

ANNEX B

Tables

Chemical Test Results (Soil) - pH, Heavy Metals, Cyanide



Client:- McMahon Services
 Location:- Former Hills Industries Site (Audit Area 2) Ackland St, Edwardstown
 Job Ref:- 3698

Test Results:-

Sample	Sample Depth	Sampled by	Material	Date Sampled	Heavy Metals																
					pH	Antimony (Sb)	Arsenic (As)	Beryllium (Be)	Cadmium (Cd)	Chromium (Cr)	Cobalt (Co)	Copper (Cu)	Lead (Pb)	Manganese (Mn)	Mercury (Hg)	Molybdenum (Mo)	Nickel (Ni)	Selenium (Se)	Silver (Ag)	Tin (Sn)	Zinc (Zn)
BH71	0.2-0.3m	EES	Fill	11/05/2007	-	-	<5	-	<1	29	-	15	54	-	<0.1	-	15	-	-	-	63
BH72	0.3-0.4m	EES	Fill	10/05/2007	-	-	<5	-	<1	19	-	10	42	-	<0.1	-	6	-	-	-	41
BH73	0.2-0.3m	EES	Fill	10/05/2007	-	-	<5	-	<1	4	-	<5	6	-	<0.1	-	<2	-	-	-	12
BH74	0.3-0.4m	EES	Fill	8/05/2007	-	-	8	-	<1	13	-	14	18	-	<0.1	-	7	-	-	-	39
BH75	0.3-0.4m	EES	Fill	8/05/2007	-	-	6	-	<1	34	-	19	47	-	<0.1	-	17	-	-	-	104
BH76	0.1-0.2m	EES	Fill	8/05/2007	-	-	<5	-	<1	29	-	15	54	-	<0.1	-	15	-	-	-	63
BH76	0.2-0.3m	EES	Fill	11/05/2007	-	-	<5	-	<1	12	-	8	35	-	<0.1	-	7	-	-	-	45
BH77	0.3-0.4m	EES	Fill	8/05/2007	-	-	14	-	1	25	-	192	401	-	0.1	-	14	-	-	-	527
BH78	0.2-0.3m	EES	Fill	11/05/2007	-	-	8	-	<1	23	-	10	41	-	<0.1	-	13	-	-	-	32
BH79	0.4-0.5m	EES	Fill	11/05/2007	-	-	<5	-	<1	25	-	21	82	-	<0.1	-	12	-	-	-	173
BH80	0.3-0.4m	EES	Fill	11/05/2007	-	-	26	-	<1	15	-	18	77	-	<0.1	-	8	-	-	-	152
BH81	0.5-0.6m	EES	Fill	11/05/2007	-	-	7	-	1	53	-	19	70	-	<0.1	-	19	-	-	-	50
BH82	0.6-0.8m	EES	Fill	11/05/2007	-	-	<5	-	<1	32	-	12	111	-	<0.1	-	12	-	-	-	34
BH84	0.2-0.3m	EES	Fill	11/05/2007	-	-	<5	-	<1	27	-	13	19	-	<0.1	-	12	-	-	-	22
BH85	0.3-0.4m	EES	Fill	10/05/2007	-	-	19	-	8	63	-	2410	828	-	<0.1	-	208	-	-	-	4120
BH86	1.8-2.0m	EES	Natural	10/05/2007	-	-	<5	-	<1	36	-	21	22	-	<0.1	-	22	-	-	-	38
BH116/1	0.05 - 0.15m	AEC	Fill	6/11/2008	8.5	<10	<2	<2	<0.5	<5	<5	<5	<5	-	<0.1	<10	5.4	<2	-	<10	13
BH117/1	0.05 - 0.15m	AEC	Fill	6/11/2008	8.6	<10	5.9	<2	<0.5	11	<5	7.5	15	-	<0.1	<10	<5	<2	-	<10	43
BH119/1	0.1 - 0.2m	AEC	Fill	6/11/2008	7.8	<10	<2	<2	<0.5	5.5	<5	<5	19	-	<0.1	<10	<5	<2	-	<10	22
BH120/1	0.15 - 0.25m	AEC	Dist Natural	6/11/2008	7.7	<10	6.6	<2	<0.5	24	8.8	17	20	-	<0.1	<10	9.9	<2	-	<10	42
BH121/1	0.05 - 0.15m	AEC	Fill	6/11/2008	8.3	<10	4.7	<2	<0.5	10	<5	5.6	5.7	-	<0.1	<10	5.8	<2	-	<10	130
BH122/1	0.0 - 0.1m	AEC	Fill	6/11/2008	7.9	<10	4.8	<2	<0.5	46	11	19	11	-	<0.1	<10	19	<2	-	<10	25

All results in mg/kg unless otherwise indicated

100	Indicates reported result is greater than laboratory operating limits (LOR)	7.7	0	4.7	0	1	4	8.8	5.6	5.7	0	0.1	0	5.4	0	0	0	0	12
	Indicates reported result is above adopted Ecological Investigation Level (EIL)	8.6	0	26	0	8	63	11	2410	828	0	0.1	0	208	0	0	0	0	4120
	Indicates reported result is above Health Investigation Level (HIL) 'D' - high density residential																		
	Indicates reported result is above Health Investigation Level (HIL) 'F' - commercial/industrial, or equivalent																		

NEPM 1999 EIL	6 - 8	20	20	-	3	400	-	100	600	500	1	200	60	100	-	50	200
NEPM 1999 HIL D	-	-	400	80	80	480000	400	4000	1200	6000	60	-	2400	390	-	-	28000
NEPM 1999 HIL F	-	-	500	100	100	600000	500	5000	1500	7500	75	-	3000	390	-	-	35000

 NEPM 1999 HIL A exceedance remaining

Chemical Test Results (Soil) - TPH, BTEX & PAH



Client:- McMahon Services
 Location:- Former Hills Industries Site (Audit Area 2) Ackland St, Edwardstown
 Job Ref:- 3698

Test Results:-

Sample	Sample Location	Sampled By	Date Sampled	Total Petroleum Hydrocarbons (TPH) & BTEX								Polycyclic Aromatic Hydrocarbons (PAH)																		
				TPH C6 - C9	TPH C10 - C14	TPH C15 - C28	TPH C29-C36	Total C10 - C36	Benzene	Toluene	Ethylbenzene	Xylenes (Total)	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a) pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c-d)pyrene	Naphthalene	Phenanthrene	Pyrene	PAHs (total)	
BH71	0.2-0.3m	EES	11/05/2007	<10	<50	<100	<100	<250	-	-	-	-	<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	<0.5	<0.5
BH72	0.3-0.4m	EES	10/05/2007	<10	<50	<100	<100	<250	-	-	-	-	<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	<0.5	<0.5
BH82	0.6-0.8m	EES	11/05/2007	<10	<50	<100	<100	<250	-	-	-	-	<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	<0.5	<0.5
BH82	3.3-3.5m	EES	11/05/2007	<10	300	1060	<100	1360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-
BH82	3.8-4.0m	EES	11/05/2007	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-
BH114/7	3.4 - 3.5m	AEC	6/11/2008	<20	87	390	<100	527	<0.05	<0.05	<0.05	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH115/2	0.6 - 0.7m	AEC	6/11/2008	20	110	630	<100	790	<0.05	<0.05	<0.05	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH115/4	2.9 - 3.0m	AEC	6/11/2008	<20	230	1000	<100	1280	<0.05	<0.05	<0.05	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH116/1	0.05 - 0.15m	AEC	6/11/2008	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH118/5	2.9 - 3.0m	AEC	6/11/2008	<20	130	580	<100	760	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH120/1	0.15 - 0.25m	AEC	6/11/2008	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	<0.1	0.1	<0.1	0.2	1.3	

All results in mg/kg unless otherwise indicated

100	Indicates reported result is above laboratory operating limits (LOR)
	Indicates reported result is above adopted Ecological Investigation Level (EIL)
	Indicates reported result is above Health Investigation Level (HIL) 'D' - high density residential
	Indicates reported result is above Health Investigation Level (HIL) 'F' - commercial/industrial, or equivalent

NEPM 1999 EIL	65*	-	-	-	1000*	1*	1.4*	3.1*	14*	-	-	-	-	1*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20*
NEPM 1999 HIL D	65*	-	-	-	1000*	0.6*	520*	8.9*	270*	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	56	-	-	80	
NEPM 1999 HIL F	65*	-	-	-	1000*	0.6*	520*	8.9*	270*	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	56	-	-	100	

* Indicates Adopted Investigation Level sourced from 1994 NSW EPA Guidelines

Chemical Test Results (Soil) - Organochlorine Pesticides



Client:- McMahon Services
 Location:- Former Hills Industries Site (Audit Area 2) Ackland St, Edwardstown
 Job Ref:- 3698

Test Results:-				Organochlorine Pesticides (OCP's)																						
Sample	Sample Location	Sampled By	Date Sampled	a-BHC	Aldrin	Dieldrin	b-BHC	Chlordane	d-BHC	DDD	4,4-DDE	DDT	Endosulfan I	Endosulfan II	Endosulfan sulphate	Endrin	Endrin aldehyde	Endrin ketone	g-BHC (Lindane)	Heptachlor	Heptachlor epoxide	Hexachlorobenzene	Methoxychlor	Toxophene	VOC's	
BH76	0.1-0.2m	EES	8/05/2007	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-
BH82	3.3-3.5	EES	11/05/2007	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<LOR
BH82	3.8-4.0	EES	11/05/2007	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<LOR
BH119/1	0.1 - 0.2m	AEC	6/11/2008	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	0.14	<0.05	0.24	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-
BH120/1	0.15 - 0.25m	AEC	6/11/2008	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-
BH122/1	0.0 - 0.1m	AEC	6/11/2008	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-

All results in mg/kg unless otherwise indicated

100	Indicates reported result is above laboratory operating limits (LOR)
	Indicates reported result is above adopted Ecological Investigation Level (EIL)
	Indicates reported result is above Health Investigation Level (HIL) 'D' - high density residential
	Indicates reported result is above Health Investigation Level (HIL) 'F' - commercial/industrial, or equivalent

	0.8*	0.8*	0.8*	0.8*	0.8*	0.8*	0.8*	0.8*	0.8*	0.8*	0.8*	0.8*	0.8*	0.8*	0.8*	0.8*	0.8*	0.8*	0.8*	0.8*	0.8*	0.8*	0.8*	0.8*	-
NEPM 1999 EIL	-	40 (Aldrin + Dieldrin)	-	200	-	800 (DDD+DDE+DDT)	-	-	-	-	-	-	-	-	-	-	-	-	-	40	-	-	-	-	-
NEPM 1999 HIL D	-	50 (Aldrin + Dieldrin)	-	250	-	1000 (DDD+DDE+DDT)	-	-	-	-	-	-	-	-	-	-	-	-	-	50	-	-	-	-	-
NEPM 1999 HIL F	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Indicates Adopted Investigation Level sourced from Dutch Intervention Values (1999), assuming no more than 2% organic matter in soil

	Inorganics						TPH										BTEX						
	Cyanide (Free)	Cyanide Total	pH (aqueous extract)	Phosphate total (P)	Sulphate as S	Sulphur as S	C6-C10	C10-C16	C16-C34	C34-C40	C6 - C9	C10 - C14	C15 - C28	C29-C36	+C10 - C36 (Sum of total)	Benzene	Ethylbenzene	Toluene	Xylene (m & p)	Xylene (o)	Xylene Total		
	mg/kg	mg/kg	pH Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	
EQL	5	5	0.1	10	10	100	20	50	100	100	20	20	50	50	50	0.05	0.05	0.05	0.1	0.05	0.15		
Adopted Ecological Screening Levels (EIL)	20					600					65				1000								
Adopted Health Screening Level (Residential Limited Access HIL D or equivalent)	1000	2000								65					1000								
Adopted Health Screening Level (Commercial Industrial HIL F or equivalent)	1250	2500								65					1000								
Field ID	Sample Depth Range	Sampled Date																					
BH135	0.2-0.4	3/05/2012	-	-	8.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
BH135	0-0.2	3/05/2012	<5	<5	9.2	20	<10	<100	<20	<50	<100	<100	<20	<20	<50	<50	<50	<0.05	<0.05	<0.05	<0.1	<0.05	<0.15
BH136	0.4-0.6	3/05/2012	-	-	8.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
BH136	0-0.2	3/05/2012	<5	<5	9.6	20	16	<100	<20	<50	140	<100	<20	<20	<50	120	120	<0.05	<0.05	<0.05	<0.1	<0.05	<0.15
BH137	0.1-0.3	3/05/2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
BH137	0.8-1	3/05/2012	-	-	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
BH137	0-0.1	3/05/2012	<5	<5	9.2	<10	<10	<100	<20	<50	<100	<100	<20	<20	<50	<50	<50	<0.05	<0.05	<0.05	<0.1	<0.05	<0.15
BH138	0.8-1	3/05/2012	<5	<5	8.4	12	28	<100	<20	<50	<100	<100	<20	<20	<50	<50	<50	<0.05	<0.05	<0.05	<0.1	<0.05	<0.15
BH139	0-0.2	3/05/2012	-	-	9.6	-	19	-	<20	<50	<100	<100	<20	<20	<50	<50	<50	<0.05	<0.05	<0.05	<0.1	<0.05	<0.15
BH140	0-0.2	3/05/2012	<5	<5	8.2	16	<10	280	<20	<50	160	<100	<20	<20	89	98	190	<0.05	<0.05	<0.05	<0.1	<0.05	<0.15
BH141	0.8-1	3/05/2012	-	-	9.6	-	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
BH141	0-0.1	3/05/2012	-	-	9.1	-	<10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
BH142	0.4-0.6	3/05/2012	-	-	8.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
BH142	0-0.2	3/05/2012	<5	<5	9.2	15	<10	<100	<20	<50	180	<100	<20	<20	81	140	220	<0.05	<0.05	<0.05	<0.1	<0.05	<0.15

	Metals																
	Arsenic	Barium	Boron	Cadmium	Chromium (hexavalent)	Chromium (III+VI)	Chromium (Trivalent)	Cobalt	Copper	Lead	Manganese	Mercury	Nickel	Vanadium	Zinc		
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg		
EQL	2	10	10	0.4	1	5	5	5	5	5	5	0.1	5	10	5		
Adopted Ecological Screening Levels (EIL)	20	300		3	1	400			100	600	500	1	60	50	200		
Adopted Health Screening Level (Residential Limited Access HIL D or equivalent)	400		12000	80	400	600,000	600,000	400	4000	1200	6000	60	2400		28000		
Adopted Health Screening Level (Commercial Industrial HIL F or equivalent)	500		15000	100	500	480,000		500	5000	1500	7500	75	3000		35000		
Field ID	Sample Depth Range	Sampled Date															
BH135	0.2-0.4	3/05/2012	<2	79	21	0.5	<1	48	48	8.6	22	16	150	<0.1	23	69	40
BH135	0-0.2	3/05/2012	<2	16	<10	<0.4	<1	5.9	5.9	<5	9.8	9.9	21	<0.1	<5	<10	30
BH136	0.4-0.6	3/05/2012	<2	96	25	0.6	<1	49	49	9.1	23	18	150	<0.1	24	70	42
BH136	0-0.2	3/05/2012	<2	38	<10	0.4	<1	9.3	9.3	<5	8.6	18	100	<0.1	<5	<10	67
BH137	0.1-0.3	3/05/2012	5.2	140	<10	2.1	<1	37	37	10	85	780	430	0.3	15	43	2100
BH137	0.8-1	3/05/2012	<2	110	20	0.5	<1	37	37	9.4	14	18	170	<0.1	19	52	110
BH137	0-0.1	3/05/2012	4.1	140	<10	1.3	<1	22	22	6.2	37	140	300	0.2	11	26	890
BH138	0.8-1	3/05/2012	<2	54	<10	<0.4	<1	30	30	15	15	17	640	<0.1	12	40	21
BH139	0-0.2	3/05/2012	<2	-	-	<0.4	-	<5	-	-	<5	<5	-	<0.1	<5	-	9
BH140	0-0.2	3/05/2012	<2	190	27	0.5	<1	24	24	8.2	26	62	310	<0.1	17	31	100
BH141	0.8-1	3/05/2012	16	78	<10	<0.4	<1	18	18	17	11	10	520	<0.1	20	23	37
BH141	0-0.1	3/05/2012	<2	80	14	0.4	<1	27	27	7.6	14	18	390	<0.1	13	36	56
BH142	0.4-0.6	3/05/2012	<2	81	<10	0.4	<1	27	27	11	17	36	470	<0.1	11	34	160
BH142	0-0.2	3/05/2012	<2	81	<10	0.6	<1	18	18	8.6	19	46	640	<0.1	12	22	150

 NEPM 1999 HIL A exceedance remaining

	MAH				Polychlorinated Biphenyls								Solvents				
	1,2,4-trimethylbenzene	1,3,5-trimethylbenzene	Isopropylbenzene	Styrene	Arochlor 1016	Arochlor 1221	Arochlor 1232	Arochlor 1242	Arochlor 1248	Arochlor 1254	Arochlor 1260	PCBs (Sum of total)	Methyl Ethyl Ketone	4-Methyl-2-pentanone	Acetone	Allyl chloride	Carbon disulfide
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	0.05	0.05	0.05	0.05	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.05	0.05	0.05	0.05	0.05
Adopted Ecological Screening Levels (EIL)			570	20								1					
Adopted Health Screening Level (HIL D)												40					
Adopted Health Screening Level (HIL F)			570	17.2								50					

Field ID	Sample Date																	
TP143_0.0-0.1	20/11/2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP144_0.0-0.1	20/11/2012	<0.05	<0.05	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	
TP145_0.0-0.1	20/11/2012	<0.05	<0.05	<0.05	<0.05	-	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	
TP145_0.2-0.3	20/11/2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
TP146_0.0-0.1	20/11/2012	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	
TP146_0.5-0.6	20/11/2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
TP147_0.0-0.1	20/11/2012	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	
TP148_0.0-0.1	20/11/2012	<0.05	<0.05	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	
TP148_0.3-0.4	20/11/2012	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	
TP149_0.0-0.1	13/11/2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
TP150_0.0-0.1	13/11/2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
TP151_0.0-0.1	13/11/2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
TP151_0.4-0.5	13/11/2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
TP152_0.0-0.1	13/11/2012	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	
TP153_0.0-0.1	13/11/2012	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	
TP153_0.5-0.6	13/11/2012	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	
TP154_0.0-0.1	14/11/2012	<0.05	<0.05	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	
TP154_0.4-0.5	14/11/2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
TP155_0.0-0.1	14/11/2012	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	
TP155_0.3-0.4	14/11/2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
TP156_0.0-0.1	20/11/2012	<0.05	<0.05	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	
TP156_0.2-0.3	20/11/2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
TP157_0.0-0.1	14/11/2012	<0.05	<0.05	<0.05	<0.05	-	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	
TP158_0.0-0.1	15/11/2012	<0.05	<0.05	<0.05	<0.05	-	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	
TP159_0.0-0.1	15/11/2012	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	
TP160_0.0-0.1	15/11/2012	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	
TP161_0.0-0.1	15/11/2012	<0.05	<0.05	<0.05	<0.05	-	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	
TP162_0.3-0.4	15/11/2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
TP163_0.7-0.8	15/11/2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

* Based on HSL-B - SAND; 0 to <1m
 ** Based on HSL-D - SAND; 0 to <1m

Chemical Validation Test Results (Soil Remediation & Validation) - pH, Heavy Metals, Cyanide



Client:- **McMahon Services**
 Location:- **Former Hills Industries Site (Audit Area 2) Ackland St, Edwardstown**
 Job Ref:- **3698**

Test Results:-

Sample	Sample Location	Sample Depth (m bgl)	Date Sampled	pH (pH units)	Heavy Metals																			
					Antimony (Sb)	Arsenic (As)	Barium (Ba)	Beryllium (Be)	Boron (B)	Cadmium (Cd)	Chromium (Cr)	Chromium (CrVI)	Cobalt (Co)	Copper (Cu)	Lead (Pb)	Manganese (Mn)	Mercury (Hg)	Molybdenum (Mo)	Nickel (Ni)	Selenium (Se)	Silver (Ag)	Tin (Sn)	Vanadium (V)	Zinc (Zn)
V1	Scaffolding Lease Building Footprint	surface	20/03/2009	-	-	172	-	-	-	<1	22	-	-	22	96	-	<0.1	-	11	-	-	-	-	201
V2	Scaffolding Lease Building Footprint	surface	20/03/2009	-	-	29	-	-	-	<1	15	-	-	22	56	-	<0.1	-	8	-	-	-	-	132
V3	Scaffolding Lease Building Footprint	surface	21/04/2009	-	-	4.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
V4	Scaffolding Lease Building Footprint	surface	21/04/2009	-	-	4.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
V5	Scaffolding Lease Building Footprint	surface	21/04/2009	-	-	5.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
V6	Scaffolding Lease Building Footprint	surface	21/04/2009	-	-	8.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SVPF2	Service Pit (Warehouse 2) Fill	1m	27/03/2009	-	-	8	90	<1	-	<1	20	<1	20	22	32	534	<0.1	<2	21	<5	-	<5	-	52
RAMP B1	Base of Ramp (Commonwealth Warehouse)	1m	21/04/2009	-	<10	9.4	-	<2	-	<0.5	13	-	5.8	18	9.7	-	<0.1	<10	7.8	<2	<5	<10	-	33

All results in mg/kg unless otherwise indicated

100	Indicates reported result is greater than laboratory operating limits (LOR)
	Indicates reported result is above adopted Ecological Investigation Level (EIL)
	Indicates reported result is above Health Investigation Level (HIL) 'D' - high density residential
	Indicates reported result is above Health Investigation Level (HIL) 'F' - commercial/industrial, or equivalent

NEPM 1999 EIL	6 - 8	20	20	300	-	-	3	400	-	-	100	600	500	1	200	60	100	-	50	-	200
NEPM 1999 HIL D	-	-	400	-	80	-	80	480000	-	400	4000	1200	6000	60	-	2400	390	-	-	-	28000
NEPM 1999 HIL F	-	-	500	-	100	-	100	600000	-	500	5000	1500	7500	75	-	3000	390	-	-	-	35000



Client:- McMahon Services
 Location:- Former Hills Industries Site (Audit Area 2) Ackland St, Edwardstown
 Job Ref:- 3698

Test Results:-

Sample	Sample Location	Sample Depth (m bgl)	Date Sampled
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Total Petroleum Hydrocarbons					Monocyclic Aromatic Hydrocarbons				
TPH C6 - C9	TPH C10 - C14	TPH C15 - C28	TPH C29-C36	Total C10 - C36	Benzene	Toluene	Ethylbenzene	Xylenes (Total)	Other MAH's

VN1	Tank Pit North Wall	2.5m	20/03/2009
VE1	Tank Pit East Wall (Nth)	2.0m	20/03/2009
VE2	Tank Pit East Wall (Sth)	2.5m	20/03/2009
VS1	Tank Pit South Wall	2.0m	20/03/2009
VW1	Tank Pit West Wall (Nth)	2.5m	20/03/2009
VW2	Tank Pit West Wall (Sth)	2.0m	20/03/2009
VW101	Tank Pit West Wall (Sth)	2.0m	21/04/2009
VB1	Tank Pit Base (Nth)	3.0m	20/03/2009
VB101	Tank Pit Base (Nth)	4.0m	21/04/2009
VB2	Tank Pit Base (Sth)	3.0m	20/03/2009
VB102	Tank Pit Base (Sth)	4.0m	21/04/2009
V1	Scaffolding Lease Building Footprint	surface	20/03/2009
SVPF1	Service Pit (Warehouse 2) Fill	1m	27/03/2009
SVPF2	Service Pit (Warehouse 2) Fill	1m	27/03/2009
SVPV1	Service Pit (Warehouse 2) Excavation Base	~1.5m	27/03/2009
SVPV2	Service Pit (Warehouse 2) Excavation Base	~1.5m	27/03/2009
RAMP B1	Base of Ramp (Commonwealth Warehouse)	1m	21/04/2009
VIB	Interceptor Pit (Warehouse 2) Excavation Base	1.5m	21/04/2009
VIN	Interceptor Pit (Warehouse 2) North Wall	1m	21/04/2009
VIS	Interceptor Pit (Warehouse 2) South Wall	1m	21/04/2009
VIW	Interceptor Pit (Warehouse 2) West Wall	1m	21/04/2009
VIE	Interceptor Pit (Warehouse 2) East Wall	1m	21/04/2009

<10	<50	<100	<100	<250	<0.2	<0.5	<0.5	<1.0	-
<10	<50	<100	<100	<250	<0.2	<0.5	<0.5	<1.0	-
<10	<50	<100	<100	<250	<0.2	<0.5	<0.5	<1.0	-
<10	<50	<100	<100	<250	<0.2	<0.5	<0.5	<1.0	-
<10	150	620	<100	820	<0.2	<0.5	<0.5	<1.0	-
<20	57	620	<100	727	<0.05	<0.05	<0.05	<0.05	-
12	990	3290	<100	4330	<0.2	<0.5	<0.5	<1.0	-
<20	<50	400	100	525	<0.05	<0.05	<0.05	<0.05	-
<10	390	1410	<100	1850	<0.2	<0.5	<0.5	<1.0	-
<20	<50	390	120	535	<0.05	<0.05	<0.05	<0.05	-
<10	<50	<100	<100	<250	-	-	-	-	-
-	<50	<100	<100	<250	<0.2	<0.5	<0.5	<1.0	<0.5
<10	<50	<100	<100	<250	-	-	-	-	-
-	<50	<100	<100	<250	-	-	-	-	-
<20	<50	<100	<100	<250	<0.05	<0.05	<0.05	<0.05	-
<20	<50	<100	120	195	<0.05	<0.05	<0.05	<0.05	-
<20	<50	140	280	445	<0.05	<0.05	<0.05	<0.05	-
<20	<50	<100	140	215	<0.05	<0.05	<0.05	<0.05	-
<20	<50	150	300	475	<0.05	<0.05	<0.05	<0.05	-
<20	<50	310	590	925	<0.05	<0.05	<0.05	<0.05	-

All results in mg/kg unless otherwise indicated

100	Indicates reported result is greater than laboratory operating limits (LOR)
	Indicates reported result is above adopted Ecological Investigation Level (EIL)
	Indicates reported result is above Health Investigation Level (HIL) 'D' - high density residential
	Indicates reported result is above Health Investigation Level (HIL) 'F' - commercial/industrial, or equivalent

NEPM 1999 EIL
NEPM 1999 HIL D
NEPM 1999 HIL F

65*	-	-	-	1000*	1*	1.4*	3.1 *	14*	-
65*	-	-	-	1000*	0.6*	520*	8.9*	270*	-
65*	-	-	-	1000*	0.6*	520*	8.9*	270*	-

* Indicates Adopted Investigation Level sourced from 1994 NSW EPA Guidelines

Chemical Validation Test Results (Soil Remediation & Validation) - Polycyclic Aromatic Hydrocarbons



Client:- McMahon Services
 Location:- Former Hills Industries Site (Audit Area 2) Ackland St, Edwardstown
 Job Ref:- 3698

Test Results:-

Sample	Sample Location	Sample Depth (m bgl)	Date Sampled	Polycyclic Aromatic Hydrocarbons (PAH)															
				Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a) pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	Phenanthrene	Pyrene
SVPF2	Service Pit (Warehouse 2) Fill	1m	27/03/2009	<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
SVPV1	Service Pit (Warehouse 2) Excavation Base	~1.5m	27/03/2009	<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
SVPV2	Service Pit (Warehouse 2) Excavation Base	~1.5m	27/03/2009	<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
RAMP B1	Base of Ramp (Commonwealth Warehouse)	1m	21/04/2009	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1

All results in mg/kg unless otherwise indicated

- 100 Indicates reported result is greater than laboratory operating limits (LOR)
- Indicates reported result is above adopted Ecological Investigation Level (EIL)
- Indicates reported result is above Health Investigation Level (HIL) 'D' - high density residential
- Indicates reported result is above Health Investigation Level (HIL) 'F' - commercial/industrial, or equivalent

NEPM 1999 EIL	-	-	-	-	1*	-	-	-	-	-	-	-	-	-	-	-	-	-	20*
NEPM 1999 HIL D	-	-	-	-	4	-	-	-	-	-	-	-	-	56	-	-	-	-	80
NEPM 1999 HIL F	-	-	-	-	5	-	-	-	-	-	-	-	-	56	-	-	-	-	100

Chemical Validation Test Results (Soil Remediation & Validation) - Organochlorine Pesticides



Client:- McMahon Services
 Location Former Hills Industries Site (Audit Area 2) Ackland St, Edwardstown
 Job Ref: 3698

Test Results:-

Sample	Sample Location	Sample Depth (m bgl)	Date Sampled	Organochlorine Pesticides (OCP's)																				
				a-BHC	Aldrin	Dieldrin	b-BHC	Chlordane	d-BHC	DDD	4,4-DDE	DDT	Endosulfan I	Endosulfan II	Endosulfan sulphate	Endrin	Endrin aldehyde	Endrin ketone	g-BHC (Lindane)	Heptachlor	Heptachlor epoxide	Hexachlorobenzene	Methoxychlor	Toxophene
V1	Scaffolding Lease Building Footprint	surface	20/03/2009	<0.25	<0.25	<0.25	<0.25	<0.5	<0.25	<0.25	<0.25	<0.25	<1	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<1	-
V2	Scaffolding Lease Building Footprint	surface	20/03/2009	<0.25	<0.25	<0.25	<0.25	<0.5	<0.25	<0.25	<0.25	<0.25	<1	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<1	-
V3	Scaffolding Lease Building Footprint	surface	21/04/2009	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-
V5	Scaffolding Lease Building Footprint	surface	21/04/2009	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-
SVPF2	Service Pit (Warehouse 2) Fill	1m	27/03/2009	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.1
P105	B3		13/11/2012	<0.05	<0.05	<0.05	<0.05	1.2	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.21	<0.05	<0.05	<0.2	<0.1

All results in mg/kg unless otherwise indicated

- 100 Indicates reported result is greater than laboratory operating limits (LOR)
- Indicates reported result is above adopted Ecological Investigation Level (EIL)
- Indicates reported result is above Health Investigation Level (HIL) 'D' - high density residential
- Indicates reported result is above Health Investigation Level (HIL) 'F' - commercial/industrial, or equivalent

NEPM 1999 EIL	0.8*	0.8*	0.8*	0.8*	0.8*	0.8*	0.8*	0.8*	0.8*	0.8*	0.8*	0.8*	0.8*	0.8*	0.8*	0.8*	0.8*	0.8*	0.8*	0.8*	0.8*	0.8*	0.8*
NEPM 1999 HIL D					50	800 (DDD+DDE+DDT)								40									
NEPM 1999 HIL F					250	1000 (DDD+DDE+DDT)								50									

*Indicates Adopted Investigation Level sourced from Dutch Intervention Values (1999), assuming no more than 2% organic matter in soil

Chemical Validation Test Results (Soil Remediation & Validation) - Polychlorinated Biphenyls, Phenols & Others



Client:- McMahan Services
 Location:- Former Hills Industries Site (Audit Area 2) Ackland St, Edwardstown
 Job Ref:- 3698

Sample	Date Sampled	Sample Depth (m bgl)	Depth (m)	Other			Phenols												
				Total Cyanide	Fluoride	PCBs (total)	2-chlorophenol	2-methylphenol	2-nitrophenol	2,4-dichlorophenol	2,4-dimethylphenol	2,4,6-trichlorophenol	2,6-dichlorophenol	3-&4-methylphenol	4-chloro-3-methylphenol	Pentachlorophenol	Phenol		
V1	Scaffolding Lease Building Footprint	surface	20/03/2009	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-
TV1	Transformer Base	surface	20/03/2009	-	-	<0.15	-	-	-	-	-	-	-	-	-	-	-	-	-
TV2	Transformer Base	surface	20/03/2009	-	-	<0.10	-	-	-	-	-	-	-	-	-	-	-	-	-
SVPF2	Service Pit (Warehouse 2) Fill	1m	27/03/2009	<1	680	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<2.0	<0.5	<0.5

All results in mg/kg unless otherwise indicated

100	Indicates reported result is greater than laboratory operating limits (LOR)
	Indicates reported result is above adopted Ecological Investigation Level (EIL)
	Indicates reported result is above Health Investigation Level (HIL) 'D' - high density residential
	Indicates reported result is above Health Investigation Level (HIL) 'F' - commercial/industrial, or equivalent

NEPM 1999 EIL	20	400	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NEPM 1999 HIL D	1000	3700	40	-	-	-	-	-	-	-	-	-	-	-	-	-	34000
NEPM 1999 HIL F	1250	3700	50	-	-	-	-	-	-	-	-	-	-	-	-	-	42500

	Phenolics			Chlorinated Hydrocarbons																				Halogenated Benzenes																
	4,6-Dinitro-o-cyclohexyl phenol	Phenols (Total Halogenated)	Phenols (Total Non Halogenated)	1,1,1,2-tetrachloroethane	1,1,1-trichloroethane	1,1,2,2-tetrachloroethane	1,1,2-trichloroethane	1,1-dichloroethane	1,1-dichloroethane	1,2,3-trichloropropane	1,2-dichloroethane	1,2-dichloropropane	1,3-dichloropropane	Bromochloromethane	Bromodichloromethane	Bromoform	Carbon tetrachloride	Chlorodibromomethane	Chloroethane	Chloroform	Chloromethane	cis-1,2-dichloroethene	cis-1,3-dichloropropene	Dibromomethane	Dichloromethane	Trichloroethene	Tetrachloroethene	trans-1,2-dichloroethene	trans-1,3-dichloropropene	Vinyl chloride	1,2-dichlorobenzene	1,3-dichlorobenzene	1,4-dichlorobenzene	4-chlorotoluene	Bromobenzene	Chlorobenzene	Hexachlorobenzene			
EQL	20	1	20	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05		
Adopted Ecological Screening Levels (EIL)																																								
Adopted Health Screening Level (HIL D)																																								
Adopted Health Screening Level (HIL F)																																								
Field ID	Sample Depth Range	Sampled Date-Time	<20	<1	<20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05		
P101 B1	1.3-1.4	7/11/2012																																						
P101 E1	0.5-0.8	7/11/2012																																						
P101 N1	0.5-0.8	7/11/2012																																						
P101 S1	0.5-0.8	7/11/2012																																						
P101 W1	0.5-0.8	7/11/2012																																						
P102 B1	1.3-1.4	7/11/2012																																						
P102 E1	0.5-0.8	7/11/2012																																						
P102 N1	0.5-0.8	7/11/2012																																						
P102 S1	0.5-0.8	7/11/2012																																						
P102 W1	0.5-0.8	7/11/2012																																						
P103 B1	1.3-1.4	7/11/2012																																						
P103 E1	0.5-0.8	7/11/2012																																						
P103 N1	0.5-0.8	7/11/2012																																						
P103 S1	0.5-0.8	7/11/2012																																						
P103 W1	0.5-0.8	7/11/2012																																						
P104 B1	1.3-1.4	7/11/2012																																						
P104 E1	0.5-0.8	7/11/2012																																						
P104 N1	0.5-0.8	7/11/2012																																						
P104 S1	0.5-0.8	7/11/2012																																						
P104 W1	0.5-0.8	7/11/2012																																						
P105 B1	1.8-1.9	13/11/2012																																						
P105 B3	1.8-1.9	13/11/2012																																						
P105 E1	1.0-1.1	13/11/2012																																						
P105 E3	1.0-1.1	13/11/2012																																						
P105 N1	1.0-1.1	13/11/2012																																						
P105 S1	1.0-1.1	13/11/2012																																						
P105 W2	1.0-1.1	13/11/2012																																						
P105 W4	1.0-1.1	13/11/2012																																						

* Based on HSL-B - SAND; 0 to <1m
** Based on HSL-D - SAND; 0 to <1m

Chemical Test Results (Groundwater) - General Parameters

Client:- CFSGAM c/o - McMahon Services
Location:- Former Hills Industries site - Audit Area 2, Ackland St, Edwardstown
Job Ref:- 3698

Bore No	Date Sampled	Laboratory	pH (Field) pH units	pH (Lab) pH units	Conductivity (Field) µS/cm	Conductivity (Lab) µS/cm	TDS (Field EC*0.67) mg/L	TDS (Lab) mg/L	Temp (Field) deg C	ORP (Field) mV	Dissolved Oxygen (Field) ppm
AA2_MW1	10-May-12	MGT	7.21	-	1762	-	1181	1200	21.3	32	2.69
AA2_MW1	09-Apr-13	MGT	7.03	-	2398	-	1607	1400	21.7	90	3.92
AA2_MW2	10-May-12	MGT	7.35	-	1649	-	1105	1000	20.7	30	2.97
AA2_MW2	09-Apr-13	MGT	6.98	-	2287	-	1532	1300	22.5	117	2.82
AA2_MW3	09-Apr-13	MGT	6.92	-	2289	-	1534	1300	20.9	106	3.47
MWL	26-Nov-08	MGT	6.91	7.0	2286	2300	1532	1541	23.6	106	1.42
AA2_MW4	09-Apr-13	MGT	7.10	-	2333	-	1563	1300	21.9	103	2.78
AA2_MW5	09-Apr-13	MGT	7.00	-	2201	-	1475	1200	22.3	93	1.14
AA2_MW6	09-Apr-13	MGT	6.91	-	2410	-	1615	1400	22.1	105	2.62

100	Indicates reported result is greater than laboratory operating limits (LOR)
	Result above one or more water quality guidelines

Groundwater Quality Guidelines

Ecosystem Protection - Freshwater	-	6.5-9.0	-	-	-	2000	-	-	>6
Drinking Water	-	6.5-8.5	-	-	-	-	-	-	-
Primary Contact Recreation & Aesthetics	-	-	-	-	-	-	-	-	-
Agriculture - Irrigation	-	4.5-9.0	-	-	-	-	-	-	-

Chemical Test Results (Groundwater)

Client:- CFSGAM c/o - McMahon Services
Location:- Former Hills Industries site - Audit Area 2, Ackland St, Edwardstown
Job Ref:- 3698

Bore No	Date Sampled	Laboratory	Ammonia (as N) mg/L	Bicarbonate Alkalinity mg/L	Carbonate Alkalinity mg/L	Chloride mg/L	Cyanide mg/L	Ferrous Iron (Fe2+) mg/L	Nitrate (as N) mg/L	Sulphate (S) mg/L	TOC mg/L
AA2_MW1	10-May-12	MGT	<0.01	550	<10	350	<0.005	<0.05	13	31	<5
AA2_MW1	09-Apr-13	MGT	<0.01	560	<10	360	<0.005	<0.05	16	32	<5
AA2_MW2	10-May-12	MGT	0.13	550	<10	340	<0.005	<0.05	11	28	<5
AA2_MW2	09-Apr-13	MGT	<0.01	540	<10	340	<0.005	<0.05	17	29	<5
AA2_MW3	09-Apr-13	MGT	<0.01	550	<10	340	<0.005	<0.05	14	30	<5
AA2_MW4	09-Apr-13	MGT	0.05	550	<10	320	<0.005	<0.05	16	36	<5
AA2_MW5	09-Apr-13	MGT	0.05	540	<10	300	<0.005	<0.05	9.5	30	<5
AA2_MW6	09-Apr-13	MGT	<0.01	590	<10	370	<0.005	<0.05	14	33	<5

100	Indicates reported result is greater than laboratory operating limits (LOR)
	Result above one or more water quality guidelines

Groundwater Quality Guidelines

Ecosystem Protection - Freshwater	0.5	-	-	-	-	-	-	-	15
Drinking Water	0.5	-	-	-	0.08	-	10	500	-
Primary Contact Recreation & Aesthetics	1.5	-	-	-	0.8	-	100	1000	-
Agriculture - Irrigation	-	-	-	-	-	-	-	-	-

 Auditor Criteria for groundwater environmental value - Aquatic Ecosystems - Freshwater

Chemical Test Results - Heavy Metals

Client:- CFSGAM c/o - McMahon Services
Location:- Former Hills Industries site - Audit Area 2, Ackland St, Edwardstown
Job Ref:- 3698



Test Results:-

Bore No.	Date Sampled	Laboratory	Heavy Metals																		Alkali Metals				
			Antimony Sb	Arsenic As	Barium Ba	Beryllium Be	Boron B	Cadmium Cd	Chromium (Total)	Chromium Cr (VI)	Cobalt Co	Copper Cu	Iron Fe	Lead Pb	Manganese Mn	Mercury Hg	Molybdenum Mo	Nickel Ni	Selenium Se	Tin Sn	Vanadium V	Zinc Zn	Calcium	Magnesium	Potassium
AA2_MW1	10-May-12	MGT	-	<0.001	0.14	<0.001	0.43	<0.0002	<0.001	<0.001	<0.001	<0.001	<0.001	0.012	<0.0001	-	<0.001	-	-	<0.005	0.002	94	79	8.4	290
AA2_MW1	09-Apr-13	MGT	-	<0.001	0.18	<0.001	0.39	<0.0002	<0.001	<0.001	<0.001	<0.001	<0.001	0.39	<0.0001	-	0.003	-	-	<0.005	0.005	87	78	7.4	280
AA2_MW2	10-May-12	MGT	-	<0.001	0.12	<0.001	0.45	0.0004	<0.001	<0.001	0.001	<0.001	-	<0.001	0.089	<0.0001	-	0.001	-	<0.005	0.004	88	78	8.7	270
AA2_MW2	09-Apr-13	MGT	-	<0.001	0.14	<0.001	0.4	<0.0002	<0.001	<0.001	<0.001	<0.001	<0.001	0.31	<0.0001	-	0.014	-	-	<0.005	0.016	83	77	7.5	270
AA2_MW3	09-Apr-13	MGT	-	<0.001	0.15	<0.001	0.39	<0.0002	<0.001	<0.001	<0.001	<0.001	<0.001	0.36	<0.0001	-	0.005	-	-	<0.005	0.011	81	75	7.2	260
AA2_MW4	09-Apr-13	MGT	-	<0.001	0.11	<0.001	0.5	<0.0002	0.001	<0.001	<0.001	<0.001	<0.001	0.29	<0.0001	-	0.007	-	-	<0.005	0.002	70	74	7.9	280
MWL	26-Nov-08	MGT	<0.001	<0.001	-	<0.001	-	<0.0002	<0.001	-	<0.001	<0.001	-	<0.0001	<0.005	<0.001	<0.001	<0.001	-	0.009	-	-	-	-	
AA2_MW5	09-Apr-13	MGT	-	<0.001	0.11	<0.001	0.48	<0.0002	<0.001	<0.001	<0.001	<0.001	<0.001	0.25	<0.0001	-	0.016	-	-	<0.005	0.007	66	70	6.7	260
AA2_MW6	09-Apr-13	MGT	-	<0.001	0.15	<0.001	0.4	<0.0002	<0.001	<0.001	<0.001	<0.001	<0.001	0.35	<0.0001	-	0.003	-	-	<0.005	0.004	88	79	8.1	280

All results in mg/L.

100	Indicates reported result is greater than laboratory operating limits (LOR)
	Result above one or more water quality guidelines

Groundwater Quality Guidelines

Guideline	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Chromium (Total)	Chromium Cr (VI)	Cobalt	Copper	Iron	Lead	Manganese	Mercury	Molybdenum	Nickel	Selenium	Tin	Vanadium	Zinc	Calcium	Magnesium	Potassium	Sodium
Ecosystem Protection - Freshwater	0.03	0.05	0.625	0.004	0.37	0.002	-	0.001	-	0.01	1	0.005	1.9	0.0001	-	0.15	0.005	0.003	0.07	0.05	-	-	-	-
Drinking Water	0.003	0.007	0.7	0.06	0.3	0.002	0.05	0.05	-	2	0.3	0.01	0.5	0.001	0.05	0.02	0.01	3	-	3	-	-	-	-
Primary Contact Recreation & Aesthetics	0.03	0.07	10	0.6	3	0.02	0.50	0.5	-	20	3	0.1	5	0.01	0.5	0.2	0.1	-	-	50	-	-	-	-
Agriculture - Irrigation	-	0.1	-	0.1	0.5	0.01	1	0.1	0.05	0.2	1	0.2	2	0.002	0.01	0.02	0.02	-	0.1	2	-	-	-	-

Chemical Test Results - TPH, MAH

AEC Environmental

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Client:- CFSGAM c/o - McMahon Services
Location:- Former Hills Industries site - Audit Area 2
 Ackland St, Edwardstown
Job Ref:- 3698

Test Results:-

Bore No.	Date Sampled	Laboratory	Total Petroleum Hydrocarbons (TPH) - 1999 NEPM Fractions					Total Petroleum Hydrocarbons (TPH) - Draft 2010 NEPM Fractions					
			C6-C9	C10-C14	C15-C28	C29-C36	Total C10-C36	C6-C10 less BTEX	>C10-C16	>C10-C16 less Naphthalene	>C16-C34	>C34-C40	
AA2_MW1	10-May-12	MGT	<0.02	<0.05	<0.1	<0.1	<0.1	<0.02	<0.02	<0.05	<0.05	<0.1	<0.1
AA2_MW1	09-Apr-13	MGT	<0.02	<0.05	<0.1	<0.1	<0.1	<0.02	<0.02	<0.05	<0.05	<0.1	<0.1
AA2_MW2	10-May-12	MGT	<0.02	<0.05	<0.1	<0.1	<0.1	<0.02	<0.02	<0.05	<0.05	<0.1	<0.1
AA2_MW2	09-Apr-13	MGT	<0.02	<0.05	<0.1	<0.1	<0.1	<0.02	<0.02	<0.05	<0.05	<0.1	<0.1
AA2_MW3	09-Apr-13	MGT	<0.02	<0.05	<0.1	<0.1	<0.1	<0.02	<0.02	<0.05	<0.05	<0.1	<0.1
AA2_MW4	09-Apr-13	MGT	<0.02	<0.05	<0.1	<0.1	<0.1	<0.02	<0.02	<0.05	<0.05	<0.1	<0.1
AA2_MW5	09-Apr-13	MGT	<0.02	<0.05	<0.1	<0.1	<0.1	<0.02	<0.02	<0.05	<0.05	<0.1	<0.1
AA2_MW6	09-Apr-13	MGT	<0.02	<0.05	<0.1	<0.1	<0.1	<0.02	<0.02	<0.05	<0.05	<0.1	<0.1

All results in mg/L.

100	Indicates reported result is greater than laboratory operating limits (LOR)
	Result above one or more water quality guidelines

** indicates laboratory detection limit is above one or more adopted guidelines

Groundwater Quality Guidelines

Ecosystem Protection - Freshwater	-	-	-	-	-	-	-	-	-	-	-	-
Drinking Water	-	-	-	-	-	-	-	-	-	-	-	-
Primary Contact Recreation & Aesthetics	-	-	-	-	-	-	-	-	-	-	-	-
Agriculture - Irrigation	-	-	-	-	-	-	-	-	-	-	-	-

Chemical Test Results - TPH, MAH

Client:- CFSGAM c/o - McMahon Services
Location:- Former Hills Industries site - Audit Area 2
 Ackland St, Edwardstown
Job Ref:- 3698

AEC Environmental

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Test Results:-

Bore No.	Date Sampled	Laboratory	BTEX						Hydrocarbon Gases		
			Benzene	Toluene	Ethylbenzene	Xylenes	Styrene	Cumene	Methane	Ethylene	Ethane
AA2_MW1	10-May-12	MGT	<0.001	<0.001	<0.001	<0.003	-	-	-	-	-
AA2_MW1	09-Apr-13	MGT	<0.001	<0.001	<0.001	<0.003			<0.05	<0.1	<0.1
AA2_MW2	10-May-12	MGT	<0.001	<0.001	<0.001	<0.003	-	-	-	-	-
AA2_MW2	09-Apr-13	MGT	<0.001	<0.001	<0.001	<0.003	-	-	<0.05	<0.1	<0.1
AA2_MW3	09-Apr-13	MGT	<0.001	<0.001	<0.001	<0.003	-	-	<0.05	<0.1	<0.1
AA2_MW4	09-Apr-13	MGT	<0.001	<0.001	<0.001	<0.003	-	-	<0.05	<0.1	<0.1
AA2_MW5	09-Apr-13	MGT	<0.001	<0.001	<0.001	<0.003	-	-	<0.05	<0.1	<0.1
AA2_MW6	09-Apr-13	MGT	<0.001	<0.001	<0.001	<0.003	-	-	<0.05	<0.1	<0.1

All results in mg/L.

100	Indicates reported result is greater than laboratory operating
	Result above one or more water quality guidelines

** indicates laboratory detection limit is above one or more adopted guidelines

Groundwater Quality Guidelines

Ecosystem Protection - Freshwater	0.3	0.3	-	-	-	-	0.3	0.3	0.15
Drinking Water	0.001	0.8	0.3	0.6	0.03	-	0.001	0.8	0.3
Primary Contact Recreation & Aesthetics	0.001	0.8	0.3	0.6			-	-	-
Agriculture - Irrigation	-	-	-	-	-	-	-	-	-

Chemical Test Results - Halogenated Volatile Organics

Client:- CFSGAM c/o - McMahon Services
Location:- Former Hills Industries site - Audit Area 2, Ackland St, Edwardstown
Job Ref:- 3698



Test Results:-

Bore No.	Date Sampled	Laboratory	Halogenated Volatile Organics																															
			1,1-Dichloroethane	1,1-Dichloroethene	1,1,1-Trichloroethane	1,1,1,2-Tetrachloroethane	1,1,2-Trichloroethane	1,1,2,2-Tetrachloroethane	1,2-Dibromoethane	1,2-Dichlorobenzene	1,2-Dichloroethane	1,2-Dichloropropane	1,2,3-Trichloropropane	1,3-Dichlorobenzene	1,3-Dichloropropane	1,4-Dichlorobenzene	Bromodichloromethane	Bromoform	Bromomethane	Carbon Tetrachloride	Chlorobenzene	Chloroform	Chloromethane	cis-1,2-Dichloroethene	cis-1,3-Dichloropropene	Dibromochloromethane	Dibromomethane	Iodomethane	Methylene Chloride	Tetrachloroethene (PCE)	trans-1,2-Dichloroethene	trans-1,3-Dichloropropene	Trichloroethene (TCE)	Trichlorofluoromethane
AA2_MW1	10-May-12	MGT	<0.0001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.0001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.001	<0.0001	<0.001	<0.001	<0.0002	<0.001	<0.001	0.0086	<0.001	<0.001	<0.0001	<0.001	<0.00001
AA2_MW1	09-Apr-13	MGT	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.009	<0.001	<0.001	<0.001	<0.001	<0.001
AA2_MW2	10-May-12	MGT	<0.0001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.0001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.001	<0.0001	<0.001	<0.001	<0.0002	<0.001	<0.001	0.0069	<0.001	<0.001	<0.0001	<0.001	<0.00001
AA2_MW2	09-Apr-13	MGT	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.013	<0.001	<0.001	<0.001	<0.001	<0.001
AA2_MW3	09-Apr-13	MGT	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.015	<0.001	<0.001	<0.001	<0.001	<0.001
AA2_MW4	09-Apr-13	MGT	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.003	<0.001	<0.001	<0.001	<0.001	<0.001
AA2_MW5	09-Apr-13	MGT	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.005	<0.001	<0.001	<0.001	<0.001	<0.001
AA2_MW6	09-Apr-13	MGT	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.010	<0.001	<0.001	<0.001	<0.001	<0.001

All results in mg/L

100	Indicates reported result is greater than laboratory operating limits (LOR)
	Result above one or more water quality guidelines

Groundwater Quality Guidelines

Guideline	1,1-Dichloroethane	1,1-Dichloroethene	1,1,1-Trichloroethane	1,1,1,2-Tetrachloroethane	1,1,2-Trichloroethane	1,1,2,2-Tetrachloroethane	1,2-Dibromoethane	1,2-Dichlorobenzene	1,2-Dichloroethane	1,2-Dichloropropane	1,2,3-Trichloropropane	1,3-Dichlorobenzene	1,3-Dichloropropane	1,4-Dichlorobenzene	Bromodichloromethane	Bromoform	Bromomethane	Carbon Tetrachloride	Chlorobenzene	Chloroform	Chloromethane	cis-1,2-Dichloroethene	cis-1,3-Dichloropropene	Dibromochloromethane	Dibromomethane	Iodomethane	Methylene Chloride	Tetrachloroethene (PCE)	trans-1,2-Dichloroethene	trans-1,3-Dichloropropene	Trichloroethene (TCE)	Trichlorofluoromethane	Vinyl Chloride
Ecosystem Protection - Freshwater	-	-	-	-	0.13	-	-	0.0025	-	-	-	0.0025	-	0.004	-	-	-	-	-	0.4	-	-	-	-	-	-	-	-	-	-	-	-	0.005
Drinking Water	-	0.03	0.3	-	-	-	-	1.5	0.003	-	-	-	-	0.4	-	-	-	0.003	0.3	-	-	0.06	-	-	-	-	-	0.04	-	-	0.02	-	0.0003
Primary Contact Recreation & Aesthetics	-	0.3	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.03	-	-	-	0.6	-	-	-	-	0.4	-	-	0.2	-	0.003	
Agriculture - Irrigation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Chemical Test Results - PAH

Client:- CFSGAM c/o - McMahon Services
Location:- 944 - 958 South Rd, Edwardstown
Job Ref:- 3698

Test Results:-

Bore No.	Date Sampled	Laboratory	Polycyclic Aromatic Hydrocarbons (PAH)																
			Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	Phenanthrene	Pyrene	PAHs (total)
MWL	26-Nov-08	MGT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AA2_MW1	10-May-12	MGT	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
AA2_MW2	10-May-12	MGT	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
AA2_MW1	10-May-12	MGT	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
AA2_MW1	09-Apr-13	MGT	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
AA2_MW2	10-May-12	MGT	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
AA2_MW2	09-Apr-13	MGT	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
AA2_MW3	09-Apr-13	MGT	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
AA2_MW4	09-Apr-13	MGT	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
AA2_MW5	09-Apr-13	MGT	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
AA2_MW6	09-Apr-13	MGT	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001

All results in mg/L.

100 Indicates reported result is greater than laboratory operating limits (LOR)
Result above one or more water quality guidelines
 ** indicates laboratory detection limit is above one or more adopted guidelines

Groundwater Quality Guidelines

Ecosystem Protection - Freshwater	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.003
Drinking Water	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.00001
Primary Contact Recreation & Aesthetics	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Agriculture - Irrigation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Chemical Test Results - Organochlorine Pesticides

Client:- CFSGAM c/o - McMahon Services
Location:- 944 - 958 South Rd, Edwardstown
Job Ref:- 3698



Test Results:-

Bore No.	Date Sampled	Laboratory	Organochlorine Pesticides																			
			Aldrin	alpha-BHC	beta-BHC	Chlordane	delta-BHC	4:4'-DDD	4:4'-DDE	4:4'-DDT	Dieldrin	Endosulfan I	Endosulfan II	Endosulfan Sulphate	Endrin	Endrin Aldehyde	Endrin Ketone	gamma-BHC	Heptachlor	Heptachlor Epoxide	Hexachlorobenzene	Methoxychlor
AA2_MW2	09-Apr-13	MGT	<0.0001	<0.0001	<0.0001	<0.001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001

All results in mg/L

100	Indicates reported result is greater than laboratory operating limits (LOR)
	Result above one or more water quality guidelines

Groundwater Quality Guidelines

Guideline	Aldrin	alpha-BHC	beta-BHC	Chlordane	delta-BHC	4:4'-DDD	4:4'-DDE	4:4'-DDT	Dieldrin	Endosulfan I	Endosulfan II	Endosulfan Sulphate	Endrin	Endrin Aldehyde	Endrin Ketone	gamma-BHC	Heptachlor	Heptachlor Epoxide	Hexachlorobenzene	Methoxychlor	Toxophene	
Ecosystem Protection - Freshwater	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0002
Drinking Water	0.0003*	-	-	0.002	-	-	-	0.009	0.0003*	0.02	0.02	-	-	-	-	-	0.0003	-	-	-	-	-
Primary Contact Recreation & Aesthetics	0.003*	-	-	0.02	-	-	-	0.09	0.003*	0.2	0.2	-	-	-	-	-	0.003	-	-	-	-	-
Agriculture - Irrigation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

* Aldrin + Dieldrin