

Client : SINCLAIR KNIGHT MERZ
Project : ENO1669Work Order : ES0501569
ALS Quote Reference : SY/221/04Page Number : 12 of 18
Issue Date : 11 Mar 2005

Analytical Results

Analytical Results				Client Sample ID :		MW13D		MW17D	
Sample Matrix Type / Description :				WATER / WATER		WATER / WATER		WATER / WATER	
Sample Date / Time :				1 Mar 2005		2 Mar 2005		0:00	
Laboratory Sample ID :				0:00		0:00		0:00	
Laboratory Sample ID :				ES0501569-006		ES0501569-007		ES0501569-007	
Analyte	CAS number	LOR	Units						
EP074E: Halogenated Aliphatic Compounds									
Carbon Tetrachloride	56-23-5	5	µg/L	<5	<5	<5	<5	<5	<5
1,2-Dichloroethane	107-06-2	5	µg/L	<5	<5	<5	<5	<5	<5
Trichloroethene	79-01-6	5	µg/L	<5	<5	<5	<5	<5	<5
Dibromomethane	74-95-3	5	µg/L	<5	<5	<5	<5	<5	<5
1,1,2-Trichloroethane	79-00-5	5	µg/L	<5	<5	<5	<5	<5	<5
1,3-Dichloropropane	142-28-9	5	µg/L	<5	<5	<5	<5	<5	<5
Tetrachloroethene	127-18-4	5	µg/L	<5	<5	<5	<5	<5	<5
1,1,1,2-Tetrachloroethane	630-20-6	5	µg/L	<5	<5	<5	<5	<5	<5
trans-1,4-Dichloro-2-butene	110-57-6	5	µg/L	<5	<5	<5	<5	<5	<5
cis-1,4-Dichloro-2-butene	1476-11-5	5	µg/L	<5	<5	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	79-34-5	5	µg/L	<5	<5	<5	<5	<5	<5
1,2,3-Trichloropropane	96-18-4	5	µg/L	<5	<5	<5	<5	<5	<5
Pentachloroethane	76-01-7	5	µg/L	<5	<5	<5	<5	<5	<5
1,2-Dibromo-3-chloropropane	96-12-8	5	µg/L	<5	<5	<5	<5	<5	<5
Hexachlorobutadiene	87-68-3	5	µg/L	<5	<5	<5	<5	<5	<5
EP074F: Halogenated Aromatic Compounds									
Chlorobenzene	108-90-7	5	µg/L	<5	<5	<5	<5	<5	<5
Bromobenzene	108-86-1	5	µg/L	<5	<5	<5	<5	<5	<5
2-Chlorotoluene	95-49-8	5	µg/L	<5	<5	<5	<5	<5	<5
4-Chlorotoluene	106-43-4	5	µg/L	<5	<5	<5	<5	<5	<5
1,3-Dichlorobenzene	541-73-1	5	µg/L	<5	<5	<5	<5	<5	<5
1,4-Dichlorobenzene	106-46-7	5	µg/L	<5	<5	<5	<5	<5	<5
1,2-Dichlorobenzene	95-50-1	5	µg/L	<5	<5	<5	<5	<5	<5
1,2,4-Trichlorobenzene	120-82-1	5	µg/L	<5	<5	<5	<5	<5	<5
1,2,3-Trichlorobenzene	87-61-6	5	µg/L	<5	<5	<5	<5	<5	<5
EP074G: Trihalomethanes									
Chloroform	67-66-3	5	µg/L	<5	<5	<5	<5	<5	<5
Bromodichloromethane	75-27-4	5	µg/L	<5	<5	<5	<5	<5	<5
Dibromochloromethane	124-48-1	5	µg/L	<5	<5	<5	<5	<5	<5
Bromoform	75-25-2	5	µg/L	<5	<5	<5	<5	<5	<5
EP074H: Naphthalene									
Naphthalene	91-20-3	7	µg/L	<7	<7	<7	<7	<7	<7
EP075A: Phenolic Compounds									
Phenol	108-95-2	2	µg/L	<2	<2	<2	<2	<2	<2
2-Chlorophenol	95-57-8	2	µg/L	<2	<2	<2	<2	<2	<2
2-Methylphenol	95-48-7	2	µg/L	<2	<2	<2	<2	<2	<2



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Analytical Results

Client Sample ID :		MW13D		MW17D	
Sample Matrix Type / Description :		WATER / WATER		WATER / WATER	
Sample Date / Time :		1 Mar 2005		2 Mar 2005	
Laboratory Sample ID :		ES0501569-006		ES0501569-007	
Analyte	CAS number	LOR	Units		
EP075A: Phenolic Compounds					
3- & 4-Methylphenol	1319-77-3	4	µg/L	<4	
2-Nitrophenol	88-75-5	2	µg/L	<2	
2,4-Dimethylphenol	105-67-9	2	µg/L	<2	
2,4-Dichlorophenol	120-83-2	2	µg/L	<2	
2,6-Dichlorophenol	87-65-0	2	µg/L	<2	
4-Chloro-3-Methylphenol	59-50-7	2	µg/L	<2	
2,4,6-Trichlorophenol	88-06-2	2	µg/L	<2	
2,4,5-Trichlorophenol	95-95-4	2	µg/L	<2	
Pentachlorophenol	87-86-5	4	µg/L	<4	
EP075B: Polynuclear Aromatic Hydrocarbons					
Naphthalene	91-20-3	2	µg/L	<2	
2-Methylnaphthalene	91-57-6	2	µg/L	<2	
2-Chloronaphthalene	91-58-7	2	µg/L	<2	
Acenaphthylene	208-96-8	2	µg/L	<2	
Acenaphthene	83-32-9	2	µg/L	<2	
Fluorene	86-73-7	2	µg/L	<2	
Phenanthrene	85-01-8	2	µg/L	<2	
Anthracene	120-12-7	2	µg/L	<2	
Fluoranthene	206-44-0	2	µg/L	<2	
Pyrene	129-00-0	2	µg/L	<2	
N-2-Fluorenyl Acetamide	53-96-3	2	µg/L	<2	
Benz(a)anthracene	56-55-3	2	µg/L	<2	
Chrysene	218-01-9	2	µg/L	<2	
Benzo(b) & Benzo(k)fluoranthene	205-99-2 207-08-9	4	µg/L	<4	
7,12-Dimethylbenz(a)anthracene	57-97-6	2	µg/L	<2	
Benz(a)pyrene	50-32-8	2	µg/L	<2	
3-Methylcholanthrene	56-49-5	2	µg/L	<2	
Indeno(1,2,3-cd)pyrene	193-39-5	2	µg/L	<2	
Dibenz(a,h)anthracene	53-70-3	2	µg/L	<2	
Benz(g,h,i)perylene	191-24-2	2	µg/L	<2	
EP075C: Phthalate Esters					
Dimethyl phthalate	131-11-3	2	µg/L	<2	
Diethyl phthalate	84-66-2	2	µg/L	<2	
Di-n-butyl phthalate	84-74-2	2	µg/L	<2	
Butyl benzyl phthalate	85-66-7	2	µg/L	<2	7
bis(2-ethylhexyl) phthalate	117-81-7	20	µg/L	<20	70



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Analytical Results

Analyte		CAS number		Client Sample ID :		MW13D		MW17D	
Sample Matrix Type / Description :		Laboratory Sample ID :		WATER / WATER		WATER / WATER		ES0501569-006	
Sample Date / Time :		LOR		1 Mar 2005		2 Mar 2005		ES0501569-007	
Units		2		0:00		0:00		ES0501569-007	
Di-n-octylphthalate		117-84-0		2		<2		<2	
EP075D: Nitrosamines									
N-Nitrosomethylamine	10595-95-6	2	µg/L	2	µg/L	2	µg/L	2	µg/L
N-Nitrosodimethylamine	55-18-5	2	µg/L	2	µg/L	2	µg/L	2	µg/L
N-Nitrosopyrrolidine	930-55-2	4	µg/L	4	µg/L	4	µg/L	4	µg/L
N-Nitrosomorpholine	59-89-2	2	µg/L	2	µg/L	2	µg/L	2	µg/L
N-Nitrosodi-n-propylamine	621-64-7	2	µg/L	2	µg/L	2	µg/L	2	µg/L
N-Nitrosopiperidine	100-75-4	2	µg/L	2	µg/L	2	µg/L	2	µg/L
N-Nitrosodibutylamine	924-16-3	2	µg/L	2	µg/L	2	µg/L	2	µg/L
N-Nitrosodiphenyl & Diphenylamine	86-30-6	4	µg/L	4	µg/L	4	µg/L	4	µg/L
Methapyrilene	91-80-5	2	µg/L	2	µg/L	2	µg/L	2	µg/L
EP075E: Nitroaromatics and Ketones									
2-Picoline	109-06-8	2	µg/L	2	µg/L	2	µg/L	2	µg/L
Acetophenone	98-86-2	2	µg/L	2	µg/L	2	µg/L	2	µg/L
Nitrobenzene	98-95-3	2	µg/L	2	µg/L	2	µg/L	2	µg/L
Isophorone	78-59-1	2	µg/L	2	µg/L	2	µg/L	2	µg/L
2,6-Dinitrotoluene	606-20-2	4	µg/L	4	µg/L	4	µg/L	4	µg/L
2,4-Dinitrotoluene	121-14-2	4	µg/L	4	µg/L	4	µg/L	4	µg/L
1-Naphthylamine	134-32-7	2	µg/L	2	µg/L	2	µg/L	2	µg/L
4-Nitroquinoline-N-oxide	56-57-5	2	µg/L	2	µg/L	2	µg/L	2	µg/L
5-Nitro-o-toluidine	99-55-8	2	µg/L	2	µg/L	2	µg/L	2	µg/L
Azobenzene	103-33-3	2	µg/L	2	µg/L	2	µg/L	2	µg/L
1,3,5-Trinitrobenzene	99-35-4	2	µg/L	2	µg/L	2	µg/L	2	µg/L
Phenacetyl	62-44-2	2	µg/L	2	µg/L	2	µg/L	2	µg/L
4-Aminobiphenyl	92-67-1	2	µg/L	2	µg/L	2	µg/L	2	µg/L
Pentachloronitrobenzene	82-88-8	2	µg/L	2	µg/L	2	µg/L	2	µg/L
Pronamide	23950-58-5	2	µg/L	2	µg/L	2	µg/L	2	µg/L
Dimethylaminoazobenzene	60-11-7	2	µg/L	2	µg/L	2	µg/L	2	µg/L
Chlorobenzilate	510-15-6	2	µg/L	2	µg/L	2	µg/L	2	µg/L
EP075F: Haloethers									
Bis(2-chloroethyl) ether	111-44-4	2	µg/L	2	µg/L	2	µg/L	2	µg/L
Bis(2-chloroethoxy) methane	111-91-1	2	µg/L	2	µg/L	2	µg/L	2	µg/L
4-Chlorophenyl phenyl ether	7005-72-3	2	µg/L	2	µg/L	2	µg/L	2	µg/L
4-Bromophenyl phenyl ether	101-55-3	2	µg/L	2	µg/L	2	µg/L	2	µg/L
EP075G: Chlorinated Hydrocarbons									
1,4-Dichlorobenzene	106-46-7	2	µg/L	2	µg/L	2	µg/L	2	µg/L

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Analytical Results

Analyte		Client Sample ID :		MW13D		MW17D	
		Sample Matrix Type / Description : Sample Date / Time :		WATER / WATER 1 Mar 2005 0:00		WATER / WATER 2 Mar 2005 0:00	
		CAS number	LOR	ES0501569-006		ES0501569-007	
Laboratory Sample ID :		Units					
EP075G: Chlorinated Hydrocarbons							
1,3-Dichlorobenzene	541-73-1	2	µg/L	<2		<2	
1,2-Dichlorobenzene	95-50-1	2	µg/L	<2		<2	
Hexachloroethane	67-72-1	2	µg/L	<2		<2	
1,2,4-Trichlorobenzene	120-82-1	2	µg/L	<2		<2	
Hexachloropropylene	1888-71-7	2	µg/L	<2		<2	
Hexachlorobutadiene	87-68-3	2	µg/L	<2		<2	
Hexachlorocyclopentadiene	77-47-4	10	µg/L	<10		<10	
Pentachlorobenzene	608-93-5	2	µg/L	<2		<2	
Hexachlorobenzene (HCB)	118-74-1	4	µg/L	<4		<4	
EP075H: Anilines and Benzidines							
Aniline	62-53-3	2	µg/L	<2		<2	
4-Chloroaniline	106-47-8	2	µg/L	<2		<2	
2-Nitroaniline	88-74-4	4	µg/L	<4		<4	
3-Nitroaniline	99-09-2	4	µg/L	<4		<4	
Dibenzofuran	132-64-9	2	µg/L	<2		<2	
4-Nitroaniline	100-01-6	2	µg/L	<2		<2	
Carbazole	86-74-8	2	µg/L	<2		<2	
3,3'-Dichlorobenzidine	91-94-1	2	µg/L	<2		<2	
EP075I: Organochlorine Pesticides							
alpha-BHC	319-84-6	2	µg/L	<2		<2	
beta-BHC	319-85-7	2	µg/L	<2		<2	
gamma-BHC	58-89-9	2	µg/L	<2		<2	
delta-BHC	319-86-8	2	µg/L	<2		<2	
Heptachlor	76-44-8	2	µg/L	<2		<2	
Aldrin	309-00-2	2	µg/L	<2		<2	
Heptachlor epoxide	1024-57-3	2	µg/L	<2		<2	
alpha-Endosulfan	959-98-8	2	µg/L	<2		<2	
4,4'-DDE	72-55-9	2	µg/L	<2		<2	
Dieldrin	60-57-1	2	µg/L	<2		<2	
Endrin	72-20-8	2	µg/L	<2		<2	
beta-Endosulfan	33213-65-9	2	µg/L	<2		<2	
4,4'-DDD	72-54-8	2	µg/L	<2		<2	
Endosulfan sulfate	1031-07-8	2	µg/L	<2		<2	
4,4'-DDT	50-29-3	4	µg/L	<4		<4	
EP075J: Organophosphorus Pesticides							
Dichlorvos	62-73-7	2	µg/L	<2		<2	



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Analytical Results

Client Sample ID :		MW13D		MW17D	
Sample Matrix Type / Description :		WATER / WATER		WATER / WATER	
Sample Date / Time :		1 Mar 2005		2 Mar 2005	
Laboratory Sample ID :		0:00		0:00	
Analyte	CAS number	LOR	Units	ES0501569-006	ES0501569-007
EP075J: Organophosphorus Pesticides					
Dimethoate	60-51-5	2	µg/L	<2	<2
Diazinon	333-41-5	2	µg/L	<2	<2
Chlorpyrifos-methyl	5598-13-0	2	µg/L	<2	<2
Malathion	121-75-5	2	µg/L	<2	<2
Fenthion	55-38-9	2	µg/L	<2	<2
Chlorpyrifos	2921-88-2	2	µg/L	<2	<2
Phosphos-ethyl	23505-41-1	2	µg/L	<2	<2
Chlorfenvinphos	470-90-6	2	µg/L	<2	<2
Prothiofos	34643-46-4	2	µg/L	<2	<2
Ethion	563-12-2	2	µg/L	<2	<2
EP075K: Miscellaneous Compounds					
1,3,5-Trichlorobenzene	108-70-3	2	µg/L	<2	<2
1,2,4,5-Tetrachlorobenzene	95-94-3	2	µg/L	<2	<2
Methanesulfonate methyl	66-27-3	2	µg/L	<2	<2
Methanesulfonate ethyl	62-50-0	2	µg/L	<2	<2
cis-Isosafrole	17627-76-8	2	µg/L	<2	<2
trans-Isosafrole	4043-71-4	2	µg/L	<2	<2
Safrole	94-59-7	2	µg/L	<2	<2
Diallyl	2303-16-4	2	µg/L	<2	<2
2,3,4,6-Tetrachlorophenol	58-90-2	2	µg/L	<2	<2
EP080/071: Total Petroleum Hydrocarbons					
C6 - C9 Fraction		20	µg/L	<20	<20
C10 - C14 Fraction		50	µg/L	<50	60
C15 - C28 Fraction		100	µg/L	<100	200
C29 - C36 Fraction		50	µg/L	<50	<50
EP074S: VOC Surrogates					
1,2-Dichloroethane-D4	17060-07-0	0.1	%	108	110
Toluene-D8	2037-26-5	0.1	%	100	97.6
4-Bromofluorobenzene	460-00-4	0.1	%	95.2	92.0
EP075S: Acid Extractable Surrogates					
2-Fluorophenol	367-12-4	0.1	%	55.8	57.4
Phenol-d6	13127-88-3	0.1	%	40.2	34.2
2-Chlorophenol-D4	93951-73-6	0.1	%	80.9	87.7
2,4,6-Tribromophenol	118-79-6	0.1	%	91.2	98.3
EP075T: Base/Neutral Extractable Surrogates					
Nitrobenzene-D5	4165-60-0	0.1	%	73.6	98.0

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Analytical Results

Analytical Results							
Client Sample ID :				MW13D		MW17D	
Sample Matrix Type / Description :				WATER / WATER		WATER / WATER	
Sample Date / Time :				1 Mar 2005 0:00		2 Mar 2005 0:00	
Laboratory Sample ID :				ES0501569-006		ES0501569-007	
Analyte	CAS number	LOR	Units				
EP075T: Base/Neutral Extractable Surrogates							
1,2-Dichlorobenzene-D4	2199-69-1	0.1	%	71.9		78.9	
2-Fluorobiphenyl	321-60-8	0.1	%	79.7		84.8	
Anthracene-d10	1719-06-8	0.1	%	78.2		89.3	
4-Terphenyl-d14	1718-51-0	0.1	%	75.7		84.4	
EP080S: TPH(V)/BTEX Surrogates							
1,2-Dichloroethane-D4	17060-07-0	0.1	%	108		110	
Toluene-D8	2037-26-5	0.1	%	100		97.6	
4-Bromofluorobenzene	460-00-4	0.1	%	95.2		92.0	



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Surrogate Control Limits

The analytical procedures used by ALS Environmental are based on established internationally-recognized procedures such as those published by the US EPA, APHA, AS and NEPM. In house procedure are employed in the absence of documented standards or by client request. The following report provides brief descriptions of the analytical procedures employed for results reported herein. Reference methods from which ALSE methods are based are provided in parenthesis.

Matrix Type: WATER

Method name		Surrogate Control Limits	
Method name	Analyte name	Lower Limit	Upper Limit
EP074: Volatile Organic Compounds EP074S: VOC Surrogates	1,2-Dichloroethane-D4	80	120
	Toluene-D8	88	110
	4-Bromofluorobenzene	86	115
EP075: Semivolatile Organic Compounds EP075S: Acid Extractable Surrogates	2-Fluorophenol	21	100
	Phenol-d6	10	94
	2-Chlorophenol-D4	23	134
	2,4,6-Tribromophenol	10	123
	Nitrobenzene-D5	35	114
	1,2-Dichlorobenzene-D4	32	129
EP075T: Base/Neutral Extractable Surrogates	2-Fluorobiphenyl	43	116
	Anthracene-d10	27	133
	4-Terphenyl-d14	33	141
EP080: TPH Volatiles/BTEX EP080S: TPH(V)/BTEX Surrogates	1,2-Dichloroethane-D4	80	120
	Toluene-D8	88	110
	4-Bromofluorobenzene	86	115

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QUALITY CONTROL REPORT

Client :	SINCLAIR KNIGHT MERZ	Laboratory :	ALS Environmental Sydney	Page :	1 of 36
Contact :	MS LOUSIE MACDONALD	Contact :	Greg Vogel	Work order :	ES0501569
Address :	P O BOX 164 ST LEONARDS NSW AUSTRALIA 2065	Address :	277-289 Woodpark Road Smithfield NSW Australia 2164	Amendment No. :	
Project :	ENO1669	Quote number :	SY/221/04	Date received :	2 Mar 2005
Order number :	- Not provided -	E-mail :	Greg.Vogel@alsenviro.com	Date issued :	11 Mar 2005
C-O-C number :	- Not provided -	Telephone :	61-2-87848555	No. of samples	
Site :	- Not provided -	Facsimile :	61-2-87848500	Received	7
E-mail :	lmacdonald@skm.com.au			Analysed	7
Telephone :	(02) 9928-2100				
Facsimile :	(02) 9928-2272				

This final report for the ALS work order reference ES0501569 supersedes any previous reports with this reference. Results apply to the samples as submitted. All pages of this report have been checked and approved for release.

This report contains the following information:

- Laboratory Duplicates (DUP); Relative Percentage Difference (RPD) and Acceptance Limits
- Method Blank (MB) and Laboratory Control Samples (LCS); Recovery and Acceptance Limits
- Matrix Spikes (MS); Recovery and Acceptance Limits

Work order specific comments

LOR raised for some samples for Cr due to matrix interference

ALSE - QUALITY, SERVICE and TECHNOLOGY provided GLOBALLY

This document has been digitally signed by those names that appear on this report and are the authorised signatories. Digital signing has been carried out in compliance with procedures specified in 21 CFR Part 11.



NATA Accredited Laboratory - 825

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Signatory

Celine Conceicao
Peter Dickenson
Rassem Ayoubi
Sarah Millington

Department

Inorganics - NATA 10911 (Sydney)
Inorganics - NATA 10911 (Sydney)
Organics - NATA 10911 (Sydney)
Inorganics - NATA 10911 (Sydney)