

TABLE B
SUMMARY OF ALL SOIL LABORATORY RESULTS (FORMER GASWORKS SITE)

All results in mg/kg																												
Investigator	Investigation Level	Human Health	CH2M HILL	CH2M HILL	CH2M HILL	CH2M HILL	CH2M HILL	CH2M HILL	CH2M HILL	CH2M HILL	CH2M HILL	CH2M HILL	CH2M HILL	CH2M HILL	CH2M HILL	CH2M HILL	CH2M HILL	CH2M HILL	CH2M HILL	CH2M HILL	CH2M HILL	CH2M HILL	CH2M HILL	CH2M HILL	CH2M HILL	CH2M HILL		
SAMPLE ID			BH01	BH01	SB02	SB02	SB02	SB02	SB03	SB03	SB04	SB04	SB04	SB06	SB06	SB07	SB07	SB08	SB08	SB08	BH10	BH10	BH11	BH11	BH12	BH12	BH12	
Date of Sampling			April 2000	April 2000	April 2000	April 2000	April 2000	April 2000	April 2000	April 2000	April 2000	April 2000	April 2000	April 2000	April 2000	April 2000	April 2000	April 2000	April 2000	April 2000	April 2000	April 2000	April 2000	April 2000	April 2000	April 2000	April 2000	April 2000
Depth (m)			0.00-0.10	3.30-3.40	0.00-0.10	0.20-0.30	2.50-2.60	4.40-4.50	0.00-0.10	1.00-1.10	0.00-0.10	0.70-0.80	1.50-1.60	0.20-0.30	0.30-0.40	0.00-0.10	1.40-1.50	0.00-0.10	1.00-1.10	1.60-1.70	0.00-0.10	0.3	1.20-1.30	3.00-3.10	0.00-0.10	0.90-1.00	2.00-2.10	
Material			FILL	FILL	FILL	FILL	Natural	Natural	FILL	FILL	FILL	FILL	Natural	FILL	FILL	FILL	FILL	FILL	FILL	Natural	FILL	FILL	FILL	Natural	FILL	FILL	FILL	
HEAVY METALS																												
Arsenic	500	1	15	nd	24	nd	nd		33	nd	200	17	nd	nd	5	nd	nd	15	41	5	25	7	nd	nd	40	nd		
Cadmium	100	1	0.5	nd	1.4	nd	nd		1.2	nd	nd	nd	nd	nd	nd	nd	1.4	nd	nd	1.2	nd	nd	nd	nd	nd	nd		
Chromium	500	1	11	12	41	30	10		49	18	9	26	14	35	28	74	20	37	14	22	28	11	9	18	20	7		
Copper	5000	1	100	7	260	18	14		210	9	98	66	12	74	nd	61	7	360	390	nd	240	65	nd	nd	86	9		
Nickel	3000	1	17	2	30	3	3		23	nd	10	10	4	58	5	75	30	25	48	2	29	17	2	2	18	nd		
Lead	1500	1	190	56	1200	26	130		730	14	120	190	97	210	33	120	17	200	120	13	370	49	17	13	170	19		
Zinc	35000	1	130	nd	1100	23	9		520	72	66	130	26	150	13	280	220	460	520	8	250	290	nd	8	200	9		
Mercury	50	1	0.13	0.14	0.57	nd	0.26		0.51	nd	0.09	0.41	0.26	0.07	nd	0.15	nd	0.36	0.1	nd	0.43	0.16	nd	nd	0.15	nd		
TOTAL CYANIDE	2500	1					nd			nd				0.7			98						nd	nd	3.4	3.4	3	
BTEX																												
Benzene	1	2	nd	nd			nd	nd	nd	nd		nd	nd	nd	nd	nd	nd		nd	nd		nd						
Toluene	130	2	nd	nd			nd	nd	nd	nd		nd	nd	nd	nd	nd	nd		nd	nd		nd						
Ethylbenzene	50	2	nd	nd			nd	nd	nd	nd		nd	nd	nd	nd	nd	8		nd	nd		nd						
Total Xylenes	25	2	nd	nd			5	nd	nd	nd		nd	nd	3	nd	nd	32		nd	nd		nd						
TOTAL PETROLEUM HYDROCARBONS																												
C6-C9 Fraction	65	2	nd				12	nd	nd	nd		nd		11	nd	nd			nd			nd						
C10-C14 Fraction			20				50	nd	120	nd		1000		2600	70	1300			120			30						
C15-C28 Fraction			340				nd	nd	3300	300		9700		15000	580	11000			740			300						
C29-C36 Fraction			160				nd	nd	1600	260		1400		2400	260	2100			120			140						
Total TPH C10-C36	1000	2	520				50	0	5020	560		12100		20000	910	14400			980			470						
>C16-C35 Aromatics	450	1																										
>C16-C35 Aliphatics	28000	1																										
>C35 Aliphatics	280000	1																										
POLYCYCLIC AROMATIC HYDROCARBONS																												
Naphthalene			nd	3	0.6	nd	0.9	nd	3.4	nd	nd	28	nd	99	nd	51	650	1.8	7	2.8	1.2	nd		0.8	nd	0.6		
Acenaphthylene			0.5	0.5	1.4	2.8	nd	nd	8	nd	nd	78	nd	72	2	68	35	1.4	3.6	2.8	2	nd		1.6	nd	nd		
Acenaphthene			nd	5	nd	nd	nd	nd	0.8	nd	nd	12	nd	29	nd	15	41	nd	1.4	2.2	nd	nd		nd	nd	nd		
Fluorene			nd	5.2	0.6	0.5	nd	nd	4.2	nd	nd	66	nd	120	nd	78	61	1.2	3.6	6	1.6	nd		nd	nd	nd		
Phenanthrene			0.6	7.6	17	0.7	nd	nd	34	nd	nd	290	nd	390	1.4	270	100	5.4	15	4.8	12	2.2		3.2	nd	nd		
Anthracene			nd	2	3.6	1.8	nd	nd	10	nd	nd	82	nd	120	0.9	87	30	1.8	6.2	6.8	3.6	nd		0.9	nd	nd		
Fluoranthene			2.2	1.8	23	14	nd	nd	42	nd	nd	230	nd	290	5	270	51	6.8	12	11	16	4		5.4	nd	nd		
Pyrene			4.4	3.4	25	40	nd	nd	48	nd	nd	240	nd	320	20	290	54	8.4	13	19	19	4.6		7	nd	nd		
Benzo(a)anthracene			1.4	0.7	13	24	nd	nd	30	nd	nd	190	nd	280	7.6	250	31	5.4	8.2	6.4	12	3		4.8	nd	nd		
Chrysene			2	0.5	8	10	nd	nd	21	nd	nd	80	nd	96	9.2	89	14	3.4	5.2	4.4	7.8	2.6		3.6	nd	nd		
Benzo[b,k]fluoranthene			3	nd	18	35	nd	nd	37	nd	nd	170	nd	250	26	270	30	7	9	5	14	5		8	nd	nd		
Benzo(a)pyrene	5	1	3	0.9	14	35	nd	nd	27	nd	nd	140	nd	190	30	200	26	4.6	7	5.4	11	2.8		5.8	nd	nd		
Indeno(123-cd)pyrene			2.2	0.5	10	20	nd	nd	15	nd	nd	52	nd	70	16	84	13	3.2	4.2	2.6	6.2	2		4.2	nd	nd		
Dibenz(ah)anthracene			nd	nd	1.2	2.6	nd	nd	3.4	nd	nd	11	nd	11	2.2	10	1.6	0.5	0.7	nd	1	nd		0.6	nd	nd		
Benzo(ghi)perylene			2	0.5	6.4	17	nd	nd	11	nd	nd	28	nd	37	17	46	7.2	2.4	3.2	2.8	4.6	1.8		3.4	nd	nd		
Total PAHs	100	1	21.3	31.6	141.8	203.4	0.9	0	294.8	0	0	1697	0	2374	137.3	2078	1144.8	53.3	99.3	82	112	28		49.3	0	0.6		
TOTAL PHENOLS	42500	1			0	0			18.4			419		65	0	50	0		0		0							
OCPs	50 to 1000	1	nd			0										0												
PCBs	50	1															0		0									
VOCs (6)																												
n-Butylbenzene				nd													27								nd			
sec-Butylbenzene				nd													2								nd			
Ethylbenzene	50	2		nd													7								nd			
Isopropylene				nd													12								nd			
p-Isopropyltoluene				nd													17								nd			
Naphthalene				2													780								nd			
n-Propylbenzene				nd													10								nd			
ortho-Xylene				nd																					nd			
m&p-Xylene	25	2		nd													29								nd			

NOTES:

- Exceeds HIL
- 1 Based on the Health Based Soil Investigation Level in Column F of the NEPM (1999)
- 2 Based on NSW EPA (1994) Guidelines for Assessing Service Station Sites
- 3 Located adjacent to borehole MW19S
- 4 Located adjacent to borehole MW10S
- 5 Located adjacent to borehole MW11S
- 6 Only VOCs that were detected by one or more analyses are listed
- Reference CH2M Hill (2001) Macdonaldtown Triangle Erskinsville - Soil and Groundwater Investigations of the Former Gasworks Area and Offsite
- Reference CH2M Hill (2000) Macdonaldtown Triangle Phase I and Phase II Environmental Site Assessment.
- SKM 2005 investigation

TABLE B
SUMMARY OF ALL SOIL LABORATORY RESULTS (F
All results in mg/kg

Investigator		Investigation Level	CH2M HILL		CH2M HILL		CH2M HILL		CH2M HILL		CH2M HILL		CH2M HILL		CH2M HILL		CH2M HILL		CH2M HILL		CH2M HILL		CH2M HILL		CH2M HILL		CH2M HILL	
SAMPLE ID	Human Health		BH12	BH13	BH13	BH13	BH14	BH14	BH14	BH15	BH15	BH15	BH16	BH16	BH16	SB18	SB18	SB18	MW03	MW03	MW04	MW04	TPA	TPC	TPD	TPD	TPD	TPD
Date of Sampling	Industrial	April 2000	April 2000	April 2000	April 2000	April 2000	April 2000	April 2000	April 2000	April 2000	April 2000	April 2000	April 2000	April 2000	April 2000	April 2000	April 2000	April 2000	April 2000	April 2000	April 2000	April 2000	April 2000	April 2000	April 2000	April 2000	April 2000	April 2000
Depth (m)		4.40-4.50	0.00-0.10	0.20-0.30	0.90-1.00	0.00-0.10	0.20-0.30	0.90-1.00	0.00-0.10	0.20-0.30	0.90-1.00	0.00-0.10	0.90-1.00	3.00-3.10	0.20-0.30	1.70-1.80	3.90-4.00	1.00-1.10	2.00-2.10	1.00-1.10	2.00-2.10	1.6	1	0.2	0.6	0.0-0.10		
Material			Natural	FILL	FILL	Natural	FILL	FILL	FILL	FILL	FILL	FILL	FILL	Natural	FILL	FILL	Natural	Natural	Natural	Natural	Natural	FILL	FILL	FILL	Natural	FILL		
HEAVY METALS																												
Arsenic	500	1		57	7		24	nd	7	11	6		16	5	9	22	nd	nd	11	5	15	nd	nd	nd	nd	nd	nd	
Cadmium	100	1		nd	nd		0.9	nd	nd	0.5	nd		nd	nd	nd	0.6	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	
Chromium	500	1		12	11		19	12	22	14	16		10	14	13	32	19	19	8	9	43	13	16	19	nd	6	17	
Copper	5000	1		110	57		120	8	15	65	25		130	15	5	99	10	10	24	16	24	11	17	nd	32	nd	46	
Nickel	3000	1		14	16		18	nd	5	13	9		11	2	nd	24	7	7	12	3	3	3	4	5	6	nd	110	
Lead	1500	1		190	160		280	8	49	150	58		200	27	39	280	98	98	43	82	26	85	25	15	18	8	8	
Zinc	35000	1		150	160		250	24	110	190	70		100	45	nd	300	310	310	130	26	17	17	28	31	73	68	58	
Mercury	50	1		0.13	0.16		0.16	nd	nd	0.11	nd		0.15	0.07	nd	0.26	nd	nd	0.07	0.08	nd	0.08	nd	0.1	0.07	0.06	nd	
TOTAL CYANIDE	2500	1	nd					nd					nd			8.8						5.6	34		nd			
BTEX																												
Benzene	1	2	1		1.6	nd		nd	4.6		nd	nd	nd	nd	nd	nd	7	nd	nd	nd	nd	4	1.6	nd	nd	nd	nd	
Toluene	130	2	3		5	nd		nd	nd		nd	nd	nd	nd	nd	11	nd	nd	nd	nd	nd	15	5	nd	nd	nd		
Ethylbenzene	50	2	nd		nd	nd		nd	26		nd	nd	nd	nd	nd	80	nd	nd	nd	nd	nd	7	9	nd	nd	nd		
Total Xylenes	25	2	4		9	nd		nd	48		nd	nd	nd	nd	nd	210	nd	nd	nd	nd	nd	65	48	nd	nd	nd		
TOTAL PETROLEUM HYDROCARBONS																												
C6-C9 Fraction	65	2	9		24			nd			nd					nd		nd	nd	nd	nd	100						
C10-C14 Fraction			300		400			nd			90					3400		nd	nd	nd	nd	1600						
C15-C28 Fraction			420		3400			nd			2800					26000		nd	nd	nd	nd	1400						
C29-C36 Fraction			nd		3300			nd			1500					9000		nd	nd	nd	nd	200						
Total TPH C10-C36	1000	2	720		7100			0			4390					38400		nd	nd	nd	nd	3200						
>C16-C35 Aromatics	450	1																										
>C16-C35 Aliphatics	28000	1																										
>C35 Aliphatics	280000	1																										
POLYCYCLIC AROMATIC HYDROCARBONS																												
Naphthalene			84	0.5	5	nd	nd	nd	3.8	0.7	1.6	nd	0.7	nd	nd	280	1700	1.8	nd	nd	nd	3.6	320	520	0.6	nd	nd	
Acenaphthylene			2.6	0.9	9.4	nd	0.7	nd	nd	0.6	3.6	nd	1.2	nd	nd	160	15	nd	nd	nd	nd	20	14	1.2	nd	nd		
Acenaphthene			2.6	nd	1	nd	nd	nd	nd	nd	1.2	nd	nd	nd	nd	33	17	nd	nd	nd	nd	6.2	21	nd	nd	nd		
Fluorene			14	nd	4.6	nd	nd	nd	nd	nd	2.8	nd	0.5	nd	nd	120	46	nd	nd	nd	nd	24	27	nd	nd	nd		
Phenanthrene			34	3.6	39	nd	1.4	nd	nd	3.2	21	1	5.8	nd	nd	740	94	nd	nd	nd	nd	47	46	5.6	nd	nd		
Anthracene			10	1	11	nd	0.5	nd	nd	1.2	6.8	nd	1.6	nd	nd	190	32	nd	nd	nd	nd	15	17	1.4	nd	nd		
Fluoranthene			20	5.2	50	0.6	3.4	nd	nd	7.2	33	1.2	9.4	nd	nd	580	50	nd	1	0.7	nd	28	25	9	nd	nd		
Pyrene			16	6.6	67	nd	5.2	nd	nd	11	56	2.2	12	nd	nd	600	65	nd	2.4	1	nd	26	32	13	nd	nd		
Benzo(a)anthracene			9	3.6	30	nd	3.2	nd	nd	7.6	43	1.4	8	nd	nd	320	29	nd	0.9	nd	nd	11	11	6.6	nd	nd		
Chrysene			6.4	2.6	25	nd	2	nd	nd	5	29	1	5.4	nd	nd	200	20	nd	0.8	nd	nd	10	9.2	6.2	nd	nd		
Benzo[b,k]fluoranthene			11	6	56	nd	6	nd	nd	16	60	3	13	nd	nd	310	31	nd	2	nd	nd	13	12	11	nd	nd		
Benzo(a)pyrene	5	1	8.4	4.6	39	nd	5	nd	nd	16	58	2.4	11	nd	nd	220	28	nd	1.4	0.5	nd	8.4	8.4	6.2	nd	nd		
Indeno(123-cd)pyrene			4	2.6	41	nd	3	nd	nd	9.8	30	1.2	6.4	nd	nd	110	17	nd	1.2	0.5	0.6	4.2	3.8	3.8	nd	nd		
Dibenz(ah)anthracene			nd	nd	6.2	nd	nd	nd	nd	1.2	6.8	nd	0.8	nd	nd	19	3.8	nd	nd	nd	nd	0.9	0.8	0.9	nd	nd		
Benzo(ghi)perylene			2.4	2	29	nd	2.4	nd	nd	9.2	25	1.4	4.8	nd	nd	71	13	nd	1.2	nd	0.7	3.2	3.4	3.2	nd	nd		
Total PAHs	100	1	224.4	39.2	413.2	0.6	32.8	0	3.8	88.7	377.8	14.8	80.6	0	0	3953	2160.8	1.8	10.9	2.7	1.3	3.6	536.9	750.6	68.7	0	0	
TOTAL PHENOLS																												
	42500	1	34.2		0						0					97	0					0	0					
OCPs																												
	50 to 1000	1																										
PCBs																												
	50	1					0																					
VOCs (6)																												
n-Butylbenzene						nd																						
sec-Butylbenzene						nd																						
Ethylbenzene	50	2				nd																						
Isopropylene						nd																						
p-Isopropyltoluene						nd																						
Naphthalene						nd																						
n-Propylbenzene						nd																						
ortho-Xylene	25	2				nd																						
m&p-Xylene						nd																						

NOTES:

- Exceeds HIL
- 1 Based on the Health
- 2 Based on NSW EP
- 3 Located adjacent to
- 4 Located adjacent to
- 5 Located adjacent to
- 6 Only VOCs that we
- Reference CH2M F
- Reference CH2M F
- SKM 2005 invest

TABLE B
SUMMARY OF ALL SOIL LABORATORY RESULTS (F
All results in mg/kg

All results in mg/kg																							
Investigator	Investigation Level		CH2M HILL	CH2M HILL	CH2M HILL	CH2M HILL	CH2M HILL	CH2M HILL	CH2M HILL	CH2M HILL	CH2M HILL	CH2M HILL	CH2M HILL	CH2M HILL	CH2M HILL	CH2M HILL	CH2M HILL	SKM	SKM	SKM	SKM	SKM	
SAMPLE ID	Human Health		TP99	TP99	A25 (5)	A29 (4)	A31 (3)	MW07D	MW08D	MW09S	MW10S	MW11S	MW12D	MW13S	MW13D	MW18D	MW19S	MW20S	MW30	MW31	MW32	MW33	MW34
Date of Sampling	Industrial		April 2000	April 2000	Oct 2001	Oct 2001	Oct 2001	Oct 2001	Oct 2001	Oct 2001	Oct 2001	Oct 2001	Oct 2001	Oct 2001	Oct 2001	Oct 2001	Oct 2001	Oct 2001	Dec 2004	Dec 2004	Dec 2004	Dec 2004	Dec 2004
Depth (m)			0.20-0.30	2.00-2.10	0.0-0.10	0.0-0.10	0.0-0.10	1.4-1.5	1.4-1.5	1.3-1.4	0.9-1.1	0.6-0.8	1.4-1.5	0.9-1.0	1.4-1.5	1.4-1.5	1.2-1.3	0.9-1.0	0-0.45	0.50-0.95	1.2	0.50-0.95	1.4
Material			FILL	Natural	FILL	FILL	FILL	Natural	Natural	Natural	FILL	FILL	FILL	FILL	FILL	FILL	Natural	FILL	FILL	FILL	FILL	Natural	Natural
HEAVY METALS																							
Arsenic	500	1	nd	nd	5	14	14	4	11	14	18	14	4	178	7	10	15	13					
Cadmium	100	1	nd	nd	nd	2	1	nd	nd	2	2	nd	nd	nd	nd	nd	1	nd					
Chromium	500	1	nd	nd	10	22	21	13	50	35	24	17	12	14	4	31	23	5					
Copper	5000	1	88	21	35	207	161	12	7	57	149	77	17	85	28	19	117	64					
Nickel	3000	1	12	nd	6	13	11	2	3	6	18	10	nd	9	2	nd	17	3					
Lead	1500	1	110	13	146	1220	1100	100	129	453	1160	772	32	474	27	30	1030	394					
Zinc	35000	1	120	11	184	512	451	31	21	383	545	818	55	177	75	22	593	166					
Mercury	50	1	nd	nd	0.1	0.7	0.5	0.2	nd	0.3	0.5	0.4				nd	0.6						
TOTAL CYANIDE	2500	1																					
BTEX																							
Benzene	1	2	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	
Toluene	130	2	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	
Ethylbenzene	50	2	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	
Total Xylenes	25	2	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	
TOTAL PETROLEUM HYDROCARBONS																							
C6-C9 Fraction	65	2			nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd					
C10-C14 Fraction					~	~	~	~	~	~	~	~	~	~	~	~	~	~					
C15-C28 Fraction					~	~	~	~	~	~	~	~	~	~	~	~	~	~					
C29-C36 Fraction					~	~	~	~	~	~	~	~	~	~	~	~	~	~					
Total TPH C10-C36	1000	2			792	1654	558	0	0	0	352	0	0	6444	0	0	0	398					
>C16-C35 Aromatics	450	1																	113	50	nd	2124	92
>C16-C35 Aliphatics	28000	1																	154	65	nd	217	nd
>C35 Aliphatics	280000	1																					
POLYCYCLIC AROMATIC HYDROCARBONS																							
Naphthalene			nd	nd	nd	0.6	nd	nd	nd	nd	nd	nd	nd	9.7	nd	nd	nd	nd					
Acenaphthylene			nd	nd	nd	2.6	1	nd	nd	nd	1.2	0.8	0.7	10.7	0.7	nd	nd	1.3					
Acenaphthene			nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	1	nd	nd	nd	nd					
Fluorene			nd	nd	nd	0.5	nd	nd	nd	nd	nd	nd	0.5	4.2	nd	nd	nd	0.5					
Phenanthrene			1.4	nd	nd	7.5	4.4	nd	0.7	nd	5	3.6	4.5	31.2	nd	nd	1.5	7.3					
Anthracene			nd	nd	nd	2.7	1.3	nd	nd	nd	1.5	0.9	1.5	10.1	nd	nd	nd	2.2					
Fluoranthene			1.6	nd	nd	20.3	8.6	nd	1.2	nd	10.6	4.9	6.6	41.8	0.6	nd	3.2	11.4					
Pyrene			1.8	nd	nd	24.7	9.7	nd	1.5	nd	12	4.9	9.1	63.3	1.2	nd	3.6	12.7					
Benzo(a)anthracene			1.2	nd	nd	13.6	4.8	nd	0.8	nd	6.7	2.4	4	23.5	0.6	nd	1.9	6.8					
Chrysene			1.2	nd	nd	12.7	5.6	nd	0.7	nd	6.7	2.4	4.2	26.9	0.8	nd	1.8	6.5					
Benzo[b,k]fluoranthene			2	nd	nd	20	8	nd	nd	nd	9	3	9	46	2	nd	3	8					
Benzo(a)pyrene	5	1	1.2	nd	nd	12.3	5	nd	0.7	nd	5.7	1.9	7.7	34.9	1	nd	1.6	6.1					
Indeno(123-cd)pyrene			0.8	nd	nd	5.6	2.4	nd	nd	nd	2.5	0.8	3.8	16	0.6	nd	0.7	2.4					
Dibenz(ah)anthracene			nd	nd	nd	1.9	0.7	nd	nd	nd	0.8	nd	1.2	4.6	nd	nd	nd	0.9					
Dibenz(ghi)perylene			0.6	nd	nd	6.1	2.8	nd	nd	nd	2.8	0.8	5.4	22.1	0.8	nd	0.8	2.8					
Total PAHs	100	1	11.8	0	0	131.1	54.3	0	5.6	0	64.5	26.4	58.2	346	8.3	0	18.1	68.9					
TOTAL PHENOLS	42500	1				0		0		0				5.9	0	0	0						
OCPs	50 to 1000	1	nd																				
PCBs	50	1	nd																				
VOCs (6)																							
n-Butylbenzene			nd									nd	nd	nd			nd						
sec-Butylbenzene			nd									nd	nd	nd			nd						
Ethylbenzene	50	2	nd									nd	nd	nd			nd						
Isopropylene			nd																				
p-Isopropyltoluene			nd										nd	nd	nd		nd						
Naphthalene			nd										nd	nd	nd		nd						
n-Propylbenzene			nd										nd	nd	nd		nd						
ortho-Xylene	25	2	nd										nd	nd	nd		nd						
m&p-Xylene			nd										nd	nd	nd		nd						

NOTES:
 Exceeds HIL
 1 Based on the Health
 2 Based on NSW EP
 3 Located adjacent to
 4 Located adjacent to
 5 Located adjacent to
 6 Only VOCs that were
 Reference CH2M Hill
 Reference CH2M Hill
 SKM 2005 investigation

TABLE C
STATISTICAL ANALYSIS OF FILL CHEMICAL DATA - FORMER GASWORKS AREA
All results in mg/kg

	Investigation Level Human Health Industrial	Hot Spot Criteria	Count	Maxiumum	Minimum	Average	SD	CV	t-statistic	95% UCL	
Material											
HEAVY METALS											
Arsenic	500	1	1250	45	200	nd	19.0	39.3	2.07	1.683	28.8
Cadmium	100	1	250	45	2	nd	0.3	0.6	1.88	1.683	0.5
Chromium	500	1	1250	45	74	nd	19.4	13.3	0.69	1.683	22.7
Copper	5000	1	12500	45	390	nd	83.1	91.7	1.10	1.683	106.1
Nickel	3000	1	7500	45	110	nd	16.2	21.0	1.29	1.683	21.5
Lead	1500	1	3750	45	1220	8	241.8	339.4	1.40	1.683	327.0
Zinc	35000	1	87500	45	1100	nd	210.2	227.4	1.08	1.683	267.2
Mercury	50	1	125	41	0.7	nd	0.2	0.2	1.17	1.687	0.2
TOTAL CYANIDE	2500	1	6250	12	98	nd	13.1	28.4	2.17	1.796	27.8
BTEX											
Benzene	1	2	2.5	38	7	nd	0.4	1.4	3.52	1.689	0.8
Toluene	130	2	325	38	15	nd	0.9	3.1	3.30	1.689	1.8
Ethylbenzene	50	2	125	38	80	nd	3.4	13.6	3.97	1.689	7.1
Total Xylenes	25	2	62.5	38	210	nd	10.9	36.6	3.35	1.689	20.9
TOTAL PETROLEUM HYDROCARBONS											
C6-C9 Fraction	65	2	162.5	24	100	nd	5.6	20.8	3.70	1.708	12.9
C10-C14 Fraction											
C15-C28 Fraction											
C29-C36 Fraction											
Total TPH C10-C36	1000	2	2500	24	38400	nd	4927.0	8843.9	1.79	1.708	8010.4
>C16-C35 Aromatics	450	1	1125	3	113	nd	54.3	56.6	1.04	2.920	149.8
>C16-C35 Aliphatics	28000	1	70000	3	154	nd	73.0	77.3	1.06	2.920	203.3
>C35 Aliphatics	280000	1	700000	0							
POLYCYCLIC AROMATIC HYDROCARBONS											
Naphthalene				46	1700	nd	80.2	278.1	3.47	1.683	149.2
Acenaphthylene				46	160	nd	11.4	29.0	2.56	1.683	18.6
Acenaphthene				46	41	nd	4.0	9.5	2.36	1.683	6.4
Fluorene				46	120	nd	12.4	29.6	2.38	1.683	19.8
Phenanthrene				46	740	nd	48.3	131.5	2.72	1.683	80.9
Anthracene				46	190	nd	14.1	36.1	2.56	1.683	23.0
Fluoranthene				46	580	nd	40.9	103.8	2.54	1.683	66.7
Pyrene				46	600	nd	46.4	108.8	2.35	1.683	73.4
Benzo(a)anthracene				46	320	nd	30.4	73.7	2.42	1.683	48.7
Chrysene				46	200	nd	16.0	35.3	2.21	1.683	24.7
Benzo(b,k)fluoranthene				46	310	nd	33.2	70.9	2.14	1.683	50.8
Benzo(a)pyrene	5	1	12.5	46	220	nd	25.7	52.8	2.06	1.681	38.7
Indeno(123-cd)pyrene				46	110	nd	12.4	23.3	1.88	1.683	18.2
Dibenz(ah)anthracene				46	19	nd	2.1	3.8	1.83	1.683	3.0
Benzo(ghi)perylene				46	71	nd	8.7	14.2	1.63	1.683	12.2
Total PAHs	100	1	250	46	3953	nd	386.0	804.5	2.08	1.681	585.5
TOTAL PHENOLS	42500	1	106250	21	419	nd	31.2	92.6	2.97	1.729	66.2
OCPs	50 to 1000	1	150 to 2500	4	nd	nd	0.0	0.0	--	1.729	nd
PCBs	50	1	125	3	nd	nd	0.0	0.0	--	1.729	nd
VOCs (6)											
n-Butylbenzene				8	nd	nd	3.4	9.5	--	1.943	nd
sec-Butylbenzene				8	nd	nd	0.3	0.7	--	1.943	nd
Ethylbenzene	50	2	125	8	nd	nd	0.9	2.5	--	1.943	nd
Isopropylene				4	nd	nd	3.0	6.0	--	2.920	nd
p-Isopropyltoluene				8	nd	nd	2.1	6.0	--	1.943	nd
Naphthalene				8	780	nd	97.8	275.7	2.82	1.943	287.1
n-Propylbenzene				8	nd	nd	1.3	3.5	--	1.943	nd
ortho-Xylene											
m&p-Xylene	25	2	62.5	8	nd	nd	3.6	10.3	--	1.943	nd

NOTES:

95% UCL exceeds HIL

Maximum concentration exceeds Hot Spot Criteria

1 Based on the Health Based Soil Investigation Level in Column F of the NEPM (1999)

2 Based on NSW EPA (1994) Guidelines for Assessing Service Station Sites

3 Located adjacent to borehole MW19S

4 Located adjacent to borehole MW10S

5 Located adjacent to borehole MW11S

6 Only VOCs that were detected by one or more analyses are listed

TABLE D
STATISTICAL ANALYSIS OF NATURAL SOILS CHEMICAL DATA - FORMER GASWORKS AREA
All results in mg/kg

	Investigation Level Human Health Industrial		Hot Spot Criteria	Count	Maxiumum	Minimum	Average	SD	CV	t-statistic	95% UCL
Material											
HEAVY METALS											
Arsenic	500	1	1250	17	15	nd	5.2	6.0	1.14	1.740	7.8
Cadmium	100	1	250	17	2	nd	0.2	0.5	3.00	1.740	0.4
Chromium	500	1	1250	17	50	nd	18.5	13.2	0.71	1.740	24.1
Copper	5000	1	12500	17	117	nd	20.0	28.4	1.42	1.740	32.0
Nickel	3000	1	7500	17	17	nd	4.4	4.5	1.02	1.740	6.2
Lead	1500	1	3750	17	1030	8	144.5	250.2	1.73	1.740	250.1
Zinc	35000	1	87500	17	593	nd	115.8	174.6	1.51	1.740	189.5
Mercury	50	1	125	17	0.6	nd	0.1	0.2	1.46	1.740	0.2
TOTAL CYANIDE	2500	1	6250	4	0	nd	0.0	0.0	#DIV/0!	2.353	0.0
BTEX											
Benzene	1	2	2.5	21	7	nd	0.6	1.7	3.01	1.725	1.2
Toluene	130	2	325	21	11	nd	0.7	2.5	3.68	1.725	1.6
Ethylbenzene	50	2	125	21	80	nd	3.8	17.5	4.58	1.725	10.4
Total Xylenes	25	2	62.5	21	210	nd	10.4	45.7	4.39	1.725	27.6
TOTAL PETROLEUM HYDROCARBONS											
C6-C9 Fraction	65	2	162.5	11	12	nd	1.9	4.3	2.25	1.833	4.3
C10-C14 Fraction											
C15-C28 Fraction											
C29-C36 Fraction											
Total TPH C10-C36	1000	2	2500	11	720	nd	70.0	216.1	3.09	1.833	189.4
>C16-C35 Aromatics	450	1	1125	2	2124	92	1108.0	1436.8	1.30	6.314	7523.0
>C16-C35 Aliphatics	28000	1	70000	2	217	nd	108.5	153.4	1.41	6.314	793.6
>C35 Aliphatics	280000	1	700000	0							
POLYCYCLIC AROMATIC HYDROCARBONS											
Naphthalene											
Acenaphthylene											
Acenaphthene											
Fluorene											
Phenanthrene											
Anthracene											
Fluoranthene											
Pyrene											
Benzo(a)anthracene											
Chrysene											
Benzo(b,k)fluoranthene											
Benzo(a)pyrene	5	1	12.5	19	28	nd	2.4	6.6	2.71	1.734	5.0
Indeno(123-cd)pyrene											
Dibenz(ah)anthracene											
Benzo(ghi)perylene											
Total PAHs	100	1	250	19	2160.8	nd	132.2	494.1	3.74	1.734	328.8
TOTAL PHENOLS	42500	1	106250	4	nd	nd	nd	17.1	0.00	1.740	nd
OCPs	50 to 1000	1	150 to 2500	0							
PCBs	50	1	125	1	nd	nd	nd	#DIV/0!	0.00	6.314	nd
VOCs (6)											
n-Butylbenzene				1	nd	nd	nd				nd
sec-Butylbenzene				1	nd	nd	nd				nd
Ethylbenzene	50	2	125	1	nd	nd	nd				nd
Isopropylene				1	nd	nd	nd				nd
p-Isopropyltoluene				1	nd	nd	nd				nd
Naphthalene				1	nd	nd	nd				nd
n-Propylbenzene				1	nd	nd	nd				nd
ortho-Xylene											
m&p-Xylene	25	2	62.5	1	nd	nd	nd				nd

NOTES:

95% UCL exceeds HIL

Maximum concentration exceeds Hot Spot Criteria

1 Based on the Health Based Soil Investigation Level in Column F of the NEPM (1999)

2 Based on NSW EPA (1994) Guidelines for Assessing Service Station Sites

3 Located adjacent to borehole MW19S

4 Located adjacent to borehole MW10S

5 Located adjacent to borehole MW11S

6 Only VOCs that were detected by one or more analyses are listed

TABLE E
SUMMARY OF HISTORICAL WATER LABORATORY RESULTS FROM THE SHALLOW AQUIFER WELLS

Reference SAMPLE ID Date of Sampling	Threshold Concentration			CH2M HLL	CH2M HLL	CH2M HLL	CH2M HLL	CH2M HLL	CH2M HLL	CH2M HLL	CH2M HLL	CH2M HLL	CH2M HLL	CH2M HLL	CH2M HLL	CH2M HLL	CH2M HLL	CH2M HLL	CH2M HLL	CH2M HLL
	Freshwater	Health	Aesthetic	MW14S 4/10/2001	MW16S 4/10/2001	MW15S 5/10/2001	MW99S 9/10/2001	MW19S 5/10/2001	MW10S 5/10/2001	MW11S 5/10/2001	MW03S 5/11/2000	MW03S 4/10/2001	MW04S 5/11/2000	MW04S 4/10/2001	MW06S 4/10/2001	MW07S 4/10/2001	MW12S 3/10/2001	MW13S 3/10/2001	MW17S 4/10/2001	MW26S 3/10/2001
HEAVY METALS																				
Arsenic (total)	24 ³	7	---	nd	nd	nd	nd	nd	nd	nd	1	0.001	2	0.002	nd	nd	nd	nd	nd	0.023
Cadmium	0.2	2	---	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Chromium	3.3	55000 ³	---	nd	nd	nd	nd	nd	nd	nd	4	nd	15	nd	nd	nd	nd	nd	nd	nd
Copper	1.4	2000	1000	0.004	0.004	0.003	0.002	0.003	0.001	0.002	3	0.002	nd	0.001	0.002	0.002	nd	0.002	0.004	0.001
Lead	3.4	10	---	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	0.01	0.006
Mercury (inorganic)	0.06	1	---	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Nickel	11	20	---	0.016	0.011	0.006	0.005	0.005	0.002	0.004	4	0.024	10	0.003	0.002	nd	0.002	0.008	0.003	0.001
Zinc	8	---	3000	0.092	0.276	0.061	0.337	0.165	0.33	0.171	12	0.055	13	0.045	0.041	0.044	0.033	0.135	0.184	0.034
Cyanide	7	80	---	nd	nd	nd	nd	nd	nd	nd	---	0.176	---	0.283	0.02	0.475	0.051	0.189	0.129	0.479
Iron (II)	---	300	---	---	---	---	---	---	---	---	55600	---	35300	---	---	---	---	---	---	---
BTEX																				
Benzene	950	1	---	nd	nd	nd	nd	nd	nd	nd	74	nd	nd	nd	17	704	nd	nd	nd	nd
Toluene	180	500	25	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	10	117	nd	nd	nd	nd
Chlorobenzene	50	300	3	nd	nd	nd	nd	nd	nd	nd	---	nd	---	nd	nd	nd	nd	nd	nd	nd
Ethylbenzene	350	600	20	nd	nd	nd	nd	nd	nd	nd	28	nd	nd	nd	8	213	nd	nd	nd	7
Total Xylene	200	---	20	nd	nd	nd	nd	nd	nd	nd	15	nd	nd	nd	72	417	nd	nd	nd	5
Total Petroleum Hydrocarbons																				
C6-C9 Fraction	150	---	---	nd	nd	nd	nd	nd	nd	nd	140	nd	nd	nd	177	2170	373	26	nd	26
Total TPH C10-C36	600 ⁴	---	---	nd	nd	nd	nd	nd	nd	nd	1393	nd	nd	nd	67	389	9495	2112	374	429
Monocyclic Aromatic Hydrocarbons																				
Benzene	---	---	---	nd	nd	nd	nd	nd	nd	nd	---	nd	---	nd	15	644	nd	nd	nd	nd
Toluene	---	1	---	nd	nd	nd	nd	nd	nd	nd	---	nd	---	nd	9	90	nd	nd	nd	nd
Ethylbenzene	---	800	25	nd	nd	nd	nd	nd	nd	nd	---	nd	---	nd	7	167	nd	nd	nd	6
meta- & para-Xylene*	---	---	---	nd	nd	nd	nd	nd	nd	nd	---	nd	---	nd	29	166	nd	nd	nd	nd
Styrene	---	---	---	nd	nd	nd	nd	nd	nd	nd	---	nd	---	nd	nd	42	nd	nd	nd	nd
ortho-Xylene	---	---	---	nd	nd	nd	nd	nd	nd	nd	---	nd	---	nd	36	208	nd	nd	nd	nd
Isopropylbenzene	---	---	---	nd	nd	nd	nd	nd	nd	nd	---	nd	---	nd	nd	10	nd	nd	nd	nd
n-Propylbenzene	---	---	---	nd	nd	nd	nd	nd	nd	nd	---	nd	---	nd	nd	22	nd	nd	nd	nd
1,3,5-Trimethylbenzene	---	---	---	nd	nd	nd	nd	nd	nd	nd	---	nd	---	nd	7	50	nd	nd	nd	nd
sec-Butylbenzene	---	---	---	nd	nd	nd	nd	nd	nd	nd	---	nd	---	nd	nd	nd	nd	nd	nd	nd
1,2,4-Trimethylbenzene	---	---	---	nd	nd	nd	nd	nd	nd	nd	---	nd	---	nd	7	339	nd	nd	nd	nd
tert-Butylbenzene	---	---	---	nd	nd	nd	nd	nd	nd	nd	---	nd	---	nd	nd	nd	nd	nd	nd	nd
p-Isopropyltoluene	---	---	---	nd	nd	nd	nd	nd	nd	nd	---	nd	---	nd	nd	nd	nd	nd	nd	nd
n-Butylbenzene	---	---	---	nd	nd	nd	nd	nd	nd	nd	---	nd	---	nd	nd	nd	nd	nd	nd	nd
Oxygenated Compounds																				
Vinyl Acetate	---	---	---	nd	nd	nd	nd	nd	nd	nd	---	nd	---	nd	nd	nd	nd	nd	nd	nd
2-Butanone (MEK)	---	---	---	nd	nd	nd	nd	nd	nd	nd	---	nd	---	nd	nd	nd	nd	nd	nd	nd
4-Methyl-2-pentanone (MIBK)	---	---	---	nd	nd	nd	nd	nd	nd	nd	---	nd	---	nd	nd	nd	nd	nd	nd	nd
2-Hexanone (MBK)	---	---	---	nd	nd	nd	nd	nd	nd	nd	---	nd	---	nd	nd	nd	nd	nd	nd	nd
Fumigants																				
2,2-Dichloropropane	---	---	---	nd	nd	nd	nd	nd	nd	nd	---	nd	---	nd	nd	nd	nd	nd	nd	nd
1,2-Dichloropropane	---	---	---	nd	nd	nd	nd	nd	nd	nd	---	nd	---	nd	nd	nd	nd	nd	nd	nd
cis-1,3-Dichloropropylene	---	---	---	nd	nd	nd	nd	nd	nd	nd	---	nd	---	nd	nd	nd	nd	nd	nd	nd
trans-1,3-Dichloropropylene	---	---	---	nd	nd	nd	nd	nd	nd	nd	---	nd	---	nd	nd	nd	nd	nd	nd	nd
1,2-Dibromoethane (EDB)	---	---	---	nd	nd	nd	nd	nd	nd	nd	---	nd	---	nd	nd	nd	nd	nd	nd	nd
Halogenated Aliphatic Compounds																				
Dichlorodifluoromethane	---	---	---	nd	nd	nd	nd	nd	nd	nd	---	nd	---	nd	nd	nd	nd	nd	nd	nd
Chloromethane	---	---	---	nd	nd	nd	nd	nd	nd	nd	---	nd	---	nd	nd	nd	nd	nd	nd	nd
Vinyl chloride	---	---	---	nd	nd	nd	nd	nd	nd	nd	---	nd	---	nd	nd	nd	nd	nd	nd	nd
Bromomethane	---	0.3	---	nd	nd	nd	nd	nd	nd	nd	---	nd	---	nd	nd	nd	nd	nd	nd	nd
Chloroethane	---	---	---	nd	nd	nd	nd	nd	nd	nd	---	nd	---	nd	nd	nd	nd	nd	nd	nd
Trichlorofluoromethane	---	---	---	nd	nd	nd	nd	nd	nd	nd	---	nd	---	nd	nd	nd	nd	nd	nd	nd
1,1-Dichloroethene	---	---	---	nd	nd	nd	nd	nd	nd	nd	---	nd	---	nd	nd	nd	nd	nd	nd	nd
Iodomethane	---	---	---	nd	nd	nd	nd	nd	nd	nd	---	nd	---	nd	nd	nd	nd	nd	nd	nd
trans-1,2-Dichloroethene	---	---	---	nd	nd	nd	nd	nd	nd	nd	---	nd	---	nd	nd	nd	nd	nd	nd	nd
1,1-Dichloroethane	---	30	---	nd	nd	nd	nd	nd	nd	nd	---	nd	---	nd	nd	nd	nd	nd	nd	nd
cis-1,2-Dichloroethene	---	---	---	nd	nd	nd	nd	nd	nd	nd	---	nd	---	nd	nd	nd	nd	nd	nd	nd
1,1,1-Trichloroethane	---	---	---	nd	nd	nd	nd	nd	nd	nd	---	nd	---	nd	nd	nd	nd	nd	nd	nd
1,1-Dichloropropylene	---	---	---	nd	nd	nd	nd	nd	nd	nd	---	nd	---	nd	nd	nd	nd	nd	nd	nd
Carbon Tetrachloride	---	---	---	nd	nd	nd	nd	nd	nd	nd	---	nd	---	nd	nd	nd	nd	nd	nd	nd
1,2-Dichloroethane	---	---	---	nd	nd	nd	nd	nd	nd	nd	---	nd	---	nd	nd	nd	nd	nd	nd	nd
Trichloroethene	---	60	---	nd	nd	nd	nd	nd	nd	nd	---	nd	---	nd	nd	nd	nd	nd	nd	nd
Dibromomethane	---	---	---	nd	nd	nd	nd	nd	nd	nd	---	nd	---	nd	nd	nd	nd	nd	nd	nd
1,1,2-Trichloroethane	---	6500 ¹	---	nd	nd	nd	nd	nd	nd	nd	---	nd	---	nd	nd	nd	nd	nd	nd	nd
1,3-Dichloropropane	---	---	---	nd	nd	nd	nd	nd	nd	nd	---	nd	---	nd	nd	nd	nd	nd	nd	nd
Tetrachloroethene	---	---	---	nd	nd	nd	nd	nd	nd	nd	---	nd	---	nd	nd	nd	nd	nd	nd	nd
1,1,1,2-Tetrachloroethane	---	---	---	nd	nd	nd	nd	nd	nd	nd	---	nd	---	nd	nd	nd	nd	nd	nd	nd
trans-1,4-Dichloro-2-butene	---	---	---	nd	nd	nd	nd	nd	nd	nd	---	nd	---	nd	nd	nd	nd	nd	nd	nd
cis-1,4-Dichloro-2-butene	---	---	---	nd	nd	nd	nd	nd	nd	nd	---	nd	---	nd	nd	nd	nd	nd	nd	nd
1,1,2,2-Tetrachloroethane	---	---	---	nd	nd	nd	nd	nd	nd	nd	---	nd	---	nd	nd	nd	nd	nd	nd	nd
1,2,3-Trichloropropane	---	---	---	nd	nd	nd	nd	nd	nd	nd	---	nd	---	nd	nd	nd	nd	nd	nd	nd
Pentachloroethane	---	---	---	nd	nd	nd	nd	nd	nd	nd	---	nd	---	nd	nd	nd	nd	nd	nd	nd
1,2-Dibromo-3-chloropropane	---	---	---	nd	nd	nd	nd	nd	nd	nd	---	nd	---	nd	nd	nd	nd	nd	nd	nd
Hexachlorobutadiene	---	---	---	nd	nd	nd	nd	nd	nd	nd	---	nd	---	nd	nd	nd	nd	nd	nd	nd

TABLE F
SUMMARY OF HISTORICAL WATER LABORATORY RESULTS FROM THE DEEP AQUIFER WELLS
All results in µg/l

Reference	Threshold	CH2M HLL	CH2M HLL	CH2M HLL	CH2M HLL	CH2M HLL	CH2M HLL	CH2M HLL	CH2M HLL	CH2M HLL	CH2M HLL	CH2M HLL	CH2M HLL	CH2M HLL	CH2M HLL	CH2M HLL	CH2M HLL	CH2M HLL	CH2M HLL
SAMPLE ID	Concentration	MW14D	MW16D	MW15D	MW03D	MW3D	MW4D	MW6D	MW6D	MW6D	MW6D	MW6D	MW6D	MW6D	MW6D	MW6D	MW6D	MW6D	MW6D
Date of Sampling	Freshwater	Health	Aesthetic	5/10/2001	8/10/2001	10/10/2001	5/11/2000	4/10/2001	5/11/2000	4/10/2001	8/11/2000	4/10/2001	4/10/2001	4/10/2001	3/10/2001	3/10/2001	4/10/2001	3/10/2001	3/10/2001
HEAVY METALS																			
Arsenic (total)	24	7	—	nd	nd	nd	9	nd	5	0.002	3	nd	nd	nd	nd	nd	nd	nd	nd
Cadmium	0.2	2	—	nd	0.022	nd	nd	nd	nd	0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd
Chromium	3.3	55000	—	nd	nd	nd	4	nd	7	nd	3	nd	nd	nd	nd	nd	nd	nd	nd
Copper	1.4	2000	1000	0.003	0.002	0.001	6	0.001	8	0.001	14	0.006	0.002	0.01	0.006	0.005	0.001	nd	0.001
Lead	3.4	10	—	nd	nd	nd	nd	nd	nd	nd	7	nd	nd	nd	nd	0.002	nd	nd	nd
Mercury (inorganic)	0.06	1	—	nd	nd	nd	nd	0.0003	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Nickel	11	20	—	0.015	0.19	0.007	19	0.003	14	0.001	19	0.013	0.01	0.015	0.019	0.019	nd	0.001	nd
Zinc	8	—	3000	0.017	1.36	0.076	49	0.022	62	0.015	88	0.066	0.054	0.073	0.115	0.187	0.022	0.047	nd
Cyanide	7	80	—	nd	nd	nd	—	14.9	—	0.04	—	nd	nd	0.017	nd	nd	0.008	0.014	nd
Iron (II)			300				36500		12800		6800								
BTEX																			
Benzene	950	1	—	nd	nd	nd	74	14000	16	1050	140	14	nd	1230	911	nd	nd	150	nd
Toluene	180	800	25	nd	nd	nd	nd	792	nd	nd	17	nd	nd	13	nd	nd	nd	nd	nd
Ethylbenzene	50	300	3	nd	nd	nd	25	nd	nd	nd	11	nd	nd	nd	nd	nd	nd	nd	nd
o-Xylene	350	600	20	nd	nd	nd	—	1480	—	46	—	nd	nd	3	3	nd	nd	5	nd
p-Xylene	200	—	—	nd	nd	nd	—	3530	—	38	—	0	nd	29	2	nd	nd	3	nd
Total Xylene	70	600	20				15		nd		39								
Total Petroleum Hydrocarbons																			
CS-C9 Fractions	150	—	—	nd	nd	nd	140	28800	20	1040	200	nd	nd	1280	960	nd	nd	210	nd
Total TPH C10-C36	600	—	—	nd	nd	nd	1393	13244	220	5062	480	nd	nd	204	241	nd	59	1164	nd
Monocyclic Aromatic Hydrocarbons																			
Benzene	30	1	—	nd	nd	nd	—	12700	—	953	—	13	nd	1110	828	nd	nd	136	nd
Toluene	1000	800	25	nd	nd	nd	—	710	—	nd	—	nd	nd	12	nd	nd	nd	nd	nd
Ethylbenzene				nd	nd	nd	—	1290	—	41	—	nd	nd	nd	nd	nd	nd	nd	nd
meta- & para-Xylene*				nd	nd	nd	—	1900	—	31	—	nd	nd	14	nd	nd	nd	nd	nd
Styrene	300	—	—	nd	nd	nd	—	—	—	—	—	nd	nd	nd	nd	nd	nd	nd	nd
ortho-Xylene				nd	nd	nd	—	1210	—	nd	—	nd	nd	12	nd	nd	nd	nd	nd
Isopropylbenzene				nd	nd	nd	—	5	—	30	—	nd	nd	nd	nd	nd	nd	nd	nd
n-Propylbenzene				nd	nd	nd	—	8	—	—	—	nd	nd	nd	nd	nd	nd	nd	nd
1,3,5-Trimethylbenzene				nd	nd	nd	—	26	—	19	—	nd	nd	nd	nd	nd	nd	nd	nd
sec-Butylbenzene				nd	nd	nd	—	—	—	—	—	nd	nd	nd	nd	nd	nd	nd	nd
1,2,4-Trimethylbenzene				nd	nd	nd	—	448	—	19	—	nd	nd	8	nd	nd	nd	nd	nd
tert-Butylbenzene				nd	nd	nd	—	—	—	—	—	nd	nd	nd	nd	nd	nd	nd	nd
p-Isopropyltoluene				nd	nd	nd	—	—	—	—	—	nd	nd	nd	nd	nd	nd	nd	nd
n-Butylbenzene				nd	nd	nd	—	—	—	—	—	nd	nd	nd	nd	nd	nd	nd	nd
Oxygenated Compounds																			
Vinyl Acetate				nd	nd	nd	—	—	—	—	—	nd	nd	nd	nd	nd	nd	nd	nd
2-Butanone (MEK)				nd	nd	nd	—	—	—	—	—	nd	nd	nd	nd	nd	nd	nd	nd
4-Methyl-2-pentanone (MIBK)				nd	nd	nd	—	—	—	—	—	nd	nd	nd	nd	nd	nd	nd	nd
2-Hexanone (MBK)				nd	nd	nd	—	—	—	—	—	nd	nd	nd	nd	nd	nd	nd	nd
Fumigants																			
2,2-Dichloropropane				nd	nd	nd	—	—	—	—	—	nd	nd	nd	nd	nd	nd	nd	nd
1,2-Dichloropropane				nd	nd	nd	—	—	—	—	—	nd	nd	nd	nd	nd	nd	nd	nd
cis-1,3-Dichloropropylene				nd	nd	nd	—	—	—	—	—	nd	nd	nd	nd	nd	nd	nd	nd
trans-1,3-Dichloropropylene				nd	nd	nd	—	—	—	—	—	nd	nd	nd	nd	nd	nd	nd	nd
1,2-Dibromoethane (EDB)				nd	nd	nd	—	—	—	—	—	nd	nd	nd	nd	nd	nd	nd	nd
Halogenated Aliphatic Compounds																			
Dichlorodifluoromethane				nd	nd	nd	—	—	—	—	—	nd	nd	nd	nd	nd	nd	nd	nd
Chloromethane				nd	nd	nd	—	—	—	—	—	nd	nd	nd	nd	nd	nd	nd	nd
Vinyl chloride		0.3		nd	nd	nd	—	—	—	—	—	nd	nd	nd	nd	nd	nd	nd	nd
Bromomethane				nd	nd	nd	—	—	—	—	—	nd	nd	nd	nd	nd	nd	nd	nd
Chloroethane				nd	nd	nd	—	—	—	—	—	nd	nd	nd	nd	nd	nd	nd	nd
Trichlorofluoromethane				nd	nd	nd	—	—	—	—	—	nd	nd	nd	nd	nd	nd	nd	nd
1,1-Dichloroethene				nd	nd	nd	—	—	—	—	—	nd	nd	nd	nd	nd	nd	nd	nd
Iodomethane				nd	nd	nd	—	—	—	—	—	nd	nd	nd	nd	nd	nd	nd	nd
trans-1,2-Dichloroethene				nd	nd	nd	—	—	—	—	—	nd	nd	nd	nd	nd	nd	nd	nd
1,1-Dichloroethane		30		nd	nd	nd	—	—	—	—	—	nd	nd	nd	nd	nd	nd	nd	nd
cis-1,2-Dichloroethene				nd	nd	nd	—	—	—	—	—	nd	nd	nd	nd	nd	nd	nd	nd
1,1,1-Trichloroethane				nd	nd	nd	—	—	—	—	—	nd	nd	nd	nd	nd	nd	nd	nd
1,1-Dichloropropylene				nd	nd	nd	—	—	—	—	—	nd	nd	nd	nd	nd	nd	nd	nd
Carbon Tetrachloride				nd	nd	nd	—	—	—	—	—	nd	nd	nd	nd	nd	nd	nd	nd
1,2-Dichloroethane		60		nd	nd	nd	—	—	—	—	—	nd	nd	nd	nd	nd	nd	nd	nd
Trichloroethene				nd	nd	nd	—	—	—	—	—	nd	nd	nd	nd	nd	nd	nd	nd
Dibromomethane				nd	nd	nd	—	—	—	—	—	nd	nd	nd	nd	nd	nd	nd	nd
1,1,2-Trichloroethane				nd	nd	nd	—	—	—	—	—	nd	nd	nd	nd	nd	nd	nd	nd
1,3-Dichloropropane				nd	nd	nd	—	—	—	—	—	nd	nd	nd	nd	nd	nd	nd	nd
Tetrachloroethene				nd	nd	nd	—	—	—	—	—	nd	nd	nd	nd	nd	nd	nd	nd
1,1,1,2-Tetrachloroethane				nd	nd	nd	—	—	—	—	—	nd	nd	nd	nd	nd	nd	nd	nd
trans-1,4-Dichloro-2-butene				nd	nd	nd	—	—	—	—	—	nd	nd	nd	nd	nd	nd	nd	nd
cis-1,4-Dichloro-2-butene				nd	nd	nd	—	—	—	—	—	nd	nd	nd	nd	nd	nd	nd	nd
1,1,2,2-Tetrachloroethane				nd	nd	nd	—	—	—	—	—	nd	nd	nd	nd	nd	nd	nd	nd
1,2,3-Trichloropropane				nd	nd	nd	—	—	—	—	—	nd	nd	nd	nd	nd	nd	nd	nd
Pentachloroethane				nd	nd	nd	—	—	—	—	—	nd	nd	nd	nd	nd	nd	nd	nd
1,2-Dibromo-3-chloropropane				nd	nd	nd	—	—	—	—	—	nd	nd	nd	nd	nd	nd	nd	nd
Hexachlorobutadiene				nd	nd	nd	—	—	—	—	—	nd	nd	nd	nd	nd	nd	nd	nd
Halogenated Aromatics																			
Chlorobenzene				nd	nd	nd	—	—	—	—	—	nd	nd	nd	nd	nd	nd	nd	nd
Bromobenzene				nd	nd	nd	—	—	—	—	—	nd	nd	nd	nd	nd	nd	nd	nd
2-Chlorotoluene				nd	nd	nd	—	—	—	—	—	nd	nd	nd	nd	nd	nd	nd	nd
4-Chlorotoluene				nd	nd	nd	—	—	—	—	—	nd	nd	nd	nd	nd	nd	nd	nd
1,3-Dichlorobenzene				nd	nd	nd	—	—	—	—	—	nd	nd	nd	nd	nd	nd	nd	nd
1,4-Dichlorobenzene				nd	nd	nd	—	—	—	—	—	nd	nd	nd	nd	nd	nd	nd	nd
1,2-Dichlorobenzene		40	3	nd	nd	nd	—	—	—	—	—	nd	nd	nd	nd	nd	nd	nd	nd
1,2,4-Trichlorobenzene		1500	1	nd	nd	nd	—	—	—	—	—	nd	nd	nd	nd	nd	nd	nd	nd
1,2,3-Trichlorobenzene				nd	nd	nd	—	—	—	—	—	nd	nd	nd	nd	nd	nd	nd	nd
Trihalomethanes																			
Chloroform				nd	nd	nd	—	—	—	—	—	nd	nd	nd	nd	nd	nd	nd	nd
Bromodichloromethane				nd	nd	nd	—	—	—	—	—	nd	nd	nd	nd	nd	nd	nd	nd
Dibromodichloromethane				nd	nd	nd	—	—	—	—	—	nd	nd	nd	nd	nd	nd	nd	nd
Bromoform				nd	nd	nd	—	—	—	—	—	nd	nd	nd	nd	nd	nd	nd	nd
Other																			
Carbon disulfide				nd	nd	nd	—	—	—	—	—	nd	nd	nd	nd	nd	nd	nd	nd
Naphthalene	16			nd	nd	nd	—	3300	—	932	—	15	10	32	17	7	nd	nd	31
Nitrate as N	700	50000		—	—	—	0.01	—	0.02	—	—	nd	650	2100					
Sulphate				—	—	—	580	610	—	—	—	—	—	—					
Electrical Conductivity				—	—	—	3100	2500	—	—	—	—	—	—					
pH				—	—	—	5.4	—	5	—	—	—	—	—					
Dissolved Methane				—	—	—	83	—	22	—	—	47							
Phenols																			
Phenol	320			nd	16	nd	16	34	nd	4	7	nd	nd	37	4				

NOTES:

■ Concentration exceeds the ANZECC Freshwater 95% Protection Level Criteria (2000)
■ Concentration exceeds the Health Based Preliminary US EPA Drinking Water Threshold Concentrations
■ Concentration exceeds the Aesthetic Based Drinking Water Threshold Concentrations

¹ ANZECC (2000) freshwater criteria
² NEPC (1999a) freshwater criteria
³ USEPA Preliminary Remedial Goal for tap water

³ USEPA Preliminary Remedial Goal for tap water⁴ Dutch 2000 Groundwater Intervention Value

⁵ ANZECC (2000) Arsenic (III) criteria adopted for freshwater ecosystems

⁶ A cyanide (total) criteria of 7 should only be used if no free cyanide results are available and Not Detected

⁶ A cyanide (total) was not detected.nd Not Detected
- Not Analysed

Not Analysed
 Reference State Rail Authority (2001) Macdonaldtown Triangle Erekinsville - Soil and Groundwater Investigations of the Former Gasworks Area and Offsite
 Reference State Rail Authority (2000) Macdonaldtown Triangle Phase I and Phase II Environmental Site Assessment.

Table G
Analysis of Water Samples - Nutrients, Cations and Physical Parameters (ug/L)

Threshold Concentration	Total Hardness	Calcium	Magnesium	Sodium	Potassium	NOX as N	TKN	Total Nitrogen	TOC	COD	BOD	Ammonia
Health	-	-	-	-	-	-	-	-	-	-	-	-
Aesthetic	200,000	-	-	180,000	-	-	-	-	-	-	-	500
Freshwater	-	-	-	-	-	-	-	-	-	-	-	900
Sample ID: March 2005												
MW36S						361	100	500	10000	121000		283
MW35S						<10	100	100	2000	14000	<2000	46
MW41D	28000	2000	6000	146000	2000	2570	1200	3800	3000	9000	<2000	1110
MW39S	202000	62000	12000	na	na	194	4000	4200	2000	24000	<2000	257
MW39D	53000	4000	11000	na	na	110	5600	58000	2000	100000	<2000	90
DUP 3	59000	na	na	na	na	3250	700	3900	3000	33000	<2000	58
MW40S	237000	81000	9000	na	na	74	700	700	3000	19000	<2000	52
MW40D	80000	16000	9000	na	na	18	1800	1800	9000	96000	2000	114
MW42D	20000	2000	4000	na	na	20	1700	1800	11000	107000	<2000	101
DUP 4	19000	2000	4000	na	na	237	8900	9200	16000	125000	<2000	1080
MW42S	133000	40000	8000	na	na	61	8700	8700	12000	115000	<2000	108
MW37D	116000	6000	24000	na	na	11	15300	15300	18000	173000	<2000	9680
MW37S	196000	46000	19000	na	na	62	8600	8700	16000	69000	17000	208
MW03D	142000	12000	27000	na	na	70	8000	8000	10000	461000	<2000	130
MW36D	67000	5000	14000	na	na	81	1000	1000	10000	173000	<2000	74
MW38D	114000	7000	23000	na	na	781	<100	800	7000	22000	2000	13
MW14 S	96000	na	na	na	na	15	300	300	13000	45000	<2000	82
MW14 D	139000	na	na	na	na	54	600	700	10000	38000	<2000	135
MW16 S	126000	na	na	na	na	160	1100	1200	7000	122000	2000	15
MW17 S	111000	na	na	na	na	95	1700	1800	12000	26000	14000	1340
MW04 S	130000	na	na	na	na	45	1700	1800	18000	48000	<2000	188
MW04 D	126000	na	na	na	na	40	1600	1800	9000	40000	<2000	150
DUP 1	120000	na	na	na	na	65	1600	1600	19000	60000	<2000	147
DUP 2	128000	14000	22000	na	na	38	7300	7300	11000	36000	<2000	3190
MW12 S	176000	na	na	na	na	43	5100	5100	11000	76000	<2000	2780
MW13 S	430000	na	na	na	na	382	5500	5900	28000	126000	2000	2550
MW06S	142000	43000	8000	na	na	59	100	200	16000	26000	<2000	67
MW06D	100000	7000	20000	na	na	<10	6500	6500	66000	260000	<2000	219
MW20S	306000	109000	8000	na	na	32	1200	1300	20000	68000	3000	181
MW07D	68000	2000	15000	na	na	21	2500	2600	14000	19000	<2000	549
MW18D	191000	8000	41000	na	na	39	200	200	13000	190000	<2000	107
MW13D	308000	14000	66000	na	na	25	2200	2200	14000	309000	<2000	55
MW17D	145000	11000	28000	na	na	36	37400	37400	36000	1270000	2000	1160
MW35D	238000	14000	50000	na	na							

Note

^ Cyanide as un-ionised HCN

na not analysed

Concentration exceeds the ANZECC Freshwater 95% Protection Level Criteria (2000)

Concentration exceeds the Health Based Australian Drinking Water Guideline (2004)

Concentration exceeds the Aesthetic Based Drinking Water Threshold Concentrations