17 May 2013
Project No. 42213719

Darwin Waterfront Corporation
Ground Floor
Level 5, 7 Kitchener Drive
Darwin NT 0800

Attention: John Kassaras

Dear John

Subject: Classification of Stockpiled Stage 1 Derived Fill Material for Potential On-Site Reuse or Off-Site Disposal – Stage 2A – Earthworks 25 January 2013 to 16 April 2013

Introduction

URS Australia Pty Ltd (URS) has been requested by Darwin Waterfront Corporation (DWC) to provide a letter report on the status of material excavated during the construction works at Darwin Waterfront Stage 2A (the Site).

URS undertook sampling of the Stage 1 derived fill, which was used to create a temporary access for the previously proposed lock, at the Darwin Waterfront Precinct on 16 April 2013. As part of the environmental assessment works undertaken by URS, this material was sampled with the purpose of classification for potential on-site reuse, as per site specific acceptance criteria, or off-site disposal, as per Northern Territory Waste Classification Guidelines.

Methodology

It is estimated that approximately 7,000 m^3 of fill material had been pulled back from the temporary access road and stockpiled in the stockpile management area. A total of 68 primary samples (1 sample per 102 m^3 of bulked out fill material), five field duplicate and five field triplicate samples were taken from the fill material. Of the 68 samples collected, 35 primary samples, three field duplicate and three field triplicate samples were analysed, providing an analytical rate exceeding the 1 sample per 250 m^3 of bulked out spoil recommended by the Victorian EPA Industrial Waste Resource Guidelines, IWRG 702 sampling density for stockpiles >5000m^3 when using the 95% upper control limit (UCL) average.

All samples were collected with the assistance of a 5 T excavator to cut representative cross sections through the stockpile profile. Samples were collected by hand from the excavated spoil, using dedicated nitrile gloves for each sample, and placed into laboratory supplied jars for transport to the laboratory. Standard environmental protocols were followed with respect to sample collection, and laboratory analyses included quality assurance/quality control samples to enable URS's assessment of the suitability of the data for interpretive use.

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Soil analytical results have been compared against the following guidelines for assessment of material for off-site disposal, as summarised in **Attachment A**:

- The "NT Waste Classification Guidelines" adopted from NSW DECCW Waste Classification Guidelines (2008); and
- The site specific acceptance criteria (URS RAP V6 9th August 2005) based on National Environment Protection (Assessment of Site Contamination) Measure – Health Based Investigation Levels (NEPM, 1999) – HILs E and F and Ecological Intervention Levels (EILs); and Dutch Intervention Criteria (2000).

Data Validation

URS has undertaken a review of the laboratory analytical results and considers the data acceptable for interpretive use as described in **Attachment D**. The following points have been raised and considered when making this assertion.

- No Field Blank or Trip Blank were analysed; hence potential cross-contamination has not been assessed directly. As no samples, including the Rinsate Blank (QCB01_160413), were reported to contain BTEXN or volatile TPH and all samples were taken from the excavator's bucket, fresh gloves and placed directly into the sample container, the potential for cross-contamination is minimal; concentrations of zinc (0.045 mg/L) were detected above the LOR in the rinsate sample collected on 16 April 2013 (QCB01_160413) in batch ES1309212. Soil samples collected on the 16 April 2013 were all reported with concentrations of zinc well above the LOR; hence this is not considered to affect the interpretation of the results.
- Laboratory duplicate RPDs exceeded LOR based limits for Chromium, Manganese, Vanadium and Zinc. This apparent lack of precision is likely due to heterogeneity of the distribution of these analytes in soils at the site, and should be taken into consideration when evaluating individual results close to the investigation levels.
- Matrix spike recoveries were reported less than the lower data quality objective for Manganese, Zinc and Barium. The accuracy of these analytes is considered acceptable based on other quality control data including method blanks, laboratory control spikes, surrogates and matrix spikes for analytes analysed under the same analytical method.
- The Laboratory Control Spike (LCS) recoveries for several PAHs and Pentachlorophenol were reported greater than the upper control limits; hence, there is the potential for the results to be biased high. Further, the LCS recoveries for 4,4- DDE was reported less than the lower control limits; hence, there is the potential for the results to be biased low. Due to the presence of other quality control data, including method blanks, matrix spikes and surrogate recoveries, and as these analytes were not reported above the laboratory LOR, the accuracy of the analytical data for these analytes is considered acceptable.
- Several field duplicate and triplicate RPDs exceeded control limits for metals. For most samples, reported concentrations were either well above or below the adopted ILs; however, the apparent lack of precision should be taken into consideration when evaluating individual results, particularly where concentrations are reported close to the adopted investigation level.

Laboratory Results

The laboratory results are summarised and assessed against the relevant off-site disposal criteria in **Attachment A**. Laboratory analytical reports and chain of custody (COC) documentation are provided as **Attachment B**.

On-Site Reuse – Site Specific Acceptance Criteria (URS RAP V6 – 9 August 2005)

Table 1 On-Site Reuse Criteria – Site Specific Acceptance Criteria

Analyte	Class 1 Criteria [a]	Class 2A Criteria [a]	# of Samples	# >LOR	# > Guideline	95% UCL
Arsenic	20	200	41	33	0	13.8
Barium	300	-	21	21	1	157.9
Chromium	-	-	41	41	NA	45.6
Cobalt	-	200	21	11	0	2.6
Copper	100	2,000	41	41	1	30.8
Lead	600	600	41	41	1	115.9
Manganese	500	3,000	21	21	0	90.1
Nickel	60	600	41	41	0	7.7
Vanadium	**50**	-	**21**	**21**	**13**	**96.6**
Zinc	200	14,000	41	41	3	110.3
Dieldrin	-	-	21	41	NA	0.07

[a] URS RAP V6 9th August 2005

No individual sample results, or 95% UCL of the mean, exceeded the site specific Class 1 guidelines for the following analytes:

- Arsenic;
- Lead;
- Manganese; and
- Nickel.

Individual sample results exceeded the site specific Class 1 guidelines for the following analytes. The 95% UCL of the mean for the same analytes did not exceed the site specific Class 1 guidelines:

- Barium; and
- Copper.

One individual sample result for lead (671 mg/kg) exceeded the site specific Class 2 guidelines. The 95% UCL of the mean for the same analytes did not exceed the site specific Class 1 guidelines.

All individual sample results and the 95% UCL of the mean exceeded the site specific Class 1 guidelines for vanadium as reported in **Table 1**. The exceedance in this instance is considered

indicative of background concentrations based on no historical handling of vanadium at the site, exceedance of the guideline was noted in all samples analysed for vanadium and both individual samples results and the 95% UCL of the mean are within the range that is considered background based on the "National Environment Protection (Assessment of Site Contamination) Measure [NEPM], Schedule B(1), "Investigation Levels for Soil and Groundwater" document (background range 20 to 500 mg/kg).

There was no applicable site specific Class 1 guideline value for these analytes:

- Chromium;
- Cobalt; and
- Dieldrin.

Off-Site Disposal Criteria – NT Waste Classification Guidelines

Table 2 Off-Site Disposal Criteria – NT Waste Classification Guideline

Analyte	NT Waste Classification Guideline (No Leach)	NT Waste Classification Guideline (with Leach)	# of Samples	# >LOR	# > Guideline	95% UCL
Arsenic	100	500	41	33	0	13.8
Barium	-	-	21	21	NA	157.9
Chromium	-	-	41	41	NA	45.6
Cobalt	-	-	21	11	NA	2.6
Copper	-	-	41	41	NA	30.8
Lead	**100**	1,500	**41**	**41**	**1**	**115.9**
Manganese	-	-	21	21	0	90.1
Nickel	40	1,050	41	41	0	7.7
Vanadium	-	-	21	21	NA	96.6
Zinc	-	-	41	41	NA	110.3
Dieldrin	-	-	21	41	NA	0.07

No individual sample results, or 95% UCL of the mean, exceeded the NT Waste Classification guidelines for the following analytes:

- Arsenic;
- Manganese; and
- Nickel.

One individual sample result for lead (671 mg/kg) and the 95% UCL of the mean exceeded NT Waste Classification guidelines (No Leach) for lead as reported in **Table 2,** however this sample did not exceed the guideline value of the NT Waste Classification guidelines (with Leach).

There was no applicable NT Waste Classification guideline value for these analytes:

- Barium;
- Chromium;
- Cobalt;
- Copper;
- Manganese;
- Vanadium;
- Zinc; and
- Dieldrin.

Conclusion and Recommendation

The stockpiled material resultant from the Stage 1 derived fill, which was used to create a temporary access for the previously proposed lock, has been characterised based on the results of the field observations, sampling and analysis conducted by URS as presented in the attached tables.

On the basis of the analytical results for samples collected from the material stockpiled between 25 January 2013 and 16 April 2013 at a rate of at least 1:250 m^3, the stockpiled material is classified as Class 2 with reference to the site specific acceptance criteria detailed in the RAP (URS, 9 August 2005) on the basis of elevated vanadium concentrations representing background conditions.

On the basis of the analytical results for samples collected from the material stockpiled between 25 January 2013 and 16 April 2013 at a rate of at least 1:250 m^3, the stockpiled material is classified as Restricted Solid Waste with reference to the NT Waste Classification on the basis of one elevated lead concentration being marginally above the adopted guideline.

Classification and volume of assessed material

Estimated Volume and Tonnage	7,000 m^3	11,200 T
Classification On-Site Reuse	Class 2	
Classification Off-Site Disposal	Restricted Solid Waste	

It is recommended that if the receiving disposal site requires further testing in order to accept the material then it is suggested that leachate testing be undertaken, thus requiring further sampling to be carried out. Based on leachate testing undertaken on similar material from the Fort Hill area at the Darwin Waterfront in 2005, (URS report dated 22 March 2005) lead results did not exceed the guideline value of the NT Waste Classification guidelines (with Leach).

URS notes that this letter and the attached information is intended to support the process of on-site reuse or off-site disposal of the described soils to a suitable end-point. URS does not provide any recommendation or endorsement with respect to disposal of this material to any site; responsibility for accepting material to a third party site shall be the onus of the owner of that site.

References

URS (22 March 2005) *Darwin Waterfront Redevelopment: Review of Disposal of Soil (Impacted by Mixed and Iron Ore Metals) from the Fort Hill Area (Final Report)*. Report No. 42213654

Limitations

URS Australia Pty Ltd (URS) has prepared this report in accordance with the usual care and thoroughness of the consulting profession for the use of Darwin Waterfront Corporation (DWC). A complete or partial copy of the report may only be provided by DWC to the EPA (Victoria) accredited Environmental Auditor (Contaminated Land) appointed by DWC to the project and to developers and contractors (Interested Parties) working on the Darwin Waterfront Redevelopment Project if the entire limitations statement of this report is included in the complete or partial copy of this report. Whilst URS does not admit that any action may exist or be available to any Interested Party, this report may only be relied on by an Interested Party with the written consent of DWC and on the basis that subject to any law the terms of which cannot be excluded or modified by agreement:

(i) The maximum amount payable (if any) by URS to Interested Parties or any party claiming through an Interested Party in aggregate, whether in contract, tort or otherwise, in relation to claims, damages, liabilities, losses or expenses, under or in any way related to this report and/or its appendices or the services performed by URS to prepare the Report, shall be A$2,000,000; and

(ii) If there is more than one Interested Party, the maximum amount payable to any and all Interested Parties in total shall be A$2,000,000.

Except as specifically stated in this limitations statement, this report may not be used by any third party.

This report is based on generally accepted practices and standards at the time it was prepared. No other warranty, expressed or implied, is made as to the professional advice included in this report. It is prepared in accordance with the scope of work and for the purpose outlined in the proposal dated 24 August 2006 and subsequent requests for this specific task in an email dated 17 December 2012.

The methodology adopted and sources of information used by URS are outlined in this report. Where this report indicates that information has been provided to URS by third parties, URS has made no independent verification of this information except as expressly stated in this report. No indications were found during our investigations that information contained in this report as provided to URS was false.

This report was prepared between 13 May 2013 and 17 May 2013, and is based on the conditions encountered and information reviewed at the time of preparation. URS disclaims responsibility for any changes that may have occurred after this time.

We trust that the information detailed within this letter informs your requirements. Should you require further assistance please contact the undersigned.

Yours sincerely
URS Australia Pty Ltd

Bek Aagaard
Environmental Scientist

Tim Smith
Senior Environmental Geologist

Attachments

Attachment A Summary of Analytical Results

Attachment B Laboratory reports and Chain of Custody Forms

Attachment C Data Validation and Statistical Analysis

Attachment D Statistical Analysis

Attachment A

Location	SP03_01	SP03_02	SP03_03	SP03_05	SP03_07	SP03_10
Sample ID	SP03_01_160413	SP03_02_160413	SP03_03_160413	SP03_05_160413	SP03_07_160413	SP03_10_160413
Sample Date	16/04/2013	16/04/2013	16/04/2013	16/04/2013	16/04/2013	16/04/2013
Sample Type	Primary	Primary	Primary	Primary	Primary	Primary
Lab_Report_Number	EB1309212	EB1309212	EB1309212	EB1309212	EB1309212	EB1310481

Analyte		Units	LOR	Class 1	Class 2A	Class 2B						
Total Petroleum Hydrocarbons	C6-C9 fraction	mg/kg	10				<10	<10	<10	<10	<10	<10
	C10-C14 fraction	mg/kg	50				<50	<50	<50	<50	<50	-
	C15-C28 fraction	mg/kg	100				<100	<100	<100	<100	<100	-
	C29-C36 fraction	mg/kg	100				<100	<100	<100	<100	<100	-
	C10-C36 fraction (sum)	mg/kg	50				<50	<50	<50	<50	<50	-
Total Recoverable Hydrocarbons	C6-C10 fraction (F1 minus BTEX)	mg/kg	10				<10	<10	<10	<10	<10	<10
	C6-C10 fraction	mg/kg	10				<10	<10	<10	<10	<10	<10
	>C10-C16 fraction	mg/kg	50				<50	<50	<50	<50	<50	-
	>C10-C16 (less Naphthalene)	mg/kg	50				-	-	-	-	-	-
	>C16-C34 fraction	mg/kg	100				<100	<100	<100	<100	<100	-
	>C34-C40 fraction	mg/kg	100				<100	<100	<100	<100	<100	-
	>C10-C40 fraction (sum)	mg/kg	50				<50	<50	<50	<50	<50	-
BTEXN	Benzene	mg/kg	0.2				<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
	Toluene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Ethylbenzene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	m&p-Xylene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	o-Xylene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Total Xylenes	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Total BTEX	mg/kg	0.2				<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
	Naphthalene (VOC)	mg/kg	1				<1	<1	<1	<1	<1	<1
Polynuclear Aromatic Hydrocarbons	Naphthalene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Acenaphthylene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Acenaphthene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Anthracene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Fluorene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Phenanthrene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Fluoranthene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Benz(a)anthracene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Benzo(b)fluoranthene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Benzo(k)fluoranthene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Benzo(a)pyrene	mg/kg	0.5		2	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Benzo(a)pyrene TEQ	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Chrysene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Pyrene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Benzo(g,h,i)perylene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Dibenz(a,h)anthracene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Indeno(1,2,3-cd)pyrene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Sum of PAHs	mg/kg	0.5		40	100	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Phenolic Compounds	Phenol	mg/kg	0.5		17000	42500	-	<0.5	<0.5	-	<0.5	-
	2-Chlorophenol	mg/kg	0.5				-	<0.5	<0.5	-	<0.5	-
	2-Methylphenol (o-Cresol)	mg/kg	0.5				-	<0.5	<0.5	-	<0.5	-
	3-&4-Methylphenol (m&p-Cresol)	mg/kg	1				-	<1	<1	-	<1	-
	2-Nitrophenol	mg/kg	0.5				-	<0.5	<0.5	-	<0.5	-
	2,4-Dichlorophenol	mg/kg	0.5				-	<0.5	<0.5	-	<0.5	-
	2,4-Dimethylphenol	mg/kg	0.5				-	<0.5	<0.5	-	<0.5	-
	2,6-Dichlorophenol	mg/kg	0.5				-	<0.5	<0.5	-	<0.5	-
	4-Chloro-3-methylphenol	mg/kg	0.5				-	<0.5	<0.5	-	<0.5	-
	2,4,6-Trichlorophenol	mg/kg	0.5				-	<0.5	<0.5	-	<0.5	-
	2,4,5-Trichlorophenol	mg/kg	0.5				-	<0.5	<0.5	-	<0.5	-
	4,6-Dinitro-2-methylphenol	mg/kg	5				-	-	-	-	-	-
	Pentachlorophenol	mg/kg	2				-	<2	<2	-	<2	-
	2,4-Dinitrophenol	mg/kg	5				-	-	-	-	-	-
	2-Cyclohexyl-4,6-dinitrophenol	mg/kg	20				-	-	-	-	-	-
	4-Nitrophenol	mg/kg	5				-	-	-	-	-	-
	Dinoseb	mg/kg	20				-	-	-	-	-	-
	Tetrachlorophenols	mg/kg	1				-	-	-	-	-	-
	Sum of Phenols (halogenated)	mg/kg	1				-	-	-	-	-	-
	Sum of Phenols (non-halogenated)	mg/kg	20				-	-	-	-	-	-
Metals	Arsenic	mg/kg	5	20	200	500	**5**	<5	<5	**6**	**7**	**5**
	Barium	mg/kg	10	300			-	**40**	**50**	-	**50**	-
	Beryllium	mg/kg	1		40	100	-	<1	<1	-	<1	-
	Cadmium	mg/kg	1	3	40	100	<1	<1	<1	<1	<1	<1
	Chromium	mg/kg	2				**20**	**30**	**22**	**32**	**35**	**16**
	Chromium (hexavalent)	mg/kg	0.5	1	200	500	-	<0.5	<0.5	-	<0.5	-
	Cobalt	mg/kg	2		200	500	-	**3**	**3**	-	**2**	-
	Copper	mg/kg	5	100	2000	5000	**22**	**16**	**153**	**10**	**15**	**17**
	Lead	mg/kg	5	600	600	1500	**30**	**11**	**30**	**13**	**13**	**16**
	Manganese	mg/kg	5	500	3000	7500	-	**166**	**118**	-	**62**	-
	Mercury	mg/kg	0.1	1	30	75	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Nickel	mg/kg	2	60	600	3000	**7**	**11**	**12**	**8**	**7**	**6**
	Vanadium	mg/kg	5	50			-	**36**	**28**	-	**70**	-
	Zinc	mg/kg	5	200	14000	35000	**62**	**41**	**205**	**53**	**60**	**80**
Polychlorinated Biphenyls	Polychlorinated Biphenyls	mg/kg	0.1		20	50	-	<0.1	<0.1	-	<0.1	-
	Arochlor 1016	mg/kg	0.1				-	-	-	-	-	-
	Arochlor 1221	mg/kg	0.1				-	-	-	-	-	-
	Arochlor 1232	mg/kg	0.1				-	-	-	-	-	-
	Arochlor 1242	mg/kg	0.1				-	-	-	-	-	-
	Arochlor 1248	mg/kg	0.1				-	-	-	-	-	-
	Arochlor 1254	mg/kg	0.1				-	-	-	-	-	-
	Arochlor 1260	mg/kg	0.1				-	-	-	-	-	-
Organochlorine Pesticides (OC)	Aldrin	mg/kg	0.05				-	<0.05	<0.05	-	<0.05	-
	Dieldrin	mg/kg	0.05				-	<0.05	<0.05	-	<0.05	-
	a-BHC	mg/kg	0.05				-	<0.05	<0.05	-	<0.05	-
	b-BHC	mg/kg	0.05				-	<0.05	<0.05	-	<0.05	-
	d-BHC	mg/kg	0.05				-	<0.05	<0.05	-	<0.05	-
	g-BHC (Lindane)	mg/kg	0.05				-	<0.05	<0.05	-	<0.05	-
	cis-Chlordane	mg/kg	0.05				-	<0.05	<0.05	-	<0.05	-
	trans-Chlordane	mg/kg	0.05				-	<0.05	<0.05	-	<0.05	-
	Chlordane	mg/kg	0.1		100	250	-	-	-	-	-	-
	DDD	mg/kg	0.05				-	<0.05	<0.05	-	<0.05	-
	DDE	mg/kg	0.05				-	<0.05	<0.05	-	<0.05	-
	DDT	mg/kg	0.2				-	<0.2	<0.2	-	<0.2	-
	Endosulfan 1	mg/kg	0.05				-	<0.05	<0.05	-	<0.05	-
	Endosulfan 2	mg/kg	0.05				-	<0.05	<0.05	-	<0.05	-
	Endosulfan sulfate	mg/kg	0.05				-	<0.05	<0.05	-	<0.05	-
	Endrin	mg/kg	0.05				-	<0.05	<0.05	-	<0.05	-
	Endrin aldehyde	mg/kg	0.05				-	<0.05	<0.05	-	<0.05	-
	Endrin ketone	mg/kg	0.05				-	<0.05	<0.05	-	<0.05	-
	Heptachlor	mg/kg	0.05		20	50	-	<0.05	<0.05	-	<0.05	-
	Heptachlor epoxide	mg/kg	0.05				-	<0.05	<0.05	-	<0.05	-
	Hexachlorobenzene (HCB)	mg/kg	0.05				-	<0.05	<0.05	-	<0.05	-
	Methoxychlor	mg/kg	0.2				-	<0.2	<0.2	-	<0.2	-
	Toxaphene	mg/kg	0.1				-	-	-	-	-	-
Inorganics	Moisture Content	%	1				**12.9**	**17.5**	**19.8**	**14.8**	**19.4**	**10.5**

Location	SP03_12	SP03_14	SP03_16	SP03_18	SP03_18	SP03_21
Sample ID	SP03_12_160413	SP03_14_160413	SP03_16_160413	SP03_18_160413	QAQC_02_160513	SP03_21_160413
Sample Date	16/04/2013	16/04/2013	16/04/2013	16/04/2013	16/04/2013	16/04/2013
Sample Type	Primary	Primary	Primary	Primary	Triplicate	Primary
Lab_Report_Number	EB1309212	EB1309212	EB1309212	EB1309212	376318	EB1309212

Analyte		Units	LOR	Class 1	Class 2A	Class 2B						
Total Petroleum Hydrocarbons	C6-C9 fraction	mg/kg	10				<10	<10	<10	<10	<20	<10
	C10-C14 fraction	mg/kg	50				<50	<50	<50	<50	<20	<50
	C15-C28 fraction	mg/kg	100				<100	<100	<100	<100	<50	<100
	C29-C36 fraction	mg/kg	100				<100	<100	<100	<100	<50	<100
	C10-C36 fraction (sum)	mg/kg	50				<50	<50	<50	<50	<50	<50
Total Recoverable Hydrocarbons	C6-C10 fraction (F1 minus BTEX)	mg/kg	10				<10	<10	<10	<10	<20	<10
	C6-C10 fraction	mg/kg	10				<10	<10	<10	<10	<20	<10
	>C10-C16 fraction	mg/kg	50				<50	<50	<50	<50	<50	<50
	>C10-C16 (less Naphthalene)	mg/kg	50				-	-	-	-	<50	-
	>C16-C34 fraction	mg/kg	100				<100	<100	<100	<100	<100	<100
	>C34-C40 fraction	mg/kg	100				<100	<100	<100	<100	<100	<100
	>C10-C40 fraction (sum)	mg/kg	50				<50	<50	<50	<50	-	<50
BTEXN	Benzene	mg/kg	0.2				<0.2	<0.2	<0.2	<0.2	<0.1	<0.2
	Toluene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.1	<0.5
	Ethylbenzene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.1	<0.5
	m&p-Xylene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.2	<0.5
	o-Xylene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.1	<0.5
	Total Xylenes	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.3	<0.5
	Total BTEX	mg/kg	0.2				<0.2	<0.2	<0.2	<0.2	<0.6	<0.2
	Naphthalene (VOC)	mg/kg	1				<1	<1	<1	<1	<0.5	<1
Polynuclear Aromatic Hydrocarbons	Naphthalene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Acenaphthylene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Acenaphthene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Anthracene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Fluorene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Phenanthrene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Fluoranthene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Benz(a)anthracene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Benzo(b)fluoranthene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Benzo(k)fluoranthene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Benzo(a)pyrene	mg/kg	0.5		2	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Benzo(a)pyrene TEQ	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	-	<0.5
	Chrysene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Pyrene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Benzo(g,h,i)perylene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Dibenz(a,h)anthracene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Indeno(1,2,3-cd)pyrene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Sum of PAHs	mg/kg	0.5		40	100	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Phenolic Compounds	Phenol	mg/kg	0.5		17000	42500	-	<0.5	-	<0.5	<0.5	<0.5
	2-Chlorophenol	mg/kg	0.5				-	<0.5	-	<0.5	<0.5	<0.5
	2-Methylphenol (o-Cresol)	mg/kg	0.5				-	<0.5	-	<0.5	<0.2	<0.5
	3-&4-Methylphenol (m&p-Cresol)	mg/kg	1				-	<1	-	<1	<0.4	<1
	2-Nitrophenol	mg/kg	0.5				-	<0.5	-	<0.5	<1	<0.5
	2,4-Dichlorophenol	mg/kg	0.5				-	<0.5	-	<0.5	<0.5	<0.5
	2,4-Dimethylphenol	mg/kg	0.5				-	<0.5	-	<0.5	<0.5	<0.5
	2,6-Dichlorophenol	mg/kg	0.5				-	<0.5	-	<0.5	<0.5	<0.5
	4-Chloro-3-methylphenol	mg/kg	0.5				-	<0.5	-	<0.5	<1	<0.5
	2,4,6-Trichlorophenol	mg/kg	0.5				-	<0.5	-	<0.5	<1	<0.5
	2,4,5-Trichlorophenol	mg/kg	0.5				-	<0.5	-	<0.5	<1	<0.5
	4,6-Dinitro-2-methylphenol	mg/kg	5				-	-	-	-	<5	-
	Pentachlorophenol	mg/kg	2				-	<2	-	<2	<1	<2
	2,4-Dinitrophenol	mg/kg	5				-	-	-	-	<5	-
	2-Cyclohexyl-4,6-dinitrophenol	mg/kg	20				-	-	-	-	<20	-
	4-Nitrophenol	mg/kg	5				-	-	-	-	<5	-
	Dinoseb	mg/kg	20				-	-	-	-	<20	-
	Tetrachlorophenols	mg/kg	1				-	-	-	-	<1	-
	Sum of Phenols (halogenated)	mg/kg	1				-	-	-	-	<1	-
	Sum of Phenols (non-halogenated)	mg/kg	20				-	-	-	-	<20	-
Metals	Arsenic	mg/kg	5	20	200	500	**10**	**10**	**11**	<5	**18**	**9**
	Barium	mg/kg	10	300			-	**120**	-	**20**	**62**	**150**
	Beryllium	mg/kg	1		40	100	-	<1	-	<1	<5	<1
	Cadmium	mg/kg	1	3	40	100	<1	<1	<1	<1	<0.5	<1
	Chromium	mg/kg	2				**40**	**44**	**37**	**23**	**28**	**38**
	Chromium (hexavalent)	mg/kg	0.5	1	200	500	-	<0.5	-	<0.5	<1	<0.5
	Cobalt	mg/kg	2		200	500	-	**2**	-	**3**	<5	<2
	Copper	mg/kg	5	100	2000	5000	**26**	**20**	**32**	**16**	**32**	**20**
	Lead	mg/kg	5	600	600	1500	**33**	**39**	**55**	**6**	**22**	**25**
	Manganese	mg/kg	5	500	3000	7500	-	**58**	-	**156**	**77**	**50**
	Mercury	mg/kg	0.1	1	30	75	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Nickel	mg/kg	2	60	600	3000	**6**	**6**	**9**	**10**	**9.2**	**6**
	Vanadium	mg/kg	5	50			-	**79**	-	**26**	**43**	**78**
	Zinc	mg/kg	5	200	14000	35000	**80**	**94**	**120**	**32**	**55**	**69**
Polychlorinated Biphenyls	Polychlorinated Biphenyls	mg/kg	0.1		20	50	-	<0.1	-	<0.1	<0.1	<0.1
	Arochlor 1016	mg/kg	0.1				-	-	-	-	<0.1	-
	Arochlor 1221	mg/kg	0.1				-	-	-	-	<0.1	-
	Arochlor 1232	mg/kg	0.1				-	-	-	-	<0.1	-
	Arochlor 1242	mg/kg	0.1				-	-	-	-	<0.1	-
	Arochlor 1248	mg/kg	0.1				-	-	-	-	<0.1	-
	Arochlor 1254	mg/kg	0.1				-	-	-	-	<0.1	-
	Arochlor 1260	mg/kg	0.1				-	-	-	-	<0.1	-
Organochlorine Pesticides (OC)	Aldrin	mg/kg	0.05				-	<0.05	-	<0.05	<0.05	<0.05
	Dieldrin	mg/kg	0.05				-	<0.05	-	<0.05	<0.05	<0.05
	a-BHC	mg/kg	0.05				-	<0.05	-	<0.05	<0.05	<0.05
	b-BHC	mg/kg	0.05				-	<0.05	-	<0.05	<0.05	<0.05
	d-BHC	mg/kg	0.05				-	<0.05	-	<0.05	<0.05	<0.05
	g-BHC (Lindane)	mg/kg	0.05				-	<0.05	-	<0.05	<0.05	<0.05
	cis-Chlordane	mg/kg	0.05				-	<0.05	-	<0.05	-	<0.05
	trans-Chlordane	mg/kg	0.05				-	<0.05	-	<0.05	-	<0.05
	Chlordane	mg/kg	0.1		100	250	-	-	-	-	<0.1	-
	DDD	mg/kg	0.05				-	<0.05	-	<0.05	<0.05	<0.05
	DDE	mg/kg	0.05				-	<0.05	-	<0.05	<0.05	<0.05
	DDT	mg/kg	0.2				-	<0.2	-	<0.2	<0.05	<0.2
	Endosulfan 1	mg/kg	0.05				-	<0.05	-	<0.05	<0.05	<0.05
	Endosulfan 2	mg/kg	0.05				-	<0.05	-	<0.05	<0.05	<0.05
	Endosulfan sulfate	mg/kg	0.05				-	<0.05	-	<0.05	<0.05	<0.05
	Endrin	mg/kg	0.05				-	<0.05	-	<0.05	<0.05	<0.05
	Endrin aldehyde	mg/kg	0.05				-	<0.05	-	<0.05	<0.05	<0.05
	Endrin ketone	mg/kg	0.05				-	<0.05	-	<0.05	<0.05	<0.05
	Heptachlor	mg/kg	0.05		20	50	-	<0.05	-	<0.05	<0.05	<0.05
	Heptachlor epoxide	mg/kg	0.05				-	<0.05	-	<0.05	<0.05	<0.05
	Hexachlorobenzene (HCB)	mg/kg	0.05				-	<0.05	-	<0.05	<0.05	<0.05
	Methoxychlor	mg/kg	0.2				-	<0.2	-	<0.2	<0.05	<0.2
	Toxaphene	mg/kg	0.1				-	-	-	-	<0.1	-
Inorganics	Moisture Content	%	1				**17.7**	**13.4**	**17**	**16**	**18**	**19.4**

Location	SP03_22	SP03_23	SP03_23	SP03_23	SP03_25	SP03_27
Sample ID	SP03_22_160413	SP03_23_160413	QAQC_05_160513	QAQC_06_160513	SP03_25_160413	SP03_27_160413
Sample Date	16/04/2013	16/04/2013	16/04/2013	16/04/2013	16/04/2013	16/04/2013
Sample Type	Primary	Primary	Duplicate	Triplicate	Primary	Primary
Lab_Report_Number	EB1309212	EB1309212	EB1309212	376318	EB1309212	EB1309212

Analyte		Units	LOR	Class 1	Class 2A	Class 2B						
Total Petroleum Hydrocarbons	C6-C9 fraction	mg/kg	10				<10	<10	<10	<20	<10	<10
	C10-C14 fraction	mg/kg	50				<50	<50	<50	<20	<50	<50
	C15-C28 fraction	mg/kg	100				<100	<100	<100	<50	<100	<100
	C29-C36 fraction	mg/kg	100				<100	<100	<100	<50	<100	<100
	C10-C36 fraction (sum)	mg/kg	50				<50	<50	<50	<50	<50	<50
Total Recoverable Hydrocarbons	C6-C10 fraction (F1 minus BTEX)	mg/kg	10				<10	<10	<10	<20	<10	<10
	C6-C10 fraction	mg/kg	10				<10	<10	<10	<20	<10	<10
	>C10-C16 fraction	mg/kg	50				<50	<50	<50	<50	<50	<50
	>C10-C16 (less Naphthalene)	mg/kg	50				-	-	-	<50	-	-
	>C16-C34 fraction	mg/kg	100				<100	<100	<100	<100	<100	<100
	>C34-C40 fraction	mg/kg	100				<100	<100	<100	<100	<100	<100
	>C10-C40 fraction (sum)	mg/kg	50				<50	<50	<50	-	<50	<50
BTEXN	Benzene	mg/kg	0.2				<0.2	<0.2	<0.2	<0.1	<0.2	<0.2
	Toluene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.1	<0.5	<0.5
	Ethylbenzene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.1	<0.5	<0.5
	m&p-Xylene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.2	<0.5	<0.5
	o-Xylene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.1	<0.5	<0.5
	Total Xylenes	mg/kg	0.5				<0.5	<0.5	<0.5	<0.3	<0.5	<0.5
	Total BTEX	mg/kg	0.2				<0.2	<0.2	<0.2	<0.6	<0.2	<0.2
	Naphthalene (VOC)	mg/kg	1				<1	<1	<1	<0.5	<1	<1
Polynuclear Aromatic Hydrocarbons	Naphthalene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Acenaphthylene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Acenaphthene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Anthracene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Fluorene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Phenanthrene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Fluoranthene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Benz(a)anthracene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Benzo(b)fluoranthene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Benzo(k)fluoranthene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Benzo(a)pyrene	mg/kg	0.5		2	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Benzo(a)pyrene TEQ	mg/kg	0.5				<0.5	<0.5	<0.5	-	<0.5	<0.5
	Chrysene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Pyrene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Benzo(g,h,i)perylene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Dibenz(a,h)anthracene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Indeno(1,2,3-cd)pyrene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Sum of PAHs	mg/kg	0.5		40	100	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Phenolic Compounds	Phenol	mg/kg	0.5		17000	42500	-	-	<0.5	<0.5	<0.5	-
	2-Chlorophenol	mg/kg	0.5				-	-	<0.5	<0.5	<0.5	-
	2-Methylphenol (o-Cresol)	mg/kg	0.5				-	-	<0.5	<0.2	<0.5	-
	3-&4-Methylphenol (m&p-Cresol)	mg/kg	1				-	-	<1	<0.4	<1	-
	2-Nitrophenol	mg/kg	0.5				-	-	<0.5	<1	<0.5	-
	2,4-Dichlorophenol	mg/kg	0.5				-	-	<0.5	<0.5	<0.5	-
	2,4-Dimethylphenol	mg/kg	0.5				-	-	<0.5	<0.5	<0.5	-
	2,6-Dichlorophenol	mg/kg	0.5				-	-	<0.5	<0.5	<0.5	-
	4-Chloro-3-methylphenol	mg/kg	0.5				-	-	<0.5	<1	<0.5	-
	2,4,6-Trichlorophenol	mg/kg	0.5				-	-	<0.5	<1	<0.5	-
	2,4,5-Trichlorophenol	mg/kg	0.5				-	-	<0.5	<1	<0.5	-
	4,6-Dinitro-2-methylphenol	mg/kg	5				-	-	-	<5	-	-
	Pentachlorophenol	mg/kg	2				-	-	<2	<1	<2	-
	2,4-Dinitrophenol	mg/kg	5				-	-	-	<5	-	-
	2-Cyclohexyl-4,6-dinitrophenol	mg/kg	20				-	-	-	<20	-	-
	4-Nitrophenol	mg/kg	5				-	-	-	<5	-	-
	Dinoseb	mg/kg	20				-	-	-	<20	-	-
	Tetrachlorophenols	mg/kg	1				-	-	-	<1	-	-
	Sum of Phenols (halogenated)	mg/kg	1				-	-	-	<1	-	-
	Sum of Phenols (non-halogenated)	mg/kg	20				-	-	-	<20	-	-
Metals	Arsenic	mg/kg	5	20	200	500	**9**	**10**	**5**	**19**	**10**	**12**
	Barium	mg/kg	10	300			-	-	**160**	**100**	**250**	-
	Beryllium	mg/kg	1		40	100	-	-	<1	<5	<1	-
	Cadmium	mg/kg	1	3	40	100	<1	<1	<1	<0.5	<1	<1
	Chromium	mg/kg	2				**58**	**44**	**22**	**71**	**80**	**71**
	Chromium (hexavalent)	mg/kg	0.5	1	200	500	-	-	<0.5	<1	<0.5	-
	Cobalt	mg/kg	2		200	500	-	-	<2	<5	**2**	-
	Copper	mg/kg	5	100	2000	5000	**13**	**27**	**18**	**17**	**21**	**61**
	Lead	mg/kg	5	600	600	1500	**28**	**57**	**18**	**29**	**45**	**45**
	Manganese	mg/kg	5	500	3000	7500	-	-	**49**	**83**	**61**	-
	Mercury	mg/kg	0.1	1	30	75	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Nickel	mg/kg	2	60	600	3000	**4**	**7**	**5**	**8**	**6**	**6**
	Vanadium	mg/kg	5	50			-	-	**55**	**180**	**120**	-
	Zinc	mg/kg	5	200	14000	35000	**61**	**206**	**41**	**50**	**107**	**123**
Polychlorinated Biphenyls	Polychlorinated Biphenyls	mg/kg	0.1		20	50	-	-	<0.1	<0.1	<0.1	-
	Arochlor 1016	mg/kg	0.1				-	-	-	<0.1	-	-
	Arochlor 1221	mg/kg	0.1				-	-	-	<0.1	-	-
	Arochlor 1232	mg/kg	0.1				-	-	-	<0.1	-	-
	Arochlor 1242	mg/kg	0.1				-	-	-	<0.1	-	-
	Arochlor 1248	mg/kg	0.1				-	-	-	<0.1	-	-
	Arochlor 1254	mg/kg	0.1				-	-	-	<0.1	-	-
	Arochlor 1260	mg/kg	0.1				-	-	-	<0.1	-	-
Organochlorine Pesticides (OC)	Aldrin	mg/kg	0.05				-	-	<0.05	<0.05	<0.05	-
	Dieldrin	mg/kg	0.05				-	-	<0.05	<0.05	**0.08**	-
	a-BHC	mg/kg	0.05				-	-	<0.05	<0.05	<0.05	-
	b-BHC	mg/kg	0.05				-	-	<0.05	<0.05	<0.05	-
	d-BHC	mg/kg	0.05				-	-	<0.05	<0.05	<0.05	-
	g-BHC (Lindane)	mg/kg	0.05				-	-	<0.05	<0.05	<0.05	-
	cis-Chlordane	mg/kg	0.05				-	-	<0.05	-	<0.05	-
	trans-Chlordane	mg/kg	0.05				-	-	<0.05	-	<0.05	-
	Chlordane	mg/kg	0.1		100	250	-	-	-	<0.1	-	-
	DDD	mg/kg	0.05				-	-	<0.05	<0.05	<0.05	-
	DDE	mg/kg	0.05				-	-	<0.05	<0.05	<0.05	-
	DDT	mg/kg	0.2				-	-	<0.2	<0.05	<0.2	-
	Endosulfan 1	mg/kg	0.05				-	-	<0.05	<0.05	<0.05	-
	Endosulfan 2	mg/kg	0.05				-	-	<0.05	<0.05	<0.05	-
	Endosulfan sulfate	mg/kg	0.05				-	-	<0.05	<0.05	<0.05	-
	Endrin	mg/kg	0.05				-	-	<0.05	<0.05	<0.05	-
	Endrin aldehyde	mg/kg	0.05				-	-	<0.05	<0.05	<0.05	-
	Endrin ketone	mg/kg	0.05				-	-	<0.05	<0.05	<0.05	-
	Heptachlor	mg/kg	0.05		20	50	-	-	<0.05	<0.05	<0.05	-
	Heptachlor epoxide	mg/kg	0.05				-	-	<0.05	<0.05	<0.05	-
	Hexachlorobenzene (HCB)	mg/kg	0.05				-	-	<0.05	<0.05	<0.05	-
	Methoxychlor	mg/kg	0.2				-	-	<0.2	<0.05	<0.2	-
	Toxaphene	mg/kg	0.1				-	-	-	<0.1	-	-
Inorganics	Moisture Content	%	1				**13.7**	**14.9**	**14.4**	**17**	**14.7**	**11.6**

Location	SP03_31	SP03_32	SP03_34	SP03_36	SP03_40	SP03_42
Sample ID	SP03_31_160413	SP03_32_160413	SP03_34_160413	SP03_36_160413	SP03_40_160413	SP03_42_160413
Sample Date	16/04/2013	16/04/2013	16/04/2013	16/04/2013	16/04/2013	16/04/2013
Sample Type	Primary	Primary	Primary	Primary	Primary	Primary
Lab_Report_Number	EB1309212	EB1309212	EB1309212	EB1309212	EB1309212	EB1309212

Analyte		Units	LOR	Class 1	Class 2A	Class 2B						
Total Petroleum Hydrocarbons	C6-C9 fraction	mg/kg	10				<10	<10	<10	<10	<10	<10
	C10-C14 fraction	mg/kg	50				<50	<50	<50	<50	<50	<50
	C15-C28 fraction	mg/kg	100				<100	<100	<100	<100	<100	<100
	C29-C36 fraction	mg/kg	100				<100	<100	<100	<100	<100	<100
	C10-C36 fraction (sum)	mg/kg	50				<50	<50	<50	<50	<50	<50
Total Recoverable Hydrocarbons	C6-C10 fraction (F1 minus BTEX)	mg/kg	10				<10	<10	<10	<10	<10	<10
	C6-C10 fraction	mg/kg	10				<10	<10	<10	<10	<10	<10
	>C10-C16 fraction	mg/kg	50				<50	<50	<50	<50	<50	<50
	>C10-C16 (less Naphthalene)	mg/kg	50				-	-	-	-	-	-
	>C16-C34 fraction	mg/kg	100				<100	<100	<100	<100	<100	<100
	>C34-C40 fraction	mg/kg	100				<100	<100	<100	<100	<100	<100
	>C10-C40 fraction (sum)	mg/kg	50				<50	<50	<50	<50	<50	<50
BTEXN	Benzene	mg/kg	0.2				<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
	Toluene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Ethylbenzene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	m&p-Xylene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	o-Xylene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Total Xylenes	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Total BTEX	mg/kg	0.2				<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
	Naphthalene (VOC)	mg/kg	1				<1	<1	<1	<1	<1	<1
Polynuclear Aromatic Hydrocarbons	Naphthalene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Acenaphthylene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Acenaphthene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Anthracene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Fluorene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Phenanthrene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Fluoranthene	mg/kg	0.5				<0.5	<0.5	**0.7**	<0.5	<0.5	<0.5
	Benz(a)anthracene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Benzo(b)fluoranthene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Benzo(k)fluoranthene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Benzo(a)pyrene	mg/kg	0.5		2	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Benzo(a)pyrene TEQ	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Chrysene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Pyrene	mg/kg	0.5				<0.5	<0.5	**0.9**	<0.5	<0.5	<0.5
	Benzo(g,h,i)perylene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	**0.7**	<0.5
	Dibenz(a,h)anthracene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Indeno(1,2,3-cd)pyrene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	**0.5**	<0.5
	Sum of PAHs	mg/kg	0.5		40	100	<0.5	<0.5	**1.6**	<0.5	**1.2**	<0.5
Phenolic Compounds	Phenol	mg/kg	0.5		17000	42500	-	<0.5	-	<0.5	<0.5	-
	2-Chlorophenol	mg/kg	0.5				-	<0.5	-	<0.5	<0.5	-
	2-Methylphenol (o-Cresol)	mg/kg	0.5				-	<0.5	-	<0.5	<0.5	-
	3-&4-Methylphenol (m&p-Cresol)	mg/kg	1				-	<1	-	<1	<1	-
	2-Nitrophenol	mg/kg	0.5				-	<0.5	-	<0.5	<0.5	-
	2,4-Dichlorophenol	mg/kg	0.5				-	<0.5	-	<0.5	<0.5	-
	2,4-Dimethylphenol	mg/kg	0.5				-	<0.5	-	<0.5	<0.5	-
	2,6-Dichlorophenol	mg/kg	0.5				-	<0.5	-	<0.5	<0.5	-
	4-Chloro-3-methylphenol	mg/kg	0.5				-	<0.5	-	<0.5	<0.5	-
	2,4,6-Trichlorophenol	mg/kg	0.5				-	<0.5	-	<0.5	<0.5	-
	2,4,5-Trichlorophenol	mg/kg	0.5				-	<0.5	-	<0.5	<0.5	-
	4,6-Dinitro-2-methylphenol	mg/kg	5				-	-	-	-	-	-
	Pentachlorophenol	mg/kg	2				-	<2	-	<2	<2	-
	2,4-Dinitrophenol	mg/kg	5				-	-	-	-	-	-
	2-Cyclohexyl-4,6-dinitrophenol	mg/kg	20				-	-	-	-	-	-
	4-Nitrophenol	mg/kg	5				-	-	-	-	-	-
	Dinoseb	mg/kg	20				-	-	-	-	-	-
	Tetrachlorophenols	mg/kg	1				-	-	-	-	-	-
	Sum of Phenols (halogenated)	mg/kg	1				-	-	-	-	-	-
	Sum of Phenols (non-halogenated)	mg/kg	20				-	-	-	-	-	-
Metals	Arsenic	mg/kg	5	20	200	500	**7**	**9**	<5	**8**	**10**	**10**
	Barium	mg/kg	10	300			-	**80**	-	**80**	**130**	-
	Beryllium	mg/kg	1		40	100	-	<1	-	<1	<1	-
	Cadmium	mg/kg	1	3	40	100	<1	<1	<1	<1	<1	<1
	Chromium	mg/kg	2				**27**	**42**	**20**	**29**	**54**	**47**
	Chromium (hexavalent)	mg/kg	0.5	1	200	500	-	<0.5	-	<0.5	<0.5	-
	Cobalt	mg/kg	2		200	500	-	<2	-	**4**	**3**	-
	Copper	mg/kg	5	100	2000	5000	**26**	**16**	**41**	**23**	**37**	**24**
	Lead	mg/kg	5	600	600	1500	**47**	**38**	**62**	**41**	**28**	**41**
	Manganese	mg/kg	5	500	3000	7500	-	**41**	-	**75**	**71**	-
	Mercury	mg/kg	0.1	1	30	75	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Nickel	mg/kg	2	60	600	3000	**9**	**5**	**10**	**14**	**8**	**7**
	Vanadium	mg/kg	5	50			-	**106**	-	**58**	**100**	-
	Zinc	mg/kg	5	200	14000	35000	**253**	**84**	**60**	**94**	**84**	**100**
Polychlorinated Biphenyls	Polychlorinated Biphenyls	mg/kg	0.1		20	50	-	<0.1	-	<0.1	<0.1	-
	Arochlor 1016	mg/kg	0.1				-	-	-	-	-	-
	Arochlor 1221	mg/kg	0.1				-	-	-	-	-	-
	Arochlor 1232	mg/kg	0.1				-	-	-	-	-	-
	Arochlor 1242	mg/kg	0.1				-	-	-	-	-	-
	Arochlor 1248	mg/kg	0.1				-	-	-	-	-	-
	Arochlor 1254	mg/kg	0.1				-	-	-	-	-	-
	Arochlor 1260	mg/kg	0.1				-	-	-	-	-	-
Organochlorine Pesticides (OC)	Aldrin	mg/kg	0.05				-	<0.05	-	<0.05	<0.05	-
	Dieldrin	mg/kg	0.05				-	<0.05	-	<0.05	<0.05	-
	a-BHC	mg/kg	0.05				-	<0.05	-	<0.05	<0.05	-
	b-BHC	mg/kg	0.05				-	<0.05	-	<0.05	<0.05	-
	d-BHC	mg/kg	0.05				-	<0.05	-	<0.05	<0.05	-
	g-BHC (Lindane)	mg/kg	0.05				-	<0.05	-	<0.05	<0.05	-
	cis-Chlordane	mg/kg	0.05				-	<0.05	-	<0.05	<0.05	-
	trans-Chlordane	mg/kg	0.05				-	<0.05	-	<0.05	<0.05	-
	Chlordane	mg/kg	0.1		100	250	-	-	-	-	-	-
	DDD	mg/kg	0.05				-	<0.05	-	<0.05	<0.05	-
	DDE	mg/kg	0.05				-	<0.05	-	<0.05	<0.05	-
	DDT	mg/kg	0.2				-	<0.2	-	<0.2	<0.2	-
	Endosulfan 1	mg/kg	0.05				-	<0.05	-	<0.05	<0.05	-
	Endosulfan 2	mg/kg	0.05				-	<0.05	-	<0.05	<0.05	-
	Endosulfan sulfate	mg/kg	0.05				-	<0.05	-	<0.05	<0.05	-
	Endrin	mg/kg	0.05				-	<0.05	-	<0.05	<0.05	-
	Endrin aldehyde	mg/kg	0.05				-	<0.05	-	<0.05	<0.05	-
	Endrin ketone	mg/kg	0.05				-	<0.05	-	<0.05	<0.05	-
	Heptachlor	mg/kg	0.05		20	50	-	<0.05	-	<0.05	<0.05	-
	Heptachlor epoxide	mg/kg	0.05				-	<0.05	-	<0.05	<0.05	-
	Hexachlorobenzene (HCB)	mg/kg	0.05				-	<0.05	-	<0.05	<0.05	-
	Methoxychlor	mg/kg	0.2				-	<0.2	-	<0.2	<0.2	-
	Toxaphene	mg/kg	0.1				-	-	-	-	-	-
Inorganics	Moisture Content	%	1				**17.4**	**12**	**23.3**	**18**	**13.9**	**15.4**

Location	SP03	SP03_44	SP03_45	SP03_47	SP03_49	SP04_03
Sample ID	SP03_43_160413	SP03_44_160413	SP03_45_160413	SP03_47_160413	SP03_49_160413	SP04_03_160413
Sample Date	16/04/2013	16/04/2013	16/04/2013	16/04/2013	16/04/2013	16/04/2013
Sample Type	Primary	Primary	Primary	Primary	Primary	Primary
Lab_Report_Number	EB1309212	EB1309212	EB1309212	EB1309212	EB1309212	EB1309212

Analyte		Units	LOR	Class 1	Class 2A	Class 2B						
Total Petroleum Hydrocarbons	C6-C9 fraction	mg/kg	10				<10	<10	<10	<10	<10	<10
	C10-C14 fraction	mg/kg	50				<50	<50	<50	<50	<50	<50
	C15-C28 fraction	mg/kg	100				<100	<100	<100	<100	<100	<100
	C29-C36 fraction	mg/kg	100				<100	<100	<100	<100	<100	<100
	C10-C36 fraction (sum)	mg/kg	50				<50	<50	<50	<50	<50	<50
Total Recoverable Hydrocarbons	C6-C10 fraction (F1 minus BTEX)	mg/kg	10				<10	<10	<10	<10	<10	<10
	C6-C10 fraction	mg/kg	10				<10	<10	<10	<10	<10	<10
	>C10-C16 fraction	mg/kg	50				<50	<50	<50	<50	<50	<50
	>C10-C16 (less Naphthalene)	mg/kg	50				-	-	-	-	-	-
	>C16-C34 fraction	mg/kg	100				<100	<100	<100	<100	<100	<100
	>C34-C40 fraction	mg/kg	100				<100	<100	<100	<100	<100	<100
	>C10-C40 fraction (sum)	mg/kg	50				<50	<50	<50	<50	<50	<50
BTEXN	Benzene	mg/kg	0.2				<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
	Toluene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Ethylbenzene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	m&p-Xylene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	o-Xylene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Total Xylenes	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Total BTEX	mg/kg	0.2				<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
	Naphthalene (VOC)	mg/kg	1				<1	<1	<1	<1	<1	<1
Polynuclear Aromatic Hydrocarbons	Naphthalene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Acenaphthylene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Acenaphthene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Anthracene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Fluorene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Phenanthrene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Fluoranthene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Benz(a)anthracene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Benzo(b)fluoranthene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Benzo(k)fluoranthene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Benzo(a)pyrene	mg/kg	0.5		2	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Benzo(a)pyrene TEQ	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Chrysene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Pyrene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Benzo(g,h,i)perylene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Dibenz(a,h)anthracene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Indeno(1,2,3-cd)pyrene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Sum of PAHs	mg/kg	0.5		40	100	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Phenolic Compounds	Phenol	mg/kg	0.5		17000	42500	<0.5	-	-	<0.5	-	<0.5
	2-Chlorophenol	mg/kg	0.5				<0.5	-	-	<0.5	-	<0.5
	2-Methylphenol (o-Cresol)	mg/kg	0.5				<0.5	-	-	<0.5	-	<0.5
	3-&4-Methylphenol (m&p-Cresol)	mg/kg	1				<1	-	-	<1	-	<1
	2-Nitrophenol	mg/kg	0.5				<0.5	-	-	<0.5	-	<0.5
	2,4-Dichlorophenol	mg/kg	0.5				<0.5	-	-	<0.5	-	<0.5
	2,4-Dimethylphenol	mg/kg	0.5				<0.5	-	-	<0.5	-	<0.5
	2,6-Dichlorophenol	mg/kg	0.5				<0.5	-	-	<0.5	-	<0.5
	4-Chloro-3-methylphenol	mg/kg	0.5				<0.5	-	-	<0.5	-	<0.5
	2,4,6-Trichlorophenol	mg/kg	0.5				<0.5	-	-	<0.5	-	<0.5
	2,4,5-Trichlorophenol	mg/kg	0.5				<0.5	-	-	<0.5	-	<0.5
	4,6-Dinitro-2-methylphenol	mg/kg	5				-	-	-	-	-	-
	Pentachlorophenol	mg/kg	2				<2	-	-	<2	-	<2
	2,4-Dinitrophenol	mg/kg	5				-	-	-	-	-	-
	2-Cyclohexyl-4,6-dinitrophenol	mg/kg	20				-	-	-	-	-	-
	4-Nitrophenol	mg/kg	5				-	-	-	-	-	-
	Dinoseb	mg/kg	20				-	-	-	-	-	-
	Tetrachlorophenols	mg/kg	1				-	-	-	-	-	-
	Sum of Phenols (halogenated)	mg/kg	1				-	-	-	-	-	-
	Sum of Phenols (non-halogenated)	mg/kg	20				-	-	-	-	-	-
Metals	Arsenic	mg/kg	5	20	200	500	**11**	**6**	**7**	**6**	**14**	**13**
	Barium	mg/kg	10	300			**40**	-	-	**60**	-	**100**
	Beryllium	mg/kg	1		40	100	<1	-	-	<1	-	<1
	Cadmium	mg/kg	1	3	40	100	<1	<1	<1	<1	<1	<1
	Chromium	mg/kg	2				**55**	**23**	**44**	**32**	**93**	**38**
	Chromium (hexavalent)	mg/kg	0.5	1	200	500	<0.5	-	-	<0.5	-	<0.5
	Cobalt	mg/kg	2		200	500	<2	-	-	**2**	-	<2
	Copper	mg/kg	5	100	2000	5000	**17**	**26**	**14**	**17**	**23**	**11**
	Lead	mg/kg	5	600	600	1500	**20**	**25**	**17**	**21**	**33**	**18**
	Manganese	mg/kg	5	500	3000	7500	**78**	-	-	**86**	-	**36**
	Mercury	mg/kg	0.1	1	30	75	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Nickel	mg/kg	2	60	600	3000	**5**	**8**	**5**	**7**	**7**	**4**
	Vanadium	mg/kg	5	50			**90**	-	-	**62**	-	**90**
	Zinc	mg/kg	5	200	14000	35000	**31**	**103**	**34**	**40**	**53**	**38**
Polychlorinated Biphenyls	Polychlorinated Biphenyls	mg/kg	0.1		20	50	<0.1	-	-	<0.1	-	<0.1
	Arochlor 1016	mg/kg	0.1				-	-	-	-	-	-
	Arochlor 1221	mg/kg	0.1				-	-	-	-	-	-
	Arochlor 1232	mg/kg	0.1				-	-	-	-	-	-
	Arochlor 1242	mg/kg	0.1				-	-	-	-	-	-
	Arochlor 1248	mg/kg	0.1				-	-	-	-	-	-
	Arochlor 1254	mg/kg	0.1				-	-	-	-	-	-
	Arochlor 1260	mg/kg	0.1				-	-	-	-	-	-
Organochlorine Pesticides (OC)	Aldrin	mg/kg	0.05				<0.05	-	-	<0.05	-	<0.05
	Dieldrin	mg/kg	0.05				<0.05	-	-	<0.05	-	<0.05
	a-BHC	mg/kg	0.05				<0.05	-	-	<0.05	-	<0.05
	b-BHC	mg/kg	0.05				<0.05	-	-	<0.05	-	<0.05
	d-BHC	mg/kg	0.05				<0.05	-	-	<0.05	-	<0.05
	g-BHC (Lindane)	mg/kg	0.05				<0.05	-	-	<0.05	-	<0.05
	cis-Chlordane	mg/kg	0.05				<0.05	-	-	<0.05	-	<0.05
	trans-Chlordane	mg/kg	0.05				<0.05	-	-	<0.05	-	<0.05
	Chlordane	mg/kg	0.1		100	250	-	-	-	-	-	-
	DDD	mg/kg	0.05				<0.05	-	-	<0.05	-	<0.05
	DDE	mg/kg	0.05				<0.05	-	-	<0.05	-	<0.05
	DDT	mg/kg	0.2				<0.2	-	-	<0.2	-	<0.2
	Endosulfan 1	mg/kg	0.05				<0.05	-	-	<0.05	-	<0.05
	Endosulfan 2	mg/kg	0.05				<0.05	-	-	<0.05	-	<0.05
	Endosulfan sulfate	mg/kg	0.05				<0.05	-	-	<0.05	-	<0.05
	Endrin	mg/kg	0.05				<0.05	-	-	<0.05	-	<0.05
	Endrin aldehyde	mg/kg	0.05				<0.05	-	-	<0.05	-	<0.05
	Endrin ketone	mg/kg	0.05				<0.05	-	-	<0.05	-	<0.05
	Heptachlor	mg/kg	0.05		20	50	<0.05	-	-	<0.05	-	<0.05
	Heptachlor epoxide	mg/kg	0.05				<0.05	-	-	<0.05	-	<0.05
	Hexachlorobenzene (HCB)	mg/kg	0.05				<0.05	-	-	<0.05	-	<0.05
	Methoxychlor	mg/kg	0.2				<0.2	-	-	<0.2	-	<0.2
	Toxaphene	mg/kg	0.1				-	-	-	-	-	-
Inorganics	Moisture Content	%	1				**15.5**	**22.3**	**21.7**	**17.9**	**23.2**	**12.9**

Location	SP04_04	SP04_05	SP04_05	SP04_06	SP05_01	SP05_03
Sample ID	SP04_04_160413	QAQC_07_160513	QAQC_08_160513	SP04_06_160413	SP05_01_160413	SP05_03_160413
Sample Date	16/04/2013	16/04/2013	16/04/2013	16/04/2013	16/04/2013	16/04/2013
Sample Type	Primary	Duplicate	Duplicate	Primary	Primary	Primary
Lab_Report_Number	EB1310481	EB1309212	EB1309212	EB1310481	EB1309212	EB1309212

Analyte		Units	LOR	Class 1	Class 2A	Class 2B						
Total Petroleum Hydrocarbons	C6-C9 fraction	mg/kg	10				<10	<10	<10	<10	<10	<10
	C10-C14 fraction	mg/kg	50				-	<50	<50	<50	<50	<50
	C15-C28 fraction	mg/kg	100				-	<100	<100	<100	<100	<100
	C29-C36 fraction	mg/kg	100				-	<100	<100	<100	<100	<100
	C10-C36 fraction (sum)	mg/kg	50				-	<50	<50	<50	<50	<50
Total Recoverable Hydrocarbons	C6-C10 fraction (F1 minus BTEX)	mg/kg	10				<10	<10	<10	<10	<10	<10
	C6-C10 fraction	mg/kg	10				<10	<10	<10	<10	<10	<10
	>C10-C16 fraction	mg/kg	50				-	<50	<50	<50	<50	<50
	>C10-C16 (less Naphthalene)	mg/kg	50				-	-	-	-	-	-
	>C16-C34 fraction	mg/kg	100				-	<100	<100	<100	<100	<100
	>C34-C40 fraction	mg/kg	100				-	<100	<100	<100	<100	<100
	>C10-C40 fraction (sum)	mg/kg	50				-	<50	<50	<50	<50	<50
BTEXN	Benzene	mg/kg	0.2				<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
	Toluene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Ethylbenzene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	m&p-Xylene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	o-Xylene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Total Xylenes	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Total BTEX	mg/kg	0.2				<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
	Naphthalene (VOC)	mg/kg	1				<1	<1	<1	<1	<1	<1
Polynuclear Aromatic Hydrocarbons	Naphthalene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Acenaphthylene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Acenaphthene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Anthracene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Fluorene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Phenanthrene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Fluoranthene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Benz(a)anthracene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Benzo(b)fluoranthene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Benzo(k)fluoranthene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Benzo(a)pyrene	mg/kg	0.5		2	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Benzo(a)pyrene TEQ	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Chrysene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Pyrene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Benzo(g,h,i)perylene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Dibenz(a,h)anthracene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Indeno(1,2,3-cd)pyrene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Sum of PAHs	mg/kg	0.5		40	100	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Phenolic Compounds	Phenol	mg/kg	0.5		17000	42500	-	-	-	<0.5	-	<0.5
	2-Chlorophenol	mg/kg	0.5				-	-	-	<0.5	-	<0.5
	2-Methylphenol (o-Cresol)	mg/kg	0.5				-	-	-	<0.5	-	<0.5
	3-&4-Methylphenol (m&p-Cresol)	mg/kg	1				-	-	-	<1	-	<1
	2-Nitrophenol	mg/kg	0.5				-	-	-	<0.5	-	<0.5
	2,4-Dichlorophenol	mg/kg	0.5				-	-	-	<0.5	-	<0.5
	2,4-Dimethylphenol	mg/kg	0.5				-	-	-	<0.5	-	<0.5
	2,6-Dichlorophenol	mg/kg	0.5				-	-	-	<0.5	-	<0.5
	4-Chloro-3-methylphenol	mg/kg	0.5				-	-	-	<0.5	-	<0.5
	2,4,6-Trichlorophenol	mg/kg	0.5				-	-	-	<0.5	-	<0.5
	2,4,5-Trichlorophenol	mg/kg	0.5				-	-	-	<0.5	-	<0.5
	4,6-Dinitro-2-methylphenol	mg/kg	5				-	-	-	-	-	-
	Pentachlorophenol	mg/kg	2				-	-	-	<2	-	<2
	2,4-Dinitrophenol	mg/kg	5				-	-	-	-	-	-
	2-Cyclohexyl-4,6-dinitrophenol	mg/kg	20				-	-	-	-	-	-
	4-Nitrophenol	mg/kg	5				-	-	-	-	-	-
	Dinoseb	mg/kg	20				-	-	-	-	-	-
	Tetrachlorophenols	mg/kg	1				-	-	-	-	-	-
	Sum of Phenols (halogenated)	mg/kg	1				-	-	-	-	-	-
	Sum of Phenols (non-halogenated)	mg/kg	20				-	-	-	-	-	-
Metals	Arsenic	mg/kg	5	20	200	500	<5	<5	<5	<5	**7**	**44**
	Barium	mg/kg	10	300			-	-	-	**310**	-	**170**
	Beryllium	mg/kg	1		40	100	-	-	-	<1	-	<1
	Cadmium	mg/kg	1	3	40	100	<1	<1	<1	<1	<1	**5**
	Chromium	mg/kg	2				**30**	**37**	**25**	**26**	**46**	**38**
	Chromium (hexavalent)	mg/kg	0.5	1	200	500	-	-	-	<0.5	-	<0.5
	Cobalt	mg/kg	2		200	500	-	-	-	<2	-	<2
	Copper	mg/kg	5	100	2000	5000	**15**	**11**	**12**	**16**	**19**	**27**
	Lead	mg/kg	5	600	600	1500	**44**	**8**	**8**	**40**	**39**	**671**
	Manganese	mg/kg	5	500	3000	7500	-	-	-	**81**	-	**58**
	Mercury	mg/kg	0.1	1	30	75	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Nickel	mg/kg	2	60	600	3000	**3**	**8**	**7**	**3**	**7**	**6**
	Vanadium	mg/kg	5	50			-	-	-	**48**	-	**100**
	Zinc	mg/kg	5	200	14000	35000	**98**	**37**	**30**	**103**	**92**	**516**
Polychlorinated Biphenyls	Polychlorinated Biphenyls	mg/kg	0.1		20	50	-	-	-	<0.1	-	<0.1
	Arochlor 1016	mg/kg	0.1				-	-	-	-	-	-
	Arochlor 1221	mg/kg	0.1				-	-	-	-	-	-
	Arochlor 1232	mg/kg	0.1				-	-	-	-	-	-
	Arochlor 1242	mg/kg	0.1				-	-	-	-	-	-
	Arochlor 1248	mg/kg	0.1				-	-	-	-	-	-
	Arochlor 1254	mg/kg	0.1				-	-	-	-	-	-
	Arochlor 1260	mg/kg	0.1				-	-	-	-	-	-
Organochlorine Pesticides (OC)	Aldrin	mg/kg	0.05				-	-	-	<0.05	-	<0.05
	Dieldrin	mg/kg	0.05				-	-	-	<0.05	-	<0.05
	a-BHC	mg/kg	0.05				-	-	-	<0.05	-	<0.05
	b-BHC	mg/kg	0.05				-	-	-	<0.05	-	<0.05
	d-BHC	mg/kg	0.05				-	-	-	<0.05	-	<0.05
	g-BHC (Lindane)	mg/kg	0.05				-	-	-	<0.05	-	<0.05
	cis-Chlordane	mg/kg	0.05				-	-	-	<0.05	-	<0.05
	trans-Chlordane	mg/kg	0.05				-	-	-	<0.05	-	<0.05
	Chlordane	mg/kg	0.1		100	250	-	-	-	-	-	-
	DDD	mg/kg	0.05				-	-	-	<0.05	-	<0.05
	DDE	mg/kg	0.05				-	-	-	<0.05	-	<0.05
	DDT	mg/kg	0.2				-	-	-	<0.2	-	<0.2
	Endosulfan 1	mg/kg	0.05				-	-	-	<0.05	-	<0.05
	Endosulfan 2	mg/kg	0.05				-	-	-	<0.05	-	<0.05
	Endosulfan sulfate	mg/kg	0.05				-	-	-	<0.05	-	<0.05
	Endrin	mg/kg	0.05				-	-	-	<0.05	-	<0.05
	Endrin aldehyde	mg/kg	0.05				-	-	-	<0.05	-	<0.05
	Endrin ketone	mg/kg	0.05				-	-	-	<0.05	-	<0.05
	Heptachlor	mg/kg	0.05		20	50	-	-	-	<0.05	-	<0.05
	Heptachlor epoxide	mg/kg	0.05				-	-	-	<0.05	-	<0.05
	Hexachlorobenzene (HCB)	mg/kg	0.05				-	-	-	<0.05	-	<0.05
	Methoxychlor	mg/kg	0.2				-	-	-	<0.2	-	<0.2
	Toxaphene	mg/kg	0.1				-	-	-	-	-	-
Inorganics	Moisture Content	%	1				**13**	**16.2**	**16.8**	**23.5**	**19.2**	**22.8**

Location	SP05_05	SP05_06	SP05_08	SP05_10	SP05_10
Sample ID	SP05_05_160413	SP05_06_160413	SP05_08_160413	SP05_10_160413	QAQC_10_160513
Sample Date	16/04/2013	16/04/2013	16/04/2013	16/04/2013	16/04/2013
Sample Type	Primary	Primary	Primary	Primary	Triplicate
Lab_Report_Number	EB1309212	EB1309212	EB1309212	EB1309212	376318

Analyte		Units	LOR	Class 1	Class 2A	Class 2B					
Total Petroleum Hydrocarbons	C6-C9 fraction	mg/kg	10				<10	<10	<10	<10	<20
	C10-C14 fraction	mg/kg	50				<50	<50	<50	<50	<20
	C15-C28 fraction	mg/kg	100				<100	<100	<100	<100	<50
	C29-C36 fraction	mg/kg	100				<100	<100	<100	<100	<50
	C10-C36 fraction (sum)	mg/kg	50				<50	<50	<50	<50	<50
Total Recoverable Hydrocarbons	C6-C10 fraction (F1 minus BTEX)	mg/kg	10				<10	<10	<10	<10	<20
	C6-C10 fraction	mg/kg	10				<10	<10	<10	<10	<20
	>C10-C16 fraction	mg/kg	50				<50	<50	<50	<50	<50
	>C10-C16 (less Naphthalene)	mg/kg	50				-	-	-	-	<50
	>C16-C34 fraction	mg/kg	100				<100	<100	<100	<100	<100
	>C34-C40 fraction	mg/kg	100				<100	<100	<100	<100	<100
	>C10-C40 fraction (sum)	mg/kg	50				<50	<50	<50	<50	-
BTEXN	Benzene	mg/kg	0.2				<0.2	<0.2	<0.2	<0.2	<0.1
	Toluene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.1
	Ethylbenzene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.1
	m&p-Xylene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.2
	o-Xylene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.1
	Total Xylenes	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.3
	Total BTEX	mg/kg	0.2				<0.2	<0.2	<0.2	<0.2	<0.6
	Naphthalene (VOC)	mg/kg	1				<1	<1	<1	<1	<0.5
Polynuclear Aromatic Hydrocarbons	Naphthalene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5
	Acenaphthylene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5
	Acenaphthene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5
	Anthracene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5
	Fluorene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5
	Phenanthrene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5
	Fluoranthene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5
	Benz(a)anthracene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5
	Benzo(b)fluoranthene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5
	Benzo(k)fluoranthene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5
	Benzo(a)pyrene	mg/kg	0.5		2	5	<0.5	<0.5	<0.5	<0.5	<0.5
	Benzo(a)pyrene TEQ	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	-
	Chrysene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5
	Pyrene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5
	Benzo(g,h,i)perylene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5
	Dibenz(a,h)anthracene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5
	Indeno(1,2,3-cd)pyrene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5
	Sum of PAHs	mg/kg	0.5		40	100	<0.5	<0.5	<0.5	<0.5	<0.5
Phenolic Compounds	Phenol	mg/kg	0.5		17000	42500	-	<0.5	-	<0.5	<0.5
	2-Chlorophenol	mg/kg	0.5				-	<0.5	-	<0.5	<0.5
	2-Methylphenol (o-Cresol)	mg/kg	0.5				-	<0.5	-	<0.5	<0.2
	3-&4-Methylphenol (m&p-Cresol)	mg/kg	1				-	<1	-	<1	<0.4
	2-Nitrophenol	mg/kg	0.5				-	<0.5	-	<0.5	<1
	2,4-Dichlorophenol	mg/kg	0.5				-	<0.5	-	<0.5	<0.5
	2,4-Dimethylphenol	mg/kg	0.5				-	<0.5	-	<0.5	<0.5
	2,6-Dichlorophenol	mg/kg	0.5				-	<0.5	-	<0.5	<0.5
	4-Chloro-3-methylphenol	mg/kg	0.5				-	<0.5	-	<0.5	<1
	2,4,6-Trichlorophenol	mg/kg	0.5				-	<0.5	-	<0.5	<1
	2,4,5-Trichlorophenol	mg/kg	0.5				-	<0.5	-	<0.5	<1
	4,6-Dinitro-2-methylphenol	mg/kg	5				-	-	-	-	<5
	Pentachlorophenol	mg/kg	2				-	<2	-	<2	<1
	2,4-Dinitrophenol	mg/kg	5				-	-	-	-	<5
	2-Cyclohexyl-4,6-dinitrophenol	mg/kg	20				-	-	-	-	<20
	4-Nitrophenol	mg/kg	5				-	-	-	-	<5
	Dinoseb	mg/kg	20				-	-	-	-	<20
	Tetrachlorophenols	mg/kg	1				-	-	-	-	<1
	Sum of Phenols (halogenated)	mg/kg	1				-	-	-	-	<1
	Sum of Phenols (non-halogenated)	mg/kg	20				-	-	-	-	<20
Metals	Arsenic	mg/kg	5	20	200	500	**7**	**10**	**9**	**10**	**7.7**
	Barium	mg/kg	10	300			-	**110**	-	**340**	**100**
	Beryllium	mg/kg	1		40	100	-	<1	-	<1	<5
	Cadmium	mg/kg	1	3	40	100	<1	<1	<1	<1	<0.5
	Chromium	mg/kg	2				**30**	**92**	**43**	**49**	**34**
	Chromium (hexavalent)	mg/kg	0.5	1	200	500	-	<0.5	-	<0.5	<1
	Cobalt	mg/kg	2		200	500	-	<2	-	**2**	<5
	Copper	mg/kg	5	100	2000	5000	**17**	**19**	**24**	**31**	**19**
	Lead	mg/kg	5	600	600	1500	**35**	**37**	**45**	**55**	**46**
	Manganese	mg/kg	5	500	3000	7500	-	**75**	-	**88**	**48**
	Mercury	mg/kg	0.1	1	30	75	<0.1	<0.1	<0.1	<0.1	<0.1
	Nickel	mg/kg	2	60	600	3000	**6**	**5**	**6**	**9**	**7.1**
	Vanadium	mg/kg	5	50			-	**172**	-	**95**	**69**
	Zinc	mg/kg	5	200	14000	35000	**80**	**92**	**102**	**118**	**77**
Polychlorinated Biphenyls	Polychlorinated Biphenyls	mg/kg	0.1		20	50	-	<0.1	-	<0.1	<0.1
	Arochlor 1016	mg/kg	0.1				-	-	-	-	<0.1
	Arochlor 1221	mg/kg	0.1				-	-	-	-	<0.1
	Arochlor 1232	mg/kg	0.1				-	-	-	-	<0.1
	Arochlor 1242	mg/kg	0.1				-	-	-	-	<0.1
	Arochlor 1248	mg/kg	0.1				-	-	-	-	<0.1
	Arochlor 1254	mg/kg	0.1				-	-	-	-	<0.1
	Arochlor 1260	mg/kg	0.1				-	-	-	-	<0.1
Organochlorine Pesticides (OC)	Aldrin	mg/kg	0.05				-	<0.05	-	<0.05	<0.05
	Dieldrin	mg/kg	0.05				-	<0.05	-	**0.07**	<0.05
	a-BHC	mg/kg	0.05				-	<0.05	-	<0.05	<0.05
	b-BHC	mg/kg	0.05				-	<0.05	-	<0.05	<0.05
	d-BHC	mg/kg	0.05				-	<0.05	-	<0.05	<0.05
	g-BHC (Lindane)	mg/kg	0.05				-	<0.05	-	<0.05	<0.05
	cis-Chlordane	mg/kg	0.05				-	<0.05	-	<0.05	-
	trans-Chlordane	mg/kg	0.05				-	<0.05	-	<0.05	-
	Chlordane	mg/kg	0.1		100	250	-	-	-	-	<0.1
	DDD	mg/kg	0.05				-	<0.05	-	<0.05	<0.05
	DDE	mg/kg	0.05				-	<0.05	-	<0.05	<0.05
	DDT	mg/kg	0.2				-	<0.2	-	<0.2	<0.05
	Endosulfan 1	mg/kg	0.05				-	<0.05	-	<0.05	<0.05
	Endosulfan 2	mg/kg	0.05				-	<0.05	-	<0.05	<0.05
	Endosulfan sulfate	mg/kg	0.05				-	<0.05	-	<0.05	<0.05
	Endrin	mg/kg	0.05				-	<0.05	-	<0.05	<0.05
	Endrin aldehyde	mg/kg	0.05				-	<0.05	-	<0.05	<0.05
	Endrin ketone	mg/kg	0.05				-	<0.05	-	<0.05	<0.05
	Heptachlor	mg/kg	0.05		20	50	-	<0.05	-	<0.05	<0.05
	Heptachlor epoxide	mg/kg	0.05				-	<0.05	-	<0.05	<0.05
	Hexachlorobenzene (HCB)	mg/kg	0.05				-	<0.05	-	<0.05	<0.05
	Methoxychlor	mg/kg	0.2				-	<0.2	-	<0.2	<0.05
	Toxaphene	mg/kg	0.1				-	-	-	-	<0.1
Inorganics	Moisture Content	%	1				**23.9**	**17.5**	**24.3**	**16**	**16**

Location	SP03_01	SP03_02	SP03_03	SP03_05
Sample ID	SP03_01_160413	SP03_02_160413	SP03_03_160413	SP03_05_160413
Sample Date	16/04/2013	16/04/2013	16/04/2013	16/04/2013
Sample Type	Primary	Primary	Primary	Primary
Lab_Report_Number	EB1309212	EB1309212	EB1309212	EB1309212

Analyte		Units	LOR	NSW 2008 General Solid Waste (No Leaching)	NSW 2008 General Solid Waste (with leached)				
Total Petroleum Hydrocarbons	C6-C9 fraction	mg/kg	10		650	<10	<10	<10	<10
	C10-C14 fraction	mg/kg	50			<50	<50	<50	<50
	C15-C28 fraction	mg/kg	100			<100	<100	<100	<100
	C29-C36 fraction	mg/kg	100			<100	<100	<100	<100
	C10-C36 fraction (sum)	mg/kg	50		10000	<50	<50	<50	<50
Total Recoverable Hydrocarbons	C6-C10 fraction (F1 minus BTEX)	mg/kg	10			<10	<10	<10	<10
	C6-C10 fraction	mg/kg	10			<10	<10	<10	<10
	>C10-C16 fraction	mg/kg	50			<50	<50	<50	<50
	>C10-C16 (less Naphthalene)	mg/kg	50			-	-	-	-
	>C16-C34 fraction	mg/kg	100			<100	<100	<100	<100
	>C34-C40 fraction	mg/kg	100			<100	<100	<100	<100
	>C10-C40 fraction (sum)	mg/kg	50			<50	<50	<50	<50
BTEXN	Benzene	mg/kg	0.2	10	18	<0.2	<0.2	<0.2	<0.2
	Toluene	mg/kg	0.5	288	518	<0.5	<0.5	<0.5	<0.5
	Ethylbenzene	mg/kg	0.5	600	1080	<0.5	<0.5	<0.5	<0.5
	m&p-Xylene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	o-Xylene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Total Xylenes	mg/kg	0.5	1000	1800	<0.5	<0.5	<0.5	<0.5
	Total BTEX	mg/kg	0.2			<0.2	<0.2	<0.2	<0.2
	Naphthalene (VOC)	mg/kg	1			<1	<1	<1	<1
Polynuclear Aromatic Hydrocarbons	Naphthalene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Acenaphthylene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Acenaphthene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Anthracene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Fluorene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Phenanthrene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Fluoranthene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Benz(a)anthracene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Benzo(b)fluoranthene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Benzo(k)fluoranthene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Benzo(a)pyrene	mg/kg	0.5	0.8	10	<0.5	<0.5	<0.5	<0.5
	Benzo(a)pyrene TEQ	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Chrysene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Pyrene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Benzo(g,h,i)perylene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Dibenz(a,h)anthracene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Indeno(1,2,3-cd)pyrene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Sum of PAHs	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
Phenolic Compounds	Phenol	mg/kg	0.5		518	-	<0.5	<0.5	-
	2-Chlorophenol	mg/kg	0.5			-	<0.5	<0.5	-
	2-Methylphenol (o-Cresol)	mg/kg	0.5	4000	7200	-	<0.5	<0.5	-
	3-&4-Methylphenol (m&p-Cresol)	mg/kg	1			-	<1	<1	-
	2-Nitrophenol	mg/kg	0.5			-	<0.5	<0.5	-
	2,4-Dichlorophenol	mg/kg	0.5			-	<0.5	<0.5	-
	2,4-Dimethylphenol	mg/kg	0.5			-	<0.5	<0.5	-
	2,6-Dichlorophenol	mg/kg	0.5			-	<0.5	<0.5	-
	4-Chloro-3-methylphenol	mg/kg	0.5			-	<0.5	<0.5	-
	2,4,6-Trichlorophenol	mg/kg	0.5	40	72	-	<0.5	<0.5	-
	2,4,5-Trichlorophenol	mg/kg	0.5	8000	14400	-	<0.5	<0.5	-
	4,6-Dinitro-2-methylphenol	mg/kg	5			-	-	-	-
	Pentachlorophenol	mg/kg	2			-	<2	<2	-
	2,4-Dinitrophenol	mg/kg	5			-	-	-	-
	2-Cyclohexyl-4,6-dinitrophenol	mg/kg	20			-	-	-	-
	4-Nitrophenol	mg/kg	5			-	-	-	-
	Dinoseb	mg/kg	20			-	-	-	-
	Tetrachlorophenols	mg/kg	1			-	-	-	-
	Sum of Phenols (halogenated)	mg/kg	1			-	-	-	-
	Sum of Phenols (non-halogenated)	mg/kg	20	288		-	-	-	-
Metals	Arsenic	mg/kg	5	100	500	**5**	<5	<5	**6**
	Barium	mg/kg	10			-	**40**	**50**	-
	Beryllium	mg/kg	1	20	100	-	<1	<1	-
	Cadmium	mg/kg	1	20	100	<1	<1	<1	<1
	Chromium	mg/kg	2			**20**	**30**	**22**	**32**
	Chromium (hexavalent)	mg/kg	0.5	100	1900	-	<0.5	<0.5	-
	Cobalt	mg/kg	2			-	**3**	**3**	-
	Copper	mg/kg	5			**22**	**16**	**153**	**10**
	Lead	mg/kg	5	100	1500	**30**	**11**	**30**	**13**
	Manganese	mg/kg	5			-	**166**	**118**	-
	Mercury	mg/kg	0.1	4	50	<0.1	<0.1	<0.1	<0.1
	Nickel	mg/kg	2	40	1050	**7**	**11**	**12**	**8**
	Vanadium	mg/kg	5			-	**36**	**28**	-
	Zinc	mg/kg	5			**62**	**41**	**205**	**53**
Polychlorinated Biphenyls	Polychlorinated Biphenyls	mg/kg	0.1		50	-	<0.1	<0.1	-
	Arochlor 1016	mg/kg	0.1			-	-	-	-
	Arochlor 1221	mg/kg	0.1			-	-	-	-
	Arochlor 1232	mg/kg	0.1			-	-	-	-
	Arochlor 1242	mg/kg	0.1			-	-	-	-
	Arochlor 1248	mg/kg	0.1			-	-	-	-
	Arochlor 1254	mg/kg	0.1			-	-	-	-
	Arochlor 1260	mg/kg	0.1			-	-	-	-
Organochlorine Pesticides (OC)	Aldrin	mg/kg	0.05			-	<0.05	<0.05	-
	Dieldrin	mg/kg	0.05			-	<0.05	<0.05	-
	a-BHC	mg/kg	0.05			-	<0.05	<0.05	-
	b-BHC	mg/kg	0.05			-	<0.05	<0.05	-
	d-BHC	mg/kg	0.05			-	<0.05	<0.05	-
	g-BHC (Lindane)	mg/kg	0.05			-	<0.05	<0.05	-
	cis-Chlordane	mg/kg	0.05			-	<0.05	<0.05	-
	trans-Chlordane	mg/kg	0.05			-	<0.05	<0.05	-
	Chlordane	mg/kg	0.1			-	-	-	-
	DDD	mg/kg	0.05			-	<0.05	<0.05	-
	DDE	mg/kg	0.05			-	<0.05	<0.05	-
	DDT	mg/kg	0.2			-	<0.2	<0.2	-
	Endosulfan 1	mg/kg	0.05			-	<0.05	<0.05	-
	Endosulfan 2	mg/kg	0.05			-	<0.05	<0.05	-
	Endosulfan sulfate	mg/kg	0.05			-	<0.05	<0.05	-
	Endrin	mg/kg	0.05			-	<0.05	<0.05	-
	Endrin aldehyde	mg/kg	0.05			-	<0.05	<0.05	-
	Endrin ketone	mg/kg	0.05			-	<0.05	<0.05	-
	Heptachlor	mg/kg	0.05			-	<0.05	<0.05	-
	Heptachlor epoxide	mg/kg	0.05			-	<0.05	<0.05	-
	Hexachlorobenzene (HCB)	mg/kg	0.05			-	<0.05	<0.05	-
	Methoxychlor	mg/kg	0.2			-	<0.2	<0.2	-
	Toxaphene	mg/kg	0.1			-	-	-	-
Inorganics	Moisture Content	%	1			**12.9**	**17.5**	**19.8**	**14.8**

Location	SP03_07	SP03_10	SP03_12	SP03_14
Sample ID	SP03_07_160413	SP03_10_160413	SP03_12_160413	SP03_14_160413
Sample Date	16/04/2013	16/04/2013	16/04/2013	16/04/2013
Sample Type	Primary	Primary	Primary	Primary
Lab_Report_Number	EB1309212	EB1310481	EB1309212	EB1309212

Analyte		Units	LOR	NSW 2008 General Solid Waste (No Leaching)	NSW 2008 General Solid Waste (with leached)				
Total Petroleum Hydrocarbons	C6-C9 fraction	mg/kg	10		650	<10	<10	<10	<10
	C10-C14 fraction	mg/kg	50			<50	-	<50	<50
	C15-C28 fraction	mg/kg	100			<100	-	<100	<100
	C29-C36 fraction	mg/kg	100			<100	-	<100	<100
	C10-C36 fraction (sum)	mg/kg	50		10000	<50	-	<50	<50
Total Recoverable Hydrocarbons	C6-C10 fraction (F1 minus BTEX)	mg/kg	10			<10	<10	<10	<10
	C6-C10 fraction	mg/kg	10			<10	<10	<10	<10
	>C10-C16 fraction	mg/kg	50			<50	-	<50	<50
	>C10-C16 (less Naphthalene)	mg/kg	50			-	-	-	-
	>C16-C34 fraction	mg/kg	100			<100	-	<100	<100
	>C34-C40 fraction	mg/kg	100			<100	-	<100	<100
	>C10-C40 fraction (sum)	mg/kg	50			<50	-	<50	<50
BTEXN	Benzene	mg/kg	0.2	10	18	<0.2	<0.2	<0.2	<0.2
	Toluene	mg/kg	0.5	288	518	<0.5	<0.5	<0.5	<0.5
	Ethylbenzene	mg/kg	0.5	600	1080	<0.5	<0.5	<0.5	<0.5
	m&p-Xylene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	o-Xylene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Total Xylenes	mg/kg	0.5	1000	1800	<0.5	<0.5	<0.5	<0.5
	Total BTEX	mg/kg	0.2			<0.2	<0.2	<0.2	<0.2
	Naphthalene (VOC)	mg/kg	1			<1	<1	<1	<1
Polynuclear Aromatic Hydrocarbons	Naphthalene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Acenaphthylene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Acenaphthene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Anthracene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Fluorene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Phenanthrene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Fluoranthene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Benz(a)anthracene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Benzo(b)fluoranthene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Benzo(k)fluoranthene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Benzo(a)pyrene	mg/kg	0.5	0.8	10	<0.5	<0.5	<0.5	<0.5
	Benzo(a)pyrene TEQ	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Chrysene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Pyrene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Benzo(g,h,i)perylene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Dibenz(a,h)anthracene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Indeno(1,2,3-cd)pyrene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Sum of PAHs	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
Phenolic Compounds	Phenol	mg/kg	0.5		518	<0.5	-	-	<0.5
	2-Chlorophenol	mg/kg	0.5			<0.5	-	-	<0.5
	2-Methylphenol (o-Cresol)	mg/kg	0.5	4000	7200	<0.5	-	-	<0.5
	3-&4-Methylphenol (m&p-Cresol)	mg/kg	1			<1	-	-	<1
	2-Nitrophenol	mg/kg	0.5			<0.5	-	-	<0.5
	2,4-Dichlorophenol	mg/kg	0.5			<0.5	-	-	<0.5
	2,4-Dimethylphenol	mg/kg	0.5			<0.5	-	-	<0.5
	2,6-Dichlorophenol	mg/kg	0.5			<0.5	-	-	<0.5
	4-Chloro-3-methylphenol	mg/kg	0.5			<0.5	-	-	<0.5
	2,4,6-Trichlorophenol	mg/kg	0.5	40	72	<0.5	-	-	<0.5
	2,4,5-Trichlorophenol	mg/kg	0.5	8000	14400	<0.5	-	-	<0.5
	4,6-Dinitro-2-methylphenol	mg/kg	5			-	-	-	-
	Pentachlorophenol	mg/kg	2			<2	-	-	<2
	2,4-Dinitrophenol	mg/kg	5			-	-	-	-
	2-Cyclohexyl-4,6-dinitrophenol	mg/kg	20			-	-	-	-
	4-Nitrophenol	mg/kg	5			-	-	-	-
	Dinoseb	mg/kg	20			-	-	-	-
	Tetrachlorophenols	mg/kg	1			-	-	-	-
	Sum of Phenols (halogenated)	mg/kg	1			-	-	-	-
	Sum of Phenols (non-halogenated)	mg/kg	20	288		-	-	-	-
Metals	Arsenic	mg/kg	5	100	500	**7**	**5**	**10**	**10**
	Barium	mg/kg	10			**50**	-	-	**120**
	Beryllium	mg/kg	1	20	100	<1	-	-	<1
	Cadmium	mg/kg	1	20	100	<1	<1	<1	<1
	Chromium	mg/kg	2			**35**	**16**	**40**	**44**
	Chromium (hexavalent)	mg/kg	0.5	100	1900	<0.5	-	-	<0.5
	Cobalt	mg/kg	2			**2**	-	-	**2**
	Copper	mg/kg	5			**15**	**17**	**26**	**20**
	Lead	mg/kg	5	100	1500	**13**	**16**	**33**	**39**
	Manganese	mg/kg	5			**62**	-	-	**58**
	Mercury	mg/kg	0.1	4	50	<0.1	<0.1	<0.1	<0.1
	Nickel	mg/kg	2	40	1050	**7**	**6**	**6**	**6**
	Vanadium	mg/kg	5			**70**	-	-	**79**
	Zinc	mg/kg	5			**60**	**80**	**80**	**94**
Polychlorinated Biphenyls	Polychlorinated Biphenyls	mg/kg	0.1		50	<0.1	-	-	<0.1
	Arochlor 1016	mg/kg	0.1			-	-	-	-
	Arochlor 1221	mg/kg	0.1			-	-	-	-
	Arochlor 1232	mg/kg	0.1			-	-	-	-
	Arochlor 1242	mg/kg	0.1			-	-	-	-
	Arochlor 1248	mg/kg	0.1			-	-	-	-
	Arochlor 1254	mg/kg	0.1			-	-	-	-
	Arochlor 1260	mg/kg	0.1			-	-	-	-
Organochlorine Pesticides (OC)	Aldrin	mg/kg	0.05			<0.05	-	-	<0.05
	Dieldrin	mg/kg	0.05			<0.05	-	-	<0.05
	a-BHC	mg/kg	0.05			<0.05	-	-	<0.05
	b-BHC	mg/kg	0.05			<0.05	-	-	<0.05
	d-BHC	mg/kg	0.05			<0.05	-	-	<0.05
	g-BHC (Lindane)	mg/kg	0.05			<0.05	-	-	<0.05
	cis-Chlordane	mg/kg	0.05			<0.05	-	-	<0.05
	trans-Chlordane	mg/kg	0.05			<0.05	-	-	<0.05
	Chlordane	mg/kg	0.1			-	-	-	-
	DDD	mg/kg	0.05			<0.05	-	-	<0.05
	DDE	mg/kg	0.05			<0.05	-	-	<0.05
	DDT	mg/kg	0.2			<0.2	-	-	<0.2
	Endosulfan 1	mg/kg	0.05			<0.05	-	-	<0.05
	Endosulfan 2	mg/kg	0.05			<0.05	-	-	<0.05
	Endosulfan sulfate	mg/kg	0.05			<0.05	-	-	<0.05
	Endrin	mg/kg	0.05			<0.05	-	-	<0.05
	Endrin aldehyde	mg/kg	0.05			<0.05	-	-	<0.05
	Endrin ketone	mg/kg	0.05			<0.05	-	-	<0.05
	Heptachlor	mg/kg	0.05			<0.05	-	-	<0.05
	Heptachlor epoxide	mg/kg	0.05			<0.05	-	-	<0.05
	Hexachlorobenzene (HCB)	mg/kg	0.05			<0.05	-	-	<0.05
	Methoxychlor	mg/kg	0.2			<0.2	-	-	<0.2
	Toxaphene	mg/kg	0.1			-	-	-	-
Inorganics	Moisture Content	%	1			**19.4**	**10.5**	**17.7**	**13.4**

Location	SP03_16	SP03_18	SP03_18	SP03_21
Sample ID	SP03_16_160413	SP03_18_160413	QAQC_02_160513	SP03_21_160413
Sample Date	16/04/2013	16/04/2013	16/04/2013	16/04/2013
Sample Type	Primary	Primary	Triplicate	Primary
Lab_Report_Number	EB1309212	EB1309212	376318	EB1309212

Analyte		Units	LOR	NSW 2008 General Solid Waste (No Leaching)	NSW 2008 General Solid Waste (with leached)				
Total Petroleum Hydrocarbons	C6-C9 fraction	mg/kg	10		650	<10	<10	<20	<10
	C10-C14 fraction	mg/kg	50			<50	<50	<20	<50
	C15-C28 fraction	mg/kg	100			<100	<100	<50	<100
	C29-C36 fraction	mg/kg	100			<100	<100	<50	<100
	C10-C36 fraction (sum)	mg/kg	50		10000	<50	<50	<50	<50
Total Recoverable Hydrocarbons	C6-C10 fraction (F1 minus BTEX)	mg/kg	10			<10	<10	<20	<10
	C6-C10 fraction	mg/kg	10			<10	<10	<20	<10
	>C10-C16 fraction	mg/kg	50			<50	<50	<50	<50
	>C10-C16 (less Naphthalene)	mg/kg	50			-	-	<50	-
	>C16-C34 fraction	mg/kg	100			<100	<100	<100	<100
	>C34-C40 fraction	mg/kg	100			<100	<100	<100	<100
	>C10-C40 fraction (sum)	mg/kg	50			<50	<50	-	<50
BTEXN	Benzene	mg/kg	0.2	10	18	<0.2	<0.2	<0.1	<0.2
	Toluene	mg/kg	0.5	288	518	<0.5	<0.5	<0.1	<0.5
	Ethylbenzene	mg/kg	0.5	600	1080	<0.5	<0.5	<0.1	<0.5
	m&p-Xylene	mg/kg	0.5			<0.5	<0.5	<0.2	<0.5
	o-Xylene	mg/kg	0.5			<0.5	<0.5	<0.1	<0.5
	Total Xylenes	mg/kg	0.5	1000	1800	<0.5	<0.5	<0.3	<0.5
	Total BTEX	mg/kg	0.2			<0.2	<0.2	<0.6	<0.2
	Naphthalene (VOC)	mg/kg	1			<1	<1	<0.5	<1
Polynuclear Aromatic Hydrocarbons	Naphthalene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Acenaphthylene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Acenaphthene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Anthracene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Fluorene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Phenanthrene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Fluoranthene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Benz(a)anthracene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Benzo(b)fluoranthene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Benzo(k)fluoranthene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Benzo(a)pyrene	mg/kg	0.5	0.8	10	<0.5	<0.5	<0.5	<0.5
	Benzo(a)pyrene TEQ	mg/kg	0.5			<0.5	<0.5	-	<0.5
	Chrysene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Pyrene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Benzo(g,h,i)perylene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Dibenz(a,h)anthracene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Indeno(1,2,3-cd)pyrene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Sum of PAHs	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
Phenolic Compounds	Phenol	mg/kg	0.5		518	-	<0.5	<0.5	<0.5
	2-Chlorophenol	mg/kg	0.5			-	<0.5	<0.5	<0.5
	2-Methylphenol (o-Cresol)	mg/kg	0.5	4000	7200	-	<0.5	<0.2	<0.5
	3-&4-Methylphenol (m&p-Cresol)	mg/kg	1			-	<1	<0.4	<1
	2-Nitrophenol	mg/kg	0.5			-	<0.5	<1	<0.5
	2,4-Dichlorophenol	mg/kg	0.5			-	<0.5	<0.5	<0.5
	2,4-Dimethylphenol	mg/kg	0.5			-	<0.5	<0.5	<0.5
	2,6-Dichlorophenol	mg/kg	0.5			-	<0.5	<0.5	<0.5
	4-Chloro-3-methylphenol	mg/kg	0.5			-	<0.5	<1	<0.5
	2,4,6-Trichlorophenol	mg/kg	0.5	40	72	-	<0.5	<1	<0.5
	2,4,5-Trichlorophenol	mg/kg	0.5	8000	14400	-	<0.5	<1	<0.5
	4,6-Dinitro-2-methylphenol	mg/kg	5			-	-	<5	-
	Pentachlorophenol	mg/kg	2			-	<2	<1	<2
	2,4-Dinitrophenol	mg/kg	5			-	-	<5	-
	2-Cyclohexyl-4,6-dinitrophenol	mg/kg	20			-	-	<20	-
	4-Nitrophenol	mg/kg	5			-	-	<5	-
	Dinoseb	mg/kg	20			-	-	<20	-
	Tetrachlorophenols	mg/kg	1			-	-	<1	-
	Sum of Phenols (halogenated)	mg/kg	1			-	-	<1	-
	Sum of Phenols (non-halogenated)	mg/kg	20	288		-	-	<20	-
Metals	Arsenic	mg/kg	5	100	500	**11**	<5	**18**	**9**
	Barium	mg/kg	10			-	**20**	**62**	**150**
	Beryllium	mg/kg	1	20	100	-	<1	<5	<1
	Cadmium	mg/kg	1	20	100	<1	<1	<0.5	<1
	Chromium	mg/kg	2			**37**	**23**	**28**	**38**
	Chromium (hexavalent)	mg/kg	0.5	100	1900	-	<0.5	<1	<0.5
	Cobalt	mg/kg	2			-	**3**	<5	<2
	Copper	mg/kg	5			**32**	**16**	**32**	**20**
	Lead	mg/kg	5	100	1500	**55**	**6**	**22**	**25**
	Manganese	mg/kg	5			-	**156**	**77**	**50**
	Mercury	mg/kg	0.1	4	50	<0.1	<0.1	<0.1	<0.1
	Nickel	mg/kg	2	40	1050	**9**	**10**	**9.2**	**6**
	Vanadium	mg/kg	5			-	**26**	**43**	**78**
	Zinc	mg/kg	5			**120**	**32**	**55**	**69**
Polychlorinated Biphenyls	Polychlorinated Biphenyls	mg/kg	0.1		50	-	<0.1	<0.1	<0.1
	Arochlor 1016	mg/kg	0.1			-	-	<0.1	-
	Arochlor 1221	mg/kg	0.1			-	-	<0.1	-
	Arochlor 1232	mg/kg	0.1			-	-	<0.1	-
	Arochlor 1242	mg/kg	0.1			-	-	<0.1	-
	Arochlor 1248	mg/kg	0.1			-	-	<0.1	-
	Arochlor 1254	mg/kg	0.1			-	-	<0.1	-
	Arochlor 1260	mg/kg	0.1			-	-	<0.1	-
Organochlorine Pesticides (OC)	Aldrin	mg/kg	0.05			-	<0.05	<0.05	<0.05
	Dieldrin	mg/kg	0.05			-	<0.05	<0.05	<0.05
	a-BHC	mg/kg	0.05			-	<0.05	<0.05	<0.05
	b-BHC	mg/kg	0.05			-	<0.05	<0.05	<0.05
	d-BHC	mg/kg	0.05			-	<0.05	<0.05	<0.05
	g-BHC (Lindane)	mg/kg	0.05			-	<0.05	<0.05	<0.05
	cis-Chlordane	mg/kg	0.05			-	<0.05	-	<0.05
	trans-Chlordane	mg/kg	0.05			-	<0.05	-	<0.05
	Chlordane	mg/kg	0.1			-	-	<0.1	-
	DDD	mg/kg	0.05			-	<0.05	<0.05	<0.05
	DDE	mg/kg	0.05			-	<0.05	<0.05	<0.05
	DDT	mg/kg	0.2			-	<0.2	<0.05	<0.2
	Endosulfan 1	mg/kg	0.05			-	<0.05	<0.05	<0.05
	Endosulfan 2	mg/kg	0.05			-	<0.05	<0.05	<0.05
	Endosulfan sulfate	mg/kg	0.05			-	<0.05	<0.05	<0.05
	Endrin	mg/kg	0.05			-	<0.05	<0.05	<0.05
	Endrin aldehyde	mg/kg	0.05			-	<0.05	<0.05	<0.05
	Endrin ketone	mg/kg	0.05			-	<0.05	<0.05	<0.05
	Heptachlor	mg/kg	0.05			-	<0.05	<0.05	<0.05
	Heptachlor epoxide	mg/kg	0.05			-	<0.05	<0.05	<0.05
	Hexachlorobenzene (HCB)	mg/kg	0.05			-	<0.05	<0.05	<0.05
	Methoxychlor	mg/kg	0.2			-	<0.2	<0.05	<0.2
	Toxaphene	mg/kg	0.1			-	-	<0.1	-
Inorganics	Moisture Content	%	1			**17**	**16**	**18**	**19.4**

Analytical Results
Waterfront Stage 2A - Waterfront Stage 2A
Darwin Waterfront Corporation

Location	SP03_22	SP03_23	SP03_23	SP03_23
Sample ID	SP03_22_160413	SP03_23_160413	QAQC_05_160513	QAQC_06_160513
Sample Date	16/04/2013	16/04/2013	16/04/2013	16/04/2013
Sample Type	Primary	Primary	Duplicate	Triplicate
Lab_Report_Number	EB1309212	EB1309212	EB1309212	376318

Analyte		Units	LOR	NSW 2008 General Solid Waste (No Leaching)	NSW 2008 General Solid Waste (with leached)				
Total Petroleum Hydrocarbons	C6-C9 fraction	mg/kg	10		650	<10	<10	<10	<20
	C10-C14 fraction	mg/kg	50			<50	<50	<50	<20
	C15-C28 fraction	mg/kg	100			<100	<100	<100	<50
	C29-C36 fraction	mg/kg	100			<100	<100	<100	<50
	C10-C36 fraction (sum)	mg/kg	50		10000	<50	<50	<50	<50
Total Recoverable Hydrocarbons	C6-C10 fraction (F1 minus BTEX)	mg/kg	10			<10	<10	<10	<20
	C6-C10 fraction	mg/kg	10			<10	<10	<10	<20
	>C10-C16 fraction	mg/kg	50			<50	<50	<50	<50
	>C10-C16 (less Naphthalene)	mg/kg	50			-	-	-	<50
	>C16-C34 fraction	mg/kg	100			<100	<100	<100	<100
	>C34-C40 fraction	mg/kg	100			<100	<100	<100	<100
	>C10-C40 fraction (sum)	mg/kg	50			<50	<50	<50	-
BTEXN	Benzene	mg/kg	0.2	10	18	<0.2	<0.2	<0.2	<0.1
	Toluene	mg/kg	0.5	288	518	<0.5	<0.5	<0.5	<0.1
	Ethylbenzene	mg/kg	0.5	600	1080	<0.5	<0.5	<0.5	<0.1
	m&p-Xylene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.2
	o-Xylene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.1
	Total Xylenes	mg/kg	0.5	1000	1800	<0.5	<0.5	<0.5	<0.3
	Total BTEX	mg/kg	0.2			<0.2	<0.2	<0.2	<0.6
	Naphthalene (VOC)	mg/kg	1			<1	<1	<1	<0.5
Polynuclear Aromatic Hydrocarbons	Naphthalene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Acenaphthylene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Acenaphthene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Anthracene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Fluorene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Phenanthrene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Fluoranthene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Benz(a)anthracene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Benzo(b)fluoranthene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Benzo(k)fluoranthene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Benzo(a)pyrene	mg/kg	0.5	0.8	10	<0.5	<0.5	<0.5	<0.5
	Benzo(a)pyrene TEQ	mg/kg	0.5			<0.5	<0.5	<0.5	-
	Chrysene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Pyrene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Benzo(g,h,i)perylene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Dibenz(a,h)anthracene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Indeno(1,2,3-cd)pyrene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Sum of PAHs	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
Phenolic Compounds	Phenol	mg/kg	0.5		518	-	-	<0.5	<0.5
	2-Chlorophenol	mg/kg	0.5			-	-	<0.5	<0.5
	2-Methylphenol (o-Cresol)	mg/kg	0.5	4000	7200	-	-	<0.5	<0.2
	3-&4-Methylphenol (m&p-Cresol)	mg/kg	1			-	-	<1	<0.4
	2-Nitrophenol	mg/kg	0.5			-	-	<0.5	<1
	2,4-Dichlorophenol	mg/kg	0.5			-	-	<0.5	<0.5
	2,4-Dimethylphenol	mg/kg	0.5			-	-	<0.5	<0.5
	2,6-Dichlorophenol	mg/kg	0.5			-	-	<0.5	<0.5
	4-Chloro-3-methylphenol	mg/kg	0.5			-	-	<0.5	<1
	2,4,6-Trichlorophenol	mg/kg	0.5	40	72	-	-	<0.5	<1
	2,4,5-Trichlorophenol	mg/kg	0.5	8000	14400	-	-	<0.5	<1
	4,6-Dinitro-2-methylphenol	mg/kg	5			-	-	-	<5
	Pentachlorophenol	mg/kg	2			-	-	<2	<1
	2,4-Dinitrophenol	mg/kg	5			-	-	-	<5
	2-Cyclohexyl-4,6-dinitrophenol	mg/kg	20			-	-	-	<20
	4-Nitrophenol	mg/kg	5			-	-	-	<5
	Dinoseb	mg/kg	20			-	-	-	<20
	Tetrachlorophenols	mg/kg	1			-	-	-	<1
	Sum of Phenols (halogenated)	mg/kg	1			-	-	-	<1
	Sum of Phenols (non-halogenated)	mg/kg	20	288		-	-	-	<20
Metals	Arsenic	mg/kg	5	100	500	**9**	**10**	**5**	**19**
	Barium	mg/kg	10			-	-	**160**	**100**
	Beryllium	mg/kg	1	20	100	-	-	<1	<5
	Cadmium	mg/kg	1	20	100	<1	<1	<1	<0.5
	Chromium	mg/kg	2			**58**	**44**	**22**	**71**
	Chromium (hexavalent)	mg/kg	0.5	100	1900	-	-	<0.5	<1
	Cobalt	mg/kg	2			-	-	<2	<5
	Copper	mg/kg	5			**13**	**27**	**18**	**17**
	Lead	mg/kg	5	100	1500	**28**	**57**	**18**	**29**
	Manganese	mg/kg	5			-	-	**49**	**83**
	Mercury	mg/kg	0.1	4	50	<0.1	<0.1	<0.1	<0.1
	Nickel	mg/kg	2	40	1050	**4**	**7**	**5**	**8**
	Vanadium	mg/kg	5			-	-	**55**	**180**
	Zinc	mg/kg	5			**61**	**206**	**41**	**50**
Polychlorinated Biphenyls	Polychlorinated Biphenyls	mg/kg	0.1		50	-	-	<0.1	<0.1
	Arochlor 1016	mg/kg	0.1			-	-	-	<0.1
	Arochlor 1221	mg/kg	0.1			-	-	-	<0.1
	Arochlor 1232	mg/kg	0.1			-	-	-	<0.1
	Arochlor 1242	mg/kg	0.1			-	-	-	<0.1
	Arochlor 1248	mg/kg	0.1			-	-	-	<0.1
	Arochlor 1254	mg/kg	0.1			-	-	-	<0.1
	Arochlor 1260	mg/kg	0.1			-	-	-	<0.1
Organochlorine Pesticides (OC)	Aldrin	mg/kg	0.05			-	-	<0.05	<0.05
	Dieldrin	mg/kg	0.05			-	-	<0.05	<0.05
	a-BHC	mg/kg	0.05			-	-	<0.05	<0.05
	b-BHC	mg/kg	0.05			-	-	<0.05	<0.05
	d-BHC	mg/kg	0.05			-	-	<0.05	<0.05
	g-BHC (Lindane)	mg/kg	0.05			-	-	<0.05	<0.05
	cis-Chlordane	mg/kg	0.05			-	-	<0.05	-
	trans-Chlordane	mg/kg	0.05			-	-	<0.05	-
	Chlordane	mg/kg	0.1			-	-	-	<0.1
	DDD	mg/kg	0.05			-	-	<0.05	<0.05
	DDE	mg/kg	0.05			-	-	<0.05	<0.05
	DDT	mg/kg	0.2			-	-	<0.2	<0.05
	Endosulfan 1	mg/kg	0.05			-	-	<0.05	<0.05
	Endosulfan 2	mg/kg	0.05			-	-	<0.05	<0.05
	Endosulfan sulfate	mg/kg	0.05			-	-	<0.05	<0.05
	Endrin	mg/kg	0.05			-	-	<0.05	<0.05
	Endrin aldehyde	mg/kg	0.05			-	-	<0.05	<0.05
	Endrin ketone	mg/kg	0.05			-	-	<0.05	<0.05
	Heptachlor	mg/kg	0.05			-	-	<0.05	<0.05
	Heptachlor epoxide	mg/kg	0.05			-	-	<0.05	<0.05
	Hexachlorobenzene (HCB)	mg/kg	0.05			-	-	<0.05	<0.05
	Methoxychlor	mg/kg	0.2			-	-	<0.2	<0.05
	Toxaphene	mg/kg	0.1			-	-	-	<0.1
Inorganics	Moisture Content	%	1			**13.7**	**14.9**	**14.4**	**17**

Location	SP03_34	SP03_36	SP03_40	SP03_42
Sample ID	SP03_34_160413	SP03_36_160413	SP03_40_160413	SP03_42_160413
Sample Date	16/04/2013	16/04/2013	16/04/2013	16/04/2013
Sample Type	Primary	Primary	Primary	Primary
Lab_Report_Number	EB1309212	EB1309212	EB1309212	EB1309212

Analyte		Units	LOR	NSW 2008 General Solid Waste (No Leaching)	NSW 2008 General Solid Waste (with leached)				
Total Petroleum Hydrocarbons	C6-C9 fraction	mg/kg	10		650	<10	<10	<10	<10
	C10-C14 fraction	mg/kg	50			<50	<50	<50	<50
	C15-C28 fraction	mg/kg	100			<100	<100	<100	<100
	C29-C36 fraction	mg/kg	100			<100	<100	<100	<100
	C10-C36 fraction (sum)	mg/kg	50		10000	<50	<50	<50	<50
Total Recoverable Hydrocarbons	C6-C10 fraction (F1 minus BTEX)	mg/kg	10			<10	<10	<10	<10
	C6-C10 fraction	mg/kg	10			<10	<10	<10	<10
	>C10-C16 fraction	mg/kg	50			<50	<50	<50	<50
	>C10-C16 (less Naphthalene)	mg/kg	50			-	-	-	-
	>C16-C34 fraction	mg/kg	100			<100	<100	<100	<100
	>C34-C40 fraction	mg/kg	100			<100	<100	<100	<100
	>C10-C40 fraction (sum)	mg/kg	50			<50	<50	<50	<50
BTEXN	Benzene	mg/kg	0.2	10	18	<0.2	<0.2	<0.2	<0.2
	Toluene	mg/kg	0.5	288	518	<0.5	<0.5	<0.5	<0.5
	Ethylbenzene	mg/kg	0.5	600	1080	<0.5	<0.5	<0.5	<0.5
	m&p-Xylene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	o-Xylene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Total Xylenes	mg/kg	0.5	1000	1800	<0.5	<0.5	<0.5	<0.5
	Total BTEX	mg/kg	0.2			<0.2	<0.2	<0.2	<0.2
	Naphthalene (VOC)	mg/kg	1			<1	<1	<1	<1
Polynuclear Aromatic Hydrocarbons	Naphthalene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Acenaphthylene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Acenaphthene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Anthracene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Fluorene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Phenanthrene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Fluoranthene	mg/kg	0.5			**0.7**	<0.5	<0.5	<0.5
	Benz(a)anthracene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Benzo(b)fluoranthene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Benzo(k)fluoranthene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Benzo(a)pyrene	mg/kg	0.5	0.8	10	<0.5	<0.5	<0.5	<0.5
	Benzo(a)pyrene TEQ	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Chrysene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Pyrene	mg/kg	0.5			**0.9**	<0.5	<0.5	<0.5
	Benzo(g,h,i)perylene	mg/kg	0.5			<0.5	<0.5	**0.7**	<0.5
	Dibenz(a,h)anthracene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Indeno(1,2,3-cd)pyrene	mg/kg	0.5			<0.5	<0.5	**0.5**	<0.5
	Sum of PAHs	mg/kg	0.5			**1.6**	<0.5	**1.2**	<0.5
Phenolic Compounds	Phenol	mg/kg	0.5		518	-	<0.5	<0.5	-
	2-Chlorophenol	mg/kg	0.5			-	<0.5	<0.5	-
	2-Methylphenol (o-Cresol)	mg/kg	0.5	4000	7200	-	<0.5	<0.5	-
	3-&4-Methylphenol (m&p-Cresol)	mg/kg	1			-	<1	<1	-
	2-Nitrophenol	mg/kg	0.5			-	<0.5	<0.5	-
	2,4-Dichlorophenol	mg/kg	0.5			-	<0.5	<0.5	-
	2,4-Dimethylphenol	mg/kg	0.5			-	<0.5	<0.5	-
	2,6-Dichlorophenol	mg/kg	0.5			-	<0.5	<0.5	-
	4-Chloro-3-methylphenol	mg/kg	0.5			-	<0.5	<0.5	-
	2,4,6-Trichlorophenol	mg/kg	0.5	40	72	-	<0.5	<0.5	-
	2,4,5-Trichlorophenol	mg/kg	0.5	8000	14400	-	<0.5	<0.5	-
	4,6-Dinitro-2-methylphenol	mg/kg	5			-	-	-	-
	Pentachlorophenol	mg/kg	2			-	<2	<2	-
	2,4-Dinitrophenol	mg/kg	5			-	-	-	-
	2-Cyclohexyl-4,6-dinitrophenol	mg/kg	20			-	-	-	-
	4-Nitrophenol	mg/kg	5			-	-	-	-
	Dinoseb	mg/kg	20			-	-	-	-
	Tetrachlorophenols	mg/kg	1			-	-	-	-
	Sum of Phenols (halogenated)	mg/kg	1			-	-	-	-
	Sum of Phenols (non-halogenated)	mg/kg	20	288		-	-	-	-
Metals	Arsenic	mg/kg	5	100	500	<5	**8**	**10**	**10**
	Barium	mg/kg	10			-	**80**	**130**	-
	Beryllium	mg/kg	1	20	100	-	<1	<1	-
	Cadmium	mg/kg	1	20	100	<1	<1	<1	<1
	Chromium	mg/kg	2			**20**	**29**	**54**	**47**
	Chromium (hexavalent)	mg/kg	0.5	100	1900	-	<0.5	<0.5	-
	Cobalt	mg/kg	2			-	**4**	**3**	-
	Copper	mg/kg	5			**41**	**23**	**37**	**24**
	Lead	mg/kg	5	100	1500	**62**	**41**	**28**	**41**
	Manganese	mg/kg	5			-	**75**	**71**	-
	Mercury	mg/kg	0.1	4	50	<0.1	<0.1	<0.1	<0.1
	Nickel	mg/kg	2	40	1050	**10**	**14**	**8**	**7**
	Vanadium	mg/kg	5			-	**58**	**100**	-
	Zinc	mg/kg	5			**60**	**94**	**84**	**100**
Polychlorinated Biphenyls	Polychlorinated Biphenyls	mg/kg	0.1		50	-	<0.1	<0.1	-
	Arochlor 1016	mg/kg	0.1			-	-	-	-
	Arochlor 1221	mg/kg	0.1			-	-	-	-
	Arochlor 1232	mg/kg	0.1			-	-	-	-
	Arochlor 1242	mg/kg	0.1			-	-	-	-
	Arochlor 1248	mg/kg	0.1			-	-	-	-
	Arochlor 1254	mg/kg	0.1			-	-	-	-
	Arochlor 1260	mg/kg	0.1			-	-	-	-
Organochlorine Pesticides (OC)	Aldrin	mg/kg	0.05			-	<0.05	<0.05	-
	Dieldrin	mg/kg	0.05			-	<0.05	<0.05	-
	a-BHC	mg/kg	0.05			-	<0.05	<0.05	-
	b-BHC	mg/kg	0.05			-	<0.05	<0.05	-
	d-BHC	mg/kg	0.05			-	<0.05	<0.05	-
	g-BHC (Lindane)	mg/kg	0.05			-	<0.05	<0.05	-
	cis-Chlordane	mg/kg	0.05			-	<0.05	<0.05	-
	trans-Chlordane	mg/kg	0.05			-	<0.05	<0.05	-
	Chlordane	mg/kg	0.1			-	-	-	-
	DDD	mg/kg	0.05			-	<0.05	<0.05	-
	DDE	mg/kg	0.05			-	<0.05	<0.05	-
	DDT	mg/kg	0.2			-	<0.2	<0.2	-
	Endosulfan 1	mg/kg	0.05			-	<0.05	<0.05	-
	Endosulfan 2	mg/kg	0.05			-	<0.05	<0.05	-
	Endosulfan sulfate	mg/kg	0.05			-	<0.05	<0.05	-
	Endrin	mg/kg	0.05			-	<0.05	<0.05	-
	Endrin aldehyde	mg/kg	0.05			-	<0.05	<0.05	-
	Endrin ketone	mg/kg	0.05			-	<0.05	<0.05	-
	Heptachlor	mg/kg	0.05			-	<0.05	<0.05	-
	Heptachlor epoxide	mg/kg	0.05			-	<0.05	<0.05	-
	Hexachlorobenzene (HCB)	mg/kg	0.05			-	<0.05	<0.05	-
	Methoxychlor	mg/kg	0.2			-	<0.2	<0.2	-
	Toxaphene	mg/kg	0.1			-	-	-	-
Inorganics	Moisture Content	%	1			**23.3**	**18**	**13.9**	**15.4**

Location	SP03	SP03_44	SP03_45	SP03_47
Sample ID	SP03_43_160413	SP03_44_160413	SP03_45_160413	SP03_47_160413
Sample Date	16/04/2013	16/04/2013	16/04/2013	16/04/2013
Sample Type	Primary	Primary	Primary	Primary
Lab_Report_Number	EB1309212	EB1309212	EB1309212	EB1309212

Analyte		Units	LOR	NSW 2008 General Solid Waste (No Leaching)	NSW 2008 General Solid Waste (with leached)				
Total Petroleum Hydrocarbons	C6-C9 fraction	mg/kg	10		650	<10	<10	<10	<10
	C10-C14 fraction	mg/kg	50			<50	<50	<50	<50
	C15-C28 fraction	mg/kg	100			<100	<100	<100	<100
	C29-C36 fraction	mg/kg	100			<100	<100	<100	<100
	C10-C36 fraction (sum)	mg/kg	50		10000	<50	<50	<50	<50
Total Recoverable Hydrocarbons	C6-C10 fraction (F1 minus BTEX)	mg/kg	10			<10	<10	<10	<10
	C6-C10 fraction	mg/kg	10			<10	<10	<10	<10
	>C10-C16 fraction	mg/kg	50			<50	<50	<50	<50
	>C10-C16 (less Naphthalene)	mg/kg	50			-	-	-	-
	>C16-C34 fraction	mg/kg	100			<100	<100	<100	<100
	>C34-C40 fraction	mg/kg	100			<100	<100	<100	<100
	>C10-C40 fraction (sum)	mg/kg	50			<50	<50	<50	<50
BTEXN	Benzene	mg/kg	0.2	10	18	<0.2	<0.2	<0.2	<0.2
	Toluene	mg/kg	0.5	288	518	<0.5	<0.5	<0.5	<0.5
	Ethylbenzene	mg/kg	0.5	600	1080	<0.5	<0.5	<0.5	<0.5
	m&p-Xylene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	o-Xylene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Total Xylenes	mg/kg	0.5	1000	1800	<0.5	<0.5	<0.5	<0.5
	Total BTEX	mg/kg	0.2			<0.2	<0.2	<0.2	<0.2
	Naphthalene (VOC)	mg/kg	1			<1	<1	<1	<1
Polynuclear Aromatic Hydrocarbons	Naphthalene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Acenaphthylene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Acenaphthene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Anthracene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Fluorene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Phenanthrene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Fluoranthene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Benz(a)anthracene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Benzo(b)fluoranthene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Benzo(k)fluoranthene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Benzo(a)pyrene	mg/kg	0.5	0.8	10	<0.5	<0.5	<0.5	<0.5
	Benzo(a)pyrene TEQ	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Chrysene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Pyrene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Benzo(g,h,i)perylene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Dibenz(a,h)anthracene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Indeno(1,2,3-cd)pyrene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Sum of PAHs	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
Phenolic Compounds	Phenol	mg/kg	0.5		518	<0.5	-	-	<0.5
	2-Chlorophenol	mg/kg	0.5			<0.5	-	-	<0.5
	2-Methylphenol (o-Cresol)	mg/kg	0.5	4000	7200	<0.5	-	-	<0.5
	3-&4-Methylphenol (m&p-Cresol)	mg/kg	1			<1	-	-	<1
	2-Nitrophenol	mg/kg	0.5			<0.5	-	-	<0.5
	2,4-Dichlorophenol	mg/kg	0.5			<0.5	-	-	<0.5
	2,4-Dimethylphenol	mg/kg	0.5			<0.5	-	-	<0.5
	2,6-Dichlorophenol	mg/kg	0.5			<0.5	-	-	<0.5
	4-Chloro-3-methylphenol	mg/kg	0.5			<0.5	-	-	<0.5
	2,4,6-Trichlorophenol	mg/kg	0.5	40	72	<0.5	-	-	<0.5
	2,4,5-Trichlorophenol	mg/kg	0.5	8000	14400	<0.5	-	-	<0.5
	4,6-Dinitro-2-methylphenol	mg/kg	5			-	-	-	-
	Pentachlorophenol	mg/kg	2			<2	-	-	<2
	2,4-Dinitrophenol	mg/kg	5			-	-	-	-
	2-Cyclohexyl-4,6-dinitrophenol	mg/kg	20			-	-	-	-
	4-Nitrophenol	mg/kg	5			-	-	-	-
	Dinoseb	mg/kg	20			-	-	-	-
	Tetrachlorophenols	mg/kg	1			-	-	-	-
	Sum of Phenols (halogenated)	mg/kg	1			-	-	-	-
	Sum of Phenols (non-halogenated)	mg/kg	20	288		-	-	-	-
Metals	Arsenic	mg/kg	5	100	500	**11**	**6**	**7**	**6**
	Barium	mg/kg	10			**40**	-	-	**60**
	Beryllium	mg/kg	1	20	100	<1	-	-	<1
	Cadmium	mg/kg	1	20	100	<1	<1	<1	<1
	Chromium	mg/kg	2			**55**	**23**	**44**	**32**
	Chromium (hexavalent)	mg/kg	0.5	100	1900	<0.5	-	-	<0.5
	Cobalt	mg/kg	2			<2	-	-	**2**
	Copper	mg/kg	5			**17**	**26**	**14**	**17**
	Lead	mg/kg	5	100	1500	**20**	**25**	**17**	**21**
	Manganese	mg/kg	5			**78**	-	-	**86**
	Mercury	mg/kg	0.1	4	50	<0.1	<0.1	<0.1	<0.1
	Nickel	mg/kg	2	40	1050	**5**	**8**	**5**	**7**
	Vanadium	mg/kg	5			**90**	-	-	**62**
	Zinc	mg/kg	5			**31**	**103**	**34**	**40**
Polychlorinated Biphenyls	Polychlorinated Biphenyls	mg/kg	0.1		50	<0.1	-	-	<0.1
	Arochlor 1016	mg/kg	0.1			-	-	-	-
	Arochlor 1221	mg/kg	0.1			-	-	-	-
	Arochlor 1232	mg/kg	0.1			-	-	-	-
	Arochlor 1242	mg/kg	0.1			-	-	-	-
	Arochlor 1248	mg/kg	0.1			-	-	-	-
	Arochlor 1254	mg/kg	0.1			-	-	-	-
	Arochlor 1260	mg/kg	0.1			-	-	-	-
Organochlorine Pesticides (OC)	Aldrin	mg/kg	0.05			<0.05	-	-	<0.05
	Dieldrin	mg/kg	0.05			<0.05	-	-	<0.05
	a-BHC	mg/kg	0.05			<0.05	-	-	<0.05
	b-BHC	mg/kg	0.05			<0.05	-	-	<0.05
	d-BHC	mg/kg	0.05			<0.05	-	-	<0.05
	g-BHC (Lindane)	mg/kg	0.05			<0.05	-	-	<0.05
	cis-Chlordane	mg/kg	0.05			<0.05	-	-	<0.05
	trans-Chlordane	mg/kg	0.05			<0.05	-	-	<0.05
	Chlordane	mg/kg	0.1			-	-	-	-
	DDD	mg/kg	0.05			<0.05	-	-	<0.05
	DDE	mg/kg	0.05			<0.05	-	-	<0.05
	DDT	mg/kg	0.2			<0.2	-	-	<0.2
	Endosulfan 1	mg/kg	0.05			<0.05	-	-	<0.05
	Endosulfan 2	mg/kg	0.05			<0.05	-	-	<0.05
	Endosulfan sulfate	mg/kg	0.05			<0.05	-	-	<0.05
	Endrin	mg/kg	0.05			<0.05	-	-	<0.05
	Endrin aldehyde	mg/kg	0.05			<0.05	-	-	<0.05
	Endrin ketone	mg/kg	0.05			<0.05	-	-	<0.05
	Heptachlor	mg/kg	0.05			<0.05	-	-	<0.05
	Heptachlor epoxide	mg/kg	0.05			<0.05	-	-	<0.05
	Hexachlorobenzene (HCB)	mg/kg	0.05			<0.05	-	-	<0.05
	Methoxychlor	mg/kg	0.2			<0.2	-	-	<0.2
	Toxaphene	mg/kg	0.1			-	-	-	-
Inorganics	Moisture Content	%	1			**15.5**	**22.3**	**21.7**	**17.9**

Location	SP03_49	SP04_03	SP04_04	SP04_05
Sample ID	SP03_49_160413	SP04_03_160413	SP04_04_160413	QAQC_07_160513
Sample Date	16/04/2013	16/04/2013	16/04/2013	16/04/2013
Sample Type	Primary	Primary	Primary	Duplicate
Lab_Report_Number	EB1309212	EB1309212	EB1310481	EB1309212

Analyte		Units	LOR	NSW 2008 General Solid Waste (No Leaching)	NSW 2008 General Solid Waste (with leached)				
Total Petroleum Hydrocarbons	C6-C9 fraction	mg/kg	10		650	<10	<10	<10	<10
	C10-C14 fraction	mg/kg	50			<50	<50	-	<50
	C15-C28 fraction	mg/kg	100			<100	<100	-	<100
	C29-C36 fraction	mg/kg	100			<100	<100	-	<100
	C10-C36 fraction (sum)	mg/kg	50		10000	<50	<50	-	<50
Total Recoverable Hydrocarbons	C6-C10 fraction (F1 minus BTEX)	mg/kg	10			<10	<10	<10	<10
	C6-C10 fraction	mg/kg	10			<10	<10	<10	<10
	>C10-C16 fraction	mg/kg	50			<50	<50	-	<50
	>C10-C16 (less Naphthalene)	mg/kg	50			-	-	-	-
	>C16-C34 fraction	mg/kg	100			<100	<100	-	<100
	>C34-C40 fraction	mg/kg	100			<100	<100	-	<100
	>C10-C40 fraction (sum)	mg/kg	50			<50	<50	-	<50
BTEXN	Benzene	mg/kg	0.2	10	18	<0.2	<0.2	<0.2	<0.2
	Toluene	mg/kg	0.5	288	518	<0.5	<0.5	<0.5	<0.5
	Ethylbenzene	mg/kg	0.5	600	1080	<0.5	<0.5	<0.5	<0.5
	m&p-Xylene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	o-Xylene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Total Xylenes	mg/kg	0.5	1000	1800	<0.5	<0.5	<0.5	<0.5
	Total BTEX	mg/kg	0.2			<0.2	<0.2	<0.2	<0.2
	Naphthalene (VOC)	mg/kg	1			<1	<1	<1	<1
Polynuclear Aromatic Hydrocarbons	Naphthalene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Acenaphthylene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Acenaphthene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Anthracene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Fluorene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Phenanthrene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Fluoranthene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Benz(a)anthracene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Benzo(b)fluoranthene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Benzo(k)fluoranthene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Benzo(a)pyrene	mg/kg	0.5	0.8	10	<0.5	<0.5	<0.5	<0.5
	Benzo(a)pyrene TEQ	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Chrysene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Pyrene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Benzo(g,h,i)perylene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Dibenz(a,h)anthracene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Indeno(1,2,3-cd)pyrene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Sum of PAHs	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
Phenolic Compounds	Phenol	mg/kg	0.5		518	-	<0.5	-	-
	2-Chlorophenol	mg/kg	0.5			-	<0.5	-	-
	2-Methylphenol (o-Cresol)	mg/kg	0.5	4000	7200	-	<0.5	-	-
	3-&4-Methylphenol (m&p-Cresol)	mg/kg	1			-	<1	-	-
	2-Nitrophenol	mg/kg	0.5			-	<0.5	-	-
	2,4-Dichlorophenol	mg/kg	0.5			-	<0.5	-	-
	2,4-Dimethylphenol	mg/kg	0.5			-	<0.5	-	-
	2,6-Dichlorophenol	mg/kg	0.5			-	<0.5	-	-
	4-Chloro-3-methylphenol	mg/kg	0.5			-	<0.5	-	-
	2,4,6-Trichlorophenol	mg/kg	0.5	40	72	-	<0.5	-	-
	2,4,5-Trichlorophenol	mg/kg	0.5	8000	14400	-	<0.5	-	-
	4,6-Dinitro-2-methylphenol	mg/kg	5			-	-	-	-
	Pentachlorophenol	mg/kg	2			-	<2	-	-
	2,4-Dinitrophenol	mg/kg	5			-	-	-	-
	2-Cyclohexyl-4,6-dinitrophenol	mg/kg	20			-	-	-	-
	4-Nitrophenol	mg/kg	5			-	-	-	-
	Dinoseb	mg/kg	20			-	-	-	-
	Tetrachlorophenols	mg/kg	1			-	-	-	-
	Sum of Phenols (halogenated)	mg/kg	1			-	-	-	-
	Sum of Phenols (non-halogenated)	mg/kg	20	288		-	-	-	-
Metals	Arsenic	mg/kg	5	100	500	**14**	**13**	<5	<5
	Barium	mg/kg	10			-	**100**	-	-
	Beryllium	mg/kg	1	20	100	-	<1	-	-
	Cadmium	mg/kg	1	20	100	<1	<1	<1	<1
	Chromium	mg/kg	2			**93**	**38**	**30**	**37**
	Chromium (hexavalent)	mg/kg	0.5	100	1900	-	<0.5	-	-
	Cobalt	mg/kg	2			-	<2	-	-
	Copper	mg/kg	5			**23**	**11**	**15**	**11**
	Lead	mg/kg	5	100	1500	**33**	**18**	**44**	**8**
	Manganese	mg/kg	5			-	**36**	-	-
	Mercury	mg/kg	0.1	4	50	<0.1	<0.1	<0.1	<0.1
	Nickel	mg/kg	2	40	1050	**7**	**4**	**3**	**8**
	Vanadium	mg/kg	5			-	**90**	-	-
	Zinc	mg/kg	5			**53**	**38**	**98**	**37**
Polychlorinated Biphenyls	Polychlorinated Biphenyls	mg/kg	0.1		50	-	<0.1	-	-
	Arochlor 1016	mg/kg	0.1			-	-	-	-
	Arochlor 1221	mg/kg	0.1			-	-	-	-
	Arochlor 1232	mg/kg	0.1			-	-	-	-
	Arochlor 1242	mg/kg	0.1			-	-	-	-
	Arochlor 1248	mg/kg	0.1			-	-	-	-
	Arochlor 1254	mg/kg	0.1			-	-	-	-
	Arochlor 1260	mg/kg	0.1			-	-	-	-
Organochlorine Pesticides (OC)	Aldrin	mg/kg	0.05			-	<0.05	-	-
	Dieldrin	mg/kg	0.05			-	<0.05	-	-
	a-BHC	mg/kg	0.05			-	<0.05	-	-
	b-BHC	mg/kg	0.05			-	<0.05	-	-
	d-BHC	mg/kg	0.05			-	<0.05	-	-
	g-BHC (Lindane)	mg/kg	0.05			-	<0.05	-	-
	cis-Chlordane	mg/kg	0.05			-	<0.05	-	-
	trans-Chlordane	mg/kg	0.05			-	<0.05	-	-
	Chlordane	mg/kg	0.1			-	-	-	-
	DDD	mg/kg	0.05			-	<0.05	-	-
	DDE	mg/kg	0.05			-	<0.05	-	-
	DDT	mg/kg	0.2			-	<0.2	-	-
	Endosulfan 1	mg/kg	0.05			-	<0.05	-	-
	Endosulfan 2	mg/kg	0.05			-	<0.05	-	-
	Endosulfan sulfate	mg/kg	0.05			-	<0.05	-	-
	Endrin	mg/kg	0.05			-	<0.05	-	-
	Endrin aldehyde	mg/kg	0.05			-	<0.05	-	-
	Endrin ketone	mg/kg	0.05			-	<0.05	-	-
	Heptachlor	mg/kg	0.05			-	<0.05	-	-
	Heptachlor epoxide	mg/kg	0.05			-	<0.05	-	-
	Hexachlorobenzene (HCB)	mg/kg	0.05			-	<0.05	-	-
	Methoxychlor	mg/kg	0.2			-	<0.2	-	-
	Toxaphene	mg/kg	0.1			-	-	-	-
Inorganics	Moisture Content	%	1			**23.2**	**12.9**	**13**	**16.2**

Location	SP03_25	SP03_27	SP03_31	SP03_32
Sample ID	SP03_25_160413	SP03_27_160413	SP03_31_160413	SP03_32_160413
Sample Date	16/04/2013	16/04/2013	16/04/2013	16/04/2013
Sample Type	Primary	Primary	Primary	Primary
Lab_Report_Number	EB1309212	EB1309212	EB1309212	EB1309212

Analyte		Units	LOR	NSW 2008 General Solid Waste (No Leaching)	NSW 2008 General Solid Waste (with leached)				
Total Petroleum Hydrocarbons	C6-C9 fraction	mg/kg	10		650	<10	<10	<10	<10
	C10-C14 fraction	mg/kg	50			<50	<50	<50	<50
	C15-C28 fraction	mg/kg	100			<100	<100	<100	<100
	C29-C36 fraction	mg/kg	100			<100	<100	<100	<100
	C10-C36 fraction (sum)	mg/kg	50		10000	<50	<50	<50	<50
Total Recoverable Hydrocarbons	C6-C10 fraction (F1 minus BTEX)	mg/kg	10			<10	<10	<10	<10
	C6-C10 fraction	mg/kg	10			<10	<10	<10	<10
	>C10-C16 fraction	mg/kg	50			<50	<50	<50	<50
	>C10-C16 (less Naphthalene)	mg/kg	50			-	-	-	-
	>C16-C34 fraction	mg/kg	100			<100	<100	<100	<100
	>C34-C40 fraction	mg/kg	100			<100	<100	<100	<100
	>C10-C40 fraction (sum)	mg/kg	50			<50	<50	<50	<50
BTEXN	Benzene	mg/kg	0.2	10	18	<0.2	<0.2	<0.2	<0.2
	Toluene	mg/kg	0.5	288	518	<0.5	<0.5	<0.5	<0.5
	Ethylbenzene	mg/kg	0.5	600	1080	<0.5	<0.5	<0.5	<0.5
	m&p-Xylene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	o-Xylene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Total Xylenes	mg/kg	0.5	1000	1800	<0.5	<0.5	<0.5	<0.5
	Total BTEX	mg/kg	0.2			<0.2	<0.2	<0.2	<0.2
	Naphthalene (VOC)	mg/kg	1			<1	<1	<1	<1
Polynuclear Aromatic Hydrocarbons	Naphthalene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Acenaphthylene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Acenaphthene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Anthracene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Fluorene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Phenanthrene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Fluoranthene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Benz(a)anthracene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Benzo(b)fluoranthene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Benzo(k)fluoranthene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Benzo(a)pyrene	mg/kg	0.5	0.8	10	<0.5	<0.5	<0.5	<0.5
	Benzo(a)pyrene TEQ	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Chrysene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Pyrene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Benzo(g,h,i)perylene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Dibenz(a,h)anthracene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Indeno(1,2,3-cd)pyrene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Sum of PAHs	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
Phenolic Compounds	Phenol	mg/kg	0.5		518	<0.5	-	-	<0.5
	2-Chlorophenol	mg/kg	0.5			<0.5	-	-	<0.5
	2-Methylphenol (o-Cresol)	mg/kg	0.5	4000	7200	<0.5	-	-	<0.5
	3-&4-Methylphenol (m&p-Cresol)	mg/kg	1			<1	-	-	<1
	2-Nitrophenol	mg/kg	0.5			<0.5	-	-	<0.5
	2,4-Dichlorophenol	mg/kg	0.5			<0.5	-	-	<0.5
	2,4-Dimethylphenol	mg/kg	0.5			<0.5	-	-	<0.5
	2,6-Dichlorophenol	mg/kg	0.5			<0.5	-	-	<0.5
	4-Chloro-3-methylphenol	mg/kg	0.5			<0.5	-	-	<0.5
	2,4,6-Trichlorophenol	mg/kg	0.5	40	72	<0.5	-	-	<0.5
	2,4,5-Trichlorophenol	mg/kg	0.5	8000	14400	<0.5	-	-	<0.5
	4,6-Dinitro-2-methylphenol	mg/kg	5			-	-	-	-
	Pentachlorophenol	mg/kg	2			<2	-	-	<2
	2,4-Dinitrophenol	mg/kg	5			-	-	-	-
	2-Cyclohexyl-4,6-dinitrophenol	mg/kg	20			-	-	-	-
	4-Nitrophenol	mg/kg	5			-	-	-	-
	Dinoseb	mg/kg	20			-	-	-	-
	Tetrachlorophenols	mg/kg	1			-	-	-	-
	Sum of Phenols (halogenated)	mg/kg	1			-	-	-	-
	Sum of Phenols (non-halogenated)	mg/kg	20	288		-	-	-	-
Metals	Arsenic	mg/kg	5	100	500	**10**	**12**	**7**	**9**
	Barium	mg/kg	10			**250**	-	-	**80**
	Beryllium	mg/kg	1	20	100	<1	-	-	<1
	Cadmium	mg/kg	1	20	100	<1	<1	<1	<1
	Chromium	mg/kg	2			**80**	**71**	**27**	**42**
	Chromium (hexavalent)	mg/kg	0.5	100	1900	<0.5	-	-	<0.5
	Cobalt	mg/kg	2			**2**	-	-	<2
	Copper	mg/kg	5			**21**	**61**	**26**	**16**
	Lead	mg/kg	5	100	1500	**45**	**45**	**47**	**38**
	Manganese	mg/kg	5			**61**	-	-	**41**
	Mercury	mg/kg	0.1	4	50	<0.1	<0.1	<0.1	<0.1
	Nickel	mg/kg	2	40	1050	**6**	**6**	**9**	**5**
	Vanadium	mg/kg	5			**120**	-	-	**106**
	Zinc	mg/kg	5			**107**	**123**	**253**	**84**
Polychlorinated Biphenyls	Polychlorinated Biphenyls	mg/kg	0.1		50	<0.1	-	-	<0.1
	Arochlor 1016	mg/kg	0.1			-	-	-	-
	Arochlor 1221	mg/kg	0.1			-	-	-	-
	Arochlor 1232	mg/kg	0.1			-	-	-	-
	Arochlor 1242	mg/kg	0.1			-	-	-	-
	Arochlor 1248	mg/kg	0.1			-	-	-	-
	Arochlor 1254	mg/kg	0.1			-	-	-	-
	Arochlor 1260	mg/kg	0.1			-	-	-	-
Organochlorine Pesticides (OC)	Aldrin	mg/kg	0.05			<0.05	-	-	<0.05
	Dieldrin	mg/kg	0.05			**0.08**	-	-	<0.05
	a-BHC	mg/kg	0.05			<0.05	-	-	<0.05
	b-BHC	mg/kg	0.05			<0.05	-	-	<0.05
	d-BHC	mg/kg	0.05			<0.05	-	-	<0.05
	g-BHC (Lindane)	mg/kg	0.05			<0.05	-	-	<0.05
	cis-Chlordane	mg/kg	0.05			<0.05	-	-	<0.05
	trans-Chlordane	mg/kg	0.05			<0.05	-	-	<0.05
	Chlordane	mg/kg	0.1			-	-	-	-
	DDD	mg/kg	0.05			<0.05	-	-	<0.05
	DDE	mg/kg	0.05			<0.05	-	-	<0.05
	DDT	mg/kg	0.2			<0.2	-	-	<0.2
	Endosulfan 1	mg/kg	0.05			<0.05	-	-	<0.05
	Endosulfan 2	mg/kg	0.05			<0.05	-	-	<0.05
	Endosulfan sulfate	mg/kg	0.05			<0.05	-	-	<0.05
	Endrin	mg/kg	0.05			<0.05	-	-	<0.05
	Endrin aldehyde	mg/kg	0.05			<0.05	-	-	<0.05
	Endrin ketone	mg/kg	0.05			<0.05	-	-	<0.05
	Heptachlor	mg/kg	0.05			<0.05	-	-	<0.05
	Heptachlor epoxide	mg/kg	0.05			<0.05	-	-	<0.05
	Hexachlorobenzene (HCB)	mg/kg	0.05			<0.05	-	-	<0.05
	Methoxychlor	mg/kg	0.2			<0.2	-	-	<0.2
	Toxaphene	mg/kg	0.1			-	-	-	-
Inorganics	Moisture Content	%	1			**14.7**	**11.6**	**17.4**	**12**

Location	SP04_05	SP04_06	SP05_01	SP05_03
Sample ID	QAQC_08_160513	SP04_06_160413	SP05_01_160413	SP05_03_160413
Sample Date	16/04/2013	16/04/2013	16/04/2013	16/04/2013
Sample Type	Duplicate	Primary	Primary	Primary
Lab_Report_Number	EB1309212	EB1310481	EB1309212	EB1309212

Analyte		Units	LOR	NSW 2008 General Solid Waste (No Leaching)	NSW 2008 General Solid Waste (with leached)				
Total Petroleum Hydrocarbons	C6-C9 fraction	mg/kg	10		650	<10	<10	<10	<10
	C10-C14 fraction	mg/kg	50			<50	<50	<50	<50
	C15-C28 fraction	mg/kg	100			<100	<100	<100	<100
	C29-C36 fraction	mg/kg	100			<100	<100	<100	<100
	C10-C36 fraction (sum)	mg/kg	50		10000	<50	<50	<50	<50
Total Recoverable Hydrocarbons	C6-C10 fraction (F1 minus BTEX)	mg/kg	10			<10	<10	<10	<10
	C6-C10 fraction	mg/kg	10			<10	<10	<10	<10
	>C10-C16 fraction	mg/kg	50			<50	<50	<50	<50
	>C10-C16 (less Naphthalene)	mg/kg	50			-	-	-	-
	>C16-C34 fraction	mg/kg	100			<100	<100	<100	<100
	>C34-C40 fraction	mg/kg	100			<100	<100	<100	<100
	>C10-C40 fraction (sum)	mg/kg	50			<50	<50	<50	<50
BTEXN	Benzene	mg/kg	0.2	10	18	<0.2	<0.2	<0.2	<0.2
	Toluene	mg/kg	0.5	288	518	<0.5	<0.5	<0.5	<0.5
	Ethylbenzene	mg/kg	0.5	600	1080	<0.5	<0.5	<0.5	<0.5
	m&p-Xylene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	o-Xylene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Total Xylenes	mg/kg	0.5	1000	1800	<0.5	<0.5	<0.5	<0.5
	Total BTEX	mg/kg	0.2			<0.2	<0.2	<0.2	<0.2
	Naphthalene (VOC)	mg/kg	1			<1	<1	<1	<1
Polynuclear Aromatic Hydrocarbons	Naphthalene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Acenaphthylene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Acenaphthene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Anthracene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Fluorene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Phenanthrene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Fluoranthene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Benz(a)anthracene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Benzo(b)fluoranthene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Benzo(k)fluoranthene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Benzo(a)pyrene	mg/kg	0.5	0.8	10	<0.5	<0.5	<0.5	<0.5
	Benzo(a)pyrene TEQ	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Chrysene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Pyrene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Benzo(g,h,i)perylene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Dibenz(a,h)anthracene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Indeno(1,2,3-cd)pyrene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Sum of PAHs	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
Phenolic Compounds	Phenol	mg/kg	0.5		518	-	<0.5	-	<0.5
	2-Chlorophenol	mg/kg	0.5			-	<0.5	-	<0.5
	2-Methylphenol (o-Cresol)	mg/kg	0.5	4000	7200	-	<0.5	-	<0.5
	3-&4-Methylphenol (m&p-Cresol)	mg/kg	1			-	<1	-	<1
	2-Nitrophenol	mg/kg	0.5			-	<0.5	-	<0.5
	2,4-Dichlorophenol	mg/kg	0.5			-	<0.5	-	<0.5
	2,4-Dimethylphenol	mg/kg	0.5			-	<0.5	-	<0.5
	2,6-Dichlorophenol	mg/kg	0.5			-	<0.5	-	<0.5
	4-Chloro-3-methylphenol	mg/kg	0.5			-	<0.5	-	<0.5
	2,4,6-Trichlorophenol	mg/kg	0.5	40	72	-	<0.5	-	<0.5
	2,4,5-Trichlorophenol	mg/kg	0.5	8000	14400	-	<0.5	-	<0.5
	4,6-Dinitro-2-methylphenol	mg/kg	5			-	-	-	-
	Pentachlorophenol	mg/kg	2			-	<2	-	<2
	2,4-Dinitrophenol	mg/kg	5			-	-	-	-
	2-Cyclohexyl-4,6-dinitrophenol	mg/kg	20			-	-	-	-
	4-Nitrophenol	mg/kg	5			-	-	-	-
	Dinoseb	mg/kg	20			-	-	-	-
	Tetrachlorophenols	mg/kg	1			-	-	-	-
	Sum of Phenols (halogenated)	mg/kg	1			-	-	-	-
	Sum of Phenols (non-halogenated)	mg/kg	20	288		-	-	-	-
Metals	Arsenic	mg/kg	5	100	500	<5	<5	**7**	**44**
	Barium	mg/kg	10			-	**310**	-	**170**
	Beryllium	mg/kg	1	20	100	-	<1	-	<1
	Cadmium	mg/kg	1	20	100	<1	<1	<1	**5**
	Chromium	mg/kg	2			**25**	**26**	**46**	**38**
	Chromium (hexavalent)	mg/kg	0.5	100	1900	-	<0.5	-	<0.5
	Cobalt	mg/kg	2			-	<2	-	<2
	Copper	mg/kg	5			**12**	**16**	**19**	**27**
	Lead	mg/kg	5	100	1500	**8**	**40**	**39**	**671**
	Manganese	mg/kg	5			-	**81**	-	**58**
	Mercury	mg/kg	0.1	4	50	<0.1	<0.1	<0.1	<0.1
	Nickel	mg/kg	2	40	1050	**7**	**3**	**7**	**6**
	Vanadium	mg/kg	5			-	**48**	-	**100**
	Zinc	mg/kg	5			**30**	**103**	**92**	**516**
Polychlorinated Biphenyls	Polychlorinated Biphenyls	mg/kg	0.1		50	-	<0.1	-	<0.1
	Arochlor 1016	mg/kg	0.1			-	-	-	-
	Arochlor 1221	mg/kg	0.1			-	-	-	-
	Arochlor 1232	mg/kg	0.1			-	-	-	-
	Arochlor 1242	mg/kg	0.1			-	-	-	-
	Arochlor 1248	mg/kg	0.1			-	-	-	-
	Arochlor 1254	mg/kg	0.1			-	-	-	-
	Arochlor 1260	mg/kg	0.1			-	-	-	-
Organochlorine Pesticides (OC)	Aldrin	mg/kg	0.05			-	<0.05	-	<0.05
	Dieldrin	mg/kg	0.05			-	<0.05	-	<0.05
	a-BHC	mg/kg	0.05			-	<0.05	-	<0.05
	b-BHC	mg/kg	0.05			-	<0.05	-	<0.05
	d-BHC	mg/kg	0.05			-	<0.05	-	<0.05
	g-BHC (Lindane)	mg/kg	0.05			-	<0.05	-	<0.05
	cis-Chlordane	mg/kg	0.05			-	<0.05	-	<0.05
	trans-Chlordane	mg/kg	0.05			-	<0.05	-	<0.05
	Chlordane	mg/kg	0.1			-	-	-	-
	DDD	mg/kg	0.05			-	<0.05	-	<0.05
	DDE	mg/kg	0.05			-	<0.05	-	<0.05
	DDT	mg/kg	0.2			-	<0.2	-	<0.2
	Endosulfan 1	mg/kg	0.05			-	<0.05	-	<0.05
	Endosulfan 2	mg/kg	0.05			-	<0.05	-	<0.05
	Endosulfan sulfate	mg/kg	0.05			-	<0.05	-	<0.05
	Endrin	mg/kg	0.05			-	<0.05	-	<0.05
	Endrin aldehyde	mg/kg	0.05			-	<0.05	-	<0.05
	Endrin ketone	mg/kg	0.05			-	<0.05	-	<0.05
	Heptachlor	mg/kg	0.05			-	<0.05	-	<0.05
	Heptachlor epoxide	mg/kg	0.05			-	<0.05	-	<0.05
	Hexachlorobenzene (HCB)	mg/kg	0.05			-	<0.05	-	<0.05
	Methoxychlor	mg/kg	0.2			-	<0.2	-	<0.2
	Toxaphene	mg/kg	0.1			-	-	-	-
Inorganics	Moisture Content	%	1			**16.8**	**23.5**	**19.2**	**22.8**

Location	SP05_05	SP05_06	SP05_08	SP05_10
Sample ID	SP05_05_160413	SP05_06_160413	SP05_08_160413	SP05_10_160413
Sample Date	16/04/2013	16/04/2013	16/04/2013	16/04/2013
Sample Type	Primary	Primary	Primary	Primary
Lab_Report_Number	EB1309212	EB1309212	EB1309212	EB1309212

Analyte		Units	LOR	NSW 2008 General Solid Waste (No Leaching)	NSW 2008 General Solid Waste (with leached)				
Total Petroleum Hydrocarbons	C6-C9 fraction	mg/kg	10		650	<10	<10	<10	<10
	C10-C14 fraction	mg/kg	50			<50	<50	<50	<50
	C15-C28 fraction	mg/kg	100			<100	<100	<100	<100
	C29-C36 fraction	mg/kg	100			<100	<100	<100	<100
	C10-C36 fraction (sum)	mg/kg	50		10000	<50	<50	<50	<50
Total Recoverable Hydrocarbons	C6-C10 fraction (F1 minus BTEX)	mg/kg	10			<10	<10	<10	<10
	C6-C10 fraction	mg/kg	10			<10	<10	<10	<10
	>C10-C16 fraction	mg/kg	50			<50	<50	<50	<50
	>C10-C16 (less Naphthalene)	mg/kg	50			-	-	-	-
	>C16-C34 fraction	mg/kg	100			<100	<100	<100	<100
	>C34-C40 fraction	mg/kg	100			<100	<100	<100	<100
	>C10-C40 fraction (sum)	mg/kg	50			<50	<50	<50	<50
BTEXN	Benzene	mg/kg	0.2	10	18	<0.2	<0.2	<0.2	<0.2
	Toluene	mg/kg	0.5	288	518	<0.5	<0.5	<0.5	<0.5
	Ethylbenzene	mg/kg	0.5	600	1080	<0.5	<0.5	<0.5	<0.5
	m&p-Xylene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	o-Xylene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Total Xylenes	mg/kg	0.5	1000	1800	<0.5	<0.5	<0.5	<0.5
	Total BTEX	mg/kg	0.2			<0.2	<0.2	<0.2	<0.2
	Naphthalene (VOC)	mg/kg	1			<1	<1	<1	<1
Polynuclear Aromatic Hydrocarbons	Naphthalene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Acenaphthylene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Acenaphthene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Anthracene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Fluorene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Phenanthrene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Fluoranthene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Benz(a)anthracene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Benzo(b)fluoranthene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Benzo(k)fluoranthene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Benzo(a)pyrene	mg/kg	0.5	0.8	10	<0.5	<0.5	<0.5	<0.5
	Benzo(a)pyrene TEQ	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Chrysene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Pyrene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Benzo(g,h,i)perylene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Dibenz(a,h)anthracene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Indeno(1,2,3-cd)pyrene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
	Sum of PAHs	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
Phenolic Compounds	Phenol	mg/kg	0.5		518	-	<0.5	-	<0.5
	2-Chlorophenol	mg/kg	0.5			-	<0.5	-	<0.5
	2-Methylphenol (o-Cresol)	mg/kg	0.5	4000	7200	-	<0.5	-	<0.5
	3-&4-Methylphenol (m&p-Cresol)	mg/kg	1			-	<1	-	<1
	2-Nitrophenol	mg/kg	0.5			-	<0.5	-	<0.5
	2,4-Dichlorophenol	mg/kg	0.5			-	<0.5	-	<0.5
	2,4-Dimethylphenol	mg/kg	0.5			-	<0.5	-	<0.5
	2,6-Dichlorophenol	mg/kg	0.5			-	<0.5	-	<0.5
	4-Chloro-3-methylphenol	mg/kg	0.5			-	<0.5	-	<0.5
	2,4,6-Trichlorophenol	mg/kg	0.5	40	72	-	<0.5	-	<0.5
	2,4,5-Trichlorophenol	mg/kg	0.5	8000	14400	-	<0.5	-	<0.5
	4,6-Dinitro-2-methylphenol	mg/kg	5			-	-	-	-
	Pentachlorophenol	mg/kg	2			-	<2	-	<2
	2,4-Dinitrophenol	mg/kg	5			-	-	-	-
	2-Cyclohexyl-4,6-dinitrophenol	mg/kg	20			-	-	-	-
	4-Nitrophenol	mg/kg	5			-	-	-	-
	Dinoseb	mg/kg	20			-	-	-	-
	Tetrachlorophenols	mg/kg	1			-	-	-	-
	Sum of Phenols (halogenated)	mg/kg	1			-	-	-	-
	Sum of Phenols (non-halogenated)	mg/kg	20	288		-	-	-	-
Metals	Arsenic	mg/kg	5	100	500	**7**	**10**	**9**	**10**
	Barium	mg/kg	10			-	**110**	-	**340**
	Beryllium	mg/kg	1	20	100	-	<1	-	<1
	Cadmium	mg/kg	1	20	100	<1	<1	<1	<1
	Chromium	mg/kg	2			**30**	**92**	**43**	**49**
	Chromium (hexavalent)	mg/kg	0.5	100	1900	-	<0.5	-	<0.5
	Cobalt	mg/kg	2			-	<2	-	**2**
	Copper	mg/kg	5			**17**	**19**	**24**	**31**
	Lead	mg/kg	5	100	1500	**35**	**37**	**45**	**55**
	Manganese	mg/kg	5			-	**75**	-	**88**
	Mercury	mg/kg	0.1	4	50	<0.1	<0.1	<0.1	<0.1
	Nickel	mg/kg	2	40	1050	**6**	**5**	**6**	**9**
	Vanadium	mg/kg	5			-	**172**	-	**95**
	Zinc	mg/kg	5			**80**	**92**	**102**	**118**
Polychlorinated Biphenyls	Polychlorinated Biphenyls	mg/kg	0.1		50	-	<0.1	-	<0.1
	Arochlor 1016	mg/kg	0.1			-	-	-	-
	Arochlor 1221	mg/kg	0.1			-	-	-	-
	Arochlor 1232	mg/kg	0.1			-	-	-	-
	Arochlor 1242	mg/kg	0.1			-	-	-	-
	Arochlor 1248	mg/kg	0.1			-	-	-	-
	Arochlor 1254	mg/kg	0.1			-	-	-	-
	Arochlor 1260	mg/kg	0.1			-	-	-	-
Organochlorine Pesticides (OC)	Aldrin	mg/kg	0.05			-	<0.05	-	<0.05
	Dieldrin	mg/kg	0.05			-	<0.05	-	**0.07**
	a-BHC	mg/kg	0.05			-	<0.05	-	<0.05
	b-BHC	mg/kg	0.05			-	<0.05	-	<0.05
	d-BHC	mg/kg	0.05			-	<0.05	-	<0.05
	g-BHC (Lindane)	mg/kg	0.05			-	<0.05	-	<0.05
	cis-Chlordane	mg/kg	0.05			-	<0.05	-	<0.05
	trans-Chlordane	mg/kg	0.05			-	<0.05	-	<0.05
	Chlordane	mg/kg	0.1			-	-	-	-
	DDD	mg/kg	0.05			-	<0.05	-	<0.05
	DDE	mg/kg	0.05			-	<0.05	-	<0.05
	DDT	mg/kg	0.2			-	<0.2	-	<0.2
	Endosulfan 1	mg/kg	0.05			-	<0.05	-	<0.05
	Endosulfan 2	mg/kg	0.05			-	<0.05	-	<0.05
	Endosulfan sulfate	mg/kg	0.05			-	<0.05	-	<0.05
	Endrin	mg/kg	0.05			-	<0.05	-	<0.05
	Endrin aldehyde	mg/kg	0.05			-	<0.05	-	<0.05
	Endrin ketone	mg/kg	0.05			-	<0.05	-	<0.05
	Heptachlor	mg/kg	0.05			-	<0.05	-	<0.05
	Heptachlor epoxide	mg/kg	0.05			-	<0.05	-	<0.05
	Hexachlorobenzene (HCB)	mg/kg	0.05			-	<0.05	-	<0.05
	Methoxychlor	mg/kg	0.2			-	<0.2	-	<0.2
	Toxaphene	mg/kg	0.1			-	-	-	-
Inorganics	Moisture Content	%	1			**23.9**	**17.5**	**24.3**	**16**

Location	SP05_10
Sample ID	QAQC_10_160513
Sample Date	16/04/2013
Sample Type	Triplicate
Lab_Report_Number	376318

Analyte		Units	LOR	NSW 2008 General Solid Waste (No Leaching)	NSW 2008 General Solid Waste (with leached)	
Total Petroleum Hydrocarbons	C6-C9 fraction	mg/kg	10		650	<20
	C10-C14 fraction	mg/kg	50			<20
	C15-C28 fraction	mg/kg	100			<50
	C29-C36 fraction	mg/kg	100			<50
	C10-C36 fraction (sum)	mg/kg	50		10000	<50
Total Recoverable Hydrocarbons	C6-C10 fraction (F1 minus BTEX)	mg/kg	10			<20
	C6-C10 fraction	mg/kg	10			<20
	>C10-C16 fraction	mg/kg	50			<50
	>C10-C16 (less Naphthalene)	mg/kg	50			<50
	>C16-C34 fraction	mg/kg	100			<100
	>C34-C40 fraction	mg/kg	100			<100
	>C10-C40 fraction (sum)	mg/kg	50			-
BTEXN	Benzene	mg/kg	0.2	10	18	<0.1
	Toluene	mg/kg	0.5	288	518	<0.1
	Ethylbenzene	mg/kg	0.5	600	1080	<0.1
	m&p-Xylene	mg/kg	0.5			<0.2
	o-Xylene	mg/kg	0.5			<0.1
	Total Xylenes	mg/kg	0.5	1000	1800	<0.3
	Total BTEX	mg/kg	0.2			<0.6
	Naphthalene (VOC)	mg/kg	1			<0.5
Polynuclear Aromatic Hydrocarbons	Naphthalene	mg/kg	0.5			<0.5
	Acenaphthylene	mg/kg	0.5			<0.5
	Acenaphthene	mg/kg	0.5			<0.5
	Anthracene	mg/kg	0.5			<0.5
	Fluorene	mg/kg	0.5			<0.5
	Phenanthrene	mg/kg	0.5			<0.5
	Fluoranthene	mg/kg	0.5			<0.5
	Benz(a)anthracene	mg/kg	0.5			<0.5
	Benzo(b)fluoranthene	mg/kg	0.5			<0.5
	Benzo(k)fluoranthene	mg/kg	0.5			<0.5
	Benzo(a)pyrene	mg/kg	0.5	0.8	10	<0.5
	Benzo(a)pyrene TEQ	mg/kg	0.5			-
	Chrysene	mg/kg	0.5			<0.5
	Pyrene	mg/kg	0.5			<0.5
	Benzo(g,h,i)perylene	mg/kg	0.5			<0.5
	Dibenz(a,h)anthracene	mg/kg	0.5			<0.5
	Indeno(1,2,3-cd)pyrene	mg/kg	0.5			<0.5
	Sum of PAHs	mg/kg	0.5			<0.5
Phenolic Compounds	Phenol	mg/kg	0.5		518	<0.5
	2-Chlorophenol	mg/kg	0.5			<0.5
	2-Methylphenol (o-Cresol)	mg/kg	0.5	4000	7200	<0.2
	3-&4-Methylphenol (m&p-Cresol)	mg/kg	1			<0.4
	2-Nitrophenol	mg/kg	0.5			<1
	2,4-Dichlorophenol	mg/kg	0.5			<0.5
	2,4-Dimethylphenol	mg/kg	0.5			<0.5
	2,6-Dichlorophenol	mg/kg	0.5			<0.5
	4-Chloro-3-methylphenol	mg/kg	0.5			<1
	2,4,6-Trichlorophenol	mg/kg	0.5	40	72	<1
	2,4,5-Trichlorophenol	mg/kg	0.5	8000	14400	<1
	4,6-Dinitro-2-methylphenol	mg/kg	5			<5
	Pentachlorophenol	mg/kg	2			<1
	2,4-Dinitrophenol	mg/kg	5			<5
	2-Cyclohexyl-4,6-dinitrophenol	mg/kg	20			<20
	4-Nitrophenol	mg/kg	5			<5
	Dinoseb	mg/kg	20			<20
	Tetrachlorophenols	mg/kg	1			<1
	Sum of Phenols (halogenated)	mg/kg	1			<1
	Sum of Phenols (non-halogenated)	mg/kg	20	288		<20
Metals	Arsenic	mg/kg	5	100	500	**7.7**
	Barium	mg/kg	10			**100**
	Beryllium	mg/kg	1	20	100	<5
	Cadmium	mg/kg	1	20	100	<0.5
	Chromium	mg/kg	2			**34**
	Chromium (hexavalent)	mg/kg	0.5	100	1900	<1
	Cobalt	mg/kg	2			<5
	Copper	mg/kg	5			**19**
	Lead	mg/kg	5	100	1500	**46**
	Manganese	mg/kg	5			**48**
	Mercury	mg/kg	0.1	4	50	<0.1
	Nickel	mg/kg	2	40	1050	**7.1**
	Vanadium	mg/kg	5			**69**
	Zinc	mg/kg	5			**77**
Polychlorinated Biphenyls	Polychlorinated Biphenyls	mg/kg	0.1		50	<0.1
	Arochlor 1016	mg/kg	0.1			<0.1
	Arochlor 1221	mg/kg	0.1			<0.1
	Arochlor 1232	mg/kg	0.1			<0.1
	Arochlor 1242	mg/kg	0.1			<0.1
	Arochlor 1248	mg/kg	0.1			<0.1
	Arochlor 1254	mg/kg	0.1			<0.1
	Arochlor 1260	mg/kg	0.1			<0.1
Organochlorine Pesticides (OC)	Aldrin	mg/kg	0.05			<0.05
	Dieldrin	mg/kg	0.05			<0.05
	a-BHC	mg/kg	0.05			<0.05
	b-BHC	mg/kg	0.05			<0.05
	d-BHC	mg/kg	0.05			<0.05
	g-BHC (Lindane)	mg/kg	0.05			<0.05
	cis-Chlordane	mg/kg	0.05			-
	trans-Chlordane	mg/kg	0.05			-
	Chlordane	mg/kg	0.1			<0.1
	DDD	mg/kg	0.05			<0.05
	DDE	mg/kg	0.05			<0.05
	DDT	mg/kg	0.2			<0.05
	Endosulfan 1	mg/kg	0.05			<0.05
	Endosulfan 2	mg/kg	0.05			<0.05
	Endosulfan sulfate	mg/kg	0.05			<0.05
	Endrin	mg/kg	0.05			<0.05
	Endrin aldehyde	mg/kg	0.05			<0.05
	Endrin ketone	mg/kg	0.05			<0.05
	Heptachlor	mg/kg	0.05			<0.05
	Heptachlor epoxide	mg/kg	0.05			<0.05
	Hexachlorobenzene (HCB)	mg/kg	0.05			<0.05
	Methoxychlor	mg/kg	0.2			<0.05
	Toxaphene	mg/kg	0.1			<0.1
Inorganics	Moisture Content	%	1			**16**

Attachment B

URS CHAIN OF CUSTODY - DARWIN WATERFRONT PROJECT

FOR LABORATORY USE ONLY

ADDRESS:	URS Australia Level 3, 93 Mitchell Street GPO Box 2005 Darwin, Northern Territory 0800	LABORATORY:	ALS 277-289 Woodpark Road Smithfield NSW 2164	All results to be provided in MRED format email address: BQ	tim.smith@urs.com; darwin@urs.com; bek.aagaard@urs.com andrew.piggin@urs.com
PHONE NO:	08 8980 2900	PHONE NO:	02 8784 8555	TURNAROUND DETAILS	COC SEQUENCE NUMBER
FAX NO:	08 8941 3920	FAX NO:	02 8784 8500	Std 5 Day TAT**	1 2 3 4 (please circle)
URS PROJECT NO:	42213719.7	Contract No.	0423 350 069	RELINQUISHED BY:	RECEIVED BY: 9odu.
URS PM:	Andrew Piggin	URS CONTACT:	Bek Aagaard	DATE: TIME:	DATE: 17/4/13 TIME: 09:10
URS SAMPLERS :	Bek Aagaard				RELINQUISHED BY: DATE: TIME:

Custody Seal ? Y N NA

Free ice / frozen icebricks present upon receipt? Y N

Random Sample Temperature on Receipt oC

COMMENTS: Please contact Bek for any queries 0423 350 069

	SAMPLE DETAILS				CONTAINER TYPE & PRESERVATIVE											ANALYSIS REQUIRED								
					Liquid																		
Batch No	SAMPLE Location	SAMPLE ID	DATE	MATRIX (Solid / Liquid)											Total Containers	HOLD	P-13/1	TPH C6-C9, BTEX, PAH and metals						HOLD
	1	SP03_01_160413	16/4/13	Soil											1			1						
	2	SP03_02_160413	16/4/13	Soil											1	Q	1							
	3	SP03_03_160413	16/4/13	Soil											1		1							
	4	SP03_04_160413	16/4/13	Soil											1	1								
	5	SP03_05_160413	16/4/13	Soil											1			1						
	6	SP03_06_160413	16/4/13	Soil											1	1								
	7	SP03_07_160413	16/4/13	Soil											1		1							
	8	SP03_08_160413	16/4/13	Soil											1	1								
	9	SP03_09_160413	16/4/13	Soil											1	1		4						
	10	SP03_10_160413	16/4/13	Soil											1	1								
BROKEN	11	SP03_11_160413	16/4/13	Soil											1			1						
				TOTALS											11			3						

Environmental Division
Brisbane
Work Order JD
EB1309212

Telephone : +61-7-3243 7222

URS CHAIN OF CUSTODY - DARWIN WATERFRONT PROJECT

ADDRESS: URS Australia Level 3, 93 Mitchell Street GPO Box 2005 Darwin, Northern Territory 0800	LABORATORY: ALS 277-289 Woodpark Road Smithfield NSW 2164	All results to be provided in MRED format email address: tim.smith@urs.com; darwin@urs.com; bek.aagaard@urs.com andrew.piggin@urs.com		FOR LABORATORY USE ONLY Custody Seal ? Y N NA Free ice / frozen icebricks present upon receipt? Y N Random Sample Temperature on Receipt oC	
PHONE NO: 08 8980 2900 FAX NO: 08 8941 3920	PHONE NO: 02 8784 8555 FAX NO: 02 8784 8500	TURNAROUND DETAILS Std 5 Day TAT**	COC SEQUENCE NUMBER 1 2 3 4 please circle		
URS PROJECT NO: 42213719.7	Contract No. 0423 350 069	RELINQUISHED BY: DATE: TIME:		RECEIVED BY: Godeli DATE: 17/4/13 TIME: 09:10	RELINQUISHED BY: DATE: TIME:
URS PM: Andrew Piggin	URS CONTACT: Bek Aagaard				
URS SAMPLERS : Bek Aagaard					

COMMENTS: Please contact Bek for any queries 0423 350 069

	SAMPLE DETAILS				CONTAINER TYPE & PRESERVATIVE											ANALYSIS REQUIRED								
							Liquid																	
Batch No	SAMPLE Location	SAMPLE ID	DATE	MATRIX (Solid / Liquid)											Total Containers	HOLD	P-13/1	TPH C6-C9, BTEX, PAH and metals						HOLD
	12	SP03_12_160413	16/4/13	Soil											1			1						
BROKEN	13	SP03_13_160413	16/4/13	Soil											1	1								
	14	SP03_14_160413	16/4/13	Soil											1		1							
	15	SP03_15_160413	16/4/13	Soil											1	1								
	16	SP03_16_160413	16/4/13	Soil											1			1						
	17	SP03_17_160413	16/4/13	Soil											1	1								
	18	SP03_18_160413	16/4/13	Soil											1		1							
	19	SP03_19_160413	16/4/13	Soil											1	1								
	20	SP03_20_160413	16/4/13	Soil											1	1		4						
	21	SP03_21_160413	16/4/13	Soil											1		1							
	22	SP03_22_160413	16/4/13	Soil											1			1						
				TOTALS											11			3						

CHAIN OF CUSTODY - DARWIN WATERFRONT PROJECT

URS

ADDRESS:	URS Australia Level 3, 93 Mitchell Street GPO Box 2005 Darwin, Northern Territory 0800	LABORATORY: ALS 277-289 Woodpark Road Smithfield NSW 2164	All results to be provided in MRED format email address: tim.smith@urs.com; darwin@urs.com; bek.aagaard@urs.com andrew.piggin@urs.com
PHONE NO:	08 8980 2900	PHONE NO: 02 8784 8555	TURNAROUND DETAILS: Std 5 Day TAT**
FAX NO:	08 8941 3920	FAX NO: 02 8784 8500	COC SEQUENCE NUMBER: 1 2 3 4 (please circle)
URS PROJECT NO:	42213719.7	Contract No.	0423 350 069
URS PM:	Andrew Piggin	URS CONTACT:	Bek Aagaard
URS SAMPLERS :	Bek Aagaard		

FOR LABORATORY USE ONLY

Custody Seal ? Y N NA

Free ice / frozen icebricks present upon receipt? Y N

Random Sample Temperature on Receipt oC

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:
DATE: TIME:	DATE: 17/4/13 TIME: 09:10	DATE: TIME:

COMMENTS: Please contact Bek for any queries 0423 350 069

	SAMPLE DETAILS				CONTAINER TYPE & PRESERVATIVE											ANALYSIS REQUIRED									
							Liquid																		
Batch No	SAMPLE Location	SAMPLE ID	DATE	MATRIX (Solid / Liquid)											Total Containers	HOLD	P-13/1	TPH C6-C9, BTEX, PAH and metals							HOLD
	23	SP03_23_160413	16/4/13	Soil											1			1							
	24	SP03_24_160413	16/4/13	Soil											1	1									
	25	SP03_25_160413	16/4/13	Soil											1		1								
	26	SP03_26_160413	16/4/13	Soil											1	1									
	27	SP03_27_160413	16/4/13	Soil											1			1							
	28	SP03_28_160413	16/4/13	Soil											1	1									
	29	SP03_29_160413	16/4/13	Soil											1	1	1								
	30	SP03_30_160413	16/4/13	Soil											1	1									
	31	SP03_31_160413	16/4/13	Soil											1			1							
	32	SP03_32_160413	16/4/13	Soil											1		1								
	33	SP03_33_160413	16/4/13	Soil											1	1		1							
				TOTALS											11			3							

URS CHAIN OF CUSTODY - DARWIN WATERFRONT PROJECT

FOR LABORATORY USE ONLY

ADDRESS:	URS Australia Level 3, 93 Mitchell Street GPO Box 2005 Darwin, Northern Territory 0800	LABORATORY:	ALS 277-289 Woodpark Road Smithfield NSW 2164	All results to be provided in MRED format email address:	tim.smith@urs.com; darwin@urs.com; bek.aagaard@urs.com andrew.piggin@urs.com
PHONE NO:	08 8980 2900	PHONE NO:	02 8784 8555	TURNAROUND DETAILS	Std 5 Day TAT**
FAX NO:	08 8941 3920	FAX NO:	02 8784 8500	COC SEQUENCE NUMBER	1 2 3 4 (please circle)
URS PROJECT NO:	42213719.7	Contract No.	0423 350 069	RELINQUISHED BY:	DATE: TIME:
URS PM:	Andrew Piggin	URS CONTACT:	Bek Aagaard	RECEIVED BY:	DATE: 17/4/13 TIME: 09:10
URS SAMPLERS :	Bek Aagaard			RELINQUISHED BY:	DATE: TIME:

Custody Seal ? Y N NA

Free ice / frozen icebricks present upon receipt? Y N

Random Sample Temperature on Receipt oC

COMMENTS: Please contact Bek for any queries 0423 350 069

	SAMPLE DETAILS				CONTAINER TYPE & PRESERVATIVE												ANALYSIS REQUIRED								
							Liquid																		
Batch No	SAMPLE Location	SAMPLE ID	DATE	MATRIX (Solid / Liquid)												Total Containers	HOLD	P-13/1	TPH C6-C9, BTEX, PAH and metals							HOLD
	34	SP03_34_160413	16/4/13	Soil												1			1							
	35	SP03_35_160413	16/4/13	Soil												1	1									
	36	SP03_36_160413	16/4/13	Soil												1		1								
	37	SP03_37_160413	16/4/13	Soil												1	1									
	38	SP03_38_160413	16/4/13	Soil												1	1		4							
	39	SP03_39_160413	16/4/13	Soil												1	1									
	40	SP03_40_160413	16/4/13	Soil												1		1								
	41	SP03_41_160413	16/4/13	Soil												1	1									
	42	SP03_42_160413	16/4/13	Soil												1			1							
	43	SP03_43_160413	16/4/13	Soil												1		1								
	44	SP03_44_160413	16/4/13	Soil												1			1							
				TOTALS												11			3							

URS CHAIN OF CUSTODY - DARWIN WATERFRONT PROJECT

ADDRESS:	URS Australia Level 3, 93 Mitchell Street GPO Box 2005 Darwin, Northern Territory 0800	LABORATORY:	ALS 277-289 Woodpark Road Smithfield NSW 2164	All results to be provided in MRED format email address:	tim.smith@urs.com; darwin@urs.com; bek.aagaard@urs.com andrew.piggin@urs.com
PHONE NO:	08 8980 2900	PHONE NO:	02 8784 8555	TURNAROUND DETAILS	Std 5 Day TAT**
FAX NO:	08 8941 3920	FAX NO:	02 8784 8500	COC SEQUENCE NUMBER	1 2 3 4 (please circle)
URS PROJECT NO:	42213719.7	Contract No.	0423 350 069	RELINQUISHED BY:	
URS PM:	Andrew Piggin	URS CONTACT:	Bek Aagaard		
URS SAMPLERS :	Bek Aagaard			DATE:	TIME:

FOR LABORATORY USE ONLY

Custody Seal ? Y N NA

Free ice / frozen icebricks present upon receipt? Y N

Random Sample Temperature on Receipt oC

RECEIVED BY: godu

DATE: 17/4/13 TIME: 09:10

RELINQUISHED BY:

DATE: TIME:

COMMENTS: Please contact Bek for any queries 0423 350 069

	SAMPLE DETAILS				CONTAINER TYPE & PRESERVATIVE												ANALYSIS REQUIRED									
							Liquid																			
Batch No	SAMPLE Location	SAMPLE ID	DATE	MATRIX (Solid / Liquid)												Total Containers	HOLD	P-13/1	TPH C6-C9, BTEX, PAH and metals							HOLD
	45	SP03_45_160413	16/4/13	Soil												1			1							
	46	SP03_46_160413	16/4/13	Soil												1	1									
	47	SP03_47_160413	16/4/13	Soil												1		1								
	48	SP03_48_160413	16/4/13	Soil												1	1									
	49	SP03_49_160413	16/4/13	Soil												1			1							
BROKEN	50	SP03_50_160413	16/4/13	Soil												1	1									
	8	~~SP03_160413~~	~~16/4/13~~	~~Soil~~												1	1	4								
	51	SP04_01_160413	16/4/13	Soil												1	1									
BROKEN	52	SP04_02_160413	16/4/13	Soil												1			1							
	53	SP04_03_160413	16/4/13	Soil												1		1								
	54	SP04_04_160413	16/4/13	Soil												1	1		4							
				TOTALS												11			43							

URS CHAIN OF CUSTODY - DARWIN WATERFRONT PROJECT

FOR LABORATORY USE ONLY

ADDRESS: URS Australia Level 3, 93 Mitchell Street GPO Box 2005 Darwin, Northern Territory 0800	LABORATORY: ALS 277-289 Woodpark Road Smithfield NSW 2164	All results to be provided in MRED format email address: tim.smith@urs.com; darwin@urs.com; bek.aagaard@urs.com andrew.piggin@urs.com	Custody Seal ? Y N NA Free ice / frozen icebricks present upon receipt? Y N Random Sample Temperature on Receipt oC
PHONE NO: 08 8980 2900 FAX NO: 08 8941 3920	PHONE NO: 02 8784 8555 FAX NO: 02 8784 8500	TURNAROUND DETAILS: Std 5 Day TAT**	COC SEQUENCE NUMBER: 1 2 3 4 (please circle)

URS PROJECT NO:	42213719.7	Contract No.	0423 350 069	RELINQUISHED BY:	RECEIVED BY: 9odu DATE: 17/4/13 TIME: 09:10
URS PM:	Andrew Piggin	URS CONTACT:	Bek Aagaard		RELINQUISHED BY: DATE: TIME:
URS SAMPLERS :	Bek Aagaard			DATE: TIME:	

COMMENTS: Please contact Bek for any queries 0423 350 069

	SAMPLE DETAILS				CONTAINER TYPE & PRESERVATIVE												ANALYSIS REQUIRED									
							Liquid																			
Batch No	SAMPLE Location	SAMPLE ID	DATE	MATRIX (Solid / Liquid)												Total Containers	HOLD	P-13/1	TPH C6-C9, BTEX, PAH and metals							HOLD
	55	SP04_05_160413	16/4/13	Soil												1	1									
	56	SP04_06_160413	16/4/13	Soil												1	1									
BROKEN	57	SP04_07_160413	16/4/13	Soil												1		1								
	58	SP04_08_160413	16/4/13	Soil												1	1									
	59	SP05_01_160413	16/4/13	Soil												1			1							
	60	SP05_02_160413	16/4/13	Soil												1	1									
	61	SP05_03_160413	16/4/13	Soil												1		1								
	62	SP05_04_160413	16/4/13	Soil												1	1									
	63	SP05_05_160413	16/4/13	Soil												1			1							
	64	SP05_06_160413	16/4/13	Soil												1		1								
BROKEN	65	SP05_07_160413	16/4/13	Soil												1	1									
				TOTALS												11	6	3	4							

URS CHAIN OF CUSTODY - DARWIN WATERFRONT PROJECT

ADDRESS:	URS Australia Level 3, 93 Mitchell Street GPO Box 2005 Darwin, Northern Territory 0800	LABORATORY:	ALS 277-289 Woodpark Road Smithfield NSW 2164	All results to be provided in MRED format email address:	tim.smith@urs.com; darwin@urs.com; bek.aagaard@urs.com andrew.piggin@urs.com
PHONE NO:	08 8980 2900	PHONE NO:	02 8784 8555	TURNAROUND DETAILS	COC SEQUENCE NUMBER
FAX NO:	08 8941 3920	FAX NO:	02 8784 8500	Std 5 Day TAT**	1 2 3 4 (please circle)
URS PROJECT NO:	42213719.7	Contract No.	0423 350 069	RELINQUISHED BY:	
URS PM:	Andrew Piggin	URS CONTACT:	Bek Aagaard		
URS SAMPLERS :	Bek Aagaard			DATE: TIME:	

FOR LABORATORY USE ONLY

Custody Seal ? Y N NA

Free ice / frozen icebricks present upon receipt? Y N

Random Sample Temperature on Receipt oC

RECEIVED BY: Jodie

DATE: 17/4/13 TIME: 09:10

RELINQUISHED BY:

DATE: TIME:

COMMENTS: Please contact Bek for any queries 0423 350 069

Batch No	SAMPLE Location	SAMPLE ID	DATE	MATRIX (Solid / Liquid)	CONTAINER TYPE & PRESERVATIVE (Liquid)	Total Containers	ANALYSIS REQUIRED: HOLD	P-13/1	TPH C6-C9, BTEX, PAH and metals	HOLD
	66	SP05_08_160413	16/4/13	Soil		1			1	
BROKEN	67	SP05_09_160413	16/4/13	Soil		1	1			
	68	SP05_10_160413	16/4/13	Soil		1		1		
	[redacted]	SP05_160413	16/4/13	Soil		1	1			
BROKEN	69	QAQC_01_160513	16/4/13	Soil		1		1	1	
	X	QAQC_02_160513	16/4/13	Soil		1	1	1		PLEASE FORWARD TO LABMARK
	70	QAQC_03_160513	16/4/13	Soil		1	1	1		
	71	QAQC_04_160513	16/4/13	Soil		1	1			
	72	QAQC_05_160513	16/4/13	Soil		1		1	1	
	X	QAQC_06_160513	16/4/13	Soil		1		1		PLEASE FORWARD TO LABMARK
	73	QAQC_07_160513	16/4/13	Soil		1			1	
				TOTALS		11			2	

CHAIN OF CUSTODY - DARWIN WATERFRONT PROJECT

URS

FOR LABORATORY USE ONLY

Custody Seal ? Y N NA

Free ice / frozen icebricks present upon receipt? Y N

Random Sample Temperature on Receipt oC

ADDRESS:	URS Australia Level 3, 93 Mitchell Street GPO Box 2005 Darwin, Northern Territory 0800	LABORATORY:	ALS 277-289 Woodpark Road Smithfield NSW 2164	All results to be provided in MRED format email address: tim.smith@urs.com; darwin@urs.com; bek.aagaard@urs.com andrew.piggin@urs.com
PHONE NO:	08 8980 2900	PHONE NO:	02 8784 8555	TURNAROUND DETAILS: Std 5 Day TAT**
FAX NO:	08 8941 3920	FAX NO:	02 8784 8500	COC SEQUENCE NUMBER: 1 2 3 4 (please circle)
URS PROJECT NO:	42213719.7	Contract No.	0423 350 069	RELINQUISHED BY:
URS PM:	Andrew Piggin	URS CONTACT:	Bek Aagaard	RECEIVED BY: Godii
URS SAMPLERS :	Bek Aagaard			DATE: TIME: / DATE: 16/4/13 TIME: 09:10 / RELINQUISHED BY: DATE: TIME:

COMMENTS: Please contact Bek for any queries 0423 350 069

Batch No	SAMPLE Location	SAMPLE ID	DATE	MATRIX (Solid / Liquid)	Liquid containers	Total Containers	HOLD	P-13/1	TPH C6-C9, BTEX, PAH and metals	HOLD
	74	QAQC_06_160513	16/4/13	Soil		1			1	
BROKEN	75	QAQC_09_160513	16/4/13	Soil		1		1		
		QAQC_10_160513	16/4/13	Soil		1		1		PLEASE FORWARD TO ~~INTER~~ & LABMARK)
		~~QAQC_ _160513~~	~~16/4/13~~	~~Soil~~		1	1			
	76	QCB01_160413	16/4/13	Liquid		1			1	
			16/4/13	Soil		1				
			16/4/13	Soil		1				
			16/4/13	Soil		1				
			16/4/13	Soil		1				
			16/4/13	Soil		1				
			16/4/13	Soil		1				
			TOTALS			11			2	

Environmental Division

SAMPLE RECEIPT NOTIFICATION (SRN)

Comprehensive Report

Work Order	: **EB1309212**		
Client	: **URS AUSTRALIA**	Laboratory	: Environmental Division Brisbane
Contact	: MR ANDREW PIGGIN	Contact	: Customer Services
Address	: G P O BOX 2005 DARWIN NT, AUSTRALIA 0801	Address	: 2 Byth Street Stafford QLD Australia 4053
E-mail	: andrew.piggin@urs.com	E-mail	: Brisbane.Enviro.Services@alsglobal.com
Telephone	: +61 08 8080 2900	Telephone	: +61 7 3243 7222
Facsimile	: ----	Facsimile	: +61 7 3243 7218
Project	: 42213719 7	Page	: 1 of 4
Order number	: ----		
C-O-C number	: DARWIN WATERFRONT PROJECT	Quote number	: ES2010URSMAW0001 (EN/038/10)
Site	: ----		
Sampler	: Bek Aagaard	QC Level	: NEPM 1999 Schedule B(3) and ALS QCS3 requirement

Dates

Date Samples Received	: 17-APR-2013	Issue Date	: 18-APR-2013 19:05
Client Requested Due Date	: 24-APR-2013	Scheduled Reporting Date	: **24-APR-2013**

Delivery Details

Mode of Delivery	: Carrier	Temperature	: 12.0, 11.7°C
No. of coolers/boxes	: 2 MEDIUM	No. of samples received	: 67
Security Seal	: Intact.	No. of samples analysed	: 36

General Comments

- This report contains the following information:
  - Sample Container(s)/Preservation Non-Compliances
  - Summary of Sample(s) and Requested Analysis
  - Proactive Holding Time Report
  - Requested Deliverables
- **Samples received in appropriately pretreated and preserved containers.**
- **Breaches in recommended extraction / analysis holding times (if any) are displayed overleaf in the Proactive Holding Time Report table.**
- **Sample(s) requiring volatile organic compound analysis received in airtight containers (ZHE).**
- **Samples "QAQC_02_160513", "QAQC_06_160513", "QAQC_10_160513" will be forwarded to MGT Labmark as requested. Please note that a shipping/handling fee may apply for this service.**
- **Please be advised that samples "SP03_11_160413", "SP03_13_160413", "SP03_50_160413", "SP04_02_160413", "SP04_04_160413", "SP05_07_160413", "SP05_09_160413", "QAQC_01_160513", "QAQC_09_160513" were broken in transit to the laboratory.**
- Discounted Package Prices apply only when specific ALS Group Codes ('W', 'S', 'NT' suites) are referenced on COCs.
- Please direct any turn around / technical queries to the laboratory contact designated above.
- Please direct any queries related to sample condition / numbering / breakages to Matt Goodwin.
- Analytical work for this work order will be conducted at ALS Brisbane.
- Sample Disposal - Aqueous (14 days), Solid (60 days) from date of completion of work order.

Sample Container(s)/Preservation Non-Compliances

All comparisons are made against pretreatment/preservation AS, APHA, USEPA standards.

- **No sample container / preservation non-compliance exist.**

Summary of Sample(s) and Requested Analysis

Some items described below may be part of a laboratory process neccessary for the execution of client requested tasks. Packages may contain additional analyses, such as the determination of moisture content and preparation tasks, that are included in the package.
If no sampling time is provided, the sampling time will default to 15:00 on the date of sampling. If no sampling date is provided, the sampling date will be assumed by the laboratory for processing purposes and will be shown bracketed without a time component.

Matrix: **SOIL**

Laboratory sample ID	*Client sampling date / time*	*Client sample ID*	(On Hold) SOIL No analysis requested	SOIL - P-13/1 (ES) NEPM Table 5A (Sydney Lab)	SOIL - S-26 8 metals/TPH/BTEX/PAH
EB1309212-001	16-APR-2013 15:00	SP03_01_160413			✓
EB1309212-002	16-APR-2013 15:00	SP03_02_160413		✓	
EB1309212-003	16-APR-2013 15:00	SP03_03_160413		✓	
EB1309212-004	16-APR-2013 15:00	SP03_04_160413	✓		
EB1309212-005	16-APR-2013 15:00	SP03_05_160413			✓
EB1309212-006	16-APR-2013 15:00	SP03_06_160413	✓		
EB1309212-007	16-APR-2013 15:00	SP03_07_160413		✓	
EB1309212-008	16-APR-2013 15:00	SP03_08_160413	✓		
EB1309212-009	16-APR-2013 15:00	SP03_09_160413	✓		
EB1309212-010	16-APR-2013 15:00	SP03_10_160413	✓		
EB1309212-012	16-APR-2013 15:00	SP03_12_160413			✓
EB1309212-014	16-APR-2013 15:00	SP03_14_160413		✓	
EB1309212-015	16-APR-2013 15:00	SP03_15_160413	✓		
EB1309212-016	16-APR-2013 15:00	SP03_16_160413			✓
EB1309212-017	16-APR-2013 15:00	SP03_17_160413	✓		
EB1309212-018	16-APR-2013 15:00	SP03_18_160413		✓	
EB1309212-019	16-APR-2013 15:00	SP03_19_160413	✓		
EB1309212-020	16-APR-2013 15:00	SP03_20_160413	✓		
EB1309212-021	16-APR-2013 15:00	SP03_21_160413		✓	
EB1309212-022	16-APR-2013 15:00	SP03_22_160413			✓
EB1309212-023	16-APR-2013 15:00	SP03_23_160413			✓
EB1309212-024	16-APR-2013 15:00	SP03_24_160413	✓		
EB1309212-025	16-APR-2013 15:00	SP03_25_160413		✓	
EB1309212-026	16-APR-2013 15:00	SP03_26_160413	✓		
EB1309212-027	16-APR-2013 15:00	SP03_27_160413			✓
EB1309212-028	16-APR-2013 15:00	SP03_28_160413	✓		
EB1309212-029	16-APR-2013 15:00	SP03_29_160413	✓		
EB1309212-030	16-APR-2013 15:00	SP03_30_160413	✓		
EB1309212-031	16-APR-2013 15:00	SP03_31_160413			✓
EB1309212-032	16-APR-2013 15:00	SP03_32_160413		✓	
EB1309212-033	16-APR-2013 15:00	SP03_33_160413	✓		
EB1309212-034	16-APR-2013 15:00	SP03_34_160413			✓
EB1309212-035	16-APR-2013 15:00	SP03_35_160413	✓		
EB1309212-036	16-APR-2013 15:00	SP03_36_160413		✓	
EB1309212-037	16-APR-2013 15:00	SP03_37_160413	✓		

			(On Hold) SOIL No analysis requested	SOIL - P-13/1 (ES) NEPM Table 5A (Sydney Lab)	SOIL - S-26 8 metals/TPH/BTEX/PAH
EB1309212-038	16-APR-2013 15:00	SP03_38_160413	✓		
EB1309212-039	16-APR-2013 15:00	SP03_39_160413	✓		
EB1309212-040	16-APR-2013 15:00	SP03_40_160413		✓	
EB1309212-041	16-APR-2013 15:00	SP03_41_160413	✓		
EB1309212-042	16-APR-2013 15:00	SP03_42_160413			✓
EB1309212-043	16-APR-2013 15:00	SP03_43_160413		✓	
EB1309212-044	16-APR-2013 15:00	SP03_44_160413			✓
EB1309212-045	16-APR-2013 15:00	SP03_45_160413			✓
EB1309212-046	16-APR-2013 15:00	SP03_46_160413	✓		
EB1309212-047	16-APR-2013 15:00	SP03_47_160413		✓	
EB1309212-048	16-APR-2013 15:00	SP03_48_160413	✓		
EB1309212-049	16-APR-2013 15:00	SP03_49_160413			✓
EB1309212-051	16-APR-2013 15:00	SP04_01_160413	✓		
EB1309212-053	16-APR-2013 15:00	SP04_03_160413		✓	
EB1309212-054	16-APR-2013 15:00	SP04_04_160413	✓		
EB1309212-055	16-APR-2013 15:00	SP04_05_160413	✓		
EB1309212-056	16-APR-2013 15:00	SP04_06_160413	✓		
EB1309212-058	16-APR-2013 15:00	SP04_08_160413	✓		
EB1309212-059	16-APR-2013 15:00	SP05_01_160413			✓
EB1309212-060	16-APR-2013 15:00	SP05_02_160413	✓		
EB1309212-061	16-APR-2013 15:00	SP05_03_160413		✓	
EB1309212-062	16-APR-2013 15:00	SP05_04_160413	✓		
EB1309212-063	16-APR-2013 15:00	SP05_05_160413			✓
EB1309212-064	16-APR-2013 15:00	SP05_06_160413		✓	
EB1309212-066	16-APR-2013 15:00	SP05_08_160413			✓
EB1309212-068	16-APR-2013 15:00	SP05_10_160413		✓	
EB1309212-070	16-APR-2013 15:00	QAQC_03_160513	✓		
EB1309212-071	16-APR-2013 15:00	QAQC_04_160513	✓		
EB1309212-072	16-APR-2013 15:00	QAQC_05_160513		✓	
EB1309212-073	16-APR-2013 15:00	QAQC_07_160513			✓
EB1309212-074	16-APR-2013 15:00	QAQC_08_160513			✓

Matrix: **WATER**

Laboratory sample ID	Client sampling date / time	Client sample ID	WATER - W-26 TPH/BTEX/PAH/8 Metals
EB1309212-076	16-APR-2013 15:00	QCB01_160413	✓

Proactive Holding Time Report

Sample(s) have been received within the recommended holding times for the requested analysis.

Requested Deliverables

BEK AAGAARD

- *AU Certificate of Analysis - NATA	Email	bek.aagaard@urs.com
- A4 - AU Sample Receipt Notification - Environmental HT	Email	bek.aagaard@urs.com
- AU Interpretive QC Report (Anon QCI Not Rep)	Email	bek.aagaard@urs.com
- AU QC Report (Anon QC Not Rep) - NATA	Email	bek.aagaard@urs.com
- Chain of Custody (CoC)	Email	bek.aagaard@urs.com
- EDI Format - ENMRG	Email	bek.aagaard@urs.com
- EDI Format - MRED	Email	bek.aagaard@urs.com

MR ANDREW PIGGIN

- *AU Certificate of Analysis - NATA (COA)	Email	andrew.piggin@urs.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	andrew.piggin@urs.com
- A4 - AU Tax Invoice (INV)	Email	andrew.piggin@urs.com
- AU Interpretive QC Report (Anon QCI Not Rep) (QCI_NoAnon)	Email	andrew.piggin@urs.com
- AU QC Report (Anon QC Not Rep) - NATA (QC_NoAnon)	Email	andrew.piggin@urs.com
- Chain of Custody (CoC) (COC)	Email	andrew.piggin@urs.com
- EDI Format - ENMRG (ENMRG)	Email	andrew.piggin@urs.com
- EDI Format - MRED (MRED)	Email	andrew.piggin@urs.com

MR TIM SMITH

- *AU Certificate of Analysis - NATA	Email	tim.smith@urs.com
- A4 - AU Sample Receipt Notification - Environmental HT	Email	tim.smith@urs.com
- AU Interpretive QC Report (Anon QCI Not Rep)	Email	tim.smith@urs.com
- AU QC Report (Anon QC Not Rep) - NATA	Email	tim.smith@urs.com
- Chain of Custody (CoC)	Email	tim.smith@urs.com
- EDI Format - ENMRG	Email	tim.smith@urs.com
- EDI Format - MRED	Email	tim.smith@urs.com

RESULTS

- *AU Certificate of Analysis - NATA	Email	darwin@urs.com
- A4 - AU Sample Receipt Notification - Environmental HT	Email	darwin@urs.com
- AU Interpretive QC Report (Anon QCI Not Rep)	Email	darwin@urs.com
- AU QC Report (Anon QC Not Rep) - NATA	Email	darwin@urs.com
- Chain of Custody (CoC)	Email	darwin@urs.com
- EDI Format - ENMRG	Email	darwin@urs.com
- EDI Format - MRED	Email	darwin@urs.com

Environmental Division

CERTIFICATE OF ANALYSIS

Work Order	: **EB1309212**	Page	: 1 of 33
Client	: **URS AUSTRALIA**	Laboratory	: Environmental Division Brisbane
Contact	: MR ANDREW PIGGIN	Contact	: Customer Services
Address	: G P O BOX 2005 DARWIN NT, AUSTRALIA 0801	Address	: 2 Byth Street Stafford QLD Australia 4053
E-mail	: andrew.piggin@urs.com	E-mail	: Brisbane.Enviro.Services@alsglobal.com
Telephone	: +61 08 8080 2900	Telephone	: +61 7 3243 7222
Facsimile	: ----	Facsimile	: +61 7 3243 7218
Project	: 42213719 7	QC Level	: NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Order number	: ----		
C-O-C number	: DARWIN WATERFRONT PROJECT	Date Samples Received	: 17-APR-2013
Sampler	: Bek Aagaard	Issue Date	: 26-APR-2013
Site	: ----		
		No. of samples received	: 67
Quote number	: EN/038/10	No. of samples analysed	: 36

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

- **EG005T (Total Metals) : Sample EB1309212-001 (SP03_01_160413), 022 (SP03_22_160413), 043 (SP03_43_160413) show poor duplicate results due to sample heterogeneity. Confirmed by visual inspection.**
- **EG005T (Total Metals) : Sample EB1309212-002 (SP03_02_160413), 044 (SP03_44_160413) show poor matrix spike recovery due to sample heterogeneity. Confirmed by visual inspection.**

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
Matt Frost	Senior Organic Chemist	Brisbane Inorganics
		Brisbane Organics
		Brisbane Organics
Minh Wills	Organic Chemist	Brisbane Organics
Stephen Hislop	Senior Inorganic Chemist	Brisbane Inorganics
		Brisbane Inorganics
		Brisbane Inorganics

Analytical Results

Sub-Matrix: LIQUID (Matrix: WATER)				Client sample ID	QCB01_160413	----	----	----	----
				Client sampling date / time	16-APR-2013 15:00	----	----	----	----
Compound	CAS Number	LOR	Unit		EB1309212-076	----	----	----	----
EG020F: Dissolved Metals by ICP-MS									
Arsenic	7440-38-2	0.001	mg/L		<0.001	----	----	----	----
Cadmium	7440-43-9	0.0001	mg/L		<0.0001	----	----	----	----
Chromium	7440-47-3	0.001	mg/L		<0.001	----	----	----	----
Copper	7440-50-8	0.001	mg/L		<0.001	----	----	----	----
Lead	7439-92-1	0.001	mg/L		<0.001	----	----	----	----
Nickel	7440-02-0	0.001	mg/L		<0.001	----	----	----	----
Zinc	7440-66-6	0.005	mg/L		**0.045**	----	----	----	----
EG035F: Dissolved Mercury by FIMS									
Mercury	7439-97-6	0.0001	mg/L		<0.0001	----	----	----	----
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	1.0	µg/L		<1.0	----	----	----	----
Acenaphthylene	208-96-8	1.0	µg/L		<1.0	----	----	----	----
Acenaphthene	83-32-9	1.0	µg/L		<1.0	----	----	----	----
Fluorene	86-73-7	1.0	µg/L		<1.0	----	----	----	----
Phenanthrene	85-01-8	1.0	µg/L		<1.0	----	----	----	----
Anthracene	120-12-7	1.0	µg/L		<1.0	----	----	----	----
Fluoranthene	206-44-0	1.0	µg/L		<1.0	----	----	----	----
Pyrene	129-00-0	1.0	µg/L		<1.0	----	----	----	----
Benz(a)anthracene	56-55-3	1.0	µg/L		<1.0	----	----	----	----
Chrysene	218-01-9	1.0	µg/L		<1.0	----	----	----	----
Benzo(b)fluoranthene	205-99-2	1.0	µg/L		<1.0	----	----	----	----
Benzo(k)fluoranthene	207-08-9	1.0	µg/L		<1.0	----	----	----	----
Benzo(a)pyrene	50-32-8	0.5	µg/L		<0.5	----	----	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	1.0	µg/L		<1.0	----	----	----	----
Dibenz(a.h)anthracene	53-70-3	1.0	µg/L		<1.0	----	----	----	----
Benzo(g.h.i)perylene	191-24-2	1.0	µg/L		<1.0	----	----	----	----
^ **Sum of polycyclic aromatic hydrocarbons**	----	0.5	µg/L		<0.5	----	----	----	----
^ **Benzo(a)pyrene TEQ (WHO)**	----	0.5	µg/L		<0.5	----	----	----	----
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	20	µg/L		<20	----	----	----	----
C10 - C14 Fraction	----	50	µg/L		<50	----	----	----	----
C15 - C28 Fraction	----	100	µg/L		<100	----	----	----	----
C29 - C36 Fraction	----	50	µg/L		<50	----	----	----	----

Analytical Results

Sub-Matrix: LIQUID (Matrix: WATER)				Client sample ID	QCB01_160413	----	----	----	----
				Client sampling date / time	16-APR-2013 15:00	----	----	----	----
Compound	CAS Number	LOR	Unit		EB1309212-076	----	----	----	----
EP080/071: Total Petroleum Hydrocarbons - Continued									
^ C10 - C36 Fraction (sum)	----	50	µg/L		<50	----	----	----	----
EP080/071: Total Recoverable Hydrocarbons - NEPM 2010 Draft									
C6 - C10 Fraction	----	20	µg/L		<20	----	----	----	----
^ C6 - C10 Fraction minus BTEX (F1)	----	20	µg/L		<20	----	----	----	----
>C10 - C16 Fraction	----	100	µg/L		<100	----	----	----	----
>C16 - C34 Fraction	----	100	µg/L		<100	----	----	----	----
>C34 - C40 Fraction	----	100	µg/L		<100	----	----	----	----
^ >C10 - C40 Fraction (sum)	----	100	µg/L		<100	----	----	----	----
EP080: BTEXN									
Benzene	71-43-2	1	µg/L		<1	----	----	----	----
Toluene	108-88-3	2	µg/L		<2	----	----	----	----
Ethylbenzene	100-41-4	2	µg/L		<2	----	----	----	----
meta- & para-Xylene	108-38-3 106-42-3	2	µg/L		<2	----	----	----	----
ortho-Xylene	95-47-6	2	µg/L		<2	----	----	----	----
^ Total Xylenes	1330-20-7	2	µg/L		<2	----	----	----	----
^ Sum of BTEX	----	1	µg/L		<1	----	----	----	----
Naphthalene	91-20-3	5	µg/L		<5	----	----	----	----
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.1	%		**31.3**	----	----	----	----
2-Chlorophenol-D4	93951-73-6	0.1	%		**58.8**	----	----	----	----
2.4.6-Tribromophenol	118-79-6	0.1	%		**53.6**	----	----	----	----
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.1	%		**47.8**	----	----	----	----
Anthracene-d10	1719-06-8	0.1	%		**76.8**	----	----	----	----
4-Terphenyl-d14	1718-51-0	0.1	%		**120**	----	----	----	----
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.1	%		**104**	----	----	----	----
Toluene-D8	2037-26-5	0.1	%		**94.9**	----	----	----	----
4-Bromofluorobenzene	460-00-4	0.1	%		**101**	----	----	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	SP03_01_160413	SP03_02_160413	SP03_03_160413	SP03_05_160413	SP03_07_160413
				Client sampling date / time	16-APR-2013 15:00	16-APR-2013 15:00	16-APR-2013 15:00	16-APR-2013 15:00	16-APR-2013 15:00
Compound	CAS Number	LOR	Unit		EB1309212-001	EB1309212-002	EB1309212-003	EB1309212-005	EB1309212-007
EA055: Moisture Content									
Moisture Content (dried @ 103°C)	----	1.0	%		12.9	17.5	19.8	14.8	19.4
EG005T: Total Metals by ICP-AES									
Arsenic	7440-38-2	5	mg/kg		----	<5	<5	----	7
Barium	7440-39-3	10	mg/kg		----	40	50	----	50
Beryllium	7440-41-7	1	mg/kg		----	<1	<1	----	<1
Cadmium	7440-43-9	1	mg/kg		----	<1	<1	----	<1
Chromium	7440-47-3	2	mg/kg		----	30	22	----	35
Cobalt	7440-48-4	2	mg/kg		----	3	3	----	2
Copper	7440-50-8	5	mg/kg		----	16	153	----	15
Lead	7439-92-1	5	mg/kg		----	11	30	----	13
Manganese	7439-96-5	5	mg/kg		----	166	118	----	62
Nickel	7440-02-0	2	mg/kg		----	11	12	----	7
Vanadium	7440-62-2	5	mg/kg		----	36	28	----	70
Zinc	7440-66-6	5	mg/kg		----	41	205	----	60
Arsenic	7440-38-2	5	mg/kg		5	----	----	6	----
Cadmium	7440-43-9	1	mg/kg		<1	----	----	<1	----
Chromium	7440-47-3	2	mg/kg		20	----	----	32	----
Copper	7440-50-8	5	mg/kg		22	----	----	10	----
Lead	7439-92-1	5	mg/kg		30	----	----	13	----
Nickel	7440-02-0	2	mg/kg		7	----	----	8	----
Zinc	7440-66-6	5	mg/kg		62	----	----	53	----
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.1	mg/kg		<0.1	<0.1	<0.1	<0.1	<0.1
EG048: Hexavalent Chromium (Alkaline Digest)									
Hexavalent Chromium	18540-29-9	0.5	mg/kg		----	<0.5	<0.5	----	<0.5
EP066: Polychlorinated Biphenyls (PCB)									
Total Polychlorinated biphenyls	----	0.1	mg/kg		----	<0.1	<0.1	----	<0.1
EP068A: Organochlorine Pesticides (OC)									
alpha-BHC	319-84-6	0.05	mg/kg		----	<0.05	<0.05	----	<0.05
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg		----	<0.05	<0.05	----	<0.05
beta-BHC	319-85-7	0.05	mg/kg		----	<0.05	<0.05	----	<0.05
gamma-BHC	58-89-9	0.05	mg/kg		----	<0.05	<0.05	----	<0.05
delta-BHC	319-86-8	0.05	mg/kg		----	<0.05	<0.05	----	<0.05

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)

Compound	CAS Number	LOR	Unit	Client sample ID	SP03_01_160413	SP03_02_160413	SP03_03_160413	SP03_05_160413	SP03_07_160413
				Client sampling date / time	16-APR-2013 15:00	16-APR-2013 15:00	16-APR-2013 15:00	16-APR-2013 15:00	16-APR-2013 15:00
					EB1309212-001	EB1309212-002	EB1309212-003	EB1309212-005	EB1309212-007
EP068A: Organochlorine Pesticides (OC) - Continued									
Heptachlor	76-44-8	0.05	mg/kg		----	<0.05	<0.05	----	<0.05
Aldrin	309-00-2	0.05	mg/kg		----	<0.05	<0.05	----	<0.05
Heptachlor epoxide	1024-57-3	0.05	mg/kg		----	<0.05	<0.05	----	<0.05
trans-Chlordane	5103-74-2	0.05	mg/kg		----	<0.05	<0.05	----	<0.05
alpha-Endosulfan	959-98-8	0.05	mg/kg		----	<0.05	<0.05	----	<0.05
cis-Chlordane	5103-71-9	0.05	mg/kg		----	<0.05	<0.05	----	<0.05
Dieldrin	60-57-1	0.05	mg/kg		----	<0.05	<0.05	----	<0.05
4.4`-DDE	72-55-9	0.05	mg/kg		----	<0.05	<0.05	----	<0.05
Endrin	72-20-8	0.05	mg/kg		----	<0.05	<0.05	----	<0.05
beta-Endosulfan	33213-65-9	0.05	mg/kg		----	<0.05	<0.05	----	<0.05
4.4`-DDD	72-54-8	0.05	mg/kg		----	<0.05	<0.05	----	<0.05
Endrin aldehyde	7421-93-4	0.05	mg/kg		----	<0.05	<0.05	----	<0.05
Endosulfan sulfate	1031-07-8	0.05	mg/kg		----	<0.05	<0.05	----	<0.05
4.4`-DDT	50-29-3	0.2	mg/kg		----	<0.2	<0.2	----	<0.2
Endrin ketone	53494-70-5	0.05	mg/kg		----	<0.05	<0.05	----	<0.05
Methoxychlor	72-43-5	0.2	mg/kg		----	<0.2	<0.2	----	<0.2
EP075(SIM)A: Phenolic Compounds									
Phenol	108-95-2	0.5	mg/kg		----	<0.5	<0.5	----	<0.5
2-Chlorophenol	95-57-8	0.5	mg/kg		----	<0.5	<0.5	----	<0.5
2-Methylphenol	95-48-7	0.5	mg/kg		----	<0.5	<0.5	----	<0.5
3- & 4-Methylphenol	1319-77-3	1	mg/kg		----	<1	<1	----	<1
2-Nitrophenol	88-75-5	0.5	mg/kg		----	<0.5	<0.5	----	<0.5
2.4-Dimethylphenol	105-67-9	0.5	mg/kg		----	<0.5	<0.5	----	<0.5
2.4-Dichlorophenol	120-83-2	0.5	mg/kg		----	<0.5	<0.5	----	<0.5
2.6-Dichlorophenol	87-65-0	0.5	mg/kg		----	<0.5	<0.5	----	<0.5
4-Chloro-3-Methylphenol	59-50-7	0.5	mg/kg		----	<0.5	<0.5	----	<0.5
2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg		----	<0.5	<0.5	----	<0.5
2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg		----	<0.5	<0.5	----	<0.5
Pentachlorophenol	87-86-5	2	mg/kg		----	<2	<2	----	<2
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthylene	208-96-8	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthene	83-32-9	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Fluorene	86-73-7	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	SP03_01_160413	SP03_02_160413	SP03_03_160413	SP03_05_160413	SP03_07_160413
				Client sampling date / time	16-APR-2013 15:00	16-APR-2013 15:00	16-APR-2013 15:00	16-APR-2013 15:00	16-APR-2013 15:00
Compound	CAS Number	LOR	Unit		EB1309212-001	EB1309212-002	EB1309212-003	EB1309212-005	EB1309212-007
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued									
Phenanthrene	85-01-8	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Anthracene	120-12-7	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Fluoranthene	206-44-0	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Pyrene	129-00-0	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Benz(a)anthracene	56-55-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Chrysene	218-01-9	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(b)fluoranthene	205-99-2	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene	50-32-8	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ (WHO)	----	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	10	mg/kg		<10	<10	<10	<10	<10
C10 - C14 Fraction	----	50	mg/kg		<50	<50	<50	<50	<50
C15 - C28 Fraction	----	100	mg/kg		<100	<100	<100	<100	<100
C29 - C36 Fraction	----	100	mg/kg		<100	<100	<100	<100	<100
^ C10 - C36 Fraction (sum)	----	50	mg/kg		<50	<50	<50	<50	<50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2010 Draft									
C6 - C10 Fraction	----	10	mg/kg		<10	<10	<10	<10	<10
^ C6 - C10 Fraction minus BTEX (F1)	----	10	mg/kg		<10	<10	<10	<10	<10
>C10 - C16 Fraction	----	50	mg/kg		<50	<50	<50	<50	<50
>C16 - C34 Fraction	----	100	mg/kg		<100	<100	<100	<100	<100
>C34 - C40 Fraction	----	100	mg/kg		<100	<100	<100	<100	<100
^ >C10 - C40 Fraction (sum)	----	50	mg/kg		<50	<50	<50	<50	<50
EP080: BTEX									
Benzene	71-43-2	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	108-88-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	100-41-4	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
ortho-Xylene	95-47-6	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	SP03_01_160413	SP03_02_160413	SP03_03_160413	SP03_05_160413	SP03_07_160413
				Client sampling date / time	16-APR-2013 15:00	16-APR-2013 15:00	16-APR-2013 15:00	16-APR-2013 15:00	16-APR-2013 15:00
Compound	CAS Number	LOR	Unit		EB1309212-001	EB1309212-002	EB1309212-003	EB1309212-005	EB1309212-007
EP080: BTEXN									
^ **Total Xylenes**	1330-20-7	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
^ **Sum of BTEX**	----	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Naphthalene	91-20-3	1	mg/kg		<1	<1	<1	<1	<1
EP066S: PCB Surrogate									
Decachlorobiphenyl	2051-24-3	0.1	%		----	**75.6**	**83.1**	----	**84.5**
EP068S: Organochlorine Pesticide Surrogate									
Dibromo-DDE	21655-73-2	0.1	%		----	**89.8**	**82.3**	----	**77.7**
EP068T: Organophosphorus Pesticide Surrogate									
DEF	78-48-8	0.1	%		----	**84.9**	**65.8**	----	**78.8**
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.1	%		**59.6**	**53.4**	**51.1**	**52.9**	**47.7**
2-Chlorophenol-D4	93951-73-6	0.1	%		**66.1**	**57.5**	**57.4**	**57.8**	**54.4**
2.4.6-Tribromophenol	118-79-6	0.1	%		**40.2**	**42.8**	**31.1**	**26.8**	**31.8**
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.1	%		**63.0**	**52.4**	**50.6**	**54.5**	**51.6**
Anthracene-d10	1719-06-8	0.1	%		**37.5**	**52.6**	**40.0**	**43.9**	**48.2**
4-Terphenyl-d14	1718-51-0	0.1	%		**75.4**	**67.9**	**65.5**	**65.8**	**67.7**
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.1	%		**108**	**96.9**	**94.7**	**98.8**	**96.7**
Toluene-D8	2037-26-5	0.1	%		**115**	**99.5**	**96.7**	**95.2**	**101**
4-Bromofluorobenzene	460-00-4	0.1	%		**111**	**97.7**	**94.8**	**89.3**	**97.1**

Analytical Results

Sub-Matrix: **SOIL** (Matrix: **SOIL**)

Compound	CAS Number	LOR	Unit	Client sample ID	SP03_12_160413	SP03_14_160413	SP03_16_160413	SP03_18_160413	SP03_21_160413
				Client sampling date / time	16-APR-2013 15:00	16-APR-2013 15:00	16-APR-2013 15:00	16-APR-2013 15:00	16-APR-2013 15:00
					EB1309212-012	EB1309212-014	EB1309212-016	EB1309212-018	EB1309212-021
EA055: Moisture Content									
Moisture Content (dried @ 103°C)	----	1.0	%		**17.7**	**13.4**	**17.0**	**16.0**	**19.4**
EG005T: Total Metals by ICP-AES									
Arsenic	7440-38-2	5	mg/kg		----	**10**	----	<5	**9**
Barium	7440-39-3	10	mg/kg		----	**120**	----	**20**	**150**
Beryllium	7440-41-7	1	mg/kg		----	<1	----	<1	<1
Cadmium	7440-43-9	1	mg/kg		----	<1	----	<1	<1
Chromium	7440-47-3	2	mg/kg		----	**44**	----	**23**	**38**
Cobalt	7440-48-4	2	mg/kg		----	**2**	----	**3**	<2
Copper	7440-50-8	5	mg/kg		----	**20**	----	**16**	**20**
Lead	7439-92-1	5	mg/kg		----	**39**	----	**6**	**25**
Manganese	7439-96-5	5	mg/kg		----	**58**	----	**156**	**50**
Nickel	7440-02-0	2	mg/kg		----	**6**	----	**10**	**6**
Vanadium	7440-62-2	5	mg/kg		----	**79**	----	**26**	**78**
Zinc	7440-66-6	5	mg/kg		----	**94**	----	**32**	**69**
Arsenic	7440-38-2	5	mg/kg		**10**	----	**11**	----	----
Cadmium	7440-43-9	1	mg/kg		<1	----	<1	----	----
Chromium	7440-47-3	2	mg/kg		**40**	----	**37**	----	----
Copper	7440-50-8	5	mg/kg		**26**	----	**32**	----	----
Lead	7439-92-1	5	mg/kg		**33**	----	**55**	----	----
Nickel	7440-02-0	2	mg/kg		**6**	----	**9**	----	----
Zinc	7440-66-6	5	mg/kg		**80**	----	**120**	----	----
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.1	mg/kg		<0.1	<0.1	<0.1	<0.1	<0.1
EG048: Hexavalent Chromium (Alkaline Digest)									
Hexavalent Chromium	18540-29-9	0.5	mg/kg		----	<0.5	----	<0.5	<0.5
EP066: Polychlorinated Biphenyls (PCB)									
Total Polychlorinated biphenyls	----	0.1	mg/kg		----	<0.1	----	<0.1	<0.1
EP068A: Organochlorine Pesticides (OC)									
alpha-BHC	319-84-6	0.05	mg/kg		----	<0.05	----	<0.05	<0.05
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg		----	<0.05	----	<0.05	<0.05
beta-BHC	319-85-7	0.05	mg/kg		----	<0.05	----	<0.05	<0.05
gamma-BHC	58-89-9	0.05	mg/kg		----	<0.05	----	<0.05	<0.05
delta-BHC	319-86-8	0.05	mg/kg		----	<0.05	----	<0.05	<0.05

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)

Compound	CAS Number	LOR	Unit	Client sample ID	SP03_12_160413	SP03_14_160413	SP03_16_160413	SP03_18_160413	SP03_21_160413
				Client sampling date / time	16-APR-2013 15:00	16-APR-2013 15:00	16-APR-2013 15:00	16-APR-2013 15:00	16-APR-2013 15:00
					EB1309212-012	EB1309212-014	EB1309212-016	EB1309212-018	EB1309212-021
EP068A: Organochlorine Pesticides (OC) - Continued									
Heptachlor	76-44-8	0.05	mg/kg		----	<0.05	----	<0.05	<0.05
Aldrin	309-00-2	0.05	mg/kg		----	<0.05	----	<0.05	<0.05
Heptachlor epoxide	1024-57-3	0.05	mg/kg		----	<0.05	----	<0.05	<0.05
trans-Chlordane	5103-74-2	0.05	mg/kg		----	<0.05	----	<0.05	<0.05
alpha-Endosulfan	959-98-8	0.05	mg/kg		----	<0.05	----	<0.05	<0.05
cis-Chlordane	5103-71-9	0.05	mg/kg		----	<0.05	----	<0.05	<0.05
Dieldrin	60-57-1	0.05	mg/kg		----	<0.05	----	<0.05	<0.05
4.4`-DDE	72-55-9	0.05	mg/kg		----	<0.05	----	<0.05	<0.05
Endrin	72-20-8	0.05	mg/kg		----	<0.05	----	<0.05	<0.05
beta-Endosulfan	33213-65-9	0.05	mg/kg		----	<0.05	----	<0.05	<0.05
4.4`-DDD	72-54-8	0.05	mg/kg		----	<0.05	----	<0.05	<0.05
Endrin aldehyde	7421-93-4	0.05	mg/kg		----	<0.05	----	<0.05	<0.05
Endosulfan sulfate	1031-07-8	0.05	mg/kg		----	<0.05	----	<0.05	<0.05
4.4`-DDT	50-29-3	0.2	mg/kg		----	<0.2	----	<0.2	<0.2
Endrin ketone	53494-70-5	0.05	mg/kg		----	<0.05	----	<0.05	<0.05
Methoxychlor	72-43-5	0.2	mg/kg		----	<0.2	----	<0.2	<0.2
EP075(SIM)A: Phenolic Compounds									
Phenol	108-95-2	0.5	mg/kg		----	<0.5	----	<0.5	<0.5
2-Chlorophenol	95-57-8	0.5	mg/kg		----	<0.5	----	<0.5	<0.5
2-Methylphenol	95-48-7	0.5	mg/kg		----	<0.5	----	<0.5	<0.5
3- & 4-Methylphenol	1319-77-3	1	mg/kg		----	<1	----	<1	<1
2-Nitrophenol	88-75-5	0.5	mg/kg		----	<0.5	----	<0.5	<0.5
2.4-Dimethylphenol	105-67-9	0.5	mg/kg		----	<0.5	----	<0.5	<0.5
2.4-Dichlorophenol	120-83-2	0.5	mg/kg		----	<0.5	----	<0.5	<0.5
2.6-Dichlorophenol	87-65-0	0.5	mg/kg		----	<0.5	----	<0.5	<0.5
4-Chloro-3-Methylphenol	59-50-7	0.5	mg/kg		----	<0.5	----	<0.5	<0.5
2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg		----	<0.5	----	<0.5	<0.5
2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg		----	<0.5	----	<0.5	<0.5
Pentachlorophenol	87-86-5	2	mg/kg		----	<2	----	<2	<2
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthylene	208-96-8	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthene	83-32-9	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Fluorene	86-73-7	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	SP03_12_160413	SP03_14_160413	SP03_16_160413	SP03_18_160413	SP03_21_160413
				Client sampling date / time	16-APR-2013 15:00	16-APR-2013 15:00	16-APR-2013 15:00	16-APR-2013 15:00	16-APR-2013 15:00
Compound	CAS Number	LOR	Unit		EB1309212-012	EB1309212-014	EB1309212-016	EB1309212-018	EB1309212-021
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued									
Phenanthrene	85-01-8	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Anthracene	120-12-7	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Fluoranthene	206-44-0	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Pyrene	129-00-0	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Benz(a)anthracene	56-55-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Chrysene	218-01-9	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(b)fluoranthene	205-99-2	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene	50-32-8	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ (WHO)	----	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	10	mg/kg		<10	<10	<10	<10	<10
C10 - C14 Fraction	----	50	mg/kg		<50	<50	<50	<50	<50
C15 - C28 Fraction	----	100	mg/kg		<100	<100	<100	<100	<100
C29 - C36 Fraction	----	100	mg/kg		<100	<100	<100	<100	<100
^ C10 - C36 Fraction (sum)	----	50	mg/kg		<50	<50	<50	<50	<50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2010 Draft									
C6 - C10 Fraction	----	10	mg/kg		<10	<10	<10	<10	<10
^ C6 - C10 Fraction minus BTEX (F1)	----	10	mg/kg		<10	<10	<10	<10	<10
>C10 - C16 Fraction	----	50	mg/kg		<50	<50	<50	<50	<50
>C16 - C34 Fraction	----	100	mg/kg		<100	<100	<100	<100	<100
>C34 - C40 Fraction	----	100	mg/kg		<100	<100	<100	<100	<100
^ >C10 - C40 Fraction (sum)	----	50	mg/kg		<50	<50	<50	<50	<50
EP080: BTEX									
Benzene	71-43-2	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	108-88-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	100-41-4	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
ortho-Xylene	95-47-6	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	SP03_12_160413	SP03_14_160413	SP03_16_160413	SP03_18_160413	SP03_21_160413
				Client sampling date / time	16-APR-2013 15:00	16-APR-2013 15:00	16-APR-2013 15:00	16-APR-2013 15:00	16-APR-2013 15:00
Compound	CAS Number	LOR	Unit		EB1309212-012	EB1309212-014	EB1309212-016	EB1309212-018	EB1309212-021
EP080: BTEXN									
^ **Total Xylenes**	1330-20-7	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
^ **Sum of BTEX**	----	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Naphthalene	91-20-3	1	mg/kg		<1	<1	<1	<1	<1
EP066S: PCB Surrogate									
Decachlorobiphenyl	2051-24-3	0.1	%		----	**74.2**	----	**75.0**	**72.4**
EP068S: Organochlorine Pesticide Surrogate									
Dibromo-DDE	21655-73-2	0.1	%		----	**74.5**	----	**82.0**	**71.4**
EP068T: Organophosphorus Pesticide Surrogate									
DEF	78-48-8	0.1	%		----	**63.1**	----	**64.0**	**62.1**
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.1	%		**50.3**	**51.4**	**53.2**	**54.8**	**52.5**
2-Chlorophenol-D4	93951-73-6	0.1	%		**53.4**	**55.0**	**48.0**	**60.9**	**57.5**
2.4.6-Tribromophenol	118-79-6	0.1	%		**27.7**	**27.7**	**27.0**	**33.5**	**36.4**
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.1	%		**50.1**	**50.7**	**50.5**	**53.2**	**52.4**
Anthracene-d10	1719-06-8	0.1	%		**47.0**	**44.6**	**49.7**	**42.4**	**54.2**
4-Terphenyl-d14	1718-51-0	0.1	%		**65.5**	**67.4**	**69.1**	**70.1**	**67.8**
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.1	%		**95.5**	**93.1**	**97.6**	**102**	**99.6**
Toluene-D8	2037-26-5	0.1	%		**96.2**	**93.8**	**97.8**	**104**	**101**
4-Bromofluorobenzene	460-00-4	0.1	%		**93.5**	**89.3**	**95.9**	**100**	**97.2**

Analytical Results

Sub-Matrix: **SOIL** (Matrix: **SOIL**)

Compound	CAS Number	LOR	Unit	Client sample ID	SP03_22_160413	SP03_23_160413	SP03_25_160413	SP03_27_160413	SP03_31_160413
				Client sampling date / time	16-APR-2013 15:00	16-APR-2013 15:00	16-APR-2013 15:00	16-APR-2013 15:00	16-APR-2013 15:00
					EB1309212-022	EB1309212-023	EB1309212-025	EB1309212-027	EB1309212-031
EA055: Moisture Content									
Moisture Content (dried @ 103°C)	----	1.0	%		**13.7**	**14.9**	**14.7**	**11.6**	**17.4**
EG005T: Total Metals by ICP-AES									
Arsenic	7440-38-2	5	mg/kg		----	----	**10**	----	----
Barium	7440-39-3	10	mg/kg		----	----	**250**	----	----
Beryllium	7440-41-7	1	mg/kg		----	----	<1	----	----
Cadmium	7440-43-9	1	mg/kg		----	----	<1	----	----
Chromium	7440-47-3	2	mg/kg		----	----	**80**	----	----
Cobalt	7440-48-4	2	mg/kg		----	----	**2**	----	----
Copper	7440-50-8	5	mg/kg		----	----	**21**	----	----
Lead	7439-92-1	5	mg/kg		----	----	**45**	----	----
Manganese	7439-96-5	5	mg/kg		----	----	**61**	----	----
Nickel	7440-02-0	2	mg/kg		----	----	**6**	----	----
Vanadium	7440-62-2	5	mg/kg		----	----	**120**	----	----
Zinc	7440-66-6	5	mg/kg		----	----	**107**	----	----
Arsenic	7440-38-2	5	mg/kg		**9**	**10**	----	**12**	**7**
Cadmium	7440-43-9	1	mg/kg		<1	<1	----	<1	<1
Chromium	7440-47-3	2	mg/kg		**58**	**44**	----	**71**	**27**
Copper	7440-50-8	5	mg/kg		**13**	**27**	----	**61**	**26**
Lead	7439-92-1	5	mg/kg		**28**	**57**	----	**45**	**47**
Nickel	7440-02-0	2	mg/kg		**4**	**7**	----	**6**	**9**
Zinc	7440-66-6	5	mg/kg		**61**	**206**	----	**123**	**253**
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.1	mg/kg		<0.1	<0.1	<0.1	<0.1	<0.1
EG048: Hexavalent Chromium (Alkaline Digest)									
Hexavalent Chromium	18540-29-9	0.5	mg/kg		----	----	<0.5	----	----
EP066: Polychlorinated Biphenyls (PCB)									
Total Polychlorinated biphenyls	----	0.1	mg/kg		----	----	<0.1	----	----
EP068A: Organochlorine Pesticides (OC)									
alpha-BHC	319-84-6	0.05	mg/kg		----	----	<0.05	----	----
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg		----	----	<0.05	----	----
beta-BHC	319-85-7	0.05	mg/kg		----	----	<0.05	----	----
gamma-BHC	58-89-9	0.05	mg/kg		----	----	<0.05	----	----
delta-BHC	319-86-8	0.05	mg/kg		----	----	<0.05	----	----

Analytical Results

Sub-Matrix: **SOIL** (Matrix: **SOIL**)

Compound	CAS Number	LOR	Unit	Client sample ID	SP03_22_160413	SP03_23_160413	SP03_25_160413	SP03_27_160413	SP03_31_160413
				Client sampling date / time	16-APR-2013 15:00	16-APR-2013 15:00	16-APR-2013 15:00	16-APR-2013 15:00	16-APR-2013 15:00
					EB1309212-022	EB1309212-023	EB1309212-025	EB1309212-027	EB1309212-031
EP068A: Organochlorine Pesticides (OC) - Continued									
Heptachlor	76-44-8	0.05	mg/kg		----	----	<0.05	----	----
Aldrin	309-00-2	0.05	mg/kg		----	----	<0.05	----	----
Heptachlor epoxide	1024-57-3	0.05	mg/kg		----	----	<0.05	----	----
trans-Chlordane	5103-74-2	0.05	mg/kg		----	----	<0.05	----	----
alpha-Endosulfan	959-98-8	0.05	mg/kg		----	----	<0.05	----	----
cis-Chlordane	5103-71-9	0.05	mg/kg		----	----	<0.05	----	----
Dieldrin	60-57-1	0.05	mg/kg		----	----	**0.08**	----	----
4.4`-DDE	72-55-9	0.05	mg/kg		----	----	<0.05	----	----
Endrin	72-20-8	0.05	mg/kg		----	----	<0.05	----	----
beta-Endosulfan	33213-65-9	0.05	mg/kg		----	----	<0.05	----	----
4.4`-DDD	72-54-8	0.05	mg/kg		----	----	<0.05	----	----
Endrin aldehyde	7421-93-4	0.05	mg/kg		----	----	<0.05	----	----
Endosulfan sulfate	1031-07-8	0.05	mg/kg		----	----	<0.05	----	----
4.4`-DDT	50-29-3	0.2	mg/kg		----	----	<0.2	----	----
Endrin ketone	53494-70-5	0.05	mg/kg		----	----	<0.05	----	----
Methoxychlor	72-43-5	0.2	mg/kg		----	----	<0.2	----	----
EP075(SIM)A: Phenolic Compounds									
Phenol	108-95-2	0.5	mg/kg		----	----	<0.5	----	----
2-Chlorophenol	95-57-8	0.5	mg/kg		----	----	<0.5	----	----
2-Methylphenol	95-48-7	0.5	mg/kg		----	----	<0.5	----	----
3- & 4-Methylphenol	1319-77-3	1	mg/kg		----	----	<1	----	----
2-Nitrophenol	88-75-5	0.5	mg/kg		----	----	<0.5	----	----
2.4-Dimethylphenol	105-67-9	0.5	mg/kg		----	----	<0.5	----	----
2.4-Dichlorophenol	120-83-2	0.5	mg/kg		----	----	<0.5	----	----
2.6-Dichlorophenol	87-65-0	0.5	mg/kg		----	----	<0.5	----	----
4-Chloro-3-Methylphenol	59-50-7	0.5	mg/kg		----	----	<0.5	----	----
2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg		----	----	<0.5	----	----
2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg		----	----	<0.5	----	----
Pentachlorophenol	87-86-5	2	mg/kg		----	----	<2	----	----
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthylene	208-96-8	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthene	83-32-9	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Fluorene	86-73-7	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	SP03_22_160413	SP03_23_160413	SP03_25_160413	SP03_27_160413	SP03_31_160413
				Client sampling date / time	16-APR-2013 15:00	16-APR-2013 15:00	16-APR-2013 15:00	16-APR-2013 15:00	16-APR-2013 15:00
Compound	CAS Number	LOR	Unit		EB1309212-022	EB1309212-023	EB1309212-025	EB1309212-027	EB1309212-031
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued									
Phenanthrene	85-01-8	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Anthracene	120-12-7	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Fluoranthene	206-44-0	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Pyrene	129-00-0	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Benz(a)anthracene	56-55-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Chrysene	218-01-9	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(b)fluoranthene	205-99-2	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene	50-32-8	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ (WHO)	----	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	10	mg/kg		<10	<10	<10	<10	<10
C10 - C14 Fraction	----	50	mg/kg		<50	<50	<50	<50	<50
C15 - C28 Fraction	----	100	mg/kg		<100	<100	<100	<100	<100
C29 - C36 Fraction	----	100	mg/kg		<100	<100	<100	<100	<100
^ C10 - C36 Fraction (sum)	----	50	mg/kg		<50	<50	<50	<50	<50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2010 Draft									
C6 - C10 Fraction	----	10	mg/kg		<10	<10	<10	<10	<10
^ C6 - C10 Fraction minus BTEX (F1)	----	10	mg/kg		<10	<10	<10	<10	<10
>C10 - C16 Fraction	----	50	mg/kg		<50	<50	<50	<50	<50
>C16 - C34 Fraction	----	100	mg/kg		<100	<100	<100	<100	<100
>C34 - C40 Fraction	----	100	mg/kg		<100	<100	<100	<100	<100
^ >C10 - C40 Fraction (sum)	----	50	mg/kg		<50	<50	<50	<50	<50
EP080: BTEX									
Benzene	71-43-2	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	108-88-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	100-41-4	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
ortho-Xylene	95-47-6	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	SP03_22_160413	SP03_23_160413	SP03_25_160413	SP03_27_160413	SP03_31_160413
				Client sampling date / time	16-APR-2013 15:00	16-APR-2013 15:00	16-APR-2013 15:00	16-APR-2013 15:00	16-APR-2013 15:00
Compound	CAS Number	LOR	Unit		EB1309212-022	EB1309212-023	EB1309212-025	EB1309212-027	EB1309212-031
EP080: BTEXN									
^ **Total Xylenes**	1330-20-7	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
^ **Sum of BTEX**	----	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Naphthalene	91-20-3	1	mg/kg		<1	<1	<1	<1	<1
EP066S: PCB Surrogate									
Decachlorobiphenyl	2051-24-3	0.1	%		----	----	**92.3**	----	----
EP068S: Organochlorine Pesticide Surrogate									
Dibromo-DDE	21655-73-2	0.1	%		----	----	**96.4**	----	----
EP068T: Organophosphorus Pesticide Surrogate									
DEF	78-48-8	0.1	%		----	----	**77.2**	----	----
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.1	%		**55.1**	**53.7**	**55.4**	**59.1**	**68.0**
2-Chlorophenol-D4	93951-73-6	0.1	%		**55.2**	**56.9**	**61.2**	**63.4**	**67.3**
2.4.6-Tribromophenol	118-79-6	0.1	%		**37.6**	**35.7**	**34.9**	**35.2**	**47.6**
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.1	%		**59.7**	**53.8**	**54.0**	**55.7**	**72.1**
Anthracene-d10	1719-06-8	0.1	%		**57.8**	**54.1**	**53.2**	**50.8**	**54.5**
4-Terphenyl-d14	1718-51-0	0.1	%		**64.0**	**68.6**	**71.3**	**78.6**	**62.0**
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.1	%		**97.6**	**98.9**	**88.3**	**101**	**87.6**
Toluene-D8	2037-26-5	0.1	%		**95.4**	**101**	**90.1**	**96.2**	**90.1**
4-Bromofluorobenzene	460-00-4	0.1	%		**93.4**	**102**	**92.1**	**106**	**89.0**

Analytical Results

Sub-Matrix: **SOIL** (Matrix: **SOIL**)

Compound	CAS Number	LOR	Unit	Client sample ID	SP03_32_160413	SP03_34_160413	SP03_36_160413	SP03_40_160413	SP03_42_160413
				Client sampling date / time	16-APR-2013 15:00	16-APR-2013 15:00	16-APR-2013 15:00	16-APR-2013 15:00	16-APR-2013 15:00
					EB1309212-032	EB1309212-034	EB1309212-036	EB1309212-040	EB1309212-042
EA055: Moisture Content									
Moisture Content (dried @ 103°C)	----	1.0	%		**12.0**	**23.3**	**18.0**	**13.9**	**15.4**
EG005T: Total Metals by ICP-AES									
Arsenic	7440-38-2	5	mg/kg		**9**	----	**8**	**10**	----
Barium	7440-39-3	10	mg/kg		**80**	----	**80**	**130**	----
Beryllium	7440-41-7	1	mg/kg		<1	----	<1	<1	----
Cadmium	7440-43-9	1	mg/kg		<1	----	<1	<1	----
Chromium	7440-47-3	2	mg/kg		**42**	----	**29**	**54**	----
Cobalt	7440-48-4	2	mg/kg		<2	----	**4**	**3**	----
Copper	7440-50-8	5	mg/kg		**16**	----	**23**	**37**	----
Lead	7439-92-1	5	mg/kg		**38**	----	**41**	**28**	----
Manganese	7439-96-5	5	mg/kg		**41**	----	**75**	**71**	----
Nickel	7440-02-0	2	mg/kg		**5**	----	**14**	**8**	----
Vanadium	7440-62-2	5	mg/kg		**106**	----	**58**	**100**	----
Zinc	7440-66-6	5	mg/kg		**84**	----	**94**	**84**	----
Arsenic	7440-38-2	5	mg/kg		----	<5	----	----	**10**
Cadmium	7440-43-9	1	mg/kg		----	<1	----	----	<1
Chromium	7440-47-3	2	mg/kg		----	**20**	----	----	**47**
Copper	7440-50-8	5	mg/kg		----	**41**	----	----	**24**
Lead	7439-92-1	5	mg/kg		----	**62**	----	----	**41**
Nickel	7440-02-0	2	mg/kg		----	**10**	----	----	**7**
Zinc	7440-66-6	5	mg/kg		----	**60**	----	----	**100**
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.1	mg/kg		<0.1	<0.1	<0.1	<0.1	<0.1
EG048: Hexavalent Chromium (Alkaline Digest)									
Hexavalent Chromium	18540-29-9	0.5	mg/kg		<0.5	----	<0.5	<0.5	----
EP066: Polychlorinated Biphenyls (PCB)									
Total Polychlorinated biphenyls	----	0.1	mg/kg		<0.1	----	<0.1	<0.1	----
EP068A: Organochlorine Pesticides (OC)									
alpha-BHC	319-84-6	0.05	mg/kg		<0.05	----	<0.05	<0.05	----
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg		<0.05	----	<0.05	<0.05	----
beta-BHC	319-85-7	0.05	mg/kg		<0.05	----	<0.05	<0.05	----
gamma-BHC	58-89-9	0.05	mg/kg		<0.05	----	<0.05	<0.05	----
delta-BHC	319-86-8	0.05	mg/kg		<0.05	----	<0.05	<0.05	----

Analytical Results

Sub-Matrix: **SOIL** (Matrix: **SOIL**)

Compound	CAS Number	LOR	Unit	Client sample ID	SP03_32_160413	SP03_34_160413	SP03_36_160413	SP03_40_160413	SP03_42_160413
				Client sampling date / time	16-APR-2013 15:00	16-APR-2013 15:00	16-APR-2013 15:00	16-APR-2013 15:00	16-APR-2013 15:00
					EB1309212-032	EB1309212-034	EB1309212-036	EB1309212-040	EB1309212-042
EP068A: Organochlorine Pesticides (OC) - Continued									
Heptachlor	76-44-8	0.05	mg/kg		<0.05	----	<0.05	<0.05	----
Aldrin	309-00-2	0.05	mg/kg		<0.05	----	<0.05	<0.05	----
Heptachlor epoxide	1024-57-3	0.05	mg/kg		<0.05	----	<0.05	<0.05	----
trans-Chlordane	5103-74-2	0.05	mg/kg		<0.05	----	<0.05	<0.05	----
alpha-Endosulfan	959-98-8	0.05	mg/kg		<0.05	----	<0.05	<0.05	----
cis-Chlordane	5103-71-9	0.05	mg/kg		<0.05	----	<0.05	<0.05	----
Dieldrin	60-57-1	0.05	mg/kg		<0.05	----	<0.05	<0.05	----
4.4`-DDE	72-55-9	0.05	mg/kg		<0.05	----	<0.05	<0.05	----
Endrin	72-20-8	0.05	mg/kg		<0.05	----	<0.05	<0.05	----
beta-Endosulfan	33213-65-9	0.05	mg/kg		<0.05	----	<0.05	<0.05	----
4.4`-DDD	72-54-8	0.05	mg/kg		<0.05	----	<0.05	<0.05	----
Endrin aldehyde	7421-93-4	0.05	mg/kg		<0.05	----	<0.05	<0.05	----
Endosulfan sulfate	1031-07-8	0.05	mg/kg		<0.05	----	<0.05	<0.05	----
4.4`-DDT	50-29-3	0.2	mg/kg		<0.2	----	<0.2	<0.2	----
Endrin ketone	53494-70-5	0.05	mg/kg		<0.05	----	<0.05	<0.05	----
Methoxychlor	72-43-5	0.2	mg/kg		<0.2	----	<0.2	<0.2	----
EP075(SIM)A: Phenolic Compounds									
Phenol	108-95-2	0.5	mg/kg		<0.5	----	<0.5	<0.5	----
2-Chlorophenol	95-57-8	0.5	mg/kg		<0.5	----	<0.5	<0.5	----
2-Methylphenol	95-48-7	0.5	mg/kg		<0.5	----	<0.5	<0.5	----
3- & 4-Methylphenol	1319-77-3	1	mg/kg		<1	----	<1	<1	----
2-Nitrophenol	88-75-5	0.5	mg/kg		<0.5	----	<0.5	<0.5	----
2.4-Dimethylphenol	105-67-9	0.5	mg/kg		<0.5	----	<0.5	<0.5	----
2.4-Dichlorophenol	120-83-2	0.5	mg/kg		<0.5	----	<0.5	<0.5	----
2.6-Dichlorophenol	87-65-0	0.5	mg/kg		<0.5	----	<0.5	<0.5	----
4-Chloro-3-Methylphenol	59-50-7	0.5	mg/kg		<0.5	----	<0.5	<0.5	----
2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg		<0.5	----	<0.5	<0.5	----
2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg		<0.5	----	<0.5	<0.5	----
Pentachlorophenol	87-86-5	2	mg/kg		<2	----	<2	<2	----
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthylene	208-96-8	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthene	83-32-9	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Fluorene	86-73-7	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	SP03_32_160413	SP03_34_160413	SP03_36_160413	SP03_40_160413	SP03_42_160413
				Client sampling date / time	16-APR-2013 15:00	16-APR-2013 15:00	16-APR-2013 15:00	16-APR-2013 15:00	16-APR-2013 15:00
Compound	CAS Number	LOR	Unit		EB1309212-032	EB1309212-034	EB1309212-036	EB1309212-040	EB1309212-042
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued									
Phenanthrene	85-01-8	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Anthracene	120-12-7	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Fluoranthene	206-44-0	0.5	mg/kg		<0.5	**0.7**	<0.5	<0.5	<0.5
Pyrene	129-00-0	0.5	mg/kg		<0.5	**0.9**	<0.5	<0.5	<0.5
Benz(a)anthracene	56-55-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Chrysene	218-01-9	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(b)fluoranthene	205-99-2	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene	50-32-8	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg		<0.5	<0.5	<0.5	**0.5**	<0.5
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg		<0.5	<0.5	<0.5	**0.7**	<0.5
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg		<0.5	**1.6**	<0.5	**1.2**	<0.5
Benzo(a)pyrene TEQ (WHO)	----	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	10	mg/kg		<10	<10	<10	<10	<10
C10 - C14 Fraction	----	50	mg/kg		<50	<50	<50	<50	<50
C15 - C28 Fraction	----	100	mg/kg		<100	<100	<100	<100	<100
C29 - C36 Fraction	----	100	mg/kg		<100	<100	<100	<100	<100
^ C10 - C36 Fraction (sum)	----	50	mg/kg		<50	<50	<50	<50	<50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2010 Draft									
C6 - C10 Fraction	----	10	mg/kg		<10	<10	<10	<10	<10
^ C6 - C10 Fraction minus BTEX (F1)	----	10	mg/kg		<10	<10	<10	<10	<10
>C10 - C16 Fraction	----	50	mg/kg		<50	<50	<50	<50	<50
>C16 - C34 Fraction	----	100	mg/kg		<100	<100	<100	<100	<100
>C34 - C40 Fraction	----	100	mg/kg		<100	<100	<100	<100	<100
^ >C10 - C40 Fraction (sum)	----	50	mg/kg		<50	<50	<50	<50	<50
EP080: BTEX									
Benzene	71-43-2	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	108-88-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	100-41-4	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
ortho-Xylene	95-47-6	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	SP03_32_160413	SP03_34_160413	SP03_36_160413	SP03_40_160413	SP03_42_160413
				Client sampling date / time	16-APR-2013 15:00	16-APR-2013 15:00	16-APR-2013 15:00	16-APR-2013 15:00	16-APR-2013 15:00
Compound	CAS Number	LOR	Unit		EB1309212-032	EB1309212-034	EB1309212-036	EB1309212-040	EB1309212-042
EP080: BTEXN									
^ **Total Xylenes**	1330-20-7	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
^ **Sum of BTEX**	----	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Naphthalene	91-20-3	1	mg/kg		<1	<1	<1	<1	<1
EP066S: PCB Surrogate									
Decachlorobiphenyl	2051-24-3	0.1	%		**85.1**	----	**87.6**	**88.4**	----
EP068S: Organochlorine Pesticide Surrogate									
Dibromo-DDE	21655-73-2	0.1	%		**84.2**	----	**82.4**	**85.3**	----
EP068T: Organophosphorus Pesticide Surrogate									
DEF	78-48-8	0.1	%		**68.3**	----	**72.0**	**71.7**	----
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.1	%		**57.0**	**55.4**	**54.3**	**57.0**	**54.8**
2-Chlorophenol-D4	93951-73-6	0.1	%		**60.8**	**58.1**	**57.9**	**58.2**	**55.8**
2.4.6-Tribromophenol	118-79-6	0.1	%		**33.5**	**35.4**	**37.1**	**29.0**	**29.2**
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.1	%		**50.9**	**50.2**	**48.1**	**52.8**	**52.4**
Anthracene-d10	1719-06-8	0.1	%		**48.9**	**54.0**	**50.7**	**48.8**	**53.5**
4-Terphenyl-d14	1718-51-0	0.1	%		**73.4**	**74.4**	**72.3**	**69.2**	**71.2**
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.1	%		**95.3**	**93.9**	**94.9**	**103**	**98.9**
Toluene-D8	2037-26-5	0.1	%		**98.2**	**92.3**	**90.9**	**92.6**	**89.2**
4-Bromofluorobenzene	460-00-4	0.1	%		**95.2**	**97.2**	**94.2**	**97.5**	**95.2**

Analytical Results

Sub-Matrix: **SOIL** (Matrix: **SOIL**)

Compound	CAS Number	LOR	Unit	Client sample ID	SP03_43_160413	SP03_44_160413	SP03_45_160413	SP03_47_160413	SP03_49_160413
				Client sampling date / time	16-APR-2013 15:00	16-APR-2013 15:00	16-APR-2013 15:00	16-APR-2013 15:00	16-APR-2013 15:00
					EB1309212-043	EB1309212-044	EB1309212-045	EB1309212-047	EB1309212-049
EA055: Moisture Content									
Moisture Content (dried @ 103°C)	----	1.0	%		**15.5**	**22.3**	**21.7**	**17.9**	**23.2**
EG005T: Total Metals by ICP-AES									
Arsenic	7440-38-2	5	mg/kg		**11**	----	----	**6**	----
Barium	7440-39-3	10	mg/kg		**40**	----	----	**60**	----
Beryllium	7440-41-7	1	mg/kg		<1	----	----	<1	----
Cadmium	7440-43-9	1	mg/kg		<1	----	----	<1	----
Chromium	7440-47-3	2	mg/kg		**55**	----	----	**32**	----
Cobalt	7440-48-4	2	mg/kg		<2	----	----	**2**	----
Copper	7440-50-8	5	mg/kg		**17**	----	----	**17**	----
Lead	7439-92-1	5	mg/kg		**20**	----	----	**21**	----
Manganese	7439-96-5	5	mg/kg		**78**	----	----	**86**	----
Nickel	7440-02-0	2	mg/kg		**5**	----	----	**7**	----
Vanadium	7440-62-2	5	mg/kg		**90**	----	----	**62**	----
Zinc	7440-66-6	5	mg/kg		**31**	----	----	**40**	----
Arsenic	7440-38-2	5	mg/kg		----	**6**	**7**	----	**14**
Cadmium	7440-43-9	1	mg/kg		----	<1	<1	----	<1
Chromium	7440-47-3	2	mg/kg		----	**23**	**44**	----	**93**
Copper	7440-50-8	5	mg/kg		----	**26**	**14**	----	**23**
Lead	7439-92-1	5	mg/kg		----	**25**	**17**	----	**33**
Nickel	7440-02-0	2	mg/kg		----	**8**	**5**	----	**7**
Zinc	7440-66-6	5	mg/kg		----	**103**	**34**	----	**53**
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.1	mg/kg		<0.1	<0.1	<0.1	<0.1	<0.1
EG048: Hexavalent Chromium (Alkaline Digest)									
Hexavalent Chromium	18540-29-9	0.5	mg/kg		<0.5	----	----	<0.5	----
EP066: Polychlorinated Biphenyls (PCB)									
Total Polychlorinated biphenyls	----	0.1	mg/kg		<0.1	----	----	<0.1	----
EP068A: Organochlorine Pesticides (OC)									
alpha-BHC	319-84-6	0.05	mg/kg		<0.05	----	----	<0.05	----
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg		<0.05	----	----	<0.05	----
beta-BHC	319-85-7	0.05	mg/kg		<0.05	----	----	<0.05	----
gamma-BHC	58-89-9	0.05	mg/kg		<0.05	----	----	<0.05	----
delta-BHC	319-86-8	0.05	mg/kg		<0.05	----	----	<0.05	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)

Compound	CAS Number	LOR	Unit	Client sample ID	SP03_43_160413	SP03_44_160413	SP03_45_160413	SP03_47_160413	SP03_49_160413
				Client sampling date / time	16-APR-2013 15:00	16-APR-2013 15:00	16-APR-2013 15:00	16-APR-2013 15:00	16-APR-2013 15:00
					EB1309212-043	EB1309212-044	EB1309212-045	EB1309212-047	EB1309212-049
EP068A: Organochlorine Pesticides (OC) - Continued									
Heptachlor	76-44-8	0.05	mg/kg		<0.05	----	----	<0.05	----
Aldrin	309-00-2	0.05	mg/kg		<0.05	----	----	<0.05	----
Heptachlor epoxide	1024-57-3	0.05	mg/kg		<0.05	----	----	<0.05	----
trans-Chlordane	5103-74-2	0.05	mg/kg		<0.05	----	----	<0.05	----
alpha-Endosulfan	959-98-8	0.05	mg/kg		<0.05	----	----	<0.05	----
cis-Chlordane	5103-71-9	0.05	mg/kg		<0.05	----	----	<0.05	----
Dieldrin	60-57-1	0.05	mg/kg		<0.05	----	----	<0.05	----
4.4`-DDE	72-55-9	0.05	mg/kg		<0.05	----	----	<0.05	----
Endrin	72-20-8	0.05	mg/kg		<0.05	----	----	<0.05	----
beta-Endosulfan	33213-65-9	0.05	mg/kg		<0.05	----	----	<0.05	----
4.4`-DDD	72-54-8	0.05	mg/kg		<0.05	----	----	<0.05	----
Endrin aldehyde	7421-93-4	0.05	mg/kg		<0.05	----	----	<0.05	----
Endosulfan sulfate	1031-07-8	0.05	mg/kg		<0.05	----	----	<0.05	----
4.4`-DDT	50-29-3	0.2	mg/kg		<0.2	----	----	<0.2	----
Endrin ketone	53494-70-5	0.05	mg/kg		<0.05	----	----	<0.05	----
Methoxychlor	72-43-5	0.2	mg/kg		<0.2	----	----	<0.2	----
EP075(SIM)A: Phenolic Compounds									
Phenol	108-95-2	0.5	mg/kg		<0.5	----	----	<0.5	----
2-Chlorophenol	95-57-8	0.5	mg/kg		<0.5	----	----	<0.5	----
2-Methylphenol	95-48-7	0.5	mg/kg		<0.5	----	----	<0.5	----
3- & 4-Methylphenol	1319-77-3	1	mg/kg		<1	----	----	<1	----
2-Nitrophenol	88-75-5	0.5	mg/kg		<0.5	----	----	<0.5	----
2.4-Dimethylphenol	105-67-9	0.5	mg/kg		<0.5	----	----	<0.5	----
2.4-Dichlorophenol	120-83-2	0.5	mg/kg		<0.5	----	----	<0.5	----
2.6-Dichlorophenol	87-65-0	0.5	mg/kg		<0.5	----	----	<0.5	----
4-Chloro-3-Methylphenol	59-50-7	0.5	mg/kg		<0.5	----	----	<0.5	----
2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg		<0.5	----	----	<0.5	----
2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg		<0.5	----	----	<0.5	----
Pentachlorophenol	87-86-5	2	mg/kg		<2	----	----	<2	----
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthylene	208-96-8	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthene	83-32-9	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Fluorene	86-73-7	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	SP03_43_160413	SP03_44_160413	SP03_45_160413	SP03_47_160413	SP03_49_160413
				Client sampling date / time	16-APR-2013 15:00	16-APR-2013 15:00	16-APR-2013 15:00	16-APR-2013 15:00	16-APR-2013 15:00
Compound	CAS Number	LOR	Unit		EB1309212-043	EB1309212-044	EB1309212-045	EB1309212-047	EB1309212-049
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued									
Phenanthrene	85-01-8	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Anthracene	120-12-7	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Fluoranthene	206-44-0	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Pyrene	129-00-0	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Benz(a)anthracene	56-55-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Chrysene	218-01-9	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(b)fluoranthene	205-99-2	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene	50-32-8	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ (WHO)	----	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	10	mg/kg		<10	<10	<10	<10	<10
C10 - C14 Fraction	----	50	mg/kg		<50	<50	<50	<50	<50
C15 - C28 Fraction	----	100	mg/kg		<100	<100	<100	<100	<100
C29 - C36 Fraction	----	100	mg/kg		<100	<100	<100	<100	<100
^ C10 - C36 Fraction (sum)	----	50	mg/kg		<50	<50	<50	<50	<50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2010 Draft									
C6 - C10 Fraction	----	10	mg/kg		<10	<10	<10	<10	<10
^ C6 - C10 Fraction minus BTEX (F1)	----	10	mg/kg		<10	<10	<10	<10	<10
>C10 - C16 Fraction	----	50	mg/kg		<50	<50	<50	<50	<50
>C16 - C34 Fraction	----	100	mg/kg		<100	<100	<100	<100	<100
>C34 - C40 Fraction	----	100	mg/kg		<100	<100	<100	<100	<100
^ >C10 - C40 Fraction (sum)	----	50	mg/kg		<50	<50	<50	<50	<50
EP080: BTEX									
Benzene	71-43-2	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	108-88-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	100-41-4	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
ortho-Xylene	95-47-6	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5

Analytical Results

Sub-Matrix: **SOIL** (Matrix: **SOIL**)

Compound	CAS Number	LOR	Unit	Client sample ID	SP03_43_160413	SP03_44_160413	SP03_45_160413	SP03_47_160413	SP03_49_160413
				Client sampling date / time	16-APR-2013 15:00	16-APR-2013 15:00	16-APR-2013 15:00	16-APR-2013 15:00	16-APR-2013 15:00
					EB1309212-043	EB1309212-044	EB1309212-045	EB1309212-047	EB1309212-049
EP080: BTEXN									
^ **Total Xylenes**	1330-20-7	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
^ **Sum of BTEX**	----	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Naphthalene	91-20-3	1	mg/kg		<1	<1	<1	<1	<1
EP066S: PCB Surrogate									
Decachlorobiphenyl	2051-24-3	0.1	%		**58.1**	----	----	**94.2**	----
EP068S: Organochlorine Pesticide Surrogate									
Dibromo-DDE	21655-73-2	0.1	%		**76.6**	----	----	**94.7**	----
EP068T: Organophosphorus Pesticide Surrogate									
DEF	78-48-8	0.1	%		**61.3**	----	----	**78.6**	----
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.1	%		**120**	**119**	**115**	**118**	**120**
2-Chlorophenol-D4	93951-73-6	0.1	%		**118**	**118**	**113**	**117**	**117**
2.4.6-Tribromophenol	118-79-6	0.1	%		**100**	**95.6**	**97.4**	**95.3**	**93.1**
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.1	%		**139**	**140**	**133**	**139**	**137**
Anthracene-d10	1719-06-8	0.1	%		**84.6**	**83.9**	**103**	**83.6**	**116**
4-Terphenyl-d14	1718-51-0	0.1	%		**94.1**	**93.3**	**117**	**91.4**	**122**
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.1	%		**101**	**87.6**	**94.1**	**85.7**	**88.2**
Toluene-D8	2037-26-5	0.1	%		**114**	**97.8**	**92.8**	**92.8**	**96.1**
4-Bromofluorobenzene	460-00-4	0.1	%		**100**	**92.8**	**89.8**	**91.4**	**92.7**

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)

Compound	CAS Number	LOR	Unit	Client sample ID	SP04_03_160413	SP05_01_160413	SP05_03_160413	SP05_05_160413	SP05_06_160413
				Client sampling date / time	16-APR-2013 15:00	16-APR-2013 15:00	16-APR-2013 15:00	16-APR-2013 15:00	16-APR-2013 15:00
					EB1309212-053	EB1309212-059	EB1309212-061	EB1309212-063	EB1309212-064
EA055: Moisture Content									
Moisture Content (dried @ 103°C)	----	1.0	%		12.9	19.2	22.8	23.9	17.5
EG005T: Total Metals by ICP-AES									
Arsenic	7440-38-2	5	mg/kg		13	----	44	----	10
Barium	7440-39-3	10	mg/kg		100	----	170	----	110
Beryllium	7440-41-7	1	mg/kg		<1	----	<1	----	<1
Cadmium	7440-43-9	1	mg/kg		<1	----	5	----	<1
Chromium	7440-47-3	2	mg/kg		38	----	38	----	92
Cobalt	7440-48-4	2	mg/kg		<2	----	<2	----	<2
Copper	7440-50-8	5	mg/kg		11	----	27	----	19
Lead	7439-92-1	5	mg/kg		18	----	671	----	37
Manganese	7439-96-5	5	mg/kg		36	----	58	----	75
Nickel	7440-02-0	2	mg/kg		4	----	6	----	5
Vanadium	7440-62-2	5	mg/kg		90	----	100	----	172
Zinc	7440-66-6	5	mg/kg		38	----	516	----	92
Arsenic	7440-38-2	5	mg/kg		----	7	----	7	----
Cadmium	7440-43-9	1	mg/kg		----	<1	----	<1	----
Chromium	7440-47-3	2	mg/kg		----	46	----	30	----
Copper	7440-50-8	5	mg/kg		----	19	----	17	----
Lead	7439-92-1	5	mg/kg		----	39	----	35	----
Nickel	7440-02-0	2	mg/kg		----	7	----	6	----
Zinc	7440-66-6	5	mg/kg		----	92	----	80	----
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.1	mg/kg		<0.1	<0.1	<0.1	<0.1	<0.1
EG048: Hexavalent Chromium (Alkaline Digest)									
Hexavalent Chromium	18540-29-9	0.5	mg/kg		<0.5	----	<0.5	----	<0.5
EP066: Polychlorinated Biphenyls (PCB)									
Total Polychlorinated biphenyls	----	0.1	mg/kg		<0.1	----	<0.1	----	<0.1
EP068A: Organochlorine Pesticides (OC)									
alpha-BHC	319-84-6	0.05	mg/kg		<0.05	----	<0.05	----	<0.05
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg		<0.05	----	<0.05	----	<0.05
beta-BHC	319-85-7	0.05	mg/kg		<0.05	----	<0.05	----	<0.05
gamma-BHC	58-89-9	0.05	mg/kg		<0.05	----	<0.05	----	<0.05
delta-BHC	319-86-8	0.05	mg/kg		<0.05	----	<0.05	----	<0.05

Analytical Results

Sub-Matrix: **SOIL** (Matrix: **SOIL**)

Compound	CAS Number	LOR	Unit	Client sample ID	SP04_03_160413	SP05_01_160413	SP05_03_160413	SP05_05_160413	SP05_06_160413
				Client sampling date / time	16-APR-2013 15:00	16-APR-2013 15:00	16-APR-2013 15:00	16-APR-2013 15:00	16-APR-2013 15:00
					EB1309212-053	EB1309212-059	EB1309212-061	EB1309212-063	EB1309212-064
EP068A: Organochlorine Pesticides (OC) - Continued									
Heptachlor	76-44-8	0.05	mg/kg		<0.05	----	<0.05	----	<0.05
Aldrin	309-00-2	0.05	mg/kg		<0.05	----	<0.05	----	<0.05
Heptachlor epoxide	1024-57-3	0.05	mg/kg		<0.05	----	<0.05	----	<0.05
trans-Chlordane	5103-74-2	0.05	mg/kg		<0.05	----	<0.05	----	<0.05
alpha-Endosulfan	959-98-8	0.05	mg/kg		<0.05	----	<0.05	----	<0.05
cis-Chlordane	5103-71-9	0.05	mg/kg		<0.05	----	<0.05	----	<0.05
Dieldrin	60-57-1	0.05	mg/kg		<0.05	----	<0.05	----	<0.05
4.4`-DDE	72-55-9	0.05	mg/kg		<0.05	----	<0.05	----	<0.05
Endrin	72-20-8	0.05	mg/kg		<0.05	----	<0.05	----	<0.05
beta-Endosulfan	33213-65-9	0.05	mg/kg		<0.05	----	<0.05	----	<0.05
4.4`-DDD	72-54-8	0.05	mg/kg		<0.05	----	<0.05	----	<0.05
Endrin aldehyde	7421-93-4	0.05	mg/kg		<0.05	----	<0.05	----	<0.05
Endosulfan sulfate	1031-07-8	0.05	mg/kg		<0.05	----	<0.05	----	<0.05
4.4`-DDT	50-29-3	0.2	mg/kg		<0.2	----	<0.2	----	<0.2
Endrin ketone	53494-70-5	0.05	mg/kg		<0.05	----	<0.05	----	<0.05
Methoxychlor	72-43-5	0.2	mg/kg		<0.2	----	<0.2	----	<0.2
EP075(SIM)A: Phenolic Compounds									
Phenol	108-95-2	0.5	mg/kg		<0.5	----	<0.5	----	<0.5
2-Chlorophenol	95-57-8	0.5	mg/kg		<0.5	----	<0.5	----	<0.5
2-Methylphenol	95-48-7	0.5	mg/kg		<0.5	----	<0.5	----	<0.5
3- & 4-Methylphenol	1319-77-3	1	mg/kg		<1	----	<1	----	<1
2-Nitrophenol	88-75-5	0.5	mg/kg		<0.5	----	<0.5	----	<0.5
2.4-Dimethylphenol	105-67-9	0.5	mg/kg		<0.5	----	<0.5	----	<0.5
2.4-Dichlorophenol	120-83-2	0.5	mg/kg		<0.5	----	<0.5	----	<0.5
2.6-Dichlorophenol	87-65-0	0.5	mg/kg		<0.5	----	<0.5	----	<0.5
4-Chloro-3-Methylphenol	59-50-7	0.5	mg/kg		<0.5	----	<0.5	----	<0.5
2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg		<0.5	----	<0.5	----	<0.5
2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg		<0.5	----	<0.5	----	<0.5
Pentachlorophenol	87-86-5	2	mg/kg		<2	----	<2	----	<2
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthylene	208-96-8	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthene	83-32-9	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Fluorene	86-73-7	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	SP04_03_160413	SP05_01_160413	SP05_03_160413	SP05_05_160413	SP05_06_160413
				Client sampling date / time	16-APR-2013 15:00	16-APR-2013 15:00	16-APR-2013 15:00	16-APR-2013 15:00	16-APR-2013 15:00
Compound	CAS Number	LOR	Unit		EB1309212-053	EB1309212-059	EB1309212-061	EB1309212-063	EB1309212-064
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued									
Phenanthrene	85-01-8	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Anthracene	120-12-7	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Fluoranthene	206-44-0	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Pyrene	129-00-0	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Benz(a)anthracene	56-55-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Chrysene	218-01-9	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(b)fluoranthene	205-99-2	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene	50-32-8	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ (WHO)	----	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	10	mg/kg		<10	<10	<10	<10	<10
C10 - C14 Fraction	----	50	mg/kg		<50	<50	<50	<50	<50
C15 - C28 Fraction	----	100	mg/kg		<100	<100	<100	<100	<100
C29 - C36 Fraction	----	100	mg/kg		<100	<100	<100	<100	<100
^ C10 - C36 Fraction (sum)	----	50	mg/kg		<50	<50	<50	<50	<50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2010 Draft									
C6 - C10 Fraction	----	10	mg/kg		<10	<10	<10	<10	<10
^ C6 - C10 Fraction minus BTEX (F1)	----	10	mg/kg		<10	<10	<10	<10	<10
>C10 - C16 Fraction	----	50	mg/kg		<50	<50	<50	<50	<50
>C16 - C34 Fraction	----	100	mg/kg		<100	<100	<100	<100	<100
>C34 - C40 Fraction	----	100	mg/kg		<100	<100	<100	<100	<100
^ >C10 - C40 Fraction (sum)	----	50	mg/kg		<50	<50	<50	<50	<50
EP080: BTEX									
Benzene	71-43-2	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	108-88-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	100-41-4	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
ortho-Xylene	95-47-6	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	SP04_03_160413	SP05_01_160413	SP05_03_160413	SP05_05_160413	SP05_06_160413
				Client sampling date / time	16-APR-2013 15:00	16-APR-2013 15:00	16-APR-2013 15:00	16-APR-2013 15:00	16-APR-2013 15:00
Compound	CAS Number	LOR	Unit		EB1309212-053	EB1309212-059	EB1309212-061	EB1309212-063	EB1309212-064
EP080: BTEXN									
^ **Total Xylenes**	1330-20-7	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
^ **Sum of BTEX**	----	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Naphthalene	91-20-3	1	mg/kg		<1	<1	<1	<1	<1
EP066S: PCB Surrogate									
Decachlorobiphenyl	2051-24-3	0.1	%		**82.9**	----	**80.8**	----	**73.7**
EP068S: Organochlorine Pesticide Surrogate									
Dibromo-DDE	21655-73-2	0.1	%		**84.6**	----	**88.2**	----	**87.3**
EP068T: Organophosphorus Pesticide Surrogate									
DEF	78-48-8	0.1	%		**77.4**	----	**71.8**	----	**74.3**
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.1	%		**123**	**119**	**119**	**123**	**120**
2-Chlorophenol-D4	93951-73-6	0.1	%		**122**	**116**	**117**	**120**	**118**
2.4.6-Tribromophenol	118-79-6	0.1	%		**98.0**	**88.8**	**96.4**	**96.4**	**91.7**
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.1	%		**142**	**135**	**137**	**142**	**136**
Anthracene-d10	1719-06-8	0.1	%		**84.1**	**83.1**	**83.8**	**85.8**	**84.4**
4-Terphenyl-d14	1718-51-0	0.1	%		**94.3**	**94.2**	**90.3**	**96.1**	**91.1**
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.1	%		**93.0**	**90.5**	**81.9**	**88.7**	**88.6**
Toluene-D8	2037-26-5	0.1	%		**98.0**	**94.0**	**92.9**	**101**	**90.0**
4-Bromofluorobenzene	460-00-4	0.1	%		**95.7**	**91.0**	**81.6**	**97.0**	**91.8**

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	SP05_08_160413	SP05_10_160413	QAQC_05_160513	QAQC_07_160513	QAQC_08_160513
				Client sampling date / time	16-APR-2013 15:00	16-APR-2013 15:00	16-APR-2013 15:00	16-APR-2013 15:00	16-APR-2013 15:00
Compound	CAS Number	LOR	Unit		EB1309212-066	EB1309212-068	EB1309212-072	EB1309212-073	EB1309212-074
EA055: Moisture Content									
Moisture Content (dried @ 103°C)	----	1.0	%		24.3	16.0	14.4	16.2	16.8
EG005T: Total Metals by ICP-AES									
Arsenic	7440-38-2	5	mg/kg		----	10	5	----	----
Barium	7440-39-3	10	mg/kg		----	340	160	----	----
Beryllium	7440-41-7	1	mg/kg		----	<1	<1	----	----
Cadmium	7440-43-9	1	mg/kg		----	<1	<1	----	----
Chromium	7440-47-3	2	mg/kg		----	49	22	----	----
Cobalt	7440-48-4	2	mg/kg		----	2	<2	----	----
Copper	7440-50-8	5	mg/kg		----	31	18	----	----
Lead	7439-92-1	5	mg/kg		----	55	18	----	----
Manganese	7439-96-5	5	mg/kg		----	88	49	----	----
Nickel	7440-02-0	2	mg/kg		----	9	5	----	----
Vanadium	7440-62-2	5	mg/kg		----	95	55	----	----
Zinc	7440-66-6	5	mg/kg		----	118	41	----	----
Arsenic	7440-38-2	5	mg/kg		9	----	----	<5	<5
Cadmium	7440-43-9	1	mg/kg		<1	----	----	<1	<1
Chromium	7440-47-3	2	mg/kg		43	----	----	37	25
Copper	7440-50-8	5	mg/kg		24	----	----	11	12
Lead	7439-92-1	5	mg/kg		45	----	----	8	8
Nickel	7440-02-0	2	mg/kg		6	----	----	8	7
Zinc	7440-66-6	5	mg/kg		102	----	----	37	30
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.1	mg/kg		<0.1	<0.1	<0.1	<0.1	<0.1
EG048: Hexavalent Chromium (Alkaline Digest)									
Hexavalent Chromium	18540-29-9	0.5	mg/kg		----	<0.5	<0.5	----	----
EP066: Polychlorinated Biphenyls (PCB)									
Total Polychlorinated biphenyls	----	0.1	mg/kg		----	<0.1	<0.1	----	----
EP068A: Organochlorine Pesticides (OC)									
alpha-BHC	319-84-6	0.05	mg/kg		----	<0.05	<0.05	----	----
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg		----	<0.05	<0.05	----	----
beta-BHC	319-85-7	0.05	mg/kg		----	<0.05	<0.05	----	----
gamma-BHC	58-89-9	0.05	mg/kg		----	<0.05	<0.05	----	----
delta-BHC	319-86-8	0.05	mg/kg		----	<0.05	<0.05	----	----

Analytical Results

Sub-Matrix: **SOIL** (Matrix: **SOIL**)

Compound	CAS Number	LOR	Unit	Client sample ID	SP05_08_160413	SP05_10_160413	QAQC_05_160513	QAQC_07_160513	QAQC_08_160513
				Client sampling date / time	16-APR-2013 15:00	16-APR-2013 15:00	16-APR-2013 15:00	16-APR-2013 15:00	16-APR-2013 15:00
					EB1309212-066	EB1309212-068	EB1309212-072	EB1309212-073	EB1309212-074
EP068A: Organochlorine Pesticides (OC) - Continued									
Heptachlor	76-44-8	0.05	mg/kg		----	<0.05	<0.05	----	----
Aldrin	309-00-2	0.05	mg/kg		----	<0.05	<0.05	----	----
Heptachlor epoxide	1024-57-3	0.05	mg/kg		----	<0.05	<0.05	----	----
trans-Chlordane	5103-74-2	0.05	mg/kg		----	<0.05	<0.05	----	----
alpha-Endosulfan	959-98-8	0.05	mg/kg		----	<0.05	<0.05	----	----
cis-Chlordane	5103-71-9	0.05	mg/kg		----	<0.05	<0.05	----	----
Dieldrin	60-57-1	0.05	mg/kg		----	**0.07**	<0.05	----	----
4.4`-DDE	72-55-9	0.05	mg/kg		----	<0.05	<0.05	----	----
Endrin	72-20-8	0.05	mg/kg		----	<0.05	<0.05	----	----
beta-Endosulfan	33213-65-9	0.05	mg/kg		----	<0.05	<0.05	----	----
4.4`-DDD	72-54-8	0.05	mg/kg		----	<0.05	<0.05	----	----
Endrin aldehyde	7421-93-4	0.05	mg/kg		----	<0.05	<0.05	----	----
Endosulfan sulfate	1031-07-8	0.05	mg/kg		----	<0.05	<0.05	----	----
4.4`-DDT	50-29-3	0.2	mg/kg		----	<0.2	<0.2	----	----
Endrin ketone	53494-70-5	0.05	mg/kg		----	<0.05	<0.05	----	----
Methoxychlor	72-43-5	0.2	mg/kg		----	<0.2	<0.2	----	----
EP075(SIM)A: Phenolic Compounds									
Phenol	108-95-2	0.5	mg/kg		----	<0.5	<0.5	----	----
2-Chlorophenol	95-57-8	0.5	mg/kg		----	<0.5	<0.5	----	----
2-Methylphenol	95-48-7	0.5	mg/kg		----	<0.5	<0.5	----	----
3- & 4-Methylphenol	1319-77-3	1	mg/kg		----	<1	<1	----	----
2-Nitrophenol	88-75-5	0.5	mg/kg		----	<0.5	<0.5	----	----
2.4-Dimethylphenol	105-67-9	0.5	mg/kg		----	<0.5	<0.5	----	----
2.4-Dichlorophenol	120-83-2	0.5	mg/kg		----	<0.5	<0.5	----	----
2.6-Dichlorophenol	87-65-0	0.5	mg/kg		----	<0.5	<0.5	----	----
4-Chloro-3-Methylphenol	59-50-7	0.5	mg/kg		----	<0.5	<0.5	----	----
2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg		----	<0.5	<0.5	----	----
2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg		----	<0.5	<0.5	----	----
Pentachlorophenol	87-86-5	2	mg/kg		----	<2	<2	----	----
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthylene	208-96-8	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthene	83-32-9	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Fluorene	86-73-7	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	SP05_08_160413	SP05_10_160413	QAQC_05_160513	QAQC_07_160513	QAQC_08_160513
				Client sampling date / time	16-APR-2013 15:00	16-APR-2013 15:00	16-APR-2013 15:00	16-APR-2013 15:00	16-APR-2013 15:00
Compound	CAS Number	LOR	Unit		EB1309212-066	EB1309212-068	EB1309212-072	EB1309212-073	EB1309212-074
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued									
Phenanthrene	85-01-8	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Anthracene	120-12-7	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Fluoranthene	206-44-0	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Pyrene	129-00-0	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Benz(a)anthracene	56-55-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Chrysene	218-01-9	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(b)fluoranthene	205-99-2	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene	50-32-8	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ (WHO)	----	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	10	mg/kg		<10	<10	<10	<10	<10
C10 - C14 Fraction	----	50	mg/kg		<50	<50	<50	<50	<50
C15 - C28 Fraction	----	100	mg/kg		<100	<100	<100	<100	<100
C29 - C36 Fraction	----	100	mg/kg		<100	<100	<100	<100	<100
^ C10 - C36 Fraction (sum)	----	50	mg/kg		<50	<50	<50	<50	<50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2010 Draft									
C6 - C10 Fraction	----	10	mg/kg		<10	<10	<10	<10	<10
^ C6 - C10 Fraction minus BTEX (F1)	----	10	mg/kg		<10	<10	<10	<10	<10
>C10 - C16 Fraction	----	50	mg/kg		<50	<50	<50	<50	<50
>C16 - C34 Fraction	----	100	mg/kg		<100	<100	<100	<100	<100
>C34 - C40 Fraction	----	100	mg/kg		<100	<100	<100	<100	<100
^ >C10 - C40 Fraction (sum)	----	50	mg/kg		<50	<50	<50	<50	<50
EP080: BTEX									
Benzene	71-43-2	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	108-88-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	100-41-4	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
ortho-Xylene	95-47-6	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	SP05_08_160413	SP05_10_160413	QAQC_05_160513	QAQC_07_160513	QAQC_08_160513
				Client sampling date / time	16-APR-2013 15:00	16-APR-2013 15:00	16-APR-2013 15:00	16-APR-2013 15:00	16-APR-2013 15:00
Compound	CAS Number	LOR	Unit		EB1309212-066	EB1309212-068	EB1309212-072	EB1309212-073	EB1309212-074
EP080: BTEXN									
^ **Total Xylenes**	1330-20-7	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
^ **Sum of BTEX**	----	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Naphthalene	91-20-3	1	mg/kg		<1	<1	<1	<1	<1
EP066S: PCB Surrogate									
Decachlorobiphenyl	2051-24-3	0.1	%		----	**95.9**	**79.5**	----	----
EP068S: Organochlorine Pesticide Surrogate									
Dibromo-DDE	21655-73-2	0.1	%		----	**95.8**	**86.7**	----	----
EP068T: Organophosphorus Pesticide Surrogate									
DEF	78-48-8	0.1	%		----	**84.8**	**74.4**	----	----
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.1	%		**120**	**133**	**127**	**125**	**126**
2-Chlorophenol-D4	93951-73-6	0.1	%		**116**	**129**	**125**	**123**	**124**
2.4.6-Tribromophenol	118-79-6	0.1	%		**92.0**	**82.0**	**112**	**108**	**111**
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.1	%		**120**	**141**	**148**	**145**	**147**
Anthracene-d10	1719-06-8	0.1	%		**108**	**82.7**	**88.0**	**85.6**	**89.5**
4-Terphenyl-d14	1718-51-0	0.1	%		**116**	**103**	**97.3**	**97.9**	**99.4**
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.1	%		**92.9**	**91.0**	**86.1**	**90.4**	**81.2**
Toluene-D8	2037-26-5	0.1	%		**94.7**	**93.3**	**92.2**	**105**	**94.3**
4-Bromofluorobenzene	460-00-4	0.1	%		**92.6**	**92.3**	**89.5**	**91.2**	**84.4**

Surrogate Control Limits

Sub-Matrix: LIQUID		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP075(SIM)S: Phenolic Compound Surrogates			
Phenol-d6	13127-88-3	10.0	71.9
2-Chlorophenol-D4	93951-73-6	26.8	130.2
2.4.6-Tribromophenol	118-79-6	19.3	180.8
EP075(SIM)T: PAH Surrogates			
2-Fluorobiphenyl	321-60-8	13.9	146.1
Anthracene-d10	1719-06-8	34.6	137.4
4-Terphenyl-d14	1718-51-0	36.2	154.2
EP080S: TPH(V)/BTEX Surrogates			
1.2-Dichloroethane-D4	17060-07-0	66.1	137.9
Toluene-D8	2037-26-5	79.2	119.6
4-Bromofluorobenzene	460-00-4	74.2	118.0

Sub-Matrix: SOIL		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP066S: PCB Surrogate			
Decachlorobiphenyl	2051-24-3	16.2	133.7
EP068S: Organochlorine Pesticide Surrogate			
Dibromo-DDE	21655-73-2	10	138
EP068T: Organophosphorus Pesticide Surrogate			
DEF	78-48-8	22.8	134.5
EP075(SIM)S: Phenolic Compound Surrogates			
Phenol-d6	13127-88-3	34.8	154.5
2-Chlorophenol-D4	93951-73-6	41.9	152.8
2.4.6-Tribromophenol	118-79-6	26.0	156.8
EP075(SIM)T: PAH Surrogates			
2-Fluorobiphenyl	321-60-8	33.8	156.5
Anthracene-d10	1719-06-8	36.9	153.1
4-Terphenyl-d14	1718-51-0	41.8	172.2
EP080S: TPH(V)/BTEX Surrogates			
1.2-Dichloroethane-D4	17060-07-0	52.7	133.7
Toluene-D8	2037-26-5	60.3	131.1
4-Bromofluorobenzene	460-00-4	59.2	126.6

Environmental Division

QUALITY CONTROL REPORT

Work Order	: **EB1309212**	Page	: 1 of 20
Client	: **URS AUSTRALIA**	Laboratory	: Environmental Division Brisbane
Contact	: MR ANDREW PIGGIN	Contact	: Customer Services
Address	: G P O BOX 2005 DARWIN NT, AUSTRALIA 0801	Address	: 2 Byth Street Stafford QLD Australia 4053
E-mail	: andrew.piggin@urs.com	E-mail	: Brisbane.Enviro.Services@alsglobal.com
Telephone	: +61 08 8080 2900	Telephone	: +61 7 3243 7222
Facsimile	: ----	Facsimile	: +61 7 3243 7218
Project	: 42213719 7	QC Level	: NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Site	: ----		
C-O-C number	: DARWIN WATERFRONT PROJECT	Date Samples Received	: 17-APR-2013
Sampler	: Bek Aagaard	Issue Date	: 26-APR-2013
Order number	: ----		
		No. of samples received	: 67
Quote number	: EN/038/10	No. of samples analysed	: 36

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 Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percentage Difference (RPD) and Acceptance Limits
- Method Blank (MB) and Laboratory Control Spike (LCS) Report; Recovery and Acceptance Limits
- Matrix Spike (MS) Report; Recovery and Acceptance Limits

NATA Accredited Laboratory 825

Accredited for compliance with ISO/IEC 17025.

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*
Matt Frost	Senior Organic Chemist	Brisbane Inorganics
Matt Frost	Senior Organic Chemist	Brisbane Organics
Matt Frost	Senior Organic Chemist	Brisbane Organics
Minh Wills	Organic Chemist	Brisbane Organics
Stephen Hislop	Senior Inorganic Chemist	Brisbane Inorganics
Stephen Hislop	Senior Inorganic Chemist	Brisbane Inorganics
Stephen Hislop	Senior Inorganic Chemist	Brisbane Inorganics

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.

Key : Anonymous = Refers to samples which are not specifically part of this work order but formed part of the QC process lot
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
RPD = Relative Percentage Difference
# = Indicates failed QC

Laboratory Duplicate (DUP) Report

The quality control term Laboratory Duplicate refers to a randomly selected intralaboratory split. Laboratory duplicates provide information regarding method precision and sample heterogeneity. The permitted ranges for the Relative Percent Deviation (RPD) of Laboratory Duplicates are specified in ALS Method QWI-EN/38 and are dependent on the magnitude of results in comparison to the level of reporting: Result < 10 times LOR:- No Limit; Result between 10 and 20 times LOR:- 0% - 50%; Result > 20 times LOR:- 0% - 20%.

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Client sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Recovery Limits (%)*
EA055: Moisture Content (QC Lot: 2829152)									
EB1309199-002	Anonymous	EA055-103: Moisture Content (dried @ 103°C)	----	1.0	%	Anonymous	Anonymous	Anonymous	Anonymous
EB1309212-012	SP03_12_160413	EA055-103: Moisture Content (dried @ 103°C)	----	1.0	%	17.7	17.8	0.6	0% - 50%
EA055: Moisture Content (QC Lot: 2829153)									
EB1309212-040	SP03_40_160413	EA055-103: Moisture Content (dried @ 103°C)	----	1.0	%	13.9	13.8	0.0	0% - 50%
EB1309212-053	SP04_03_160413	EA055-103: Moisture Content (dried @ 103°C)	----	1.0	%	12.9	12.9	0.0	0% - 50%
EG005T: Total Metals by ICP-AES (QC Lot: 2829138)									
EB1309212-001	SP03_01_160413	EG005T: Beryllium	7440-41-7	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Barium	7440-39-3	10	mg/kg	50	40	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	20	34	# 52.6	0% - 50%
		EG005T: Cobalt	7440-48-4	2	mg/kg	2	<2	0.0	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	7	7	0.0	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	5	6	0.0	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	22	21	5.3	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	30	19	44.2	No Limit
		EG005T: Manganese	7439-96-5	5	mg/kg	101	53	# 61.9	0% - 20%
		EG005T: Vanadium	7440-62-2	5	mg/kg	39	76	# 64.1	0% - 50%
		EG005T: Zinc	7440-66-6	5	mg/kg	62	56	9.4	0% - 50%
EB1309212-022	SP03_22_160413	EG005T: Beryllium	7440-41-7	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Barium	7440-39-3	10	mg/kg	50	50	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	58	46	# 23.5	0% - 20%
		EG005T: Cobalt	7440-48-4	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	4	5	0.0	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	9	7	29.1	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	13	18	30.4	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	28	32	15.4	No Limit
		EG005T: Manganese	7439-96-5	5	mg/kg	41	48	15.6	No Limit
		EG005T: Vanadium	7440-62-2	5	mg/kg	106	97	9.1	0% - 20%
		EG005T: Zinc	7440-66-6	5	mg/kg	61	67	9.7	0% - 50%
EG005T: Total Metals by ICP-AES (QC Lot: 2829140)									
EB1309212-043	SP03_43_160413	EG005T: Beryllium	7440-41-7	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Barium	7440-39-3	10	mg/kg	40	40	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	55	58	6.4	0% - 20%
		EG005T: Cobalt	7440-48-4	2	mg/kg	<2	2	0.0	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Client sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Recovery Limits (%)*
EG005T: Total Metals by ICP-AES (QC Lot: 2829140) - continued									
EB1309212-043	SP03_43_160413	EG005T: Nickel	7440-02-0	2	mg/kg	5	6	0.0	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	11	9	14.0	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	17	17	0.0	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	20	40	65.8	No Limit
		EG005T: Manganese	7439-96-5	5	mg/kg	78	71	9.8	0% - 50%
		EG005T: Vanadium	7440-62-2	5	mg/kg	90	110	20.0	0% - 20%
		EG005T: Zinc	7440-66-6	5	mg/kg	31	62	# 67.1	0% - 50%
EB1309212-066	SP05_08_160413	EG005T: Beryllium	7440-41-7	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Barium	7440-39-3	10	mg/kg	320	310	4.7	0% - 20%
		EG005T: Chromium	7440-47-3	2	mg/kg	43	38	13.1	0% - 20%
		EG005T: Cobalt	7440-48-4	2	mg/kg	<2	2	0.0	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	6	8	27.8	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	9	9	0.0	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	24	24	0.0	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	45	63	32.7	0% - 50%
		EG005T: Manganese	7439-96-5	5	mg/kg	83	84	2.1	0% - 50%
		EG005T: Vanadium	7440-62-2	5	mg/kg	94	82	13.7	0% - 50%
		EG005T: Zinc	7440-66-6	5	mg/kg	102	103	1.2	0% - 20%
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 2829139)									
EB1309212-001	SP03_01_160413	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EB1309212-022	SP03_22_160413	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 2829141)									
EB1309212-043	SP03_43_160413	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EB1309212-066	SP05_08_160413	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EG048: Hexavalent Chromium (Alkaline Digest) (QC Lot: 2829112)									
EB1309212-002	SP03_02_160413	EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
EB1309212-043	SP03_43_160413	EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
EP066: Polychlorinated Biphenyls (PCB) (QC Lot: 2829114)									
EB1309212-002	SP03_02_160413	EP066: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EB1309212-043	SP03_43_160413	EP066: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EP068A: Organochlorine Pesticides (OC) (QC Lot: 2829113)									
EB1309212-002	SP03_02_160413	EP068: alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	0.0	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Client sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Recovery Limits (%)*
EP068A: Organochlorine Pesticides (OC) (QC Lot: 2829113) - continued									
EB1309212-002	SP03_02_160413	EP068: trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: 4.4`-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: 4.4`-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: 4.4`-DDT	50-29-3	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP068: Methoxychlor	72-43-5	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
EB1309212-043	SP03_43_160413	EP068: alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: 4.4`-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: 4.4`-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: 4.4`-DDT	50-29-3	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP068: Methoxychlor	72-43-5	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
EP075(SIM)A: Phenolic Compounds (QC Lot: 2829098)									
EB1309212-001	SP03_01_160413	EP075(SIM): Phenol	108-95-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Client sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Recovery Limits (%)*
EP075(SIM)A: Phenolic Compounds (QC Lot: 2829098) - continued									
EB1309212-001	SP03_01_160413	EP075(SIM): 2.6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 4-Chloro-3-Methylphenol	59-50-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	0.0	No Limit
		EP075(SIM): Pentachlorophenol	87-86-5	2	mg/kg	<2	<2	0.0	No Limit
EB1309212-022	SP03_22_160413	EP075(SIM): Phenol	108-95-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 4-Chloro-3-Methylphenol	59-50-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	0.0	No Limit
		EP075(SIM): Pentachlorophenol	87-86-5	2	mg/kg	<2	<2	0.0	No Limit
EP075(SIM)A: Phenolic Compounds (QC Lot: 2829101)									
EB1309212-043	SP03_43_160413	EP075(SIM): Phenol	108-95-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 4-Chloro-3-Methylphenol	59-50-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	0.0	No Limit
		EP075(SIM): Pentachlorophenol	87-86-5	2	mg/kg	<2	<2	0.0	No Limit
EB1309212-066	SP05_08_160413	EP075(SIM): Phenol	108-95-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 4-Chloro-3-Methylphenol	59-50-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Client sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Recovery Limits (%)*
EP075(SIM)A: Phenolic Compounds (QC Lot: 2829101) - continued									
EB1309212-066	SP05_08_160413	EP075(SIM): 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	0.0	No Limit
		EP075(SIM): Pentachlorophenol	87-86-5	2	mg/kg	<2	<2	0.0	No Limit
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QC Lot: 2829098)									
EB1309212-001	SP03_01_160413	EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(b)fluoranthene	205-99-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(a)pyrene TEQ (WHO)	----	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
EB1309212-022	SP03_22_160413	EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(b)fluoranthene	205-99-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(a)pyrene TEQ (WHO)	----	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QC Lot: 2829101)									
EB1309212-043	SP03_43_160413	EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Client sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Recovery Limits (%)*
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QC Lot: 2829101) - continued									
EB1309212-043	SP03_43_160413	EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(b)fluoranthene	205-99-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(a)pyrene TEQ (WHO)	----	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
EB1309212-066	SP05_08_160413	EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(b)fluoranthene	205-99-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(a)pyrene TEQ (WHO)	----	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 2829084)									
EB1309212-001	SP03_01_160413	EP080: C6 - C9 Fraction	----	10	mg/kg	<10	<10	0.0	No Limit
EB1309212-022	SP03_22_160413	EP080: C6 - C9 Fraction	----	10	mg/kg	<10	<10	0.0	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 2829085)									
EB1309212-043	SP03_43_160413	EP080: C6 - C9 Fraction	----	10	mg/kg	<10	<10	0.0	No Limit
EB1309212-066	SP05_08_160413	EP080: C6 - C9 Fraction	----	10	mg/kg	<10	<10	0.0	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 2829097)									
EB1309212-001	SP03_01_160413	EP071: C15 - C28 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: C29 - C36 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: C10 - C14 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Client sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Recovery Limits (%)*
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 2829097) - continued									
EB1309212-022	SP03_22_160413	EP071: C15 - C28 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: C29 - C36 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: C10 - C14 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 2829100)									
EB1309212-043	SP03_43_160413	EP071: C15 - C28 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: C29 - C36 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: C10 - C14 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
EB1309212-066	SP05_08_160413	EP071: C15 - C28 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: C29 - C36 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: C10 - C14 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
EP080/071: Total Recoverable Hydrocarbons - NEPM 2010 Draft (QC Lot: 2829084)									
EB1309212-001	SP03_01_160413	EP080: C6 - C10 Fraction	----	10	mg/kg	<10	<10	0.0	No Limit
EB1309212-022	SP03_22_160413	EP080: C6 - C10 Fraction	----	10	mg/kg	<10	<10	0.0	No Limit
EP080/071: Total Recoverable Hydrocarbons - NEPM 2010 Draft (QC Lot: 2829085)									
EB1309212-043	SP03_43_160413	EP080: C6 - C10 Fraction	----	10	mg/kg	<10	<10	0.0	No Limit
EB1309212-066	SP05_08_160413	EP080: C6 - C10 Fraction	----	10	mg/kg	<10	<10	0.0	No Limit
EP080/071: Total Recoverable Hydrocarbons - NEPM 2010 Draft (QC Lot: 2829097)									
EB1309212-001	SP03_01_160413	EP071: >C16 - C34 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: >C34 - C40 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: >C10 - C16 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
EB1309212-022	SP03_22_160413	EP071: >C16 - C34 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: >C34 - C40 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: >C10 - C16 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
EP080/071: Total Recoverable Hydrocarbons - NEPM 2010 Draft (QC Lot: 2829100)									
EB1309212-043	SP03_43_160413	EP071: >C16 - C34 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: >C34 - C40 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: >C10 - C16 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
EB1309212-066	SP05_08_160413	EP071: >C16 - C34 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: >C34 - C40 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: >C10 - C16 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
EP080: BTEXN (QC Lot: 2829084)									
EB1309212-001	SP03_01_160413	EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: Naphthalene	91-20-3	1	mg/kg	<1	<1	0.0	No Limit
EB1309212-022	SP03_22_160413	EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)
EP080: BTEXN (QC Lot: 2829084) - continued									
EB1309212-022	SP03_22_160413	EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: Naphthalene	91-20-3	1	mg/kg	<1	<1	0.0	No Limit
EP080: BTEXN (QC Lot: 2829085)									
EB1309212-043	SP03_43_160413	EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: Naphthalene	91-20-3	1	mg/kg	<1	<1	0.0	No Limit
EB1309212-066	SP05_08_160413	EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: Naphthalene	91-20-3	1	mg/kg	<1	<1	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)
EG020F: Dissolved Metals by ICP-MS (QC Lot: 2831330)									
EB1309067-001	Anonymous	EG020A-F: Cadmium	7440-43-9	0.0001	mg/L	Anonymous	Anonymous	Anonymous	Anonymous
		EG020A-F: Arsenic	7440-38-2	0.001	mg/L	Anonymous	Anonymous	Anonymous	Anonymous
		EG020A-F: Chromium	7440-47-3	0.001	mg/L	Anonymous	Anonymous	Anonymous	Anonymous
		EG020A-F: Copper	7440-50-8	0.001	mg/L	Anonymous	Anonymous	Anonymous	Anonymous
		EG020A-F: Lead	7439-92-1	0.001	mg/L	Anonymous	Anonymous	Anonymous	Anonymous
		EG020A-F: Nickel	7440-02-0	0.001	mg/L	Anonymous	Anonymous	Anonymous	Anonymous
		EG020A-F: Zinc	7440-66-6	0.005	mg/L	Anonymous	Anonymous	Anonymous	Anonymous
EB1309067-010	Anonymous	EG020A-F: Cadmium	7440-43-9	0.0001	mg/L	Anonymous	Anonymous	Anonymous	Anonymous
		EG020A-F: Arsenic	7440-38-2	0.001	mg/L	Anonymous	Anonymous	Anonymous	Anonymous
		EG020A-F: Chromium	7440-47-3	0.001	mg/L	Anonymous	Anonymous	Anonymous	Anonymous
		EG020A-F: Copper	7440-50-8	0.001	mg/L	Anonymous	Anonymous	Anonymous	Anonymous
		EG020A-F: Lead	7439-92-1	0.001	mg/L	Anonymous	Anonymous	Anonymous	Anonymous
		EG020A-F: Nickel	7440-02-0	0.001	mg/L	Anonymous	Anonymous	Anonymous	Anonymous
		EG020A-F: Zinc	7440-66-6	0.005	mg/L	Anonymous	Anonymous	Anonymous	Anonymous
EG035F: Dissolved Mercury by FIMS (QC Lot: 2831329)									
EB1309041-001	Anonymous	EG035F: Mercury	7439-97-6	0.0001	mg/L	Anonymous	Anonymous	Anonymous	Anonymous
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 2829055)									

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Client sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Recovery Limits (%)*
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 2829055) - continued									
EB1309098-001	Anonymous	EP080: C6 - C9 Fraction	----	20	µg/L	Anonymous	Anonymous	Anonymous	Anonymous
EB1309236-003	Anonymous	EP080: C6 - C9 Fraction	----	20	µg/L	Anonymous	Anonymous	Anonymous	Anonymous
EP080/071: Total Recoverable Hydrocarbons - NEPM 2010 Draft (QC Lot: 2829055)									
EB1309098-001	Anonymous	EP080: C6 - C10 Fraction	----	20	µg/L	Anonymous	Anonymous	Anonymous	Anonymous
EB1309236-003	Anonymous	EP080: C6 - C10 Fraction	----	20	µg/L	Anonymous	Anonymous	Anonymous	Anonymous
EP080: BTEXN (QC Lot: 2829055)									
EB1309098-001	Anonymous	EP080: Benzene	71-43-2	1	µg/L	Anonymous	Anonymous	Anonymous	Anonymous
		EP080: Toluene	108-88-3	2	µg/L	Anonymous	Anonymous	Anonymous	Anonymous
		EP080: Ethylbenzene	100-41-4	2	µg/L	Anonymous	Anonymous	Anonymous	Anonymous
		EP080: meta- & para-Xylene	108-38-3 106-42-3	2	µg/L	Anonymous	Anonymous	Anonymous	Anonymous
		EP080: ortho-Xylene	95-47-6	2	µg/L	Anonymous	Anonymous	Anonymous	Anonymous
		EP080: Naphthalene	91-20-3	5	µg/L	Anonymous	Anonymous	Anonymous	Anonymous
EB1309236-003	Anonymous	EP080: Benzene	71-43-2	1	µg/L	Anonymous	Anonymous	Anonymous	Anonymous
		EP080: Toluene	108-88-3	2	µg/L	Anonymous	Anonymous	Anonymous	Anonymous
		EP080: Ethylbenzene	100-41-4	2	µg/L	Anonymous	Anonymous	Anonymous	Anonymous
		EP080: meta- & para-Xylene	108-38-3 106-42-3	2	µg/L	Anonymous	Anonymous	Anonymous	Anonymous
		EP080: ortho-Xylene	95-47-6	2	µg/L	Anonymous	Anonymous	Anonymous	Anonymous
		EP080: Naphthalene	91-20-3	5	µg/L	Anonymous	Anonymous	Anonymous	Anonymous

Method Blank (MB) and Laboratory Control Spike (LCS) Report

The quality control term Method / Laboratory Blank refers to an analyte free matrix to which all reagents are added in the same volumes or proportions as used in standard sample preparation. The purpose of this QC parameter is to monitor potential laboratory contamination. The quality control term Laboratory Control Sample (LCS) refers to a certified reference material, or a known interference free matrix spiked with target analytes. The purpose of this QC parameter is to monitor method precision and accuracy independent of sample matrix. Dynamic Recovery Limits are based on statistical evaluation of processed LCS.

Sub-Matrix: **SOIL**

				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Recovery Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	Low	High
EG005T: Total Metals by ICP-AES (QCLot: 2829138)								
EG005T: Arsenic	7440-38-2	5	mg/kg	<5	21.7 mg/kg	92.2	77	127
EG005T: Barium	7440-39-3	10	mg/kg	<10	143 mg/kg	102	76	130
EG005T: Beryllium	7440-41-7	1	mg/kg	<1	5.63 mg/kg	98.7	78	130
EG005T: Cadmium	7440-43-9	1	mg/kg	<1	4.64 mg/kg	89.6	76	122
EG005T: Chromium	7440-47-3	2	mg/kg	<2	43.9 mg/kg	101	73	127
EG005T: Cobalt	7440-48-4	2	mg/kg	<2	16.0 mg/kg	94.2	70	130
EG005T: Copper	7440-50-8	5	mg/kg	<5	32.0 mg/kg	91.2	80	122
EG005T: Lead	7439-92-1	5	mg/kg	<5	40.0 mg/kg	92.7	77	121
EG005T: Manganese	7439-96-5	5	mg/kg	<5	130 mg/kg	73.6	73	117
EG005T: Nickel	7440-02-0	2	mg/kg	<2	55.0 mg/kg	97.6	80	126
EG005T: Vanadium	7440-62-2	5	mg/kg	<5	29.6 mg/kg	97.1	79	127
EG005T: Zinc	7440-66-6	5	mg/kg	<5	60.8 mg/kg	106	77	127
EG005T: Total Metals by ICP-AES (QCLot: 2829140)								
EG005T: Arsenic	7440-38-2	5	mg/kg	<5	21.7 mg/kg	90.9	77	127
EG005T: Barium	7440-39-3	10	mg/kg	<10	143 mg/kg	96.0	76	130
EG005T: Beryllium	7440-41-7	1	mg/kg	<1	5.63 mg/kg	97.8	78	130
EG005T: Cadmium	7440-43-9	1	mg/kg	<1	4.64 mg/kg	88.5	76	122
EG005T: Chromium	7440-47-3	2	mg/kg	<2	43.9 mg/kg	93.0	73	127
EG005T: Cobalt	7440-48-4	2	mg/kg	<2	16.0 mg/kg	92.8	70	130
EG005T: Copper	7440-50-8	5	mg/kg	<5	32.0 mg/kg	96.4	80	122
EG005T: Lead	7439-92-1	5	mg/kg	<5	40.0 mg/kg	87.7	77	121
EG005T: Manganese	7439-96-5	5	mg/kg	<5	130 mg/kg	83.7	73	117
EG005T: Nickel	7440-02-0	2	mg/kg	<2	55.0 mg/kg	96.9	80	126
EG005T: Vanadium	7440-62-2	5	mg/kg	<5	29.6 mg/kg	96.1	79	127
EG005T: Zinc	7440-66-6	5	mg/kg	<5	60.8 mg/kg	92.7	77	127
EG035T: Total Recoverable Mercury by FIMS (QCLot: 2829139)								
EG035T: Mercury	7439-97-6	0.10	mg/kg	<0.1	2.57 mg/kg	82.4	70	130
EG035T: Total Recoverable Mercury by FIMS (QCLot: 2829141)								
EG035T: Mercury	7439-97-6	0.10	mg/kg	<0.1	2.57 mg/kg	82.4	70	130
EG048: Hexavalent Chromium (Alkaline Digest) (QCLot: 2829112)								
EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	40 mg/kg	86.7	80	116
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 2829114)								
EP066: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	1 mg/kg	81.9	61	118
EP068A: Organochlorine Pesticides (OC) (QCLot: 2829113)								

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Recovery Limits (%): Low	Recovery Limits (%): High
EP068A: Organochlorine Pesticides (OC) (QCLot: 2829113) - continued								
EP068: alpha-BHC	319-84-6	0.05	mg/kg	<0.05	0.5 mg/kg	109	58	121
EP068: Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	0.5 mg/kg	106	57	112
EP068: beta-BHC	319-85-7	0.05	mg/kg	<0.05	0.5 mg/kg	94.0	54	121
EP068: gamma-BHC	58-89-9	0.05	mg/kg	<0.05	0.5 mg/kg	91.3	60	136
EP068: delta-BHC	319-86-8	0.05	mg/kg	<0.05	0.5 mg/kg	117	66	122
EP068: Heptachlor	76-44-8	0.05	mg/kg	<0.05	0.5 mg/kg	104	70	130
EP068: Aldrin	309-00-2	0.05	mg/kg	<0.05	0.5 mg/kg	116	75	130
EP068: Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	0.5 mg/kg	113	59	118
EP068: trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	0.5 mg/kg	103	61	119
EP068: alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	0.5 mg/kg	111	54	125
EP068: cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	0.5 mg/kg	106	61	118
EP068: Dieldrin	60-57-1	0.05	mg/kg	<0.05	0.5 mg/kg	99.8	72	136
EP068: 4.4`-DDE	72-55-9	0.05	mg/kg	<0.05	0.5 mg/kg	104	67	121
EP068: Endrin	72-20-8	0.05	mg/kg	<0.05	0.5 mg/kg	85.9	65	150
EP068: beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	0.5 mg/kg	117	61	122
EP068: 4.4`-DDD	72-54-8	0.05	mg/kg	<0.05	0.5 mg/kg	99.8	60	123
EP068: Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	0.5 mg/kg	85.6	38	125
EP068: Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	0.5 mg/kg	109	52	125
EP068: 4.4`-DDT	50-29-3	0.05	mg/kg	----	0.5 mg/kg	# 68.6	80	155
		0.2	mg/kg	<0.2	----	----	----	----
EP068: Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	0.5 mg/kg	97.8	55	129
EP068: Methoxychlor	72-43-5	0.05	mg/kg	----	0.5 mg/kg	109	47	136
		0.2	mg/kg	<0.2	----	----	----	----
EP075(SIM)A: Phenolic Compounds (QCLot: 2829098)								
EP075(SIM): Phenol	108-95-2	0.5	mg/kg	<0.5	5.0 mg/kg	117	85	129
EP075(SIM): 2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	5.0 mg/kg	114	85	127
EP075(SIM): 2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	5.0 mg/kg	112	67	124
EP075(SIM): 3- & 4-Methylphenol	1319-77-3	1.0	mg/kg	<1	10 mg/kg	114	62	125
EP075(SIM): 2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	5.0 mg/kg	113	44	130
EP075(SIM): 2.4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	5.0 mg/kg	105	63	121
EP075(SIM): 2.4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	5.0 mg/kg	112	54	121
EP075(SIM): 2.6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	5.0 mg/kg	89.7	63	124
EP075(SIM): 4-Chloro-3-Methylphenol	59-50-7	0.5	mg/kg	<0.5	5.0 mg/kg	82.8	60	126
EP075(SIM): 2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	5.0 mg/kg	83.5	50	121
EP075(SIM): 2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	5.0 mg/kg	73.6	49	121
EP075(SIM): Pentachlorophenol	87-86-5	2.0	mg/kg	<2	10 mg/kg	44.7	20	100
EP075(SIM)A: Phenolic Compounds (QCLot: 2829101)								
EP075(SIM): Phenol	108-95-2	0.5	mg/kg	<0.5	5.0 mg/kg	118	85	129
EP075(SIM): 2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	5.0 mg/kg	115	85	127
EP075(SIM): 2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	5.0 mg/kg	118	67	124

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Recovery Limits (%)	
				Result	Concentration	LCS	Low	High
EP075(SIM)A: Phenolic Compounds (QCLot: 2829101) - continued								
EP075(SIM): 3- & 4-Methylphenol	1319-77-3	1.0	mg/kg	<1	10 mg/kg	118	62	125
EP075(SIM): 2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	5.0 mg/kg	110	44	130
EP075(SIM): 2.4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	5.0 mg/kg	121	63	121
EP075(SIM): 2.4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	5.0 mg/kg	114	54	121
EP075(SIM): 2.6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	5.0 mg/kg	117	63	124
EP075(SIM): 4-Chloro-3-Methylphenol	59-50-7	0.5	mg/kg	<0.5	5.0 mg/kg	121	60	126
EP075(SIM): 2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	5.0 mg/kg	116	50	121
EP075(SIM): 2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	5.0 mg/kg	112	49	121
EP075(SIM): Pentachlorophenol	87-86-5	2.0	mg/kg	<2	10 mg/kg	68.4	20	100
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 2829098)								
EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	5.0 mg/kg	91.8	71	119
EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	5.0 mg/kg	92.4	67	118
EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	5.0 mg/kg	111	83	121
EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	5.0 mg/kg	114	76	116
EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	5.0 mg/kg	114	72	117
EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	5.0 mg/kg	114	70	115
EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	5.0 mg/kg	# 124	69	116
EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	5.0 mg/kg	122	69	134
EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	5.0 mg/kg	# 125	61	120
EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	5.0 mg/kg	# 126	62	119
EP075(SIM): Benzo(b)fluoranthene	205-99-2	0.5	mg/kg	<0.5	5.0 mg/kg	112	49	129
EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	5.0 mg/kg	95.5	64	129
EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	5.0 mg/kg	118	65	121
EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	5.0 mg/kg	118	51	135
EP075(SIM): Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	5.0 mg/kg	114	45	134
EP075(SIM): Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	5.0 mg/kg	120	53	133
EP075(SIM): Benzo(a)pyrene TEQ (WHO)	----	0.5	mg/kg	<0.5	----	----	----	----
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 2829101)								
EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	5.0 mg/kg	115	71	119
EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	5.0 mg/kg	# 121	67	118
EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	5.0 mg/kg	111	83	121
EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	5.0 mg/kg	96.8	76	116
EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	5.0 mg/kg	108	72	117
EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	5.0 mg/kg	89.2	70	115
EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	5.0 mg/kg	87.8	69	116
EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	5.0 mg/kg	88.6	69	134
EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	5.0 mg/kg	92.5	61	120
EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	5.0 mg/kg	89.6	62	119
EP075(SIM): Benzo(b)fluoranthene	205-99-2	0.5	mg/kg	<0.5	5.0 mg/kg	119	49	129
EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	5.0 mg/kg	103	64	129

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Recovery Limits (%)	
				Result	Concentration	LCS	Low	High
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 2829101) - continued								
EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	5.0 mg/kg	99.2	65	121
EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	5.0 mg/kg	93.6	51	135
EP075(SIM): Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	5.0 mg/kg	83.2	45	134
EP075(SIM): Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	5.0 mg/kg	126	53	133
EP075(SIM): Benzo(a)pyrene TEQ (WHO)	----	0.5	mg/kg	<0.5	----	----	----	----
EP080/071: Total Petroleum Hydrocarbons (QCLot: 2829084)								
EP080: C6 - C9 Fraction	----	10	mg/kg	<10	16 mg/kg	97.2	66	124
EP080/071: Total Petroleum Hydrocarbons (QCLot: 2829085)								
EP080: C6 - C9 Fraction	----	10	mg/kg	<10	16 mg/kg	89.4	66	124
EP080/071: Total Petroleum Hydrocarbons (QCLot: 2829097)								
EP071: C10 - C14 Fraction	----	50	mg/kg	<50	312 mg/kg	106	84	117
EP071: C15 - C28 Fraction	----	100	mg/kg	<100	500 mg/kg	107	80	118
EP071: C29 - C36 Fraction	----	100	mg/kg	<100	----	----	----	----
EP080/071: Total Petroleum Hydrocarbons (QCLot: 2829100)								
EP071: C10 - C14 Fraction	----	50	mg/kg	<50	312 mg/kg	101	84	117
EP071: C15 - C28 Fraction	----	100	mg/kg	<100	500 mg/kg	96.2	80	118
EP071: C29 - C36 Fraction	----	100	mg/kg	<100	----	----	----	----
EP080/071: Total Recoverable Hydrocarbons - NEPM 2010 Draft (QCLot: 2829084)								
EP080: C6 - C10 Fraction	----	10	mg/kg	<10	18.5 mg/kg	104	66	126
EP080/071: Total Recoverable Hydrocarbons - NEPM 2010 Draft (QCLot: 2829085)								
EP080: C6 - C10 Fraction	----	10	mg/kg	<10	18.5 mg/kg	89.8	66	126
EP080/071: Total Recoverable Hydrocarbons - NEPM 2010 Draft (QCLot: 2829097)								
EP071: >C10 - C16 Fraction	----	50	mg/kg	<50	413 mg/kg	111	86	117
EP071: >C16 - C34 Fraction	----	100	mg/kg	<100	360 mg/kg	98.9	72	113
EP071: >C34 - C40 Fraction	----	100	mg/kg	<100	----	----	----	----
EP080/071: Total Recoverable Hydrocarbons - NEPM 2010 Draft (QCLot: 2829100)								
EP071: >C10 - C16 Fraction	----	50	mg/kg	<50	413 mg/kg	103	86	117
EP071: >C16 - C34 Fraction	----	100	mg/kg	<100	360 mg/kg	91.6	72	113
EP071: >C34 - C40 Fraction	----	100	mg/kg	<100	----	----	----	----
EP080: BTEXN (QCLot: 2829084)								
EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	1 mg/kg	86.1	73	108
EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	1 mg/kg	87.4	73	111
EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	1 mg/kg	87.0	67	110
EP080: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	2 mg/kg	84.9	66	112
EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	1 mg/kg	88.0	68	110
EP080: Naphthalene	91-20-3	1	mg/kg	<1	1 mg/kg	82.9	72	115
EP080: BTEXN (QCLot: 2829085)								

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Recovery Limits (%): Low	Recovery Limits (%): High
EP080: BTEXN (QCLot: 2829085) - continued								
EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	1 mg/kg	82.7	73	108
EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	1 mg/kg	92.0	73	111
EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	1 mg/kg	87.8	67	110
EP080: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	2 mg/kg	95.3	66	112
EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	1 mg/kg	87.9	68	110
EP080: Naphthalene	91-20-3	1	mg/kg	<1	1 mg/kg	87.7	72	115

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Recovery Limits (%): Low	Recovery Limits (%): High
EG020F: Dissolved Metals by ICP-MS (QCLot: 2831330)								
EG020A-F: Arsenic	7440-38-2	0.001	mg/L	<0.001	0.100 mg/L	93.8	78	122
EG020A-F: Cadmium	7440-43-9	0.0001	mg/L	<0.0001	0.100 mg/L	98.3	87	109
EG020A-F: Chromium	7440-47-3	0.001	mg/L	<0.001	0.100 mg/L	97.8	87	115
EG020A-F: Copper	7440-50-8	0.001	mg/L	<0.001	0.200 mg/L	99.1	85	117
EG020A-F: Lead	7439-92-1	0.001	mg/L	<0.001	0.100 mg/L	99.2	88	110
EG020A-F: Nickel	7440-02-0	0.001	mg/L	<0.001	0.100 mg/L	100	86	116
EG020A-F: Zinc	7440-66-6	0.005	mg/L	<0.005	0.200 mg/L	99.0	84	118
EG035F: Dissolved Mercury by FIMS (QCLot: 2831329)								
EG035F: Mercury	7439-97-6	0.0001	mg/L	<0.0001	0.010 mg/L	101	79	119
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 2829135)								
EP075(SIM): Naphthalene	91-20-3	1	µg/L	<1.0	10 µg/L	69.0	47	107
EP075(SIM): Acenaphthylene	208-96-8	1	µg/L	<1.0	10 µg/L	80.1	46	115
EP075(SIM): Acenaphthene	83-32-9	1	µg/L	<1.0	10 µg/L	70.7	50	109
EP075(SIM): Fluorene	86-73-7	1	µg/L	<1.0	10 µg/L	79.1	50	114
EP075(SIM): Phenanthrene	85-01-8	1	µg/L	<1.0	10 µg/L	82.4	49	115
EP075(SIM): Anthracene	120-12-7	1	µg/L	<1.0	10 µg/L	78.8	45	115
EP075(SIM): Fluoranthene	206-44-0	1	µg/L	<1.0	10 µg/L	75.5	46	121
EP075(SIM): Pyrene	129-00-0	1	µg/L	<1.0	10 µg/L	74.2	46	119
EP075(SIM): Benz(a)anthracene	56-55-3	1	µg/L	<1.0	10 µg/L	72.3	48	125
EP075(SIM): Chrysene	218-01-9	1	µg/L	<1.0	10 µg/L	76.3	43	119
EP075(SIM): Benzo(b)fluoranthene	205-99-2	1	µg/L	<1.0	10 µg/L	85.0	43	138
EP075(SIM): Benzo(k)fluoranthene	207-08-9	1	µg/L	<1.0	10 µg/L	78.6	41	131
EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	µg/L	<0.5	10 µg/L	72.6	44	125
EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	1	µg/L	<1.0	10 µg/L	67.6	40	137
EP075(SIM): Dibenz(a.h)anthracene	53-70-3	1	µg/L	<1.0	10 µg/L	65.7	42	140
EP075(SIM): Benzo(g.h.i)perylene	191-24-2	1	µg/L	<1.0	10 µg/L	69.4	37	136
EP075(SIM): Benzo(a)pyrene TEQ (WHO)	----	0.5	µg/L	<0.5	----	----	----	----
EP080/071: Total Petroleum Hydrocarbons (QCLot: 2829055)								

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Recovery Limits (%)	
				Result	Concentration	LCS	Low	High
EP080/071: Total Petroleum Hydrocarbons (QCLot: 2829055) - continued								
EP080: C6 - C9 Fraction	----	20	µg/L	<20	160 µg/L	88.6	73	127
EP080/071: Total Petroleum Hydrocarbons (QCLot: 2829134)								
EP071: C10 - C14 Fraction	----	50	µg/L	<50	1275 µg/L	82.4	42	111
EP071: C15 - C28 Fraction	----	100	µg/L	<100	1850 µg/L	102	54	130
EP071: C29 - C36 Fraction	----	50	µg/L	<50	----	----	----	----
EP080/071: Total Recoverable Hydrocarbons - NEPM 2010 Draft (QCLot: 2829055)								
EP080: C6 - C10 Fraction	----	20	µg/L	<20	185 µg/L	87.7	70	130
EP080: C6 - C10 Fraction minus BTEX (F1)	----	20	µg/L	<20	----	----	----	----
EP080/071: Total Recoverable Hydrocarbons - NEPM 2010 Draft (QCLot: 2829134)								
EP071: >C10 - C16 Fraction	----	100	µg/L	<100	1670 µg/L	90.0	47	120
EP071: >C16 - C34 Fraction	----	100	µg/L	<100	1285 µg/L	100	51	129
EP071: >C34 - C40 Fraction	----	100	µg/L	<100	----	----	----	----
EP080: BTEXN (QCLot: 2829055)								
EP080: Benzene	71-43-2	1	µg/L	<1	10 µg/L	95.2	78	122
EP080: Toluene	108-88-3	2	µg/L	<2	10 µg/L	104	76	124
EP080: Ethylbenzene	100-41-4	2	µg/L	<2	10 µg/L	92.2	78	122
EP080: meta- & para-Xylene	108-38-3 106-42-3	2	µg/L	<2	20 µg/L	93.1	78	124
EP080: ortho-Xylene	95-47-6	2	µg/L	<2	10 µg/L	90.4	77	123
EP080: Total Xylenes	1330-20-7	2	µg/L	<2	----	----	----	----
EP080: Sum of BTEX	----	1	µg/L	<1	----	----	----	----
EP080: Naphthalene	91-20-3	5	µg/L	<5	10 µg/L	100	75	124

Matrix Spike (MS) Report

The quality control term Matrix Spike (MS) refers to an intralaboratory split sample spiked with a representative set of target analytes. The purpose of this QC parameter is to monitor potential matrix effects on analyte recoveries. Static Recovery Limits as per laboratory Data Quality Objectives (DQOs). Ideal recovery ranges stated may be waived in the event of sample matrix interference.

Sub-Matrix: **SOIL**

				Matrix Spike (MS) Report			
				Spike	Spike Recovery (%)	Recovery Limits (%)	
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EG005T: Total Metals by ICP-AES (QCLot: 2829138)							
EB1309212-002	SP03_02_160413	EG005T: Arsenic	7440-38-2	50 mg/kg	74.6	70	130
		EG005T: Barium	7440-39-3	50 mg/kg	112	70	130
		EG005T: Beryllium	7440-41-7	5 mg/kg	91.0	70	130
		EG005T: Cadmium	7440-43-9	25 mg/kg	88.9	70	130
		EG005T: Chromium	7440-47-3	50 mg/kg	97.1	70	130
		EG005T: Cobalt	7440-48-4	50 mg/kg	89.9	70	130
		EG005T: Copper	7440-50-8	50 mg/kg	81.7	70	130
		EG005T: Lead	7439-92-1	50 mg/kg	84.9	70	130
		EG005T: Manganese	7439-96-5	50 mg/kg	# 132	70	130
		EG005T: Nickel	7440-02-0	50 mg/kg	83.4	70	130
		EG005T: Vanadium	7440-62-2	50 mg/kg	103	70	130
		EG005T: Zinc	7440-66-6	50 mg/kg	78.3	70	130
EG005T: Total Metals by ICP-AES (QCLot: 2829140)							
EB1309212-044	SP03_44_160413	EG005T: Arsenic	7440-38-2	50 mg/kg	87.2	70	130
		EG005T: Barium	7440-39-3	50 mg/kg	130	70	130
		EG005T: Beryllium	7440-41-7	5 mg/kg	93.6	70	130
		EG005T: Cadmium	7440-43-9	25 mg/kg	87.4	70	130
		EG005T: Chromium	7440-47-3	50 mg/kg	121	70	130
		EG005T: Cobalt	7440-48-4	50 mg/kg	90.8	70	130
		EG005T: Copper	7440-50-8	50 mg/kg	106	70	130
		EG005T: Lead	7439-92-1	50 mg/kg	90.3	70	130
		EG005T: Manganese	7439-96-5	50 mg/kg	76.1	70	130
		EG005T: Nickel	7440-02-0	50 mg/kg	114	70	130
		EG005T: Vanadium	7440-62-2	50 mg/kg	86.7	70	130
		EG005T: Zinc	7440-66-6	50 mg/kg	# 50.7	70	130
EG035T: Total Recoverable Mercury by FIMS (QCLot: 2829139)							
EB1309212-002	SP03_02_160413	EG035T: Mercury	7439-97-6	5.0 mg/kg	78.8	70	130
EG035T: Total Recoverable Mercury by FIMS (QCLot: 2829141)							
EB1309212-044	SP03_44_160413	EG035T: Mercury	7439-97-6	5.0 mg/kg	78.8	70	130
EG048: Hexavalent Chromium (Alkaline Digest) (QCLot: 2829112)							
EB1309212-003	SP03_03_160413	EG048G: Hexavalent Chromium	18540-29-9	8 mg/kg	91.7	70	130
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 2829114)							
EB1309212-003	SP03_03_160413	EP066: Total Polychlorinated biphenyls	----	1 mg/kg	98.3	70	130
EP068A: Organochlorine Pesticides (OC) (QCLot: 2829113)							
EB1309212-003	SP03_03_160413	EP068: gamma-BHC	58-89-9	0.5 mg/kg	86.3	70	130

Sub-Matrix: **SOIL**

				Matrix Spike (MS) Report			
				Spike	Spike Recovery (%)	Recovery Limits (%)	
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP068A: Organochlorine Pesticides (OC) (QCLot: 2829113) - continued							
EB1309212-003	SP03_03_160413	EP068: Heptachlor	76-44-8	0.5 mg/kg	111	70	130
		EP068: Aldrin	309-00-2	0.5 mg/kg	111	70	130
		EP068: Dieldrin	60-57-1	0.5 mg/kg	110	70	130
		EP068: Endrin	72-20-8	2 mg/kg	87.6	70	130
		EP068: 4.4`-DDT	50-29-3	2 mg/kg	74.3	70	130
EP075(SIM)A: Phenolic Compounds (QCLot: 2829098)							
EB1309212-002	SP03_02_160413	EP075(SIM): Phenol	108-95-2	2.5 mg/kg	120	70	130
		EP075(SIM): 2-Chlorophenol	95-57-8	2.5 mg/kg	118	70	130
		EP075(SIM): 2-Nitrophenol	88-75-5	2.5 mg/kg	120	70	130
		EP075(SIM): 4-Chloro-3-Methylphenol	59-50-7	2.5 mg/kg	91.3	70	130
		EP075(SIM): Pentachlorophenol	87-86-5	2.5 mg/kg	73.5	70	130
EP075(SIM)A: Phenolic Compounds (QCLot: 2829101)							
EB1309212-044	SP03_44_160413	EP075(SIM): Phenol	108-95-2	2.5 mg/kg	112	70	130
		EP075(SIM): 2-Chlorophenol	95-57-8	2.5 mg/kg	110	70	130
		EP075(SIM): 2-Nitrophenol	88-75-5	2.5 mg/kg	100	70	130
		EP075(SIM): 4-Chloro-3-Methylphenol	59-50-7	2.5 mg/kg	85.8	70	130
		EP075(SIM): Pentachlorophenol	87-86-5	2.5 mg/kg	81.8	70	130
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 2829098)							
EB1309212-002	SP03_02_160413	EP075(SIM): Acenaphthene	83-32-9	2.5 mg/kg	119	70	130
		EP075(SIM): Pyrene	129-00-0	2.5 mg/kg	103	70	130
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 2829101)							
EB1309212-044	SP03_44_160413	EP075(SIM): Acenaphthene	83-32-9	2.5 mg/kg	108	70	130
		EP075(SIM): Pyrene	129-00-0	2.5 mg/kg	118	70	130
EP080/071: Total Petroleum Hydrocarbons (QCLot: 2829084)							
EB1309212-002	SP03_02_160413	EP080: C6 - C9 Fraction	----	8 mg/kg	77.1	70	130
EP080/071: Total Petroleum Hydrocarbons (QCLot: 2829085)							
EB1309212-044	SP03_44_160413	EP080: C6 - C9 Fraction	----	8 mg/kg	81.9	70	130
EP080/071: Total Petroleum Hydrocarbons (QCLot: 2829097)							
EB1309212-002	SP03_02_160413	EP071: C10 - C14 Fraction	----	312 mg/kg	107	70	130
		EP071: C15 - C28 Fraction	----	500 mg/kg	108	70	130
EP080/071: Total Petroleum Hydrocarbons (QCLot: 2829100)							
EB1309212-044	SP03_44_160413	EP071: C10 - C14 Fraction	----	312 mg/kg	102	70	130
		EP071: C15 - C28 Fraction	----	500 mg/kg	94.7	70	130
EP080/071: Total Recoverable Hydrocarbons - NEPM 2010 Draft (QCLot: 2829084)							
EB1309212-002	SP03_02_160413	EP080: C6 - C10 Fraction	----	8 mg/kg	78.4	70	130
EP080/071: Total Recoverable Hydrocarbons - NEPM 2010 Draft (QCLot: 2829085)							
EB1309212-044	SP03_44_160413	EP080: C6 - C10 Fraction	----	8 mg/kg	82.1	70	130

Sub-Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	Matrix Spike (MS) Report: Spike Recovery (%) MS	Matrix Spike (MS) Report: Recovery Limits (%) Low	Matrix Spike (MS) Report: Recovery Limits (%) High
EP080/071: Total Recoverable Hydrocarbons - NEPM 2010 Draft (QCLot: 2829097)							
EB1309212-002	SP03_02_160413	EP071: >C10 - C16 Fraction	----	413 mg/kg	111	70	130
		EP071: >C16 - C34 Fraction	----	360 mg/kg	100	70	130
EP080/071: Total Recoverable Hydrocarbons - NEPM 2010 Draft (QCLot: 2829100)							
EB1309212-044	SP03_44_160413	EP071: >C10 - C16 Fraction	----	413 mg/kg	103	70	130
		EP071: >C16 - C34 Fraction	----	360 mg/kg	86.0	70	130
EP080: BTEXN (QCLot: 2829084)							
EB1309212-002	SP03_02_160413	EP080: Benzene	71-43-2	2 mg/kg	81.6	70	130
		EP080: Toluene	108-88-3	2 mg/kg	80.4	70	130
EP080: BTEXN (QCLot: 2829085)							
EB1309212-044	SP03_44_160413	EP080: Benzene	71-43-2	2 mg/kg	83.2	70	130
		EP080: Toluene	108-88-3	2 mg/kg	78.5	70	130

Sub-Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	Matrix Spike (MS) Report: Spike Recovery (%) MS	Matrix Spike (MS) Report: Recovery Limits (%) Low	Matrix Spike (MS) Report: Recovery Limits (%) High
EG020F: Dissolved Metals by ICP-MS (QCLot: 2831330)							
EB1309067-002	Anonymous	EG020A-F: Arsenic	7440-38-2	Anonymous	Anonymous	Anonymous	Anonymous
		EG020A-F: Cadmium	7440-43-9	Anonymous	Anonymous	Anonymous	Anonymous
		EG020A-F: Chromium	7440-47-3	Anonymous	Anonymous	Anonymous	Anonymous
		EG020A-F: Copper	7440-50-8	Anonymous	Anonymous	Anonymous	Anonymous
		EG020A-F: Lead	7439-92-1	Anonymous	Anonymous	Anonymous	Anonymous
		EG020A-F: Nickel	7440-02-0	Anonymous	Anonymous	Anonymous	Anonymous
		EG020A-F: Zinc	7440-66-6	Anonymous	Anonymous	Anonymous	Anonymous
EG035F: Dissolved Mercury by FIMS (QCLot: 2831329)							
EB1309041-002	Anonymous	EG035F: Mercury	7439-97-6	Anonymous	Anonymous	Anonymous	Anonymous
EP080/071: Total Petroleum Hydrocarbons (QCLot: 2829055)							
EB1309212-076	QCB01_160413	EP080: C6 - C9 Fraction	----	40 µg/L	110	70	130
EP080/071: Total Recoverable Hydrocarbons - NEPM 2010 Draft (QCLot: 2829055)							
EB1309212-076	QCB01_160413	EP080: C6 - C10 Fraction	----	40 µg/L	116	70	130
EP080: BTEXN (QCLot: 2829055)							
EB1309212-076	QCB01_160413	EP080: Benzene	71-43-2	10 µg/L	88.0	70	130
		EP080: Toluene	108-88-3	10 µg/L	90.4	70	130

Environmental Division (Water Resources Group)

INTERPRETIVE QUALITY CONTROL REPORT

Work Order	: **EB1309212**	Page	: 1 of 14
Client	: URS AUSTRALIA	Laboratory	: Environmental Division Brisbane
Contact	: MR ANDREW PIGGIN	Contact	: Customer Services
Address	: G P O BOX 2005 DARWIN NT, AUSTRALIA 0801	Address	: 2 Byth Street Stafford QLD Australia 4053
E-mail	: andrew.piggin@urs.com	E-mail	: Brisbane.Enviro.Services@alsglobal.com
Telephone	: +61 08 8080 2900	Telephone	: +61-7-3243 7222
Facsimile	: ----	Facsimile	: +61-7-3243 7218
Project	: 42213719 7	QC Level	: NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Site	: ----		
C-O-C number	: DARWIN WATERFRONT PROJECT	Date Samples Received	: 17-APR-2013
Sampler	: Bek Aagaard	Issue Date	: 26-APR-2013
Order number	: ----		
		No. of samples received	: 67
Quote number	: EN/038/10	No. of samples analysed	: 36

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 Interpretive Quality Control Report contains the following information:

- Analysis Holding Time Compliance
- Quality Control Parameter Frequency Compliance
- Brief Method Summaries
- Summary of Outliers

Analysis Holding Time Compliance

The following report summarises extraction / preparation and analysis times and compares with recommended holding times. Dates reported represent first date of extraction or analysis and precludes subsequent dilutions and reruns. Information is also provided re the sample container (preservative) from which the analysis aliquot was taken. Elapsed period to analysis represents number of days from sampling where no extraction / digestion is involved or period from extraction / digestion where this is present. For composite samples, sampling date is assumed to be that of the oldest sample contributing to the composite. Sample date for laboratory produced leachates is assumed as the completion date of the leaching process. Outliers for holding time are based on USEPA SW 846, APHA, AS and NEPM (1999). A listing of breaches is provided in the Summary of Outliers.

Holding times for leachate methods (excluding elutriates) vary according to the analytes being determined on the resulting solution. For non-volatile analytes, the holding time compliance assessment compares the leach date with the shortest analyte holding time for the equivalent soil method. These soil holding times are: Organics (14 days); Mercury (28 days) & other metals (180 days). A recorded breach therefore does not guarantee a breach for all non-volatile parameters.

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EA055: Moisture Content							
Soil Glass Jar - Unpreserved							
SP03_01_160413, SP03_02_160413, SP03_03_160413, SP03_05_160413, SP03_07_160413, SP03_12_160413, SP03_14_160413, SP03_16_160413, SP03_18_160413, SP03_21_160413, SP03_22_160413, SP03_23_160413, SP03_25_160413, SP03_27_160413, SP03_31_160413, SP03_32_160413, SP03_34_160413, SP03_36_160413, SP03_40_160413, SP03_42_160413, SP03_43_160413, SP03_44_160413, SP03_45_160413, SP03_47_160413, SP03_49_160413, SP04_03_160413, SP05_01_160413, SP05_03_160413, SP05_05_160413, SP05_06_160413, SP05_08_160413, SP05_10_160413, QAQC_05_160513, QAQC_07_160513, QAQC_08_160513	**16-APR-2013**	**----**	----	----	**19-APR-2013**	30-APR-2013	✓

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)		Sample Date	Extraction / Preparation			Analysis		
			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EG005T: Total Metals by ICP-AES								
Soil Glass Jar - Unpreserved								
SP03_01_160413,	SP03_02_160413,	**16-APR-2013**	**23-APR-2013**	13-OCT-2013	✓	**23-APR-2013**	13-OCT-2013	✓
SP03_03_160413,	SP03_05_160413,							
SP03_07_160413,	SP03_12_160413,							
SP03_14_160413,	SP03_16_160413,							
SP03_18_160413,	SP03_21_160413,							
SP03_22_160413,	SP03_23_160413,							
SP03_25_160413,	SP03_27_160413,							
SP03_31_160413,	SP03_32_160413,							
SP03_34_160413,	SP03_36_160413,							
SP03_40_160413,	SP03_42_160413,							
SP03_43_160413,	SP03_44_160413,							
SP03_45_160413,	SP03_47_160413,							
SP03_49_160413,	SP04_03_160413,							
SP05_01_160413,	SP05_03_160413,							
SP05_05_160413,	SP05_06_160413,							
SP05_08_160413,	SP05_10_160413,							
QAQC_05_160513,	QAQC_07_160513,							
QAQC_08_160513								
EG035T: Total Recoverable Mercury by FIMS								
Soil Glass Jar - Unpreserved								
SP03_01_160413,	SP03_02_160413,	**16-APR-2013**	**23-APR-2013**	14-MAY-2013	✓	**23-APR-2013**	14-MAY-2013	✓
SP03_03_160413,	SP03_05_160413,							
SP03_07_160413,	SP03_12_160413,							
SP03_14_160413,	SP03_16_160413,							
SP03_18_160413,	SP03_21_160413,							
SP03_22_160413,	SP03_23_160413,							
SP03_25_160413,	SP03_27_160413,							
SP03_31_160413,	SP03_32_160413,							
SP03_34_160413,	SP03_36_160413,							
SP03_40_160413,	SP03_42_160413,							
SP03_43_160413,	SP03_44_160413,							
SP03_45_160413,	SP03_47_160413,							
SP03_49_160413,	SP04_03_160413,							
SP05_01_160413,	SP05_03_160413,							
SP05_05_160413,	SP05_06_160413,							
SP05_08_160413,	SP05_10_160413,							
QAQC_05_160513,	QAQC_07_160513,							
QAQC_08_160513								

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EG048: Hexavalent Chromium (Alkaline Digest)							
Soil Glass Jar - Unpreserved							
SP03_02_160413, SP03_03_160413, SP03_07_160413, SP03_14_160413, SP03_18_160413, SP03_21_160413, SP03_25_160413, SP03_32_160413, SP03_36_160413, SP03_40_160413, SP03_43_160413, SP03_47_160413, SP04_03_160413, SP05_03_160413, SP05_06_160413, SP05_10_160413, QAQC_05_160513	**16-APR-2013**	**23-APR-2013**	14-MAY-2013	✓	**24-APR-2013**	30-APR-2013	✓
EP066: Polychlorinated Biphenyls (PCB)							
Soil Glass Jar - Unpreserved							
SP03_02_160413, SP03_03_160413, SP03_07_160413, SP03_14_160413, SP03_18_160413, SP03_21_160413, SP03_25_160413, SP03_32_160413, SP03_36_160413, SP03_40_160413, SP03_43_160413, SP03_47_160413, SP04_03_160413, SP05_03_160413, SP05_06_160413, SP05_10_160413, QAQC_05_160513	**16-APR-2013**	**23-APR-2013**	30-APR-2013	✓	**23-APR-2013**	02-JUN-2013	✓
EP068A: Organochlorine Pesticides (OC)							
Soil Glass Jar - Unpreserved							
SP03_02_160413, SP03_03_160413, SP03_07_160413, SP03_14_160413, SP03_18_160413, SP03_21_160413, SP03_25_160413, SP03_32_160413, SP03_36_160413, SP03_40_160413, SP03_43_160413, SP03_47_160413, SP04_03_160413, SP05_03_160413, SP05_06_160413, SP05_10_160413, QAQC_05_160513	**16-APR-2013**	**23-APR-2013**	30-APR-2013	✓	**23-APR-2013**	02-JUN-2013	✓

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)		Sample Date	Extraction / Preparation			Analysis		
			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP075(SIM)A: Phenolic Compounds								
Soil Glass Jar - Unpreserved								
SP03_02_160413,	SP03_03_160413,	**16-APR-2013**	**19-APR-2013**	30-APR-2013	✓	**22-APR-2013**	29-MAY-2013	✓
SP03_07_160413,	SP03_14_160413,							
SP03_18_160413,	SP03_21_160413,							
SP03_25_160413,	SP03_32_160413,							
SP03_36_160413,	SP03_40_160413							
Soil Glass Jar - Unpreserved								
SP03_43_160413,	SP03_47_160413,	**16-APR-2013**	**23-APR-2013**	30-APR-2013	✓	**23-APR-2013**	02-JUN-2013	✓
SP04_03_160413,	SP05_03_160413,							
SP05_06_160413,	SP05_10_160413,							
QAQC_05_160513								
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons								
Soil Glass Jar - Unpreserved								
SP03_01_160413,	SP03_02_160413,	**16-APR-2013**	**19-APR-2013**	30-APR-2013	✓	**22-APR-2013**	29-MAY-2013	✓
SP03_03_160413,	SP03_05_160413,							
SP03_07_160413,	SP03_12_160413,							
SP03_14_160413,	SP03_16_160413,							
SP03_18_160413,	SP03_21_160413,							
SP03_22_160413,	SP03_23_160413,							
SP03_25_160413,	SP03_27_160413,							
SP03_31_160413,	SP03_32_160413,							
SP03_34_160413,	SP03_36_160413,							
SP03_40_160413,	SP03_42_160413							
Soil Glass Jar - Unpreserved								
SP03_43_160413,	SP03_44_160413,	**16-APR-2013**	**23-APR-2013**	30-APR-2013	✓	**23-APR-2013**	02-JUN-2013	✓
SP03_45_160413,	SP03_47_160413,							
SP03_49_160413,	SP04_03_160413,							
SP05_01_160413,	SP05_03_160413,							
SP05_05_160413,	SP05_06_160413,							
SP05_08_160413,	SP05_10_160413,							
QAQC_05_160513,	QAQC_07_160513,							
QAQC_08_160513								

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP080/071: Total Petroleum Hydrocarbons							
Soil Glass Jar - Unpreserved							
SP03_01_160413, SP03_02_160413, SP03_03_160413, SP03_05_160413, SP03_07_160413, SP03_12_160413, SP03_14_160413, SP03_16_160413, SP03_18_160413, SP03_21_160413, SP03_22_160413, SP03_23_160413, SP03_25_160413, SP03_27_160413, SP03_31_160413, SP03_32_160413, SP03_34_160413, SP03_36_160413, SP03_40_160413, SP03_42_160413, SP03_43_160413, SP03_44_160413, SP03_45_160413, SP03_47_160413, SP03_49_160413, SP04_03_160413, SP05_01_160413, SP05_03_160413, SP05_05_160413, SP05_06_160413, SP05_08_160413, SP05_10_160413, QAQC_05_160513, QAQC_07_160513, QAQC_08_160513	**16-APR-2013**	**19-APR-2013**	30-APR-2013	✓	**22-APR-2013**	30-APR-2013	✓
Soil Glass Jar - Unpreserved							
SP03_43_160413, SP03_44_160413, SP03_45_160413, SP03_47_160413, SP03_49_160413, SP04_03_160413, SP05_01_160413, SP05_03_160413, SP05_05_160413, SP05_06_160413, SP05_08_160413, SP05_10_160413, QAQC_05_160513, QAQC_07_160513, QAQC_08_160513	**16-APR-2013**	**23-APR-2013**	30-APR-2013	✓	**23-APR-2013**	02-JUN-2013	✓

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP080/071: Total Recoverable Hydrocarbons - NEPM 2010 Draft							
Soil Glass Jar - Unpreserved							
SP03_01_160413, SP03_02_160413, SP03_03_160413, SP03_05_160413, SP03_07_160413, SP03_12_160413, SP03_14_160413, SP03_16_160413, SP03_18_160413, SP03_21_160413, SP03_22_160413, SP03_23_160413, SP03_25_160413, SP03_27_160413, SP03_31_160413, SP03_32_160413, SP03_34_160413, SP03_36_160413, SP03_40_160413, SP03_42_160413, SP03_43_160413, SP03_44_160413, SP03_45_160413, SP03_47_160413, SP03_49_160413, SP04_03_160413, SP05_01_160413, SP05_03_160413, SP05_05_160413, SP05_06_160413, SP05_08_160413, SP05_10_160413, QAQC_05_160513, QAQC_07_160513, QAQC_08_160513	**16-APR-2013**	**19-APR-2013**	30-APR-2013	✓	**22-APR-2013**	30-APR-2013	✓
Soil Glass Jar - Unpreserved							
SP03_43_160413, SP03_44_160413, SP03_45_160413, SP03_47_160413, SP03_49_160413, SP04_03_160413, SP05_01_160413, SP05_03_160413, SP05_05_160413, SP05_06_160413, SP05_08_160413, SP05_10_160413, QAQC_05_160513, QAQC_07_160513, QAQC_08_160513	**16-APR-2013**	**23-APR-2013**	30-APR-2013	✓	**23-APR-2013**	02-JUN-2013	✓

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP080: BTEX							
Soil Glass Jar - Unpreserved							
SP03_01_160413, SP03_02_160413, SP03_03_160413, SP03_05_160413, SP03_07_160413, SP03_12_160413, SP03_14_160413, SP03_16_160413, SP03_18_160413, SP03_21_160413, SP03_22_160413, SP03_23_160413, SP03_25_160413, SP03_27_160413, SP03_31_160413, SP03_32_160413, SP03_34_160413, SP03_36_160413, SP03_40_160413, SP03_42_160413, SP03_43_160413, SP03_44_160413, SP03_45_160413, SP03_47_160413, SP03_49_160413, SP04_03_160413, SP05_01_160413, SP05_03_160413, SP05_05_160413, SP05_06_160413, SP05_08_160413, SP05_10_160413, QAQC_05_160513, QAQC_07_160513, QAQC_08_160513	**16-APR-2013**	**19-APR-2013**	30-APR-2013	✓	**22-APR-2013**	30-APR-2013	✓
EP080: BTEXN							
Soil Glass Jar - Unpreserved							
SP03_01_160413, SP03_02_160413, SP03_03_160413, SP03_05_160413, SP03_07_160413, SP03_12_160413, SP03_14_160413, SP03_16_160413, SP03_18_160413, SP03_21_160413, SP03_22_160413, SP03_23_160413, SP03_25_160413, SP03_27_160413, SP03_31_160413, SP03_32_160413, SP03_34_160413, SP03_36_160413, SP03_40_160413, SP03_42_160413, SP03_43_160413, SP03_44_160413, SP03_45_160413, SP03_47_160413, SP03_49_160413, SP04_03_160413, SP05_01_160413, SP05_03_160413, SP05_05_160413, SP05_06_160413, SP05_08_160413, SP05_10_160413, QAQC_05_160513, QAQC_07_160513, QAQC_08_160513	**16-APR-2013**	**19-APR-2013**	30-APR-2013	✓	**22-APR-2013**	30-APR-2013	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EG020F: Dissolved Metals by ICP-MS							
Clear HDPE (U-T ORC) - Filtered; Lab-acidified							
QCB01_160413	**16-APR-2013**	**---**	13-OCT-2013	----	**22-APR-2013**	13-OCT-2013	✓
EG035F: Dissolved Mercury by FIMS							
Clear HDPE (U-T ORC) - Filtered; Lab-acidified							
QCB01_160413	**16-APR-2013**	**---**	14-MAY-2013	----	**22-APR-2013**	14-MAY-2013	✓
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons							
Amber Glass Bottle - Unpreserved							
QCB01_160413	**16-APR-2013**	**19-APR-2013**	23-APR-2013	✓	**22-APR-2013**	29-MAY-2013	✓
EP080/071: Total Petroleum Hydrocarbons							
Amber Glass Bottle - Unpreserved							
QCB01_160413	**16-APR-2013**	**19-APR-2013**	23-APR-2013	✓	**22-APR-2013**	29-MAY-2013	✓
Amber VOC Vial - Sulfuric Acid							
QCB01_160413	**16-APR-2013**	**22-APR-2013**	30-APR-2013	✓	**22-APR-2013**	30-APR-2013	✓
EP080/071: Total Recoverable Hydrocarbons - NEPM 2010 Draft							
Amber Glass Bottle - Unpreserved							
QCB01_160413	**16-APR-2013**	**19-APR-2013**	23-APR-2013	✓	**22-APR-2013**	29-MAY-2013	✓
Amber VOC Vial - Sulfuric Acid							
QCB01_160413	**16-APR-2013**	**22-APR-2013**	30-APR-2013	✓	**22-APR-2013**	30-APR-2013	✓
EP080: BTEXN							
Amber VOC Vial - Sulfuric Acid							
QCB01_160413	**16-APR-2013**	**22-APR-2013**	30-APR-2013	✓	**22-APR-2013**	30-APR-2013	✓

Quality Control Parameter Frequency Compliance

The following report summarises the frequency of laboratory QC samples analysed within the analytical lot(s) in which the submitted sample(s) was(where) processed. Actual rate should be greater than or equal to the expected rate. A listing of breaches is provided in the Summary of Outliers.

Matrix: **SOIL**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Laboratory Duplicates (DUP)							
Hexavalent Chromium by Alkaline Digestion and DA Finish	EG048G	2	17	**11.8**	**10.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Moisture Content	EA055-103	4	40	**10.0**	**10.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
PAH/Phenols (SIM)	EP075(SIM)	4	35	**11.4**	**10.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Pesticides by GCMS	EP068	2	17	**11.8**	**10.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Polychlorinated Biphenyls (PCB)	EP066	2	17	**11.8**	**10.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Total Mercury by FIMS	EG035T	4	35	**11.4**	**10.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Total Metals by ICP-AES	EG005T	4	35	**11.4**	**10.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH - Semivolatile Fraction	EP071	4	35	**11.4**	**10.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH Volatiles/BTEX	EP080	4	35	**11.4**	**10.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Laboratory Control Samples (LCS)							
Hexavalent Chromium by Alkaline Digestion and DA Finish	EG048G	1	17	**5.9**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
PAH/Phenols (SIM)	EP075(SIM)	2	35	**5.7**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Pesticides by GCMS	EP068	1	17	**5.9**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Polychlorinated Biphenyls (PCB)	EP066	1	17	**5.9**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Total Mercury by FIMS	EG035T	2	35	**5.7**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Total Metals by ICP-AES	EG005T	2	35	**5.7**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH - Semivolatile Fraction	EP071	2	35	**5.7**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH Volatiles/BTEX	EP080	2	35	**5.7**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Method Blanks (MB)							
Hexavalent Chromium by Alkaline Digestion and DA Finish	EG048G	1	17	**5.9**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
PAH/Phenols (SIM)	EP075(SIM)	2	35	**5.7**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Pesticides by GCMS	EP068	1	17	**5.9**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Polychlorinated Biphenyls (PCB)	EP066	1	17	**5.9**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Total Mercury by FIMS	EG035T	2	35	**5.7**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Total Metals by ICP-AES	EG005T	2	35	**5.7**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH - Semivolatile Fraction	EP071	2	35	**5.7**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH Volatiles/BTEX	EP080	2	35	**5.7**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Matrix Spikes (MS)							
Hexavalent Chromium by Alkaline Digestion and DA Finish	EG048G	1	17	**5.9**	**5.0**	✓	ALS QCS3 requirement
PAH/Phenols (SIM)	EP075(SIM)	2	35	**5.7**	**5.0**	✓	ALS QCS3 requirement
Pesticides by GCMS	EP068	1	17	**5.9**	**5.0**	✓	ALS QCS3 requirement
Polychlorinated Biphenyls (PCB)	EP066	1	17	**5.9**	**5.0**	✓	ALS QCS3 requirement
Total Mercury by FIMS	EG035T	2	35	**5.7**	**5.0**	✓	ALS QCS3 requirement
Total Metals by ICP-AES	EG005T	2	35	**5.7**	**5.0**	✓	ALS QCS3 requirement
TPH - Semivolatile Fraction	EP071	2	35	**5.7**	**5.0**	✓	ALS QCS3 requirement
TPH Volatiles/BTEX	EP080	2	35	**5.7**	**5.0**	✓	ALS QCS3 requirement

Matrix: **WATER**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Laboratory Duplicates (DUP)							
Dissolved Mercury by FIMS	EG035F	1	9	**11.1**	**10.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Dissolved Metals by ICP-MS - Suite A	EG020A-F	2	20	**10.0**	**10.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH Volatiles/BTEX	EP080	2	20	**10.0**	**10.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Laboratory Control Samples (LCS)							
Dissolved Mercury by FIMS	EG035F	1	9	**11.1**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Dissolved Metals by ICP-MS - Suite A	EG020A-F	1	20	**5.0**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
PAH/Phenols (GC/MS - SIM)	EP075(SIM)	1	7	**14.3**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH - Semivolatile Fraction	EP071	1	8	**12.5**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH Volatiles/BTEX	EP080	1	20	**5.0**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Method Blanks (MB)							
Dissolved Mercury by FIMS	EG035F	1	9	**11.1**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Dissolved Metals by ICP-MS - Suite A	EG020A-F	1	20	**5.0**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
PAH/Phenols (GC/MS - SIM)	EP075(SIM)	1	7	**14.3**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH - Semivolatile Fraction	EP071	1	8	**12.5**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH Volatiles/BTEX	EP080	1	20	**5.0**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Matrix Spikes (MS)							
Dissolved Mercury by FIMS	EG035F	1	9	**11.1**	**5.0**	✓	ALS QCS3 requirement
Dissolved Metals by ICP-MS - Suite A	EG020A-F	1	20	**5.0**	**5.0**	✓	ALS QCS3 requirement
TPH Volatiles/BTEX	EP080	1	20	**5.0**	**5.0**	✓	ALS QCS3 requirement

Brief Method Summaries

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the US EPA, APHA, AS and NEPM. In house developed procedures 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 in the Certificate of Analysis. Sources from which ALS methods have been developed are provided within the Method Descriptions.

Analytical Methods	Method	Matrix	Method Descriptions
Moisture Content	EA055-103	SOIL	A gravimetric procedure based on weight loss over a 12 hour drying period at 103-105 degrees C. This method is compliant with NEPM (2010 Draft) Schedule B(3) Section 7.1 and Table 1 (14 day holding time).
Total Metals by ICP-AES	EG005T	SOIL	(APHA 21st ed., 3120; USEPA SW 846 - 6010) (ICPAES) Metals are determined following an appropriate acid digestion of the soil. The ICPAES technique ionises samples in a plasma, emitting a characteristic spectrum based on metals present. Intensities at selected wavelengths are compared against those of matrix matched standards. This method is compliant with NEPM (1999) Schedule B(3)
Total Mercury by FIMS	EG035T	SOIL	AS 3550, APHA 21st ed., 3112 Hg - B (Flow-injection (SnCl2)(Cold Vapour generation) AAS) FIM-AAS is an automated flameless atomic absorption technique. Mercury in solids are determined following an appropriate acid digestion. Ionic mercury is reduced online to atomic mercury vapour by SnCl2 which is then purged into a heated quartz cell. Quantification is by comparing absorbance against a calibration curve. This method is compliant with NEPM (1999) Schedule B(3)
Hexavalent Chromium by Alkaline Digestion and DA Finish	EG048G	SOIL	USEPA SW846, Method 3060A. Hexavalent chromium is extracted by alkaline digestion. The digest is determined by photometrically by automatic discrete analyser, following pH adjustment. The instrument uses colour development using dephenylcarbazide. Each run of samples is measured against a five-point calibration curve. This method is compliant with NEPM (1999) Schedule B(3) (Appdx. 2)
Polychlorinated Biphenyls (PCB)	EP066	SOIL	(USEPA SW 846 - 8270B) Extracts are analysed by Capillary GC/MS and quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM (1999) Schedule B(3) (Method 504)
Pesticides by GCMS	EP068	SOIL	(USEPA SW 846 - 8270B) Extracts are analysed by Capillary GC/MS and quantification is by comparison against an established 5 point calibration curve. This technique is compliant with NEPM (1999) Schedule B(3) (Method 504,505)
TPH - Semivolatile Fraction	EP071	SOIL	(USEPA SW 846 - 8015A) Sample extracts are analysed by Capillary GC/FID and quantified against alkane standards over the range C10 - C36. This method is compliant with NEPM (1999) Schedule B(3) (Method 506.1)
PAH/Phenols (SIM)	EP075(SIM)	SOIL	(USEPA SW 846 - 8270B) Extracts are analysed by Capillary GC/MS in Selective Ion Mode (SIM) and quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM (1999) Schedule B(3) (Method 502 and 507)
TPH Volatiles/BTEX	EP080	SOIL	(USEPA SW 846 - 8260B) Extracts are analysed by Purge and Trap, Capillary GC/MS. Quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM (1999) Schedule B(3) (Method 501)
Dissolved Metals by ICP-MS - Suite A	EG020A-F	WATER	(APHA 21st ed., 3125; USEPA SW846 - 6020, ALS QWI-EN/EG020): Samples are 0.45 um filtered prior to analysis. The ICPMS technique utilizes a highly efficient argon plasma to ionize selected elements. Ions are then passed into a high vacuum mass spectrometer, which separates the analytes based on their distinct mass to charge ratios prior to their measurement by a discrete dynode ion detector.

Analytical Methods	Method	Matrix	Method Descriptions
Dissolved Mercury by FIMS	EG035F	WATER	AS 3550, APHA 21st ed. 3112 Hg - B (Flow-injection (SnCl2)(Cold Vapour generation) AAS) Samples are 0.45 um filtered prior to analysis. FIM-AAS is an automated flameless atomic absorption technique. A bromate/bromide reagent is used to oxidise any organic mercury compounds in the filtered sample. The ionic mercury is reduced online to atomic mercury vapour by SnCl2 which is then purged into a heated quartz cell. Quantification is by comparing absorbance against a calibration curve. This method is compliant with NEPM (1999) Schedule B(3) (Appdx. 2)
TPH - Semivolatile Fraction	EP071	WATER	USEPA SW 846 - 8015A The sample extract is analysed by Capillary GC/FID and quantification is by comparison against an established 5 point calibration curve of n-Alkane standards. This method is compliant with NEPM (1999) Schedule B(3) (Appdx. 2)
PAH/Phenols (GC/MS - SIM)	EP075(SIM)	WATER	USEPA SW 846 - 8270D Sample extracts are analysed by Capillary GC/MS in SIM Mode and quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM (1999) Schedule B(3) (Appdx. 2)
TPH Volatiles/BTEX	EP080	WATER	USEPA SW 846 - 8260B Water samples are directly purged prior to analysis by Capillary GC/MS and quantification is by comparison against an established 5 point calibration curve. Alternatively, a sample is equilibrated in a headspace vial and a portion of the headspace determined by GCMS analysis. This method is compliant with NEPM (1999) Schedule B(3) (Appdx. 2)

Preparation Methods	Method	Matrix	Method Descriptions
Methanolic Extraction of Soils for Purge and Trap	ORG16	SOIL	(USEPA SW 846 - 5030A) 5g of solid is shaken with surrogate and 10mL methanol prior to analysis by Purge and Trap - GC/MS.
Tumbler Extraction of Solids (Option A - Concentrating)	ORG17A	SOIL	In-house, Mechanical agitation (tumbler). 20g of sample, Na2SO4 and surrogate are extracted with 150mL 1:1 DCM/Acetone by end over end tumble. The solvent is decanted, dehydrated and concentrated (by KD) to the desired volume for analysis.
Tumbler Extraction of Solids (Option B - Non-concentrating)	ORG17B	SOIL	In-house, Mechanical agitation (tumbler). 10g of sample, Na2SO4 and surrogate are extracted with 20mL 1:1 DCM/Acetone by end over end tumble. The solvent is transferred directly to a GC vial for analysis.
Separatory Funnel Extraction of Liquids	ORG14	WATER	USEPA SW 846 - 3510B 500 mL to 1L of sample is transferred to a separatory funnel and serially extracted three times using 60mL DCM for each extract. The resultant extracts are combined, dehydrated and concentrated for analysis. This method is compliant with NEPM (1999) Schedule B(3) (Appdx. 2). ALS default excludes sediment which may be resident in the container.

Summary of Outliers

Outliers : Quality Control Samples

The following report highlights outliers flagged in the Quality Control (QC) Report. Surrogate recovery limits are static and based on USEPA SW 846 or ALS-QWI/EN/38 (in the absence of specific USEPA limits). This report displays QC Outliers (breaches) only.

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **SOIL**

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
Duplicate (DUP) RPDs							
EG005T: Total Metals by ICP-AES	EB1309212-022	SP03_22_160413	**Chromium**	7440-47-3	23.5 %	0-20%	**RPD exceeds LOR based limits**
EG005T: Total Metals by ICP-AES	EB1309212-001	SP03_01_160413	**Chromium**	7440-47-3	52.6 %	0-50%	**RPD exceeds LOR based limits**
EG005T: Total Metals by ICP-AES	EB1309212-001	SP03_01_160413	**Manganese**	7439-96-5	61.9 %	0-20%	**RPD exceeds LOR based limits**
EG005T: Total Metals by ICP-AES	EB1309212-001	SP03_01_160413	**Vanadium**	7440-62-2	64.1 %	0-50%	**RPD exceeds LOR based limits**
EG005T: Total Metals by ICP-AES	EB1309212-043	SP03_43_160413	**Zinc**	7440-66-6	67.1 %	0-50%	**RPD exceeds LOR based limits**
Laboratory Control Spike (LCS) Recoveries							
EP068A: Organochlorine Pesticides (OC)	3359577-002	----	**4.4`-DDT**	50-29-3	68.6 %	80-155%	**Recovery less than lower control limit**
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons	3359565-006	----	**Acenaphthylene**	208-96-8	121 %	67-118%	**Recovery greater than upper control limit**
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons	3359563-006	----	**Fluoranthene**	206-44-0	124 %	69-116%	**Recovery greater than upper control limit**
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons	3359563-006	----	**Benz(a)anthracene**	56-55-3	125 %	61-120%	**Recovery greater than upper control limit**
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons	3359563-006	----	**Chrysene**	218-01-9	126 %	62-119%	**Recovery greater than upper control limit**
Matrix Spike (MS) Recoveries							
EG005T: Total Metals by ICP-AES	EB1309212-002	SP03_02_160413	**Manganese**	7439-96-5	132 %	70-130%	**Recovery greater than upper data quality objective**
EG005T: Total Metals by ICP-AES	EB1309212-044	SP03_44_160413	**Zinc**	7440-66-6	50.7 %	70-130%	**Recovery less than lower data quality objective**

- **For all matrices, no Method Blank value outliers occur.**

Regular Sample Surrogates

- **For all regular sample matrices, no surrogate recovery outliers occur.**

Outliers : Analysis Holding Time Compliance

This report displays Holding Time breaches only. Only the respective Extraction / Preparation and/or Analysis component is/are displayed.

- **No Analysis Holding Time Outliers exist.**

Outliers : Frequency of Quality Control Samples

The following report highlights breaches in the Frequency of Quality Control Samples.

- **No Quality Control Sample Frequency Outliers exist.**

CHAIN OF CUSTODY

ALS Laboratory: please tick →

☐ **Sydney**: 277 Woodpark Rd, Smithfield NSW 2176 Ph: 02 8784 8555 E:samples.sydney@alsenviro.com
☐ **Brisbane**: 32 Shand St, Stafford QLD 4053 Ph:07 3243 7222 E:samples.brisbane@alsenviro.com
☐ **Melbourne**: 2-4 Westall Rd, Springvale VIC 3171 Ph:03 8549 9600 E: samples.melbourne@alsenviro.com
☐ **Perth**: 10 Hod Way, Malaga WA 6090 Ph: 08 9209 7655 E: samples.perth@alsenviro.com
☐ **Newcastle**: 5 Rosegum Rd, Warabrook NSW 2304 Ph:02 4968 9433 E:samples.newcastle@alsenviro.com
☐ **Townsville**: 14-15 Desma Ct, Bohle QLD 4818 Ph:07 4796 0600 E: townsville environmental@alsenviro.com
☐ **Adelaide**: 2-1 Burma Rd, Pooraka SA 5095 Ph: 08 8359 0890 E:adelaide@alsenviro.com
☐ **Launceston**: 27 Wellington St, Launceston TAS 7250 Ph: 03 6331 2158 E: launceston@alsenviro.com

CLIENT:	URS AUSTRALIA	**TURNAROUND REQUIREMENTS :** ☐ Standard TAT **(List due date):**	**FOR LABORATORY USE ONLY (Circle)**
Rebatch:	EB1309212	☐ Non Standard or urgent TAT **(List due date):**	Other comments: REBATCH
PROJECT:		**ALS QUOTE NO.:** BQ	**COC SEQUENCE NUMBER (Circle)**
ORDER NUMBER:			COC: 1 2 3 4 5 6 7
PROJECT MANAGER:	CONTACT PH:		OF: 1 2 3 4 5 6 7

COMMENTS/SPECIAL HANDLING/STORAGE OR DISPOSAL:

ALS USE ONLY	SAMPLE DETAILS			MATRIX: Solid(S) Water(W)	CONTAINER INFORMATION		ANALYSIS REQUIRED including SUITES								Additional Information
							As per attached email								
LAB ID	SAMPLE ID	Previous Lab ID	DATE / TIME	MATRIX	TYPE & PRESERVATIVE	TOTAL BOTTLES	TPH C6-C9, BTEX, PAH and Metals	P-13/1							
1	SP03_10_160413	EB1309212-010	16/04/2013	s		1	x								
2	SP04_04_160413	EB1309212-054	16/04/2013	s		1	x								
3	SP04_06_160413	EB1309212-056	16/04/2013	s		1		x							
					TOTAL	3									

Environmental Division
Brisbane
Work Order
EB1310481

Telephone : +61-7-3243 7222

James Wise

From: Bryn Stephens
Sent: Thursday, 2 May 2013 3:20 PM
To: rebatches.brisbane
Cc: Grant Thiel; James Wise
Subject: UPDATED REQUEST 02/05: EB1309212 - URSMAW - REBATCH ASAP
Attachments: RE: Batch EB1309212; image001.jpg

Importance: High

Hi James,

With the attached confirmation regarding the sample swap from the client received please REBATCH the below listed samples ASAP from EB1309212;

ALS ID	Sample ID	Analytes
EB1309212-010	SP03_10_160413	TPH C6-C9, BTEX, PAH and Metals
EB1309212-054	SP04_04_160413	TPH C6-C9, BTEX, PAH and Metals
EB1309212-056	SP04_06_160413	P-13/1

Internal Remarks for WO EB1309212

Remark Type	Remarks
WO Login Remarks	Brisbane samples are in trays: 3456-S <-> 3460-S, 790-O, 100-ORC, 682-VOC

This is now extra urgent.

Kind Regards,

Bryn Stephens

Creation Committal Coordinator
ALS | Environmental Division

2 Byth Street
Stafford QLD 4053 Australia

How was your customer experience? Please send us your feedback

Please see our latest Enviromail 67 - Aqueous Film Forming Foams (AFFFs) March 2013

T +61 7 3552 8610
F +61 7 3352 3662

www.alsglobal.com

From: Aagaard, Bek [mailto:bek.aagaard@urs.com]
Sent: Wednesday, 1 May 2013 3:25 PM
To: Grant Thiel; Bryn Stephens
Subject: RE: Batch EB1309212

Hi Grant/Bryn,

Sorry, just a few changes looking at the data.

Environmental Division

CERTIFICATE OF ANALYSIS

Work Order	: **EB1310481**	Page	: 1 of 7
Client	: **URS AUSTRALIA**	Laboratory	: Environmental Division Brisbane
Contact	: MR ANDREW PIGGIN	Contact	: Customer Services
Address	: G P O BOX 2005 DARWIN NT, AUSTRALIA 0801	Address	: 2 Byth Street Stafford QLD Australia 4053
E-mail	: andrew.piggin@urs.com	E-mail	: Brisbane.Enviro.Services@alsglobal.com
Telephone	: +61 08 8080 2900	Telephone	: +61 7 3243 7222
Facsimile	: ----	Facsimile	: +61 7 3243 7218
Project	: 42213719 7	QC Level	: NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Order number	: ----		
C-O-C number	: ----	Date Samples Received	: 01-MAY-2013
Sampler	: Bek Aagaard	Issue Date	: 09-MAY-2013
Site	: ----		
		No. of samples received	: 3
Quote number	: EN/038/10	No. of samples analysed	: 3

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

NATA Accredited Laboratory 825

Accredited for compliance with ISO/IEC 17025.

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*
Jonathon Angell	Inorganic Coordinator	Brisbane Inorganics
Jonathon Angell	Inorganic Coordinator	Brisbane Inorganics
Matt Frost	Senior Organic Chemist	Brisbane Inorganics
Matt Frost	Senior Organic Chemist	Brisbane Organics
Matt Frost	Senior Organic Chemist	Brisbane Organics

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

- **EG005T(Total Metals by ICP-AES) Samples EB1310481 - 001 shows poor duplicate results due to sample heterogeneity. Confirmed by visual inspection**
- **EG005T(Total Metals by ICP-AES):Sample EB1310481 - 002 shows poor matrix spike recovery due to matrix interference. Confirmed by re-extraction and re-analysis.**

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	SP03_10_160413	SP04_04_160413	SP04_06_160413	----	----
				Client sampling date / time	16-APR-2013 15:00	16-APR-2013 15:00	16-APR-2013 15:00	----	----
Compound	CAS Number	LOR	Unit		EB1310481-001	EB1310481-002	EB1310481-003	----	----
EA055: Moisture Content									
Moisture Content (dried @ 103°C)	----	1.0	%		**10.5**	**13.0**	**23.5**	----	----
EG005T: Total Metals by ICP-AES									
Arsenic	7440-38-2	5	mg/kg		----	----	<5	----	----
Barium	7440-39-3	10	mg/kg		----	----	**310**	----	----
Beryllium	7440-41-7	1	mg/kg		----	----	<1	----	----
Cadmium	7440-43-9	1	mg/kg		----	----	<1	----	----
Chromium	7440-47-3	2	mg/kg		----	----	**26**	----	----
Cobalt	7440-48-4	2	mg/kg		----	----	<2	----	----
Copper	7440-50-8	5	mg/kg		----	----	**16**	----	----
Lead	7439-92-1	5	mg/kg		----	----	**40**	----	----
Manganese	7439-96-5	5	mg/kg		----	----	**81**	----	----
Nickel	7440-02-0	2	mg/kg		----	----	**3**	----	----
Vanadium	7440-62-2	5	mg/kg		----	----	**48**	----	----
Zinc	7440-66-6	5	mg/kg		----	----	**103**	----	----
Arsenic	7440-38-2	5	mg/kg		**5**	<5	----	----	----
Cadmium	7440-43-9	1	mg/kg		<1	<1	----	----	----
Chromium	7440-47-3	2	mg/kg		**16**	**30**	----	----	----
Copper	7440-50-8	5	mg/kg		**17**	**15**	----	----	----
Lead	7439-92-1	5	mg/kg		**16**	**44**	----	----	----
Nickel	7440-02-0	2	mg/kg		**6**	**3**	----	----	----
Zinc	7440-66-6	5	mg/kg		**80**	**98**	----	----	----
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.1	mg/kg		<0.1	<0.1	<0.1	----	----
EG048: Hexavalent Chromium (Alkaline Digest)									
Hexavalent Chromium	18540-29-9	0.5	mg/kg		----	----	<0.5	----	----
EP066: Polychlorinated Biphenyls (PCB)									
Total Polychlorinated biphenyls	----	0.1	mg/kg		----	----	<0.1	----	----
EP068A: Organochlorine Pesticides (OC)									
alpha-BHC	319-84-6	0.05	mg/kg		----	----	<0.05	----	----
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg		----	----	<0.05	----	----
beta-BHC	319-85-7	0.05	mg/kg		----	----	<0.05	----	----
gamma-BHC	58-89-9	0.05	mg/kg		----	----	<0.05	----	----
delta-BHC	319-86-8	0.05	mg/kg		----	----	<0.05	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	SP03_10_160413	SP04_04_160413	SP04_06_160413	----	----
				Client sampling date / time	16-APR-2013 15:00	16-APR-2013 15:00	16-APR-2013 15:00	----	----
Compound	CAS Number	LOR	Unit		EB1310481-001	EB1310481-002	EB1310481-003	----	----
EP068A: Organochlorine Pesticides (OC) - Continued									
Heptachlor	76-44-8	0.05	mg/kg		----	----	<0.05	----	----
Aldrin	309-00-2	0.05	mg/kg		----	----	<0.05	----	----
Heptachlor epoxide	1024-57-3	0.05	mg/kg		----	----	<0.05	----	----
trans-Chlordane	5103-74-2	0.05	mg/kg		----	----	<0.05	----	----
alpha-Endosulfan	959-98-8	0.05	mg/kg		----	----	<0.05	----	----
cis-Chlordane	5103-71-9	0.05	mg/kg		----	----	<0.05	----	----
Dieldrin	60-57-1	0.05	mg/kg		----	----	<0.05	----	----
4.4`-DDE	72-55-9	0.05	mg/kg		----	----	<0.05	----	----
Endrin	72-20-8	0.05	mg/kg		----	----	<0.05	----	----
beta-Endosulfan	33213-65-9	0.05	mg/kg		----	----	<0.05	----	----
4.4`-DDD	72-54-8	0.05	mg/kg		----	----	<0.05	----	----
Endrin aldehyde	7421-93-4	0.05	mg/kg		----	----	<0.05	----	----
Endosulfan sulfate	1031-07-8	0.05	mg/kg		----	----	<0.05	----	----
4.4`-DDT	50-29-3	0.2	mg/kg		----	----	<0.2	----	----
Endrin ketone	53494-70-5	0.05	mg/kg		----	----	<0.05	----	----
Methoxychlor	72-43-5	0.2	mg/kg		----	----	<0.2	----	----
EP075(SIM)A: Phenolic Compounds									
Phenol	108-95-2	0.5	mg/kg		----	----	<0.5	----	----
2-Chlorophenol	95-57-8	0.5	mg/kg		----	----	<0.5	----	----
2-Methylphenol	95-48-7	0.5	mg/kg		----	----	<0.5	----	----
3- & 4-Methylphenol	1319-77-3	1	mg/kg		----	----	<1	----	----
2-Nitrophenol	88-75-5	0.5	mg/kg		----	----	<0.5	----	----
2.4-Dimethylphenol	105-67-9	0.5	mg/kg		----	----	<0.5	----	----
2.4-Dichlorophenol	120-83-2	0.5	mg/kg		----	----	<0.5	----	----
2.6-Dichlorophenol	87-65-0	0.5	mg/kg		----	----	<0.5	----	----
4-Chloro-3-Methylphenol	59-50-7	0.5	mg/kg		----	----	<0.5	----	----
2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg		----	----	<0.5	----	----
2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg		----	----	<0.5	----	----
Pentachlorophenol	87-86-5	2	mg/kg		----	----	<2	----	----
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	0.5	mg/kg		<0.5	<0.5	<0.5	----	----
Acenaphthylene	208-96-8	0.5	mg/kg		<0.5	<0.5	<0.5	----	----
Acenaphthene	83-32-9	0.5	mg/kg		<0.5	<0.5	<0.5	----	----
Fluorene	86-73-7	0.5	mg/kg		<0.5	<0.5	<0.5	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	SP03_10_160413	SP04_04_160413	SP04_06_160413	----	----
				Client sampling date / time	16-APR-2013 15:00	16-APR-2013 15:00	16-APR-2013 15:00	----	----
Compound	CAS Number	LOR	Unit		EB1310481-001	EB1310481-002	EB1310481-003	----	----
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued									
Phenanthrene	85-01-8	0.5	mg/kg		<0.5	<0.5	<0.5	----	----
Anthracene	120-12-7	0.5	mg/kg		<0.5	<0.5	<0.5	----	----
Fluoranthene	206-44-0	0.5	mg/kg		<0.5	<0.5	<0.5	----	----
Pyrene	129-00-0	0.5	mg/kg		<0.5	<0.5	<0.5	----	----
Benz(a)anthracene	56-55-3	0.5	mg/kg		<0.5	<0.5	<0.5	----	----
Chrysene	218-01-9	0.5	mg/kg		<0.5	<0.5	<0.5	----	----
Benzo(b)fluoranthene	205-99-2	0.5	mg/kg		<0.5	<0.5	<0.5	----	----
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg		<0.5	<0.5	<0.5	----	----
Benzo(a)pyrene	50-32-8	0.5	mg/kg		<0.5	<0.5	<0.5	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg		<0.5	<0.5	<0.5	----	----
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg		<0.5	<0.5	<0.5	----	----
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg		<0.5	<0.5	<0.5	----	----
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg		<0.5	<0.5	<0.5	----	----
Benzo(a)pyrene TEQ (WHO)	----	0.5	mg/kg		<0.5	<0.5	<0.5	----	----
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	10	mg/kg		<10	<10	<10	----	----
C10 - C14 Fraction	----	50	mg/kg		----	----	<50	----	----
C15 - C28 Fraction	----	100	mg/kg		----	----	<100	----	----
C29 - C36 Fraction	----	100	mg/kg		----	----	<100	----	----
^ C10 - C36 Fraction (sum)	----	50	mg/kg		----	----	<50	----	----
EP080/071: Total Recoverable Hydrocarbons - NEPM 2010 Draft									
C6 - C10 Fraction	----	10	mg/kg		<10	<10	<10	----	----
^ C6 - C10 Fraction minus BTEX (F1)	----	10	mg/kg		<10	<10	<10	----	----
>C10 - C16 Fraction	----	50	mg/kg		----	----	<50	----	----
>C16 - C34 Fraction	----	100	mg/kg		----	----	<100	----	----
>C34 - C40 Fraction	----	100	mg/kg		----	----	<100	----	----
^ >C10 - C40 Fraction (sum)	----	50	mg/kg		----	----	<50	----	----
EP080: BTEX									
Benzene	71-43-2	0.2	mg/kg		<0.2	<0.2	<0.2	----	----
Toluene	108-88-3	0.5	mg/kg		<0.5	<0.5	<0.5	----	----
Ethylbenzene	100-41-4	0.5	mg/kg		<0.5	<0.5	<0.5	----	----
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg		<0.5	<0.5	<0.5	----	----
ortho-Xylene	95-47-6	0.5	mg/kg		<0.5	<0.5	<0.5	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	SP03_10_160413	SP04_04_160413	SP04_06_160413	----	----
				Client sampling date / time	16-APR-2013 15:00	16-APR-2013 15:00	16-APR-2013 15:00	----	----
Compound	CAS Number	LOR	Unit		EB1310481-001	EB1310481-002	EB1310481-003	----	----
EP080: BTEXN									
^ **Total Xylenes**	1330-20-7	0.5	mg/kg		<0.5	<0.5	<0.5	----	----
^ **Sum of BTEX**	----	0.2	mg/kg		<0.2	<0.2	<0.2	----	----
Naphthalene	91-20-3	1	mg/kg		<1	<1	<1	----	----
EP066S: PCB Surrogate									
Decachlorobiphenyl	2051-24-3	0.1	%		----	----	**101**	----	----
EP068S: Organochlorine Pesticide Surrogate									
Dibromo-DDE	21655-73-2	0.1	%		----	----	**134**	----	----
EP068T: Organophosphorus Pesticide Surrogate									
DEF	78-48-8	0.1	%		----	----	**128**	----	----
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.1	%		**102**	**98.5**	**104**	----	----
2-Chlorophenol-D4	93951-73-6	0.1	%		**109**	**108**	**110**	----	----
2.4.6-Tribromophenol	118-79-6	0.1	%		**92.9**	**98.0**	**96.0**	----	----
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.1	%		**124**	**117**	**123**	----	----
Anthracene-d10	1719-06-8	0.1	%		**91.4**	**88.9**	**94.5**	----	----
4-Terphenyl-d14	1718-51-0	0.1	%		**112**	**114**	**133**	----	----
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.1	%		**83.8**	**81.2**	**78.5**	----	----
Toluene-D8	2037-26-5	0.1	%		**80.6**	**79.2**	**75.3**	----	----
4-Bromofluorobenzene	460-00-4	0.1	%		**75.2**	**72.2**	**68.8**	----	----

Surrogate Control Limits

Sub-Matrix: **SOIL**

Compound	CAS Number	Recovery Limits (%) Low	High
EP066S: PCB Surrogate			
Decachlorobiphenyl	2051-24-3	16.2	133.7
EP068S: Organochlorine Pesticide Surrogate			
Dibromo-DDE	21655-73-2	10	138
EP068T: Organophosphorus Pesticide Surrogate			
DEF	78-48-8	22.8	134.5
EP075(SIM)S: Phenolic Compound Surrogates			
Phenol-d6	13127-88-3	34.8	154.5
2-Chlorophenol-D4	93951-73-6	41.9	152.8
2.4.6-Tribromophenol	118-79-6	26.0	156.8
EP075(SIM)T: PAH Surrogates			
2-Fluorobiphenyl	321-60-8	33.8	156.5
Anthracene-d10	1719-06-8	36.9	153.1
4-Terphenyl-d14	1718-51-0	41.8	172.2
EP080S: TPH(V)/BTEX Surrogates			
1.2-Dichloroethane-D4	17060-07-0	52.7	133.7
Toluene-D8	2037-26-5	60.3	131.1
4-Bromofluorobenzene	460-00-4	59.2	126.6

Environmental Division

QUALITY CONTROL REPORT

Work Order	: **EB1310481**	Page	: 1 of 11
Client	: **URS AUSTRALIA**	Laboratory	: Environmental Division Brisbane
Contact	: MR ANDREW PIGGIN	Contact	: Customer Services
Address	: G P O BOX 2005 DARWIN NT, AUSTRALIA 0801	Address	: 2 Byth Street Stafford QLD Australia 4053
E-mail	: andrew.piggin@urs.com	E-mail	: Brisbane.Enviro.Services@alsglobal.com
Telephone	: +61 08 8080 2900	Telephone	: +61 7 3243 7222
Facsimile	: ----	Facsimile	: +61 7 3243 7218
Project	: 42213719 7	QC Level	: NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Site	: ----		
C-O-C number	: ----	Date Samples Received	: 01-MAY-2013
Sampler	: Bek Aagaard	Issue Date	: 09-MAY-2013
Order number	: ----		
		No. of samples received	: 3
Quote number	: EN/038/10	No. of samples analysed	: 3

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 Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percentage Difference (RPD) and Acceptance Limits
- Method Blank (MB) and Laboratory Control Spike (LCS) Report; Recovery and Acceptance Limits
- Matrix Spike (MS) Report; Recovery and Acceptance Limits

NATA Accredited Laboratory 825

Accredited for compliance with ISO/IEC 17025.

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*
Jonathon Angell	Inorganic Coordinator	Brisbane Inorganics
Jonathon Angell	Inorganic Coordinator	Brisbane Inorganics
Matt Frost	Senior Organic Chemist	Brisbane Inorganics
Matt Frost	Senior Organic Chemist	Brisbane Organics
Matt Frost	Senior Organic Chemist	Brisbane Organics

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.

Key : Anonymous = Refers to samples which are not specifically part of this work order but formed part of the QC process lot
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
RPD = Relative Percentage Difference
# = Indicates failed QC

Laboratory Duplicate (DUP) Report

The quality control term Laboratory Duplicate refers to a randomly selected intralaboratory split. Laboratory duplicates provide information regarding method precision and sample heterogeneity. The permitted ranges for the Relative Percent Deviation (RPD) of Laboratory Duplicates are specified in ALS Method QWI-EN/38 and are dependent on the magnitude of results in comparison to the level of reporting: Result < 10 times LOR:- No Limit; Result between 10 and 20 times LOR:- 0% - 50%; Result > 20 times LOR:- 0% - 20%.

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Client sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Recovery Limits (%)*
EA055: Moisture Content (QC Lot: 2850492)									
EB1310531-001	Anonymous	EA055-103: Moisture Content (dried @ 103°C)	----	1.0	%	Anonymous	Anonymous	Anonymous	Anonymous
EB1310531-008	Anonymous	EA055-103: Moisture Content (dried @ 103°C)	----	1.0	%	Anonymous	Anonymous	Anonymous	Anonymous
EG005T: Total Metals by ICP-AES (QC Lot: 2850464)									
EB1310481-001	SP03_10_160413	EG005T: Beryllium	7440-41-7	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Barium	7440-39-3	10	mg/kg	40	30	0.0	0% - 20%
		EG005T: Chromium	7440-47-3	2	mg/kg	16	65	# 119	0% - 20%
		EG005T: Cobalt	7440-48-4	2	mg/kg	2	4	57.2	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	6	10	46.1	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	5	6	0.0	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	17	13	31.2	0% - 20%
		EG005T: Lead	7439-92-1	5	mg/kg	16	14	8.5	0% - 20%
		EG005T: Manganese	7439-96-5	5	mg/kg	62	298	# 131	0% - 20%
		EG005T: Vanadium	7440-62-2	5	mg/kg	22	42	62.4	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	80	66	19.4	0% - 20%
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 2850463)									
EB1310415-001	Anonymous	EG035T: Mercury	7439-97-6	0.1	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
EB1310470-010	Anonymous	EG035T: Mercury	7439-97-6	0.1	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
EG048: Hexavalent Chromium (Alkaline Digest) (QC Lot: 2852429)									
EB1310481-003	SP04_06_160413	EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
EP066: Polychlorinated Biphenyls (PCB) (QC Lot: 2850215)									
EB1310369-001	Anonymous	EP066: Total Polychlorinated biphenyls	----	0.1	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
EB1310369-008	Anonymous	EP066: Total Polychlorinated biphenyls	----	0.1	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
EP068A: Organochlorine Pesticides (OC) (QC Lot: 2850214)									
EB1310369-001	Anonymous	EP068: alpha-BHC	319-84-6	0.05	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP068: Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP068: beta-BHC	319-85-7	0.05	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP068: gamma-BHC	58-89-9	0.05	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP068: delta-BHC	319-86-8	0.05	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP068: Heptachlor	76-44-8	0.05	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP068: Aldrin	309-00-2	0.05	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP068: Heptachlor epoxide	1024-57-3	0.05	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP068: trans-Chlordane	5103-74-2	0.05	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP068: alpha-Endosulfan	959-98-8	0.05	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP068: cis-Chlordane	5103-71-9	0.05	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP068: Dieldrin	60-57-1	0.05	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Client sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Recovery Limits (%)*
EP068A: Organochlorine Pesticides (OC) (QC Lot: 2850214) - continued									
EB1310369-001	Anonymous	EP068: 4.4`-DDE	72-55-9	0.05	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP068: Endrin	72-20-8	0.05	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP068: beta-Endosulfan	33213-65-9	0.05	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP068: 4.4`-DDD	72-54-8	0.05	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP068: Endrin aldehyde	7421-93-4	0.05	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP068: Endosulfan sulfate	1031-07-8	0.05	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP068: Endrin ketone	53494-70-5	0.05	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP068: 4.4`-DDT	50-29-3	0.2	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP068: Methoxychlor	72-43-5	0.2	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
EB1310369-008	Anonymous	EP068: alpha-BHC	319-84-6	0.05	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP068: Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP068: beta-BHC	319-85-7	0.05	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP068: gamma-BHC	58-89-9	0.05	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP068: delta-BHC	319-86-8	0.05	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP068: Heptachlor	76-44-8	0.05	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP068: Aldrin	309-00-2	0.05	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP068: Heptachlor epoxide	1024-57-3	0.05	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP068: trans-Chlordane	5103-74-2	0.05	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP068: alpha-Endosulfan	959-98-8	0.05	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP068: cis-Chlordane	5103-71-9	0.05	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP068: Dieldrin	60-57-1	0.05	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP068: 4.4`-DDE	72-55-9	0.05	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP068: Endrin	72-20-8	0.05	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP068: beta-Endosulfan	33213-65-9	0.05	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP068: 4.4`-DDD	72-54-8	0.05	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP068: Endrin aldehyde	7421-93-4	0.05	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP068: Endosulfan sulfate	1031-07-8	0.05	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP068: Endrin ketone	53494-70-5	0.05	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP068: 4.4`-DDT	50-29-3	0.2	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP068: Methoxychlor	72-43-5	0.2	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
EP075(SIM)A: Phenolic Compounds (QC Lot: 2850419)									
EB1310344-001	Anonymous	EP075(SIM): Phenol	108-95-2	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): 2-Chlorophenol	95-57-8	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): 2-Methylphenol	95-48-7	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): 2-Nitrophenol	88-75-5	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): 2.4-Dimethylphenol	105-67-9	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): 2.4-Dichlorophenol	120-83-2	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): 2.6-Dichlorophenol	87-65-0	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): 4-Chloro-3-Methylphenol	59-50-7	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): 2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): 2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Client sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Recovery Limits (%)*
EP075(SIM)A: Phenolic Compounds (QC Lot: 2850419) - continued									
EB1310344-001	Anonymous	EP075(SIM): 3- & 4-Methylphenol	1319-77-3	1	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): Pentachlorophenol	87-86-5	2	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
EB1310364-003	Anonymous	EP075(SIM): Phenol	108-95-2	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): 2-Chlorophenol	95-57-8	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): 2-Methylphenol	95-48-7	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): 2-Nitrophenol	88-75-5	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): 2.4-Dimethylphenol	105-67-9	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): 2.4-Dichlorophenol	120-83-2	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): 2.6-Dichlorophenol	87-65-0	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): 4-Chloro-3-Methylphenol	59-50-7	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): 2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): 2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): 3- & 4-Methylphenol	1319-77-3	1	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): Pentachlorophenol	87-86-5	2	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QC Lot: 2850419)									
EB1310344-001	Anonymous	EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): Benzo(b)fluoranthene	205-99-2	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): Benzo(a)pyrene TEQ (WHO)	----	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
EB1310364-003	Anonymous	EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Client sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Recovery Limits (%)*
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QC Lot: 2850419) - continued									
EB1310364-003	Anonymous	EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): Benzo(b)fluoranthene	205-99-2	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): Benzo(a)pyrene TEQ (WHO)	----	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 2849958)									
EB1310481-001	SP03_10_160413	EP080: C6 - C9 Fraction	----	10	mg/kg	<10	<10	0.0	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 2850418)									
EB1310344-001	Anonymous	EP071: C15 - C28 Fraction	----	100	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP071: C29 - C36 Fraction	----	100	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP071: C10 - C14 Fraction	----	50	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
EB1310465-002	Anonymous	EP071: C15 - C28 Fraction	----	100	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP071: C29 - C36 Fraction	----	100	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP071: C10 - C14 Fraction	----	50	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
EP080/071: Total Recoverable Hydrocarbons - NEPM 2010 Draft (QC Lot: 2849958)									
EB1310481-001	SP03_10_160413	EP080: C6 - C10 Fraction	----	10	mg/kg	<10	<10	0.0	No Limit
EP080/071: Total Recoverable Hydrocarbons - NEPM 2010 Draft (QC Lot: 2850418)									
EB1310344-001	Anonymous	EP071: >C16 - C34 Fraction	----	100	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP071: >C34 - C40 Fraction	----	100	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP071: >C10 - C16 Fraction	----	50	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
EB1310465-002	Anonymous	EP071: >C16 - C34 Fraction	----	100	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP071: >C34 - C40 Fraction	----	100	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP071: >C10 - C16 Fraction	----	50	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
EP080: BTEXN (QC Lot: 2849958)									
EB1310481-001	SP03_10_160413	EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: Naphthalene	91-20-3	1	mg/kg	<1	<1	0.0	No Limit

Method Blank (MB) and Laboratory Control Spike (LCS) Report

The quality control term Method / Laboratory Blank refers to an analyte free matrix to which all reagents are added in the same volumes or proportions as used in standard sample preparation. The purpose of this QC parameter is to monitor potential laboratory contamination. The quality control term Laboratory Control Sample (LCS) refers to a certified reference material, or a known interference free matrix spiked with target analytes. The purpose of this QC parameter is to monitor method precision and accuracy independent of sample matrix. Dynamic Recovery Limits are based on statistical evaluation of processed LCS.

Sub-Matrix: **SOIL**

				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Recovery Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	Low	High
EG005T: Total Metals by ICP-AES (QCLot: 2850464)								
EG005T: Arsenic	7440-38-2	5	mg/kg	<5	21.7 mg/kg	110	77	127
EG005T: Barium	7440-39-3	10	mg/kg	<10	143 mg/kg	119	76	130
EG005T: Beryllium	7440-41-7	1	mg/kg	<1	5.63 mg/kg	122	78	130
EG005T: Cadmium	7440-43-9	1	mg/kg	<1	4.64 mg/kg	110	76	122
EG005T: Chromium	7440-47-3	2	mg/kg	<2	43.9 mg/kg	97.3	73	127
EG005T: Cobalt	7440-48-4	2	mg/kg	<2	16.0 mg/kg	112	70	130
EG005T: Copper	7440-50-8	5	mg/kg	<5	32.0 mg/kg	116	80	122
EG005T: Lead	7439-92-1	5	mg/kg	<5	40.0 mg/kg	107	77	121
EG005T: Manganese	7439-96-5	5	mg/kg	<5	130 mg/kg	101	73	117
EG005T: Nickel	7440-02-0	2	mg/kg	<2	55.0 mg/kg	108	80	126
EG005T: Vanadium	7440-62-2	5	mg/kg	<5	29.6 mg/kg	112	79	127
EG005T: Zinc	7440-66-6	5	mg/kg	<5	60.8 mg/kg	110	77	127
EG035T: Total Recoverable Mercury by FIMS (QCLot: 2850463)								
EG035T: Mercury	7439-97-6	0.10	mg/kg	<0.1	2.57 mg/kg	93.7	70	130
EG048: Hexavalent Chromium (Alkaline Digest) (QCLot: 2852429)								
EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	40 mg/kg	89.2	80	116
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 2850215)								
EP066: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	1 mg/kg	92.8	61	118
EP068A: Organochlorine Pesticides (OC) (QCLot: 2850214)								
EP068: alpha-BHC	319-84-6	0.05	mg/kg	<0.05	0.5 mg/kg	86.4	58	121
EP068: Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	0.5 mg/kg	95.6	57	112
EP068: beta-BHC	319-85-7	0.05	mg/kg	<0.05	0.5 mg/kg	78.7	54	121
EP068: gamma-BHC	58-89-9	0.05	mg/kg	<0.05	0.5 mg/kg	89.5	60	136
EP068: delta-BHC	319-86-8	0.05	mg/kg	<0.05	0.5 mg/kg	107	66	122
EP068: Heptachlor	76-44-8	0.05	mg/kg	<0.05	0.5 mg/kg	118	70	130
EP068: Aldrin	309-00-2	0.05	mg/kg	<0.05	0.5 mg/kg	111	75	130
EP068: Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	0.5 mg/kg	101	59	118
EP068: trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	0.5 mg/kg	102	61	119
EP068: alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	0.5 mg/kg	110	54	125
EP068: cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	0.5 mg/kg	100	61	118
EP068: Dieldrin	60-57-1	0.05	mg/kg	<0.05	0.5 mg/kg	108	72	136
EP068: 4.4`-DDE	72-55-9	0.05	mg/kg	<0.05	0.5 mg/kg	102	67	121
EP068: Endrin	72-20-8	0.05	mg/kg	<0.05	0.5 mg/kg	112	65	150
EP068: beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	0.5 mg/kg	110	61	122
EP068: 4.4`-DDD	72-54-8	0.05	mg/kg	<0.05	0.5 mg/kg	106	60	123

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Recovery Limits (%): Low	Recovery Limits (%): High
EP068A: Organochlorine Pesticides (OC) (QCLot: 2850214) - continued								
EP068: Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	0.5 mg/kg	97.1	38	125
EP068: Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	0.5 mg/kg	103	52	125
EP068: 4.4`-DDT	50-29-3	0.05	mg/kg	----	0.5 mg/kg	115	80	155
		0.2	mg/kg	<0.2	----	----	----	----
EP068: Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	0.5 mg/kg	108	55	129
EP068: Methoxychlor	72-43-5	0.05	mg/kg	----	0.5 mg/kg	96.3	47	136
		0.2	mg/kg	<0.2	----	----	----	----
EP075(SIM)A: Phenolic Compounds (QCLot: 2850419)								
EP075(SIM): Phenol	108-95-2	0.5	mg/kg	<0.5	5.0 mg/kg	112	85	129
EP075(SIM): 2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	5.0 mg/kg	112	85	127
EP075(SIM): 2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	5.0 mg/kg	108	67	124
EP075(SIM): 3- & 4-Methylphenol	1319-77-3	1.0	mg/kg	<1	10 mg/kg	111	62	125
EP075(SIM): 2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	5.0 mg/kg	111	44	130
EP075(SIM): 2.4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	5.0 mg/kg	111	63	121
EP075(SIM): 2.4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	5.0 mg/kg	108	54	121
EP075(SIM): 2.6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	5.0 mg/kg	114	63	124
EP075(SIM): 4-Chloro-3-Methylphenol	59-50-7	0.5	mg/kg	<0.5	5.0 mg/kg	107	60	126
EP075(SIM): 2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	5.0 mg/kg	112	50	121
EP075(SIM): 2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	5.0 mg/kg	106	49	121
EP075(SIM): Pentachlorophenol	87-86-5	2.0	mg/kg	<2	10 mg/kg	# 103	20	100
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 2850419)								
EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	5.0 mg/kg	104	71	119
EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	5.0 mg/kg	108	67	118
EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	5.0 mg/kg	111	83	121
EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	5.0 mg/kg	112	76	116
EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	5.0 mg/kg	111	72	117
EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	5.0 mg/kg	# 122	70	115
EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	5.0 mg/kg	108	69	116
EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	5.0 mg/kg	106	69	134
EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	5.0 mg/kg	118	61	120
EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	5.0 mg/kg	115	62	119
EP075(SIM): Benzo(b)fluoranthene	205-99-2	0.5	mg/kg	<0.5	5.0 mg/kg	105	49	129
EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	5.0 mg/kg	115	64	129
EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	5.0 mg/kg	115	65	121
EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	5.0 mg/kg	132	51	135
EP075(SIM): Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	5.0 mg/kg	# 142	45	134
EP075(SIM): Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	5.0 mg/kg	122	53	133
EP075(SIM): Benzo(a)pyrene TEQ (WHO)	----	0.5	mg/kg	<0.5	----	----	----	----
EP080/071: Total Petroleum Hydrocarbons (QCLot: 2849958)								

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Recovery Limits (%)	
				Result	Concentration	LCS	Low	High
EP080/071: Total Petroleum Hydrocarbons (QCLot: 2849958) - continued								
EP080: C6 - C9 Fraction	----	10	mg/kg	<10	16 mg/kg	81.5	66	124
EP080/071: Total Petroleum Hydrocarbons (QCLot: 2850418)								
EP071: C10 - C14 Fraction	----	50	mg/kg	<50	312 mg/kg	89.5	84	117
EP071: C15 - C28 Fraction	----	100	mg/kg	<100	500 mg/kg	94.6	80	118
EP071: C29 - C36 Fraction	----	100	mg/kg	<100	----	----	----	----
EP080/071: Total Recoverable Hydrocarbons - NEPM 2010 Draft (QCLot: 2849958)								
EP080: C6 - C10 Fraction	----	10	mg/kg	<10	18.5 mg/kg	81.0	66	126
EP080/071: Total Recoverable Hydrocarbons - NEPM 2010 Draft (QCLot: 2850418)								
EP071: >C10 - C16 Fraction	----	50	mg/kg	<50	413 mg/kg	94.3	86	117
EP071: >C16 - C34 Fraction	----	100	mg/kg	<100	360 mg/kg	98.0	72	113
EP071: >C34 - C40 Fraction	----	100	mg/kg	<100	----	----	----	----
EP080: BTEXN (QCLot: 2849958)								
EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	1 mg/kg	78.2	73	108
EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	1 mg/kg	82.7	73	111
EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	1 mg/kg	77.8	67	110
EP080: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	2 mg/kg	75.9	66	112
EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	1 mg/kg	75.2	68	110
EP080: Naphthalene	91-20-3	1	mg/kg	<1	1 mg/kg	80.4	72	115

Matrix Spike (MS) Report

The quality control term Matrix Spike (MS) refers to an intralaboratory split sample spiked with a representative set of target analytes. The purpose of this QC parameter is to monitor potential matrix effects on analyte recoveries. Static Recovery Limits as per laboratory Data Quality Objectives (DQOs). Ideal recovery ranges stated may be waived in the event of sample matrix interference.

Sub-Matrix: **SOIL**

				Matrix Spike (MS) Report			
				Spike	Spike Recovery (%)	Recovery Limits (%)	
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EG005T: Total Metals by ICP-AES (QCLot: 2850464)							
EB1310481-002	SP04_04_160413	EG005T: Arsenic	7440-38-2	50 mg/kg	90.6	70	130
		EG005T: Barium	7440-39-3	50 mg/kg	# Not Determined	70	130
		EG005T: Beryllium	7440-41-7	5 mg/kg	121	70	130
		EG005T: Cadmium	7440-43-9	25 mg/kg	111	70	130
		EG005T: Chromium	7440-47-3	50 mg/kg	124	70	130
		EG005T: Cobalt	7440-48-4	50 mg/kg	110	70	130
		EG005T: Copper	7440-50-8	50 mg/kg	115	70	130
		EG005T: Lead	7439-92-1	50 mg/kg	93.0	70	130
		EG005T: Manganese	7439-96-5	50 mg/kg	# 136	70	130
		EG005T: Nickel	7440-02-0	50 mg/kg	109	70	130
		EG005T: Vanadium	7440-62-2	50 mg/kg	111	70	130
		EG005T: Zinc	7440-66-6	50 mg/kg	104	70	130
EG035T: Total Recoverable Mercury by FIMS (QCLot: 2850463)							
EB1310470-001	Anonymous	EG035T: Mercury	7439-97-6	Anonymous	Anonymous	Anonymous	Anonymous
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 2850215)							
EB1310369-002	Anonymous	EP066: Total Polychlorinated biphenyls	----	Anonymous	Anonymous	Anonymous	Anonymous
EP068A: Organochlorine Pesticides (OC) (QCLot: 2850214)							
EB1310369-002	Anonymous	EP068: gamma-BHC	58-89-9	Anonymous	Anonymous	Anonymous	Anonymous
		EP068: Heptachlor	76-44-8	Anonymous	Anonymous	Anonymous	Anonymous
		EP068: Aldrin	309-00-2	Anonymous	Anonymous	Anonymous	Anonymous
		EP068: Dieldrin	60-57-1	Anonymous	Anonymous	Anonymous	Anonymous
		EP068: Endrin	72-20-8	Anonymous	Anonymous	Anonymous	Anonymous
		EP068: 4.4`-DDT	50-29-3	Anonymous	Anonymous	Anonymous	Anonymous
EP075(SIM)A: Phenolic Compounds (QCLot: 2850419)							
EB1310344-002	Anonymous	EP075(SIM): Phenol	108-95-2	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): 2-Chlorophenol	95-57-8	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): 2-Nitrophenol	88-75-5	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): 4-Chloro-3-Methylphenol	59-50-7	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): Pentachlorophenol	87-86-5	Anonymous	Anonymous	Anonymous	Anonymous
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 2850419)							
EB1310344-002	Anonymous	EP075(SIM): Acenaphthene	83-32-9	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): Pyrene	129-00-0	Anonymous	Anonymous	Anonymous	Anonymous
EP080/071: Total Petroleum Hydrocarbons (QCLot: 2849958)							
EB1310481-002	SP04_04_160413	EP080: C6 - C9 Fraction	----	8 mg/kg	77.9	70	130
EP080/071: Total Petroleum Hydrocarbons (QCLot: 2850418)							

Sub-Matrix: **SOIL**

				Matrix Spike (MS) Report			
				Spike	Spike Recovery (%)	Recovery Limits (%)	
Laboratory sample ID	*Client sample ID*	*Method: Compound*	*CAS Number*	*Concentration*	*MS*	*Low*	*High*
EP080/071: Total Petroleum Hydrocarbons (QCLot: 2850418) - continued							
EB1310344-002	Anonymous	EP071: C10 - C14 Fraction	----	Anonymous	Anonymous	Anonymous	Anonymous
		EP071: C15 - C28 Fraction	----	Anonymous	Anonymous	Anonymous	Anonymous
EP080/071: Total Recoverable Hydrocarbons - NEPM 2010 Draft (QCLot: 2849958)							
EB1310481-002	SP04_04_160413	EP080: C6 - C10 Fraction	----	8 mg/kg	80.9	70	130
EP080/071: Total Recoverable Hydrocarbons - NEPM 2010 Draft (QCLot: 2850418)							
EB1310344-002	Anonymous	EP071: >C10 - C16 Fraction	----	Anonymous	Anonymous	Anonymous	Anonymous
		EP071: >C16 - C34 Fraction	----	Anonymous	Anonymous	Anonymous	Anonymous
EP080: BTEXN (QCLot: 2849958)							
EB1310481-002	SP04_04_160413	EP080: Benzene	71-43-2	2 mg/kg	77.7	70	130
		EP080: Toluene	108-88-3	2 mg/kg	80.2	70	130

INTERPRETIVE QUALITY CONTROL REPORT

Work Order	: **EB1310481**	Page	: 1 of 7
Client	: URS AUSTRALIA	Laboratory	: Environmental Division Brisbane
Contact	: MR ANDREW PIGGIN	Contact	: Customer Services
Address	: G P O BOX 2005 DARWIN NT, AUSTRALIA 0801	Address	: 2 Byth Street Stafford QLD Australia 4053
E-mail	: andrew.piggin@urs.com	E-mail	: Brisbane.Enviro.Services@alsglobal.com
Telephone	: +61 08 8080 2900	Telephone	: +61-7-3243 7222
Facsimile	: ----	Facsimile	: +61-7-3243 7218
Project	: 42213719 7	QC Level	: NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Site	: ----		
C-O-C number	: ----	Date Samples Received	: 01-MAY-2013
Sampler	: Bek Aagaard	Issue Date	: 09-MAY-2013
Order number	: ----		
		No. of samples received	: 3
Quote number	: EN/038/10	No. of samples analysed	: 3

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 Interpretive Quality Control Report contains the following information:

- Analysis Holding Time Compliance
- Quality Control Parameter Frequency Compliance
- Brief Method Summaries
- Summary of Outliers

Analysis Holding Time Compliance

The following report summarises extraction / preparation and analysis times and compares with recommended holding times. Dates reported represent first date of extraction or analysis and precludes subsequent dilutions and reruns. Information is also provided re the sample container (preservative) from which the analysis aliquot was taken. Elapsed period to analysis represents number of days from sampling where no extraction / digestion is involved or period from extraction / digestion where this is present. For composite samples, sampling date is assumed to be that of the oldest sample contributing to the composite. Sample date for laboratory produced leachates is assumed as the completion date of the leaching process. Outliers for holding time are based on USEPA SW 846, APHA, AS and NEPM (1999). A listing of breaches is provided in the Summary of Outliers.

Holding times for leachate methods (excluding elutriates) vary according to the analytes being determined on the resulting solution. For non -volatile analytes, the holding time compliance assessment compares the leach date with the shortest analyte holding time for the equivalent soil method. These soil holding times are: Organics (14 days); Mercury (28 days) & other metals (180 days). A recorded breach therefore does not guarantee a breach for all non-volatile parameters.

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EA055: Moisture Content							
Soil Glass Jar - Unpreserved							
SP03_10_160413, SP04_04_160413, SP04_06_160413	**16-APR-2013**	**----**	----	----	**03-MAY-2013**	30-APR-2013	×
EG005T: Total Metals by ICP-AES							
Soil Glass Jar - Unpreserved							
SP03_10_160413, SP04_04_160413, SP04_06_160413	**16-APR-2013**	**08-MAY-2013**	13-OCT-2013	✓	**08-MAY-2013**	13-OCT-2013	✓
EG035T: Total Recoverable Mercury by FIMS							
Soil Glass Jar - Unpreserved							
SP03_10_160413, SP04_04_160413, SP04_06_160413	**16-APR-2013**	**08-MAY-2013**	14-MAY-2013	✓	**08-MAY-2013**	14-MAY-2013	✓
EG048: Hexavalent Chromium (Alkaline Digest)							
Soil Glass Jar - Unpreserved							
SP04_06_160413	**16-APR-2013**	**08-MAY-2013**	14-MAY-2013	✓	**08-MAY-2013**	15-MAY-2013	✓
EP066: Polychlorinated Biphenyls (PCB)							
Soil Glass Jar - Unpreserved							
SP04_06_160413	**16-APR-2013**	**07-MAY-2013**	30-APR-2013	×	**07-MAY-2013**	16-JUN-2013	✓
EP068A: Organochlorine Pesticides (OC)							
Soil Glass Jar - Unpreserved							
SP04_06_160413	**16-APR-2013**	**07-MAY-2013**	30-APR-2013	×	**07-MAY-2013**	16-JUN-2013	✓
EP075(SIM)A: Phenolic Compounds							
Soil Glass Jar - Unpreserved							
SP04_06_160413	**16-APR-2013**	**07-MAY-2013**	30-APR-2013	×	**07-MAY-2013**	16-JUN-2013	✓
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons							
Soil Glass Jar - Unpreserved							
SP03_10_160413, SP04_04_160413, SP04_06_160413	**16-APR-2013**	**07-MAY-2013**	30-APR-2013	×	**07-MAY-2013**	16-JUN-2013	✓

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP080/071: Total Petroleum Hydrocarbons							
Soil Glass Jar - Unpreserved SP03_10_160413, SP04_04_160413, SP04_06_160413	**16-APR-2013**	**03-MAY-2013**	30-APR-2013	×	**03-MAY-2013**	30-APR-2013	×
Soil Glass Jar - Unpreserved SP04_06_160413	**16-APR-2013**	**07-MAY-2013**	30-APR-2013	×	**07-MAY-2013**	16-JUN-2013	✓
EP080/071: Total Recoverable Hydrocarbons - NEPM 2010 Draft							
Soil Glass Jar - Unpreserved SP03_10_160413, SP04_04_160413, SP04_06_160413	**16-APR-2013**	**03-MAY-2013**	30-APR-2013	×	**03-MAY-2013**	30-APR-2013	×
Soil Glass Jar - Unpreserved SP04_06_160413	**16-APR-2013**	**07-MAY-2013**	30-APR-2013	×	**07-MAY-2013**	16-JUN-2013	✓
EP080: BTEX							
Soil Glass Jar - Unpreserved SP03_10_160413, SP04_04_160413, SP04_06_160413	**16-APR-2013**	**03-MAY-2013**	30-APR-2013	×	**03-MAY-2013**	30-APR-2013	×
EP080: BTEXN							
Soil Glass Jar - Unpreserved SP03_10_160413, SP04_04_160413, SP04_06_160413	**16-APR-2013**	**03-MAY-2013**	30-APR-2013	×	**03-MAY-2013**	30-APR-2013	×

Quality Control Parameter Frequency Compliance

The following report summarises the frequency of laboratory QC samples analysed within the analytical lot(s) in which the submitted sample(s) was(where) processed. Actual rate should be greater than or equal to the expected rate. A listing of breaches is provided in the Summary of Outliers.

Matrix: **SOIL**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Laboratory Duplicates (DUP)							
Hexavalent Chromium by Alkaline Digestion and DA Finish	EG048G	1	1	**100.0**	**10.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Moisture Content	EA055-103	2	20	**10.0**	**10.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
PAH/Phenols (SIM)	EP075(SIM)	2	16	**12.5**	**10.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Pesticides by GCMS	EP068	2	17	**11.8**	**10.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Polychlorinated Biphenyls (PCB)	EP066	2	14	**14.3**	**10.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Total Mercury by FIMS	EG035T	2	20	**10.0**	**10.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Total Metals by ICP-AES	EG005T	1	4	**25.0**	**10.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH - Semivolatile Fraction	EP071	2	13	**15.4**	**10.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH Volatiles/BTEX	EP080	1	3	**33.3**	**10.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Laboratory Control Samples (LCS)							
Hexavalent Chromium by Alkaline Digestion and DA Finish	EG048G	1	1	**100.0**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
PAH/Phenols (SIM)	EP075(SIM)	1	16	**6.3**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Pesticides by GCMS	EP068	1	17	**5.9**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Polychlorinated Biphenyls (PCB)	EP066	1	14	**7.1**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Total Mercury by FIMS	EG035T	1	20	**5.0**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Total Metals by ICP-AES	EG005T	1	4	**25.0**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH - Semivolatile Fraction	EP071	1	13	**7.7**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH Volatiles/BTEX	EP080	1	3	**33.3**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Method Blanks (MB)							
Hexavalent Chromium by Alkaline Digestion and DA Finish	EG048G	1	1	**100.0**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
PAH/Phenols (SIM)	EP075(SIM)	1	16	**6.3**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Pesticides by GCMS	EP068	1	17	**5.9**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Polychlorinated Biphenyls (PCB)	EP066	1	14	**7.1**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Total Mercury by FIMS	EG035T	1	20	**5.0**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Total Metals by ICP-AES	EG005T	1	4	**25.0**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH - Semivolatile Fraction	EP071	1	13	**7.7**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH Volatiles/BTEX	EP080	1	3	**33.3**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Matrix Spikes (MS)							
PAH/Phenols (SIM)	EP075(SIM)	1	16	**6.3**	**5.0**	✓	ALS QCS3 requirement
Pesticides by GCMS	EP068	1	17	**5.9**	**5.0**	✓	ALS QCS3 requirement
Polychlorinated Biphenyls (PCB)	EP066	1	14	**7.1**	**5.0**	✓	ALS QCS3 requirement
Total Mercury by FIMS	EG035T	1	20	**5.0**	**5.0**	✓	ALS QCS3 requirement
Total Metals by ICP-AES	EG005T	1	4	**25.0**	**5.0**	✓	ALS QCS3 requirement
TPH - Semivolatile Fraction	EP071	1	13	**7.7**	**5.0**	✓	ALS QCS3 requirement
TPH Volatiles/BTEX	EP080	1	3	**33.3**	**5.0**	✓	ALS QCS3 requirement

Brief Method Summaries

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the US EPA, APHA, AS and NEPM. In house developed procedures 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 in the Certificate of Analysis. Sources from which ALS methods have been developed are provided within the Method Descriptions.

Analytical Methods	Method	Matrix	Method Descriptions
Moisture Content	EA055-103	SOIL	A gravimetric procedure based on weight loss over a 12 hour drying period at 103-105 degrees C. This method is compliant with NEPM (2010 Draft) Schedule B(3) Section 7.1 and Table 1 (14 day holding time).
Total Metals by ICP-AES	EG005T	SOIL	(APHA 21st ed., 3120; USEPA SW 846 - 6010) (ICPAES) Metals are determined following an appropriate acid digestion of the soil. The ICPAES technique ionises samples in a plasma, emitting a characteristic spectrum based on metals present. Intensities at selected wavelengths are compared against those of matrix matched standards. This method is compliant with NEPM (1999) Schedule B(3)
Total Mercury by FIMS	EG035T	SOIL	AS 3550, APHA 21st ed., 3112 Hg - B (Flow-injection (SnCl2)(Cold Vapour generation) AAS) FIM-AAS is an automated flameless atomic absorption technique. Mercury in solids are determined following an appropriate acid digestion. Ionic mercury is reduced online to atomic mercury vapour by SnCl2 which is then purged into a heated quartz cell. Quantification is by comparing absorbance against a calibration curve. This method is compliant with NEPM (1999) Schedule B(3)
Hexavalent Chromium by Alkaline Digestion and DA Finish	EG048G	SOIL	USEPA SW846, Method 3060A. Hexavalent chromium is extracted by alkaline digestion. The digest is determined by photometrically by automatic discrete analyser, following pH adjustment. The instrument uses colour development using dephenylcarbazide. Each run of samples is measured against a five-point calibration curve. This method is compliant with NEPM (1999) Schedule B(3) (Appdx. 2)
Polychlorinated Biphenyls (PCB)	EP066	SOIL	(USEPA SW 846 - 8270B) Extracts are analysed by Capillary GC/MS and quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM (1999) Schedule B(3) (Method 504)
Pesticides by GCMS	EP068	SOIL	(USEPA SW 846 - 8270B) Extracts are analysed by Capillary GC/MS and quantification is by comparison against an established 5 point calibration curve. This technique is compliant with NEPM (1999) Schedule B(3) (Method 504,505)
TPH - Semivolatile Fraction	EP071	SOIL	(USEPA SW 846 - 8015A) Sample extracts are analysed by Capillary GC/FID and quantified against alkane standards over the range C10 - C36. This method is compliant with NEPM (1999) Schedule B(3) (Method 506.1)
PAH/Phenols (SIM)	EP075(SIM)	SOIL	(USEPA SW 846 - 8270B) Extracts are analysed by Capillary GC/MS in Selective Ion Mode (SIM) and quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM (1999) Schedule B(3) (Method 502 and 507)
TPH Volatiles/BTEX	EP080	SOIL	(USEPA SW 846 - 8260B) Extracts are analysed by Purge and Trap, Capillary GC/MS. Quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM (1999) Schedule B(3) (Method 501)

Preparation Methods	Method	Matrix	Method Descriptions
Methanolic Extraction of Soils for Purge and Trap	ORG16	SOIL	(USEPA SW 846 - 5030A) 5g of solid is shaken with surrogate and 10mL methanol prior to analysis by Purge and Trap - GC/MS.
Tumbler Extraction of Solids (Option A - Concentrating)	ORG17A	SOIL	In-house, Mechanical agitation (tumbler). 20g of sample, Na2SO4 and surrogate are extracted with 150mL 1:1 DCM/Acetone by end over end tumble. The solvent is decanted, dehydrated and concentrated (by KD) to the desired volume for analysis.
Tumbler Extraction of Solids (Option B - Non-concentrating)	ORG17B	SOIL	In-house, Mechanical agitation (tumbler). 10g of sample, Na2SO4 and surrogate are extracted with 20mL 1:1 DCM/Acetone by end over end tumble. The solvent is transferred directly to a GC vial for analysis.

Summary of Outliers

Outliers : Quality Control Samples

The following report highlights outliers flagged in the Quality Control (QC) Report. Surrogate recovery limits are static and based on USEPA SW 846 or ALS-QWI/EN/38 (in the absence of specific USEPA limits). This report displays QC Outliers (breaches) only.

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **SOIL**

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
Duplicate (DUP) RPDs							
EG005T: Total Metals by ICP-AES	EB1310481-001	SP03_10_160413	**Chromium**	7440-47-3	119 %	0-20%	**RPD exceeds LOR based limits**
EG005T: Total Metals by ICP-AES	EB1310481-001	SP03_10_160413	**Manganese**	7439-96-5	131 %	0-20%	**RPD exceeds LOR based limits**
Laboratory Control Spike (LCS) Recoveries							
EP075(SIM)A: Phenolic Compounds	3386001-006	----	**Pentachlorophenol**	87-86-5	103 %	20-100%	**Recovery greater than upper control limit**
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons	3386001-006	----	**Anthracene**	120-12-7	122 %	70-115%	**Recovery greater than upper control limit**
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons	3386001-006	----	**Dibenz(a.h)anthracene**	53-70-3	142 %	45-134%	**Recovery greater than upper control limit**
Matrix Spike (MS) Recoveries							
EG005T: Total Metals by ICP-AES	EB1310481-002	SP04_04_160413	**Barium**	7440-39-3	Not Determined	----	**MS recovery not determined, background level greater than or equal to 4x spike level.**
EG005T: Total Metals by ICP-AES	EB1310481-002	SP04_04_160413	**Manganese**	7439-96-5	136 %	70-130%	**Recovery greater than upper data quality objective**

- **For all matrices, no Method Blank value outliers occur.**

Regular Sample Surrogates

- **For all regular sample matrices, no surrogate recovery outliers occur.**

Outliers : Analysis Holding Time Compliance

This report displays Holding Time breaches only. Only the respective Extraction / Preparation and/or Analysis component is/are displayed.

Matrix: **SOIL**

Method / Container / Client Sample ID(s)	Extraction / Preparation			Analysis		
	Date extracted	Due for extraction	Days overdue	Date analysed	Due for analysis	Days overdue
EA055: Moisture Content						
Soil Glass Jar - Unpreserved						
SP03_10_160413, SP04_04_160413, SP04_06_160413	----	----	----	03-MAY-2013	30-APR-2013	**3**
EP066: Polychlorinated Biphenyls (PCB)						
Soil Glass Jar - Unpreserved						
SP04_06_160413	07-MAY-2013	30-APR-2013	**7**	----	----	----

Matrix: **SOIL**

Method / Container / Client Sample ID(s)	Extraction / Preparation			Analysis		
	Date extracted	Due for extraction	Days overdue	Date analysed	Due for analysis	Days overdue
EP068A: Organochlorine Pesticides (OC)						
Soil Glass Jar - Unpreserved						
SP04_06_160413	07-MAY-2013	30-APR-2013	**7**	----	----	----
EP075(SIM)A: Phenolic Compounds						
Soil Glass Jar - Unpreserved						
SP04_06_160413	07-MAY-2013	30-APR-2013	**7**	----	----	----
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons						
Soil Glass Jar - Unpreserved						
SP03_10_160413, SP04_04_160413, SP04_06_160413	07-MAY-2013	30-APR-2013	**7**	----	----	----
EP080/071: Total Petroleum Hydrocarbons						
Soil Glass Jar - Unpreserved						
SP03_10_160413, SP04_04_160413, SP04_06_160413	03-MAY-2013	30-APR-2013	**3**	03-MAY-2013	30-APR-2013	**3**
Soil Glass Jar - Unpreserved						
SP04_06_160413	07-MAY-2013	30-APR-2013	**7**	----	----	----
EP080/071: Total Recoverable Hydrocarbons - NEPM 2010 Draft						
Soil Glass Jar - Unpreserved						
SP03_10_160413, SP04_04_160413, SP04_06_160413	03-MAY-2013	30-APR-2013	**3**	03-MAY-2013	30-APR-2013	**3**
Soil Glass Jar - Unpreserved						
SP04_06_160413	07-MAY-2013	30-APR-2013	**7**	----	----	----
EP080: BTEX						
Soil Glass Jar - Unpreserved						
SP03_10_160413, SP04_04_160413, SP04_06_160413	03-MAY-2013	30-APR-2013	**3**	03-MAY-2013	30-APR-2013	**3**
EP080: BTEXN						
Soil Glass Jar - Unpreserved						
SP03_10_160413, SP04_04_160413, SP04_06_160413	03-MAY-2013	30-APR-2013	**3**	03-MAY-2013	30-APR-2013	**3**

Outliers : Frequency of Quality Control Samples

The following report highlights breaches in the Frequency of Quality Control Samples.

- **No Quality Control Sample Frequency Outliers exist.**

CHAIN OF CUSTODY - DARWIN WATERFRONT PROJECT

URS

ADDRESS:	URS Australia Level 3, 93 Mitchell Street GPO Box 2005 Darwin, Northern Territory 0800	LABORATORY:	ALS 277-289 Woodpark Road Smithfield NSW 2164	All results to be provided in MRED format email address:	tim.smith@urs.com; darwin@urs.com; bek.aagaard@urs.com andrew.piggin@urs.com
PHONE NO:	08 8980 2900	PHONE NO:	02 8784 8555	TURNAROUND DETAILS	Std 5 Day TAT**
FAX NO:	08 8941 3920	FAX NO:	02 8784 8500	COC SEQUENCE NUMBER	1 2 3 4 (please circle)
URS PROJECT NO:	42213719.7	Contract No.	0423 350 069	RELINQUISHED BY:	
URS PM:	Andrew Piggin	URS CONTACT:	Bek Aagaard		
URS SAMPLERS :	Bek Aagaard			DATE:	TIME:

FOR LABORATORY USE ONLY

Custody Seal ? Y N NA

Free ice / frozen icebricks present upon receipt? Y N

Random Sample Temperature on Receipt oC

Received at Eurofins Mayfield Cook 3:45pm 19/4/13

RECEIVED BY: Jodie

DATE: 17/4/13 TIME: 09:10

RELINQUISHED BY:

DATE: TIME:

COMMENTS: Please contact Bek for any queries 0423 350 069

	SAMPLE DETAILS				CONTAINER TYPE & PRESERVATIVE											ANALYSIS REQUIRED							
					Liquid																		
Batch No	SAMPLE Location	SAMPLE ID	DATE	MATRIX (Solid / Liquid)											Total Containers	HOLD	P-13/1	TPH C6-C9, BTEX, PAH and metals						HOLD
	66	SP05_02_160413	16/4/13	Soil											1			1						
BROKEN	67	SP05_04_160413	16/4/13	Soil											1	1								
	68	SP05_10_160413	16/4/13	Soil											1		1							
	[illegible]	SP05__160413	16/4/13	Soil											1	1								
BROKEN	69	QAQC_01_160513	16/4/13	Soil											1		1	1						
	X	QAQC_02_160513	16/4/13	Soil											1	1	1		PLEASE FORWARD TO LABMAR					
	70	QAQC_03_160513	16/4/13	Soil											1	1	1							
	71	QAQC_04_160513	16/4/13	Soil											1	1								
	72	QAQC_05_160513	16/4/13	Soil											1		1	1						
	X	QAQC_06_160513	16/4/13	Soil											1		1		PLEASE FORWARD TO LABMARK					
	73	QAQC_07_160513	16/4/13	Soil											1			1						
				TOTALS											11			2						

376 318

CHAIN OF CUSTODY - DARWIN WATERFRONT PROJECT

URS

ADDRESS:	URS Australia Level 3, 93 Mitchell Street GPO Box 2005 Darwin, Northern Territory 0800	LABORATORY:	ALS 277-289 Woodpark Road Smithfield NSW 2164
PHONE NO:	08 8980 2900	PHONE NO:	02 8784 8555
FAX NO:	08 8941 3920	FAX NO:	02 8784 8500

All results to be provided in MRED format

email address: tim.smith@urs.com; darwin@urs.com; bek.aagaard@urs.com; andrew.piggin@urs.com

TURNAROUND DETAILS: Std 5 Day TAT**

COC SEQUENCE NUMBER: 1 2 3 4 (please circle)

FOR LABORATORY USE ONLY

Custody Seal ? Y N NA

Free ice / frozen icebricks present upon receipt? Y N

Random Sample Temperature on Receipt oC

Received at Envirolab on 19/4/13 3:45pm

URS PROJECT NO:	42213719.7	Contract No.	0423 350 069
URS PM:	Andrew Piggin	URS CONTACT:	Bek Aagaard
URS SAMPLERS :	Bek Aagaard		

RELINQUISHED BY: DATE: TIME:

RECEIVED BY: DATE: 17/4/13 TIME: 09:10

RELINQUISHED BY: DATE: TIME:

COMMENTS: Please contact Bek for any queries 0423 350 069

Batch No	SAMPLE Location	SAMPLE ID	DATE	MATRIX (Solid / Liquid)	Liquid containers	Total Containers	HOLD	P-13/1	TPH C6-C9, BTEX, PAH and metals	HOLD
	74	QAQC_08_160513	16/4/13	Soil		1			1	
BROSD	75	QAQC_09_160513	16/4/13	Soil		1		1		
		QAQC_10_160513	16/4/13	Soil		1		1		PLEASE FORWARD TO ~~ALTER~~ & LABMARK)
		~~QAQC_ _160513~~	~~16/4/13~~	~~Soil~~		1	1			
	76	QCB01_160413	16/4/13	Liquid		1			1	
			16/4/13	Soil		1				
			16/4/13	Soil		1		1		
			16/4/13	Soil		1				
			16/4/13	Soil		1			1	
			16/4/13	Soil		1		1		
			16/4/13	Soil		1			1	
				TOTALS		11			2	

376318

eurofins | mgt

ABN – 50 005 085 521 e.mail : enviro@mgtlabmark.com.au web : www.mgtlabmark.com.au

Melbourne
3-5 Kingston Town Close
Oakleigh Vic 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F6, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Sample Receipt Advice

Company name: **URS Australia Pty Ltd NT**

Contact name: Andrew Piggin
Client job number: 42213719.7
COC number: Not provided
Turn around time: 5 Day
Date/Time received: Apr 19, 2013 3:45 PM
Eurofins | mgt reference: **376318**

Sample information

☑ A detailed list of analytes logged into our LIMS, is included in the attached summary table.

☑ All samples have been received as described on the above COC.

☑ COC has been completed correctly.

☑ Attempt to chill was evident.

☑ Appropriately preserved sample containers have been used.

☑ All samples were received in good condition.

☑ Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.

☑ Organic samples had Teflon liners.

☒ Some samples have been subcontracted.

N/A Custody Seals intact (if used).

Contact notes

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

Mark Rodriquez on Phone : (08) 8947 1557 or by e.mail: mark.rodriquez@mgtlabmark.com.au

Results will be delivered electronically via e.mail to Andrew Piggin - andrew_piggin@urscorp.com.

Note: A copy of these results will also be delivered to the general URS Australia Pty Ltd NT email address.

Eurofins | mgt Sample Receipt

eurofins | mgt

ABN – 50 005 085 521 e.mail : enviro@mgtlabmark.com.au web : www.mgtlabmark.com.au

Melbourne
3-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F6, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Company Name: URS Australia Pty Ltd NT
Address: Level 3 93 Mitchell St
Darwin
NT 801

Client Job No.: 42213719.7

Order No.:
Report #: 376318
Phone: 08 8980 2900
Fax:

Received: Apr 19, 2013 3:45 PM
Due: Apr 29, 2013
Priority: 5 Day
Contact Name: Andrew Piggin

Eurofins | mgt Client Manager: Mark Rodriquez

Sample Detail					% Moisture	Chromium (hexavalent)	BTEX	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Polychlorinated Biphenyls	Metals M13	Phenols (IWRG 621)	Total Recoverable Hydrocarbons
Laboratory where analysis is conducted													
Melbourne Laboratory - NATA Site # 1254 & 14271						X			X	X			
Sydney Laboratory - NATA Site # 18217													
Brisbane Laboratory - NATA Site # 20794					X		X	X			X	X	X
External Laboratory													
Sample ID	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**									
QAQC_02_160513	Apr 16, 2013		Soil	B13-Ap15979	X	X	X	X	X	X	X	X	X
QAQC_06_160513	Apr 16, 2013		Soil	B13-Ap15980	X	X	X	X	X	X	X	X	X
QAQC_10_160513	Apr 16, 2013		Soil	B13-Ap15981	X	X	X	X	X	X	X	X	X

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Certificate of Analysis

NATA Accredited
Accreditation Number 1261
Site Number 20794

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

URS Australia Pty Ltd
Level 3 93 Mitchell St
Darwin
NT 801

Attention: **Andrew Piggin**

Report **376318-S**
Client Reference 42213719.7
Received Date Apr 19, 2013

Client Sample ID			**QAQC_02_160513**	**QAQC_06_160513**	**QAQC_10_160513**
Sample Matrix			**Soil**	**Soil**	**Soil**
Eurofins | mgt Sample No.			**B13-Ap15979**	**B13-Ap15980**	**B13-Ap15981**
Date Sampled			**Apr 16, 2013**	**Apr 16, 2013**	**Apr 16, 2013**
Test/Reference	LOR	Unit			
Total Recoverable Hydrocarbons - 1999 NEPM Fractions					
TRH C6-C9	20	mg/kg	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	< 50
TRH C29-C36	50	mg/kg	< 50	< 50	< 50
TRH C10-36 (Total)	50	mg/kg	< 50	< 50	< 50
BTEX					
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Xylenes - Total	0.3	mg/kg	< 0.3	< 0.3	< 0.3
Fluorobenzene (surr.)	1	%	75	72	71
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions *					
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100
Polycyclic Aromatic Hydrocarbons					
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Benzo(b)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5

Client Sample ID			QAQC_02_160513	QAQC_06_160513	QAQC_10_160513
Sample Matrix			**Soil**	**Soil**	**Soil**
Eurofins | mgt Sample No.			**B13-Ap15979**	**B13-Ap15980**	**B13-Ap15981**
Date Sampled			**Apr 16, 2013**	**Apr 16, 2013**	**Apr 16, 2013**
Test/Reference	LOR	Unit			
Polycyclic Aromatic Hydrocarbons					
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Total PAH	0.5	mg/kg	< 0.5	< 0.5	< 0.5
p-Terphenyl-d14 (surr.)	1	%	97	92	107
2-Fluorobiphenyl (surr.)	1	%	78	58	71
Organochlorine Pesticides					
4.4'-DDD	0.05	mg/kg	< 0.05	< 0.05	< 0.05
4.4'-DDE	0.05	mg/kg	< 0.05	< 0.05	< 0.05
4.4'-DDT	0.05	mg/kg	< 0.05	< 0.05	< 0.05
a-BHC	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05
b-BHC	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Chlordane	0.1	mg/kg	< 0.1	< 0.1	< 0.1
d-BHC	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	< 0.05
g-BHC (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Toxaphene	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	93	88	80
Tetrachloro-m-xylene (surr.)	1	%	79	87	74
Polychlorinated Biphenyls					
Aroclor-1016	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Aroclor-1221	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Aroclor-1232	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Aroclor-1242	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Aroclor-1248	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Aroclor-1254	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Aroclor-1260	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Total PCB	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	93	88	80
Tetrachloro-m-xylene (surr.)	1	%	79	87	74
Phenols (Halogenated)					
2-Chlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5
2.4-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5
2.4.5-Trichlorophenol	1.0	mg/kg	< 1	< 1	< 1
2.4.6-Trichlorophenol	1.0	mg/kg	< 1	< 1	< 1
2.6-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5
4-Chloro-3-methylphenol	1.0	mg/kg	< 1	< 1	< 1

Client Sample ID			QAQC_02_160513	QAQC_06_160513	QAQC_10_160513
Sample Matrix			**Soil**	**Soil**	**Soil**
Eurofins | mgt Sample No.			**B13-Ap15979**	**B13-Ap15980**	**B13-Ap15981**
Date Sampled			**Apr 16, 2013**	**Apr 16, 2013**	**Apr 16, 2013**
Test/Reference	LOR	Unit			
Phenols (Halogenated)					
Pentachlorophenol	1.0	mg/kg	< 1	< 1	< 1
Tetrachlorophenols - Total	1.0	mg/kg	< 1	< 1	< 1
Total Halogenated Phenol	1	mg/kg	< 1	< 1	< 1
Phenols (non-Halogenated)					
2-Cyclohexyl-4.6-dinitrophenol	20	mg/kg	< 20	< 20	< 20
2-Methyl-4.6-dinitrophenol	5	mg/kg	< 5	< 5	< 5
2-Methylphenol (o-Cresol)	0.2	mg/kg	< 0.2	< 0.2	< 0.2
2-Nitrophenol	1.0	mg/kg	< 1	< 1	< 1
2.4-Dimethylphenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5
2.4-Dinitrophenol	5	mg/kg	< 5	< 5	< 5
3&4-Methylphenol (m&p-Cresol)	0.4	mg/kg	< 0.4	< 0.4	< 0.4
4-Nitrophenol	5	mg/kg	< 5	< 5	< 5
Dinoseb	20	mg/kg	< 20	< 20	< 20
Phenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Total Non-Halogenated Phenol	20	mg/kg	< 20	< 20	< 20
Phenol-d6 (surr.)	1	%	89	72	73
Chromium (hexavalent)	1	mg/kg	< 1	< 1	< 1
% Moisture	0.1	%	18	17	16
Heavy Metals					
Arsenic	2	mg/kg	18	19	7.7
Barium	5	mg/kg	62	100	100
Beryllium	5	mg/kg	< 5	< 5	< 5
Cadmium	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Chromium	5	mg/kg	28	71	34
Cobalt	5	mg/kg	< 5	< 5	< 5
Copper	5	mg/kg	32	17	19
Lead	5	mg/kg	22	29	46
Manganese	5	mg/kg	77	83	48
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	9.2	8.0	7.1
Vanadium	10	mg/kg	43	180	69
Zinc	5	mg/kg	55	50	77

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported.
A recent review of our LIMS has resulted in the correction or clarification of some method identifications. Due to this, some of the method reference information on reports has changed. However, no substantive change has been made to our laboratory methods, and as such there is no change in the validity of current or previous results (regarding both quality and NATA accreditation).

Description	Testing Site	Extracted	Holding Time
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Brisbane	Apr 23, 2013	14 Day
- Method: TRH C6-C36 - MGT 100A			
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions	Brisbane	Apr 23, 2013	14 Day
- Method: LM-LTM-ORG2010			
BTEX	Brisbane	Apr 23, 2013	14 Day
- Method: USEPA 8260 - MGT 350A Monocyclic Aromatic Hydrocarbons			
Polycyclic Aromatic Hydrocarbons	Brisbane	Apr 23, 2013	14 Day
- Method: USEPA 8270 Polycyclic Aromatic Hydrocarbons			
Organochlorine Pesticides	Melbourne	Apr 24, 2013	14 Day
- Method: USEPA 8081 Organochlorine Pesticides			
Polychlorinated Biphenyls	Melbourne	Apr 24, 2013	14 Day
- Method: USEPA 8082 Polychlorinated Biphenyls			
Chromium (hexavalent)	Melbourne	Apr 24, 2013	28 Day
- Method: APHA 3500-Cr Hexavalent Chromium- (Extraction:- USEPA3060)			
% Moisture	Brisbane	Apr 23, 2013	14 Day
- Method: Method 102 - ANZECC - % Moisture			
Metals M13	Brisbane	Apr 23, 2013	28 Day
- Method: USEPA 6010/6020 Heavy Metals & USEPA 7470/71 Mercury			
Phenols (IWRG 621)			
Phenols (Halogenated)	Brisbane	Apr 23, 2013	14 Day
- Method: USEPA 8270 Phenols			
Phenols (non-Halogenated)	Brisbane	Apr 23, 2013	14 Day
- Method: USEPA 8270 Phenols			

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Company Name: URS Australia Pty Ltd NT
Address: Level 3 93 Mitchell St
Darwin
NT 801

Client Job No.: 42213719.7

Order No.:
Report #: 376318
Phone: 08 8980 2900
Fax:

Received: Apr 19, 2013 3:45 PM
Due: Apr 29, 2013
Priority: 5 Day
Contact Name: Andrew Piggin

Eurofins | mgt Client Manager: Mark Rodriquez

Sample Detail					% Moisture	Chromium (hexavalent)	BTEX	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Polychlorinated Biphenyls	Metals M13	Phenols (IWRG 621)	Total Recoverable Hydrocarbons
Laboratory where analysis is conducted													
Melbourne Laboratory - NATA Site # 1254 & 14271						X			X	X			
Sydney Laboratory - NATA Site # 18217													
Brisbane Laboratory - NATA Site # 20794					X		X	X			X	X	X
External Laboratory													
Sample ID	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**									
QAQC_02_160513	Apr 16, 2013		Soil	B13-Ap15979	X	X	X	X	X	X	X	X	X
QAQC_06_160513	Apr 16, 2013		Soil	B13-Ap15980	X	X	X	X	X	X	X	X	X
QAQC_10_160513	Apr 16, 2013		Soil	B13-Ap15981	X	X	X	X	X	X	X	X	X

Eurofins | mgt Internal Quality Control Review and Glossary

General

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

Holding Times

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

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

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

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

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

UNITS

mg/kg: milligrams per Kilogram

mg/l: milligrams per litre

ug/l: micrograms per litre

ppm: Parts per million

ppb: Parts per billion

%: Percentage

org/100ml: Organisms per 100 millilitres

NTU: Units

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

TERMS

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

QC - ACCEPTANCE CRITERIA

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

Results <10 times the LOR : No Limit

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

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

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

QC DATA GENERAL COMMENTS

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

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions TRH C6-C36 - MGT 100A							
TRH C6-C9	mg/kg	< 20			20	Pass	
TRH C10-C14	mg/kg	< 20			20	Pass	
TRH C15-C28	mg/kg	< 50			50	Pass	
TRH C29-C36	mg/kg	< 50			50	Pass	
Method Blank							
BTEX USEPA 8260 - MGT 350A Monocyclic Aromatic Hydrocarbons							
Benzene	mg/kg	< 0.1			0.1	Pass	
Toluene	mg/kg	< 0.1			0.1	Pass	
Ethylbenzene	mg/kg	< 0.1			0.1	Pass	
o-Xylene	mg/kg	< 0.1			0.1	Pass	
m&p-Xylenes	mg/kg	< 0.2			0.2	Pass	
Xylenes - Total	mg/kg	< 0.3			0.3	Pass	
Method Blank							
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions LM-LTM-ORG2010							
Naphthalene	mg/kg	< 0.5			0.5	Pass	
TRH C6-C10	mg/kg	< 20			20	Pass	
TRH C6-C10 less BTEX (F1)	mg/kg	< 20			20	Pass	
TRH >C10-C16	mg/kg	< 50			50	Pass	
TRH >C16-C34	mg/kg	< 100			100	Pass	
TRH >C34-C40	mg/kg	< 100			100	Pass	
Method Blank							
Polycyclic Aromatic Hydrocarbons USEPA 8270 Polycyclic Aromatic Hydrocarbons							
Acenaphthene	mg/kg	< 0.5			0.5	Pass	
Acenaphthylene	mg/kg	< 0.5			0.5	Pass	
Anthracene	mg/kg	< 0.5			0.5	Pass	
Benz(a)anthracene	mg/kg	< 0.5			0.5	Pass	
Benzo(a)pyrene	mg/kg	< 0.5			0.5	Pass	
Benzo(b)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Benzo(g.h.i)perylene	mg/kg	< 0.5			0.5	Pass	
Benzo(k)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Chrysene	mg/kg	< 0.5			0.5	Pass	
Dibenz(a.h)anthracene	mg/kg	< 0.5			0.5	Pass	
Fluoranthene	mg/kg	< 0.5			0.5	Pass	
Fluorene	mg/kg	< 0.5			0.5	Pass	
Indeno(1.2.3-cd)pyrene	mg/kg	< 0.5			0.5	Pass	
Naphthalene	mg/kg	< 0.5			0.5	Pass	
Phenanthrene	mg/kg	< 0.5			0.5	Pass	
Pyrene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Organochlorine Pesticides USEPA 8081 Organochlorine Pesticides							
4.4'-DDD	mg/kg	< 0.05			0.05	Pass	
4.4'-DDE	mg/kg	< 0.05			0.05	Pass	
4.4'-DDT	mg/kg	< 0.05			0.05	Pass	
a-BHC	mg/kg	< 0.05			0.05	Pass	
Aldrin	mg/kg	< 0.05			0.05	Pass	
b-BHC	mg/kg	< 0.05			0.05	Pass	
Chlordane	mg/kg	< 0.1			0.1	Pass	
d-BHC	mg/kg	< 0.05			0.05	Pass	
Dieldrin	mg/kg	< 0.05			0.05	Pass	
Endosulfan I	mg/kg	< 0.05			0.05	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Endosulfan II	mg/kg	< 0.05			0.05	Pass	
Endosulfan sulphate	mg/kg	< 0.05			0.05	Pass	
Endrin	mg/kg	< 0.05			0.05	Pass	
Endrin aldehyde	mg/kg	< 0.05			0.05	Pass	
Endrin ketone	mg/kg	< 0.05			0.05	Pass	
g-BHC (Lindane)	mg/kg	< 0.05			0.05	Pass	
Heptachlor	mg/kg	< 0.05			0.05	Pass	
Heptachlor epoxide	mg/kg	< 0.05			0.05	Pass	
Hexachlorobenzene	mg/kg	< 0.05			0.05	Pass	
Methoxychlor	mg/kg	< 0.05			0.05	Pass	
Toxaphene	mg/kg	< 0.1			0.1	Pass	
Method Blank							
Polychlorinated Biphenyls USEPA 8082 Polychlorinated Biphenyls							
Aroclor-1016	mg/kg	< 0.1			0.1	Pass	
Aroclor-1221	mg/kg	< 0.1			0.1	Pass	
Aroclor-1232	mg/kg	< 0.1			0.1	Pass	
Aroclor-1242	mg/kg	< 0.1			0.1	Pass	
Aroclor-1248	mg/kg	< 0.1			0.1	Pass	
Aroclor-1254	mg/kg	< 0.1			0.1	Pass	
Aroclor-1260	mg/kg	< 0.1			0.1	Pass	
Total PCB	mg/kg	0			0.1	Pass	
Method Blank							
Phenols (Halogenated) USEPA 8270 Phenols							
2-Chlorophenol	mg/kg	< 0.5			0.5	Pass	
2.4-Dichlorophenol	mg/kg	< 0.5			0.5	Pass	
2.4.5-Trichlorophenol	mg/kg	< 1			1.0	Pass	
2.4.6-Trichlorophenol	mg/kg	< 1			1.0	Pass	
2.6-Dichlorophenol	mg/kg	< 0.5			0.5	Pass	
4-Chloro-3-methylphenol	mg/kg	< 1			1.0	Pass	
Pentachlorophenol	mg/kg	< 1			1.0	Pass	
Tetrachlorophenols - Total	mg/kg	< 1			1.0	Pass	
Method Blank							
Phenols (non-Halogenated) USEPA 8270 Phenols							
2-Cyclohexyl-4.6-dinitrophenol	mg/kg	< 20			20	Pass	
2-Methyl-4.6-dinitrophenol	mg/kg	< 5			5	Pass	
2-Methylphenol (o-Cresol)	mg/kg	< 0.2			0.2	Pass	
2-Nitrophenol	mg/kg	< 1			1.0	Pass	
2.4-Dimethylphenol	mg/kg	< 0.5			0.5	Pass	
2.4-Dinitrophenol	mg/kg	< 5			5	Pass	
3&4-Methylphenol (m&p-Cresol)	mg/kg	< 0.4			0.4	Pass	
4-Nitrophenol	mg/kg	< 5			5	Pass	
Dinoseb	mg/kg	< 20			20	Pass	
Phenol	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Chromium (hexavalent)	mg/kg	< 1			1	Pass	
Method Blank							
Metals M13 USEPA 6010/6020 Heavy Metals & USEPA 7470/71 Mercury							
Arsenic	mg/kg	< 2			2	Pass	
Barium	mg/kg	< 5			5	Pass	
Beryllium	mg/kg	< 5			5	Pass	
Cadmium	mg/kg	< 0.5			0.5	Pass	
Chromium	mg/kg	< 5			5	Pass	
Cobalt	mg/kg	< 5			5	Pass	
Copper	mg/kg	< 5			5	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Lead	mg/kg	< 5			5	Pass	
Manganese	mg/kg	< 5			5	Pass	
Mercury	mg/kg	< 0.1			0.1	Pass	
Nickel	mg/kg	< 5			5	Pass	
Vanadium	mg/kg	< 10			10	Pass	
Zinc	mg/kg	< 5			5	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions TRH C6-C36 - MGT 100A							
TRH C6-C9	%	99			70-130	Pass	
TRH C10-C14	%	118			70-130	Pass	
LCS - % Recovery							
BTEX USEPA 8260 - MGT 350A Monocyclic Aromatic Hydrocarbons							
Benzene	%	90			70-130	Pass	
Toluene	%	97			70-130	Pass	
Ethylbenzene	%	93			70-130	Pass	
m&p-Xylenes	%	99			70-130	Pass	
Xylenes - Total	%	99			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions LM-LTM-ORG2010							
TRH C6-C10	%	93			70-130	Pass	
TRH >C10-C16	%	122			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons USEPA 8270 Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	100			70-130	Pass	
Acenaphthylene	%	101			70-130	Pass	
Anthracene	%	114			70-130	Pass	
Benz(a)anthracene	%	103			70-130	Pass	
Benzo(a)pyrene	%	93			70-130	Pass	
Benzo(b)fluoranthene	%	98			70-130	Pass	
Benzo(g.h.i)perylene	%	96			70-130	Pass	
Benzo(k)fluoranthene	%	98			70-130	Pass	
Chrysene	%	97			70-130	Pass	
Dibenz(a.h)anthracene	%	100			70-130	Pass	
Fluoranthene	%	101			70-130	Pass	
Fluorene	%	100			70-130	Pass	
Indeno(1.2.3-cd)pyrene	%	100			70-130	Pass	
Naphthalene	%	97			70-130	Pass	
Phenanthrene	%	102			70-130	Pass	
Pyrene	%	101			70-130	Pass	
LCS - % Recovery							
Organochlorine Pesticides USEPA 8081 Organochlorine Pesticides							
4.4'-DDD	%	99			70-130	Pass	
4.4'-DDE	%	114			70-130	Pass	
4.4'-DDT	%	76			70-130	Pass	
a-BHC	%	107			70-130	Pass	
Aldrin	%	103			70-130	Pass	
b-BHC	%	91			70-130	Pass	
d-BHC	%	119			70-130	Pass	
Dieldrin	%	104			70-130	Pass	
Endosulfan I	%	103			70-130	Pass	
Endosulfan II	%	99			70-130	Pass	
Endosulfan sulphate	%	116			70-130	Pass	
Endrin	%	113			70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Endrin aldehyde	%	105			70-130	Pass	
Endrin ketone	%	121			70-130	Pass	
g-BHC (Lindane)	%	109			70-130	Pass	
Heptachlor	%	81			70-130	Pass	
Heptachlor epoxide	%	101			70-130	Pass	
Hexachlorobenzene	%	105			70-130	Pass	
Methoxychlor	%	82			70-130	Pass	
LCS - % Recovery							
Polychlorinated Biphenyls USEPA 8082 Polychlorinated Biphenyls							
Aroclor-1260	%	129			70-130	Pass	
LCS - % Recovery							
Phenols (Halogenated) USEPA 8270 Phenols							
2-Chlorophenol	%	86			30-130	Pass	
2.4-Dichlorophenol	%	87			30-130	Pass	
2.4.5-Trichlorophenol	%	85			30-130	Pass	
2.4.6-Trichlorophenol	%	89			30-130	Pass	
2.6-Dichlorophenol	%	86			30-130	Pass	
4-Chloro-3-methylphenol	%	89			30-130	Pass	
Pentachlorophenol	%	96			30-130	Pass	
Tetrachlorophenols - Total	%	87			30-130	Pass	
LCS - % Recovery							
Phenols (non-Halogenated) USEPA 8270 Phenols							
2-Cyclohexyl-4.6-dinitrophenol	%	48			30-130	Pass	
2-Methyl-4.6-dinitrophenol	%	64			30-130	Pass	
2-Methylphenol (o-Cresol)	%	86			30-130	Pass	
2-Nitrophenol	%	86			30-130	Pass	
2.4-Dimethylphenol	%	89			30-130	Pass	
2.4-Dinitrophenol	%	76			30-130	Pass	
3&4-Methylphenol (m&p-Cresol)	%	89			30-130	Pass	
4-Nitrophenol	%	73			30-130	Pass	
Dinoseb	%	71			30-130	Pass	
Phenol	%	85			30-130	Pass	
LCS - % Recovery							
Chromium (hexavalent)	%	100			70-130	Pass	
LCS - % Recovery							
Metals M13 USEPA 6010/6020 Heavy Metals & USEPA 7470/71 Mercury							
Arsenic	%	108			80-120	Pass	
Barium	%	107			80-120	Pass	
Beryllium	%	107			80-120	Pass	
Cadmium	%	113			80-120	Pass	
Chromium	%	107			80-120	Pass	
Cobalt	%	100			80-120	Pass	
Copper	%	101			80-120	Pass	
Lead	%	104			80-120	Pass	
Manganese	%	104			80-120	Pass	
Mercury	%	83			70-130	Pass	
Nickel	%	106			80-120	Pass	
Vanadium	%	110			80-120	Pass	
Zinc	%	110			80-120	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1					
TRH C6-C9	B13-Ap15089	NCP	%	74			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
TRH C10-C14	B13-Ap15335	NCP	%	109			70-130	Pass	
Spike - % Recovery									
BTEX				Result 1					
Benzene	B13-Ap15089	NCP	%	75			70-130	Pass	
Toluene	B13-Ap15089	NCP	%	79			70-130	Pass	
Ethylbenzene	B13-Ap15089	NCP	%	73			70-130	Pass	
o-Xylene	B13-Ap15089	NCP	%	75			70-130	Pass	
m&p-Xylenes	B13-Ap15089	NCP	%	70			70-130	Pass	
Xylenes - Total	B13-Ap15089	NCP	%	72			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions				Result 1					
TRH C6-C10	B13-Ap13926	NCP	%	76			70-130	Pass	
TRH >C10-C16	B13-Ap15335	NCP	%	114			70-130	Pass	
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Acenaphthene	B13-Ap15089	NCP	%	103			70-130	Pass	
Acenaphthylene	B13-Ap15089	NCP	%	110			70-130	Pass	
Anthracene	B13-Ap15089	NCP	%	118			70-130	Pass	
Benz(a)anthracene	B13-Ap15089	NCP	%	109			70-130	Pass	
Benzo(a)pyrene	B13-Ap15089	NCP	%	99			70-130	Pass	
Benzo(b)fluoranthene	B13-Ap15089	NCP	%	104			70-130	Pass	
Benzo(g.h.i)perylene	B13-Ap15089	NCP	%	93			70-130	Pass	
Benzo(k)fluoranthene	B13-Ap15089	NCP	%	102			70-130	Pass	
Chrysene	B13-Ap15089	NCP	%	100			70-130	Pass	
Dibenz(a.h)anthracene	B13-Ap15089	NCP	%	99			70-130	Pass	
Fluoranthene	B13-Ap15089	NCP	%	95			70-130	Pass	
Fluorene	B13-Ap15089	NCP	%	115			70-130	Pass	
Indeno(1.2.3-cd)pyrene	B13-Ap15089	NCP	%	99			70-130	Pass	
Naphthalene	B13-Ap15089	NCP	%	116			70-130	Pass	
Phenanthrene	B13-Ap15089	NCP	%	111			70-130	Pass	
Pyrene	B13-Ap15089	NCP	%	101			70-130	Pass	
Spike - % Recovery									
Organochlorine Pesticides				Result 1					
4.4'-DDD	M13-Ap16923	NCP	%	127			70-130	Pass	
4.4'-DDE	M13-Ap16923	NCP	%	104			70-130	Pass	
4.4'-DDT	M13-Ap16923	NCP	%	128			70-130	Pass	
a-BHC	M13-Ap16923	NCP	%	99			70-130	Pass	
Aldrin	M13-Ap16923	NCP	%	94			70-130	Pass	
b-BHC	M13-Ap16923	NCP	%	120			70-130	Pass	
d-BHC	M13-Ap16923	NCP	%	111			70-130	Pass	
Dieldrin	M13-Ap16923	NCP	%	97			70-130	Pass	
Endosulfan I	M13-Ap16923	NCP	%	93			70-130	Pass	
Endosulfan II	M13-Ap16923	NCP	%	92			70-130	Pass	
Endosulfan sulphate	M13-Ap16923	NCP	%	108			70-130	Pass	
Endrin	M13-Ap16923	NCP	%	107			70-130	Pass	
Endrin aldehyde	M13-Ap16923	NCP	%	95			70-130	Pass	
Endrin ketone	M13-Ap16923	NCP	%	109			70-130	Pass	
g-BHC (Lindane)	M13-Ap16923	NCP	%	102			70-130	Pass	
Heptachlor	M13-Ap16923	NCP	%	116			70-130	Pass	
Heptachlor epoxide	M13-Ap16923	NCP	%	94			70-130	Pass	
Hexachlorobenzene	M13-Ap16923	NCP	%	94			70-130	Pass	
Methoxychlor	M13-Ap16923	NCP	%	130			70-130	Pass	
Spike - % Recovery									
Polychlorinated Biphenyls				Result 1					
Aroclor-1260	M13-Ap16923	NCP	%	116			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
				Result 1					
Chromium (hexavalent)	M13-Ap20615	NCP	%	93			70-130	Pass	
Spike - % Recovery									
Metals M13				Result 1					
Arsenic	B13-Ap17918	NCP	%	80			75-125	Pass	
Barium	B13-Ap15979	CP	%	84			75-125	Pass	
Beryllium	B13-Ap17918	NCP	%	109			75-125	Pass	
Cadmium	B13-Ap15979	CP	%	86			75-125	Pass	
Chromium	B13-Ap15979	CP	%	101			75-125	Pass	
Cobalt	B13-Ap15979	CP	%	78			75-125	Pass	
Copper	B13-Ap15979	CP	%	78			75-125	Pass	
Lead	B13-Ap15979	CP	%	103			75-125	Pass	
Manganese	B13-Ap15979	CP	%	89			75-125	Pass	
Mercury	B13-Ap15979	CP	%	84			70-130	Pass	
Nickel	B13-Ap15979	CP	%	76			75-125	Pass	
Vanadium	B13-Ap15979	CP	%	125			75-125	Pass	
Zinc	B13-Ap17918	NCP	%	87			75-125	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C6-C9	B13-Ap15089	NCP	mg/kg	35	32	10	30%	Pass	
TRH C10-C14	B13-Ap15335	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	B13-Ap15335	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C29-C36	B13-Ap15335	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	B13-Ap15089	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	B13-Ap15089	NCP	mg/kg	1.0	0.80	20	30%	Pass	
Ethylbenzene	B13-Ap15089	NCP	mg/kg	1.4	1.2	12	30%	Pass	
o-Xylene	B13-Ap15089	NCP	mg/kg	2.3	2.2	5.0	30%	Pass	
m&p-Xylenes	B13-Ap15089	NCP	mg/kg	4.2	3.9	8.0	30%	Pass	
Xylenes - Total	B13-Ap15089	NCP	mg/kg	6.5	6.0	7.0	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions				Result 1	Result 2	RPD			
Naphthalene	B13-Ap15089	NCP	mg/kg	5.7	6.1	7.0	30%	Pass	
TRH C6-C10	B13-Ap15089	NCP	mg/kg	77	72	7.0	30%	Pass	
TRH C6-C10 less BTEX (F1)	B13-Ap15089	NCP	mg/kg	69	64	6.0	30%	Pass	
TRH >C10-C16	B13-Ap15335	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	B13-Ap15335	NCP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C34-C40	B13-Ap15335	NCP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	B13-Ap15979	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	B13-Ap15979	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	B13-Ap15979	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	B13-Ap15979	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(a)pyrene	B13-Ap15979	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(b)fluoranthene	B13-Ap15979	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(g.h.i)perylene	B13-Ap15979	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(k)fluoranthene	B13-Ap15979	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chrysene	B13-Ap15979	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a.h)anthracene	B13-Ap15979	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	B13-Ap15979	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Fluorene	B13-Ap15979	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	B13-Ap15979	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Naphthalene	B13-Ap15979	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	B13-Ap15979	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrene	B13-Ap15979	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
4.4'-DDD	M13-Ap16923	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDE	M13-Ap16923	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDT	M13-Ap16923	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
a-BHC	M13-Ap16923	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Aldrin	M13-Ap16923	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
b-BHC	M13-Ap16923	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Chlordane	M13-Ap16923	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
d-BHC	M13-Ap16923	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Dieldrin	M13-Ap16923	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan I	M13-Ap16923	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan II	M13-Ap16923	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan sulphate	M13-Ap16923	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin	M13-Ap16923	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin aldehyde	M13-Ap16923	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin ketone	M13-Ap16923	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
g-BHC (Lindane)	M13-Ap16923	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor	M13-Ap16923	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor epoxide	M13-Ap16923	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Hexachlorobenzene	M13-Ap16923	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Methoxychlor	M13-Ap16923	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Toxaphene	M13-Ap16923	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Duplicate									
Polychlorinated Biphenyls				Result 1	Result 2	RPD			
Aroclor-1016	M13-Ap16923	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1221	M13-Ap16923	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1232	M13-Ap16923	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1242	M13-Ap16923	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1248	M13-Ap16923	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1254	M13-Ap16923	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1260	M13-Ap16923	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Total PCB	M13-Ap16923	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Duplicate									
Phenols (Halogenated)				Result 1	Result 2	RPD			
2-Chlorophenol	B13-Ap15979	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.4-Dichlorophenol	B13-Ap15979	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.4.5-Trichlorophenol	B13-Ap15979	CP	mg/kg	< 1	< 1	<1	30%	Pass	
2.4.6-Trichlorophenol	B13-Ap15979	CP	mg/kg	< 1	< 1	<1	30%	Pass	
2.6-Dichlorophenol	B13-Ap15979	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Chloro-3-methylphenol	B13-Ap15979	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Pentachlorophenol	B13-Ap15979	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Tetrachlorophenols - Total	B13-Ap15979	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Duplicate									
Phenols (non-Halogenated)				Result 1	Result 2	RPD			
2-Cyclohexyl-4.6-dinitrophenol	B13-Ap15979	CP	mg/kg	< 20	< 20	<1	30%	Pass	
2-Methyl-4.6-dinitrophenol	B13-Ap15979	CP	mg/kg	< 5	< 5	<1	30%	Pass	
2-Methylphenol (o-Cresol)	B13-Ap15979	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
2-Nitrophenol	B13-Ap15979	CP	mg/kg	< 1	< 1	<1	30%	Pass	

Duplicate									
Phenols (non-Halogenated)				Result 1	Result 2	RPD			
2.4-Dimethylphenol	B13-Ap15979	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.4-Dinitrophenol	B13-Ap15979	CP	mg/kg	< 5	< 5	<1	30%	Pass	
3&4-Methylphenol (m&p-Cresol)	B13-Ap15979	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
4-Nitrophenol	B13-Ap15979	CP	mg/kg	< 5	< 5	<1	30%	Pass	
Dinoseb	B13-Ap15979	CP	mg/kg	< 20	< 20	<1	30%	Pass	
Phenol	B13-Ap15979	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
Chromium (hexavalent)	M13-Ap20102	NCP	mg/kg	< 1	< 1	<1	30%	Pass	
Duplicate									
Metals M13				Result 1	Result 2	RPD			
Beryllium	B13-Ap17918	NCP	mg/kg	< 5	< 5	<1	30%	Pass	
Manganese	B13-Ap15979	CP	mg/kg	77	77	<1	30%	Pass	
Mercury	B13-Ap15979	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Vanadium	B13-Ap15979	CP	mg/kg	43	43	1.0	30%	Pass	

Comments

Sample Integrity

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

Qualifier Codes/Comments

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

Authorised By

Mark Rodriquez	Client Services
Stacey Jenkins	Senior Analyst-Organic (VIC)
Bryan Wilson	Senior Analyst-Metal (QLD)
Richard Corner	Senior Analyst-Volatile (QLD)
Huong Le	Senior Analyst-Inorganic (VIC)
Richard Corner	Senior Analyst-Organic (QLD)

Michael Wright

National Technical Manager

Final report - this Report replaces any previously issued Report

- Indicates Not Requested

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

Uncertainty data is available on request

Attachment C

DATA VALIDATION REPORT_April 2013

URS Project number:	42213719	**Data verified by:**	Bek Aagaard	Date: 16/5/2013
Client:	Darwin Waterfront Corporation			
Site:	Waterfront Precinct	Signed:	Ubeke Aagaard	
URS Project Manager:	Jacques van Rensberg			
		Validation by:	Penny Johnston	Date: 16/5/2013
Matrix type:	Soil	Signed:		
No Primary samples:	35			
Laboratory:	ALS Labmark			
Lab reference:	EB1309212 EB1310481 376318	**Project Manager:**	Jacques van Rensberg	

Data quality objectives

Field data comparison	No apparent anomalies were observed between laboratory results and field observations.
Frequency of field QC	Field QC samples were collected to project specifications.
Frequency of laboratory QC	The laboratory reported a sufficient frequency of QC to assess whether the results have been reported to an acceptable accuracy and precision, with the exception of the following: • Laboratory duplicate were not reported for moisture content. The precision of moisture content has been considered acceptable based on the presence intra- and inter-laboratory duplicates were available and acceptable. • The inter-laboratory duplicate was not analysed for *trans*-chlordane and *cis*-chlordane; however it was reported for total chlordane. The precision of this data can be assessed as acceptable based on the presence of intra-laboratory field duplicates and laboratory duplicates for *trans*-chlordane.
Tests requested/reported	Samples were not analysed and reported as requested on the COC, as several jars were broken when arriving at the laboratory, including two intra-laboratory duplicates (QA/QC_01_160413 and QAQC_09_160413). Two other intra-laboratory duplicates were analysed (QAQC_07_160413 and QAQC_08_160413) to comply with the frequency of field QAQC samples; however, the two intra-laboratory duplicates are not comparable to the intra-laboratory duplicates analysed, as they are taken from different locations.
Limits of reporting	LORs were sufficiently low to enable assessment against adopted guideline criteria.
Data transcription	A random 10% check of the laboratory results identified no anomalies within the electronic data, the laboratory reports, and tables generated by URS.

Sample management

Chain of Custody	Chain of custody documents completed.
Handling and preservation	Samples were transported with ice bricks and were received at 11.7 to 12.0°C in batch EB1309212. Samples from batch EB1309212 were received above the recommended temperature range; therefore, some losses through volatilisation may have occurred and sample concentrations for BTEXN and TPH $C_6 - C_9$ (and other volatiles) may be may be biased low. It should be noted that the ambient temperature across the site throughout the year and at the time of sampling is >30°C. Samples are chilled in the field on ice and transported to the laboratory with appropriate cooling medium. Samples remain chilled while cooling medium is present; however, over the 24hr transit period to the laboratory cooling medium will melt and samples may warm. Due to the initial sample temperature and subsequent appropriate cooling of samples, losses due to volatilisation are considered to be limited.
Holding time compliance	Samples were extracted and analysed within recommended holding times, with the following exceptions: • Moisture content was exceeded 3 day for analysis for all samples in batch EB1310418; • Polychlorinated biphenyls (PCB), organochlorine pesticides (OC), phenolic compounds, total petroleum hydrocarbons (TPH) and total recoverable hydrocarbons (TRH) were exceeded 7 days for extraction for SP04_06_160413 and PAHs for all samples in batch EB1310418; and • Total petroleum hydrocarbons, total recoverable hydrocarbons, BTEXN were exceeded 3 day for extraction and analysis, respectively, for all samples in batch EB1310418. Moisture content is not an analyte of potential concern; hence, the holding time exceedance for this analyte does not affect the interpretation of the results.As all results for PCB, OC, phenolic compound, TPH

and TRH were all reported below the LOR, this potential for under reporting is not considered to affect the interpretation of results.

Data precision

Field duplicate RPDs

RPDs exceeded control limits for the following sample analysis. (Samples with higher reported concentrations are in bold).

- **SP03_23_160413** and QAQC_05_160413 for Chromium (67%);
- **SP03_23_160413** and QAQC_05_160413 for Lead (104%);
- **SP03_23_160413** and QAQC_05_160413 for Zinc (134%);
- **SP05_05_160413** and QAQC_07__160413 for Moisture Content (38%);
- **SP05_05_160413** and QAQC_07_160413 for Zinc (74%);
- **SP05_05_160413** and QAQC_08_160413 for Moisture Content (35%); and
- **SP05_05_160413** and QAQC_08_160413 for Zinc (91%).

Elevated RPDs are common in soil samples and this apparent lack of precision is likely due to heterogeneity of the distribution of metals in soils at the site. However, care should be taken when interpreting results for zinc, where close to guidelines.

As results for lead were less than 3 times the guidelines, this is not considered to affect the interpretation of the results for lead. As there is no adopted guideline for chromium and moisture content is not an analyte of potential concern, this is not considered to affect the interpretation of the results for these analytes.

Field triplicate RPDs

RPDs exceeded control limits for the following sample analysis. (Samples with higher reported concentrations are in bold).

- SP03_18_160413 **and QAQC_02_160413** for Barium (102%);
- **SP03_18_160413** and QAQC_02_160413 for Manganese (68%);
- SP03_18_160413 and **QAQC_02_160413** for Zinc (53%);
- **SP03_23_160413** and QAQC_06_160413 for Lead (65%);
- **SP03_23_160413** and QAQC_06_160413 for Zinc (122%);
- **SP05_10_160413** and QAQC_10_160413 for Barium (109%);
- **SP05_10_160413** and QAQC_10_160413 for Manganese (59%); and
- **SP05_10_160413** and QAQC_10_160413 for Zinc (42%).

Elevated RPDs are common in soil samples and this apparent lack of precision is likely due to heterogeneity of the distribution of metals in soils at the site. However, care should be taken when interpreting results for zinc, where close to guidelines.

As results for lead and manganese were less than 3 times the guideline, the elevated RPDs are not considered to affect the interpretation of the results for lead. As there is no adopted guideline for barium , this is not considered to affect the interpretation of the results.

Laboratory duplicate RPDs

The following laboratory duplicate RPD exceeded LOR based limits:

Batch	Analyte	Data	LCL (%)	UCL (%)	Comment
EB1309212	Chromium	23.5%	0	20	Exceeded by 3.5%
EB1309212	Chromium	52.6%	0	50	Exceeded by 2.6%
EB1309212	Manganese	61.9%	0	20	Exceeded by 41.9%
EB1309212	Vanadium	64.1%	0	50	Exceeded by 14.1%
EB1309212	Zinc	67.1%	0	50	Exceeded by 17.1%
EB1310481	Chromium	119%	0	20	Exceeded by 99%
EB1310481	Manganese	131%	0	20	Exceeded by 111%

Elevated RPDs are common in soil samples and this apparent lack of precision is likely due to heterogeneity of the distribution of metals in soils at the site. However, care should be taken when interpreting results for manganese, vanadium and zinc, where close to guidelines. As there are no adopted guidelines for chromium, the elevated RPDs are not considered to affect the interpretation of the results.

Data accuracy

Laboratory control spike recovery

The following recoveries were outside control limits and may affect data interpretation:

Batch	Analyte	Recovery (%)	LCL (%)	UCL (%)	Comment
EB1309212	4.4'DDT	68.6	80	155	Recovery less than the lower control limit
EB1309212	Acenaphthylene	121	67	118	Recovery greater than the upper control limit
EB1309212	Fluoranthene	124	69	116	Recovery greater than the upper control limit
EB1309212	Benz(a)anthracene	125	61	120	Recovery greater than the upper control limit
EB1309212	Chrysene	126	62	119	Recovery greater than the upper control limit
EB1310481	Pentachlorophenol	103	20	100	Recovery greater than the

					upper control limit
EB1310481	Anthracene	122	70	115	Recovery greater than the upper control limit
EB1310481	Dibenzo(a,h)anthracene	142	70	134	Recovery greater than the upper control limit

LCS recovery for 4,4'DDT was lower than the lower control limit. Therefore, the potential exists for concentrations of 4,4'DDT to be biased low by 30%. As there is no applicable guideline for 4,4'DDT, this is not considered to have an impact on validity of conclusions.

LCS recoveries for acenaphthylene, fluoranthene, benz(a)anthracene, chrysene, pentachlorophenol, anthracene and dibenzo(a,h)anthracene were greater than the upper control limit by 3%, 8%, 5%, 7%, 3%, 7% and 8%, respectively. Therefore, the potential exists for concentrations of these analytes to be biased high by up to 21%, 24%, 25%, 26%, 3%, 22% and 42%, respectively. As there are no applicable guidelines for these analytes, this is not considered to have an impact on validity of conclusions.

Matrix spike recovery

The following recoveries were outside control limits and may affect data interpretation:

Sample	Analyte	Recovery (%)	LCL (%)	UCL (%)	Comment
SP03_02_160413	Manganese	132	70	130	Recovery greater than the upper data quality objective
SP03_44_160413	Zinc	50.7	70	130	Recovery less than the lower data quality objective
SP04_04_160413	Barium	Not Determined	-	-	MS recovery not determined, background level greater than or equal to 4x spike level.
SP04_04_160413	Manganese	136	70	130	Recovery greater than the upper data quality objective

Matrix spike recoveries were reported greater than the upper data quality objective for manganese by up to 6%; hence, there is potential for reported concentrations of manganese to be biased high by up to 36%. As results for manganese is reported well below the adopted guidelines, this is not considered to affect the interpretation of the results.

Matrix spike recoveries were reported less than the lower data quality objective for zinc by up to 20%; hence, there is potential for reported concentrations of these analytes to be biased low by up to 50%. As ILs have been adopted for zinc, care should be taken with interpreting results close to the adopted guidelines.

The matrix spike for barium was not determined due to background levels being greater than the spike level. However the accuracy of the results for barium are assessed as acceptable, due to the presence of other laboratory quality control data, including method blanks, LCS recoveries and matrix spikes for analytes analysed under the same analytical method.

Surrogate spike recovery

The surrogate spike recoveries were within control limits.

Blank monitoring

Rinsate blank

Concentrations were not detected above the LOR for all analytes tested, with the following exceptions:

Concentrations of zinc (0.045 mg/L) were detected above the LOR in the rinsate sample collected on 16th of April 2013 (QCB01_160413) in batch ES1309212. All soil samples collected on 16 April reported concentrations of zinc well above the LOR, and samples have been assessed for the potential for false positives due to cross-contamination and none were found; hence, this is not considered to affect the interpretation of results.

Field blank

N/A

Trip blank

N/A

Method blank

Concentrations of all analytes were reported below the LOR.

Chromatograms

N/A

Other observations

Batch EB1309212

- EG005T (Total Metals): Sample EB1309212-001 (SP03_01_160413), 022 (SP03_22_160413), 043 (SP03_43_160413) show poor duplicate results due to sample heterogeneity. Confirmed by visual inspection.
- EG005T (Total Metals): Sample EB1309212-002 (SP03_02_160413), 044 (SP03_44_160413) show poor matrix spike recovery due to sample heterogeneity. Confirmed by visual inspection.

Batch EB1309212

- EG005T (Total Metals by ICP-AES) Samples EB1310481 - 001 (SP02_10_160413) shows poor duplicate results due to sample heterogeneity. Confirmed by visual inspection
- EG005T (Total Metals by ICP-AES): Sample EB1310481 - 002 (Sp04_04_160413) shows poor matrix spike recovery due to matrix interference. Confirmed by re-extraction and re-analysis.

Site: Waterfront Precinct
Project No.: 42213719
Project Manager: Tim Smith
Matrix: Soil
Laboratory: ALS/Labmark
Lab Batch Nos: EB1309212 / EB13010481 / 376318

Analytical Method	Analytical Parameter	Number of Tests Requested	Number of Tests Reported	Number of Primary Samples	Holding Times (a)	Limits of Reporting (b)	Field Blank (1 per day)		Rinsate Blank (1 per day)		Trip Blank (1 per esky with VOCs)		Method Blank (1 per batch)		Intra-Laboratory Duplicate Sample (1 in 20)		Inter-Laboratory Duplicate Sample (1 in 20)		Lab Duplicate (1 in 10)		Matrix Spike (1 in 20)		LCS (1 per batch)		Surrogates (GC-MS organics)	
							Number Required	Number Reported	Number Required	Number Reported	Number Required	Number Reported	Number Required	Number Reported	Number Required	Number Reported	Number Required	Number Reported	Number Required	Number Reported	Number Required	Number Reported	Number Required	Number Reported	Reported	OK
SOIL PREPARATION/ALS/EA055	Moisture Content (dried @ 103°C)	38	38	35	✓	✓	0	0	0	0	0	0	1	0	2	3	2	3	4	4	0	0	0	0	-	-
SEMIVOLATILES ANALYSIS/ALS/EP080/071	>C10 - C16 Fraction	36	36	33	✓	✓	0	0	1	1	0	0	1	2	2	3	2	3	4	4	2	2	1	2	-	-
	>C16 - C34 Fraction	36	36	33	✓	✓	0	0	1	1	0	0	1	2	2	3	2	3	4	4	2	2	1	2	-	-
	>C34 - C40 Fraction	36	36	33	✓	✓	0	0	1	1	0	0	1	2	2	3	2	3	4	4	0	0	1	2	-	-
	C10 - C14 Fraction	36	36	33	✓	✓	0	0	1	1	0	0	1	2	2	3	2	3	4	4	2	2	1	2	-	-
	C15 - C28 Fraction	36	36	33	✓	✓	0	0	1	1	0	0	1	2	2	3	2	3	4	4	2	2	1	2	-	-
	C29 - C36 Fraction	36	36	33	✓	✓	0	0	1	1	0	0	1	2	2	3	2	3	4	4	0	0	1	2	-	-
VOLATILES ANALYSIS/ALS/EP080	Benzene	38	38	35	✓	✓	0	0	1	1	0	0	1	2	2	3	2	3	4	4	2	2	1	2	✓	✓
	Ethylbenzene	38	38	35	✓	✓	0	0	1	1	0	0	1	2	2	3	2	3	4	4	0	0	1	2	✓	✓
	meta- & para-Xylene	38	38	35	✓	✓	0	0	1	1	0	0	1	2	2	3	2	3	4	4	0	0	1	2	✓	✓
	Naphthalene	38	38	35	✓	✓	0	0	1	1	0	0	1	2	2	3	2	3	4	4	0	0	1	2	✓	✓
	ortho-Xylene	38	38	35	✓	✓	0	0	1	1	0	0	1	2	2	3	2	3	4	4	0	0	1	2	✓	✓
	Toluene	38	38	35	✓	✓	0	0	1	1	0	0	1	2	2	3	2	3	4	4	2	2	1	2	✓	✓
VOLATILES ANALYSIS/ALS/EP080/071	C6 - C10 Fraction	38	38	35	✓	✓	0	0	1	1	0	0	1	2	2	3	2	3	4	4	2	2	1	2	✓	✓
	C6 - C10 Fraction minus BTEX (F1)	38	38	35	✓	✓	0	0	1	1	0	0	1	2	2	3	2	3	4	4	2	2	1	2	✓	✓
	C6 - C9 Fraction	38	38	35	✓	✓	0	0	1	1	0	0	1	2	2	3	2	3	4	4	2	2	1	2	✓	✓
SEMIVOLATILES ANALYSIS/ALS/EP075(SIM)S	Acenaphthene	38	38	35	✓	✓	0	0	1	1	0	0	1	2	2	3	2	3	4	4	2	2	1	2	✓	✓
	Acenaphthylene	38	38	35	✓	✓	0	0	1	1	0	0	1	2	2	3	2	3	4	4	0	0	1	2	✓	✓
	Anthracene	38	38	35	✓	✓	0	0	1	1	0	0	1	2	2	3	2	3	4	4	0	0	1	2	✓	✓
	Benz(a)anthracene	38	38	35	✓	✓	0	0	1	1	0	0	1	2	2	3	2	3	4	4	0	0	1	2	✓	✓
	Benzo(a)pyrene	38	38	35	✓	✓	0	0	1	1	0	0	1	2	2	3	2	3	4	4	0	0	1	2	✓	✓
	Benzo(b)fluoranthene	38	38	35	✓	✓	0	0	1	1	0	0	1	2	2	3	2	3	4	4	0	0	1	2	✓	✓
	Benzo(g.h.i)perylene	38	38	35	✓	✓	0	0	1	1	0	0	1	2	2	3	2	3	4	4	0	0	1	2	✓	✓
	Benzo(k)fluoranthene	38	38	35	✓	✓	0	0	1	1	0	0	1	2	2	3	2	3	4	4	0	0	1	2	✓	✓
	Chrysene	38	38	35	✓	✓	0	0	1	1	0	0	1	2	2	3	2	3	4	4	0	0	1	2	✓	✓
	Dibenz(a.h)anthracene	38	38	35	✓	✓	0	0	1	1	0	0	1	2	2	3	2	3	4	4	0	0	1	2	✓	✓
	Fluoranthene	38	38	35	✓	✓	0	0	1	1	0	0	1	2	2	3	2	3	4	4	0	0	1	2	✓	✓
	Fluorene	38	38	35	✓	✓	0	0	1	1	0	0	1	2	2	3	2	3	4	4	0	0	1	2	✓	✓
	Indeno(1.2.3.cd)pyrene	38	38	35	✓	✓	0	0	1	1	0	0	1	2	2	3	2	3	4	4	0	0	1	2	✓	✓
	Naphthalene	38	38	35	✓	✓	0	0	1	1	0	0	1	2	2	3	2	3	4	4	0	0	1	2	✓	✓
	Phenanthrene	38	38	35	✓	✓	0	0	1	1	0	0	1	2	2	3	2	3	4	4	0	0	1	2	✓	✓
	Pyrene	38	38	35	✓	✓	0	0	1	1	0	0	1	2	2	3	2	3	4	4	2	2	1	2	✓	✓
METALS/ALS/EG005T	Arsenic	38	38	35	✓	✓	0	0	1	1	0	0	1	2	2	3	2	3	4	4	2	2	1	2	-	-
	Barium	20	20	17	✓	✓	0	0	0	0	0	0	1	2	1	1	1	3	2	4	2	2	1	2	-	-
	Beryllium	20	20	17	✓	✓	0	0	0	0	0	0	1	2	1	1	1	3	2	4	2	2	1	2	-	-
	Cadmium	38	38	35	✓	✓	0	0	1	1	0	0	1	2	2	3	2	3	4	4	2	2	1	2	-	-
	Chromium	38	38	35	✓	✓	0	0	1	1	0	0	1	2	2	3	2	3	4	4	2	2	1	2	-	-
	Cobalt	20	20	17	✓	✓	0	0	0	0	0	0	1	2	1	1	1	3	2	4	2	2	1	2	-	-
	Copper	38	38	35	✓	✓	0	0	1	1	0	0	1	2	2	3	2	3	4	4	2	2	1	2	-	-
	Lead	38	38	35	✓	✓	0	0	1	1	0	0	1	2	2	3	2	3	4	4	2	2	1	2	-	-
	Manganese	20	20	17	✓	✓	0	0	0	0	0	0	1	2	1	1	1	3	2	4	2	2	1	2	-	-
	Nickel	38	38	35	✓	✓	0	0	1	1	0	0	1	2	2	3	2	3	4	4	2	2	1	2	-	-
	Vanadium	20	20	17	✓	✓	0	0	0	0	0	0	1	2	1	1	1	3	2	4	2	2	1	2	-	-
	Zinc	38	38	35	✓	✓	0	0	1	1	0	0	1	2	2	3	2	3	4	4	2	2	1	2	-	-
METALS/ALS/EG035T	Mercury	35	35	32	✓	✓	0	0	1	1	0	0	1	2	2	3	2	3	4	4	2	2	1	2	-	-
SEMIVOLATILES ANALYSIS/ALS/EP068A	4.4`-DDD	20	20	17	✓	✓	0	0	0	0	0	0	1	1	1	1	1	3	2	2	0	0	1	1	✓	✓
	4.4`-DDE	20	20	17	✓	✓	0	0	0	0	0	0	1	1	1	1	1	3	2	2	0	0	1	1	✓	✓
	4.4`-DDT	20	20	17	✓	✓	0	0	0	0	0	0	1	1	1	1	1	3	2	2	1	1	1	1	✓	✓
	Aldrin	20	20	17	✓	✓	0	0	0	0	0	0	1	1	1	1	1	3	2	2	1	1	1	1	✓	✓
	alpha-BHC	20	20	17	✓	✓	0	0	0	0	0	0	1	1	1	1	1	3	2	2	0	0	1	1	✓	✓
	alpha-Endosulfan	20	20	17	✓	✓	0	0	0	0	0	0	1	1	1	1	1	3	2	2	0	0	1	1	✓	✓
	beta-BHC	20	20	17	✓	✓	0	0	0	0	0	0	1	1	1	1	1	3	2	2	0	0	1	1	✓	✓
	beta-Endosulfan	20	20	17	✓	✓	0	0	0	0	0	0	1	1	1	1	1	3	2	2	0	0	1	1	✓	✓
	cis-Chlordane	20	20	17	✓	✓	0	0	0	0	0	0	1	1	1	1	1	0	2	2	0	0	1	1	✓	✓
	delta-BHC	20	20	17	✓	✓	0	0	0	0	0	0	1	1	1	1	1	3	2	2	0	0	1	1	✓	✓
	Dieldrin	20	20	17	✓	✓	0	0	0	0	0	0	1	1	1	1	1	3	2	2	1	1	1	1	✓	✓
	Endosulfan sulfate	20	20	17	✓	✓	0	0	0	0	0	0	1	1	1	1	1	3	2	2	0	0	1	1	✓	✓
	Endrin	20	20	17	✓	✓	0	0	0	0	0	0	1	1	1	1	1	3	2	2	1	1	1	1	✓	✓
	Endrin aldehyde	20	20	17	✓	✓	0	0	0	0	0	0	1	1	1	1	1	3	2	2	0	0	1	1	✓	✓
	Endrin ketone	20	20	17	✓	✓	0	0	0	0	0	0	1	1	1	1	1	3	2	2	0	0	1	1	✓	✓
	gamma-BHC	20	20	17	✓	✓	0	0	0	0	0	0	1	1	1	1	1	3	2	2	1	1	1	1	✓	✓
	Heptachlor	20	20	17	✓	✓	0	0	0	0	0	0	1	1	1	1	1	3	2	2	1	1	1	1	✓	✓
	Heptachlor epoxide	20	20	17	✓	✓	0	0	0	0	0	0	1	1	1	1	1	3	2	2	0	0	1	1	✓	✓
	Hexachlorobenzene (HCB)	20	20	17	✓	✓	0	0	0	0	0	0	1	1	1	1	1	3	2	2	0	0	1	1	✓	✓
	Methoxychlor	20	20	17	✓	✓	0	0	0	0	0	0	1	1	1	1	1	3	2	2	0	0	1	1	✓	✓
	trans-Chlordane	20	20	17	✓	✓	0	0	0	0	0	0	1	1	1	1	1	0	2	2	0	0	1	1	✓	✓

Site: Waterfront Precinct
Project No.: 42213719
Project Manager: Tim Smith
Matrix: Soil
Laboratory: ALS/Labmark
Lab Batch Nos: EB1309212 / EB13010481 / 376318

Analytical Method	Analytical Parameter	Number of Tests Requested	Number of Tests Reported	Number of Primary Samples	Holding Times (a)	Limits of Reporting (b)	Field Blank (1 per day)		Rinsate Blank (1 per day)		Trip Blank (1 per esky with VOCs)		Method Blank (1 per batch)		Intra-Laboratory Duplicate Sample (1 in 20)		Inter-Laboratory Duplicate Sample (1 in 20)		Lab Duplicate (1 in 10)		Matrix Spike (1 in 20)		LCS (1 per batch)		Surrogates (GC-MS organics)	
							Number Required	Number Reported	Number Required	Number Reported	Number Required	Number Reported	Number Required	Number Reported	Number Required	Number Reported	Number Required	Number Reported	Number Required	Number Reported	Number Required	Number Reported	Number Required	Number Reported	Reported	OK
SEMIVOLATILES ANALYSIS/ALS/EP066	Total Polychlorinated biphenyls	20	20	17	✓	✓	0	0	0	0	0	0	1	1	1	1	1	0	2	2	1	1	1	1	✓	✓
SEMIVOLATILES ANALYSIS/ALS/EP075(SIM)A	2.4.5-Trichlorophenol	20	20	17	✓	✓	0	0	0	0	0	0	1	2	1	1	1	3	2	4	0	0	1	2	✓	✖
	2.4.6-Trichlorophenol	20	20	17	✓	✓	0	0	0	0	0	0	1	2	1	1	1	3	2	4	0	0	1	2	✓	✓
	2.4-Dichlorophenol	20	20	17	✓	✓	0	0	0	0	0	0	1	2	1	1	1	3	2	4	0	0	1	2	✓	✓
	2.4-Dimethylphenol	20	20	17	✓	✓	0	0	0	0	0	0	1	2	1	1	1	3	2	4	0	0	1	2	✓	✓
	2.6-Dichlorophenol	20	20	17	✓	✓	0	0	0	0	0	0	1	2	1	1	1	3	2	4	0	0	1	2	✓	✓
	2-Chlorophenol	20	20	17	✓	✓	0	0	0	0	0	0	1	2	1	1	1	3	2	4	2	2	1	2	✓	✓
	2-Methylphenol	20	20	17	✓	✓	0	0	0	0	0	0	1	2	1	1	1	3	2	4	0	0	1	2	✓	✓
	2-Nitrophenol	20	20	17	✓	✓	0	0	0	0	0	0	1	2	1	1	1	3	2	4	2	2	1	2	✓	✓
	3- & 4-Methylphenol	20	20	17	✓	✓	0	0	0	0	0	0	1	2	1	1	1	3	2	4	0	0	1	2	✓	✓
	4-Chloro-3-Methylphenol	20	20	17	✓	✓	0	0	0	0	0	0	1	2	1	1	1	3	2	4	2	2	1	2	✓	✓
	Pentachlorophenol	20	20	17	✓	✓	0	0	0	0	0	0	1	2	1	1	1	3	2	4	2	2	1	2	✓	✓
	Phenol	20	20	17	✓	✓	0	0	0	0	0	0	1	2	1	1	1	3	2	4	2	2	1	2	✓	✓
NUTRIENTS/ALS/EG048	Hexavalent Chromium	20	20	17	✓	✓	0	0	0	0	0	0	1	1	1	1	1	3	2	2	1	1	1	1	-	-

Table xxx
Waterfront Stage 2A
Waterfront Stage 2A
Darwin Waterfront Corporation

Site: **Waterfront Precinct**
Project No.: **42213719**
Project Manager: **Tim Smith**
Matrix: **Soil**
Laboratory: **ALS/Envirolab**
Lab Batch Nos: **ES1302091 / EB1302398**
Sample Dates: **29/01/2013**

Field Duplicates (SOIL)

Pass RPD <= 30%
Pass-1 RPD > 30%, Analysis result < 10 times LOR
Pass-2 RPD <= 50%, Analysis result > 10 times LOR and < 20 times LOR

SDG				EB1309212	EB1309212			EB1309212	EB1309212			EB1309212	EB1309212		
Sample ID				SP03_23_160413	QAQC_05_160513	**RPD**	**Category1**	SP05_05_160413	QAQC_07_160513	**RPD**	**Category1**	SP05_05_160413	QAQC_08_160513	**RPD**	**Category1**
Sampled Date				16/04/2013	16/04/2013			16/04/2013	16/04/2013			16/04/2013	16/04/2013		
Analyte		**Units**	**LOR**												
Inorganics	Moisture Content	%	1	14.9	14.4	3	Pass	**23.9**	**16.2**	**38**	**Fail**	**23.9**	**16.8**	**35**	**Fail**
Metals	Arsenic	mg/kg	5	10	5	67	Pass 1	7	<5	33	Pass 1	7	<5	33	Pass 1
	Barium	mg/kg	10												
	Beryllium	mg/kg	1												
	Cadmium	mg/kg	1	<1	<1	0	Pass	<1	<1	0	Pass	<1	<1	0	Pass
	Chromium	mg/kg	2	**44**	**22**	**67**	**Fail**	30	37	21	Pass	30	25	18	Pass
	Chromium (hexavalent)	mg/kg	0.5												
	Cobalt	mg/kg	2												
	Copper	mg/kg	5	27	18	40	Pass 1	17	11	43	Pass 1	17	12	35	Pass 1
	Lead	mg/kg	5	**57**	**18**	**104**	**Fail**	35	8	126		35	8	126	Pass 1
	Manganese	mg/kg	5												
	Mercury	mg/kg	0.1	<0.1	<0.1	0	Pass	<0.1	<0.1	0	Pass	<0.1	<0.1	0	Pass
	Nickel	mg/kg	2	7	5	33	Pass 1	6	8	29	Pass	6	7	15	Pass
	Vanadium	mg/kg	5												
	Zinc	mg/kg	5	**206**	**41**	**134**	**Fail**	**80**	**37**	**74**	**Fail**	**80**	**30**	**91**	**Fail**
BTEXN	Benzene	mg/kg	0.2	<0.2	<0.2	0	Pass	<0.2	<0.2	0	Pass	<0.2	<0.2	0	Pass
	Toluene	mg/kg	0.5	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass
	Ethylbenzene	mg/kg	0.5	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass
	m&p-Xylene	mg/kg	0.5	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass
	o-Xylene	mg/kg	0.5	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass
	Naphthalene (VOC)	mg/kg	1	<1	<1	0	Pass	<1	<1	0	Pass	<1	<1	0	Pass
Polynuclear Aromatic Hydrocarbons	Naphthalene	mg/kg	0.5	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass
	Acenaphthylene	mg/kg	0.5	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass
	Acenaphthene	mg/kg	0.5	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass
	Anthracene	mg/kg	0.5	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass
	Fluorene	mg/kg	0.5	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass
	Phenanthrene	mg/kg	0.5	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass
	Fluoranthene	mg/kg	0.5	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass
	Benz(a)anthracene	mg/kg	0.5	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass
	Benzo(b)fluoranthene	mg/kg	0.5	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass
	Benzo(k)fluoranthene	mg/kg	0.5	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass
	Benzo(a)pyrene	mg/kg	0.5	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass
	Chrysene	mg/kg	0.5	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass
	Pyrene	mg/kg	0.5	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass
	Benzo(g,h,i)perylene	mg/kg	0.5	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass
	Dibenz(a,h)anthracene	mg/kg	0.5	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass
	Indeno(1,2,3-cd)pyrene	mg/kg	0.5	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass
Total Petroleum Hydrocarbons	C6-C9 fraction	mg/kg	10	<10	<10	0	Pass	<10	<10	0	Pass	<10	<10	0	Pass
	C10-C14 fraction	mg/kg	50	<50	<50	0	Pass	<50	<50	0	Pass	<50	<50	0	Pass
	C15-C28 fraction	mg/kg	100	<100	<100	0	Pass	<100	<100	0	Pass	<100	<100	0	Pass
	C29-C36 fraction	mg/kg	100	<100	<100	0	Pass	<100	<100	0	Pass	<100	<100	0	Pass
Total Recoverable Hydrocarbons	C6-C10 fraction (F1 minus BTEX)	mg/kg	10	<10	<10	0	Pass	<10	<10	0	Pass	<10	<10	0	Pass
	C6-C10 fraction	mg/kg	10	<10	<10	0	Pass	<10	<10	0	Pass	<10	<10	0	Pass
	>C10-C16 fraction	mg/kg	50	<50	<50	0	Pass	<50	<50	0	Pass	<50	<50	0	Pass
	>C16-C34 fraction	mg/kg	100	<100	<100	0	Pass	<100	<100	0	Pass	<100	<100	0	Pass
	>C34-C40 fraction	mg/kg	100	<100	<100	0	Pass	<100	<100	0	Pass	<100	<100	0	Pass

Site: Waterfront Precinct
Project No.: 42213719
Project Manager: Tim Smith
Matrix: Soil
Laboratory: ALS/Envirolab
Lab Batch Nos: ES1302091 / EB1302398
Sample Dates: 29/01/2013

Field Duplicates (SOIL)

Pass RPD <= 30%
Pass-1 RPD > 30%, Analysis result < 10 times LOR
Pass-2 RPD <= 50%, Analysis result > 10 times LOR and < 20 times LOR

SDG				EB1309212	Interlab_D			EB1309212	Interlab_D			EB1309212	Interlab_D		
Sample ID				SP03_18_160413	QAQC_02_160513	**RPD**	**Category1**	SP03_23_160413	QAQC_06_160513	**RPD**	**Category1**	SP05_10_160413	QAQC_10_160513	**RPD**	**Category1**
Sampled Date				16/04/2013	16/04/2013			16/04/2013	16/04/2013			16/04/2013	16/04/2013		
Analyte		**Units**	**LOR**												
Inorganics	Moisture Content	%	0.1	16	18	12	Pass	14.9	17	13	Pass	16	16	0	Pass
Metals	Arsenic	mg/kg	2	<5	18	113	Pass 1	10	19	62	Pass 1	10	7.7	26	Pass
	Barium	mg/kg	5	**20**	**62**	**102**	**Fail**	-	-	-	-	**340**	**100**	**109**	**Fail**
	Beryllium	mg/kg	5	<1	<5	0	Pass	-	-	-	-	<1	<5	0	Pass
	Cadmium	mg/kg	0.5	<1	<0.5	0	Pass	<1	<0.5	0	Pass	<1	<0.5	0	Pass
	Chromium	mg/kg	5	23	28	20	Pass	44	71	47	Pass 2	49	34	36	Pass 1
	Chromium (hexavalent)	mg/kg	1	<0.5	<1	0	Pass	-	-	-	-	<0.5	<1	0	Pass
	Cobalt	mg/kg	5	3	<5	50	Pass 1	-	-	-	-	2	<5	86	Pass 1
	Copper	mg/kg	5	16	32	67	Pass 1	27	17	45	Pass 1	31	19	48	pass 1
	Lead	mg/kg	5	6	22	114	Pass 1	**57**	**29**	**65**	**Fail**	55	46	18	Pass
	Manganese	mg/kg	5	**156**	**77**	**68**	**Fail**	-	-	-	-	**88**	**48**	**59**	**Fail**
	Mercury	mg/kg	0.1	<0.1	<0.1	0	Pass	<0.1	<0.1	0	Pass	<0.1	<0.1	0	Pass
	Nickel	mg/kg	5	10	9.2	8	Pass	7	8	13	Pass	9	7.1	24	Pass
	Vanadium	mg/kg	10	26	43	49	Pass 1	-	-	-	-	95	69	32	Pass 1
	Zinc	mg/kg	5	**32**	**55**	**53**	**Fail**	**206**	**50**	**122**	**Fail**	**118**	**77**	**42**	**Fail**
BTEXN	Benzene	mg/kg	0.1	<0.2	<0.1	0	Pass	<0.2	<0.1	0	Pass	<0.2	<0.1	0	Pass
	Toluene	mg/kg	0.1	<0.5	<0.1	0	Pass	<0.5	<0.1	0	Pass	<0.5	<0.1	0	Pass
	Ethylbenzene	mg/kg	0.1	<0.5	<0.1	0	Pass	<0.5	<0.1	0	Pass	<0.5	<0.1	0	Pass
	m&p-Xylene	mg/kg	0.2	<0.5	<0.2	0	Pass	<0.5	<0.2	0	Pass	<0.5	<0.2	0	Pass
	o-Xylene	mg/kg	0.1	<0.5	<0.1	0	Pass	<0.5	<0.1	0	Pass	<0.5	<0.1	0	Pass
	Naphthalene (VOC)	mg/kg	0.5	<1	<0.5	0	Pass	<1	<0.5	0	Pass	<1	<0.5	0	Pass
Organochlorine Pesticides (OC)	Aldrin	mg/kg	0.05	<0.05	<0.05	0	Pass	-	-	-	-	<0.05	<0.05	0	Pass
	Dieldrin	mg/kg	0.05	<0.05	<0.05	0	Pass	-	-	-	-	0.07	<0.05	33	Pass 1
	a-BHC	mg/kg	0.05	<0.05	<0.05	0	Pass	-	-	-	-	<0.05	<0.05	0	Pass
	b-BHC	mg/kg	0.05	<0.05	<0.05	0	Pass	-	-	-	-	<0.05	<0.05	0	Pass
	d-BHC	mg/kg	0.05	<0.05	<0.05	0	Pass	-	-	-	-	<0.05	<0.05	0	Pass
	g-BHC (Lindane)	mg/kg	0.05	<0.05	<0.05	0	Pass	-	-	-	-	<0.05	<0.05	0	Pass
	DDD	mg/kg	0.05	<0.05	<0.05	0	Pass	-	-	-	-	<0.05	<0.05	0	Pass
	DDE	mg/kg	0.05	<0.05	<0.05	0	Pass	-	-	-	-	<0.05	<0.05	0	Pass
	DDT	mg/kg	0.05	<0.2	<0.05	0	Pass	-	-	-	-	<0.2	<0.05	0	Pass
	Endosulfan 1	mg/kg	0.05	<0.05	<0.05	0	Pass	-	-	-	-	<0.05	<0.05	0	Pass
	Endosulfan 2	mg/kg	0.05	<0.05	<0.05	0	Pass	-	-	-	-	<0.05	<0.05	0	Pass
	Endosulfan sulfate	mg/kg	0.05	<0.05	<0.05	0	Pass	-	-	-	-	<0.05	<0.05	0	Pass
	Endrin	mg/kg	0.05	<0.05	<0.05	0	Pass	-	-	-	-	<0.05	<0.05	0	Pass
	Endrin aldehyde	mg/kg	0.05	<0.05	<0.05	0	Pass	-	-	-	-	<0.05	<0.05	0	Pass
	Endrin ketone	mg/kg	0.05	<0.05	<0.05	0	Pass	-	-	-	-	<0.05	<0.05	0	Pass
	Heptachlor	mg/kg	0.05	<0.05	<0.05	0	Pass	-	-	-	-	<0.05	<0.05	0	Pass
	Heptachlor epoxide	mg/kg	0.05	<0.05	<0.05	0	Pass	-	-	-	-	<0.05	<0.05	0	Pass
	Hexachlorobenzene (HCB)	mg/kg	0.05	<0.05	<0.05	0	Pass	-	-	-	-	<0.05	<0.05	0	Pass
	Methoxychlor	mg/kg	0.05	<0.2	<0.05	0	Pass	-	-	-	-	<0.2	<0.05	0	Pass
Phenolic Compounds	Phenol	mg/kg	0.5	<0.5	<0.5	0	Pass	-	-	-	-	<0.5	<0.5	0	Pass
	2-Chlorophenol	mg/kg	0.5	<0.5	<0.5	0	Pass	-	-	-	-	<0.5	<0.5	0	Pass
	2-Methylphenol (o-Cresol)	mg/kg	0.2	<0.5	<0.2	0	Pass	-	-	-	-	<0.5	<0.2	0	Pass
	3-&4-Methylphenol (m&p-Cresol)	mg/kg	0.4	<1	<0.4	0	Pass	-	-	-	-	<1	<0.4	0	Pass
	2-Nitrophenol	mg/kg	1	<0.5	<1	0	Pass	-	-	-	-	<0.5	<1	0	Pass
	2,4-Dichlorophenol	mg/kg	0.5	<0.5	<0.5	0	Pass	-	-	-	-	<0.5	<0.5	0	Pass
	2,4-Dimethylphenol	mg/kg	0.5	<0.5	<0.5	0	Pass	-	-	-	-	<0.5	<0.5	0	Pass
	2,6-Dichlorophenol	mg/kg	0.5	<0.5	<0.5	0	Pass	-	-	-	-	<0.5	<0.5	0	Pass
	4-Chloro-3-methylphenol	mg/kg	1	<0.5	<1	0	Pass	-	-	-	-	<0.5	<1	0	Pass
	2,4,6-Trichlorophenol	mg/kg	1	<0.5	<1	0	Pass	-	-	-	-	<0.5	<1	0	Pass
	2,4,5-Trichlorophenol	mg/kg	1	<0.5	<1	0	Pass	-	-	-	-	<0.5	<1	0	Pass
	Pentachlorophenol	mg/kg	1	<2	<1	0	Pass	-	-	-	-	<2	<1	0	Pass

				SDG Sample ID Sampled Date	EB1309212 SP03_18_160413 16/04/2013	Interlab_D QAQC_02_160513 16/04/2013	RPD	Category1	EB1309212 SP03_23_160413 16/04/2013	Interlab_D QAQC_06_160513 16/04/2013	RPD	Category1	EB1309212 SP05_10_160413 16/04/2013	Interlab_D QAQC_10_160513 16/04/2013	RPD	Category1
Polychlorinated Biphenyls	Polychlorinated Biphenyls	mg/kg	0.1		<0.1	<0.1	0	Pass	-	-	-	-	<0.1	<0.1	0	Pass
Polynuclear Aromatic Hydrocarbons	Naphthalene	mg/kg	0.5		<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass
	Acenaphthylene	mg/kg	0.5		<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass
	Acenaphthene	mg/kg	0.5		<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass
	Anthracene	mg/kg	0.5		<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass
	Fluorene	mg/kg	0.5		<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass
	Phenanthrene	mg/kg	0.5		<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass
	Fluoranthene	mg/kg	0.5		<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass
	Benz(a)anthracene	mg/kg	0.5		<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass
	Benzo(b)fluoranthene	mg/kg	0.5		<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass
	Benzo(k)fluoranthene	mg/kg	0.5		<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass
	Benzo(a)pyrene	mg/kg	0.5		<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass
	Chrysene	mg/kg	0.5		<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass
	Pyrene	mg/kg	0.5		<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass
	Benzo(g,h,i)perylene	mg/kg	0.5		<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass
	Dibenz(a,h)anthracene	mg/kg	0.5		<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass
	Indeno(1,2,3-cd)pyrene	mg/kg	0.5		<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass
Total Petroleum Hydrocarbons	C6-C9 fraction	mg/kg	20		<10	<20	0	Pass	<10	<20	0	Pass	<10	<20	0	Pass
	C10-C14 fraction	mg/kg	20		<50	<20	0	Pass	<50	<20	0	Pass	<50	<20	0	Pass
	C15-C28 fraction	mg/kg	50		<100	<50	0	Pass	<100	<50	0	Pass	<100	<50	0	Pass
	C29-C36 fraction	mg/kg	50		<100	<50	0	Pass	<100	<50	0	Pass	<100	<50	0	Pass
Total Recoverable Hydrocarbons	C6-C10 fraction (F1 minus BTEX)	mg/kg	20		<10	<20	0	Pass	<10	<20	0	Pass	<10	<20	0	Pass
	C6-C10 fraction	mg/kg	20		<10	<20	0	Pass	<10	<20	0	Pass	<10	<20	0	Pass
	>C10-C16 fraction	mg/kg	50		<50	<50	0	Pass	<50	<50	0	Pass	<50	<50	0	Pass
	>C16-C34 fraction	mg/kg	100		<100	<100	0	Pass	<100	<100	0	Pass	<100	<100	0	Pass
	>C34-C40 fraction	mg/kg	100		<100	<100	0	Pass	<100	<100	0	Pass	<100	<100	0	Pass

Attachment D

1				**General UCL Statistics for Data Sets with Non-Detects**								
2	**User Selected Options**											
3	From File			WorkSheet.wst								
4	Full Precision			OFF								
5	Confidence Coefficient			95%								
6	mber of Bootstrap Operations			2000								
7												
8												
9	**Arsenic**											
10												
11						**General Statistics**							
12					Number of Valid Data	41				Number of Detected Data	33	
13					Number of Distinct Detected Data	14				Number of Non-Detect Data	8	
14										Percent Non-Detects	19.51%	
15												
16					**Raw Statistics**					**Log-transformed Statistics**		
17					Minimum Detected	5				Minimum Detected	1.609	
18					Maximum Detected	44				Maximum Detected	3.784	
19					Mean of Detected	10.35				Mean of Detected	2.223	
20					SD of Detected	6.867				SD of Detected	0.433	
21					Minimum Non-Detect	5				Minimum Non-Detect	1.609	
22					Maximum Non-Detect	5				Maximum Non-Detect	1.609	
23												
24												
25						**UCL Statistics**							
26					**Normal Distribution Test with Detected Values Only**					**Lognormal Distribution Test with Detected Values Only**		
27					Shapiro Wilk Test Statistic	0.586				Shapiro Wilk Test Statistic	0.888	
28					5% Shapiro Wilk Critical Value	0.931				5% Shapiro Wilk Critical Value	0.931	
29					**Data not Normal at 5% Significance Level**					**Data not Lognormal at 5% Significance Level**		
30												
31					**Assuming Normal Distribution**					**Assuming Lognormal Distribution**		
32					DL/2 Substitution Method					DL/2 Substitution Method		
33					Mean	8.822				Mean	1.968	
34					SD	6.904				SD	0.652	
35					95% DL/2 (t) UCL	10.64				95% H-Stat (DL/2) UCL	10.89	
36												
37					Maximum Likelihood Estimate(MLE) Method					Log ROS Method		
38					Mean	8.348				Mean in Log Scale	2.036	
39					SD	7.515				SD in Log Scale	0.554	
40					95% MLE (t) UCL	10.32				Mean in Original Scale	9.035	
41					95% MLE (Tiku) UCL	10.3				SD in Original Scale	6.721	
42										95% t UCL	10.8	
43										95% Percentile Bootstrap UCL	10.82	
44										95% BCA Bootstrap UCL	11.61	
45										95% H UCL	10.57	
46												
47					**Gamma Distribution Test with Detected Values Only**					**Data Distribution Test with Detected Values Only**		
48					k star (bias corrected)	4.147				**Data do not follow a Discernable Distribution (0.05)**		
49					Theta Star	2.497						
50					nu star	273.7						
51												
52					A-D Test Statistic	1.629				**Nonparametric Statistics**		
53					5% A-D Critical Value	0.75				Kaplan-Meier (KM) Method		
54					K-S Test Statistic	0.75				Mean	9.31	
55					5% K-S Critical Value	0.154				SD	6.427	
56					**Data not Gamma Distributed at 5% Significance Level**					SE of Mean	1.019	
57										95% KM (t) UCL	11.03	
58					**Assuming Gamma Distribution**					95% KM (z) UCL	10.99	
59					Gamma ROS Statistics using Extrapolated Data					95% KM (jackknife) UCL	11.02	
60					Minimum	1E-06				95% KM (bootstrap t) UCL	12.35	
61					Maximum	44				95% KM (BCA) UCL	11.37	
62					Mean	8.337				95% KM (Percentile Bootstrap) UCL	11.2	
63					Median	8				95% KM (Chebyshev) UCL	13.75	
64					SD	7.412				97.5% KM (Chebyshev) UCL	15.68	
65					k star	0.255				99% KM (Chebyshev) UCL	19.45	
66					Theta star	32.64						
67					Nu star	20.94				**Potential UCLs to Use**		
68					AppChi2	11.55				95% KM (Chebyshev) UCL	13.75	
69					95% Gamma Approximate UCL (Use when n >= 40)	15.12						
70					95% Adjusted Gamma UCL (Use when n < 40)	15.46						
71	**Note: DL/2 is not a recommended method.**											
72												
73	**ote: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.**											
74	**These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).**											
75	**For additional insight, the user may want to consult a statistician.**											

Barium

General Statistics

Number of Valid Observations	21	Number of Distinct Observations	16

Raw Statistics		Log-transformed Statistics	
Minimum	20	Minimum of Log Data	2.996
Maximum	340	Maximum of Log Data	5.829
Mean	120.1	Mean of log Data	4.555
Geometric Mean	95.14	SD of log Data	0.713
Median	100		
SD	86.77		
Std. Error of Mean	18.93		
Coefficient of Variation	0.722		
Skewness	1.405		

Relevant UCL Statistics

Normal Distribution Test		Lognormal Distribution Test	
Shapiro Wilk Test Statistic	0.851	Shapiro Wilk Test Statistic	0.982
Shapiro Wilk Critical Value	0.908	Shapiro Wilk Critical Value	0.908
Data not Normal at 5% Significance Level		**Data appear Lognormal at 5% Significance Level**	
Assuming Normal Distribution		**Assuming Lognormal Distribution**	
95% Student's-t UCL	152.8	95% H-UCL	174.3
95% UCLs (Adjusted for Skewness)		95% Chebyshev (MVUE) UCL	208.7
95% Adjusted-CLT UCL (Chen-1995)	157.4	97.5% Chebyshev (MVUE) UCL	246.7
95% Modified-t UCL (Johnson-1978)	153.7	99% Chebyshev (MVUE) UCL	321.3

Gamma Distribution Test		Data Distribution	
k star (bias corrected)	2.003	**Data appear Gamma Distributed at 5% Significance Level**	
Theta Star	59.96		
MLE of Mean	120.1		
MLE of Standard Deviation	84.86		
nu star	84.12		
Approximate Chi Square Value (.05)	63.98	**Nonparametric Statistics**	
Adjusted Level of Significance	0.0383	95% CLT UCL	151.2
Adjusted Chi Square Value	62.63	95% Jackknife UCL	152.8
		95% Standard Bootstrap UCL	150.5
Anderson-Darling Test Statistic	0.279	95% Bootstrap-t UCL	166.7
Anderson-Darling 5% Critical Value	0.752	95% Hall's Bootstrap UCL	165.3
Kolmogorov-Smirnov Test Statistic	0.0893	95% Percentile Bootstrap UCL	152
Kolmogorov-Smirnov 5% Critical Value	0.192	95% BCA Bootstrap UCL	159
Data appear Gamma Distributed at 5% Significance Level		95% Chebyshev(Mean, Sd) UCL	202.6
		97.5% Chebyshev(Mean, Sd) UCL	238.3
Assuming Gamma Distribution		99% Chebyshev(Mean, Sd) UCL	308.5
95% Approximate Gamma UCL (Use when n >= 40)	157.9		
95% Adjusted Gamma UCL (Use when n < 40)	161.3		
Potential UCL to Use		Use 95% Approximate Gamma UCL	157.9

ote: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002) and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

Chromium

General Statistics

Number of Valid Observations	41	Number of Distinct Observations	29

Raw Statistics		Log-transformed Statistics	
Minimum	16	Minimum of Log Data	2.773
Maximum	93	Maximum of Log Data	4.533
Mean	40.61	Mean of log Data	3.614
Geometric Mean	37.11	SD of log Data	0.421
Median	37		
SD	18.69		
Std. Error of Mean	2.918		
Coefficient of Variation	0.46		
Skewness	1.345		

Relevant UCL Statistics

Normal Distribution Test		Lognormal Distribution Test	
Shapiro Wilk Test Statistic	0.872	Shapiro Wilk Test Statistic	0.973

Shapiro Wilk Critical Value	0.941	
Data not Normal at 5% Significance Level		
Assuming Normal Distribution		
95% Student's-t UCL	45.52	
95% UCLs (Adjusted for Skewness)		
95% Adjusted-CLT UCL (Chen-1995)	46.06	
95% Modified-t UCL (Johnson-1978)	45.63	
Gamma Distribution Test		
k star (bias corrected)	5.309	
Theta Star	7.649	
MLE of Mean	40.61	
MLE of Standard Deviation	17.62	
nu star	435.4	
Approximate Chi Square Value (.05)	388	
Adjusted Level of Significance	0.0441	
Adjusted Chi Square Value	386.4	
Anderson-Darling Test Statistic	0.541	
Anderson-Darling 5% Critical Value	0.751	
Kolmogorov-Smirnov Test Statistic	0.101	
Kolmogorov-Smirnov 5% Critical Value	0.138	
Data appear Gamma Distributed at 5% Significance Level		
Assuming Gamma Distribution		
95% Approximate Gamma UCL (Use when n >= 40)	45.57	
95% Adjusted Gamma UCL (Use when n < 40)	45.76	
Potential UCL to Use		

Shapiro Wilk Critical Value	0.941
Data appear Lognormal at 5% Significance Level	
Assuming Lognormal Distribution	
95% H-UCL	45.85
95% Chebyshev (MVUE) UCL	52.46
97.5% Chebyshev (MVUE) UCL	57.66
99% Chebyshev (MVUE) UCL	67.86
Data Distribution	
Data appear Gamma Distributed at 5% Significance Level	
Nonparametric Statistics	
95% CLT UCL	45.41
95% Jackknife UCL	45.52
95% Standard Bootstrap UCL	45.31
95% Bootstrap-t UCL	46.55
95% Hall's Bootstrap UCL	46.71
95% Percentile Bootstrap UCL	45.41
95% BCA Bootstrap UCL	46.46
95% Chebyshev(Mean, Sd) UCL	53.33
97.5% Chebyshev(Mean, Sd) UCL	58.84
99% Chebyshev(Mean, Sd) UCL	69.65
Use 95% Approximate Gamma UCL	45.57

ote: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002) and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

Cobalt

General Statistics

Number of Valid Data	21	Number of Detected Data	10
Number of Distinct Detected Data	3	Number of Non-Detect Data	11
		Percent Non-Detects	52.38%

Raw Statistics		**Log-transformed Statistics**	
Minimum Detected	2	Minimum Detected	0.693
Maximum Detected	4	Maximum Detected	1.386
Mean of Detected	2.6	Mean of Detected	0.925
SD of Detected	0.699	SD of Detected	0.259
Minimum Non-Detect	2	Minimum Non-Detect	0.693
Maximum Non-Detect	5	Maximum Non-Detect	1.609
Note: Data have multiple DLs - Use of KM Method is recommer		Number treated as Non-Detect	21
For all methods (except KM, DL/2, and ROS Methods),		Number treated as Detected	0
Observations < Largest ND are treated as NDs		Single DL Non-Detect Percentage	100.00%

Warning: There are only 3 Distinct Detected Values in this data set
The number of detected data may not be adequate enough to perform GOF tests, bootstrap, and ROS methods.
Those methods will return a 'N/A' value on your output display!

It is necessary to have 4 or more Distinct Values for bootstrap methods.
However, results obtained using 4 to 9 distinct values may not be reliable.
It is recommended to have 10 to 15 or more observations for accurate and meaningful results and estimates.

UCL Statistics

Normal Distribution Test with Detected Values Only		**Lognormal Distribution Test with Detected Values Only**	
Shapiro Wilk Test Statistic	0.781	Shapiro Wilk Test Statistic	0.777
5% Shapiro Wilk Critical Value	0.842	5% Shapiro Wilk Critical Value	0.842
Data not Normal at 5% Significance Level		**Data not Lognormal at 5% Significance Level**	
Assuming Normal Distribution		**Assuming Lognormal Distribution**	
DL/2 Substitution Method		DL/2 Substitution Method	
Mean	1.976	Mean	0.571
SD	0.915	SD	0.491
95% DL/2 (t) UCL	2.32	95% H-Stat (DL/2) UCL	2.482

228					Maximum Likelihood Estimate(MLE) Method	N/A					Log ROS Method	
229					**MLE method failed to converge properly**						Mean in Log Scale	0.625
230											SD in Log Scale	0.395
231											Mean in Original Scale	2.012
232											SD in Original Scale	0.806
233											95% t UCL	2.315
234											95% Percentile Bootstrap UCL	2.306
235											95% BCA Bootstrap UCL	2.325
236											95% H-UCL	2.388
237												
238					**Gamma Distribution Test with Detected Values Only**						**Data Distribution Test with Detected Values Only**	
239					k star (bias corrected)	11.52					**Data do not follow a Discernable Distribution (0.05)**	
240					Theta Star	0.226						
241					nu star	230.4						
242												
243					A-D Test Statistic	1.152					**Nonparametric Statistics**	
244					5% A-D Critical Value	0.725					Kaplan-Meier (KM) Method	
245					K-S Test Statistic	0.725					Mean	2.333
246					5% K-S Critical Value	0.266					SD	0.577
247					**Data not Gamma Distributed at 5% Significance Level**						SE of Mean	0.143
248											95% KM (t) UCL	2.581
249					**Assuming Gamma Distribution**						95% KM (z) UCL	2.569
250					Gamma ROS Statistics using Extrapolated Data						95% KM (jackknife) UCL	2.576
251					Minimum	1E-06					95% KM (bootstrap t) UCL	2.695
252					Maximum	4					95% KM (BCA) UCL	2.588
253					Mean	1.555					95% KM (Percentile Bootstrap) UCL	2.579
254					Median	2					95% KM (Chebyshev) UCL	2.959
255					SD	1.292					97.5% KM (Chebyshev) UCL	3.229
256					k star	0.231					99% KM (Chebyshev) UCL	3.761
257					Theta star	6.737						
258					Nu star	9.693					**Potential UCLs to Use**	
259					AppChi2	3.751					95% KM (t) UCL	2.581
260					95% Gamma Approximate UCL (Use when n >= 40)	4.018					95% KM (% Bootstrap) UCL	2.579
261					95% Adjusted Gamma UCL (Use when n < 40)	4.342						
262	**Note: DL/2 is not a recommended method.**											
263												
264	**ote: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.**											
265	**These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).**											
266	**For additional insight, the user may want to consult a statistician.**											
267												
268												
269	**Copper**											
270												
271						**General Statistics**							
272					Number of Valid Observations	41					Number of Distinct Observations	23
273												
274					**Raw Statistics**						**Log-transformed Statistics**	
275					Minimum	10					Minimum of Log Data	2.303
276					Maximum	153					Maximum of Log Data	5.03
277					Mean	24.9					Mean of log Data	3.052
278					Geometric Mean	21.16					SD of log Data	0.489
279					Median	19						
280					SD	22.56						
281					Std. Error of Mean	3.524						
282					Coefficient of Variation	0.906						
283					Skewness	4.882						
284												
285						**Relevant UCL Statistics**							
286					**Normal Distribution Test**						**Lognormal Distribution Test**	
287					Shapiro Wilk Test Statistic	0.484					Shapiro Wilk Test Statistic	0.877
288					Shapiro Wilk Critical Value	0.941					Shapiro Wilk Critical Value	0.941
289					**Data not Normal at 5% Significance Level**						**Data not Lognormal at 5% Significance Level**	
290												
291					**Assuming Normal Distribution**						**Assuming Lognormal Distribution**	
292					95% Student's-t UCL	30.84					95% H-UCL	27.6
293					**95% UCLs (Adjusted for Skewness)**						95% Chebyshev (MVUE) UCL	32.05
294					95% Adjusted-CLT UCL (Chen-1995)	33.57					97.5% Chebyshev (MVUE) UCL	35.63
295					95% Modified-t UCL (Johnson-1978)	31.28					99% Chebyshev (MVUE) UCL	42.67
296												
297					**Gamma Distribution Test**						**Data Distribution**	
298					k star (bias corrected)	3.007					**Data do not follow a Discernable Distribution (0.05)**	
299					Theta Star	8.282						
300					MLE of Mean	24.9						
301					MLE of Standard Deviation	14.36						
302					nu star	246.5						
303					Approximate Chi Square Value (.05)	211.2					**Nonparametric Statistics**	

304					Adjusted Level of Significance	0.0441					95% CLT UCL	30.7
305					Adjusted Chi Square Value	210					95% Jackknife UCL	30.84
306											95% Standard Bootstrap UCL	30.79
307					Anderson-Darling Test Statistic	2.478					95% Bootstrap-t UCL	39.58
308					Anderson-Darling 5% Critical Value	0.754					95% Hall's Bootstrap UCL	55.02
309					Kolmogorov-Smirnov Test Statistic	0.199					95% Percentile Bootstrap UCL	31.56
310					Kolmogorov-Smirnov 5% Critical Value	0.139					95% BCA Bootstrap UCL	35.46
311					**Data not Gamma Distributed at 5% Significance Level**						95% Chebyshev(Mean, Sd) UCL	40.26
312											97.5% Chebyshev(Mean, Sd) UCL	46.91
313					**Assuming Gamma Distribution**						99% Chebyshev(Mean, Sd) UCL	59.96
314				95% Approximate Gamma UCL (Use when n >= 40)		29.07						
315				95% Adjusted Gamma UCL (Use when n < 40)		29.24						
316												
317					**Potential UCL to Use**						Use 95% Student's-t UCL	30.84
318											or 95% Modified-t UCL	31.28
319												
320	**ote: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.**											
321	**These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)**											
322	**and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.**											
323												
324												
325	**Lead**											
326												
327					**General Statistics**							
328					Number of Valid Observations	41					Number of Distinct Observations	29
329												
330					**Raw Statistics**						**Log-transformed Statistics**	
331					Minimum	6					Minimum of Log Data	1.792
332					Maximum	671					Maximum of Log Data	6.509
333					Mean	47.17					Mean of log Data	3.392
334					Geometric Mean	29.73					SD of log Data	0.76
335					Median	33						
336					SD	100.9						
337					Std. Error of Mean	15.76						
338					Coefficient of Variation	2.139						
339					Skewness	6.196						
340												
341					**Relevant UCL Statistics**							
342					**Normal Distribution Test**						**Lognormal Distribution Test**	
343					Shapiro Wilk Test Statistic	0.275					Shapiro Wilk Test Statistic	0.876
344					Shapiro Wilk Critical Value	0.941					Shapiro Wilk Critical Value	0.941
345					**Data not Normal at 5% Significance Level**						**Data not Lognormal at 5% Significance Level**	
346												
347					**Assuming Normal Distribution**						**Assuming Lognormal Distribution**	
348					95% Student's-t UCL	73.71					95% H-UCL	51.14
349					**95% UCLs (Adjusted for Skewness)**						95% Chebyshev (MVUE) UCL	61.81
350					95% Adjusted-CLT UCL (Chen-1995)	89.39					97.5% Chebyshev (MVUE) UCL	71.54
351					95% Modified-t UCL (Johnson-1978)	76.25					99% Chebyshev (MVUE) UCL	90.64
352												
353					**Gamma Distribution Test**						**Data Distribution**	
354					k star (bias corrected)	1.15					**Data do not follow a Discernable Distribution (0.05)**	
355					Theta Star	41.02						
356					MLE of Mean	47.17						
357					MLE of Standard Deviation	43.99						
358					nu star	94.3						
359					Approximate Chi Square Value (.05)	72.91					**Nonparametric Statistics**	
360					Adjusted Level of Significance	0.0441					95% CLT UCL	73.09
361					Adjusted Chi Square Value	72.22					95% Jackknife UCL	73.71
362											95% Standard Bootstrap UCL	73.6
363					Anderson-Darling Test Statistic	3.652					95% Bootstrap-t UCL	180.1
364					Anderson-Darling 5% Critical Value	0.773					95% Hall's Bootstrap UCL	189
365					Kolmogorov-Smirnov Test Statistic	0.26					95% Percentile Bootstrap UCL	77.83
366					Kolmogorov-Smirnov 5% Critical Value	0.141					95% BCA Bootstrap UCL	94.88
367					**Data not Gamma Distributed at 5% Significance Level**						95% Chebyshev(Mean, Sd) UCL	115.9
368											97.5% Chebyshev(Mean, Sd) UCL	145.6
369					**Assuming Gamma Distribution**						99% Chebyshev(Mean, Sd) UCL	204
370				95% Approximate Gamma UCL (Use when n >= 40)		61.01						
371				95% Adjusted Gamma UCL (Use when n < 40)		61.59						
372												
373					**Potential UCL to Use**						Use 95% Chebyshev (Mean, Sd) UCL	115.9
374												
375	**ote: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.**											
376	**These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)**											
377	**and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.**											
378												
379												

Manganese

General Statistics

Number of Valid Observations	21	Number of Distinct Observations	19

Raw Statistics		**Log-transformed Statistics**	
Minimum	36	Minimum of Log Data	3.584
Maximum	166	Maximum of Log Data	5.112
Mean	77	Mean of log Data	4.267
Geometric Mean	71.31	SD of log Data	0.39
Median	75		
SD	33.67		
Std. Error of Mean	7.348		
Coefficient of Variation	0.437		
Skewness	1.543		

Relevant UCL Statistics

Normal Distribution Test		**Lognormal Distribution Test**	
Shapiro Wilk Test Statistic	0.838	Shapiro Wilk Test Statistic	0.955
Shapiro Wilk Critical Value	0.908	Shapiro Wilk Critical Value	0.908
Data not Normal at 5% Significance Level		**Data appear Lognormal at 5% Significance Level**	

Assuming Normal Distribution		**Assuming Lognormal Distribution**	
95% Student's-t UCL	89.67	95% H-UCL	90.8
95% UCLs (Adjusted for Skewness)		95% Chebyshev (MVUE) UCL	105.8
95% Adjusted-CLT UCL (Chen-1995)	91.73	97.5% Chebyshev (MVUE) UCL	118.4
95% Modified-t UCL (Johnson-1978)	90.09	99% Chebyshev (MVUE) UCL	143.1

Gamma Distribution Test		**Data Distribution**
k star (bias corrected)	5.75	**Data appear Gamma Distributed at 5% Significance Level**
Theta Star	13.39	
MLE of Mean	77	
MLE of Standard Deviation	32.11	
nu star	241.5	
Approximate Chi Square Value (.05)	206.5	**Nonparametric Statistics**
Adjusted Level of Significance	0.0383	95% CLT UCL 89.09
Adjusted Chi Square Value	204	95% Jackknife UCL 89.67
		95% Standard Bootstrap UCL 88.79
Anderson-Darling Test Statistic	0.576	95% Bootstrap-t UCL 95.16
Anderson-Darling 5% Critical Value	0.744	95% Hall's Bootstrap UCL 101.9
Kolmogorov-Smirnov Test Statistic	0.172	95% Percentile Bootstrap UCL 89.43
Kolmogorov-Smirnov 5% Critical Value	0.19	95% BCA Bootstrap UCL 91.24
Data appear Gamma Distributed at 5% Significance Level		95% Chebyshev(Mean, Sd) UCL 109
		97.5% Chebyshev(Mean, Sd) UCL 122.9
Assuming Gamma Distribution		99% Chebyshev(Mean, Sd) UCL 150.1
95% Approximate Gamma UCL (Use when n >= 40)	90.04	
95% Adjusted Gamma UCL (Use when n < 40)	91.14	
Potential UCL to Use		Use 95% Approximate Gamma UCL 90.04

ote: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002) and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

Nickel

General Statistics

Number of Valid Observations	41	Number of Distinct Observations	13

Raw Statistics		**Log-transformed Statistics**	
Minimum	3	Minimum of Log Data	1.099
Maximum	14	Maximum of Log Data	2.639
Mean	7.056	Mean of log Data	1.903
Geometric Mean	6.703	SD of log Data	0.33
Median	7		
SD	2.284		
Std. Error of Mean	0.357		
Coefficient of Variation	0.324		
Skewness	0.793		

Relevant UCL Statistics

Normal Distribution Test		**Lognormal Distribution Test**	
Shapiro Wilk Test Statistic	0.949	Shapiro Wilk Test Statistic	0.965
Shapiro Wilk Critical Value	0.941	Shapiro Wilk Critical Value	0.941
Data appear Normal at 5% Significance Level		**Data appear Lognormal at 5% Significance Level**	

Assuming Normal Distribution		**Assuming Lognormal Distribution**
95% Student's-t UCL	7.657	95% H-UCL 7.769
95% UCLs (Adjusted for Skewness)		95% Chebyshev (MVUE) UCL 8.688
95% Adjusted-CLT UCL (Chen-1995)	7.69	97.5% Chebyshev (MVUE) UCL 9.389
95% Modified-t UCL (Johnson-1978)	7.664	99% Chebyshev (MVUE) UCL 10.77
Gamma Distribution Test		**Data Distribution**
k star (bias corrected)	9.197	**Data appear Normal at 5% Significance Level**
Theta Star	0.767	
MLE of Mean	7.056	
MLE of Standard Deviation	2.327	
nu star	754.2	
Approximate Chi Square Value (.05)	691.5	**Nonparametric Statistics**
Adjusted Level of Significance	0.0441	95% CLT UCL 7.643
Adjusted Chi Square Value	689.3	95% Jackknife UCL 7.657
		95% Standard Bootstrap UCL 7.637
Anderson-Darling Test Statistic	0.515	95% Bootstrap-t UCL 7.719
Anderson-Darling 5% Critical Value	0.748	95% Hall's Bootstrap UCL 7.746
Kolmogorov-Smirnov Test Statistic	0.129	95% Percentile Bootstrap UCL 7.637
Kolmogorov-Smirnov 5% Critical Value	0.138	95% BCA Bootstrap UCL 7.688
Data appear Gamma Distributed at 5% Significance Level		95% Chebyshev(Mean, Sd) UCL 8.611
		97.5% Chebyshev(Mean, Sd) UCL 9.284
Assuming Gamma Distribution		99% Chebyshev(Mean, Sd) UCL 10.61
95% Approximate Gamma UCL (Use when n >= 40)	7.696	
95% Adjusted Gamma UCL (Use when n < 40)	7.721	
Potential UCL to Use		Use 95% Student's-t UCL 7.657

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002) and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

Zinc

General Statistics

Number of Valid Observations	41	Number of Distinct Observations	32

Raw Statistics		**Log-transformed Statistics**	
Minimum	30	Minimum of Log Data	3.401
Maximum	516	Maximum of Log Data	6.246
Mean	94.1	Mean of log Data	4.335
Geometric Mean	76.36	SD of log Data	0.601
Median	80		
SD	82.79		
Std. Error of Mean	12.93		
Coefficient of Variation	0.88		
Skewness	3.691		

Relevant UCL Statistics

Normal Distribution Test		**Lognormal Distribution Test**	
Shapiro Wilk Test Statistic	0.623	Shapiro Wilk Test Statistic	0.942
Shapiro Wilk Critical Value	0.941	Shapiro Wilk Critical Value	0.941
Data not Normal at 5% Significance Level		**Data appear Lognormal at 5% Significance Level**	

Assuming Normal Distribution		**Assuming Lognormal Distribution**	
95% Student's-t UCL	115.9	95% H-UCL	110.3
95% UCLs (Adjusted for Skewness)		95% Chebyshev (MVUE) UCL	130.7
95% Adjusted-CLT UCL (Chen-1995)	123.3	97.5% Chebyshev (MVUE) UCL	147.9
95% Modified-t UCL (Johnson-1978)	117.1	99% Chebyshev (MVUE) UCL	181.7
Gamma Distribution Test		**Data Distribution**	
k star (bias corrected)	2.378	**Data appear Lognormal at 5% Significance Level**	
Theta Star	39.58		
MLE of Mean	94.1		
MLE of Standard Deviation	61.03		
nu star	195		
Approximate Chi Square Value (.05)	163.7	**Nonparametric Statistics**	
Adjusted Level of Significance	0.0441	95% CLT UCL	115.4
Adjusted Chi Square Value	162.6	95% Jackknife UCL	115.9
		95% Standard Bootstrap UCL	114.9
Anderson-Darling Test Statistic	1.311	95% Bootstrap-t UCL	132.5
Anderson-Darling 5% Critical Value	0.757	95% Hall's Bootstrap UCL	208.1
Kolmogorov-Smirnov Test Statistic	0.167	95% Percentile Bootstrap UCL	117.6
Kolmogorov-Smirnov 5% Critical Value	0.139	95% BCA Bootstrap UCL	125.5

532	**Data not Gamma Distributed at 5% Significance Level**									95% Chebyshev(Mean, Sd) UCL		150.5
533										97.5% Chebyshev(Mean, Sd) UCL		174.8
534	**Assuming Gamma Distribution**									99% Chebyshev(Mean, Sd) UCL		222.7
535	95% Approximate Gamma UCL (Use when n >= 40)					112.1						
536	95% Adjusted Gamma UCL (Use when n < 40)					112.8						
537												
538	**Potential UCL to Use**									Use 95% H-UCL		110.3
539												
540	**ProUCL computes and outputs H-statistic based UCLs for historical reasons only.**											
541	**H-statistic often results in unstable (both high and low) values of UCL95 as shown in examples in the Technical Guide.**											
542	**It is therefore recommended to avoid the use of H-statistic based 95% UCLs.**											
543	**se of nonparametric methods are preferred to compute UCL95 for skewed data sets which do not follow a gamma distribution.**											
544												
545	**ote: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.**											
546	**These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)**											
547	**and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.**											
548												
549												
550	**Vanadium**											
551												
552	**General Statistics**											
553	Number of Valid Observations					21				Number of Distinct Observations		19
554												
555	**Raw Statistics**									**Log-transformed Statistics**		
556	Minimum					26				Minimum of Log Data		3.258
557	Maximum					180				Maximum of Log Data		5.193
558	Mean					81.19				Mean of log Data		4.275
559	Geometric Mean					71.85				SD of log Data		0.52
560	Median					78						
561	SD					40.95						
562	Std. Error of Mean					8.937						
563	Coefficient of Variation					0.504						
564	Skewness					1.014						
565												
566	**Relevant UCL Statistics**											
567	**Normal Distribution Test**									**Lognormal Distribution Test**		
568	Shapiro Wilk Test Statistic					0.917				Shapiro Wilk Test Statistic		0.971
569	Shapiro Wilk Critical Value					0.908				Shapiro Wilk Critical Value		0.908
570	**Data appear Normal at 5% Significance Level**									**Data appear Lognormal at 5% Significance Level**		
571												
572	**Assuming Normal Distribution**									**Assuming Lognormal Distribution**		
573	95% Student's-t UCL					96.6				95% H-UCL		103.8
574	**95% UCLs (Adjusted for Skewness)**									95% Chebyshev (MVUE) UCL		123.6
575	95% Adjusted-CLT UCL (Chen-1995)					98				97.5% Chebyshev (MVUE) UCL		141.8
576	95% Modified-t UCL (Johnson-1978)					96.93				99% Chebyshev (MVUE) UCL		177.5
577												
578	**Gamma Distribution Test**									**Data Distribution**		
579	k star (bias corrected)					3.674				**Data appear Normal at 5% Significance Level**		
580	Theta Star					22.1						
581	MLE of Mean					81.19						
582	MLE of Standard Deviation					42.36						
583	nu star					154.3						
584	Approximate Chi Square Value (.05)					126.6				**Nonparametric Statistics**		
585	Adjusted Level of Significance					0.0383				95% CLT UCL		95.89
586	Adjusted Chi Square Value					124.7				95% Jackknife UCL		96.6
587										95% Standard Bootstrap UCL		95.38
588	Anderson-Darling Test Statistic					0.195				95% Bootstrap-t UCL		100.7
589	Anderson-Darling 5% Critical Value					0.747				95% Hall's Bootstrap UCL		102.6
590	Kolmogorov-Smirnov Test Statistic					0.0886				95% Percentile Bootstrap UCL		95.71
591	Kolmogorov-Smirnov 5% Critical Value					0.19				95% BCA Bootstrap UCL		97.48
592	**Data appear Gamma Distributed at 5% Significance Level**									95% Chebyshev(Mean, Sd) UCL		120.1
593										97.5% Chebyshev(Mean, Sd) UCL		137
594	**Assuming Gamma Distribution**									99% Chebyshev(Mean, Sd) UCL		170.1
595	95% Approximate Gamma UCL (Use when n >= 40)					98.97						
596	95% Adjusted Gamma UCL (Use when n < 40)					100.5						
597												
598	**Potential UCL to Use**									Use 95% Student's-t UCL		96.6
599												
600	**ote: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.**											
601	**These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)**											
602	**and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.**											
603												
604												
605	**Dieldrin**											
606												
607	**General Statistics**											

Number of Valid Data	21	Number of Detected Data 2
Number of Distinct Detected Data	2	Number of Non-Detect Data 19
		Percent Non-Detects 90.48%

Raw Statistics		Log-transformed Statistics	
Minimum Detected	0.07	Minimum Detected	-2.659
Maximum Detected	0.08	Maximum Detected	-2.526
Mean of Detected	0.075	Mean of Detected	-2.592
SD of Detected	0.00707	SD of Detected	0.0944
Minimum Non-Detect	0.05	Minimum Non-Detect	-2.996
Maximum Non-Detect	0.05	Maximum Non-Detect	-2.996

Warning: Data set has only 2 Distinct Detected Values.

This may not be adequate enough to compute meaningful and reliable test statistics and estimates.

The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

Unless Data Quality Objectives (DQOs) have been met, it is suggested to collect additional observations.

The number of detected data may not be adequate enough to perform GOF tests, bootstrap, and ROS methods.

Those methods will return a 'N/A' value on your output display!

It is necessary to have 4 or more Distinct Values for bootstrap methods.

However, results obtained using 4 to 9 distinct values may not be reliable.

It is recommended to have 10 to 15 or more observations for accurate and meaningful results and estimates.

UCL Statistics

Normal Distribution Test with Detected Values Only		Lognormal Distribution Test with Detected Values Only	
Shapiro Wilk Test Statistic	N/A	Shapiro Wilk Test Statistic	N/A
5% Shapiro Wilk Critical Value	N/A	5% Shapiro Wilk Critical Value	N/A
Data not Normal at 5% Significance Level		**Data not Lognormal at 5% Significance Level**	
Assuming Normal Distribution		**Assuming Lognormal Distribution**	
DL/2 Substitution Method		DL/2 Substitution Method	
Mean	0.0298	Mean	-3.584
SD	0.0151	SD	0.33
95% DL/2 (t) UCL	0.0355	95% H-Stat (DL/2) UCL	0.0336
Maximum Likelihood Estimate(MLE) Method	N/A	Log ROS Method	
MLE method failed to converge properly		Mean in Log Scale	N/A
		SD in Log Scale	N/A
		Mean in Original Scale	N/A
		SD in Original Scale	N/A
		95% t UCL	N/A
		95% Percentile Bootstrap UCL	N/A
		95% BCA Bootstrap UCL	N/A
		95% H-UCL	N/A

Gamma Distribution Test with Detected Values Only		Data Distribution Test with Detected Values Only	
k star (bias corrected)	N/A	**Data do not follow a Discernable Distribution (0.05)**	
Theta Star	N/A		
nu star	N/A		
A-D Test Statistic	N/A	**Nonparametric Statistics**	
5% A-D Critical Value	N/A	Kaplan-Meier (KM) Method	
K-S Test Statistic	N/A	Mean	0.0705
5% K-S Critical Value	N/A	SD	0.00213
Data not Gamma Distributed at 5% Significance Level		SE of Mean	0.00066
		95% KM (t) UCL	0.0716
Assuming Gamma Distribution		95% KM (z) UCL	0.0716
Gamma ROS Statistics using Extrapolated Data		95% KM (jackknife) UCL	N/A
Minimum	N/A	95% KM (bootstrap t) UCL	N/A
Maximum	N/A	95% KM (BCA) UCL	N/A
Mean	N/A	95% KM (Percentile Bootstrap) UCL	N/A
Median	N/A	95% KM (Chebyshev) UCL	0.0733
SD	N/A	97.5% KM (Chebyshev) UCL	0.0746
k star	N/A	99% KM (Chebyshev) UCL	0.077
Theta star	N/A		
Nu star	N/A	**Potential UCLs to Use**	
AppChi2	N/A	95% KM (t) UCL	0.0716
95% Gamma Approximate UCL (Use when n >= 40)	N/A	95% KM (% Bootstrap) UCL	N/A
95% Adjusted Gamma UCL (Use when n < 40)	N/A		

Note: DL/2 is not a recommended method.

ote: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

	A	B	C	D	E	F	G	H	I	J	K	L
684	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).											
685	For additional insight, the user may want to consult a statistician.											