Environmental Division

CERTIFICATE OF ANALYSIS

Work Order	: **EW1302331**	Page	: 1 of 28
Client	: **WOLLONGONG CITY COUNCIL**	Laboratory	: Environmental Division NSW South Coast
Contact	: MR WAYDE PETERSON	Contact	: Glenn Davies
Address	: 41 BURELLI STREET WOLLONGONG NSW, AUSTRALIA 2500	Address	: 99 Kenny Street, Wollongong 2500 Unit 4 / 13 Geary Place, PO Box 3105, North Nowra 2541 AUSTRALIA
E-mail	: wpeterson@wollongong.nsw.gov.au	E-mail	: glenn.davies@alsglobal.com
Telephone	: +61 02 4227 7111	Telephone	: 02 4225 3125
Facsimile	: +61 02 4227 7277	Facsimile	: 02 4225 3128
Project	: Whytes Gully Stage 3 Bores & Surface Water Annual	QC Level	: NEPM 2013 Schedule B(3) and ALS QCS3 requirement
Order number	: ----		
C-O-C number	: ----	Date Samples Received	: 13-AUG-2013
Sampler	: Craig Wilson	Issue Date	: 23-AUG-2013
Site	: ----		
		No. of samples received	: 23
Quote number	: WL/090/11 Stage 3	No. of samples analysed	: 23

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. All pages of this report have been checked and approved for release.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

General Comments

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Key : CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
^ = This result is computed from individual analyte detections at or above the level of reporting

- **ED041G/EK057G/EG050G/EK059G:LOR raised for Sulfate/Nitrite/Hexavalent Chromium/NOx analysis on sample ID(Leachate) due to sample matrix.**
- **EP005 : NPOC analysis was carried out on sample ID (GMW111) and (Leachate) due to high inorganic carbon content.**
- **EP068,EPO75(SIM) : Particular samples # Leachate required dilution due to sample matrix interferences. LOR values have been adjusted accordingly.**
- **Site GMW106 - Dry at time of sampling.**
  Site GABH01 - Could not be found destroyed.

Signatories

This document has been electronically signed by the authorized signatories indicated below. Electronic signing has been carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	Position	Accreditation Category
Alex Rossi	Organic Chemist	Sydney Organics
		Sydney Organics
Ankit Joshi	Inorganic Chemist	Sydney Inorganics
Celine Conceicao	Senior Spectroscopist	Sydney Inorganics
Glenn Davies	Environmental Services Representative	Laboratory - Wollongong
Hoa Nguyen	Senior Inorganic Chemist	Sydney Inorganics

Analytical Results

Sub-Matrix: **WATER** (Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Client sample ID	GMW102	GMW103	GMW104	GMW105	GMW108S
				Client sampling date / time	13-AUG-2013 13:40	13-AUG-2013 14:00	13-AUG-2013 13:30	13-AUG-2013 14:15	13-AUG-2013 14:35
					EW1302331-001	EW1302331-002	EW1302331-003	EW1302331-004	EW1302331-005
EA015: Total Dissolved Solids									
Total Dissolved Solids @180°C	----	10	mg/L		**350**	**1440**	**362**	**167**	**728**
ED037P: Alkalinity by PC Titrator									
Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L		<1	<1	<1	<1	<1
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L		<1	<1	<1	<1	<1
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L		**248**	**382**	**238**	**51**	**340**
Total Alkalinity as CaCO3	----	1	mg/L		**248**	**382**	**238**	**51**	**340**
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA									
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L		**31**	**131**	**36**	**12**	**55**
ED045G: Chloride Discrete analyser									
Chloride	16887-00-6	1	mg/L		**29**	**486**	**54**	**34**	**200**
ED093T: Total Major Cations									
Calcium	7440-70-2	1	mg/L		**50**	**216**	**45**	**9**	**25**
Magnesium	7439-95-4	1	mg/L		**22**	**77**	**26**	**5**	**20**
Sodium	7440-23-5	1	mg/L		**58**	**191**	**106**	**35**	**258**
Potassium	7440-09-7	1	mg/L		**2**	**1**	<1	**2**	**2**
EG020T: Total Metals by ICP-MS									
Aluminium	7429-90-5	0.01	mg/L		**7.77**	**0.10**	**2.58**	**10.3**	**4.63**
Arsenic	7440-38-2	0.001	mg/L		<0.001	<0.001	<0.001	**0.001**	**0.002**
Barium	7440-39-3	0.001	mg/L		**0.055**	**0.023**	**0.014**	**0.056**	**0.117**
Cadmium	7440-43-9	0.0001	mg/L		**0.0004**	<0.0001	<0.0001	<0.0001	<0.0001
Cobalt	7440-48-4	0.001	mg/L		**0.004**	<0.001	**0.002**	**0.004**	**0.009**
Chromium	7440-47-3	0.001	mg/L		**0.003**	**0.012**	**0.001**	**0.008**	**0.004**
Manganese	7439-96-5	0.001	mg/L		**0.227**	**0.107**	**0.189**	**0.206**	**0.354**
Lead	7439-92-1	0.001	mg/L		**0.005**	<0.001	**0.002**	**0.007**	**0.004**
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.0001	mg/L		<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
EG050T: Total Hexavalent Chromium									
Hexavalent Chromium	18540-29-9	0.01	mg/L		<0.01	<0.01	<0.01	<0.01	<0.01
EK040P: Fluoride by PC Titrator									
Fluoride	16984-48-8	0.1	mg/L		**0.7**	**0.6**	**0.8**	**0.2**	**0.6**
EK055G: Ammonia as N by Discrete Analyser									
Ammonia as N	7664-41-7	0.01	mg/L		<0.01	<0.01	<0.01	**0.03**	<0.01
EK057G: Nitrite as N by Discrete Analyser									

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)			Client sample ID	GMW102	GMW103	GMW104	GMW105	GMW108S
			Client sampling date / time	13-AUG-2013 13:40	13-AUG-2013 14:00	13-AUG-2013 13:30	13-AUG-2013 14:15	13-AUG-2013 14:35
Compound	CAS Number	LOR	Unit	EW1302331-001	EW1302331-002	EW1302331-003	EW1302331-004	EW1302331-005
EK057G: Nitrite as N by Discrete Analyser - Continued								
Nitrite as N	----	0.01	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01
EK058G: Nitrate as N by Discrete Analyser								
Nitrate as N	14797-55-8	0.01	mg/L	**0.26**	**0.01**	**0.01**	<0.01	**0.04**
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser								
Nitrite + Nitrate as N	----	0.01	mg/L	**0.26**	**0.01**	**0.01**	<0.01	**0.04**
EN67 PK: Field Tests								
pH	----	0.1	pH Unit	**7.3**	**6.8**	**6.6**	**5.3**	**6.8**
Electrical Conductivity (Non Compensated)	----	1	µS/cm	**621**	**2490**	**513**	**253**	**1480**
Dissolved Oxygen	----	0.01	mg/L	**3.94**	**1.81**	**7.64**	**1.00**	**3.10**
Redox Potential	----	0.1	mV	**10.0**	**67.0**	**114**	**127**	**-49.0**
Temperature	----	0.1	°C	**18.6**	**18.9**	**17.0**	**17.3**	**16.2**
Depth	----	0.01	m	**9.55**	**7.71**	**6.88**	**10.54**	**2.64**
EP005: Total Organic Carbon (TOC)								
Total Organic Carbon	----	1	mg/L	**5**	**2**	**4**	**4**	**11**
EP035G: Total Phenol by Discrete Analyser								
Phenols (Total)	----	0.05	mg/L	<0.05	<0.05	<0.05	<0.05	<0.05
EP068A: Organochlorine Pesticides (OC)								
alpha-BHC	319-84-6	0.5	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5
Hexachlorobenzene (HCB)	118-74-1	0.5	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5
beta-BHC	319-85-7	0.5	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5
gamma-BHC	58-89-9	0.5	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5
delta-BHC	319-86-8	0.5	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5
Heptachlor	76-44-8	0.5	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5
Aldrin	309-00-2	0.5	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5
Heptachlor epoxide	1024-57-3	0.5	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5
trans-Chlordane	5103-74-2	0.5	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5
alpha-Endosulfan	959-98-8	0.5	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5
cis-Chlordane	5103-71-9	0.5	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5
Dieldrin	60-57-1	0.5	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5
4.4`-DDE	72-55-9	0.5	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5
Endrin	72-20-8	0.5	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5
beta-Endosulfan	33213-65-9	0.5	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5
4.4`-DDD	72-54-8	0.5	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5

Analytical Results

Sub-Matrix: **WATER** (Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Client sample ID	GMW102	GMW103	GMW104	GMW105	GMW108S
				Client sampling date / time	13-AUG-2013 13:40	13-AUG-2013 14:00	13-AUG-2013 13:30	13-AUG-2013 14:15	13-AUG-2013 14:35
					EW1302331-001	EW1302331-002	EW1302331-003	EW1302331-004	EW1302331-005
EP068A: Organochlorine Pesticides (OC) - Continued									
Endrin aldehyde	7421-93-4	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
Endosulfan sulfate	1031-07-8	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
4.4`-DDT	50-29-3	2.0	µg/L		<2.0	<2.0	<2.0	<2.0	<2.0
Endrin ketone	53494-70-5	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
Methoxychlor	72-43-5	2.0	µg/L		<2.0	<2.0	<2.0	<2.0	<2.0
^ **Total Chlordane (sum)**	----	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
^ **Sum of DDD + DDE + DDT**	----	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
^ **Sum of Aldrin + Dieldrin**	309-00-2/60-57-1	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
EP068B: Organophosphorus Pesticides (OP)									
Dichlorvos	62-73-7	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
Demeton-S-methyl	919-86-8	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
Monocrotophos	6923-22-4	2.0	µg/L		<2.0	<2.0	<2.0	<2.0	<2.0
Dimethoate	60-51-5	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
Diazinon	333-41-5	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
Chlorpyrifos-methyl	5598-13-0	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
Parathion-methyl	298-00-0	2.0	µg/L		<2.0	<2.0	<2.0	<2.0	<2.0
Malathion	121-75-5	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
Fenthion	55-38-9	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
Chlorpyrifos	2921-88-2	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
Parathion	56-38-2	2.0	µg/L		<2.0	<2.0	<2.0	<2.0	<2.0
Pirimphos-ethyl	23505-41-1	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
Chlorfenvinphos	470-90-6	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
Bromophos-ethyl	4824-78-6	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
Fenamiphos	22224-92-6	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
Prothiofos	34643-46-4	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
Ethion	563-12-2	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
Carbophenothion	786-19-6	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
Azinphos Methyl	86-50-0	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	1.0	µg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Acenaphthylene	208-96-8	1.0	µg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Acenaphthene	83-32-9	1.0	µg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Fluorene	86-73-7	1.0	µg/L		<1.0	<1.0	<1.0	<1.0	<1.0

Analytical Results

Sub-Matrix: **WATER** (Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Client sample ID	GMW102	GMW103	GMW104	GMW105	GMW108S
				Client sampling date / time	13-AUG-2013 13:40	13-AUG-2013 14:00	13-AUG-2013 13:30	13-AUG-2013 14:15	13-AUG-2013 14:35
					EW1302331-001	EW1302331-002	EW1302331-003	EW1302331-004	EW1302331-005
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued									
Phenanthrene	85-01-8	1.0	µg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Anthracene	120-12-7	1.0	µg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Fluoranthene	206-44-0	1.0	µg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Pyrene	129-00-0	1.0	µg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Benz(a)anthracene	56-55-3	1.0	µg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Chrysene	218-01-9	1.0	µg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Benzo(b)fluoranthene	205-99-2	1.0	µg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Benzo(k)fluoranthene	207-08-9	1.0	µg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Benzo(a)pyrene	50-32-8	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
Indeno(1.2.3.cd)pyrene	193-39-5	1.0	µg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Dibenz(a.h)anthracene	53-70-3	1.0	µg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Benzo(g.h.i)perylene	191-24-2	1.0	µg/L		<1.0	<1.0	<1.0	<1.0	<1.0
^ **Sum of polycyclic aromatic hydrocarbons**	----	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
^ **Benzo(a)pyrene TEQ (zero)**	----	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	20	µg/L		<20	<20	<20	<20	<20
C10 - C14 Fraction	----	50	µg/L		<50	<50	<50	<50	<50
C15 - C28 Fraction	----	100	µg/L		<100	<100	<100	<100	<100
C29 - C36 Fraction	----	50	µg/L		<50	<50	<50	<50	<50
^ **C10 - C36 Fraction (sum)**	----	50	µg/L		<50	<50	<50	<50	<50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013									
C6 - C10 Fraction	C6_C10	20	µg/L		<20	<20	<20	<20	<20
^ **C6 - C10 Fraction minus BTEX (F1)**	C6_C10-BTEX	20	µg/L		<20	<20	<20	<20	<20
>C10 - C16 Fraction	>C10_C16	100	µg/L		<100	<100	<100	<100	<100
>C16 - C34 Fraction	----	100	µg/L		<100	<100	<100	<100	<100
>C34 - C40 Fraction	----	100	µg/L		<100	<100	<100	<100	<100
^ **>C10 - C40 Fraction (sum)**	----	100	µg/L		<100	<100	<100	<100	<100
^ **>C10 - C16 Fraction minus Naphthalene (F2)**	----	100	µg/L		<100	<100	<100	<100	<100
EP080: BTEXN									
Benzene	71-43-2	1	µg/L		<1	<1	<1	<1	<1
Toluene	108-88-3	2	µg/L		<2	<2	<2	<2	<2
Ethylbenzene	100-41-4	2	µg/L		<2	<2	<2	<2	<2

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Client sample ID	GMW102	GMW103	GMW104	GMW105	GMW108S
				Client sampling date / time	13-AUG-2013 13:40	13-AUG-2013 14:00	13-AUG-2013 13:30	13-AUG-2013 14:15	13-AUG-2013 14:35
Compound	CAS Number	LOR	Unit		EW1302331-001	EW1302331-002	EW1302331-003	EW1302331-004	EW1302331-005
EP080: BTEXN - Continued									
meta- & para-Xylene	108-38-3 106-42-3	2	µg/L		<2	<2	<2	<2	<2
ortho-Xylene	95-47-6	2	µg/L		<2	<2	<2	<2	<2
^ Total Xylenes	1330-20-7	2	µg/L		<2	<2	<2	<2	<2
^ Sum of BTEX	----	1	µg/L		<1	<1	<1	<1	<1
Naphthalene	91-20-3	5	µg/L		<5	<5	<5	<5	<5
EP068S: Organochlorine Pesticide Surrogate									
Dibromo-DDE	21655-73-2	0.1	%		72.3	75.0	68.9	73.8	69.2
EP068T: Organophosphorus Pesticide Surrogate									
DEF	78-48-8	0.1	%		80.2	82.9	76.4	85.5	83.2
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.1	%		27.2	28.1	23.6	29.1	22.5
2-Chlorophenol-D4	93951-73-6	0.1	%		55.7	56.7	50.8	62.3	50.4
2.4.6-Tribromophenol	118-79-6	0.1	%		70.6	63.6	63.9	73.9	67.6
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.1	%		65.7	67.3	58.3	70.8	60.7
Anthracene-d10	1719-06-8	0.1	%		76.7	76.7	74.9	77.8	76.0
4-Terphenyl-d14	1718-51-0	0.1	%		78.6	78.8	79.6	79.0	78.8
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.1	%		110	118	112	114	110
Toluene-D8	2037-26-5	0.1	%		88.4	92.8	90.7	90.3	85.3
4-Bromofluorobenzene	460-00-4	0.1	%		92.8	96.0	94.8	93.6	88.7

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Client sample ID	GMW108D	GMW109S	GMW109D	GMW110	GMW111
				Client sampling date / time	13-AUG-2013 14:45	13-AUG-2013 11:45	13-AUG-2013 11:35	13-AUG-2013 11:25	13-AUG-2013 11:15
Compound	CAS Number	LOR	Unit		EW1302331-006	EW1302331-007	EW1302331-008	EW1302331-009	EW1302331-010
EA015: Total Dissolved Solids									
Total Dissolved Solids @180°C	----	10	mg/L		1700	1460	933	2390	1360
ED037P: Alkalinity by PC Titrator									
Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L		<1	<1	<1	<1	<1
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L		<1	<1	<1	<1	<1
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L		459	873	223	554	435
Total Alkalinity as CaCO3	----	1	mg/L		459	873	223	554	435
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA									
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L		185	183	24	279	106
ED045G: Chloride Discrete analyser									
Chloride	16887-00-6	1	mg/L		627	163	370	797	494
ED093T: Total Major Cations									
Calcium	7440-70-2	1	mg/L		131	309	83	192	91
Magnesium	7439-95-4	1	mg/L		92	65	45	151	75
Sodium	7440-23-5	1	mg/L		459	175	189	476	383
Potassium	7440-09-7	1	mg/L		<1	16	2	2	2
EG020T: Total Metals by ICP-MS									
Aluminium	7429-90-5	0.01	mg/L		0.08	0.67	0.08	0.55	0.69
Arsenic	7440-38-2	0.001	mg/L		<0.001	0.005	<0.001	<0.001	<0.001
Barium	7440-39-3	0.001	mg/L		0.016	0.460	0.126	0.006	0.033
Cadmium	7440-43-9	0.0001	mg/L		<0.0001	0.0002	<0.0001	<0.0001	0.0002
Cobalt	7440-48-4	0.001	mg/L		<0.001	0.004	<0.001	<0.001	<0.001
Chromium	7440-47-3	0.001	mg/L		<0.001	0.002	<0.001	<0.001	<0.001
Manganese	7439-96-5	0.001	mg/L		0.008	3.46	0.035	0.044	0.229
Lead	7439-92-1	0.001	mg/L		0.001	0.002	<0.001	<0.001	0.003
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.0001	mg/L		<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
EG050T: Total Hexavalent Chromium									
Hexavalent Chromium	18540-29-9	0.01	mg/L		<0.01	<0.01	<0.01	<0.01	<0.01
EK040P: Fluoride by PC Titrator									
Fluoride	16984-48-8	0.1	mg/L		0.8	0.4	0.4	0.5	0.6
EK055G: Ammonia as N by Discrete Analyser									
Ammonia as N	7664-41-7	0.01	mg/L		<0.01	7.76	<0.01	<0.01	<0.01
EK057G: Nitrite as N by Discrete Analyser									

Analytical Results

Sub-Matrix: **WATER** (Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Client sample ID	GMW108D	GMW109S	GMW109D	GMW110	GMW111
				Client sampling date / time	13-AUG-2013 14:45	13-AUG-2013 11:45	13-AUG-2013 11:35	13-AUG-2013 11:25	13-AUG-2013 11:15
					EW1302331-006	EW1302331-007	EW1302331-008	EW1302331-009	EW1302331-010
EK057G: Nitrite as N by Discrete Analyser - Continued									
Nitrite as N	----	0.01	mg/L		<0.01	**0.04**	<0.01	<0.01	<0.01
EK058G: Nitrate as N by Discrete Analyser									
Nitrate as N	14797-55-8	0.01	mg/L		<0.01	**0.01**	**0.16**	**0.05**	**0.03**
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser									
Nitrite + Nitrate as N	----	0.01	mg/L		<0.01	**0.05**	**0.16**	**0.05**	**0.03**
EN67 PK: Field Tests									
pH	----	0.1	pH Unit		**6.8**	**7.1**	**7.3**	**6.6**	**7.0**
Electrical Conductivity (Non Compensated)	----	1	µS/cm		**3330**	**2310**	**1700**	**4030**	**2640**
Dissolved Oxygen	----	0.01	mg/L		**2.58**	**2.10**	**7.38**	**1.43**	**1.98**
Redox Potential	----	0.1	mV		**59.0**	**-125**	**28.0**	**41.0**	**-22.0**
Temperature	----	0.1	°C		**16.1**	**17.4**	**17.5**	**18.1**	**18.9**
Depth	----	0.01	m		**2.14**	**3.32**	**2.96**	**4.02**	**6.25**
EP005: Total Organic Carbon (TOC)									
Total Organic Carbon	----	1	mg/L		**3**	**50**	**1**	**3**	----
Nonpurgeable Organic Carbon	----	1	mg/L		----	----	----	----	**3**
EP035G: Total Phenol by Discrete Analyser									
Phenols (Total)	----	0.05	mg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP068A: Organochlorine Pesticides (OC)									
alpha-BHC	319-84-6	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
Hexachlorobenzene (HCB)	118-74-1	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
beta-BHC	319-85-7	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
gamma-BHC	58-89-9	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
delta-BHC	319-86-8	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
Heptachlor	76-44-8	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
Aldrin	309-00-2	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
Heptachlor epoxide	1024-57-3	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
trans-Chlordane	5103-74-2	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
alpha-Endosulfan	959-98-8	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
cis-Chlordane	5103-71-9	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
Dieldrin	60-57-1	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
4.4`-DDE	72-55-9	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
Endrin	72-20-8	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
beta-Endosulfan	33213-65-9	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Client sample ID	GMW108D	GMW109S	GMW109D	GMW110	GMW111
				Client sampling date / time	13-AUG-2013 14:45	13-AUG-2013 11:45	13-AUG-2013 11:35	13-AUG-2013 11:25	13-AUG-2013 11:15
Compound	CAS Number	LOR	Unit		EW1302331-006	EW1302331-007	EW1302331-008	EW1302331-009	EW1302331-010
EP068A: Organochlorine Pesticides (OC) - Continued									
4.4`-DDD	72-54-8	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
Endrin aldehyde	7421-93-4	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
Endosulfan sulfate	1031-07-8	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
4.4`-DDT	50-29-3	2.0	µg/L		<2.0	<2.0	<2.0	<2.0	<2.0
Endrin ketone	53494-70-5	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
Methoxychlor	72-43-5	2.0	µg/L		<2.0	<2.0	<2.0	<2.0	<2.0
^ Total Chlordane (sum)	----	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
^ Sum of DDD + DDE + DDT	----	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
^ Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
EP068B: Organophosphorus Pesticides (OP)									
Dichlorvos	62-73-7	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
Demeton-S-methyl	919-86-8	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
Monocrotophos	6923-22-4	2.0	µg/L		<2.0	<2.0	<2.0	<2.0	<2.0
Dimethoate	60-51-5	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
Diazinon	333-41-5	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
Chlorpyrifos-methyl	5598-13-0	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
Parathion-methyl	298-00-0	2.0	µg/L		<2.0	<2.0	<2.0	<2.0	<2.0
Malathion	121-75-5	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
Fenthion	55-38-9	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
Chlorpyrifos	2921-88-2	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
Parathion	56-38-2	2.0	µg/L		<2.0	<2.0	<2.0	<2.0	<2.0
Pirimphos-ethyl	23505-41-1	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
Chlorfenvinphos	470-90-6	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
Bromophos-ethyl	4824-78-6	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
Fenamiphos	22224-92-6	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
Prothiofos	34643-46-4	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
Ethion	563-12-2	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
Carbophenothion	786-19-6	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
Azinphos Methyl	86-50-0	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	1.0	µg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Acenaphthylene	208-96-8	1.0	µg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Acenaphthene	83-32-9	1.0	µg/L		<1.0	<1.0	<1.0	<1.0	<1.0

Analytical Results

Sub-Matrix: **WATER** (Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Client sample ID: GMW108D	GMW109S	GMW109D	GMW110	GMW111
				Client sampling date / time: 13-AUG-2013 14:45	13-AUG-2013 11:45	13-AUG-2013 11:35	13-AUG-2013 11:25	13-AUG-2013 11:15
				EW1302331-006	EW1302331-007	EW1302331-008	EW1302331-009	EW1302331-010
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued								
Fluorene	86-73-7	1.0	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0
Phenanthrene	85-01-8	1.0	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0
Anthracene	120-12-7	1.0	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0
Fluoranthene	206-44-0	1.0	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0
Pyrene	129-00-0	1.0	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0
Benz(a)anthracene	56-55-3	1.0	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0
Chrysene	218-01-9	1.0	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0
Benzo(b)fluoranthene	205-99-2	1.0	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0
Benzo(k)fluoranthene	207-08-9	1.0	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0
Benzo(a)pyrene	50-32-8	0.5	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5
Indeno(1.2.3.cd)pyrene	193-39-5	1.0	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0
Dibenz(a.h)anthracene	53-70-3	1.0	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0
Benzo(g.h.i)perylene	191-24-2	1.0	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0
^ **Sum of polycyclic aromatic hydrocarbons**	----	0.5	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5
^ **Benzo(a)pyrene TEQ (zero)**	----	0.5	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5
EP080/071: Total Petroleum Hydrocarbons								
C6 - C9 Fraction	----	20	µg/L	<20	<20	<20	<20	<20
C10 - C14 Fraction	----	50	µg/L	<50	<50	<50	<50	<50
C15 - C28 Fraction	----	100	µg/L	<100	**350**	<100	<100	<100
C29 - C36 Fraction	----	50	µg/L	<50	<50	<50	<50	<50
^ **C10 - C36 Fraction (sum)**	----	50	µg/L	<50	**350**	<50	<50	<50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013								
C6 - C10 Fraction	C6_C10	20	µg/L	<20	<20	<20	<20	<20
^ **C6 - C10 Fraction minus BTEX (F1)**	C6_C10-BTEX	20	µg/L	<20	<20	<20	<20	<20
>C10 - C16 Fraction	>C10_C16	100	µg/L	<100	<100	<100	<100	<100
>C16 - C34 Fraction	----	100	µg/L	<100	**310**	<100	<100	<100
>C34 - C40 Fraction	----	100	µg/L	<100	<100	<100	<100	<100
^ **>C10 - C40 Fraction (sum)**	----	100	µg/L	<100	**310**	<100	<100	<100
^ **>C10 - C16 Fraction minus Naphthalene (F2)**	----	100	µg/L	<100	<100	<100	<100	<100
EP080: BTEXN								
Benzene	71-43-2	1	µg/L	<1	<1	<1	<1	<1
Toluene	108-88-3	2	µg/L	<2	<2	<2	<2	<2

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Client sample ID	GMW108D	GMW109S	GMW109D	GMW110	GMW111
				Client sampling date / time	13-AUG-2013 14:45	13-AUG-2013 11:45	13-AUG-2013 11:35	13-AUG-2013 11:25	13-AUG-2013 11:15
Compound	CAS Number	LOR	Unit		EW1302331-006	EW1302331-007	EW1302331-008	EW1302331-009	EW1302331-010
EP080: BTEXN - Continued									
Ethylbenzene	100-41-4	2	µg/L		<2	<2	<2	<2	<2
meta- & para-Xylene	108-38-3 106-42-3	2	µg/L		<2	<2	<2	<2	<2
ortho-Xylene	95-47-6	2	µg/L		<2	<2	<2	<2	<2
^ Total Xylenes	1330-20-7	2	µg/L		<2	<2	<2	<2	<2
^ Sum of BTEX	----	1	µg/L		<1	<1	<1	<1	<1
Naphthalene	91-20-3	5	µg/L		<5	<5	<5	<5	<5
EP068S: Organochlorine Pesticide Surrogate									
Dibromo-DDE	21655-73-2	0.1	%		71.5	77.3	71.6	65.4	68.8
EP068T: Organophosphorus Pesticide Surrogate									
DEF	78-48-8	0.1	%		83.2	79.5	80.0	71.8	77.5
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.1	%		26.1	26.0	27.6	26.4	24.9
2-Chlorophenol-D4	93951-73-6	0.1	%		58.1	57.6	58.8	57.1	53.4
2.4.6-Tribromophenol	118-79-6	0.1	%		68.1	80.3	68.3	67.0	68.8
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.1	%		69.2	67.8	66.5	64.6	63.6
Anthracene-d10	1719-06-8	0.1	%		75.4	77.1	73.0	71.2	72.6
4-Terphenyl-d14	1718-51-0	0.1	%		78.9	76.6	75.4	74.1	75.4
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.1	%		111	77.8	94.7	89.6	117
Toluene-D8	2037-26-5	0.1	%		86.5	115	110	88.6	85.0
4-Bromofluorobenzene	460-00-4	0.1	%		89.9	124	123	90.2	88.7

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Client sample ID	GABH01	GABH02	GABH03	GABH06S	GABH06D
				Client sampling date / time	13-AUG-2013 15:00	13-AUG-2013 12:25	13-AUG-2013 12:05	13-AUG-2013 12:45	13-AUG-2013 12:50
Compound	CAS Number	LOR	Unit		EW1302331-011	EW1302331-012	EW1302331-013	EW1302331-014	EW1302331-015
EA015: Total Dissolved Solids									
Total Dissolved Solids @180°C	----	10	mg/L		----	3230	3390	1800	1720
ED037P: Alkalinity by PC Titrator									
Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L		----	<1	<1	<1	<1
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L		----	<1	<1	<1	<1
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L		----	955	673	408	322
Total Alkalinity as CaCO3	----	1	mg/L		----	955	673	408	322
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA									
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L		----	169	194	214	194
ED045G: Chloride Discrete analyser									
Chloride	16887-00-6	1	mg/L		----	1080	1180	630	659
ED093T: Total Major Cations									
Calcium	7440-70-2	1	mg/L		----	302	354	89	113
Magnesium	7439-95-4	1	mg/L		----	197	213	81	73
Sodium	7440-23-5	1	mg/L		----	645	546	494	460
Potassium	7440-09-7	1	mg/L		----	3	2	<1	<1
EG020T: Total Metals by ICP-MS									
Aluminium	7429-90-5	0.01	mg/L		----	0.02	<0.01	0.08	0.04
Arsenic	7440-38-2	0.001	mg/L		----	<0.001	<0.001	<0.001	<0.001
Barium	7440-39-3	0.001	mg/L		----	0.002	0.016	0.117	0.008
Cadmium	7440-43-9	0.0001	mg/L		----	<0.0001	<0.0001	<0.0001	<0.0001
Cobalt	7440-48-4	0.001	mg/L		----	<0.001	0.002	<0.001	<0.001
Chromium	7440-47-3	0.001	mg/L		----	<0.001	<0.001	<0.001	<0.001
Manganese	7439-96-5	0.001	mg/L		----	0.046	0.308	0.059	0.004
Lead	7439-92-1	0.001	mg/L		----	<0.001	<0.001	<0.001	<0.001
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.0001	mg/L		----	<0.0001	<0.0001	<0.0001	<0.0001
EG050T: Total Hexavalent Chromium									
Hexavalent Chromium	18540-29-9	0.01	mg/L		----	<0.01	<0.01	<0.01	<0.01
EK040P: Fluoride by PC Titrator									
Fluoride	16984-48-8	0.1	mg/L		----	0.6	0.6	1.2	0.6
EK055G: Ammonia as N by Discrete Analyser									
Ammonia as N	7664-41-7	0.01	mg/L		----	<0.01	<0.01	<0.01	<0.01
EK057G: Nitrite as N by Discrete Analyser									

Analytical Results

Sub-Matrix: **WATER** (Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Client sample ID	GABH01	GABH02	GABH03	GABH06S	GABH06D
				Client sampling date / time	13-AUG-2013 15:00	13-AUG-2013 12:25	13-AUG-2013 12:05	13-AUG-2013 12:45	13-AUG-2013 12:50
					EW1302331-011	EW1302331-012	EW1302331-013	EW1302331-014	EW1302331-015
EK057G: Nitrite as N by Discrete Analyser - Continued									
Nitrite as N	----	0.01	mg/L		----	<0.01	<0.01	<0.01	<0.01
EK058G: Nitrate as N by Discrete Analyser									
Nitrate as N	14797-55-8	0.01	mg/L		----	<0.01	<0.01	<0.01	<0.01
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser									
Nitrite + Nitrate as N	----	0.01	mg/L		----	<0.01	<0.01	<0.01	<0.01
EN67 PK: Field Tests									
pH	----	0.1	pH Unit		----	**6.6**	**6.7**	**7.1**	**6.7**
Electrical Conductivity (Non Compensated)	----	1	µS/cm		----	**5450**	**5530**	**3120**	**3200**
Dissolved Oxygen	----	0.01	mg/L		----	**1.41**	**1.53**	**3.93**	**2.66**
Redox Potential	----	0.1	mV		----	**52.0**	**81.0**	**51.0**	**52.0**
Temperature	----	0.1	°C		----	**17.9**	**15.3**	**17.2**	**16.1**
Depth	----	0.01	m		----	**4.72**	**0.36**	**2.18**	**1.66**
Field Observations	----	0.01	--		**DESTROYED**	----	----	----	----
EP005: Total Organic Carbon (TOC)									
Total Organic Carbon	----	1	mg/L		----	**8**	**5**	**2**	**2**
EP035G: Total Phenol by Discrete Analyser									
Phenols (Total)	----	0.05	mg/L		----	<0.05	<0.05	<0.05	<0.05
EP068A: Organochlorine Pesticides (OC)									
alpha-BHC	319-84-6	0.5	µg/L		----	<0.5	<0.5	<0.5	<0.5
Hexachlorobenzene (HCB)	118-74-1	0.5	µg/L		----	<0.5	<0.5	<0.5	<0.5
beta-BHC	319-85-7	0.5	µg/L		----	<0.5	<0.5	<0.5	<0.5
gamma-BHC	58-89-9	0.5	µg/L		----	<0.5	<0.5	<0.5	<0.5
delta-BHC	319-86-8	0.5	µg/L		----	<0.5	<0.5	<0.5	<0.5
Heptachlor	76-44-8	0.5	µg/L		----	<0.5	<0.5	<0.5	<0.5
Aldrin	309-00-2	0.5	µg/L		----	<0.5	<0.5	<0.5	<0.5
Heptachlor epoxide	1024-57-3	0.5	µg/L		----	<0.5	<0.5	<0.5	<0.5
trans-Chlordane	5103-74-2	0.5	µg/L		----	<0.5	<0.5	<0.5	<0.5
alpha-Endosulfan	959-98-8	0.5	µg/L		----	<0.5	<0.5	<0.5	<0.5
cis-Chlordane	5103-71-9	0.5	µg/L		----	<0.5	<0.5	<0.5	<0.5
Dieldrin	60-57-1	0.5	µg/L		----	<0.5	<0.5	<0.5	<0.5
4.4`-DDE	72-55-9	0.5	µg/L		----	<0.5	<0.5	<0.5	<0.5
Endrin	72-20-8	0.5	µg/L		----	<0.5	<0.5	<0.5	<0.5
beta-Endosulfan	33213-65-9	0.5	µg/L		----	<0.5	<0.5	<0.5	<0.5

Analytical Results

Sub-Matrix: **WATER** (Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Client sample ID	GABH01	GABH02	GABH03	GABH06S	GABH06D
				Client sampling date / time	13-AUG-2013 15:00	13-AUG-2013 12:25	13-AUG-2013 12:05	13-AUG-2013 12:45	13-AUG-2013 12:50
					EW1302331-011	EW1302331-012	EW1302331-013	EW1302331-014	EW1302331-015
EP068A: Organochlorine Pesticides (OC) - Continued									
4.4`-DDD	72-54-8	0.5	µg/L		----	<0.5	<0.5	<0.5	<0.5
Endrin aldehyde	7421-93-4	0.5	µg/L		----	<0.5	<0.5	<0.5	<0.5
Endosulfan sulfate	1031-07-8	0.5	µg/L		----	<0.5	<0.5	<0.5	<0.5
4.4`-DDT	50-29-3	2.0	µg/L		----	<2.0	<2.0	<2.0	<2.0
Endrin ketone	53494-70-5	0.5	µg/L		----	<0.5	<0.5	<0.5	<0.5
Methoxychlor	72-43-5	2.0	µg/L		----	<2.0	<2.0	<2.0	<2.0
^ **Total Chlordane (sum)**	----	0.5	µg/L		----	<0.5	<0.5	<0.5	<0.5
^ **Sum of DDD + DDE + DDT**	----	0.5	µg/L		----	<0.5	<0.5	<0.5	<0.5
^ **Sum of Aldrin + Dieldrin**	309-00-2/60-57-1	0.5	µg/L		----	<0.5	<0.5	<0.5	<0.5
EP068B: Organophosphorus Pesticides (OP)									
Dichlorvos	62-73-7	0.5	µg/L		----	<0.5	<0.5	<0.5	<0.5
Demeton-S-methyl	919-86-8	0.5	µg/L		----	<0.5	<0.5	<0.5	<0.5
Monocrotophos	6923-22-4	2.0	µg/L		----	<2.0	<2.0	<2.0	<2.0
Dimethoate	60-51-5	0.5	µg/L		----	<0.5	<0.5	<0.5	<0.5
Diazinon	333-41-5	0.5	µg/L		----	<0.5	<0.5	<0.5	<0.5
Chlorpyrifos-methyl	5598-13-0	0.5	µg/L		----	<0.5	<0.5	<0.5	<0.5
Parathion-methyl	298-00-0	2.0	µg/L		----	<2.0	<2.0	<2.0	<2.0
Malathion	121-75-5	0.5	µg/L		----	<0.5	<0.5	<0.5	<0.5
Fenthion	55-38-9	0.5	µg/L		----	<0.5	<0.5	<0.5	<0.5
Chlorpyrifos	2921-88-2	0.5	µg/L		----	<0.5	<0.5	<0.5	<0.5
Parathion	56-38-2	2.0	µg/L		----	<2.0	<2.0	<2.0	<2.0
Pirimphos-ethyl	23505-41-1	0.5	µg/L		----	<0.5	<0.5	<0.5	<0.5
Chlorfenvinphos	470-90-6	0.5	µg/L		----	<0.5	<0.5	<0.5	<0.5
Bromophos-ethyl	4824-78-6	0.5	µg/L		----	<0.5	<0.5	<0.5	<0.5
Fenamiphos	22224-92-6	0.5	µg/L		----	<0.5	<0.5	<0.5	<0.5
Prothiofos	34643-46-4	0.5	µg/L		----	<0.5	<0.5	<0.5	<0.5
Ethion	563-12-2	0.5	µg/L		----	<0.5	<0.5	<0.5	<0.5
Carbophenothion	786-19-6	0.5	µg/L		----	<0.5	<0.5	<0.5	<0.5
Azinphos Methyl	86-50-0	0.5	µg/L		----	<0.5	<0.5	<0.5	<0.5
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	1.0	µg/L		----	<1.0	<1.0	<1.0	<1.0
Acenaphthylene	208-96-8	1.0	µg/L		----	<1.0	<1.0	<1.0	<1.0
Acenaphthene	83-32-9	1.0	µg/L		----	<1.0	<1.0	<1.0	<1.0

Analytical Results

Sub-Matrix: **WATER** (Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Client sample ID	GABH01	GABH02	GABH03	GABH06S	GABH06D
				Client sampling date / time	13-AUG-2013 15:00	13-AUG-2013 12:25	13-AUG-2013 12:05	13-AUG-2013 12:45	13-AUG-2013 12:50
					EW1302331-011	EW1302331-012	EW1302331-013	EW1302331-014	EW1302331-015
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued									
Fluorene	86-73-7	1.0	µg/L		----	<1.0	<1.0	<1.0	<1.0
Phenanthrene	85-01-8	1.0	µg/L		----	<1.0	<1.0	<1.0	<1.0
Anthracene	120-12-7	1.0	µg/L		----	<1.0	<1.0	<1.0	<1.0
Fluoranthene	206-44-0	1.0	µg/L		----	<1.0	<1.0	<1.0	<1.0
Pyrene	129-00-0	1.0	µg/L		----	<1.0	<1.0	<1.0	<1.0
Benz(a)anthracene	56-55-3	1.0	µg/L		----	<1.0	<1.0	<1.0	<1.0
Chrysene	218-01-9	1.0	µg/L		----	<1.0	<1.0	<1.0	<1.0
Benzo(b)fluoranthene	205-99-2	1.0	µg/L		----	<1.0	<1.0	<1.0	<1.0
Benzo(k)fluoranthene	207-08-9	1.0	µg/L		----	<1.0	<1.0	<1.0	<1.0
Benzo(a)pyrene	50-32-8	0.5	µg/L		----	<0.5	<0.5	<0.5	<0.5
Indeno(1.2.3.cd)pyrene	193-39-5	1.0	µg/L		----	<1.0	<1.0	<1.0	<1.0
Dibenz(a.h)anthracene	53-70-3	1.0	µg/L		----	<1.0	<1.0	<1.0	<1.0
Benzo(g.h.i)perylene	191-24-2	1.0	µg/L		----	<1.0	<1.0	<1.0	<1.0
^ **Sum of polycyclic aromatic hydrocarbons**	----	0.5	µg/L		----	<0.5	<0.5	<0.5	<0.5
^ **Benzo(a)pyrene TEQ (zero)**	----	0.5	µg/L		----	<0.5	<0.5	<0.5	<0.5
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	20	µg/L		----	<20	<20	<20	<20
C10 - C14 Fraction	----	50	µg/L		----	<50	<50	<50	<50
C15 - C28 Fraction	----	100	µg/L		----	<100	<100	<100	<100
C29 - C36 Fraction	----	50	µg/L		----	<50	<50	<50	<50
^ **C10 - C36 Fraction (sum)**	----	50	µg/L		----	<50	<50	<50	<50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013									
C6 - C10 Fraction	C6_C10	20	µg/L		----	<20	<20	<20	<20
^ **C6 - C10 Fraction minus BTEX (F1)**	C6_C10-BTEX	20	µg/L		----	<20	<20	<20	<20
>C10 - C16 Fraction	>C10_C16	100	µg/L		----	<100	<100	<100	<100
>C16 - C34 Fraction	----	100	µg/L		----	<100	<100	<100	<100
>C34 - C40 Fraction	----	100	µg/L		----	<100	<100	<100	<100
^ **>C10 - C40 Fraction (sum)**	----	100	µg/L		----	<100	<100	<100	<100
^ **>C10 - C16 Fraction minus Naphthalene (F2)**	----	100	µg/L		----	<100	<100	<100	<100
EP080: BTEXN									
Benzene	71-43-2	1	µg/L		----	<1	<1	<1	<1
Toluene	108-88-3	2	µg/L		----	<2	<2	<2	<2

Analytical Results

Sub-Matrix: **WATER** (Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Client sample ID	GABH01	GABH02	GABH03	GABH06S	GABH06D
				Client sampling date / time	13-AUG-2013 15:00	13-AUG-2013 12:25	13-AUG-2013 12:05	13-AUG-2013 12:45	13-AUG-2013 12:50
					EW1302331-011	EW1302331-012	EW1302331-013	EW1302331-014	EW1302331-015
EP080: BTEXN - Continued									
Ethylbenzene	100-41-4	2	µg/L		----	<2	<2	<2	<2
meta- & para-Xylene	108-38-3 106-42-3	2	µg/L		----	<2	<2	<2	<2
ortho-Xylene	95-47-6	2	µg/L		----	<2	<2	<2	<2
^ **Total Xylenes**	1330-20-7	2	µg/L		----	<2	<2	<2	<2
^ **Sum of BTEX**	----	1	µg/L		----	<1	<1	<1	<1
Naphthalene	91-20-3	5	µg/L		----	<5	<5	<5	<5
EP068S: Organochlorine Pesticide Surrogate									
Dibromo-DDE	21655-73-2	0.1	%		----	**65.3**	**72.0**	**68.4**	**70.4**
EP068T: Organophosphorus Pesticide Surrogate									
DEF	78-48-8	0.1	%		----	**73.2**	**79.9**	**73.0**	**78.7**
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.1	%		----	**25.2**	**30.0**	**28.2**	**24.5**
2-Chlorophenol-D4	93951-73-6	0.1	%		----	**53.6**	**63.8**	**60.0**	**52.0**
2.4.6-Tribromophenol	118-79-6	0.1	%		----	**65.0**	**73.8**	**63.8**	**61.2**
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.1	%		----	**59.2**	**73.8**	**67.8**	**61.1**
Anthracene-d10	1719-06-8	0.1	%		----	**69.6**	**77.5**	**72.6**	**72.0**
4-Terphenyl-d14	1718-51-0	0.1	%		----	**70.8**	**79.6**	**75.9**	**78.3**
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.1	%		----	**100**	**128**	**115**	**118**
Toluene-D8	2037-26-5	0.1	%		----	**79.7**	**89.4**	**79.9**	**79.4**
4-Bromofluorobenzene	460-00-4	0.1	%		----	**87.4**	**89.8**	**85.6**	**85.2**

Analytical Results

Sub-Matrix: **WATER** (Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Client sample ID	BH6	Surface Water 1	Surface Water 2	Surface Water 3	Surface Water 4
				Client sampling date / time	13-AUG-2013 15:00	13-AUG-2013 10:50	13-AUG-2013 09:58	13-AUG-2013 09:50	13-AUG-2013 10:15
					EW1302331-016	EW1302331-017	EW1302331-018	EW1302331-019	EW1302331-020
EA015: Total Dissolved Solids									
Total Dissolved Solids @180°C	----	10	mg/L		**2920**	**798**	**631**	**280**	**288**
EA025: Suspended Solids									
Suspended Solids (SS)	----	5	mg/L		----	**154**	**33**	<5	<5
ED037P: Alkalinity by PC Titrator									
Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L		<1	<1	<1	<1	<1
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L		<1	<1	<1	<1	<1
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L		**711**	**501**	**358**	**129**	**142**
Total Alkalinity as CaCO3	----	1	mg/L		**711**	**501**	**358**	**129**	**142**
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA									
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L		**283**	**24**	**22**	**15**	**19**
ED045G: Chloride Discrete analyser									
Chloride	16887-00-6	1	mg/L		**992**	**210**	**165**	**58**	**66**
ED093T: Total Major Cations									
Calcium	7440-70-2	1	mg/L		**122**	**54**	**46**	**34**	**34**
Magnesium	7439-95-4	1	mg/L		**129**	**37**	**30**	**17**	**17**
Sodium	7440-23-5	1	mg/L		**852**	**177**	**142**	**34**	**44**
Potassium	7440-09-7	1	mg/L		<1	**39**	**30**	**3**	**5**
EG020T: Total Metals by ICP-MS									
Aluminium	7429-90-5	0.01	mg/L		**0.05**	**0.42**	**1.10**	**0.02**	**0.01**
Arsenic	7440-38-2	0.001	mg/L		**0.003**	**0.008**	**0.002**	<0.001	<0.001
Barium	7440-39-3	0.001	mg/L		**0.055**	**0.181**	**0.146**	**0.176**	**0.149**
Cadmium	7440-43-9	0.0001	mg/L		<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Cobalt	7440-48-4	0.001	mg/L		**0.010**	**0.003**	**0.003**	<0.001	<0.001
Chromium	7440-47-3	0.001	mg/L		<0.001	**0.007**	**0.003**	<0.001	<0.001
Manganese	7439-96-5	0.001	mg/L		**1.77**	**1.72**	**1.92**	**0.155**	**0.238**
Lead	7439-92-1	0.001	mg/L		**0.005**	**0.001**	**0.001**	<0.001	<0.001
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.0001	mg/L		<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
EG050T: Total Hexavalent Chromium									
Hexavalent Chromium	18540-29-9	0.01	mg/L		<0.01	<0.01	<0.01	<0.01	<0.01
EK040P: Fluoride by PC Titrator									
Fluoride	16984-48-8	0.1	mg/L		**1.1**	**0.6**	**0.5**	**0.1**	**0.2**
EK055G: Ammonia as N by Discrete Analyser									

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Client sample ID	BH6	Surface Water 1	Surface Water 2	Surface Water 3	Surface Water 4
				Client sampling date / time	13-AUG-2013 15:00	13-AUG-2013 10:50	13-AUG-2013 09:58	13-AUG-2013 09:50	13-AUG-2013 10:15
Compound	CAS Number	LOR	Unit		EW1302331-016	EW1302331-017	EW1302331-018	EW1302331-019	EW1302331-020
EK055G: Ammonia as N by Discrete Analyser - Continued									
Ammonia as N	7664-41-7	0.01	mg/L		0.07	30.8	13.6	0.04	0.15
EK057G: Nitrite as N by Discrete Analyser									
Nitrite as N	----	0.01	mg/L		<0.01	0.19	0.18	<0.01	0.02
EK058G: Nitrate as N by Discrete Analyser									
Nitrate as N	14797-55-8	0.01	mg/L		<0.01	0.26	1.31	0.04	0.60
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser									
Nitrite + Nitrate as N	----	0.01	mg/L		<0.01	0.45	1.49	0.04	0.62
EN67 PK: Field Tests									
pH	----	0.1	pH Unit		6.9	7.8	7.9	7.4	7.1
Electrical Conductivity (Non Compensated)	----	1	µS/cm		5170	1640	1310	515	535
Dissolved Oxygen	----	0.01	mg/L		1.43	4.66	7.81	8.23	5.87
Redox Potential	----	0.1	mV		107	-84.0	13.0	-4.8	-60.0
Temperature	----	0.1	°C		18.4	12.4	11.6	13.4	13.2
Depth	----	0.01	m		1.46	----	----	----	----
EP005: Total Organic Carbon (TOC)									
Total Organic Carbon	----	1	mg/L		3	45	29	3	5
EP035G: Total Phenol by Discrete Analyser									
Phenols (Total)	----	0.05	mg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP068A: Organochlorine Pesticides (OC)									
alpha-BHC	319-84-6	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
Hexachlorobenzene (HCB)	118-74-1	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
beta-BHC	319-85-7	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
gamma-BHC	58-89-9	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
delta-BHC	319-86-8	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
Heptachlor	76-44-8	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
Aldrin	309-00-2	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
Heptachlor epoxide	1024-57-3	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
trans-Chlordane	5103-74-2	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
alpha-Endosulfan	959-98-8	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
cis-Chlordane	5103-71-9	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
Dieldrin	60-57-1	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
4.4`-DDE	72-55-9	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5

Analytical Results

Sub-Matrix: **WATER** (Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Client sample ID	BH6	Surface Water 1	Surface Water 2	Surface Water 3	Surface Water 4
				Client sampling date / time	13-AUG-2013 15:00	13-AUG-2013 10:50	13-AUG-2013 09:58	13-AUG-2013 09:50	13-AUG-2013 10:15
					EW1302331-016	EW1302331-017	EW1302331-018	EW1302331-019	EW1302331-020
EP068A: Organochlorine Pesticides (OC) - Continued									
Endrin	72-20-8	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
beta-Endosulfan	33213-65-9	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
4.4`-DDD	72-54-8	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
Endrin aldehyde	7421-93-4	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
Endosulfan sulfate	1031-07-8	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
4.4`-DDT	50-29-3	2.0	µg/L		<2.0	<2.0	<2.0	<2.0	<2.0
Endrin ketone	53494-70-5	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
Methoxychlor	72-43-5	2.0	µg/L		<2.0	<2.0	<2.0	<2.0	<2.0
^ **Total Chlordane (sum)**	----	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
^ **Sum of DDD + DDE + DDT**	----	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
^ **Sum of Aldrin + Dieldrin**	309-00-2/60-57-1	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
EP068B: Organophosphorus Pesticides (OP)									
Dichlorvos	62-73-7	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
Demeton-S-methyl	919-86-8	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
Monocrotophos	6923-22-4	2.0	µg/L		<2.0	<2.0	<2.0	<2.0	<2.0
Dimethoate	60-51-5	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
Diazinon	333-41-5	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
Chlorpyrifos-methyl	5598-13-0	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
Parathion-methyl	298-00-0	2.0	µg/L		<2.0	<2.0	<2.0	<2.0	<2.0
Malathion	121-75-5	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
Fenthion	55-38-9	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
Chlorpyrifos	2921-88-2	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
Parathion	56-38-2	2.0	µg/L		<2.0	<2.0	<2.0	<2.0	<2.0
Pirimphos-ethyl	23505-41-1	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
Chlorfenvinphos	470-90-6	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
Bromophos-ethyl	4824-78-6	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
Fenamiphos	22224-92-6	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
Prothiofos	34643-46-4	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
Ethion	563-12-2	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
Carbophenothion	786-19-6	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
Azinphos Methyl	86-50-0	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	1.0	µg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Acenaphthylene	208-96-8	1.0	µg/L		<1.0	<1.0	<1.0	<1.0	<1.0

Analytical Results

Sub-Matrix: **WATER** (Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Client sample ID: BH6	Surface Water 1	Surface Water 2	Surface Water 3	Surface Water 4
				Client sampling date / time: 13-AUG-2013 15:00	13-AUG-2013 10:50	13-AUG-2013 09:58	13-AUG-2013 09:50	13-AUG-2013 10:15
				EW1302331-016	EW1302331-017	EW1302331-018	EW1302331-019	EW1302331-020
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued								
Acenaphthene	83-32-9	1.0	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0
Fluorene	86-73-7	1.0	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0
Phenanthrene	85-01-8	1.0	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0
Anthracene	120-12-7	1.0	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0
Fluoranthene	206-44-0	1.0	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0
Pyrene	129-00-0	1.0	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0
Benz(a)anthracene	56-55-3	1.0	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0
Chrysene	218-01-9	1.0	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0
Benzo(b)fluoranthene	205-99-2	1.0	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0
Benzo(k)fluoranthene	207-08-9	1.0	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0
Benzo(a)pyrene	50-32-8	0.5	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5
Indeno(1.2.3.cd)pyrene	193-39-5	1.0	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0
Dibenz(a.h)anthracene	53-70-3	1.0	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0
Benzo(g.h.i)perylene	191-24-2	1.0	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5
^ Benzo(a)pyrene TEQ (zero)	----	0.5	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5
EP080/071: Total Petroleum Hydrocarbons								
C6 - C9 Fraction	----	20	µg/L	<20	<20	<20	<20	<20
C10 - C14 Fraction	----	50	µg/L	<50	**70**	<50	<50	<50
C15 - C28 Fraction	----	100	µg/L	<100	**120**	<100	<100	<100
C29 - C36 Fraction	----	50	µg/L	<50	<50	<50	<50	<50
^ C10 - C36 Fraction (sum)	----	50	µg/L	<50	**190**	<50	<50	<50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013								
C6 - C10 Fraction	C6_C10	20	µg/L	<20	<20	<20	<20	<20
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	20	µg/L	<20	<20	<20	<20	<20
>C10 - C16 Fraction	>C10_C16	100	µg/L	<100	<100	<100	<100	<100
>C16 - C34 Fraction	----	100	µg/L	<100	**110**	<100	<100	<100
>C34 - C40 Fraction	----	100	µg/L	<100	<100	<100	<100	<100
^ >C10 - C40 Fraction (sum)	----	100	µg/L	<100	**110**	<100	<100	<100
^ >C10 - C16 Fraction minus Naphthalene (F2)	----	100	µg/L	<100	<100	<100	<100	<100
EP080: BTEXN								
Benzene	71-43-2	1	µg/L	<1	<1	<1	<1	<1

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)			Client sample ID	BH6	Surface Water 1	Surface Water 2	Surface Water 3	Surface Water 4
			Client sampling date / time	13-AUG-2013 15:00	13-AUG-2013 10:50	13-AUG-2013 09:58	13-AUG-2013 09:50	13-AUG-2013 10:15
Compound	CAS Number	LOR	Unit	EW1302331-016	EW1302331-017	EW1302331-018	EW1302331-019	EW1302331-020
EP080: BTEXN - Continued								
Toluene	108-88-3	2	µg/L	<2	<2	<2	<2	<2
Ethylbenzene	100-41-4	2	µg/L	<2	<2	<2	<2	<2
meta- & para-Xylene	108-38-3 106-42-3	2	µg/L	<2	<2	<2	<2	<2
ortho-Xylene	95-47-6	2	µg/L	<2	<2	<2	<2	<2
^ **Total Xylenes**	1330-20-7	2	µg/L	<2	<2	<2	<2	<2
^ **Sum of BTEX**	----	1	µg/L	<1	<1	<1	<1	<1
Naphthalene	91-20-3	5	µg/L	<5	<5	<5	<5	<5
EP068S: Organochlorine Pesticide Surrogate								
Dibromo-DDE	21655-73-2	0.1	%	**66.4**	**67.7**	**72.0**	**70.5**	**74.6**
EP068T: Organophosphorus Pesticide Surrogate								
DEF	78-48-8	0.1	%	**61.2**	**78.1**	**85.0**	**75.8**	**83.6**
EP075(SIM)S: Phenolic Compound Surrogates								
Phenol-d6	13127-88-3	0.1	%	**16.8**	**28.5**	**27.0**	**22.6**	**30.2**
2-Chlorophenol-D4	93951-73-6	0.1	%	**44.1**	**58.6**	**58.3**	**49.5**	**63.5**
2.4.6-Tribromophenol	118-79-6	0.1	%	**59.0**	**77.2**	**75.1**	**67.0**	**74.2**
EP075(SIM)T: PAH Surrogates								
2-Fluorobiphenyl	321-60-8	0.1	%	**58.3**	**72.5**	**71.9**	**62.0**	**75.4**
Anthracene-d10	1719-06-8	0.1	%	**61.0**	**72.9**	**73.0**	**74.0**	**80.4**
4-Terphenyl-d14	1718-51-0	0.1	%	**72.1**	**75.0**	**74.3**	**75.3**	**81.9**
EP080S: TPH(V)/BTEX Surrogates								
1.2-Dichloroethane-D4	17060-07-0	0.1	%	**107**	**102**	**122**	**123**	**124**
Toluene-D8	2037-26-5	0.1	%	**83.3**	**107**	**88.5**	**90.5**	**84.9**
4-Bromofluorobenzene	460-00-4	0.1	%	**83.4**	**116**	**84.5**	**92.1**	**89.7**

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)			Client sample ID	Surface Water 5	Surface Water 6	Leachate	----	----
			Client sampling date / time	13-AUG-2013 10:25	13-AUG-2013 11:05	13-AUG-2013 13:05	----	----
Compound	CAS Number	LOR	Unit	EW1302331-021	EW1302331-022	EW1302331-023	----	----
EA015: Total Dissolved Solids								
Total Dissolved Solids @180°C	----	10	mg/L	**294**	**304**	**8450**	----	----
EA025: Suspended Solids								
Suspended Solids (SS)	----	5	mg/L	<5	<5	**72**	----	----
ED037P: Alkalinity by PC Titrator								
Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L	<1	<1	<1	----	----
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	<1	<1	**440**	----	----
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	**141**	**163**	**7730**	----	----
Total Alkalinity as CaCO3	----	1	mg/L	**141**	**163**	**8170**	----	----
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA								
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	**18**	**34**	<10	----	----
ED045G: Chloride Discrete analyser								
Chloride	16887-00-6	1	mg/L	**68**	**61**	**2160**	----	----
ED093T: Total Major Cations								
Calcium	7440-70-2	1	mg/L	**33**	**46**	**50**	----	----
Magnesium	7439-95-4	1	mg/L	**17**	**21**	**64**	----	----
Sodium	7440-23-5	1	mg/L	**46**	**37**	**1960**	----	----
Potassium	7440-09-7	1	mg/L	**6**	**3**	**740**	----	----
EG020T: Total Metals by ICP-MS								
Aluminium	7429-90-5	0.01	mg/L	**0.04**	**0.02**	**0.11**	----	----
Arsenic	7440-38-2	0.001	mg/L	<0.001	<0.001	**0.144**	----	----
Barium	7440-39-3	0.001	mg/L	**0.177**	**0.243**	**0.271**	----	----
Cadmium	7440-43-9	0.0001	mg/L	<0.0001	<0.0001	**0.0002**	----	----
Cobalt	7440-48-4	0.001	mg/L	<0.001	<0.001	**0.031**	----	----
Chromium	7440-47-3	0.001	mg/L	<0.001	<0.001	**0.208**	----	----
Manganese	7439-96-5	0.001	mg/L	**0.210**	**0.179**	**0.143**	----	----
Lead	7439-92-1	0.001	mg/L	<0.001	<0.001	**0.003**	----	----
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	<0.0001	----	----
EG050T: Total Hexavalent Chromium								
Hexavalent Chromium	18540-29-9	0.01	mg/L	<0.01	<0.01	<0.10	----	----
EK040P: Fluoride by PC Titrator								
Fluoride	16984-48-8	0.1	mg/L	**0.2**	**0.3**	**1.9**	----	----
EK055G: Ammonia as N by Discrete Analyser								

Analytical Results

Sub-Matrix: **WATER** (Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Client sample ID: Surface Water 5	Surface Water 6	Leachate	----	----
				Client sampling date / time: 13-AUG-2013 10:25	13-AUG-2013 11:05	13-AUG-2013 13:05	----	----
				EW1302331-021	EW1302331-022	EW1302331-023	----	----
EK055G: Ammonia as N by Discrete Analyser - Continued								
Ammonia as N	7664-41-7	0.01	mg/L	**0.05**	**0.01**	**1080**	----	----
EK057G: Nitrite as N by Discrete Analyser								
Nitrite as N	----	0.01	mg/L	<0.01	<0.01	<0.10	----	----
EK058G: Nitrate as N by Discrete Analyser								
Nitrate as N	14797-55-8	0.01	mg/L	**0.62**	<0.01	<0.10	----	----
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser								
Nitrite + Nitrate as N	----	0.01	mg/L	**0.62**	<0.01	<0.10	----	----
EN67 PK: Field Tests								
pH	----	0.1	pH Unit	**7.0**	**7.6**	**8.5**	----	----
Electrical Conductivity (Non Compensated)	----	1	µS/cm	**580**	**594**	**21100**	----	----
Dissolved Oxygen	----	0.01	mg/L	**5.84**	**8.70**	**0.11**	----	----
Redox Potential	----	0.1	mV	**-21.0**	**30.0**	**-67.0**	----	----
Temperature	----	0.1	°C	**12.6**	**12.1**	**22.3**	----	----
EP005: Total Organic Carbon (TOC)								
Total Organic Carbon	----	1	mg/L	**5**	**3**	----	----	----
Nonpurgeable Organic Carbon	----	1	mg/L	----	----	**1120**	----	----
EP035G: Total Phenol by Discrete Analyser								
Phenols (Total)	----	0.05	mg/L	<0.05	<0.05	**2.74**	----	----
EP068A: Organochlorine Pesticides (OC)								
alpha-BHC	319-84-6	0.5	µg/L	<0.5	<0.5	<2.4	----	----
Hexachlorobenzene (HCB)	118-74-1	0.5	µg/L	<0.5	<0.5	<2.4	----	----
beta-BHC	319-85-7	0.5	µg/L	<0.5	<0.5	<2.4	----	----
gamma-BHC	58-89-9	0.5	µg/L	<0.5	<0.5	<2.4	----	----
delta-BHC	319-86-8	0.5	µg/L	<0.5	<0.5	<2.4	----	----
Heptachlor	76-44-8	0.5	µg/L	<0.5	<0.5	<2.4	----	----
Aldrin	309-00-2	0.5	µg/L	<0.5	<0.5	<2.4	----	----
Heptachlor epoxide	1024-57-3	0.5	µg/L	<0.5	<0.5	<2.4	----	----
trans-Chlordane	5103-74-2	0.5	µg/L	<0.5	<0.5	<2.4	----	----
alpha-Endosulfan	959-98-8	0.5	µg/L	<0.5	<0.5	<2.4	----	----
cis-Chlordane	5103-71-9	0.5	µg/L	<0.5	<0.5	<2.4	----	----
Dieldrin	60-57-1	0.5	µg/L	<0.5	<0.5	<2.4	----	----
4.4`-DDE	72-55-9	0.5	µg/L	<0.5	<0.5	<2.4	----	----

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Client sample ID	Surface Water 5	Surface Water 6	Leachate	----	----
				Client sampling date / time	13-AUG-2013 10:25	13-AUG-2013 11:05	13-AUG-2013 13:05	----	----
Compound	CAS Number	LOR	Unit		EW1302331-021	EW1302331-022	EW1302331-023	----	----
EP068A: Organochlorine Pesticides (OC) - Continued									
Endrin	72-20-8	0.5	µg/L		<0.5	<0.5	<2.4	----	----
beta-Endosulfan	33213-65-9	0.5	µg/L		<0.5	<0.5	<2.4	----	----
4.4`-DDD	72-54-8	0.5	µg/L		<0.5	<0.5	<2.4	----	----
Endrin aldehyde	7421-93-4	0.5	µg/L		<0.5	<0.5	<2.4	----	----
Endosulfan sulfate	1031-07-8	0.5	µg/L		<0.5	<0.5	<2.4	----	----
4.4`-DDT	50-29-3	2.0	µg/L		<2.0	<2.0	<2.4	----	----
Endrin ketone	53494-70-5	0.5	µg/L		<0.5	<0.5	<2.4	----	----
Methoxychlor	72-43-5	2.0	µg/L		<2.0	<2.0	<2.4	----	----
^ Total Chlordane (sum)	----	0.5	µg/L		<0.5	<0.5	<2.4	----	----
^ Sum of DDD + DDE + DDT	----	0.5	µg/L		<0.5	<0.5	<2.4	----	----
^ Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.5	µg/L		<0.5	<0.5	<2.4	----	----
EP068B: Organophosphorus Pesticides (OP)									
Dichlorvos	62-73-7	0.5	µg/L		<0.5	<0.5	<2.4	----	----
Demeton-S-methyl	919-86-8	0.5	µg/L		<0.5	<0.5	<2.4	----	----
Monocrotophos	6923-22-4	2.0	µg/L		<2.0	<2.0	<2.4	----	----
Dimethoate	60-51-5	0.5	µg/L		<0.5	<0.5	<2.4	----	----
Diazinon	333-41-5	0.5	µg/L		<0.5	<0.5	<2.4	----	----
Chlorpyrifos-methyl	5598-13-0	0.5	µg/L		<0.5	<0.5	<2.4	----	----
Parathion-methyl	298-00-0	2.0	µg/L		<2.0	<2.0	<2.4	----	----
Malathion	121-75-5	0.5	µg/L		<0.5	<0.5	<2.4	----	----
Fenthion	55-38-9	0.5	µg/L		<0.5	<0.5	<2.4	----	----
Chlorpyrifos	2921-88-2	0.5	µg/L		<0.5	<0.5	<2.4	----	----
Parathion	56-38-2	2.0	µg/L		<2.0	<2.0	<2.4	----	----
Pirimphos-ethyl	23505-41-1	0.5	µg/L		<0.5	<0.5	<2.4	----	----
Chlorfenvinphos	470-90-6	0.5	µg/L		<0.5	<0.5	<2.4	----	----
Bromophos-ethyl	4824-78-6	0.5	µg/L		<0.5	<0.5	<2.4	----	----
Fenamiphos	22224-92-6	0.5	µg/L		<0.5	<0.5	<2.4	----	----
Prothiofos	34643-46-4	0.5	µg/L		<0.5	<0.5	<2.4	----	----
Ethion	563-12-2	0.5	µg/L		<0.5	<0.5	<2.4	----	----
Carbophenothion	786-19-6	0.5	µg/L		<0.5	<0.5	<2.4	----	----
Azinphos Methyl	86-50-0	0.5	µg/L		<0.5	<0.5	<2.4	----	----
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	1.0	µg/L		<1.0	<1.0	<9.6	----	----
Acenaphthylene	208-96-8	1.0	µg/L		<1.0	<1.0	<9.6	----	----

Analytical Results

Sub-Matrix: **WATER** (Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Client sample ID	Surface Water 5	Surface Water 6	Leachate	----	----
				Client sampling date / time	13-AUG-2013 10:25	13-AUG-2013 11:05	13-AUG-2013 13:05	----	----
					EW1302331-021	EW1302331-022	EW1302331-023	----	----
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued									
Acenaphthene	83-32-9	1.0	µg/L		<1.0	<1.0	<9.6	----	----
Fluorene	86-73-7	1.0	µg/L		<1.0	<1.0	<9.6	----	----
Phenanthrene	85-01-8	1.0	µg/L		<1.0	<1.0	<9.6	----	----
Anthracene	120-12-7	1.0	µg/L		<1.0	<1.0	<9.6	----	----
Fluoranthene	206-44-0	1.0	µg/L		<1.0	<1.0	<9.6	----	----
Pyrene	129-00-0	1.0	µg/L		<1.0	<1.0	<9.6	----	----
Benz(a)anthracene	56-55-3	1.0	µg/L		<1.0	<1.0	<9.6	----	----
Chrysene	218-01-9	1.0	µg/L		<1.0	<1.0	<9.6	----	----
Benzo(b)fluoranthene	205-99-2	1.0	µg/L		<1.0	<1.0	<9.6	----	----
Benzo(k)fluoranthene	207-08-9	1.0	µg/L		<1.0	<1.0	<9.6	----	----
Benzo(a)pyrene	50-32-8	0.5	µg/L		<0.5	<0.5	<9.6	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	1.0	µg/L		<1.0	<1.0	<9.6	----	----
Dibenz(a.h)anthracene	53-70-3	1.0	µg/L		<1.0	<1.0	<9.6	----	----
Benzo(g.h.i)perylene	191-24-2	1.0	µg/L		<1.0	<1.0	<9.6	----	----
^ **Sum of polycyclic aromatic hydrocarbons**	----	0.5	µg/L		<0.5	<0.5	<4.8	----	----
^ **Benzo(a)pyrene TEQ (zero)**	----	0.5	µg/L		<0.5	<0.5	<9.6	----	----
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	20	µg/L		<20	<20	**340**	----	----
C10 - C14 Fraction	----	50	µg/L		<50	<50	**23100**	----	----
C15 - C28 Fraction	----	100	µg/L		<100	<100	**20200**	----	----
C29 - C36 Fraction	----	50	µg/L		<50	<50	**300**	----	----
^ **C10 - C36 Fraction (sum)**	----	50	µg/L		<50	<50	**43600**	----	----
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013									
C6 - C10 Fraction	C6_C10	20	µg/L		<20	<20	**390**	----	----
^ **C6 - C10 Fraction minus BTEX (F1)**	C6_C10-BTEX	20	µg/L		<20	<20	**320**	----	----
>C10 - C16 Fraction	>C10_C16	100	µg/L		<100	<100	**22400**	----	----
>C16 - C34 Fraction	----	100	µg/L		<100	<100	**18700**	----	----
>C34 - C40 Fraction	----	100	µg/L		<100	<100	<100	----	----
^ **>C10 - C40 Fraction (sum)**	----	100	µg/L		<100	<100	**41100**	----	----
^ **>C10 - C16 Fraction minus Naphthalene (F2)**	----	100	µg/L		<100	<100	**22400**	----	----
EP080: BTEXN									
Benzene	71-43-2	1	µg/L		<1	<1	**2**	----	----

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)			Client sample ID	Surface Water 5	Surface Water 6	Leachate	----	----
			Client sampling date / time	13-AUG-2013 10:25	13-AUG-2013 11:05	13-AUG-2013 13:05	----	----
Compound	CAS Number	LOR	Unit	EW1302331-021	EW1302331-022	EW1302331-023	----	----
EP080: BTEXN - Continued								
Toluene	108-88-3	2	µg/L	<2	<2	**47**	----	----
Ethylbenzene	100-41-4	2	µg/L	<2	<2	**5**	----	----
meta- & para-Xylene	108-38-3 106-42-3	2	µg/L	<2	<2	**11**	----	----
ortho-Xylene	95-47-6	2	µg/L	<2	<2	**7**	----	----
^ **Total Xylenes**	1330-20-7	2	µg/L	<2	<2	**18**	----	----
^ **Sum of BTEX**	----	1	µg/L	<1	<1	**72**	----	----
Naphthalene	91-20-3	5	µg/L	<5	<5	**7**	----	----
EP068S: Organochlorine Pesticide Surrogate								
Dibromo-DDE	21655-73-2	0.1	%	**70.1**	**71.0**	**82.6**	----	----
EP068T: Organophosphorus Pesticide Surrogate								
DEF	78-48-8	0.1	%	**73.2**	**76.0**	**55.0**	----	----
EP075(SIM)S: Phenolic Compound Surrogates								
Phenol-d6	13127-88-3	0.1	%	**25.8**	**25.7**	**Not Determined**	----	----
2-Chlorophenol-D4	93951-73-6	0.1	%	**56.9**	**52.1**	**Not Determined**	----	----
2.4.6-Tribromophenol	118-79-6	0.1	%	**61.4**	**52.7**	**Not Determined**	----	----
EP075(SIM)T: PAH Surrogates								
2-Fluorobiphenyl	321-60-8	0.1	%	**66.8**	**66.6**	**Not Determined**	----	----
Anthracene-d10	1719-06-8	0.1	%	**71.9**	**67.0**	**Not Determined**	----	----
4-Terphenyl-d14	1718-51-0	0.1	%	**71.9**	**72.1**	**Not Determined**	----	----
EP080S: TPH(V)/BTEX Surrogates								
1.2-Dichloroethane-D4	17060-07-0	0.1	%	**124**	**98.9**	**107**	----	----
Toluene-D8	2037-26-5	0.1	%	**83.2**	**111**	**122**	----	----
4-Bromofluorobenzene	460-00-4	0.1	%	**85.6**	**120**	**118**	----	----

Surrogate Control Limits

Sub-Matrix: **WATER**

Compound	CAS Number	Recovery Limits (%) Low	High
EP068S: Organochlorine Pesticide Surrogate			
Dibromo-DDE	21655-73-2	30	120
EP068T: Organophosphorus Pesticide Surrogate			
DEF	78-48-8	26.8	129
EP075(SIM)S: Phenolic Compound Surrogates			
Phenol-d6	13127-88-3	10.0	44
2-Chlorophenol-D4	93951-73-6	14	94
2.4.6-Tribromophenol	118-79-6	17	125
EP075(SIM)T: PAH Surrogates			
2-Fluorobiphenyl	321-60-8	20	104
Anthracene-d10	1719-06-8	27.4	113
4-Terphenyl-d14	1718-51-0	32	112
EP080S: TPH(V)/BTEX Surrogates			
1.2-Dichloroethane-D4	17060-07-0	71	137
Toluene-D8	2037-26-5	79	131
4-Bromofluorobenzene	460-00-4	70	128