

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
1,3-Dichlorobenzene	S12-No27331	CP	%	101			70-130	Pass	
1,3-Dichloropropane	S12-No27331	CP	%	101			70-130	Pass	
1,3,5-Trimethylbenzene	S12-No27331	CP	%	103			70-130	Pass	
1,4-Dichlorobenzene	S12-No27331	CP	%	101			70-130	Pass	
2-Butanone (MEK)	S12-No27331	CP	%	99			70-130	Pass	
2-Chlorotoluene	S12-No27331	CP	%	101			70-130	Pass	
2-Hexanone (MBK)	S12-No27331	CP	%	115			70-130	Pass	
2-Pentanone	S12-No27331	CP	%	98			70-130	Pass	
4-Chlorotoluene	S12-No27331	CP	%	102			70-130	Pass	
4-Methyl-2-pentanone (MIBK)	S12-No27331	CP	%	99			70-130	Pass	
Bromobenzene	S12-No27331	CP	%	100			70-130	Pass	
Bromodichloromethane	S12-No27331	CP	%	101			70-130	Pass	
Bromoform	S12-No27331	CP	%	92			70-130	Pass	
Bromomethane	S12-No27331	CP	%	115			70-130	Pass	
Carbon disulfide	S12-No27331	CP	%	106			70-130	Pass	
Carbon Tetrachloride	S12-No27331	CP	%	104			70-130	Pass	
Chlorobenzene	S12-No27331	CP	%	97			70-130	Pass	
Chloroethane	S12-No27331	CP	%	105			70-130	Pass	
Chloroform	S12-No27331	CP	%	104			70-130	Pass	
Chloromethane	S12-No27331	CP	%	117			70-130	Pass	
cis-1,2-Dichloroethene	S12-No27331	CP	%	101			70-130	Pass	
cis-1,3-Dichloropropene	S12-No27331	CP	%	103			70-130	Pass	
Dibromochloromethane	S12-No27331	CP	%	99			70-130	Pass	
Dichlorodifluoromethane	S12-No27331	CP	%	102			70-130	Pass	
Hexachlorobutadiene	S12-No27331	CP	%	105			70-130	Pass	
Isopropyl benzene (Cumene)	S12-No27331	CP	%	99			70-130	Pass	
Methylene Chloride	S12-No27331	CP	%	104			70-130	Pass	
n-Butylbenzene	S12-No27331	CP	%	107			70-130	Pass	
n-Propylbenzene	S12-No27331	CP	%	104			70-130	Pass	
p-Isopropyltoluene	S12-No27331	CP	%	104			70-130	Pass	
sec-Butylbenzene	S12-No27331	CP	%	104			70-130	Pass	
Styrene	S12-No27331	CP	%	97			70-130	Pass	
tert-Butylbenzene	S12-No27331	CP	%	103			70-130	Pass	
Tetrachloroethene	S12-No27331	CP	%	107			70-130	Pass	
trans-1,2-Dichloroethene	S12-No27331	CP	%	110			70-130	Pass	
trans-1,3-Dichloropropene	S12-No27331	CP	%	103			70-130	Pass	
Trichloroethene	S12-No27331	CP	%	105			70-130	Pass	
Trichlorofluoromethane	S12-No27331	CP	%	109			70-130	Pass	
Vinyl acetate	S12-No27331	CP	%	104			70-130	Pass	
Vinyl chloride	S12-No27331	CP	%	118			70-130	Pass	
Spike - % Recovery									
Metals M8				Result 1					
Arsenic	S12-No27331	CP	%	94			70-130	Pass	
Cadmium	S12-No27331	CP	%	92			70-130	Pass	
Chromium	S12-No27331	CP	%	97			70-130	Pass	
Mercury	S12-No27331	CP	%	103			70-130	Pass	
Nickel	S12-No27331	CP	%	97			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1					
TRH C6-C9	S12-No27338	CP	%	83			70-130	Pass	
TRH C10-C14	S12-No27338	CP	%	75			70-130	Pass	
Spike - % Recovery									
BTEX				Result 1					
Benzene	S12-No27338	CP	%	94			70-130	Pass	
Toluene	S12-No27338	CP	%	91			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Ethylbenzene	S12-No27338	CP	%	93			70-130	Pass	
Total m+p-Xylenes	S12-No27338	CP	%	95			70-130	Pass	
o-Xylene	S12-No27338	CP	%	96			70-130	Pass	
Xylenes(ortho.meta and para)	S12-No27338	CP	%	95			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions *				Result 1					
Naphthalene	S12-No27338	CP	%	74			70-130	Pass	
TRH C6-C10	S12-No27338	CP	%	92			70-130	Pass	
TRH >C10-C16	S12-No27338	CP	%	79			70-130	Pass	
Spike - % Recovery									
Polyaromatic Hydrocarbons (PAH)				Result 1					
Acenaphthene	S12-No27338	CP	%	92			70-130	Pass	
Pyrene	S12-No27338	CP	%	93			70-130	Pass	
Spike - % Recovery									
Semivolatile Organic Compounds (SVOC)				Result 1					
2-Chlorophenol	S12-No27338	CP	%	97			70-130	Pass	
4-Chloro-3-methylphenol	S12-No27338	CP	%	89			70-130	Pass	
4-Nitrophenol	S12-No27338	CP	%	72			70-130	Pass	
N-Nitrosodipropylamine	S12-No27338	CP	%	71			70-130	Pass	
Phenol	S12-No27338	CP	%	89			70-130	Pass	
Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C6-C9	S12-No27323	CP	mg/kg	< 10	< 10	<1	30%	Pass	
TRH C10-C14	S12-No27323	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C15-C28	S12-No27323	CP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH C29-C36	S12-No27323	CP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S12-No27323	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Toluene	S12-No27323	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Ethylbenzene	S12-No27323	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Total m+p-Xylenes	S12-No27323	CP	mg/kg	< 1	< 1	<1	30%	Pass	
o-Xylene	S12-No27323	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Xylenes(ortho.meta and para)	S12-No27323	CP	mg/kg	< 1.5	< 1.5	<1	30%	Pass	
Total BTEX	S12-No27323	CP	mg/kg	< 1.5	< 1.5	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions *				Result 1	Result 2	RPD			
Naphthalene	S12-No27323	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
TRH C6-C10	S12-No27323	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C6-C10 less BTEX (F1)	S12-No27323	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH >C10-C16	S12-No27323	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	S12-No27323	CP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C34-C40	S12-No27323	CP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
Polyaromatic Hydrocarbons (PAH)				Result 1	Result 2	RPD			
Acenaphthene	S12-No27323	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	S12-No27323	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	S12-No27323	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	S12-No27323	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(a)pyrene	S12-No27323	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(b)fluoranthene & Benzo(k)fluoranthene	S12-No27323	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Benzo(g,h,i)perylene	S12-No27323	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chrysene	S12-No27323	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Duplicate								
Polyaromatic Hydrocarbons (PAH)				Result 1	Result 2	RPD		
Dibenz(a,h)anthracene	S12-No27323	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Fluoranthene	S12-No27323	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Fluorene	S12-No27323	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Indeno(1,2,3-cd)pyrene	S12-No27323	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Naphthalene	S12-No27323	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Phenanthrene	S12-No27323	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Pyrene	S12-No27323	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
Metals M8				Result 1	Result 2	RPD		
Arsenic	S12-No27330	CP	mg/kg	7.4	6.3	17	30%	Pass
Cadmium	S12-No27330	CP	mg/kg	< 0.4	< 0.4	59	30%	Fail
Chromium	S12-No27330	CP	mg/kg	7.1	8.1	13	30%	Pass
Copper	S12-No27330	CP	mg/kg	11	8.4	22	30%	Pass
Lead	S12-No27330	CP	mg/kg	17	16	7.0	30%	Pass
Mercury	S12-No27330	CP	mg/kg	< 0.05	< 0.05	4.0	30%	Pass
Nickel	S12-No27330	CP	mg/kg	19	18	4.0	30%	Pass
Zinc	S12-No27330	CP	mg/kg	53	47	11	30%	Pass
Duplicate								
BTX				Result 1	Result 2	RPD		
Benzene	S12-No27331	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Toluene	S12-No27331	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Ethylbenzene	S12-No27331	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Total m+p-Xylenes	S12-No27331	CP	mg/kg	< 1	< 1	<1	30%	Pass
o-Xylene	S12-No27331	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions *				Result 1	Result 2	RPD		
Naphthalene	S12-No27331	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
Volatile Organic Compounds (VOC)				Result 1	Result 2	RPD		
1.1-Dichloroethane	S12-No27331	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.1-Dichloroethene	S12-No27331	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.1.1-Trichloroethane	S12-No27331	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.1.1.2-Tetrachloroethane	S12-No27331	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.1.2-Trichloroethane	S12-No27331	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.2-Dibromo-3-chloropropane	S12-No27331	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.2-Dibromoethane	S12-No27331	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.2-Dichlorobenzene	S12-No27331	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.2-Dichloroethane	S12-No27331	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.2-Dichloropropane	S12-No27331	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.2.3-Trichloropropane	S12-No27331	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.2.4-Trichlorobenzene	S12-No27331	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.2.4-Trimethylbenzene	S12-No27331	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.3-Dichlorobenzene	S12-No27331	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.3-Dichloropropane	S12-No27331	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.3.5-Trimethylbenzene	S12-No27331	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.4-Dichlorobenzene	S12-No27331	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2-Butanone (MEK)	S12-No27331	CP	mg/kg	< 5	< 5	<1	30%	Pass
2-Chlorotoluene	S12-No27331	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2-Hexanone (MBK)	S12-No27331	CP	mg/kg	< 5	< 5	<1	30%	Pass
2-Pentanone	S12-No27331	CP	mg/kg	< 5	< 5	<1	30%	Pass
4-Chlorotoluene	S12-No27331	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
4-Methyl-2-pentanone (MIBK)	S12-No27331	CP	mg/kg	< 5	< 5	<1	30%	Pass
Bromobenzene	S12-No27331	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Bromodichloromethane	S12-No27331	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Bromoform	S12-No27331	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass

Duplicate								
Volatile Organic Compounds (VOC)				Result 1	Result 2	RPD		
Bromomethane	S12-No27331	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Carbon disulfide	S12-No27331	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Carbon Tetrachloride	S12-No27331	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chlorobenzene	S12-No27331	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chloroethane	S12-No27331	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chloroform	S12-No27331	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chloromethane	S12-No27331	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
cis-1,2-Dichloroethene	S12-No27331	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
cis-1,3-Dichloropropene	S12-No27331	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dibromochloromethane	S12-No27331	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dichlorodifluoromethane	S12-No27331	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Hexachlorobutadiene	S12-No27331	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Isopropyl benzene (Cumene)	S12-No27331	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Methylene Chloride	S12-No27331	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
n-Butylbenzene	S12-No27331	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
n-Propylbenzene	S12-No27331	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
p-Isopropyltoluene	S12-No27331	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
sec-Butylbenzene	S12-No27331	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Styrene	S12-No27331	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
tert-Butylbenzene	S12-No27331	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Tetrachloroethene	S12-No27331	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
trans-1,2-Dichloroethene	S12-No27331	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
trans-1,3-Dichloropropene	S12-No27331	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Trichloroethene	S12-No27331	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Trichlorofluoromethane	S12-No27331	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Vinyl acetate	S12-No27331	CP	mg/kg	< 5	< 5	<1	30%	Pass
Vinyl chloride	S12-No27331	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD		
TRH C6-C9	S12-No27338	CP	mg/kg	< 10	< 10	<1	30%	Pass
TRH C10-C14	S12-No27338	CP	mg/kg	< 50	< 50	<1	30%	Pass
TRH C15-C28	S12-No27338	CP	mg/kg	< 100	< 100	<1	30%	Pass
TRH C29-C36	S12-No27338	CP	mg/kg	< 100	< 100	<1	30%	Pass
Duplicate								
BTEX				Result 1	Result 2	RPD		
Benzene	S12-No27338	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Toluene	S12-No27338	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Ethylbenzene	S12-No27338	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Total m+p-Xylenes	S12-No27338	CP	mg/kg	< 1	< 1	<1	30%	Pass
o-Xylene	S12-No27338	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Xylenes(ortho.meta and para)	S12-No27338	CP	mg/kg	< 1.5	< 1.5	<1	30%	Pass
Total BTEX	S12-No27338	CP	mg/kg	< 1.5	< 1.5	<1	30%	Pass
Duplicate								
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions *				Result 1	Result 2	RPD		
Naphthalene	S12-No27338	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
TRH C6-C10	S12-No27338	CP	mg/kg	< 20	< 20	<1	30%	Pass
TRH C6-C10 less BTEX (F1)	S12-No27338	CP	mg/kg	< 20	< 20	<1	30%	Pass
TRH >C10-C16	S12-No27338	CP	mg/kg	< 50	< 50	<1	30%	Pass
TRH >C16-C34	S12-No27338	CP	mg/kg	< 100	< 100	<1	30%	Pass
TRH >C34-C40	S12-No27338	CP	mg/kg	< 100	< 100	<1	30%	Pass
Duplicate								
Polyaromatic Hydrocarbons (PAH)				Result 1	Result 2	RPD		
Acenaphthene	S12-No27338	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Acenaphthylene	S12-No27338	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Anthracene	S12-No27338	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass

Duplicate								
Polyaromatic Hydrocarbons (PAH)				Result 1	Result 2	RPD		
Benz(a)anthracene	S12-No27338	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(a)pyrene	S12-No27338	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(g,h,i)perylene	S12-No27338	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chrysene	S12-No27338	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dibenz(a,h)anthracene	S12-No27338	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Fluoranthene	S12-No27338	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Fluorene	S12-No27338	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Indeno(1,2,3-cd)pyrene	S12-No27338	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Naphthalene	S12-No27338	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Phenanthrene	S12-No27338	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Pyrene	S12-No27338	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
Semivolatile Organic Compounds (SVOC)				Result 1	Result 2	RPD		
2-Chloronaphthalene	S12-No27338	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2-Chlorophenol	S12-No27338	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2-Methylnaphthalene	S12-No27338	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2-Methylphenol (o-Cresol)	S12-No27338	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2-Naphthylamine	S12-No27338	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2-Nitroaniline	S12-No27338	CP	mg/kg	< 1	< 1	<1	30%	Pass
2-Nitrophenol	S12-No27338	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
3&4-Methylphenol (m&p-Cresol)	S12-No27338	CP	mg/kg	< 1	< 1	<1	30%	Pass
3-Methylcholanthrene	S12-No27338	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
4-Aminobiphenyl	S12-No27338	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
4-Bromophenyl phenyl ether	S12-No27338	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
4-Chloro-3-methylphenol	S12-No27338	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
4-Chlorophenyl phenyl ether	S12-No27338	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
4-Nitrophenol	S12-No27338	CP	mg/kg	< 4	< 4	<1	30%	Pass
4,4'-DDD	S12-No27338	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
4,4'-DDE	S12-No27338	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
4,4'-DDT	S12-No27338	CP	mg/kg	< 1	< 1	<1	30%	Pass
Acetophenone	S12-No27338	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Aldrin	S12-No27338	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Aniline	S12-No27338	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Bis(2-chloroethoxy)methane	S12-No27338	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Bis(2-ethylhexyl)phthalate	S12-No27338	CP	mg/kg	< 5	< 5	<1	30%	Pass
Butyl benzyl phthalate	S12-No27338	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
d-BHC	S12-No27338	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Di-n-butyl phthalate	S12-No27338	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Di-n-octyl phthalate	S12-No27338	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dibenzofuran	S12-No27338	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dieldrin	S12-No27338	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Diethyl phthalate	S12-No27338	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dimethyl phthalate	S12-No27338	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Diphenylamine	S12-No27338	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Endosulfan sulphate	S12-No27338	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Endrin	S12-No27338	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Endrin aldehyde	S12-No27338	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Endrin ketone	S12-No27338	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
g-BHC (Lindane)	S12-No27338	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Heptachlor	S12-No27338	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Heptachlor epoxide	S12-No27338	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Hexachlorobenzene	S12-No27338	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Hexachlorobutadiene	S12-No27338	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Hexachlorocyclopentadiene	S12-No27338	CP	mg/kg	< 2	< 2	<1	30%	Pass
Hexachloroethane	S12-No27338	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass

Duplicate								
Semivolatile Organic Compounds (SVOC)				Result 1	Result 2	RPD		
Methoxychlor	S12-No27338	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
N-Nitrosodibutylamine	S12-No27338	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
N-Nitrosodipropylamine	S12-No27338	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
N-Nitrosopiperidine	S12-No27338	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Nitrobenzene	S12-No27338	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Pentachlorobenzene	S12-No27338	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Pentachloronitrobenzene	S12-No27338	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Pentachlorophenol	S12-No27338	CP	mg/kg	< 2	< 2	<1	30%	Pass
Phenol	S12-No27338	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass

Comments

Please note: Asbestos analysed by ASET (Job : ASET31814/34994/1-3) NATA Accreditation : 14484

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Organic samples had Teflon liners	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	Yes

Qualifier Codes/Comments

Code	Description
N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.
Q15	The RPD reported passes mgt-LabMark's Acceptance Criteria as stipulated in SOP 05. Refer to Glossary Page of this report for further details

Authorised By

Jean Heng	Client Services
Laura Schofield	Senior Analyst-Volatile (NSW)
Ryan Hamilton	Senior Analyst-Organic (NSW)
James Norford	Senior Analyst-Metal (NSW)



Dr. Bob Symons

Laboratory Manager

Final report - this Report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Uncertainty data is available on request

mgt-LabMark shall not be liable for loss, cost, damages or expenses incurred by the client, or any other person or company, resulting from the use of any information or interpretation given in this report. In no case shall mgt-LabMark be liable for consequential damages including, but not limited to, lost profits, damages for failure to meet deadlines and lost production arising from this report. This document shall not be reproduced except in full and relates only to the items tested. Unless indicated otherwise, the tests were performed on the samples as received.



AUSTRALIAN SAFER ENVIRONMENT & TECHNOLOGY PTY LTD

ABN 36 088 095 112

Our ref : ASET31814/ 34994 / 1 - 3

Your ref :361385

NATA Accreditation No: 14484

5 December 2012

MGT- Labmark Environmental Pty Ltd
Unit F3, Building F, 16, Mars Road
Lane Cove
NSW 2066

Attn: Ms Leanne Knowles

Dear Leanne

Asbestos Identification

This report presents the results of three samples, forwarded by MGT- Labmark Environmental Pty Ltd on 5 December 2012, for analysis for asbestos.

1.Introduction:Three samples forwarded were examined and analysed for the presence of asbestos.

2. Methods : The samples were examined under a Stereo Microscope and selected fibres were analysed by Polarized Light Microscopy in conjunction with Dispersion Staining method (**Safer Environment Method 1.**)

3. Results : **Sample No. 1. ASET31814 / 34994 / 1. 361385 - BH112-0.34 - 0.4m - No27343.**
Approx dimensions 7.0 cm x 8.0 cm x 2.25 cm

The sample consisted of a mixture of clayish soil, stones, fragments of plaster, brick and glass.

No asbestos detected.

Sample No. 2. ASET31814 / 34994 / 2. 361385 - BH111 - 0.35 – 0.47m - No27331.
Approx dimensions 8.0 cm x 8.0 cm x 2.25 cm

The sample consisted of a mixture of clayish sandy soil, stones, plant matter and fragments of plaster and brick like material.

No asbestos detected.

Sample No. 3. ASET31814 / 34994 / 3. 361385 - BH101A - 0.5 - 0.6m - No27324.
Approx dimensions 8.0 cm x 8.0 cm x 2.2 cm

The sample consisted of a mixture of clayish soil, stones, plant matter and fragments of plaster and bitumen.

No asbestos detected.

Analysed and reported by,



Mahen De Silva. BSc, MSc, Grad Dip (Occ Hyg)
Occupational Hygienist / Approved Identifier.
Approved Signatory

This document is issued in accordance with
NATA's Accreditation requirements. Accredited
for compliance with ISO/IEC 17025.

SUITE 710 / 90 GEORGE STREET, HORNSBY NSW 2077 – P.O. BOX 1644 HORNSBY WESTFIELD NSW 1635

PHONE: (02) 99872183 FAX: (02)99872151 EMAIL: aset@bigpond.net.au WEBSITE: www.Ausset.com.au

OCCUPATIONAL HEALTH & SAFETY STUDIES • INDOOR AIR QUALITY SURVEYS • HAZARDOUS MATERIAL SURVEYS • RADIATION SURVEYS • ASBESTOS SURVEYS
ASBESTOS DETECTION & IDENTIFICATION • REPAIR & CALIBRATION OF SCIENTIFIC EQUIPMENT • AIRBORNE FIBRE & SILICA MONITORING

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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coffey environments
SPECIALISTS IN ENVIRONMENTAL,
SOCIAL AND SAFETY PERFORMANCE

Consigning Office: Chatswood
Report Results to: Matthew Locke
Invoices to: Matthew Locke

Project No: GEOTLCON24303AF Task No:
Laboratory: MGT LabMark
Project Manager: Matthew Locke

Sampler's Name: Priya Dass
Special Instructions:

Mobile: @coffey.com
Phone: @coffey.com

Analysis Request Section

TPH/BTEX/PAH TESTED AS SITE B4/METALS AS SITE M8

Lab No.	Sample ID	Sample Date	Time	Matrix (Soil...etc)	Container Type & Preservative*	T-A-T (specify)
	BH112A (0.35-0.45m)	30/11/12		Soil	1x250ml GJT	Standard
	BH112A (0.35-0.45m) A				1x2 ziplock bag	
	BH112A (0.8-0.9m)				Ice	
	BH112A (1.5-1.6m)					
	BH112A (1.8-1.9m)					
	BH112A (1.8-1.9m) A					
	BH112A (2.2-2.3m)					
	BH112A (2.5-2.6m)					
	BH112A (2.9-3.0m)					
	BH112A (3.4-3.5m)					
	BH102 (0.13-0.23m)	3/12/12				
	BH102 (0.5-0.6m)					
	BH102 (0.5-0.6m) A					
	BH102 (0.6-0.7m)					
	BH102 (0.8-0.9m)					
	QC4	30/11/12			1x250ml GJT	
	QC5	3/12/12				
	QC5A					

Send to EnviroLab

RELINQUISHED BY

Name: Priya Dass Date: 3/12/12
Coffey Environments Time: 2:55 p.m.

RECEIVED BY

Name: Matthew Murphy Date: 3-12-12
Company: MAT Labmark Time: 2:55 p.m.

Sample Receipt Advice: (Lab Use Only)

All Samples Received in Good Condition ☐
All Documentation is in Proper Order ☐
Samples Received Properly Chilled ☐
Lab. Ref/Batch No.

*Container Type & Preservation Codes: P - Plastic, G - Glass Bottle, J - Glass Jar, V - Vial, Z - Ziplock Bag, N - Nitric Acid Preserved, C - Hydrochloric Acid Preserved, S - Sulphuric Acid Preserved, I - Ice, ST - Sodium Thiosulfate, NP - No Preservative, OP - Other Preservative

Coffey Environments

Version: 4

Issue Date: 24/08/2012

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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 coffey environments SPECIALISTS IN ENVIRONMENTAL, SOCIAL AND SAFETY PERFORMANCE		Consigning Office: Chatswood Report Results to: Matthew Locke Invoices to: Matthew Locke		Mobile: @coffey.com Phone: @coffey.com																																																																																																																																																									
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Issue Date: 24/08/2012

Version: 4

Coffey Environments

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coffey environments
SPECIALISTS IN ENVIRONMENTAL

Consigning Office: Chatswood

environments

Report Results to: Matthew Locke

Invoices to:

Mobile:

Phone:

@coffey.com

@coffey.com

Project No: GEOTLCOV24303AF Task No:

Project Name: SICAPP Laboratory:

Sampler's Name: Priya Dass

Special Instructions:

Laboratory: MGT LabMark

Project Manager: Matthew Locke

[illegible]

NOTES

Send to Envirolabs

RELINQUISHED BY

RECEIVED BY

Name: Priya Dass

Date: 3/12/12

Coffey Environments

Time: 2:50 PM

Name:

Date:

Company:

Time:

Name: MITCHELL MURPHY

Date: 3-12-17

Common Pigeon 10/1/18

DATE:

Name: _____

Date: _____

Company:

2000

Sample Receipt Advice: (Lab Use Only)

All samples received in Good Condition

All samples received in good condition.

All Documentation is in Proper Order

Samples Received P

Container Type & Preservation Codes; P - Plastic, G - Glass Bottle, J - Glass Jar, V - Vial, Z - Ziplock Bag, N - Nitric Acid Preserved, C - Hydrochloric Acid Preserved, S - Sulphuric Acid Preserved, I - Ice, ST - Sodium Thiosulfate, NP - No Preservative, OP - Other Preservative

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Version: 4

Issue Date: 24/08/2012

Certificate of Analysis

Coffey Geotechnics Pty Ltd Chatswood
Level 18, Tower B, Citadel Tower 799 Pacific Highway
Chatswood
NSW 2067



NATA Accredited
Accreditation Number 1261
Site Number 18217

Accredited for compliance with ISO/IEC 17025.
The results of the tests, calibrations and/or
measurements included in this document are traceable
to Australian/national standards.

Attention: Matthew Locke

Report 361703-S
Client Reference SICEEP GEOTLCOV24303AF
Received Date Dec 05, 2012

Client Sample ID			BH112A_(0.35-0.45m)	BH112A_(0.35-0.45m)_A	BH112A_(0.8-0.9m)	BH112A_(1.8-1.9m)
Sample Matrix			Soil	Soil	Soil	Soil
mgt-LabMark Sample No.			S12-De01567	S12-De01568	S12-De01569	S12-De01571
Date Sampled			Nov 30, 2012	Nov 30, 2012	Nov 30, 2012	Nov 30, 2012
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	10	mg/kg	< 10	< 10	< 10	< 10
TRH C10-C14	50	mg/kg	< 50	< 50	< 50	< 50
TRH C15-C28	100	mg/kg	< 100	< 100	< 100	< 100
TRH C29-C36	100	mg/kg	< 100	< 100	< 100	< 100
TRH C10-36 (Total)	100	mg/kg	< 100	< 100	< 100	< 100
BTEX						
Benzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Toluene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Ethylbenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total m+p-Xylenes	1	mg/kg	< 1	< 1	< 1	< 1
o-Xylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Xylenes(ortho.meta and para)	1.5	mg/kg	< 1.5	< 1.5	< 1.5	< 1.5
Total BTEX	1.5	mg/kg	< 1.5	< 1.5	< 1.5	< 1.5
4-Bromofluorobenzene (surr.)	1	%	95	103	100	92
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions *						
Naphthalene ^{N02}	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1) ^{N04}	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2) ^{N01}	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
Volatile Organic Compounds (VOC)						
1.1-Dichloroethane	0.5	mg/kg	-	-	< 0.5	-
1.1-Dichloroethene	0.5	mg/kg	-	-	< 0.5	-
1.1.1-Trichloroethane	0.5	mg/kg	-	-	< 0.5	-
1.1.1.2-Tetrachloroethane	0.5	mg/kg	-	-	< 0.5	-
1.1.2-Trichloroethane	0.5	mg/kg	-	-	< 0.5	-
1.2-Dibromo-3-chloropropane	0.5	mg/kg	-	-	< 0.5	-
1.2-Dibromoethane	0.5	mg/kg	-	-	< 0.5	-
1.2-Dichlorobenzene	0.5	mg/kg	-	-	< 0.5	-
1.2-Dichloroethane	0.5	mg/kg	-	-	< 0.5	-
1.2-Dichloropropane	0.5	mg/kg	-	-	< 0.5	-
1.2.3-Trichloropropane	0.5	mg/kg	-	-	< 0.5	-
1.2.4-Trichlorobenzene	0.5	mg/kg	-	-	< 0.5	-
1.2.4-Trimethylbenzene	0.5	mg/kg	-	-	< 0.5	-
1.3-Dichlorobenzene	0.5	mg/kg	-	-	< 0.5	-

Client Sample ID			BH112A_(0.35-0.45m)	BH112A_(0.35-0.45m)_A	BH112A_(0.8-0.9m)	BH112A_(1.8-1.9m)
Sample Matrix			Soil	Soil	Soil	Soil
mgt-LabMark Sample No.			S12-De01567	S12-De01568	S12-De01569	S12-De01571
Date Sampled			Nov 30, 2012	Nov 30, 2012	Nov 30, 2012	Nov 30, 2012
Test/Reference	LOR	Unit				
Volatile Organic Compounds (VOC)						
1,3-Dichloropropane	0.5	mg/kg	-	-	< 0.5	-
1,3,5-Trimethylbenzene	0.5	mg/kg	-	-	< 0.5	-
1,4-Dichlorobenzene	0.5	mg/kg	-	-	< 0.5	-
2-Butanone (MEK)	5	mg/kg	-	-	< 5	-
2-Chlorotoluene	0.5	mg/kg	-	-	< 0.5	-
2-Hexanone (MBK)	5	mg/kg	-	-	< 5	-
2-Pentanone	5	mg/kg	-	-	< 5	-
4-Chlorotoluene	0.5	mg/kg	-	-	< 0.5	-
4-Methyl-2-pentanone (MIBK)	5	mg/kg	-	-	< 5	-
Benzene	0.5	mg/kg	-	-	< 0.5	-
Bromobenzene	0.5	mg/kg	-	-	< 0.5	-
Bromodichloromethane	0.5	mg/kg	-	-	< 0.5	-
Bromoform	0.5	mg/kg	-	-	< 0.5	-
Bromomethane	0.5	mg/kg	-	-	< 0.5	-
Carbon disulfide	0.5	mg/kg	-	-	< 0.5	-
Carbon Tetrachloride	0.5	mg/kg	-	-	< 0.5	-
Chlorobenzene	0.5	mg/kg	-	-	< 0.5	-
Chloroethane	0.5	mg/kg	-	-	< 0.5	-
Chloroform	0.5	mg/kg	-	-	< 0.5	-
Chloromethane	0.5	mg/kg	-	-	< 0.5	-
cis-1,2-Dichloroethene	0.5	mg/kg	-	-	< 0.5	-
cis-1,3-Dichloropropene	0.5	mg/kg	-	-	< 0.5	-
Dibromochloromethane	0.5	mg/kg	-	-	< 0.5	-
Dichlorodifluoromethane	0.5	mg/kg	-	-	< 0.5	-
Ethylbenzene	0.5	mg/kg	-	-	< 0.5	-
Hexachlorobutadiene	0.5	mg/kg	-	-	< 0.5	-
Isopropyl benzene (Cumene)	0.5	mg/kg	-	-	< 0.5	-
Methylene Chloride	0.5	mg/kg	-	-	< 0.5	-
n-Butylbenzene	0.5	mg/kg	-	-	< 0.5	-
n-Propylbenzene	0.5	mg/kg	-	-	< 0.5	-
o-Xylene	0.5	mg/kg	-	-	< 0.5	-
p-Isopropyltoluene	0.5	mg/kg	-	-	< 0.5	-
sec-Butylbenzene	0.5	mg/kg	-	-	< 0.5	-
Styrene	0.5	mg/kg	-	-	< 0.5	-
tert-Butylbenzene	0.5	mg/kg	-	-	< 0.5	-
Tetrachloroethene	0.5	mg/kg	-	-	< 0.5	-
Toluene	0.5	mg/kg	-	-	< 0.5	-
Total m+p-Xylenes	1	mg/kg	-	-	< 1	-
trans-1,2-Dichloroethene	0.5	mg/kg	-	-	< 0.5	-
trans-1,3-Dichloropropene	0.5	mg/kg	-	-	< 0.5	-
Trichloroethene	0.5	mg/kg	-	-	< 0.5	-
Trichlorofluoromethane	0.5	mg/kg	-	-	< 0.5	-
Vinyl acetate	5	mg/kg	-	-	< 5	-
Vinyl chloride	0.5	mg/kg	-	-	< 0.5	-
Toluene-d8 (surr.)	1	%	-	-	87	-
4-Bromofluorobenzene (surr.)	1	%	-	-	100	-
1,2-Dichloroethane-d4 (surr.)	1	%	-	-	112	-
Polyaromatic Hydrocarbons (PAH)						
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			BH112A_(0.35-0.45m)	BH112A_(0.35-0.45m)_A	BH112A_(0.8-0.9m)	BH112A_(1.8-1.9m)
Sample Matrix			Soil	Soil	Soil	Soil
mgt-LabMark Sample No.			S12-De01567	S12-De01568	S12-De01569	S12-De01571
Date Sampled			Nov 30, 2012	Nov 30, 2012	Nov 30, 2012	Nov 30, 2012
Test/Reference	LOR	Unit				
Polyaromatic Hydrocarbons (PAH)						
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	1.1	1.1	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	0.9	1.1	< 0.5	< 0.5
Benzo(b)fluoranthene & Benzo(k)fluoranthene	1	mg/kg	1.5	2.0	< 1	< 1
Benzo(g,h,i)perylene	0.5	mg/kg	0.6	0.8	< 0.5	< 0.5
Chrysene	0.5	mg/kg	0.8	1.0	< 0.5	< 0.5
Dibenz(a,h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	1.5	2.1	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1,2,3-cd)pyrene	0.5	mg/kg	0.5	0.7	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	0.7	1.1	< 0.5	< 0.5
Pyrene	0.5	mg/kg	1.5	2.0	< 0.5	< 0.5
Total PAH	1	mg/kg	9.1	12	< 1	< 1
2-Fluorobiphenyl (surr.)	1	%	98	97	91	94
p-Terphenyl-d14 (surr.)	1	%	84	87	86	86
Heavy Metals						
Arsenic	2	mg/kg	4.6	6.6	4.0	4.2
Cadmium	0.4	mg/kg	0.5	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	8.8	11	5.2	9.7
Copper	5	mg/kg	51	59	34	57
Lead	5	mg/kg	78	67	17	22
Mercury	0.05	mg/kg	0.23	0.14	< 0.05	< 0.05
Nickel	5	mg/kg	9.2	11	< 5	8.2
Zinc	5	mg/kg	130	120	21	33
% Moisture	0.1	%	12	14	15	18
Asbestos			See attached	-	See attached	-

Client Sample ID			BH112A_(1.8-1.9m)_A	BH112A_(2.5-2.6m)	BH112A_(2.9-3.0m)	BH112A_(3.4-3.5m)
Sample Matrix			Soil	Soil	Soil	Soil
mgt-LabMark Sample No.			S12-De01572	S12-De01574	S12-De01575	S12-De01576
Date Sampled			Nov 30, 2012	Nov 30, 2012	Nov 30, 2012	Nov 30, 2012
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	10	mg/kg	< 10	< 10	< 10	< 10
TRH C10-C14	50	mg/kg	< 50	< 50	< 50	< 50
TRH C15-C28	100	mg/kg	< 100	< 100	< 100	< 100
TRH C29-C36	100	mg/kg	< 100	< 100	< 100	< 100
TRH C10-36 (Total)	100	mg/kg	< 100	< 100	< 100	< 100
BTEX						
Benzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Toluene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Ethylbenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total m+p-Xylenes	1	mg/kg	< 1	< 1	< 1	< 1
o-Xylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			BH112A_(1.8-1.9m)_A	BH112A_(2.5-2.6m)	BH112A_(2.9-3.0m)	BH112A_(3.4-3.5m)
Sample Matrix			Soil	Soil	Soil	Soil
mgt-LabMark Sample No.			S12-De01572	S12-De01574	S12-De01575	S12-De01576
Date Sampled			Nov 30, 2012	Nov 30, 2012	Nov 30, 2012	Nov 30, 2012
Test/Reference	LOR	Unit				
BTEX						
Xylenes(ortho.meta and para)	1.5	mg/kg	< 1.5	< 1.5	< 1.5	< 1.5
Total BTEX	1.5	mg/kg	< 1.5	< 1.5	< 1.5	< 1.5
4-Bromofluorobenzene (surr.)	1	%	89	92	82	86
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions *						
Naphthalene ^{NO2}	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1) ^{NO4}	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2) ^{NO1}	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
Volatile Organic Compounds (VOC)						
1.1-Dichloroethane	0.5	mg/kg	-	-	< 0.5	-
1.1-Dichloroethene	0.5	mg/kg	-	-	< 0.5	-
1.1.1-Trichloroethane	0.5	mg/kg	-	-	< 0.5	-
1.1.1.2-Tetrachloroethane	0.5	mg/kg	-	-	< 0.5	-
1.1.2-Trichloroethane	0.5	mg/kg	-	-	< 0.5	-
1.2-Dibromo-3-chloropropane	0.5	mg/kg	-	-	< 0.5	-
1.2-Dibromoethane	0.5	mg/kg	-	-	< 0.5	-
1.2-Dichlorobenzene	0.5	mg/kg	-	-	< 0.5	-
1.2-Dichloroethane	0.5	mg/kg	-	-	< 0.5	-
1.2-Dichloropropane	0.5	mg/kg	-	-	< 0.5	-
1.2.3-Trichloropropane	0.5	mg/kg	-	-	< 0.5	-
1.2.4-Trichlorobenzene	0.5	mg/kg	-	-	< 0.5	-
1.2.4-Trimethylbenzene	0.5	mg/kg	-	-	< 0.5	-
1.3-Dichlorobenzene	0.5	mg/kg	-	-	< 0.5	-
1.3-Dichloropropane	0.5	mg/kg	-	-	< 0.5	-
1.3.5-Trimethylbenzene	0.5	mg/kg	-	-	< 0.5	-
1.4-Dichlorobenzene	0.5	mg/kg	-	-	< 0.5	-
2-Butanone (MEK)	5	mg/kg	-	-	< 5	-
2-Chlorotoluene	0.5	mg/kg	-	-	< 0.5	-
2-Hexanone (MBK)	5	mg/kg	-	-	< 5	-
2-Pentanone	5	mg/kg	-	-	< 5	-
4-Chlorotoluene	0.5	mg/kg	-	-	< 0.5	-
4-Methyl-2-pentanone (MIBK)	5	mg/kg	-	-	< 5	-
Benzene	0.5	mg/kg	-	-	< 0.5	-
Bromobenzene	0.5	mg/kg	-	-	< 0.5	-
Bromodichloromethane	0.5	mg/kg	-	-	< 0.5	-
Bromoform	0.5	mg/kg	-	-	< 0.5	-
Bromomethane	0.5	mg/kg	-	-	< 0.5	-
Carbon disulfide	0.5	mg/kg	-	-	< 0.5	-
Carbon Tetrachloride	0.5	mg/kg	-	-	< 0.5	-
Chlorobenzene	0.5	mg/kg	-	-	< 0.5	-
Chloroethane	0.5	mg/kg	-	-	< 0.5	-
Chloroform	0.5	mg/kg	-	-	< 0.5	-
Chloromethane	0.5	mg/kg	-	-	< 0.5	-
cis-1.2-Dichloroethene	0.5	mg/kg	-	-	< 0.5	-
cis-1.3-Dichloropropene	0.5	mg/kg	-	-	< 0.5	-
Dibromochloromethane	0.5	mg/kg	-	-	< 0.5	-

Client Sample ID			BH112A_(1.8-1.9m)_A	BH112A_(2.5-2.6m)	BH112A_(2.9-3.0m)	BH112A_(3.4-3.5m)
Sample Matrix			Soil	Soil	Soil	Soil
mgt-LabMark Sample No.			S12-De01572	S12-De01574	S12-De01575	S12-De01576
Date Sampled			Nov 30, 2012	Nov 30, 2012	Nov 30, 2012	Nov 30, 2012
Test/Reference	LOR	Unit				
Volatile Organic Compounds (VOC)						
Dichlorodifluoromethane	0.5	mg/kg	-	-	< 0.5	-
Ethylbenzene	0.5	mg/kg	-	-	< 0.5	-
Hexachlorobutadiene	0.5	mg/kg	-	-	< 0.5	-
Isopropyl benzene (Cumene)	0.5	mg/kg	-	-	< 0.5	-
Methylene Chloride	0.5	mg/kg	-	-	< 0.5	-
n-Butylbenzene	0.5	mg/kg	-	-	< 0.5	-
n-Propylbenzene	0.5	mg/kg	-	-	< 0.5	-
o-Xylene	0.5	mg/kg	-	-	< 0.5	-
p-Isopropyltoluene	0.5	mg/kg	-	-	< 0.5	-
sec-Butylbenzene	0.5	mg/kg	-	-	< 0.5	-
Styrene	0.5	mg/kg	-	-	< 0.5	-
tert-Butylbenzene	0.5	mg/kg	-	-	< 0.5	-
Tetrachloroethene	0.5	mg/kg	-	-	< 0.5	-
Toluene	0.5	mg/kg	-	-	< 0.5	-
Total m+p-Xylenes	1	mg/kg	-	-	< 1	-
trans-1.2-Dichloroethene	0.5	mg/kg	-	-	< 0.5	-
trans-1.3-Dichloropropene	0.5	mg/kg	-	-	< 0.5	-
Trichloroethene	0.5	mg/kg	-	-	< 0.5	-
Trichlorofluoromethane	0.5	mg/kg	-	-	< 0.5	-
Vinyl acetate	5	mg/kg	-	-	< 5	-
Vinyl chloride	0.5	mg/kg	-	-	< 0.5	-
Toluene-d8 (surr.)	1	%	-	-	99	-
4-Bromofluorobenzene (surr.)	1	%	-	-	82	-
1,2-Dichloroethane-d4 (surr.)	1	%	-	-	102	-
Polyaromatic Hydrocarbons (PAH)						
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b)fluoranthene & Benzo(k)fluoranthene	1	mg/kg	< 1	< 1	< 1	< 1
Benzo(g,h,i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a,h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	0.6	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	0.5	< 0.5
Total PAH	1	mg/kg	< 1	< 1	1.1	< 1
2-Fluorobiphenyl (surr.)	1	%	97	102	81	97
p-Terphenyl-d14 (surr.)	1	%	92	96	83	1
Semivolatile Organic Compounds (SVOC)						
2-Chloronaphthalene	0.5	mg/kg	-	-	< 0.5	-
2-Chlorophenol	0.5	mg/kg	-	-	< 0.5	-
2-Methylnaphthalene	0.5	mg/kg	-	-	< 0.5	-
2-Methylphenol (o-Cresol)	0.5	mg/kg	-	-	< 0.5	-
2-Naphthylamine	0.5	mg/kg	-	-	< 0.5	-

Client Sample ID			BH112A_(1.8-1.9m)_A	BH112A_(2.5-2.6m)	BH112A_(2.9-3.0m)	BH112A_(3.4-3.5m)
Sample Matrix			Soil	Soil	Soil	Soil
mgt-LabMark Sample No.			S12-De01572	S12-De01574	S12-De01575	S12-De01576
Date Sampled			Nov 30, 2012	Nov 30, 2012	Nov 30, 2012	Nov 30, 2012
Test/Reference	LOR	Unit				
Semivolatile Organic Compounds (SVOC)						
2-Nitroaniline	1	mg/kg	-	-	< 1	-
2-Nitrophenol	0.5	mg/kg	-	-	< 0.5	-
3&4-Methylphenol (m&p-Cresol)	1	mg/kg	-	-	< 1	-
3-Methylcholanthrene	0.5	mg/kg	-	-	< 0.5	-
4-Aminobiphenyl	0.5	mg/kg	-	-	< 0.5	-
4-Bromophenyl phenyl ether	0.5	mg/kg	-	-	< 0.5	-
4-Chloro-3-methylphenol	0.5	mg/kg	-	-	< 0.5	-
4-Chlorophenyl phenyl ether	0.5	mg/kg	-	-	< 0.5	-
4-Nitrophenol	0.5	mg/kg	-	-	< 4	-
4,4'-DDD	0.5	mg/kg	-	-	< 0.5	-
4,4'-DDE	0.5	mg/kg	-	-	< 0.5	-
4,4'-DDT	1	mg/kg	-	-	< 1	-
Acenaphthene	0.5	mg/kg	-	-	< 0.5	-
Acenaphthylene	0.5	mg/kg	-	-	< 0.5	-
Acetophenone	0.5	mg/kg	-	-	< 0.5	-
Aldrin	0.5	mg/kg	-	-	< 0.5	-
Aniline	0.5	mg/kg	-	-	< 0.5	-
Anthracene	0.5	mg/kg	-	-	< 0.5	-
Benz(a)anthracene	0.5	mg/kg	-	-	< 0.5	-
Benzo(a)pyrene	0.5	mg/kg	-	-	< 0.5	-
Benzo(g,h,i)perylene	0.5	mg/kg	-	-	< 0.5	-
Bis(2-chloroethoxy)methane	0.5	mg/kg	-	-	< 0.5	-
Bis(2-ethylhexyl)phthalate	5	mg/kg	-	-	< 5	-
Butyl benzyl phthalate	0.5	mg/kg	-	-	< 0.5	-
Chlorpyrifos	0.5	mg/kg	-	-	< 0.5	-
Chrysene	0.5	mg/kg	-	-	< 0.5	-
Coumaphos	0.5	mg/kg	-	-	< 0.5	-
d-BHC	0.5	mg/kg	-	-	< 0.5	-
Demeton-O	0.5	mg/kg	-	-	< 0.5	-
Demeton-S	0.5	mg/kg	-	-	< 0.5	-
Di-n-butyl phthalate	0.5	mg/kg	-	-	< 0.5	-
Di-n-octyl phthalate	0.5	mg/kg	-	-	< 0.5	-
Diazinon	0.5	mg/kg	-	-	< 0.5	-
Dibenz(a,h)anthracene	0.5	mg/kg	-	-	< 0.5	-
Dibenzofuran	0.5	mg/kg	-	-	< 0.5	-
Dichlorvos	0.5	mg/kg	-	-	< 0.5	-
Dieldrin	0.5	mg/kg	-	-	< 0.5	-
Diethyl phthalate	0.5	mg/kg	-	-	< 0.5	-
Dimethoate	0.5	mg/kg	-	-	< 0.5	-
Dimethyl phthalate	0.5	mg/kg	-	-	< 0.5	-
Diphenylamine	0.5	mg/kg	-	-	< 0.5	-
Disulfoton	0.5	mg/kg	-	-	< 0.5	-
Endosulfan sulphate	0.5	mg/kg	-	-	< 0.5	-
Endrin	0.5	mg/kg	-	-	< 0.5	-
Endrin aldehyde	0.5	mg/kg	-	-	< 0.5	-
Endrin ketone	0.5	mg/kg	-	-	< 0.5	-
Ethoprop	0.5	mg/kg	-	-	< 0.5	-
Fenitrothion	0.5	mg/kg	-	-	< 0.5	-
Fensulfothion	0.5	mg/kg	-	-	< 0.5	-
Fenthion	0.5	mg/kg	-	-	< 0.5	-

Client Sample ID			BH112A_(1.8-1.9m)_A	BH112A_(2.5-2.6m)	BH112A_(2.9-3.0m)	BH112A_(3.4-3.5m)
Sample Matrix			Soil	Soil	Soil	Soil
mgt-LabMark Sample No.			S12-De01572	S12-De01574	S12-De01575	S12-De01576
Date Sampled			Nov 30, 2012	Nov 30, 2012	Nov 30, 2012	Nov 30, 2012
Test/Reference	LOR	Unit				
Semivolatile Organic Compounds (SVOC)						
Fluoranthene	0.5	mg/kg	-	-	0.6	-
Fluorene	0.5	mg/kg	-	-	< 0.5	-
g-BHC (Lindane)	0.5	mg/kg	-	-	< 0.5	-
Heptachlor	0.5	mg/kg	-	-	< 0.5	-
Heptachlor epoxide	0.5	mg/kg	-	-	< 0.5	-
Hexachlorobenzene	0.5	mg/kg	-	-	< 0.5	-
Hexachlorobutadiene	0.5	mg/kg	-	-	< 0.5	-
Hexachlorocyclopentadiene	2	mg/kg	-	-	< 2	-
Hexachloroethane	0.5	mg/kg	-	-	< 0.5	-
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	-	-	< 0.5	-
Malathion	0.5	mg/kg	-	-	< 0.5	-
Methoxychlor	0.5	mg/kg	-	-	< 0.5	-
Methyl azinphos	0.5	mg/kg	-	-	< 0.5	-
Methyl parathion	0.5	mg/kg	-	-	< 0.5	-
Mevinphos	0.5	mg/kg	-	-	< 0.5	-
Monocrotophos	10	mg/kg	-	-	< 2	-
N-Nitrosodibutylamine	0.5	mg/kg	-	-	< 0.5	-
N-Nitrosodipropylamine	0.5	mg/kg	-	-	< 0.5	-
N-Nitrosopiperidine	0.5	mg/kg	-	-	< 0.5	-
Naphthalene	0.5	mg/kg	-	-	< 0.5	-
Nitrobenzene	0.5	mg/kg	-	-	< 0.5	-
Parathion	0.5	mg/kg	-	-	< 0.5	-
Pentachlorobenzene	0.5	mg/kg	-	-	< 0.5	-
Pentachloronitrobenzene	0.5	mg/kg	-	-	< 0.5	-
Pentachlorophenol	1	mg/kg	-	-	< 2	-
Phenanthrene	0.5	mg/kg	-	-	< 0.5	-
Phenol	0.5	mg/kg	-	-	< 0.5	-
Phorate	0.5	mg/kg	-	-	< 0.5	-
Profenofos	0.5	mg/kg	-	-	< 0.5	-
Prothiofos	0.5	mg/kg	-	-	< 0.5	-
Pyrene	0.5	mg/kg	-	-	0.5	-
Trichloronate	0.5	mg/kg	-	-	< 0.5	-
Phenol-d6 (surr.)	1	%	-	-	76	-
Nitrobenzene-d5 (surr.)	1	%	-	-	88	-
p-Terphenyl-d14 (surr.)	1	%	-	-	83	-
2-Fluorobiphenyl (surr.)	1	%	-	-	81	-
Heavy Metals						
Arsenic	2	mg/kg	2.6	-	-	-
Cadmium	0.4	mg/kg	< 0.4	-	-	-
Chromium	5	mg/kg	7.1	-	-	-
Copper	5	mg/kg	42	-	-	-
Lead	5	mg/kg	15	-	-	-
Mercury	0.05	mg/kg	< 0.05	-	-	-
Nickel	5	mg/kg	6.9	-	-	-
Zinc	5	mg/kg	27	-	-	-
% Moisture	0.1	%	19	18	30	32

Client Sample ID			BH102_(0.5-0.6m)	BH102_(0.5-0.6m)_A	BH102_(0.8-0.9m)	QC4
Sample Matrix			Soil	Soil	Soil	Soil
mgt-LabMark Sample No.			S12-De01578	S12-De01579	S12-De01581	S12-De01582
Date Sampled			Dec 03, 2012	Dec 03, 2012	Dec 03, 2012	Nov 30, 2012
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	10	mg/kg	< 10	< 10	< 10	< 10
TRH C10-C14	50	mg/kg	< 50	< 50	< 50	< 50
TRH C15-C28	100	mg/kg	< 100	< 100	< 100	< 100
TRH C29-C36	100	mg/kg	< 100	< 100	< 100	< 100
TRH C10-36 (Total)	100	mg/kg	< 100	< 100	< 100	< 100
BTEX						
Benzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Toluene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Ethylbenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total m+p-Xylenes	1	mg/kg	< 1	< 1	< 1	< 1
o-Xylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Xylenes(ortho.meta and para)	1.5	mg/kg	< 1.5	< 1.5	< 1.5	< 1.5
Total BTEX	1.5	mg/kg	< 1.5	< 1.5	< 1.5	< 1.5
4-Bromofluorobenzene (surr.)	1	%	94	94	84	88
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions *						
Naphthalene ^{N02}	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1) ^{N04}	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2) ^{N01}	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
Polyaromatic Hydrocarbons (PAH)						
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b)fluoranthene & Benzo(k)fluoranthene	1	mg/kg	< 1	< 1	< 1	< 1
Benzo(g,h,i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a,h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1,2,3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PAH	1	mg/kg	< 1	< 1	< 1	< 1
2-Fluorobiphenyl (surr.)	1	%	99	101	100	101
p-Terphenyl-d14 (surr.)	1	%	85	86	91	96
Heavy Metals						
Arsenic	2	mg/kg	2.2	< 2	-	2.2
Cadmium	0.4	mg/kg	< 0.4	< 0.4	-	< 0.4
Chromium	5	mg/kg	< 5	< 5	-	5.2
Copper	5	mg/kg	73	80	-	78
Lead	5	mg/kg	10	10	-	41
Mercury	0.05	mg/kg	< 0.05	< 0.05	-	0.07

Client Sample ID			BH102_(0.5-0.6m)	BH102_(0.5-0.6m)_A	BH102_(0.8-0.9m)	QC4
Sample Matrix			Soil	Soil	Soil	Soil
mgt-LabMark Sample No.			S12-De01578	S12-De01579	S12-De01581	S12-De01582
Date Sampled			Dec 03, 2012	Dec 03, 2012	Dec 03, 2012	Nov 30, 2012
Test/Reference	LOR	Unit				
Heavy Metals						
Nickel	5	mg/kg	110	130	-	< 5
Zinc	5	mg/kg	70	71	-	38
% Moisture	0.1	%	7.5	8.6	7.7	20
Asbestos			See attached	-	-	-

Client Sample ID			BH106_(0.13-0.23m)	BH106_(0.13-0.23m)_A	BH106_(1.0-1.1m)	BH106_(1.5-1.6m)
Sample Matrix			Soil	Soil	Soil	Soil
mgt-LabMark Sample No.			S12-De01584	S12-De01585	S12-De01587	S12-De01588
Date Sampled			Dec 03, 2012	Dec 03, 2012	Dec 03, 2012	Dec 03, 2012
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	10	mg/kg	< 10	< 10	< 10	< 10
TRH C10-C14	50	mg/kg	< 50	< 50	< 50	< 50
TRH C15-C28	100	mg/kg	< 100	< 100	< 100	< 100
TRH C29-C36	100	mg/kg	< 100	< 100	< 100	< 100
TRH C10-36 (Total)	100	mg/kg	< 100	< 100	< 100	< 100
BTEX						
Benzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Toluene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Ethylbenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total m+p-Xylenes	1	mg/kg	< 1	< 1	< 1	< 1
o-Xylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Xylenes(ortho.meta and para)	1.5	mg/kg	< 1.5	< 1.5	< 1.5	< 1.5
Total BTEX	1.5	mg/kg	< 1.5	< 1.5	< 1.5	< 1.5
4-Bromofluorobenzene (surr.)	1	%	102	93	99	94
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions *						
Naphthalene ^{N02}	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1) ^{N04}	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2) ^{N01}	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
Polyaromatic Hydrocarbons (PAH)						
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b)fluoranthene & Benzo(k)fluoranthene	1	mg/kg	< 1	< 1	< 1	< 1
Benzo(g,h,i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a,h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			BH106_(0.13-0.23m)	BH106_(0.13-0.23m)_A	BH106_(1.0-1.1m)	BH106_(1.5-1.6m)
Sample Matrix			Soil	Soil	Soil	Soil
mgt-LabMark Sample No.			S12-De01584	S12-De01585	S12-De01587	S12-De01588
Date Sampled			Dec 03, 2012	Dec 03, 2012	Dec 03, 2012	Dec 03, 2012
Test/Reference	LOR	Unit				
Polyaromatic Hydrocarbons (PAH)						
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PAH	1	mg/kg	< 1	< 1	< 1	< 1
2-Fluorobiphenyl (surr.)	1	%	103	108	100	101
p-Terphenyl-d14 (surr.)	1	%	91	95	95	95
Heavy Metals						
Arsenic	2	mg/kg	< 2	< 2	4.1	2.6
Cadmium	0.4	mg/kg	< 0.4	0.4	< 0.4	< 0.4
Chromium	5	mg/kg	91	110	18	8.1
Copper	5	mg/kg	44	69	< 5	< 5
Lead	5	mg/kg	5.3	7.9	11	9.7
Mercury	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Nickel	5	mg/kg	120	140	< 5	< 5
Zinc	5	mg/kg	69	88	7.7	< 5
% Moisture	0.1	%	8.1	15	15	19
Asbestos			See attached	-	See attached	-

Client Sample ID			BH106_(1.5-1.6m)_A	BH106_(2.5-2.6m)	BH106_(3.0-3.1m)	BH106_(3.0-3.1m)_A
Sample Matrix			Soil	Soil	Soil	Soil
mgt-LabMark Sample No.			S12-De01589	S12-De01591	S12-De01592	S12-De01593
Date Sampled			Dec 03, 2012	Dec 03, 2012	Dec 03, 2012	Dec 03, 2012
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	10	mg/kg	< 10	< 10	< 10	< 10
TRH C10-C14	50	mg/kg	< 50	< 50	< 50	< 50
TRH C15-C28	100	mg/kg	< 100	< 100	< 100	< 100
TRH C29-C36	100	mg/kg	< 100	< 100	< 100	< 100
TRH C10-36 (Total)	100	mg/kg	< 100	< 100	< 100	< 100
BTEX						
Benzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Toluene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Ethylbenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total m+p-Xylenes	1	mg/kg	< 1	< 1	< 1	< 1
o-Xylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Xylenes(ortho.meta and para)	1.5	mg/kg	< 1.5	< 1.5	< 1.5	< 1.5
Total BTEX	1.5	mg/kg	< 1.5	< 1.5	< 1.5	< 1.5
4-Bromofluorobenzene (surr.)	1	%	89	96	82	89
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions *						
Naphthalene ^{N02}	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1) ^{N04}	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2) ^{N01}	50	mg/kg	< 50	< 50	< 50	< 50

Client Sample ID			BH106_(1.5-1.6m)_A	BH106_(2.5-2.6m)	BH106_(3.0-3.1m)	BH106_(3.0-3.1m)_A
Sample Matrix			Soil	Soil	Soil	Soil
mgt-LabMark Sample No.			S12-De01589	S12-De01591	S12-De01592	S12-De01593
Date Sampled			Dec 03, 2012	Dec 03, 2012	Dec 03, 2012	Dec 03, 2012
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions *						
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
Polyaromatic Hydrocarbons (PAH)						
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b)fluoranthene & Benzo(k)fluoranthene	1	mg/kg	< 1	< 1	< 1	< 1
Benzo(g,h,i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a,h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1,2,3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PAH	1	mg/kg	< 1	< 1	< 1	< 1
2-Fluorobiphenyl (surr.)	1	%	99	101	109	92
p-Terphenyl-d14 (surr.)	1	%	93	91	103	89
Heavy Metals						
Arsenic	2	mg/kg	< 2	-	6.8	4.3
Cadmium	0.4	mg/kg	< 0.4	-	0.4	< 0.4
Chromium	5	mg/kg	< 5	-	13	16
Copper	5	mg/kg	< 5	-	< 5	5.6
Lead	5	mg/kg	8.6	-	13	13
Mercury	0.05	mg/kg	< 0.05	-	< 0.05	< 0.05
Nickel	5	mg/kg	< 5	-	< 5	7.7
Zinc	5	mg/kg	< 5	-	8.3	13
% Moisture	0.1	%	18	14	22	22

Client Sample ID			BH106_(3.6-3.8m)
Sample Matrix			Soil
mgt-LabMark Sample No.			S12-De01595
Date Sampled			Dec 03, 2012
Test/Reference	LOR	Unit	
Total Recoverable Hydrocarbons - 1999 NEPM Fractions			
TRH C6-C9	10	mg/kg	< 10
TRH C10-C14	50	mg/kg	< 50
TRH C15-C28	100	mg/kg	< 100
TRH C29-C36	100	mg/kg	< 100
TRH C10-36 (Total)	100	mg/kg	< 100
BTEX			
Benzene	0.5	mg/kg	< 0.5

Client Sample ID			BH106_(3.6-3.8m)
Sample Matrix			Soil
mgt-LabMark Sample No.			S12-De01595
Date Sampled			Dec 03, 2012
Test/Reference	LOR	Unit	
BTEX			
Toluene	0.5	mg/kg	< 0.5
Ethylbenzene	0.5	mg/kg	< 0.5
Total m+p-Xylenes	1	mg/kg	< 1
o-Xylene	0.5	mg/kg	< 0.5
Xylenes(ortho.meta and para)	1.5	mg/kg	< 1.5
Total BTEX	1.5	mg/kg	< 1.5
4-Bromofluorobenzene (surr.)	1	%	88
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions *			
Naphthalene ^{N02}	0.5	mg/kg	< 0.5
TRH C6-C10	20	mg/kg	< 20
TRH C6-C10 less BTEX (F1) ^{N04}	20	mg/kg	< 20
TRH >C10-C16	50	mg/kg	< 50
TRH >C10-C16 less Naphthalene (F2) ^{N01}	50	mg/kg	< 50
TRH >C16-C34	100	mg/kg	< 100
TRH >C34-C40	100	mg/kg	< 100
Polyaromatic Hydrocarbons (PAH)			
Acenaphthene	0.5	mg/kg	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5
Anthracene	0.5	mg/kg	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5
Benzo(b)fluoranthene & Benzo(k)fluoranthene	1	mg/kg	< 1
Benzo(g,h,i)perylene	0.5	mg/kg	< 0.5
Chrysene	0.5	mg/kg	< 0.5
Dibenz(a,h)anthracene	0.5	mg/kg	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5
Fluorene	0.5	mg/kg	< 0.5
Indeno(1,2,3-cd)pyrene	0.5	mg/kg	< 0.5
Naphthalene	0.5	mg/kg	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5
Pyrene	0.5	mg/kg	< 0.5
Total PAH	1	mg/kg	< 1
2-Fluorobiphenyl (surr.)	1	%	85
p-Terphenyl-d14 (surr.)	1	%	82
% Moisture	0.1	%	20

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported.

Description	Testing Site	Extracted	Holding Time
mgt-LabMark Suite 4			
Total Recoverable Hydrocarbons - 1999 NEPM Fractions - Method: E004 Petroleum Hydrocarbons (TPH)	Sydney	Dec 10, 2012	14 Day
BTEX - Method: E029/E016 BTEX	Sydney	Dec 07, 2012	14 Day
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions * - Method: LM-LTM-ORG2010	Sydney	Dec 07, 2012	14 Day
Polyaromatic Hydrocarbons (PAH) - Method: E007 Polyaromatic Hydrocarbons (PAH)	Sydney	Dec 10, 2012	14 Day
Volatile Organic Compounds (VOC) - Method: E016 Volatile Organic Compounds (VOC)	Sydney	Dec 07, 2012	14 Day
Semivolatile Organic Compounds (SVOC) - Method: E017 Semivolatile Organic Compounds (SVOC)	Sydney	Dec 07, 2012	14 Day
Metals M8 - Method: E022 Acid Extractable metals in Soils & E026 Mercury	Sydney	Dec 07, 2012	28 Day
% Moisture - Method: E005 Moisture Content	Sydney	Dec 07, 2012	28 Day

Company Name: Coffey Geotechnics Pty Ltd Chatswood
Address: Level 18, Tower B, Citadel Tower 799 Pacific Highway
Chatswood
NSW 2067

Client Job No.: SICEEP GEOTLCOV24303AF

Order No.:
Report #: 361703
Phone: +61 2 9406 1000
Fax: +61 2 9406 1002

Received: Dec 5, 2012 12:50 PM
Due: Dec 12, 2012
Priority: 5 Day
Contact Name: Matthew Locke

mgt-LabMark Client Manager: Jean Heng

Sample Detail					% Moisture	Asbestos	CANCELLED	HOLD	Metals M8	mgt-LabMark Suite 4	Semivolatile Organic Compounds (SVOC)	Volatile Organic Compounds (VOC)
Laboratory where analysis is conducted												
Melbourne Laboratory - NATA Site # 1254 & 14271												
Sydney Laboratory - NATA Site # 18217					X		X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794												
External Laboratory						X						
Sample ID	Sample Date	Sampling Time	Matrix	LAB ID								
BH112A_(0.35-0.45m)	Nov 30, 2012		Soil	S12-De01567	X	X			X	X		
BH112A_(0.35-0.45m)_A	Nov 30, 2012		Soil	S12-De01568	X				X	X		
BH112A_(0.8-0.9m)	Nov 30, 2012		Soil	S12-De01569	X	X			X	X		X
BH112A_(1.5-1.6m)	Nov 30, 2012		Soil	S12-De01570				X				
BH112A_(1.8-1.9m)	Nov 30, 2012		Soil	S12-De01571	X				X	X		
BH112A_(1.8-1.9m)_A	Nov 30, 2012		Soil	S12-De01572	X				X	X		

Company Name: Coffey Geotechnics Pty Ltd Chatswood
Address: Level 18, Tower B, Citadel Tower 799 Pacific Highway
Chatswood
NSW 2067

Client Job No.: SICEEP GEOTLCOV24303AF

Order No.:
Report #: 361703
Phone: +61 2 9406 1000
Fax: +61 2 9406 1002

Received: Dec 5, 2012 12:50 PM
Due: Dec 12, 2012
Priority: 5 Day
Contact Name: Matthew Locke

mgt-LabMark Client Manager: Jean Heng

Sample Detail					% Moisture	Asbestos	CANCELLED	HOLD	Metals M8	mgt-LabMark Suite 4	Semivolatile Organic Compounds (SVOC)	Volatile Organic Compounds (VOC)
Laboratory where analysis is conducted												
Melbourne Laboratory - NATA Site # 1254 & 14271												
Sydney Laboratory - NATA Site # 18217					X		X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794												
External Laboratory						X						
BH112A_(2.2-2.3m)	Nov 30, 2012		Soil	S12-De01573				X				
BH112A_(2.5-2.6m)	Nov 30, 2012		Soil	S12-De01574	X					X		
BH112A_(2.9-3.0m)	Nov 30, 2012		Soil	S12-De01575	X					X	X	X
BH112A_(3.4-3.5m)	Nov 30, 2012		Soil	S12-De01576	X					X		
BH102_(0.13-0.23m)	Dec 03, 2012		Soil	S12-De01577				X				
BH102_(0.5-0.6m)	Dec 03, 2012		Soil	S12-De01578	X	X			X	X		
BH102_(0.5-0.6m)_A	Dec 03, 2012		Soil	S12-De01579	X				X	X		

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Laboratory where analysis is conducted												
Melbourne Laboratory - NATA Site # 1254 & 14271												
Sydney Laboratory - NATA Site # 18217					X		X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794												
External Laboratory						X						
BH102_(0.6-0.7m)	Dec 03, 2012		Soil	S12-De01580				X				
BH102_(0.8-0.9m)	Dec 03, 2012		Soil	S12-De01581	X					X		
QC4	Nov 30, 2012		Soil	S12-De01582	X				X	X		
QC5	Dec 03, 2012		Soil	S12-De01583				X				
BH106_(0.13-0.23m)	Dec 03, 2012		Soil	S12-De01584	X	X			X	X		
BH106_(0.13-0.23m)_A	Dec 03, 2012		Soil	S12-De01585	X				X	X		
BH106_(0.45-0.55m)	Dec 03, 2012		Soil	S12-De01586				X				

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Laboratory where analysis is conducted												
Melbourne Laboratory - NATA Site # 1254 & 14271												
Sydney Laboratory - NATA Site # 18217					X		X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794												
External Laboratory						X						
BH106_(1.0-1.1m)	Dec 03, 2012		Soil	S12-De01587	X	X			X	X		
BH106_(1.5-1.6m)	Dec 03, 2012		Soil	S12-De01588	X				X	X		
BH106_(1.5-1.6m)_A	Dec 03, 2012		Soil	S12-De01589	X				X	X		
BH106_(2.0-2.1m)	Dec 03, 2012		Soil	S12-De01590				X				
BH106_(2.5-2.6m)	Dec 03, 2012		Soil	S12-De01591	X					X		
BH106_(3.0-3.1m)	Dec 03, 2012		Soil	S12-De01592	X				X	X		
BH106_(3.0-3.1m)_A	Dec 03, 2012		Soil	S12-De01593	X				X	X		

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Laboratory where analysis is conducted												
Melbourne Laboratory - NATA Site # 1254 & 14271												
Sydney Laboratory - NATA Site # 18217					X		X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794												
External Laboratory						X						
BH106_(3.4-3.5m)	Dec 03, 2012		Soil	S12-De01594				X				
BH106_(3.6-3.8m)	Dec 03, 2012		Soil	S12-De01595	X					X		
BH106_(4.5-4.6m)	Dec 03, 2012		Soil	S12-De01596				X				
BH106_(5.0-5.1m)	Dec 03, 2012		Soil	S12-De01597				X				
BH106_(5.5-5.6m)	Dec 03, 2012		Soil	S12-De01598				X				
BH106_(5.9-6.0m)	Dec 03, 2012		Soil	S12-De01599				X				
QC6	Dec 03, 2012		Soil	S12-De01600				X				

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Laboratory where analysis is conducted												
Melbourne Laboratory - NATA Site # 1254 & 14271												
Sydney Laboratory - NATA Site # 18217					X		X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794												
External Laboratory						X						
QC7	Dec 03, 2012		Soil	S12-De01601				X				
BH112A_(3.5-4.5m)	Dec 03, 2012		Soil	S12-De01864			X					
BH112A_(3.5-4.5m)_A	Dec 03, 2012		Soil	S12-De01865			X					

mgt-LabMark Internal Quality Control Review

General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples are included in this QC report where applicable. Additional QC data may be available on request.
2. All soil results are reported on a dry basis, unless otherwise stated.
3. Actual PQLs are matrix dependant. Quoted PQLs may be raised where sample extracts are diluted due to interferences.
4. Results are uncorrected for matrix spikes or surrogate recoveries.
5. SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
6. Samples were analysed on an 'as received' basis. 7. This report replaces any interim results previously issued.

Holding Times

Please refer to 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours prior to sample receipt deadlines as stated on the Sample Receipt Acknowledgment.

If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the date of sampling, therefore compliance to these may be outside the laboratory's control.

****NOTE:** pH duplicates are reported as a range NOT as RPD

UNITS

mg/kg: milligrams per Kilogram

mg/l: milligrams per litre

ug/l: micrograms per litre

ppm: Parts per million

ppb: Parts per billion

%: Percentage

org/100ml: Organisms per 100 millilitres

NTU: Units

MPN/100mL: Most Probable Number of organisms per 100 millilitres

TERMS

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR	Limit of Reporting.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
LCS	Laboratory Control Sample - reported as percent recovery
CRM	Certified Reference Material - reported as percent recovery
Method Blank	In the case of solid samples these are performed on laboratory certified clean sands. In the case of water samples these are performed on de-ionised water.
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
Batch Duplicate	A second piece of analysis from a sample outside of the clients batch of samples but run within the laboratory batch of analysis.
Batch SPIKE	Spike recovery reported on a sample from outside of the clients batch of samples but run within the laboratory batch of analysis.
USEPA	United States Environment Protection Authority
APHA	American Public Health Association
ASLP	Australian Standard Leaching Procedure (AS4439.3)
TCLP	Toxicity Characteristic Leaching Procedure
COC	Chain of Custody
SRA	Sample Receipt Advice
CP	Client Parent - QC was performed on samples pertaining to this report
NCP	Non-Client Parent - QC was performed on samples not pertaining to this report, however QC is representative of the sequence or batch that client samples were analysed within

QC - ACCEPTANCE CRITERIA

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is 30% however the following acceptance guidelines are equally applicable:

Results <10 times the LOR : No Limit

Results between 10-20 times the LOR : RPD must lie between 0-50%

Results >20 times the LOR : RPD must lie between 0-30%

Surrogate Recoveries : Recoveries must lie between 50-150% - Phenols 20-130%.

QC DATA GENERAL COMMENTS

1. Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
1. Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
3. Organochlorine Pesticide analysis - where reporting LCS data, Toxophene & Chlordane are not added to the LCS.
3. Organochlorine Pesticide analysis - where reporting Spike data, Toxophene is not added to the Spike.
5. Total Recoverable Hydrocarbons - where reporting Spike & LCS data, a single spike of commercial Hydrocarbon products in the range of C12-C30 is added and it's Total Recovery is reported in the C10-C14 cell of the Report.
6. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling. Therefore laboratory analysis is unlikely to be completed within holding time. Analysis will begin as soon as possible after sample receipt.
7. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of Recovery the term "INT" appears against that analyte.
8. Polychlorinated Biphenyls are spiked only using Arochlor 1260 in Matrix Spikes and LCS's.
9. For Matrix Spikes and LCS results a dash " - " in the report means that the specific analyte was not added to the QC sample.
10. Duplicate RPD's are calculated from raw analytical data thus it is possible to have two sets of data.

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions E004 Petroleum Hydrocarbons (TPH)							
TRH C6-C9	mg/kg	< 10			10	Pass	
TRH C10-C14	mg/kg	< 50			50	Pass	
TRH C15-C28	mg/kg	< 100			100	Pass	
TRH C29-C36	mg/kg	< 100			100	Pass	
Method Blank							
BTEX E029/E016 BTEX							
Benzene	mg/kg	< 0.5			0.5	Pass	
Toluene	mg/kg	< 0.5			0.5	Pass	
Ethylbenzene	mg/kg	< 0.5			0.5	Pass	
Total m+p-Xylenes	mg/kg	< 1			1	Pass	
o-Xylene	mg/kg	< 0.5			0.5	Pass	
Xylenes(ortho.meta and para)	mg/kg	< 1.5			1.5	Pass	
Total BTEX	mg/kg	< 1.5			1.5	Pass	
Method Blank							
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions * LM-LTM-ORG2010							
Naphthalene	mg/kg	< 0.5			0.5	Pass	
TRH C6-C10	mg/kg	< 20			20	Pass	
TRH C6-C10 less BTEX (F1)	mg/kg	< 20			20	Pass	
TRH >C10-C16	mg/kg	< 50			50	Pass	
TRH >C16-C34	mg/kg	< 100			100	Pass	
TRH >C34-C40	mg/kg	< 100			100	Pass	
Method Blank							
Volatile Organic Compounds (VOC) E016 Volatile Organic Compounds (VOC)							
1.1-Dichloroethane	mg/kg	< 0.5			0.5	Pass	
1.1-Dichloroethene	mg/kg	< 0.5			0.5	Pass	
1.1.1-Trichloroethane	mg/kg	< 0.5			0.5	Pass	
1.1.1.2-Tetrachloroethane	mg/kg	< 0.5			0.5	Pass	
1.1.2-Trichloroethane	mg/kg	< 0.5			0.5	Pass	
1.2-Dibromo-3-chloropropane	mg/kg	< 0.5			0.5	Pass	
1.2-Dibromoethane	mg/kg	< 0.5			0.5	Pass	
1.2-Dichlorobenzene	mg/kg	< 0.5			0.5	Pass	
1.2-Dichloroethane	mg/kg	< 0.5			0.5	Pass	
1.2-Dichloropropane	mg/kg	< 0.5			0.5	Pass	
1.2.3-Trichloropropane	mg/kg	< 0.5			0.5	Pass	
1.2.4-Trichlorobenzene	mg/kg	< 0.5			0.5	Pass	
1.2.4-Trimethylbenzene	mg/kg	< 0.5			0.5	Pass	
1.3-Dichlorobenzene	mg/kg	< 0.5			0.5	Pass	
1.3-Dichloropropane	mg/kg	< 0.5			0.5	Pass	
1.3.5-Trimethylbenzene	mg/kg	< 0.5			0.5	Pass	
1.4-Dichlorobenzene	mg/kg	< 0.5			0.5	Pass	
2-Butanone (MEK)	mg/kg	< 5			5	Pass	
2-Chlorotoluene	mg/kg	< 0.5			0.5	Pass	
2-Hexanone (MBK)	mg/kg	< 5			5	Pass	
2-Pentanone	mg/kg	< 5			5	Pass	
4-Chlorotoluene	mg/kg	< 0.5			0.5	Pass	
4-Methyl-2-pentanone (MIBK)	mg/kg	< 5			5	Pass	
Bromobenzene	mg/kg	< 0.5			0.5	Pass	
Bromodichloromethane	mg/kg	< 0.5			0.5	Pass	
Bromoform	mg/kg	< 0.5			0.5	Pass	
Bromomethane	mg/kg	< 0.5			0.5	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Carbon disulfide	mg/kg	< 0.5			0.5	Pass	
Carbon Tetrachloride	mg/kg	< 0.5			0.5	Pass	
Chlorobenzene	mg/kg	< 0.5			0.5	Pass	
Chloroethane	mg/kg	< 0.5			0.5	Pass	
Chloroform	mg/kg	< 0.5			0.5	Pass	
Chloromethane	mg/kg	< 0.5			0.5	Pass	
cis-1.2-Dichloroethene	mg/kg	< 0.5			0.5	Pass	
cis-1.3-Dichloropropene	mg/kg	< 0.5			0.5	Pass	
Dibromochloromethane	mg/kg	< 0.5			0.5	Pass	
Dichlorodifluoromethane	mg/kg	< 0.5			0.5	Pass	
Hexachlorobutadiene	mg/kg	< 0.5			0.5	Pass	
Isopropyl benzene (Cumene)	mg/kg	< 0.5			0.5	Pass	
Methylene Chloride	mg/kg	< 0.5			0.5	Pass	
n-Butylbenzene	mg/kg	< 0.5			0.5	Pass	
n-Propylbenzene	mg/kg	< 0.5			0.5	Pass	
p-Isopropyltoluene	mg/kg	< 0.5			0.5	Pass	
sec-Butylbenzene	mg/kg	< 0.5			0.5	Pass	
Styrene	mg/kg	< 0.5			0.5	Pass	
tert-Butylbenzene	mg/kg	< 0.5			0.5	Pass	
Tetrachloroethene	mg/kg	< 0.5			0.5	Pass	
trans-1.2-Dichloroethene	mg/kg	< 0.5			0.5	Pass	
trans-1.3-Dichloropropene	mg/kg	< 0.5			0.5	Pass	
Trichloroethene	mg/kg	< 0.5			0.5	Pass	
Trichlorofluoromethane	mg/kg	< 0.5			0.5	Pass	
Vinyl acetate	mg/kg	< 5			5	Pass	
Vinyl chloride	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Polyaromatic Hydrocarbons (PAH) E007 Polyaromatic Hydrocarbons (PAH)							
Acenaphthene	mg/kg	< 0.5			0.5	Pass	
Acenaphthylene	mg/kg	< 0.5			0.5	Pass	
Anthracene	mg/kg	< 0.5			0.5	Pass	
Benz(a)anthracene	mg/kg	< 0.5			0.5	Pass	
Benzo(a)pyrene	mg/kg	< 0.5			0.5	Pass	
Benzo(b)fluoranthene & Benzo(k)fluoranthene	mg/kg	< 1			1	Pass	
Benzo(g,h,i)perylene	mg/kg	< 0.5			0.5	Pass	
Chrysene	mg/kg	< 0.5			0.5	Pass	
Dibenz(a,h)anthracene	mg/kg	< 0.5			0.5	Pass	
Fluoranthene	mg/kg	< 0.5			0.5	Pass	
Fluorene	mg/kg	< 0.5			0.5	Pass	
Indeno(1.2.3-cd)pyrene	mg/kg	< 0.5			0.5	Pass	
Naphthalene	mg/kg	< 0.5			0.5	Pass	
Phenanthrene	mg/kg	< 0.5			0.5	Pass	
Pyrene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Semivolatile Organic Compounds (SVOC) E017 Semivolatile Organic Compounds (SVOC)							
2-Chloronaphthalene	mg/kg	< 0.5			0.5	Pass	
2-Chlorophenol	mg/kg	< 0.5			0.5	Pass	
2-Methylnaphthalene	mg/kg	< 0.5			0.5	Pass	
2-Methylphenol (o-Cresol)	mg/kg	< 0.5			0.5	Pass	
2-Naphthylamine	mg/kg	< 0.5			0.5	Pass	
2-Nitroaniline	mg/kg	< 1			1	Pass	
2-Nitrophenol	mg/kg	< 0.5			0.5	Pass	
3&4-Methylphenol (m&p-Cresol)	mg/kg	< 1			1	Pass	
3-Methylcholanthrene	mg/kg	< 0.5			0.5	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
4-Aminobiphenyl	mg/kg	< 0.5			0.5	Pass	
4-Bromophenyl phenyl ether	mg/kg	< 0.5			0.5	Pass	
4-Chloro-3-methylphenol	mg/kg	< 0.5			0.5	Pass	
4-Chlorophenyl phenyl ether	mg/kg	< 0.5			0.5	Pass	
4-Nitrophenol	mg/kg	< 0.5			0.5	Pass	
4,4'-DDD	mg/kg	< 0.5			0.5	Pass	
4,4'-DDE	mg/kg	< 0.5			0.5	Pass	
4,4'-DDT	mg/kg	< 1			1	Pass	
Acetophenone	mg/kg	< 0.5			0.5	Pass	
Aldrin	mg/kg	< 0.5			0.5	Pass	
Aniline	mg/kg	< 0.5			0.5	Pass	
Bis(2-chloroethoxy)methane	mg/kg	< 0.5			0.5	Pass	
Bis(2-ethylhexyl)phthalate	mg/kg	< 5			5	Pass	
Butyl benzyl phthalate	mg/kg	< 0.5			0.5	Pass	
d-BHC	mg/kg	< 0.5			0.5	Pass	
Di-n-butyl phthalate	mg/kg	< 0.5			0.5	Pass	
Di-n-octyl phthalate	mg/kg	< 0.5			0.5	Pass	
Dibenzofuran	mg/kg	< 0.5			0.5	Pass	
Dieldrin	mg/kg	< 0.5			0.5	Pass	
Diethyl phthalate	mg/kg	< 0.5			0.5	Pass	
Dimethyl phthalate	mg/kg	< 0.5			0.5	Pass	
Diphenylamine	mg/kg	< 0.5			0.5	Pass	
Endosulfan sulphate	mg/kg	< 0.5			0.5	Pass	
Endrin	mg/kg	< 0.5			0.5	Pass	
Endrin aldehyde	mg/kg	< 0.5			0.5	Pass	
Endrin ketone	mg/kg	< 0.5			0.5	Pass	
g-BHC (Lindane)	mg/kg	< 0.5			0.5	Pass	
Heptachlor	mg/kg	< 0.5			0.5	Pass	
Heptachlor epoxide	mg/kg	< 0.5			0.5	Pass	
Hexachlorobenzene	mg/kg	< 0.5			0.5	Pass	
Hexachlorobutadiene	mg/kg	< 0.5			0.5	Pass	
Hexachlorocyclopentadiene	mg/kg	< 2			2	Pass	
Hexachloroethane	mg/kg	< 0.5			0.5	Pass	
Methoxychlor	mg/kg	< 0.5			0.5	Pass	
N-Nitrosodibutylamine	mg/kg	< 0.5			0.5	Pass	
N-Nitrosodipropylamine	mg/kg	< 0.5			0.5	Pass	
N-Nitrosopiperidine	mg/kg	< 0.5			0.5	Pass	
Nitrobenzene	mg/kg	< 0.5			0.5	Pass	
Pentachlorobenzene	mg/kg	< 0.5			0.5	Pass	
Pentachloronitrobenzene	mg/kg	< 0.5			0.5	Pass	
Pentachlorophenol	mg/kg	< 1			1	Pass	
Phenol	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Metals M8 E022 Acid Extractable metals in Soils & E026 Mercury							
Arsenic	mg/kg	< 2			2	Pass	
Cadmium	mg/kg	< 0.4			0.4	Pass	
Chromium	mg/kg	< 5			5	Pass	
Copper	mg/kg	< 5			5	Pass	
Lead	mg/kg	< 5			5	Pass	
Mercury	mg/kg	< 0.05			0.05	Pass	
Nickel	mg/kg	< 5			5	Pass	
Zinc	mg/kg	< 5			5	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions E004 Petroleum Hydrocarbons (TPH)							
TRH C6-C9	%	81			70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
TRH C10-C14	%	101			70-130	Pass	
LCS - % Recovery							
BTEX E029/E016 BTEX							
Benzene	%	87			70-130	Pass	
Toluene	%	91			70-130	Pass	
Ethylbenzene	%	93			70-130	Pass	
Total m+p-Xylenes	%	93			70-130	Pass	
o-Xylene	%	93			70-130	Pass	
Xylenes(ortho.meta and para)	%	93			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions * LM-LTM-ORG2010							
Naphthalene	%	91			70-130	Pass	
TRH C6-C10	%	90			70-130	Pass	
TRH >C10-C16	%	89			70-130	Pass	
LCS - % Recovery							
Volatile Organic Compounds (VOC) E016 Volatile Organic Compounds (VOC)							
1.1-Dichloroethane	%	99			75-125	Pass	
1.1-Dichloroethene	%	96			70-130	Pass	
1.1.1-Trichloroethane	%	95			70-130	Pass	
1.1.1.2-Tetrachloroethane	%	95			70-130	Pass	
1.1.2-Trichloroethane	%	104			70-130	Pass	
1.2-Dibromo-3-chloropropane	%	102			70-130	Pass	
1.2-Dibromoethane	%	104			70-130	Pass	
1.2-Dichlorobenzene	%	100			70-130	Pass	
1.2-Dichloroethane	%	104			70-130	Pass	
1.2-Dichloropropane	%	103			70-130	Pass	
1.2.3-Trichloropropane	%	101			70-130	Pass	
1.2.4-Trichlorobenzene	%	101			70-130	Pass	
1.2.4-Trimethylbenzene	%	99			70-130	Pass	
1.3-Dichlorobenzene	%	99			70-130	Pass	
1.3-Dichloropropane	%	104			70-130	Pass	
1.3.5-Trimethylbenzene	%	98			70-130	Pass	
1.4-Dichlorobenzene	%	100			70-130	Pass	
2-Butanone (MEK)	%	103			70-130	Pass	
2-Chlorotoluene	%	98			70-130	Pass	
2-Hexanone (MBK)	%	128			70-130	Pass	
2-Pentanone	%	104			70-130	Pass	
4-Chlorotoluene	%	98			70-130	Pass	
4-Methyl-2-pentanone (MIBK)	%	105			70-130	Pass	
Bromobenzene	%	100			70-130	Pass	
Bromodichloromethane	%	101			70-130	Pass	
Bromoform	%	95			70-130	Pass	
Bromomethane	%	112			70-130	Pass	
Carbon disulfide	%	95			70-130	Pass	
Carbon Tetrachloride	%	93			70-130	Pass	
Chlorobenzene	%	95			70-130	Pass	
Chloroethane	%	97			70-130	Pass	
Chloroform	%	99			70-130	Pass	
Chloromethane	%	98			70-130	Pass	
cis-1.2-Dichloroethene	%	100			70-130	Pass	
cis-1.3-Dichloropropene	%	102			70-130	Pass	
Dibromochloromethane	%	103			70-130	Pass	
Dichlorodifluoromethane	%	91			70-130	Pass	
Hexachlorobutadiene	%	96			70-130	Pass	

Test			Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Isopropyl benzene (Cumene)			%	93			70-130	Pass	
Methylene Chloride			%	100			70-130	Pass	
n-Butylbenzene			%	97			70-130	Pass	
n-Propylbenzene			%	97			70-130	Pass	
p-Isopropyltoluene			%	97			70-130	Pass	
sec-Butylbenzene			%	97			70-130	Pass	
Styrene			%	96			70-130	Pass	
tert-Butylbenzene			%	97			70-130	Pass	
Tetrachloroethene			%	99			70-130	Pass	
trans-1.2-Dichloroethene			%	97			70-130	Pass	
trans-1.3-Dichloropropene			%	102			70-130	Pass	
Trichloroethene			%	100			70-130	Pass	
Trichlorofluoromethane			%	93			70-130	Pass	
Vinyl acetate			%	101			70-130	Pass	
Vinyl chloride			%	96			70-130	Pass	
LCS - % Recovery									
Polyaromatic Hydrocarbons (PAH) E007 Polyaromatic Hydrocarbons (PAH)									
Acenaphthene			%	114			70-130	Pass	
Acenaphthylene			%	112			70-130	Pass	
Anthracene			%	112			70-130	Pass	
Benz(a)anthracene			%	87			70-130	Pass	
Benzo(a)pyrene			%	97			70-130	Pass	
Benzo(b)fluoranthene & Benzo(k)fluoranthene			%	104			70-130	Pass	
Benzo(g,h,i)perylene			%	91			70-130	Pass	
Chrysene			%	115			70-130	Pass	
Dibenz(a,h)anthracene			%	90			70-130	Pass	
Fluoranthene			%	106			70-130	Pass	
Fluorene			%	112			70-130	Pass	
Indeno(1.2.3-cd)pyrene			%	104			70-130	Pass	
Naphthalene			%	99			70-130	Pass	
Phenanthrene			%	100			70-130	Pass	
Pyrene			%	108			70-130	Pass	
LCS - % Recovery									
Semivolatile Organic Compounds (SVOC) E017 Semivolatile Organic Compounds (SVOC)									
2-Chlorophenol			%	111			70-130	Pass	
4-Chloro-3-methylphenol			%	90			70-130	Pass	
4-Nitrophenol			%	88			70-130	Pass	
N-Nitrosodipropylamine			%	73			70-130	Pass	
Pentachlorophenol			%	70			70-130	Pass	
Phenol			%	96			70-130	Pass	
LCS - % Recovery									
Metals M8 E022 Acid Extractable metals in Soils & E026 Mercury									
Arsenic			%	89			70-130	Pass	
Cadmium			%	94			70-130	Pass	
Chromium			%	92			70-130	Pass	
Copper			%	92			70-130	Pass	
Lead			%	100			70-130	Pass	
Mercury			%	102			70-130	Pass	
Nickel			%	95			70-130	Pass	
Zinc			%	96			70-130	Pass	
Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1					

Test	Lab Sample ID	QA Source	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
TRH C6-C9	S12-De01567	CP	%	92		70-130	Pass	
TRH C10-C14	S12-De01567	CP	%	104		70-130	Pass	
Spike - % Recovery								
BTEX				Result 1				
Benzene	S12-De01567	CP	%	73		70-130	Pass	
Toluene	S12-De01567	CP	%	78		70-130	Pass	
Ethylbenzene	S12-De01567	CP	%	81		70-130	Pass	
Total m+p-Xylenes	S12-De01567	CP	%	79		70-130	Pass	
o-Xylene	S12-De01567	CP	%	79		70-130	Pass	
Xylenes(ortho.meta and para)	S12-De01567	CP	%	79		70-130	Pass	
Spike - % Recovery								
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions *				Result 1				
Naphthalene	S12-De01567	CP	%	84		70-130	Pass	
TRH C6-C10	S12-De01567	CP	%	100		70-130	Pass	
TRH >C10-C16	S12-De01567	CP	%	93		70-130	Pass	
Spike - % Recovery								
Polyaromatic Hydrocarbons (PAH)				Result 1				
Acenaphthene	S12-De01567	CP	%	117		70-130	Pass	
Acenaphthylene	S12-De01567	CP	%	119		70-130	Pass	
Anthracene	S12-De01567	CP	%	106		70-130	Pass	
Benz(a)anthracene	S12-De01567	CP	%	109		70-130	Pass	
Benzo(a)pyrene	S12-De01567	CP	%	93		70-130	Pass	
Benzo(b)fluoranthene & Benzo(k)fluoranthene	S12-De01567	CP	%	101		70-130	Pass	
Benzo(g,h,i)perylene	S12-De01567	CP	%	108		70-130	Pass	
Chrysene	S12-De01567	CP	%	104		70-130	Pass	
Dibenz(a,h)anthracene	S12-De01567	CP	%	125		70-130	Pass	
Fluoranthene	S12-De01567	CP	%	96		70-130	Pass	
Fluorene	S12-De01567	CP	%	120		70-130	Pass	
Indeno(1,2,3-cd)pyrene	S12-De01567	CP	%	116		70-130	Pass	
Naphthalene	S12-De01567	CP	%	107		70-130	Pass	
Phenanthrene	S12-De01567	CP	%	118		70-130	Pass	
Pyrene	S12-De01567	CP	%	99		70-130	Pass	
Spike - % Recovery								
Metals M8				Result 1				
Zinc	S12-De03656	NCP	%	86		70-130	Pass	
Spike - % Recovery								
Metals M8				Result 1				
Arsenic	S12-De01568	CP	%	95		70-130	Pass	
Cadmium	S12-De01568	CP	%	99		70-130	Pass	
Chromium	S12-De01568	CP	%	108		70-130	Pass	
Copper	S12-De01568	CP	%	81		70-130	Pass	
Lead	S12-De01568	CP	%	88		70-130	Pass	
Mercury	S12-De01568	CP	%	96		70-130	Pass	
Nickel	S12-De01568	CP	%	102		70-130	Pass	
Spike - % Recovery								
BTEX				Result 1				
Benzene	S12-De01569	CP	%	93		70-130	Pass	
Toluene	S12-De01569	CP	%	92		70-130	Pass	
Ethylbenzene	S12-De01569	CP	%	89		70-130	Pass	
Total m+p-Xylenes	S12-De01569	CP	%	89		70-130	Pass	
o-Xylene	S12-De01569	CP	%	89		70-130	Pass	
Spike - % Recovery								
Volatile Organic Compounds (VOC)				Result 1				
1,1-Dichloroethane	S12-De01569	CP	%	90		75-125	Pass	
1,1-Dichloroethene	S12-De01569	CP	%	89		70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
1.1.1-Trichloroethane	S12-De01569	CP	%	89			70-130	Pass	
1.1.1.2-Tetrachloroethane	S12-De01569	CP	%	86			70-130	Pass	
1.1.2-Trichloroethane	S12-De01569	CP	%	86			70-130	Pass	
1.2-Dibromo-3-chloropropane	S12-De01569	CP	%	77			70-130	Pass	
1.2-Dibromoethane	S12-De01569	CP	%	85			70-130	Pass	
1.2-Dichlorobenzene	S12-De01569	CP	%	89			70-130	Pass	
1.2-Dichloroethane	S12-De01569	CP	%	87			70-130	Pass	
1.2-Dichloropropane	S12-De01569	CP	%	90			70-130	Pass	
1.2.3-Trichloropropane	S12-De01569	CP	%	88			70-130	Pass	
1.2.4-Trichlorobenzene	S12-De01569	CP	%	78			70-130	Pass	
1.2.4-Trimethylbenzene	S12-De01569	CP	%	93			70-130	Pass	
1.3-Dichlorobenzene	S12-De01569	CP	%	91			70-130	Pass	
1.3-Dichloropropane	S12-De01569	CP	%	86			70-130	Pass	
1.3.5-Trimethylbenzene	S12-De01569	CP	%	94			70-130	Pass	
1.4-Dichlorobenzene	S12-De01569	CP	%	90			70-130	Pass	
2-Butanone (MEK)	S12-De01569	CP	%	76			70-130	Pass	
2-Chlorotoluene	S12-De01569	CP	%	93			70-130	Pass	
2-Hexanone (MBK)	S12-De01569	CP	%	82			70-130	Pass	
2-Pentanone	S12-De01569	CP	%	72			70-130	Pass	
4-Chlorotoluene	S12-De01569	CP	%	92			70-130	Pass	
4-Methyl-2-pentanone (MIBK)	S12-De01569	CP	%	76			70-130	Pass	
Bromobenzene	S12-De01569	CP	%	94			70-130	Pass	
Bromodichloromethane	S12-De01569	CP	%	88			70-130	Pass	
Bromoform	S12-De01569	CP	%	79			70-130	Pass	
Bromomethane	S12-De01569	CP	%	109			70-130	Pass	
Carbon disulfide	S12-De01569	CP	%	84			70-130	Pass	
Carbon Tetrachloride	S12-De01569	CP	%	87			70-130	Pass	
Chlorobenzene	S12-De01569	CP	%	87			70-130	Pass	
Chloroethane	S12-De01569	CP	%	87			70-130	Pass	
Chloroform	S12-De01569	CP	%	93			70-130	Pass	
Chloromethane	S12-De01569	CP	%	109			70-130	Pass	
cis-1.2-Dichloroethene	S12-De01569	CP	%	87			70-130	Pass	
cis-1.3-Dichloropropene	S12-De01569	CP	%	77			70-130	Pass	
Dibromochloromethane	S12-De01569	CP	%	85			70-130	Pass	
Dichlorodifluoromethane	S12-De01569	CP	%	80			70-130	Pass	
Hexachlorobutadiene	S12-De01569	CP	%	84			70-130	Pass	
Isopropyl benzene (Cumene)	S12-De01569	CP	%	86			70-130	Pass	
Methylene Chloride	S12-De01569	CP	%	90			70-130	Pass	
n-Butylbenzene	S12-De01569	CP	%	85			70-130	Pass	
n-Propylbenzene	S12-De01569	CP	%	93			70-130	Pass	
p-Isopropyltoluene	S12-De01569	CP	%	91			70-130	Pass	
sec-Butylbenzene	S12-De01569	CP	%	92			70-130	Pass	
Styrene	S12-De01569	CP	%	70			70-130	Pass	
tert-Butylbenzene	S12-De01569	CP	%	95			70-130	Pass	
Tetrachloroethene	S12-De01569	CP	%	87			70-130	Pass	
trans-1.2-Dichloroethene	S12-De01569	CP	%	96			70-130	Pass	
trans-1.3-Dichloropropene	S12-De01569	CP	%	77			70-130	Pass	
Trichloroethene	S12-De01569	CP	%	90			70-130	Pass	
Trichlorofluoromethane	S12-De01569	CP	%	88			70-130	Pass	
Vinyl acetate	S12-No27331	NCP	%	104			70-130	Pass	
Vinyl chloride	S12-De01569	CP	%	100			70-130	Pass	
Spike - % Recovery									
Semivolatile Organic Compounds (SVOC)				Result 1					
2-Chlorophenol	S12-De04630	NCP	%	101			70-130	Pass	
4-Chloro-3-methylphenol	S12-De04630	NCP	%	96			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
N-Nitrosodipropylamine	S12-De04630	NCP	%	79		70-130	Pass	
Phenol	S12-De04630	NCP	%	87		70-130	Pass	
Spike - % Recovery								
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1				
TRH C10-C14	S12-De01581	CP	%	94		70-130	Pass	
Spike - % Recovery								
BTEX				Result 1				
Benzene	S12-De01581	CP	%	79		70-130	Pass	
Toluene	S12-De01581	CP	%	82		70-130	Pass	
Ethylbenzene	S12-De01581	CP	%	85		70-130	Pass	
Total m+p-Xylenes	S12-De01581	CP	%	87		70-130	Pass	
o-Xylene	S12-De01581	CP	%	89		70-130	Pass	
Xylenes(ortho.meta and para)	S12-De01581	CP	%	87		70-130	Pass	
Spike - % Recovery								
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions *				Result 1				
Naphthalene	S12-De01581	CP	%	82		70-130	Pass	
TRH C6-C10	S12-De01581	CP	%	80		70-130	Pass	
TRH >C10-C16	S12-De01581	CP	%	82		70-130	Pass	
Spike - % Recovery								
Polyaromatic Hydrocarbons (PAH)				Result 1				
Acenaphthene	S12-De01581	CP	%	118		70-130	Pass	
Acenaphthylene	S12-De01581	CP	%	118		70-130	Pass	
Anthracene	S12-De01581	CP	%	110		70-130	Pass	
Benz(a)anthracene	S12-De01581	CP	%	107		70-130	Pass	
Benzo(a)pyrene	S12-De01581	CP	%	109		70-130	Pass	
Benzo(b)fluoranthene & Benzo(k)fluoranthene	S12-De01581	CP	%	116		70-130	Pass	
Benzo(g,h,i)perylene	S12-De01581	CP	%	115		70-130	Pass	
Chrysene	S12-De01581	CP	%	116		70-130	Pass	
Dibenz(a,h)anthracene	S12-De01581	CP	%	122		70-130	Pass	
Fluoranthene	S12-De01581	CP	%	114		70-130	Pass	
Fluorene	S12-De01581	CP	%	118		70-130	Pass	
Indeno(1,2,3-cd)pyrene	S12-De01581	CP	%	126		70-130	Pass	
Naphthalene	S12-De01581	CP	%	105		70-130	Pass	
Phenanthrene	S12-De01581	CP	%	112		70-130	Pass	
Pyrene	S12-De01581	CP	%	116		70-130	Pass	
Spike - % Recovery								
Metals M8				Result 1				
Arsenic	S12-De01585	CP	%	87		70-130	Pass	
Cadmium	S12-De01585	CP	%	94		70-130	Pass	
Lead	S12-De01585	CP	%	82		70-130	Pass	
Mercury	S12-De01585	CP	%	93		70-130	Pass	
Spike - % Recovery								
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1				
TRH C6-C9	S12-De01595	CP	%	92		70-130	Pass	
TRH C10-C14	S12-De01595	CP	%	81		70-130	Pass	
Spike - % Recovery								
BTEX				Result 1				
Benzene	S12-De01595	CP	%	78		70-130	Pass	
Toluene	S12-De01595	CP	%	80		70-130	Pass	
Ethylbenzene	S12-De01595	CP	%	81		70-130	Pass	
Total m+p-Xylenes	S12-De01595	CP	%	83		70-130	Pass	
o-Xylene	S12-De01595	CP	%	83		70-130	Pass	
Xylenes(ortho.meta and para)	S12-De01595	CP	%	83		70-130	Pass	
Spike - % Recovery								
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions *				Result 1				

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Naphthalene	S12-De01595	CP	%	79			70-130	Pass	
TRH C6-C10	S12-De01595	CP	%	98			70-130	Pass	
TRH >C10-C16	S12-De01595	CP	%	82			70-130	Pass	
Spike - % Recovery									
Polyaromatic Hydrocarbons (PAH)				Result 1					
Acenaphthene	S12-De01595	CP	%	114			70-130	Pass	
Acenaphthylene	S12-De01595	CP	%	116			70-130	Pass	
Anthracene	S12-De01595	CP	%	107			70-130	Pass	
Benz(a)anthracene	S12-De01595	CP	%	122			70-130	Pass	
Benzo(a)pyrene	S12-De01595	CP	%	116			70-130	Pass	
Benzo(b)fluoranthene & Benzo(k)fluoranthene	S12-De01595	CP	%	119			70-130	Pass	
Benzo(g,h,i)perylene	S12-De01595	CP	%	125			70-130	Pass	
Chrysene	S12-De01595	CP	%	120			70-130	Pass	
Dibenz(a,h)anthracene	S12-De01595	CP	%	121			70-130	Pass	
Fluoranthene	S12-De01595	CP	%	125			70-130	Pass	
Fluorene	S12-De01595	CP	%	113			70-130	Pass	
Indeno(1,2,3-cd)pyrene	S12-De01595	CP	%	124			70-130	Pass	
Naphthalene	S12-De01595	CP	%	104			70-130	Pass	
Phenanthrene	S12-De01595	CP	%	124			70-130	Pass	
Pyrene	S12-De01595	CP	%	120			70-130	Pass	
Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C6-C9	S12-De01567	CP	mg/kg	< 10	< 10	<1	30%	Pass	
TRH C10-C14	S12-De01567	CP	mg/kg	< 50	< 50	10	30%	Pass	
TRH C15-C28	S12-De01567	CP	mg/kg	< 100	< 100	17	30%	Pass	
TRH C29-C36	S12-De01567	CP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S12-De01567	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Toluene	S12-De01567	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Ethylbenzene	S12-De01567	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Total m+p-Xylenes	S12-De01567	CP	mg/kg	< 1	< 1	<1	30%	Pass	
o-Xylene	S12-De01567	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Xylenes(ortho.meta and para)	S12-De01567	CP	mg/kg	< 1.5	< 1.5	<1	30%	Pass	
Total BTEX	S12-De01567	CP	mg/kg	< 1.5	< 1.5	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions *				Result 1	Result 2	RPD			
Naphthalene	S12-De01567	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
TRH C6-C10	S12-De01567	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C6-C10 less BTEX (F1)	S12-De01567	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH >C10-C16	S12-De01567	CP	mg/kg	< 50	< 50	10	30%	Pass	
TRH >C16-C34	S12-De01567	CP	mg/kg	< 100	< 100	26	30%	Pass	
TRH >C34-C40	S12-De01567	CP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
Polyaromatic Hydrocarbons (PAH)				Result 1	Result 2	RPD			
Acenaphthene	S12-De01567	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	S12-De01567	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	S12-De01567	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	S12-De01567	CP	mg/kg	1.1	0.9	14	30%	Pass	
Benzo(a)pyrene	S12-De01567	CP	mg/kg	0.9	0.8	11	30%	Pass	
Benzo(b)fluoranthene & Benzo(k)fluoranthene	S12-De01567	CP	mg/kg	1.5	1.4	9.0	30%	Pass	
Benzo(g,h,i)perylene	S12-De01567	CP	mg/kg	0.6	0.5	20	30%	Pass	

Duplicate								
Polyaromatic Hydrocarbons (PAH)				Result 1	Result 2	RPD		
Chrysene	S12-De01567	CP	mg/kg	0.8	0.8	9.0	30%	Pass
Dibenz(a,h)anthracene	S12-De01567	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Fluoranthene	S12-De01567	CP	mg/kg	1.5	1.4	7.0	30%	Pass
Fluorene	S12-De01567	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Indeno(1,2,3-cd)pyrene	S12-De01567	CP	mg/kg	0.5	< 0.5	11	30%	Pass
Naphthalene	S12-De01567	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Phenanthrene	S12-De01567	CP	mg/kg	0.7	0.7	6.0	30%	Pass
Pyrene	S12-De01567	CP	mg/kg	1.5	1.4	9.0	30%	Pass
Duplicate								
Metals M8				Result 1	Result 2	RPD		
Arsenic	S12-De01567	CP	mg/kg	4.6	4.7	1.0	30%	Pass
Cadmium	S12-De01567	CP	mg/kg	0.5	< 0.4	68	30%	Fail
Chromium	S12-De01567	CP	mg/kg	8.8	9.6	9.0	30%	Pass
Copper	S12-De01567	CP	mg/kg	51	31	49	30%	Fail
Lead	S12-De01567	CP	mg/kg	78	39	66	30%	Fail
Mercury	S12-De01567	CP	mg/kg	0.23	0.15	37	30%	Fail
Nickel	S12-De01567	CP	mg/kg	9.2	5.0	59	30%	Fail
Zinc	S12-De01567	CP	mg/kg	130	65	68	30%	Fail
Duplicate								
Volatile Organic Compounds (VOC)				Result 1	Result 2	RPD		
1.1-Dichloroethane	S12-De01569	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.1-Dichloroethene	S12-De01569	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.1.1-Trichloroethane	S12-De01569	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.1.1.2-Tetrachloroethane	S12-De01569	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.1.2-Trichloroethane	S12-De01569	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.2-Dibromo-3-chloropropane	S12-De01569	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.2-Dibromoethane	S12-De01569	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.2-Dichlorobenzene	S12-De01569	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.2-Dichloroethane	S12-De01569	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.2-Dichloropropane	S12-De01569	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.2.3-Trichloropropane	S12-De01569	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.2.4-Trichlorobenzene	S12-De01569	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.2.4-Trimethylbenzene	S12-De01569	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.3-Dichlorobenzene	S12-De01569	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.3-Dichloropropane	S12-De01569	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.3.5-Trimethylbenzene	S12-De01569	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.4-Dichlorobenzene	S12-De01569	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2-Butanone (MEK)	S12-De01569	CP	mg/kg	< 5	< 5	<1	30%	Pass
2-Chlorotoluene	S12-De01569	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2-Hexanone (MBK)	S12-De01569	CP	mg/kg	< 5	< 5	<1	30%	Pass
2-Pentanone	S12-De01569	CP	mg/kg	< 5	< 5	<1	30%	Pass
4-Chlorotoluene	S12-De01569	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
4-Methyl-2-pentanone (MIBK)	S12-De01569	CP	mg/kg	< 5	< 5	<1	30%	Pass
Bromobenzene	S12-De01569	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Bromodichloromethane	S12-De01569	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Bromoform	S12-De01569	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Bromomethane	S12-De01569	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Carbon disulfide	S12-De01569	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Carbon Tetrachloride	S12-De01569	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chlorobenzene	S12-De01569	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chloroethane	S12-De01569	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chloroform	S12-De01569	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chloromethane	S12-De01569	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
cis-1.2-Dichloroethene	S12-De01569	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
cis-1.3-Dichloropropene	S12-De01569	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass

Duplicate								
Volatile Organic Compounds (VOC)				Result 1	Result 2	RPD		
Dibromochloromethane	S12-De01569	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dichlorodifluoromethane	S12-De01569	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Hexachlorobutadiene	S12-De01569	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Isopropyl benzene (Cumene)	S12-De01569	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Methylene Chloride	S12-De01569	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
n-Butylbenzene	S12-De01569	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
n-Propylbenzene	S12-De01569	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
p-Isopropyltoluene	S12-De01569	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
sec-Butylbenzene	S12-De01569	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Styrene	S12-De01569	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
tert-Butylbenzene	S12-De01569	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Tetrachloroethene	S12-De01569	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
trans-1,2-Dichloroethene	S12-De01569	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
trans-1,3-Dichloropropene	S12-De01569	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Trichloroethene	S12-De01569	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Trichlorofluoromethane	S12-De01569	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Vinyl acetate	S12-De01569	CP	mg/kg	< 5	< 5	<1	30%	Pass
Vinyl chloride	S12-De01569	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
Semivolatile Organic Compounds (SVOC)				Result 1	Result 2	RPD		
2-Chlorophenol	S12-De04630	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Hexachlorobenzene	S12-De04630	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Hexachlorobutadiene	S12-De04630	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Hexachlorocyclopentadiene	S12-De04630	NCP	mg/kg	< 2	< 2	<1	30%	Pass
Hexachloroethane	S12-De04630	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Pentachlorobenzene	S12-De04630	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD		
TRH C10-C14	S12-De01581	CP	mg/kg	< 50	< 50	5.0	30%	Pass
TRH C15-C28	S12-De01581	CP	mg/kg	< 100	< 100	6.0	30%	Pass
TRH C29-C36	S12-De01581	CP	mg/kg	< 100	< 100	<1	30%	Pass
Duplicate								
BTEX				Result 1	Result 2	RPD		
Benzene	S12-De01581	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Toluene	S12-De01581	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Ethylbenzene	S12-De01581	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Total m+p-Xylenes	S12-De01581	CP	mg/kg	< 1	< 1	<1	30%	Pass
o-Xylene	S12-De01581	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Xylenes(ortho.meta and para)	S12-De01581	CP	mg/kg	< 1.5	< 1.5	<1	30%	Pass
Total BTEX	S12-De01581	CP	mg/kg	< 1.5	< 1.5	<1	30%	Pass
Duplicate								
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions *				Result 1	Result 2	RPD		
Naphthalene	S12-De01581	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
TRH C6-C10	S12-De01581	CP	mg/kg	< 20	< 20	<1	30%	Pass
TRH C6-C10 less BTEX (F1)	S12-De01581	CP	mg/kg	< 20	< 20	<1	30%	Pass
TRH >C10-C16	S12-De01581	CP	mg/kg	< 50	< 50	5.0	30%	Pass
TRH >C16-C34	S12-De01581	CP	mg/kg	< 100	< 100	6.0	30%	Pass
TRH >C34-C40	S12-De01581	CP	mg/kg	< 100	< 100	<1	30%	Pass
Duplicate								
Polyaromatic Hydrocarbons (PAH)				Result 1	Result 2	RPD		
Acenaphthene	S12-De01581	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Acenaphthylene	S12-De01581	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Anthracene	S12-De01581	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benz(a)anthracene	S12-De01581	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(a)pyrene	S12-De01581	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass

Duplicate								
Polyaromatic Hydrocarbons (PAH)				Result 1	Result 2	RPD		
Benzo(b)fluoranthene & Benzo(k)fluoranthene	S12-De01581	CP	mg/kg	< 1	< 1	<1	30%	Pass
Benzo(g,h,i)perylene	S12-De01581	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chrysene	S12-De01581	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dibenz(a,h)anthracene	S12-De01581	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Fluoranthene	S12-De01581	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Fluorene	S12-De01581	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Indeno(1,2,3-cd)pyrene	S12-De01581	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Naphthalene	S12-De01581	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Phenanthrene	S12-De01581	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Pyrene	S12-De01581	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
Metals M8				Result 1	Result 2	RPD		
Arsenic	S12-De01584	CP	mg/kg	< 2	< 2	78	30%	Fail Q15
Cadmium	S12-De01584	CP	mg/kg	< 0.4	< 0.4	9.0	30%	Pass
Chromium	S12-De01584	CP	mg/kg	91	82	10	30%	Pass
Copper	S12-De01584	CP	mg/kg	44	29	40	30%	Fail Q15
Lead	S12-De01584	CP	mg/kg	5.3	5.6	7.0	30%	Pass
Mercury	S12-De01584	CP	mg/kg	< 0.05	< 0.05	59	30%	Fail Q15
Nickel	S12-De01584	CP	mg/kg	120	90	25	30%	Pass
Zinc	S12-De01584	CP	mg/kg	69	57	19	30%	Pass
Duplicate								
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD		
TRH C6-C9	S12-De01595	CP	mg/kg	< 10	< 10	<1	30%	Pass
TRH C10-C14	S12-De01595	CP	mg/kg	< 50	< 50	11	30%	Pass
TRH C15-C28	S12-De01595	CP	mg/kg	< 100	< 100	13	30%	Pass
TRH C29-C36	S12-De01595	CP	mg/kg	< 100	< 100	16	30%	Pass
Duplicate								
BTEX				Result 1	Result 2	RPD		
Benzene	S12-De01595	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Toluene	S12-De01595	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Ethylbenzene	S12-De01595	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Total m+p-Xylenes	S12-De01595	CP	mg/kg	< 1	< 1	<1	30%	Pass
o-Xylene	S12-De01595	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Xylenes(ortho,meta and para)	S12-De01595	CP	mg/kg	< 1.5	< 1.5	<1	30%	Pass
Total BTEX	S12-De01595	CP	mg/kg	< 1.5	< 1.5	<1	30%	Pass
Duplicate								
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions *				Result 1	Result 2	RPD		
Naphthalene	S12-De01595	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
TRH C6-C10	S12-De01595	CP	mg/kg	< 20	< 20	<1	30%	Pass
TRH C6-C10 less BTEX (F1)	S12-De01595	CP	mg/kg	< 20	< 20	<1	30%	Pass
TRH >C10-C16	S12-De01595	CP	mg/kg	< 50	< 50	8.0	30%	Pass
TRH >C16-C34	S12-De01595	CP	mg/kg	< 100	< 100	10	30%	Pass
TRH >C34-C40	S12-De01595	CP	mg/kg	< 100	< 100	<1	30%	Pass
Duplicate								
Polyaromatic Hydrocarbons (PAH)				Result 1	Result 2	RPD		
Acenaphthene	S12-De01595	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Acenaphthylene	S12-De01595	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Anthracene	S12-De01595	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benz(a)anthracene	S12-De01595	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(a)pyrene	S12-De01595	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(b)fluoranthene & Benzo(k)fluoranthene	S12-De01595	CP	mg/kg	< 1	< 1	<1	30%	Pass
Benzo(g,h,i)perylene	S12-De01595	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chrysene	S12-De01595	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dibenz(a,h)anthracene	S12-De01595	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass

Duplicate								
Polyaromatic Hydrocarbons (PAH)				Result 1	Result 2	RPD		
Fluoranthene	S12-De01595	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Fluorene	S12-De01595	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Indeno(1.2.3-cd)pyrene	S12-De01595	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Naphthalene	S12-De01595	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Phenanthrene	S12-De01595	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Pyrene	S12-De01595	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass

Comments

Sample Integrity

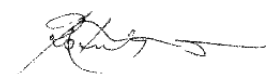
Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Organic samples had Teflon liners	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Qualifier Codes/Comments

Code	Description
N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.
Q15	The RPD reported passes mgt-LabMark's Acceptance Criteria as stipulated in SOP 05. Refer to Glossary Page of this report for further details

Authorised By

Jean Heng	Client Services
James Norford	Senior Analyst-Metal (NSW)
Laura Schofield	Senior Analyst-Volatile (NSW)
Ryan Hamilton	Senior Analyst-Organic (NSW)



Dr. Bob Symons

Laboratory Manager

Final report - this Report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Uncertainty data is available on request

mgt-LabMark shall not be liable for loss, cost, damages or expenses incurred by the client, or any other person or company, resulting from the use of any information or interpretation given in this report. In no case shall mgt-LabMark be liable for consequential damages including, but not limited to, lost profits, damages for failure to meet deadlines and lost production arising from this report. This document shall not be reproduced except in full and relates only to the items tested. Unless indicated otherwise, the tests were performed on the samples as received.



AUSTRALIAN SAFER ENVIRONMENT & TECHNOLOGY PTY LTD

ABN 36 088 095 112

Our ref: ASET31849/ 35029 / 1 - 5

Your ref: 361703

NATA Accreditation No: 14484

10 December 2012

MGT- Labmark Environmental Pty Ltd
Unit F3, Building F, 16 Mars Road
Lane Cove NSW 2066

Attn: Dr Robert Symons
Laboratory & Technical Manager

Dear Robert

Asbestos Identification

This report presents the results of five samples, forwarded by MGT- Labmark Environmental Pty Ltd on 7 December 2012, for analysis for asbestos.

1.Introduction: Five samples forwarded were examined and analysed for the presence of asbestos.

2. Methods : The samples were examined under a Stereo Microscope and selected fibres were analysed by Polarized Light Microscopy in conjunction with Dispersion Staining method **(Safer Environment Method 1.)**

3. Results : **Sample No. 1. ASET31849 / 35029 / 1. BH112A - 0.35-0.45m - De01567**
Approx dimensions 6.0 cm x 6.0 cm x 3.0 cm
The sample consisted of a mixture of clayish soil, stones, plant matter, fragments of plaster, cement, brick and glass.
No asbestos detected.

Sample No. 2. ASET31849 / 35029 / 2. BH112A - 0.8-0.9m - De01569
Approx dimensions 6.0 cm x 6.0 cm x 3.0 cm
The sample consisted of a mixture of clayish soil, stones, plant matter and fragments of plaster.
No asbestos detected.

Sample No. 3. ASET31849 / 35029 / 3. BH102 - 0.5-0.6m – De01578
Approx dimensions 6.0 cm x 6.0 cm x 3.0 cm
The sample consisted of a mixture of clayish soil and stones.
No asbestos detected.

Sample No. 4. ASET31849 / 35029 / 4. BH106 - 0.13-0.23m - De01584
Approx dimensions 6.0 cm x 6.0 cm x 3.0 cm
The sample consisted of a mixture of clayish soil, stones and fragments of plaster.
No asbestos detected.

SUITE 710 / 90 GEORGE STREET, HORNSBY NSW 2077 – P.O. BOX 1644 HORNSBY WESTFIELD NSW 1635
PHONE: (02) 99872183 FAX: (02) 99872151 EMAIL: aset@bigpond.net.au WEBSITE: www.Ausset.com.au

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ASBESTOS DETECTION & IDENTIFICATION • REPAIR & CALIBRATION OF SCIENTIFIC EQUIPMENT • AIRBORNE FIBRE & SILICA MONITORING



Sample No. 5. ASET31849 / 35029 / 5. BH106 - 1.0-1.1m - De01587

Approx dimensions 6.0 cm x 6.0 cm x 3.2 cm

The sample consisted of a mixture of clayish soil, stones, plant matter and fragments of plaster.

No asbestos detected.

Analysed and reported by,

A handwritten signature in black ink, appearing to read "N. Maddage", written over a horizontal line.

Nisansala Maddage. BSc(Hons)
Environmental Scientist/Approved Identifier

A handwritten signature in black ink, appearing to read "Mahen De Silva", written over a horizontal line.

Mahen De Silva . BSc. MSc. Grad Dip (Occ Hyg)
Occupational Hygienist / Approved Signatory



This document is issued in accordance with NATA's Accreditation requirements. Accredited for compliance with ISO/IEC 17025.

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12
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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST



environments
SPECIALISTS IN ENVIRONMENTAL,
SOCIAL AND SAFETY PERFORMANCE

Project No: GEOTLCON24303AF Task No:
Project Name: SICEEP
Sampler's Name: Priya Dass
Special Instructions:
TPH/BTEX/PAH TESTED AS SUITE B4 / METALS AS M8

Consigning Office: Chatswood
Report Results to: Matthew Locke
Invoices to: Matthew Locke
Laboratory: MGT LabMark
Project Manager: Matthew Locke

Mobile:
Phone:
Email: matthew_locke@coffey.com
Email: matthew_locke@coffey.com

Analysis Request Section				Analysis Request Section		T-A-T (specify)
Lab No.	Sample ID	Sample Date	Time	Matrix (Soil, etc)	Container Type & Preservative*	
	BH109 (0.0-0.2m)	4/12/12		Soil	1x 250ml GJ	Standard
	BH109 (0.4-0.5m)				1x 2 Ziplock bag	
	BH109 (0.4-0.5m) A				Ice	
	BH109 (1.0-1.1m)					
	BH109 (1.5-1.6m)					
	BH109 (1.9-2.0m)					
	BH109 (1.9-2.0m) A					
	BH109 (2.5-2.6m)					
	BH109 (3.0-3.1m)					
	BH109 (3.4-3.5m)					
	BH109 (3.4-3.5m) A					
	BH109 (3.5-3.6m)					
	BH110 (0.15-0.25m)					
	BH110 (0.15-0.25m) A					
	BH110 (0.5-0.6m)					
	BH110 (1.0-1.1m)					
	BH110 (1.3-1.4m)					
	BH110 (1.3-1.4m) A					

RELINQUISHED BY
Name: Priya Dass
Coffey Environments
Date: 4/12/12
Time: 2:55 p.m.

RECEIVED BY
Name: SUE
Company: MGT LabMark
Date: 4/12/12
Time: 3 p.m.

Sample Receipt Advice: (Lab Use Only)
☐ All Samples Received in Good Condition
☐ All Documentation is in Proper Order
☐ Samples Received Properly Chilled
Lab. Ref/Batch No.

Date: 4/12/12
Time: 3 p.m.
Date:
Time:

* Container Type & Preservation Codes: P - Plastic, G - Glass Bottle, J - Glass Jar, V - Vial, Z - Ziplock Bag, N - Nitric Acid Preserved, C - Hydrochloric Acid Preserved, S - Sulphuric Acid Preserved, I - Ice, ST - Sodium Thiosulfate, NP - No Preservative, OP - Other Preservative
Coffey Environments

Version: 4 Issue Date: 24/08/2012

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Version: 4

Sample Receipt Advice

Company name: **Coffey Geotechnics Pty Ltd Chatswood**
Contact name: **Matthew Locke**
Client job number: **SICEEP GEOTLCOV24303AF**
COC number: **103778-79**
Turn around time: **5 Day**
Date/Time received: **Dec 5, 2012 12:50 PM**
mgt-LabMark reference: **361794**

Sample information

- ☒ A detailed list of analytes logged into our LIMS, is included in the attached summary table.
- ☒ Sample Temperature of a random sample selected from the batch as recorded by mgt-LabMark
Sample Receipt : 5 degrees Celsius.
- ☒ All samples have been received as described on the above COC.
- ☒ COC has been completed correctly.
- ☒ Attempt to chill was evident.
- ☒ Appropriately preserved sample containers have been used.
- ☒ All samples were received in good condition.
- ☒ Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.
- ☒ Organic samples had Teflon liners.
- ☒ Sample containers for volatile analysis received with zero headspace.
- ☒ Some samples have been subcontracted.
- N/A Custody Seals intact (if used).

Notes

Sample QC9A sent to Envirolab as requested | Asbestos analysis conducted by ASET

Contact notes

If you have any questions with respect to these samples please contact:

Jean Heng on Phone : (+61) (2) 9900 8400 or by e.mail: jean.heng@mgtlabmark.com.au

Results will be delivered electronically via e.mail to Matthew Locke - Matthew_Locke@coffey.com.

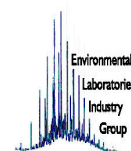
mgt-LabMark Sample Receipt



Environmental Laboratory
Air Analysis
Water Analysis
Soil Contamination Analysis

NATA Accreditation
Stack Emission Sampling & Analysis
Trade Waste Sampling & Analysis
Groundwater Sampling & Analysis

35Years of Environmental Analysis & Experience – fully Australian Owned



Certificate of Analysis

Coffey Geotechnics Pty Ltd Chatswood
Level 18, Tower B, Citadel Tower 799 Pacific Highway
Chatswood
NSW 2067



NATA Accredited
Accreditation Number 1261
Site Number 18217

Accredited for compliance with ISO/IEC 17025.
The results of the tests, calibrations and/or
measurements included in this document are traceable
to Australian/national standards.

Attention: Matthew Locke

Report 361794-S
Client Reference SICEEP GEOTLCOV24303AF
Received Date Dec 05, 2012

Client Sample ID			BH109_(0.0-0.2m)	BH109_(0.4-0.5m)	BH109_(0.4-0.5m)_A	BH109_(1.5-1.6m)
Sample Matrix			Soil	Soil	Soil	Soil
mgt-LabMark Sample No.			S12-De02077	S12-De02078	S12-De02079	S12-De02081
Date Sampled			Dec 04, 2012	Dec 04, 2012	Dec 04, 2012	Dec 04, 2012
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	10	mg/kg	< 10	< 10	< 10	< 10
TRH C10-C14	50	mg/kg	< 50	< 50	< 50	< 50
TRH C15-C28	100	mg/kg	< 100	< 100	< 100	< 100
TRH C29-C36	100	mg/kg	< 100	< 100	< 100	< 100
TRH C10-36 (Total)	100	mg/kg	< 100	< 100	< 100	< 100
BTEX						
Benzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Toluene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Ethylbenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total m+p-Xylenes	1	mg/kg	< 1	< 1	< 1	< 1
o-Xylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Xylenes(ortho.meta and para)	1.5	mg/kg	< 1.5	< 1.5	< 1.5	< 1.5
Total BTEX	1.5	mg/kg	< 1.5	< 1.5	< 1.5	< 1.5
4-Bromofluorobenzene (surr.)	1	%	99	79	75	76
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions *						
Naphthalene ^{N02}	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1) ^{N04}	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2) ^{N01}	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
Polyaromatic Hydrocarbons (PAH)						
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	1.4
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	1.4
Benzo(b)fluoranthene & Benzo(k)fluoranthene	1	mg/kg	< 1	< 1	< 1	2.3
Benzo(g,h,i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	0.8
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	1.3
Dibenz(a,h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	2.4
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1,2,3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	0.7
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	0.7

Client Sample ID			BH109_(0.0-0.2m)	BH109_(0.4-0.5m)	BH109_(0.4-0.5m)_A	BH109_(1.5-1.6m)
Sample Matrix			Soil	Soil	Soil	Soil
mgt-LabMark Sample No.			S12-De02077	S12-De02078	S12-De02079	S12-De02081
Date Sampled			Dec 04, 2012	Dec 04, 2012	Dec 04, 2012	Dec 04, 2012
Test/Reference	LOR	Unit				
Polyaromatic Hydrocarbons (PAH)						
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	2.4
Total PAH	1	mg/kg	< 1	< 1	< 1	13
2-Fluorobiphenyl (surr.)	1	%	103	89	86	88
p-Terphenyl-d14 (surr.)	1	%	106	93	90	94
Heavy Metals						
Arsenic	2	mg/kg	2.5	< 2	< 2	13
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	0.5
Chromium	5	mg/kg	12	5.7	5.1	5.5
Copper	5	mg/kg	8.8	9.2	8.6	120
Lead	5	mg/kg	9.7	6.5	5.8	160
Mercury	0.05	mg/kg	< 0.05	< 0.05	< 0.05	0.29
Nickel	5	mg/kg	12	5.8	5.7	15
Zinc	5	mg/kg	63	16	14	230
% Moisture	0.1	%	6.3	13	13	17
Asbestos			See attached	See attached	-	-

Client Sample ID			BH109_(1.9-2.0m)	BH109_(1.9-2.0m)_A	BH109_(3.0-3.1m)	BH109_(3.4-3.5m)
Sample Matrix			Soil	Soil	Soil	Soil
mgt-LabMark Sample No.			S12-De02082	S12-De02083	S12-De02085	S12-De02086
Date Sampled			Dec 04, 2012	Dec 04, 2012	Dec 04, 2012	Dec 04, 2012
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	10	mg/kg	< 10	< 10	< 10	< 10
TRH C10-C14	50	mg/kg	< 50	< 50	< 50	< 50
TRH C15-C28	100	mg/kg	< 100	< 100	< 100	< 100
TRH C29-C36	100	mg/kg	< 100	< 100	< 100	< 100
TRH C10-36 (Total)	100	mg/kg	< 100	< 100	< 100	< 100
BTEX						
Benzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Toluene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Ethylbenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total m+p-Xylenes	1	mg/kg	< 1	< 1	< 1	< 1
o-Xylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Xylenes(ortho.meta and para)	1.5	mg/kg	< 1.5	< 1.5	< 1.5	< 1.5
Total BTEX	1.5	mg/kg	< 1.5	< 1.5	< 1.5	< 1.5
4-Bromofluorobenzene (surr.)	1	%	76	96	71	73
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions *						
Naphthalene ^{N02}	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1) ^{N04}	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2) ^{N01}	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100

Client Sample ID			BH109_(1.9-2.0m)	BH109_(1.9-2.0m)_A	BH109_(3.0-3.1m)	BH109_(3.4-3.5m)
Sample Matrix			Soil	Soil	Soil	Soil
mgt-LabMark Sample No.			S12-De02082	S12-De02083	S12-De02085	S12-De02086
Date Sampled			Dec 04, 2012	Dec 04, 2012	Dec 04, 2012	Dec 04, 2012
Test/Reference	LOR	Unit				
Polyaromatic Hydrocarbons (PAH)						
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	1.0
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	1.0
Benzo(b)fluoranthene & Benzo(k)fluoranthene	1	mg/kg	< 1	< 1	< 1	1.6
Benzo(g,h,i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	0.6
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	1.0
Dibenz(a,h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	0.6	< 0.5	< 0.5	2.8
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1,2,3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	0.6	< 0.5	< 0.5	2.4
Total PAH	1	mg/kg	1.2	< 1	< 1	10
2-Fluorobiphenyl (surr.)	1	%	86	90	89	88
p-Terphenyl-d14 (surr.)	1	%	92	96	97	93
Heavy Metals						
Arsenic	2	mg/kg	-	-	3.2	-
Cadmium	0.4	mg/kg	-	-	< 0.4	-
Chromium	5	mg/kg	-	-	9.5	-
Copper	5	mg/kg	-	-	55	-
Lead	5	mg/kg	-	-	92	-
Mercury	0.05	mg/kg	-	-	0.41	-
Nickel	5	mg/kg	-	-	9.0	-
Zinc	5	mg/kg	-	-	140	-
% Moisture	0.1	%	14	6.8	3.2	8.5

Client Sample ID			BH109_(3.4-3.5m)_A	BH110_(0.15-0.25m)	BH110_(0.15-0.25m)_A	BH110_(1.0-1.1m)
Sample Matrix			Soil	Soil	Soil	Soil
mgt-LabMark Sample No.			S12-De02087	S12-De02089	S12-De02090	S12-De02092
Date Sampled			Dec 04, 2012	Dec 04, 2012	Dec 04, 2012	Dec 04, 2012
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	10	mg/kg	< 10	< 10	< 10	< 10
TRH C10-C14	50	mg/kg	< 50	< 50	< 50	< 50
TRH C15-C28	100	mg/kg	< 100	< 100	< 100	< 100
TRH C29-C36	100	mg/kg	< 100	< 100	< 100	< 100
TRH C10-36 (Total)	100	mg/kg	< 100	< 100	< 100	< 100
BTEX						
Benzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Toluene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Ethylbenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total m+p-Xylenes	1	mg/kg	< 1	< 1	< 1	< 1

Client Sample ID			BH109_(3.4-3.5m)_A	BH110_(0.15-0.25m)	BH110_(0.15-0.25m)_A	BH110_(1.0-1.1m)
Sample Matrix			Soil	Soil	Soil	Soil
mgt-LabMark Sample No.			S12-De02087	S12-De02089	S12-De02090	S12-De02092
Date Sampled			Dec 04, 2012	Dec 04, 2012	Dec 04, 2012	Dec 04, 2012
Test/Reference	LOR	Unit				
BTEX						
o-Xylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Xylenes(ortho.meta and para)	1.5	mg/kg	< 1.5	< 1.5	< 1.5	< 1.5
Total BTEX	1.5	mg/kg	< 1.5	< 1.5	< 1.5	< 1.5
4-Bromofluorobenzene (surr.)	1	%	73	75	86	74
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions *						
Naphthalene ^{N02}	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1) ^{N04}	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2) ^{N01}	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
Polyaromatic Hydrocarbons (PAH)						
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	0.7
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	0.8
Benzo(b)fluoranthene & Benzo(k)fluoranthene	1	mg/kg	< 1	< 1	< 1	1.2
Benzo(g,h,i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	0.7
Dibenz(a,h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	1.3
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1,2,3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	1.3
Total PAH	1	mg/kg	< 1	< 1	< 1	7.0
2-Fluorobiphenyl (surr.)	1	%	93	94	92	91
p-Terphenyl-d14 (surr.)	1	%	99	98	97	97
Heavy Metals						
Arsenic	2	mg/kg	-	< 2	< 2	-
Cadmium	0.4	mg/kg	-	< 0.4	< 0.4	-
Chromium	5	mg/kg	-	< 5	< 5	-
Copper	5	mg/kg	-	89	90	-
Lead	5	mg/kg	-	< 5	< 5	-
Mercury	0.05	mg/kg	-	< 0.05	< 0.05	-
Nickel	5	mg/kg	-	180	150	-
Zinc	5	mg/kg	-	81	72	-
% Moisture	0.1	%	11	6.1	7.5	7.3
Asbestos			-	See attached	-	-

Client Sample ID			QC9	TB1	TS1
Sample Matrix			Soil	Soil	Soil
mgt-LabMark Sample No.			S12-De02101	S12-De02103	S12-De02104
Date Sampled			Dec 04, 2012	Dec 04, 2012	Dec 04, 2012
Test/Reference	LOR	Unit			
Total Recoverable Hydrocarbons - 1999 NEPM Fractions					
TRH C6-C9	10	mg/kg	< 10	< 10	83%
TRH C10-C14	50	mg/kg	< 50	-	-
TRH C15-C28	100	mg/kg	< 100	-	-
TRH C29-C36	100	mg/kg	< 100	-	-
TRH C10-36 (Total)	100	mg/kg	< 100	-	-
BTEX					
Benzene	0.5	mg/kg	< 0.5	< 0.5	80%
Toluene	0.5	mg/kg	< 0.5	< 0.5	83%
Ethylbenzene	0.5	mg/kg	< 0.5	< 0.5	85%
Total m+p-Xylenes	1	mg/kg	< 1	< 1	84%
o-Xylene	0.5	mg/kg	< 0.5	< 0.5	84%
Xylenes(ortho.meta and para)	1.5	mg/kg	< 1.5	< 1.5	84%
Total BTEX	1.5	mg/kg	< 1.5	< 1.5	83%
4-Bromofluorobenzene (surr.)	1	%	73	75	97
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions *					
Naphthalene ^{N02}	0.5	mg/kg	< 0.5	-	-
TRH C6-C10	20	mg/kg	< 20	-	-
TRH C6-C10 less BTEX (F1) ^{N04}	20	mg/kg	< 20	-	-
TRH >C10-C16	50	mg/kg	< 50	-	-
TRH >C10-C16 less Naphthalene (F2) ^{N01}	50	mg/kg	< 50	-	-
TRH >C16-C34	100	mg/kg	< 100	-	-
TRH >C34-C40	100	mg/kg	< 100	-	-
Polyaromatic Hydrocarbons (PAH)					
Acenaphthene	0.5	mg/kg	< 0.5	-	-
Acenaphthylene	0.5	mg/kg	< 0.5	-	-
Anthracene	0.5	mg/kg	< 0.5	-	-
Benz(a)anthracene	0.5	mg/kg	0.8	-	-
Benzo(a)pyrene	0.5	mg/kg	0.8	-	-
Benzo(b)fluoranthene & Benzo(k)fluoranthene	1	mg/kg	1.3	-	-
Benzo(g,h,i)perylene	0.5	mg/kg	< 0.5	-	-
Chrysene	0.5	mg/kg	0.7	-	-
Dibenz(a,h)anthracene	0.5	mg/kg	< 0.5	-	-
Fluoranthene	0.5	mg/kg	2.2	-	-
Fluorene	0.5	mg/kg	< 0.5	-	-
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	-	-
Naphthalene	0.5	mg/kg	< 0.5	-	-
Phenanthrene	0.5	mg/kg	< 0.5	-	-
Pyrene	0.5	mg/kg	2.0	-	-
Total PAH	1	mg/kg	7.8	-	-
2-Fluorobiphenyl (surr.)	1	%	93	-	-
p-Terphenyl-d14 (surr.)	1	%	100	-	-
Heavy Metals					
Arsenic	2	mg/kg	< 2	-	-
Cadmium	0.4	mg/kg	< 0.4	-	-
Chromium	5	mg/kg	6.8	-	-
Copper	5	mg/kg	10	-	-
Lead	5	mg/kg	23	-	-
Mercury	0.05	mg/kg	< 0.05	-	-
Nickel	5	mg/kg	11	-	-

Client Sample ID			QC9	TB1	TS1
Sample Matrix			Soil	Soil	Soil
mgt-LabMark Sample No.			S12-De02101	S12-De02103	S12-De02104
Date Sampled			Dec 04, 2012	Dec 04, 2012	Dec 04, 2012
Test/Reference	LOR	Unit			
Heavy Metals					
Zinc	5	mg/kg	53	-	-
% Moisture	0.1	%	20	-	-

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported.

Description	Testing Site	Extracted	Holding Time
mgt-LabMark Suite 4			
Total Recoverable Hydrocarbons - 1999 NEPM Fractions - Method: E004 Petroleum Hydrocarbons (TPH)	Sydney	Dec 06, 2012	14 Day
BTEX - Method: E029/E016 BTEX	Sydney	Dec 06, 2012	14 Day
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions * - Method: LM-LTM-ORG2010	Sydney	Dec 06, 2012	14 Day
Polyaromatic Hydrocarbons (PAH) - Method: E007 Polyaromatic Hydrocarbons (PAH)	Sydney	Dec 06, 2012	14 Day
Metals M8 - Method: E022 Acid Extractable metals in Soils & E026 Mercury	Sydney	Dec 06, 2012	28 Day
% Moisture - Method: E005 Moisture Content	Sydney	Dec 06, 2012	28 Day

Company Name: Coffey Geotechnics Pty Ltd Chatswood
Address: Level 18, Tower B, Citadel Tower 799 Pacific Highway
Chatswood
NSW 2067

Client Job No.: SICEEP GEOTLCOV24303AF

Order No.:
Report #: 361794
Phone: +61 2 9406 1000
Fax: +61 2 9406 1002

Received: Dec 5, 2012 12:50 PM
Due: Dec 12, 2012
Priority: 5 Day
Contact Name: Matthew Locke

mgt-LabMark Client Manager: Jean Heng

Sample Detail					% Moisture	Asbestos	HOLD	TRH C6-C9	Metals M8	BTEX	mgt-LabMark Suite 4
Laboratory where analysis is conducted											
Melbourne Laboratory - NATA Site # 1254 & 14271											
Sydney Laboratory - NATA Site # 18217					X		X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794											
External Laboratory						X					
Sample ID	Sample Date	Sampling Time	Matrix	LAB ID							
BH109_(0.0-0.2m)	Dec 04, 2012		Soil	S12-De02077	X	X			X		X
BH109_(0.4-0.5m)	Dec 04, 2012		Soil	S12-De02078	X	X			X		X
BH109_(0.4-0.5m)_A	Dec 04, 2012		Soil	S12-De02079	X				X		X
BH109_(1.0-1.1m)	Dec 04, 2012		Soil	S12-De02080			X				
BH109_(1.5-1.6m)	Dec 04, 2012		Soil	S12-De02081	X				X		X
BH109_(1.9-2.0m)	Dec 04, 2012		Soil	S12-De02082	X						X

Company Name: Coffey Geotechnics Pty Ltd Chatswood
Address: Level 18, Tower B, Citadel Tower 799 Pacific Highway
Chatswood
NSW 2067

Client Job No.: SICEEP GEOTLCOV24303AF

Order No.:
Report #: 361794
Phone: +61 2 9406 1000
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Laboratory where analysis is conducted											
Melbourne Laboratory - NATA Site # 1254 & 14271											
Sydney Laboratory - NATA Site # 18217					X		X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794											
External Laboratory						X					
BH109_(1.9-2.0m)_A	Dec 04, 2012		Soil	S12-De02083	X						X
BH109_(2.5-2.6m)	Dec 04, 2012		Soil	S12-De02084			X				
BH109_(3.0-3.1m)	Dec 04, 2012		Soil	S12-De02085	X				X		X
BH109_(3.4-3.5m)	Dec 04, 2012		Soil	S12-De02086	X						X
BH109_(3.4-3.5m)_A	Dec 04, 2012		Soil	S12-De02087	X						X
BH109_(3.5-3.6m)	Dec 04, 2012		Soil	S12-De02088			X				
BH110_(0.15-0.25m)	Dec 04, 2012		Soil	S12-De02089	X	X			X		X

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Sample Detail					% Moisture	Asbestos	HOLD	TRH C6-C9	Metals M8	BTEX	mgt-LabMark Suite 4
Laboratory where analysis is conducted											
Melbourne Laboratory - NATA Site # 1254 & 14271											
Sydney Laboratory - NATA Site # 18217					X		X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794											
External Laboratory						X					
BH110_(0.15-0.25m)_A	Dec 04, 2012		Soil	S12-De02090	X				X		X
BH110_(0.5-0.6m)	Dec 04, 2012		Soil	S12-De02091			X				
BH110_(1.0-1.1m)	Dec 04, 2012		Soil	S12-De02092	X						X
BH110_(1.3-1.4m)	Dec 04, 2012		Soil	S12-De02093			X				
BH110_(1.3-1.4m)_A	Dec 04, 2012		Soil	S12-De02094			X				
BH110_(2.0-2.1m)	Dec 04, 2012		Soil	S12-De02095			X				
BH110_(2.5-2.6m)	Dec 04, 2012		Soil	S12-De02096			X				

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Sample Detail					% Moisture	Asbestos	HOLD	TRH C6-C9	Metals M8	BTEX	mgt-LabMark Suite 4
Laboratory where analysis is conducted											
Melbourne Laboratory - NATA Site # 1254 & 14271											
Sydney Laboratory - NATA Site # 18217					X		X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794											
External Laboratory						X					
BH110_(3.0-3.1m)	Dec 04, 2012		Soil	S12-De02097			X				
BH110_(3.0-3.1m)_A	Dec 04, 2012		Soil	S12-De02098			X				
BH110_(3.5-3.6m)	Dec 04, 2012		Soil	S12-De02099			X				
QC8	Dec 04, 2012		Soil	S12-De02100			X				
QC9	Dec 04, 2012		Soil	S12-De02101	X				X		X
RB1	Dec 04, 2012		Water	S12-De02102							X
TB1	Dec 04, 2012		Soil	S12-De02103				X		X	
TS1	Dec 04, 2012		Soil	S12-De02104				X		X	
TSLAB1	Dec 04, 2012		Soil	S12-De02105				X		X	

mgt-LabMark Internal Quality Control Review

General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples are included in this QC report where applicable. Additional QC data may be available on request.
2. All soil results are reported on a dry basis, unless otherwise stated.
3. Actual PQLs are matrix dependant. Quoted PQLs may be raised where sample extracts are diluted due to interferences.
4. Results are uncorrected for matrix spikes or surrogate recoveries.
5. SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
6. Samples were analysed on an 'as received' basis. 7. This report replaces any interim results previously issued.

Holding Times

Please refer to 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours prior to sample receipt deadlines as stated on the Sample Receipt Acknowledgment.

If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the date of sampling, therefore compliance to these may be outside the laboratory's control.

****NOTE:** pH duplicates are reported as a range NOT as RPD

UNITS

mg/kg: milligrams per Kilogram

mg/l: milligrams per litre

ug/l: micrograms per litre

ppm: Parts per million

ppb: Parts per billion

%: Percentage

org/100ml: Organisms per 100 millilitres

NTU: Units

MPN/100mL: Most Probable Number of organisms per 100 millilitres

TERMS

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR	Limit of Reporting.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
LCS	Laboratory Control Sample - reported as percent recovery
CRM	Certified Reference Material - reported as percent recovery
Method Blank	In the case of solid samples these are performed on laboratory certified clean sands. In the case of water samples these are performed on de-ionised water.
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
Batch Duplicate	A second piece of analysis from a sample outside of the clients batch of samples but run within the laboratory batch of analysis.
Batch SPIKE	Spike recovery reported on a sample from outside of the clients batch of samples but run within the laboratory batch of analysis.
USEPA	United States Environment Protection Authority
APHA	American Public Health Association
ASLP	Australian Standard Leaching Procedure (AS4439.3)
TCLP	Toxicity Characteristic Leaching Procedure
COC	Chain of Custody
SRA	Sample Receipt Advice
CP	Client Parent - QC was performed on samples pertaining to this report
NCP	Non-Client Parent - QC was performed on samples not pertaining to this report, however QC is representative of the sequence or batch that client samples were analysed within

QC - ACCEPTANCE CRITERIA

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is 30% however the following acceptance guidelines are equally applicable:

Results <10 times the LOR : No Limit

Results between 10-20 times the LOR : RPD must lie between 0-50%

Results >20 times the LOR : RPD must lie between 0-30%

Surrogate Recoveries : Recoveries must lie between 50-150% - Phenols 20-130%.

QC DATA GENERAL COMMENTS

1. Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
1. Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
3. Organochlorine Pesticide analysis - where reporting LCS data, Toxophene & Chlordane are not added to the LCS.
3. Organochlorine Pesticide analysis - where reporting Spike data, Toxophene is not added to the Spike.
5. Total Recoverable Hydrocarbons - where reporting Spike & LCS data, a single spike of commercial Hydrocarbon products in the range of C12-C30 is added and it's Total Recovery is reported in the C10-C14 cell of the Report.
6. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling. Therefore laboratory analysis is unlikely to be completed within holding time. Analysis will begin as soon as possible after sample receipt.
7. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of Recovery the term "INT" appears against that analyte.
8. Polychlorinated Biphenyls are spiked only using Arochlor 1260 in Matrix Spikes and LCS's.
9. For Matrix Spikes and LCS results a dash " - " in the report means that the specific analyte was not added to the QC sample.
10. Duplicate RPD's are calculated from raw analytical data thus it is possible to have two sets of data.

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions E004 Petroleum Hydrocarbons (TPH)							
TRH C6-C9	mg/kg	< 10			10	Pass	
TRH C10-C14	mg/kg	< 50			50	Pass	
TRH C15-C28	mg/kg	< 100			100	Pass	
TRH C29-C36	mg/kg	< 100			100	Pass	
Method Blank							
BTEX E029/E016 BTEX							
Benzene	mg/kg	< 0.5			0.5	Pass	
Toluene	mg/kg	< 0.5			0.5	Pass	
Ethylbenzene	mg/kg	< 0.5			0.5	Pass	
Total m+p-Xylenes	mg/kg	< 1			1	Pass	
o-Xylene	mg/kg	< 0.5			0.5	Pass	
Xylenes(ortho.meta and para)	mg/kg	< 1.5			1.5	Pass	
Total BTEX	mg/kg	< 1.5			1.5	Pass	
Method Blank							
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions * LM-LTM-ORG2010							
Naphthalene	mg/kg	< 0.5			0.5	Pass	
TRH C6-C10	mg/kg	< 20			20	Pass	
TRH C6-C10 less BTEX (F1)	mg/kg	< 20			20	Pass	
TRH >C10-C16	mg/kg	< 50			50	Pass	
TRH >C16-C34	mg/kg	< 100			100	Pass	
TRH >C34-C40	mg/kg	< 100			100	Pass	
Method Blank							
Polyaromatic Hydrocarbons (PAH) E007 Polyaromatic Hydrocarbons (PAH)							
Acenaphthene	mg/kg	< 0.5			0.5	Pass	
Acenaphthylene	mg/kg	< 0.5			0.5	Pass	
Anthracene	mg/kg	< 0.5			0.5	Pass	
Benz(a)anthracene	mg/kg	< 0.5			0.5	Pass	
Benzo(a)pyrene	mg/kg	< 0.5			0.5	Pass	
Benzo(b)fluoranthene & Benzo(k)fluoranthene	mg/kg	< 1			1	Pass	
Benzo(g,h,i)perylene	mg/kg	< 0.5			0.5	Pass	
Chrysene	mg/kg	< 0.5			0.5	Pass	
Dibenz(a,h)anthracene	mg/kg	< 0.5			0.5	Pass	
Fluoranthene	mg/kg	< 0.5			0.5	Pass	
Fluorene	mg/kg	< 0.5			0.5	Pass	
Indeno(1,2,3-cd)pyrene	mg/kg	< 0.5			0.5	Pass	
Naphthalene	mg/kg	< 0.5			0.5	Pass	
Phenanthrene	mg/kg	< 0.5			0.5	Pass	
Pyrene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Metals M8 E022 Acid Extractable metals in Soils & E026 Mercury							
Arsenic	mg/kg	< 2			2	Pass	
Cadmium	mg/kg	< 0.4			0.4	Pass	
Chromium	mg/kg	< 5			5	Pass	
Copper	mg/kg	< 5			5	Pass	
Lead	mg/kg	< 5			5	Pass	
Mercury	mg/kg	< 0.05			0.05	Pass	
Nickel	mg/kg	< 5			5	Pass	
Zinc	mg/kg	< 5			5	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions E004 Petroleum Hydrocarbons (TPH)							

Test				Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
TRH C6-C9				%	81			70-130	Pass	
TRH C10-C14				%	93			70-130	Pass	
LCS - % Recovery										
BTEX E029/E016 BTEX										
Benzene				%	97			70-130	Pass	
Toluene				%	86			70-130	Pass	
Ethylbenzene				%	82			70-130	Pass	
Total m+p-Xylenes				%	86			70-130	Pass	
o-Xylene				%	84			70-130	Pass	
Xylenes(ortho.meta and para)				%	86			70-130	Pass	
LCS - % Recovery										
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions * LM-LTM-ORG2010										
Naphthalene				%	81			70-130	Pass	
TRH C6-C10				%	91			70-130	Pass	
TRH >C10-C16				%	86			70-130	Pass	
LCS - % Recovery										
Polyaromatic Hydrocarbons (PAH) E007 Polyaromatic Hydrocarbons (PAH)										
Acenaphthene				%	96			70-130	Pass	
Acenaphthylene				%	90			70-130	Pass	
Anthracene				%	100			70-130	Pass	
Benz(a)anthracene				%	89			70-130	Pass	
Benzo(a)pyrene				%	90			70-130	Pass	
Benzo(b)fluoranthene & Benzo(k)fluoranthene				%	90			70-130	Pass	
Benzo(g,h,i)perylene				%	91			70-130	Pass	
Chrysene				%	100			70-130	Pass	
Dibenz(a,h)anthracene				%	88			70-130	Pass	
Fluoranthene				%	94			70-130	Pass	
Fluorene				%	91			70-130	Pass	
Indeno(1,2,3-cd)pyrene				%	90			70-130	Pass	
Naphthalene				%	93			70-130	Pass	
Phenanthrene				%	92			70-130	Pass	
Pyrene				%	95			70-130	Pass	
LCS - % Recovery										
Metals M8 E022 Acid Extractable metals in Soils & E026 Mercury										
Arsenic				%	99			70-130	Pass	
Cadmium				%	110			70-130	Pass	
Chromium				%	95			70-130	Pass	
Copper				%	99			70-130	Pass	
Lead				%	99			70-130	Pass	
Mercury				%	97			70-130	Pass	
Nickel				%	94			70-130	Pass	
Zinc				%	110			70-130	Pass	
Test	Lab Sample ID	QA Source	Units	Result 1				Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery										
Total Recoverable Hydrocarbons - 1999 NEPM Fractions										
TRH C10-C14	S12-De02077	CP	%	90				70-130	Pass	
Spike - % Recovery										
BTEX										
Benzene	S12-De02077	CP	%	82				70-130	Pass	
Toluene	S12-De02077	CP	%	74				70-130	Pass	
Ethylbenzene	S12-De02077	CP	%	71				70-130	Pass	
Total m+p-Xylenes	S12-De02077	CP	%	74				70-130	Pass	
o-Xylene	S12-De02077	CP	%	73				70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
Xylenes(ortho.meta and para)	S12-De02077	CP	%	73		70-130	Pass	
Spike - % Recovery								
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions *				Result 1				
Naphthalene	S12-De02077	CP	%	105		70-130	Pass	
TRH C6-C10	S12-De02077	CP	%	75		70-130	Pass	
TRH >C10-C16	S12-De02077	CP	%	78		70-130	Pass	
Spike - % Recovery								
Polyaromatic Hydrocarbons (PAH)				Result 1				
Acenaphthene	S12-De02077	CP	%	96		70-130	Pass	
Acenaphthylene	S12-De02077	CP	%	91		70-130	Pass	
Anthracene	S12-De02077	CP	%	96		70-130	Pass	
Benz(a)anthracene	S12-De02077	CP	%	89		70-130	Pass	
Benzo(a)pyrene	S12-De02077	CP	%	92		70-130	Pass	
Benzo(b)fluoranthene & Benzo(k)fluoranthene	S12-De02077	CP	%	92		70-130	Pass	
Benzo(g,h,i)perylene	S12-De02077	CP	%	91		70-130	Pass	
Chrysene	S12-De02077	CP	%	98		70-130	Pass	
Dibenz(a,h)anthracene	S12-De02077	CP	%	90		70-130	Pass	
Fluoranthene	S12-De02077	CP	%	92		70-130	Pass	
Fluorene	S12-De02077	CP	%	93		70-130	Pass	
Indeno(1,2,3-cd)pyrene	S12-De02077	CP	%	91		70-130	Pass	
Naphthalene	S12-De02077	CP	%	95		70-130	Pass	
Phenanthrene	S12-De02077	CP	%	92		70-130	Pass	
Pyrene	S12-De02077	CP	%	92		70-130	Pass	
Spike - % Recovery								
Metals M8				Result 1				
Arsenic	S12-De02078	CP	%	87		70-130	Pass	
Cadmium	S12-De02078	CP	%	97		70-130	Pass	
Chromium	S12-De02078	CP	%	97		70-130	Pass	
Copper	S12-De02078	CP	%	98		70-130	Pass	
Lead	S12-De02078	CP	%	115		70-130	Pass	
Mercury	S12-De02078	CP	%	97		70-130	Pass	
Nickel	S12-De02078	CP	%	93		70-130	Pass	
Zinc	S12-De02078	CP	%	108		70-130	Pass	
Spike - % Recovery								
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1				
TRH C10-C14	S12-De02090	CP	%	73		70-130	Pass	
Spike - % Recovery								
BTEX				Result 1				
Benzene	S12-De02090	CP	%	80		70-130	Pass	
Toluene	S12-De02090	CP	%	73		70-130	Pass	
Total m+p-Xylenes	S12-De02090	CP	%	74		70-130	Pass	
o-Xylene	S12-De02090	CP	%	73		70-130	Pass	
Xylenes(ortho.meta and para)	S12-De02090	CP	%	74		70-130	Pass	
Spike - % Recovery								
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions *				Result 1				
TRH C6-C10	S12-De02090	CP	%	70		70-130	Pass	
TRH >C10-C16	S12-De02090	CP	%	73		70-130	Pass	
Spike - % Recovery								
Polyaromatic Hydrocarbons (PAH)				Result 1				
Acenaphthene	S12-De02090	CP	%	91		70-130	Pass	
Acenaphthylene	S12-De02090	CP	%	86		70-130	Pass	
Anthracene	S12-De02090	CP	%	94		70-130	Pass	
Benz(a)anthracene	S12-De02090	CP	%	83		70-130	Pass	
Benzo(a)pyrene	S12-De02090	CP	%	86		70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Benzo(b)fluoranthene & Benzo(k)fluoranthene	S12-De02090	CP	%	85			70-130	Pass	
Benzo(g,h,i)perylene	S12-De02090	CP	%	86			70-130	Pass	
Chrysene	S12-De02090	CP	%	95			70-130	Pass	
Dibenz(a,h)anthracene	S12-De02090	CP	%	83			70-130	Pass	
Fluoranthene	S12-De02090	CP	%	88			70-130	Pass	
Fluorene	S12-De02090	CP	%	88			70-130	Pass	
Indeno(1,2,3-cd)pyrene	S12-De02090	CP	%	85			70-130	Pass	
Naphthalene	S12-De02090	CP	%	90			70-130	Pass	
Phenanthrene	S12-De02090	CP	%	87			70-130	Pass	
Pyrene	S12-De02090	CP	%	89			70-130	Pass	
Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C10-C14	S12-De02077	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C15-C28	S12-De02077	CP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH C29-C36	S12-De02077	CP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions *				Result 1	Result 2	RPD			
TRH >C10-C16	S12-De02077	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	S12-De02077	CP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C34-C40	S12-De02077	CP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
Polyaromatic Hydrocarbons (PAH)				Result 1	Result 2	RPD			
Acenaphthene	S12-De02077	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	S12-De02077	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	S12-De02077	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	S12-De02077	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(a)pyrene	S12-De02077	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(b)fluoranthene & Benzo(k)fluoranthene	S12-De02077	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Benzo(g,h,i)perylene	S12-De02077	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chrysene	S12-De02077	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a,h)anthracene	S12-De02077	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	S12-De02077	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluorene	S12-De02077	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1,2,3-cd)pyrene	S12-De02077	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Naphthalene	S12-De02077	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	S12-De02077	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrene	S12-De02077	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Metals M8				Result 1	Result 2	RPD			
Arsenic	S12-De02077	CP	mg/kg	2.5	< 2	120	30%	Fail	Q15
Cadmium	S12-De02077	CP	mg/kg	< 0.4	< 0.4	29	30%	Pass	
Chromium	S12-De02077	CP	mg/kg	12	9.0	28	30%	Pass	
Copper	S12-De02077	CP	mg/kg	8.8	8.2	8.0	30%	Pass	
Lead	S12-De02077	CP	mg/kg	9.7	9.3	5.0	30%	Pass	
Mercury	S12-De02077	CP	mg/kg	< 0.05	< 0.05	70	30%	Fail	Q15
Nickel	S12-De02077	CP	mg/kg	12	9.1	26	30%	Pass	
Zinc	S12-De02077	CP	mg/kg	63	58	9.0	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C6-C9	S12-De02090	CP	mg/kg	< 10	< 10	<1	30%	Pass	
TRH C10-C14	S12-De02090	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C15-C28	S12-De02090	CP	mg/kg	< 100	< 100	<1	30%	Pass	

Duplicate								
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD		
TRH C29-C36	S12-De02090	CP	mg/kg	< 100	< 100	<1	30%	Pass
Duplicate								
BTEX				Result 1	Result 2	RPD		
Benzene	S12-De02090	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Toluene	S12-De02090	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Ethylbenzene	S12-De02090	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Total m+p-Xylenes	S12-De02090	CP	mg/kg	< 1	< 1	<1	30%	Pass
o-Xylene	S12-De02090	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Xylenes(ortho.meta and para)	S12-De02090	CP	mg/kg	< 1.5	< 1.5	<1	30%	Pass
Total BTEX	S12-De02090	CP	mg/kg	< 1.5	< 1.5	<1	30%	Pass
Duplicate								
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions *				Result 1	Result 2	RPD		
Naphthalene	S12-De02090	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
TRH C6-C10	S12-De02090	CP	mg/kg	< 20	< 20	<1	30%	Pass
TRH C6-C10 less BTEX (F1)	S12-De02090	CP	mg/kg	< 20	< 20	<1	30%	Pass
TRH >C10-C16	S12-De02090	CP	mg/kg	< 50	< 50	<1	30%	Pass
TRH >C16-C34	S12-De02090	CP	mg/kg	< 100	< 100	<1	30%	Pass
TRH >C34-C40	S12-De02090	CP	mg/kg	< 100	< 100	<1	30%	Pass
Duplicate								
Polyaromatic Hydrocarbons (PAH)				Result 1	Result 2	RPD		
Acenaphthene	S12-De02090	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Acenaphthylene	S12-De02090	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Anthracene	S12-De02090	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benz(a)anthracene	S12-De02090	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(a)pyrene	S12-De02090	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(b)fluoranthene & Benzo(k)fluoranthene	S12-De02090	CP	mg/kg	< 1	< 1	<1	30%	Pass
Benzo(g,h,i)perylene	S12-De02090	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chrysene	S12-De02090	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dibenz(a,h)anthracene	S12-De02090	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Fluoranthene	S12-De02090	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Fluorene	S12-De02090	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Indeno(1,2,3-cd)pyrene	S12-De02090	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Naphthalene	S12-De02090	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Phenanthrene	S12-De02090	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Pyrene	S12-De02090	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Organic samples had Teflon liners	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Qualifier Codes/Comments

Code	Description
N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.
Q15	The RPD reported passes mgt-LabMark's Acceptance Criteria as stipulated in SOP 05. Refer to Glossary Page of this report for further details

Authorised By

Jean Heng	Client Services
James Norford	Senior Analyst-Metal (NSW)
Laura Schofield	Senior Analyst-Volatile (NSW)
Ryan Hamilton	Senior Analyst-Organic (NSW)



Dr. Bob Symons

Laboratory Manager

Final report - this Report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Uncertainty data is available on request

mgt-LabMark shall not be liable for loss, cost, damages or expenses incurred by the client, or any other person or company, resulting from the use of any information or interpretation given in this report. In no case shall mgt-LabMark be liable for consequential damages including, but not limited to, lost profits, damages for failure to meet deadlines and lost production arising from this report. This document shall not be reproduced except in full and relates only to the items tested. Unless indicated otherwise, the tests were performed on the samples as received.

Coffey Geotechnics Pty Ltd Chatswood
Level 18, Tower B, Citadel Tower 799 Pacific Highway
Chatswood
NSW 2067

Attention: Matthew Locke

Report 361794-W
Client Reference SICEEP GEOTLCOV24303AF
Received Date Dec 05, 2012

Certificate of Analysis



NATA Accredited
Accreditation Number 1261
Site Number 18217

Accredited for compliance with ISO/IEC 17025.
The results of the tests, calibrations and/or
measurements included in this document are traceable
to Australian/national standards.

Client Sample ID			RB1
Sample Matrix			Water
mgt-LabMark Sample No.			S12-De02102
Date Sampled			Dec 04, 2012
Test/Reference	LOR	Unit	
Total Recoverable Hydrocarbons - 1999 NEPM Fractions			
TRH C6-C9	0.02	mg/L	< 0.02
TRH C10-C14	0.05	mg/L	< 0.05
TRH C15-C28	0.1	mg/L	< 0.1
TRH C29-C36	0.1	mg/L	< 0.1
TRH C10-36 (Total)	0.1	mg/L	< 0.1
BTEX			
Benzene	0.001	mg/L	< 0.001
Toluene	0.001	mg/L	< 0.001
Ethylbenzene	0.001	mg/L	< 0.001
Total m+p-Xylenes	0.002	mg/L	< 0.002
o-Xylene	0.001	mg/L	< 0.001
Xylenes(ortho.meta and para)	0.003	mg/L	< 0.003
Total BTEX	0.01	mg/L	< 0.01
4-Bromofluorobenzene (surr.)	1	%	100
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions *			
Naphthalene ^{N02}	0.005	mg/L	< 0.005
TRH C6-C10	0.02	mg/L	< 0.02
TRH C6-C10 less BTEX (F1) ^{N04}	0.02	mg/L	< 0.02
TRH >C10-C16	0.05	mg/L	< 0.05
TRH >C10-C16 less Naphthalene (F2) ^{N01}	0.05	mg/L	< 0.05
TRH >C16-C34	0.1	mg/L	< 0.1
TRH >C34-C40	0.1	mg/L	< 0.1
Polyaromatic Hydrocarbons (PAH)			
Acenaphthene	0.001	mg/L	< 0.001
Acenaphthylene	0.001	mg/L	< 0.001
Anthracene	0.001	mg/L	< 0.001
Benz(a)anthracene	0.001	mg/L	< 0.001
Benzo(a)pyrene	0.001	mg/L	< 0.001
Benzo(b)fluoranthene & Benzo(k)fluoranthene	0.002	mg/L	< 0.002
Benzo(g,h,i)perylene	0.001	mg/L	< 0.001
Chrysene	0.001	mg/L	< 0.001
Dibenz(a,h)anthracene	0.001	mg/L	< 0.001
Fluoranthene	0.001	mg/L	< 0.001
Fluorene	0.001	mg/L	< 0.001
Indeno(1,2,3-cd)pyrene	0.001	mg/L	< 0.001
Naphthalene	0.001	mg/L	< 0.001
Phenanthrene	0.001	mg/L	< 0.001
Pyrene	0.001	mg/L	< 0.001

Client Sample ID			RB1
Sample Matrix			Water
mgt-LabMark Sample No.			S12-De02102
Date Sampled			Dec 04, 2012
Test/Reference	LOR	Unit	
Polyaromatic Hydrocarbons (PAH)			
Total PAH	0.002	mg/L	< 0.002
2-Fluorobiphenyl (surr.)	1	%	100
p-Terphenyl-d14 (surr.)	1	%	112

Description	Testing Site	Extracted	Holding Time
mgt-LabMark Suite 4			
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Sydney	Dec 06, 2012	7 Day
- Method: E004 Petroleum Hydrocarbons (TPH)			
BTEX	Sydney	Dec 05, 2012	14 Day
- Method: E029/E016 BTEX			
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions *	Sydney	Dec 06, 2012	7 Day
- Method: LM-LTM-ORG2010			
Polyaromatic Hydrocarbons (PAH)	Sydney	Dec 06, 2012	7 Day
- Method: E007 Polyaromatic Hydrocarbons (PAH)			

Company Name: Coffey Geotechnics Pty Ltd Chatswood
Address: Level 18, Tower B, Citadel Tower 799 Pacific Highway
Chatswood
NSW 2067

Client Job No.: SICEEP GEOTLCOV24303AF

Order No.:
Report #: 361794
Phone: +61 2 9406 1000
Fax: +61 2 9406 1002

Received: Dec 5, 2012 12:50 PM
Due: Dec 12, 2012
Priority: 5 Day
Contact Name: Matthew Locke

mgt-LabMark Client Manager: Jean Heng

Sample Detail					% Moisture	Asbestos	HOLD	TRH C6-C9	Metals M8	BTEX	mgt-LabMark Suite 4
Laboratory where analysis is conducted											
Melbourne Laboratory - NATA Site # 1254 & 14271											
Sydney Laboratory - NATA Site # 18217					X		X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794											
External Laboratory						X					
Sample ID	Sample Date	Sampling Time	Matrix	LAB ID							
BH109_(0.0-0.2m)	Dec 04, 2012		Soil	S12-De02077	X	X			X		X
BH109_(0.4-0.5m)	Dec 04, 2012		Soil	S12-De02078	X	X			X		X
BH109_(0.4-0.5m)_A	Dec 04, 2012		Soil	S12-De02079	X				X		X
BH109_(1.0-1.1m)	Dec 04, 2012		Soil	S12-De02080			X				
BH109_(1.5-1.6m)	Dec 04, 2012		Soil	S12-De02081	X				X		X
BH109_(1.9-2.0m)	Dec 04, 2012		Soil	S12-De02082	X						X

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Sample Detail					% Moisture	Asbestos	HOLD	TRH C6-C9	Metals M8	BTEX	mgt-LabMark Suite 4
Laboratory where analysis is conducted											
Melbourne Laboratory - NATA Site # 1254 & 14271											
Sydney Laboratory - NATA Site # 18217					X		X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794											
External Laboratory						X					
BH109_(1.9-2.0m)_A	Dec 04, 2012		Soil	S12-De02083	X						X
BH109_(2.5-2.6m)	Dec 04, 2012		Soil	S12-De02084			X				
BH109_(3.0-3.1m)	Dec 04, 2012		Soil	S12-De02085	X				X		X
BH109_(3.4-3.5m)	Dec 04, 2012		Soil	S12-De02086	X						X
BH109_(3.4-3.5m)_A	Dec 04, 2012		Soil	S12-De02087	X						X
BH109_(3.5-3.6m)	Dec 04, 2012		Soil	S12-De02088			X				
BH110_(0.15-0.25m)	Dec 04, 2012		Soil	S12-De02089	X	X			X		X

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Sample Detail					% Moisture	Asbestos	HOLD	TRH C6-C9	Metals M8	BTEX	mgt-LabMark Suite 4
Laboratory where analysis is conducted											
Melbourne Laboratory - NATA Site # 1254 & 14271											
Sydney Laboratory - NATA Site # 18217					X		X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794											
External Laboratory						X					
BH110_(0.15-0.25m)_A	Dec 04, 2012		Soil	S12-De02090	X				X		X
BH110_(0.5-0.6m)	Dec 04, 2012		Soil	S12-De02091			X				
BH110_(1.0-1.1m)	Dec 04, 2012		Soil	S12-De02092	X						X
BH110_(1.3-1.4m)	Dec 04, 2012		Soil	S12-De02093			X				
BH110_(1.3-1.4m)_A	Dec 04, 2012		Soil	S12-De02094			X				
BH110_(2.0-2.1m)	Dec 04, 2012		Soil	S12-De02095			X				
BH110_(2.5-2.6m)	Dec 04, 2012		Soil	S12-De02096			X				

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Sample Detail					% Moisture	Asbestos	HOLD	TRH C6-C9	Metals M8	BTEX	mgt-LabMark Suite 4
Laboratory where analysis is conducted											
Melbourne Laboratory - NATA Site # 1254 & 14271											
Sydney Laboratory - NATA Site # 18217					X		X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794											
External Laboratory						X					
BH110_(3.0-3.1m)	Dec 04, 2012		Soil	S12-De02097			X				
BH110_(3.0-3.1m)_A	Dec 04, 2012		Soil	S12-De02098			X				
BH110_(3.5-3.6m)	Dec 04, 2012		Soil	S12-De02099			X				
QC8	Dec 04, 2012		Soil	S12-De02100			X				
QC9	Dec 04, 2012		Soil	S12-De02101	X				X		X
RB1	Dec 04, 2012		Water	S12-De02102							X
TB1	Dec 04, 2012		Soil	S12-De02103				X		X	
TS1	Dec 04, 2012		Soil	S12-De02104				X		X	
TSLAB1	Dec 04, 2012		Soil	S12-De02105				X		X	

mgt-LabMark Internal Quality Control Review

General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples are included in this QC report where applicable. Additional QC data may be available on request.
2. All soil results are reported on a dry basis, unless otherwise stated.
3. Actual PQLs are matrix dependant. Quoted PQLs may be raised where sample extracts are diluted due to interferences.
4. Results are uncorrected for matrix spikes or surrogate recoveries.
5. SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
6. Samples were analysed on an 'as received' basis. 7. This report replaces any interim results previously issued.

Holding Times

Please refer to 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours prior to sample receipt deadlines as stated on the Sample Receipt Acknowledgment.

If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the date of sampling, therefore compliance to these may be outside the laboratory's control.

****NOTE:** pH duplicates are reported as a range NOT as RPD

UNITS

mg/kg: milligrams per Kilogram

mg/l: milligrams per litre

ug/l: micrograms per litre

ppm: Parts per million

ppb: Parts per billion

%: Percentage

org/100ml: Organisms per 100 millilitres

NTU: Units

MPN/100mL: Most Probable Number of organisms per 100 millilitres

TERMS

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR	Limit of Reporting.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
LCS	Laboratory Control Sample - reported as percent recovery
CRM	Certified Reference Material - reported as percent recovery
Method Blank	In the case of solid samples these are performed on laboratory certified clean sands. In the case of water samples these are performed on de-ionised water.
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
Batch Duplicate	A second piece of analysis from a sample outside of the clients batch of samples but run within the laboratory batch of analysis.
Batch SPIKE	Spike recovery reported on a sample from outside of the clients batch of samples but run within the laboratory batch of analysis.
USEPA	United States Environment Protection Authority
APHA	American Public Health Association
ASLP	Australian Standard Leaching Procedure (AS4439.3)
TCLP	Toxicity Characteristic Leaching Procedure
COC	Chain of Custody
SRA	Sample Receipt Advice
CP	Client Parent - QC was performed on samples pertaining to this report
NCP	Non-Client Parent - QC was performed on samples not pertaining to this report, however QC is representative of the sequence or batch that client samples were analysed within

QC - ACCEPTANCE CRITERIA

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is 30% however the following acceptance guidelines are equally applicable:

Results <10 times the LOR : No Limit

Results between 10-20 times the LOR : RPD must lie between 0-50%

Results >20 times the LOR : RPD must lie between 0-30%

Surrogate Recoveries : Recoveries must lie between 50-150% - Phenols 20-130%.

QC DATA GENERAL COMMENTS

1. Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
1. Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
3. Organochlorine Pesticide analysis - where reporting LCS data, Toxophene & Chlordane are not added to the LCS.
3. Organochlorine Pesticide analysis - where reporting Spike data, Toxophene is not added to the Spike.
5. Total Recoverable Hydrocarbons - where reporting Spike & LCS data, a single spike of commercial Hydrocarbon products in the range of C12-C30 is added and it's Total Recovery is reported in the C10-C14 cell of the Report.
6. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling. Therefore laboratory analysis is unlikely to be completed within holding time. Analysis will begin as soon as possible after sample receipt.
7. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of Recovery the term "INT" appears against that analyte.
8. Polychlorinated Biphenyls are spiked only using Arochlor 1260 in Matrix Spikes and LCS's.
9. For Matrix Spikes and LCS results a dash " - " in the report means that the specific analyte was not added to the QC sample.
10. Duplicate RPD's are calculated from raw analytical data thus it is possible to have two sets of data.

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions E004 Petroleum Hydrocarbons (TPH)							
TRH C6-C9	mg/L	< 0.02			0.02	Pass	
TRH C10-C14	mg/L	< 0.05			0.05	Pass	
TRH C15-C28	mg/L	< 0.1			0.1	Pass	
TRH C29-C36	mg/L	< 0.1			0.1	Pass	
Method Blank							
BTEX E029/E016 BTEX							
Benzene	mg/L	< 0.001			0.001	Pass	
Toluene	mg/L	< 0.001			0.001	Pass	
Ethylbenzene	mg/L	< 0.001			0.001	Pass	
Total m+p-Xylenes	mg/L	< 0.002			0.002	Pass	
o-Xylene	mg/L	< 0.001			0.001	Pass	
Xylenes(ortho.meta and para)	mg/L	< 0.003			0.003	Pass	
Total BTEX	mg/L	< 0.01			0.01	Pass	
Method Blank							
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions * LM-LTM-ORG2010							
Naphthalene	mg/L	< 0.005			0.005	Pass	
TRH C6-C10	mg/L	< 0.02			0.02	Pass	
TRH C6-C10 less BTEX (F1)	mg/L	< 0.02			0.02	Pass	
TRH >C10-C16	mg/L	< 0.05			0.05	Pass	
TRH >C16-C34	mg/L	< 0.1			0.1	Pass	
TRH >C34-C40	mg/L	< 0.1			0.1	Pass	
Method Blank							
Polyaromatic Hydrocarbons (PAH) E007 Polyaromatic Hydrocarbons (PAH)							
Acenaphthene	mg/L	< 0.001			0.001	Pass	
Acenaphthylene	mg/L	< 0.001			0.001	Pass	
Anthracene	mg/L	< 0.001			0.001	Pass	
Benz(a)anthracene	mg/L	< 0.001			0.001	Pass	
Benzo(a)pyrene	mg/L	< 0.001			0.001	Pass	
Benzo(b)fluoranthene & Benzo(k)fluoranthene	mg/L	< 0.002			0.002	Pass	
Benzo(g,h,i)perylene	mg/L	< 0.001			0.001	Pass	
Chrysene	mg/L	< 0.001			0.001	Pass	
Dibenz(a,h)anthracene	mg/L	< 0.001			0.001	Pass	
Fluoranthene	mg/L	< 0.001			0.001	Pass	
Fluorene	mg/L	< 0.001			0.001	Pass	
Indeno(1,2,3-cd)pyrene	mg/L	< 0.001			0.001	Pass	
Naphthalene	mg/L	< 0.001			0.001	Pass	
Phenanthrene	mg/L	< 0.001			0.001	Pass	
Pyrene	mg/L	< 0.001			0.001	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions E004 Petroleum Hydrocarbons (TPH)							
TRH C6-C9	%	99			70-130	Pass	
TRH C10-C14	%	83			70-130	Pass	
LCS - % Recovery							
BTEX E029/E016 BTEX							
Benzene	%	96			70-130	Pass	
Toluene	%	100			70-130	Pass	
Ethylbenzene	%	101			70-130	Pass	
Total m+p-Xylenes	%	97			70-130	Pass	
o-Xylene	%	99			70-130	Pass	
Xylenes(ortho.meta and para)	%	98			70-130	Pass	

Test				Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
LCS - % Recovery										
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions * LM-LTM-ORG2010										
Naphthalene				%	77			70-130	Pass	
TRH C6-C10				%	111			70-130	Pass	
TRH >C10-C16				%	74			70-130	Pass	
LCS - % Recovery										
Polyaromatic Hydrocarbons (PAH) E007 Polyaromatic Hydrocarbons (PAH)										
Acenaphthene				%	114			70-130	Pass	
Acenaphthylene				%	116			70-130	Pass	
Anthracene				%	121			70-130	Pass	
Benz(a)anthracene				%	114			70-130	Pass	
Benzo(a)pyrene				%	116			70-130	Pass	
Benzo(b)fluoranthene & Benzo(k)fluoranthene				%	112			70-130	Pass	
Benzo(g,h,i)perylene				%	110			70-130	Pass	
Chrysene				%	113			70-130	Pass	
Dibenz(a,h)anthracene				%	109			70-130	Pass	
Fluoranthene				%	127			70-130	Pass	
Fluorene				%	112			70-130	Pass	
Indeno(1,2,3-cd)pyrene				%	109			70-130	Pass	
Naphthalene				%	105			70-130	Pass	
Phenanthrene				%	121			70-130	Pass	
Pyrene				%	122			70-130	Pass	
Test	Lab Sample ID	QA Source	Units	Result 1				Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery										
Total Recoverable Hydrocarbons - 1999 NEPM Fractions					Result 1					
TRH C6-C9		S12-No21391	NCP	%	87			70-130	Pass	
TRH C10-C14		S12-De02289	NCP	%	87			70-130	Pass	
Spike - % Recovery										
BTEX					Result 1					
Benzene		S12-No21391	NCP	%	96			70-130	Pass	
Toluene		S12-No21391	NCP	%	96			70-130	Pass	
Ethylbenzene		S12-No21391	NCP	%	96			70-130	Pass	
Total m+p-Xylenes		S12-No21391	NCP	%	93			70-130	Pass	
o-Xylene		S12-No21391	NCP	%	94			70-130	Pass	
Xylenes(ortho,meta and para)		S12-No21391	NCP	%	93			70-130	Pass	
Spike - % Recovery										
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions *					Result 1					
Naphthalene		S12-No21391	NCP	%	101			70-130	Pass	
TRH C6-C10		S12-No21391	NCP	%	96			70-130	Pass	
TRH >C10-C16		S12-De02289	NCP	%	77			70-130	Pass	
Spike - % Recovery										
Polyaromatic Hydrocarbons (PAH)					Result 1					
Acenaphthene		S12-De03595	NCP	%	100			70-130	Pass	
Acenaphthylene		S12-De03595	NCP	%	104			70-130	Pass	
Anthracene		S12-De03595	NCP	%	99			70-130	Pass	
Benz(a)anthracene		S12-De03595	NCP	%	93			70-130	Pass	
Benzo(a)pyrene		S12-De03595	NCP	%	96			70-130	Pass	
Benzo(b)fluoranthene & Benzo(k)fluoranthene		S12-De03595	NCP	%	97			70-130	Pass	
Benzo(g,h,i)perylene		S12-De03595	NCP	%	96			70-130	Pass	
Chrysene		S12-De03595	NCP	%	95			70-130	Pass	
Dibenz(a,h)anthracene		S12-De03595	NCP	%	95			70-130	Pass	
Fluoranthene		S12-De03595	NCP	%	103			70-130	Pass	
Fluorene		S12-De03595	NCP	%	97			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Indeno(1.2.3-cd)pyrene	S12-De03595	NCP	%	95			70-130	Pass	
Naphthalene	S12-De03595	NCP	%	97			70-130	Pass	
Phenanthrene	S12-De03595	NCP	%	100			70-130	Pass	
Pyrene	S12-De03595	NCP	%	96			70-130	Pass	
Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C6-C9	S12-De01564	NCP	mg/L	< 0.02	< 0.02	<1	30%	Pass	
TRH C10-C14	S12-De02288	NCP	mg/L	< 0.05	< 0.05	<1	30%	Pass	
TRH C15-C28	S12-De02288	NCP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
TRH C29-C36	S12-De02288	NCP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S12-De01564	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Toluene	S12-De01564	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Ethylbenzene	S12-De01564	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Total m+p-Xylenes	S12-De01564	NCP	mg/L	< 0.002	< 0.002	<1	30%	Pass	
o-Xylene	S12-De01564	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Xylenes(ortho.meta and para)	S12-De01564	NCP	mg/L	< 0.003	< 0.003	<1	30%	Pass	
Total BTEX	S12-De01564	NCP	mg/L	< 0.01	< 0.01	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions *				Result 1	Result 2	RPD			
Naphthalene	S12-De01564	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
TRH C6-C10	S12-De01564	NCP	mg/L	< 0.02	< 0.02	<1	30%	Pass	
TRH C6-C10 less BTEX (F1)	S12-De01564	NCP	mg/L	< 0.02	< 0.02	<1	30%	Pass	
TRH >C10-C16	S12-De02288	NCP	mg/L	< 0.05	< 0.05	<1	30%	Pass	
TRH >C16-C34	S12-De02288	NCP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
TRH >C34-C40	S12-De02288	NCP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
Duplicate									
Polyaromatic Hydrocarbons (PAH)				Result 1	Result 2	RPD			
Acenaphthene	S12-De03592	NCP	mg/L	< 0.001	< 0.001	5.0	30%	Pass	
Acenaphthylene	S12-De03592	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Anthracene	S12-De03592	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benz(a)anthracene	S12-De03592	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benzo(a)pyrene	S12-De03592	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benzo(b)fluoranthene & Benzo(k)fluoranthene	S12-De03592	NCP	mg/L	< 0.002	< 0.002	<1	30%	Pass	
Benzo(g,h,i)perylene	S12-De03592	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Chrysene	S12-De03592	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Dibenz(a,h)anthracene	S12-De03592	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Fluoranthene	S12-De03592	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Fluorene	S12-De03592	NCP	mg/L	< 0.001	< 0.001	19	30%	Pass	
Indeno(1.2.3-cd)pyrene	S12-De03592	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Naphthalene	S12-De03592	NCP	mg/L	0.0050	0.0060	14	30%	Pass	
Phenanthrene	S12-De03592	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Pyrene	S12-De03592	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Organic samples had Teflon liners	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Qualifier Codes/Comments

Code	Description
N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.

Authorised By

Jean Heng	Client Services
Laura Schofield	Senior Analyst-Volatile (NSW)
Ryan Hamilton	Senior Analyst-Organic (NSW)



Dr. Bob Symons

Laboratory Manager

Final report - this Report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Uncertainty data is available on request

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