

Tot Recoverable Hydrocarbons in Water		
Our Reference:	UNITS	43518-10
-----	-----	BH3-W
Your Reference	-----	water
Sample Type	-----	-----
TRH C ₆ - C ₉ P&T	mg/L	<0.040
TRH C ₁₀ - C ₁₄	mg/L	<0.1
TRH C ₁₅ - C ₂₈	mg/L	<0.2
TRH C ₂₉ - C ₃₆	mg/L	<0.2



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PAHs in Water	UNITS	43518-10
Our Reference:	-----	BH3-W
Your Reference	-----	water
Sample Type	-----	
Naphthalene	µg/L	<0.5
Acenaphthylene	µg/L	<0.5
Acenaphthene	µg/L	<0.5
Fluorene	µg/L	<0.5
Phenanthrene	µg/L	<0.5
Anthracene	µg/L	<0.5
Fluoranthene	µg/L	<0.5
Pyrene	µg/L	<0.5
Benzo[a]anthracene	µg/L	<0.5
Chrysene	µg/L	<0.5
Benzo[b,k]fluoranthene	µg/L	<1.0
Benzo[a]pyrene	µg/L	<0.50
Indeno[1,2,3-cd]pyrene	µg/L	<0.50
Dibenzo[ah]anthracene	µg/L	<0.50
Benzo[ghi]perylene	µg/L	<0.50
Total +ve PAH's	µg/L	<0.5
Surrogate	%	92



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OC Pesticides in Water	UNITS	43518-10
Our Reference:	-----	BH3-W
Your Reference	-----	water
Sample Type	-----	
HCB	µg/L	<0.2
<i>alpha</i> -BHC	µg/L	<0.2
<i>gamma</i> -BHC(lindane)	µg/L	<0.2
Heptachlor	µg/L	<0.2
Aldrin	µg/L	<0.2
<i>beta</i> -BHC	µg/L	<0.2
<i>delta</i> -BHC	µg/L	<0.2
Heptachlor Epoxide	µg/L	<0.2
<i>o,p'</i> -DDE	µg/L	<0.2
<i>alpha</i> -Endosulfan	µg/L	<0.2
<i>trans</i> -Chlordane	µg/L	<0.2
<i>cis</i> -Chlordane	µg/L	<0.2
<i>trans</i> -Nonachlor	µg/L	<0.2
<i>p,p'</i> -DDE	µg/L	<0.2
Dieldrin	µg/L	<0.2
Endrin	µg/L	<0.2
<i>o,p'</i> -DDD	µg/L	<0.2
<i>o,p'</i> -DDT	µg/L	<0.2
<i>beta</i> -Endosulfan	µg/L	<0.2
<i>p,p'</i> -DDD	µg/L	<0.2
<i>p,p'</i> -DDT	µg/L	<0.2
Endosulfan Sulphate	µg/L	<0.2
Endrin Aldehyde	µg/L	<0.2
Methoxychlor	µg/L	<0.2
Endrin Ketone	µg/L	<0.2
<i>Surrogate</i>	%	76



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OP Pesticides in Water		
Our Reference:	UNITS	43518-10
Your Reference	-----	BH3-W
Sample Type	-----	water
Chlorpyrifos	µg/L	<0.2
Fenitrothion	µg/L	<0.2
Bromofos Ethyl	µg/L	<0.2
Ethion	µg/L	<0.2
OP_Surrogate 1	%	76



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PCBs in Water		
Our Reference:	UNITS	43518-10
Your Reference	-----	BH3-W
Sample Type	-----	water
Arochlor 1016	µg/L	<10
Arochlor 1221	µg/L	<10
Arochlor 1232	µg/L	<10
Arochlor 1242	µg/L	<10
Arochlor 1248	µg/L	<10
Arochlor 1254	µg/L	<10
Arochlor 1260	µg/L	<10
Arochlor 1262	µg/L	<10
Arochlor 1268	µg/L	<10
PCB_Surrogate 1	%	76



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Metals in water (dissolved)		UNITS	43518-10 BH3-W water
Our Reference:	-----		
Your Reference	-----		
Arsenic	mg/L		
Beryllium	mg/L		
Boron	mg/L		
Cadmium	mg/L		
Chromium	mg/L		
Cobalt	mg/L		
Copper	mg/L		
Lead	mg/L		
Manganese	mg/L		
Mercury	mg/L		
Nickel	mg/L		
Zinc	mg/L		



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Moisture Our Reference: Your Reference Sample Type	UNITS ----- soil	43518-1 BH1-0.1 soil	43518-2 BH1-0.5 soil	43518-3 BH2-0.3 soil	43518-4 BH2-0.3A soil	43518-5 BH2-1.0 soil
Moisture	%	29	24	5.4	5.2	6.1

Moisture Our Reference: Your Reference Sample Type	UNITS ----- soil	43518-6 BH3-0.3 soil	43518-7 BH3-1.0 soil	43518-8 BH4-0.5 soil	43518-9 HS-1 soil
Moisture	%	19	10	20	5.2



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Method ID	Methodology Summary
SEO-017	BTEX/TRH C6-C9 - Determination by Purge and Trap Gas Chromatography with Flame Ionisation Detection (FID) and Photo Ionisation Detection (PID). The surrogate spike used is aaa-trifluorotoluene.
SEO-018	BTEX - Determination by purge and trap/ Gas Chromatography with MS Detection.
SEO-020	TRH - Determination of Total Recoverable Hydrocarbons by gas chromatography following extraction with DCM/Acetone for solids and DCM for liquids.
SEO-030	PAHs by GC/MS - Determination of Polynuclear Aromatic Hydrocarbons (PAH's) by Gas Chromatography / Mass Spectrometry following extraction with dichloromethane or dichloromethane/acetone. The surrogate spike used is p-Terphenyl-d14.
SEO-005	OC/OP/PCB - Determination of a suite of Organochlorine Pesticides, Chlorinated Organo-phosphorus Pesticides and Polychlorinated Biphenyls (PCB's) by sonication extraction using dichloromethane for waters or acetone / hexane for soils followed by Gas Chromatographic separation with Electron Capture Detection (GC/ECD). The surrogate spike used is 2,4,5,6-Tetrachloro-m-xylene.
SEM-010	Metals - Determination of various metals by ICP-AES following aqua regia digest.
SEM-005	Mercury - Determination of Mercury by Cold Vapour Generation Atomic Absorption Spectroscopy.
Ext-034	Analysed by MGT, Victoria.
SEP-001	Moisture content at 103-105C, compositing and preparation on a 1:5 soil suspension.



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QUALITY CONTROL BTEX in Soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Matrix Spike % Recovery Duplicate + %RPD
Benzene	mg/kg	0.5	SEO-017	<0.5	43518-3	<0.5 <0.5	43518-6	83 [N/T]
Toluene	mg/kg	0.5	SEO-017	<0.50	43518-3	<0.50 <0.50	43518-6	94 [N/T]
Ethylbenzene	mg/kg	0.5	SEO-017	<0.5	43518-3	<0.5 <0.5	43518-6	100 [N/T]
Total Xylenes	mg/kg	1.5	SEO-017	<1.5	43518-3	<1.5 <1.5	43518-6	101 [N/T]
BTEX Surrogate (%)	%	0	SEO-018	0.00	43518-3	93 89 RPD: 4	43518-6	82 [N/T]
QUALITY CONTROL Total Recoverable Hydrocarbons in Soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Matrix Spike % Recovery Duplicate + %RPD
TRH C ₆ - C ₉ P&T	mg/kg	20	SEO-017	<20	43518-3	<20 <20	43518-6	101 [N/T]
TRH C ₁₀ - C ₁₄	mg/kg	20	SEO-020	<20	43518-3	<20 <20	43518-6	91 [N/T]
TRH C ₁₅ - C ₂₈	mg/kg	50	SEO-020	<50	43518-3	<50 <50	43518-6	71 [N/T]
TRH C ₂₉ - C ₃₆	mg/kg	50	SEO-020	<50	43518-3	<50 <50	43518-6	71 [N/T]
QUALITY CONTROL PAHs in Soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Matrix Spike % Recovery Duplicate + %RPD
Naphthalene	mg/kg	0.1	SEO-030	<0.1	43518-3	<0.1 <0.1	43518-2	72 [N/T]
Acenaphthylene	mg/kg	0.1	SEO-030	<0.1	43518-3	<0.1 <0.1	43518-2	98 [N/T]
Acenaphthene	mg/kg	0.1	SEO-030	<0.1	43518-3	<0.1 <0.1	43518-2	88 [N/T]
Fluorene	mg/kg	0.1	SEO-030	<0.1	43518-3	<0.1 <0.1	43518-2	[NT]
Phenanthrene	mg/kg	0.1	SEO-030	<0.1	43518-3	<0.1 <0.1	43518-2	95 [N/T]
Anthracene	mg/kg	0.1	SEO-030	<0.1	43518-3	<0.1 <0.1	43518-2	106 [N/T]
Fluoranthene	mg/kg	0.1	SEO-030	<0.1	43518-3	<0.1 <0.1	43518-2	101 [N/T]
Pyrene	mg/kg	0.1	SEO-030	<0.1	43518-3	<0.1 <0.1	43518-2	102 [N/T]
Benzo[a]anthracene	mg/kg	0.1	SEO-030	<0.1	43518-3	<0.1 <0.1	43518-2	[NT]
Chrysene	mg/kg	0.1	SEO-030	<0.1	43518-3	<0.1 <0.1	43518-2	[NT]
Benzo[b,k]fluoranthene	mg/kg	0.2	SEO-030	<0.2	43518-3	<0.2 <0.2	43518-2	[NT]
Benzo[a]pyrene	mg/kg	0.05	SEO-030	<0.050	43518-3	<0.050 <0.050	43518-2	109 [N/T]
Indeno[1,2,3-cd]pyrene	mg/kg	0.1	SEO-030	<0.10	43518-3	<0.10 <0.10	43518-2	[NT]
Dibenz[a,h]anthracene	mg/kg	0.1	SEO-030	<0.10	43518-3	<0.10 <0.10	43518-2	[NT]
Benzo[ghi]perylene	mg/kg	0.1	SEO-030	<0.10	43518-3	<0.10 <0.10	43518-2	[NT]
Surrogate	%	0	SEO-030	0.0	43518-3	119 120 RPD: 1	43518-2	116 [N/T]



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QUALITY CONTROL OC Pesticides in Soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Matrix Spike % Recovery Duplicate + %RPD
HCB	mg/kg	0.1	SEO-005	<0.1	43518-4	<0.1 <0.1	43518-7	[NT]
<i>alpha</i> -BHC	mg/kg	0.1	SEO-005	<0.1	43518-4	<0.1 <0.1	43518-7	[NT]
<i>gamma</i> -BHC(Lindane)	mg/kg	0.1	SEO-005	<0.1	43518-4	<0.1 <0.1	43518-7	[NT]
Heptachlor	mg/kg	0.1	SEO-005	<0.1	43518-4	<0.1 <0.1	43518-7	95 [N/T]
Aldrin	mg/kg	0.1	SEO-005	<0.1	43518-4	<0.1 <0.1	43518-7	93 [N/T]
<i>beta</i> -BHC	mg/kg	0.1	SEO-005	<0.1	43518-4	<0.1 <0.1	43518-7	[NT]
<i>delta</i> -BHC	mg/kg	0.1	SEO-005	<0.1	43518-4	<0.1 <0.1	43518-7	90 [N/T]
Heptachlor Epoxide	mg/kg	0.1	SEO-005	<0.1	43518-4	<0.1 <0.1	43518-7	[NT]
<i>o,p'</i> -DDE	mg/kg	0.1	SEO-005	<0.1	43518-4	<0.1 <0.1	43518-7	[NT]
<i>alpha</i> -Endosulfan	mg/kg	0.1	SEO-005	<0.1	43518-4	<0.1 <0.1	43518-7	[NT]
<i>trans</i> -Chlordane	mg/kg	0.1	SEO-005	<0.1	43518-4	<0.1 <0.1	43518-7	[NT]
<i>cis</i> -Chlordane	mg/kg	0.1	SEO-005	<0.1	43518-4	<0.1 <0.1	43518-7	[NT]
<i>trans</i> -Nonachlor	mg/kg	0.1	SEO-005	<0.1	43518-4	<0.1 <0.1	43518-7	[NT]
<i>p,p'</i> -DDE	mg/kg	0.1	SEO-005	<0.1	43518-4	<0.1 <0.1	43518-7	[NT]
Dieldrin	mg/kg	0.1	SEO-005	<0.1	43518-4	<0.1 <0.1	43518-7	92 [N/T]
Endrin	mg/kg	0.1	SEO-005	<0.1	43518-4	<0.1 <0.1	43518-7	[NT]
<i>o,p'</i> -DDD	mg/kg	0.1	SEO-005	<0.1	43518-4	<0.1 <0.1	43518-7	[NT]
<i>o,p'</i> -DDT	mg/kg	0.1	SEO-005	<0.1	43518-4	<0.1 <0.1	43518-7	[NT]
<i>beta</i> -Endosulfan	mg/kg	0.1	SEO-005	<0.1	43518-4	<0.1 <0.1	43518-7	[NT]
<i>p,p'</i> -DDD	mg/kg	0.1	SEO-005	<0.1	43518-4	<0.1 <0.1	43518-7	[NT]
<i>p,p'</i> -DDT	mg/kg	0.1	SEO-005	<0.1	43518-4	<0.1 <0.1	43518-7	86 [N/T]
Endosulfan Sulphate	mg/kg	0.1	SEO-005	<0.1	43518-4	<0.1 <0.1	43518-7	[NT]
Endrin Aldehyde	mg/kg	0.1	SEO-005	<0.1	43518-4	<0.1 <0.1	43518-7	83 [N/T]
Methoxychlor	mg/kg	0.1	SEO-005	<0.1	43518-4	<0.1 <0.1	43518-7	[NT]
Endrin Ketone	mg/kg	0.1	SEO-005	<0.1	43518-4	<0.1 <0.1	43518-7	[NT]
Surrogate	%	0	SEO-005	0.0	43518-4	95 92 RPD: 3	43518-7	94 [N/T]



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QUALITY CONTROL OP Pesticides in Soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate	Spike Sm#	Matrix Spike % Recovery Duplicate + %RPD
						Base + Duplicate + %RPD		
Chlorpyrifos	mg/kg	0.1	SEO-005	<0.1	43518-4	<0.1 <0.1	43518-7	96 [N/T]
Fenitrothion	mg/kg	0.1	SEO-005	<0.1	43518-4	<0.1 <0.1	43518-7	[NT]
Bromofos Ethyl	mg/kg	0.1	SEO-005	<0.1	43518-4	<0.1 <0.1	43518-7	[NT]
Ethion	mg/kg	0.1	SEO-005	<0.1	43518-4	<0.1 <0.1	43518-7	[NT]
OP_Surrogate 1	%	0	SEO-005	0.00	43518-4	95 92 RPD: 3	43518-7	94 [N/T]
QUALITY CONTROL PCBs in Soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate	Spike Sm#	Matrix Spike % Recovery Duplicate + %RPD
						Base + Duplicate + %RPD		
Arochlor 1016	mg/kg	0.1	SEO-005	<0.1	43518-4	<0.1 <0.1	43518-7	[NT]
Arochlor 1221	mg/kg	0.1	SEO-005	<0.1	43518-4	<0.1 <0.1	43518-7	[NT]
Arochlor 1232	mg/kg	0.1	SEO-005	<0.1	43518-4	<0.1 <0.1	43518-7	[NT]
Arochlor 1242	mg/kg	0.1	SEO-005	<0.1	43518-4	<0.1 <0.1	43518-7	[NT]
Arochlor 1248	mg/kg	0.1	SEO-005	<0.1	43518-4	<0.1 <0.1	43518-7	[NT]
Arochlor 1254	mg/kg	0.1	SEO-005	<0.1	43518-4	<0.1 <0.1	43518-7	105 [N/T]
Arochlor 1260	mg/kg	0.1	SEO-005	<0.1	43518-4	<0.1 <0.1	43518-7	[NT]
Arochlor 1262	mg/kg	0.1	SEO-005	<0.1	43518-4	<0.1 <0.1	43518-7	[NT]
Arochlor 1268	mg/kg	0.1	SEO-005	<0.1	43518-4	<0.1 <0.1	43518-7	[NT]
Total Positive PCB	mg/kg	0.9	SEO-005	0.90	43518-4	<0.90 <0.90	43518-7	[NT]
PCB_Surrogate 1	%	0	SEO-005	0.0	43518-4	95 92 RPD: 3	43518-7	101 [N/T]
QUALITY CONTROL Acid Extractable Metals in Soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate	Spike Sm#	Matrix Spike % Recovery Duplicate + %RPD
						Base + Duplicate + %RPD		
Arsenic	mg/kg	3	SEM-010	<3	43518-1	20 15 RPD: 29	Sand	106 [N/T]
Cadmium	mg/kg	0.1	SEM-010	<0.1	43518-1	0.3 0.3 RPD: 0	Sand	105 [N/T]
Chromium	mg/kg	0.5	SEM-010	<0.5	43518-1	15 11 RPD: 31	Sand	103 [N/T]
Copper	mg/kg	0.5	SEM-010	<0.5	43518-1	54 54 RPD: 0	Sand	104 [N/T]
Lead	mg/kg	1	SEM-010	<1	43518-1	57 72 RPD: 23	Sand	105 [N/T]
Mercury	mg/kg	0.05	SEM-005	<0.05	43518-1	<0.05 <0.05	Sand	101 [N/T]
Nickel	mg/kg	0.5	SEM-010	<0.5	43518-1	3.7 3.2 RPD: 14	Sand	105 [N/T]
Zinc	mg/kg	0.3	SEM-010	<0.3	43518-1	170 170 RPD: 0	Sand	105 [N/T]



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QUALITY CONTROL BTEX in Water	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Matrix Spike % Recovery Duplicate + %RPD
Benzene	mg/L	0.001	SEO-017	<0.001	[NT]	[NT]	Water	102 [N/T]
Toluene	mg/L	0.001	SEO-017	<0.001	[NT]	[NT]	Water	103 [N/T]
Ethylbenzene	mg/L	0.001	SEO-017	<0.001	[NT]	[NT]	Water	103 [N/T]
Total Xylenes	mg/L	0.003	SEO-017	<0.003	[NT]	[NT]	Water	102 [N/T]
QUALITY CONTROL Tot Recoverable Hydrocarbons in Water	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Matrix Spike % Recovery Duplicate + %RPD
TRH C ₆ - C ₉ P&T	mg/L	0.04	SEO-017	<0.040	[NT]	[NT]	Water	91 [N/T]
TRH C ₁₀ - C ₁₄	mg/L	0.1	SEO-020	<0.1	[NT]	[NT]	Water	108 [N/T]
TRH C ₁₅ - C ₂₈	mg/L	0.2	SEO-020	<0.2	[NT]	[NT]	Water	99 [N/T]
TRH C ₂₉ - C ₃₆	mg/L	0.2	SEO-020	<0.2	[NT]	[NT]	Water	79 [N/T]
QUALITY CONTROL PAHs in Water	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Matrix Spike % Recovery Duplicate + %RPD
Naphthalene	µg/L	0.5	SEO-030	<0.5	[NT]	[NT]	Water	62 [N/T]
Acenaphthylene	µg/L	0.5	SEO-030	<0.5	[NT]	[NT]	Water	76 [N/T]
Acenaphthene	µg/L	0.5	SEO-030	<0.5	[NT]	[NT]	Water	71 [N/T]
Fluorene	µg/L	0.5	SEO-030	<0.5	[NT]	[NT]	Water	[N/T]
Phenanthrene	µg/L	0.5	SEO-030	<0.5	[NT]	[NT]	Water	76 [N/T]
Anthracene	µg/L	0.5	SEO-030	<0.5	[NT]	[NT]	Water	85 [N/T]
Fluoranthene	µg/L	0.5	SEO-030	<0.5	[NT]	[NT]	Water	83 [N/T]
Pyrene	µg/L	0.5	SEO-030	<0.5	[NT]	[NT]	Water	84 [N/T]
Benzo[a]anthracene	µg/L	0.5	SEO-030	<0.5	[NT]	[NT]	Water	[N/T]
Chrysene	µg/L	0.5	SEO-030	<0.5	[NT]	[NT]	Water	[N/T]
Benzo[b,k]fluoranthene	µg/L	1.0	SEO-030	<1.0	[NT]	[NT]	Water	[N/T]
Benzo[a]pyrene	µg/L	0.5	SEO-030	<0.50	[NT]	[NT]	Water	90 [N/T]
Indeno[1,2,3-cd]pyrene	µg/L	0.5	SEO-030	<0.50	[NT]	[NT]	Water	[N/T]
Dibenzo[ah]anthracene	µg/L	0.5	SEO-030	<0.50	[NT]	[NT]	Water	[N/T]
Benzo[ghi]perylene	µg/L	0.5	SEO-030	<0.50	[NT]	[NT]	Water	[N/T]
Total +ve PAH's	µg/L	0.5		0.5	[NT]	[NT]	Water	[N/T]
Surrogate	%	0	SEO-030	0.0	[NT]	[NT]	Water	77 [N/T]



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QUALITY CONTROL OC Pesticides In Water	UNITS	PQL	METHOD	BLANK	Duplicate Sms#	Duplicate Base + Duplicate + %RPD	Spike Sms#	Matrix Spike % Recovery Duplicate + %RPD
HCB	µg/L	0.2	SEO-006	<0.2	[NT]	[NT]	Water	[NT]
alpha-BHC	µg/L	0.2	SEO-006	<0.2	[NT]	[NT]	Water	[NT]
gamma-BHC(Indane)	µg/L	0.2	SEO-006	<0.2	[NT]	[NT]	Water	[NT]
Heptachlor	µg/L	0.2	SEO-006	<0.2	[NT]	[NT]	Water	80 [NT]
Aldrin	µg/L	0.2	SEO-006	<0.2	[NT]	[NT]	Water	80 [NT]
Beta-BHC	µg/L	0.2	SEO-006	<0.2	[NT]	[NT]	Water	[NT]
delta-BHC	µg/L	0.2	SEO-006	<0.2	[NT]	[NT]	Water	81 [NT]
Heptachlor Epoxide	µg/L	0.2	SEO-006	<0.2	[NT]	[NT]	Water	[NT]
α,β -DDE	µg/L	0.2	SEO-006	<0.2	[NT]	[NT]	Water	[NT]
alpha-Endosulfan	µg/L	0.2	SEO-006	<0.2	[NT]	[NT]	Water	[NT]
trans-Chlordane	µg/L	0.2	SEO-006	<0.2	[NT]	[NT]	Water	[NT]
cis-Chlordane	µg/L	0.2	SEO-006	<0.2	[NT]	[NT]	Water	[NT]
trans-Nonachlor	µg/L	0.2	SEO-006	<0.2	[NT]	[NT]	Water	[NT]
μ,ρ -DDE	µg/L	0.2	SEO-006	<0.2	[NT]	[NT]	Water	[NT]
Dieldrin	µg/L	0.2	SEO-006	<0.2	[NT]	[NT]	Water	80 [NT]
Endrin	µg/L	0.2	SEO-006	<0.2	[NT]	[NT]	Water	[NT]
α,β -DDD	µg/L	0.2	SEO-006	<0.2	[NT]	[NT]	Water	[NT]
α,β -DDT	µg/L	0.2	SEO-006	<0.2	[NT]	[NT]	Water	[NT]
Beta-Endosulfan	µg/L	0.2	SEO-006	<0.2	[NT]	[NT]	Water	[NT]
μ,ρ -DDD	µg/L	0.2	SEO-006	<0.2	[NT]	[NT]	Water	[NT]
μ,ρ -DDT	µg/L	0.2	SEO-006	<0.2	[NT]	[NT]	Water	82 [NT]
Endosulfan Sulphate	µg/L	0.2	SEO-006	<0.2	[NT]	[NT]	Water	[NT]
Endrin Aldehyde	µg/L	0.2	SEO-006	<0.2	[NT]	[NT]	Water	81 [NT]
Methoxychlor	µg/L	0.2	SEO-006	<0.2	[NT]	[NT]	Water	[NT]
Endrin Ketone	µg/L	0.2	SEO-006	<0.2	[NT]	[NT]	Water	[NT]
Surrogates	%	0	SEO-006	0.0	[NT]	[NT]	Water	77 [NT]



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QUALITY CONTROL OP Pesticides In Water	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Matrix Spike % Recovery Duplicate + %RPD
Chlorpyrifos	µg/L	0.2	SEQ-006	<0.2	[NT]	[NT]	Water	92 [NT]
Fenpropathion	µg/L	0.2	SEQ-006	<0.2	[NT]	[NT]	Water	[NT]
Bromofos Ethyl	µg/L	0.2	SEQ-006	<0.2	[NT]	[NT]	Water	[NT]
Ethion	µg/L	0.2	SEQ-006	<0.2	[NT]	[NT]	Water	[NT]
OP_Surrogate 1	%	0	SEQ-006	0.00	[NT]	[NT]	Water	77 [NT]
QUALITY CONTROL PCBs in Water	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Matrix Spike % Recovery Duplicate + %RPD
Arochlor 1016	µg/L	10	SEQ-006	<10	[NT]	[NT]	Water	[NT]
Arochlor 1221	µg/L	10	SEQ-006	<10	[NT]	[NT]	Water	[NT]
Arochlor 1232	µg/L	10	SEQ-006	<10	[NT]	[NT]	Water	[NT]
Arochlor 1242	µg/L	10	SEQ-006	<10	[NT]	[NT]	Water	[NT]
Arochlor 1248	µg/L	10	SEQ-006	<10	[NT]	[NT]	Water	[NT]
Arochlor 1254	µg/L	10	SEQ-006	<10	[NT]	[NT]	Water	99 [NT]
Arochlor 1260	µg/L	10	SEQ-006	<10	[NT]	[NT]	Water	[NT]
Arochlor 1262	µg/L	10	SEQ-006	<10	[NT]	[NT]	Water	[NT]
Arochlor 1268	µg/L	10	SEQ-006	<10	[NT]	[NT]	Water	[NT]
PCB_Surrogate 1	%	0	SEQ-006	0.0	[NT]	[NT]	Water	73 [NT]
QUALITY CONTROL Metals in water (dissolved)	UNITS	PQL	METHOD	Blank				
Arsenic	mg/L	0.001	Ext-034	<0.001				
Beryllium	mg/L	0.020	Ext-034	<0.020				
Boron	mg/L	0.006	Ext-034	<0.005				
Cadmium	mg/L	0.0005	Ext-034	<0.0005				
Chromium	mg/L	0.001	Ext-034	<0.001				
Cobalt	mg/L	0.010	Ext-034	<0.010				
Copper	mg/L	0.001	Ext-034	<0.001				
Lead	mg/L	0.06	Ext-034	<0.06				
Manganese	mg/L	0.001	Ext-034	<0.001				
Mercury	mg/L	0.0001	Ext-034	<0.0001				
Nickel	mg/L	0.001	Ext-034	<0.001				
Zinc	mg/L	0.001	Ext-034	<0.001				



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QUALITY CONTROL Moisture	UNITS	POL	METHOD	BLANK	Duplicate Ssn#	Duplicate Base + Duplicate + %RPD
Moisture	%		SEP-001	[NT]	43518-3	5.4 5.4 RPD: 0
QUALITY CONTROL Moisture	UNITS	Dup. Ssn#	Duplicate Base + Duplicate + %RPD			
Moisture	%	43518-4	5.2	5.2	RPD: 0	



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Result Codes

[INS]	: Insufficient Sample for this test.	[HIG]	: Results not Reported due to High Background Interference
[NR]	: Not Requested	*	: Not part of NATA Accreditation
[NT]	: Not tested	[N/A]	: Not Applicable

Result Comments

Date Organics extraction commenced: 07/03/06

NATA Corporate Accreditation No. 2662, Site No 4354

Note: Test results are not corrected for recovery (excluding Dioxins/Furans* and PAH in XAD and PUF).

Terms and conditions are available from www.au.sgs.com

Quality Control Protocol

Reagent Blank: Sample free reagents carried through the preparation/extraction/digestion procedure and analysed at the beginning of every sample batch analysis. For larger projects, a reagent blank is prepared and analysed with every 20 samples.

Duplicate: A separate portion of a sample being analysed which is treated the same as the other samples in the batch. A duplicate is prepared at least every 20 samples.

Matrix Spike Duplicates: Sample replicates spiked with identical concentrations of target analyte(s). The spiking occurs during the sample preparation and prior to the extraction/digestion procedure. They are used to document the precision and bias of a method in a given sample matrix. Where there is not enough sample available to prepare a spiked sample, another known soil/soil or water (or Milli-Q water) may be used. A duplicate spiked sample is prepared at least every 20 samples.

Surrogate Spike: Added to all samples requiring analysis for organics (where relevant) prior to extraction. Used to determine the extraction efficiency. They are organic compounds which are similar to the target analyte(s) in chemical composition and behaviour in the analytical process, but which are not normally found in environmental samples.

Internal Standard: Added to all samples requiring analysis for organics (where relevant) after the extraction process; the compounds serve to give a standard of retention time and response, which is invariant from run-to-run with the instruments.

Control Standards: Prepared from a source independent of the calibration standards. At least one control standard is included in each run to confirm calibration validity.

Additional QC Samples: A calibration standard and blank are run after every 20 samples of an instrumental analysis run to assess analytical drift.



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NATA Accredited laboratory No 2624354

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Appendix 2

Borehole Logs



BOREHOLE LOG

ACN 009 211 561
671 Balmoral Close
TUWEEBAH NSW 2299
02 4958 6020
02 4958 6020

卷之三

Volume 10 No. 1

Sheet: PAGE 1 / 1

Client: DAVID LANE & ASSOCIATES

What **Where**

Project: PELICAN BEACH RESORT

Project: [Project](#)

Location: 740 PACIFIC HWY, SAPPHIRE BAY, COFFS HARBOUR
CPS (-)

49297

Equipment Type: SKID STEER DRILL RIG

W. Supina 8

Borehole Diameter: 100 mm (3.9)

www.wiley.com

Books **Dishes**

Refer To Explanation Sheets For Description Of Terms And Symbols Used.



BOREHOLE LOG

ACN 009 211 061
681 Moran Close
TUGGERAH NSW 2250
02 4361 6300
02 4361 6300

Job No: G280291

File No: 1918

Sheet: PAGE 1 / 1

Bore No: G280291

Entered: 02/03/06

Updated: 02/03/06

Logged: TS

Checked: GP

Re. Surface: -

Date: -

Client: DAVID LANE & ASSOCIATES

Project: PELICAN BEACH RESORT

Location: 740 PACIFIC HWY, SAPPHIRE BAY, COFFS HARBOUR
GPS (-)

Equipment Type: SKID STEER DRILL RIG

Borehole Diameter: ~mm (ID) 800-mm (D.D.)

Inclination:

deg

Bearing:

method	water	samples, tools	DDP Notes	Depth (m)	grinding	USCS shield	Material Description			Note/reason	Condition	Consistency/ Nature density	Comments
				0	SM		Clayey Silty SAND medium grained, dark brown, low plasticity fine			M	-	TOPSOIL	
				1									
				6	SP		SAND medium grained, yellow-brown, some silt fragments 2-3mm, coarse sand fine gravel at about 0.6m depth			M	MD	NEOLLEAN	
				3									
				2									
				3	SP		SAND medium to coarse grained, yellow-brown, trace well rounded flat fine to medium pebbles			M		L	
				4									
				5									
				6									
				7									
				8									
				9									
				10									
				11									
				12	SP/GR		Gravelly SAND/Sandy GRAVEL, medium to dense sand, fine to medium well rounded gravel			M	D	RESIDUAL	
				13									
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BOREHOLE LOG

AÖN 089 219 561
695 Münster-Ostero
TU KÖLN/FH 1989/2009
02 4581 6200
02 4581 6200

Refer To Explanation Sheets For Description Of Terms /And Symbols Used.