

TABLE 6.1

SOIL ANALYTICAL RESULTS - FORMER CLEANING SHED AREA

Location Consultant Sample Location Sample Depth (metres)		CLEANING SHED AREA									
		CH2M HILL BH33	CH2M HILL TP34	CH2M HILL TP34	CH2M HILL BH35	CH2M HILL BH35	CH2M HILL BH35	CH2M HILL BH35	CH2M HILL BH35	CH2M HILL BH36	CH2M HILL BH36
		2	0.00-0.10	0.40-0.50	0.2	0.8	0.1				
Analyte	Units	NEHRU - Develop		NSW EPA		Guidelines for the		Assessment of		Service Station	
		Monographs		Sites (1994)		14		14		14	
Total Xylenes	mg/kg	3									
PAHs											
Naphthalene	mg/kg	0.5									
Acenaphthylene	mg/kg	0.5									
Acenaphthene	mg/kg	0.5									
Fluorene	mg/kg	0.5									
Phenanthrene	mg/kg	0.5									
Anthracene	mg/kg	0.5									
Fluoranthene	mg/kg	0.5									
Pyrene	mg/kg	0.5									
Benzo(a)anthracene	mg/kg	0.5									
Chrysene	mg/kg	1									
Benzo(b)fluoranthene	mg/kg	0.5									
Benzo(a)pyrene	mg/kg	0.5									
Indeno(1,2,3-cd)pyrene	mg/kg	0.5									
Dibenz(a,h)anthracene	mg/kg	0.5									
Benzo(g,h,i)perylene	mg/kg	0.5									
Total PAHs	mg/kg	100		20							
Phenols											
Phenol	mg/kg	0.5									
2-Chlorophenol	mg/kg	0.5									
2-Methylphenol	mg/kg	0.5									
3-Methylphenol & 4-Methylphenol	mg/kg	0.5									
2-Nitrophenol	mg/kg	0.5									
2,4-Dimethylphenol	mg/kg	0.5									
2,4-Dichlorophenol	mg/kg	0.5									
2,6-Dichlorophenol	mg/kg	0.5									

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Location		CLEANING SHED AREA							
Consultant		CH2M HILL BH33	CH2M HILL TP34	CH2M HILL TP34	CH2M HILL BH35	CH2M HILL BH35	CH2M HILL BH35	CH2M HILL BH36	CH2M HILL BH36
Sample Location		2	0.00-0.10	0.40-0.50	0.2	0.8	0.1		
Sample Depth (metres)									
Analyte	Units	LOR	NIHFP - Level 1 Monographs (1996)	NSW EPA Guidelines for the Assessment of Service Station Sites (1994)					
Styrene	mg/kg	1			na	na	na	na	na
1,1,1,2-Tetrachloroethane	mg/kg	1			na	na	na	na	na
1,1,2,2-Tetrachloroethane	mg/kg	1			na	na	na	na	na
Tetrachloroethene	mg/kg	1			na	na	na	na	na
Toluene	mg/kg	1		1,4	na	na	na	na	na
1,2,3-Trichlorobenzene	mg/kg	1			na	na	na	na	na
1,2,4-Trichlorobenzene	mg/kg	1			na	na	na	na	na
1,1,1-Trichloroethane	mg/kg	1			na	na	na	na	na
1,1,2-Trichloroethane	mg/kg	1			na	na	na	na	na
Trichloroethene	mg/kg	1			na	na	na	na	na
Trichlorofluoromethane	mg/kg	1			na	na	na	na	na
1,2,3-Trichloropropane	mg/kg	1			na	na	na	na	na
1,2,4-Trimethylbenzene	mg/kg	1			na	na	na	na	na
1,3,5-Trimethylbenzene	mg/kg	1			na	na	na	na	na
Vinyl chloride	mg/kg	1			na	na	na	na	na
ortho-Xylene	mg/kg	1			na	na	na	na	na
meta- & para-Xylene	mg/kg	1			na	na	na	na	na
TPH									
C6-C9	mg/kg	10		65	na	na	na	na	na
C10-C14	mg/kg	10			na	na	na	na	na
C15-C28	mg/kg	50			na	na	na	na	na
C29-C36	mg/kg	50			na	na	na	na	na
Total C10-C36	mg/kg			1000	na	na	na	na	na
BTEX									
Benzene	mg/kg	0.5		1	na	na	na	na	na
Toluene	mg/kg	1		1.4	na	na	na	na	na
Ethylbenzene	mg/kg	1		3.1	na	na	na	na	na

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Location Consultant Sample Location Sample Depth (metres)		CLEANING SHED AREA						
		CH2M HILL BH33	CH2M HILL TP34	CH2M HILL TP34	CH2M HILL BH35	CH2M HILL BH35	CH2M HILL BH36	CH2M HILL BH36
		2	0.00-0.10	0.40-0.50	0.2	0.8	0.1	0.1

Analyte	Units	LOR	NEHT - Level 1 Monographs (1996)		NSW EPA Guidelines for the Assessment of Service Station Sites (1994)		
4-Chlorotoluene	mg/kg	1				na	na
Dibromochloromethane	mg/kg	1				na	na
1,2-Dibromo-3-Chloropropane	mg/kg	1				na	na
1,2-Dibromomethane (EDB)	mg/kg	1				na	na
Dibromomethane	mg/kg	1				na	na
1,2-Dichlorobenzene	mg/kg	1				na	na
1,3-Dichlorobenzene	mg/kg	1				na	na
1,4-Dichlorobenzene	mg/kg	1				na	na
Dichlorodifluoromethane	mg/kg	1				na	na
1,1-Dichloroethene	mg/kg	1				na	na
1,2-Dichloroethane	mg/kg	1				na	na
1,1-Dichloroethane	mg/kg	1				na	na
cis-1,2-Dichloroethene	mg/kg	1				na	na
trans-1,2-Dichloroethene	mg/kg	1				na	na
1,2-Dichloropropane	mg/kg	1				na	na
1,3-Dichloropropane	mg/kg	1				na	na
2,2-Dichloropropane	mg/kg	1				na	na
1,1-Dichloropropylene	mg/kg	1				na	na
cis-1,3-Dichloropropylene	mg/kg	1				na	na
trans-1,3-Dichloropropylene	mg/kg	1				na	na
Ethylbenzene	mg/kg	1				na	na
Hexachlorobutadiene	mg/kg	1				na	na
Isopropylene	mg/kg	1				na	na
p-Isopropyltoluene	mg/kg	1				na	na
Methylene chloride	mg/kg	1				na	na
Naphthalene	mg/kg	1				na	na
n-Propylbenzene	mg/kg	1				na	na

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Location Consultant Sample Location Sample Depth (metres)		CLEANING SHED AREA						
		CH2M HILL BH33	CH2M HILL TP34	CH2M HILL TP34	CH2M HILL BH35	CH2M HILL BH35	CH2M HILL BH35	CH2M HILL BH36
		2	0.00-0.10	0.40-0.50	0.2	0.8	0.1	0.1
Analyte	Units	LOR	NEHT - Leighton Monographs (1996)	NSW EPA Guidelines for the Assessment of Service Station Sites (1994)				
HEAVY METALS								
Arsenic	mg/kg	5	500		5	10	15	nd
Cadmium	mg/kg	0.5	100		nd	nd	1.4	nd
Chromium	mg/kg	5	500		21	39	14	14
Copper	mg/kg	5	5000		8	130	210	94
Nickel	mg/kg	2	3000		3	40	20	81
Lead	mg/kg	5	1500	300	65	170	320	46
Zinc	mg/kg	5	35000		33	89	660	160
Mercury	mg/kg	0.05	75		0.18	nd	0.28	0.08
Total Cyanide	mg/kg	0.5	2500		na	na	na	na
VOCs								
Benzene	mg/kg	0.5			na	nd	nd	na
Bromobenzene	mg/kg	1			na	nd	nd	na
Bromochloromethane	mg/kg	1			na	nd	nd	na
Bromodichloromethane	mg/kg	1			na	nd	nd	na
Bromoforn	mg/kg	1			na	nd	nd	na
Bromomethane	mg/kg	1			na	nd	nd	na
n-Butylbenzene	mg/kg	1			na	nd	nd	na
sec-Butylbenzene	mg/kg	1			na	nd	nd	na
tert-Butylbenzene	mg/kg	1			na	nd	nd	na
Carbon Tetrachloride	mg/kg	1			na	nd	nd	na
cis-1,2-Dichloroethene	mg/kg	1			na	nd	nd	na
Chlorobenzene	mg/kg	1			na	nd	nd	na
Chloroethane	mg/kg	1			na	nd	nd	na
Chloroform	mg/kg	1			na	nd	nd	na
Chloromethane	mg/kg	1			na	nd	nd	na
2-Chlorotoluene	mg/kg	1			na	nd	nd	na

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SOIL ANALYTICAL RESULTS - FORMER CLEANING SHED AREA

Location Consultant Sample Location Sample Depth (metres)	CLEANING SHED AREA						
	CH2M HILL SB31	CH2M HILL SB31	CH2M HILL SB32	CH2M HILL SB32	CH2M HILL SB32	CH2M HILL BH33	
	0.00-0.10	0.60-0.70	0.00-0.10	1.10-1.20	1.60-1.70	0.2	
Analyte	Units	LOR	NEHF - Level F Monographs (1996)	NSW EPA Guidelines for the Assessment of Service Station Sites (1994)			
4,4'-DDD	mg/kg	0.1			na	na	
Endosulphan II	mg/kg	0.1			na	na	
4,4'-DDT	mg/kg	0.1	1000		na	na	
Endosulphan sulphate	mg/kg	0.1			na	na	
Methoxychlor	mg/kg	0.1			na	na	
PCBs							
Arochlor 1016	mg/kg	1			na	na	
Arochlor 1221	mg/kg	1			na	na	
Arochlor 1232	mg/kg	1			na	na	
Arochlor 1242	mg/kg	1			na	na	
Arochlor 1248	mg/kg	1			na	na	
Arochlor 1254	mg/kg	1			na	na	
Arochlor 1260	mg/kg	1			na	na	
Total PCBs			50		na	na	

NOTE:

Exceeds NEHF Level F (1996)

Exceeds NSW EPA Guidelines for the Assessment of Service Station Sites (1995)

n/a = not applicable

LOR = Laboratory Limits of Reporting

na = not selected for analysis

nd = not detected above laboratory LOR

* = sample required dilution

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Location		CLEANING SHED AREA							
Consultant		CH2M HILL	CH2M HILL	CH2M HILL	CH2M HILL	CH2M HILL	CH2M HILL	CH2M HILL	
Sample Location		SB31	SB31	SB32	SB32	SB32	SB32	BH33	
Sample Depth (metres)		0.00-0.10	0.60-0.70	0.00-0.10	1.10-1.20	1.60-1.70	0.2		
Analyte	Units	LOR							
4-Chloro-3-methylphenol	mg/kg	0.5	na	na	na	na	na	na	
2,4,5-Trichlorophenol	mg/kg	0.5	na	na	na	na	na	na	
2,4,6-Trichlorophenol	mg/kg	0.5	na	na	na	na	na	na	
2,4-Dinitrophenol	mg/kg	2	na	na	na	na	na	na	
4-Nitrophenol	mg/kg	1	na	na	na	na	na	na	
2,3,4,6-Tetrachlorophenol	mg/kg	1	na	na	na	na	na	na	
4,6-Dinitro-2-methylphenol	mg/kg	2	na	na	na	na	na	na	
Pentachlorophenol	mg/kg	1	na	na	na	na	na	na	
4,6-Dinitro-2-sec-butylphenol	mg/kg	2	na	na	na	na	na	na	
Total Phenols	mg/kg		na	na	na	na	na	na	
OCs									
HCB	mg/kg	0.1	na	na	na	na	na	na	
alpha-BHC	mg/kg	0.1	na	na	na	na	na	na	
gamma-BHC	mg/kg	0.1	na	na	na	na	na	na	
Heptachlor	mg/kg	0.1	na	na	na	na	na	na	
Aldrin	mg/kg	0.1	na	na	na	na	na	na	
Dieldrin	mg/kg	0.1	na	na	na	na	na	na	
beta-BHC	mg/kg	0.1	na	na	na	na	na	na	
delta-BHC	mg/kg	0.1	na	na	na	na	na	na	
Oxychlordane	mg/kg	0.1	na	na	na	na	na	na	
Heptachlor epoxide	mg/kg	0.1	na	na	na	na	na	na	
Endosulphan I	mg/kg	0.1	na	na	na	na	na	na	
Chlordane-trans	mg/kg	0.1	na	na	na	na	na	na	
Chlordane-cis	mg/kg	0.1	na	na	na	na	na	na	
trans-Nonachlor	mg/kg	0.1	na	na	na	na	na	na	
4,4'-DDE	mg/kg	0.1	na	na	na	na	na	na	
Endrin	mg/kg	0.1	na	na	na	na	na	na	

NSW EPA	NBHM - Level 1	Guidelines for the Assessment of Service Station Sites (1994)	
Monographs	(1996)		

NSW-EPA
Guidelines for the
Assessment of
Service Station
Sites (1994)

NBHC-Evaluation
Monographs
(1996)

250

50

50

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Location		CLEANING SHED AREA							
Consultant		CH2M HILL	CH2M HILL	CH2M HILL	CH2M HILL	CH2M HILL	CH2M HILL	CH2M HILL	CH2M HILL
Sample Location		SB31	SB31	SB32	SB32	SB32	SB32	SB32	BH33
Sample Depth (metres)		0.00-0.10	0.60-0.70	0.00-0.10	1.10-1.20	1.60-1.70	1.60-1.70	1.60-1.70	0.2
Analyte	Units	LOR	NEHT - Level II Monographs (1996)		NSW EPA Guidelines for the Assessment of Service Station Sites (1994)				
Total Xylenes	mg/kg	3					na	nd	nd
PAHs									
Naphthalene	mg/kg	0.5					nd	nd	nd
Acenaphthylene	mg/kg	0.5					nd	nd	nd
Acenaphthylene	mg/kg	0.5					nd	nd	nd
Fluorene	mg/kg	0.5					nd	nd	nd
Phenanthrene	mg/kg	0.5					1.8	nd	nd
Anthracene	mg/kg	0.5					nd	nd	nd
Fluoranthene	mg/kg	0.5					2.6	nd	nd
Pyrene	mg/kg	0.5					2.6	nd	nd
Benzo(a)anthracene	mg/kg	0.5					1.4	nd	nd
Chrysene	mg/kg	0.5					1.8	nd	nd
Benzo(b)fluoranthene	mg/kg	1					3	nd	nd
Benzo(a)pyrene	mg/kg	0.5					1.4	nd	nd
Indeno(1,2,3-cd)pyrene	mg/kg	0.5					1.4	nd	nd
Dibenzo(a,h)anthracene	mg/kg	0.5					0.9	nd	nd
Benzo(g,h,i)perylene	mg/kg	0.5					16.9	0	0
Total PAHs	mg/kg			100		20			
Phenols									
Phenol	mg/kg	0.5		42500			na	na	na
2-Chlorophenol	mg/kg	0.5					na	na	na
2-Methylphenol	mg/kg	0.5					na	na	na
3-Methylphenol & 4-Methylphenol	mg/kg	0.5					na	na	na
2-Nitrophenol	mg/kg	0.5					na	na	na
2,4-Dimethylphenol	mg/kg	0.5					na	na	na
2,4-Dichlorophenol	mg/kg	0.5					na	na	na
2,6-Dichlorophenol	mg/kg	0.5					na	na	na

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SOIL ANALYTICAL RESULTS - FORMER CLEANING SHED AREA

Location		CLEANING SHED AREA							
Consultant		CH2M HILL SB31	CH2M HILL SB31	CH2M HILL SB32	CH2M HILL SB32	CH2M HILL SB32	CH2M HILL SB32	CH2M HILL BH33	
Sample Location		0.00-0.10	0.60-0.70	0.00-0.10	1.10-1.20	1.60-1.70		0.2	
Sample Depth (metres)									
Analyte	Units	LOR	NEHT - Level I Monographs (1996)	NSW EPA Guidelines for the Assessment of Service Station Sites (1994)					
Styrene	mg/kg	1			na	na	na	na	nd
1,1,1,2-Tetrachloroethane	mg/kg	1			na	na	na	na	nd
1,1,2,2-Tetrachloroethane	mg/kg	1			na	na	na	na	nd
Tetrachloroethene	mg/kg	1			na	na	na	na	nd
Toluene	mg/kg	1		1.4	na	na	na	na	nd
1,2,3-Trichlorobenzene	mg/kg	1			na	na	na	na	nd
1,2,4-Trichlorobenzene	mg/kg	1			na	na	na	na	nd
1,1,1-Trichloroethane	mg/kg	1			na	na	na	na	nd
1,1,2-Trichloroethane	mg/kg	1			na	na	na	na	nd
Trichloroethene	mg/kg	1			na	na	na	na	nd
Trichlorofluoromethane	mg/kg	1			na	na	na	na	nd
1,2,3-Trichloropropane	mg/kg	1			na	na	na	na	nd
1,2,4-Trimethylbenzene	mg/kg	1			na	na	na	na	nd
1,3,5-Trimethylbenzene	mg/kg	1			na	na	na	na	nd
Vinyl chloride	mg/kg	1			na	na	na	na	nd
ortho-Xylene	mg/kg	1		1.4	na	na	na	na	nd
meta- & para-Xylene	mg/kg	1			na	na	na	na	nd
TPH									
C6-C9	mg/kg	10		65	na	na	na	na	na
C10-C14	mg/kg	10			na	na	na	na	na
C15-C28	mg/kg	50			na	na	na	na	na
C29-C36	mg/kg	50			na	na	na	na	na
Total C10-C36	mg/kg			1000	na	na	na	na	na
BTEX									
Benzene	mg/kg	0.5		1	na	nd	nd	nd	nd
Toluene	mg/kg	1		1.4	na	na	nd	nd	nd
Ethylbenzene	mg/kg	1		3.1	na	na	nd	nd	nd