710000	710000	780	2620	2630
SS23_0.0-0.1	21/02/2001	322629.84	6255438.59	650000	650000	700	2010	2020
SS23_0.4-0.5	21/02/2001			1890000	1890000	2000	5820	5830
SS24_0.0-0.1	21/02/2001	322589.75	6255465.09	456000	456000	640	1720	1730
SS24_0.4-0.5	21/02/2001			374000	375000	640	1460	1470
SS25_0.0-0.1	21/02/2001	322555.01	6255490.51	312000	312000	500	1200	1200
SS25_0.4-0.5	21/02/2001			285000	285000	470	1100	1110
SS26_0.0-0.1	21/02/2001	322662.62	6255353.66	1750000	1750000	24000	31400	31500
SS26_0.4-0.5	21/02/2001			91400	91400	330	488	490
SS27_0.0-0.1	22/02/2001	322621.95	6255383.31	805000	805000	930	2520	2530
SS27_0.4-0.5	22/02/2001			939000	939000	950	2600	2610
SS28_0.0-0.1	21/02/2001	322583.81	6255412.13	554000	554000	490	1490	1500
SS28_0.4-0.5	21/02/2001			710000	711000	530	1850	1860
SS29_0.0-0.1	12/02/2001	322421.98	6254842.99	6820000	6820000	6600	27900	28100
SS29_0.4-0.5	12/02/2001			31800	32000	<40	42.7	64
SS29_0.9-1.0	12/02/2001			26100	26300	<10	30.9	45.5
SS29B_0.0-0.1	22/02/2001	322547.38	6255439.24	456000	456000	510	1370	1380
SS29B_0.4-0.5	22/02/2001			471000	471000	430	1350	1360
SS30_0.0-0.1	9/02/2001	322653.73	6255308.22	933000	933000	2000	5260	5270
SS30_0.4-0.5	9/02/2001			166000	167000	84	660	661
SS31_0.0-0.1	9/02/2001	322616.01	6255335.01	917000	917000	1000	2670	2670
SS31_0.4-0.5	9/02/2001			1160000	1160000	850	2940	2950



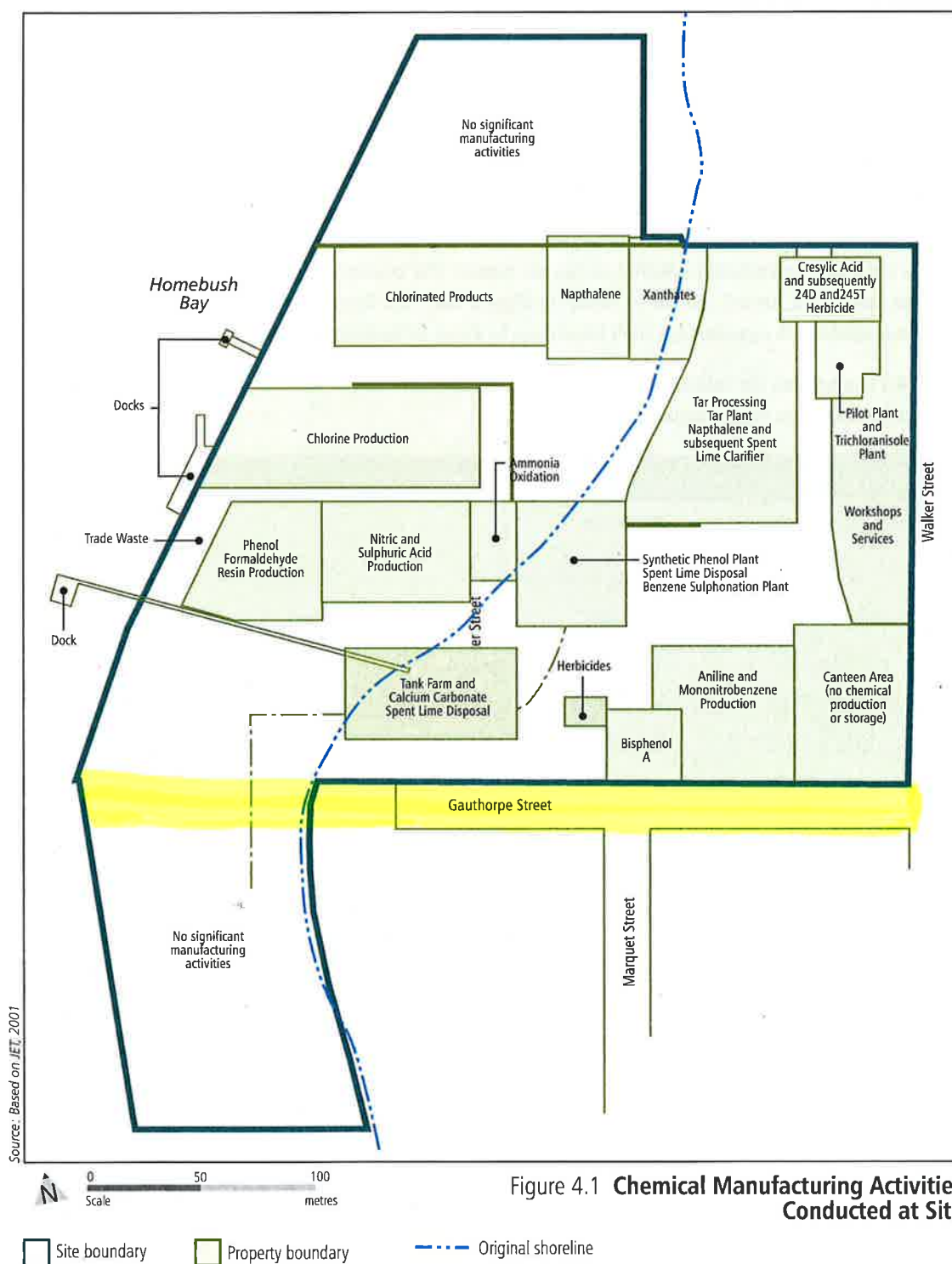
APPENDIX B

CMP FOR PROPOSED HOMEBUSH BAY BRIDGE CONSTRUCTION

Document Reference: PB Technical Paper 4, 2002

Site / Report Reference: Eastern Shore / Appendix B - 14

Included Information: Site Geology; Results from Reclamation Area R3; Results from foreshore strip



The portion of the bay that was reclaimed can be divided into four areas (R1, R2, R3 and R4) that reflect broadly the chronology of reclamation. These are illustrated on **Figure 4.2**. The extent and nature of contamination due to reclamation activities is depicted in cross sections A-A1, B-B1, and C-C1, is described further in the next chapter. The manner in which the reclamation and other site activities have impacted on Homebush Bay is described in **Technical Paper 3**.

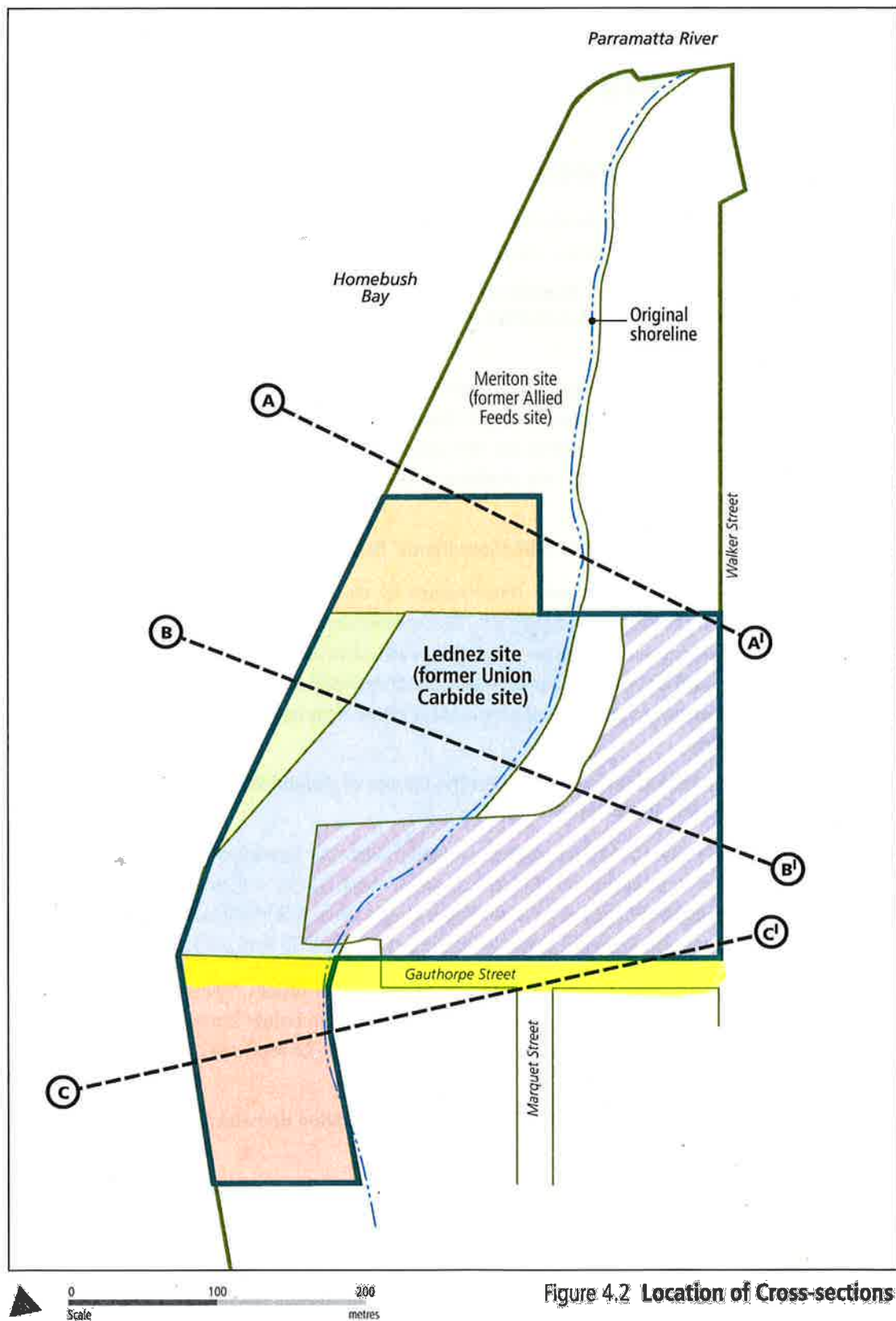


Figure 4.2 Location of Cross-sections



5.3.3 Reclamation Area R3

Reclamation of area R3 was staged, with four segmented ponds being filled at various stages. Some of the materials used to fill this area were contaminated. There were no significant manufacturing activities in this area although it is likely that tank cleaning operations were carried out in the north east pond (JET 2001).

Encapsulation cells from the previous remediation do not extend to this area, however the clay cap and layer of crushed sandstone do.

The materials underlying the clay cap are generally materials from the 1954–1970 reclamation works and consist of:

- mixed clay, ash, shale and brick rubble fill material (typically 1 m thick)
- boiler ash (1–2 m thick)
- spent lime sludge (1–2 m thick).

These overlie natural marine sediments and shale.

The capping material was not sampled in this area. Sampling of the capping material from other areas indicates the capping material used was not contaminated.

Range and average concentrations of contaminants found in this area are summarised in the **Table 5.2**. **Figure 5.4** shows the generalised cross section (Section C to C¹) including both the reclamation materials and the underlying natural marine sediments and shale.

Table 5.2 Reclamation Area R3

Layer and contaminant	Range of concentrations (mg/kg)	Average concentrations (mg/kg)	Comments
Mixed fill (beneath clay cap) ~ 31,000 m³			
C ₆ –C ₉	< detection limit–95	36	
C ₁₀ –C ₃₆	120–3460	1280	
Benzene	< detection limit–1.4	1	
PAH (total)	< detection limit–110	37	
Organochlorine Pesticides (total)	0.2–10	4	
Chlorobenzenes (total)	0.7–240	80	
Chlorophenols (total)	< detection limit–17	8	
Phenols (total)	< detection limit–7.6	6	
2,3,7,8-TCDD	< detection limit–0.00096	0.000515	

Phenol Highest average concentration of each contaminant is highlighted in **bold italics**.

Phenol Other significant average concentrations are highlighted in *italics*.

m³ cubic metres

mg/kg milligram per kilogram

Table 5.2 Continuation

Layer and contaminant	Range of concentrations (mg/kg)	Average concentrations (mg/kg)	Comments
Boiler ash ~ 5,000 m³			
C ₆ -C ₉	< detection limit-45	12	
C ₁₀ -C ₃₆	< detection limit-6740	2370	
Benzene	< detection limit-1	1	
PAH (total)	< detection limit-120	39	
Organochlorine Pesticides (total)	< detection limit-21	5	
Chlorobenzenes (total)	< detection limit-45	11	
Chlorophenols (total)	< detection limit-958	148	Elevated concentrations mainly in south west pond
Phenols (total)	< detection limit-18	7	Highest concentrations in south west pond
2,3,7,8-TCDD	0.0002-0.047	<i>0.0168</i>	Highest concentrations in south west pond
Spent lime sludge ~ 16,000 m³			
C ₆ -C ₉	< detection limit-91	27	
C ₁₀ -C ₃₆	120-3340	1120	
Benzene	< detection limit-2	1	
PAH (total)	2.4-60	26	
Organochlorine Pesticides (total)	< detection limit-117	20	Elevated concentrations mainly in south east pond. Average concentrations skewed due to one high sample
Chlorobenzenes (total)	< detection limit-16	6	
Chlorophenols (total)	< detection limit-175	32	Elevated concentrations mainly in south west pond
Phenols (total)	< detection limit-27	7	
2,3,7,8-TCDD	0.00048-0.150	<i>0.0522</i>	

Phenol Highest average concentration of each contaminant is highlighted in **bold italics**.

Phenol Other significant average concentrations are highlighted in *italics*.

m³ cubic metres

mg/kg milligram per kilogram

Table 5.2 Continuation

Layer and contaminant	Range of concentrations (mg/kg)	Average concentrations (mg/kg)	Comments
Sediments ~ 4,000 m³			
C ₆ -C ₉	< detection limit	–	Results less than detection limits
C ₁₀ -C ₃₆	170–1680	660	
Benzene	< detection limit	–	Results less than detection limits
PAH (total)	5.4–23	12	
Organochlorine Pesticides (total)	< detection limit	–	Results less than detection limits
Chlorobenzenes (total)	< detection limit–5.3	2	
Chlorophenols (total)	< detection limit–224	75	
Phenols (total)	< detection limit–102	34	Highest concentrations in south west pond
2,3,7,8-TCDD	< detection limit	< detection limit	

Phenol Highest average concentration of each contaminant is highlighted in **bold italics**.

Phenol Other significant average concentrations are highlighted in *italics*.

m³ cubic metres

mg/kg milligram per kilogram

SECTION C-C' (Southern Cross-section)

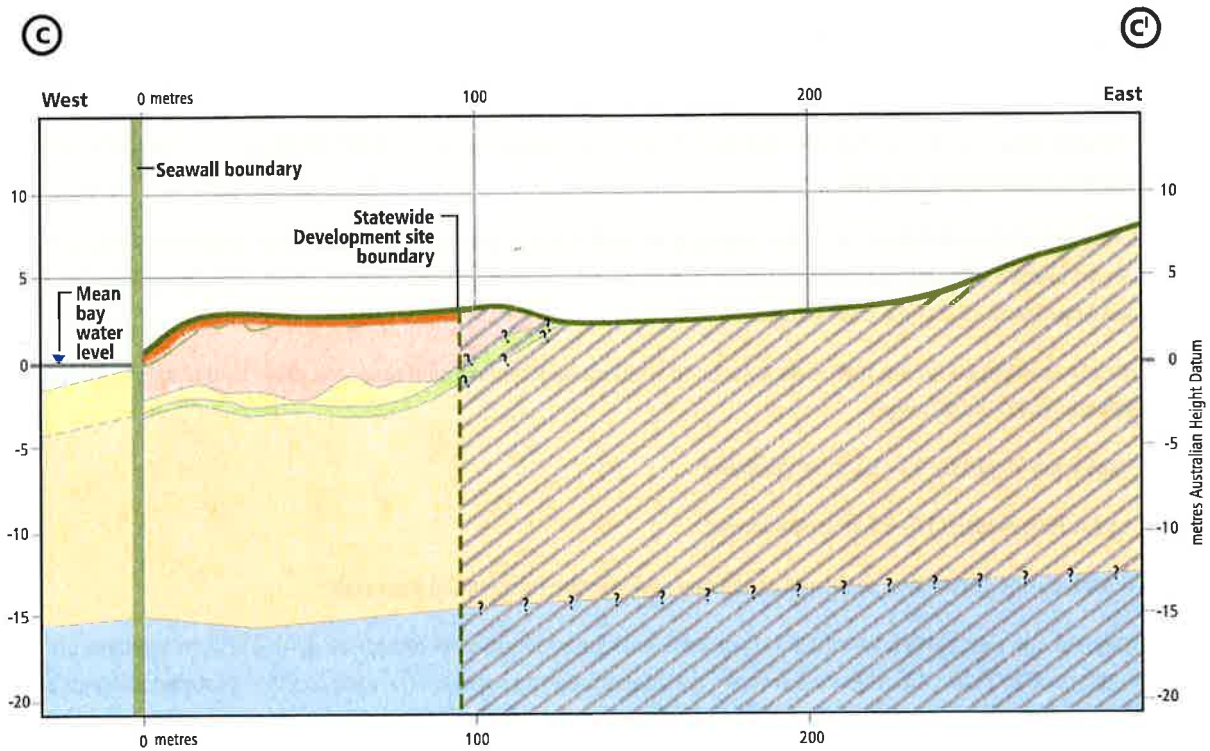


Figure 5.4 Generalised Cross-section of Reclamation Area R3

- Mixed fill, boiler ash and spent lime
- Marine mud
- Residual clay
- Shale
- Sandstone
- Clay cap
- Indicates exact geology is unknown as it is outside boundary of the Lednez site
- Existing surface
- Previous surfaces

5.3.5 Foreshore Strip

The foreshore strip relates to the area marked as such on **Figure 1.2**. This strip contains the materials used to reclaim R1, R2, R3 and R4 where these lie within a 15 to 20 m strip along the foreshore. During the remediation works, no further fill was placed in the area. Only a minor amount of material was excavated to allow correct levels to be achieved after placing the clean clay cap. Oily marine sediments underlie the reclamation material in this area.

Ranges and average concentrations of contaminants found in this area during the JET (2001) investigations are summarised in **Table 5.4**.

Results from investigations in this area (JET, 1999) indicate relatively high toluene soluble fraction (TSF) levels in the mixed fill. This was the measure for tar and oil type contamination of soil at the time of these investigations. Descriptions of material in the mixed fill layer in this area also indicate contamination is present.

Table 5.4 Foreshore Strip

Layer and contaminant	Range of concentrations (mg/kg)	Average concentrations (mg/kg)	Comments
Clay capping material ~ volume part of R1 to R4			
C ₆ –C ₉	—	< detection limit	Results less than detection limits
C ₁₀ –C ₃₆	—	< detection limit	Results less than detection limits
Benzene	—	< detection limit	Results less than detection limits
PAH (total)	—	< detection limit	Results less than detection limits
Organochlorine Pesticides (total)	—	< detection limit	Results less than detection limits
Chlorobenzenes (total)	—	< detection limit	Results less than detection limits
Chlorophenols (total)	—	< detection limit	Results less than detection limits
Phenols (total)	—	< detection limit	Results less than detection limits
2,3,7,8-TCDD	—	< detection limit	Results less than detection limits

Phenol Highest average concentration of each contaminant is highlighted in **bold italics**.

Phenol Other significant average concentrations are highlighted in *italics*.

m³ cubic metres

mg/kg milligram per kilogram

Table 5.4 Continuation

Layer and contaminant	Range of concentrations (mg/kg)	Average concentrations (mg/kg)	Comments
Boiler ash ~ volume part of R1 to R4			
C ₆ -C ₉	< detection limit-3400	883	
C ₁₀ -C ₃₆	170-43300	12600	
Benzene	<1-11	3	
PAH (total)	2-6900	1820	
Organochlorine Pesticides (total)	4-71	21	
Chlorobenzenes (total)	16-2796	636	
Chlorophenols (total)	2-34	15	
Phenols (total)	< detection limit	< detection limit	
2,3,7,8-TCDD	0.008-0.036	0.0194	
Spent lime sludge ~ volume part of R1 to R4			
C ₆ -C ₉	—	< detection limit	
C ₁₀ -C ₃₆	—	360	
Benzene	—	< detection limit	
PAH (total)	—	3.6	
Organochlorine Pesticides (total)	—	< detection limit	
Chlorobenzenes (total)	—	< detection limit	
Chlorophenols (total)	—	1	
Phenols (total)	—	1	
2,3,7,8-TCDD	—	<0.000050	

Phenol Highest average concentration of each contaminant is highlighted in **bold italics**.

Phenol Other significant average concentrations are highlighted in *italics*.

m³ cubic metres

mg/kg milligram per kilogram