

**APPENDIX 2  
CHARACTERISATION OF THE CAPPED WASTE STOCKPILE**

**Part 2 Capped Waste Stockpile Treatability Study**

Intended for  
**Gilbert & Tobin**  
**Hydro Aluminium Kurri Kurri Pty Ltd**

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# HYDRO ALUMINIUM KURRI KURRI PTY LTD CWS WASTE TREATABILITY STUDY



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CWS WASTE TREATABILITY STUDY**

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Date **19/10/2017**  
Made by **Craig Goodbody**  
Checked by **Kirsty Greenfield**  
Approved by **Fiona Robinson**  
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Ramboll Environ  
Level 2, Suite 18  
50 Glebe Road  
PO Box 435  
The Junction  
NSW 2291  
Australia  
T +61 2 4962 5444  
F +61 2 4962 5888  
[www.ramboll-environ.com](http://www.ramboll-environ.com)

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## EXECUTIVE SUMMARY

Studies were undertaken in the laboratory to assess the variability, and treatability of the material currently contained within the Capped Waste Stockpile (CWS waste). The CWS waste used in the studies was recovered during the drilling of six boreholes for the installation of groundwater monitoring wells on the capped waste stockpile in October 2015.

Variability was considered in terms of size by laboratory analyses of samples less than and greater than 125mm. Further assessment of variability was carried out by testing samples of greater than 125mm as monoliths using US EPA Method 1315. US EPA Method 1315 involves the extraction and analysis of eluate fluid in a series of nine predetermined leaching intervals, or time steps, T01 to T09.

Untreated samples were assessed under the NSW EPA (2014) Waste Classification Guidelines. Part 1: Classifying Waste, 2014 and the NSW EPA – Chemical Control Order in Relation to Aluminium Smelter Wastes Containing Fluoride and/or Cyanide. The untreated material was determined to be Hazardous Waste, due to the elevated concentrations of total PAHs. Concentrations of leachable fluoride are also in excess of the NSW EPA – Chemical Control Order. Due to the presence of asbestos, the untreated material was also classified as Asbestos Waste.

Treatment of crushed CWS waste was carried out by applying agricultural lime, calcium chloride (for chemical fixation) and Portland cement (for stabilisation and solidification) in dry and slurry form at different rates of application. The evaluation of the treatment options was carried out by laboratory analyses and assessment under the NSW EPA (2014) Waste Classification Guidelines and the NSW EPA – Chemical Control Order guidelines. For leachable concentrations, lime at 50% dosage for both wet and dry applications, cement at 30% both wet and dry. Lime at 10% added on a dry basis proved to be effective at reducing leachable fluoride levels to well below the Chemical Control Order guidelines of 150 mg/L. Calcium chloride proved to be ineffective at reducing concentrations of any of the contaminants.

It was observed that untreated monolith samples tested under US EPA Method 1315 demonstrated fluoride concentrations in exceedance of the Chemical Control Order. Eluate from treated monoliths formed with cement at 30% exceeded the Chemical Control Order guidelines for leachable fluoride in four out of five samples, however no exceedances were recorded for eluates at time intervals T07 to T09. Eluate samples from CWS waste treated with lime at 50% did not exceed the guidelines for any of the analytes.

The results of monolith testing, when compared to crushed samples, confirm that particle size influences the level of leachable fluoride. Crushed samples with high surface area resulted in higher leachable fluoride.

The generation of methane and ammonia gas was analysed during the preparation of samples for the treatment studies, by leaving crushed untreated and treated samples in an enclosed space for a period of 24 hours and analysing the gas in the headspace. Lime mixed with the waste material as a slurry at 50% dosage was found to produce the most methane, followed by cement at 30% dosage as a slurry. Significant amounts of ammonia gas was produced from combining the waste with both 50% lime and 30% cement, both dry and as a slurry, however, the production of ammonia was elevated when the admixtures were added as a slurry and the moisture content was higher.

CWS samples were also tested for OECD (Organisation for Economic Co-operation and Development) Dangerous Goods Class 4.3, substances which in contact with water emit flammable gases. The laboratory concluded that, under this methodology, the samples emitted no gas, including flammable gas, throughout the duration of the test for each sample.

# 1. INTRODUCTION

This report presents the findings of the Capped Waste Stockpile Treatability Study carried out on recovered samples from the Capped Waste Stockpile located at the former Hydro Kurri Kurri Aluminium Smelter.

The objective of the work was to test options for treatment of the Capped Waste Stockpile wastes (CWS waste) to reduce leachable total cyanide to less than 10mg/L and leachable fluoride to less than 150mg/L, when tested following ASLP (Australian Standard Leachate Procedure) for cyanide and TCLP (Toxicity Characteristic Leachate Procedure) method 1311 (USEPA, 1992) for fluoride.

The Capped Waste Stockpile (CWS) is known to contain, amongst other materials, spent pot lining. Leachable fluoride in spent pot lining occurs from cryolite ( $\text{Na}_3\text{AlF}_6$ ) and sodium fluoride (NaF) that are used as a flux in the smelting process. Cyanides form when nitrogen reacts with sodium and carbon during the smelting process. Previous TCLP analysis of CWS waste found leachable fluorides on average of 337mg/L, and cyanides below 10mg/L (Ramboll Environ, 2016).

This report presents the methodology employed, and factual results of the materials assessment, treatability trials, and dangerous goods classification.

## 1.1 Background

### 1.1.1 The Capped Waste Stockpile

The Capped Waste Stockpile (formally known as the Alcan Mound) is an on-site stockpile comprising mixed smelter wastes that were capped in 1995. The stockpile originated during early site operations between 1969 and 1992, when smelter wastes were stored within onsite storage facilities situated along the eastern smelter boundary. Approximately 100,000 m<sup>3</sup> of mixed wastes including Spent Pot Lining was stored in this area. In the mid 1980's changes to legislation regarding the storage of aluminium smelter wastes resulted in the improvement of storage and waste management on the site. These improvements resulted in the consolidation of wastes into one stockpile and the capping of that stockpile, now referred to as the Capped Waste Stockpile. The capping of the Capped Waste Stockpile in 1995 was designed to reduce ongoing leachate generation.

Ramboll Environ undertook an intrusive (drilling) investigation in October/November 2015 at the Capped Waste Stockpile. The objective of the investigation was to provide an assessment on the composition of the waste material, the underlying soil, and the groundwater conditions beneath the Capped Waste Stockpile. A total of six boreholes were drilled and subsequently developed with groundwater monitoring wells. Waste, soil, and groundwater were collected and analysed in a laboratory for a wide range of contaminants of concern.

## 1.2 Objectives and Scope of Work

The scope of work comprised the following elements:

- Part 1 - Evaluation of the variability of leachate due to particle size from the CWS Waste samples.
- Part 2 - Assessment of Treatment Options for the CWS Waste by treatment by agricultural lime,  $\text{CaCl}_2$  (for chemical fixation), and Portland cement (for stabilisation and solidification) by applying reagents in dry and slurry form to crushed waste at different concentrations. The treatment options assessment also included monolith testing of uncrushed forms of bonded waste and reagent mixes at different concentrations.
- Part 3 - OECD Testing for dangerous goods class 4.3 (substances which in contact with water emit flammable gases) of the CWS Waste. The CWS Waste contains spent pot lining which is considered to be dangerous goods, and the waste material has not been previously analysed for dangerous goods classification. CWS Waste materials had not previously been analysed under the dangerous goods code, however it was theorised that due to weathering the gas emissions were substantially reduced.

## 2. METHODOLOGY

### 2.1 Fieldwork

Sampling was carried out by Ramboll Environ personnel on 7 February 2017. Bulk samples of CWS wastes were collected from drill cores recovered during the advancement of six (6) boreholes within the Capped Waste Stockpile using a sonic drill rig. The drilling works were carried out between 26 October 2015 and 11 November 2015, with core samples housed undercover in storage sheds on site. The drill cores were sealed in polyethylene plastic sleeves prior to sampling. A total of 12 samples were collected manually into large bulk soil sampling bags. Six (6) general bulk samples were collected, one from each of the boreholes (MW201 to MW206), discounting cap material and natural material from the base of the boreholes. A further six (6) samples of larger fraction pieces (>125mm) that could be potentially be used for monolith testing were collected separately (one from each of the boreholes) to aid the sorting process in the lab. To gain a representative sample, material from the entire waste profile was collected from each of the boreholes.

Bagged samples were subsequently taken off site, palletised, and shipped to the laboratory under Chain of Custody protocol.

Additional samples were also collected from the CWS waste drill cores on 14 March, 25 May, and 23 August 2017, to supplement the initial samples, and allow for the evolution of the scope of testing and treatment studies.

In summary the size fractions collected for analysis and referred to in the following were:

- <125mm means bulk samples that were sieved to include only fractions less than 125mm;
- >125mm means bulk samples that were sieved to include fractions only greater than 125mm;
- Monoliths were hand selected from the drill core as 'large' fractions, typically greater than 125mm. These were retained whole (i.e. not crushed) throughout the analysis.

### 2.2 Part 1 Evaluation of Variability

The first part of the study was to assess the variability of the leachate generation within the waste itself. Variability was considered in terms of size in the laboratory by sieve analysis for Particle Size Distribution (PSD). Size fractions, of crushed bulk material, materials less than 125mm, and materials greater than 125mm, were then analysed.

The selected suite of analyses (presented in **Table 2.1**) was as follows:

- Particle Size Distribution (PSD) – by sieve analysis
- Asbestos by weight
- NSW Landfill Suite for waste characterisation (including Total Recoverable Hydrocarbons, Benzene, Toluene, Ethylbenzene, Xylenes, Naphthalene (BTEXN), Polycyclic Aromatic Hydrocarbons (PAHs), Organochlorine Pesticides (OCP), Organophosphate Pesticides (OPP), Polychlorinated Biphenyls (PCB), heavy metals, Phenols, Cyanide, Fluoride)
- Leachable Cyanide (CN) by Australian Standard Leaching Procedure (ASLP)
- Leachable Fluoride (F) by Toxicity Characteristic Leaching Procedure (TCLP)
- Leachable Polycyclic Aromatic Hydrocarbons (PAH) by TCLP

**Table 2.1 Summary of Variability Assessment Laboratory Analyses**

Variability/Untreated Samples	Number of samples	PSD Analysis	Asbestos ID and wt/wt	Leachable CN by ASLP	Leachable F by TCLP	Leachable PAHs by TCLP	NSW Landfill Suite *
Bulk	12	6	12	12	12	12	12
>125mm	12	-	12	12	12	12	12
<125mm	12	-	12	12	12	12	12

\*NSW Landfill Suite for waste characterisation (including TRH, BTEXN, PAHs, OCP, OPP, PCB, heavy metals, Phenols, CN, F)

Further analysis of variability due to size was completed using a monolith test, whereby, large pieces within the greater than 125mm sample were placed in a vessel at a known surface area to volume of liquid ratio. The sample was not crushed, the eluate liquid was changed periodically, and laboratory testing of the resulting eluate was completed for cyanide, fluoride and PAHs. This methodology followed the monolith leach procedure defined in USEPA 2013, *Validated Test Method 1315: Mass Transfer Rates of Constituents in Monolithic or Compacted Granular Materials Using a Semi-Dynamic Tank Leaching Procedure*.

Under this testing procedure, monolithic specimens of material of known surface area are suspended in tanks of leaching solution, allowing for a liquid to surface area ratio of 9 ml/cm<sup>2</sup>. The leaching solution used in this study was laboratory grade (deionised) water. The specimens undergo continuous leaching, however the leaching solution is renewed periodically at predetermined intervals. The resulting eluates from each leaching interval are then tested for constituents of potential concern, in this case: fluoride, cyanide and polycyclic aromatic hydrocarbons. The eluate renewal schedule for the monolith leach procedure is summarised in **Table 2.2**.

**Table 2.2 Schedule of Eluate Renewals (USEPA, 2013)**

Interval Label	Interval Duration (Hours)	Interval Duration (Days)	Cumulative Leaching Time (Days)
T01	2.0 ± 0.25	-	0.1
T02	23.0 ± 0.5	-	1.0
T03	23.0 ± 0.5	-	2.0
T04	-	5.0 ± 0.1	7.0
T05	-	7.0 ± 0.1	14.0
T06	-	14.0 ± 0.1	28.0
T07	-	14.0 ± 0.1	42.0
T08	-	7.0 ± 0.1	49.0
T09	-	14.0 ± 0.1	63.0

### 2.3 Part 2 Assessment of Treatment Options

The second part involved two methods of treatment using three different treatment compounds. The treatment compounds considered were agricultural lime and CaCl<sub>2</sub> for chemical fixation and Portland cement for stabilisation and solidification.

Hydrated lime ( $\text{Ca}(\text{OH})_2$ , calcium hydroxide), with an available lime index of 90%  $\text{Ca}(\text{OH})_2$ , was used for the lime treatment studies. A pool water calcium hardness increaser, consisting of 99.6% calcium chloride, was used for the  $\text{CaCl}_2$  treatment studies. Ordinary Portland cement, typically consisting of calcium oxide ( $\text{CaO}$ , lime), silicon dioxide ( $\text{SiO}_2$ ), aluminium oxide ( $\text{Al}_2\text{O}_3$ ), ferric oxide ( $\text{Fe}_2\text{O}_3$ ) and sulphur oxide ( $\text{SO}_3$ ) in varying concentrations, was used for the cement treatment studies.

Treatment study 1 involved the addition of dry treatment compounds using the moisture inherent in the CWS Waste. A bulk sample was made by homogenising subsamples from each of the recovered cores. A portion of the bulk sample was then taken and mixed with the dry treatment compound. Six (6) subsamples were then taken and analysed. Each sample was left for 24 hours in an enclosed space and the head space sampled for gas generation. Gases were analysed using a landfill gas analyser for methane, and using Kitigawa and Dräger detector tubes for ammonia.

Treatment study 2 followed the same methodology as above however, the treatment media was added as a slurry to the CWS Waste and the resultant mix was allowed to cure before being crushed and analysed. The curing was completed in an enclosed space to allow for gas capture and analysis. The purpose of the two test method was to determine if addition of a wet mix is beneficial to the treatment and if chemical fixation occurs.

Treatment study 3 followed the same methodology as treatment study 2, however the sample was not crushed and monolith testing was completed, as described in **Section 2.2**.

Mixing ratios were tested in a staged fashion with one mid concentration ratio of each reagent (50% or 30%) tested initially the results of which informed the concentration for the subsequent tests. Following the initial treatment studies it was decided to complete subsequent testing on the waste at 10% lime, wet and dry, and 10% cement, wet and dry.

Run of station and fine grade fly ash from Eraring and Bayswater power stations were provided to the laboratory by Hydro as bulk samples of additional reagents for further treatment studies. Prior to use in treatment studies, random subsamples of each type of fly ash were analysed.

As with the variability study materials were tested for the following suite of analytes:

- NSW Landfill Suite for waste characterisation (including Total Recoverable Hydrocarbons, Benzene, Toluene, Ethylbenzene, Xylenes, Naphthalene (BTEXN), Polycyclic Aromatic Hydrocarbons (PAHs), Organochlorine Pesticides (OCP), Organophosphate Pesticides (OPP), Polychlorinated Biphenyls (PCB), heavy metals, Phenols, Cyanide, Fluoride);
- Leachable Cyanide (CN) by Australian Standard Leaching Procedure (ASLP);
- Leachable Fluoride (F) by Toxicity Characteristic Leaching Procedure (TCLP); and
- Leachable Polycyclic Aromatic Hydrocarbons (PAH) by TCLP.

A summary of the laboratory analyses undertaken as part of the treatment study is shown in **Table 2.3** and **Table 2.4**. Monolith testing for samples mixed with  $\text{CaCl}_2$  at 50% was not carried out due to the material not binding sufficiently to produce a monolith sample.

**Table 2.3 Summary of Treatment Studies Laboratory Analyses**

Treatment Study Samples	Number of samples	Asbestos ID and wt/wt	Leachable CN by ASLP	Leachable F by TCLP	Leachable PAHs by TCLP	NSW Landfill Suite*	Methane gas analysis	Ammonia gas analysis
Control untreated	24	24	24	24	24	24	24	-
50% Lime (dry)	6	-	6	6	6	6	6	6
50% CaCl <sub>2</sub> (dry)	6	-	6	6	6	6	6	6
30% Cement (dry)	6	-	6	6	6	6	6	6
50% Lime (wet)	6	-	6	6	6	6	6	6
50% CaCl <sub>2</sub> (wet)	6	-	6	6	6	6	6	6
30% Cement (wet)	6	-	6	6	6	6	6	6
10% Lime (dry)	6	-	6	6	6	6	-	-
10% Cement (dry)	6	-	6	6	6	6	-	-
10% Lime (wet)	6	-	6	6	6	6	-	-
10% Cement (wet)	6	-	6	6	6	6	-	-

\* NSW Landfill Suite for waste characterisation (including TRH, BTEXN, PAHs, OCP, OPP, PCB, heavy metals, Phenols, CN, F)

- indicates not analysed

**Table 2.4 Summary of Monolith Leach Testing**

Monolith Leach Samples	Number of samples	Monolith Leachable CN**	Monolith Leachable F**	Monolith Leachable PAHs**
>125mm (control untreated)	12	108	108	108
50% Lime	6	54	54	54
30% Cement	6	54	54	54

\*\*9 eluate samples are taken during the monolith leach testing



#### **2.4 Part 3 OECD Testing**

16 subsamples of the crushed CWS waste material were analysed for OECD (Organisation for Economic Co-operation and Development) Dangerous Goods Class 4.3, substances which in contact with water emit flammable gases. Sixteen samples of the CWS waste material were randomly collected from the core trays (MW201 through MW206) by Ramboll Environ personnel and forwarded to SGS Australia Pty Ltd laboratory for analyses under CoC protocol.

Laboratory testing was carried out under the methodology described in UN Manual of tests and Criteria, Part III, Section 33.4 – Division 4.3. The substances were brought into contact with water under a variety of conditions, in which spontaneous ignition can be observed and a measure of the amount of gas evolution was taken. The evolved gas was then assessed for flammability.

## 3. ASSESSMENT CRITERIA

### 3.1 Composition of CWS Wastes

The CWS is understood to contain the following materials:

- Spent pot lining;
- Carbon Plant shot blast refuse, including grit and dust;
- Carbon Plant dust collector product;
- Collar mix (coke, pitch) spillage;
- Carbon Plant floor sweepings;
- Packing coke oversize;
- Contaminated bath;
- Rotary breaker oversize;
- Pot lining mix (hot ramming paste);
- Rodding mix (coke, graphite, pitch and anthracene oil);
- Stud joining mix;
- Pitch spills/ pencil pitch;
- Aluminium swarf;
- Scrap aluminium billets;
- Anode cover material;
- Butt from spent anodes;
- Ahead of schedule anodes;
- Dross;
- Pot bottom aluminium;
- Consumable gaskets and insulation material (synthetic mineral fibre and asbestos);
- General rubbish, including plastic, wood and steel.

### 3.2 Waste Assessment Criteria

A preliminary waste characterisation has been undertaken to identify the likely classification of the fill material within the stockpile. The material has been screened against the NSW EPA Waste Classification guidelines, and the NSW EPA – Chemical Control Order in Relation to Aluminium Smelter Wastes Containing Fluoride and/or Cyanide, defined in the following sections.

#### 3.2.1 NSW EPA Waste Classification Guidelines

The criteria to be used for the preliminary waste assessment of the stockpiled fill material for disposal off-site are the NSW EPA (2014) Waste Classification Guidelines. Part 1: Classifying Waste, 2014.

Waste classification is two tiered. The first set of guidelines is based on total contaminant concentrations (CT1 and CT2), whereas the second set of guidelines is based on a leachable (TCLP) concentration (TCLP1 and TCLP2) and a total contaminant concentration (SCC1 and SCC2). Material can be classified as General Solid Waste, Restricted Solid Waste, Hazardous Waste, and/or Special Waste by these guidelines.

'Special Waste' is a class of waste that has unique regulatory requirements, such as asbestos waste. If special waste is mixed with restricted solid or hazardous waste, it needs to be managed as both of those classifications as applicable.

**Table 3.1** and **Table 3.2** present the waste classification guidelines used in the assessment of untreated and treated waste.

**Table 3.1 Specific Contaminant Concentrations CT1 and CT2 - Waste Classification Guidelines**

Contaminant	Maximum values of specific contaminant concentration (SCC) for classification without TCLP (CT1 and CT2)	
	General Solid Waste	Restricted Solid Waste
	CT1 (mg/kg)	CT2 (mg/kg)
Benzene	10	40
Toluene	288	1,152
Ethylbenzene	600	2,400
Total +ve Xylenes	1,000	4,000
Benzo(a)pyrene	0.8	3.2
Total +ve PAH's	200	800
Endosulfan I	60	240
Chlorpyrifos	4	16
Nitrobenzene	40	160
Phenol	288	1,152
2,4,6-trichlorophenol	40	160
2,4,5-trichlorophenol	8,000	32,000
Vinyl Chloride	4	16
chloroform	120	480
1,2-dichloroethane	10	40
1,1,1-trichloroethane	600	2,400
carbon tetrachloride	10	40
1,1,2-trichloroethane	24	96
1,1,1,2-tetrachloroethane	200	800
chlorobenzene	2,000	8,000
styrene	60	240
1,1,2,2-tetrachloroethane	26	104
1,4-dichlorobenzene	150	600
1,2-dichlorobenzene	86	344
Arsenic	100	400
Cadmium	20	80
Hexavalent Chromium, Cr6+	100	400
Lead	100	400
Mercury	4	16
Molybdenum	100	400
Nickel	40	160
Selenium	20	80
Silver	100	400
Free Cyanide in soil	70	280
Total Cyanide	320	1280
Total Fluoride	3,000	12,000

**Table 3.2 Specific Contaminant Concentrations and Leachable Concentrations - Waste Classification Guidelines**

Contaminant	Maximum values for leachable concentration and specific contaminant concentration when used together (General Solid Waste)		Maximum values for leachable concentration and specific contaminant concentration when used together (Restricted Solid Waste)	
	Specific Contaminant Concentration (SCC1, mg/kg)	Leachable Concentration(TCLP1, mg/L)	Specific Contaminant Concentration (SCC2, mg/kg)	Leachable Concentration (TCLP2, mg/L)
Arsenic	500	5	2000	20
Benzo(a)pyrene	10	0.04	23	0.16
Cyanide	5,900	16	23,600	64
Fluoride	10,000	150	40,000	600
Lead	1500	5	6000	20
Nickel	1050	2	4000	20

### 3.2.2 NSW EPA – Chemical Control Order in Relation to Aluminium Smelter Wastes Containing Fluoride and/or Cyanide

Chemical control orders are a primary regulatory tool under the Environmentally Hazardous Chemicals Act 1985 (EHC Act) and are used by the EPA to selectively and specifically control particular chemicals of concern, and limit their potential or actual impact on the environment. Chemical control orders complement other environmental legislation by providing a rapid and flexible mechanism for responding to emerging chemical issues.

Chemical control order in relation to aluminium smelter wastes containing fluoride and/or cyanide (1986) sets controls on activities throughout the chemical's lifecycle through general requirements and by requiring that certain things be subject to particular licence conditions. These values are presented in **Table 3.3**.

**Table 3.3 Chemical Control Order - Fluoride and Cyanide**

Contaminant	Chemical Control Order (mg/L)
Leachable Cyanide	10
Leachable Fluoride	150

## 4. QUALITY ASSURANCE AND QUALITY CONTROL

The following quality assurance/quality control (QA/QC) procedures were employed during the study:

- All samples were collected by personnel, trained and experienced in the collection of samples for analysis, using standard industry techniques for sample collection;
- All samples were labelled with unique names, identifying location and date;
- The following quality control samples were also collected and submitted for analysis:
  - Six (6) interlaboratory duplicate samples of the bulk material, two (2) samples of material from <125mm fraction and two (2) samples from >125mm fraction (10 samples in total) were sent to ALS Environmental and analysed for the full suite of analytes;
  - Six (6) interlaboratory duplicate samples of the bulk material, two (2) samples of material from <125mm fraction and two (2) samples from >125mm fraction (10 samples in total) were sent to Eurofins Scientific and analysed for leachable Fluoride (TCLP) and leachable Cyanide (ASLP).
  - 28 (filtered) interlaboratory duplicate samples of eluate (T09) from the 28 monolith samples were sent to ALS Environmental and analysed for Fluoride, Cyanide, and PAHs.

A quality assurance assessment for this report is presented in **Appendix F**. An assessment was made of data completeness, comparability, representativeness, precision and accuracy based on field and laboratory considerations. Laboratory reports are provided in **Appendix G**.

## 5. RESULTS

### 5.1 Assessment of Variability

The following subsections **5.1.1** to **5.1.5** detail the results of the assessment of variability of the waste material based on the different size fractions. Laboratory analyses of samples carried out on the CWS waste material in 2015 (Ramboll Environ, 2016), as part of the installation of groundwater monitoring wells on the CWS, have been included in the waste classification results for untreated samples.

#### 5.1.1 Particle Size Distribution (PSD)

A particle size distribution analysis was carried out on representative subsamples of the bulk samples of CWS waste in the laboratory. The results of which are graphically presented in **Appendix B, Figures B1** through **B6**.

The material is poorly graded and has a wide distribution in particle size. The samples were collected from 3.75" (95.25mm) diameter core samples recovered by a sonic drilling rig. It is expected that some of the waste would have been pulverised or disintegrated as a result of the drilling method.

#### 5.1.2 Gas analysis

Analysis of headspace gas was undertaken in the laboratory during the preparation of samples for the treatment studies. Each of the selected samples of material were left in an enclosed space for a period of 24 hours, following which the headspace was analysed using calibrated gas analysers for methane and ammonia. The full set of gas analysis results are provided as part of **Appendix G – Laboratory Reports**.

Methane generation was analysed in the laboratory using a GEM2000+ and a Gazomat Inspectra Laser. 24 subsamples of untreated material were tested for methane generation subsequent to crushing, as control samples. Samples of crushed material treated with lime at 50% (wet and dry), CaCl<sub>2</sub> at 50% (wet and dry), and cement at 30% (wet and dry) were also tested, subsequent to mixing. The results of the methane testing, measured in parts per million by volume, is summarised in **Table 5.1**.

**Table 5.1 Summary of methane generation results**

Sample type	Number of samples	Min (ppmv)	Max (ppmv)
Control (untreated)	24	<3	-
50% Lime (dry)	6	<3	10
50% CaCl <sub>2</sub> (dry)	6	<3	-
30% Cement (dry)	6	<3	9
50% Lime (wet)	6	6	>200
50% CaCl <sub>2</sub> (wet)	6	<3	-
30% Cement (wet)	6	8	41

^- indicates no result measured

Ammonia generation was analysed in the laboratory using SKC 226-10-06 silica gel tubes using a calibrated pump. Samples of crushed material treated with lime at 50% (wet and dry), CaCl<sub>2</sub> at 50% (wet and dry), and cement at 30% (wet and dry) were tested, subsequent to mixing. The results of the ammonia testing, measured in mg/m<sup>3</sup>, is summarised in **Table 5.2**.

**Table 5.2 Summary of ammonia generation results**

Sample type	Number of samples	Min (mg/m <sup>3</sup> )	Max (mg/m <sup>3</sup> )
50% Lime (dry)	6	124	2382.1
50% CaCl <sub>2</sub> (dry)	6	1.1	3.1
30% Cement (dry)	6	77.6	1380
50% Lime (wet)	6	1800	3733
50% CaCl <sub>2</sub> (wet)	6	1.4	6.1
30% Cement (wet)	6	2129.9	12,856

Lime mixed with the waste material as a slurry at 50% dosage was found to produce the most methane, followed by cement at 30% dosage as a slurry.

Significant amounts of ammonia gas was produced from combining the waste with both 50% lime and 30% cement. The production of ammonia was elevated when the admixtures were added as a slurry.

Considering that the samples were taken from drill cores that had been in storage in core trays for over a year prior to subsampling for the purposes of this study, this may have an effect on the baseline results for gas production for untreated waste.

#### 5.1.3 Asbestos

60 samples were analysed for the presence of asbestos and percentage weight for weight in the material. This included 36 subsamples from the bulk unsorted samples, 12 subsamples from the fraction >125mm and 12 subsamples from the fractions <125mm. The full set of asbestos results are provided in **Appendix A – Waste Classification Results** and **Appendix G – Laboratory Reports**. A further 19 samples of the CWS waste from the drill cores were analysed in 2015 for the asbestos detection.

Asbestos was detected in 32 out of the 79 primary samples analysed. The results are summarised in **Table 5.3**.

**Table 5.3 Summary of Asbestos Results**

Primary samples	Number of Samples	Number of detections	Number of asbestos detections >0.1g/kg	Total Asbestos, g/kg	
				Min	Max
2015 samples	19	6	-	-	-
Bulk material	36	17	3	0.1036	0.4691
Fraction <125mm	12	7	1	0.2626	0.2626
Fraction >125mm	12	2	0	-	-

- indicates not measured

#### 5.1.4 Waste Classification

Following the NSW EPA Waste Classification Guidelines, Part 1: Classifying Wastes, waste are classified following a stepwise process.

##### Step 1 – Is the waste Special Waste?

The CWS waste is known to contain asbestos in bonded or friable form.

Where wastes are classified as Special Waste, but mixed with restricted solid or hazardous waste, the waste must be classified as both special waste and restricted solid or hazardous (as applicable).

##### Step 2 – is the waste Liquid Waste?

No, the waste does not meet the definition of liquid waste.

Step 3 – Is the waste pre-classified?

Two commonly generated waste types are potentially included within the CWS, as follows:

- “Containers, having previously contained a substance of Class 1, 3, 4, 5 or 8 within the meaning of the Transport of Dangerous Goods Code, or a substance to which Division 6.1 of the Transport of Dangerous Goods Code applies, from which residues have not been removed by washing or vacuuming” – Dangerous goods Class 4.3 material is present within the CWS. This includes aluminium dross, aluminium skimmings, spent cathodes, spent pot lining, and aluminium salt slags. These materials were disposed directly and not contained. Therefore there are no containers that previously contained Class 4.3 within the stockpile.
- “Coal tar or coal tar pitch waste (being the tarry residue from the heating, processing or burning of coal or coke) comprising of more than 1% (by weight) of coal tar or coal tar pitch waste” – Coal tar pitch is used in the making of anodes used in the smelting process. These anodes are heat treated prior to disposal. Some untreated pitch may be present in the capped waste stockpile, however these are expected to be very small amounts.

Step 4 – Does the waste possess hazardous characteristics?

The waste contains SPL, which is classified as a Dangerous Goods 4.3, UN code 3170, applying to aluminium smelting by-products. The definition of Dangerous Goods code 4.3 is substances which in contact with water emit flammable gases that are liable to become spontaneously flammable, or emit flammable gases in dangerous quantities.

Whilst the Dangerous Goods classification may apply to SPL, the SPL within the CWS is considered to be weathered and/or ‘pre-reacted’ due to historical de-lining procedures and no longer emitting flammable gases at ignitable levels or in dangerous quantities. Please refer to **Section 5.2** for a summary of OECD Testing of CWS waste.

The waste is therefore not considered to be pre-classified as Hazardous.

Step 5 – Determining a waste’s classification using chemical assessment.

Where wastes are not characterised by steps 1 to 4, chemical characterisation is required. The first component is to classify the waste using a contaminant threshold. The EPA Waste Classification Guidelines for specific contaminant concentrations used in the classification of the waste are specified in **Section 3.2.1**.

A summary of the waste classification results for untreated, unsorted CWS waste material is provided in **Table 5.4**. Contaminants found to be below the laboratory Practical Quantitation Levels (PQLs) and below the waste classification screening levels for General Solid Waste have been discounted from the summary table.



**Table 5.4 Waste classification of untreated material using chemical assessment – all categories**

Analyte	Unit	No. of samples	Min conc. <sup>1</sup>	Max conc.	No. above GL <sup>2</sup>	95% UCL <sup>3</sup>	Waste Classification (max. conc.)	Waste Classification (95% UCL)
TRH C6 - C10	mg/kg	48	<25	n/a	0	-	GSW <sup>4</sup>	GSW
Toluene	mg/kg	48	<0.5	n/a	0	-	GSW	GSW
Benzo(a)pyrene	mg/kg	57	<0.05	832	46	193.4	HAZ <sup>5</sup>	HAZ
Benzo(a)pyrene in TCLP	mg/L	54	<0.001	0.002	0	-	GSW	GSW
Total +ve PAHs	mg/kg	57	0.5	6320	41	1546	HAZ	HAZ
Total +ve PAHs in TCLP	mg/L	54	NIL +ve	0.522	0	-	GSW	GSW
Arsenic	mg/kg	36	<4	850	7	189.4	RSW <sup>6</sup>	GSW
Arsenic in TCLP	mg/L	8	<0.05	0.08	0	-	GSW	GSW
Cadmium	mg/kg	36	<0.4	1	0	-	GSW	GSW
Lead	mg/kg	36	18	640	18	351.9	GSW	GSW
Lead in TCLP	mg/L	8	<0.03	0.56	0	-	GSW	GSW
Mercury	mg/kg	48	<0.1	0.2	0	-	GSW	GSW
Molybdenum	mg/kg	36	<1	12	0	-	GSW	GSW
Nickel	mg/kg	36	34	170	33	73.49	GSW	GSW
Nickel in TCLP	mg/L	8	0.02	0.1	0	-	GSW	GSW
Silver	mg/kg	36	<1	2	0	-	GSW	GSW
Free Cyanide in soil	mg/kg	36	<0.5	8.8	0	-	GSW	GSW
Total Cyanide	mg/kg	63	4	734	2	155.1	GSW	GSW
Total Cyanide in Neutral Leach (ASLP)	mg/L	54	0.198	10	0	-	GSW	GSW
Total Fluoride	mg/kg	55	184	51,700	47	30,585	HAZ	RSW
Fluoride in TCLP	mg/L	54	42	909	30	337	>CCO <sup>7</sup>	>CCO <sup>7</sup>
Asbestos ID	g/kg	55	Not Present	Present	23	-	Asbestos Waste	Asbestos Waste

<sup>1</sup>Minimum/Maximum Concentration

<sup>2</sup>Number of samples above Guidelines (NSW EPA Waste Classification / NSW EPA Chemical Control Order) – includes CT1, CT2, SCC1, and SCC2 for total concentrations

<sup>3</sup>95% Upper Confidence Limit, calculated using ProUCL Version 5.1

<sup>4</sup>General Solid Waste

<sup>5</sup>Hazardous Waste

<sup>6</sup>Restricted Solid Waste

<sup>7</sup>NSW EPA Chemical Control Order in Relation to Aluminium Smelter Wastes Containing Fluoride and/or Cyanide

<sup>8</sup>All detections of asbestos, including samples less than g/kg detection limits

n/a – not applicable

‘-’ indicates 95% UCL not calculated, as maximum concentration did not exceed the guidelines

On the basis of the chemical assessment, following the classification hierarchy, material within the CWS is considered to be Hazardous Special Wastes on the basis of elevated concentrations of leachable fluoride, benzo(a)pyrene, total PAHs and the presence of asbestos fibres.

Eight selected samples were tested for leachable arsenic, lead, and nickel and these results were compared to the guidelines taking into account the total concentrations. The maximum total and leachable concentrations of lead and nickel were found to be below the assessment criteria in

**Table 3.2.** Leachable concentrations of arsenic were below the assessment criteria, however the maximum total concentration of arsenic was found to exceed the SCC1 criteria. Applying the 95% Upper Confidence Limit (UCL) to the total concentrations, calculated using the arithmetic mean concentration, the 95% UCL for total arsenic is below the SCC1 criterion.

50% of samples exceeded the leachable fluoride guidelines provided in the Chemical Control Order in relation to Aluminium Smelter Wastes Containing Fluoride and/or Cyanide.

The full analytical results used for the waste classification are provided in **Appendix A – Waste Classification Results**, and included in **Appendix G – Laboratory Reports**.

**Table 5.5** shows the waste classification of the untreated CWS waste in terms of variability in size. Samples of bulk material (36 samples), unsorted material less than 125mm in size (12 samples) and material greater than 125mm in size were assessed (12 samples).

Table 5.5 Waste classification of untreated waste (bulk samples, samples &gt;125mm, samples &lt;125mm)

Analyte	Unit	BULK						SAMPLES >125mm						SAMPLES <125mm					
		No of samples	Min conc.	Max conc.	Ave. conc. <sup>1</sup>	No. above GL	WC <sup>2</sup>	No of Samples	Min conc.	Max conc.	Ave. conc.	No. above GL	WC	No of samples	Min conc.	Max conc.	Ave. conc.	No. above GL	WC
<b>Total Petroleum Hydrocarbons</b>																			
TRH C6 C10	Mg/kg	36	<25	n/a	-	0	GSW	12	<25	n/a	-	0	GSW	12	<25	n/a	-	0	GSW
Benzene	Mg/kg	36	<0.2	n/a	-	0	GSW	12	<0.2	n/a	-	0	GSW	12	<0.2	n/a	-	0	GSW
Toluene	Mg/kg	36	<0.5	n/a	-	0	GSW	12	<0.5	n/a	-	0	GSW	12	<0.5	n/a	-	0	GSW
Ethylbenzene	Mg/kg	36	<1	n/a	-	0	GSW	12	<1	n/a	-	0	GSW	12	<1	n/a	-	0	GSW
Total +ve TRH (>C10-C40)	Mg/kg	36	1600	1000	5267	0	GSW	12	<50	1700	778	0	GSW	12	1100	1700	833	0	GSW
<b>Polycyclic Aromatic Hydrocarbons</b>																			
Benzo(a)pyrene	Mg/kg	36	23	390	138	36	HAZ	12	<0.05	44	12	7	HAZ	12	29	470	213	12	HAZ
Benzo(a)pyrene in TCLP	Mg/L	36	<0.01	0.002	0.0015	0	GSW	12	<0.01	n/a	-	0	GSW	12	<0.01	0.002	0.002	0	GSW
Total +vw PAH's	Mg/kg	36	240	2800	1146	36	HAZ	12	0.67	820	126	2	HAZ	12	270	3800	177	12	HAZ
Total Leachable PAHs	Mg/L	36	NIL(+ve)	0.09	0.023	0	GSW	12	NIL(+ve)	0.001	0.001	0	GSW	12	0.009	0.12	0.064	0	GSW

Metals and Inorganics																			
Arsenic	Mg/kg	36	6	850	80	7	GS W	12	<4	5	4.5	0	GS W	12	6	410	81.5	2	GS W
Arsenic in TCLP	Mg/l	8	<0.05	0.08	-	-	GS W	-	-	-	-	-	-	-	-	-	-	-	-
Cadmium	Mg/kg	36	0.4	1	0.65	0	GS W	12	<0.4	n/a	-	0	GS W	12	<0.4	0.9	0.67	0	GS W
Lead	Mg/kg	36	18	640	202	18	GS W	12	1	10	4.92	0	GS W	12	19	820	206.25	5	GS W
Lead in TCLP	Mg/L	8	<0.03	0.56	0.396	-	GS W	-	-	-	-	-	-	-	-	-	-	-	-
Mercury	Mg/kg	36	<0.1	0.2	0.13	0	GS W	12	<0.1	n/a	-	0	GS W	12	<0.1	0.3	0.25	0	GS W
Molybdenum	Mg/kg	36	2	12	6.3	0	GS W	12	1	2	1.29	0	GS W	12	2	10	6.33	0	GS W
Nickel	Mg/kg	36	34	170	66	33	GS W	12	11	47	19.5	1	GS W	12	35	110	69.83	10	GS W
Nickel TCLP	Mg/L	8	0.02	0.1	0.07375	-	GS W	-	-	-	-	-	-	-	-	-	-	-	-
Selenium	Mg/kg	36	<2	n/a	-	0	GS W	12	<2	n/a	-	0	GS W	12	<2	n/a	-	0	GS W
Silver	Mg/kg	36	<1	2	1.4	0	GS W	12	<1	n/a	-	0	GS W	12	<1	2	2	0	GS W
Free Cyanide in Soil	Mg/kg	36	0.5	8.8	3.42	0	GS W	12	0.6	6.8	3.27	0	GS W	12	<0.5	5.5	2.8	0	GS W
Total Cyanide	mg/kg	36	61	270	150	0	GS W	12	32	190	69	0	GS W	12	75	180	117.7	0	GS W
Leachable Cyanide	mg/L	36	2.5	10	6.29	0	GS W	12	1.8	7.5	3.36	0	GS W	12	3.3	7.9	5.6	0	GS W

Hex Chromium, Cr6+	mg/kg	36	<1	n/a	-	0	GS W	12	<1	n/a	-	0	GS W	12	<1	n/a	-	0	GS W
Total Fluoride	mg/kg	36	14,200	51,700	30,366	36	HA Z	12	8727	405,498	55,729	12	HA Z	12	11,200	42,424	23,257	12	HA Z
Fluoride (TCLP Leachate)	mg/L	36	42.3	224.3	143.5	18	>C CO	12	33.6	2102.8	439	6	>C CO	12	62.8	210.7	145	6	>C CO
Asbestos ID	g/kg	36	-	0.4691	-	3	SW <sub>3</sub>	12	-	n/a	-	0	GS W	12	-	n/a	-	1	SW

<sup>1</sup>Average concentration

<sup>2</sup>Waste Classification

<sup>3</sup>Special (Asbestos) Waste

n/a – not applicable

^^ indicates not measured / not calculated

5.1.5 Monolith testing

Large fraction samples of CWS waste material greater than 125mm were tested using the monolith leaching procedure detailed in **Section 2.2**. These untreated monolith samples are used as a basis for comparison and assessment of the treated monolith samples.

The results of the monolith leach eluate testing is summarised in **Table 5.6**. The full set of analytical results are provided in **Table E1** as part of **Appendix E** and as part of the laboratory reports provided in **Appendix G**.

**Table 5.6** presents a summary of the results of monolith leach testing of the untreated CWS waste material. The average of the maximum results presented here is 249mg/L, and below the 337 mg/L determined for samples crushed and tested following the TCLP 1311 test method.

**Table 5.6 Monolith contaminant concentrations in eluates T01 to T09 – untreated samples >125mm**

>125m m Untreated	Analyte	Benzo(a)pyrene (unfiltered)	Benzo(a)pyrene (filtered)	Total +ve PAH's (unfiltered)	Total +ve PAH's (filtered)	Total Cyanide (unfiltered)	Total Cyanide (filtered)	Fluoride (unfiltered)	Fluoride (filtered)
	Unit	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	mg/L
Eluate	No. of samples	12	12	12	12	12	12	12	12
	Min	<1	<1	NIL (+)VE	NIL (+)VE	<0.00 4	<0.00 4	1.7	1.7
	Max	44	-	360	10	7.8	7.4	190	200
T01	No. above GL	1	0	0	0	0	0	2	2
	Min	<1	<1	NIL (+)VE	NIL (+)VE	<0.00 4	<0.00 4	0.4	0.4
	Max	-	-	11	-	1.7	1.7	160	170
T02	No. above GL	0	0	0	0	0	0	1	1
	Min	<1	<1	NIL (+)VE	NIL (+)VE	<0.00 4	<0.00 4	0.4	0.4
	Max	-	-	3.8	-	1.1	1	130	130
T03	No. above GL	0	0	0	0	0	0	0	0
	Min	<1	<1	NIL (+)VE	NIL (+)VE	<0.00 4	0.005	0.7	0.8
	Max	-	-	5.9	-	3.2	3	250	240
T04	No. above GL	0	0	0	0	0	0	2	3
	Min	<1	<1	NIL (+)VE	NIL (+)VE	0.007	0.004	0.9	1
	Max	-	-	4.4	2.4	2.9	2.6	340	340
T05	No. above GL	0	0	0	0	0	0	4	4

T06	Min	<1	<1	NIL (+)VE	NIL (+)VE	<0.00 4	<0.00 4	1.3	1.4
	Max	-	-	-	-	3.6	3.7	400	370
	No. above GL	0	0	0	0	0	0	6	6
T07	Min	<1	<1	NIL (+)VE	NIL (+)VE	<0.00 4	<0.00 4	0.7	0.7
	Max	-	-	5.1	-	2.7	2.7	330	330
	No. above GL	0	0	0	0	0	0	6	6
T08	Min	<1	<1	NIL (+)VE	NIL (+)VE	<0.00 4	<0.00 4	0.2	0.2
	Max	0	0	5.7	2.1	1	1	150	160
	No. above GL	0	0	0	0	0	0	0	1
T09	Min	<1	<1	NIL (+)VE	NIL (+)VE	<0.00 4	<0.00 4	0.4	0.4
	Max	5	0	39	0	1.6	1.6	220	220
	No. above GL	0	0	0	0	0	0	2	2

44	Exceeds NSW EPA Waste Classification maximum value for leachable concentration (TCLP2)
190	Exceeds NSW EPA Chemical Control Order in Relation to Aluminium Smelter Wastes Containing Fluoride and / or Cyanide
-	Not measured

## 5.2 OECD Testing

24-25g of each of the 16 samples of CWS waste was brought into contact with at least 50ml of water in a closed system. Gas readings were taken at the start of the test and after 48 hours.

The laboratory concluded that for the samples provided, no gas, including flammable gas, was observed to evolve throughout the duration of the test for each sample.

The laboratory report by SGS Australia Pty Ltd is provided in **Appendix C – OECD Testing Report**.

## 5.3 Treatment Study

The following details the results of the laboratory analysis carried out as part of the treatment studies. The results have been analysed with respect to the assessment criteria outlined in **Section 3**.

### 5.3.1 Chemical Fixation

The assessment of treatment options for chemical fixation was carried out by treating the CWS waste material with agricultural lime and calcium chloride (CaCl<sub>2</sub>).

The objective of the chemical fixation with lime and calcium chloride was to form calcium fluoride (CaF<sub>2</sub>) which as a relatively low solubility, decreasing the potential of leaching of fluorides.

The chemical fixation treatment results are summarised in **Table 5.7** to **Table 5.9**. These tables present, in terms of waste classification, the effect of treatment on crushed samples of waste with lime, applied dry (Treatment Study 1) and wet (Treatment Study 2), at 50% and 10%

dosages, and CaCl<sub>2</sub> applied dry and wet at 50% dosage. The full set of chemical fixation results are provided in **Tables D1** and **D2** in **Appendix D** and as part of the laboratory reports in **Appendix G**.



Table 5.7 Waste classification of treated waste (lime, Treatment Study 1)

Analyte	Unit	50% Lime (dry)					10% Lime (dry)						
		No of samples	Min conc.	Max conc.	Ave. conc.	No. above GL	Waste Classification	No of Samples	Min conc.	Max conc.	Ave. conc.	No. above GL	Waste Classification
<b>Total Petroleum Hydrocarbons</b>													
TRH C6 C10	Mg/kg	6	<25	n/a	-	0	GSW	6	<25	n/a	-	0	GSW
Benzene	Mg/kg	6	<0.2	n/a	-	0	GSW	6	<0.2	n/a	-	0	GSW
Toluene	Mg/kg	6	<0.5	n/a	-	0	GSW	6	<0.5	n/a	-	0	GSW
Ethylbenzene	Mg/kg	6	<1	n/a	-	0	GSW	6	<1	n/a	-	0	GSW
Total +ve TRH (>C10C40)	Mg/kg	6	477	9689	4386.8	0	GSW	6	600	12000	6700	0	GSW
<b>Polycyclic Aromatic Hydrocarbons</b>													
Benzo(a)pyrene	mg/kg	6	14	340	128.7	6	HAZ	6	12	370	156.7	6	HAZ
Total +ve PAH's	mg/kg	6	130	2288	972.2	4	HAZ	6	160	3200	1448.3	5	HAZ
Benzo(a)pyrene in TCLP	mg/L	6	<0.001	0.0012	0.001	0	GSW	6	<0.001	n/a	-	0	GSW
Total Leachable PAHs	mg/L	6	NIL(+ve)	0.067	0.031	0	GSW	6	0.007	0.057	0.0264	0	GSW
<b>Metals and Inorganics</b>													
Arsenic	mg/kg	6	6	35	21.8	0	GSW	6	5	46	23.8	0	GSW
Cadmium	mg/kg	6	<0.4	0.5	0.43	0	GSW	6	<0.4	0.5	0.48	0	GSW
Lead	mg/kg	6	6	186	55.7	1	RSW	6	12	240	88.7	2	RSW
Mercury	mg/kg	6	<0.1	n/a	-	0	GSW	6	<0.1	n/a	-	0	GSW
Molybdenum	mg/kg	6	2	3	2.5	0	GSW	6	2	9	5.3	0	GSW
Nickel	mg/kg	6	17	46	29	1	RSW	6	34	180	78.7	4	HAZ

Selenium	mg/kg	6	<2	n/a	-	0	GSW	6	<2	n/a	-	0	GSW
Silver	mg/kg	6	<1	n/a	-	0	GSW	6	<1	n/a	-	0	GSW
Free Cyanide in Soil	mg/kg	6	0.5	1.3	0.83	0	GSW	6	<0.5	n/a	-	0	GSW
Total Cyanide	mg/kg	6	0.9	3.1	1.75	0	GSW	6	73	240	162.5	0	GSW
Leachable Cyanide	mg/L	6	0.014	0.051	0.031	0	GSW	6	3.1	10	6.82	0	GSW
Hex Chromium, Cr6+	mg/kg	6	<1	n/a	-	0	GSW	6	<1	n/a	-	0	GSW
Total Fluoride	mg/kg	6	13,741	22,530	17,570	6	<b>RSW</b>	6	9500	33,000	18,583	6	<b>RSW</b>
Fluoride (TCLP Leachate)	mg/L	6	4.188	10.778	8.72	0	GSW	6	23	84	42.5	0	GSW

Table 5.8 Waste classification of treated waste (lime, Treatment Study 2)

Analyte	Unit	50% Lime (wet)					10% Lime (wet)						
		No of samples	Min conc.	Max conc.	Ave. conc.	No. above GL	Waste Classification	No of Samples	Min conc.	Max conc.	Ave. conc.	No. above GL	Waste Classification
<b>Total Petroleum Hydrocarbons</b>													
TRH C6 C10	Mg/kg	6	<25	n/a	-	0	GSW	6	<25	n/a	-	0	GSW
Benzene	Mg/kg	6	<0.2	n/a	-	0	GSW	6	<0.2	n/a	-	0	GSW
Toluene	Mg/kg	6	<0.5	n/a	-	0	GSW	6	<0.5	n/a	-	0	GSW
Ethylbenzene	Mg/kg	6	<1	n/a	-	0	GSW	6	<1	n/a	-	0	GSW
Total +ve TRH (>C10C40)	Mg/kg	6	195	4858	1743.8	0	GSW	6	160	5000	2170	0	GSW
<b>Polycyclic Aromatic Hydrocarbons</b>													
Benzo(a)pyrene	mg/kg	6	10	209	74.2	6	<b>HAZ</b>	6	4.7	140	45.37	6	<b>HAZ</b>
Total +ve PAH's	mg/kg	6	116	1374	561.7	4	<b>HAZ</b>	6	49	1100	413.8	3	<b>HAZ</b>
Benzo(a)pyrene in TCLP	mg/L	6	<0.001	n/a	-	0	GSW	6	<0.001	n/a	-	0	GSW
Total Leachable PAHs	mg/L	6	0.004	0.078	0.041	0	GSW	6	0.003	0.047	0.0214	0	GSW
<b>Metals and Inorganics</b>													
Arsenic	mg/kg	6	5	34	15.6	0	GSW	6	5	24	13.3	0	GSW
Cadmium	mg/kg	6	<0.4	0.6	0.47	0	GSW	6	<0.4	0.5	0.46	0	GSW
Lead	mg/kg	6	11	147	56.5	1	<b>RSW</b>	6	15	150	64.7	2	<b>RSW</b>
Mercury	mg/kg	6	<0.1	n/a	-	0	GSW	6	<0.1	n/a	-	0	GSW
Molybdenum	mg/kg	6	1	4	2.7	0	GSW	6	<1	8	4.3	0	GSW
Nickel	mg/kg	6	25	53	40.7	4	<b>RSW</b>	6	35	180	75	5	<b>HAZ</b>
Selenium	mg/kg	6	<2	n/a	-	0	GSW	6	<2	n/a	-	0	GSW

Silver	mg/kg	6	<1	n/a	-	0	GSW	6	<1	n/a	-	0	GSW
Free Cyanide in Soil	mg/kg	6	1	5.5	3.28	0	GSW	6	<0.5	n/a	-	0	GSW
Total Cyanide	mg/kg	6	2.8	9.4	6.65	0	GSW	6	68	200	142.2	0	GSW
Leachable Cyanide	mg/L	6	0.043	0.15	0.0907	0	GSW	6	2.5	7.1	5.2	0	GSW
Hex Chromium, Cr6+	mg/kg	6	<1	n/a	-	0	GSW	6	<1	n/a	-	0	GSW
Total Fluoride	mg/kg	6	16,650	28,146	23,449.7	6	<b>RSW</b>	6	12,000	33,000	25,166.7	6	<b>RSW</b>
Fluoride (TCLP Leachate)	mg/L	6	0.818	12.15	9.524	0	GSW	6	140	300	220	5	<b>&gt;CCO</b>

Table 5.9 Waste classification of treated waste (CaCl<sub>2</sub>, Treatment Study 1 and 2)

Analyte	Unit	50% CaCl <sub>2</sub> (dry)					50% CaCl <sub>2</sub> (wet)						
		No of samples	Min conc.	Max conc.	Ave. conc.	No. above GL	Waste Classification	No of Samples	Min conc.	Max conc.	Ave. conc.	No. above GL	Waste Classification
<b>Total Petroleum Hydrocarbons</b>													
TRH C6 C10	Mg/kg	6	<25	n/a	-	0	GSW	6	<25	n/a	-	0	GSW
Benzene	Mg/kg	6	<0.2	n/a	-	0	GSW	6	<0.2	n/a	-	0	GSW
Toluene	Mg/kg	6	<0.5	n/a	-	0	GSW	6	<0.5	n/a	-	0	GSW
Ethylbenzene	Mg/kg	6	<1	n/a	-	0	GSW	6	<1	n/a	-	0	GSW
Total +ve TRH (>C10C40)	Mg/kg	6	807	8650	4384.2	0	GSW	6	561	9416	3561.7	0	GSW
<b>Polycyclic Aromatic Hydrocarbons</b>													
Benzo(a)pyrene	mg/kg	6	24	300	145.2	6	<b>HAZ</b>	6	17	370	140.3	6	<b>HAZ</b>
Total +ve PAH's	mg/kg	6	211	2120	1076.3	6	<b>HAZ</b>	6	177	2559	1049.7	5	<b>HAZ</b>
Benzo(a)pyrene in TCLP	mg/L	6	<0.001	n/a	-	0	GSW	6	<0.001	n/a	-	0	GSW
Total Leachable PAHs	mg/L	6	0.004	0.079	0.036	0	GSW	6	0.004	0.063	0.0337	0	GSW
<b>Metals and Inorganics</b>													
Arsenic	mg/kg	6	4	118	29.3	1	<b>RSW</b>	6	5	22	12	0	GSW
Cadmium	mg/kg	6	<0.4	n/a	-	0	GSW	6	<0.4	n/a	-	0	GSW
Lead	mg/kg	6	10	177	59.3	1	<b>RSW</b>	6	9	144	56.7	2	<b>RSW</b>
Mercury	mg/kg	6	<0.1	n/a	-	0	GSW	6	<0.1	n/a	-	0	GSW
Molybdenum	mg/kg	6	2	3	2.5	0	GSW	6	1	4	2.3	0	GSW
Nickel	mg/kg	6	21	44	33.7	1	<b>RSW</b>	6	21	42	34.3	1	<b>RSW</b>

Selenium	mg/kg	6	<2	n/a	-	0	GSW	6	<2	n/a	-	0	GSW
Silver	mg/kg	6	<1	n/a	-	0	GSW	6	<1	n/a	-	0	GSW
Free Cyanide in Soil	mg/kg	6	0.5	0.6	0.6	0	GSW	6	<0.5	0.7	0.65	0	GSW
Total Cyanide	mg/kg	6	0.8	6.2	2.58	0	GSW	6	0.5	1.1	0.7	0	GSW
Leachable Cyanide	mg/L	6	0.65	2.7	1.442	0	GSW	6	0.11	0.24	0.173	0	GSW
Hex Chromium, Cr6+	mg/kg	6	<1	n/a	-	0	GSW	6	<1	n/a	-	0	GSW
Total Fluoride	mg/kg	6	4370	42,876	25,172.2	6	<b>HAZ</b>	6	17,093	38,778	28,802.2	6	<b>RSW</b>
Fluoride (TCLP Leachate)	mg/L	6	196.7	416.5	265.72	6	<b>&gt;CCO</b>	6	175	289	254.8	6	<b>&gt;CCO</b>

### 5.3.2 Solidification and Stabilisation

The assessment options for solidification and stabilisation was carried out using Portland cement. The basis for this treatment option is to limit the solubility and mobilisation potential of contaminants within the waste by physical means. Ordinary Portland cement contains, typically, up to 67% calcium oxide (CaO), or quicklime which reacts with water to form calcium hydroxide (Ca(OH)<sub>2</sub>), or hydrated lime. Hydrated lime was used during the treatment trials as an option for chemical fixation.

The solidification and stabilisation results are summarised, in terms of waste classification, in **Table 5.10** and **Table 5.11**. These tables present the effect on the waste classification of adding cement on a dry and wet basis to crushed samples of waste material at 30% and 10%. The full set of solidification and stabilisation results are provided in **Tables D1** and **D2** in **Appendix D** and as part of the laboratory reports in **Appendix G**.

Table 5.10 Waste classification of treated waste (cement, Treatment Study 1)

Analyte	Unit	30% Cement (dry)					10% Cement (dry)						
		No of samples	Min conc.	Max conc.	Ave. conc.	No. above GL	Waste Classification	No of Samples	Min conc.	Max conc.	Ave. conc.	No. above GL	Waste Classification
<b>Total Petroleum Hydrocarbons</b>													
TRH C6 C10	Mg/kg	6	<25	-	-	-	GSW	6	<25	-	-	-	GSW
Benzene	Mg/kg	6	<0.2	-	-	-	GSW	6	<0.2	-	-	-	GSW
Toluene	Mg/kg	6	<0.5	-	-	-	GSW	6	<0.5	-	-	-	GSW
Ethylbenzene	Mg/kg	6	<1	-	-	-	GSW	6	<1	-	-	-	GSW
Total +ve TRH (>C10C40)	Mg/kg	6	756	11026	5100	-	GSW	6	890	13000	6931.667	-	GSW
<b>Polycyclic Aromatic Hydrocarbons</b>													
Benzo(a)pyrene	mg/kg	6	27	440	178.333	6	HAZ	6	16	350	151.667	6	HAZ
Total +ve PAH's	mg/kg	6	251	3272	1331.333	4	HAZ	6	160	3100	1410	5	HAZ
Benzo(a)pyrene in TCLP	mg/L	6	<0.001	-	-	-	GSW	6	<0.001	-	-	-	GSW
Total Leachable PAHs	mg/L	6	0.002	0.058	0.036	-	GSW	6	0.001	0.047	0.023	-	GSW
<b>Metals and Inorganics</b>													
Arsenic	mg/kg	6	5	61	23.167	-	GSW	6	5	44	20.167	-	GSW
Cadmium	mg/kg	6	<0.4	0.5	0.5	-	GSW	6	<0.4	0.5	0.5	-	GSW
Lead	mg/kg	6	13	170	58.667	1	RSW	6	12	190	78.167	2	RSW
Mercury	mg/kg	6	<0.1	-	-	-	GSW	6	<0.1	-	-	-	GSW
Molybdenum	mg/kg	6	1	3	2	-	GSW	6	2	7	4.167	-	GSW
Nickel	mg/kg	6	21	45	35.667	1	RSW	6	32	170	71	4	HAZ
Selenium	mg/kg	6	<2	-	-	-	GSW	6	<2	-	-	-	GSW



Silver	mg/kg	6	<1	-	-	-	GSW	6	<1	-	-	-	GSW
Free Cyanide in Soil	mg/kg	6	0.8	1	0.9	-	GSW	6	<0.5	-	-	-	GSW
Total Cyanide	mg/kg	6	15.2	87.4	58.117	-	GSW	6	66	220	151.333	-	GSW
Leachable Cyanide	mg/L	6	1.9	5.1	3.933	-	GSW	6	2.6	9.9	6.933	-	GSW
Hex Chromium, Cr6+	mg/kg	6	<1	-	-	-	GSW	6	<1	-	-	-	GSW
Total Fluoride	mg/kg	6	11,677	31,283	25,961.3	6	<b>RSW</b>	6	18,000	33,000	24,833.3	6	<b>RSW</b>
Fluoride (TCLP Leachate)	mg/L	6	0.432	34.597	12.106	-	GSW	6	72	220	136.167	2	<b>&gt;CCO</b>

Table 5.11 Waste classification of treated waste (cement, Treatment Study 2)

Analyte	Unit	30% Cement (wet)					10% Cement (wet)						
		No of samples	Min conc.	Max conc.	Ave. conc.	No. above GL	Waste Classification	No of Samples	Min conc.	Max conc.	Ave. conc.	No. above GL	Waste Classification
<b>Total Petroleum Hydrocarbons</b>													
TRH C6 C10	Mg/kg	6	<25	n/a	-	0	GSW	6	<25	n/a	-	0	GSW
Benzene	Mg/kg	6	<0.2	n/a	-	0	GSW	6	<0.2	n/a	-	0	GSW
Toluene	Mg/kg	6	<0.5	n/a	-	0	GSW	6	<0.5	n/a	-	0	GSW
Ethylbenzene	Mg/kg	6	<1	n/a	-	0	GSW	6	<1	n/a	-	0	GSW
Total +ve TRH (>C10C40)	Mg/kg	6	401	8838	3955.3	0	GSW	6	<50	8600	5800	0	GSW
<b>Polycyclic Aromatic Hydrocarbons</b>													
Benzo(a)pyrene	mg/kg	6	15	360	163	6	HAZ	6	2.2	250	112.2	6	HAZ
Total +ve PAH's	mg/kg	6	177	2569	1216.7	5	HAZ	6	27	2100	1011.2	4	HAZ
Benzo(a)pyrene in TCLP	mg/L	6	<0.001	n/a	-	0	GSW	6	<0.001	n/a	-	0	GSW
Total Leachable PAHs	mg/L	6	0.002	0.06	0.033	0	GSW	6	0.001	0.051	0.022	0	GSW
<b>Metals and Inorganics</b>													
Arsenic	mg/kg	6	7	214	44.8	1	RSW	6	5	52	19.2	0	GSW
Cadmium	mg/kg	6	<0.4	0.4	0.4	0	GSW	6	<0.4	0.5	0.5	0	GSW
Lead	mg/kg	6	12	210	72.3	2	RSW	6	20	200	81.8	2	RSW
Mercury	mg/kg	6	<0.1	n/a	-	0	GSW	6	<0.1	n/a	-	0	GSW
Molybdenum	mg/kg	6	1	5	2.8	0	GSW	6	2	9	4.8	0	GSW
Nickel	mg/kg	6	28	51	41.7	4	RSW	6	33	160	74.5	5	RSW

Selenium	mg/kg	6	<2	n/a	-	0	GSW	6	<2	n/a	-	0	GSW
Silver	mg/kg	6	<1	n/a	-	0	GSW	6	<1	n/a	-	0	GSW
Free Cyanide in Soil	mg/kg	6	1.1	2.1	1.5	0	GSW	6	<0.5	n/a	-	0	GSW
Total Cyanide	mg/kg	6	40.2	107.9	78.05	0	GSW	6	67	200	136.2	0	GSW
Leachable Cyanide	mg/L	6	1.8	4.7	3.45	0	GSW	6	3.1	7.3	5.32	0	GSW
Hex Chromium, Cr6+	mg/kg	6	1	1	1	0	GSW	6	<1	n/a	-	0	GSW
Total Fluoride	mg/kg	6	24,511	49,113	34,877.8	6	<b>HAZ</b>	6	16,000	35,000	24,333.3	6	<b>RSW</b>
Fluoride (TCLP Leachate)	mg/L	6	5.845	24.883	11.248	0	GSW	6	130	270	213.3	5	<b>&gt;CCO</b>

5.3.3 Treated monolith testing

Monolith specimens of treated material were composed in the laboratory using a mould, and allowing the formed monolith to cure before carrying out the monolith leach procedure – method 1315 (USEPA, 2013) as detailed in **Section 2.2**. Monolith samples were formed using lime at 50% dosage and Portland cement at 30% dosage. Both admixtures were added to the CWS waste material as a slurry.

Attempts were made to construct monolith specimens using CaCl<sub>2</sub> however the material would not bond sufficiently to undergo the monolith leach procedure. For this reason no monolith testing has been carried out on material treated with CaCl<sub>2</sub>. One other monolith specimen, sample MW205 dosed at 30% cement slurry, failed and hence was excluded from the study.

A summary of the treated monolith samples (lime at 50% and cement at 30%) eluate concentrations (T01 to T09) for contaminants of concern is presented in **Table 5.12** and **Table 5.13**. Results for filtered and unfiltered concentrations are provided. Contaminants found to be below the laboratory Practical Quantitation Levels (PQLs) and below the waste classification screening levels for General Solid Waste (TCLP1) have been discounted from the summary table. The full set of monolith eluate analyses are provided in **Appendix E, Tables E1, E2 and E3**.

**Table 5.12 Monolith contaminant concentrations in eluates T01 to T09 – treated, lime at 50%**

Treated - 50% Lime	Analyte	Benzo(a)pyrene (unfiltered)	Benzo(a)pyrene (filtered)	Total +ve PAH's (unfiltered)	Total +ve PAH's (filtered)	Total Cyanide (unfiltered)	Total Cyanide (filtered)	Fluoride (unfiltered)	Fluoride (filtered)
		µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	mg/L
Eluate	Unit	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	mg/L
	No. of samples	6	6	6	6	6	6	6	6
T01	Min	<1	<1	NIL (+)VE	NIL (+)VE	0.092	0.09	15	14
	Max	-	-	5.7	-	0.63	0.62	61	60
	No. above GL	0	0	0	0	0	0	0	0
T02	Min	<1	<1	NIL (+)VE	NIL (+)VE	0.06	0.057	12	12
	Max	-	-	12	-	0.49	0.48	46	44
	No. above GL	0	0	0	0	0	0	0	0
T03	Min	<1	<1	NIL (+)VE	NIL (+)VE	0.025	0.025	5.3	5.3
	Max	-	-	9.6	-	0.28	0.27	20	20
	No. above GL	0	0	0	0	0	0	0	0
T04	Min	<1	<1	NIL (+)VE	NIL (+)VE	0.044	0.053	7.1	7.3
	Max	-	-	15	1.7	0.69	0.79	18	21
	No. above GL	0	0	0	0	0	0	0	0
T05	Min	<1	<1	NIL (+)VE	NIL (+)VE	0.031	0.029	5.9	5.7

<b>T06</b>	<b>Max</b>	-	-	16	1	0.46	0.47	13	13
	<b>No. above GL</b>	0	0	0	0	0	0	0	0
	<b>Min</b>	<1	<1	NIL (+)VE	NIL (+)VE	0.017	0.015	4.7	4.7
<b>T07</b>	<b>Max</b>	-	-	31	2.3	0.16	0.16	8.2	8
	<b>No. above GL</b>	0	0	0	0	0	0	0	0
	<b>Min</b>	<1	<1	NIL (+)VE	NIL (+)VE	0.007	0.007	4.1	3.9
<b>T08</b>	<b>Max</b>	-	-	8.6	3.3	0.05	0.04	5.2	5.3
	<b>No. above GL</b>	0	0	0	0	0	0	0	0
	<b>Min</b>	<1	<1	NIL (+)VE	NIL (+)VE	0.004	0.004	2.7	2.9
<b>T09</b>	<b>Max</b>	-	-	21	2.5	0.01	0.009	4.8	27
	<b>No. above GL</b>	0	0	0	0	0	0	0	0
	<b>Min</b>	<1	<1	NIL (+)VE	NIL (+)VE	0.004	0.007	2.6	2.6
<b>T09</b>	<b>Max</b>	-	-	19	2.2	0.011	0.011	3.9	4
	<b>No. above GL</b>	0	0	0	0	0	0	0	0

**Table 5.13 Monolith contaminant concentrations in eluates T01 to T09 – treated, cement at 30%**

<b>Treated - 30% Cement</b>	<b>Analyte</b>	<b>Benzo(a)pyrene (unfiltered)</b>	<b>Benzo(a)pyrene (filtered)</b>	<b>Total +ve PAH's (unfiltered)</b>	<b>Total +ve PAH's (filtered)</b>	<b>Total Cyanide (unfiltered)</b>	<b>Total Cyanide (filtered)</b>	<b>Fluoride (unfiltered)</b>	<b>Fluoride (filtered)</b>
		<b>µg/L</b>	<b>µg/L</b>	<b>µg/L</b>	<b>µg/L</b>	<b>mg/L</b>	<b>mg/L</b>	<b>mg/L</b>	<b>mg/L</b>
<b>Eluate</b>	<b>Unit</b>	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	mg/L
	<b>No. of samples</b>	5	5	5	5	5	5	5	5
	<b>Min</b>	<1	<1	NIL (+)VE	NIL (+)VE	1.2	1.4	110	100
<b>T01</b>	<b>Max</b>	-	-	9.8	-	6.4	6.1	160	160
	<b>No. above GL</b>	0	0	0	0	0	0	1	1
	<b>Min</b>	<1	<1	NIL (+)VE	NIL (+)VE	1.5	1.6	100	100
<b>T02</b>	<b>Max</b>	-	-	12	-	4.7	4.7	170	170
	<b>No. above GL</b>	0	0	0	0	0	0	1	1
<b>T03</b>	<b>Min</b>	<1	<1	NIL (+)VE	NIL (+)VE	1	1.1	77	75

<b>T04</b>	<b>Max</b>	-	-	13	-	3	3	150	150
	<b>No. above GL</b>	0	0	0	0	0	0	0	0
	<b>Min</b>	<1	<1	NIL (+)VE	NIL (+)VE	0.84	2	66	130
<b>T05</b>	<b>Max</b>	-	-	20	-	5.7	5.5	360	300
	<b>No. above GL</b>	0	0	0	0	0	0	4	4
	<b>Min</b>	<1	<1	NIL (+)VE	NIL (+)VE	1.7	1.6	74	66
<b>T06</b>	<b>Max</b>	-	-	31	-	4.8	4.5	340	300
	<b>No. above GL</b>	0	0	0	0	0	0	4	4
	<b>Min</b>	<1	<1	NIL (+)VE	NIL (+)VE	0.89	0.89	37	38
<b>T07</b>	<b>Max</b>	-	-	19	-	1.8	1.8	270	270
	<b>No. above GL</b>	0	0	0	0	0	0	2	2
	<b>Min</b>	<1	<1	NIL (+)VE	NIL (+)VE	0.24	0.24	31	33
<b>T08</b>	<b>Max</b>	-	-	23	8.5	0.48	0.47	150	140
	<b>No. above GL</b>	0	0	0	0	0	0	0	0
	<b>Min</b>	<1	<1	NIL (+)VE	NIL (+)VE	0.028	0.028	12	12
<b>T09</b>	<b>Max</b>	-	-	19	4.8	0.1	0.11	56	55
	<b>No. above GL</b>	0	0	0	0	0	0	0	0
	<b>Min</b>	<1	<1	NIL (+)VE	NIL (+)VE	0.03	0.029	13	14
<b>T09</b>	<b>Max</b>	-	-	17	1.3	0.08	0.08	55	55
	<b>No. above GL</b>	0	0	0	0	0	0	0	0

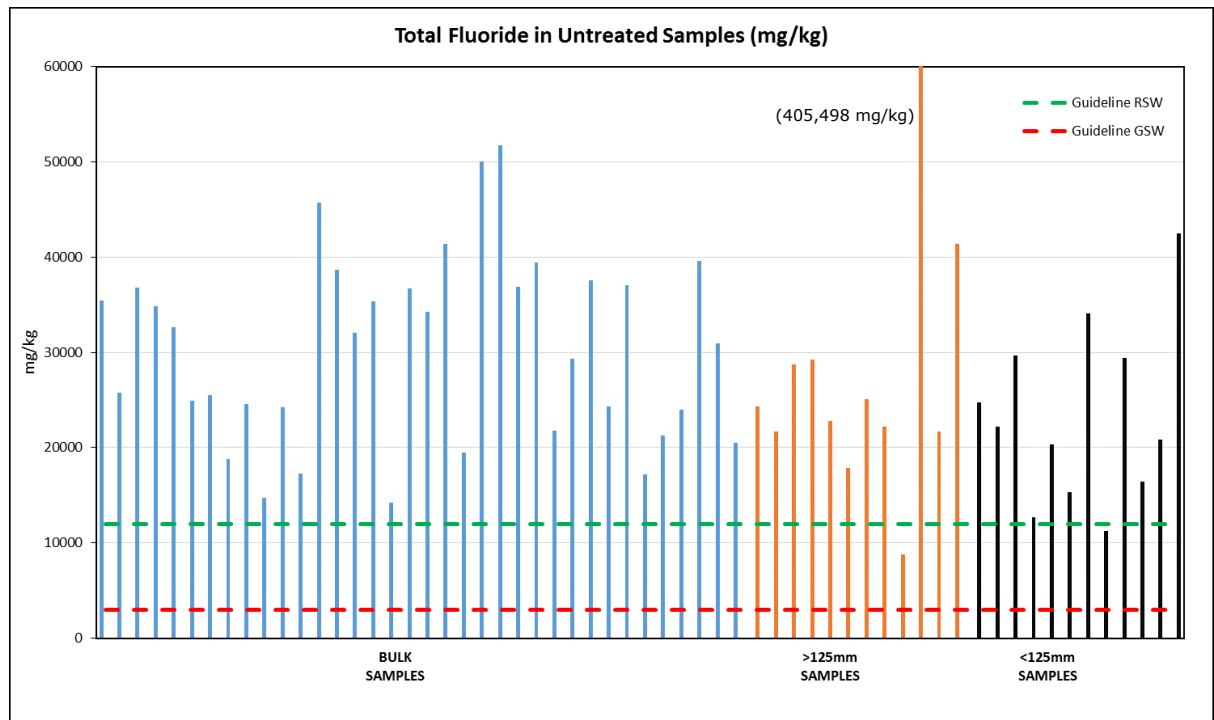
#### 5.3.4 Additional Studies

Samples of Run of Station (ROS) and Fine Graded (FG) fly ash were provided from Bayswater and Eraring Power Stations. Subsamples from each of these were analysed for the full suite of analytes prior to being used as a treatment reagent to confirm that concentrations of the contaminants of concern were not elevated in the fly ash. No exceedances were detected and most of the analytes were below or close to the PQLs. The results of the fly ash sample analyses are provided in **Tables D3** and **D4** of **Appendix D**.

## 6. DISCUSSION

### 6.1 Evaluation of material variability

Variability of the CWS waste material sampled and used in the treatment study was considered in terms size. The size fractions analysed, namely, unsorted bulk sample material, sample materials less than 125mm, and sample materials greater than 125mm, showed little variability in terms of total fluoride (refer to **Figure 6.1**). One outlying concentration of 405,498 mg/kg of total fluoride was observed in one of the samples of material greater than 125mm.



**Figure 6.1 Total fluoride concentrations in untreated CWS waste samples**

Samples of greater than 125mm in size did demonstrate lower concentrations of benzo(a)pyrene and total polycyclic aromatic hydrocarbons, in comparison to the smaller fractions. There were however, still exceedances in benzo(a)pyrene and polycyclic aromatic hydrocarbons for all of the size fractions under the waste classification guidelines (Categories 1 and 2). These results are graphically illustrated in **Figure 6.2** and **Figure 6.3**.

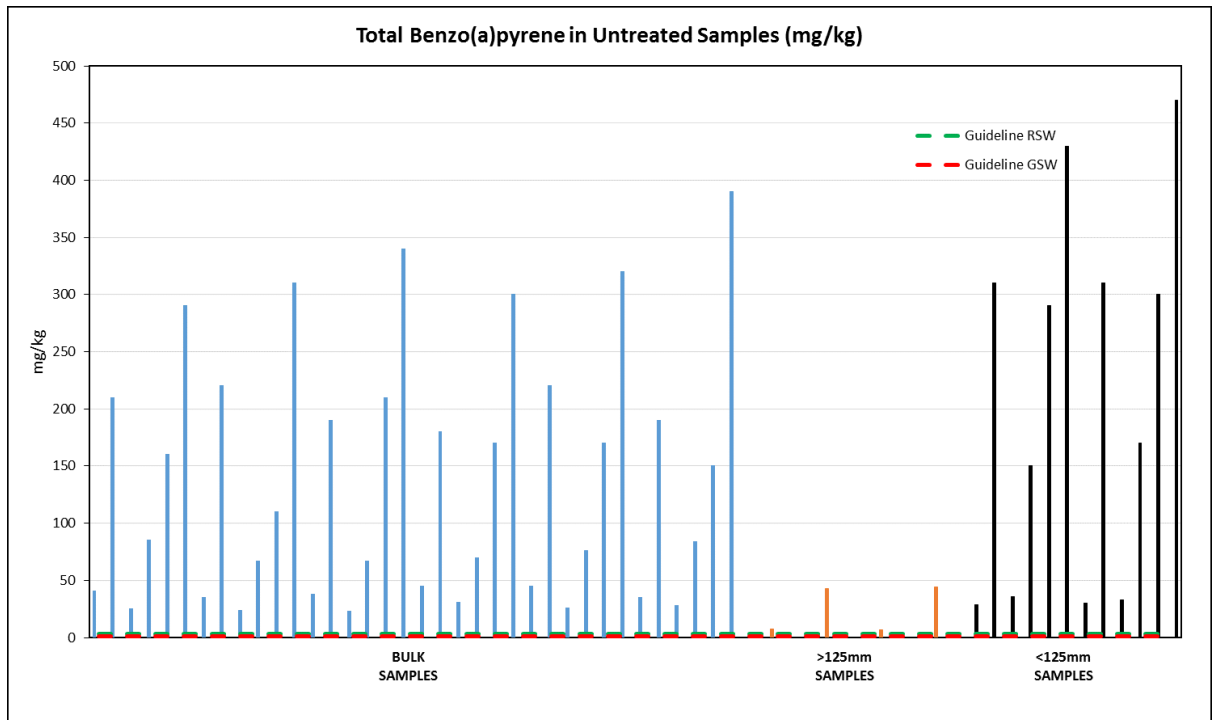


Figure 6.2 Total benzo(a)pyrene in untreated CWS waste samples

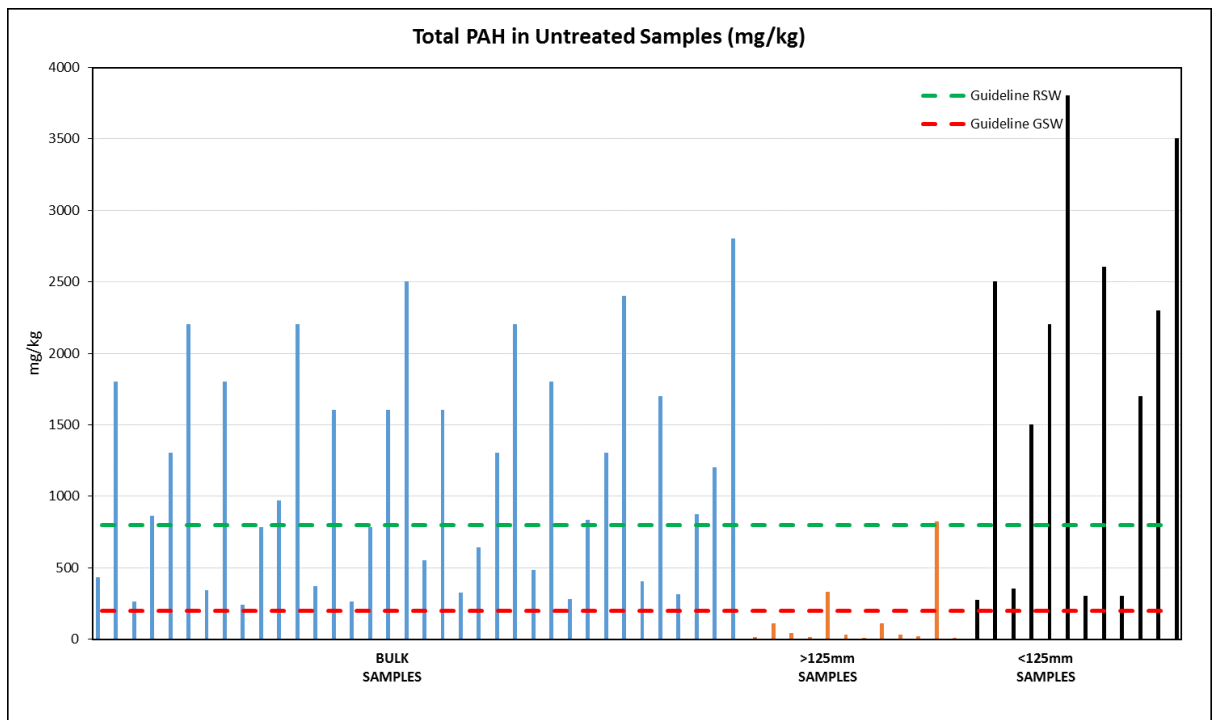


Figure 6.3 Total polycyclic aromatic hydrocarbons in untreated CWS waste samples

Concentrations of metal analytes too were lower for samples greater than 125mm in comparison with the smaller sample fractions, with only one exceedance for nickel. Variability in contaminant concentrations for the larger size fraction (greater than 125mm) has been noted, considering that the greater than 125mm samples are used as a basis to compare untreated material with treated material in the monolith testing. Since the concentrations in the large fraction (greater than 125mm) are generally lower in the case of PAHs, comparison of monolith and the evaluation of the performance of treated monoliths for PAH is therefore conservative, as treated monoliths were formed using crushed unsorted waste material from the bulk samples. The primary subject of the treatment study however is the reduction in leachable fluoride and cyanide concentrations.



Little variation was noted for concentrations of leachable cyanide (refer to **Figure 6.4**) and leachable fluoride (refer to **Figure 6.5**). Samples greater than 125mm demonstrated lower concentrations of leachable polycyclic aromatic hydrocarbons (refer to **Figure 6.6**). Chemical Control Order guideline exceedances were observed for leachable fluoride for samples in all size fractions, however the highest concentrations were observed for larger fraction samples greater than 125mm (2102.8 mg/L and 1833.7 mg/L). This observation most likely reflects that the two samples are of spent pot lining whereas the <125mm and crushed bulk sample are a mixture of spent pot lining and other wastes. Monolith leach results for untreated samples reported lower results, with most concentrations below 100 mg/L and the average of the highest concentrations from each sample of 240 mg/L. **Figure 6.7** illustrates the nine eluates collected over time from each monolith bath.

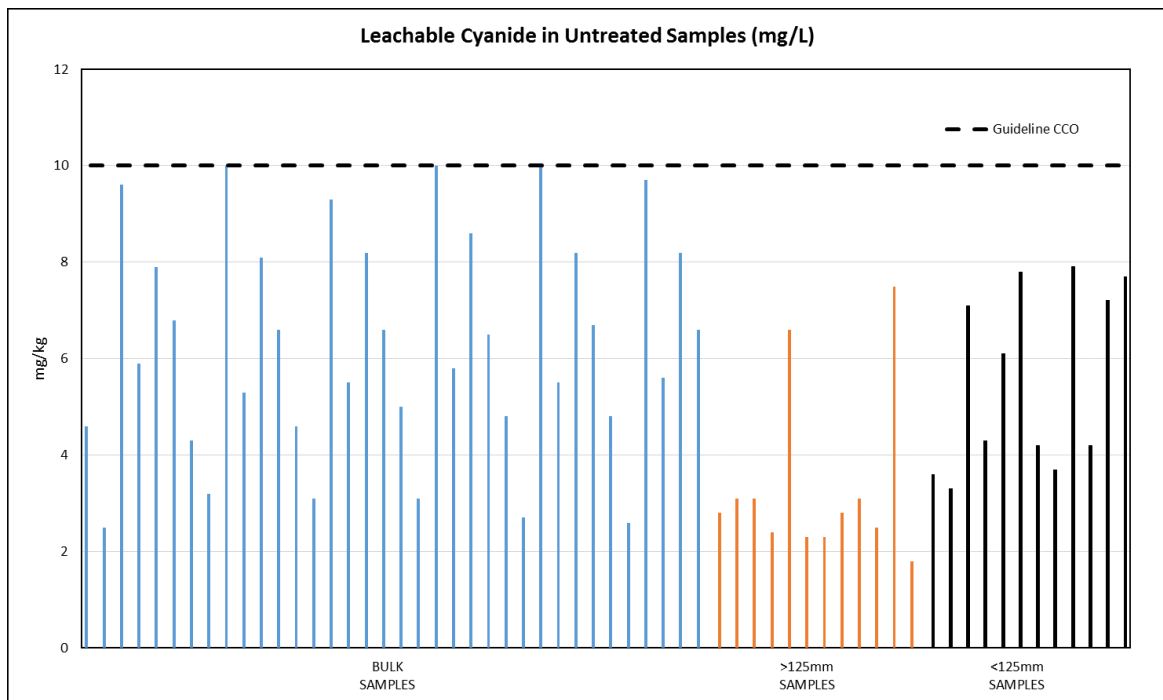


Figure 6.4 Leachable cyanide concentrations by ASLP in untreated CWS waste

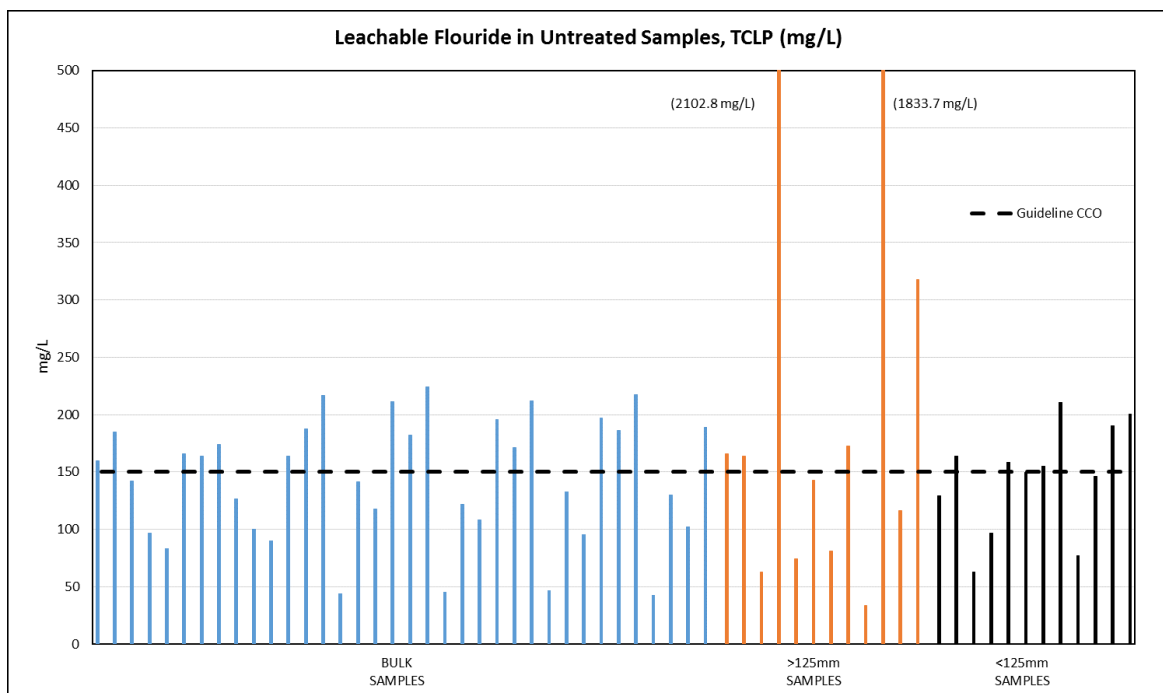


Figure 6.5 Leachable fluoride concentrations by TCLP in untreated CWS waste

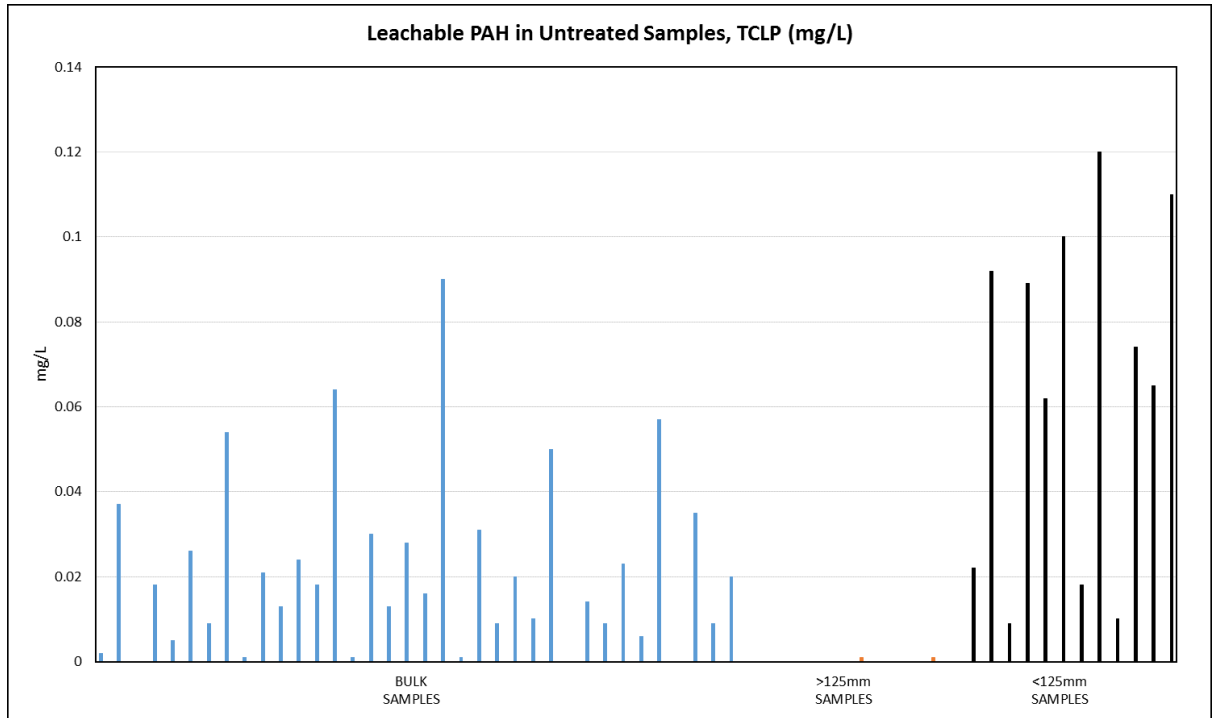


Figure 6.6 Leachable polycyclic aromatic hydrocarbon concentrations by TCLP in untreated CWS waste

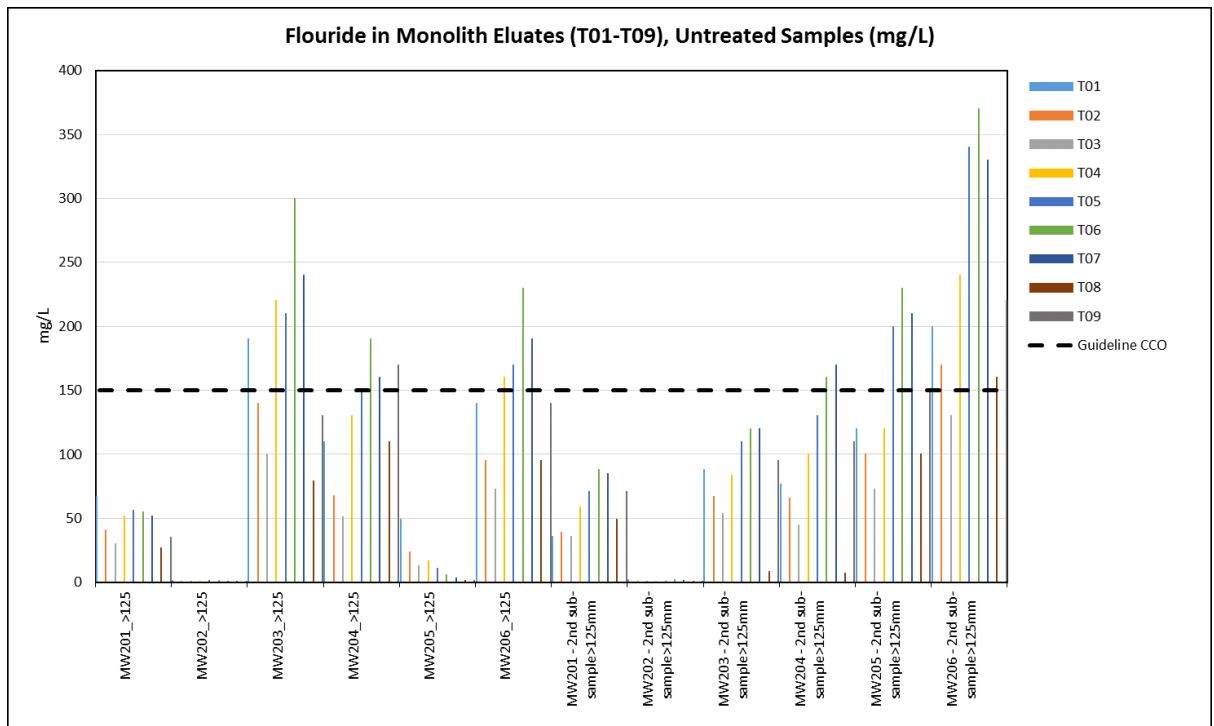


Figure 6.7 Fluoride in eluates (filtered) from untreated CWS waste monolith samples (> 125mm)

### 6.2 Waste classification

Concentrations of benzo(a)pyrene, total polycyclic aromatic hydrocarbons, arsenic, lead, nickel, total fluoride and leachable fluoride all found to have exceedances for the untreated CWS waste material when compared to NSW EPA waste classification guidelines and the Chemical Control Order for cyanide and fluoride. 32 samples out of the 79 untreated samples (inclusive of samples collected in 2015) were identified to contain asbestos. All other analytes included in the employed laboratory testing suite were found to be below the applicable guidelines. Many of the analytes were below the laboratory PQLs including: Benzene, Toluene, Ethylbenzene, Xylenes, Organochlorine Pesticides, Organophosphate Pesticides, Phenols, Polychlorinated Biphenyls, Mercury.

### 6.3 Treatment studies

Application of the chosen reagents (lime, calcium chloride, cement) was carried out on both a dry (Treatment Study 1) and wet (Treatment Study 2) basis. Testing of the initial resultant mixtures, comprising lime at 50%, calcium chloride at 50% and cement at 30%, showed no change in the waste classification of the material for contaminants in comparison with the untreated material. There were, however, reductions in concentrations observed, likely to be attributed to the dilution effect of adding the reagent. Reductions in concentrations of arsenic, lead, and nickel were somewhat consistent with the dilution factor of the reagents. Treated and untreated concentrations of total fluoride, benzo(a)pyrene and total polycyclic aromatic hydrocarbons are shown in comparison in the following **Figure 6.8**, **Figure 6.9** and **Figure 6.10**.

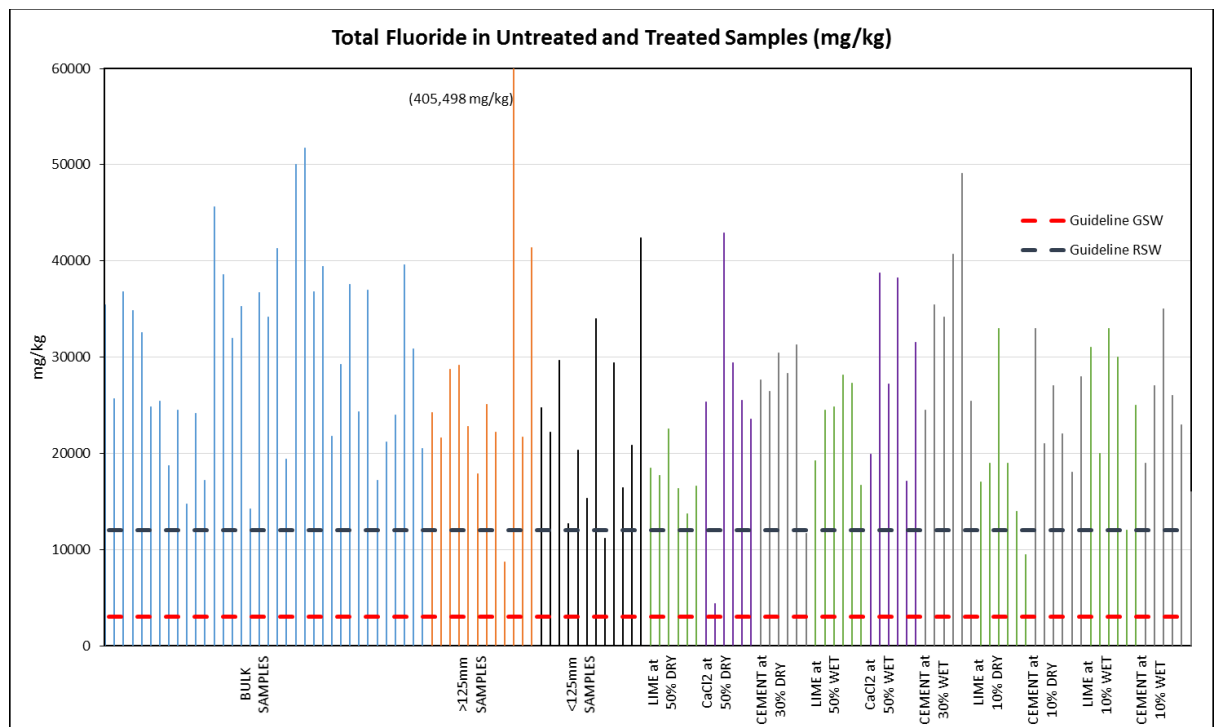


Figure 6.8 Total fluoride concentrations in untreated and treated CWS waste samples

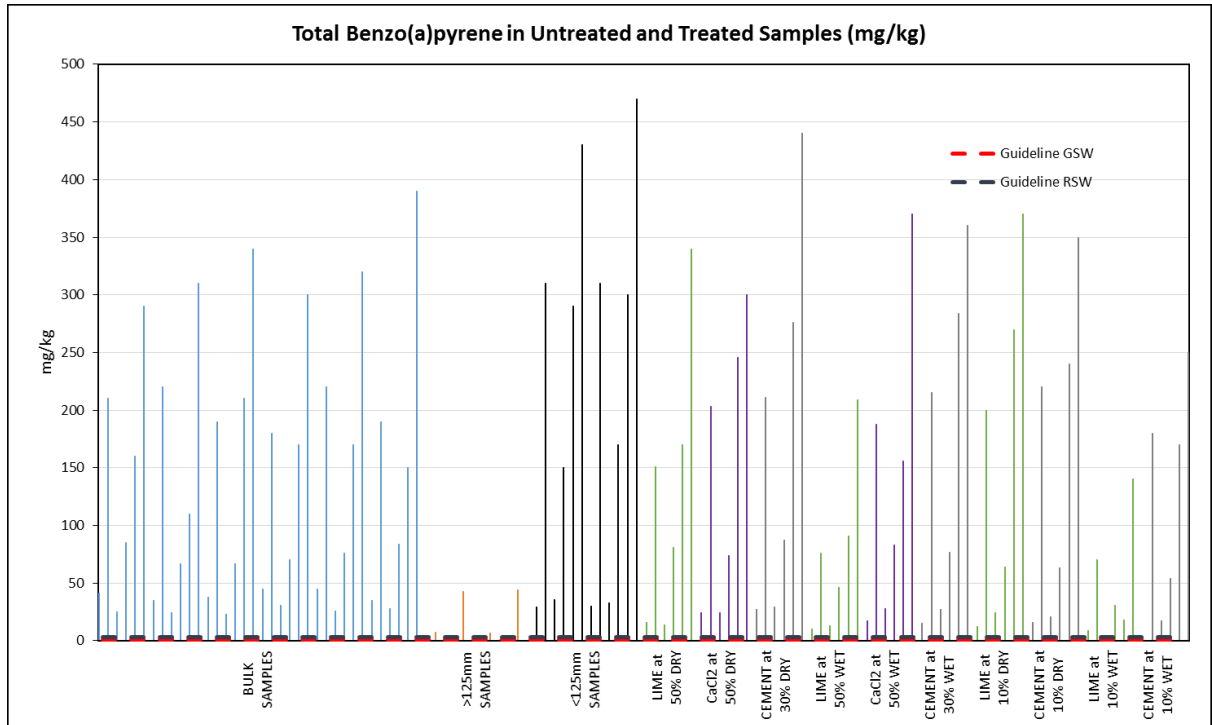


Figure 6.9 Total benzo(a)pyrene concentrations in untreated and treated CWS waste samples

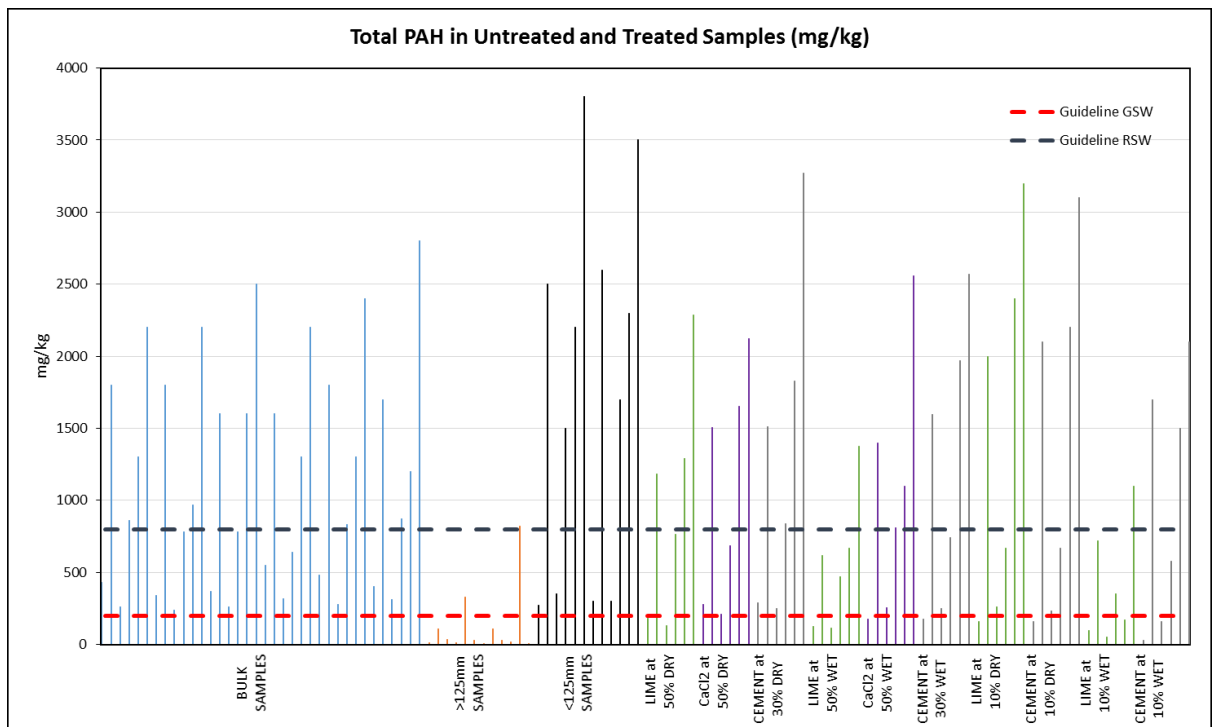
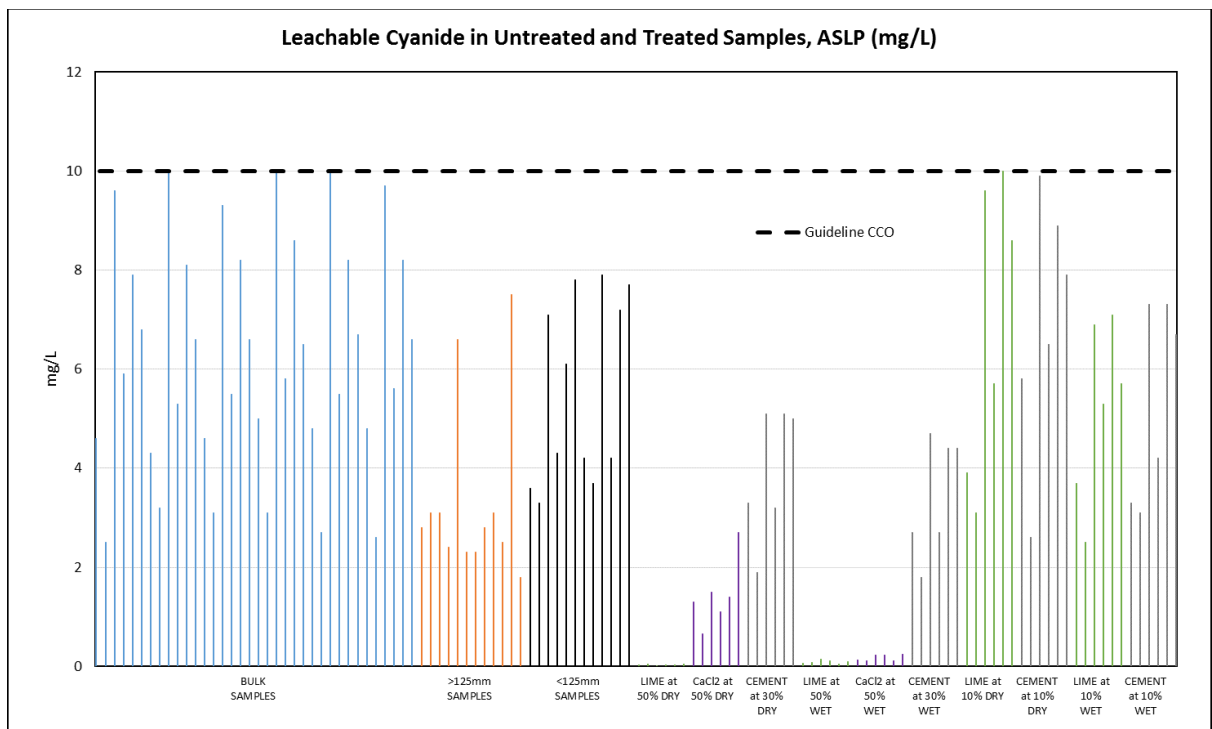


Figure 6.10 Total polycyclic aromatic hydrocarbons concentrations in untreated and treated CWS waste samples

For leachable concentrations, lime at 50% dosage for both wet and dry applications proved to be effective at reducing leachable fluoride levels to well below the Chemical Control Order guidelines of 150 mg/L with an average concentration of 9.1 mg/L (12 samples). Cement at 30% was also effective both wet and dry for reducing the leachable fluoride levels, with an average concentration of 11.7 mg/L (12 samples). Calcium chloride proved to be ineffective at reducing concentrations of any of the contaminants to below the guidelines. Concentrations of all other analytes were not observed to exceed the adopted guidelines, however, there was no apparent

reductions in leachable concentrations of benzo(a)pyrene, polycyclic aromatic hydrocarbons. Reductions in leachable cyanide concentrations were observed for lime (both wet and dry) and calcium chloride (wet) at 50%. The performance of the treatment studies in comparison with untreated material are graphically illustrated in the following figures for leachable concentrations of cyanide (**Figure 6.11**), fluoride (**Figure 6.12**), and total PAHs (**Figure 6.13**).

Secondary treatment applications of lime at 10% and cement at 10% were undertaken on both a dry and wet basis. Total concentrations of contaminants for material treated with 10% lime and cement showed little change (refer to **Figure 6.8** to **Figure 6.10**). Lime, applied dry at 10%, proved to be effective at reducing the leachable fluoride concentrations to below the adopted guidelines with an average resultant concentration of 42.5 mg/L (6 samples, refer to **Figure 6.12**). Lime applied wet as a slurry at 10% however did not have a comparable effect, having an average concentration of 220 mg/L with 5 out of 6 samples exceeding the Chemical Control Order for fluoride. Further study would be required to determine why lime was ineffective at 10% when added as a slurry. Cement at 10% both dry and wet was found to be ineffective at reducing leachable fluoride to below the guideline levels. Nickel concentrations for cement at 10% dry, lime at 10% dry, and lime at 10% wet exceeded Category 2, classifying the material as hazardous waste. Nickel for samples mixed with 10% cement wet exceeded Category 1 of the guidelines. Other Category 1 exceedances for 10% lime and 10% cement included benzo(a)pyrene, total polycyclic aromatic hydrocarbons and lead.



**Figure 6.11 Leachable cyanide concentrations in untreated and treated CWS waste samples**

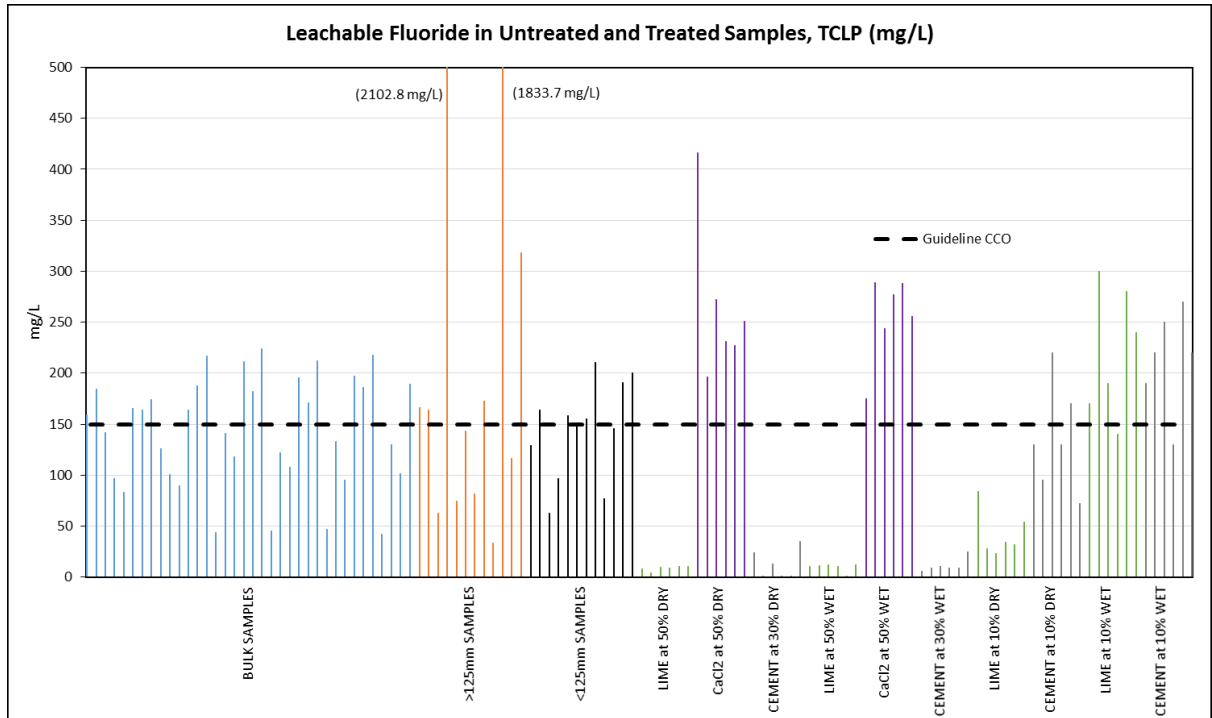


Figure 6.12 Leachable fluoride concentrations in untreated and treated CWS waste samples

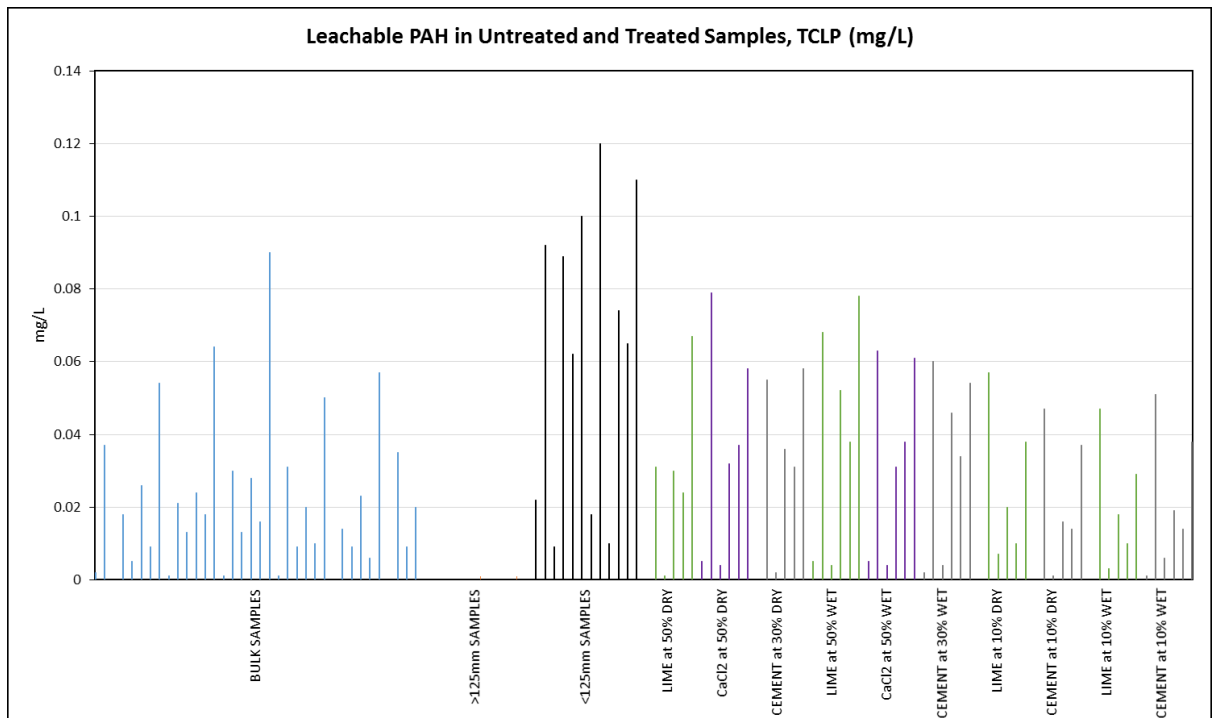


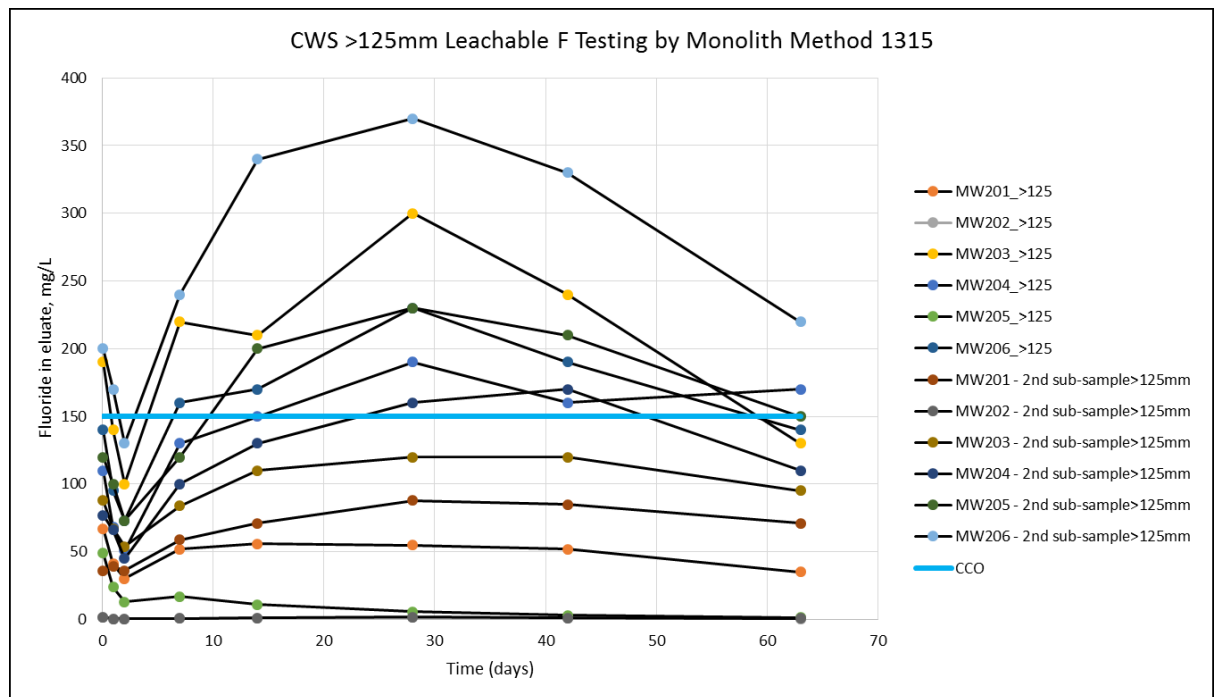
Figure 6.13 Leachable polycyclic aromatic hydrocarbon concentrations in untreated and treated CWS waste samples

**6.4 Monolith leach testing**

Monolith leach testing was carried out on untreated CWS waste monolith specimens of size fractions greater than 125mm, formed monolith specimens of treated, and cured CWS waste material. Monolith specimen formation failed for crushed CWS waste material mixed with calcium chloride at 50%, due to the resultant mixture not curing sufficiently. One of the monoliths formed

with cement at 30% also failed and was excluded from the trial. Both unfiltered and filtered samples from the extracted eluates were analysed for polycyclic aromatic hydrocarbons, cyanide and fluoride. The results were compared to the waste classification guidelines for maximum values for leachable concentrations and the Chemical Control Order for cyanide and fluoride.

For untreated CWS waste monoliths, no exceedances in cyanide concentrations. One exceedance in TCLP1 was observed for benzo(a)pyrene in the first eluate (T01). Some discrepancy was noted between unfiltered and filtered results for polycyclic aromatic hydrocarbons. Not all untreated samples exceeded the Chemical Control Order guidelines for fluoride in leachate. The concentrations of leachable fluoride in eluates, with respect to the Chemical Control Order guideline, for untreated monolith samples is summarised in Figure 6.14 Untreated monolith eluates (T01-T09) fluoride concentration **Figure 6.14**.



**Figure 6.14 Untreated monolith eluates (T01-T09) fluoride concentration**

For treated monolith specimens, no exceedances were observed for samples treated with 50% lime for all analytes. Samples treated with 30% cement however demonstrated exceedances for fluoride in leachate in 4 out of 5 samples. No exceedances in leachable fluoride were observed in eluates T07 to T09. All other analytes were below the adopted guidelines. The concentrations of leachable fluoride in eluates, with respect to the Chemical Control Order guideline, for treated monolith samples is summarised in **Figure 6.15**.

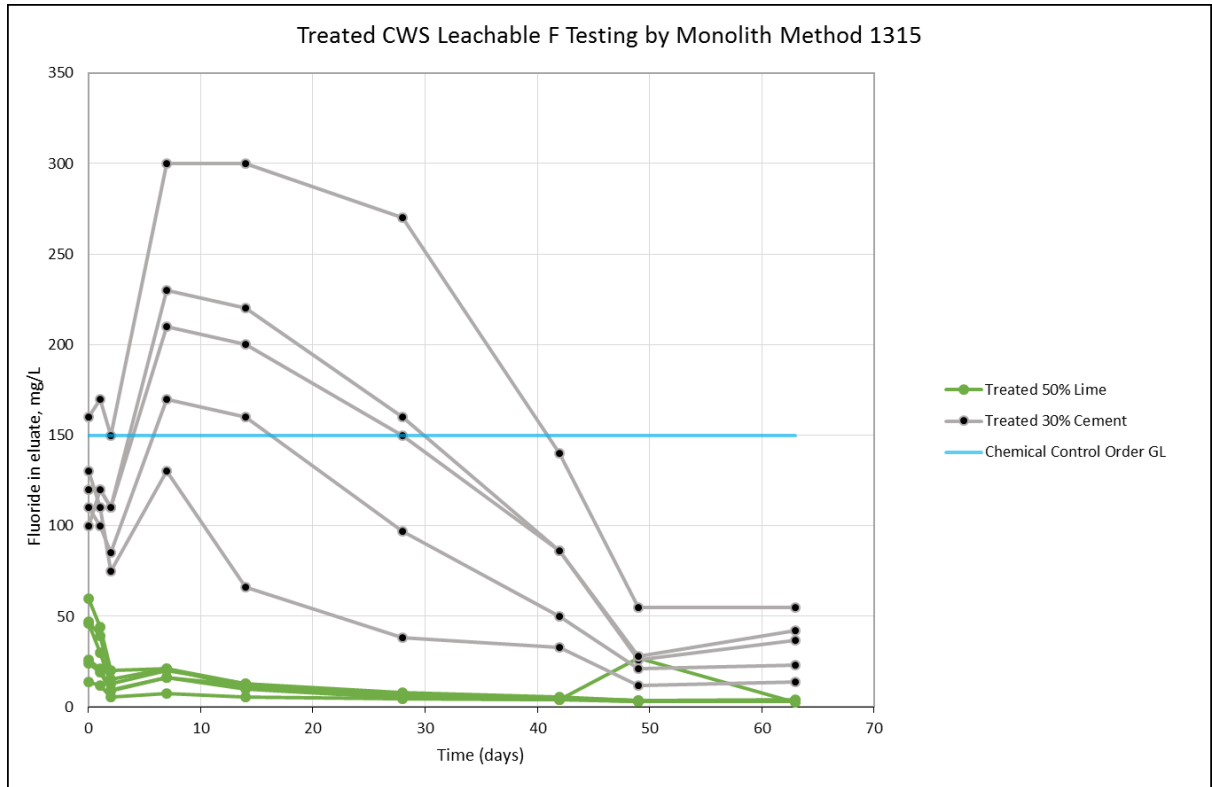


Figure 6.15 Treated monolith eluates (T01-T09) fluoride concentration

As detailed in US EPA (2013) Validated Test Method 1315, the flux of fluoride across the exposed surface area ( $\text{mg}/\text{m}^2\cdot\text{s}$ ) was calculated for each interval and plotted against the generalised mean of the square root of the cumulative leaching time (in  $\log_{10}$ - $\log_{10}$  format). This demonstrates the rate at which leaching occurs from the sample for each eluate interval.

The mean interval flux for fluoride for testing of untreated monolith samples is presented in **Figure 6.16**. The magnitude of the flux tends to decrease for subsequent eluates and a large variation in fluoride flux between samples is observed.

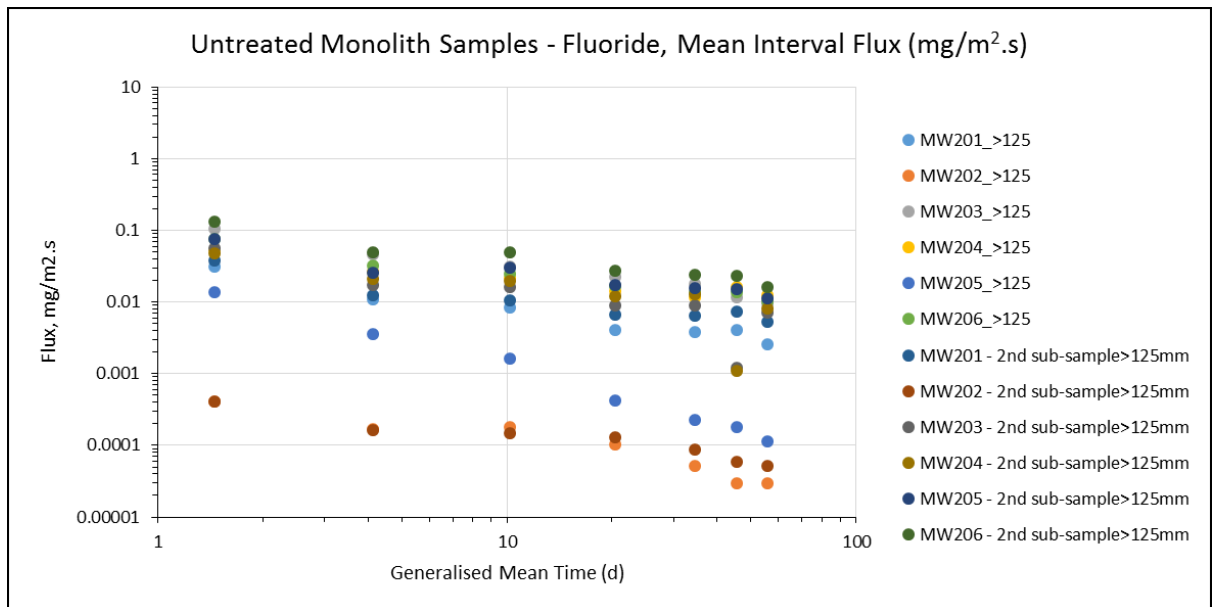
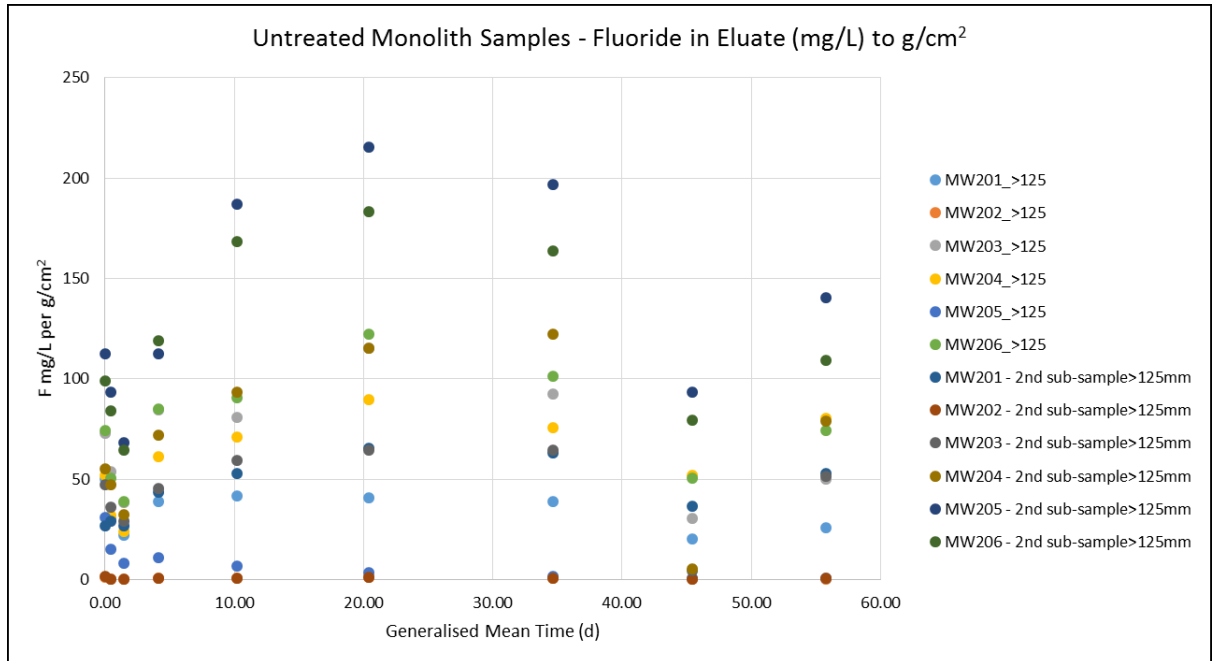


Figure 6.16 Untreated monolith samples, fluoride mean interval flux



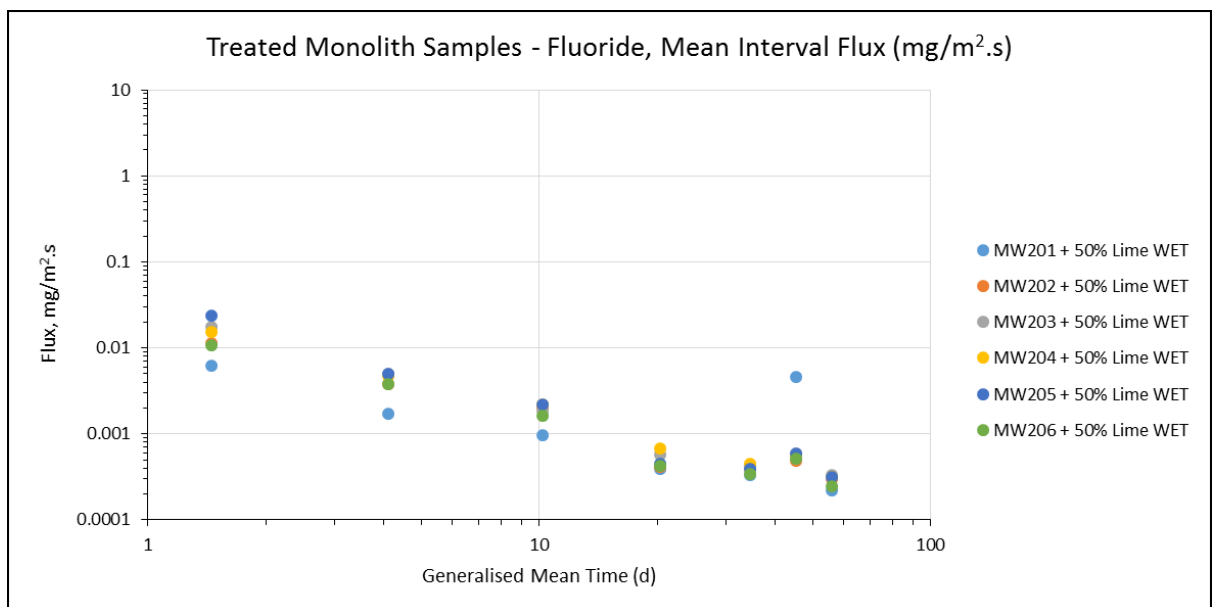
The untreated samples, being selected from larger fraction elements of heterogeneous waste material, demonstrated variability in their ratio of mass of the sample to the surface area ( $\text{g}/\text{cm}^2$ ). In consideration of this, the relationship between the ratio of the fluoride concentration in eluate to the mass to surface area and the generalised mean leaching time, of untreated monolith samples, is presented in **Figure 6.17**.



**Figure 6.17 Untreated monolith samples fluoride concentration in eluates per  $\text{g}/\text{cm}^2$**

**Figure 6.17** is demonstrative of the heterogeneous nature of the untreated monolith samples, as a broad range of fluoride concentrations were observed.

The mean interval flux calculated for fluoride from treated monolith samples is presented in **Figure 6.18** for monolith samples treated with lime, and in **Figure 6.19** for monolith samples treated with cement.



**Figure 6.18 Treated monolith samples, lime at 50%, fluoride mean interval flux**

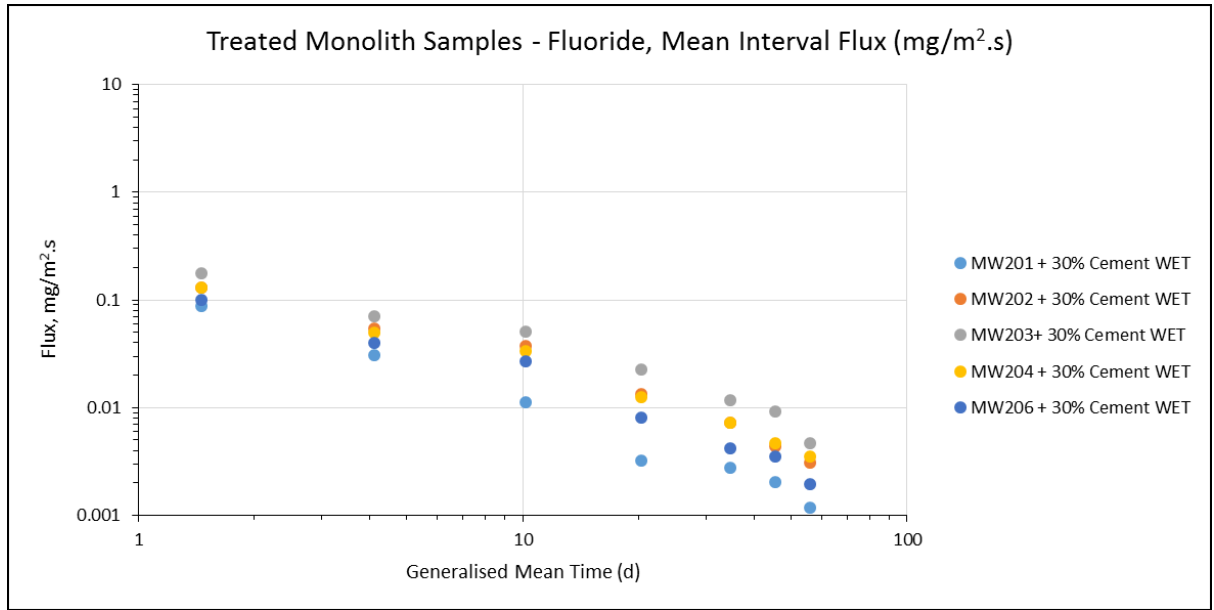


Figure 6.19 Treated monolith samples, cement at 30%, fluoride mean interval flux

## 7. CONCLUSIONS

The following key findings were made during the variability assessment, treatment studies, and analysis of monolith samples of spent pot lining:

- Methane generation was found to be greatest when lime at 50% was added as a slurry, with measurements over the limit of the gas meter for some samples (>200ppmv), followed by when cement was added as a slurry (maximum methane concentration measured at 41ppmv);
- No methane generation was detected for untreated samples and samples treated with CaCl<sub>2</sub>;
- Of the 79 samples analysed for asbestos presence (2015 and 2017), 40.5% (32 samples) were identified to contain amosite asbestos,
- Four samples out of 60 were identified to have quantifiable amosite asbestos, with a maximum quantity of 0.4691 g/kg;
- The samples of CWS waste collected from the drill core did not exceed the guidelines for total, free or leachable cyanide;
- The untreated samples showed little variability in fluoride concentrations, however some significantly elevated concentrations were measured in samples greater than 125mm;
- Untreated larger fraction samples (greater than 125mm) demonstrated lower concentrations of PAHs (including benzo(a)pyrene);
- Leachable benzo(a)pyrene by TCLP was found to be well below the TCLP1 guideline for all untreated and treated samples;
- The CWS waste sampled is classified as Hazardous Special Waste Asbestos due to elevated concentrations of total PAH and the presence of asbestos;
- The untreated CWS waste was also found to exceed the NSW EPA Chemical Control Order for leachable fluoride;
- Samples of CWS waste tested for OECD Dangerous Goods Class 4.3 were found to produce no gas, including flammable gas, following contact with water over the duration of the test;
- CWS waste treated with lime at 50% was effective at reducing leachable fluoride levels to below the Chemical Control Order for fluoride;
- CWS waste treated with lime at 10% was effective at reducing leachable fluoride levels to below the Chemical Control Order for fluoride, when mixed with the waste on a dry basis but not when added as a slurry. Based on the testing completed to date it is unclear why the wet slurry was ineffective. Further analysis would be required;
- CWS waste treated with cement at 30% was effective at reducing leachable fluoride levels to below the Chemical Control Order for fluoride;
- CWS treated with calcium chloride at 50% was ineffective at reducing concentrations of any of the contaminants to below the guidelines;
- CWS waste treated with calcium chloride at 50% (wet) and lime at 50% (dry and wet) demonstrated reductions in leachable cyanide concentrations, however untreated leachable cyanide was below the adopted guidelines for all samples;
- Eluate samples from CWS waste treated with lime at 50% did not exceed the guidelines for any of the analytes;
- Eluate samples from CWS waste treated with cement at 30% exceeded the Chemical Control Order guidelines for leachable fluoride in four out of five samples, however no exceedances were recorded for eluates T07 to T09.

## 8. REFERENCES

NSW EPA 2014, Waste Classification Guidelines – Part 1: Classifying Waste, New South Wales Environmental Protection Agency, November 2014.

Organisation for Economic Cooperation and Development (OECD), 2015, Recommendations on the Transport of Dangerous Goods – Manual of Tests and Criteria Sixth Revised Edition, United Nations Publications, Sales No. E.09 VIII.3.

Ramboll Environ, 2016. Capped Waste Stockpile Assessment, Document Reference AS130456, April 2016

United States Environmental Protection Agency (USEPA), 1992, Method 1311: Toxicity Characteristic Leaching Procedure, part of Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Document SW-846, July 1992.

United States Environmental Protection Agency (USEPA), 2013, Validated Test Method 1315: Mass Transfer Rates of Constituents in Monolithic or Compacted Granular Materials Using a Semi-Dynamic Tank Leaching Procedure, Revision 0, January 2013.

## 9. LIMITATIONS

Ramboll Environ Australia Pty Ltd (Ramboll Environ) prepared this report in accordance with the scope of work as outlined in our proposal to Hydro Aluminium Kurri Kurri Pty Ltd dated 17<sup>th</sup> January 2017 and in accordance with our understanding and interpretation of current regulatory standards.

A representative program of sampling and laboratory analyses was undertaken as part of this study. While every care has been taken, concentrations of contaminants measured may not be representative of conditions between the locations sampled. We cannot therefore preclude the presence of materials that may be hazardous. This report is based on samples from drill cores recovered at the site in 2015 and Ramboll Environ disclaims responsibility for any changes that may have occurred after this time.

The conclusions presented in this report represent Ramboll Environ's professional judgment based on information made available during the course of this assignment and are true and correct to the best of Ramboll Environ's knowledge as at the date of the assessment.

Ramboll Environ did not independently verify all of the written or oral information provided to Ramboll Environ during the course of this investigation. While Ramboll Environ has no reason to doubt the accuracy of the information provided to it, the report is complete and accurate only to the extent that the information provided to Ramboll Environ was itself complete and accurate.

This report does not purport to give legal advice. This advice can only be given by qualified legal advisors.

### 9.1 User Reliance

This report has been prepared exclusively for Hydro Aluminium Kurri Kurri Pty Ltd and their legal representatives and may not be relied upon by any other person or entity without Ramboll Environ's express written permission.

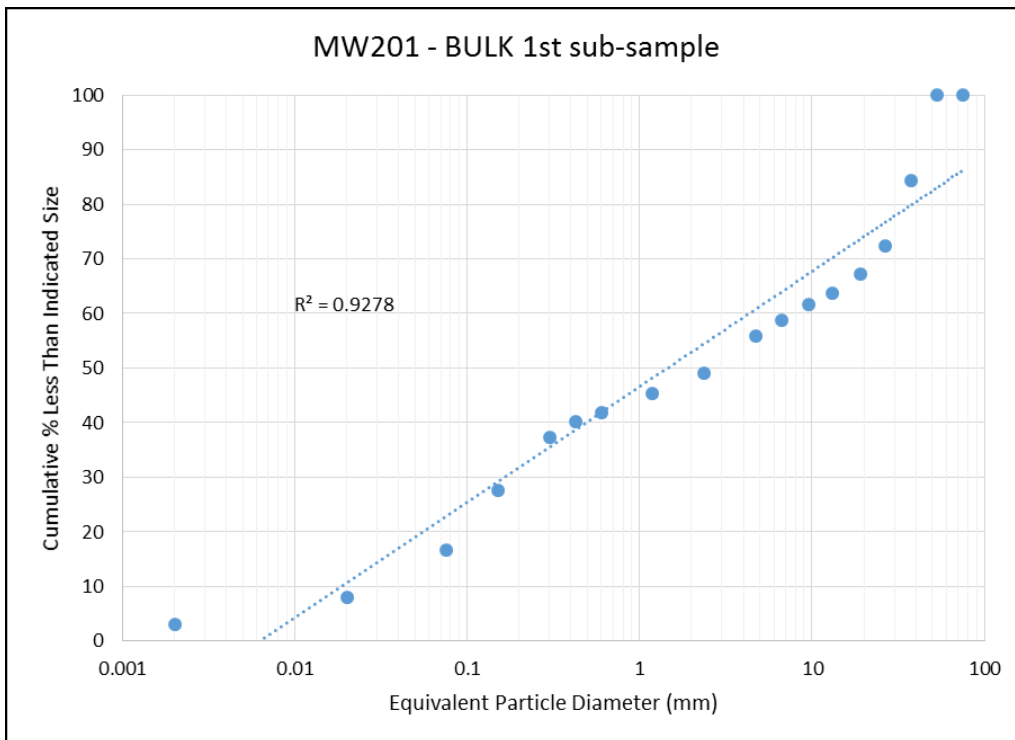
**APPENDIX A**  
**WASTE CLASSIFICATION RESULTS**



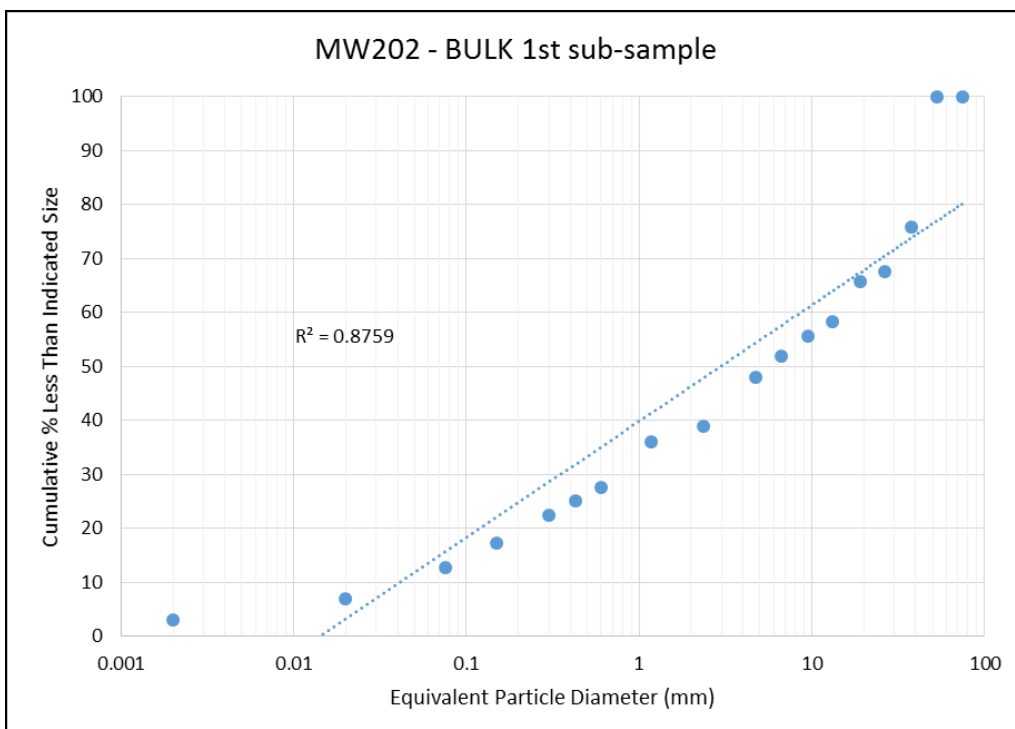




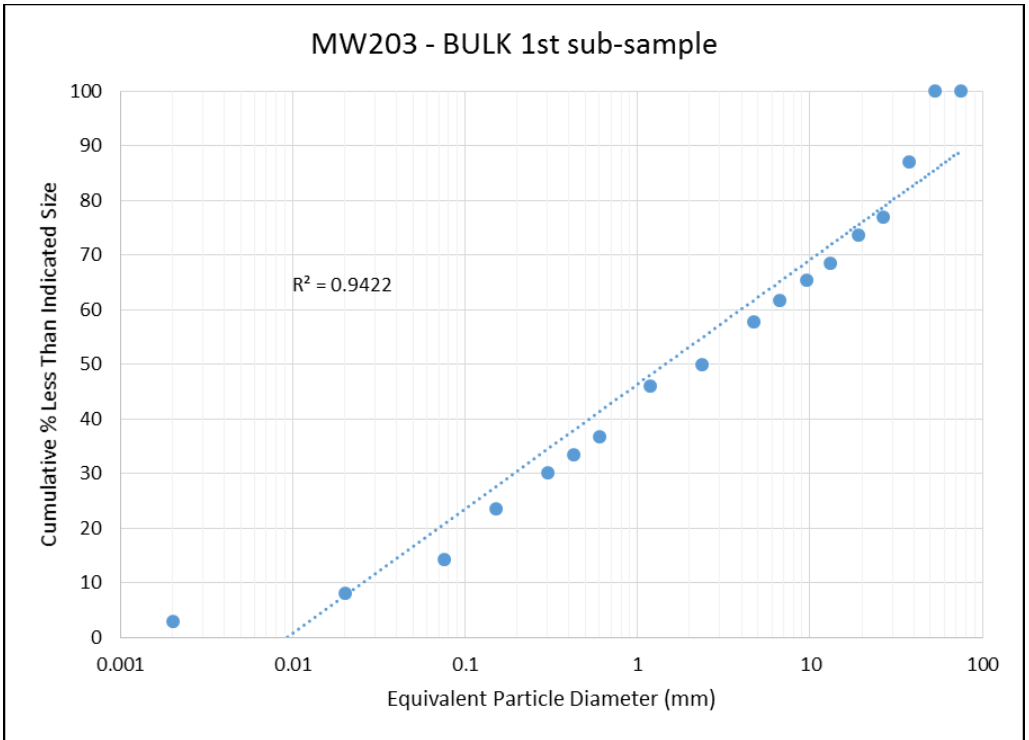
**APPENDIX B**  
**PARTICLE SIZE DISTRIBUTION**



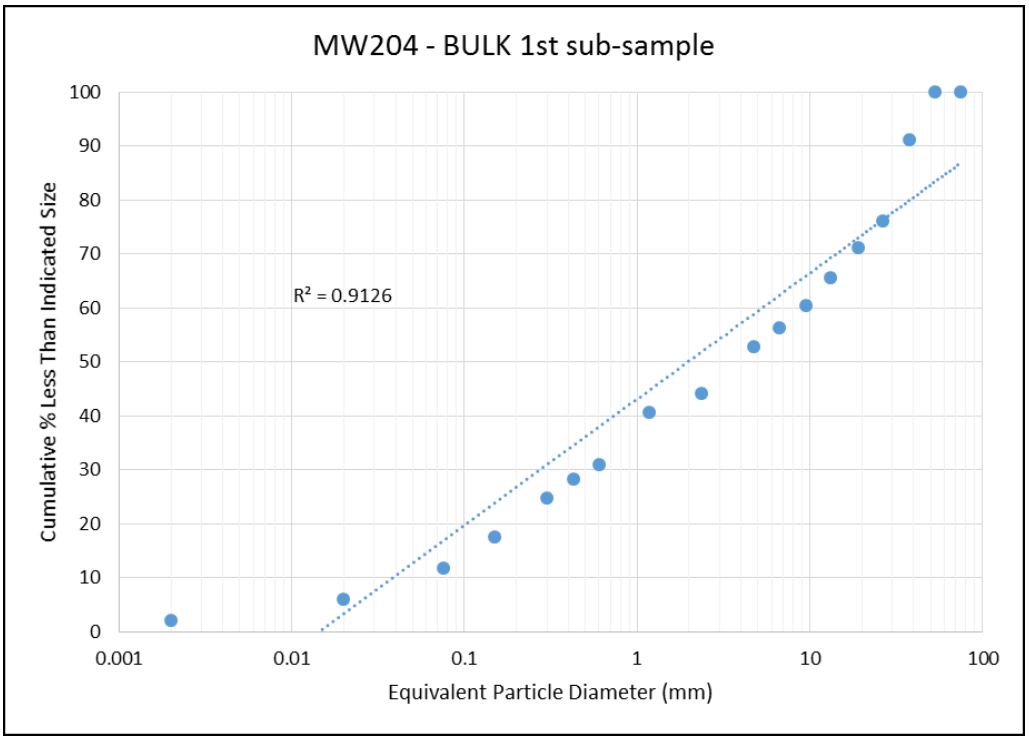
**Figure B1: MW201 Bulk Sample PSD analysis**



**Figure B2: MW202 Bulk Sample PSD analysis**



**Figure B3: MW203 Bulk Sample PSD analysis**



**Figure B4: MW204 Bulk Sample PSD analysis**

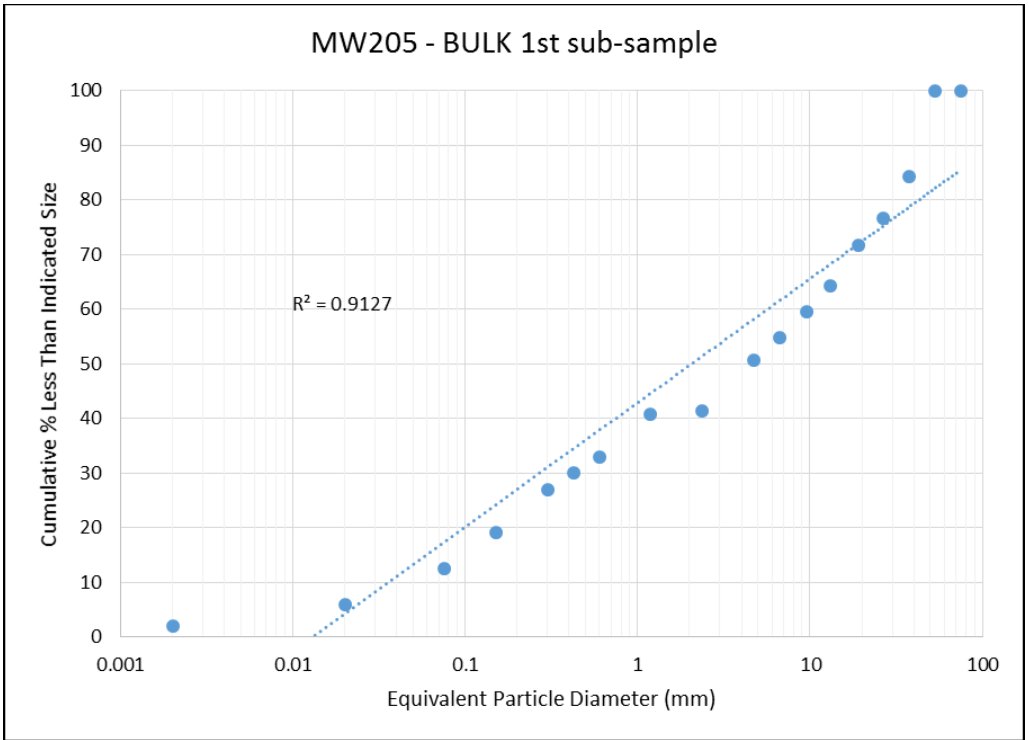


Figure B5: MW205 Bulk Sample PSD analysis

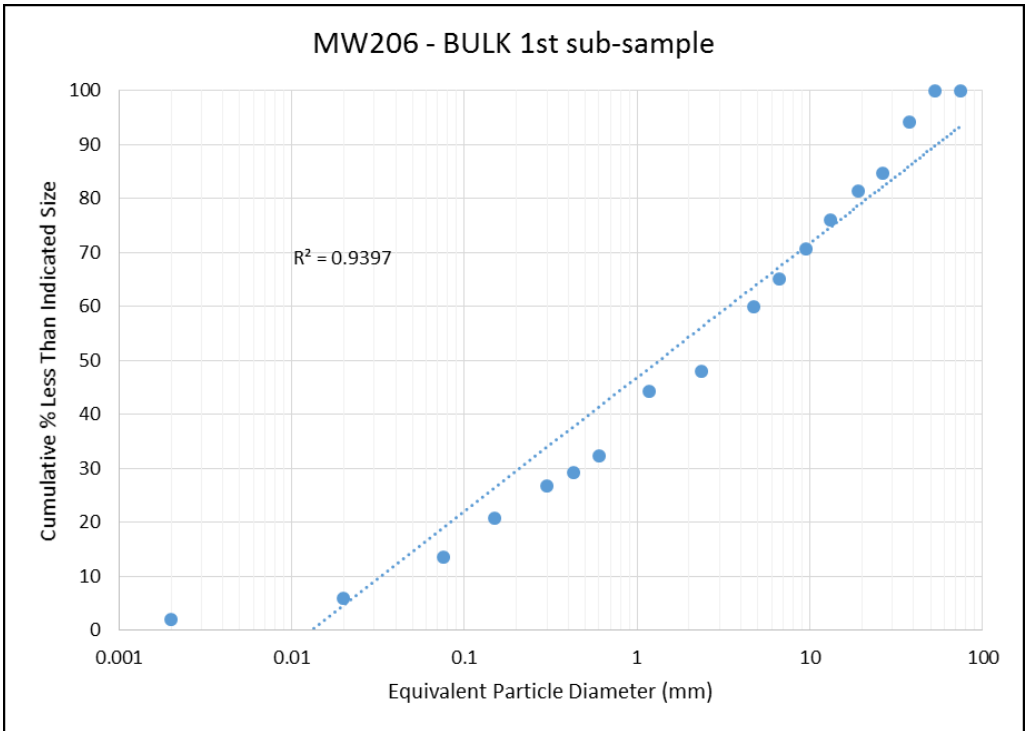


Figure B6: MW206 Bulk Sample PSD analysis

**APPENDIX C**  
**OECD TESTING REPORT**



## ANALYTICAL REPORT

Customer: Craig Goodbody  
Ramboll Environ  
Level 2, Suite 18,  
50 Glebe Rd,  
The Junction  
NSW 2291

Your Reference: 16 solid waste samples for gas evolution testing  
(AS130515)

SGS Report Number: ENV25962  
SE162852

Receipt of Samples: 15/03/2017

The samples were analysed in accordance with your instructions. The result and associated information are contained in the following page of the report. Should you have any queries regarding this report please contact the undersigned.

Reported by: James Somerville

Date: 3/04/2017

Report authorised by: Dr Peter Novella

Date: 3/04/2017

This document is issued, on the Client's behalf, by the company under its General Conditions of Service available on request and accessible at [http://www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm). The client's attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

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This test report shall not be reproduced except in full, without written approval of the laboratory

## 1.0 Background

SGS Environmental Sydney was engaged by Ramboll Environ Australia (the Client) to conduct the Gas Evolution test (solids that evolve into flammable gas when wet), as found within the UN Manual of Tests and Criteria (OECD, 2015) in accordance with the requirements and/or modifications within the IMSBC Code (IMO, 2013):

16 solid waste samples were relinquished into the custody of SGS Environment, Health and Safety on the 15/03/2017.

Details of the samples condition, preparation, analysis and findings are provided in the following pages of this report.

### 1.1 Solids That Evolves Into Flammable Gas When Wet Testing

The test within Part III, Section 33.4.1.4.3.5 of the UN Manual of Tests, is prescribed in the IMSBC Code to assess whether a substance is a solid that evolves into flammable gas when wet.

In accordance with the procedure, the substance should be brought into contact with water under a variety of conditions, in which gas evolution and spontaneous ignition can be observed. If it is known that the substance does not react violently with water, then a measure of the amount of gas evolution is required. If gas does evolve throughout the test, the evolved gas should be assessed for flammability.

To determine the quantity of gas evolution, a maximum of 25g of substance is placed into a conical flask. Water is added via a dropping funnel, and the evolved gas is measured by any suitable means. If gas evolves, the chemical identity of the gas should be determined.

In accordance with the IMSBC Code, the test should be carried out over 48 hours



## 2.0 Sample Condition and Preparation

16 solid waste samples in 250ml glass jars were provided to SGS in duplicate and logged as follows in Table 1:

**Table 1: Sample IDs**

Client ID	SGS ID
CWS_01	SE162852-1
CWS_02	SE162852-2
CWS_03	SE162852-3
CWS_04	SE162852-4
CWS_05	SE162852-5
CWS_06	SE162852-6
CWS_07	SE162852-7
CWS_08	SE162852-8
CWS_09	SE162852-9
CWS_10	SE162852-10
CWS_11	SE162852-11
CWS_12	SE162852-12
CWS_13	SE162852-13
CWS_14	SE162852-14
CWS_15	SE162852-15
CWS_16	SE162852-16



According Section 33.4.1.4.3.5 of the UN Manual, [in relation to the test method for substance which in contact with water emits flammable gases]:

*“For solids, the package should be inspected for any particles of less than 500µm diameter. If that powder constitutes more than 1% (mass) of the total, or if the substance is friable, then the whole of the sample should be ground to a powder before testing to allow for a reduction in particle size during handling and transport.”*

Upon inspection the samples were observed to contain fine particles, therefore a portion of the samples were pulverised for use in the Solids That Evolves into Flammable Gas When Wet test. Representative images of the samples prior to pulverisation and contained in Figure 1.

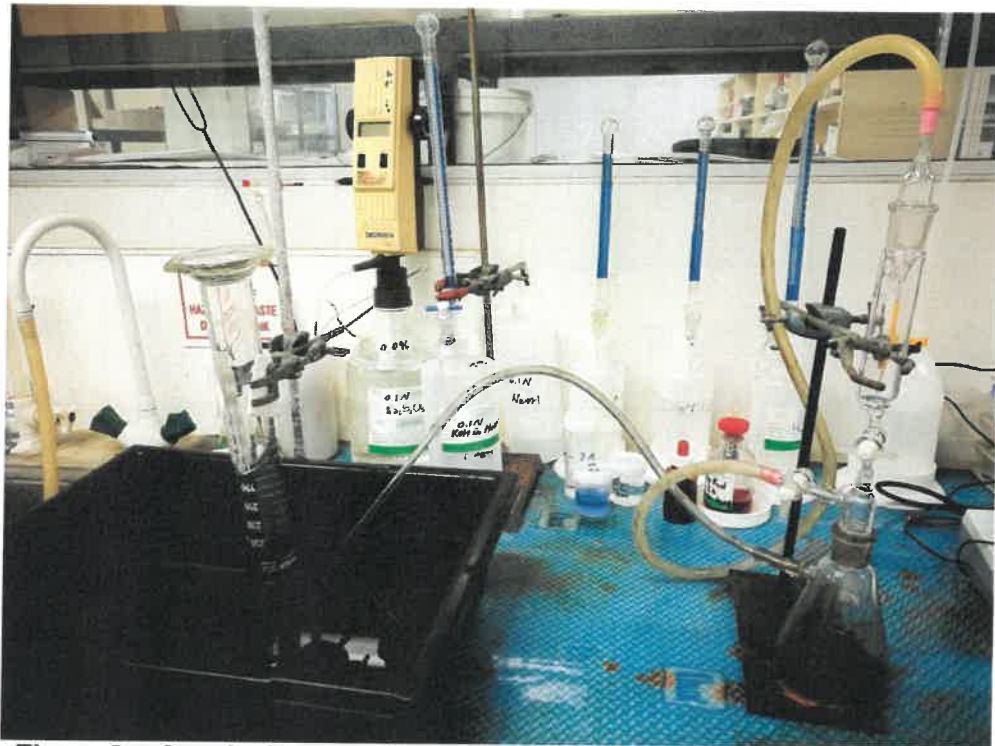


**Figure 1. Representative images of the solid waste samples showing both fine and coarse particles prior to pulverisation.**

### 3.0 Solids That Evolve Into Flammable Gas When Wet Testing

A portion of each sample was submerged in water and observed for evolution of gas. Based on this preliminary test, the samples were not suspected to react violently with water, and therefore it was not considered necessary to bring the samples into contact with water under a variety of conditions (as per Sections 33.4.1.4.3.2 – 33.4.1.4.3.4 of the UN Manual).

An apparatus based on the displacement of water was used to measure the evolution of gas produced by the sample when in contact with water. Between 24-25g of each sample was brought into contact with at least 50mL of water in a closed system. Readings were taken at the commencement of the test and after 48 hours. An image of the typical setup of this system is displayed below in Figure 2.



**Figure 2: A typical system for measuring the gas evolution of a sample**



### 3.1 Solids That Evolve Into Flammable Gas When Wet Results

Table 2a. Results of the gas evolution testing.

Client ID	SGS ID	Rate of Evolution, Replicate A (mL/48 hours)	Rate of Evolution, Replicate B (mL/48 hours)	Result
CWS_01	SE162852-1	0	0	Negative
CWS_02	SE162852-2	0	0	Negative
CWS_03	SE162852-3	0	0	Negative
CWS_04	SE162852-4	0	0	Negative
CWS_05	SE162852-5	0	0	Negative
CWS_06	SE162852-6	0	0	Negative
CWS_07	SE162852-7	0	0	Negative
CWS_08	SE162852-8	0	0	Negative
CWS_09	SE162852-9	0	0	Negative

**Table 2b. Results of the gas evolution testing.**

Client ID	SGS ID	Rate of Evolution, Replicate A (mL/48 hours)	Rate of Evolution, Replicate B (mL/48 hours)	Result
CWS_10	SE162852-10	0	0	Negative
CWS_11	SE162852-11	0	0	Negative
CWS_12	SE162852-12	0	0	Negative
CWS_13	SE162852-13	0	0	Negative
CWS_14	SE162852-14	0	0	Negative
CWS_15	SE162852-15	0	0	Negative
CWS_16	SE162852-16	0	0	Negative

### 3.2 Comments

The IMSBC Code (IMO, 2013), classifies substances as Materials Hazardous Only in Bulk (MHB) if the flammable gas evolution rate is greater than zero. The UN Manual of Tests and Criteria (Section 33.4.1.4) classifies substances as Class 4.3 dangerous goods if the evolution rate of flammable gas is greater than one litre per kilogram per hour. Neither of these criteria apply to the samples tested.

**No gas, including flammable gas, was observed to evolve throughout the duration of the test for each sample.**



#### 4.0 References

*Organisation for Economic Cooperation and Development (OECD), 2015. Recommendations on the Transport of Dangerous Goods – Manual of Tests and Criteria Sixth Revised Edition, United Nations Publication, Sales No. E.09. VIII.3, ISBN 978-92-1-139135-0, ISSN 1014-7160.*

*Organisation for Economic Cooperation and Development (OECD), 2015. UN Model Regulations UN Recommendations on the Transport of Dangerous Good – Model Regulations Nineteenth Revised Edition, United Nations Publication, Sales No. E.13.VIII.1, ISBN 978-92-1-139146-6, e-ISBN 978-92-1-056081-8, ISSN 1014-5753.*

**APPENDIX D**  
**TREATMENT STUDIES RESULTS**









Table D3: Fly Ash Waste Classification SCC, CT1 and CT2

Contaminant	Units	LOR	Maximum values of specific contaminant concentration (SCC) for classification without TCLP (CT1 and CT2)		B.W.F.G	B.W.R.O.S	ERARING R.O.S	ERARING F.G
			General Solid Waste	Restricted Solid Waste				
TRH C6 - C9	mg/kg	25			<25	<25	<25	<25
TRH C6 - C10	mg/kg	25			<25	<25	<25	<25
YTPH C6 - C10 less BTEX (F1)	mg/kg	25			<25	<25	<25	<25
Benzene	mg/kg	0.2	10	40	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	0.5	288	1152	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	1	600	2400	<1	<1	<1	<1
m-p-xylene	mg/kg	2			<2	<2	<2	<2
o-Xylene	mg/kg	1			<1	<1	<1	<1
Total +ve Xylenes	mg/kg	1	1000	4000	<1	<1	<1	<1
naphthalene	mg/kg	1			<1	<1	<1	<1
TRH C10 - C14	mg/kg	50			<50	<50	<50	<50
TRH C15 - C28	mg/kg	100			<100	<100	<100	<100
TRH C29 - C36	mg/kg	100			<100	<100	<100	<100
TRH >C10-C16	mg/kg	50			<50	<50	<50	<50
TRH >C10 - C16 less Naphthalene	mg/kg	50			<50	<50	<50	<50
TRH >C16-C34	mg/kg	100			<100	<100	<100	<100
TRH >C34-C40	mg/kg	100			<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	50			<50	<50	<50	<50
Naphthalene	mg/kg	0.1			<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1			<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.1			<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.1			<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1			<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	0.1			<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1			<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	0.1			<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	0.1			<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	0.1			<0.1	<0.1	<0.1	<0.1
Benzo(b,j,k)fluoranthene	mg/kg	0.2			<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	0.05	0.8	3.2	<0.05	<0.05	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1			<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	0.1			<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	0.1			<0.1	<0.1	<0.1	<0.1
Benzo(a)pyrene TEQ calc (zero)	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc (half)	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc (PQL)	mg/kg	0.5	200	800	<0.5	<0.5	<0.5	<0.5
Total +ve PAH's	mg/kg	0.5			<0.05	<0.05	<0.05	<0.05
HCB	mg/kg	0.1			<0.1	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	0.1			<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	0.1			<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	0.1			<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	0.1			<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	0.1			<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	0.1			<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	0.1			<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	0.1			<0.1	<0.1	<0.1	<0.1
alpha-Chlordane	mg/kg	0.1			<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	0.1	60	240	<0.1	<0.1	<0.1	<0.1
pp-DDF	mg/kg	0.1			<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	0.1			<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	0.1			<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	0.1			<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	0.1			<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	0.1			<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	0.1			<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	0.1			<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	0.1			<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	0.1			<0.1	<0.1	<0.1	<0.1
Azinphos-methyl (Guthion)	mg/kg	0.1			<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	0.1			<0.1	<0.1	<0.1	<0.1
Chlorpyrifos	mg/kg	0.1	4	16	<0.1	<0.1	<0.1	<0.1
Chlorpyrifos-methyl	mg/kg	0.1			<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	0.1			<0.1	<0.1	<0.1	<0.1
Dichlorvos	mg/kg	0.1			<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	0.1			<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	0.1			<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	0.1			<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	0.1			<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	0.1			<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	0.1			<0.1	<0.1	<0.1	<0.1
Phenol	mg/kg	0.5	288	1152	<0.5	<0.5	<0.5	<0.5
2-Chlorophenol	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
2-Methylphenol	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
3/4-Methylphenol	mg/kg	1			<1	<1	<1	<1
Nitrobenzene	mg/kg	1	40	160	<1	<1	<1	<1
2,4-Dimethylphenol	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
2-Nitrophenol	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
2,4-Dichlorophenol	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
4-Chloro-3-methylphenol	mg/kg	5			<5	<5	<5	<5
2,4,6-trichlorophenol	mg/kg	0.5	40	160	<0.5	<0.5	<0.5	<0.5
2,4,5-trichlorophenol	mg/kg	0.5	8000	32000	<0.5	<0.5	<0.5	<0.5
Dimethylphthalate	mg/kg	1			<1	<1	<1	<1
2,6-Dinitrotoluene	mg/kg	1			<10	<10	<10	<10
2,4-dinitrophenol	mg/kg	10			<10	<10	<10	<10
4-nitrophenol	mg/kg	1			<1	<1	<1	<1
diethylphthalate	mg/kg	1			<1	<1	<1	<1
2-methyl-4,6-dinitrophenol	mg/kg	10			<10	<10	<10	<10
pentachlorophenol	mg/kg	5			<5	<5	<5	<5
di-n-butylphthalate	mg/kg	1			<1	<1	<1	<1
butylbenzylphthalate	mg/kg	1			<1	<1	<1	<1
bis(2-ethylhexyl)phthalate	mg/kg	1			<1	<1	<1	<1
di-n-octylphthalate	mg/kg	1			<1	<1	<1	<1
2,6-dichlorophenol	mg/kg	5			<0.5	<0.5	<0.5	<0.5
2,3,4,6-tetrachlorophenol	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5

Table D3: Fly Ash Waste Classification SCC, CT1 and CT2 (continued)

Contaminant	Units	LOR	Maximum values of specific contaminant concentration (SCC) for classification without TCLP (CT1 and CT2)		B.W.F.G	B.W.R.O.S	ERARING R.O.S	ERARING F.G
			General Solid Waste	Restricted Solid Waste				
Dichlorodifluoromethane	mg/kg	1			<1	<1	<1	<1
Chloromethane	mg/kg	1			<1	<1	<1	<1
Vinyl Chloride	mg/kg	1	4	16	<1	<1	<1	<1
Bromomethane	mg/kg	1			<1	<1	<1	<1
Chloroethane	mg/kg	1			<1	<1	<1	<1
Trichlorofluoromethane	mg/kg	1			<1	<1	<1	<1
1,1-Dichloroethene	mg/kg	1			<1	<1	<1	<1
trans-1,2-dichloroethene	mg/kg	1			<1	<1	<1	<1
1,1-dichloroethane	mg/kg	1			<1	<1	<1	<1
cis-1,2-dichloroethene	mg/kg	1			<1	<1	<1	<1
bromochloromethane	mg/kg	1			<1	<1	<1	<1
chloroform	mg/kg	1	120	480	<1	<1	<1	<1
2,2-dichloropropane	mg/kg	1			<1	<1	<1	<1
1,2-dichloroethane	mg/kg	1	10	40	<1	<1	<1	<1
1,1,1-trichloroethane	mg/kg	1	600	2400	<1	<1	<1	<1
1,1-dichloropropane	mg/kg	1			<1	<1	<1	<1
Cyclohexane	mg/kg	1			<1	<1	<1	<1
carbon tetrachloride	mg/kg	1	10	40	<1	<1	<1	<1
Benzene	mg/kg	0.2			<0.2	<0.2	<0.2	<0.2
dibromomethane	mg/kg	1			<1	<1	<1	<1
1,2-dichloropropane	mg/kg	1			<1	<1	<1	<1
trichloroethene	mg/kg	1			<1	<1	<1	<1
bromodichloromethane	mg/kg	1			<1	<1	<1	<1
trans-1,3-dichloropropane	mg/kg	1			<1	<1	<1	<1
cis-1,3-dichloropropane	mg/kg	1			<1	<1	<1	<1
1,1,2-trichloroethane	mg/kg	1	24	96	<1	<1	<1	<1
Toluene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5
1,3-dichloropropane	mg/kg	1			<1	<1	<1	<1
dibromochloromethane	mg/kg	1			<1	<1	<1	<1
1,2-dibromoethane	mg/kg	1			<1	<1	<1	<1
tetrachloroethene	mg/kg	1			<1	<1	<1	<1
1,1,1,2-tetrachloroethane	mg/kg	1	200	800	<1	<1	<1	<1
chlorobenzene	mg/kg	1	2000	8000	<1	<1	<1	<1
Ethylbenzene	mg/kg	1			<1	<1	<1	<1
bromoform	mg/kg	1			<1	<1	<1	<1
m-p-xylene	mg/kg	2			<2	<2	<2	<2
styrene	mg/kg	1	60	240	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	mg/kg	1	26	104	<1	<1	<1	<1
o-Xylene	mg/kg	1			<1	<1	<1	<1
1,2,3-trichloropropane	mg/kg	1			<1	<1	<1	<1
isopropylbenzene	mg/kg	1			<1	<1	<1	<1
bromobenzene	mg/kg	1			<1	<1	<1	<1
n-propyl benzene	mg/kg	1						

**APPENDIX E**  
**MONOLITH LEACHING RESULTS**







**APPENDIX F**  
**QA/QC**

**Table F.1: QA/QC – Field and Laboratory Quality Assurance and Quality Control**

Field and Lab QA/QC	Ramboll Environ Comments
	<p>Intralaboratory duplicate untreated and treated waste samples were analysed at an overall rate of 14%.            Intralaboratory duplicate eluate samples were analysed at a rate of 17%</p>
Field quality control results	<p>Relative Percent Differences (RPDs) in waste samples are provided in <b>Tables F2 to F5</b> in this Appendix. Exceedances in RPD of 50% are shown in bold. Analytes where both the samples were below laboratory reporting limits have been excluded from the tables. Instances where one of the samples was below limits of reporting a value of half the limit of reporting is assigned for comparative purposes.</p> <p>In instances where the RPD for waste results between the primary and duplicate sample has been reported as greater than 50%, these discrepancies have been reviewed and are considered to be a result of sample heterogeneity.</p>
NATA registered laboratory and NATA endorsed methods	<p>Envirolab Services was used as the primary laboratory. ALS Environmental and Eurofins MGT were used as the secondary laboratories. The laboratory certificates are NATA stamped. OECD testing for Dangerous Goods Class 4.3 was carried out by SGS. Laboratory reports are provided in <b>Appendix G</b>.</p>
Analytical methods	<p>Summary analytical methods were included in the laboratory test certificates.</p>
Holding times	<p>The material was sampled from core trays of recovered sonic drill cores obtained from the CWS in October/November 2015. Holding times of the chosen analytes are not considered critical to the treatment study.</p>
Practical Quantitation Limits (PQLs)	<p>PQLs for all soil analytes were below the adopted screening criteria.</p>
Laboratory quality control samples	<p>Laboratory quality control samples including duplicates, laboratory control samples, matrix spikes, surrogate spikes and blanks were undertaken by the laboratories at appropriate frequencies.</p>

Field and Lab QA/QC	Ramboll Environ Comments
<p>Laboratory quality control results</p>	<p>The results for method blanks, laboratory duplicates, laboratory control samples (LCS), matrix spikes and surrogates were considered to be within the limit of reporting, with the exception of:</p> <p>TRH – 162119-2, 162119-34, 162119-56, 162119-F-8: Percent recovery is not possible to report as the high concentration of analytes in the sample/s have caused interference</p> <p>Cr(VI) – 162119-F-6, 162119-F-24: Matrix spike recovery was outside recommended acceptance criteria, however an acceptable recovery was achieved for the LCS. This indicates a sample matrix interference.</p> <p>PAH – 162119-2, 162119-34, 162119-56, 162119-F-8, 162119-F-26: Percent recovery is not possible to report as the high concentration of analytes in the sample/s have caused interference.</p> <p>SVOC – 162119-3, 162119-35, 162119-57, 162119-F-13, 162119-F-23, 162119-F-28: Percent recovery is not possible to report due to interference from analytes (other than those being tested) in the sample/s.</p> <p>Acid Extractable Metals in Soil: The laboratory RPD acceptance criteria has been exceeded for 162119-44 for As, Cu, Mo, Sn. Therefore a triplicate result has been issued as laboratory sample number 162119-109.</p> <p>Sample 162119-40 was repeated in duplicate and triplicate as the Fluoride result was very high. The triplicate is present as sample 162119-110.</p> <p>These outliers are not considered to affect the quality of the data.</p>



Table F2: RPD Assessment of Duplicate CWS Waste Samples - mg/kg

Contaminant	Units	LOR	Primary Sample	Duplicate Sample	%RPD	Primary Sample	Duplicate Sample	%RPD	Primary Sample	Duplicate Sample	%RPD	Primary Sample	Duplicate Sample	%RPD	Primary Sample	Duplicate Sample	%RPD
			MW201 - BULK 1st sub-sample	QA201		MW202 - BULK 1st sub-sample	QA202		MW203 - BULK 1st sub-sample	QA203		MW204 - BULK 1st sub-sample	QA204		MW205 - BULK 1st sub-sample	QA205	
TRH C6 - C9	mg/kg	25	<25	<10	-	<25	<10	-	<25	<10	-	<25	<10	-	<25	<10	-
naphthalene	mg/kg	1	<1	<1	-	6	3	67%	2	<1	120%	<1	<1	-	<1	<1	-
TRH C10 - C14	mg/kg	50	<50	<50	-	64	<50	88%	<50	<50	-	58	<50	80%	<50	<50	-
TRH C15 - C28	mg/kg	100	700	190	115%	3200	4320	30%	740	560	28%	2300	3310	36%	2100	1140	59%
TRH C29 - C36	mg/kg	100	690	200	110%	2900	4400	41%	1100	800	32%	2800	5390	63%	2200	1710	25%
TRH >C16-C34	mg/kg	100	1300	320	121%	5400	7440	32%	1600	1050	42%	4500	7030	44%	3900	2190	56%
TRH >C34-C40	mg/kg	100	350	110	104%	1400	2480	56%	760	590	25%	1600	3810	82%	1100	1120	2%
Total +ve TRH (>C10-C40)	mg/kg	50	1600	430	115%	6900	10000	37%	2400	1640	38%	6100	10900	56%	5000	3310	41%
Naphthalene	mg/kg	0.1	<1	1	-	7.7	4.1	61%	1.3	1.3	0%	3	2	40%	1.7	2.5	38%
Acenaphthylene	mg/kg	0.1	<1	<0.5	-	1	0.6	50%	<1	<0.5	-	1.7	0.8	72%	<1	0.6	-
Acenaphthene	mg/kg	0.1	2.7	1.6	51%	27	28.6	6%	4.2	3.6	15%	9.2	9.4	2%	5	11.6	80%
Fluorene	mg/kg	0.1	1.3	0.5	89%	10	17.4	54%	1.4	1.3	7%	4.3	3.9	10%	4	6.6	49%
Phenanthrene	mg/kg	0.1	17	8.1	71%	120	137	13%	16	21.2	28%	79	63.7	21%	51	92.1	57%
Anthracene	mg/kg	0.1	5.9	1.6	115%	28	30.8	10%	5.8	5	15%	15	10.9	32%	14	22.7	47%
Fluoranthene	mg/kg	0.1	52	24	74%	240	328	31%	43	53	21%	140	137	2%	140	295	71%
Pyrene	mg/kg	0.1	52	22.6	79%	230	326	35%	41	49.9	20%	130	127	2%	130	289	76%
Benzo(a)anthracene	mg/kg	0.1	46	15.5	99%	190	235	21%	27	29.2	8%	91	81.3	11%	160	289	57%
Chrysene	mg/kg	0.1	51	19.4	90%	150	229	42%	21	29.3	33%	73	79.1	8%	120	286	82%
Benzo(b,j,k)fluoranthene	mg/kg	0.2	100	40.9	84%	320	454	35%	45	68.2	41%	150	170.1	13%	300	611	68%
Benzo(a)pyrene	mg/kg	0.05	41	14.1	98%	210	290	32%	25	33.1	28%	85	80.8	5%	160	371	79%
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	22	9.2	82%	95	188	66%	11	22.3	68%	38	57.7	41%	73	256	111%
Dibenzo(a,h)anthracene	mg/kg	0.1	6	2.4	86%	24	62.6	89%	3	4.9	48%	10	13.6	31%	24	86	113%
Benzo(g,h,i)perylene	mg/kg	0.1	26	11.7	76%	100	249	85%	14	27.9	66%	42	69.3	49%	78	313	120%
Benzo(a)pyrene TEQ calc (zero)	mg/kg	0.5	65	23.4	94%	300	445	39%	37	50.5	31%	120	127	6%	230	578	86%
Benzo(a)pyrene TEQ calc (half)	mg/kg	0.5	65	23.4	94%	300	445	39%	37	50.5	31%	120	127	6%	230	578	86%
Benzo(a)pyrene TEQ calc (PQL)	mg/kg	0.5	65	23.4	94%	300	445	39%	37	50.5	31%	120	127	6%	230	578	86%
Total +ve PAH's	mg/kg	0.5	430	173	85%	1800	2580	36%	260	350	30%	860	907	5%	1300	2930	77%
Arsenic	mg/kg	4	6	5	18%	120	25	131%	92	42	75%	8	7	13%	39	26	40%
Cadmium	mg/kg	0.4	0.5	<1	-	0.6	<1	18%	0.5	<1	0%	0.7	<1	33%	1	<1	67%
Copper	mg/kg	24	72	100%	260	120	74%	400	216	60%	41	31	28%	230	72	105%	
Lead	mg/kg	25	94	116%	490	222	75%	330	184	57%	20	31	43%	210	77	93%	
Molybdenum	mg/kg	1	2	<2	67%	9	3	100%	9	6	40%	6	<2	143%	10	3	108%
Nickel	mg/kg	43	47	9%	83	280	109%	49	71	37%	80	70	13%	170	109	44%	
Tin	mg/kg	1	2	17	158%	10	7	35%	16	7	78%	3	<5	18%	14	5	95%
Zinc	mg/kg	170	516	101%	2500	747	108%	3700	1040	112%	98	178	58%	4600	778	142%	
Free Cyanide in soil	mg/kg	0.5	0.9	<1	57%	1	<1	-	5	<8	22%	3	<1	143%	4	<8	-
Total Cyanide	mg/kg	110	119	8%	120	80	40%	220	231	5%	110	154	33%	200	240	18%	
Total Fluoride	mg/kg	35411	23100	42%	25702	36500	35%	36790	38600	5%	34822	33500	4%	32566	38400	16%	

Table F2: RPD Assessment of Duplicate CWS Waste Samples - mg/kg (continued)

Contaminant	Units	LOR	Primary Sample	Duplicate Sample	%RPD	Primary Sample	Duplicate Sample	%RPD	Primary Sample	Duplicate Sample	%RPD	Primary Sample	Duplicate Sample	%RPD	Primary Sample	Duplicate Sample	%RPD
			MW206 - BULK 1st sub-sample	QA206		MW201 - 1st sub-sample >125mm	QA201 >125mm		MW203 - 1st sub-sample >125mm	QA203 >125mm		MW201 - 1st sub-sample <125mm	QA201 <125mm		MW203 - 1st sub-sample <125mm	QA203 <125mm	
TRH C6 - C9	mg/kg	25	<25	<10	-	<25	12	4%	<25	<10	-	<25	<10	-	<25	<10	-
TRH C15 - C28	mg/kg	100	4000	5360	29%	<100	<100	-	<100	<100	-	520	250	70%	990	630	44%
TRH C29 - C36	mg/kg	100	4600	7930	53%	<100	<100	-	<100	<100	-	510	280	58%	1600	1010	45%
TRH >C10-C16	mg/kg	50	93	90	3%	<50	<50	-	<50	<50	-	<50	<50	-	<50	<50	-
TRH >C10 - C16 less Naphthalene	mg/kg	50	93	90	3%	<50	<50	-	<50	<50	-	<50	<50	-	<50	<50	-
TRH >C16-C34	mg/kg	100	7700	10600	32%	<100	<100	-	<100	<100	-	920	440	71%	2200	1290	52%
TRH >C34-C40	mg/kg	100	2000	5250	90%	<100	<100	-	<100	<100	-	270	170	45%	1100	800	32%
Total +ve TRH (>C10-C40)	mg/kg	50	9700	15900	48%	<50	<50	-	<50	<50	-	1200	610	65%	3300	2090	45%
Naphthalene	mg/kg	0.1	1.8	2.2	20%	1.2	0.5	82%	0.3	<0.5	18%	1.4	1.6	13%	0.8	1.1	32%
Acenaphthylene	mg/kg	0.1	<1	0.7	33%	<0.1	<0.5	-	<0.1	<0.5	-	0.2	<0.5	22%	0.2	<0.5	22%
Acenaphthene	mg/kg	0.1	15	22.8	41%	0.7	<0.5	95%	0.7	<0.5	95%	1.9	1.9	0%	3.7	3.7	0%
Fluorene	mg/kg	0.1	13.1	7.3	57%	<0.1	<0.5	-	0.1	<0.5	86%	1	0.7	35%	1.4	1.4	0%
Phenanthrene	mg/kg	0.1	98	154	44%	2.3	<0.5	161%	5.4	0.9	143%	14	8.6	48%	24	17.9	29%
Anthracene	mg/kg	0.1	28	47.4	51%	0.7	<0.5	95%	0.8	<0.5	105%	3.1	1.7	58%	6.7	4	50%
Fluoranthene	mg/kg	0.1	230	438	62%	3.3	<0.5	172%	9.9	1	163%	34	23.1	38%	60	42.8	33%
Pyrene	mg/kg	0.1	210	410	65%	2.9	<0.5	168%	9.1	0.9	164%	32	21.7	38%	56	39.6	34%
Benzo(a)anthracene	mg/kg	0.1	250	452	58%	0.6	<0.5	82%	2.8	<0.5	167%	31	15.3	68%	32	25.3	23%
Chrysene	mg/kg	0.1	210	444	72%	0.7	<0.5	95%	2.6	<0.5	165%	30	18.5	47%	30	26.2	14%
Benzo(b,j,k)fluoranthene	mg/kg	0.2	460	1008	75%	0.4	<0.5	46%	3.1	<0.5	170%	55	40.8	30%	57	61.8	8%
Benzo(a)pyrene	mg/kg	0.05	290	563	64%	0.2	<0.5	22%	1.4	<0.5	139%	29	14.2	69%	36	29.4	20%
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	140	395	95%	<0.1	<0.5	-	0.3	<0.5	18%	16	9.2	54%	18	19.1	6%
Dibenzo(a,h)anthracene	mg/kg	0.1	61	98.3	47%	<0.1	<0.5	-	0.1	<0.5	86%	5.9	2.6	78%	6.3	4.8	27%
Benzo(g,h,i)perylene	mg/kg	0.1	140	464	107%	<0.1	<0.5	-	0.4	<0.5	46%	17	11.9	35%	21	25.2	18%
Benzo(a)pyrene TEQ calc (zero)	mg/kg	0.5	440	856	64%	<0.5	<0.5	-	2.2	<0.5	159%	46	23.6	64%	53	45.3	16%
Benzo(a)pyrene TEQ calc (half)	mg/kg	0.5	440	856	64%	<0.5	0.6	82%	2.2	0.6	114%	46	23.6	64%	53	45.3	16%
Benzo(a)pyrene TEQ calc (PQL)	mg/kg	0.5	440	856	64%	<0.5	1.2	131%	2.2	1.2	59%	46	23.6	64%	53	45.3	16%
Total +ve PAH's	mg/kg	0.5	2200	4510	69%	13	0.5	185%	37	2.8	172%	270	172	44%	350	302	15%
Arsenic	mg/kg	4	13	10	26%	<4	<5	-	4	<5	46%	7	6	15%	330	18	179%
Cadmium	mg/kg	0.4	0.7	<1	33%	<0.4	<1	-	<0.4	<1	-	<0.4	<1	-	0.5	<1	0%
Copper	mg/kg	54	43	23%	9	8	12%	6	<5	82%	17	18	6%	420	290	37%	
Lead	mg/kg	42	30	33%	3	<5	18%	6	<5	82%	21	18	15%	220	242	10%	
Molybdenum	mg/kg	1	6	4	40%	1	<2	0%									

Table F3: RPD Assessment of Duplicate CWS Waste Samples - mg/L (ALS Environmental)

Contaminant	Unit	LOR	Primary Sample	Duplicate Sample	%RPD	Primary Sample	Duplicate Sample	%RPD	Primary Sample	Duplicate Sample	%RPD	Primary Sample	Duplicate Sample	%RPD	Primary Sample	Duplicate Sample	%RPD
			MW201 - BULK 1st sub sample	QA201		MW202 - BULK 1st sub sample	QA202		MW203 - BULK 1st sub sample	QA203		MW204 - BULK 1st sub sample	QA204		MW205 - BULK 1st sub sample	QA205	
Naphthalene in TCLP	mg/L	0.001	<0.001	<0.001	-	0.021	0.0144	37%	<0.001	0.003	-	0.002	0.002	0%	<0.001	0.0014	-
Acenaphthene in TCLP	mg/L	0.001	<0.001	<0.001	-	0.006	0.0138	79%	<0.001	0.0014	-	0.002	0.0032	46%	<0.001	0.0013	-
Fluorene in TCLP	mg/L	0.001	<0.001	<0.001	-	<0.001	0.0044	-	<0.001	<0.001	-	<0.001	<0.001	-	<0.001	<0.001	-
Phenanthrene in TCLP	mg/L	0.001	<0.001	<0.001	-	0.006	0.0123	69%	<0.001	0.0013	-	0.006	0.0053	12%	0.002	0.0039	64%
Anthracene in TCLP	mg/L	0.001	<0.001	<0.001	-	0.001	0.0022	75%	<0.001	<0.001	-	0.001	<0.001	67%	<0.001	<0.001	-
Fluoranthene in TCLP	mg/L	0.001	0.001	<0.001	67%	0.001	0.0055	138%	<0.001	<0.001	-	0.003	0.0027	11%	0.002	0.0037	60%
Pyrene in TCLP	mg/L	0.001	0.001	<0.001	67%	0.001	0.0046	129%	<0.001	<0.001	-	0.002	0.002	0%	0.001	0.0031	102%
Benzo(a)anthracene in TCLP	mg/L	0.001	<0.001	<0.001	-	<0.001	<0.001	-	<0.001	<0.001	-	0.001	<0.001	67%	<0.001	<0.001	-
Chrysene in TCLP	mg/L	0.001	<0.001	<0.001	-	<0.001	<0.001	-	<0.001	<0.001	-	<0.001	<0.001	-	<0.001	<0.001	-
Benzo(b)fluoranthene in TCLP	mg/L	0.002	<0.002	<0.001	-	<0.002	<0.001	-	<0.002	<0.001	-	<0.002	<0.001	-	<0.002	<0.001	-
Indeno(1,2,3-c,d)pyrene - TCLP	mg/L	0.001	<0.001	<0.001	-	<0.001	<0.001	-	<0.001	<0.001	-	<0.001	<0.001	-	<0.001	<0.001	-
Benzo(g,h,i)perylene in TCLP	mg/L	0.001	<0.001	<0.001	-	<0.001	<0.001	-	<0.001	<0.001	-	<0.001	<0.001	-	<0.001	<0.001	-
Total +ve PAHs	mg/L		0.002	<0.005	22%	0.037	0.0572	43%	NIL (+)VE	0.0057	-	0.018	0.0152	17%	0.005	0.0134	91%
Tot Cyanide in Neutral Leach (ASLP)	mg/L		4.6	0.91	134%	2.5	2.15	15%	9.6	3.68	89%	5.9	7.44	23%	7.9	2.6	101%
Fluoride in TCLP	mg/L		159.5	134	17%	184.6	262	35%	142	770	138%	96.5	682	150%	83.4	209	86%

Table F3: RPD Assessment of Duplicate CWS Waste Samples - mg/L (ALS Environmental) (continued)

Contaminant	Unit	LOR	Primary Sample	Duplicate Sample	%RPD	Primary Sample	Duplicate Sample	%RPD	Primary Sample	Duplicate Sample	%RPD	Primary Sample	Duplicate Sample	%RPD	Primary Sample	Duplicate Sample	%RPD
			MW206 - BULK 1st sub sample	QA206		MW201 - 1st sub-sample>125mm	QA201>125mm		MW203 - 1st sub-sample>125mm	QA203>125mm		MW201 - 1st sub-sample<125mm	QA201<125mm		MW203 - 1st sub-sample<125mm	QA203<125mm	
Naphthalene in TCLP	mg/L	0.001	0.001	0.0014	33%	<0.001	<0.001	-	<0.001	<0.001	-	0.001	<0.001	67%	0.003	0.0023	26%
Acenaphthene in TCLP	mg/L	0.001	0.002	0.0026	26%	<0.001	<0.001	-	<0.001	<0.001	-	0.002	<0.001	120%	0.001	0.0014	33%
Fluorene in TCLP	mg/L	0.001	0.001	0.0015	40%	<0.001	<0.001	-	<0.001	<0.001	-	<0.001	<0.001	-	<0.001	<0.001	-
Phenanthrene in TCLP	mg/L	0.001	0.008	0.0108	30%	<0.001	<0.001	-	<0.001	<0.001	-	0.004	<0.001	156%	0.003	0.001	100%
Anthracene in TCLP	mg/L	0.001	0.003	0.0031	3%	<0.001	<0.001	-	<0.001	<0.001	-	<0.001	<0.001	-	<0.001	<0.001	-
Fluoranthene in TCLP	mg/L	0.001	0.005	0.0082	48%	<0.001	<0.001	-	<0.001	<0.001	-	0.004	<0.001	156%	0.001	<0.001	67%
Pyrene in TCLP	mg/L	0.001	0.004	0.0064	46%	<0.001	<0.001	-	<0.001	<0.001	-	0.003	<0.001	143%	0.001	<0.001	67%
Benzo(a)anthracene in TCLP	mg/L	0.001	0.001	<0.001	67%	<0.001	<0.001	-	<0.001	<0.001	-	0.001	<0.001	67%	<0.001	<0.001	-
Chrysene in TCLP	mg/L	0.001	0.001	<0.001	67%	<0.001	<0.001	-	<0.001	<0.001	-	0.002	<0.001	120%	<0.001	<0.001	-
Benzo(b)fluoranthene in TCLP	mg/L	0.002	<0.002	<0.001	-	<0.002	<0.001	-	<0.002	<0.001	-	0.002	<0.001	120%	<0.002	<0.001	-
Indeno(1,2,3-c,d)pyrene - TCLP	mg/L	0.001	<0.001	<0.001	-	<0.001	<0.001	-	<0.001	<0.001	-	0.001	<0.001	67%	<0.001	<0.001	-
Benzo(g,h,i)perylene in TCLP	mg/L	0.001	<0.001	<0.001	-	<0.001	<0.001	-	<0.001	<0.001	-	0.001	<0.001	67%	<0.001	<0.001	-
Total +ve PAHs	mg/L		0.026	0.034	27%	NIL (+)VE	<0.005	-	NIL (+)VE	<0.005	-	0.022	<0.005	159%	0.009	0.0047	63%
Tot Cyanide in Neutral Leach (ASLP)	mg/L		6.8	2.26	100%	2.8	0.079	189%	3.1	0.042	195%	3.6	1.91	61%	7.1	4.22	51%
Fluoride in TCLP	mg/L		165.6	788	131%	165.9	155	7%	62.8	27	80%	129.3	131	1%	62.8	777	170%

Table F4: RPD Assessment of Duplicate CWS Waste Samples - mg/L (Eurofins Scientific)

Contaminant	Unit	LOR	Primary Sample	Duplicate Sample		Primary Sample	Duplicate Sample		Primary Sample	Duplicate Sample		Primary Sample	Duplicate Sample		Primary Sample	Duplicate Sample	
			MW201 - BULK 1st sub sample	QA201	%RPD	MW202 - BULK 1st sub sample	QA202	%RPD	MW203 - BULK 1st sub sample	QA203	%RPD	MW204 - BULK 1st sub sample	QA204	%RPD	MW205 - BULK 1st sub sample	QA205	%RPD
Total Cyanide in Neutral Leach (ASLP)	mg/L	0.25	4.6	< 0.25	189%	2.5	< 0.25	181%	9.6	< 0.25	195%	5.9	< 0.25	192%	7.9	< 0.25	194%
Fluoride in TCLP	mg/L	0.2	159.5	48	107%	184.6	150	21%	142	280	65%	96.5	450	129%	83.4	46	58%

Table F4: RPD Assessment of Duplicate CWS Waste Samples - mg/L (Eurofins Scientific)

Contaminant	Unit	LOR	Primary Sample	Duplicate Sample		Primary Sample	Duplicate Sample		Duplicate Sample		Primary Sample	Duplicate Sample		Primary Sample	Duplicate Sample		
			MW206 - BULK 1st sub sample	QA206	%RPD	MW201 - 1st sub-sample<125mm	QA201<125mm	%RPD	MW201 - 1st sub-sample>125mm	QA201>125mm	%RPD	MW203 - 1st sub-sample<125mm	QA203<125mm	%RPD	MW203 - 1st sub-sample>125mm	QA203>125mm	%RPD
Total Cyanide in Neutral Leach (ASLP)	mg/L	0.25	6.8	< 0.25	193%	3.6	< 0.25	187%	2.8	< 0.25	183%	7.1	< 0.25	193%	3.1	< 0.25	184%
Fluoride in TCLP	mg/L	0.2	165.6	120	32%	129.3	78	49%	165.9	320	63%	62.8	57	10%	62.8	180	97%

Table F5: RPD Assessment of Duplicate Monolith Eluate (T09) Samples - mg/L (ALS Environmental)

Contaminant	Unit	LOR	Primary Sample	Duplicate Sample	%RPD	Primary Sample	Duplicate Sample	%RPD	Primary Sample	Duplicate Sample	%RPD	Primary Sample	Duplicate Sample	%RPD	Primary Sample	Duplicate Sample	%RPD
			MW201 >125 T09	162119-D-9	%RPD	MW202 >125 T09	162119-D-18	%RPD	MW203 >125 T09	162119-D-27	%RPD	MW204 >125 T09	162119-D-36	%RPD	MW205 >125 T09	162119-D-45	%RPD
FILTERED																	
Total Cyanide in Eluates	mg/L	0.004	0.24	0.281	16%	<0.004	<0.004	-	0.27	0.257	5%	0.26	0.22	17%	0.018	0.028	43%
Fluoride, F in Eluates	mg/L	0.1	35	35.5	1%	0.4	0.4	0%	130	142	9%	170	190	11%	1.5	1.2	22%

Contaminant	Unit	LOR	Primary Sample	Duplicate Sample	%RPD	Primary Sample	Duplicate Sample	%RPD	Primary Sample	Duplicate Sample	%RPD	Primary Sample	Duplicate Sample	%RPD	Primary Sample	Duplicate Sample	%RPD
			MW206 >125 T09	162119-D-54	%RPD	MW201 - 2nd sub-sample >125mm T09	162119-D-153	%RPD	MW202 - 2nd sub-sample >125mm T09	162119-D-162	%RPD	MW203 - 2nd sub-sample >125mm T09	162119-D-171	%RPD	MW204 - 2nd sub-sample >125mm T09	162119-D-180	%RPD
FILTERED																	
Total Cyanide in Eluates	mg/L	0.004	0.21	0.206	2%	0.46	0.448	3%	<0.004	<0.004	-	1.6	1.51	6%	0.45	0.405	11%
Fluoride, F in Eluates	mg/L	0.1	140	160	13%	71	87	20%	0.7	0.9	25%	95	106	11%	110	122	10%

Contaminant	Unit	LOR	Primary Sample	Duplicate Sample	%RPD	Primary Sample	Duplicate Sample	%RPD	Primary Sample	Duplicate Sample	%RPD	Primary Sample	Duplicate Sample	%RPD	Primary Sample	Duplicate Sample	%RPD
			MW205 - 2nd sub-sample >125mm T09	162119-D-189	%RPD	MW206 - 2nd sub-sample >125mm T09	162119-D-198	%RPD	MW201 + 50% Lime WET T09	162119-D-207	%RPD	MW202 + 50% Lime WET T09	162119-D-216	%RPD	MW203 + 50% Lime WET T09	162119-D-225	%RPD
FILTERED																	
Total Cyanide in Eluates	mg/L	0.004	0.19	0.199	5%	0.34	0.312	9%	0.011	0.01	10%	0.008	0.008	0%	<0.004	<0.004	-
Fluoride, F in Eluates	mg/L	0.1	150	156	4%	220	494	77%	2.6	2.8	7%	3.5	3.1	12%	4	3.5	13%

Contaminant	Unit	LOR	Primary Sample	Duplicate Sample	%RPD	Primary Sample	Duplicate Sample	%RPD	Primary Sample	Duplicate Sample	%RPD	Primary Sample	Duplicate Sample	%RPD	Primary Sample	Duplicate Sample	%RPD
			MW204 + 50% Lime WET T09	162119-D-234	%RPD	MW205 + 50% Lime WET T09	162119-D-243	%RPD	MW206 + 50% Lime WET T09	162119-D-252	%RPD	MW201 + 30% Cement WET T09	162119-D-261	%RPD	MW202 + 30% Cement WET T09	162119-D-270	%RPD
FILTERED																	
Total Cyanide in Eluates	mg/L	0.004	0.011	0.012	9%	0.007	0.009	25%	<0.004	0.005	86%	0.029	0.025	15%	0.049	0.036	31%
Fluoride, F in Eluates	mg/L	0.1	3.7	3.2	14%	3.7	3.2	14%	2.9	2.6	11%	14	13.3	5%	37	39.1	6%

Contaminant	Unit	LOR	Primary Sample	Duplicate Sample	%RPD	Primary Sample	Duplicate Sample	%RPD	Primary Sample	Duplicate Sample	%RPD	Primary Sample	Duplicate Sample	%RPD	Primary Sample	Duplicate Sample	%RPD
			MW203+ 30% Cement WET T09	162119-D-279	%RPD	MW204 + 30% Cement WET T09	162119-D-288	%RPD	MW206 + 30% Cement WET T09	162119-D-306	%RPD	SPL_First Cut_1 T09	162119-D-63	%RPD	SPL_First Cut_2 T09	162119-D-72	%RPD
FILTERED																	
Total Cyanide in Eluates	mg/L	0.004	0.08	0.056	35%	0.062	0.049	23%	0.079	0.065	19%	0.054	0.037	37%	<0.004	<0.004	-
Fluoride, F in Eluates	mg/L	0.1	55	57.6	5%	42	43.3	3%	23	21.2	8%	20	17.4	14%	72	92.7	25%

Contaminant	Unit	LOR	Primary Sample	Duplicate Sample	%RPD	Primary Sample	Duplicate Sample	%RPD	Primary Sample	Duplicate Sample	%RPD	Primary Sample	Duplicate Sample	%RPD	Primary Sample	Duplicate Sample	%RPD
			SPL_First Cut_3 T09	162119-D-81	%RPD	SPL_First Cut_4 T09	162119-D-90	%RPD	SPL_First Cut_5 T09	162119-D-99	%RPD	SPL_Second Cut_1 T09	162119-D-108	%RPD	SPL_Second Cut_2 T09	162119-D-117	%RPD
FILTERED																	
Total Cyanide in Eluates	mg/L	0.004	36	35.4	2%	0.016	0.014	13%	<0.004	0.007	111%	<0.004	<0.004	-	<0.004	<0.004	-
Fluoride, F in Eluates	mg/L	0.1	26	31.3	18%	61	65	6%	1.3	1.4	7%	0.3	0.2	40%	0.6	0.6	0%

Contaminant	Unit	LOR	Primary Sample	Duplicate Sample	%RPD	Primary Sample	Duplicate Sample	%RPD	Primary Sample	Duplicate Sample	%RPD
			SPL_Second Cut_3 T09	162119-D-126	%RPD	SPL_Second Cut_4 T09	162119-D-135	%RPD	SPL_Second Cut_5 T09	162119-D-144	%RPD
FILTERED											
Total Cyanide in Eluates	mg/L	0.004	<0.004	<0.004	-	<0.004	<0.004	-	<0.004	<0.004	-
Fluoride, F in Eluates	mg/L	0.1	0.2	0.2	0%	0.3	0.3	0%	0.2	0.1	67%

**APPENDIX G**  
**LABORATORY REPORTS**



## **CERTIFICATE OF ANALYSIS 162119**

### **Client Details**

<b>Client</b>	Ramboll Environ Australia Pty Ltd
<b>Attention</b>	Fiona Robinson, Stephen Cadman, Craig Goodbody
<b>Address</b>	Level 2, Suite 19B, 50 Glebe Road, PO Box 435, The Junction, NSW, 2261

### **Sample Details**

<b>Your Reference</b>	<b><u>Hydro Aluminium AS130515</u></b>
<b>Number of Samples</b>	Bulk Waste, Bricks and Fines
<b>Date samples received</b>	16/02/2017
<b>Date completed instructions received</b>	Quote 16SY449

### **Analysis Details**

Please refer to the following pages for results, methodology summary and quality control data.  
Samples were analysed as received from the client. Results relate specifically to the samples as received.  
Results are reported on a dry weight basis for solids and on an as received basis for other matrices.  
**Please refer to the last page of this report for any comments relating to the results.**

### **Report Details**

<b>Date results requested by</b>	01/06/2017
<b>Date of Issue</b>	27/06/2017

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#### **Asbestos Approved By**

Authorised by Asbestos Approved Signatory: Paul Ching

#### **Results Approved By**

Simon Mills,

#### **Authorised By**

David Springer, General Manager

Client Reference: Hydro Aluminium AS130515

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		162119-1	162119-2	162119-3	162119-4	162119-5
Your Reference	UNITS	MW201 - BULK 1st sub-sample	MW202 - BULK 1st sub-sample	MW203 - BULK 1st sub-sample	MW204 - BULK 1st sub-sample	MW205 - BULK 1st sub-sample
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	10/03/2017	10/03/2017	10/03/2017	10/03/2017	10/03/2017
Date analysed	-	13/03/2017	13/03/2017	13/03/2017	13/03/2017	13/03/2017
TRH C <sub>6</sub> - C <sub>9</sub>	mg/kg	<25	<25	<25	<25	<25
TRH C <sub>6</sub> - C <sub>10</sub>	mg/kg	<25	<25	<25	<25	<25
vTPH C <sub>6</sub> - C <sub>10</sub> less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	<1	6	2	<1	<1
Surrogate aaa-Trifluorotoluene	%	88	87	91	92	94

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		162119-6	162119-7	162119-8	162119-9	162119-10
Your Reference	UNITS	MW206 - BULK 1st sub-sample	MW201 - 1st sub- sample>125mm	MW202 - 1st sub- sample>125mm	MW203 - 1st sub- sample>125mm	MW204 - 1st sub- sample>125mm
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	10/03/2017	10/03/2017	10/03/2017	10/03/2017	10/03/2017
Date analysed	-	13/03/2017	13/03/2017	13/03/2017	13/03/2017	13/03/2017
TRH C <sub>6</sub> - C <sub>9</sub>	mg/kg	<25	<25	<25	<25	<25
TRH C <sub>6</sub> - C <sub>10</sub>	mg/kg	<25	<25	<25	<25	<25
vTPH C <sub>6</sub> - C <sub>10</sub> less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	<1	<1	<1	<1	2
Surrogate aaa-Trifluorotoluene	%	87	93	90	89	79

Client Reference: Hydro Aluminium AS130515

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		162119-11	162119-12	162119-25	162119-26	162119-27
Your Reference	UNITS	MW205 - 1st sub-sample>125mm	MW206 - 1st sub-sample>125mm	MW201 - 1st sub-sample<125mm	MW202 - 1st sub-sample<125mm	MW203 - 1st sub-sample<125mm
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	10/03/2017	10/03/2017	10/03/2017	10/03/2017	10/03/2017
Date analysed	-	13/03/2017	13/03/2017	13/03/2017	13/03/2017	13/03/2017
TRH C <sub>6</sub> - C <sub>9</sub>	mg/kg	<25	<25	<25	<25	<25
TRH C <sub>6</sub> - C <sub>10</sub>	mg/kg	<25	28	<25	<25	<25
vTPH C <sub>6</sub> - C <sub>10</sub> less BTEX (F1)	mg/kg	<25	28	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	<1	<1	<1	4	<1
Surrogate aaa-Trifluorotoluene	%	69	97	102	103	103

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		162119-28	162119-29	162119-30	162119-31	162119-32
Your Reference	UNITS	MW204 - 1st sub-sample<125mm	MW205 - 1st sub-sample<125mm	MW206 - 1st sub-sample<125mm	MW201 - BULK 2nd sub-sample	MW202 - BULK 2nd sub-sample
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	10/03/2017	10/03/2017	10/03/2017	10/03/2017	10/03/2017
Date analysed	-	13/03/2017	13/03/2017	13/03/2017	13/03/2017	13/03/2017
TRH C <sub>6</sub> - C <sub>9</sub>	mg/kg	<25	<25	<25	<25	<25
TRH C <sub>6</sub> - C <sub>10</sub>	mg/kg	<25	<25	<25	<25	<25
vTPH C <sub>6</sub> - C <sub>10</sub> less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	<1	<1	<1	<1	6
Surrogate aaa-Trifluorotoluene	%	94	100	98	95	94



Client Reference: Hydro Aluminium AS130515

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		162119-33	162119-34	162119-35	162119-36	162119-37
Your Reference	UNITS	MW203 - BULK 2nd sub-sample	MW204 - BULK 2nd sub-sample	MW205 - BULK 2nd sub-sample	MW206 - BULK 2nd sub-sample	MW201 - 2nd sub- sample>125mm
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	10/03/2017	10/03/2017	10/03/2017	10/03/2017	10/03/2017
Date analysed	-	13/03/2017	13/03/2017	13/03/2017	13/03/2017	13/03/2017
TRH C <sub>6</sub> - C <sub>9</sub>	mg/kg	<25	<25	<25	<25	<25
TRH C <sub>6</sub> - C <sub>10</sub>	mg/kg	<25	<25	<25	<25	<25
vTPH C <sub>6</sub> - C <sub>10</sub> less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	76	68	91	95	91

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		162119-38	162119-39	162119-40	162119-41	162119-42
Your Reference	UNITS	MW202 - 2nd sub- sample>125mm	MW203 - 2nd sub- sample>125mm	MW204 - 2nd sub- sample>125mm	MW205 - 2nd sub- sample>125mm	MW206 - 2nd sub- sample>125mm
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	10/03/2017	10/03/2017	10/03/2017	10/03/2017	10/03/2017
Date analysed	-	13/03/2017	13/03/2017	13/03/2017	13/03/2017	13/03/2017
TRH C <sub>6</sub> - C <sub>9</sub>	mg/kg	<25	<25	<25	<25	<25
TRH C <sub>6</sub> - C <sub>10</sub>	mg/kg	<25	<25	<25	<25	<25
vTPH C <sub>6</sub> - C <sub>10</sub> less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	<1	<1	2	<1	<1
Surrogate aaa-Trifluorotoluene	%	91	98	90	89	93

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vTRH(C6-C10)/BTEXN in Soil						
Our Reference		162119-43	162119-44	162119-45	162119-46	162119-47
Your Reference	UNITS	MW201 - 2nd sub-sample<125mm	MW202 - 2nd sub-sample<125mm	MW203 - 2nd sub-sample<125mm	MW204 - 2nd sub-sample<125mm	MW205 - 2nd sub-sample<125mm
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	10/03/2017	10/03/2017	10/03/2017	10/03/2017	10/03/2017
Date analysed	-	13/03/2017	13/03/2017	13/03/2017	13/03/2017	13/03/2017
TRH C <sub>6</sub> - C <sub>9</sub>	mg/kg	<25	<25	<25	<25	<25
TRH C <sub>6</sub> - C <sub>10</sub>	mg/kg	<25	<25	<25	<25	<25
vTPH C <sub>6</sub> - C <sub>10</sub> less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	<1	2	1	<1	<1
Surrogate aaa-Trifluorotoluene	%	94	92	98	95	95

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		162119-48	162119-49	162119-50	162119-51	162119-52
Your Reference	UNITS	MW206 - 2nd sub-sample<125mm	MW201 - BULK 3rd sub-sample	MW202 - BULK 3rd sub-sample	MW203 - BULK 3rd sub-sample	MW204 - BULK 3rd sub-sample
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	10/03/2017	10/03/2017	10/03/2017	10/03/2017	10/03/2017
Date analysed	-	13/03/2017	13/03/2017	13/03/2017	13/03/2017	13/03/2017
TRH C <sub>6</sub> - C <sub>9</sub>	mg/kg	<25	<25	<25	<25	<25
TRH C <sub>6</sub> - C <sub>10</sub>	mg/kg	<25	<25	<25	<25	<25
vTPH C <sub>6</sub> - C <sub>10</sub> less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	<1	<1	8	1	<1
Surrogate aaa-Trifluorotoluene	%	96	91	94	90	90

Client Reference: Hydro Aluminium AS130515

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		162119-53	162119-54	162119-55	162119-56	162119-57
Your Reference	UNITS	MW205 - BULK 3rd sub-sample	MW206 - BULK 3rd sub-sample	MW201 - BULK 4TH sub-sample	MW202 - BULK 4TH sub-sample	MW203 - BULK 4TH sub-sample
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	10/03/2017	10/03/2017	10/03/2017	10/03/2017	10/03/2017
Date analysed	-	13/03/2017	13/03/2017	13/03/2017	13/03/2017	13/03/2017
TRH C <sub>6</sub> - C <sub>9</sub>	mg/kg	<25	<25	<25	<25	<25
TRH C <sub>6</sub> - C <sub>10</sub>	mg/kg	<25	<25	<25	<25	<25
vTPH C <sub>6</sub> - C <sub>10</sub> less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	<1	<1	<1	7	1
Surrogate aaa-Trifluorotoluene	%	93	90	94	94	88

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		162119-58	162119-59	162119-60	162119-61	162119-62
Your Reference	UNITS	MW204 - BULK 4TH sub-sample	MW205 - BULK 4TH sub-sample	MW206 - BULK 4TH sub-sample	MW201 - BULK 5TH sub-sample	MW202 - BULK 5TH sub-sample
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	10/03/2017	10/03/2017	10/03/2017	10/03/2017	10/03/2017
Date analysed	-	13/03/2017	13/03/2017	13/03/2017	13/03/2017	13/03/2017
TRH C <sub>6</sub> - C <sub>9</sub>	mg/kg	<25	<25	<25	<25	<25
TRH C <sub>6</sub> - C <sub>10</sub>	mg/kg	<25	<25	<25	<25	<25
vTPH C <sub>6</sub> - C <sub>10</sub> less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	<1	<1	<1	<1	7
Surrogate aaa-Trifluorotoluene	%	89	91	93	91	91

Client Reference: Hydro Aluminium AS130515

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		162119-63	162119-64	162119-65	162119-66	162119-67
Your Reference	UNITS	MW203 - BULK 5TH sub-sample	MW204 - BULK 5TH sub-sample	MW205 - BULK 5TH sub-sample	MW206 - BULK 5TH sub-sample	MW201 - BULK 6TH sub-sample
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	10/03/2017	10/03/2017	10/03/2017	10/03/2017	10/03/2017
Date analysed	-	13/03/2017	13/03/2017	13/03/2017	13/03/2017	13/03/2017
TRH C <sub>6</sub> - C <sub>9</sub>	mg/kg	<25	<25	<25	<25	<25
TRH C <sub>6</sub> - C <sub>10</sub>	mg/kg	<25	<25	<25	<25	<25
vTPH C <sub>6</sub> - C <sub>10</sub> less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	90	92	91	91	93

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		162119-68	162119-69	162119-70	162119-71	162119-72
Your Reference	UNITS	MW202 - BULK 6TH sub-sample	MW203 - BULK 6TH sub-sample	MW204 - BULK 6TH sub-sample	MW205 - BULK 6TH sub-sample	MW206 - BULK 6TH sub-sample
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	10/03/2017	10/03/2017	10/03/2017	10/03/2017	10/03/2017
Date analysed	-	13/03/2017	13/03/2017	13/03/2017	13/03/2017	13/03/2017
TRH C <sub>6</sub> - C <sub>9</sub>	mg/kg	<25	<25	<25	<25	<25
TRH C <sub>6</sub> - C <sub>10</sub>	mg/kg	<25	<25	<25	<25	<25
vTPH C <sub>6</sub> - C <sub>10</sub> less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	8	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	93	92	89	93	90

Client Reference: Hydro Aluminium AS130515

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		162119-73	162119-74	162119-75	162119-76	162119-77
Your Reference	UNITS	MW201 + 50% Lime Dry	MW202 + 50% Lime Dry	MW203 + 50% Lime Dry	MW204 + 50% Lime Dry	MW205 + 50% Lime Dry
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	15/03/2017	15/03/2017	15/03/2017	15/03/2017	15/03/2017
Date analysed	-	16/03/2017	16/03/2017	16/03/2017	16/03/2017	16/03/2017
TRH C <sub>6</sub> - C <sub>9</sub>	mg/kg	<25	<25	<25	<25	<25
TRH C <sub>6</sub> - C <sub>10</sub>	mg/kg	<25	<25	<25	<25	<25
vTPH C <sub>6</sub> - C <sub>10</sub> less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	<1	4	1	<1	<1
Surrogate aaa-Trifluorotoluene	%	97	93	88	91	87

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		162119-78	162119-79	162119-80	162119-81	162119-82
Your Reference	UNITS	MW206 + 50% Lime Dry	MW201 + 50% CaCl <sub>2</sub> DRY	MW202 + 50% CaCl <sub>2</sub> DRY	MW203 + 50% CaCl <sub>2</sub> DRY	MW204 + 50% CaCl <sub>2</sub> DRY
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	15/03/2017	15/03/2017	15/03/2017	15/03/2017	15/03/2017
Date analysed	-	16/03/2017	16/03/2017	16/03/2017	16/03/2017	16/03/2017
TRH C <sub>6</sub> - C <sub>9</sub>	mg/kg	<25	<25	<25	<25	<25
TRH C <sub>6</sub> - C <sub>10</sub>	mg/kg	<25	<25	<25	<25	<25
vTPH C <sub>6</sub> - C <sub>10</sub> less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	<1	<1	3	<1	<1
Surrogate aaa-Trifluorotoluene	%	83	91	89	89	90

Client Reference: Hydro Aluminium AS130515

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		162119-83	162119-84	162119-85	162119-86	162119-87
Your Reference	UNITS	MW205 + 50% CaCl2 DRY	MW206 + 50% CaCl2 DRY	MW201 + 30 Cement DRY	MW202 + 30 Cement DRY	MW203 + 30 Cement DRY
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	15/03/2017	15/03/2017	15/03/2017	15/03/2017	15/03/2017
Date analysed	-	16/03/2017	16/03/2017	16/03/2017	16/03/2017	16/03/2017
TRH C <sub>6</sub> - C <sub>9</sub>	mg/kg	<25	<25	<25	<25	<25
TRH C <sub>6</sub> - C <sub>10</sub>	mg/kg	<25	<25	<25	<25	<25
vTPH C <sub>6</sub> - C <sub>10</sub> less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	<1	<1	<1	6	2
Surrogate aaa-Trifluorotoluene	%	83	83	88	85	90

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		162119-88	162119-89	162119-90	162119-91	162119-92
Your Reference	UNITS	MW204 + 30 Cement DRY	MW205 + 30 Cement DRY	MW206 + 30 Cement DRY	MW201 + 50% Lime WET	MW202 + 50% Lime WET
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	15/03/2017	15/03/2017	15/03/2017	15/03/2017	15/03/2017
Date analysed	-	16/03/2017	16/03/2017	16/03/2017	16/03/2017	16/03/2017
TRH C <sub>6</sub> - C <sub>9</sub>	mg/kg	<25	<25	<25	<25	<25
TRH C <sub>6</sub> - C <sub>10</sub>	mg/kg	<25	<25	<25	<25	<25
vTPH C <sub>6</sub> - C <sub>10</sub> less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	<1	<1	<1	<1	5
Surrogate aaa-Trifluorotoluene	%	88	90	90	70	77

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vTRH(C6-C10)/BTEXN in Soil						
Our Reference		162119-93	162119-94	162119-95	162119-96	162119-97
Your Reference	UNITS	MW203 + 50% Lime WET	MW204 + 50% Lime WET	MW205 + 50% Lime WET	MW206 + 50% Lime WET	MW201 + 50% CaCl2 WET
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	15/03/2017	15/03/2017	15/03/2017	15/03/2017	15/03/2017
Date analysed	-	16/03/2017	16/03/2017	16/03/2017	16/03/2017	16/03/2017
TRH C <sub>6</sub> - C <sub>9</sub>	mg/kg	<25	<25	<25	<25	<25
TRH C <sub>6</sub> - C <sub>10</sub>	mg/kg	<25	<25	<25	<25	<25
vTPH C <sub>6</sub> - C <sub>10</sub> less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	79	78	76	76	79

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		162119-98	162119-99	162119-100	162119-101	162119-102
Your Reference	UNITS	MW202 + 50% CaCl2 WET	MW203 + 50% CaCl2 WET	MW204 + 50% CaCl2 WET	MW205 + 50% CaCl2 WET	MW206 + 50% CaCl2 WET
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	15/03/2017	15/03/2017	15/03/2017	15/03/2017	15/03/2017
Date analysed	-	16/03/2017	16/03/2017	16/03/2017	16/03/2017	16/03/2017
TRH C <sub>6</sub> - C <sub>9</sub>	mg/kg	<25	<25	<25	<25	<25
TRH C <sub>6</sub> - C <sub>10</sub>	mg/kg	<25	<25	<25	<25	<25
vTPH C <sub>6</sub> - C <sub>10</sub> less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	2	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	82	82	83	83	82

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		162119-103	162119-104	162119-105	162119-106	162119-107
Your Reference	UNITS	MW201 + 30% Cement WET	MW202 + 30% Cement WET	MW203 + 30% Cement WET	MW204 + 30% Cement WET	MW205 + 30% Cement WET
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	15/03/2017	15/03/2017	15/03/2017	15/03/2017	15/03/2017
Date analysed	-	16/03/2017	16/03/2017	16/03/2017	16/03/2017	16/03/2017
TRH C <sub>6</sub> - C <sub>9</sub>	mg/kg	<25	<25	<25	<25	<25
TRH C <sub>6</sub> - C <sub>10</sub>	mg/kg	<25	<25	<25	<25	<25
vTPH C <sub>6</sub> - C <sub>10</sub> less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	<1	7	1	<1	<1
Surrogate aaa-Trifluorotoluene	%	83	83	84	67	66

vTRH(C6-C10)/BTEXN in Soil		
Our Reference		162119-108
Your Reference	UNITS	MW206 + 30% Cement WET
Date Sampled		10/02/2017
Type of sample		Soil
Date extracted	-	15/03/2017
Date analysed	-	16/03/2017
TRH C <sub>6</sub> - C <sub>9</sub>	mg/kg	<25
TRH C <sub>6</sub> - C <sub>10</sub>	mg/kg	<25
vTPH C <sub>6</sub> - C <sub>10</sub> less BTEX (F1)	mg/kg	<25
Benzene	mg/kg	<0.2
Toluene	mg/kg	<0.5
Ethylbenzene	mg/kg	<1
m+p-xylene	mg/kg	<2
o-Xylene	mg/kg	<1
Total +ve Xylenes	mg/kg	<1
naphthalene	mg/kg	<1
Surrogate aaa-Trifluorotoluene	%	81



svTRH (C10-C40) in Soil						
Our Reference		162119-1	162119-2	162119-3	162119-4	162119-5
Your Reference	UNITS	MW201 - BULK 1st sub-sample	MW202 - BULK 1st sub-sample	MW203 - BULK 1st sub-sample	MW204 - BULK 1st sub-sample	MW205 - BULK 1st sub-sample
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	13/03/2017	13/03/2017	13/03/2017	13/03/2017	13/03/2017
TRH C <sub>10</sub> - C <sub>14</sub>	mg/kg	<50	64	<50	58	<50
TRH C <sub>15</sub> - C <sub>28</sub>	mg/kg	700	3,200	740	2,300	2,100
TRH C <sub>29</sub> - C <sub>36</sub>	mg/kg	690	2,900	1,100	2,800	2,200
TRH >C <sub>10</sub> -C <sub>16</sub>	mg/kg	<50	160	<50	89	<50
TRH >C <sub>10</sub> - C <sub>16</sub> less Naphthalene (F2)	mg/kg	<50	150	<50	89	<50
TRH >C <sub>16</sub> -C <sub>34</sub>	mg/kg	1,300	5,400	1,600	4,500	3,900
TRH >C <sub>34</sub> -C <sub>40</sub>	mg/kg	350	1,400	760	1,600	1,100
Total +ve TRH (>C10-C40)	mg/kg	1,600	6,900	2,400	6,100	5,000
Surrogate o-Terphenyl	%	104	109	103	111	99

svTRH (C10-C40) in Soil						
Our Reference		162119-6	162119-7	162119-8	162119-9	162119-10
Your Reference	UNITS	MW206 - BULK 1st sub-sample	MW201 - 1st sub- sample>125mm	MW202 - 1st sub- sample>125mm	MW203 - 1st sub- sample>125mm	MW204 - 1st sub- sample>125mm
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	13/03/2017	13/03/2017	13/03/2017	13/03/2017	13/03/2017
TRH C <sub>10</sub> - C <sub>14</sub>	mg/kg	<50	<50	<50	<50	<50
TRH C <sub>15</sub> - C <sub>28</sub>	mg/kg	4,000	<100	180	<100	<100
TRH C <sub>29</sub> - C <sub>36</sub>	mg/kg	4,600	<100	<100	<100	<100
TRH >C <sub>10</sub> -C <sub>16</sub>	mg/kg	93	<50	<50	<50	<50
TRH >C <sub>10</sub> - C <sub>16</sub> less Naphthalene (F2)	mg/kg	93	<50	<50	<50	<50
TRH >C <sub>16</sub> -C <sub>34</sub>	mg/kg	7,700	<100	220	<100	<100
TRH >C <sub>34</sub> -C <sub>40</sub>	mg/kg	2,000	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	9,700	<50	220	<50	<50
Surrogate o-Terphenyl	%	107	90	99	97	88

svTRH (C10-C40) in Soil						
Our Reference		162119-11	162119-12	162119-25	162119-26	162119-27
Your Reference	UNITS	MW205 - 1st sub-sample>125mm	MW206 - 1st sub-sample>125mm	MW201 - 1st sub-sample<125mm	MW202 - 1st sub-sample<125mm	MW203 - 1st sub-sample<125mm
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	13/03/2017	13/03/2017	13/03/2017	13/03/2017	13/03/2017
TRH C <sub>10</sub> - C <sub>14</sub>	mg/kg	<50	74	<50	<50	<50
TRH C <sub>15</sub> - C <sub>28</sub>	mg/kg	700	<100	520	5,600	990
TRH C <sub>29</sub> - C <sub>36</sub>	mg/kg	780	<100	510	4,900	1,600
TRH >C <sub>10</sub> -C <sub>16</sub>	mg/kg	<50	69	<50	150	<50
TRH >C <sub>10</sub> - C <sub>16</sub> less Naphthalene (F2)	mg/kg	<50	69	<50	150	<50
TRH >C <sub>16</sub> -C <sub>34</sub>	mg/kg	1,300	<100	920	9,500	2,200
TRH >C <sub>34</sub> -C <sub>40</sub>	mg/kg	410	<100	270	1,800	1,100
Total +ve TRH (>C10-C40)	mg/kg	1,700	70	1,200	11,000	3,300
Surrogate o-Terphenyl	%	94	93	102	117	109

svTRH (C10-C40) in Soil						
Our Reference		162119-28	162119-29	162119-30	162119-31	162119-32
Your Reference	UNITS	MW204 - 1st sub-sample<125mm	MW205 - 1st sub-sample<125mm	MW206 - 1st sub-sample<125mm	MW201 - BULK 2nd sub-sample	MW202 - BULK 2nd sub-sample
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	13/03/2017	13/03/2017	13/03/2017	13/03/2017	13/03/2017
TRH C <sub>10</sub> - C <sub>14</sub>	mg/kg	<50	<50	<50	<50	64
TRH C <sub>15</sub> - C <sub>28</sub>	mg/kg	3,200	4,400	6,900	670	3,100
TRH C <sub>29</sub> - C <sub>36</sub>	mg/kg	2,700	4,400	7,800	690	2,800
TRH >C <sub>10</sub> -C <sub>16</sub>	mg/kg	74	64	96	<50	150
TRH >C <sub>10</sub> - C <sub>16</sub> less Naphthalene (F2)	mg/kg	74	64	96	<50	150
TRH >C <sub>16</sub> -C <sub>34</sub>	mg/kg	5,300	7,900	13,000	1,200	5,400
TRH >C <sub>34</sub> -C <sub>40</sub>	mg/kg	1,400	1,900	3,400	390	1,300
Total +ve TRH (>C10-C40)	mg/kg	6,800	9,900	17,000	1,600	6,900
Surrogate o-Terphenyl	%	120	111	123	95	104

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svTRH (C10-C40) in Soil						
Our Reference		162119-33	162119-34	162119-35	162119-36	162119-37
Your Reference	UNITS	MW203 - BULK 2nd sub-sample	MW204 - BULK 2nd sub-sample	MW205 - BULK 2nd sub-sample	MW206 - BULK 2nd sub-sample	MW201 - 2nd sub- sample>125mm
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	13/03/2017	13/03/2017	13/03/2017	13/03/2017	13/03/2017
TRH C <sub>10</sub> - C <sub>14</sub>	mg/kg	<50	69	<50	<50	<50
TRH C <sub>15</sub> - C <sub>28</sub>	mg/kg	680	2,200	1,900	4,000	<100
TRH C <sub>29</sub> - C <sub>36</sub>	mg/kg	1,100	2,700	2,100	4,600	<100
TRH >C <sub>10</sub> -C <sub>16</sub>	mg/kg	<50	85	<50	98	<50
TRH >C <sub>10</sub> - C <sub>16</sub> less Naphthalene (F2)	mg/kg	<50	85	<50	98	<50
TRH >C <sub>16</sub> -C <sub>34</sub>	mg/kg	1,500	4,300	3,600	7,700	<100
TRH >C <sub>34</sub> -C <sub>40</sub>	mg/kg	720	1,500	1,000	2,000	<100
Total +ve TRH (>C10-C40)	mg/kg	2,200	5,900	4,600	9,700	<50
Surrogate o-Terphenyl	%	100	106	96	104	73

svTRH (C10-C40) in Soil						
Our Reference		162119-38	162119-39	162119-40	162119-41	162119-42
Your Reference	UNITS	MW202 - 2nd sub- sample>125mm	MW203 - 2nd sub- sample>125mm	MW204 - 2nd sub- sample>125mm	MW205 - 2nd sub- sample>125mm	MW206 - 2nd sub- sample>125mm
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	13/03/2017	13/03/2017	13/03/2017	13/03/2017	13/03/2017
TRH C <sub>10</sub> - C <sub>14</sub>	mg/kg	<50	<50	<50	<50	50
TRH C <sub>15</sub> - C <sub>28</sub>	mg/kg	170	<100	<100	690	<100
TRH C <sub>29</sub> - C <sub>36</sub>	mg/kg	<100	<100	<100	750	<100
TRH >C <sub>10</sub> -C <sub>16</sub>	mg/kg	<50	<50	<50	<50	<50
TRH >C <sub>10</sub> - C <sub>16</sub> less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH >C <sub>16</sub> -C <sub>34</sub>	mg/kg	200	<100	<100	1,300	<100
TRH >C <sub>34</sub> -C <sub>40</sub>	mg/kg	<100	<100	<100	390	<100
Total +ve TRH (>C10-C40)	mg/kg	200	<50	<50	1,700	<50
Surrogate o-Terphenyl	%	98	93	87	93	75

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svTRH (C10-C40) in Soil						
Our Reference		162119-43	162119-44	162119-45	162119-46	162119-47
Your Reference	UNITS	MW201 - 2nd sub-sample<125mm	MW202 - 2nd sub-sample<125mm	MW203 - 2nd sub-sample<125mm	MW204 - 2nd sub-sample<125mm	MW205 - 2nd sub-sample<125mm
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	13/03/2017	13/03/2017	13/03/2017	13/03/2017	13/03/2017
TRH C <sub>10</sub> - C <sub>14</sub>	mg/kg	<50	51	<50	<50	<50
TRH C <sub>15</sub> - C <sub>28</sub>	mg/kg	510	5,600	970	3,500	4,600
TRH C <sub>29</sub> - C <sub>36</sub>	mg/kg	500	4,800	1,600	2,900	4,700
TRH >C <sub>10</sub> -C <sub>16</sub>	mg/kg	<50	160	<50	89	74
TRH >C <sub>10</sub> - C <sub>16</sub> less Naphthalene (F2)	mg/kg	<50	150	<50	89	74
TRH >C <sub>16</sub> -C <sub>34</sub>	mg/kg	910	9,500	2,200	5,800	8,300
TRH >C <sub>34</sub> -C <sub>40</sub>	mg/kg	230	2,000	1,100	1,500	2,000
Total +ve TRH (>C10-C40)	mg/kg	1,100	12,000	3,300	7,400	10,000
Surrogate o-Terphenyl	%	96	#	109	#	#

svTRH (C10-C40) in Soil						
Our Reference		162119-48	162119-49	162119-50	162119-51	162119-52
Your Reference	UNITS	MW206 - 2nd sub-sample<125mm	MW201 - BULK 3rd sub-sample	MW202 - BULK 3rd sub-sample	MW203 - BULK 3rd sub-sample	MW204 - BULK 3rd sub-sample
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	13/03/2017	13/03/2017	13/03/2017	13/03/2017	13/03/2017
TRH C <sub>10</sub> - C <sub>14</sub>	mg/kg	<50	<50	92	<50	71
TRH C <sub>15</sub> - C <sub>28</sub>	mg/kg	7,300	690	2,500	790	2,400
TRH C <sub>29</sub> - C <sub>36</sub>	mg/kg	8,000	720	2,200	1,200	2,800
TRH >C <sub>10</sub> -C <sub>16</sub>	mg/kg	110	<50	180	<50	100
TRH >C <sub>10</sub> - C <sub>16</sub> less Naphthalene (F2)	mg/kg	110	<50	180	<50	100
TRH >C <sub>16</sub> -C <sub>34</sub>	mg/kg	14,000	1,300	4,200	1,600	4,500
TRH >C <sub>34</sub> -C <sub>40</sub>	mg/kg	3,300	400	1,000	780	1,500
Total +ve TRH (>C10-C40)	mg/kg	17,000	1,700	5,400	2,400	6,100
Surrogate o-Terphenyl	%	#	98	123	105	127

svTRH (C10-C40) in Soil						
Our Reference		162119-53	162119-54	162119-55	162119-56	162119-57
Your Reference	UNITS	MW205 - BULK 3rd sub-sample	MW206 - BULK 3rd sub-sample	MW201 - BULK 4TH sub-sample	MW202 - BULK 4TH sub-sample	MW203 - BULK 4TH sub-sample
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	13/03/2017	13/03/2017	13/03/2017	13/03/2017	13/03/2017
TRH C <sub>10</sub> - C <sub>14</sub>	mg/kg	<50	54	<50	80	<50
TRH C <sub>15</sub> - C <sub>28</sub>	mg/kg	2,200	4,200	930	3,000	830
TRH C <sub>29</sub> - C <sub>36</sub>	mg/kg	2,300	4,800	830	2,700	1,200
TRH >C <sub>10</sub> -C <sub>16</sub>	mg/kg	58	110	<50	170	<50
TRH >C <sub>10</sub> - C <sub>16</sub> less Naphthalene (F2)	mg/kg	58	110	<50	160	<50
TRH >C <sub>16</sub> -C <sub>34</sub>	mg/kg	4,000	8,000	1,600	5,200	1,700
TRH >C <sub>34</sub> -C <sub>40</sub>	mg/kg	1,200	2,100	480	1,300	840
Total +ve TRH (>C10-C40)	mg/kg	5,200	10,000	2,100	6,600	2,600
Surrogate o-Terphenyl	%	104	137	101	125	102

svTRH (C10-C40) in Soil						
Our Reference		162119-58	162119-59	162119-60	162119-61	162119-62
Your Reference	UNITS	MW204 - BULK 4TH sub-sample	MW205 - BULK 4TH sub-sample	MW206 - BULK 4TH sub-sample	MW201 - BULK 5TH sub-sample	MW202 - BULK 5TH sub-sample
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	13/03/2017	13/03/2017	13/03/2017	13/03/2017	13/03/2017
TRH C <sub>10</sub> - C <sub>14</sub>	mg/kg	77	<50	<50	<50	67
TRH C <sub>15</sub> - C <sub>28</sub>	mg/kg	2,500	2,000	4,100	790	3,100
TRH C <sub>29</sub> - C <sub>36</sub>	mg/kg	2,900	2,200	4,600	750	2,700
TRH >C <sub>10</sub> -C <sub>16</sub>	mg/kg	110	58	91	<50	150
TRH >C <sub>10</sub> - C <sub>16</sub> less Naphthalene (F2)	mg/kg	110	58	91	<50	140
TRH >C <sub>16</sub> -C <sub>34</sub>	mg/kg	4,700	3,800	7,800	1,400	5,300
TRH >C <sub>34</sub> -C <sub>40</sub>	mg/kg	1,500	1,100	2,000	380	1,300
Total +ve TRH (>C10-C40)	mg/kg	6,400	5,000	9,900	1,800	6,700
Surrogate o-Terphenyl	%	123	103	130	96	123

svTRH (C10-C40) in Soil						
Our Reference		162119-63	162119-64	162119-65	162119-66	162119-67
Your Reference	UNITS	MW203 - BULK 5TH sub-sample	MW204 - BULK 5TH sub-sample	MW205 - BULK 5TH sub-sample	MW206 - BULK 5TH sub-sample	MW201 - BULK 6TH sub-sample
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	13/03/2017	13/03/2017	13/03/2017	13/03/2017	13/03/2017
TRH C <sub>10</sub> - C <sub>14</sub>	mg/kg	<50	82	<50	58	<50
TRH C <sub>15</sub> - C <sub>28</sub>	mg/kg	780	2,400	2,100	4,200	700
TRH C <sub>29</sub> - C <sub>36</sub>	mg/kg	1,200	2,900	2,200	4,700	750
TRH >C <sub>10</sub> -C <sub>16</sub>	mg/kg	<50	110	60	110	<50
TRH >C <sub>10</sub> - C <sub>16</sub> less Naphthalene (F2)	mg/kg	<50	110	60	110	<50
TRH >C <sub>16</sub> -C <sub>34</sub>	mg/kg	1,700	4,600	3,900	7,900	1,300
TRH >C <sub>34</sub> -C <sub>40</sub>	mg/kg	760	1,500	1,100	2,000	450
Total +ve TRH (>C10-C40)	mg/kg	2,400	6,300	5,000	10,000	1,700
Surrogate o-Terphenyl	%	100	123	104	138	97

svTRH (C10-C40) in Soil						
Our Reference		162119-68	162119-69	162119-70	162119-71	162119-72
Your Reference	UNITS	MW202 - BULK 6TH sub-sample	MW203 - BULK 6TH sub-sample	MW204 - BULK 6TH sub-sample	MW205 - BULK 6TH sub-sample	MW206 - BULK 6TH sub-sample
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	13/03/2017	13/03/2017	13/03/2017	13/03/2017	13/03/2017
TRH C <sub>10</sub> - C <sub>14</sub>	mg/kg	81	<50	85	<50	<50
TRH C <sub>15</sub> - C <sub>28</sub>	mg/kg	3,100	720	2,300	2,000	4,100
TRH C <sub>29</sub> - C <sub>36</sub>	mg/kg	2,800	1,100	2,800	2,100	4,600
TRH >C <sub>10</sub> -C <sub>16</sub>	mg/kg	170	<50	110	<50	85
TRH >C <sub>10</sub> - C <sub>16</sub> less Naphthalene (F2)	mg/kg	160	<50	110	<50	85
TRH >C <sub>16</sub> -C <sub>34</sub>	mg/kg	5,300	1,600	4,500	3,700	7,800
TRH >C <sub>34</sub> -C <sub>40</sub>	mg/kg	1,300	750	1,500	1,000	2,000
Total +ve TRH (>C10-C40)	mg/kg	6,700	2,300	6,100	4,700	9,900
Surrogate o-Terphenyl	%	125	96	121	99	136

svTRH (C10-C40) in Soil						
Our Reference		162119-73	162119-74	162119-75	162119-76	162119-77
Your Reference	UNITS	MW201 + 50% Lime Dry	MW202 + 50% Lime Dry	MW203 + 50% Lime Dry	MW204 + 50% Lime Dry	MW205 + 50% Lime Dry
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	15/03/2017	15/03/2017	15/03/2017	15/03/2017	16/03/2017
TRH C <sub>10</sub> - C <sub>14</sub>	mg/kg	<50	<50	<50	<50	<50
TRH C <sub>15</sub> - C <sub>28</sub>	mg/kg	290	1,900	490	1,900	2,300
TRH C <sub>29</sub> - C <sub>36</sub>	mg/kg	230	1,700	800	2,300	2,500
TRH >C <sub>10</sub> -C <sub>16</sub>	mg/kg	<50	96	<50	51	<50
TRH >C <sub>10</sub> - C <sub>16</sub> less Naphthalene (F2)	mg/kg	<50	92	<50	51	<50
TRH >C <sub>16</sub> -C <sub>34</sub>	mg/kg	480	3,200	1,100	3,600	4,300
TRH >C <sub>34</sub> -C <sub>40</sub>	mg/kg	<100	760	570	1,200	1,200
Total +ve TRH (>C10-C40)	mg/kg	480	4,100	1,600	4,900	5,500
Surrogate o-Terphenyl	%	105	118	118	119	116

svTRH (C10-C40) in Soil						
Our Reference		162119-78	162119-79	162119-80	162119-81	162119-82
Your Reference	UNITS	MW206 + 50% Lime Dry	MW201 + 50% CaCl <sub>2</sub> DRY	MW202 + 50% CaCl <sub>2</sub> DRY	MW203 + 50% CaCl <sub>2</sub> DRY	MW204 + 50% CaCl <sub>2</sub> DRY
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	16/03/2017	16/03/2017	16/03/2017	16/03/2017	16/03/2017
TRH C <sub>10</sub> - C <sub>14</sub>	mg/kg	<50	<50	<50	<50	<50
TRH C <sub>15</sub> - C <sub>28</sub>	mg/kg	3,900	420	2,100	580	1,600
TRH C <sub>29</sub> - C <sub>36</sub>	mg/kg	4,600	320	1,900	850	1,900
TRH >C <sub>10</sub> -C <sub>16</sub>	mg/kg	66	<50	72	<50	<50
TRH >C <sub>10</sub> - C <sub>16</sub> less Naphthalene (F2)	mg/kg	66	<50	69	<50	<50
TRH >C <sub>16</sub> -C <sub>34</sub>	mg/kg	7,600	680	3,600	1,200	3,100
TRH >C <sub>34</sub> -C <sub>40</sub>	mg/kg	2,000	130	890	580	1,100
Total +ve TRH (>C10-C40)	mg/kg	9,700	810	4,600	1,800	4,200
Surrogate o-Terphenyl	%	113	115	125	126	128

svTRH (C10-C40) in Soil						
Our Reference		162119-83	162119-84	162119-85	162119-86	162119-87
Your Reference	UNITS	MW205 + 50% CaCl2 DRY	MW206 + 50% CaCl2 DRY	MW201 + 30 Cement DRY	MW202 + 30 Cement DRY	MW203 + 30 Cement DRY
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	16/03/2017	16/03/2017	16/03/2017	16/03/2017	16/03/2017
TRH C <sub>10</sub> - C <sub>14</sub>	mg/kg	<50	<50	<50	<50	<50
TRH C <sub>15</sub> - C <sub>28</sub>	mg/kg	2,600	3,500	360	2,300	680
TRH C <sub>29</sub> - C <sub>36</sub>	mg/kg	2,800	4,100	320	2,100	1,000
TRH >C <sub>10</sub> -C <sub>16</sub>	mg/kg	<50	50	<50	83	<50
TRH >C <sub>10</sub> - C <sub>16</sub> less Naphthalene (F2)	mg/kg	<50	50	<50	77	<50
TRH >C <sub>16</sub> -C <sub>34</sub>	mg/kg	4,900	6,800	610	4,000	1,400
TRH >C <sub>34</sub> -C <sub>40</sub>	mg/kg	1,400	1,800	150	990	730
Total +ve TRH (>C10-C40)	mg/kg	6,300	8,600	760	5,000	2,200
Surrogate o-Terphenyl	%	134	125	106	113	118

svTRH (C10-C40) in Soil						
Our Reference		162119-88	162119-89	162119-90	162119-91	162119-92
Your Reference	UNITS	MW204 + 30 Cement DRY	MW205 + 30 Cement DRY	MW206 + 30 Cement DRY	MW201 + 50% Lime WET	MW202 + 50% Lime WET
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	16/03/2017	16/03/2017	16/03/2017	15/03/2017	15/03/2017
TRH C <sub>10</sub> - C <sub>14</sub>	mg/kg	<50	<50	<50	<50	<50
TRH C <sub>15</sub> - C <sub>28</sub>	mg/kg	2,000	2,600	4,500	140	780
TRH C <sub>29</sub> - C <sub>36</sub>	mg/kg	2,400	2,800	5,300	<100	600
TRH >C <sub>10</sub> -C <sub>16</sub>	mg/kg	53	<50	65	<50	54
TRH >C <sub>10</sub> - C <sub>16</sub> less Naphthalene (F2)	mg/kg	53	<50	65	<50	<50
TRH >C <sub>16</sub> -C <sub>34</sub>	mg/kg	3,900	4,900	8,700	190	1,300
TRH >C <sub>34</sub> -C <sub>40</sub>	mg/kg	1,400	1,400	2,300	<100	220
Total +ve TRH (>C10-C40)	mg/kg	5,300	6,300	11,000	190	1,500
Surrogate o-Terphenyl	%	120	110	115	96	102



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svTRH (C10-C40) in Soil						
Our Reference		162119-93	162119-94	162119-95	162119-96	162119-97
Your Reference	UNITS	MW203 + 50% Lime WET	MW204 + 50% Lime WET	MW205 + 50% Lime WET	MW206 + 50% Lime WET	MW201 + 50% CaCl2 WET
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	15/03/2017	16/03/2017	16/03/2017	16/03/2017	16/03/2017
TRH C <sub>10</sub> - C <sub>14</sub>	mg/kg	<50	<50	<50	<50	<50
TRH C <sub>15</sub> - C <sub>28</sub>	mg/kg	190	760	850	2,100	260
TRH C <sub>29</sub> - C <sub>36</sub>	mg/kg	240	650	830	2,300	240
TRH >C <sub>10</sub> -C <sub>16</sub>	mg/kg	<50	<50	<50	<50	<50
TRH >C <sub>10</sub> - C <sub>16</sub> less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH >C <sub>16</sub> -C <sub>34</sub>	mg/kg	360	1,300	1,500	3,900	460
TRH >C <sub>34</sub> -C <sub>40</sub>	mg/kg	140	270	320	960	100
Total +ve TRH (>C10-C40)	mg/kg	500	1,500	1,800	4,900	560
Surrogate o-Terphenyl	%	99	105	99	105	116

svTRH (C10-C40) in Soil						
Our Reference		162119-98	162119-99	162119-100	162119-101	162119-102
Your Reference	UNITS	MW202 + 50% CaCl2 WET	MW203 + 50% CaCl2 WET	MW204 + 50% CaCl2 WET	MW205 + 50% CaCl2 WET	MW206 + 50% CaCl2 WET
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	16/03/2017	16/03/2017	16/03/2017	16/03/2017	16/03/2017
TRH C <sub>10</sub> - C <sub>14</sub>	mg/kg	<50	<50	<50	<50	<50
TRH C <sub>15</sub> - C <sub>28</sub>	mg/kg	1,900	450	1,300	1,500	3,800
TRH C <sub>29</sub> - C <sub>36</sub>	mg/kg	1,700	500	1,100	1,500	4,500
TRH >C <sub>10</sub> -C <sub>16</sub>	mg/kg	54	<50	<50	<50	50
TRH >C <sub>10</sub> - C <sub>16</sub> less Naphthalene (F2)	mg/kg	52	<50	<50	<50	50
TRH >C <sub>16</sub> -C <sub>34</sub>	mg/kg	3,300	830	2,200	2,700	7,500
TRH >C <sub>34</sub> -C <sub>40</sub>	mg/kg	790	280	550	680	1,900
Total +ve TRH (>C10-C40)	mg/kg	4,200	1,100	2,700	3,400	9,400
Surrogate o-Terphenyl	%	116	108	119	108	119

svTRH (C10-C40) in Soil						
Our Reference		162119-103	162119-104	162119-105	162119-106	162119-107
Your Reference	UNITS	MW201 + 30% Cement WET	MW202 + 30% Cement WET	MW203 + 30% Cement WET	MW204 + 30% Cement WET	MW205 + 30% Cement WET
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	16/03/2017	16/03/2017	16/03/2017	16/03/2017	16/03/2017
TRH C <sub>10</sub> - C <sub>14</sub>	mg/kg	<50	<50	<50	<50	<50
TRH C <sub>15</sub> - C <sub>28</sub>	mg/kg	240	2,000	470	1,300	2,600
TRH C <sub>29</sub> - C <sub>36</sub>	mg/kg	200	1,800	600	1,200	2,700
TRH >C <sub>10</sub> -C <sub>16</sub>	mg/kg	<50	73	<50	<50	<50
TRH >C <sub>10</sub> - C <sub>16</sub> less Naphthalene (F2)	mg/kg	<50	66	<50	<50	<50
TRH >C <sub>16</sub> -C <sub>34</sub>	mg/kg	400	3,500	910	2,200	4,700
TRH >C <sub>34</sub> -C <sub>40</sub>	mg/kg	<100	840	390	620	1,200
Total +ve TRH (>C10-C40)	mg/kg	400	4,400	1,300	2,800	5,900
Surrogate o-Terphenyl	%	93	104	96	106	103

svTRH (C10-C40) in Soil		
Our Reference		162119-108
Your Reference	UNITS	MW206 + 30% Cement WET
Date Sampled		10/02/2017
Type of sample		Soil
Date extracted	-	08/03/2017
Date analysed	-	16/03/2017
TRH C <sub>10</sub> - C <sub>14</sub>	mg/kg	<50
TRH C <sub>15</sub> - C <sub>28</sub>	mg/kg	3,600
TRH C <sub>29</sub> - C <sub>36</sub>	mg/kg	4,100
TRH >C <sub>10</sub> -C <sub>16</sub>	mg/kg	50
TRH >C <sub>10</sub> - C <sub>16</sub> less Naphthalene (F2)	mg/kg	50
TRH >C <sub>16</sub> -C <sub>34</sub>	mg/kg	6,900
TRH >C <sub>34</sub> -C <sub>40</sub>	mg/kg	1,900
Total +ve TRH (>C10-C40)	mg/kg	8,800
Surrogate o-Terphenyl	%	103

Client Reference: Hydro Aluminium AS130515

PAHs in Soil						
Our Reference		162119-1	162119-2	162119-3	162119-4	162119-5
Your Reference	UNITS	MW201 - BULK 1st sub-sample	MW202 - BULK 1st sub-sample	MW203 - BULK 1st sub-sample	MW204 - BULK 1st sub-sample	MW205 - BULK 1st sub-sample
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Naphthalene	mg/kg	<1	7.7	1.3	3.0	1.7
Acenaphthylene	mg/kg	<1	1.0	<1	1.7	<1
Acenaphthene	mg/kg	2.7	27	4.2	9.2	5.0
Fluorene	mg/kg	1.3	10	1.4	4.3	4.0
Phenanthrene	mg/kg	17	120	16	79	51
Anthracene	mg/kg	5.9	28	5.8	15	14
Fluoranthene	mg/kg	52	240	43	140	140
Pyrene	mg/kg	52	230	41	130	130
Benzo(a)anthracene	mg/kg	46	190	27	91	160
Chrysene	mg/kg	51	150	21	73	120
Benzo(b,j+k)fluoranthene	mg/kg	100	320	45	150	300
Benzo(a)pyrene	mg/kg	41	210	25	85	160
Indeno(1,2,3-c,d)pyrene	mg/kg	22	95	11	38	73
Dibenzo(a,h)anthracene	mg/kg	6.0	24	3.0	10	24
Benzo(g,h,i)perylene	mg/kg	26	100	14	42	78
Benzo(a)pyrene TEQ calc (zero)	mg/kg	65	300	37	120	230
Benzo(a)pyrene TEQ calc(half)	mg/kg	65	300	37	120	230
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	65	300	37	120	230
Total +ve PAH's	mg/kg	430	1,800	260	860	1,300
Surrogate p-Terphenyl-d14	%	101	101	91	93	99

Client Reference: Hydro Aluminium AS130515

PAHs in Soil						
Our Reference		162119-6	162119-7	162119-8	162119-9	162119-10
Your Reference	UNITS	MW206 - BULK 1st sub-sample	MW201 - 1st sub- sample>125mm	MW202 - 1st sub- sample>125mm	MW203 - 1st sub- sample>125mm	MW204 - 1st sub- sample>125mm
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Naphthalene	mg/kg	1.8	1.2	0.2	0.3	3.2
Acenaphthylene	mg/kg	<1	<0.1	0.1	<0.1	<0.1
Acenaphthene	mg/kg	15	0.7	3.0	0.7	2.6
Fluorene	mg/kg	7.3	<0.1	1.1	0.1	0.1
Phenanthrene	mg/kg	98	2.3	18	5.4	3.2
Anthracene	mg/kg	28	0.7	5.0	0.8	0.3
Fluoranthene	mg/kg	230	3.3	20	9.9	1.7
Pyrene	mg/kg	210	2.9	17	9.1	1.4
Benzo(a)anthracene	mg/kg	250	0.6	10	2.8	0.2
Chrysene	mg/kg	210	0.7	9.2	2.6	0.2
Benzo(b,j+k)fluoranthene	mg/kg	460	0.4	15	3.1	<0.2
Benzo(a)pyrene	mg/kg	290	0.2	7.3	1.4	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	140	<0.1	2.2	0.3	<0.1
Dibenzo(a,h)anthracene	mg/kg	61	<0.1	1	0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	140	<0.1	2.2	0.4	<0.1
Benzo(a)pyrene TEQ calc (zero)	mg/kg	440	<0.5	11	2.2	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	440	<0.5	11	2.2	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	440	<0.5	11	2.2	<0.5
Total +ve PAH's	mg/kg	2,200	13	110	37	13
Surrogate p-Terphenyl-d14	%	93	110	81	70	70

Client Reference: Hydro Aluminium AS130515

PAHs in Soil						
Our Reference		162119-11	162119-12	162119-25	162119-26	162119-27
Your Reference	UNITS	MW205 - 1st sub-sample>125mm	MW206 - 1st sub-sample>125mm	MW201 - 1st sub-sample<125mm	MW202 - 1st sub-sample<125mm	MW203 - 1st sub-sample<125mm
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Naphthalene	mg/kg	0.4	1.2	1.4	4.0	0.8
Acenaphthylene	mg/kg	<0.1	<0.1	0.2	1.3	0.2
Acenaphthene	mg/kg	1.7	0.8	1.9	31	3.7
Fluorene	mg/kg	0.7	0.3	1.0	15	1.4
Phenanthrene	mg/kg	13	3.2	14	170	24
Anthracene	mg/kg	3.4	0.9	3.1	33	6.7
Fluoranthene	mg/kg	33	6.6	34	310	60
Pyrene	mg/kg	33	6.0	32	300	56
Benzo(a)anthracene	mg/kg	37	3.4	31	280	32
Chrysene	mg/kg	36	2.8	30	230	30
Benzo(b,j+k)fluoranthene	mg/kg	67	3.0	55	460	57
Benzo(a)pyrene	mg/kg	43	1.3	29	310	36
Indeno(1,2,3-c,d)pyrene	mg/kg	25	0.2	16	160	18
Dibenzo(a,h)anthracene	mg/kg	11	0.1	5.9	43	6.3
Benzo(g,h,i)perylene	mg/kg	27	0.2	17	170	21
Benzo(a)pyrene TEQ calc (zero)	mg/kg	68	2.1	46	450	53
Benzo(a)pyrene TEQ calc(half)	mg/kg	68	2.1	46	450	53
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	68	2.1	46	450	53
Total +ve PAH's	mg/kg	330	30	270	2,500	350
Surrogate p-Terphenyl-d14	%	84	135	104	105	101

Client Reference: Hydro Aluminium AS130515

PAHs in Soil						
Our Reference		162119-28	162119-29	162119-30	162119-31	162119-32
Your Reference	UNITS	MW204 - 1st sub-sample<125mm	MW205 - 1st sub-sample<125mm	MW206 - 1st sub-sample<125mm	MW201 - BULK 2nd sub-sample	MW202 - BULK 2nd sub-sample
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Naphthalene	mg/kg	2.9	4.2	1.7	0.6	8.0
Acenaphthylene	mg/kg	3.3	1.7	<1	0.2	<1
Acenaphthene	mg/kg	12	11	20	2.0	28
Fluorene	mg/kg	6.4	8.3	9.8	1.1	11
Phenanthrene	mg/kg	120	120	160	14	120
Anthracene	mg/kg	25	29	53	3.8	29
Fluoranthene	mg/kg	240	270	450	45	240
Pyrene	mg/kg	220	250	420	42	230
Benzo(a)anthracene	mg/kg	160	260	420	34	200
Chrysene	mg/kg	140	220	450	38	150
Benzo(b,j+k)fluoranthene	mg/kg	270	470	810	75	340
Benzo(a)pyrene	mg/kg	150	290	430	35	220
Indeno(1,2,3-c,d)pyrene	mg/kg	71	140	260	21	98
Dibenzo(a,h)anthracene	mg/kg	21	44	100	7.9	27
Benzo(g,h,i)perylene	mg/kg	76	140	260	23	110
Benzo(a)pyrene TEQ calc (zero)	mg/kg	230	420	690	57	310
Benzo(a)pyrene TEQ calc(half)	mg/kg	230	420	690	57	310
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	230	420	690	57	310
Total +ve PAH's	mg/kg	1,500	2,200	3,800	340	1,800
Surrogate p-Terphenyl-d14	%	97	97	104	96	105

PAHs in Soil						
Our Reference		162119-33	162119-34	162119-35	162119-36	162119-37
Your Reference	UNITS	MW203 - BULK 2nd sub-sample	MW204 - BULK 2nd sub-sample	MW205 - BULK 2nd sub-sample	MW206 - BULK 2nd sub-sample	MW201 - 2nd sub- sample>125mm
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Naphthalene	mg/kg	1.2	2.5	1.3	1.9	0.5
Acenaphthylene	mg/kg	0.2	1.6	<1	<1	<0.1
Acenaphthene	mg/kg	3.7	8.6	4.7	16	0.2
Fluorene	mg/kg	1.3	4.4	3.4	8.5	<0.1
Phenanthrene	mg/kg	17	77	44	100	0.2
Anthracene	mg/kg	4.3	12	13	32	<0.1
Fluoranthene	mg/kg	40	130	110	240	0.2
Pyrene	mg/kg	37	110	100	220	0.1
Benzo(a)anthracene	mg/kg	23	72	110	260	<0.1
Chrysene	mg/kg	20	78	110	220	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	41	130	230	500	<0.2
Benzo(a)pyrene	mg/kg	24	67	110	310	0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	11	34	58	130	<0.1
Dibenzo(a,h)anthracene	mg/kg	2.9	13	18	62	<0.1
Benzo(g,h,i)perylene	mg/kg	13	37	60	140	<0.1
Benzo(a)pyrene TEQ calc (zero)	mg/kg	34	100	170	460	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	34	100	170	460	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	34	100	170	460	<0.5
Total +ve PAH's	mg/kg	240	780	970	2,200	1.2
Surrogate p-Terphenyl-d14	%	93	95	90	95	#

Client Reference: Hydro Aluminium AS130515

PAHs in Soil						
Our Reference		162119-38	162119-39	162119-40	162119-41	162119-42
Your Reference	UNITS	MW202 - 2nd sub-sample>125mm	MW203 - 2nd sub-sample>125mm	MW204 - 2nd sub-sample>125mm	MW205 - 2nd sub-sample>125mm	MW206 - 2nd sub-sample>125mm
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Naphthalene	mg/kg	0.1	0.2	3.4	0.4	0.5
Acenaphthylene	mg/kg	0.2	<0.1	<0.1	0.1	<0.1
Acenaphthene	mg/kg	2.7	0.4	2.8	1.8	0.1
Fluorene	mg/kg	1.0	<0.1	0.1	0.7	<0.1
Phenanthrene	mg/kg	17	4.2	3.7	13	<0.1
Anthracene	mg/kg	4.9	0.8	0.5	3.4	<0.1
Fluoranthene	mg/kg	20	7.7	2.1	470	0.1
Pyrene	mg/kg	17	7.0	1.6	47	<0.1
Benzo(a)anthracene	mg/kg	10	2.2	0.2	43	<0.1
Chrysene	mg/kg	8.6	1.6	0.3	44	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	14	2.0	<0.2	80	<0.2
Benzo(a)pyrene	mg/kg	6.9	0.95	<0.05	44	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	1.9	0.2	<0.1	28	<0.1
Dibenzo(a,h)anthracene	mg/kg	0.8	<0.1	<0.1	12	<0.1
Benzo(g,h,i)perylene	mg/kg	1.9	0.3	<0.1	30	<0.1
Benzo(a)pyrene TEQ calc (zero)	mg/kg	11	1.4	<0.5	72	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	11	1.4	<0.5	72	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	11	1.4	<0.5	72	<0.5
Total +ve PAH's	mg/kg	110	27	15	820	0.67
Surrogate p-Terphenyl-d14	%	89	74	#	90	#



Client Reference: Hydro Aluminium AS130515

PAHs in Soil						
Our Reference		162119-43	162119-44	162119-45	162119-46	162119-47
Your Reference	UNITS	MW201 - 2nd sub-sample<125mm	MW202 - 2nd sub-sample<125mm	MW203 - 2nd sub-sample<125mm	MW204 - 2nd sub-sample<125mm	MW205 - 2nd sub-sample<125mm
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Naphthalene	mg/kg	0.3	3.7	1.1	2.8	3.7
Acenaphthylene	mg/kg	0.2	1.3	0.2	3.4	1.6
Acenaphthene	mg/kg	1.9	32	3.9	13	11
Fluorene	mg/kg	0.8	16	1.6	7.2	7.9
Phenanthrene	mg/kg	13	170	23	140	110
Anthracene	mg/kg	3.7	37	5.9	28	27
Fluoranthene	mg/kg	42	340	41	270	260
Pyrene	mg/kg	40	330	40	240	240
Benzo(a)anthracene	mg/kg	32	280	30	170	250
Chrysene	mg/kg	32	230	27	160	230
Benzo(b,j+k)fluoranthene	mg/kg	61	480	56	300	490
Benzo(a)pyrene	mg/kg	30	310	33	170	300
Indeno(1,2,3-c,d)pyrene	mg/kg	16	150	17	81	140
Dibenzo(a,h)anthracene	mg/kg	6.2	43	5.9	24	60
Benzo(g,h,i)perylene	mg/kg	18	170	19	87	150
Benzo(a)pyrene TEQ calc (zero)	mg/kg	48	450	49	250	450
Benzo(a)pyrene TEQ calc(half)	mg/kg	48	450	49	250	450
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	48	450	49	250	450
Total +ve PAH's	mg/kg	300	2,600	300	1,700	2,300
Surrogate p-Terphenyl-d14	%	103	102	99	117	97

Client Reference: Hydro Aluminium AS130515

PAHs in Soil						
Our Reference		162119-48	162119-49	162119-50	162119-51	162119-52
Your Reference	UNITS	MW206 - 2nd sub-sample<125mm	MW201 - BULK 3rd sub-sample	MW202 - BULK 3rd sub-sample	MW203 - BULK 3rd sub-sample	MW204 - BULK 3rd sub-sample
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Naphthalene	mg/kg	2.2	0.4	7.6	1.7	2.3
Acenaphthylene	mg/kg	1.1	0.2	2.1	0.1	1.1
Acenaphthene	mg/kg	20	1.9	29	4.2	9.1
Fluorene	mg/kg	10	0.9	11	1.7	4.6
Phenanthrene	mg/kg	150	12	120	21	81
Anthracene	mg/kg	48	3.0	30	5.5	13
Fluoranthene	mg/kg	360	47	220	47	130
Pyrene	mg/kg	340	45	210	45	120
Benzo(a)anthracene	mg/kg	420	40	190	22	73
Chrysene	mg/kg	350	41	120	22	75
Benzo(b,j+k)fluoranthene	mg/kg	730	83	290	42	130
Benzo(a)pyrene	mg/kg	470	38	190	23	67
Indeno(1,2,3-c,d)pyrene	mg/kg	250	22	82	11	29
Dibenzo(a,h)anthracene	mg/kg	110	8.2	19	3.3	11
Benzo(g,h,i)perylene	mg/kg	250	24	91	13	32
Benzo(a)pyrene TEQ calc (zero)	mg/kg	730	61	270	35	100
Benzo(a)pyrene TEQ calc(half)	mg/kg	730	61	270	35	100
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	730	61	270	35	100
Total +ve PAH's	mg/kg	3,500	370	1,600	260	780
Surrogate p-Terphenyl-d14	%	99	98	110	90	91

Client Reference: Hydro Aluminium AS130515

PAHs in Soil						
Our Reference		162119-53	162119-54	162119-55	162119-56	162119-57
Your Reference	UNITS	MW205 - BULK 3rd sub-sample	MW206 - BULK 3rd sub-sample	MW201 - BULK 4TH sub-sample	MW202 - BULK 4TH sub-sample	MW203 - BULK 4TH sub-sample
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Naphthalene	mg/kg	1.4	1.9	<1	8.5	1.8
Acenaphthylene	mg/kg	1.4	1.1	<1	<1	<1
Acenaphthene	mg/kg	5.9	16	2.3	28	5.2
Fluorene	mg/kg	4.7	8.6	1.4	9.4	2.3
Phenanthrene	mg/kg	58	110	18	110	26
Anthracene	mg/kg	17	34	4.2	27	6.1
Fluoranthene	mg/kg	170	260	89	210	55
Pyrene	mg/kg	160	240	85	200	51
Benzo(a)anthracene	mg/kg	210	300	62	160	31
Chrysene	mg/kg	150	240	69	150	25
Benzo(b,j+k)fluoranthene	mg/kg	380	560	120	290	52
Benzo(a)pyrene	mg/kg	210	340	45	180	31
Indeno(1,2,3-c,d)pyrene	mg/kg	90	160	22	83	14
Dibenzo(a,h)anthracene	mg/kg	35	54	8.3	24	3.7
Benzo(g,h,i)perylene	mg/kg	98	160	25	91	16
Benzo(a)pyrene TEQ calc (zero)	mg/kg	310	500	75	260	44
Benzo(a)pyrene TEQ calc(half)	mg/kg	310	500	75	260	44
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	310	500	75	260	44
Total +ve PAH's	mg/kg	1,600	2,500	550	1,600	320
Surrogate p-Terphenyl-d14	%	122	108	98	97	99

Client Reference: Hydro Aluminium AS130515

PAHs in Soil						
Our Reference		162119-58	162119-59	162119-60	162119-61	162119-62
Your Reference	UNITS	MW204 - BULK 4TH sub-sample	MW205 - BULK 4TH sub-sample	MW206 - BULK 4TH sub-sample	MW201 - BULK 5TH sub-sample	MW202 - BULK 5TH sub-sample
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Naphthalene	mg/kg	3.1	1.2	2.0	0.3	7.0
Acenaphthylene	mg/kg	1.6	1.1	<1	0.2	1.5
Acenaphthene	mg/kg	10	4.8	16	2.3	26
Fluorene	mg/kg	5.3	4.0	8.1	1.1	10
Phenanthrene	mg/kg	69	51	100	14	120
Anthracene	mg/kg	16	18	33	3.3	29
Fluoranthene	mg/kg	71	140	230	57	240
Pyrene	mg/kg	69	130	210	56	230
Benzo(a)anthracene	mg/kg	69	170	250	54	210
Chrysene	mg/kg	60	130	220	61	150
Benzo(b,j+k)fluoranthene	mg/kg	110	310	500	120	330
Benzo(a)pyrene	mg/kg	70	170	300	45	220
Indeno(1,2,3-c,d)pyrene	mg/kg	34	81	140	25	100
Dibenzo(a,h)anthracene	mg/kg	13	31	62	9.9	28
Benzo(g,h,i)perylene	mg/kg	37	87	140	28	110
Benzo(a)pyrene TEQ calc (zero)	mg/kg	110	260	450	76	310
Benzo(a)pyrene TEQ calc(half)	mg/kg	110	260	450	76	310
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	110	260	450	76	310
Total +ve PAH's	mg/kg	640	1,300	2,200	480	1,800
Surrogate p-Terphenyl-d14	%	97	110	101	105	107

Client Reference: Hydro Aluminium AS130515

PAHs in Soil						
Our Reference		162119-63	162119-64	162119-65	162119-66	162119-67
Your Reference	UNITS	MW203 - BULK 5TH sub-sample	MW204 - BULK 5TH sub-sample	MW205 - BULK 5TH sub-sample	MW206 - BULK 5TH sub-sample	MW201 - BULK 6TH sub-sample
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Naphthalene	mg/kg	1.9	2.4	1.5	2.4	1.3
Acenaphthylene	mg/kg	0.2	1.1	1.4	<1	<1
Acenaphthene	mg/kg	5.0	9.1	5.6	17	1.8
Fluorene	mg/kg	2.4	4.5	4.4	9.5	1.1
Phenanthrene	mg/kg	24	81	53	120	13
Anthracene	mg/kg	5.8	14	16	34	3.6
Fluoranthene	mg/kg	49	140	140	250	51
Pyrene	mg/kg	45	120	130	230	49
Benzo(a)anthracene	mg/kg	24	82	170	270	45
Chrysene	mg/kg	24	78	130	240	49
Benzo(b,j+k)fluoranthene	mg/kg	46	140	320	530	100
Benzo(a)pyrene	mg/kg	26	76	170	320	35
Indeno(1,2,3-c,d)pyrene	mg/kg	12	35	77	140	19
Dibenzo(a,h)anthracene	mg/kg	4.4	13	27	66	7.3
Benzo(g,h,i)perylene	mg/kg	14	37	84	150	21
Benzo(a)pyrene TEQ calc (zero)	mg/kg	39	120	250	480	59
Benzo(a)pyrene TEQ calc(half)	mg/kg	39	120	250	480	59
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	39	120	250	480	59
Total +ve PAH's	mg/kg	280	830	1,300	2,400	400
Surrogate p-Terphenyl-d14	%	91	89	109	105	93

Client Reference: Hydro Aluminium AS130515

PAHs in Soil						
Our Reference		162119-68	162119-69	162119-70	162119-71	162119-72
Your Reference	UNITS	MW202 - BULK 6TH sub-sample	MW203 - BULK 6TH sub-sample	MW204 - BULK 6TH sub-sample	MW205 - BULK 6TH sub-sample	MW206 - BULK 6TH sub-sample
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Naphthalene	mg/kg	6.9	1.7	2.3	<1	2.0
Acenaphthylene	mg/kg	<1	<1	2.1	<1	1.1
Acenaphthene	mg/kg	27	4.6	9.4	6.1	18
Fluorene	mg/kg	10	1.9	4.6	4.4	9.7
Phenanthrene	mg/kg	120	22	80	52	120
Anthracene	mg/kg	29	6.6	16	17	35
Fluoranthene	mg/kg	230	54	140	130	290
Pyrene	mg/kg	210	50	120	130	260
Benzo(a)anthracene	mg/kg	180	34	96	140	350
Chrysene	mg/kg	150	24	71	130	250
Benzo(b,j+k)fluoranthene	mg/kg	300	50	140	280	620
Benzo(a)pyrene	mg/kg	190	28	84	150	390
Indeno(1,2,3-c,d)pyrene	mg/kg	88	13	39	69	190
Dibenzo(a,h)anthracene	mg/kg	25	3.6	11	29	80
Benzo(g,h,i)perylene	mg/kg	97	15	43	72	190
Benzo(a)pyrene TEQ calc (zero)	mg/kg	280	42	120	220	590
Benzo(a)pyrene TEQ calc(half)	mg/kg	280	42	120	220	590
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	280	42	120	220	590
Total +ve PAH's	mg/kg	1,700	310	870	1,200	2,800
Surrogate p-Terphenyl-d14	%	101	112	101	101	117

Client Reference: Hydro Aluminium AS130515

PAHs in Soil						
Our Reference		162119-73	162119-74	162119-75	162119-76	162119-77
Your Reference	UNITS	MW201 + 50% Lime Dry	MW202 + 50% Lime Dry	MW203 + 50% Lime Dry	MW204 + 50% Lime Dry	MW205 + 50% Lime Dry
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	16/03/2017	16/03/2017	16/03/2017	16/03/2017	16/03/2017
Date analysed	-	15/03/2017	15/03/2017	15/03/2017	15/03/2017	15/03/2017
Naphthalene	mg/kg	0.7	4.1	1.5	1.7	1.4
Acenaphthylene	mg/kg	<1	<1	<1	<1	<1
Acenaphthene	mg/kg	2.2	15	2.1	7.7	5.6
Fluorene	mg/kg	1.0	5.3	0.4	3.5	3.6
Phenanthrene	mg/kg	10	65	5.9	61	59
Anthracene	mg/kg	3.0	14	1.0	8.3	16
Fluoranthene	mg/kg	26	150	21	130	140
Pyrene	mg/kg	24	150	22	110	140
Benzo(a)anthracene	mg/kg	14	120	9.9	66	130
Chrysene	mg/kg	21	98	12	66	120
Benzo(b,j+k)fluoranthene	mg/kg	41	220	24	140	260
Benzo(a)pyrene	mg/kg	16	150	14	81	170
Indeno(1,2,3-c,d)pyrene	mg/kg	8.6	77	7.0	40	100
Dibenzo(a,h)anthracene	mg/kg	2.8	19	1.2	9.4	31
Benzo(g,h,i)perylene	mg/kg	11	91	9.2	46	110
Benzo(a)pyrene TEQ calc (zero)	mg/kg	25	210	19	120	250
Benzo(a)pyrene TEQ calc(half)	mg/kg	25	210	19	120	250
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	25	210	19	120	250
Total +ve PAH's	mg/kg	180	1,200	130	770	1,300
Surrogate p-Terphenyl-d14	%	99	108	97	106	106

Client Reference: Hydro Aluminium AS130515

PAHs in Soil						
Our Reference		162119-78	162119-79	162119-80	162119-81	162119-82
Your Reference	UNITS	MW206 + 50% Lime Dry	MW201 + 50% CaCl2 DRY	MW202 + 50% CaCl2 DRY	MW203 + 50% CaCl2 DRY	MW204 + 50% CaCl2 DRY
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	16/03/2017	16/03/2017	16/03/2017	16/03/2017	16/03/2017
Date analysed	-	15/03/2017	15/03/2017	15/03/2017	15/03/2017	15/03/2017
Naphthalene	mg/kg	1.4	<1	5.0	1.1	1.1
Acenaphthylene	mg/kg	<1	<1	<1	<1	<1
Acenaphthene	mg/kg	13	1.5	15	2.5	5.4
Fluorene	mg/kg	6.5	<1	5.8	0.7	2.5
Phenanthrene	mg/kg	62	9.3	75	9.3	50
Anthracene	mg/kg	29	1.9	18	1.9	8.3
Fluoranthene	mg/kg	220	43	180	32	110
Pyrene	mg/kg	210	41	190	31	100
Benzo(a)anthracene	mg/kg	270	27	170	22	59
Chrysene	mg/kg	210	34	130	18	59
Benzo(b,j+k)fluoranthene	mg/kg	540	68	290	39	120
Benzo(a)pyrene	mg/kg	340	24	200	24	74
Indeno(1,2,3-c,d)pyrene	mg/kg	160	12	95	12	37
Dibenzo(a,h)anthracene	mg/kg	56	2.8	24	2.3	10
Benzo(g,h,i)perylene	mg/kg	170	14	110	15	42
Benzo(a)pyrene TEQ calc (zero)	mg/kg	500	38	280	33	110
Benzo(a)pyrene TEQ calc(half)	mg/kg	500	38	280	33	110
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	500	38	280	33	110
Total +ve PAH's	mg/kg	2,300	280	1,500	210	690
Surrogate p-Terphenyl-d14	%	109	112	140	119	119



Client Reference: Hydro Aluminium AS130515

PAHs in Soil						
Our Reference		162119-83	162119-84	162119-85	162119-86	162119-87
Your Reference	UNITS	MW205 + 50% CaCl2 DRY	MW206 + 50% CaCl2 DRY	MW201 + 30 Cement DRY	MW202 + 30 Cement DRY	MW203 + 30 Cement DRY
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	16/03/2017	16/03/2017	16/03/2017	16/03/2017	16/03/2017
Date analysed	-	15/03/2017	15/03/2017	15/03/2017	15/03/2017	15/03/2017
Naphthalene	mg/kg	2.1	1.0	0.8	4.3	1.6
Acenaphthylene	mg/kg	<1	<1	<1	<1	<1
Acenaphthene	mg/kg	6.5	12	3.4	17	3.3
Fluorene	mg/kg	4.2	5.6	1.4	5.9	<1
Phenanthrene	mg/kg	61	86	14	82	13
Anthracene	mg/kg	14	27	3.0	17	2.5
Fluoranthene	mg/kg	160	190	40	180	41
Pyrene	mg/kg	160	190	38	190	38
Benzo(a)anthracene	mg/kg	170	210	29	150	21
Chrysene	mg/kg	160	190	30	130	22
Benzo(b,j+k)fluoranthene	mg/kg	370	460	65	250	46
Benzo(a)pyrene	mg/kg	250	300	27	210	29
Indeno(1,2,3-c,d)pyrene	mg/kg	130	190	15	110	14
Dibenzo(a,h)anthracene	mg/kg	38	63	4.1	28	3.4
Benzo(g,h,i)perylene	mg/kg	130	190	18	130	17
Benzo(a)pyrene TEQ calc (zero)	mg/kg	350	450	43	290	40
Benzo(a)pyrene TEQ calc(half)	mg/kg	350	450	43	290	40
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	350	450	43	290	40
Total +ve PAH's	mg/kg	1,700	2,100	290	1,500	250
Surrogate p-Terphenyl-d14	%	117	129	126	119	113

Client Reference: Hydro Aluminium AS130515

PAHs in Soil						
Our Reference		162119-88	162119-89	162119-90	162119-91	162119-92
Your Reference	UNITS	MW204 + 30 Cement DRY	MW205 + 30 Cement DRY	MW206 + 30 Cement DRY	MW201 + 50% Lime WET	MW202 + 50% Lime WET
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	16/03/2017	16/03/2017	16/03/2017	16/03/2017	16/03/2017
Date analysed	-	15/03/2017	15/03/2017	15/03/2017	15/03/2017	15/03/2017
Naphthalene	mg/kg	1.5	2.1	1.2	0.3	2.9
Acenaphthylene	mg/kg	<1	<1	<1	<0.1	<1
Acenaphthene	mg/kg	7.8	7.4	16	0.8	8.7
Fluorene	mg/kg	3.4	4.7	7.8	0.3	3.4
Phenanthrene	mg/kg	68	72	120	5.8	33
Anthracene	mg/kg	12	16	37	1.6	5.4
Fluoranthene	mg/kg	140	180	280	17	89
Pyrene	mg/kg	120	190	280	16	86
Benzo(a)anthracene	mg/kg	74	220	350	13	67
Chrysene	mg/kg	71	180	280	13	52
Benzo(b,j+k)fluoranthene	mg/kg	150	380	690	29	110
Benzo(a)pyrene	mg/kg	87	280	440	9.8	76
Indeno(1,2,3-c,d)pyrene	mg/kg	44	130	310	6.0	37
Dibenzo(a,h)anthracene	mg/kg	12	39	140	2.0	9.3
Benzo(g,h,i)perylene	mg/kg	49	130	330	7.0	41
Benzo(a)pyrene TEQ calc (zero)	mg/kg	130	390	720	17	110
Benzo(a)pyrene TEQ calc(half)	mg/kg	130	390	720	17	110
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	130	390	720	17	110
Total +ve PAH's	mg/kg	840	1,800	3,300	120	620
Surrogate p-Terphenyl-d14	%	107	121	123	109	116

Client Reference: Hydro Aluminium AS130515

PAHs in Soil						
Our Reference		162119-93	162119-94	162119-95	162119-96	162119-97
Your Reference	UNITS	MW203 + 50% Lime WET	MW204 + 50% Lime WET	MW205 + 50% Lime WET	MW206 + 50% Lime WET	MW201 + 50% CaCl <sub>2</sub> WET
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	16/03/2017	16/03/2017	16/03/2017	16/03/2017	16/03/2017
Date analysed	-	15/03/2017	15/03/2017	15/03/2017	15/03/2017	15/03/2017
Naphthalene	mg/kg	<1	1.6	<1	<1	0.2
Acenaphthylene	mg/kg	<1	<1	<1	<1	<0.1
Acenaphthene	mg/kg	1.7	4.9	2.6	7.7	1
Fluorene	mg/kg	0.5	2.3	1.6	3.5	0.4
Phenanthrene	mg/kg	7.0	36	21	48	7.7
Anthracene	mg/kg	1.0	4.4	4.7	14	1.9
Fluoranthene	mg/kg	20	83	79	140	23
Pyrene	mg/kg	20	74	76	140	22
Benzo(a)anthracene	mg/kg	9.8	47	82	150	20
Chrysene	mg/kg	11	41	65	130	18
Benzo(b,j+k)fluoranthene	mg/kg	20	75	140	320	39
Benzo(a)pyrene	mg/kg	13	46	91	210	17
Indeno(1,2,3-c,d)pyrene	mg/kg	5.6	22	45	94	11
Dibenzo(a,h)anthracene	mg/kg	<0.1	5.4	13	29	3.7
Benzo(g,h,i)perylene	mg/kg	6.9	25	47	94	12
Benzo(a)pyrene TEQ calc (zero)	mg/kg	16	67	130	300	28
Benzo(a)pyrene TEQ calc(half)	mg/kg	16	67	130	300	28
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	16	67	130	300	28
Total +ve PAH's	mg/kg	120	470	670	1,400	180
Surrogate p-Terphenyl-d14	%	103	107	112	107	112

Client Reference: Hydro Aluminium AS130515

PAHs in Soil						
Our Reference		162119-98	162119-99	162119-100	162119-101	162119-102
Your Reference	UNITS	MW202 + 50% CaCl2 WET	MW203 + 50% CaCl2 WET	MW204 + 50% CaCl2 WET	MW205 + 50% CaCl2 WET	MW206 + 50% CaCl2 WET
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	16/03/2017	16/03/2017	16/03/2017	16/03/2017	16/03/2017
Date analysed	-	15/03/2017	15/03/2017	15/03/2017	15/03/2017	15/03/2017
Naphthalene	mg/kg	2.7	1.2	2.1	1.7	1.7
Acenaphthylene	mg/kg	<1	<1	<1	<1	<1
Acenaphthene	mg/kg	13	3.6	7.0	4.7	14
Fluorene	mg/kg	5.2	1.8	3.9	3.3	6.8
Phenanthrene	mg/kg	68	17	66	45	100
Anthracene	mg/kg	11	3.8	12	9.7	31
Fluoranthene	mg/kg	190	43	130	130	230
Pyrene	mg/kg	180	42	120	130	250
Benzo(a)anthracene	mg/kg	130	20	82	110	290
Chrysene	mg/kg	120	23	67	110	240
Benzo(b,j+k)fluoranthene	mg/kg	270	44	140	230	570
Benzo(a)pyrene	mg/kg	190	28	83	160	370
Indeno(1,2,3-c,d)pyrene	mg/kg	92	13	42	71	190
Dibenzo(a,h)anthracene	mg/kg	23	3.3	11	21	62
Benzo(g,h,i)perylene	mg/kg	100	16	47	73	200
Benzo(a)pyrene TEQ calc (zero)	mg/kg	260	39	120	220	540
Benzo(a)pyrene TEQ calc(half)	mg/kg	260	39	120	220	540
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	260	39	120	220	540
Total +ve PAH's	mg/kg	1,400	260	810	1,100	2,600
Surrogate p-Terphenyl-d14	%	117	112	117	120	127

Client Reference: Hydro Aluminium AS130515

PAHs in Soil						
Our Reference		162119-103	162119-104	162119-105	162119-106	162119-107
Your Reference	UNITS	MW201 + 30% Cement WET	MW202 + 30% Cement WET	MW203 + 30% Cement WET	MW204 + 30% Cement WET	MW205 + 30% Cement WET
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	16/03/2017	16/03/2017	16/03/2017	16/03/2017	16/03/2017
Date analysed	-	15/03/2017	15/03/2017	15/03/2017	15/03/2017	15/03/2017
Naphthalene	mg/kg	0.6	4.2	2.2	1.7	2.7
Acenaphthylene	mg/kg	<1	<1	<1	<1	<1
Acenaphthene	mg/kg	1.6	16	3.6	7.1	7.7
Fluorene	mg/kg	0.5	5.1	0.9	3.0	4.9
Phenanthrene	mg/kg	8.2	81	13	54	76
Anthracene	mg/kg	1.8	14	2.4	6.2	18
Fluoranthene	mg/kg	23	220	42	120	190
Pyrene	mg/kg	22	210	41	110	200
Benzo(a)anthracene	mg/kg	19	150	22	76	230
Chrysene	mg/kg	20	140	21	63	180
Benzo(b,j+k)fluoranthene	mg/kg	43	300	42	130	430
Benzo(a)pyrene	mg/kg	15	210	27	77	280
Indeno(1,2,3-c,d)pyrene	mg/kg	9.0	100	12	39	140
Dibenzo(a,h)anthracene	mg/kg	3.3	26	2.2	9.2	43
Benzo(g,h,i)perylene	mg/kg	11	110	15	43	150
Benzo(a)pyrene TEQ calc (zero)	mg/kg	25	300	37	110	410
Benzo(a)pyrene TEQ calc(half)	mg/kg	25	300	37	110	410
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	25	300	37	110	410
Total +ve PAH's	mg/kg	180	1,600	250	740	2,000
Surrogate p-Terphenyl-d14	%	117	116	108	107	112

PAHs in Soil		
Our Reference		162119-108
Your Reference	UNITS	MW206 + 30% Cement WET
Date Sampled		10/02/2017
Type of sample		Soil
Date extracted	-	16/03/2017
Date analysed	-	15/03/2017
Naphthalene	mg/kg	<1
Acenaphthylene	mg/kg	<1
Acenaphthene	mg/kg	14
Fluorene	mg/kg	6.7
Phenanthrene	mg/kg	110
Anthracene	mg/kg	26
Fluoranthene	mg/kg	240
Pyrene	mg/kg	240
Benzo(a)anthracene	mg/kg	300
Chrysene	mg/kg	270
Benzo(b,j+k)fluoranthene	mg/kg	560
Benzo(a)pyrene	mg/kg	360
Indeno(1,2,3-c,d)pyrene	mg/kg	190
Dibenzo(a,h)anthracene	mg/kg	63
Benzo(g,h,i)perylene	mg/kg	190
Benzo(a)pyrene TEQ calc (zero)	mg/kg	530
Benzo(a)pyrene TEQ calc(half)	mg/kg	530
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	530
Total +ve PAH's	mg/kg	2,600
Surrogate <i>p</i> -Terphenyl-d14	%	119

Organochlorine Pesticides in soil						
Our Reference		162119-1	162119-2	162119-3	162119-4	162119-5
Your Reference	UNITS	MW201 - BULK 1st sub-sample	MW202 - BULK 1st sub-sample	MW203 - BULK 1st sub-sample	MW204 - BULK 1st sub-sample	MW205 - BULK 1st sub-sample
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	125	94	86	82	97

Organochlorine Pesticides in soil						
Our Reference		162119-6	162119-7	162119-8	162119-9	162119-10
Your Reference	UNITS	MW206 - BULK 1st sub-sample	MW201 - 1st sub- sample>125mm	MW202 - 1st sub- sample>125mm	MW203 - 1st sub- sample>125mm	MW204 - 1st sub- sample>125mm
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	116	#	110	79	#



Organochlorine Pesticides in soil						
Our Reference		162119-11	162119-12	162119-25	162119-26	162119-27
Your Reference	UNITS	MW205 - 1st sub-sample>125mm	MW206 - 1st sub-sample>125mm	MW201 - 1st sub-sample<125mm	MW202 - 1st sub-sample<125mm	MW203 - 1st sub-sample<125mm
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	111	68	137	105	119

Organochlorine Pesticides in soil						
Our Reference		162119-28	162119-29	162119-30	162119-31	162119-32
Your Reference	UNITS	MW204 - 1st sub-sample<125mm	MW205 - 1st sub-sample<125mm	MW206 - 1st sub-sample<125mm	MW201 - BULK 2nd sub-sample	MW202 - BULK 2nd sub-sample
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	113	99	92	133	98

Client Reference: Hydro Aluminium AS130515

Organochlorine Pesticides in soil						
Our Reference		162119-33	162119-34	162119-35	162119-36	162119-37
Your Reference	UNITS	MW203 - BULK 2nd sub-sample	MW204 - BULK 2nd sub-sample	MW205 - BULK 2nd sub-sample	MW206 - BULK 2nd sub-sample	MW201 - 2nd sub- sample>125mm
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	75	102	93	93	#

Client Reference: Hydro Aluminium AS130515

Organochlorine Pesticides in soil						
Our Reference		162119-38	162119-39	162119-40	162119-41	162119-42
Your Reference	UNITS	MW202 - 2nd sub-sample>125mm	MW203 - 2nd sub-sample>125mm	MW204 - 2nd sub-sample>125mm	MW205 - 2nd sub-sample>125mm	MW206 - 2nd sub-sample>125mm
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	95	90	#	109	#

Client Reference: Hydro Aluminium AS130515

Organochlorine Pesticides in soil						
Our Reference		162119-43	162119-44	162119-45	162119-46	162119-47
Your Reference	UNITS	MW201 - 2nd sub-sample<125mm	MW202 - 2nd sub-sample<125mm	MW203 - 2nd sub-sample<125mm	MW204 - 2nd sub-sample<125mm	MW205 - 2nd sub-sample<125mm
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	130	117	90	101	114

Client Reference: Hydro Aluminium AS130515

Organochlorine Pesticides in soil						
Our Reference		162119-48	162119-49	162119-50	162119-51	162119-52
Your Reference	UNITS	MW206 - 2nd sub-sample<125mm	MW201 - BULK 3rd sub-sample	MW202 - BULK 3rd sub-sample	MW203 - BULK 3rd sub-sample	MW204 - BULK 3rd sub-sample
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	100	122	120	79	110

Organochlorine Pesticides in soil						
Our Reference		162119-53	162119-54	162119-55	162119-56	162119-57
Your Reference	UNITS	MW205 - BULK 3rd sub-sample	MW206 - BULK 3rd sub-sample	MW201 - BULK 4TH sub-sample	MW202 - BULK 4TH sub-sample	MW203 - BULK 4TH sub-sample
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.2	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	117	100	90	99	78

Client Reference: Hydro Aluminium AS130515

Organochlorine Pesticides in soil						
Our Reference		162119-58	162119-59	162119-60	162119-61	162119-62
Your Reference	UNITS	MW204 - BULK 4TH sub-sample	MW205 - BULK 4TH sub-sample	MW206 - BULK 4TH sub-sample	MW201 - BULK 5TH sub-sample	MW202 - BULK 5TH sub-sample
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.5	<0.1	<0.1	<0.2	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	120	108	102	80	127



Organochlorine Pesticides in soil						
Our Reference		162119-63	162119-64	162119-65	162119-66	162119-67
Your Reference	UNITS	MW203 - BULK 5TH sub-sample	MW204 - BULK 5TH sub-sample	MW205 - BULK 5TH sub-sample	MW206 - BULK 5TH sub-sample	MW201 - BULK 6TH sub-sample
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.5	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	84	76	107	120	99

Organochlorine Pesticides in soil						
Our Reference		162119-68	162119-69	162119-70	162119-71	162119-72
Your Reference	UNITS	MW202 - BULK 6TH sub-sample	MW203 - BULK 6TH sub-sample	MW204 - BULK 6TH sub-sample	MW205 - BULK 6TH sub-sample	MW206 - BULK 6TH sub-sample
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	94	100	110	117	109

Organochlorine Pesticides in soil						
Our Reference		162119-73	162119-74	162119-75	162119-76	162119-77
Your Reference	UNITS	MW201 + 50% Lime Dry	MW202 + 50% Lime Dry	MW203 + 50% Lime Dry	MW204 + 50% Lime Dry	MW205 + 50% Lime Dry
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	16/03/2017	16/03/2017	16/03/2017	16/03/2017	16/03/2017
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	97	95	95	97	99

Organochlorine Pesticides in soil						
Our Reference		162119-78	162119-79	162119-80	162119-81	162119-82
Your Reference	UNITS	MW206 + 50% Lime Dry	MW201 + 50% CaCl2 DRY	MW202 + 50% CaCl2 DRY	MW203 + 50% CaCl2 DRY	MW204 + 50% CaCl2 DRY
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	16/03/2017	16/03/2017	16/03/2017	16/03/2017	16/03/2017
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	92	126	109	111	110

Organochlorine Pesticides in soil						
Our Reference		162119-83	162119-84	162119-85	162119-86	162119-87
Your Reference	UNITS	MW205 + 50% CaCl2 DRY	MW206 + 50% CaCl2 DRY	MW201 + 30 Cement DRY	MW202 + 30 Cement DRY	MW203 + 30 Cement DRY
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	16/03/2017	16/03/2017	16/03/2017	16/03/2017	16/03/2017
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	113	118	107	88	94

Client Reference: Hydro Aluminium AS130515

Organochlorine Pesticides in soil						
Our Reference		162119-88	162119-89	162119-90	162119-91	162119-92
Your Reference	UNITS	MW204 + 30 Cement DRY	MW205 + 30 Cement DRY	MW206 + 30 Cement DRY	MW201 + 50% Lime WET	MW202 + 50% Lime WET
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	16/03/2017	16/03/2017	16/03/2017	16/03/2017	16/03/2017
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	100	98	92	96	97

Organochlorine Pesticides in soil						
Our Reference		162119-93	162119-94	162119-95	162119-96	162119-97
Your Reference	UNITS	MW203 + 50% Lime WET	MW204 + 50% Lime WET	MW205 + 50% Lime WET	MW206 + 50% Lime WET	MW201 + 50% CaCl <sub>2</sub> WET
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	16/03/2017	16/03/2017	16/03/2017	16/03/2017	16/03/2017
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	97	97	98	98	118

Organochlorine Pesticides in soil						
Our Reference		162119-98	162119-99	162119-100	162119-101	162119-102
Your Reference	UNITS	MW202 + 50% CaCl2 WET	MW203 + 50% CaCl2 WET	MW204 + 50% CaCl2 WET	MW205 + 50% CaCl2 WET	MW206 + 50% CaCl2 WET
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	16/03/2017	16/03/2017	16/03/2017	16/03/2017	16/03/2017
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<1
Surrogate TCMX	%	112	105	109	108	110



Organochlorine Pesticides in soil						
Our Reference		162119-103	162119-104	162119-105	162119-106	162119-107
Your Reference	UNITS	MW201 + 30% Cement WET	MW202 + 30% Cement WET	MW203 + 30% Cement WET	MW204 + 30% Cement WET	MW205 + 30% Cement WET
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	16/03/2017	16/03/2017	16/03/2017	16/03/2017	16/03/2017
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	92	87	88	89	86

Organochlorine Pesticides in soil		
Our Reference		162119-108
Your Reference	UNITS	MW206 + 30% Cement WET
Date Sampled		10/02/2017
Type of sample		Soil
Date extracted	-	08/03/2017
Date analysed	-	16/03/2017
HCB	mg/kg	<0.1
alpha-BHC	mg/kg	<0.1
gamma-BHC	mg/kg	<0.1
beta-BHC	mg/kg	<0.1
Heptachlor	mg/kg	<0.1
delta-BHC	mg/kg	<0.1
Aldrin	mg/kg	<0.1
Heptachlor Epoxide	mg/kg	<0.1
gamma-Chlordane	mg/kg	<0.1
alpha-chlordane	mg/kg	<0.1
Endosulfan I	mg/kg	<0.1
pp-DDE	mg/kg	<0.1
Dieldrin	mg/kg	<0.1
Endrin	mg/kg	<0.1
pp-DDD	mg/kg	<0.1
Endosulfan II	mg/kg	<0.1
pp-DDT	mg/kg	<0.1
Endrin Aldehyde	mg/kg	<0.1
Endosulfan Sulphate	mg/kg	<0.1
Methoxychlor	mg/kg	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1
Surrogate TCMX	%	81

Organophosphorus Pesticides						
Our Reference		162119-1	162119-2	162119-3	162119-4	162119-5
Your Reference	UNITS	MW201 - BULK 1st sub-sample	MW202 - BULK 1st sub-sample	MW203 - BULK 1st sub-sample	MW204 - BULK 1st sub-sample	MW205 - BULK 1st sub-sample
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	125	94	86	82	97

Organophosphorus Pesticides						
Our Reference		162119-6	162119-7	162119-8	162119-9	162119-10
Your Reference	UNITS	MW206 - BULK 1st sub-sample	MW201 - 1st sub- sample>125mm	MW202 - 1st sub- sample>125mm	MW203 - 1st sub- sample>125mm	MW204 - 1st sub- sample>125mm
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dichlorvos	mg/kg	<0.1	<0.1	<0.5	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	116	#	110	79	#

Organophosphorus Pesticides						
Our Reference		162119-11	162119-12	162119-25	162119-26	162119-27
Your Reference	UNITS	MW205 - 1st sub-sample>125mm	MW206 - 1st sub-sample>125mm	MW201 - 1st sub-sample<125mm	MW202 - 1st sub-sample<125mm	MW203 - 1st sub-sample<125mm
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyrifos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyrifos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dichlorvos	mg/kg	<1	<0.5	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	111	68	137	105	119

Organophosphorus Pesticides						
Our Reference		162119-28	162119-29	162119-30	162119-31	162119-32
Your Reference	UNITS	MW204 - 1st sub-sample<125mm	MW205 - 1st sub-sample<125mm	MW206 - 1st sub-sample<125mm	MW201 - BULK 2nd sub-sample	MW202 - BULK 2nd sub-sample
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyrifos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyrifos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dichlorvos	mg/kg	<0.3	<0.1	<0.1	<2	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	113	99	92	133	98

Organophosphorus Pesticides						
Our Reference		162119-33	162119-34	162119-35	162119-36	162119-37
Your Reference	UNITS	MW203 - BULK 2nd sub-sample	MW204 - BULK 2nd sub-sample	MW205 - BULK 2nd sub-sample	MW206 - BULK 2nd sub-sample	MW201 - 2nd sub- sample>125mm
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	75	102	93	93	#

Organophosphorus Pesticides						
Our Reference		162119-38	162119-39	162119-40	162119-41	162119-42
Your Reference	UNITS	MW202 - 2nd sub- sample>125mm	MW203 - 2nd sub- sample>125mm	MW204 - 2nd sub- sample>125mm	MW205 - 2nd sub- sample>125mm	MW206 - 2nd sub- sample>125mm
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	95	90	#	109	#

Organophosphorus Pesticides						
Our Reference		162119-43	162119-44	162119-45	162119-46	162119-47
Your Reference	UNITS	MW201 - 2nd sub-sample<125mm	MW202 - 2nd sub-sample<125mm	MW203 - 2nd sub-sample<125mm	MW204 - 2nd sub-sample<125mm	MW205 - 2nd sub-sample<125mm
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.5	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	130	117	90	101	114

Organophosphorus Pesticides						
Our Reference		162119-48	162119-49	162119-50	162119-51	162119-52
Your Reference	UNITS	MW206 - 2nd sub-sample<125mm	MW201 - BULK 3rd sub-sample	MW202 - BULK 3rd sub-sample	MW203 - BULK 3rd sub-sample	MW204 - BULK 3rd sub-sample
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.2	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dichlorvos	mg/kg	<0.1	<1	<0.1	<0.1	<2
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	100	122	120	79	110

Organophosphorus Pesticides						
Our Reference		162119-53	162119-54	162119-55	162119-56	162119-57
Your Reference	UNITS	MW205 - BULK 3rd sub-sample	MW206 - BULK 3rd sub-sample	MW201 - BULK 4TH sub-sample	MW202 - BULK 4TH sub-sample	MW203 - BULK 4TH sub-sample
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyrifos	mg/kg	<0.2	<0.5	<0.1	<0.1	<0.1
Chlorpyrifos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dichlorvos	mg/kg	<0.1	<0.1	<2	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	117	100	90	99	78

Organophosphorus Pesticides						
Our Reference		162119-58	162119-59	162119-60	162119-61	162119-62
Your Reference	UNITS	MW204 - BULK 4TH sub-sample	MW205 - BULK 4TH sub-sample	MW206 - BULK 4TH sub-sample	MW201 - BULK 5TH sub-sample	MW202 - BULK 5TH sub-sample
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyrifos	mg/kg	<1	<0.5	<0.5	<0.1	<0.1
Chlorpyrifos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<2	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	120	108	102	80	127

Client Reference: Hydro Aluminium AS130515

Organophosphorus Pesticides						
Our Reference		162119-63	162119-64	162119-65	162119-66	162119-67
Your Reference	UNITS	MW203 - BULK 5TH sub-sample	MW204 - BULK 5TH sub-sample	MW205 - BULK 5TH sub-sample	MW206 - BULK 5TH sub-sample	MW201 - BULK 6TH sub-sample
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyrifos	mg/kg	<0.1	<1	<0.5	<1	<0.1
Chlorpyrifos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.2
Dichlorvos	mg/kg	<0.1	<2	<0.1	<2	<1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	84	76	107	120	99

Organophosphorus Pesticides						
Our Reference		162119-68	162119-69	162119-70	162119-71	162119-72
Your Reference	UNITS	MW202 - BULK 6TH sub-sample	MW203 - BULK 6TH sub-sample	MW204 - BULK 6TH sub-sample	MW205 - BULK 6TH sub-sample	MW206 - BULK 6TH sub-sample
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyrifos	mg/kg	<1	<0.1	<0.1	<0.5	<0.2
Chlorpyrifos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	94	100	110	117	109



Organophosphorus Pesticides						
Our Reference		162119-73	162119-74	162119-75	162119-76	162119-77
Your Reference	UNITS	MW201 + 50% Lime Dry	MW202 + 50% Lime Dry	MW203 + 50% Lime Dry	MW204 + 50% Lime Dry	MW205 + 50% Lime Dry
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	16/03/2017	16/03/2017	16/03/2017	16/03/2017	16/03/2017
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyrifos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyrifos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	97	95	95	97	99

Organophosphorus Pesticides						
Our Reference		162119-78	162119-79	162119-80	162119-81	162119-82
Your Reference	UNITS	MW206 + 50% Lime Dry	MW201 + 50% CaCl2 DRY	MW202 + 50% CaCl2 DRY	MW203 + 50% CaCl2 DRY	MW204 + 50% CaCl2 DRY
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	16/03/2017	16/03/2017	16/03/2017	16/03/2017	16/03/2017
Azinphos-methyl (Guthion)	mg/kg	<1	<0.1	<2	<0.1	<0.5
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyrifos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyrifos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	92	126	109	111	110

Organophosphorus Pesticides						
Our Reference		162119-83	162119-84	162119-85	162119-86	162119-87
Your Reference	UNITS	MW205 + 50% CaCl2 DRY	MW206 + 50% CaCl2 DRY	MW201 + 30 Cement DRY	MW202 + 30 Cement DRY	MW203 + 30 Cement DRY
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	16/03/2017	16/03/2017	16/03/2017	16/03/2017	16/03/2017
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<2	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyrifos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyrifos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dichlorvos	mg/kg	<0.1	<0.1	<1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	113	118	107	88	94

Organophosphorus Pesticides						
Our Reference		162119-88	162119-89	162119-90	162119-91	162119-92
Your Reference	UNITS	MW204 + 30 Cement DRY	MW205 + 30 Cement DRY	MW206 + 30 Cement DRY	MW201 + 50% Lime WET	MW202 + 50% Lime WET
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	16/03/2017	16/03/2017	16/03/2017	16/03/2017	16/03/2017
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<1	<0.1	<0.5
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyrifos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyrifos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	100	98	92	96	97

Organophosphorus Pesticides						
Our Reference		162119-93	162119-94	162119-95	162119-96	162119-97
Your Reference	UNITS	MW203 + 50% Lime WET	MW204 + 50% Lime WET	MW205 + 50% Lime WET	MW206 + 50% Lime WET	MW201 + 50% CaCl2 WET
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	16/03/2017	16/03/2017	16/03/2017	16/03/2017	16/03/2017
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyrifos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyrifos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	97	97	98	98	118

Organophosphorus Pesticides						
Our Reference		162119-98	162119-99	162119-100	162119-101	162119-102
Your Reference	UNITS	MW202 + 50% CaCl2 WET	MW203 + 50% CaCl2 WET	MW204 + 50% CaCl2 WET	MW205 + 50% CaCl2 WET	MW206 + 50% CaCl2 WET
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	16/03/2017	16/03/2017	16/03/2017	16/03/2017	16/03/2017
Azinphos-methyl (Guthion)	mg/kg	<1	<0.5	<1	<0.5	<1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<1
Chlorpyrifos	mg/kg	<0.1	<0.1	<0.1	<0.1	<1
Chlorpyrifos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<1
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<1
Surrogate TCMX	%	112	105	109	108	110

Organophosphorus Pesticides						
Our Reference		162119-103	162119-104	162119-105	162119-106	162119-107
Your Reference	UNITS	MW201 + 30% Cement WET	MW202 + 30% Cement WET	MW203 + 30% Cement WET	MW204 + 30% Cement WET	MW205 + 30% Cement WET
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	16/03/2017	16/03/2017	16/03/2017	16/03/2017	16/03/2017
Azinphos-methyl (Guthion)	mg/kg	<0.2	<1	<0.1	<0.1	<1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyrifos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyrifos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	92	87	88	89	86

Organophosphorus Pesticides		
Our Reference		162119-108
Your Reference	UNITS	MW206 + 30% Cement WET
Date Sampled		10/02/2017
Type of sample		Soil
Date extracted	-	08/03/2017
Date analysed	-	16/03/2017
Azinphos-methyl (Guthion)	mg/kg	<0.1
Bromophos-ethyl	mg/kg	<0.1
Chlorpyrifos	mg/kg	<0.1
Chlorpyrifos-methyl	mg/kg	<0.1
Diazinon	mg/kg	<0.1
Dichlorvos	mg/kg	<0.1
Dimethoate	mg/kg	<0.1
Ethion	mg/kg	<0.1
Fenitrothion	mg/kg	<0.1
Malathion	mg/kg	<0.1
Parathion	mg/kg	<0.1
Ronnel	mg/kg	<0.1
Surrogate TCMX	%	81

Client Reference: Hydro Aluminium AS130515

SVOCs in Soil						
Our Reference		162119-1	162119-2	162119-3	162119-4	162119-5
Your Reference	UNITS	MW201 - BULK 1st sub-sample	MW202 - BULK 1st sub-sample	MW203 - BULK 1st sub-sample	MW204 - BULK 1st sub-sample	MW205 - BULK 1st sub-sample
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	09/03/2017	09/03/2017	09/03/2017	09/03/2017	09/03/2017
Phenol	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Bis-(2-chloroethyl) ether	mg/kg	<1	<1	<1	<1	<1
2-Chlorophenol	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2-Methylphenol	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
3/4-Methylphenol	mg/kg	<1	<1	<1	<1	<1
Nitrobenzene	mg/kg	<1	<1	<1	<1	<1
2,4-Dimethylphenol	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2-Nitrophenol	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,4-Dichlorophenol	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,2,4-Trichlorobenzene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
4-Chloro-3-methylphenol	mg/kg	<5	<5	<5	<5	<5
2,4,6-trichlorophenol	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,4,5-trichlorophenol	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Dimethylphthalate	mg/kg	<1	<1	<1	<1	<1
2,6-Dinitrotoluene	mg/kg	<1	<1	<1	<1	<1
2,4-dinitrophenol	mg/kg	<10	<10	<10	<10	<10
4-nitrophenol	mg/kg	<10	<10	<10	<10	<10
diethylphthalate	mg/kg	<1	<1	<1	<1	<1
2-methyl-4,6-dinitrophenol	mg/kg	<10	<10	<10	<10	<10
pentachlorophenol	mg/kg	<5	<5	<5	<5	<5
di-n-butylphthalate	mg/kg	<1	<1	<1	<1	<1
butylbenzylphthalate	mg/kg	<1	<1	<1	<1	<1
bis(2-ethylhexyl)phthalate	mg/kg	3	6	1	3	2
di-n-octylphthalate	mg/kg	<1	<1	<1	<1	<1
2,6-dichlorophenol	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,3,4,6-tetrachlorophenol	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Surrogate Phenol-d <sub>6</sub>	%	74	75	104	104	90
Surrogate Nitrobenzene-d <sub>5</sub>	%	56	64	101	92	74
Surrogate 2-fluorobiphenyl	%	83	93	88	84	88
Surrogate 2,4,6-Tribromophenol	%	94	86	30	51	#
Surrogate p-Terphenyl-d <sub>14</sub>	%	97	100	96	96	96

SVOCs in Soil						
Our Reference		162119-6	162119-7	162119-8	162119-9	162119-10
Your Reference	UNITS	MW206 - BULK 1st sub-sample	MW201 - 1st sub- sample>125mm	MW202 - 1st sub- sample>125mm	MW203 - 1st sub- sample>125mm	MW204 - 1st sub- sample>125mm
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	09/03/2017	09/03/2017	09/03/2017	09/03/2017	09/03/2017
Phenol	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Bis-(2-chloroethyl) ether	mg/kg	<1	<1	<1	<1	<1
2-Chlorophenol	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2-Methylphenol	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
3/4-Methylphenol	mg/kg	<1	<1	<1	<1	<1
Nitrobenzene	mg/kg	<1	<1	<1	<1	<1
2,4-Dimethylphenol	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2-Nitrophenol	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,4-Dichlorophenol	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,2,4-Trichlorobenzene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
4-Chloro-3-methylphenol	mg/kg	<5	<5	<5	<5	<5
2,4,6-trichlorophenol	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,4,5-trichlorophenol	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Dimethylphthalate	mg/kg	<1	<1	<1	<1	<1
2,6-Dinitrotoluene	mg/kg	<1	<1	<1	<1	<1
2,4-dinitrophenol	mg/kg	<10	<10	<10	<10	<10
4-nitrophenol	mg/kg	<10	<10	<10	<10	<10
diethylphthalate	mg/kg	<1	<1	<1	<1	<1
2-methyl-4,6-dinitrophenol	mg/kg	<10	<10	<10	<10	<10
pentachlorophenol	mg/kg	<5	<5	<5	<5	<5
di-n-butylphthalate	mg/kg	<1	<1	<1	<1	<1
butylbenzylphthalate	mg/kg	<1	<1	<1	<1	<1
bis(2-ethylhexyl)phthalate	mg/kg	3	2	5	<1	2
di-n-octylphthalate	mg/kg	<1	<1	<1	<1	<1
2,6-dichlorophenol	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,3,4,6-tetrachlorophenol	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Surrogate Phenol-d <sub>6</sub>	%	72	63	71	58	53
Surrogate Nitrobenzene-d <sub>5</sub>	%	88	53	54	25	60
Surrogate 2-fluorobiphenyl	%	89	90	92	83	81
Surrogate 2,4,6-Tribromophenol	%	#	#	#	#	94
Surrogate p-Terphenyl-d <sub>14</sub>	%	94	46	106	73	44

SVOCs in Soil						
Our Reference		162119-11	162119-12	162119-25	162119-26	162119-27
Your Reference	UNITS	MW205 - 1st sub-sample>125mm	MW206 - 1st sub-sample>125mm	MW201 - 1st sub-sample<125mm	MW202 - 1st sub-sample<125mm	MW203 - 1st sub-sample<125mm
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	09/03/2017	09/03/2017	09/03/2017	09/03/2017	09/03/2017
Phenol	mg/kg	<0.5	<0.5	<5	<5	<5
Bis-(2-chloroethyl) ether	mg/kg	<1	<1	[NA]	[NA]	[NA]
2-Chlorophenol	mg/kg	<0.5	<0.5	<5	<5	<5
2-Methylphenol	mg/kg	<0.5	<0.5	<5	<5	<5
3/4-Methylphenol	mg/kg	<1	<1	<10	<10	<10
Nitrobenzene	mg/kg	<1	<1	<10	<10	<10
2,4-Dimethylphenol	mg/kg	<0.5	<0.5	<5	<5	<5
2-Nitrophenol	mg/kg	<0.5	<0.5	<5	<5	<5
2,4-Dichlorophenol	mg/kg	<0.5	<0.5	<5	<5	<5
1,2,4-Trichlorobenzene	mg/kg	<0.5	<0.5	[NA]	[NA]	[NA]
4-Chloro-3-methylphenol	mg/kg	<5	<5	<50	<50	<50
2,4,6-trichlorophenol	mg/kg	<0.5	<0.5	<5	<5	<5
2,4,5-trichlorophenol	mg/kg	<0.5	<0.5	<5	<5	<5
Dimethylphthalate	mg/kg	<1	<1	<10	<10	<10
2,6-Dinitrotoluene	mg/kg	<1	<1	[NA]	[NA]	[NA]
2,4-dinitrophenol	mg/kg	<10	<10	<100	<100	<100
4-nitrophenol	mg/kg	<10	<10	<100	<100	<100
diethylphthalate	mg/kg	<1	<1	<10	<10	<10
2-methyl-4,6-dinitrophenol	mg/kg	<10	<10	<100	<100	<100
pentachlorophenol	mg/kg	<5	<5	<50	<50	<50
di-n-butylphthalate	mg/kg	<1	<1	<10	<10	<10
butylbenzylphthalate	mg/kg	2	<1	<10	<10	<10
bis(2-ethylhexyl)phthalate	mg/kg	<1	<1	[NA]	[NA]	[NA]
di-n-octylphthalate	mg/kg	<1	<1	<10	<10	<10
2,6-dichlorophenol	mg/kg	<0.5	<0.5	<5	<5	<5
2,3,4,6-tetrachlorophenol	mg/kg	<0.5	<0.5	<5	<5	<5
Surrogate Phenol-d <sub>6</sub>	%	44	90	#	#	#
Surrogate Nitrobenzene-d <sub>5</sub>	%	72	28	60	80	50
Surrogate 2-fluorobiphenyl	%	79	96	90	90	80
Surrogate 2,4,6-Tribromophenol	%	54	92	#	#	#
Surrogate p-Terphenyl-d <sub>14</sub>	%	95	91	126	114	113

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SVOCs in Soil						
Our Reference		162119-28	162119-29	162119-30	162119-31	162119-32
Your Reference	UNITS	MW204 - 1st sub-sample<125mm	MW205 - 1st sub-sample<125mm	MW206 - 1st sub-sample<125mm	MW201 - BULK 2nd sub-sample	MW202 - BULK 2nd sub-sample
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	09/03/2017	09/03/2017	09/03/2017	09/03/2017	09/03/2017
Phenol	mg/kg	<5	<5	<5	<0.5	<5
2-Chlorophenol	mg/kg	<5	<5	<5	<0.5	<5
2-Methylphenol	mg/kg	<5	<5	<5	<0.5	<5
3/4-Methylphenol	mg/kg	<10	<10	<10	<1	<10
Nitrobenzene	mg/kg	<10	<10	<10	<1	<10
2,4-Dimethylphenol	mg/kg	<5	<5	<5	<0.5	<5
2-Nitrophenol	mg/kg	<5	<5	<5	<0.5	<5
2,4-Dichlorophenol	mg/kg	<5	<5	<5	<0.5	<5
4-Chloro-3-methylphenol	mg/kg	<50	<50	<50	<5	<50
2,4,6-trichlorophenol	mg/kg	<5	<5	<5	<0.5	<5
2,4,5-trichlorophenol	mg/kg	<5	<5	<5	<0.5	<5
Dimethylphthalate	mg/kg	<10	<10	<10	<1	<10
2,4-dinitrophenol	mg/kg	<100	<100	<100	<10	<100
4-nitrophenol	mg/kg	<100	<100	<100	<10	<100
diethylphthalate	mg/kg	<10	<10	<10	<1	<10
2-methyl-4,6-dinitrophenol	mg/kg	<100	<100	<100	<10	<100
pentachlorophenol	mg/kg	<50	<50	<50	<5	<50
di-n-butylphthalate	mg/kg	<10	<10	<10	<1	<10
butylbenzylphthalate	mg/kg	<10	<10	<10	<1	<10
di-n-octylphthalate	mg/kg	<10	<10	<10	<1	<10
2,6-dichlorophenol	mg/kg	<5	<5	<5	<0.5	<5
2,3,4,6-tetrachlorophenol	mg/kg	<5	<5	<5	<0.5	<5
Surrogate Phenol-d <sub>6</sub>	%	#	#	#	88	#
Surrogate Nitrobenzene-d <sub>5</sub>	%	70	70	70	94	80
Surrogate 2-fluorobiphenyl	%	70	80	80	85	80
Surrogate 2,4,6-Tribromophenol	%	#	#	#	93	#
Surrogate p-Terphenyl-d <sub>14</sub>	%	101	106	105	118	101



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SVOCs in Soil						
Our Reference		162119-33	162119-34	162119-35	162119-36	162119-37
Your Reference	UNITS	MW203 - BULK 2nd sub-sample	MW204 - BULK 2nd sub-sample	MW205 - BULK 2nd sub-sample	MW206 - BULK 2nd sub-sample	MW201 - 2nd sub- sample>125mm
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	09/03/2017	09/03/2017	09/03/2017	09/03/2017	09/03/2017
Phenol	mg/kg	<5	<5	<5	<5	<0.5
2-Chlorophenol	mg/kg	<5	<5	<5	<5	<0.5
2-Methylphenol	mg/kg	<5	<5	<5	<5	<0.5
3/4-Methylphenol	mg/kg	<10	<10	<10	<10	<1
Nitrobenzene	mg/kg	<10	<10	<10	<10	<1
2,4-Dimethylphenol	mg/kg	<5	<5	<5	<5	<0.5
2-Nitrophenol	mg/kg	<5	<5	<5	<5	<0.5
2,4-Dichlorophenol	mg/kg	<5	<5	<5	<5	<0.5
4-Chloro-3-methylphenol	mg/kg	<50	<50	<50	<50	<5
2,4,6-trichlorophenol	mg/kg	<5	<5	<5	<5	<0.5
2,4,5-trichlorophenol	mg/kg	<5	<5	<5	<5	<0.5
Dimethylphthalate	mg/kg	<10	<10	<10	<10	<1
2,4-dinitrophenol	mg/kg	<100	<100	<100	<100	<10
4-nitrophenol	mg/kg	<100	<100	<100	<100	<10
diethylphthalate	mg/kg	<10	<10	<10	<10	<1
2-methyl-4,6-dinitrophenol	mg/kg	<100	<100	<100	<100	<10
pentachlorophenol	mg/kg	<50	<50	<50	<50	<5
di-n-butylphthalate	mg/kg	<10	<10	<10	<10	<1
butylbenzylphthalate	mg/kg	<10	<10	<10	<10	<1
di-n-octylphthalate	mg/kg	<10	<10	<10	<10	<1
2,6-dichlorophenol	mg/kg	<5	<5	<5	<5	<0.5
2,3,4,6-tetrachlorophenol	mg/kg	<5	<5	<5	<5	<0.5
Surrogate Phenol-d <sub>6</sub>	%	#	#	#	#	29
Surrogate Nitrobenzene-d <sub>5</sub>	%	50	70	60	70	84
Surrogate 2-fluorobiphenyl	%	70	70	80	70	75
Surrogate 2,4,6-Tribromophenol	%	#	#	#	#	#
Surrogate p-Terphenyl-d <sub>14</sub>	%	94	102	113	102	#

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SVOCs in Soil						
Our Reference		162119-38	162119-39	162119-40	162119-41	162119-42
Your Reference	UNITS	MW202 - 2nd sub-sample>125mm	MW203 - 2nd sub-sample>125mm	MW204 - 2nd sub-sample>125mm	MW205 - 2nd sub-sample>125mm	MW206 - 2nd sub-sample>125mm
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	09/03/2017	09/03/2017	09/03/2017	09/03/2017	09/03/2017
Phenol	mg/kg	<0.5	<0.5	<0.5	<5	<0.5
2-Chlorophenol	mg/kg	<0.5	<0.5	<0.5	<5	<0.5
2-Methylphenol	mg/kg	<0.5	<0.5	<0.5	<5	<0.5
3/4-Methylphenol	mg/kg	<1	<1	<1	<10	<1
Nitrobenzene	mg/kg	<1	<1	<1	<10	<1
2,4-Dimethylphenol	mg/kg	<0.5	<0.5	<0.5	<5	<0.5
2-Nitrophenol	mg/kg	<0.5	<0.5	<0.5	<5	<0.5
2,4-Dichlorophenol	mg/kg	<0.5	<0.5	<0.5	<5	<0.5
4-Chloro-3-methylphenol	mg/kg	<5	<5	<5	<50	<5
2,4,6-trichlorophenol	mg/kg	<0.5	<0.5	<0.5	<5	<0.5
2,4,5-trichlorophenol	mg/kg	<0.5	<0.5	<0.5	<5	<0.5
Dimethylphthalate	mg/kg	<1	<1	<1	<10	<1
2,4-dinitrophenol	mg/kg	<10	<10	<10	<100	<10
4-nitrophenol	mg/kg	<10	<10	<10	<100	<10
diethylphthalate	mg/kg	<1	<1	<1	<10	<1
2-methyl-4,6-dinitrophenol	mg/kg	<10	<10	<10	<100	<10
pentachlorophenol	mg/kg	<5	<5	<5	<50	<5
di-n-butylphthalate	mg/kg	<1	<1	<1	<10	<1
butylbenzylphthalate	mg/kg	<1	<1	<1	<10	<1
di-n-octylphthalate	mg/kg	<1	<1	<1	<10	<1
2,6-dichlorophenol	mg/kg	<0.5	<0.5	<0.5	<5	<0.5
2,3,4,6-tetrachlorophenol	mg/kg	<0.5	<0.5	<0.5	<5	<0.5
Surrogate Phenol-d <sub>6</sub>	%	54	58	95	#	89
Surrogate Nitrobenzene-d <sub>5</sub>	%	76	105	104	50	74
Surrogate 2-fluorobiphenyl	%	91	89	83	70	76
Surrogate 2,4,6-Tribromophenol	%	#	#	#	#	#
Surrogate p-Terphenyl-d <sub>14</sub>	%	101	71	37	102	#

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SVOCs in Soil						
Our Reference		162119-43	162119-44	162119-45	162119-46	162119-47
Your Reference	UNITS	MW201 - 2nd sub-sample<125mm	MW202 - 2nd sub-sample<125mm	MW203 - 2nd sub-sample<125mm	MW204 - 2nd sub-sample<125mm	MW205 - 2nd sub-sample<125mm
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	09/03/2017	09/03/2017	09/03/2017	09/03/2017	09/03/2017
Phenol	mg/kg	<5	<5	<5	<5	<5
2-Chlorophenol	mg/kg	<5	<5	<5	<5	<5
2-Methylphenol	mg/kg	<5	<5	<5	<5	<5
3/4-Methylphenol	mg/kg	<10	<10	<10	<10	<10
Nitrobenzene	mg/kg	<10	<10	<10	<10	<10
2,4-Dimethylphenol	mg/kg	<5	<5	<5	<5	<5
2-Nitrophenol	mg/kg	<5	<5	<5	<5	<5
2,4-Dichlorophenol	mg/kg	<5	<5	<5	<5	<5
4-Chloro-3-methylphenol	mg/kg	<50	<50	<50	<50	<50
2,4,6-trichlorophenol	mg/kg	<5	<5	<5	<5	<5
2,4,5-trichlorophenol	mg/kg	<5	<5	<5	<5	<5
Dimethylphthalate	mg/kg	<10	<10	<10	<10	<10
2,4-dinitrophenol	mg/kg	<100	<100	<100	<100	<100
4-nitrophenol	mg/kg	<100	<100	<100	<100	<100
diethylphthalate	mg/kg	<10	<10	<10	<10	<10
2-methyl-4,6-dinitrophenol	mg/kg	<100	<100	<100	<100	<100
pentachlorophenol	mg/kg	<50	<50	<50	<50	<50
di-n-butylphthalate	mg/kg	<10	<10	<10	<10	<10
butylbenzylphthalate	mg/kg	<10	<10	<10	<10	<10
di-n-octylphthalate	mg/kg	<10	<10	<10	<10	<10
2,6-dichlorophenol	mg/kg	<5	<5	<5	<5	<5
2,3,4,6-tetrachlorophenol	mg/kg	<5	<5	<5	<5	<5
Surrogate Phenol-d <sub>6</sub>	%	50	80	#	#	#
Surrogate Nitrobenzene-d <sub>5</sub>	%	50	50	50	50	60
Surrogate 2-fluorobiphenyl	%	60	80	80	80	80
Surrogate 2,4,6-Tribromophenol	%	#	#	#	#	#
Surrogate p-Terphenyl-d <sub>14</sub>	%	90	120	112	112	118

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SVOCs in Soil						
Our Reference		162119-48	162119-49	162119-50	162119-51	162119-52
Your Reference	UNITS	MW206 - 2nd sub-sample<125mm	MW201 - BULK 3rd sub-sample	MW202 - BULK 3rd sub-sample	MW203 - BULK 3rd sub-sample	MW204 - BULK 3rd sub-sample
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	09/03/2017	09/03/2017	09/03/2017	09/03/2017	09/03/2017
Phenol	mg/kg	<5	<5	<5	<5	<5
2-Chlorophenol	mg/kg	<5	<5	<5	<5	<5
2-Methylphenol	mg/kg	<5	<5	<5	<5	<5
3/4-Methylphenol	mg/kg	<10	<10	<10	<10	<10
Nitrobenzene	mg/kg	<10	<10	<10	<10	<10
2,4-Dimethylphenol	mg/kg	<5	<5	<5	<5	<5
2-Nitrophenol	mg/kg	<5	<5	<5	<5	<5
2,4-Dichlorophenol	mg/kg	<5	<5	<5	<5	<5
4-Chloro-3-methylphenol	mg/kg	<50	<50	<50	<50	<50
2,4,6-trichlorophenol	mg/kg	<5	<5	<5	<5	<5
2,4,5-trichlorophenol	mg/kg	<5	<5	<5	<5	<5
Dimethylphthalate	mg/kg	<10	<10	<10	<10	<10
2,4-dinitrophenol	mg/kg	<100	<100	<100	<100	<100
4-nitrophenol	mg/kg	<100	<100	<100	<100	<100
diethylphthalate	mg/kg	<10	<10	<10	<10	<10
2-methyl-4,6-dinitrophenol	mg/kg	<100	<100	<100	<100	<100
pentachlorophenol	mg/kg	<50	<50	<50	<50	<50
di-n-butylphthalate	mg/kg	<10	<10	<10	<10	<10
butylbenzylphthalate	mg/kg	<10	<10	<10	<10	<10
di-n-octylphthalate	mg/kg	<10	<10	<10	<10	<10
2,6-dichlorophenol	mg/kg	<5	<5	<5	<5	<5
2,3,4,6-tetrachlorophenol	mg/kg	<5	<5	<5	<5	<5
Surrogate Phenol-d <sub>6</sub>	%	100	#	#	#	70
Surrogate Nitrobenzene-d <sub>5</sub>	%	70	70	90	60	60
Surrogate 2-fluorobiphenyl	%	80	70	80	70	70
Surrogate 2,4,6-Tribromophenol	%	#	#	#	#	#
Surrogate p-Terphenyl-d <sub>14</sub>	%	118	106	106	98	106

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SVOCs in Soil						
Our Reference		162119-53	162119-54	162119-55	162119-56	162119-57
Your Reference	UNITS	MW205 - BULK 3rd sub-sample	MW206 - BULK 3rd sub-sample	MW201 - BULK 4TH sub-sample	MW202 - BULK 4TH sub-sample	MW203 - BULK 4TH sub-sample
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	09/03/2017	09/03/2017	09/03/2017	09/03/2017	09/03/2017
Phenol	mg/kg	<5	<5	<5	<5	<5
2-Chlorophenol	mg/kg	<5	<5	<5	<5	<5
2-Methylphenol	mg/kg	<5	<5	<5	<5	<5
3/4-Methylphenol	mg/kg	<10	<10	<10	<10	<10
Nitrobenzene	mg/kg	<10	<10	<10	<10	<10
2,4-Dimethylphenol	mg/kg	<5	<5	<5	<5	<5
2-Nitrophenol	mg/kg	<5	<5	<5	<5	<5
2,4-Dichlorophenol	mg/kg	<5	<5	<5	<5	<5
4-Chloro-3-methylphenol	mg/kg	<50	<50	<50	<50	<50
2,4,6-trichlorophenol	mg/kg	<5	<5	<5	<5	<5
2,4,5-trichlorophenol	mg/kg	<5	<5	<5	<5	<5
Dimethylphthalate	mg/kg	<10	<10	<10	<10	<10
2,4-dinitrophenol	mg/kg	<100	<100	<100	<100	<100
4-nitrophenol	mg/kg	<100	<100	<100	<100	<100
diethylphthalate	mg/kg	<10	<10	<10	<10	<10
2-methyl-4,6-dinitrophenol	mg/kg	<100	<100	<100	<100	<100
pentachlorophenol	mg/kg	<50	<50	<50	<50	<50
di-n-butylphthalate	mg/kg	<10	<10	<10	<10	<10
butylbenzylphthalate	mg/kg	<10	<10	<10	<10	<10
di-n-octylphthalate	mg/kg	<10	<10	<10	<10	<10
2,6-dichlorophenol	mg/kg	<5	<5	<5	<5	<5
2,3,4,6-tetrachlorophenol	mg/kg	<5	<5	<5	<5	<5
Surrogate Phenol-d <sub>6</sub>	%	80	90	70	80	60
Surrogate Nitrobenzene-d <sub>5</sub>	%	60	70	60	70	50
Surrogate 2-fluorobiphenyl	%	70	80	70	80	70
Surrogate 2,4,6-Tribromophenol	%	#	#	#	#	#
Surrogate p-Terphenyl-d <sub>14</sub>	%	106	105	112	112	106

Client Reference: Hydro Aluminium AS130515

SVOCs in Soil						
Our Reference		162119-58	162119-59	162119-60	162119-61	162119-62
Your Reference	UNITS	MW204 - BULK 4TH sub-sample	MW205 - BULK 4TH sub-sample	MW206 - BULK 4TH sub-sample	MW201 - BULK 5TH sub-sample	MW202 - BULK 5TH sub-sample
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	09/03/2017	09/03/2017	09/03/2017	09/03/2017	09/03/2017
Phenol	mg/kg	<5	<5	<5	<5	<5
2-Chlorophenol	mg/kg	<5	<5	<5	<5	<5
2-Methylphenol	mg/kg	<5	<5	<5	<5	<5
3/4-Methylphenol	mg/kg	<10	<10	<10	<10	<10
Nitrobenzene	mg/kg	<10	<10	<10	<10	<10
2,4-Dimethylphenol	mg/kg	<5	<5	<5	<5	<5
2-Nitrophenol	mg/kg	<5	<5	<5	<5	<5
2,4-Dichlorophenol	mg/kg	<5	<5	<5	<5	<5
4-Chloro-3-methylphenol	mg/kg	<50	<50	<50	<50	<50
2,4,6-trichlorophenol	mg/kg	<5	<5	<5	<5	<5
2,4,5-trichlorophenol	mg/kg	<5	<5	<5	<5	<5
Dimethylphthalate	mg/kg	<10	<10	<10	<10	<10
2,4-dinitrophenol	mg/kg	<100	<100	<100	<100	<100
4-nitrophenol	mg/kg	<100	<100	<100	<100	<100
diethylphthalate	mg/kg	<10	<10	<10	<10	<10
2-methyl-4,6-dinitrophenol	mg/kg	<100	<100	<100	<100	<100
pentachlorophenol	mg/kg	<50	<50	<50	<50	<50
di-n-butylphthalate	mg/kg	<10	<10	<10	<10	<10
butylbenzylphthalate	mg/kg	<10	<10	<10	<10	<10
di-n-octylphthalate	mg/kg	<10	<10	<10	<10	<10
2,6-dichlorophenol	mg/kg	<5	<5	<5	<5	<5
2,3,4,6-tetrachlorophenol	mg/kg	<5	<5	<5	<5	<5
Surrogate Phenol-d <sub>6</sub>	%	#	#	70	90	70
Surrogate Nitrobenzene-d <sub>5</sub>	%	60	60	60	50	60
Surrogate 2-fluorobiphenyl	%	70	70	80	70	80
Surrogate 2,4,6-Tribromophenol	%	#	#	#	#	#
Surrogate p-Terphenyl-d <sub>14</sub>	%	106	106	112	112	112

Client Reference: Hydro Aluminium AS130515

SVOCs in Soil						
Our Reference		162119-63	162119-64	162119-65	162119-66	162119-67
Your Reference	UNITS	MW203 - BULK 5TH sub-sample	MW204 - BULK 5TH sub-sample	MW205 - BULK 5TH sub-sample	MW206 - BULK 5TH sub-sample	MW201 - BULK 6TH sub-sample
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	09/03/2017	09/03/2017	09/03/2017	09/03/2017	09/03/2017
Phenol	mg/kg	<5	<5	<5	<5	<5
2-Chlorophenol	mg/kg	<5	<5	<5	<5	<5
2-Methylphenol	mg/kg	<5	<5	<5	<5	<5
3/4-Methylphenol	mg/kg	<10	<10	<10	<10	<10
Nitrobenzene	mg/kg	<10	<10	<10	<10	<10
2,4-Dimethylphenol	mg/kg	<5	<5	<5	<5	<5
2-Nitrophenol	mg/kg	<5	<5	<5	<5	<5
2,4-Dichlorophenol	mg/kg	<5	<5	<5	<5	<5
4-Chloro-3-methylphenol	mg/kg	<50	<50	<50	<50	<50
2,4,6-trichlorophenol	mg/kg	<5	<5	<5	<5	<5
2,4,5-trichlorophenol	mg/kg	<5	<5	<5	<5	<5
Dimethylphthalate	mg/kg	<10	<10	<10	<10	<10
2,4-dinitrophenol	mg/kg	<100	<100	<100	<100	<100
4-nitrophenol	mg/kg	<100	<100	<100	<100	<100
diethylphthalate	mg/kg	<10	<10	<10	<10	<10
2-methyl-4,6-dinitrophenol	mg/kg	<100	<100	<100	<100	<100
pentachlorophenol	mg/kg	<50	<50	<50	<50	<50
di-n-butylphthalate	mg/kg	<10	<10	<10	<10	<10
butylbenzylphthalate	mg/kg	<10	<10	<10	<10	<10
di-n-octylphthalate	mg/kg	<10	<10	<10	<10	<10
2,6-dichlorophenol	mg/kg	<5	<5	<5	<5	<5
2,3,4,6-tetrachlorophenol	mg/kg	<5	<5	<5	<5	<5
Surrogate Phenol-d <sub>6</sub>	%	80	100	#	#	80
Surrogate Nitrobenzene-d <sub>5</sub>	%	40	70	40	70	50
Surrogate 2-fluorobiphenyl	%	70	70	70	70	70
Surrogate 2,4,6-Tribromophenol	%	#	#	#	#	#
Surrogate p-Terphenyl-d <sub>14</sub>	%	100	105	104	105	106

Client Reference: Hydro Aluminium AS130515

SVOCs in Soil						
Our Reference		162119-68	162119-69	162119-70	162119-71	162119-72
Your Reference	UNITS	MW202 - BULK 6TH sub-sample	MW203 - BULK 6TH sub-sample	MW204 - BULK 6TH sub-sample	MW205 - BULK 6TH sub-sample	MW206 - BULK 6TH sub-sample
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	09/03/2017	09/03/2017	09/03/2017	09/03/2017	09/03/2017
Phenol	mg/kg	<5	<5	<5	<5	<5
2-Chlorophenol	mg/kg	<5	<5	<5	<5	<5
2-Methylphenol	mg/kg	<5	<5	<5	<5	<5
3/4-Methylphenol	mg/kg	<10	<10	<10	<10	<10
Nitrobenzene	mg/kg	<10	<10	<10	<10	<10
2,4-Dimethylphenol	mg/kg	<5	<5	<5	<5	<5
2-Nitrophenol	mg/kg	<5	<5	<5	<5	<5
2,4-Dichlorophenol	mg/kg	<5	<5	<5	<5	<5
4-Chloro-3-methylphenol	mg/kg	<50	<50	<50	<50	<50
2,4,6-trichlorophenol	mg/kg	<5	<5	<5	<5	<5
2,4,5-trichlorophenol	mg/kg	<5	<5	<5	<5	<5
Dimethylphthalate	mg/kg	<10	<10	<10	<10	<10
2,4-dinitrophenol	mg/kg	<100	<100	<100	<100	<100
4-nitrophenol	mg/kg	<100	<100	<100	<100	<100
diethylphthalate	mg/kg	<10	<10	<10	<10	<10
2-methyl-4,6-dinitrophenol	mg/kg	<100	<100	<100	<100	<100
pentachlorophenol	mg/kg	<50	<50	<50	<50	<50
di-n-butylphthalate	mg/kg	<10	<10	<10	<10	<10
butylbenzylphthalate	mg/kg	<10	<10	<10	<10	<10
di-n-octylphthalate	mg/kg	<10	<10	<10	<10	<10
2,6-dichlorophenol	mg/kg	<5	<5	<5	<5	<5
2,3,4,6-tetrachlorophenol	mg/kg	<5	<5	<5	<5	<5
Surrogate Phenol-d <sub>6</sub>	%	#	50	#	#	#
Surrogate Nitrobenzene-d <sub>5</sub>	%	40	40	60	50	50
Surrogate 2-fluorobiphenyl	%	80	70	80	80	70
Surrogate 2,4,6-Tribromophenol	%	#	#	#	#	#
Surrogate p-Terphenyl-d <sub>14</sub>	%	104	94	106	112	106



SVOCs in Soil						
Our Reference		162119-73	162119-74	162119-75	162119-76	162119-77
Your Reference	UNITS	MW201 + 50% Lime Dry	MW202 + 50% Lime Dry	MW203 + 50% Lime Dry	MW204 + 50% Lime Dry	MW205 + 50% Lime Dry
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	09/03/2017	09/03/2017	09/03/2017	09/03/2017	09/03/2017
Phenol	mg/kg	<5	<5	<5	<5	<5
2-Chlorophenol	mg/kg	<5	<5	<5	<5	<5
2-Methylphenol	mg/kg	<5	<5	<5	<5	<5
3/4-Methylphenol	mg/kg	<10	<10	<10	<10	<10
Nitrobenzene	mg/kg	<10	<10	<10	<10	<10
2,4-Dimethylphenol	mg/kg	<5	<5	<5	<5	<5
2-Nitrophenol	mg/kg	<5	<5	<5	<5	<5
2,4-Dichlorophenol	mg/kg	<5	<5	<5	<5	<5
4-Chloro-3-methylphenol	mg/kg	<50	<50	<50	<50	<50
2,4,6-trichlorophenol	mg/kg	<5	<5	<5	<5	<5
2,4,5-trichlorophenol	mg/kg	<5	<5	<5	<5	<5
Dimethylphthalate	mg/kg	<10	<10	<10	<10	<10
2,4-dinitrophenol	mg/kg	<100	<100	<100	<100	<100
4-nitrophenol	mg/kg	<100	<100	<100	<100	<100
diethylphthalate	mg/kg	<10	<10	<10	<10	<10
2-methyl-4,6-dinitrophenol	mg/kg	<100	<100	<100	<100	<100
pentachlorophenol	mg/kg	<50	<50	<50	<50	<50
di-n-butylphthalate	mg/kg	<10	<10	<10	<10	<10
butylbenzylphthalate	mg/kg	<10	<10	<10	<10	<10
di-n-octylphthalate	mg/kg	<10	<10	<10	<10	<10
2,6-dichlorophenol	mg/kg	<5	<5	<5	<5	<5
2,3,4,6-tetrachlorophenol	mg/kg	<5	<5	<5	<5	<5
Surrogate Phenol-d <sub>6</sub>	%	30	30	#	#	#
Surrogate Nitrobenzene-d <sub>5</sub>	%	#	80	70	80	70
Surrogate 2-fluorobiphenyl	%	130	100	90	90	90
Surrogate 2,4,6-Tribromophenol	%	#	#	#	#	#
Surrogate p-Terphenyl-d <sub>14</sub>	%	97	135	129	135	135

Client Reference: Hydro Aluminium AS130515

SVOCs in Soil						
Our Reference		162119-78	162119-79	162119-80	162119-81	162119-82
Your Reference	UNITS	MW206 + 50% Lime Dry	MW201 + 50% CaCl2 DRY	MW202 + 50% CaCl2 DRY	MW203 + 50% CaCl2 DRY	MW204 + 50% CaCl2 DRY
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	09/03/2017	09/03/2017	09/03/2017	09/03/2017	09/03/2017
Phenol	mg/kg	<5	<5	<5	<5	<5
2-Chlorophenol	mg/kg	<5	<5	<5	<5	<5
2-Methylphenol	mg/kg	<5	<5	<5	<5	<5
3/4-Methylphenol	mg/kg	<10	<10	<10	<10	<10
Nitrobenzene	mg/kg	<10	<10	<10	<10	<10
2,4-Dimethylphenol	mg/kg	<5	<5	<5	<5	<5
2-Nitrophenol	mg/kg	<5	<5	<5	<5	<5
2,4-Dichlorophenol	mg/kg	<5	<5	<5	<5	<5
4-Chloro-3-methylphenol	mg/kg	<50	<50	<50	<50	<50
2,4,6-trichlorophenol	mg/kg	<5	<5	<5	<5	<5
2,4,5-trichlorophenol	mg/kg	<5	<5	<5	<5	<5
Dimethylphthalate	mg/kg	<10	<10	<10	<10	<10
2,4-dinitrophenol	mg/kg	<100	<100	<100	<100	<100
4-nitrophenol	mg/kg	<100	<100	<100	<100	<100
diethylphthalate	mg/kg	<10	<10	<10	<10	<10
2-methyl-4,6-dinitrophenol	mg/kg	<100	<100	<100	<100	<100
pentachlorophenol	mg/kg	<50	<50	<50	<50	<50
di-n-butylphthalate	mg/kg	<10	<10	<10	<10	<10
butylbenzylphthalate	mg/kg	<10	<10	<10	<10	<10
di-n-octylphthalate	mg/kg	<10	<10	<10	<10	<10
2,6-dichlorophenol	mg/kg	<5	<5	<5	<5	<5
2,3,4,6-tetrachlorophenol	mg/kg	<5	<5	<5	<5	<5
Surrogate Phenol-d <sub>6</sub>	%	#	110	90	80	130
Surrogate Nitrobenzene-d <sub>5</sub>	%	80	#	40	40	40
Surrogate 2-fluorobiphenyl	%	100	120	110	110	130
Surrogate 2,4,6-Tribromophenol	%	#	#	#	#	#
Surrogate p-Terphenyl-d <sub>14</sub>	%	135	140	#	#	#

SVOCs in Soil						
Our Reference		162119-83	162119-84	162119-85	162119-86	162119-87
Your Reference	UNITS	MW205 + 50% CaCl2 DRY	MW206 + 50% CaCl2 DRY	MW201 + 30 Cement DRY	MW202 + 30 Cement DRY	MW203 + 30 Cement DRY
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	09/03/2017	09/03/2017	09/03/2017	09/03/2017	09/03/2017
Phenol	mg/kg	<5	<5	<5	<5	<5
2-Chlorophenol	mg/kg	<5	<5	<5	<5	<5
2-Methylphenol	mg/kg	<5	<5	<5	<5	<5
3/4-Methylphenol	mg/kg	<10	<10	<10	<10	<10
Nitrobenzene	mg/kg	<10	<10	<10	<10	<10
2,4-Dimethylphenol	mg/kg	<5	<5	<5	<5	<5
2-Nitrophenol	mg/kg	<5	<5	<5	<5	<5
2,4-Dichlorophenol	mg/kg	<5	<5	<5	<5	<5
4-Chloro-3-methylphenol	mg/kg	<50	<50	<50	<50	<50
2,4,6-trichlorophenol	mg/kg	<5	<5	<5	<5	<5
2,4,5-trichlorophenol	mg/kg	<5	<5	<5	<5	<5
Dimethylphthalate	mg/kg	<10	<10	<10	<10	<10
2,4-dinitrophenol	mg/kg	<100	<100	<100	<100	<100
4-nitrophenol	mg/kg	<100	<100	<100	<100	<100
diethylphthalate	mg/kg	<10	<10	<10	<10	<10
2-methyl-4,6-dinitrophenol	mg/kg	<100	<100	<100	<100	<100
pentachlorophenol	mg/kg	<50	<50	<50	<50	<50
di-n-butylphthalate	mg/kg	<10	<10	<10	<10	<10
butylbenzylphthalate	mg/kg	<10	<10	<10	<10	<10
di-n-octylphthalate	mg/kg	<10	<10	<10	<10	<10
2,6-dichlorophenol	mg/kg	<5	<5	<5	<5	<5
2,3,4,6-tetrachlorophenol	mg/kg	<5	<5	<5	<5	<5
Surrogate Phenol-d <sub>6</sub>	%	90	120	100	90	70
Surrogate Nitrobenzene-d <sub>5</sub>	%	50	50	40	50	50
Surrogate 2-fluorobiphenyl	%	100	130	100	90	110
Surrogate 2,4,6-Tribromophenol	%	#	#	#	#	#
Surrogate p-Terphenyl-d <sub>14</sub>	%	140	#	#	129	140

Client Reference: Hydro Aluminium AS130515

SVOCs in Soil						
Our Reference		162119-88	162119-89	162119-90	162119-91	162119-92
Your Reference	UNITS	MW204 + 30 Cement DRY	MW205 + 30 Cement DRY	MW206 + 30 Cement DRY	MW201 + 50% Lime WET	MW202 + 50% Lime WET
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	09/03/2017	09/03/2017	09/03/2017	09/03/2017	09/03/2017
Phenol	mg/kg	<5	<5	<5	<0.5	<5
2-Chlorophenol	mg/kg	<5	<5	<5	<0.5	<5
2-Methylphenol	mg/kg	<5	<5	<5	<0.5	<5
3/4-Methylphenol	mg/kg	<10	<10	<10	<1	<10
Nitrobenzene	mg/kg	<10	<10	<10	<1	<10
2,4-Dimethylphenol	mg/kg	<5	<5	<5	<0.5	<5
2-Nitrophenol	mg/kg	<5	<5	<5	<0.5	<5
2,4-Dichlorophenol	mg/kg	<5	<5	<5	<0.5	<5
4-Chloro-3-methylphenol	mg/kg	<50	<50	<50	<5	<50
2,4,6-trichlorophenol	mg/kg	<5	<5	<5	<0.5	<5
2,4,5-trichlorophenol	mg/kg	<5	<5	<5	<0.5	<5
Dimethylphthalate	mg/kg	<10	<10	<10	<1	<10
2,4-dinitrophenol	mg/kg	<100	<100	<100	<10	<100
4-nitrophenol	mg/kg	<100	<100	<100	<10	<100
diethylphthalate	mg/kg	<10	<10	<10	<1	<10
2-methyl-4,6-dinitrophenol	mg/kg	<100	<100	<100	<10	<100
pentachlorophenol	mg/kg	<50	<50	<50	<5	<50
di-n-butylphthalate	mg/kg	<10	<10	<10	<1	<10
butylbenzylphthalate	mg/kg	<10	<10	<10	<1	<10
di-n-octylphthalate	mg/kg	<10	<10	<10	<1	<10
2,6-dichlorophenol	mg/kg	<5	<5	<5	<0.5	<5
2,3,4,6-tetrachlorophenol	mg/kg	<5	<5	<5	<0.5	<5
Surrogate Phenol-d <sub>6</sub>	%	80	100	90	#	#
Surrogate Nitrobenzene-d <sub>5</sub>	%	50	50	#	#	110
Surrogate 2-fluorobiphenyl	%	100	110	110	#	100
Surrogate 2,4,6-Tribromophenol	%	#	#	#	46	#
Surrogate p-Terphenyl-d <sub>14</sub>	%	#	#	#	129	135

Client Reference: Hydro Aluminium AS130515

SVOCs in Soil						
Our Reference		162119-93	162119-94	162119-95	162119-96	162119-97
Your Reference	UNITS	MW203 + 50% Lime WET	MW204 + 50% Lime WET	MW205 + 50% Lime WET	MW206 + 50% Lime WET	MW201 + 50% CaCl2 WET
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	09/03/2017	09/03/2017	09/03/2017	09/03/2017	09/03/2017
Phenol	mg/kg	<0.5	<5	<5	<5	<0.5
2-Chlorophenol	mg/kg	<0.5	<5	<5	<5	<0.5
2-Methylphenol	mg/kg	<0.5	<5	<5	<5	<0.5
3/4-Methylphenol	mg/kg	<1	<10	<10	<10	<1
Nitrobenzene	mg/kg	<1	<10	<10	<10	<1
2,4-Dimethylphenol	mg/kg	<0.5	<5	<5	<5	<0.5
2-Nitrophenol	mg/kg	<0.5	<5	<5	<5	<0.5
2,4-Dichlorophenol	mg/kg	<0.5	<5	<5	<5	<0.5
4-Chloro-3-methylphenol	mg/kg	<5	<50	<50	<50	<5
2,4,6-trichlorophenol	mg/kg	<0.5	<5	<5	<5	<0.5
2,4,5-trichlorophenol	mg/kg	<0.5	<5	<5	<5	<0.5
Dimethylphthalate	mg/kg	<1	<10	<10	<10	<1
2,4-dinitrophenol	mg/kg	<10	<100	<100	<100	<10
4-nitrophenol	mg/kg	<10	<100	<100	<100	<10
diethylphthalate	mg/kg	<1	<10	<10	<10	<1
2-methyl-4,6-dinitrophenol	mg/kg	<10	<100	<100	<100	<10
pentachlorophenol	mg/kg	<5	<50	<50	<50	<5
di-n-butylphthalate	mg/kg	<1	<10	<10	<10	<1
butylbenzylphthalate	mg/kg	<1	<10	<10	<10	<1
di-n-octylphthalate	mg/kg	<1	<10	<10	<10	<1
2,6-dichlorophenol	mg/kg	<0.5	<5	<5	<5	<0.5
2,3,4,6-tetrachlorophenol	mg/kg	<0.5	<5	<5	<5	<0.5
Surrogate Phenol-d <sub>6</sub>	%	#	#	#	#	94
Surrogate Nitrobenzene-d <sub>5</sub>	%	35	60	70	60	65
Surrogate 2-fluorobiphenyl	%	#	90	90	100	105
Surrogate 2,4,6-Tribromophenol	%	47	#	#	#	140
Surrogate p-Terphenyl-d <sub>14</sub>	%	120	129	129	129	135

SVOCs in Soil						
Our Reference		162119-98	162119-99	162119-100	162119-101	162119-102
Your Reference	UNITS	MW202 + 50% CaCl2 WET	MW203 + 50% CaCl2 WET	MW204 + 50% CaCl2 WET	MW205 + 50% CaCl2 WET	MW206 + 50% CaCl2 WET
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	09/03/2017	09/03/2017	09/03/2017	09/03/2017	09/03/2017
Phenol	mg/kg	<5	<0.5	<5	<5	<5
2-Chlorophenol	mg/kg	<5	<0.5	<5	<5	<5
2-Methylphenol	mg/kg	<5	<0.5	<5	<5	<5
3/4-Methylphenol	mg/kg	<10	<1	<10	<10	<10
Nitrobenzene	mg/kg	<10	<1	<10	<10	<10
2,4-Dimethylphenol	mg/kg	<5	<0.5	<5	<5	<5
2-Nitrophenol	mg/kg	<5	<0.5	<5	<5	<5
2,4-Dichlorophenol	mg/kg	<5	<0.5	<5	<5	<5
4-Chloro-3-methylphenol	mg/kg	<50	<5	<50	<50	<50
2,4,6-trichlorophenol	mg/kg	<5	<0.5	<5	<5	<5
2,4,5-trichlorophenol	mg/kg	<5	<0.5	<5	<5	<5
Dimethylphthalate	mg/kg	<10	<1	<10	<10	<10
2,4-dinitrophenol	mg/kg	<100	<10	<100	<100	<100
4-nitrophenol	mg/kg	<100	<10	<100	<100	<100
diethylphthalate	mg/kg	<10	<1	<10	<10	<10
2-methyl-4,6-dinitrophenol	mg/kg	<100	<10	<100	<100	<100
pentachlorophenol	mg/kg	<50	<5	<50	<50	<50
di-n-butylphthalate	mg/kg	<10	<1	<10	<10	<10
butylbenzylphthalate	mg/kg	<10	<10	<10	<10	<10
di-n-octylphthalate	mg/kg	<10	<10	<10	<10	<10
2,6-dichlorophenol	mg/kg	<5	<5	<5	<5	<5
2,3,4,6-tetrachlorophenol	mg/kg	<5	<0.5	<5	<5	<5
Surrogate Phenol-d <sub>6</sub>	%	100	76	70	90	100
Surrogate Nitrobenzene-d <sub>5</sub>	%	40	58	30	#	40
Surrogate 2-fluorobiphenyl	%	100	100	90	110	120
Surrogate 2,4,6-Tribromophenol	%	#	106	#	#	#
Surrogate p-Terphenyl-d <sub>14</sub>	%	#	129	135	140	#

SVOCs in Soil						
Our Reference		162119-103	162119-104	162119-105	162119-106	162119-107
Your Reference	UNITS	MW201 + 30% Cement WET	MW202 + 30% Cement WET	MW203 + 30% Cement WET	MW204 + 30% Cement WET	MW205 + 30% Cement WET
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	09/03/2017	09/03/2017	09/03/2017	09/03/2017	09/03/2017
Phenol	mg/kg	<0.5	<5	<0.5	<5	<5
2-Chlorophenol	mg/kg	<0.5	<5	<0.5	<5	<5
2-Methylphenol	mg/kg	<0.5	<5	<0.5	<5	<5
3/4-Methylphenol	mg/kg	<1	<10	<1	<10	<10
Nitrobenzene	mg/kg	<1	<10	<1	<10	<10
2,4-Dimethylphenol	mg/kg	<0.5	<5	<0.5	<5	<5
2-Nitrophenol	mg/kg	<0.5	<5	<0.5	<5	<5
2,4-Dichlorophenol	mg/kg	<0.5	<5	<0.5	<5	<5
4-Chloro-3-methylphenol	mg/kg	<5	<50	<5	<50	<50
2,4,6-trichlorophenol	mg/kg	<0.5	<5	<0.5	<5	<5
2,4,5-trichlorophenol	mg/kg	<0.5	<5	<0.5	<5	<5
Dimethylphthalate	mg/kg	<1	<10	<1	<10	<10
2,4-dinitrophenol	mg/kg	<10	<100	<10	<100	<100
4-nitrophenol	mg/kg	<10	<100	<10	<100	<100
diethylphthalate	mg/kg	<1	<10	<1	<10	<10
2-methyl-4,6-dinitrophenol	mg/kg	<10	<100	<10	<100	<100
pentachlorophenol	mg/kg	<5	<50	<5	<50	<50
di-n-butylphthalate	mg/kg	<1	<10	<1	<10	<10
butylbenzylphthalate	mg/kg	<1	<10	<1	<10	<10
di-n-octylphthalate	mg/kg	<1	<10	<1	<10	<10
2,6-dichlorophenol	mg/kg	<0.5	<5	<0.5	<5	<5
2,3,4,6-tetrachlorophenol	mg/kg	<0.5	<5	<0.5	<5	<5
Surrogate Phenol-d <sub>6</sub>	%	#	50	45	30	50
Surrogate Nitrobenzene-d <sub>5</sub>	%	55	50	64	50	30
Surrogate 2-fluorobiphenyl	%	84	100	88	90	100
Surrogate 2,4,6-Tribromophenol	%	64	#	60	#	#
Surrogate p-Terphenyl-d <sub>14</sub>	%	118	135	118	135	140

SVOCs in Soil		
Our Reference		162119-108
Your Reference	UNITS	MW206 + 30% Cement WET
Date Sampled		10/02/2017
Type of sample		Soil
Date extracted	-	08/03/2017
Date analysed	-	09/03/2017
Phenol	mg/kg	<5
2-Chlorophenol	mg/kg	<5
2-Methylphenol	mg/kg	<5
3/4-Methylphenol	mg/kg	<10
Nitrobenzene	mg/kg	<10
2,4-Dimethylphenol	mg/kg	<5
2-Nitrophenol	mg/kg	<5
2,4-Dichlorophenol	mg/kg	<5
4-Chloro-3-methylphenol	mg/kg	<50
2,4,6-trichlorophenol	mg/kg	<5
2,4,5-trichlorophenol	mg/kg	<5
Dimethylphthalate	mg/kg	<10
2,4-dinitrophenol	mg/kg	<100
4-nitrophenol	mg/kg	<100
diethylphthalate	mg/kg	<10
2-methyl-4,6-dinitrophenol	mg/kg	<100
pentachlorophenol	mg/kg	<50
di-n-butylphthalate	mg/kg	<10
butylbenzylphthalate	mg/kg	<10
di-n-octylphthalate	mg/kg	<10
2,6-dichlorophenol	mg/kg	<5
2,3,4,6-tetrachlorophenol	mg/kg	<5
Surrogate Phenol-d <sub>6</sub>	%	40
Surrogate Nitrobenzene-d <sub>5</sub>	%	50
Surrogate 2-fluorobiphenyl	%	90
Surrogate 2,4,6-Tribromophenol	%	#
Surrogate p-Terphenyl-d <sub>14</sub>	%	140



VOCs in soil						
Our Reference		162119-1	162119-2	162119-3	162119-4	162119-5
Your Reference	UNITS	MW201 - BULK 1st sub-sample	MW202 - BULK 1st sub-sample	MW203 - BULK 1st sub-sample	MW204 - BULK 1st sub-sample	MW205 - BULK 1st sub-sample
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	10/03/2017	10/03/2017	10/03/2017	10/03/2017	10/03/2017
Date analysed	-	13/03/2017	13/03/2017	13/03/2017	13/03/2017	13/03/2017
Dichlorodifluoromethane	mg/kg	<1	<1	<1	<1	<1
Chloromethane	mg/kg	<1	<1	<1	<1	<1
Vinyl Chloride	mg/kg	<1	<1	<1	<1	<1
Bromomethane	mg/kg	<1	<1	<1	<1	<1
Chloroethane	mg/kg	<1	<1	<1	<1	<1
Trichlorofluoromethane	mg/kg	<1	<1	<1	<1	<1
1,1-Dichloroethene	mg/kg	<1	<1	<1	<1	<1
trans-1,2-dichloroethene	mg/kg	<1	<1	<1	<1	<1
1,1-dichloroethane	mg/kg	<1	<1	<1	<1	<1
cis-1,2-dichloroethene	mg/kg	<1	<1	<1	<1	<1
bromochloromethane	mg/kg	<1	<1	<1	<1	<1
chloroform	mg/kg	<1	<1	<1	<1	<1
2,2-dichloropropane	mg/kg	<1	<1	<1	<1	<1
1,2-dichloroethane	mg/kg	<1	<1	<1	<1	<1
1,1,1-trichloroethane	mg/kg	<1	<1	<1	<1	<1
1,1-dichloropropene	mg/kg	<1	<1	<1	<1	<1
Cyclohexane	mg/kg	<1	<1	<1	<1	<1
carbon tetrachloride	mg/kg	<1	<1	<1	<1	<1
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
dibromomethane	mg/kg	<1	<1	<1	<1	<1
1,2-dichloropropane	mg/kg	<1	<1	<1	<1	<1
trichloroethene	mg/kg	<1	<1	<1	<1	<1
bromodichloromethane	mg/kg	<1	<1	<1	<1	<1
trans-1,3-dichloropropene	mg/kg	<1	<1	<1	<1	<1
cis-1,3-dichloropropene	mg/kg	<1	<1	<1	<1	<1
1,1,2-trichloroethane	mg/kg	<1	<1	<1	<1	<1
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,3-dichloropropane	mg/kg	<1	<1	<1	<1	<1
dibromochloromethane	mg/kg	<1	<1	<1	<1	<1
1,2-dibromoethane	mg/kg	<1	<1	<1	<1	<1
tetrachloroethene	mg/kg	<1	<1	<1	<1	<1
1,1,1,2-tetrachloroethane	mg/kg	<1	<1	<1	<1	<1
chlorobenzene	mg/kg	<1	<1	<1	<1	<1
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1

VOCs in soil						
Our Reference		162119-1	162119-2	162119-3	162119-4	162119-5
Your Reference	UNITS	MW201 - BULK 1st sub-sample	MW202 - BULK 1st sub-sample	MW203 - BULK 1st sub-sample	MW204 - BULK 1st sub-sample	MW205 - BULK 1st sub-sample
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
bromoform	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
styrene	mg/kg	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	mg/kg	<1	<1	<1	<1	<1
o-Xylene	mg/kg	<1	<1	<1	<1	<1
1,2,3-trichloropropane	mg/kg	<1	<1	<1	<1	<1
isopropylbenzene	mg/kg	<1	<1	<1	<1	<1
bromobenzene	mg/kg	<1	<1	<1	<1	<1
n-propyl benzene	mg/kg	<1	<1	<1	<1	<1
2-chlorotoluene	mg/kg	<1	<1	<1	<1	<1
4-chlorotoluene	mg/kg	<1	<1	<1	<1	<1
1,3,5-trimethyl benzene	mg/kg	<1	<1	<1	<1	<1
tert-butyl benzene	mg/kg	<1	<1	<1	<1	<1
1,2,4-trimethyl benzene	mg/kg	<1	<1	<1	<1	<1
1,3-dichlorobenzene	mg/kg	<1	<1	<1	<1	<1
sec-butyl benzene	mg/kg	<1	<1	<1	<1	<1
1,4-dichlorobenzene	mg/kg	<1	<1	<1	<1	<1
4-isopropyl toluene	mg/kg	<1	<1	<1	<1	<1
1,2-dichlorobenzene	mg/kg	<1	<1	<1	<1	<1
n-butyl benzene	mg/kg	<1	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	mg/kg	<1	<1	<1	<1	<1
1,2,4-trichlorobenzene	mg/kg	<1	<1	<1	<1	<1
hexachlorobutadiene	mg/kg	<1	<1	<1	<1	<1
1,2,3-trichlorobenzene	mg/kg	<1	<1	<1	<1	<1
Surrogate Dibromofluorometha	%	102	104	103	102	103
Surrogate aaa-Trifluorotoluene	%	88	87	91	92	94
Surrogate Toluene-d8	%	100	100	100	100	99
Surrogate 4-Bromofluorobenzene	%	99	97	98	99	98

VOCs in soil						
Our Reference		162119-6	162119-7	162119-8	162119-9	162119-10
Your Reference	UNITS	MW206 - BULK 1st sub-sample	MW201 - 1st sub- sample>125mm	MW202 - 1st sub- sample>125mm	MW203 - 1st sub- sample>125mm	MW204 - 1st sub- sample>125mm
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	10/03/2017	10/03/2017	10/03/2017	10/03/2017	10/03/2017
Date analysed	-	13/03/2017	13/03/2017	13/03/2017	13/03/2017	13/03/2017
Dichlorodifluoromethane	mg/kg	<1	<1	<1	<1	<1
Chloromethane	mg/kg	<1	<1	<1	<1	<1
Vinyl Chloride	mg/kg	<1	<1	<1	<1	<1
Bromomethane	mg/kg	<1	<1	<1	<1	<1
Chloroethane	mg/kg	<1	<1	<1	<1	<1
Trichlorofluoromethane	mg/kg	<1	<1	<1	<1	<1
1,1-Dichloroethene	mg/kg	<1	<1	<1	<1	<1
trans-1,2-dichloroethene	mg/kg	<1	<1	<1	<1	<1
1,1-dichloroethane	mg/kg	<1	<1	<1	<1	<1
cis-1,2-dichloroethene	mg/kg	<1	<1	<1	<1	<1
bromochloromethane	mg/kg	<1	<1	<1	<1	<1
chloroform	mg/kg	<1	<1	<1	<1	<1
2,2-dichloropropane	mg/kg	<1	<1	<1	<1	<1
1,2-dichloroethane	mg/kg	<1	<1	<1	<1	<1
1,1,1-trichloroethane	mg/kg	<1	<1	<1	<1	<1
1,1-dichloropropene	mg/kg	<1	<1	<1	<1	<1
Cyclohexane	mg/kg	<1	<1	<1	<1	<1
carbon tetrachloride	mg/kg	<1	<1	<1	<1	<1
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
dibromomethane	mg/kg	<1	<1	<1	<1	<1
1,2-dichloropropane	mg/kg	<1	<1	<1	<1	<1
trichloroethene	mg/kg	<1	<1	<1	<1	<1
bromodichloromethane	mg/kg	<1	<1	<1	<1	<1
trans-1,3-dichloropropene	mg/kg	<1	<1	<1	<1	<1
cis-1,3-dichloropropene	mg/kg	<1	<1	<1	<1	<1
1,1,2-trichloroethane	mg/kg	<1	<1	<1	<1	<1
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,3-dichloropropane	mg/kg	<1	<1	<1	<1	<1
dibromochloromethane	mg/kg	<1	<1	<1	<1	<1
1,2-dibromoethane	mg/kg	<1	<1	<1	<1	<1
tetrachloroethene	mg/kg	<1	<1	<1	<1	<1
1,1,1,2-tetrachloroethane	mg/kg	<1	<1	<1	<1	<1
chlorobenzene	mg/kg	<1	<1	<1	<1	<1
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
bromoform	mg/kg	<1	<1	<1	<1	<1

Client Reference: Hydro Aluminium AS130515

VOCs in soil						
Our Reference		162119-6	162119-7	162119-8	162119-9	162119-10
Your Reference	UNITS	MW206 - BULK 1st sub-sample	MW201 - 1st sub- sample>125mm	MW202 - 1st sub- sample>125mm	MW203 - 1st sub- sample>125mm	MW204 - 1st sub- sample>125mm
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
styrene	mg/kg	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	mg/kg	<1	<1	<1	<1	<1
o-Xylene	mg/kg	<1	<1	<1	<1	<1
1,2,3-trichloropropane	mg/kg	<1	<1	<1	<1	<1
isopropylbenzene	mg/kg	<1	<1	<1	<1	<1
bromobenzene	mg/kg	<1	<1	<1	<1	<1
n-propyl benzene	mg/kg	<1	<1	<1	<1	<1
2-chlorotoluene	mg/kg	<1	<1	<1	<1	<1
4-chlorotoluene	mg/kg	<1	<1	<1	<1	<1
1,3,5-trimethyl benzene	mg/kg	<1	<1	<1	<1	<1
tert-butyl benzene	mg/kg	<1	<1	<1	<1	<1
1,2,4-trimethyl benzene	mg/kg	<1	<1	<1	<1	<1
1,3-dichlorobenzene	mg/kg	<1	<1	<1	<1	<1
sec-butyl benzene	mg/kg	<1	<1	<1	<1	<1
1,4-dichlorobenzene	mg/kg	<1	<1	<1	<1	<1
4-isopropyl toluene	mg/kg	<1	<1	<1	<1	<1
1,2-dichlorobenzene	mg/kg	<1	<1	<1	<1	<1
n-butyl benzene	mg/kg	<1	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	mg/kg	<1	<1	<1	<1	<1
1,2,4-trichlorobenzene	mg/kg	<1	<1	<1	<1	<1
hexachlorobutadiene	mg/kg	<1	<1	<1	<1	<1
1,2,3-trichlorobenzene	mg/kg	<1	<1	<1	<1	<1
Surrogate Dibromofluorometha	%	103	102	102	104	104
Surrogate aaa-Trifluorotoluene	%	87	93	90	89	79
Surrogate Toluene-d <sub>8</sub>	%	98	97	98	100	100
Surrogate 4-Bromofluorobenzene	%	99	97	99	99	97

VOCs in soil						
Our Reference		162119-11	162119-12	162119-25	162119-26	162119-27
Your Reference	UNITS	MW205 - 1st sub-sample>125mm	MW206 - 1st sub-sample>125mm	MW201 - 1st sub-sample<125mm	MW202 - 1st sub-sample<125mm	MW203 - 1st sub-sample<125mm
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	10/03/2017	10/03/2017	10/03/2017	10/03/2017	10/03/2017
Date analysed	-	13/03/2017	13/03/2017	13/03/2017	13/03/2017	13/03/2017
Dichlorodifluoromethane	mg/kg	<1	<1	<1	<1	<1
Chloromethane	mg/kg	<1	<1	<1	<1	<1
Vinyl Chloride	mg/kg	<1	<1	<1	<1	<1
Bromomethane	mg/kg	<1	<1	<1	<1	<1
Chloroethane	mg/kg	<1	<1	<1	<1	<1
Trichlorofluoromethane	mg/kg	<1	<1	<1	<1	<1
1,1-Dichloroethene	mg/kg	<1	<1	<1	<1	<1
trans-1,2-dichloroethene	mg/kg	<1	<1	<1	<1	<1
1,1-dichloroethane	mg/kg	<1	<1	<1	<1	<1
cis-1,2-dichloroethene	mg/kg	<1	<1	<1	<1	<1
bromochloromethane	mg/kg	<1	<1	<1	<1	<1
chloroform	mg/kg	<1	<1	<1	<1	<1
2,2-dichloropropane	mg/kg	<1	<1	<1	<1	<1
1,2-dichloroethane	mg/kg	<1	<1	<1	<1	<1
1,1,1-trichloroethane	mg/kg	<1	<1	<1	<1	<1
1,1-dichloropropene	mg/kg	<1	<1	<1	<1	<1
Cyclohexane	mg/kg	<1	<1	<1	<1	<1
carbon tetrachloride	mg/kg	<1	<1	<1	<1	<1
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
dibromomethane	mg/kg	<1	<1	<1	<1	<1
1,2-dichloropropane	mg/kg	<1	<1	<1	<1	<1
trichloroethene	mg/kg	<1	<1	<1	<1	<1
bromodichloromethane	mg/kg	<1	<1	<1	<1	<1
trans-1,3-dichloropropene	mg/kg	<1	<1	<1	<1	<1
cis-1,3-dichloropropene	mg/kg	<1	<1	<1	<1	<1
1,1,2-trichloroethane	mg/kg	<1	<1	<1	<1	<1
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,3-dichloropropane	mg/kg	<1	<1	<1	<1	<1
dibromochloromethane	mg/kg	<1	<1	<1	<1	<1
1,2-dibromoethane	mg/kg	<1	<1	<1	<1	<1
tetrachloroethene	mg/kg	<1	<1	<1	<1	<1
1,1,1,2-tetrachloroethane	mg/kg	<1	<1	<1	<1	<1
chlorobenzene	mg/kg	<1	<1	<1	<1	<1
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
bromoform	mg/kg	<1	<1	<1	<1	<1

Client Reference: Hydro Aluminium AS130515

VOCs in soil						
Our Reference		162119-11	162119-12	162119-25	162119-26	162119-27
Your Reference	UNITS	MW205 - 1st sub-sample>125mm	MW206 - 1st sub-sample>125mm	MW201 - 1st sub-sample<125mm	MW202 - 1st sub-sample<125mm	MW203 - 1st sub-sample<125mm
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
styrene	mg/kg	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	mg/kg	<1	<1	<1	<1	<1
o-Xylene	mg/kg	<1	<1	<1	<1	<1
1,2,3-trichloropropane	mg/kg	<1	<1	<1	<1	<1
isopropylbenzene	mg/kg	<1	<1	<1	<1	<1
bromobenzene	mg/kg	<1	<1	<1	<1	<1
n-propyl benzene	mg/kg	<1	<1	<1	<1	<1
2-chlorotoluene	mg/kg	<1	<1	<1	<1	<1
4-chlorotoluene	mg/kg	<1	<1	<1	<1	<1
1,3,5-trimethyl benzene	mg/kg	<1	<1	<1	<1	<1
tert-butyl benzene	mg/kg	<1	<1	<1	<1	<1
1,2,4-trimethyl benzene	mg/kg	<1	2	<1	<1	<1
1,3-dichlorobenzene	mg/kg	<1	<1	<1	<1	<1
sec-butyl benzene	mg/kg	<1	<1	<1	<1	<1
1,4-dichlorobenzene	mg/kg	<1	<1	<1	<1	<1
4-isopropyl toluene	mg/kg	<1	<1	<1	<1	<1
1,2-dichlorobenzene	mg/kg	<1	<1	<1	<1	<1
n-butyl benzene	mg/kg	<1	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	mg/kg	<1	<1	<1	<1	<1
1,2,4-trichlorobenzene	mg/kg	<1	<1	<1	<1	<1
hexachlorobutadiene	mg/kg	<1	<1	<1	<1	<1
1,2,3-trichlorobenzene	mg/kg	<1	<1	<1	<1	<1
Surrogate Dibromofluorometha	%	105	102	105	103	105
Surrogate aaa-Trifluorotoluene	%	69	97	102	103	103
Surrogate Toluene-d <sub>8</sub>	%	98	97	99	100	99
Surrogate 4-Bromofluorobenzene	%	97	98	98	98	99

VOCs in soil						
Our Reference		162119-28	162119-29	162119-30	162119-31	162119-32
Your Reference	UNITS	MW204 - 1st sub-sample<125mm	MW205 - 1st sub-sample<125mm	MW206 - 1st sub-sample<125mm	MW201 - BULK 2nd sub-sample	MW202 - BULK 2nd sub-sample
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	10/03/2017	10/03/2017	10/03/2017	10/03/2017	10/03/2017
Date analysed	-	13/03/2017	13/03/2017	13/03/2017	13/03/2017	13/03/2017
Dichlorodifluoromethane	mg/kg	<1	<1	<1	<1	<1
Chloromethane	mg/kg	<1	<1	<1	<1	<1
Vinyl Chloride	mg/kg	<1	<1	<1	<1	<1
Bromomethane	mg/kg	<1	<1	<1	<1	<1
Chloroethane	mg/kg	<1	<1	<1	<1	<1
Trichlorofluoromethane	mg/kg	<1	<1	<1	<1	<1
1,1-Dichloroethene	mg/kg	<1	<1	<1	<1	<1
trans-1,2-dichloroethene	mg/kg	<1	<1	<1	<1	<1
1,1-dichloroethane	mg/kg	<1	<1	<1	<1	<1
cis-1,2-dichloroethene	mg/kg	<1	<1	<1	<1	<1
bromochloromethane	mg/kg	<1	<1	<1	<1	<1
chloroform	mg/kg	<1	<1	<1	<1	<1
2,2-dichloropropane	mg/kg	<1	<1	<1	<1	<1
1,2-dichloroethane	mg/kg	<1	<1	<1	<1	<1
1,1,1-trichloroethane	mg/kg	<1	<1	<1	<1	<1
1,1-dichloropropene	mg/kg	<1	<1	<1	<1	<1
Cyclohexane	mg/kg	<1	<1	<1	<1	<1
carbon tetrachloride	mg/kg	<1	<1	<1	<1	<1
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
dibromomethane	mg/kg	<1	<1	<1	<1	<1
1,2-dichloropropane	mg/kg	<1	<1	<1	<1	<1
trichloroethene	mg/kg	<1	<1	<1	<1	<1
bromodichloromethane	mg/kg	<1	<1	<1	<1	<1
trans-1,3-dichloropropene	mg/kg	<1	<1	<1	<1	<1
cis-1,3-dichloropropene	mg/kg	<1	<1	<1	<1	<1
1,1,2-trichloroethane	mg/kg	<1	<1	<1	<1	<1
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,3-dichloropropane	mg/kg	<1	<1	<1	<1	<1
dibromochloromethane	mg/kg	<1	<1	<1	<1	<1
1,2-dibromoethane	mg/kg	<1	<1	<1	<1	<1
tetrachloroethene	mg/kg	<1	<1	<1	<1	<1
1,1,1,2-tetrachloroethane	mg/kg	<1	<1	<1	<1	<1
chlorobenzene	mg/kg	<1	<1	<1	<1	<1
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
bromoform	mg/kg	<1	<1	<1	<1	<1

Client Reference: Hydro Aluminium AS130515

VOCs in soil						
Our Reference		162119-28	162119-29	162119-30	162119-31	162119-32
Your Reference	UNITS	MW204 - 1st sub-sample<125mm	MW205 - 1st sub-sample<125mm	MW206 - 1st sub-sample<125mm	MW201 - BULK 2nd sub-sample	MW202 - BULK 2nd sub-sample
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
styrene	mg/kg	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	mg/kg	<1	<1	<1	<1	<1
o-Xylene	mg/kg	<1	<1	<1	<1	<1
1,2,3-trichloropropane	mg/kg	<1	<1	<1	<1	<1
isopropylbenzene	mg/kg	<1	<1	<1	<1	<1
bromobenzene	mg/kg	<1	<1	<1	<1	<1
n-propyl benzene	mg/kg	<1	<1	<1	<1	<1
2-chlorotoluene	mg/kg	<1	<1	<1	<1	<1
4-chlorotoluene	mg/kg	<1	<1	<1	<1	<1
1,3,5-trimethyl benzene	mg/kg	<1	<1	<1	<1	<1
tert-butyl benzene	mg/kg	<1	<1	<1	<1	<1
1,2,4-trimethyl benzene	mg/kg	<1	<1	<1	<1	<1
1,3-dichlorobenzene	mg/kg	<1	<1	<1	<1	<1
sec-butyl benzene	mg/kg	<1	<1	<1	<1	<1
1,4-dichlorobenzene	mg/kg	<1	<1	<1	<1	<1
4-isopropyl toluene	mg/kg	<1	<1	<1	<1	<1
1,2-dichlorobenzene	mg/kg	<1	<1	<1	<1	<1
n-butyl benzene	mg/kg	<1	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	mg/kg	<1	<1	<1	<1	<1
1,2,4-trichlorobenzene	mg/kg	<1	<1	<1	<1	<1
hexachlorobutadiene	mg/kg	<1	<1	<1	<1	<1
1,2,3-trichlorobenzene	mg/kg	<1	<1	<1	<1	<1
Surrogate Dibromofluorometha	%	105	104	104	102	103
Surrogate aaa-Trifluorotoluene	%	94	100	98	95	94
Surrogate Toluene-d <sub>8</sub>	%	98	98	99	97	99
Surrogate 4-Bromofluorobenzene	%	96	99	96	96	96



Client Reference: Hydro Aluminium AS130515

VOCs in soil						
Our Reference		162119-33	162119-34	162119-35	162119-36	162119-37
Your Reference	UNITS	MW203 - BULK 2nd sub-sample	MW204 - BULK 2nd sub-sample	MW205 - BULK 2nd sub-sample	MW206 - BULK 2nd sub-sample	MW201 - 2nd sub- sample>125mm
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	10/03/2017	10/03/2017	10/03/2017	10/03/2017	10/03/2017
Date analysed	-	13/03/2017	13/03/2017	13/03/2017	13/03/2017	13/03/2017
Dichlorodifluoromethane	mg/kg	<1	<1	<1	<1	<1
Chloromethane	mg/kg	<1	<1	<1	<1	<1
Vinyl Chloride	mg/kg	<1	<1	<1	<1	<1
Bromomethane	mg/kg	<1	<1	<1	<1	<1
Chloroethane	mg/kg	<1	<1	<1	<1	<1
Trichlorofluoromethane	mg/kg	<1	<1	<1	<1	<1
1,1-Dichloroethene	mg/kg	<1	<1	<1	<1	<1
trans-1,2-dichloroethene	mg/kg	<1	<1	<1	<1	<1
1,1-dichloroethane	mg/kg	<1	<1	<1	<1	<1
cis-1,2-dichloroethene	mg/kg	<1	<1	<1	<1	<1
bromochloromethane	mg/kg	<1	<1	<1	<1	<1
chloroform	mg/kg	<1	<1	<1	<1	<1
2,2-dichloropropane	mg/kg	<1	<1	<1	<1	<1
1,2-dichloroethane	mg/kg	<1	<1	<1	<1	<1
1,1,1-trichloroethane	mg/kg	<1	<1	<1	<1	<1
1,1-dichloropropene	mg/kg	<1	<1	<1	<1	<1
Cyclohexane	mg/kg	<1	<1	<1	<1	<1
carbon tetrachloride	mg/kg	<1	<1	<1	<1	<1
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
dibromomethane	mg/kg	<1	<1	<1	<1	<1
1,2-dichloropropane	mg/kg	<1	<1	<1	<1	<1
trichloroethene	mg/kg	<1	<1	<1	<1	<1
bromodichloromethane	mg/kg	<1	<1	<1	<1	<1
trans-1,3-dichloropropene	mg/kg	<1	<1	<1	<1	<1
cis-1,3-dichloropropene	mg/kg	<1	<1	<1	<1	<1
1,1,2-trichloroethane	mg/kg	<1	<1	<1	<1	<1
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,3-dichloropropane	mg/kg	<1	<1	<1	<1	<1
dibromochloromethane	mg/kg	<1	<1	<1	<1	<1
1,2-dibromoethane	mg/kg	<1	<1	<1	<1	<1
tetrachloroethene	mg/kg	<1	<1	<1	<1	<1
1,1,1,2-tetrachloroethane	mg/kg	<1	<1	<1	<1	<1
chlorobenzene	mg/kg	<1	<1	<1	<1	<1
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
bromoform	mg/kg	<1	<1	<1	<1	<1

VOCs in soil						
Our Reference		162119-33	162119-34	162119-35	162119-36	162119-37
Your Reference	UNITS	MW203 - BULK 2nd sub-sample	MW204 - BULK 2nd sub-sample	MW205 - BULK 2nd sub-sample	MW206 - BULK 2nd sub-sample	MW201 - 2nd sub- sample>125mm
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
styrene	mg/kg	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	mg/kg	<1	<1	<1	<1	<1
o-Xylene	mg/kg	<1	<1	<1	<1	<1
1,2,3-trichloropropane	mg/kg	<1	<1	<1	<1	<1
isopropylbenzene	mg/kg	<1	<1	<1	<1	<1
bromobenzene	mg/kg	<1	<1	<1	<1	<1
n-propyl benzene	mg/kg	<1	<1	<1	<1	<1
2-chlorotoluene	mg/kg	<1	<1	<1	<1	<1
4-chlorotoluene	mg/kg	<1	<1	<1	<1	<1
1,3,5-trimethyl benzene	mg/kg	<1	<1	<1	<1	<1
tert-butyl benzene	mg/kg	<1	<1	<1	<1	<1
1,2,4-trimethyl benzene	mg/kg	<1	<1	<1	<1	<1
1,3-dichlorobenzene	mg/kg	<1	<1	<1	<1	<1
sec-butyl benzene	mg/kg	<1	<1	<1	<1	<1
1,4-dichlorobenzene	mg/kg	<1	<1	<1	<1	<1
4-isopropyl toluene	mg/kg	<1	<1	<1	<1	<1
1,2-dichlorobenzene	mg/kg	<1	<1	<1	<1	<1
n-butyl benzene	mg/kg	<1	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	mg/kg	<1	<1	<1	<1	<1
1,2,4-trichlorobenzene	mg/kg	<1	<1	<1	<1	<1
hexachlorobutadiene	mg/kg	<1	<1	<1	<1	<1
1,2,3-trichlorobenzene	mg/kg	<1	<1	<1	<1	<1
Surrogate Dibromofluorometha	%	102	105	107	109	107
Surrogate aaa-Trifluorotoluene	%	76	68	91	95	91
Surrogate Toluene-d <sub>8</sub>	%	98	99	98	97	97
Surrogate 4-Bromofluorobenzene	%	98	98	96	97	96

Client Reference: Hydro Aluminium AS130515

VOCs in soil						
Our Reference		162119-38	162119-39	162119-40	162119-41	162119-42
Your Reference	UNITS	MW202 - 2nd sub-sample>125mm	MW203 - 2nd sub-sample>125mm	MW204 - 2nd sub-sample>125mm	MW205 - 2nd sub-sample>125mm	MW206 - 2nd sub-sample>125mm
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	10/03/2017	10/03/2017	10/03/2017	10/03/2017	10/03/2017
Date analysed	-	13/03/2017	13/03/2017	13/03/2017	13/03/2017	13/03/2017
Dichlorodifluoromethane	mg/kg	<1	<1	<1	<1	<1
Chloromethane	mg/kg	<1	<1	<1	<1	<1
Vinyl Chloride	mg/kg	<1	<1	<1	<1	<1
Bromomethane	mg/kg	<1	<1	<1	<1	<1
Chloroethane	mg/kg	<1	<1	<1	<1	<1
Trichlorofluoromethane	mg/kg	<1	<1	<1	<1	<1
1,1-Dichloroethene	mg/kg	<1	<1	<1	<1	<1
trans-1,2-dichloroethene	mg/kg	<1	<1	<1	<1	<1
1,1-dichloroethane	mg/kg	<1	<1	<1	<1	<1
cis-1,2-dichloroethene	mg/kg	<1	<1	<1	<1	<1
bromochloromethane	mg/kg	<1	<1	<1	<1	<1
chloroform	mg/kg	<1	<1	<1	<1	<1
2,2-dichloropropane	mg/kg	<1	<1	<1	<1	<1
1,2-dichloroethane	mg/kg	<1	<1	<1	<1	<1
1,1,1-trichloroethane	mg/kg	<1	<1	<1	<1	<1
1,1-dichloropropene	mg/kg	<1	<1	<1	<1	<1
Cyclohexane	mg/kg	<1	<1	<1	<1	<1
carbon tetrachloride	mg/kg	<1	<1	<1	<1	<1
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
dibromomethane	mg/kg	<1	<1	<1	<1	<1
1,2-dichloropropane	mg/kg	<1	<1	<1	<1	<1
trichloroethene	mg/kg	<1	<1	<1	<1	<1
bromodichloromethane	mg/kg	<1	<1	<1	<1	<1
trans-1,3-dichloropropene	mg/kg	<1	<1	<1	<1	<1
cis-1,3-dichloropropene	mg/kg	<1	<1	<1	<1	<1
1,1,2-trichloroethane	mg/kg	<1	<1	<1	<1	<1
Toluene	mg/kg	<0.5	<0.5	0.5	<0.5	<0.5
1,3-dichloropropane	mg/kg	<1	<1	<1	<1	<1
dibromochloromethane	mg/kg	<1	<1	<1	<1	<1
1,2-dibromoethane	mg/kg	<1	<1	<1	<1	<1
tetrachloroethene	mg/kg	<1	<1	<1	<1	<1
1,1,1,2-tetrachloroethane	mg/kg	<1	<1	<1	<1	<1
chlorobenzene	mg/kg	<1	<1	<1	<1	<1
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
bromoform	mg/kg	<1	<1	<1	<1	<1

VOCs in soil						
Our Reference		162119-38	162119-39	162119-40	162119-41	162119-42
Your Reference	UNITS	MW202 - 2nd sub-sample>125mm	MW203 - 2nd sub-sample>125mm	MW204 - 2nd sub-sample>125mm	MW205 - 2nd sub-sample>125mm	MW206 - 2nd sub-sample>125mm
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
styrene	mg/kg	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	mg/kg	<1	<1	<1	<1	<1
o-Xylene	mg/kg	<1	<1	<1	<1	<1
1,2,3-trichloropropane	mg/kg	<1	<1	<1	<1	<1
isopropylbenzene	mg/kg	<1	<1	<1	<1	<1
bromobenzene	mg/kg	<1	<1	<1	<1	<1
n-propyl benzene	mg/kg	<1	<1	<1	<1	<1
2-chlorotoluene	mg/kg	<1	<1	<1	<1	<1
4-chlorotoluene	mg/kg	<1	<1	<1	<1	<1
1,3,5-trimethyl benzene	mg/kg	<1	<1	<1	<1	<1
tert-butyl benzene	mg/kg	<1	<1	<1	<1	<1
1,2,4-trimethyl benzene	mg/kg	<1	<1	<1	<1	<1
1,3-dichlorobenzene	mg/kg	<1	<1	<1	<1	<1
sec-butyl benzene	mg/kg	<1	<1	<1	<1	<1
1,4-dichlorobenzene	mg/kg	<1	<1	<1	<1	<1
4-isopropyl toluene	mg/kg	<1	<1	<1	<1	<1
1,2-dichlorobenzene	mg/kg	<1	<1	<1	<1	<1
n-butyl benzene	mg/kg	<1	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	mg/kg	<1	<1	<1	<1	<1
1,2,4-trichlorobenzene	mg/kg	<1	<1	<1	<1	<1
hexachlorobutadiene	mg/kg	<1	<1	<1	<1	<1
1,2,3-trichlorobenzene	mg/kg	<1	<1	<1	<1	<1
Surrogate Dibromofluorometha	%	103	108	108	106	109
Surrogate aaa-Trifluorotoluene	%	91	98	90	89	93
Surrogate Toluene-d <sub>8</sub>	%	98	97	97	98	97
Surrogate 4-Bromofluorobenzene	%	93	95	93	94	96

Client Reference: Hydro Aluminium AS130515

VOCs in soil						
Our Reference		162119-43	162119-44	162119-45	162119-46	162119-47
Your Reference	UNITS	MW201 - 2nd sub-sample<125mm	MW202 - 2nd sub-sample<125mm	MW203 - 2nd sub-sample<125mm	MW204 - 2nd sub-sample<125mm	MW205 - 2nd sub-sample<125mm
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	10/03/2017	10/03/2017	10/03/2017	10/03/2017	10/03/2017
Date analysed	-	13/03/2017	13/03/2017	13/03/2017	13/03/2017	13/03/2017
Dichlorodifluoromethane	mg/kg	<1	<1	<1	<1	<1
Chloromethane	mg/kg	<1	<1	<1	<1	<1
Vinyl Chloride	mg/kg	<1	<1	<1	<1	<1
Bromomethane	mg/kg	<1	<1	<1	<1	<1
Chloroethane	mg/kg	<1	<1	<1	<1	<1
Trichlorofluoromethane	mg/kg	<1	<1	<1	<1	<1
1,1-Dichloroethene	mg/kg	<1	<1	<1	<1	<1
trans-1,2-dichloroethene	mg/kg	<1	<1	<1	<1	<1
1,1-dichloroethane	mg/kg	<1	<1	<1	<1	<1
cis-1,2-dichloroethene	mg/kg	<1	<1	<1	<1	<1
bromochloromethane	mg/kg	<1	<1	<1	<1	<1
chloroform	mg/kg	<1	<1	<1	<1	<1
2,2-dichloropropane	mg/kg	<1	<1	<1	<1	<1
1,2-dichloroethane	mg/kg	<1	<1	<1	<1	<1
1,1,1-trichloroethane	mg/kg	<1	<1	<1	<1	<1
1,1-dichloropropene	mg/kg	<1	<1	<1	<1	<1
Cyclohexane	mg/kg	<1	<1	<1	<1	<1
carbon tetrachloride	mg/kg	<1	<1	<1	<1	<1
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
dibromomethane	mg/kg	<1	<1	<1	<1	<1
1,2-dichloropropane	mg/kg	<1	<1	<1	<1	<1
trichloroethene	mg/kg	<1	<1	<1	<1	<1
bromodichloromethane	mg/kg	<1	<1	<1	<1	<1
trans-1,3-dichloropropene	mg/kg	<1	<1	<1	<1	<1
cis-1,3-dichloropropene	mg/kg	<1	<1	<1	<1	<1
1,1,2-trichloroethane	mg/kg	<1	<1	<1	<1	<1
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,3-dichloropropane	mg/kg	<1	<1	<1	<1	<1
dibromochloromethane	mg/kg	<1	<1	<1	<1	<1
1,2-dibromoethane	mg/kg	<1	<1	<1	<1	<1
tetrachloroethene	mg/kg	<1	<1	<1	<1	<1
1,1,1,2-tetrachloroethane	mg/kg	<1	<1	<1	<1	<1
chlorobenzene	mg/kg	<1	<1	<1	<1	<1
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
bromoform	mg/kg	<1	<1	<1	<1	<1

VOCs in soil						
Our Reference		162119-43	162119-44	162119-45	162119-46	162119-47
Your Reference	UNITS	MW201 - 2nd sub-sample<125mm	MW202 - 2nd sub-sample<125mm	MW203 - 2nd sub-sample<125mm	MW204 - 2nd sub-sample<125mm	MW205 - 2nd sub-sample<125mm
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
styrene	mg/kg	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	mg/kg	<1	<1	<1	<1	<1
o-Xylene	mg/kg	<1	<1	<1	<1	<1
1,2,3-trichloropropane	mg/kg	<1	<1	<1	<1	<1
isopropylbenzene	mg/kg	<1	<1	<1	<1	<1
bromobenzene	mg/kg	<1	<1	<1	<1	<1
n-propyl benzene	mg/kg	<1	<1	<1	<1	<1
2-chlorotoluene	mg/kg	<1	<1	<1	<1	<1
4-chlorotoluene	mg/kg	<1	<1	<1	<1	<1
1,3,5-trimethyl benzene	mg/kg	<1	<1	<1	<1	<1
tert-butyl benzene	mg/kg	<1	<1	<1	<1	<1
1,2,4-trimethyl benzene	mg/kg	<1	<1	<1	<1	<1
1,3-dichlorobenzene	mg/kg	<1	<1	<1	<1	<1
sec-butyl benzene	mg/kg	<1	<1	<1	<1	<1
1,4-dichlorobenzene	mg/kg	<1	<1	<1	<1	<1
4-isopropyl toluene	mg/kg	<1	<1	<1	<1	<1
1,2-dichlorobenzene	mg/kg	<1	<1	<1	<1	<1
n-butyl benzene	mg/kg	<1	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	mg/kg	<1	<1	<1	<1	<1
1,2,4-trichlorobenzene	mg/kg	<1	<1	<1	<1	<1
hexachlorobutadiene	mg/kg	<1	<1	<1	<1	<1
1,2,3-trichlorobenzene	mg/kg	<1	<1	<1	<1	<1
Surrogate Dibromofluorometha	%	110	102	109	108	109
Surrogate aaa-Trifluorotoluene	%	94	92	98	95	95
Surrogate Toluene-d <sub>8</sub>	%	96	96	96	98	97
Surrogate 4-Bromofluorobenzene	%	93	94	93	95	93

Client Reference: Hydro Aluminium AS130515

VOCs in soil						
Our Reference		162119-48	162119-49	162119-50	162119-51	162119-52
Your Reference	UNITS	MW206 - 2nd sub-sample<125mm	MW201 - BULK 3rd sub-sample	MW202 - BULK 3rd sub-sample	MW203 - BULK 3rd sub-sample	MW204 - BULK 3rd sub-sample
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	10/03/2017	10/03/2017	10/03/2017	10/03/2017	10/03/2017
Date analysed	-	13/03/2017	13/03/2017	13/03/2017	13/03/2017	13/03/2017
Dichlorodifluoromethane	mg/kg	<1	<1	<1	<1	<1
Chloromethane	mg/kg	<1	<1	<1	<1	<1
Vinyl Chloride	mg/kg	<1	<1	<1	<1	<1
Bromomethane	mg/kg	<1	<1	<1	<1	<1
Chloroethane	mg/kg	<1	<1	<1	<1	<1
Trichlorofluoromethane	mg/kg	<1	<1	<1	<1	<1
1,1-Dichloroethene	mg/kg	<1	<1	<1	<1	<1
trans-1,2-dichloroethene	mg/kg	<1	<1	<1	<1	<1
1,1-dichloroethane	mg/kg	<1	<1	<1	<1	<1
cis-1,2-dichloroethene	mg/kg	<1	<1	<1	<1	<1
bromochloromethane	mg/kg	<1	<1	<1	<1	<1
chloroform	mg/kg	<1	<1	<1	<1	<1
2,2-dichloropropane	mg/kg	<1	<1	<1	<1	<1
1,2-dichloroethane	mg/kg	<1	<1	<1	<1	<1
1,1,1-trichloroethane	mg/kg	<1	<1	<1	<1	<1
1,1-dichloropropene	mg/kg	<1	<1	<1	<1	<1
Cyclohexane	mg/kg	<1	<1	<1	<1	<1
carbon tetrachloride	mg/kg	<1	<1	<1	<1	<1
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
dibromomethane	mg/kg	<1	<1	<1	<1	<1
1,2-dichloropropane	mg/kg	<1	<1	<1	<1	<1
trichloroethene	mg/kg	<1	<1	<1	<1	<1
bromodichloromethane	mg/kg	<1	<1	<1	<1	<1
trans-1,3-dichloropropene	mg/kg	<1	<1	<1	<1	<1
cis-1,3-dichloropropene	mg/kg	<1	<1	<1	<1	<1
1,1,2-trichloroethane	mg/kg	<1	<1	<1	<1	<1
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,3-dichloropropane	mg/kg	<1	<1	<1	<1	<1
dibromochloromethane	mg/kg	<1	<1	<1	<1	<1
1,2-dibromoethane	mg/kg	<1	<1	<1	<1	<1
tetrachloroethene	mg/kg	<1	<1	<1	<1	<1
1,1,1,2-tetrachloroethane	mg/kg	<1	<1	<1	<1	<1
chlorobenzene	mg/kg	<1	<1	<1	<1	<1
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
bromoform	mg/kg	<1	<1	<1	<1	<1

VOCs in soil						
Our Reference		162119-48	162119-49	162119-50	162119-51	162119-52
Your Reference	UNITS	MW206 - 2nd sub-sample<125mm	MW201 - BULK 3rd sub-sample	MW202 - BULK 3rd sub-sample	MW203 - BULK 3rd sub-sample	MW204 - BULK 3rd sub-sample
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
styrene	mg/kg	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	mg/kg	<1	<1	<1	<1	<1
o-Xylene	mg/kg	<1	<1	<1	<1	<1
1,2,3-trichloropropane	mg/kg	<1	<1	<1	<1	<1
isopropylbenzene	mg/kg	<1	<1	<1	<1	<1
bromobenzene	mg/kg	<1	<1	<1	<1	<1
n-propyl benzene	mg/kg	<1	<1	<1	<1	<1
2-chlorotoluene	mg/kg	<1	<1	<1	<1	<1
4-chlorotoluene	mg/kg	<1	<1	<1	<1	<1
1,3,5-trimethyl benzene	mg/kg	<1	<1	<1	<1	<1
tert-butyl benzene	mg/kg	<1	<1	<1	<1	<1
1,2,4-trimethyl benzene	mg/kg	<1	<1	<1	<1	<1
1,3-dichlorobenzene	mg/kg	<1	<1	<1	<1	<1
sec-butyl benzene	mg/kg	<1	<1	<1	<1	<1
1,4-dichlorobenzene	mg/kg	<1	<1	<1	<1	<1
4-isopropyl toluene	mg/kg	<1	<1	<1	<1	<1
1,2-dichlorobenzene	mg/kg	<1	<1	<1	<1	<1
n-butyl benzene	mg/kg	<1	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	mg/kg	<1	<1	<1	<1	<1
1,2,4-trichlorobenzene	mg/kg	<1	<1	<1	<1	<1
hexachlorobutadiene	mg/kg	<1	<1	<1	<1	<1
1,2,3-trichlorobenzene	mg/kg	<1	<1	<1	<1	<1
Surrogate Dibromofluorometha	%	109	108	109	107	109
Surrogate aaa-Trifluorotoluene	%	96	91	94	90	90
Surrogate Toluene-d <sub>8</sub>	%	98	96	97	95	97
Surrogate 4-Bromofluorobenzene	%	93	95	94	95	93



VOCs in soil						
Our Reference		162119-53	162119-54	162119-55	162119-56	162119-57
Your Reference	UNITS	MW205 - BULK 3rd sub-sample	MW206 - BULK 3rd sub-sample	MW201 - BULK 4TH sub-sample	MW202 - BULK 4TH sub-sample	MW203 - BULK 4TH sub-sample
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	10/03/2017	10/03/2017	10/03/2017	10/03/2017	10/03/2017
Date analysed	-	13/03/2017	13/03/2017	13/03/2017	13/03/2017	13/03/2017
Dichlorodifluoromethane	mg/kg	<1	<1	<1	<1	<1
Chloromethane	mg/kg	<1	<1	<1	<1	<1
Vinyl Chloride	mg/kg	<1	<1	<1	<1	<1
Bromomethane	mg/kg	<1	<1	<1	<1	<1
Chloroethane	mg/kg	<1	<1	<1	<1	<1
Trichlorofluoromethane	mg/kg	<1	<1	<1	<1	<1
1,1-Dichloroethene	mg/kg	<1	<1	<1	<1	<1
trans-1,2-dichloroethene	mg/kg	<1	<1	<1	<1	<1
1,1-dichloroethane	mg/kg	<1	<1	<1	<1	<1
cis-1,2-dichloroethene	mg/kg	<1	<1	<1	<1	<1
bromochloromethane	mg/kg	<1	<1	<1	<1	<1
chloroform	mg/kg	<1	<1	<1	<1	<1
2,2-dichloropropane	mg/kg	<1	<1	<1	<1	<1
1,2-dichloroethane	mg/kg	<1	<1	<1	<1	<1
1,1,1-trichloroethane	mg/kg	<1	<1	<1	<1	<1
1,1-dichloropropene	mg/kg	<1	<1	<1	<1	<1
Cyclohexane	mg/kg	<1	<1	<1	<1	<1
carbon tetrachloride	mg/kg	<1	<1	<1	<1	<1
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
dibromomethane	mg/kg	<1	<1	<1	<1	<1
1,2-dichloropropane	mg/kg	<1	<1	<1	<1	<1
trichloroethene	mg/kg	<1	<1	<1	<1	<1
bromodichloromethane	mg/kg	<1	<1	<1	<1	<1
trans-1,3-dichloropropene	mg/kg	<1	<1	<1	<1	<1
cis-1,3-dichloropropene	mg/kg	<1	<1	<1	<1	<1
1,1,2-trichloroethane	mg/kg	<1	<1	<1	<1	<1
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,3-dichloropropane	mg/kg	<1	<1	<1	<1	<1
dibromochloromethane	mg/kg	<1	<1	<1	<1	<1
1,2-dibromoethane	mg/kg	<1	<1	<1	<1	<1
tetrachloroethene	mg/kg	<1	<1	<1	<1	<1
1,1,1,2-tetrachloroethane	mg/kg	<1	<1	<1	<1	<1
chlorobenzene	mg/kg	<1	<1	<1	<1	<1
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
bromoform	mg/kg	<1	<1	<1	<1	<1

VOCs in soil						
Our Reference		162119-53	162119-54	162119-55	162119-56	162119-57
Your Reference	UNITS	MW205 - BULK 3rd sub-sample	MW206 - BULK 3rd sub-sample	MW201 - BULK 4TH sub-sample	MW202 - BULK 4TH sub-sample	MW203 - BULK 4TH sub-sample
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
styrene	mg/kg	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	mg/kg	<1	<1	<1	<1	<1
o-Xylene	mg/kg	<1	<1	<1	<1	<1
1,2,3-trichloropropane	mg/kg	<1	<1	<1	<1	<1
isopropylbenzene	mg/kg	<1	<1	<1	<1	<1
bromobenzene	mg/kg	<1	<1	<1	<1	<1
n-propyl benzene	mg/kg	<1	<1	<1	<1	<1
2-chlorotoluene	mg/kg	<1	<1	<1	<1	<1
4-chlorotoluene	mg/kg	<1	<1	<1	<1	<1
1,3,5-trimethyl benzene	mg/kg	<1	<1	<1	<1	<1
tert-butyl benzene	mg/kg	<1	<1	<1	<1	<1
1,2,4-trimethyl benzene	mg/kg	<1	<1	<1	<1	<1
1,3-dichlorobenzene	mg/kg	<1	<1	<1	<1	<1
sec-butyl benzene	mg/kg	<1	<1	<1	<1	<1
1,4-dichlorobenzene	mg/kg	<1	<1	<1	<1	<1
4-isopropyl toluene	mg/kg	<1	<1	<1	<1	<1
1,2-dichlorobenzene	mg/kg	<1	<1	<1	<1	<1
n-butyl benzene	mg/kg	<1	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	mg/kg	<1	<1	<1	<1	<1
1,2,4-trichlorobenzene	mg/kg	<1	<1	<1	<1	<1
hexachlorobutadiene	mg/kg	<1	<1	<1	<1	<1
1,2,3-trichlorobenzene	mg/kg	<1	<1	<1	<1	<1
Surrogate Dibromofluorometha	%	109	108	108	109	106
Surrogate aaa-Trifluorotoluene	%	93	90	94	94	88
Surrogate Toluene-d <sub>8</sub>	%	98	95	97	98	96
Surrogate 4-Bromofluorobenzene	%	96	94	95	94	96

Client Reference: Hydro Aluminium AS130515

VOCs in soil						
Our Reference		162119-58	162119-59	162119-60	162119-61	162119-62
Your Reference	UNITS	MW204 - BULK 4TH sub-sample	MW205 - BULK 4TH sub-sample	MW206 - BULK 4TH sub-sample	MW201 - BULK 5TH sub-sample	MW202 - BULK 5TH sub-sample
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	10/03/2017	10/03/2017	10/03/2017	10/03/2017	10/03/2017
Date analysed	-	13/03/2017	13/03/2017	13/03/2017	13/03/2017	13/03/2017
Dichlorodifluoromethane	mg/kg	<1	<1	<1	<1	<1
Chloromethane	mg/kg	<1	<1	<1	<1	<1
Vinyl Chloride	mg/kg	<1	<1	<1	<1	<1
Bromomethane	mg/kg	<1	<1	<1	<1	<1
Chloroethane	mg/kg	<1	<1	<1	<1	<1
Trichlorofluoromethane	mg/kg	<1	<1	<1	<1	<1
1,1-Dichloroethene	mg/kg	<1	<1	<1	<1	<1
trans-1,2-dichloroethene	mg/kg	<1	<1	<1	<1	<1
1,1-dichloroethane	mg/kg	<1	<1	<1	<1	<1
cis-1,2-dichloroethene	mg/kg	<1	<1	<1	<1	<1
bromochloromethane	mg/kg	<1	<1	<1	<1	<1
chloroform	mg/kg	<1	<1	<1	<1	<1
2,2-dichloropropane	mg/kg	<1	<1	<1	<1	<1
1,2-dichloroethane	mg/kg	<1	<1	<1	<1	<1
1,1,1-trichloroethane	mg/kg	<1	<1	<1	<1	<1
1,1-dichloropropene	mg/kg	<1	<1	<1	<1	<1
Cyclohexane	mg/kg	<1	<1	<1	<1	<1
carbon tetrachloride	mg/kg	<1	<1	<1	<1	<1
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
dibromomethane	mg/kg	<1	<1	<1	<1	<1
1,2-dichloropropane	mg/kg	<1	<1	<1	<1	<1
trichloroethene	mg/kg	<1	<1	<1	<1	<1
bromodichloromethane	mg/kg	<1	<1	<1	<1	<1
trans-1,3-dichloropropene	mg/kg	<1	<1	<1	<1	<1
cis-1,3-dichloropropene	mg/kg	<1	<1	<1	<1	<1
1,1,2-trichloroethane	mg/kg	<1	<1	<1	<1	<1
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,3-dichloropropane	mg/kg	<1	<1	<1	<1	<1
dibromochloromethane	mg/kg	<1	<1	<1	<1	<1
1,2-dibromoethane	mg/kg	<1	<1	<1	<1	<1
tetrachloroethene	mg/kg	<1	<1	<1	<1	<1
1,1,1,2-tetrachloroethane	mg/kg	<1	<1	<1	<1	<1
chlorobenzene	mg/kg	<1	<1	<1	<1	<1
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
bromoform	mg/kg	<1	<1	<1	<1	<1

Client Reference: Hydro Aluminium AS130515

VOCs in soil						
Our Reference		162119-58	162119-59	162119-60	162119-61	162119-62
Your Reference	UNITS	MW204 - BULK 4TH sub-sample	MW205 - BULK 4TH sub-sample	MW206 - BULK 4TH sub-sample	MW201 - BULK 5TH sub-sample	MW202 - BULK 5TH sub-sample
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
styrene	mg/kg	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	mg/kg	<1	<1	<1	<1	<1
o-Xylene	mg/kg	<1	<1	<1	<1	<1
1,2,3-trichloropropane	mg/kg	<1	<1	<1	<1	<1
isopropylbenzene	mg/kg	<1	<1	<1	<1	<1
bromobenzene	mg/kg	<1	<1	<1	<1	<1
n-propyl benzene	mg/kg	<1	<1	<1	<1	<1
2-chlorotoluene	mg/kg	<1	<1	<1	<1	<1
4-chlorotoluene	mg/kg	<1	<1	<1	<1	<1
1,3,5-trimethyl benzene	mg/kg	<1	<1	<1	<1	<1
tert-butyl benzene	mg/kg	<1	<1	<1	<1	<1
1,2,4-trimethyl benzene	mg/kg	<1	<1	<1	<1	<1
1,3-dichlorobenzene	mg/kg	<1	<1	<1	<1	<1
sec-butyl benzene	mg/kg	<1	<1	<1	<1	<1
1,4-dichlorobenzene	mg/kg	<1	<1	<1	<1	<1
4-isopropyl toluene	mg/kg	<1	<1	<1	<1	<1
1,2-dichlorobenzene	mg/kg	<1	<1	<1	<1	<1
n-butyl benzene	mg/kg	<1	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	mg/kg	<1	<1	<1	<1	<1
1,2,4-trichlorobenzene	mg/kg	<1	<1	<1	<1	<1
hexachlorobutadiene	mg/kg	<1	<1	<1	<1	<1
1,2,3-trichlorobenzene	mg/kg	<1	<1	<1	<1	<1
Surrogate Dibromofluorometha	%	108	108	109	108	108
Surrogate aaa-Trifluorotoluene	%	89	91	93	91	91
Surrogate Toluene-d <sub>8</sub>	%	97	97	98	98	97
Surrogate 4-Bromofluorobenzene	%	95	93	94	95	94

Client Reference: Hydro Aluminium AS130515

VOCs in soil						
Our Reference		162119-63	162119-64	162119-65	162119-66	162119-67
Your Reference	UNITS	MW203 - BULK 5TH sub-sample	MW204 - BULK 5TH sub-sample	MW205 - BULK 5TH sub-sample	MW206 - BULK 5TH sub-sample	MW201 - BULK 6TH sub-sample
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	10/03/2017	10/03/2017	10/03/2017	10/03/2017	10/03/2017
Date analysed	-	13/03/2017	13/03/2017	13/03/2017	13/03/2017	13/03/2017
Dichlorodifluoromethane	mg/kg	<1	<1	<1	<1	<1
Chloromethane	mg/kg	<1	<1	<1	<1	<1
Vinyl Chloride	mg/kg	<1	<1	<1	<1	<1
Bromomethane	mg/kg	<1	<1	<1	<1	<1
Chloroethane	mg/kg	<1	<1	<1	<1	<1
Trichlorofluoromethane	mg/kg	<1	<1	<1	<1	<1
1,1-Dichloroethene	mg/kg	<1	<1	<1	<1	<1
trans-1,2-dichloroethene	mg/kg	<1	<1	<1	<1	<1
1,1-dichloroethane	mg/kg	<1	<1	<1	<1	<1
cis-1,2-dichloroethene	mg/kg	<1	<1	<1	<1	<1
bromochloromethane	mg/kg	<1	<1	<1	<1	<1
chloroform	mg/kg	<1	<1	<1	<1	<1
2,2-dichloropropane	mg/kg	<1	<1	<1	<1	<1
1,2-dichloroethane	mg/kg	<1	<1	<1	<1	<1
1,1,1-trichloroethane	mg/kg	<1	<1	<1	<1	<1
1,1-dichloropropene	mg/kg	<1	<1	<1	<1	<1
Cyclohexane	mg/kg	<1	<1	<1	<1	<1
carbon tetrachloride	mg/kg	<1	<1	<1	<1	<1
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
dibromomethane	mg/kg	<1	<1	<1	<1	<1
1,2-dichloropropane	mg/kg	<1	<1	<1	<1	<1
trichloroethene	mg/kg	<1	<1	<1	<1	<1
bromodichloromethane	mg/kg	<1	<1	<1	<1	<1
trans-1,3-dichloropropene	mg/kg	<1	<1	<1	<1	<1
cis-1,3-dichloropropene	mg/kg	<1	<1	<1	<1	<1
1,1,2-trichloroethane	mg/kg	<1	<1	<1	<1	<1
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,3-dichloropropane	mg/kg	<1	<1	<1	<1	<1
dibromochloromethane	mg/kg	<1	<1	<1	<1	<1
1,2-dibromoethane	mg/kg	<1	<1	<1	<1	<1
tetrachloroethene	mg/kg	<1	<1	<1	<1	<1
1,1,1,2-tetrachloroethane	mg/kg	<1	<1	<1	<1	<1
chlorobenzene	mg/kg	<1	<1	<1	<1	<1
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
bromoform	mg/kg	<1	<1	<1	<1	<1

VOCs in soil						
Our Reference		162119-63	162119-64	162119-65	162119-66	162119-67
Your Reference	UNITS	MW203 - BULK 5TH sub-sample	MW204 - BULK 5TH sub-sample	MW205 - BULK 5TH sub-sample	MW206 - BULK 5TH sub-sample	MW201 - BULK 6TH sub-sample
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
styrene	mg/kg	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	mg/kg	<1	<1	<1	<1	<1
o-Xylene	mg/kg	<1	<1	<1	<1	<1
1,2,3-trichloropropane	mg/kg	<1	<1	<1	<1	<1
isopropylbenzene	mg/kg	<1	<1	<1	<1	<1
bromobenzene	mg/kg	<1	<1	<1	<1	<1
n-propyl benzene	mg/kg	<1	<1	<1	<1	<1
2-chlorotoluene	mg/kg	<1	<1	<1	<1	<1
4-chlorotoluene	mg/kg	<1	<1	<1	<1	<1
1,3,5-trimethyl benzene	mg/kg	<1	<1	<1	<1	<1
tert-butyl benzene	mg/kg	<1	<1	<1	<1	<1
1,2,4-trimethyl benzene	mg/kg	<1	<1	<1	<1	<1
1,3-dichlorobenzene	mg/kg	<1	<1	<1	<1	<1
sec-butyl benzene	mg/kg	<1	<1	<1	<1	<1
1,4-dichlorobenzene	mg/kg	<1	<1	<1	<1	<1
4-isopropyl toluene	mg/kg	<1	<1	<1	<1	<1
1,2-dichlorobenzene	mg/kg	<1	<1	<1	<1	<1
n-butyl benzene	mg/kg	<1	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	mg/kg	<1	<1	<1	<1	<1
1,2,4-trichlorobenzene	mg/kg	<1	<1	<1	<1	<1
hexachlorobutadiene	mg/kg	<1	<1	<1	<1	<1
1,2,3-trichlorobenzene	mg/kg	<1	<1	<1	<1	<1
Surrogate Dibromofluorometha	%	108	109	109	110	109
Surrogate aaa-Trifluorotoluene	%	90	92	91	91	93
Surrogate Toluene-d <sub>8</sub>	%	98	96	97	97	97
Surrogate 4-Bromofluorobenzene	%	93	94	93	92	94

Client Reference: Hydro Aluminium AS130515

VOCs in soil						
Our Reference		162119-68	162119-69	162119-70	162119-71	162119-72
Your Reference	UNITS	MW202 - BULK 6TH sub-sample	MW203 - BULK 6TH sub-sample	MW204 - BULK 6TH sub-sample	MW205 - BULK 6TH sub-sample	MW206 - BULK 6TH sub-sample
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	10/03/2017	10/03/2017	10/03/2017	10/03/2017	10/03/2017
Date analysed	-	13/03/2017	13/03/2017	13/03/2017	13/03/2017	13/03/2017
Dichlorodifluoromethane	mg/kg	<1	<1	<1	<1	<1
Chloromethane	mg/kg	<1	<1	<1	<1	<1
Vinyl Chloride	mg/kg	<1	<1	<1	<1	<1
Bromomethane	mg/kg	<1	<1	<1	<1	<1
Chloroethane	mg/kg	<1	<1	<1	<1	<1
Trichlorofluoromethane	mg/kg	<1	<1	<1	<1	<1
1,1-Dichloroethene	mg/kg	<1	<1	<1	<1	<1
trans-1,2-dichloroethene	mg/kg	<1	<1	<1	<1	<1
1,1-dichloroethane	mg/kg	<1	<1	<1	<1	<1
cis-1,2-dichloroethene	mg/kg	<1	<1	<1	<1	<1
bromochloromethane	mg/kg	<1	<1	<1	<1	<1
chloroform	mg/kg	<1	<1	<1	<1	<1
2,2-dichloropropane	mg/kg	<1	<1	<1	<1	<1
1,2-dichloroethane	mg/kg	<1	<1	<1	<1	<1
1,1,1-trichloroethane	mg/kg	<1	<1	<1	<1	<1
1,1-dichloropropene	mg/kg	<1	<1	<1	<1	<1
Cyclohexane	mg/kg	<1	<1	<1	<1	<1
carbon tetrachloride	mg/kg	<1	<1	<1	<1	<1
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
dibromomethane	mg/kg	<1	<1	<1	<1	<1
1,2-dichloropropane	mg/kg	<1	<1	<1	<1	<1
trichloroethene	mg/kg	<1	<1	<1	<1	<1
bromodichloromethane	mg/kg	<1	<1	<1	<1	<1
trans-1,3-dichloropropene	mg/kg	<1	<1	<1	<1	<1
cis-1,3-dichloropropene	mg/kg	<1	<1	<1	<1	<1
1,1,2-trichloroethane	mg/kg	<1	<1	<1	<1	<1
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,3-dichloropropane	mg/kg	<1	<1	<1	<1	<1
dibromochloromethane	mg/kg	<1	<1	<1	<1	<1
1,2-dibromoethane	mg/kg	<1	<1	<1	<1	<1
tetrachloroethene	mg/kg	<1	<1	<1	<1	<1
1,1,1,2-tetrachloroethane	mg/kg	<1	<1	<1	<1	<1
chlorobenzene	mg/kg	<1	<1	<1	<1	<1
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
bromoform	mg/kg	<1	<1	<1	<1	<1

Client Reference: Hydro Aluminium AS130515

VOCs in soil						
Our Reference		162119-68	162119-69	162119-70	162119-71	162119-72
Your Reference	UNITS	MW202 - BULK 6TH sub-sample	MW203 - BULK 6TH sub-sample	MW204 - BULK 6TH sub-sample	MW205 - BULK 6TH sub-sample	MW206 - BULK 6TH sub-sample
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
styrene	mg/kg	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	mg/kg	<1	<1	<1	<1	<1
o-Xylene	mg/kg	<1	<1	<1	<1	<1
1,2,3-trichloropropane	mg/kg	<1	<1	<1	<1	<1
isopropylbenzene	mg/kg	<1	<1	<1	<1	<1
bromobenzene	mg/kg	<1	<1	<1	<1	<1
n-propyl benzene	mg/kg	<1	<1	<1	<1	<1
2-chlorotoluene	mg/kg	<1	<1	<1	<1	<1
4-chlorotoluene	mg/kg	<1	<1	<1	<1	<1
1,3,5-trimethyl benzene	mg/kg	<1	<1	<1	<1	<1
tert-butyl benzene	mg/kg	<1	<1	<1	<1	<1
1,2,4-trimethyl benzene	mg/kg	<1	<1	<1	<1	<1
1,3-dichlorobenzene	mg/kg	<1	<1	<1	<1	<1
sec-butyl benzene	mg/kg	<1	<1	<1	<1	<1
1,4-dichlorobenzene	mg/kg	<1	<1	<1	<1	<1
4-isopropyl toluene	mg/kg	<1	<1	<1	<1	<1
1,2-dichlorobenzene	mg/kg	<1	<1	<1	<1	<1
n-butyl benzene	mg/kg	<1	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	mg/kg	<1	<1	<1	<1	<1
1,2,4-trichlorobenzene	mg/kg	<1	<1	<1	<1	<1
hexachlorobutadiene	mg/kg	<1	<1	<1	<1	<1
1,2,3-trichlorobenzene	mg/kg	<1	<1	<1	<1	<1
Surrogate Dibromofluorometha	%	110	106	110	109	107
Surrogate aaa-Trifluorotoluene	%	93	92	89	93	90
Surrogate Toluene-d <sub>8</sub>	%	96	99	97	97	98
Surrogate 4-Bromofluorobenzene	%	94	92	96	95	94



VOCs in soil						
Our Reference		162119-73	162119-74	162119-75	162119-76	162119-77
Your Reference	UNITS	MW201 + 50% Lime Dry	MW202 + 50% Lime Dry	MW203 + 50% Lime Dry	MW204 + 50% Lime Dry	MW205 + 50% Lime Dry
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	15/03/2017	15/03/2017	15/03/2017	15/03/2017	15/03/2017
Date analysed	-	17/03/2017	17/03/2017	17/03/2017	17/03/2017	17/03/2017
Dichlorodifluoromethane	mg/kg	<1	<1	<1	<1	<1
Chloromethane	mg/kg	<1	<1	<1	<1	<1
Vinyl Chloride	mg/kg	<1	<1	<1	<1	<1
Bromomethane	mg/kg	<1	<1	<1	<1	<1
Chloroethane	mg/kg	<1	<1	<1	<1	<1
Trichlorofluoromethane	mg/kg	<1	<1	<1	<1	<1
1,1-Dichloroethene	mg/kg	<1	<1	<1	<1	<1
trans-1,2-dichloroethene	mg/kg	<1	<1	<1	<1	<1
1,1-dichloroethane	mg/kg	<1	<1	<1	<1	<1
cis-1,2-dichloroethene	mg/kg	<1	<1	<1	<1	<1
bromochloromethane	mg/kg	<1	<1	<1	<1	<1
chloroform	mg/kg	<1	<1	<1	<1	<1
2,2-dichloropropane	mg/kg	<1	<1	<1	<1	<1
1,2-dichloroethane	mg/kg	<1	<1	<1	<1	<1
1,1,1-trichloroethane	mg/kg	<1	<1	<1	<1	<1
1,1-dichloropropene	mg/kg	<1	<1	<1	<1	<1
Cyclohexane	mg/kg	<1	<1	<1	<1	<1
carbon tetrachloride	mg/kg	<1	<1	<1	<1	<1
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
dibromomethane	mg/kg	<1	<1	<1	<1	<1
1,2-dichloropropane	mg/kg	<1	<1	<1	<1	<1
trichloroethene	mg/kg	<1	<1	<1	<1	<1
bromodichloromethane	mg/kg	<1	<1	<1	<1	<1
trans-1,3-dichloropropene	mg/kg	<1	<1	<1	<1	<1
cis-1,3-dichloropropene	mg/kg	<1	<1	<1	<1	<1
1,1,2-trichloroethane	mg/kg	<1	<1	<1	<1	<1
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,3-dichloropropane	mg/kg	<1	<1	<1	<1	<1
dibromochloromethane	mg/kg	<1	<1	<1	<1	<1
1,2-dibromoethane	mg/kg	<1	<1	<1	<1	<1
tetrachloroethene	mg/kg	<1	<1	<1	<1	<1
1,1,1,2-tetrachloroethane	mg/kg	<1	<1	<1	<1	<1
chlorobenzene	mg/kg	<1	<1	<1	<1	<1
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
bromoform	mg/kg	<1	<1	<1	<1	<1

VOCs in soil						
Our Reference		162119-73	162119-74	162119-75	162119-76	162119-77
Your Reference	UNITS	MW201 + 50% Lime Dry	MW202 + 50% Lime Dry	MW203 + 50% Lime Dry	MW204 + 50% Lime Dry	MW205 + 50% Lime Dry
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
styrene	mg/kg	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	mg/kg	<1	<1	<1	<1	<1
o-Xylene	mg/kg	<1	<1	<1	<1	<1
1,2,3-trichloropropane	mg/kg	<1	<1	<1	<1	<1
isopropylbenzene	mg/kg	<1	<1	<1	<1	<1
bromobenzene	mg/kg	<1	<1	<1	<1	<1
n-propyl benzene	mg/kg	<1	<1	<1	<1	<1
2-chlorotoluene	mg/kg	<1	<1	<1	<1	<1
4-chlorotoluene	mg/kg	<1	<1	<1	<1	<1
1,3,5-trimethyl benzene	mg/kg	<1	<1	<1	<1	<1
tert-butyl benzene	mg/kg	<1	<1	<1	<1	<1
1,2,4-trimethyl benzene	mg/kg	<1	<1	<1	<1	<1
1,3-dichlorobenzene	mg/kg	<1	<1	<1	<1	<1
sec-butyl benzene	mg/kg	<1	<1	<1	<1	<1
1,4-dichlorobenzene	mg/kg	<1	<1	<1	<1	<1
4-isopropyl toluene	mg/kg	<1	<1	<1	<1	<1
1,2-dichlorobenzene	mg/kg	<1	<1	<1	<1	<1
n-butyl benzene	mg/kg	<1	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	mg/kg	<1	<1	<1	<1	<1
1,2,4-trichlorobenzene	mg/kg	<1	<1	<1	<1	<1
hexachlorobutadiene	mg/kg	<1	<1	<1	<1	<1
1,2,3-trichlorobenzene	mg/kg	<1	<1	<1	<1	<1
Surrogate Dibromofluorometha	%	101	100	100	100	100
Surrogate aaa-Trifluorotoluene	%	97	93	88	91	87
Surrogate Toluene-d <sub>8</sub>	%	101	100	101	100	98
Surrogate 4-Bromofluorobenzene	%	99	99	99	99	97

Client Reference: Hydro Aluminium AS130515

VOCs in soil						
Our Reference		162119-78	162119-79	162119-80	162119-81	162119-82
Your Reference	UNITS	MW206 + 50% Lime Dry	MW201 + 50% CaCl2 DRY	MW202 + 50% CaCl2 DRY	MW203 + 50% CaCl2 DRY	MW204 + 50% CaCl2 DRY
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	15/03/2017	15/03/2017	15/03/2017	15/03/2017	15/03/2017
Date analysed	-	17/03/2017	17/03/2017	17/03/2017	17/03/2017	17/03/2017
Dichlorodifluoromethane	mg/kg	<1	<1	<1	<1	<1
Chloromethane	mg/kg	<1	<1	<1	<1	<1
Vinyl Chloride	mg/kg	<1	<1	<1	<1	<1
Bromomethane	mg/kg	<1	<1	<1	<1	<1
Chloroethane	mg/kg	<1	<1	<1	<1	<1
Trichlorofluoromethane	mg/kg	<1	<1	<1	<1	<1
1,1-Dichloroethene	mg/kg	<1	<1	<1	<1	<1
trans-1,2-dichloroethene	mg/kg	<1	<1	<1	<1	<1
1,1-dichloroethane	mg/kg	<1	<1	<1	<1	<1
cis-1,2-dichloroethene	mg/kg	<1	<1	<1	<1	<1
bromochloromethane	mg/kg	<1	<1	<1	<1	<1
chloroform	mg/kg	<1	<1	<1	<1	<1
2,2-dichloropropane	mg/kg	<1	<1	<1	<1	<1
1,2-dichloroethane	mg/kg	<1	<1	<1	<1	<1
1,1,1-trichloroethane	mg/kg	<1	<1	<1	<1	<1
1,1-dichloropropene	mg/kg	<1	<1	<1	<1	<1
Cyclohexane	mg/kg	<1	<1	<1	<1	<1
carbon tetrachloride	mg/kg	<1	<1	<1	<1	<1
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
dibromomethane	mg/kg	<1	<1	<1	<1	<1
1,2-dichloropropane	mg/kg	<1	<1	<1	<1	<1
trichloroethene	mg/kg	<1	<1	<1	<1	<1
bromodichloromethane	mg/kg	<1	<1	<1	<1	<1
trans-1,3-dichloropropene	mg/kg	<1	<1	<1	<1	<1
cis-1,3-dichloropropene	mg/kg	<1	<1	<1	<1	<1
1,1,2-trichloroethane	mg/kg	<1	<1	<1	<1	<1
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,3-dichloropropane	mg/kg	<1	<1	<1	<1	<1
dibromochloromethane	mg/kg	<1	<1	<1	<1	<1
1,2-dibromoethane	mg/kg	<1	<1	<1	<1	<1
tetrachloroethene	mg/kg	<1	<1	<1	<1	<1
1,1,1,2-tetrachloroethane	mg/kg	<1	<1	<1	<1	<1
chlorobenzene	mg/kg	<1	<1	<1	<1	<1
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
bromoform	mg/kg	<1	<1	<1	<1	<1

Client Reference: Hydro Aluminium AS130515

VOCs in soil						
Our Reference		162119-78	162119-79	162119-80	162119-81	162119-82
Your Reference	UNITS	MW206 + 50% Lime Dry	MW201 + 50% CaCl2 DRY	MW202 + 50% CaCl2 DRY	MW203 + 50% CaCl2 DRY	MW204 + 50% CaCl2 DRY
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
styrene	mg/kg	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	mg/kg	<1	<1	<1	<1	<1
o-Xylene	mg/kg	<1	<1	<1	<1	<1
1,2,3-trichloropropane	mg/kg	<1	<1	<1	<1	<1
isopropylbenzene	mg/kg	<1	<1	<1	<1	<1
bromobenzene	mg/kg	<1	<1	<1	<1	<1
n-propyl benzene	mg/kg	<1	<1	<1	<1	<1
2-chlorotoluene	mg/kg	<1	<1	<1	<1	<1
4-chlorotoluene	mg/kg	<1	<1	<1	<1	<1
1,3,5-trimethyl benzene	mg/kg	<1	<1	<1	<1	<1
tert-butyl benzene	mg/kg	<1	<1	<1	<1	<1
1,2,4-trimethyl benzene	mg/kg	<1	<1	<1	<1	<1
1,3-dichlorobenzene	mg/kg	<1	<1	<1	<1	<1
sec-butyl benzene	mg/kg	<1	<1	<1	<1	<1
1,4-dichlorobenzene	mg/kg	<1	<1	<1	<1	<1
4-isopropyl toluene	mg/kg	<1	<1	<1	<1	<1
1,2-dichlorobenzene	mg/kg	<1	<1	<1	<1	<1
n-butyl benzene	mg/kg	<1	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	mg/kg	<1	<1	<1	<1	<1
1,2,4-trichlorobenzene	mg/kg	<1	<1	<1	<1	<1
hexachlorobutadiene	mg/kg	<1	<1	<1	<1	<1
1,2,3-trichlorobenzene	mg/kg	<1	<1	<1	<1	<1
Surrogate Dibromofluorometha	%	103	102	101	99	102
Surrogate aaa-Trifluorotoluene	%	83	91	89	89	90
Surrogate Toluene-d <sub>8</sub>	%	100	102	98	99	98
Surrogate 4-Bromofluorobenzene	%	96	97	99	98	98

VOCs in soil						
Our Reference		162119-83	162119-84	162119-85	162119-86	162119-87
Your Reference	UNITS	MW205 + 50% CaCl2 DRY	MW206 + 50% CaCl2 DRY	MW201 + 30 Cement DRY	MW202 + 30 Cement DRY	MW203 + 30 Cement DRY
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	15/03/2017	15/03/2017	15/03/2017	15/03/2017	15/03/2017
Date analysed	-	17/03/2017	17/03/2017	17/03/2017	17/03/2017	17/03/2017
Dichlorodifluoromethane	mg/kg	<1	<1	<1	<1	<1
Chloromethane	mg/kg	<1	<1	<1	<1	<1
Vinyl Chloride	mg/kg	<1	<1	<1	<1	<1
Bromomethane	mg/kg	<1	<1	<1	<1	<1
Chloroethane	mg/kg	<1	<1	<1	<1	<1
Trichlorofluoromethane	mg/kg	<1	<1	<1	<1	<1
1,1-Dichloroethene	mg/kg	<1	<1	<1	<1	<1
trans-1,2-dichloroethene	mg/kg	<1	<1	<1	<1	<1
1,1-dichloroethane	mg/kg	<1	<1	<1	<1	<1
cis-1,2-dichloroethene	mg/kg	<1	<1	<1	<1	<1
bromochloromethane	mg/kg	<1	<1	<1	<1	<1
chloroform	mg/kg	<1	<1	<1	<1	<1
2,2-dichloropropane	mg/kg	<1	<1	<1	<1	<1
1,2-dichloroethane	mg/kg	<1	<1	<1	<1	<1
1,1,1-trichloroethane	mg/kg	<1	<1	<1	<1	<1
1,1-dichloropropene	mg/kg	<1	<1	<1	<1	<1
Cyclohexane	mg/kg	<1	<1	<1	<1	<1
carbon tetrachloride	mg/kg	<1	<1	<1	<1	<1
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
dibromomethane	mg/kg	<1	<1	<1	<1	<1
1,2-dichloropropane	mg/kg	<1	<1	<1	<1	<1
trichloroethene	mg/kg	<1	<1	<1	<1	<1
bromodichloromethane	mg/kg	<1	<1	<1	<1	<1
trans-1,3-dichloropropene	mg/kg	<1	<1	<1	<1	<1
cis-1,3-dichloropropene	mg/kg	<1	<1	<1	<1	<1
1,1,2-trichloroethane	mg/kg	<1	<1	<1	<1	<1
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,3-dichloropropane	mg/kg	<1	<1	<1	<1	<1
dibromochloromethane	mg/kg	<1	<1	<1	<1	<1
1,2-dibromoethane	mg/kg	<1	<1	<1	<1	<1
tetrachloroethene	mg/kg	<1	<1	<1	<1	<1
1,1,1,2-tetrachloroethane	mg/kg	<1	<1	<1	<1	<1
chlorobenzene	mg/kg	<1	<1	<1	<1	<1
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
bromoform	mg/kg	<1	<1	<1	<1	<1

Client Reference: Hydro Aluminium AS130515

VOCs in soil						
Our Reference		162119-83	162119-84	162119-85	162119-86	162119-87
Your Reference	UNITS	MW205 + 50% CaCl2 DRY	MW206 + 50% CaCl2 DRY	MW201 + 30 Cement DRY	MW202 + 30 Cement DRY	MW203 + 30 Cement DRY
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
styrene	mg/kg	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	mg/kg	<1	<1	<1	<1	<1
o-Xylene	mg/kg	<1	<1	<1	<1	<1
1,2,3-trichloropropane	mg/kg	<1	<1	<1	<1	<1
isopropylbenzene	mg/kg	<1	<1	<1	<1	<1
bromobenzene	mg/kg	<1	<1	<1	<1	<1
n-propyl benzene	mg/kg	<1	<1	<1	<1	<1
2-chlorotoluene	mg/kg	<1	<1	<1	<1	<1
4-chlorotoluene	mg/kg	<1	<1	<1	<1	<1
1,3,5-trimethyl benzene	mg/kg	<1	<1	<1	<1	<1
tert-butyl benzene	mg/kg	<1	<1	<1	<1	<1
1,2,4-trimethyl benzene	mg/kg	<1	<1	<1	<1	<1
1,3-dichlorobenzene	mg/kg	<1	<1	<1	<1	<1
sec-butyl benzene	mg/kg	<1	<1	<1	<1	<1
1,4-dichlorobenzene	mg/kg	<1	<1	<1	<1	<1
4-isopropyl toluene	mg/kg	<1	<1	<1	<1	<1
1,2-dichlorobenzene	mg/kg	<1	<1	<1	<1	<1
n-butyl benzene	mg/kg	<1	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	mg/kg	<1	<1	<1	<1	<1
1,2,4-trichlorobenzene	mg/kg	<1	<1	<1	<1	<1
hexachlorobutadiene	mg/kg	<1	<1	<1	<1	<1
1,2,3-trichlorobenzene	mg/kg	<1	<1	<1	<1	<1
Surrogate Dibromofluorometha	%	101	103	102	101	102
Surrogate aaa-Trifluorotoluene	%	83	83	88	85	90
Surrogate Toluene-d8	%	99	99	99	98	99
Surrogate 4-Bromofluorobenzene	%	96	97	97	96	98

VOCs in soil						
Our Reference		162119-88	162119-89	162119-90	162119-91	162119-92
Your Reference	UNITS	MW204 + 30 Cement DRY	MW205 + 30 Cement DRY	MW206 + 30 Cement DRY	MW201 + 50% Lime WET	MW202 + 50% Lime WET
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	15/03/2017	15/03/2017	15/03/2017	15/03/2017	15/03/2017
Date analysed	-	17/03/2017	17/03/2017	17/03/2017	17/03/2017	17/03/2017
Dichlorodifluoromethane	mg/kg	<1	<1	<1	<1	<1
Chloromethane	mg/kg	<1	<1	<1	<1	<1
Vinyl Chloride	mg/kg	<1	<1	<1	<1	<1
Bromomethane	mg/kg	<1	<1	<1	<1	<1
Chloroethane	mg/kg	<1	<1	<1	<1	<1
Trichlorofluoromethane	mg/kg	<1	<1	<1	<1	<1
1,1-Dichloroethene	mg/kg	<1	<1	<1	<1	<1
trans-1,2-dichloroethene	mg/kg	<1	<1	<1	<1	<1
1,1-dichloroethane	mg/kg	<1	<1	<1	<1	<1
cis-1,2-dichloroethene	mg/kg	<1	<1	<1	<1	<1
bromochloromethane	mg/kg	<1	<1	<1	<1	<1
chloroform	mg/kg	<1	<1	<1	<1	<1
2,2-dichloropropane	mg/kg	<1	<1	<1	<1	<1
1,2-dichloroethane	mg/kg	<1	<1	<1	<1	<1
1,1,1-trichloroethane	mg/kg	<1	<1	<1	<1	<1
1,1-dichloropropene	mg/kg	<1	<1	<1	<1	<1
Cyclohexane	mg/kg	<1	<1	<1	<1	<1
carbon tetrachloride	mg/kg	<1	<1	<1	<1	<1
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
dibromomethane	mg/kg	<1	<1	<1	<1	<1
1,2-dichloropropane	mg/kg	<1	<1	<1	<1	<1
trichloroethene	mg/kg	<1	<1	<1	<1	<1
bromodichloromethane	mg/kg	<1	<1	<1	<1	<1
trans-1,3-dichloropropene	mg/kg	<1	<1	<1	<1	<1
cis-1,3-dichloropropene	mg/kg	<1	<1	<1	<1	<1
1,1,2-trichloroethane	mg/kg	<1	<1	<1	<1	<1
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,3-dichloropropane	mg/kg	<1	<1	<1	<1	<1
dibromochloromethane	mg/kg	<1	<1	<1	<1	<1
1,2-dibromoethane	mg/kg	<1	<1	<1	<1	<1
tetrachloroethene	mg/kg	<1	<1	<1	<1	<1
1,1,1,2-tetrachloroethane	mg/kg	<1	<1	<1	<1	<1
chlorobenzene	mg/kg	<1	<1	<1	<1	<1
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
bromoform	mg/kg	<1	<1	<1	<1	<1

Client Reference: Hydro Aluminium AS130515

VOCs in soil						
Our Reference		162119-88	162119-89	162119-90	162119-91	162119-92
Your Reference	UNITS	MW204 + 30 Cement DRY	MW205 + 30 Cement DRY	MW206 + 30 Cement DRY	MW201 + 50% Lime WET	MW202 + 50% Lime WET
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
styrene	mg/kg	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	mg/kg	<1	<1	<1	<1	<1
o-Xylene	mg/kg	<1	<1	<1	<1	<1
1,2,3-trichloropropane	mg/kg	<1	<1	<1	<1	<1
isopropylbenzene	mg/kg	<1	<1	<1	<1	<1
bromobenzene	mg/kg	<1	<1	<1	<1	<1
n-propyl benzene	mg/kg	<1	<1	<1	<1	<1
2-chlorotoluene	mg/kg	<1	<1	<1	<1	<1
4-chlorotoluene	mg/kg	<1	<1	<1	<1	<1
1,3,5-trimethyl benzene	mg/kg	<1	<1	<1	<1	<1
tert-butyl benzene	mg/kg	<1	<1	<1	<1	<1
1,2,4-trimethyl benzene	mg/kg	<1	<1	<1	<1	<1
1,3-dichlorobenzene	mg/kg	<1	<1	<1	<1	<1
sec-butyl benzene	mg/kg	<1	<1	<1	<1	<1
1,4-dichlorobenzene	mg/kg	<1	<1	<1	<1	<1
4-isopropyl toluene	mg/kg	<1	<1	<1	<1	<1
1,2-dichlorobenzene	mg/kg	<1	<1	<1	<1	<1
n-butyl benzene	mg/kg	<1	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	mg/kg	<1	<1	<1	<1	<1
1,2,4-trichlorobenzene	mg/kg	<1	<1	<1	<1	<1
hexachlorobutadiene	mg/kg	<1	<1	<1	<1	<1
1,2,3-trichlorobenzene	mg/kg	<1	<1	<1	<1	<1
Surrogate Dibromofluorometha	%	101	103	101	101	98
Surrogate aaa-Trifluorotoluene	%	88	90	90	70	77
Surrogate Toluene-d <sub>8</sub>	%	97	98	98	98	99
Surrogate 4-Bromofluorobenzene	%	97	96	97	96	98



VOCs in soil						
Our Reference		162119-93	162119-94	162119-95	162119-96	162119-97
Your Reference	UNITS	MW203 + 50% Lime WET	MW204 + 50% Lime WET	MW205 + 50% Lime WET	MW206 + 50% Lime WET	MW201 + 50% CaCl2 WET
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	15/03/2017	15/03/2017	15/03/2017	15/03/2017	15/03/2017
Date analysed	-	17/03/2017	17/03/2017	17/03/2017	17/03/2017	17/03/2017
Dichlorodifluoromethane	mg/kg	<1	<1	<1	<1	<1
Chloromethane	mg/kg	<1	<1	<1	<1	<1
Vinyl Chloride	mg/kg	<1	<1	<1	<1	<1
Bromomethane	mg/kg	<1	<1	<1	<1	<1
Chloroethane	mg/kg	<1	<1	<1	<1	<1
Trichlorofluoromethane	mg/kg	<1	<1	<1	<1	<1
1,1-Dichloroethene	mg/kg	<1	<1	<1	<1	<1
trans-1,2-dichloroethene	mg/kg	<1	<1	<1	<1	<1
1,1-dichloroethane	mg/kg	<1	<1	<1	<1	<1
cis-1,2-dichloroethene	mg/kg	<1	<1	<1	<1	<1
bromochloromethane	mg/kg	<1	<1	<1	<1	<1
chloroform	mg/kg	<1	<1	<1	<1	<1
2,2-dichloropropane	mg/kg	<1	<1	<1	<1	<1
1,2-dichloroethane	mg/kg	<1	<1	<1	<1	<1
1,1,1-trichloroethane	mg/kg	<1	<1	<1	<1	<1
1,1-dichloropropene	mg/kg	<1	<1	<1	<1	<1
Cyclohexane	mg/kg	<1	<1	<1	<1	<1
carbon tetrachloride	mg/kg	<1	<1	<1	<1	<1
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
dibromomethane	mg/kg	<1	<1	<1	<1	<1
1,2-dichloropropane	mg/kg	<1	<1	<1	<1	<1
trichloroethene	mg/kg	<1	<1	<1	<1	<1
bromodichloromethane	mg/kg	<1	<1	<1	<1	<1
trans-1,3-dichloropropene	mg/kg	<1	<1	<1	<1	<1
cis-1,3-dichloropropene	mg/kg	<1	<1	<1	<1	<1
1,1,2-trichloroethane	mg/kg	<1	<1	<1	<1	<1
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,3-dichloropropane	mg/kg	<1	<1	<1	<1	<1
dibromochloromethane	mg/kg	<1	<1	<1	<1	<1
1,2-dibromoethane	mg/kg	<1	<1	<1	<1	<1
tetrachloroethene	mg/kg	<1	<1	<1	<1	<1
1,1,1,2-tetrachloroethane	mg/kg	<1	<1	<1	<1	<1
chlorobenzene	mg/kg	<1	<1	<1	<1	<1
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
bromoform	mg/kg	<1	<1	<1	<1	<1

Client Reference: Hydro Aluminium AS130515

VOCs in soil						
Our Reference		162119-93	162119-94	162119-95	162119-96	162119-97
Your Reference	UNITS	MW203 + 50% Lime WET	MW204 + 50% Lime WET	MW205 + 50% Lime WET	MW206 + 50% Lime WET	MW201 + 50% CaCl2 WET
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
styrene	mg/kg	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	mg/kg	<1	<1	<1	<1	<1
o-Xylene	mg/kg	<1	<1	<1	<1	<1
1,2,3-trichloropropane	mg/kg	<1	<1	<1	<1	<1
isopropylbenzene	mg/kg	<1	<1	<1	<1	<1
bromobenzene	mg/kg	<1	<1	<1	<1	<1
n-propyl benzene	mg/kg	<1	<1	<1	<1	<1
2-chlorotoluene	mg/kg	<1	<1	<1	<1	<1
4-chlorotoluene	mg/kg	<1	<1	<1	<1	<1
1,3,5-trimethyl benzene	mg/kg	<1	<1	<1	<1	<1
tert-butyl benzene	mg/kg	<1	<1	<1	<1	<1
1,2,4-trimethyl benzene	mg/kg	<1	<1	<1	<1	<1
1,3-dichlorobenzene	mg/kg	<1	<1	<1	<1	<1
sec-butyl benzene	mg/kg	<1	<1	<1	<1	<1
1,4-dichlorobenzene	mg/kg	<1	<1	<1	<1	<1
4-isopropyl toluene	mg/kg	<1	<1	<1	<1	<1
1,2-dichlorobenzene	mg/kg	<1	<1	<1	<1	<1
n-butyl benzene	mg/kg	<1	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	mg/kg	<1	<1	<1	<1	<1
1,2,4-trichlorobenzene	mg/kg	<1	<1	<1	<1	<1
hexachlorobutadiene	mg/kg	<1	<1	<1	<1	<1
1,2,3-trichlorobenzene	mg/kg	<1	<1	<1	<1	<1
Surrogate Dibromofluorometha	%	100	97	98	99	103
Surrogate aaa-Trifluorotoluene	%	79	78	76	76	79
Surrogate Toluene-d <sub>8</sub>	%	99	100	99	97	99
Surrogate 4-Bromofluorobenzene	%	97	95	96	98	96

VOCs in soil						
Our Reference		162119-98	162119-99	162119-100	162119-101	162119-102
Your Reference	UNITS	MW202 + 50% CaCl2 WET	MW203 + 50% CaCl2 WET	MW204 + 50% CaCl2 WET	MW205 + 50% CaCl2 WET	MW206 + 50% CaCl2 WET
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	15/03/2017	15/03/2017	15/03/2017	15/03/2017	15/03/2017
Date analysed	-	17/03/2017	17/03/2017	17/03/2017	17/03/2017	17/03/2017
Dichlorodifluoromethane	mg/kg	<1	<1	<1	<1	<1
Chloromethane	mg/kg	<1	<1	<1	<1	<1
Vinyl Chloride	mg/kg	<1	<1	<1	<1	<1
Bromomethane	mg/kg	<1	<1	<1	<1	<1
Chloroethane	mg/kg	<1	<1	<1	<1	<1
Trichlorofluoromethane	mg/kg	<1	<1	<1	<1	<1
1,1-Dichloroethene	mg/kg	<1	<1	<1	<1	<1
trans-1,2-dichloroethene	mg/kg	<1	<1	<1	<1	<1
1,1-dichloroethane	mg/kg	<1	<1	<1	<1	<1
cis-1,2-dichloroethene	mg/kg	<1	<1	<1	<1	<1
bromochloromethane	mg/kg	<1	<1	<1	<1	<1
chloroform	mg/kg	<1	<1	<1	<1	<1
2,2-dichloropropane	mg/kg	<1	<1	<1	<1	<1
1,2-dichloroethane	mg/kg	<1	<1	<1	<1	<1
1,1,1-trichloroethane	mg/kg	<1	<1	<1	<1	<1
1,1-dichloropropene	mg/kg	<1	<1	<1	<1	<1
Cyclohexane	mg/kg	<1	<1	<1	<1	<1
carbon tetrachloride	mg/kg	<1	<1	<1	<1	<1
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
dibromomethane	mg/kg	<1	<1	<1	<1	<1
1,2-dichloropropane	mg/kg	<1	<1	<1	<1	<1
trichloroethene	mg/kg	<1	<1	<1	<1	<1
bromodichloromethane	mg/kg	<1	<1	<1	<1	<1
trans-1,3-dichloropropene	mg/kg	<1	<1	<1	<1	<1
cis-1,3-dichloropropene	mg/kg	<1	<1	<1	<1	<1
1,1,2-trichloroethane	mg/kg	<1	<1	<1	<1	<1
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,3-dichloropropane	mg/kg	<1	<1	<1	<1	<1
dibromochloromethane	mg/kg	<1	<1	<1	<1	<1
1,2-dibromoethane	mg/kg	<1	<1	<1	<1	<1
tetrachloroethene	mg/kg	<1	<1	<1	<1	<1
1,1,1,2-tetrachloroethane	mg/kg	<1	<1	<1	<1	<1
chlorobenzene	mg/kg	<1	<1	<1	<1	<1
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
bromoform	mg/kg	<1	<1	<1	<1	<1

Client Reference: Hydro Aluminium AS130515

VOCs in soil						
Our Reference		162119-98	162119-99	162119-100	162119-101	162119-102
Your Reference	UNITS	MW202 + 50% CaCl <sub>2</sub> WET	MW203 + 50% CaCl <sub>2</sub> WET	MW204 + 50% CaCl <sub>2</sub> WET	MW205 + 50% CaCl <sub>2</sub> WET	MW206 + 50% CaCl <sub>2</sub> WET
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
styrene	mg/kg	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	mg/kg	<1	<1	<1	<1	<1
o-Xylene	mg/kg	<1	<1	<1	<1	<1
1,2,3-trichloropropane	mg/kg	<1	<1	<1	<1	<1
isopropylbenzene	mg/kg	<1	<1	<1	<1	<1
bromobenzene	mg/kg	<1	<1	<1	<1	<1
n-propyl benzene	mg/kg	<1	<1	<1	<1	<1
2-chlorotoluene	mg/kg	<1	<1	<1	<1	<1
4-chlorotoluene	mg/kg	<1	<1	<1	<1	<1
1,3,5-trimethyl benzene	mg/kg	<1	<1	<1	<1	<1
tert-butyl benzene	mg/kg	<1	<1	<1	<1	<1
1,2,4-trimethyl benzene	mg/kg	<1	<1	<1	<1	<1
1,3-dichlorobenzene	mg/kg	<1	<1	<1	<1	<1
sec-butyl benzene	mg/kg	<1	<1	<1	<1	<1
1,4-dichlorobenzene	mg/kg	<1	<1	<1	<1	<1
4-isopropyl toluene	mg/kg	<1	<1	<1	<1	<1
1,2-dichlorobenzene	mg/kg	<1	<1	<1	<1	<1
n-butyl benzene	mg/kg	<1	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	mg/kg	<1	<1	<1	<1	<1
1,2,4-trichlorobenzene	mg/kg	<1	<1	<1	<1	<1
hexachlorobutadiene	mg/kg	<1	<1	<1	<1	<1
1,2,3-trichlorobenzene	mg/kg	<1	<1	<1	<1	<1
Surrogate Dibromofluorometha	%	103	104	104	102	102
Surrogate aaa-Trifluorotoluene	%	82	82	83	83	82
Surrogate Toluene-d <sub>8</sub>	%	99	100	98	99	98
Surrogate 4-Bromofluorobenzene	%	96	95	97	95	97

VOCs in soil						
Our Reference		162119-103	162119-104	162119-105	162119-106	162119-107
Your Reference	UNITS	MW201 + 30% Cement WET	MW202 + 30% Cement WET	MW203 + 30% Cement WET	MW204 + 30% Cement WET	MW205 + 30% Cement WET
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	15/03/2017	15/03/2017	15/03/2017	15/03/2017	15/03/2017
Date analysed	-	17/03/2017	17/03/2017	17/03/2017	17/03/2017	17/03/2017
Dichlorodifluoromethane	mg/kg	<1	<1	<1	<1	<1
Chloromethane	mg/kg	<1	<1	<1	<1	<1
Vinyl Chloride	mg/kg	<1	<1	<1	<1	<1
Bromomethane	mg/kg	<1	<1	<1	<1	<1
Chloroethane	mg/kg	<1	<1	<1	<1	<1
Trichlorofluoromethane	mg/kg	<1	<1	<1	<1	<1
1,1-Dichloroethene	mg/kg	<1	<1	<1	<1	<1
trans-1,2-dichloroethene	mg/kg	<1	<1	<1	<1	<1
1,1-dichloroethane	mg/kg	<1	<1	<1	<1	<1
cis-1,2-dichloroethene	mg/kg	<1	<1	<1	<1	<1
bromochloromethane	mg/kg	<1	<1	<1	<1	<1
chloroform	mg/kg	<1	<1	<1	<1	<1
2,2-dichloropropane	mg/kg	<1	<1	<1	<1	<1
1,2-dichloroethane	mg/kg	<1	<1	<1	<1	<1
1,1,1-trichloroethane	mg/kg	<1	<1	<1	<1	<1
1,1-dichloropropene	mg/kg	<1	<1	<1	<1	<1
Cyclohexane	mg/kg	<1	<1	<1	<1	<1
carbon tetrachloride	mg/kg	<1	<1	<1	<1	<1
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
dibromomethane	mg/kg	<1	<1	<1	<1	<1
1,2-dichloropropane	mg/kg	<1	<1	<1	<1	<1
trichloroethene	mg/kg	<1	<1	<1	<1	<1
bromodichloromethane	mg/kg	<1	<1	<1	<1	<1
trans-1,3-dichloropropene	mg/kg	<1	<1	<1	<1	<1
cis-1,3-dichloropropene	mg/kg	<1	<1	<1	<1	<1
1,1,2-trichloroethane	mg/kg	<1	<1	<1	<1	<1
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,3-dichloropropane	mg/kg	<1	<1	<1	<1	<1
dibromochloromethane	mg/kg	<1	<1	<1	<1	<1
1,2-dibromoethane	mg/kg	<1	<1	<1	<1	<1
tetrachloroethene	mg/kg	<1	<1	<1	<1	<1
1,1,1,2-tetrachloroethane	mg/kg	<1	<1	<1	<1	<1
chlorobenzene	mg/kg	<1	<1	<1	<1	<1
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
bromoform	mg/kg	<1	<1	<1	<1	<1

Client Reference: Hydro Aluminium AS130515

VOCs in soil						
Our Reference		162119-103	162119-104	162119-105	162119-106	162119-107
Your Reference	UNITS	MW201 + 30% Cement WET	MW202 + 30% Cement WET	MW203 + 30% Cement WET	MW204 + 30% Cement WET	MW205 + 30% Cement WET
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
styrene	mg/kg	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	mg/kg	<1	<1	<1	<1	<1
o-Xylene	mg/kg	<1	<1	<1	<1	<1
1,2,3-trichloropropane	mg/kg	<1	<1	<1	<1	<1
isopropylbenzene	mg/kg	<1	<1	<1	<1	<1
bromobenzene	mg/kg	<1	<1	<1	<1	<1
n-propyl benzene	mg/kg	<1	<1	<1	<1	<1
2-chlorotoluene	mg/kg	<1	<1	<1	<1	<1
4-chlorotoluene	mg/kg	<1	<1	<1	<1	<1
1,3,5-trimethyl benzene	mg/kg	<1	<1	<1	<1	<1
tert-butyl benzene	mg/kg	<1	<1	<1	<1	<1
1,2,4-trimethyl benzene	mg/kg	<1	<1	<1	<1	<1
1,3-dichlorobenzene	mg/kg	<1	<1	<1	<1	<1
sec-butyl benzene	mg/kg	<1	<1	<1	<1	<1
1,4-dichlorobenzene	mg/kg	<1	<1	<1	<1	<1
4-isopropyl toluene	mg/kg	<1	<1	<1	<1	<1
1,2-dichlorobenzene	mg/kg	<1	<1	<1	<1	<1
n-butyl benzene	mg/kg	<1	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	mg/kg	<1	<1	<1	<1	<1
1,2,4-trichlorobenzene	mg/kg	<1	<1	<1	<1	<1
hexachlorobutadiene	mg/kg	<1	<1	<1	<1	<1
1,2,3-trichlorobenzene	mg/kg	<1	<1	<1	<1	<1
Surrogate Dibromofluorometha	%	102	102	104	105	103
Surrogate aaa-Trifluorotoluene	%	83	83	84	70	66
Surrogate Toluene-d <sub>8</sub>	%	98	98	97	97	99
Surrogate 4-Bromofluorobenzene	%	96	98	95	96	95

VOCs in soil		
Our Reference		162119-108
Your Reference	UNITS	MW206 + 30% Cement WET
Date Sampled		10/02/2017
Type of sample		Soil
Date extracted	-	15/03/2017
Date analysed	-	17/03/2017
Dichlorodifluoromethane	mg/kg	<1
Chloromethane	mg/kg	<1
Vinyl Chloride	mg/kg	<1
Bromomethane	mg/kg	<1
Chloroethane	mg/kg	<1
Trichlorofluoromethane	mg/kg	<1
1,1-Dichloroethene	mg/kg	<1
trans-1,2-dichloroethene	mg/kg	<1
1,1-dichloroethane	mg/kg	<1
cis-1,2-dichloroethene	mg/kg	<1
bromochloromethane	mg/kg	<1
chloroform	mg/kg	<1
2,2-dichloropropane	mg/kg	<1
1,2-dichloroethane	mg/kg	<1
1,1,1-trichloroethane	mg/kg	<1
1,1-dichloropropene	mg/kg	<1
Cyclohexane	mg/kg	<1
carbon tetrachloride	mg/kg	<1
Benzene	mg/kg	<0.2
dibromomethane	mg/kg	<1
1,2-dichloropropane	mg/kg	<1
trichloroethene	mg/kg	<1
bromodichloromethane	mg/kg	<1
trans-1,3-dichloropropene	mg/kg	<1
cis-1,3-dichloropropene	mg/kg	<1
1,1,2-trichloroethane	mg/kg	<1
Toluene	mg/kg	<0.5
1,3-dichloropropane	mg/kg	<1
dibromochloromethane	mg/kg	<1
1,2-dibromoethane	mg/kg	<1
tetrachloroethene	mg/kg	<1
1,1,1,2-tetrachloroethane	mg/kg	<1
chlorobenzene	mg/kg	<1
Ethylbenzene	mg/kg	<1
bromoform	mg/kg	<1

VOCs in soil		
Our Reference		162119-108
Your Reference	UNITS	MW206 + 30% Cement WET
Date Sampled		10/02/2017
Type of sample		Soil
m+p-xylene	mg/kg	<2
styrene	mg/kg	<1
1,1,2,2-tetrachloroethane	mg/kg	<1
o-Xylene	mg/kg	<1
1,2,3-trichloropropane	mg/kg	<1
isopropylbenzene	mg/kg	<1
bromobenzene	mg/kg	<1
n-propyl benzene	mg/kg	<1
2-chlorotoluene	mg/kg	<1
4-chlorotoluene	mg/kg	<1
1,3,5-trimethyl benzene	mg/kg	<1
tert-butyl benzene	mg/kg	<1
1,2,4-trimethyl benzene	mg/kg	<1
1,3-dichlorobenzene	mg/kg	<1
sec-butyl benzene	mg/kg	<1
1,4-dichlorobenzene	mg/kg	<1
4-isopropyl toluene	mg/kg	<1
1,2-dichlorobenzene	mg/kg	<1
n-butyl benzene	mg/kg	<1
1,2-dibromo-3-chloropropane	mg/kg	<1
1,2,4-trichlorobenzene	mg/kg	<1
hexachlorobutadiene	mg/kg	<1
1,2,3-trichlorobenzene	mg/kg	<1
Surrogate Dibromofluorometha	%	104
Surrogate aaa-Trifluorotoluene	%	81
Surrogate Toluene-d <sub>8</sub>	%	96
Surrogate 4-Bromofluorobenzene	%	94



Client Reference: Hydro Aluminium AS130515

Acid Extractable metals in soil						
Our Reference		162119-1	162119-2	162119-3	162119-4	162119-5
Your Reference	UNITS	MW201 - BULK 1st sub-sample	MW202 - BULK 1st sub-sample	MW203 - BULK 1st sub-sample	MW204 - BULK 1st sub-sample	MW205 - BULK 1st sub-sample
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	10/03/2017	10/03/2017	10/03/2017	10/03/2017	10/03/2017
Arsenic	mg/kg	6	120	92	8	39
Cadmium	mg/kg	0.5	0.6	0.5	0.7	1
Copper	mg/kg	24	260	400	41	230
Lead	mg/kg	25	490	330	20	210
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	0.2
Molybdenum	mg/kg	2	9	9	6	10
Nickel	mg/kg	43	83	49	80	170
Selenium	mg/kg	<2	<2	<2	<2	<2
Silver	mg/kg	<1	1	<1	<1	<1
Tin	mg/kg	2	10	16	3	14
Zinc	mg/kg	170	2,500	3,700	98	4,600

Acid Extractable metals in soil						
Our Reference		162119-6	162119-7	162119-8	162119-9	162119-10
Your Reference	UNITS	MW206 - BULK 1st sub-sample	MW201 - 1st sub- sample>125mm	MW202 - 1st sub- sample>125mm	MW203 - 1st sub- sample>125mm	MW204 - 1st sub- sample>125mm
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	10/03/2017	10/03/2017	10/03/2017	10/03/2017	10/03/2017
Arsenic	mg/kg	13	<4	<4	4	<4
Cadmium	mg/kg	0.7	<0.4	<0.4	<0.4	<0.4
Copper	mg/kg	54	9	5	6	9
Lead	mg/kg	42	3	5	6	3
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Molybdenum	mg/kg	6	1	1	1	<1
Nickel	mg/kg	85	17	15	12	12
Selenium	mg/kg	<2	<2	<2	<2	<2
Silver	mg/kg	<1	<1	<1	<1	<1
Tin	mg/kg	4	<1	<1	<1	<1
Zinc	mg/kg	360	6	23	23	14

Client Reference: Hydro Aluminium AS130515

Acid Extractable metals in soil						
Our Reference		162119-11	162119-12	162119-25	162119-26	162119-27
Your Reference	UNITS	MW205 - 1st sub-sample>125mm	MW206 - 1st sub-sample>125mm	MW201 - 1st sub-sample<125mm	MW202 - 1st sub-sample<125mm	MW203 - 1st sub-sample<125mm
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	10/03/2017	10/03/2017	10/03/2017	10/03/2017	10/03/2017
Arsenic	mg/kg	5	<4	7	44	330
Cadmium	mg/kg	<0.4	<0.4	<0.4	0.6	0.5
Copper	mg/kg	21	9	17	310	420
Lead	mg/kg	9	8	21	820	220
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Molybdenum	mg/kg	2	1	2	8	7
Nickel	mg/kg	40	27	36	66	44
Selenium	mg/kg	<2	<2	<2	<2	<2
Silver	mg/kg	<1	<1	<1	2	<1
Tin	mg/kg	1	<1	2	14	18
Zinc	mg/kg	43	70	110	4,000	2,300

Acid Extractable metals in soil						
Our Reference		162119-28	162119-29	162119-30	162119-31	162119-32
Your Reference	UNITS	MW204 - 1st sub-sample<125mm	MW205 - 1st sub-sample<125mm	MW206 - 1st sub-sample<125mm	MW201 - BULK 2nd sub-sample	MW202 - BULK 2nd sub-sample
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	10/03/2017	10/03/2017	10/03/2017	10/03/2017	10/03/2017
Arsenic	mg/kg	9	22	14	6	100
Cadmium	mg/kg	0.7	0.9	0.7	0.5	0.5
Copper	mg/kg	34	150	37	31	250
Lead	mg/kg	27	130	19	27	500
Mercury	mg/kg	<0.1	0.2	<0.1	<0.1	<0.1
Molybdenum	mg/kg	3	8	7	3	6
Nickel	mg/kg	64	79	110	42	81
Selenium	mg/kg	<2	<2	<2	<2	<2
Silver	mg/kg	<1	<1	<1	<1	<1
Tin	mg/kg	3	11	3	4	11
Zinc	mg/kg	110	2,100	100	180	2,600

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Acid Extractable metals in soil						
Our Reference		162119-33	162119-34	162119-35	162119-36	162119-37
Your Reference	UNITS	MW203 - BULK 2nd sub-sample	MW204 - BULK 2nd sub-sample	MW205 - BULK 2nd sub-sample	MW206 - BULK 2nd sub-sample	MW201 - 2nd sub- sample>125mm
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	10/03/2017	10/03/2017	10/03/2017	10/03/2017	10/03/2017
Arsenic	mg/kg	180	8	67	13	<4
Cadmium	mg/kg	0.5	0.6	1	0.7	<0.4
Copper	mg/kg	390	28	250	69	7
Lead	mg/kg	330	18	310	37	1
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Molybdenum	mg/kg	7	3	8	7	<1
Nickel	mg/kg	44	64	71	96	12
Selenium	mg/kg	<2	<2	<2	<2	<2
Silver	mg/kg	<1	<1	2	<1	<1
Tin	mg/kg	16	2	13	6	<1
Zinc	mg/kg	3,800	89	4,100	320	1

Acid Extractable metals in soil						
Our Reference		162119-38	162119-39	162119-40	162119-41	162119-42
Your Reference	UNITS	MW202 - 2nd sub- sample>125mm	MW203 - 2nd sub- sample>125mm	MW204 - 2nd sub- sample>125mm	MW205 - 2nd sub- sample>125mm	MW206 - 2nd sub- sample>125mm
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	10/03/2017	10/03/2017	10/03/2017	10/03/2017	10/03/2017
Arsenic	mg/kg	<4	4	<4	5	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Copper	mg/kg	3	6	11	24	3
Lead	mg/kg	4	5	3	10	2
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Molybdenum	mg/kg	1	<1	<1	2	<1
Nickel	mg/kg	14	11	14	47	13
Selenium	mg/kg	<2	<2	<2	<2	<2
Silver	mg/kg	<1	<1	<1	<1	<1
Tin	mg/kg	<1	<1	<1	1	<1
Zinc	mg/kg	10	22	12	57	4

Client Reference: Hydro Aluminium AS130515

Acid Extractable metals in soil						
Our Reference		162119-43	162119-44	162119-45	162119-46	162119-47
Your Reference	UNITS	MW201 - 2nd sub-sample<125mm	MW202 - 2nd sub-sample<125mm	MW203 - 2nd sub-sample<125mm	MW204 - 2nd sub-sample<125mm	MW205 - 2nd sub-sample<125mm
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	10/03/2017	10/03/2017	10/03/2017	10/03/2017	10/03/2017
Arsenic	mg/kg	6	410	92	8	23
Cadmium	mg/kg	<0.4	0.5	0.5	0.7	0.9
Copper	mg/kg	20	450	350	52	130
Lead	mg/kg	22	800	270	24	100
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	0.3
Molybdenum	mg/kg	2	9	9	5	10
Nickel	mg/kg	35	84	44	81	85
Selenium	mg/kg	<2	<2	<2	<2	<2
Silver	mg/kg	<1	2	<1	<1	<1
Tin	mg/kg	3	20	15	3	9
Zinc	mg/kg	160	3,200	3,300	98	1,200

Acid Extractable metals in soil						
Our Reference		162119-48	162119-49	162119-50	162119-51	162119-52
Your Reference	UNITS	MW206 - 2nd sub-sample<125mm	MW201 - BULK 3rd sub-sample	MW202 - BULK 3rd sub-sample	MW203 - BULK 3rd sub-sample	MW204 - BULK 3rd sub-sample
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	10/03/2017	10/03/2017	10/03/2017	10/03/2017	10/03/2017
Arsenic	mg/kg	13	6	43	190	7
Cadmium	mg/kg	0.7	0.4	0.6	0.6	0.7
Copper	mg/kg	43	24	210	430	39
Lead	mg/kg	22	24	540	330	23
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Molybdenum	mg/kg	6	2	5	8	3
Nickel	mg/kg	110	46	84	38	61
Selenium	mg/kg	<2	<2	<2	<2	<2
Silver	mg/kg	<1	<1	1	<1	<1
Tin	mg/kg	4	2	10	17	3
Zinc	mg/kg	120	170	2,400	3,700	150

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Acid Extractable metals in soil						
Our Reference		162119-53	162119-54	162119-55	162119-56	162119-57
Your Reference	UNITS	MW205 - BULK 3rd sub-sample	MW206 - BULK 3rd sub-sample	MW201 - BULK 4TH sub-sample	MW202 - BULK 4TH sub-sample	MW203 - BULK 4TH sub-sample
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	10/03/2017	10/03/2017	10/03/2017	10/03/2017	10/03/2017
Arsenic	mg/kg	40	14	6	180	98
Cadmium	mg/kg	1	0.8	0.4	0.5	0.5
Copper	mg/kg	200	67	22	340	370
Lead	mg/kg	200	46	23	630	320
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Molybdenum	mg/kg	8	7	3	8	9
Nickel	mg/kg	61	85	43	87	34
Selenium	mg/kg	<2	<2	<2	<2	<2
Silver	mg/kg	<1	<1	<1	2	<1
Tin	mg/kg	13	6	2	14	15
Zinc	mg/kg	4,100	400	160	3,100	3,500

Acid Extractable metals in soil						
Our Reference		162119-58	162119-59	162119-60	162119-61	162119-62
Your Reference	UNITS	MW204 - BULK 4TH sub-sample	MW205 - BULK 4TH sub-sample	MW206 - BULK 4TH sub-sample	MW201 - BULK 5TH sub-sample	MW202 - BULK 5TH sub-sample
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	10/03/2017	10/03/2017	10/03/2017	10/03/2017	10/03/2017
Arsenic	mg/kg	7	39	12	7	280
Cadmium	mg/kg	0.6	1	0.7	0.5	0.6
Copper	mg/kg	31	210	57	28	410
Lead	mg/kg	20	190	34	27	640
Mercury	mg/kg	<0.1	0.1	<0.1	<0.1	<0.1
Molybdenum	mg/kg	3	9	6	3	8
Nickel	mg/kg	57	63	76	44	66
Selenium	mg/kg	<2	<2	<2	<2	<2
Silver	mg/kg	<1	<1	<1	<1	2
Tin	mg/kg	2	12	4	3	17
Zinc	mg/kg	100	3,900	310	210	3,500

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Acid Extractable metals in soil						
Our Reference		162119-63	162119-64	162119-65	162119-66	162119-67
Your Reference	UNITS	MW203 - BULK 5TH sub-sample	MW204 - BULK 5TH sub-sample	MW205 - BULK 5TH sub-sample	MW206 - BULK 5TH sub-sample	MW201 - BULK 6TH sub-sample
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	10/03/2017	10/03/2017	10/03/2017	10/03/2017	10/03/2017
Arsenic	mg/kg	850	8	38	22	7
Cadmium	mg/kg	0.4	0.6	1	0.7	0.5
Copper	mg/kg	720	35	220	58	25
Lead	mg/kg	370	20	190	39	27
Mercury	mg/kg	<0.1	<0.1	0.1	<0.1	<0.1
Molybdenum	mg/kg	12	4	10	5	3
Nickel	mg/kg	65	61	69	77	42
Selenium	mg/kg	<2	<2	<2	<2	<2
Silver	mg/kg	1	<1	<1	<1	<1
Tin	mg/kg	28	2	13	4	2
Zinc	mg/kg	3,900	99	4,300	350	190

Acid Extractable metals in soil						
Our Reference		162119-68	162119-69	162119-70	162119-71	162119-72
Your Reference	UNITS	MW202 - BULK 6TH sub-sample	MW203 - BULK 6TH sub-sample	MW204 - BULK 6TH sub-sample	MW205 - BULK 6TH sub-sample	MW206 - BULK 6TH sub-sample
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	10/03/2017	10/03/2017	10/03/2017	10/03/2017	10/03/2017
Arsenic	mg/kg	55	240	8	62	14
Cadmium	mg/kg	0.5	0.5	0.7	1	0.8
Copper	mg/kg	270	450	27	220	64
Lead	mg/kg	610	350	18	210	35
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Molybdenum	mg/kg	6	8	3	9	7
Nickel	mg/kg	69	37	62	63	95
Selenium	mg/kg	<2	<2	<2	<2	<2
Silver	mg/kg	1	<1	<1	<1	<1
Tin	mg/kg	13	17	2	14	5
Zinc	mg/kg	3,600	3,700	86	4,400	330

Acid Extractable metals in soil						
Our Reference		162119-73	162119-74	162119-75	162119-76	162119-77
Your Reference	UNITS	MW201 + 50% Lime Dry	MW202 + 50% Lime Dry	MW203 + 50% Lime Dry	MW204 + 50% Lime Dry	MW205 + 50% Lime Dry
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	16/03/2017	16/03/2017	16/03/2017	16/03/2017	16/03/2017
Arsenic	mg/kg	<4	35	35	<4	11
Cadmium	mg/kg	<0.4	0.4	<0.4	<0.4	0.5
Copper	mg/kg	15	79	120	10	59
Lead	mg/kg	10	190	77	6	45
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Molybdenum	mg/kg	<1	2	3	<1	2
Nickel	mg/kg	28	34	19	17	30
Selenium	mg/kg	<2	<2	<2	<2	<2
Silver	mg/kg	<1	<1	<1	<1	<1
Tin	mg/kg	<1	3	4	<1	3
Zinc	mg/kg	62	500	610	22	560

Acid Extractable metals in soil						
Our Reference		162119-78	162119-79	162119-80	162119-81	162119-82
Your Reference	UNITS	MW206 + 50% Lime Dry	MW201 + 50% CaCl2 DRY	MW202 + 50% CaCl2 DRY	MW203 + 50% CaCl2 DRY	MW204 + 50% CaCl2 DRY
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	16/03/2017	16/03/2017	16/03/2017	16/03/2017	16/03/2017
Arsenic	mg/kg	6	4	120	17	5
Cadmium	mg/kg	0.4	<0.4	<0.4	<0.4	<0.4
Copper	mg/kg	25	19	100	120	22
Lead	mg/kg	10	13	180	91	10
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Molybdenum	mg/kg	3	3	2	3	2
Nickel	mg/kg	46	34	34	21	35
Selenium	mg/kg	<2	<2	<2	<2	<2
Silver	mg/kg	<1	<1	<1	<1	<1
Tin	mg/kg	2	1	4	5	2
Zinc	mg/kg	61	73	490	750	38

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Acid Extractable metals in soil						
Our Reference		162119-83	162119-84	162119-85	162119-86	162119-87
Your Reference	UNITS	MW205 + 50% CaCl2 DRY	MW206 + 50% CaCl2 DRY	MW201 + 30 Cement DRY	MW202 + 30 Cement DRY	MW203 + 30 Cement DRY
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	16/03/2017	16/03/2017	16/03/2017	16/03/2017	16/03/2017
Arsenic	mg/kg	26	6	5	39	22
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Copper	mg/kg	66	18	18	81	110
Lead	mg/kg	54	11	14	170	84
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Molybdenum	mg/kg	3	2	1	2	2
Nickel	mg/kg	34	44	34	38	21
Selenium	mg/kg	<2	<2	<2	<2	<2
Silver	mg/kg	<1	<1	<1	<1	<1
Tin	mg/kg	6	2	1	4	4
Zinc	mg/kg	680	93	76	650	660

Acid Extractable metals in soil						
Our Reference		162119-88	162119-89	162119-90	162119-91	162119-92
Your Reference	UNITS	MW204 + 30 Cement DRY	MW205 + 30 Cement DRY	MW206 + 30 Cement DRY	MW201 + 50% Lime WET	MW202 + 50% Lime WET
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	16/03/2017	16/03/2017	16/03/2017	16/03/2017	16/03/2017
Arsenic	mg/kg	5	61	7	<4	19
Cadmium	mg/kg	<0.4	0.5	<0.4	<0.4	<0.4
Copper	mg/kg	20	88	21	17	63
Lead	mg/kg	13	58	13	11	150
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Molybdenum	mg/kg	2	3	2	1	3
Nickel	mg/kg	38	38	45	39	44
Selenium	mg/kg	<2	<2	<2	<2	<2
Silver	mg/kg	<1	<1	<1	<1	<1
Tin	mg/kg	1	5	1	1	3
Zinc	mg/kg	53	700	83	66	410



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Acid Extractable metals in soil						
Our Reference		162119-93	162119-94	162119-95	162119-96	162119-97
Your Reference	UNITS	MW203 + 50% Lime WET	MW204 + 50% Lime WET	MW205 + 50% Lime WET	MW206 + 50% Lime WET	MW201 + 50% CaCl2 WET
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	16/03/2017	16/03/2017	16/03/2017	16/03/2017	16/03/2017
Arsenic	mg/kg	34	5	14	6	<4
Cadmium	mg/kg	0.4	0.4	0.6	<0.4	<0.4
Copper	mg/kg	140	20	78	27	12
Lead	mg/kg	98	16	55	12	10
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Molybdenum	mg/kg	4	2	4	2	1
Nickel	mg/kg	25	41	42	53	34
Selenium	mg/kg	<2	<2	<2	<2	<2
Silver	mg/kg	<1	<1	<1	<1	<1
Tin	mg/kg	6	2	4	2	1
Zinc	mg/kg	770	38	710	72	60

Acid Extractable metals in soil						
Our Reference		162119-98	162119-99	162119-100	162119-101	162119-102
Your Reference	UNITS	MW202 + 50% CaCl2 WET	MW203 + 50% CaCl2 WET	MW204 + 50% CaCl2 WET	MW205 + 50% CaCl2 WET	MW206 + 50% CaCl2 WET
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	16/03/2017	16/03/2017	16/03/2017	16/03/2017	16/03/2017
Arsenic	mg/kg	11	22	5	12	10
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Copper	mg/kg	57	130	16	50	17
Lead	mg/kg	140	120	10	45	9
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Molybdenum	mg/kg	2	4	2	3	2
Nickel	mg/kg	32	21	39	38	42
Selenium	mg/kg	<2	<2	<2	<2	<2
Silver	mg/kg	<1	<1	<1	<1	<1
Tin	mg/kg	3	6	2	3	2
Zinc	mg/kg	580	990	41	570	54

Acid Extractable metals in soil						
Our Reference		162119-103	162119-104	162119-105	162119-106	162119-107
Your Reference	UNITS	MW201 + 30% Cement WET	MW202 + 30% Cement WET	MW203 + 30% Cement WET	MW204 + 30% Cement WET	MW205 + 30% Cement WET
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	16/03/2017	16/03/2017	16/03/2017	16/03/2017	16/03/2017
Arsenic	mg/kg	11	15	210	7	14
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	0.4
Copper	mg/kg	23	71	250	28	58
Lead	mg/kg	18	210	140	12	45
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Molybdenum	mg/kg	1	2	5	3	4
Nickel	mg/kg	41	38	28	44	48
Selenium	mg/kg	<2	<2	<2	<2	<2
Silver	mg/kg	<1	<1	<1	<1	<1
Tin	mg/kg	2	4	11	2	5
Zinc	mg/kg	120	690	1,100	42	490

Acid Extractable metals in soil			
Our Reference		162119-108	162119-109
Your Reference	UNITS	MW206 + 30% Cement WET	MW202 - 2nd sub- sample<125mm - [TRIPLICATE]
Date Sampled		10/02/2017	10/02/2017
Type of sample		Soil	Soil
Date prepared	-	08/03/2017	08/03/2017
Date analysed	-	16/03/2017	10/03/2017
Arsenic	mg/kg	8	350
Cadmium	mg/kg	<0.4	0.5
Copper	mg/kg	21	440
Lead	mg/kg	13	770
Mercury	mg/kg	<0.1	<0.1
Molybdenum	mg/kg	2	6
Nickel	mg/kg	51	74
Selenium	mg/kg	<2	<2
Silver	mg/kg	<1	2
Tin	mg/kg	2	21
Zinc	mg/kg	72	3,700

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Misc Soil - Inorg						
Our Reference		162119-1	162119-2	162119-3	162119-4	162119-5
Your Reference	UNITS	MW201 - BULK 1st sub-sample	MW202 - BULK 1st sub-sample	MW203 - BULK 1st sub-sample	MW204 - BULK 1st sub-sample	MW205 - BULK 1st sub-sample
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	13/03/2017	13/03/2017	13/03/2017	13/03/2017	13/03/2017
Free Cyanide in soil	mg/kg	0.9	1	5	3	4
Total Cyanide	mg/kg	110	120	220	110	200

Misc Soil - Inorg						
Our Reference		162119-6	162119-7	162119-8	162119-9	162119-10
Your Reference	UNITS	MW206 - BULK 1st sub-sample	MW201 - 1st sub- sample>125mm	MW202 - 1st sub- sample>125mm	MW203 - 1st sub- sample>125mm	MW204 - 1st sub- sample>125mm
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	13/03/2017	13/03/2017	13/03/2017	13/03/2017	13/03/2017
Free Cyanide in soil	mg/kg	8.4	6.3	3	1	0.8
Total Cyanide	mg/kg	140	47	57	68	50

Misc Soil - Inorg						
Our Reference		162119-11	162119-12	162119-25	162119-26	162119-27
Your Reference	UNITS	MW205 - 1st sub- sample>125mm	MW206 - 1st sub- sample>125mm	MW201 - 1st sub- sample<125mm	MW202 - 1st sub- sample<125mm	MW203 - 1st sub- sample<125mm
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	13/03/2017	13/03/2017	13/03/2017	13/03/2017	13/03/2017
Free Cyanide in soil	mg/kg	4	0.6	3	4	4
Total Cyanide	mg/kg	190	38	78	79	160

Misc Soil - Inorg						
Our Reference		162119-28	162119-29	162119-30	162119-31	162119-32
Your Reference	UNITS	MW204 - 1st sub- sample<125mm	MW205 - 1st sub- sample<125mm	MW206 - 1st sub- sample<125mm	MW201 - BULK 2nd sub-sample	MW202 - BULK 2nd sub-sample
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	13/03/2017	13/03/2017	13/03/2017	13/03/2017	13/03/2017
Free Cyanide in soil	mg/kg	1	3	2	0.5	0.8
Total Cyanide	mg/kg	75	140	120	110	61

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Misc Soil - Inorg						
Our Reference		162119-33	162119-34	162119-35	162119-36	162119-37
Your Reference	UNITS	MW203 - BULK 2nd sub-sample	MW204 - BULK 2nd sub-sample	MW205 - BULK 2nd sub-sample	MW206 - BULK 2nd sub-sample	MW201 - 2nd sub- sample>125mm
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	13/03/2017	13/03/2017	13/03/2017	13/03/2017	13/03/2017
Free Cyanide in soil	mg/kg	0.7	5	3	3	4
Total Cyanide	mg/kg	190	130	190	120	42

Misc Soil - Inorg						
Our Reference		162119-38	162119-39	162119-40	162119-41	162119-42
Your Reference	UNITS	MW202 - 2nd sub- sample>125mm	MW203 - 2nd sub- sample>125mm	MW204 - 2nd sub- sample>125mm	MW205 - 2nd sub- sample>125mm	MW206 - 2nd sub- sample>125mm
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	13/03/2017	13/03/2017	13/03/2017	13/03/2017	13/03/2017
Free Cyanide in soil	mg/kg	2	4	5.7	6.8	1
Total Cyanide	mg/kg	58	68	38	140	32

Misc Soil - Inorg						
Our Reference		162119-43	162119-44	162119-45	162119-46	162119-47
Your Reference	UNITS	MW201 - 2nd sub- sample<125mm	MW202 - 2nd sub- sample<125mm	MW203 - 2nd sub- sample<125mm	MW204 - 2nd sub- sample<125mm	MW205 - 2nd sub- sample<125mm
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	13/03/2017	13/03/2017	13/03/2017	13/03/2017	13/03/2017
Free Cyanide in soil	mg/kg	<0.5	0.9	3	4	0.8
Total Cyanide	mg/kg	93	87	160	100	180

Misc Soil - Inorg						
Our Reference		162119-48	162119-49	162119-50	162119-51	162119-52
Your Reference	UNITS	MW206 - 2nd sub- sample<125mm	MW201 - BULK 3rd sub-sample	MW202 - BULK 3rd sub-sample	MW203 - BULK 3rd sub-sample	MW204 - BULK 3rd sub-sample
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	13/03/2017	13/03/2017	13/03/2017	13/03/2017	13/03/2017
Free Cyanide in soil	mg/kg	5.5	0.8	2	6.9	3
Total Cyanide	mg/kg	140	110	82	210	110

**Client Reference: Hydro Aluminium AS130515**

<b>Misc Soil - Inorg</b>						
Our Reference		162119-53	162119-54	162119-55	162119-56	162119-57
Your Reference	UNITS	MW205 - BULK 3rd sub-sample	MW206 - BULK 3rd sub-sample	MW201 - BULK 4TH sub-sample	MW202 - BULK 4TH sub-sample	MW203 - BULK 4TH sub-sample
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	13/03/2017	13/03/2017	13/03/2017	13/03/2017	13/03/2017
Free Cyanide in soil	mg/kg	4	8.5	3	0.8	3
Total Cyanide	mg/kg	250	160	110	95	210

<b>Misc Soil - Inorg</b>						
Our Reference		162119-58	162119-59	162119-60	162119-61	162119-62
Your Reference	UNITS	MW204 - BULK 4TH sub-sample	MW205 - BULK 4TH sub-sample	MW206 - BULK 4TH sub-sample	MW201 - BULK 5TH sub-sample	MW202 - BULK 5TH sub-sample
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	13/03/2017	13/03/2017	13/03/2017	13/03/2017	13/03/2017
Free Cyanide in soil	mg/kg	2	2	5	1	0.8
Total Cyanide	mg/kg	120	210	150	110	76

<b>Misc Soil - Inorg</b>						
Our Reference		162119-63	162119-64	162119-65	162119-66	162119-67
Your Reference	UNITS	MW203 - BULK 5TH sub-sample	MW204 - BULK 5TH sub-sample	MW205 - BULK 5TH sub-sample	MW206 - BULK 5TH sub-sample	MW201 - BULK 6TH sub-sample
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	13/03/2017	13/03/2017	13/03/2017	13/03/2017	13/03/2017
Free Cyanide in soil	mg/kg	3	2	2	6.0	2
Total Cyanide	mg/kg	270	110	220	150	120

<b>Misc Soil - Inorg</b>						
Our Reference		162119-68	162119-69	162119-70	162119-71	162119-72
Your Reference	UNITS	MW202 - BULK 6TH sub-sample	MW203 - BULK 6TH sub-sample	MW204 - BULK 6TH sub-sample	MW205 - BULK 6TH sub-sample	MW206 - BULK 6TH sub-sample
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	13/03/2017	13/03/2017	13/03/2017	13/03/2017	13/03/2017
Free Cyanide in soil	mg/kg	3	6.9	4	7.4	8.8
Total Cyanide	mg/kg	130	200	120	220	150

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Misc Soil - Inorg						
Our Reference		162119-73	162119-74	162119-75	162119-76	162119-77
Your Reference	UNITS	MW201 + 50% Lime Dry	MW202 + 50% Lime Dry	MW203 + 50% Lime Dry	MW204 + 50% Lime Dry	MW205 + 50% Lime Dry
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	13/03/2017	13/03/2017	13/03/2017	13/03/2017	13/03/2017
Free Cyanide in soil	mg/kg	0.7	<0.5	1	0.5	<0.5
Total Cyanide	mg/kg	3.1	1.7	2.5	1.4	0.9

Misc Soil - Inorg						
Our Reference		162119-78	162119-79	162119-80	162119-81	162119-82
Your Reference	UNITS	MW206 + 50% Lime Dry	MW201 + 50% CaCl2 DRY	MW202 + 50% CaCl2 DRY	MW203 + 50% CaCl2 DRY	MW204 + 50% CaCl2 DRY
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	13/03/2017	13/03/2017	13/03/2017	13/03/2017	13/03/2017
Free Cyanide in soil	mg/kg	<0.5	<0.5	<0.5	0.6	<0.5
Total Cyanide	mg/kg	0.9	2.2	0.8	3.4	1.2

Misc Soil - Inorg						
Our Reference		162119-83	162119-84	162119-85	162119-86	162119-87
Your Reference	UNITS	MW205 + 50% CaCl2 DRY	MW206 + 50% CaCl2 DRY	MW201 + 30 Cement DRY	MW202 + 30 Cement DRY	MW203 + 30 Cement DRY
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	13/03/2017	13/03/2017	13/03/2017	13/03/2017	13/03/2017
Free Cyanide in soil	mg/kg	<0.5	<0.5	<0.5	<0.5	1
Total Cyanide	mg/kg	1.7	6.2	65	15	75

Misc Soil - Inorg						
Our Reference		162119-88	162119-89	162119-90	162119-91	162119-92
Your Reference	UNITS	MW204 + 30 Cement DRY	MW205 + 30 Cement DRY	MW206 + 30 Cement DRY	MW201 + 50% Lime WET	MW202 + 50% Lime WET
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	13/03/2017	13/03/2017	13/03/2017	13/03/2017	13/03/2017
Free Cyanide in soil	mg/kg	<0.5	0.8	<0.5	1	3
Total Cyanide	mg/kg	47	87	60	2.8	5.5

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Misc Soil - Inorg						
Our Reference		162119-93	162119-94	162119-95	162119-96	162119-97
Your Reference	UNITS	MW203 + 50% Lime WET	MW204 + 50% Lime WET	MW205 + 50% Lime WET	MW206 + 50% Lime WET	MW201 + 50% CaCl2 WET
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	13/03/2017	13/03/2017	13/03/2017	13/03/2017	13/03/2017
Free Cyanide in soil	mg/kg	5.5	4	1	5.2	<0.5
Total Cyanide	mg/kg	9.3	5.4	9.4	7.5	0.6

Misc Soil - Inorg						
Our Reference		162119-98	162119-99	162119-100	162119-101	162119-102
Your Reference	UNITS	MW202 + 50% CaCl2 WET	MW203 + 50% CaCl2 WET	MW204 + 50% CaCl2 WET	MW205 + 50% CaCl2 WET	MW206 + 50% CaCl2 WET
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	13/03/2017	13/03/2017	13/03/2017	13/03/2017	13/03/2017
Free Cyanide in soil	mg/kg	<0.5	0.7	0.5	<0.5	<0.5
Total Cyanide	mg/kg	0.5	1.1	0.8	0.6	0.6

Misc Soil - Inorg						
Our Reference		162119-103	162119-104	162119-105	162119-106	162119-107
Your Reference	UNITS	MW201 + 30% Cement WET	MW202 + 30% Cement WET	MW203 + 30% Cement WET	MW204 + 30% Cement WET	MW205 + 30% Cement WET
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date analysed	-	13/03/2017	13/03/2017	13/03/2017	13/03/2017	13/03/2017
Free Cyanide in soil	mg/kg	1	1	2	1	1
Total Cyanide	mg/kg	60	40	100	57	100

Misc Soil - Inorg		
Our Reference		162119-108
Your Reference	UNITS	MW206 + 30% Cement WET
Date Sampled		10/02/2017
Type of sample		Soil
Date prepared	-	08/03/2017
Date analysed	-	13/03/2017
Free Cyanide in soil	mg/kg	2
Total Cyanide	mg/kg	110

Miscellaneous Inorg - soil						
Our Reference		162119-1	162119-2	162119-3	162119-4	162119-5
Your Reference	UNITS	MW201 - BULK 1st sub-sample	MW202 - BULK 1st sub-sample	MW203 - BULK 1st sub-sample	MW204 - BULK 1st sub-sample	MW205 - BULK 1st sub-sample
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	09/03/2017	09/03/2017	09/03/2017	09/03/2017	09/03/2017
Date analysed	-	23/03/2017	23/03/2017	23/03/2017	23/03/2017	23/03/2017
Hexavalent Chromium, Cr <sup>6+</sup>	mg/kg	<1	<1	<1	<1	<1
Total Fluoride	mg/kg	35,000	26,000	37,000	35,000	33,000

Miscellaneous Inorg - soil						
Our Reference		162119-6	162119-7	162119-8	162119-9	162119-10
Your Reference	UNITS	MW206 - BULK 1st sub-sample	MW201 - 1st sub- sample>125mm	MW202 - 1st sub- sample>125mm	MW203 - 1st sub- sample>125mm	MW204 - 1st sub- sample>125mm
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	09/03/2017	09/03/2017	09/03/2017	09/03/2017	09/03/2017
Date analysed	-	23/03/2017	23/03/2017	23/03/2017	23/03/2017	23/03/2017
Hexavalent Chromium, Cr <sup>6+</sup>	mg/kg	<1	<1	<1	<1	<1
Total Fluoride	mg/kg	25,000	24,000	22,000	29,000	29,000

Miscellaneous Inorg - soil						
Our Reference		162119-11	162119-12	162119-25	162119-26	162119-27
Your Reference	UNITS	MW205 - 1st sub- sample>125mm	MW206 - 1st sub- sample>125mm	MW201 - 1st sub- sample<125mm	MW202 - 1st sub- sample<125mm	MW203 - 1st sub- sample<125mm
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	09/03/2017	09/03/2017	09/03/2017	09/03/2017	09/03/2017
Date analysed	-	23/03/2017	23/03/2017	23/03/2017	23/03/2017	23/03/2017
Hexavalent Chromium, Cr <sup>6+</sup>	mg/kg	<1	<1	<1	<1	<1
Total Fluoride	mg/kg	23,000	18,000	25,000	22,000	30,000

Miscellaneous Inorg - soil						
Our Reference		162119-28	162119-29	162119-30	162119-31	162119-32
Your Reference	UNITS	MW204 - 1st sub- sample<125mm	MW205 - 1st sub- sample<125mm	MW206 - 1st sub- sample<125mm	MW201 - BULK 2nd sub-sample	MW202 - BULK 2nd sub-sample
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	09/03/2017	09/03/2017	09/03/2017	09/03/2017	09/03/2017
Date analysed	-	23/03/2017	23/03/2017	23/03/2017	23/03/2017	23/03/2017
Hexavalent Chromium, Cr <sup>6+</sup>	mg/kg	<1	<1	<1	<1	<1
Total Fluoride	mg/kg	13,000	20,000	15,000	25,000	19,000



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Miscellaneous Inorg - soil						
Our Reference		162119-33	162119-34	162119-35	162119-36	162119-37
Your Reference	UNITS	MW203 - BULK 2nd sub-sample	MW204 - BULK 2nd sub-sample	MW205 - BULK 2nd sub-sample	MW206 - BULK 2nd sub-sample	MW201 - 2nd sub- sample>125mm
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	09/03/2017	09/03/2017	09/03/2017	09/03/2017	09/03/2017
Date analysed	-	23/03/2017	23/03/2017	23/03/2017	23/03/2017	23/03/2017
Hexavalent Chromium, Cr <sup>6+</sup>	mg/kg	<1	<1	<1	<1	<1
Total Fluoride	mg/kg	24,000	15,000	24,000	17,000	25,000

Miscellaneous Inorg - soil						
Our Reference		162119-38	162119-39	162119-40	162119-41	162119-42
Your Reference	UNITS	MW202 - 2nd sub- sample>125mm	MW203 - 2nd sub- sample>125mm	MW204 - 2nd sub- sample>125mm	MW205 - 2nd sub- sample>125mm	MW206 - 2nd sub- sample>125mm
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	09/03/2017	09/03/2017	09/03/2017	09/03/2017	09/03/2017
Date analysed	-	23/03/2017	23/03/2017	23/03/2017	23/03/2017	23/03/2017
Hexavalent Chromium, Cr <sup>6+</sup>	mg/kg	<1	<1	<1	<1	<1
Total Fluoride	mg/kg	22,000	8,700	410,000	22,000	41,000

Miscellaneous Inorg - soil						
Our Reference		162119-43	162119-44	162119-45	162119-46	162119-47
Your Reference	UNITS	MW201 - 2nd sub- sample<125mm	MW202 - 2nd sub- sample<125mm	MW203 - 2nd sub- sample<125mm	MW204 - 2nd sub- sample<125mm	MW205 - 2nd sub- sample<125mm
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	09/03/2017	09/03/2017	09/03/2017	09/03/2017	09/03/2017
Date analysed	-	23/03/2017	23/03/2017	23/03/2017	23/03/2017	23/03/2017
Hexavalent Chromium, Cr <sup>6+</sup>	mg/kg	<1	<1	<1	<1	<1
Total Fluoride	mg/kg	34,000	11,000	29,000	16,000	21,000

Miscellaneous Inorg - soil						
Our Reference		162119-48	162119-49	162119-50	162119-51	162119-52
Your Reference	UNITS	MW206 - 2nd sub- sample<125mm	MW201 - BULK 3rd sub-sample	MW202 - BULK 3rd sub-sample	MW203 - BULK 3rd sub-sample	MW204 - BULK 3rd sub-sample
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	09/03/2017	09/03/2017	09/03/2017	09/03/2017	09/03/2017
Date analysed	-	23/03/2017	23/03/2017	23/03/2017	23/03/2017	23/03/2017
Hexavalent Chromium, Cr <sup>6+</sup>	mg/kg	<1	<1	<1	<1	<1
Total Fluoride	mg/kg	42,000	46,000	39,000	32,000	35,000

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Miscellaneous Inorg - soil						
Our Reference		162119-53	162119-54	162119-55	162119-56	162119-57
Your Reference	UNITS	MW205 - BULK 3rd sub-sample	MW206 - BULK 3rd sub-sample	MW201 - BULK 4TH sub-sample	MW202 - BULK 4TH sub-sample	MW203 - BULK 4TH sub-sample
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	09/03/2017	09/03/2017	09/03/2017	09/03/2017	09/03/2017
Date analysed	-	23/03/2017	23/03/2017	23/03/2017	23/03/2017	23/03/2017
Hexavalent Chromium, Cr <sup>6+</sup>	mg/kg	<1	<1	<1	<1	<1
Total Fluoride	mg/kg	14,000	37,000	34,000	41,000	19,000

Miscellaneous Inorg - soil						
Our Reference		162119-58	162119-59	162119-60	162119-61	162119-62
Your Reference	UNITS	MW204 - BULK 4TH sub-sample	MW205 - BULK 4TH sub-sample	MW206 - BULK 4TH sub-sample	MW201 - BULK 5TH sub-sample	MW202 - BULK 5TH sub-sample
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	09/03/2017	09/03/2017	09/03/2017	09/03/2017	09/03/2017
Date analysed	-	23/03/2017	23/03/2017	23/03/2017	23/03/2017	23/03/2017
Hexavalent Chromium, Cr <sup>6+</sup>	mg/kg	<1	<1	<1	<1	<1
Total Fluoride	mg/kg	50,000	52,000	37,000	39,000	22,000

Miscellaneous Inorg - soil						
Our Reference		162119-63	162119-64	162119-65	162119-66	162119-67
Your Reference	UNITS	MW203 - BULK 5TH sub-sample	MW204 - BULK 5TH sub-sample	MW205 - BULK 5TH sub-sample	MW206 - BULK 5TH sub-sample	MW201 - BULK 6TH sub-sample
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	09/03/2017	09/03/2017	09/03/2017	09/03/2017	09/03/2017
Date analysed	-	23/03/2017	23/03/2017	23/03/2017	23/03/2017	23/03/2017
Hexavalent Chromium, Cr <sup>6+</sup>	mg/kg	<1	<1	<1	<1	<1
Total Fluoride	mg/kg	29,000	38,000	24,000	37,000	17,000

Miscellaneous Inorg - soil						
Our Reference		162119-68	162119-69	162119-70	162119-71	162119-72
Your Reference	UNITS	MW202 - BULK 6TH sub-sample	MW203 - BULK 6TH sub-sample	MW204 - BULK 6TH sub-sample	MW205 - BULK 6TH sub-sample	MW206 - BULK 6TH sub-sample
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	09/03/2017	09/03/2017	09/03/2017	09/03/2017	09/03/2017
Date analysed	-	23/03/2017	23/03/2017	23/03/2017	23/03/2017	23/03/2017
Hexavalent Chromium, Cr <sup>6+</sup>	mg/kg	<1	<1	<1	<1	<1
Total Fluoride	mg/kg	210	24,000	40,000	31,000	20,000

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Miscellaneous Inorg - soil						
Our Reference		162119-73	162119-74	162119-75	162119-76	162119-77
Your Reference	UNITS	MW201 + 50% Lime Dry	MW202 + 50% Lime Dry	MW203 + 50% Lime Dry	MW204 + 50% Lime Dry	MW205 + 50% Lime Dry
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	09/03/2017	09/03/2017	09/03/2017	09/03/2017	09/03/2017
Date analysed	-	23/03/2017	23/03/2017	23/03/2017	23/03/2017	23/03/2017
Hexavalent Chromium, Cr <sup>6+</sup>	mg/kg	<1	<1	<1	<1	<1
Total Fluoride	mg/kg	18,000	18,000	23,000	16,000	14,000

Miscellaneous Inorg - soil						
Our Reference		162119-78	162119-79	162119-80	162119-81	162119-82
Your Reference	UNITS	MW206 + 50% Lime Dry	MW201 + 50% CaCl2 DRY	MW202 + 50% CaCl2 DRY	MW203 + 50% CaCl2 DRY	MW204 + 50% CaCl2 DRY
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	09/03/2017	09/03/2017	09/03/2017	09/03/2017	09/03/2017
Date analysed	-	23/03/2017	23/03/2017	23/03/2017	23/03/2017	23/03/2017
Hexavalent Chromium, Cr <sup>6+</sup>	mg/kg	<1	<1	<1	<1	<1
Total Fluoride	mg/kg	17,000	25,000	4,400	43,000	29,000

Miscellaneous Inorg - soil						
Our Reference		162119-83	162119-84	162119-85	162119-86	162119-87
Your Reference	UNITS	MW205 + 50% CaCl2 DRY	MW206 + 50% CaCl2 DRY	MW201 + 30 Cement DRY	MW202 + 30 Cement DRY	MW203 + 30 Cement DRY
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	09/03/2017	09/03/2017	09/03/2017	09/03/2017	09/03/2017
Date analysed	-	23/03/2017	23/03/2017	23/03/2017	23/03/2017	23/03/2017
Hexavalent Chromium, Cr <sup>6+</sup>	mg/kg	<1	<1	<1	<1	<1
Total Fluoride	mg/kg	25,000	24,000	28,000	26,000	30,000

Miscellaneous Inorg - soil						
Our Reference		162119-88	162119-89	162119-90	162119-91	162119-92
Your Reference	UNITS	MW204 + 30 Cement DRY	MW205 + 30 Cement DRY	MW206 + 30 Cement DRY	MW201 + 50% Lime WET	MW202 + 50% Lime WET
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	09/03/2017	09/03/2017	09/03/2017	09/03/2017	09/03/2017
Date analysed	-	23/03/2017	23/03/2017	23/03/2017	23/03/2017	23/03/2017
Hexavalent Chromium, Cr <sup>6+</sup>	mg/kg	<1	<1	<1	<1	<1
Total Fluoride	mg/kg	28,000	31,000	12,000	19,000	25,000

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Miscellaneous Inorg - soil						
Our Reference		162119-93	162119-94	162119-95	162119-96	162119-97
Your Reference	UNITS	MW203 + 50% Lime WET	MW204 + 50% Lime WET	MW205 + 50% Lime WET	MW206 + 50% Lime WET	MW201 + 50% CaCl2 WET
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	09/03/2017	09/03/2017	09/03/2017	09/03/2017	09/03/2017
Date analysed	-	23/03/2017	23/03/2017	23/03/2017	23/03/2017	23/03/2017
Hexavalent Chromium, Cr <sup>6+</sup>	mg/kg	<1	<1	<1	<1	<1
Total Fluoride	mg/kg	25,000	28,000	27,000	17,000	20,000

Miscellaneous Inorg - soil						
Our Reference		162119-98	162119-99	162119-100	162119-101	162119-102
Your Reference	UNITS	MW202 + 50% CaCl2 WET	MW203 + 50% CaCl2 WET	MW204 + 50% CaCl2 WET	MW205 + 50% CaCl2 WET	MW206 + 50% CaCl2 WET
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	09/03/2017	09/03/2017	09/03/2017	09/03/2017	09/03/2017
Date analysed	-	23/03/2017	23/03/2017	23/03/2017	23/03/2017	23/03/2017
Hexavalent Chromium, Cr <sup>6+</sup>	mg/kg	<1	<1	<1	<1	<1
Total Fluoride	mg/kg	39,000	27,000	38,000	17,000	32,000

Miscellaneous Inorg - soil						
Our Reference		162119-103	162119-104	162119-105	162119-106	162119-107
Your Reference	UNITS	MW201 + 30% Cement WET	MW202 + 30% Cement WET	MW203 + 30% Cement WET	MW204 + 30% Cement WET	MW205 + 30% Cement WET
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	09/03/2017	09/03/2017	09/03/2017	09/03/2017	09/03/2017
Date analysed	-	23/03/2017	23/03/2017	23/03/2017	23/03/2017	23/03/2017
Hexavalent Chromium, Cr <sup>6+</sup>	mg/kg	<1	<1	<1	<1	1
Total Fluoride	mg/kg	25,000	35,000	34,000	41,000	49,000

Miscellaneous Inorg - soil			
Our Reference		162119-108	162119-110
Your Reference	UNITS	MW206 + 30% Cement WET	MW204 - 2nd sub-sample > 125mm
Date Sampled		10/02/2017	10/02/2017
Type of sample		Soil	Soil
Date prepared	-	09/03/2017	21/06/2017
Date analysed	-	23/03/2017	21/06/2017
Hexavalent Chromium, Cr <sup>6+</sup>	mg/kg	1	[NT]
Total Fluoride	mg/kg	25,000	83,000

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Miscellaneous Inorganics						
Our Reference		162119-1	162119-2	162119-3	162119-4	162119-5
Your Reference	UNITS	MW201 - BULK 1st sub-sample	MW202 - BULK 1st sub-sample	MW203 - BULK 1st sub-sample	MW204 - BULK 1st sub-sample	MW205 - BULK 1st sub-sample
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date prepared	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
pH of final Leachate	pH units	5.7	5.7	7.8	6.3	6.0
Extraction fluid used	-	1	1	1	1	1
pH of soil TCLP (after HCl)	pH units	1.7	1.7	3.1	2.2	1.9
pH of soil for fluid# determ.	pH units	8.5	8.5	10.3	9.6	9.4
Fluoride in TCLPs	mg/L	13	16	160	33	19

Miscellaneous Inorganics						
Our Reference		162119-6	162119-7	162119-8	162119-9	162119-10
Your Reference	UNITS	MW206 - BULK 1st sub-sample	MW201 - 1st sub- sample>125mm	MW202 - 1st sub- sample>125mm	MW203 - 1st sub- sample>125mm	MW204 - 1st sub- sample>125mm
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date prepared	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
pH of final Leachate	pH units	5.7	5.7	5.3	6.8	8.8
Extraction fluid used	-	1	1	1	1	1
pH of soil TCLP (after HCl)	pH units	1.7	1.8	1.7	2.1	4.2
pH of soil for fluid# determ.	pH units	8.7	8.7	7.7	9.9	10.7
Fluoride in TCLPs	mg/L	15	14	14	61	2,400

Miscellaneous Inorganics						
Our Reference		162119-11	162119-12	162119-25	162119-26	162119-27
Your Reference	UNITS	MW205 - 1st sub- sample>125mm	MW206 - 1st sub- sample>125mm	MW201 - 1st sub- sample<125mm	MW202 - 1st sub- sample<125mm	MW203 - 1st sub- sample<125mm
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date prepared	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
pH of final Leachate	pH units	6.1	5.6	5.7	5.7	6.9
Extraction fluid used	-	1	1	1	1	1
pH of soil TCLP (after HCl)	pH units	2.1	2.4	1.8	1.8	2.6
pH of soil for fluid# determ.	pH units	9.5	9.7	9.2	9.0	9.9
Fluoride in TCLPs	mg/L	22	170	15	14	48

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Miscellaneous Inorganics						
Our Reference		162119-28	162119-29	162119-30	162119-31	162119-32
Your Reference	UNITS	MW204 - 1st sub-sample<125mm	MW205 - 1st sub-sample<125mm	MW206 - 1st sub-sample<125mm	MW201 - BULK 2nd sub-sample	MW202 - BULK 2nd sub-sample
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date prepared	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
pH of final Leachate	pH units	6.5	5.8	5.8	5.6	6.8
Extraction fluid used	-	1	1	1	1	1
pH of soil TCLP (after HCl)	pH units	2.1	1.8	1.8	1.7	1.7
pH of soil for fluid# determ.	pH units	9.5	9.0	9.0	8.7	8.7
Fluoride in TCLPs	mg/L	38	16	17	13	16

Miscellaneous Inorganics						
Our Reference		162119-33	162119-34	162119-35	162119-36	162119-37
Your Reference	UNITS	MW203 - BULK 2nd sub-sample	MW204 - BULK 2nd sub-sample	MW205 - BULK 2nd sub-sample	MW206 - BULK 2nd sub-sample	MW201 - 2nd sub-sample>125mm
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date prepared	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
pH of final Leachate	pH units	7.8	6.3	6.0	5.8	5.3
Extraction fluid used	-	1	1	1	1	1
pH of soil TCLP (after HCl)	pH units	3.3	2.1	1.9	1.8	1.7
pH of soil for fluid# determ.	pH units	10.0	9.8	9.5	8.9	8.7
Fluoride in TCLPs	mg/L	140	32	20	16	14

Miscellaneous Inorganics						
Our Reference		162119-38	162119-39	162119-40	162119-41	162119-42
Your Reference	UNITS	MW202 - 2nd sub-sample>125mm	MW203 - 2nd sub-sample>125mm	MW204 - 2nd sub-sample>125mm	MW205 - 2nd sub-sample>125mm	MW206 - 2nd sub-sample>125mm
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date prepared	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
pH of final Leachate	pH units	5.1	6.2	8.4	5.6	5.1
Extraction fluid used	-	1	1	1	1	1
pH of soil TCLP (after HCl)	pH units	1.8	2.0	4.4	2.3	2.9
pH of soil for fluid# determ.	pH units	7.8	9.9	10.8	9.7	9.9
Fluoride in TCLPs	mg/L	13	28	2,100	12	350

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Miscellaneous Inorganics						
Our Reference		162119-43	162119-44	162119-45	162119-46	162119-47
Your Reference	UNITS	MW201 - 2nd sub-sample<125mm	MW202 - 2nd sub-sample<125mm	MW203 - 2nd sub-sample<125mm	MW204 - 2nd sub-sample<125mm	MW205 - 2nd sub-sample<125mm
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date prepared	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
pH of final Leachate	pH units	5.4	5.5	6.3	5.9	5.5
Extraction fluid used	-	1	1	1	1	1
pH of soil TCLP (after HCl)	pH units	2.0	2.0	3.5	2.1	1.9
pH of soil for fluid# determ.	pH units	9.3	9.3	10.1	9.8	9.1
Fluoride in TCLPs	mg/L	12	11	32	20	12

Miscellaneous Inorganics						
Our Reference		162119-48	162119-49	162119-50	162119-51	162119-52
Your Reference	UNITS	MW206 - 2nd sub-sample<125mm	MW201 - BULK 3rd sub-sample	MW202 - BULK 3rd sub-sample	MW203 - BULK 3rd sub-sample	MW204 - BULK 3rd sub-sample
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date prepared	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
pH of final Leachate	pH units	5.6	5.4	5.5	7.0	5.9
Extraction fluid used	-	1	1	1	1	1
pH of soil TCLP (after HCl)	pH units	1.9	1.9	1.9	3.4	2.2
pH of soil for fluid# determ.	pH units	9.2	8.9	9.1	10.3	9.6
Fluoride in TCLPs	mg/L	12	11	12	45	19

Miscellaneous Inorganics						
Our Reference		162119-53	162119-54	162119-55	162119-56	162119-57
Your Reference	UNITS	MW205 - BULK 3rd sub-sample	MW206 - BULK 3rd sub-sample	MW201 - BULK 4TH sub-sample	MW202 - BULK 4TH sub-sample	MW203 - BULK 4TH sub-sample
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date prepared	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
pH of final Leachate	pH units	5.7	5.5	5.4	5.5	6.7
Extraction fluid used	-	1	1	1	1	1
pH of soil TCLP (after HCl)	pH units	2.1	1.9	1.9	1.9	3.7
pH of soil for fluid# determ.	pH units	9.6	9.0	8.9	8.9	10.2
Fluoride in TCLPs	mg/L	14	12	11	12	34

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Miscellaneous Inorganics						
Our Reference		162119-58	162119-59	162119-60	162119-61	162119-62
Your Reference	UNITS	MW204 - BULK 4TH sub-sample	MW205 - BULK 4TH sub-sample	MW206 - BULK 4TH sub-sample	MW201 - BULK 5TH sub-sample	MW202 - BULK 5TH sub-sample
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date prepared	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
pH of final Leachate	pH units	5.9	5.8	5.6	5.4	5.6
Extraction fluid used	-	1	1	1	1	1
pH of soil TCLP (after HCl)	pH units	2.2	2.1	1.9	1.9	1.9
pH of soil for fluid# determ.	pH units	9.5	9.4	9.0	8.8	8.8
Fluoride in TCLPs	mg/L	20	15	12	11	13

Miscellaneous Inorganics						
Our Reference		162119-63	162119-64	162119-65	162119-66	162119-67
Your Reference	UNITS	MW203 - BULK 5TH sub-sample	MW204 - BULK 5TH sub-sample	MW205 - BULK 5TH sub-sample	MW206 - BULK 5TH sub-sample	MW201 - BULK 6TH sub-sample
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date prepared	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
pH of final Leachate	pH units	7.0	6.0	5.9	5.6	5.4
Extraction fluid used	-	1	1	1	1	1
pH of soil TCLP (after HCl)	pH units	4.2	2.2	2.0	2.0	1.8
pH of soil for fluid# determ.	pH units	10.1	9.6	9.3	9.0	8.9
Fluoride in TCLPs	mg/L	46	22	17	13	11

Miscellaneous Inorganics						
Our Reference		162119-68	162119-69	162119-70	162119-71	162119-72
Your Reference	UNITS	MW202 - BULK 6TH sub-sample	MW203 - BULK 6TH sub-sample	MW204 - BULK 6TH sub-sample	MW205 - BULK 6TH sub-sample	MW206 - BULK 6TH sub-sample
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date prepared	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
pH of final Leachate	pH units	5.6	7.0	6.0	5.8	5.6
Extraction fluid used	-	1	1	1	1	1
pH of soil TCLP (after HCl)	pH units	2.0	4.4	2.8	2.0	2.0
pH of soil for fluid# determ.	pH units	9.0	10.1	9.6	9.4	9.0
Fluoride in TCLPs	mg/L	13	45	22	16	13



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Miscellaneous Inorganics						
Our Reference		162119-73	162119-74	162119-75	162119-76	162119-77
Your Reference	UNITS	MW201 + 50% Lime Dry	MW202 + 50% Lime Dry	MW203 + 50% Lime Dry	MW204 + 50% Lime Dry	MW205 + 50% Lime Dry
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date prepared	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
pH of final Leachate	pH units	12.3	12.5	12.4	12.4	12.5
Extraction fluid used	-	2	2	2	2	2
pH of soil TCLP (after HCl)	pH units	12.3	12.4	12.4	12.4	12.4
pH of soil for fluid# determ.	pH units	12.5	12.5	12.5	12.5	12.5
Fluoride in TCLPs	mg/L	8.5	4.2	10	8.5	11

Miscellaneous Inorganics						
Our Reference		162119-78	162119-79	162119-80	162119-81	162119-82
Your Reference	UNITS	MW206 + 50% Lime Dry	MW201 + 50% CaCl2 DRY	MW202 + 50% CaCl2 DRY	MW203 + 50% CaCl2 DRY	MW204 + 50% CaCl2 DRY
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date prepared	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
pH of final Leachate	pH units	12.4	4.1	4.9	5.3	5.2
Extraction fluid used	-	2	1	1	1	1
pH of soil TCLP (after HCl)	pH units	12.4	1.8	1.8	2.1	1.9
pH of soil for fluid# determ.	pH units	12.5	7.5	7.3	7.7	7.6
Fluoride in TCLPs	mg/L	10	11	13	11	10

Miscellaneous Inorganics						
Our Reference		162119-83	162119-84	162119-85	162119-86	162119-87
Your Reference	UNITS	MW205 + 50% CaCl2 DRY	MW206 + 50% CaCl2 DRY	MW201 + 30 Cement DRY	MW202 + 30 Cement DRY	MW203 + 30 Cement DRY
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date prepared	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
pH of final Leachate	pH units	5.0	5.1	10.5	9.4	10.4
Extraction fluid used	-	1	1	2	2	2
pH of soil TCLP (after HCl)	pH units	1.7	1.9	7.8	6.6	7.0
pH of soil for fluid# determ.	pH units	7.3	7.7	11.8	11.6	11.8
Fluoride in TCLPs	mg/L	13	9.7	24	0.4	13

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Miscellaneous Inorganics						
Our Reference		162119-88	162119-89	162119-90	162119-91	162119-92
Your Reference	UNITS	MW204 + 30 Cement DRY	MW205 + 30 Cement DRY	MW206 + 30 Cement DRY	MW201 + 50% Lime WET	MW202 + 50% Lime WET
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date prepared	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
pH of final Leachate	pH units	9.6	9.3	10.6	12.3	12.2
Extraction fluid used	-	2	2	2	2	2
pH of soil TCLP (after HCl)	pH units	6.4	6.5	7.4	12.2	12.2
pH of soil for fluid# determ.	pH units	11.6	11.8	11.9	12.4	12.6
Fluoride in TCLPs	mg/L	0.4	0.6	35	11	11

Miscellaneous Inorganics						
Our Reference		162119-93	162119-94	162119-95	162119-96	162119-97
Your Reference	UNITS	MW203 + 50% Lime WET	MW204 + 50% Lime WET	MW205 + 50% Lime WET	MW206 + 50% Lime WET	MW201 + 50% CaCl2 WET
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date prepared	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
pH of final Leachate	pH units	12.2	12.2	11.9	12.3	4.9
Extraction fluid used	-	2	2	2	2	1
pH of soil TCLP (after HCl)	pH units	12.2	12.2	12.3	12.3	1.8
pH of soil for fluid# determ.	pH units	12.6	12.6	12.6	12.6	6.6
Fluoride in TCLPs	mg/L	12	11	0.8	12	11

Miscellaneous Inorganics						
Our Reference		162119-98	162119-99	162119-100	162119-101	162119-102
Your Reference	UNITS	MW202 + 50% CaCl2 WET	MW203 + 50% CaCl2 WET	MW204 + 50% CaCl2 WET	MW205 + 50% CaCl2 WET	MW206 + 50% CaCl2 WET
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date prepared	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
pH of final Leachate	pH units	4.9	5.3	5.3	5.1	5.1
Extraction fluid used	-	1	1	1	1	1
pH of soil TCLP (after HCl)	pH units	1.8	2.2	2.1	1.7	1.9
pH of soil for fluid# determ.	pH units	6.4	6.6	6.4	6.4	6.4
Fluoride in TCLPs	mg/L	14	11	10	14	8.4

**Client Reference: Hydro Aluminium AS130515**

<b>Miscellaneous Inorganics</b>						
Our Reference		162119-103	162119-104	162119-105	162119-106	162119-107
Your Reference	UNITS	MW201 + 30% Cement WET	MW202 + 30% Cement WET	MW203 + 30% Cement WET	MW204 + 30% Cement WET	MW205 + 30% Cement WET
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
Date prepared	-	08/03/2017	08/03/2017	08/03/2017	08/03/2017	08/03/2017
pH of final Leachate	pH units	7.6	7.7	7.7	7.5	7.5
Extraction fluid used	-	2	2	2	2	2
pH of soil TCLP (after HCl)	pH units	5.9	6.0	6.5	6.8	5.9
pH of soil for fluid# determ.	pH units	12.0	11.4	11.6	11.5	11.2
Fluoride in TCLPs	mg/L	5.8	9.1	10	8.9	8.6

<b>Miscellaneous Inorganics</b>		
Our Reference		162119-108
Your Reference	UNITS	MW206 + 30% Cement WET
Date Sampled		10/02/2017
Type of sample		Soil
Date analysed	-	08/03/2017
Date prepared	-	08/03/2017
pH of final Leachate	pH units	7.3
Extraction fluid used	-	2
pH of soil TCLP (after HCl)	pH units	5.8
pH of soil for fluid# determ.	pH units	11.7
Fluoride in TCLPs	mg/L	25

Client Reference: Hydro Aluminium AS130515

PAHs in TCLP (USEPA 1311)						
Our Reference		162119-1	162119-2	162119-3	162119-4	162119-5
Your Reference	UNITS	MW201 - BULK 1st sub-sample	MW202 - BULK 1st sub-sample	MW203 - BULK 1st sub-sample	MW204 - BULK 1st sub-sample	MW205 - BULK 1st sub-sample
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	13/03/2017	13/03/2017	13/03/2017	13/03/2017	13/03/2017
Date analysed	-	13/03/2017	13/03/2017	13/03/2017	13/03/2017	13/03/2017
Naphthalene in TCLP	mg/L	<0.001	0.021	<0.001	0.002	<0.001
Acenaphthylene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Acenaphthene in TCLP	mg/L	<0.001	0.006	<0.001	0.002	<0.001
Fluorene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Phenanthrene in TCLP	mg/L	<0.001	0.006	<0.001	0.006	0.002
Anthracene in TCLP	mg/L	<0.001	0.001	<0.001	0.001	<0.001
Fluoranthene in TCLP	mg/L	0.001	0.001	<0.001	0.003	0.002
Pyrene in TCLP	mg/L	0.001	0.001	<0.001	0.002	0.001
Benzo(a)anthracene in TCLP	mg/L	<0.001	<0.001	<0.001	0.001	<0.001
Chrysene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Benzo(b,j,k)fluoranthene in TCLP	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002
Benzo(a)pyrene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Indeno(1,2,3-c,d)pyrene - TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Dibenzo(a,h)anthracene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Benzo(g,h,i)perylene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Total +ve PAH's	mg/L	0.0020	0.037	NIL (+)VE	0.018	0.0050
Surrogate p-Terphenyl-d14	%	79	80	97	69	67

Client Reference: Hydro Aluminium AS130515

PAHs in TCLP (USEPA 1311)						
Our Reference		162119-6	162119-7	162119-8	162119-9	162119-10
Your Reference	UNITS	MW206 - BULK 1st sub-sample	MW201 - 1st sub- sample>125mm	MW202 - 1st sub- sample>125mm	MW203 - 1st sub- sample>125mm	MW204 - 1st sub- sample>125mm
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	14/03/2017	28/03/2017	28/03/2017	28/03/2017	28/03/2017
Date analysed	-	16/03/2017	28/03/2017	28/03/2017	28/03/2017	28/03/2017
Naphthalene in TCLP	mg/L	0.001	0.19	<0.001	0.19	0.20
Acenaphthylene in TCLP	mg/L	<0.001	0.26	0.030	0.020	0.19
Acenaphthene in TCLP	mg/L	0.002	0.91	<0.001	0.10	0.61
Fluorene in TCLP	mg/L	0.001	0.29	<0.001	<0.001	0.070
Phenanthrene in TCLP	mg/L	0.008	7.8	0.28	0.20	3.1
Anthracene in TCLP	mg/L	0.003	1.4	0.25	0.18	0.33
Fluoranthene in TCLP	mg/L	0.005	21	0.72	0.49	2.9
Pyrene in TCLP	mg/L	0.004	21	0.70	0.47	2.6
Benzo(a)anthracene in TCLP	mg/L	0.001	10	0.18	0.57	1.4
Chrysene in TCLP	mg/L	0.001	21	0.22	0.56	2.4
Benzo(bjk)fluoranthene in TCLP	mg/L	<0.002	16	0.09	0.83	2.8
Benzo(a)pyrene in TCLP	mg/L	<0.001	6.9	<0.001	0.34	1.3
Indeno(1,2,3-c,d)pyrene - TCLP	mg/L	<0.001	1.1	<0.001	0.20	1.0
Dibenzo(a,h)anthracene in TCLP	mg/L	<0.001	0.44	<0.001	<0.001	0.19
Benzo(g,h,i)perylene in TCLP	mg/L	<0.001	1.3	0.020	0.27	1.3
Total +ve PAH's	mg/L	0.026	110	2.5	4.4	20
Surrogate p-Terphenyl-d14	%	66	96	116	126	133

Client Reference: Hydro Aluminium AS130515

PAHs in TCLP (USEPA 1311)						
Our Reference		162119-11	162119-12	162119-25	162119-26	162119-27
Your Reference	UNITS	MW205 - 1st sub-sample>125mm	MW206 - 1st sub-sample>125mm	MW201 - 1st sub-sample<125mm	MW202 - 1st sub-sample<125mm	MW203 - 1st sub-sample<125mm
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	28/03/2017	24/03/2017	14/03/2017	14/03/2017	14/03/2017
Date analysed	-	28/03/2017	24/03/2017	16/03/2017	16/03/2017	16/03/2017
Naphthalene in TCLP	mg/L	0.15	0.020	0.001	0.031	0.003
Acenaphthylene in TCLP	mg/L	0.020	<0.001	<0.001	<0.001	<0.001
Acenaphthene in TCLP	mg/L	1.1	<0.001	0.002	0.013	0.001
Fluorene in TCLP	mg/L	0.45	0.040	<0.001	0.001	<0.001
Phenanthrene in TCLP	mg/L	10	<0.001	0.004	0.026	0.003
Anthracene in TCLP	mg/L	2.8	0.030	<0.001	0.002	<0.001
Fluoranthene in TCLP	mg/L	41	0.070	0.004	0.010	0.001
Pyrene in TCLP	mg/L	39	0.070	0.003	0.008	0.001
Benzo(a)anthracene in TCLP	mg/L	44	0.010	0.001	0.001	<0.001
Chrysene in TCLP	mg/L	38	<0.001	0.002	<0.001	<0.001
Benzo(bjk)fluoranthene in TCLP	mg/L	82	<0.002	0.002	<0.002	<0.002
Benzo(a)pyrene in TCLP	mg/L	47	0.020	<0.001	<0.001	<0.001
Indeno(1,2,3-c,d)pyrene - TCLP	mg/L	33	<0.001	0.001	<0.001	<0.001
Dibenzo(a,h)anthracene in TCLP	mg/L	10	<0.001	<0.001	<0.001	<0.001
Benzo(g,h,i)perylene in TCLP	mg/L	37	<0.001	0.001	<0.001	<0.001
Total +ve PAH's	mg/L	390	0.26	0.022	0.092	0.0090
Surrogate p-Terphenyl-d14	%	116	68	62	60	74

Client Reference: Hydro Aluminium AS130515

PAHs in TCLP (USEPA 1311)						
Our Reference		162119-28	162119-29	162119-30	162119-31	162119-32
Your Reference	UNITS	MW204 - 1st sub-sample<125mm	MW205 - 1st sub-sample<125mm	MW206 - 1st sub-sample<125mm	MW201 - BULK 2nd sub-sample	MW202 - BULK 2nd sub-sample
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	14/03/2017	14/03/2017	14/03/2017	14/03/2017	14/03/2017
Date analysed	-	16/03/2017	16/03/2017	16/03/2017	16/03/2017	16/03/2017
Naphthalene in TCLP	mg/L	0.003	0.002	0.002	<0.001	0.031
Acenaphthylene in TCLP	mg/L	0.004	<0.001	<0.001	<0.001	<0.001
Acenaphthene in TCLP	mg/L	0.010	0.005	0.007	0.001	0.011
Fluorene in TCLP	mg/L	0.002	0.002	0.004	<0.001	<0.001
Phenanthrene in TCLP	mg/L	0.038	0.025	0.043	0.002	0.007
Anthracene in TCLP	mg/L	0.003	0.003	0.008	<0.001	0.001
Fluoranthene in TCLP	mg/L	0.016	0.013	0.021	0.003	0.002
Pyrene in TCLP	mg/L	0.011	0.009	0.015	0.002	0.002
Benzo(a)anthracene in TCLP	mg/L	0.001	0.001	0.002	<0.001	<0.001
Chrysene in TCLP	mg/L	<0.001	0.001	0.001	<0.001	<0.001
Benzo(bjk)fluoranthene in TCLP	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002
Benzo(a)pyrene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Indeno(1,2,3-c,d)pyrene - TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Dibenzo(a,h)anthracene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Benzo(g,h,i)perylene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Total +ve PAH's	mg/L	0.089	0.062	0.10	0.0090	0.054
Surrogate p-Terphenyl-d14	%	60	62	60	65	60

Client Reference: Hydro Aluminium AS130515

PAHs in TCLP (USEPA 1311)						
Our Reference		162119-33	162119-34	162119-35	162119-36	162119-37
Your Reference	UNITS	MW203 - BULK 2nd sub-sample	MW204 - BULK 2nd sub-sample	MW205 - BULK 2nd sub-sample	MW206 - BULK 2nd sub-sample	MW201 - 2nd sub- sample>125mm
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	14/03/2017	14/03/2017	14/03/2017	14/03/2017	28/03/2017
Date analysed	-	16/03/2017	16/03/2017	16/03/2017	16/03/2017	28/03/2017
Naphthalene in TCLP	mg/L	<0.001	0.002	<0.001	0.001	0.20
Acenaphthylene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Acenaphthene in TCLP	mg/L	<0.001	0.002	0.001	0.002	0.050
Fluorene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Phenanthrene in TCLP	mg/L	<0.001	0.007	0.004	0.008	0.10
Anthracene in TCLP	mg/L	0.001	<0.001	<0.001	0.002	0.090
Fluoranthene in TCLP	mg/L	<0.001	0.004	0.004	0.005	0.11
Pyrene in TCLP	mg/L	<0.001	0.003	0.003	0.004	0.11
Benzo(a)anthracene in TCLP	mg/L	<0.001	0.001	0.001	0.001	0.010
Chrysene in TCLP	mg/L	<0.001	0.001	<0.001	<0.001	<0.001
Benzo(b,j,k)fluoranthene in TCLP	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002
Benzo(a)pyrene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Indeno(1,2,3-c,d)pyrene - TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Dibenzo(a,h)anthracene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Benzo(g,h,i)perylene in TCLP	mg/L	<0.001	0.001	<0.001	<0.001	<0.001
Total +ve PAH's	mg/L	0.001	0.021	0.013	0.024	0.67
Surrogate p-Terphenyl-d14	%	75	60	80	73	112



Client Reference: Hydro Aluminium AS130515

PAHs in TCLP (USEPA 1311)						
Our Reference		162119-38	162119-39	162119-40	162119-41	162119-42
Your Reference	UNITS	MW202 - 2nd sub-sample>125mm	MW203 - 2nd sub-sample>125mm	MW204 - 2nd sub-sample>125mm	MW205 - 2nd sub-sample>125mm	MW206 - 2nd sub-sample>125mm
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	28/03/2017	28/03/2017	28/03/2017	28/03/2017	28/03/2017
Date analysed	-	28/03/2017	28/03/2017	28/03/2017	28/03/2017	28/03/2017
Naphthalene in TCLP	mg/L	<0.001	<0.001	0.090	0.11	0.060
Acenaphthylene in TCLP	mg/L	<0.001	<0.001	0.030	0.080	0.040
Acenaphthene in TCLP	mg/L	<0.001	0.020	0.11	0.27	0.15
Fluorene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	0.080
Phenanthrene in TCLP	mg/L	0.39	1.2	0.21	0.48	0.84
Anthracene in TCLP	mg/L	0.35	0.17	0.19	0.43	0.90
Fluoranthene in TCLP	mg/L	0.99	1.6	0.16	0.48	2.4
Pyrene in TCLP	mg/L	0.87	1.2	0.12	0.44	2.2
Benzo(a)anthracene in TCLP	mg/L	0.27	0.21	0.10	0.50	1.7
Chrysene in TCLP	mg/L	0.26	0.67	0.15	0.58	2.2
Benzo(b,j,k)fluoranthene in TCLP	mg/L	0.28	0.51	0.24	1.1	4.8
Benzo(a)pyrene in TCLP	mg/L	0.14	0.23	0.090	0.56	2.3
Indeno(1,2,3-c,d)pyrene - TCLP	mg/L	0.080	0.080	0.10	0.38	1.7
Dibenzo(a,h)anthracene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	0.49
Benzo(g,h,i)perylene in TCLP	mg/L	0.12	0.10	0.090	0.47	2.0
Total +ve PAH's	mg/L	3.7	6.0	1.7	5.8	22
Surrogate p-Terphenyl-d14	%	115	110	140	97	132

Client Reference: Hydro Aluminium AS130515

PAHs in TCLP (USEPA 1311)						
Our Reference		162119-43	162119-44	162119-45	162119-46	162119-47
Your Reference	UNITS	MW201 - 2nd sub-sample<125mm	MW202 - 2nd sub-sample<125mm	MW203 - 2nd sub-sample<125mm	MW204 - 2nd sub-sample<125mm	MW205 - 2nd sub-sample<125mm
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	15/03/2017	15/03/2017	15/03/2017	15/03/2017	15/03/2017
Date analysed	-	16/03/2017	16/03/2017	16/03/2017	16/03/2017	16/03/2017
Naphthalene in TCLP	mg/L	0.001	0.043	0.003	0.002	0.002
Acenaphthylene in TCLP	mg/L	<0.001	0.001	<0.001	<0.001	<0.001
Acenaphthene in TCLP	mg/L	0.001	0.016	0.002	0.010	0.006
Fluorene in TCLP	mg/L	<0.001	0.001	<0.001	0.002	0.002
Phenanthrene in TCLP	mg/L	0.003	0.027	0.002	0.032	0.027
Anthracene in TCLP	mg/L	<0.001	0.002	<0.001	0.004	0.004
Fluoranthene in TCLP	mg/L	0.004	0.011	0.002	0.013	0.013
Pyrene in TCLP	mg/L	0.003	0.009	0.001	0.01	0.009
Benzo(a)anthracene in TCLP	mg/L	0.001	0.002	<0.001	0.001	0.001
Chrysene in TCLP	mg/L	0.002	0.002	<0.001	<0.001	0.001
Benzo(b,j,k)fluoranthene in TCLP	mg/L	0.002	0.003	<0.002	<0.002	<0.002
Benzo(a)pyrene in TCLP	mg/L	<0.001	0.002	<0.001	<0.001	<0.001
Indeno(1,2,3-c,d)pyrene - TCLP	mg/L	<0.001	0.001	<0.001	<0.001	<0.001
Dibenzo(a,h)anthracene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Benzo(g,h,i)perylene in TCLP	mg/L	<0.001	0.002	<0.001	<0.001	<0.001
Total +ve PAH's	mg/L	0.018	0.12	0.010	0.074	0.065
Surrogate p-Terphenyl-d14	%	60	60	79	60	61

Client Reference: Hydro Aluminium AS130515

PAHs in TCLP (USEPA 1311)						
Our Reference		162119-48	162119-49	162119-50	162119-51	162119-52
Your Reference	UNITS	MW206 - 2nd sub-sample<125mm	MW201 - BULK 3rd sub-sample	MW202 - BULK 3rd sub-sample	MW203 - BULK 3rd sub-sample	MW204 - BULK 3rd sub-sample
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	15/03/2017	15/03/2017	15/03/2017	15/03/2017	15/03/2017
Date analysed	-	16/03/2017	16/03/2017	16/03/2017	16/03/2017	16/03/2017
Naphthalene in TCLP	mg/L	0.002	<0.001	0.039	<0.001	0.002
Acenaphthylene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Acenaphthene in TCLP	mg/L	0.008	0.001	0.015	<0.001	0.003
Fluorene in TCLP	mg/L	0.004	<0.001	<0.001	<0.001	<0.001
Phenanthrene in TCLP	mg/L	0.044	0.002	0.007	<0.001	0.008
Anthracene in TCLP	mg/L	0.009	<0.001	<0.001	0.001	<0.001
Fluoranthene in TCLP	mg/L	0.023	0.005	0.002	<0.001	0.005
Pyrene in TCLP	mg/L	0.017	0.005	0.001	<0.001	0.004
Benzo(a)anthracene in TCLP	mg/L	0.001	0.001	<0.001	<0.001	0.001
Chrysene in TCLP	mg/L	0.001	0.002	<0.001	<0.001	0.002
Benzo(b,j,k)fluoranthene in TCLP	mg/L	<0.002	0.002	<0.002	<0.002	0.002
Benzo(a)pyrene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	0.001
Indeno(1,2,3-c,d)pyrene - TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	0.001
Dibenzo(a,h)anthracene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Benzo(g,h,i)perylene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	0.001
Total +ve PAH's	mg/L	0.11	0.018	0.064	0.001	0.030
Surrogate p-Terphenyl-d14	%	60	78	60	87	60

Client Reference: Hydro Aluminium AS130515

PAHs in TCLP (USEPA 1311)						
Our Reference		162119-53	162119-54	162119-55	162119-56	162119-57
Your Reference	UNITS	MW205 - BULK 3rd sub-sample	MW206 - BULK 3rd sub-sample	MW201 - BULK 4TH sub-sample	MW202 - BULK 4TH sub-sample	MW203 - BULK 4TH sub-sample
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	15/03/2017	15/03/2017	15/03/2017	15/03/2017	15/03/2017
Date analysed	-	16/03/2017	16/03/2017	16/03/2017	16/03/2017	16/03/2017
Naphthalene in TCLP	mg/L	<0.001	0.001	<0.001	0.039	<0.001
Acenaphthylene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Acenaphthene in TCLP	mg/L	0.001	0.002	<0.001	0.016	<0.001
Fluorene in TCLP	mg/L	<0.001	0.001	<0.001	0.001	<0.001
Phenanthrene in TCLP	mg/L	0.004	0.008	0.002	0.009	<0.001
Anthracene in TCLP	mg/L	<0.001	0.002	<0.001	0.001	0.001
Fluoranthene in TCLP	mg/L	0.004	0.006	0.004	0.004	<0.001
Pyrene in TCLP	mg/L	0.003	0.005	0.004	0.004	<0.001
Benzo(a)anthracene in TCLP	mg/L	0.001	0.001	0.001	0.002	<0.001
Chrysene in TCLP	mg/L	<0.001	0.001	0.003	0.002	<0.001
Benzo(bjk)fluoranthene in TCLP	mg/L	<0.002	<0.002	0.002	0.004	<0.002
Benzo(a)pyrene in TCLP	mg/L	<0.001	<0.001	<0.001	0.002	<0.001
Indeno(1,2,3-c,d)pyrene - TCLP	mg/L	<0.001	<0.001	<0.001	0.002	<0.001
Dibenzo(a,h)anthracene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Benzo(g,h,i)perylene in TCLP	mg/L	<0.001	<0.001	<0.001	0.002	<0.001
Total +ve PAH's	mg/L	0.013	0.028	0.016	0.090	0.001
Surrogate p-Terphenyl-d14	%	74	71	60	63	84

Client Reference: Hydro Aluminium AS130515

PAHs in TCLP (USEPA 1311)						
Our Reference		162119-58	162119-59	162119-60	162119-61	162119-62
Your Reference	UNITS	MW204 - BULK 4TH sub-sample	MW205 - BULK 4TH sub-sample	MW206 - BULK 4TH sub-sample	MW201 - BULK 5TH sub-sample	MW202 - BULK 5TH sub-sample
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	15/03/2017	15/03/2017	15/03/2017	15/03/2017	15/03/2017
Date analysed	-	16/03/2017	16/03/2017	16/03/2017	16/03/2017	16/03/2017
Naphthalene in TCLP	mg/L	0.002	<0.001	0.001	<0.001	0.029
Acenaphthylene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Acenaphthene in TCLP	mg/L	0.003	<0.001	0.001	0.001	0.010
Fluorene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Phenanthrene in TCLP	mg/L	0.009	0.003	0.007	0.002	0.007
Anthracene in TCLP	mg/L	0.001	<0.001	0.001	<0.001	0.001
Fluoranthene in TCLP	mg/L	0.005	0.003	0.005	0.003	0.002
Pyrene in TCLP	mg/L	0.004	0.003	0.004	0.003	0.001
Benzo(a)anthracene in TCLP	mg/L	0.001	<0.001	0.001	0.001	<0.001
Chrysene in TCLP	mg/L	0.001	<0.001	<0.001	<0.001	<0.001
Benzo(b,j,k)fluoranthene in TCLP	mg/L	0.002	<0.002	<0.002	<0.002	<0.002
Benzo(a)pyrene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Indeno(1,2,3-c,d)pyrene - TCLP	mg/L	0.001	<0.001	<0.001	<0.001	<0.001
Dibenzo(a,h)anthracene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Benzo(g,h,i)perylene in TCLP	mg/L	0.001	<0.001	<0.001	<0.001	<0.001
Total +ve PAH's	mg/L	0.031	0.0090	0.020	0.010	0.050
Surrogate p-Terphenyl-d14	%	75	78	72	84	60

Client Reference: Hydro Aluminium AS130515

PAHs in TCLP (USEPA 1311)						
Our Reference		162119-63	162119-64	162119-65	162119-66	162119-67
Your Reference	UNITS	MW203 - BULK 5TH sub-sample	MW204 - BULK 5TH sub-sample	MW205 - BULK 5TH sub-sample	MW206 - BULK 5TH sub-sample	MW201 - BULK 6TH sub-sample
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	15/03/2017	15/03/2017	15/03/2017	15/03/2017	15/03/2017
Date analysed	-	16/03/2017	16/03/2017	16/03/2017	16/03/2017	16/03/2017
Naphthalene in TCLP	mg/L	<0.001	0.002	<0.001	0.001	<0.001
Acenaphthylene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Acenaphthene in TCLP	mg/L	<0.001	0.002	0.001	0.002	<0.001
Fluorene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Phenanthrene in TCLP	mg/L	<0.001	0.006	0.003	0.007	0.001
Anthracene in TCLP	mg/L	<0.001	<0.001	<0.001	0.002	<0.001
Fluoranthene in TCLP	mg/L	<0.001	0.003	0.003	0.005	0.002
Pyrene in TCLP	mg/L	<0.001	0.002	0.002	0.004	0.002
Benzo(a)anthracene in TCLP	mg/L	<0.001	<0.001	<0.001	0.001	<0.001
Chrysene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Benzo(bjk)fluoranthene in TCLP	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002
Benzo(a)pyrene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Indeno(1,2,3-c,d)pyrene - TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Dibenzo(a,h)anthracene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Benzo(g,h,i)perylene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Total +ve PAH's	mg/L	NIL (+)VE	0.014	0.0090	0.023	0.0060
Surrogate p-Terphenyl-d14	%	72	60	67	76	66

Client Reference: Hydro Aluminium AS130515

PAHs in TCLP (USEPA 1311)						
Our Reference		162119-68	162119-69	162119-70	162119-71	162119-72
Your Reference	UNITS	MW202 - BULK 6TH sub-sample	MW203 - BULK 6TH sub-sample	MW204 - BULK 6TH sub-sample	MW205 - BULK 6TH sub-sample	MW206 - BULK 6TH sub-sample
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	15/03/2017	15/03/2017	15/03/2017	15/03/2017	15/03/2017
Date analysed	-	16/03/2017	16/03/2017	16/03/2017	16/03/2017	16/03/2017
Naphthalene in TCLP	mg/L	0.027	<0.001	0.002	<0.001	0.001
Acenaphthylene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Acenaphthene in TCLP	mg/L	0.009	<0.001	0.002	0.001	0.001
Fluorene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Phenanthrene in TCLP	mg/L	0.007	<0.001	0.008	0.003	0.007
Anthracene in TCLP	mg/L	<0.001	<0.001	0.001	<0.001	0.002
Fluoranthene in TCLP	mg/L	0.003	<0.001	0.006	0.003	0.005
Pyrene in TCLP	mg/L	0.003	<0.001	0.005	0.002	0.004
Benzo(a)anthracene in TCLP	mg/L	0.001	<0.001	0.002	<0.001	0.001
Chrysene in TCLP	mg/L	0.001	<0.001	0.002	<0.001	<0.001
Benzo(b,j,k)fluoranthene in TCLP	mg/L	0.002	<0.002	0.003	<0.002	<0.002
Benzo(a)pyrene in TCLP	mg/L	0.001	<0.001	0.002	<0.001	<0.001
Indeno(1,2,3-c,d)pyrene - TCLP	mg/L	0.001	<0.001	0.001	<0.001	<0.001
Dibenzo(a,h)anthracene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Benzo(g,h,i)perylene in TCLP	mg/L	0.001	<0.001	0.001	<0.001	<0.001
Total +ve PAH's	mg/L	0.057	NIL (+)VE	0.035	0.0090	0.020
Surrogate p-Terphenyl-d14	%	60	88	65	68	67

Client Reference: Hydro Aluminium AS130515

PAHs in TCLP (USEPA 1311)						
Our Reference		162119-73	162119-74	162119-75	162119-76	162119-77
Your Reference	UNITS	MW201 + 50% Lime Dry	MW202 + 50% Lime Dry	MW203 + 50% Lime Dry	MW204 + 50% Lime Dry	MW205 + 50% Lime Dry
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	17/03/2017	17/03/2017	17/03/2017	17/03/2017	17/03/2017
Date analysed	-	17/03/2017	17/03/2017	17/03/2017	17/03/2017	17/03/2017
Naphthalene in TCLP	mg/L	<0.001	0.018	<0.001	0.001	<0.001
Acenaphthylene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Acenaphthene in TCLP	mg/L	<0.001	0.004	<0.001	0.003	0.001
Fluorene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Phenanthrene in TCLP	mg/L	<0.001	0.004	<0.001	0.012	0.009
Anthracene in TCLP	mg/L	<0.001	<0.001	0.001	0.001	0.001
Fluoranthene in TCLP	mg/L	<0.001	0.003	<0.001	0.007	0.007
Pyrene in TCLP	mg/L	<0.001	0.002	<0.001	0.005	0.005
Benzo(a)anthracene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	0.001
Chrysene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	0.001
Benzo(b,j,k)fluoranthene in TCLP	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002
Benzo(a)pyrene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Indeno(1,2,3-c,d)pyrene - TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Dibenzo(a,h)anthracene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Benzo(g,h,i)perylene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Total +ve PAH's	mg/L	NIL (+)VE	0.031	0.001	0.030	0.024
Surrogate p-Terphenyl-d14	%	76	64	85	67	63



Client Reference: Hydro Aluminium AS130515

PAHs in TCLP (USEPA 1311)						
Our Reference		162119-78	162119-79	162119-80	162119-81	162119-82
Your Reference	UNITS	MW206 + 50% Lime Dry	MW201 + 50% CaCl2 DRY	MW202 + 50% CaCl2 DRY	MW203 + 50% CaCl2 DRY	MW204 + 50% CaCl2 DRY
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	17/03/2017	17/03/2017	17/03/2017	11/06/1900	17/03/2017
Date analysed	-	17/03/2017	17/03/2017	17/03/2017	17/03/2017	17/03/2017
Naphthalene in TCLP	mg/L	<0.001	<0.001	0.039	0.001	0.002
Acenaphthylene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Acenaphthene in TCLP	mg/L	0.004	0.001	0.015	0.001	0.004
Fluorene in TCLP	mg/L	<0.001	<0.001	0.001	<0.001	<0.001
Phenanthrene in TCLP	mg/L	0.024	0.002	0.014	0.001	0.014
Anthracene in TCLP	mg/L	0.005	<0.001	0.001	<0.001	0.001
Fluoranthene in TCLP	mg/L	0.015	0.001	0.005	<0.001	0.006
Pyrene in TCLP	mg/L	0.011	0.001	0.004	<0.001	0.005
Benzo(a)anthracene in TCLP	mg/L	0.003	<0.001	<0.001	<0.001	<0.001
Chrysene in TCLP	mg/L	0.002	<0.001	<0.001	<0.001	<0.001
Benzo(bjk)fluoranthene in TCLP	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002
Benzo(a)pyrene in TCLP	mg/L	0.001	<0.001	<0.001	<0.001	<0.001
Indeno(1,2,3-c,d)pyrene - TCLP	mg/L	0.001	<0.001	<0.001	<0.001	<0.001
Dibenzo(a,h)anthracene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Benzo(g,h,i)perylene in TCLP	mg/L	0.001	<0.001	<0.001	<0.001	<0.001
Total +ve PAH's	mg/L	0.067	0.0050	0.079	0.0040	0.032
Surrogate p-Terphenyl-d14	%	80	62	70	77	62

Client Reference: Hydro Aluminium AS130515

PAHs in TCLP (USEPA 1311)						
Our Reference		162119-83	162119-84	162119-85	162119-86	162119-87
Your Reference	UNITS	MW205 + 50% CaCl2 DRY	MW206 + 50% CaCl2 DRY	MW201 + 30 Cement DRY	MW202 + 30 Cement DRY	MW203 + 30 Cement DRY
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	17/03/2017	17/03/2017	17/03/2017	17/03/2017	17/03/2017
Date analysed	-	17/03/2017	17/03/2017	17/03/2017	17/03/2017	17/03/2017
Naphthalene in TCLP	mg/L	<0.001	0.001	<0.001	0.029	0.001
Acenaphthylene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Acenaphthene in TCLP	mg/L	0.002	0.004	<0.001	0.009	<0.001
Fluorene in TCLP	mg/L	0.001	0.002	<0.001	<0.001	<0.001
Phenanthrene in TCLP	mg/L	0.014	0.023	<0.001	0.009	<0.001
Anthracene in TCLP	mg/L	0.002	0.006	<0.001	0.001	0.001
Fluoranthene in TCLP	mg/L	0.009	0.011	<0.001	0.004	<0.001
Pyrene in TCLP	mg/L	0.007	0.008	<0.001	0.003	<0.001
Benzo(a)anthracene in TCLP	mg/L	0.001	0.001	<0.001	<0.001	<0.001
Chrysene in TCLP	mg/L	0.001	0.001	<0.001	<0.001	<0.001
Benzo(bjk)fluoranthene in TCLP	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002
Benzo(a)pyrene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Indeno(1,2,3-c,d)pyrene - TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Dibenzo(a,h)anthracene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Benzo(g,h,i)perylene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Total +ve PAH's	mg/L	0.037	0.058	NIL (+)VE	0.055	0.0020
Surrogate p-Terphenyl-d14	%	69	68	77	69	81

Client Reference: Hydro Aluminium AS130515

PAHs in TCLP (USEPA 1311)						
Our Reference		162119-88	162119-89	162119-90	162119-91	162119-92
Your Reference	UNITS	MW204 + 30 Cement DRY	MW205 + 30 Cement DRY	MW206 + 30 Cement DRY	MW201 + 50% Lime WET	MW202 + 50% Lime WET
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	17/03/2017	17/03/2017	17/03/2017	28/03/2017	28/03/2017
Date analysed	-	17/03/2017	17/03/2017	17/03/2017	28/03/2017	28/03/2017
Naphthalene in TCLP	mg/L	0.003	<0.001	0.001	0.090	1.6
Acenaphthylene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	0.020
Acenaphthene in TCLP	mg/L	0.006	0.001	0.006	0.040	1.4
Fluorene in TCLP	mg/L	<0.001	<0.001	0.002	<0.001	0.15
Phenanthrene in TCLP	mg/L	0.014	0.013	0.022	0.17	1.6
Anthracene in TCLP	mg/L	0.001	0.001	0.004	0.15	0.20
Fluoranthene in TCLP	mg/L	0.007	0.008	0.011	0.12	1.0
Pyrene in TCLP	mg/L	0.005	0.006	0.008	0.12	0.91
Benzo(a)anthracene in TCLP	mg/L	<0.001	0.001	0.001	<0.001	0.15
Chrysene in TCLP	mg/L	<0.001	<0.001	0.001	0.060	0.16
Benzo(bjk)fluoranthene in TCLP	mg/L	<0.002	<0.002	<0.002	<0.002	0.11
Benzo(a)pyrene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Indeno(1,2,3-c,d)pyrene - TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	0.010
Dibenzo(a,h)anthracene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Benzo(g,h,i)perylene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	0.020
Total +ve PAH's	mg/L	0.036	0.031	0.058	0.75	7.4
Surrogate p-Terphenyl-d14	%	65	74	66	120	127

Client Reference: Hydro Aluminium AS130515

PAHs in TCLP (USEPA 1311)						
Our Reference		162119-93	162119-94	162119-95	162119-96	162119-97
Your Reference	UNITS	MW203 + 50% Lime WET	MW204 + 50% Lime WET	MW205 + 50% Lime WET	MW206 + 50% Lime WET	MW201 + 50% CaCl <sub>2</sub> WET
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	28/03/2017	28/03/2017	28/03/2017	28/03/2017	17/03/2017
Date analysed	-	28/03/2017	28/03/2017	28/03/2017	28/03/2017	17/03/2017
Naphthalene in TCLP	mg/L	0.20	0.26	0.080	0.12	<0.001
Acenaphthylene in TCLP	mg/L	0.030	0.10	0.020	0.070	<0.001
Acenaphthene in TCLP	mg/L	0.12	0.33	0.080	0.26	0.001
Fluorene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Phenanthrene in TCLP	mg/L	0.29	0.78	0.50	1.0	0.002
Anthracene in TCLP	mg/L	0.26	0.20	0.080	0.28	<0.001
Fluoranthene in TCLP	mg/L	0.14	0.47	0.64	1.1	0.001
Pyrene in TCLP	mg/L	0.12	0.39	0.56	0.87	0.001
Benzo(a)anthracene in TCLP	mg/L	0.070	0.18	0.26	0.14	<0.001
Chrysene in TCLP	mg/L	0.070	0.020	0.59	0.18	<0.001
Benzo(bjk)fluoranthene in TCLP	mg/L	<0.002	0.08	0.39	0.08	<0.002
Benzo(a)pyrene in TCLP	mg/L	<0.001	<0.001	0.17	<0.001	<0.001
Indeno(1,2,3-c,d)pyrene - TCLP	mg/L	<0.001	0.020	0.11	<0.001	<0.001
Dibenzo(a,h)anthracene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Benzo(g,h,i)perylene in TCLP	mg/L	<0.001	0.020	0.14	<0.001	<0.001
Total +ve PAH's	mg/L	1.3	2.8	3.6	4.2	0.0050
Surrogate p-Terphenyl-d14	%	131	126	125	120	93

Client Reference: Hydro Aluminium AS130515

PAHs in TCLP (USEPA 1311)						
Our Reference		162119-98	162119-99	162119-100	162119-101	162119-102
Your Reference	UNITS	MW202 + 50% CaCl2 WET	MW203 + 50% CaCl2 WET	MW204 + 50% CaCl2 WET	MW205 + 50% CaCl2 WET	MW206 + 50% CaCl2 WET
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	17/03/2017	17/03/2017	17/03/2017	17/03/2017	17/03/2017
Date analysed	-	17/03/2017	17/03/2017	17/03/2017	17/03/2017	17/03/2017
Naphthalene in TCLP	mg/L	0.025	0.001	0.002	0.001	<0.001
Acenaphthylene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Acenaphthene in TCLP	mg/L	0.012	0.001	0.004	0.002	0.004
Fluorene in TCLP	mg/L	<0.001	<0.001	<0.001	0.001	0.002
Phenanthrene in TCLP	mg/L	0.015	0.002	0.013	0.015	0.028
Anthracene in TCLP	mg/L	0.001	<0.001	0.001	0.002	0.005
Fluoranthene in TCLP	mg/L	0.006	<0.001	0.006	0.009	0.012
Pyrene in TCLP	mg/L	0.004	<0.001	0.005	0.006	0.009
Benzo(a)anthracene in TCLP	mg/L	<0.001	<0.001	<0.001	0.001	0.001
Chrysene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	0.001
Benzo(b,j,k)fluoranthene in TCLP	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002
Benzo(a)pyrene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Indeno(1,2,3-c,d)pyrene - TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Dibenzo(a,h)anthracene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Benzo(g,h,i)perylene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Total +ve PAH's	mg/L	0.063	0.0040	0.031	0.038	0.061
Surrogate <i>p</i> -Terphenyl-d14	%	75	84	67	71	71

Client Reference: Hydro Aluminium AS130515

PAHs in TCLP (USEPA 1311)						
Our Reference		162119-103	162119-104	162119-105	162119-106	162119-107
Your Reference	UNITS	MW201 + 30% Cement WET	MW202 + 30% Cement WET	MW203 + 30% Cement WET	MW204 + 30% Cement WET	MW205 + 30% Cement WET
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	28/03/2017	28/03/2017	28/03/2017	28/03/2017	17/03/2017
Date analysed	-	28/03/2017	28/03/2017	28/03/2017	28/03/2017	17/03/2017
Naphthalene in TCLP	mg/L	0.13	2.7	0.16	0.16	0.001
Acenaphthylene in TCLP	mg/L	<0.001	0.57	<0.001	<0.001	<0.001
Acenaphthene in TCLP	mg/L	0.060	1.8	<0.001	0.050	0.002
Fluorene in TCLP	mg/L	<0.001	0.49	<0.001	<0.001	<0.001
Phenanthrene in TCLP	mg/L	0.21	2.4	0.090	0.070	0.014
Anthracene in TCLP	mg/L	0.19	0.48	0.070	0.050	0.001
Fluoranthene in TCLP	mg/L	0.14	1.6	0.12	0.13	0.009
Pyrene in TCLP	mg/L	0.13	1.3	0.11	0.12	0.006
Benzo(a)anthracene in TCLP	mg/L	160	0.18	<0.001	<0.001	0.001
Chrysene in TCLP	mg/L	0.10	0.41	<0.001	<0.001	<0.001
Benzo(bjk)fluoranthene in TCLP	mg/L	0.07	0.07	<0.002	<0.002	<0.002
Benzo(a)pyrene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Indeno(1,2,3-c,d)pyrene - TCLP	mg/L	0.020	<0.001	<0.001	<0.001	<0.001
Dibenzo(a,h)anthracene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Benzo(g,h,i)perylene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Total +ve PAH's	mg/L	160	12	0.55	0.58	0.034
Surrogate p-Terphenyl-d14	%	134	113	121	126	72

PAHs in TCLP (USEPA 1311)		
Our Reference		162119-108
Your Reference	UNITS	MW206 + 30% Cement WET
Date Sampled		10/02/2017
Type of sample		Soil
Date extracted	-	28/03/2017
Date analysed	-	28/03/2017
Naphthalene in TCLP	mg/L	0.070
Acenaphthylene in TCLP	mg/L	<0.001
Acenaphthene in TCLP	mg/L	<0.001
Fluorene in TCLP	mg/L	<0.001
Phenanthrene in TCLP	mg/L	0.12
Anthracene in TCLP	mg/L	0.10
Fluoranthene in TCLP	mg/L	0.13
Pyrene in TCLP	mg/L	0.12
Benzo(a)anthracene in TCLP	mg/L	<0.001
Chrysene in TCLP	mg/L	0.020
Benzo(b,j,k)fluoranthene in TCLP	mg/L	<0.002
Benzo(a)pyrene in TCLP	mg/L	<0.001
Indeno(1,2,3-c,d)pyrene - TCLP	mg/L	<0.001
Dibenzo(a,h)anthracene in TCLP	mg/L	<0.001
Benzo(g,h,i)perylene in TCLP	mg/L	<0.001
Total +ve PAH's	mg/L	0.56
Surrogate <i>p</i> -Terphenyl-d14	%	124

Client Reference: Hydro Aluminium AS130515

TCLP - ASLP4439.3						
Our Reference		162119-1	162119-2	162119-3	162119-4	162119-5
Your Reference	UNITS	MW201 - BULK 1st sub-sample	MW202 - BULK 1st sub-sample	MW203 - BULK 1st sub-sample	MW204 - BULK 1st sub-sample	MW205 - BULK 1st sub-sample
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	10/04/2017	10/04/2017	10/04/2017	10/04/2017	10/04/2017
Date analysed	-	10/04/2017	10/04/2017	10/04/2017	10/04/2017	10/04/2017
pH of final Leachate	pH units	8.4	8.6	9.9	9.3	8.7
Total Cyanide in ASLPs	mg/L	4.6	2.5	9.6	5.9	7.9

TCLP - ASLP4439.3						
Our Reference		162119-6	162119-7	162119-8	162119-9	162119-10
Your Reference	UNITS	MW206 - BULK 1st sub-sample	MW201 - 1st sub- sample>125mm	MW202 - 1st sub- sample>125mm	MW203 - 1st sub- sample>125mm	MW204 - 1st sub- sample>125mm
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	10/04/2017	10/04/2017	10/04/2017	10/04/2017	10/04/2017
Date analysed	-	10/04/2017	10/04/2017	10/04/2017	10/04/2017	10/04/2017
pH of final Leachate	pH units	8.7	8.7	8.1	9.8	10.6
Total Cyanide in ASLPs	mg/L	6.8	2.8	3.1	3.1	2.4

TCLP - ASLP4439.3						
Our Reference		162119-11	162119-12	162119-25	162119-26	162119-27
Your Reference	UNITS	MW205 - 1st sub- sample>125mm	MW206 - 1st sub- sample>125mm	MW201 - 1st sub- sample<125mm	MW202 - 1st sub- sample<125mm	MW203 - 1st sub- sample<125mm
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	10/04/2017	10/04/2017	10/04/2017	10/04/2017	10/04/2017
Date analysed	-	10/04/2017	10/04/2017	10/04/2017	10/04/2017	10/04/2017
pH of final Leachate	pH units	9.3	9.7	8.7	9.0	9.6
Total Cyanide in ASLPs	mg/L	6.6	2.3	3.6	3.3	7.1

TCLP - ASLP4439.3						
Our Reference		162119-28	162119-29	162119-30	162119-31	162119-32
Your Reference	UNITS	MW204 - 1st sub- sample<125mm	MW205 - 1st sub- sample<125mm	MW206 - 1st sub- sample<125mm	MW201 - BULK 2nd sub-sample	MW202 - BULK 2nd sub-sample
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	10/04/2017	10/04/2017	10/04/2017	10/04/2017	10/04/2017
Date analysed	-	10/04/2017	10/04/2017	10/04/2017	10/04/2017	10/04/2017
pH of final Leachate	pH units	9.2	8.9	9.1	8.5	8.7
Total Cyanide in ASLPs	mg/L	4.3	6.1	7.8	4.3	3.2



Client Reference: Hydro Aluminium AS130515

TCLP - ASLP4439.3						
Our Reference		162119-33	162119-34	162119-35	162119-36	162119-37
Your Reference	UNITS	MW203 - BULK 2nd sub-sample	MW204 - BULK 2nd sub-sample	MW205 - BULK 2nd sub-sample	MW206 - BULK 2nd sub-sample	MW201 - 2nd sub- sample>125mm
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	10/04/2017	10/04/2017	10/04/2017	10/04/2017	10/04/2017
Date analysed	-	10/04/2017	10/04/2017	10/04/2017	10/04/2017	10/04/2017
pH of final Leachate	pH units	9.9	9.1	9.0	8.7	8.6
Total Cyanide in ASLPs	mg/L	10	5.3	8.1	6.6	2.3

TCLP - ASLP4439.3						
Our Reference		162119-38	162119-39	162119-40	162119-41	162119-42
Your Reference	UNITS	MW202 - 2nd sub- sample>125mm	MW203 - 2nd sub- sample>125mm	MW204 - 2nd sub- sample>125mm	MW205 - 2nd sub- sample>125mm	MW206 - 2nd sub- sample>125mm
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	10/04/2017	10/04/2017	10/04/2017	10/04/2017	10/04/2017
Date analysed	-	10/04/2017	10/04/2017	10/04/2017	10/04/2017	10/04/2017
pH of final Leachate	pH units	8.0	9.9	10.8	9.3	9.6
Total Cyanide in ASLPs	mg/L	2.8	3.1	2.5	7.5	1.8

TCLP - ASLP4439.3						
Our Reference		162119-43	162119-44	162119-45	162119-46	162119-47
Your Reference	UNITS	MW201 - 2nd sub- sample<125mm	MW202 - 2nd sub- sample<125mm	MW203 - 2nd sub- sample<125mm	MW204 - 2nd sub- sample<125mm	MW205 - 2nd sub- sample<125mm
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	10/04/2017	10/04/2017	10/04/2017	10/04/2017	10/04/2017
Date analysed	-	10/04/2017	10/04/2017	10/04/2017	10/04/2017	10/04/2017
pH of final Leachate	pH units	8.6	8.9	9.7	9.5	8.8
Total Cyanide in ASLPs	mg/L	4.2	3.7	7.9	4.2	7.2

TCLP - ASLP4439.3						
Our Reference		162119-48	162119-49	162119-50	162119-51	162119-52
Your Reference	UNITS	MW206 - 2nd sub- sample<125mm	MW201 - BULK 3rd sub-sample	MW202 - BULK 3rd sub-sample	MW203 - BULK 3rd sub-sample	MW204 - BULK 3rd sub-sample
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	10/04/2017	10/04/2017	10/04/2017	10/04/2017	10/04/2017
Date analysed	-	10/04/2017	10/04/2017	10/04/2017	10/04/2017	10/04/2017
pH of final Leachate	pH units	8.9	8.5	8.7	9.8	9.2
Total Cyanide in ASLPs	mg/L	7.7	4.6	3.1	9.3	5.5

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TCLP - ASLP4439.3						
Our Reference		162119-53	162119-54	162119-55	162119-56	162119-57
Your Reference	UNITS	MW205 - BULK 3rd sub-sample	MW206 - BULK 3rd sub-sample	MW201 - BULK 4TH sub-sample	MW202 - BULK 4TH sub-sample	MW203 - BULK 4TH sub-sample
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	10/04/2017	10/04/2017	10/04/2017	10/04/2017	10/04/2017
Date analysed	-	10/04/2017	10/04/2017	10/04/2017	10/04/2017	10/04/2017
pH of final Leachate	pH units	8.9	8.5	8.5	8.7	9.9
Total Cyanide in ASLPs	mg/L	8.2	6.6	5.0	3.1	10

TCLP - ASLP4439.3						
Our Reference		162119-58	162119-59	162119-60	162119-61	162119-62
Your Reference	UNITS	MW204 - BULK 4TH sub-sample	MW205 - BULK 4TH sub-sample	MW206 - BULK 4TH sub-sample	MW201 - BULK 5TH sub-sample	MW202 - BULK 5TH sub-sample
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	10/04/2017	10/04/2017	10/04/2017	10/04/2017	10/04/2017
Date analysed	-	10/04/2017	10/04/2017	10/04/2017	10/04/2017	10/04/2017
pH of final Leachate	pH units	9.3	9.1	8.7	8.6	8.7
Total Cyanide in ASLPs	mg/L	5.8	8.6	6.5	4.8	2.7

TCLP - ASLP4439.3						
Our Reference		162119-63	162119-64	162119-65	162119-66	162119-67
Your Reference	UNITS	MW203 - BULK 5TH sub-sample	MW204 - BULK 5TH sub-sample	MW205 - BULK 5TH sub-sample	MW206 - BULK 5TH sub-sample	MW201 - BULK 6TH sub-sample
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	10/04/2017	10/04/2017	10/04/2017	10/04/2017	10/04/2017
Date analysed	-	10/04/2017	10/04/2017	10/04/2017	10/04/2017	10/04/2017
pH of final Leachate	pH units	9.9	9.4	8.9	8.8	8.6
Total Cyanide in ASLPs	mg/L	10	5.5	8.2	6.7	4.8

TCLP - ASLP4439.3						
Our Reference		162119-68	162119-69	162119-70	162119-71	162119-72
Your Reference	UNITS	MW202 - BULK 6TH sub-sample	MW203 - BULK 6TH sub-sample	MW204 - BULK 6TH sub-sample	MW205 - BULK 6TH sub-sample	MW206 - BULK 6TH sub-sample
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	10/04/2017	10/04/2017	10/04/2017	10/04/2017	10/04/2017
Date analysed	-	10/04/2017	10/04/2017	10/04/2017	10/04/2017	10/04/2017
pH of final Leachate	pH units	8.7	9.9	9.6	9.0	8.6
Total Cyanide in ASLPs	mg/L	2.6	9.7	5.6	8.2	6.6

Client Reference: Hydro Aluminium AS130515

TCLP - ASLP4439.3						
Our Reference		162119-73	162119-74	162119-75	162119-76	162119-77
Your Reference	UNITS	MW201 + 50% Lime Dry	MW202 + 50% Lime Dry	MW203 + 50% Lime Dry	MW204 + 50% Lime Dry	MW205 + 50% Lime Dry
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	10/04/2017	10/04/2017	10/04/2017	10/04/2017	10/04/2017
Date analysed	-	10/04/2017	10/04/2017	10/04/2017	10/04/2017	10/04/2017
pH of final Leachate	pH units	12.4	12.5	12.6	12.4	12.5
Total Cyanide in ASLPs	mg/L	0.022	0.040	0.014	0.030	0.026

TCLP - ASLP4439.3						
Our Reference		162119-78	162119-79	162119-80	162119-81	162119-82
Your Reference	UNITS	MW206 + 50% Lime Dry	MW201 + 50% CaCl2 DRY	MW202 + 50% CaCl2 DRY	MW203 + 50% CaCl2 DRY	MW204 + 50% CaCl2 DRY
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	10/04/2017	10/04/2017	10/04/2017	10/04/2017	10/04/2017
Date analysed	-	10/04/2017	10/04/2017	10/04/2017	10/04/2017	10/04/2017
pH of final Leachate	pH units	12.4	7.0	7.2	6.9	6.7
Total Cyanide in ASLPs	mg/L	0.051	1.3	0.65	1.5	1.1

TCLP - ASLP4439.3						
Our Reference		162119-83	162119-84	162119-85	162119-86	162119-87
Your Reference	UNITS	MW205 + 50% CaCl2 DRY	MW206 + 50% CaCl2 DRY	MW201 + 30 Cement DRY	MW202 + 30 Cement DRY	MW203 + 30 Cement DRY
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	10/04/2017	10/04/2017	10/04/2017	10/04/2017	10/04/2017
Date analysed	-	10/04/2017	10/04/2017	10/04/2017	10/04/2017	10/04/2017
pH of final Leachate	pH units	6.7	6.7	11.8	11.6	11.8
Total Cyanide in ASLPs	mg/L	1.4	2.7	3.3	1.9	5.1

TCLP - ASLP4439.3						
Our Reference		162119-88	162119-89	162119-90	162119-91	162119-92
Your Reference	UNITS	MW204 + 30 Cement DRY	MW205 + 30 Cement DRY	MW206 + 30 Cement DRY	MW201 + 50% Lime WET	MW202 + 50% Lime WET
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	10/04/2017	10/04/2017	10/04/2017	10/04/2017	10/04/2017
Date analysed	-	10/04/2017	10/04/2017	10/04/2017	10/04/2017	10/04/2017
pH of final Leachate	pH units	11.5	11.1	12.0	12.4	12.5
Total Cyanide in ASLPs	mg/L	3.2	5.1	5.0	0.065	0.075

Client Reference: Hydro Aluminium AS130515

TCLP - ASLP4439.3						
Our Reference		162119-93	162119-94	162119-95	162119-96	162119-97
Your Reference	UNITS	MW203 + 50% Lime WET	MW204 + 50% Lime WET	MW205 + 50% Lime WET	MW206 + 50% Lime WET	MW201 + 50% CaCl2 WET
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	10/04/2017	10/04/2017	10/04/2017	10/04/2017	10/04/2017
Date analysed	-	10/04/2017	10/04/2017	10/04/2017	10/04/2017	10/04/2017
pH of final Leachate	pH units	12.5	12.5	12.5	12.5	6.7
Total Cyanide in ASLPs	mg/L	0.15	0.11	0.042	0.10	0.13

TCLP - ASLP4439.3						
Our Reference		162119-98	162119-99	162119-100	162119-101	162119-102
Your Reference	UNITS	MW202 + 50% CaCl2 WET	MW203 + 50% CaCl2 WET	MW204 + 50% CaCl2 WET	MW205 + 50% CaCl2 WET	MW206 + 50% CaCl2 WET
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	10/04/2017	10/04/2017	10/04/2017	10/04/2017	10/04/2017
Date analysed	-	10/04/2017	10/04/2017	10/04/2017	10/04/2017	10/04/2017
pH of final Leachate	pH units	6.3	6.6	6.5	6.3	6.3
Total Cyanide in ASLPs	mg/L	0.11	0.22	0.23	0.11	0.24

TCLP - ASLP4439.3						
Our Reference		162119-103	162119-104	162119-105	162119-106	162119-107
Your Reference	UNITS	MW201 + 30% Cement WET	MW202 + 30% Cement WET	MW203 + 30% Cement WET	MW204 + 30% Cement WET	MW205 + 30% Cement WET
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	10/04/2017	10/04/2017	10/04/2017	10/04/2017	10/04/2017
Date analysed	-	10/04/2017	10/04/2017	10/04/2017	10/04/2017	10/04/2017
pH of final Leachate	pH units	11.9	11.4	11.9	11.6	10.8
Total Cyanide in ASLPs	mg/L	2.7	1.8	4.7	2.7	4.4

TCLP - ASLP4439.3		
Our Reference		162119-108
Your Reference	UNITS	MW206 + 30% Cement WET
Date Sampled		10/02/2017
Type of sample		Soil
Date prepared	-	10/04/2017
Date analysed	-	10/04/2017
pH of final Leachate	pH units	11.8
Total Cyanide in ASLPs	mg/L	4.4

**Client Reference: Hydro Aluminium AS130515**

Method ID	Methodology Summary
<b>EXTRACT.7</b>	Toxicity Characteristic Leaching Procedure (TCLP) using Zero Headspace Extraction (zHE) using AS4439 and USEPA 1311.
<b>Inorg-001</b>	pH - Measured using pH meter and electrode in accordance with APHA latest edition, 4500-H+. Please note that the results for water analyses are indicative only, as analysis outside of the APHA storage times.
<b>Inorg-004</b>	Toxicity Characteristic Leaching Procedure (TCLP) using in house method INORG-004.
<b>Inorg-014</b>	Cyanide - free, total, weak acid dissociable by segmented flow analyser (in line dialysis with colourimetric finish). Solids are extracted in a caustic media prior to analysis.
<b>Inorg-024</b>	Hexavalent Chromium (Cr6+) - determined colourimetrically.
<b>Inorg-026</b>	Fluoride determined by ion selective electrode (ISE) in accordance with APHA latest edition, 4500-F-C.
<b>Inorg-026/53</b>	Fluoride by caustic fusion and determined by ion selective electrode (ISE) analysis.
<b>Metals-020</b>	Determination of various metals by ICP-AES.
<b>Metals-021</b>	Determination of Mercury by Cold Vapour AAS.
<b>Org-003</b>	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis.
<b>Org-003</b>	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID.  F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis.  Note, the Total +ve TRH PQL is reflective of the lowest individual PQL and is therefore "Total +ve TRH" is simply a sum of the positive individual TRH fractions (>C10-C40).
<b>Org-005</b>	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC with dual ECD's.
<b>Org-005</b>	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC with dual ECD's. Note, the Total +ve reported DDD+DDE+DDT PQL is reflective of the lowest individual PQL and is therefore simply a sum of the positive individually report DDD+DDE+DDT.
<b>Org-008</b>	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC with dual ECD's.
<b>Org-012</b>	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS.
<b>Org-012</b>	Leachates are extracted with Dichloromethane and analysed by GC-MS.
<b>Org-012</b>	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS. Benzo(a)pyrene TEQ as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater - 2013.
<b>Org-012</b>	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS. Benzo(a)pyrene TEQ as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater - 2013. For soil results:- 1. 'EQ PQL' values are assuming all contributing PAHs reported as <PQL are actually at the PQL. This is the most conservative approach and can give false positive TEQs given that PAHs that contribute to the TEQ calculation may not be present. 2. 'EQ zero' values are assuming all contributing PAHs reported as <PQL are zero. This is the least conservative approach and is more susceptible to false negative TEQs when PAHs that contribute to the TEQ calculation are present but below PQL. 3. 'EQ half PQL' values are assuming all contributing PAHs reported as <PQL are half the stipulated PQL. Hence a mid-point between the most and least conservative approaches above. Note, the Total +ve PAHs PQL is reflective of the lowest individual PQL and is therefore "Total +ve PAHs" is simply a sum of the positive individual PAHs.
<b>Org-014</b>	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS.
<b>Org-016</b>	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater.
<b>Org-016</b>	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater. Note, the Total +ve Xylene PQL is reflective of the lowest individual PQL and is therefore "Total +ve Xylenes" is simply a sum of the positive individual Xylenes.

Client Reference: Hydro Aluminium AS130515

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil				Duplicate				Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-10	162119-2
Date extracted	-			15/03/2017	1	10/03/2017	10/03/2017		10/03/2017	10/03/2017
Date analysed	-			16/03/2017	1	13/03/2017	13/03/2017		13/03/2017	13/03/2017
TRH C <sub>6</sub> - C <sub>9</sub>	mg/kg	25	Org-016	<25	1	<25	<25	0	100	96
TRH C <sub>6</sub> - C <sub>10</sub>	mg/kg	25	Org-016	<25	1	<25	<25	0	100	96
Benzene	mg/kg	0.2	Org-016	<0.2	1	<0.2	<0.2	0	100	98
Toluene	mg/kg	0.5	Org-016	<0.5	1	<0.5	<0.5	0	100	94
Ethylbenzene	mg/kg	1	Org-016	<1	1	<1	<1	0	100	98
m+p-xylene	mg/kg	2	Org-016	<2	1	<2	<2	0	100	95
o-Xylene	mg/kg	1	Org-016	<1	1	<1	<1	0	99	93
naphthalene	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-016	93	1	88	92	4	83	84

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil				Duplicate				Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-11	162119-34
Date extracted	-			[NT]	33	10/03/2017	10/03/2017		10/03/2017	10/03/2017
Date analysed	-			[NT]	33	13/03/2017	13/03/2017		13/03/2017	13/03/2017
TRH C <sub>6</sub> - C <sub>9</sub>	mg/kg	25	Org-016	[NT]	33	<25	<25	0	100	89
TRH C <sub>6</sub> - C <sub>10</sub>	mg/kg	25	Org-016	[NT]	33	<25	<25	0	100	89
Benzene	mg/kg	0.2	Org-016	[NT]	33	<0.2	<0.2	0	100	92
Toluene	mg/kg	0.5	Org-016	[NT]	33	<0.5	<0.5	0	100	88
Ethylbenzene	mg/kg	1	Org-016	[NT]	33	<1	<1	0	100	90
m+p-xylene	mg/kg	2	Org-016	[NT]	33	<2	<2	0	100	88
o-Xylene	mg/kg	1	Org-016	[NT]	33	<1	<1	0	99	87
naphthalene	mg/kg	1	Org-014	[NT]	33	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-016	[NT]	33	76	87	13	83	79

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil				Duplicate				Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-12	162119-56
Date extracted	-			[NT]	44	10/03/2017	10/03/2017		10/03/2017	10/03/2017
Date analysed	-			[NT]	44	13/03/2017	13/03/2017		13/03/2017	13/03/2017
TRH C <sub>6</sub> - C <sub>9</sub>	mg/kg	25	Org-016	[NT]	44	<25	<25	0	120	110
TRH C <sub>6</sub> - C <sub>10</sub>	mg/kg	25	Org-016	[NT]	44	<25	<25	0	120	110
Benzene	mg/kg	0.2	Org-016	[NT]	44	<0.2	<0.2	0	120	120
Toluene	mg/kg	0.5	Org-016	[NT]	44	<0.5	<0.5	0	110	110
Ethylbenzene	mg/kg	1	Org-016	[NT]	44	<1	<1	0	120	110
m+p-xylene	mg/kg	2	Org-016	[NT]	44	<2	<2	0	120	110
o-Xylene	mg/kg	1	Org-016	[NT]	44	<1	<1	0	110	110
naphthalene	mg/kg	1	Org-014	[NT]	44	2	4	67	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-016	[NT]	44	92	99	7	95	89

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QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-7	[NT]
Date extracted	-			[NT]	55	10/03/2017	10/03/2017		15/03/2017	[NT]
Date analysed	-			[NT]	55	13/03/2017	13/03/2017		16/03/2017	[NT]
TRH C <sub>6</sub> - C <sub>9</sub>	mg/kg	25	Org-016	[NT]	55	<25	<25	0	95	[NT]
TRH C <sub>6</sub> - C <sub>10</sub>	mg/kg	25	Org-016	[NT]	55	<25	<25	0	95	[NT]
Benzene	mg/kg	0.2	Org-016	[NT]	55	<0.2	<0.2	0	93	[NT]
Toluene	mg/kg	0.5	Org-016	[NT]	55	<0.5	<0.5	0	94	[NT]
Ethylbenzene	mg/kg	1	Org-016	[NT]	55	<1	<1	0	98	[NT]
m+p-xylene	mg/kg	2	Org-016	[NT]	55	<2	<2	0	94	[NT]
o-Xylene	mg/kg	1	Org-016	[NT]	55	<1	<1	0	90	[NT]
naphthalene	mg/kg	1	Org-014	[NT]	55	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-016	[NT]	55	94	94	0	80	[NT]

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-8	[NT]
Date extracted	-			[NT]	67	10/03/2017	10/03/2017		15/03/2017	[NT]
Date analysed	-			[NT]	67	13/03/2017	13/03/2017		16/03/2017	[NT]
TRH C <sub>6</sub> - C <sub>9</sub>	mg/kg	25	Org-016	[NT]	67	<25	<25	0	120	[NT]
TRH C <sub>6</sub> - C <sub>10</sub>	mg/kg	25	Org-016	[NT]	67	<25	<25	0	120	[NT]
Benzene	mg/kg	0.2	Org-016	[NT]	67	<0.2	<0.2	0	120	[NT]
Toluene	mg/kg	0.5	Org-016	[NT]	67	<0.5	<0.5	0	120	[NT]
Ethylbenzene	mg/kg	1	Org-016	[NT]	67	<1	<1	0	120	[NT]
m+p-xylene	mg/kg	2	Org-016	[NT]	67	<2	<2	0	120	[NT]
o-Xylene	mg/kg	1	Org-016	[NT]	67	<1	<1	0	110	[NT]
naphthalene	mg/kg	1	Org-014	[NT]	67	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-016	[NT]	67	93	95	2	96	[NT]

Client Reference: Hydro Aluminium AS130515

QUALITY CONTROL: svTRH (C10-C40) in Soil					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-10	162119-2
Date extracted	-			15/03/2017	1	08/03/2017	08/03/2017		08/03/2017	08/03/2017
Date analysed	-			15/03/2017	1	13/03/2017	13/03/2017		13/03/2017	13/03/2017
TRH C <sub>10</sub> - C <sub>14</sub>	mg/kg	50	Org-003	<50	1	<50	<50	0	110	130
TRH C <sub>15</sub> - C <sub>28</sub>	mg/kg	100	Org-003	<100	1	700	790	12	110	#
TRH C <sub>29</sub> - C <sub>36</sub>	mg/kg	100	Org-003	<100	1	690	760	10	110	#
TRH >C <sub>10</sub> -C <sub>16</sub>	mg/kg	50	Org-003	<50	1	<50	<50	0	110	130
TRH >C <sub>16</sub> -C <sub>34</sub>	mg/kg	100	Org-003	<100	1	1300	1400	7	110	#
TRH >C <sub>34</sub> -C <sub>40</sub>	mg/kg	100	Org-003	<100	1	350	380	8	110	#
Surrogate o-Terphenyl	%		Org-003	97	1	104	105	1	97	109

QUALITY CONTROL: svTRH (C10-C40) in Soil					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-11	162119-34
Date extracted	-			[NT]	33	08/03/2017	08/03/2017		08/03/2017	08/03/2017
Date analysed	-			[NT]	33	13/03/2017	13/03/2017		13/03/2017	13/03/2017
TRH C <sub>10</sub> - C <sub>14</sub>	mg/kg	50	Org-003	[NT]	33	<50	<50	0	100	120
TRH C <sub>15</sub> - C <sub>28</sub>	mg/kg	100	Org-003	[NT]	33	680	720	6	100	#
TRH C <sub>29</sub> - C <sub>36</sub>	mg/kg	100	Org-003	[NT]	33	1100	1100	0	120	#
TRH >C <sub>10</sub> -C <sub>16</sub>	mg/kg	50	Org-003	[NT]	33	<50	<50	0	100	120
TRH >C <sub>16</sub> -C <sub>34</sub>	mg/kg	100	Org-003	[NT]	33	1500	1500	0	100	#
TRH >C <sub>34</sub> -C <sub>40</sub>	mg/kg	100	Org-003	[NT]	33	720	810	12	120	#
Surrogate o-Terphenyl	%		Org-003	[NT]	33	100	100	0	96	106

QUALITY CONTROL: svTRH (C10-C40) in Soil					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-12	162119-56
Date extracted	-			[NT]	44	08/03/2017	08/03/2017		08/03/2017	08/03/2017
Date analysed	-			[NT]	44	13/03/2017	13/03/2017		13/03/2017	13/03/2017
TRH C <sub>10</sub> - C <sub>14</sub>	mg/kg	50	Org-003	[NT]	44	51	52	2	110	120
TRH C <sub>15</sub> - C <sub>28</sub>	mg/kg	100	Org-003	[NT]	44	5600	5600	0	110	100
TRH C <sub>29</sub> - C <sub>36</sub>	mg/kg	100	Org-003	[NT]	44	4800	4900	2	91	#
TRH >C <sub>10</sub> -C <sub>16</sub>	mg/kg	50	Org-003	[NT]	44	160	150	6	110	120
TRH >C <sub>16</sub> -C <sub>34</sub>	mg/kg	100	Org-003	[NT]	44	9500	9600	1	110	100
TRH >C <sub>34</sub> -C <sub>40</sub>	mg/kg	100	Org-003	[NT]	44	2000	1900	5	91	#
Surrogate o-Terphenyl	%		Org-003	[NT]	44	#	#		93	125



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QUALITY CONTROL: svTRH (C10-C40) in Soil					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-7	[NT]
Date extracted	-			[NT]	55	08/03/2017	08/03/2017		08/03/2017	[NT]
Date analysed	-			[NT]	55	13/03/2017	13/03/2017		13/03/2017	[NT]
TRH C <sub>10</sub> - C <sub>14</sub>	mg/kg	50	Org-003	[NT]	55	<50	<50	0	97	[NT]
TRH C <sub>15</sub> - C <sub>28</sub>	mg/kg	100	Org-003	[NT]	55	930	820	13	100	[NT]
TRH C <sub>29</sub> - C <sub>36</sub>	mg/kg	100	Org-003	[NT]	55	830	720	14	73	[NT]
TRH >C <sub>10</sub> -C <sub>16</sub>	mg/kg	50	Org-003	[NT]	55	<50	<50	0	97	[NT]
TRH >C <sub>16</sub> -C <sub>34</sub>	mg/kg	100	Org-003	[NT]	55	1600	1400	13	100	[NT]
TRH >C <sub>34</sub> -C <sub>40</sub>	mg/kg	100	Org-003	[NT]	55	480	360	29	73	[NT]
Surrogate o-Terphenyl	%		Org-003	[NT]	55	101	102	1	84	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Soil					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-8	[NT]
Date extracted	-			[NT]	67	08/03/2017	08/03/2017		08/03/2017	[NT]
Date analysed	-			[NT]	67	13/03/2017	13/03/2017		13/03/2017	[NT]
TRH C <sub>10</sub> - C <sub>14</sub>	mg/kg	50	Org-003	[NT]	67	<50	<50	0	100	[NT]
TRH C <sub>15</sub> - C <sub>28</sub>	mg/kg	100	Org-003	[NT]	67	700	660	6	110	[NT]
TRH C <sub>29</sub> - C <sub>36</sub>	mg/kg	100	Org-003	[NT]	67	750	680	10	70	[NT]
TRH >C <sub>10</sub> -C <sub>16</sub>	mg/kg	50	Org-003	[NT]	67	<50	<50	0	100	[NT]
TRH >C <sub>16</sub> -C <sub>34</sub>	mg/kg	100	Org-003	[NT]	67	1300	1200	8	110	[NT]
TRH >C <sub>34</sub> -C <sub>40</sub>	mg/kg	100	Org-003	[NT]	67	450	380	17	70	[NT]
Surrogate o-Terphenyl	%		Org-003	[NT]	67	97	97	0	88	[NT]

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QUALITY CONTROL: PAHs in Soil				Duplicate				Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-10	162119-2
Date extracted	-			16/03/2017	1	08/03/2017	08/03/2017		08/03/2017	08/03/2017
Date analysed	-			15/03/2017	1	08/03/2017	08/03/2017		08/03/2017	08/03/2017
Naphthalene	mg/kg	0.1	Org-012	<0.1	1	<1	<1	0	85	#
Acenaphthylene	mg/kg	0.1	Org-012	<0.1	1	<1	<1	0	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-012	<0.1	1	2.7	3.0	11	[NT]	[NT]
Fluorene	mg/kg	0.1	Org-012	<0.1	1	1.3	1.7	27	92	79
Phenanthrene	mg/kg	0.1	Org-012	<0.1	1	17	18	6	100	#
Anthracene	mg/kg	0.1	Org-012	<0.1	1	5.9	4.8	21	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-012	<0.1	1	52	36	36	97	#
Pyrene	mg/kg	0.1	Org-012	<0.1	1	52	33	45	98	#
Benzo(a)anthracene	mg/kg	0.1	Org-012	<0.1	1	46	45	2	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-012	<0.1	1	51	51	0	87	80
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-012	<0.2	1	100	100	0	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-012	<0.05	1	41	40	2	83	#
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-012	<0.1	1	22	20	10	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-012	<0.1	1	6.0	7.6	24	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-012	<0.1	1	26	23	12	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-012	102	1	101	93	8	114	60

QUALITY CONTROL: PAHs in Soil				Duplicate				Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-11	162119-34
Date extracted	-			[NT]	33	08/03/2017	08/03/2017		08/03/2017	08/03/2017
Date analysed	-			[NT]	33	08/03/2017	08/03/2017		08/03/2017	08/03/2017
Naphthalene	mg/kg	0.1	Org-012	[NT]	33	1.2	1.7	34	83	86
Acenaphthylene	mg/kg	0.1	Org-012	[NT]	33	0.2	0.2	0	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-012	[NT]	33	3.7	4.0	8	[NT]	[NT]
Fluorene	mg/kg	0.1	Org-012	[NT]	33	1.3	1.5	14	96	100
Phenanthrene	mg/kg	0.1	Org-012	[NT]	33	17	19	11	100	#
Anthracene	mg/kg	0.1	Org-012	[NT]	33	4.3	4.7	9	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-012	[NT]	33	40	40	0	99	#
Pyrene	mg/kg	0.1	Org-012	[NT]	33	37	37	0	100	#
Benzo(a)anthracene	mg/kg	0.1	Org-012	[NT]	33	23	23	0	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-012	[NT]	33	20	21	5	87	#
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-012	[NT]	33	41	42	2	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-012	[NT]	33	24	24	0	94	#
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-012	[NT]	33	11	12	9	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-012	[NT]	33	2.9	3.4	16	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-012	[NT]	33	13	13	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-012	[NT]	33	93	93	0	100	101

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QUALITY CONTROL: PAHs in Soil					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-12	162119-56
Date extracted	-			[NT]	44	08/03/2017	08/03/2017		08/03/2017	08/03/2017
Date analysed	-			[NT]	44	08/03/2017	08/03/2017		08/03/2017	08/03/2017
Naphthalene	mg/kg	0.1	Org-012	[NT]	44	3.7	3.9	5	88	110
Acenaphthylene	mg/kg	0.1	Org-012	[NT]	44	1.3	1.7	27	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-012	[NT]	44	32	31	3	[NT]	[NT]
Fluorene	mg/kg	0.1	Org-012	[NT]	44	16	14	13	98	140
Phenanthrene	mg/kg	0.1	Org-012	[NT]	44	170	170	0	100	#
Anthracene	mg/kg	0.1	Org-012	[NT]	44	37	37	0	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-012	[NT]	44	340	380	11	110	#
Pyrene	mg/kg	0.1	Org-012	[NT]	44	330	370	11	110	#
Benzo(a)anthracene	mg/kg	0.1	Org-012	[NT]	44	280	310	10	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-012	[NT]	44	230	230	0	88	#
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-012	[NT]	44	480	510	6	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-012	[NT]	44	310	340	9	100	#
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-012	[NT]	44	150	170	12	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-012	[NT]	44	43	45	5	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-012	[NT]	44	170	180	6	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-012	[NT]	44	102	104	2	63	64

QUALITY CONTROL: PAHs in Soil					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-7	[NT]
Date extracted	-			[NT]	55	08/03/2017	08/03/2017		08/03/2017	[NT]
Date analysed	-			[NT]	55	08/03/2017	08/03/2017		08/03/2017	[NT]
Naphthalene	mg/kg	0.1	Org-012	[NT]	55	<1	<1	0	94	[NT]
Acenaphthylene	mg/kg	0.1	Org-012	[NT]	55	<1	<1	0	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-012	[NT]	55	2.3	2.0	14	[NT]	[NT]
Fluorene	mg/kg	0.1	Org-012	[NT]	55	1.4	<1	33	100	[NT]
Phenanthrene	mg/kg	0.1	Org-012	[NT]	55	18	14	25	110	[NT]
Anthracene	mg/kg	0.1	Org-012	[NT]	55	4.2	4.1	2	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-012	[NT]	55	89	68	27	100	[NT]
Pyrene	mg/kg	0.1	Org-012	[NT]	55	85	66	25	100	[NT]
Benzo(a)anthracene	mg/kg	0.1	Org-012	[NT]	55	62	51	19	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-012	[NT]	55	69	61	12	96	[NT]
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-012	[NT]	55	120	110	9	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-012	[NT]	55	45	42	7	110	[NT]
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-012	[NT]	55	22	23	4	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-012	[NT]	55	8.3	8.6	4	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-012	[NT]	55	25	26	4	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-012	[NT]	55	98	101	3	89	[NT]

Client Reference: Hydro Aluminium AS130515

QUALITY CONTROL: PAHs in Soil					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-8	[NT]
Date extracted	-			[NT]	67	08/03/2017	08/03/2017		08/03/2017	[NT]
Date analysed	-			[NT]	67	08/03/2017	08/03/2017		08/03/2017	[NT]
Naphthalene	mg/kg	0.1	Org-012	[NT]	67	1.3	<1	26	92	[NT]
Acenaphthylene	mg/kg	0.1	Org-012	[NT]	67	<1	<1	0	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-012	[NT]	67	1.8	2.1	15	[NT]	[NT]
Fluorene	mg/kg	0.1	Org-012	[NT]	67	1.1	1.3	17	99	[NT]
Phenanthrene	mg/kg	0.1	Org-012	[NT]	67	13	12	8	110	[NT]
Anthracene	mg/kg	0.1	Org-012	[NT]	67	3.6	3.7	3	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-012	[NT]	67	51	50	2	100	[NT]
Pyrene	mg/kg	0.1	Org-012	[NT]	67	49	48	2	100	[NT]
Benzo(a)anthracene	mg/kg	0.1	Org-012	[NT]	67	45	50	11	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-012	[NT]	67	49	40	20	98	[NT]
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-012	[NT]	67	100	93	7	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-012	[NT]	67	35	40	13	110	[NT]
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-012	[NT]	67	19	19	0	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-012	[NT]	67	7.3	6.3	15	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-012	[NT]	67	21	23	9	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-012	[NT]	67	93	106	13	90	[NT]

Client Reference: Hydro Aluminium AS130515

QUALITY CONTROL: Organochlorine Pesticides in soil				Duplicate				Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-10	162119-2
Date extracted	-			08/03/2017	1	08/03/2017	08/03/2017		08/03/2017	08/03/2017
Date analysed	-			16/03/2017	1	08/03/2017	08/03/2017		08/03/2017	08/03/2017
HCB	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
alpha-BHC	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	100	75
gamma-BHC	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	87	74
Heptachlor	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	100	83
delta-BHC	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	96	82
Heptachlor Epoxide	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	100	88
gamma-Chlordane	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	96	77
Dieldrin	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	110	100
Endrin	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	110	93
pp-DDD	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	93	85
Endosulfan II	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Endrin Aldehyde	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	110	88
Methoxychlor	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-005	97	1	125	110	13	106	90

Client Reference: Hydro Aluminium AS130515

QUALITY CONTROL: Organochlorine Pesticides in soil					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-11	162119-34
Date extracted	-			[NT]	33	08/03/2017	08/03/2017		08/03/2017	08/03/2017
Date analysed	-			[NT]	33	08/03/2017	08/03/2017		08/03/2017	08/03/2017
HCB	mg/kg	0.1	Org-005	[NT]	33	<0.1	<0.1	0	[NT]	[NT]
alpha-BHC	mg/kg	0.1	Org-005	[NT]	33	<0.1	<0.1	0	93	91
gamma-BHC	mg/kg	0.1	Org-005	[NT]	33	<0.1	<0.1	0	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-005	[NT]	33	<0.1	<0.1	0	92	67
Heptachlor	mg/kg	0.1	Org-005	[NT]	33	<0.1	<0.1	0	100	120
delta-BHC	mg/kg	0.1	Org-005	[NT]	33	<0.1	<0.1	0	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-005	[NT]	33	<0.1	<0.1	0	100	98
Heptachlor Epoxide	mg/kg	0.1	Org-005	[NT]	33	<0.1	<0.1	0	100	97
gamma-Chlordane	mg/kg	0.1	Org-005	[NT]	33	<0.1	<0.1	0	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-005	[NT]	33	<0.1	<0.1	0	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-005	[NT]	33	<0.1	<0.1	0	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-005	[NT]	33	<0.1	<0.1	0	100	84
Dieldrin	mg/kg	0.1	Org-005	[NT]	33	<0.1	<0.1	0	120	100
Endrin	mg/kg	0.1	Org-005	[NT]	33	<0.1	<0.1	0	110	99
pp-DDD	mg/kg	0.1	Org-005	[NT]	33	<0.1	<0.1	0	96	86
Endosulfan II	mg/kg	0.1	Org-005	[NT]	33	<0.1	<0.1	0	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-005	[NT]	33	<0.1	<0.1	0	[NT]	[NT]
Endrin Aldehyde	mg/kg	0.1	Org-005	[NT]	33	<0.1	<0.1	0	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-005	[NT]	33	<0.1	<0.1	0	110	87
Methoxychlor	mg/kg	0.1	Org-005	[NT]	33	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-005	[NT]	33	75	100	29	115	93

Client Reference: Hydro Aluminium AS130515

QUALITY CONTROL: Organochlorine Pesticides in soil					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-12	162119-56
Date extracted	-			[NT]	44	08/03/2017	08/03/2017		08/03/2017	08/03/2017
Date analysed	-			[NT]	44	08/03/2017	08/03/2017		08/03/2017	08/03/2017
HCB	mg/kg	0.1	Org-005	[NT]	44	<0.1	<0.1	0	[NT]	[NT]
alpha-BHC	mg/kg	0.1	Org-005	[NT]	44	<0.1	<0.1	0	92	91
gamma-BHC	mg/kg	0.1	Org-005	[NT]	44	<0.1	<0.1	0	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-005	[NT]	44	<0.1	<0.1	0	100	96
Heptachlor	mg/kg	0.1	Org-005	[NT]	44	<0.1	<0.1	0	110	100
delta-BHC	mg/kg	0.1	Org-005	[NT]	44	<0.1	<0.1	0	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-005	[NT]	44	<0.1	<0.1	0	110	100
Heptachlor Epoxide	mg/kg	0.1	Org-005	[NT]	44	<0.1	<0.1	0	120	110
gamma-Chlordane	mg/kg	0.1	Org-005	[NT]	44	<0.1	<0.1	0	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-005	[NT]	44	<0.1	<0.1	0	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-005	[NT]	44	<0.1	<0.1	0	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-005	[NT]	44	<0.1	<0.1	0	110	100
Dieldrin	mg/kg	0.1	Org-005	[NT]	44	<0.1	<0.1	0	130	120
Endrin	mg/kg	0.1	Org-005	[NT]	44	<0.1	<0.1	0	120	100
pp-DDD	mg/kg	0.1	Org-005	[NT]	44	<0.1	<0.1	0	100	92
Endosulfan II	mg/kg	0.1	Org-005	[NT]	44	<0.1	<0.1	0	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-005	[NT]	44	<0.1	<0.1	0	[NT]	[NT]
Endrin Aldehyde	mg/kg	0.1	Org-005	[NT]	44	<0.1	<0.1	0	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-005	[NT]	44	<0.1	<0.1	0	76	91
Methoxychlor	mg/kg	0.1	Org-005	[NT]	44	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-005	[NT]	44	117	96	20	124	117

Client Reference: Hydro Aluminium AS130515

QUALITY CONTROL: Organochlorine Pesticides in soil					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-7	[NT]
Date extracted	-			[NT]	55	08/03/2017	08/03/2017		08/03/2017	[NT]
Date analysed	-			[NT]	55	08/03/2017	08/03/2017		16/03/2017	[NT]
HCB	mg/kg	0.1	Org-005	[NT]	55	<0.1	<0.1	0	[NT]	[NT]
alpha-BHC	mg/kg	0.1	Org-005	[NT]	55	<0.1	<0.1	0	96	[NT]
gamma-BHC	mg/kg	0.1	Org-005	[NT]	55	<0.1	<0.1	0	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-005	[NT]	55	<0.1	<0.1	0	95	[NT]
Heptachlor	mg/kg	0.1	Org-005	[NT]	55	<0.1	<0.1	0	95	[NT]
delta-BHC	mg/kg	0.1	Org-005	[NT]	55	<0.1	<0.1	0	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-005	[NT]	55	<0.1	<0.1	0	95	[NT]
Heptachlor Epoxide	mg/kg	0.1	Org-005	[NT]	55	<0.1	<0.1	0	93	[NT]
gamma-Chlordane	mg/kg	0.1	Org-005	[NT]	55	<0.1	<0.1	0	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-005	[NT]	55	<0.1	<0.1	0	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-005	[NT]	55	<0.1	<0.1	0	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-005	[NT]	55	<0.1	<0.1	0	93	[NT]
Dieldrin	mg/kg	0.1	Org-005	[NT]	55	<0.1	<0.1	0	110	[NT]
Endrin	mg/kg	0.1	Org-005	[NT]	55	<0.1	<0.1	0	96	[NT]
pp-DDD	mg/kg	0.1	Org-005	[NT]	55	<0.1	<0.1	0	94	[NT]
Endosulfan II	mg/kg	0.1	Org-005	[NT]	55	<0.1	<0.1	0	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-005	[NT]	55	<0.1	<0.1	0	[NT]	[NT]
Endrin Aldehyde	mg/kg	0.1	Org-005	[NT]	55	<0.1	<0.1	0	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-005	[NT]	55	<0.1	<0.1	0	79	[NT]
Methoxychlor	mg/kg	0.1	Org-005	[NT]	55	<0.2	<0.2	0	[NT]	[NT]
Surrogate TCMX	%		Org-005	[NT]	55	90	100	11	97	[NT]



Client Reference: Hydro Aluminium AS130515

QUALITY CONTROL: Organochlorine Pesticides in soil					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-8	[NT]
Date extracted	-			[NT]	67	08/03/2017	08/03/2017		08/03/2017	[NT]
Date analysed	-			[NT]	67	08/03/2017	08/03/2017		16/03/2017	[NT]
HCB	mg/kg	0.1	Org-005	[NT]	67	<0.1	<0.1	0	[NT]	[NT]
alpha-BHC	mg/kg	0.1	Org-005	[NT]	67	<0.1	<0.1	0	98	[NT]
gamma-BHC	mg/kg	0.1	Org-005	[NT]	67	<0.1	<0.1	0	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-005	[NT]	67	<0.1	<0.1	0	100	[NT]
Heptachlor	mg/kg	0.1	Org-005	[NT]	67	<0.1	<0.1	0	110	[NT]
delta-BHC	mg/kg	0.1	Org-005	[NT]	67	<0.1	<0.1	0	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-005	[NT]	67	<0.1	<0.1	0	100	[NT]
Heptachlor Epoxide	mg/kg	0.1	Org-005	[NT]	67	<0.1	<0.1	0	100	[NT]
gamma-Chlordane	mg/kg	0.1	Org-005	[NT]	67	<0.1	<0.1	0	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-005	[NT]	67	<0.1	<0.1	0	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-005	[NT]	67	<0.1	<0.1	0	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-005	[NT]	67	<0.1	<0.1	0	100	[NT]
Dieldrin	mg/kg	0.1	Org-005	[NT]	67	<0.1	<0.1	0	120	[NT]
Endrin	mg/kg	0.1	Org-005	[NT]	67	<0.1	<0.1	0	100	[NT]
pp-DDD	mg/kg	0.1	Org-005	[NT]	67	<0.1	<0.1	0	94	[NT]
Endosulfan II	mg/kg	0.1	Org-005	[NT]	67	<0.1	<0.1	0	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-005	[NT]	67	<0.1	<0.1	0	[NT]	[NT]
Endrin Aldehyde	mg/kg	0.1	Org-005	[NT]	67	<0.1	<0.1	0	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-005	[NT]	67	<0.1	<0.1	0	100	[NT]
Methoxychlor	mg/kg	0.1	Org-005	[NT]	67	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-005	[NT]	67	99	105	6	99	[NT]

Client Reference: Hydro Aluminium AS130515

QUALITY CONTROL: Organophosphorus Pesticides				Duplicate				Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-10	162119-3
Date extracted	-			08/03/2017	1	08/03/2017	08/03/2017		08/03/2017	08/03/2017
Date analysed	-			16/03/2017	1	08/03/2017	08/03/2017		08/03/2017	08/03/2017
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Bromophos-ethyl	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Chlorpyrifos	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	84	82
Chlorpyrifos-methyl	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Dichlorvos	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	89	73
Dimethoate	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Ethion	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	100	100
Fenitrothion	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	97	92
Malathion	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	96	80
Parathion	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	100	100
Ronnel	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	91	98
Surrogate TCMX	%		Org-008	97	1	125	110	13	101	90

QUALITY CONTROL: Organophosphorus Pesticides				Duplicate				Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-11	162119-35
Date extracted	-			[NT]	33	08/03/2017	08/03/2017		08/03/2017	08/03/2017
Date analysed	-			[NT]	33	08/03/2017	08/03/2017		08/03/2017	08/03/2017
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-008	[NT]	33	<0.1	<0.1	0	[NT]	[NT]
Bromophos-ethyl	mg/kg	0.1	Org-008	[NT]	33	<0.1	<0.1	0	[NT]	[NT]
Chlorpyrifos	mg/kg	0.1	Org-008	[NT]	33	<0.1	<0.1	0	94	90
Chlorpyrifos-methyl	mg/kg	0.1	Org-008	[NT]	33	<0.1	<0.1	0	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-008	[NT]	33	<0.1	<0.1	0	[NT]	[NT]
Dichlorvos	mg/kg	0.1	Org-008	[NT]	33	<0.1	<0.1	0	87	100
Dimethoate	mg/kg	0.1	Org-008	[NT]	33	<0.1	<0.1	0	[NT]	[NT]
Ethion	mg/kg	0.1	Org-008	[NT]	33	<0.1	<0.1	0	110	100
Fenitrothion	mg/kg	0.1	Org-008	[NT]	33	<0.1	<0.1	0	110	97
Malathion	mg/kg	0.1	Org-008	[NT]	33	<0.1	<0.1	0	81	83
Parathion	mg/kg	0.1	Org-008	[NT]	33	<0.1	<0.1	0	96	100
Ronnel	mg/kg	0.1	Org-008	[NT]	33	<0.1	<0.1	0	100	110
Surrogate TCMX	%		Org-008	[NT]	33	75	100	29	127	106

Client Reference: Hydro Aluminium AS130515

QUALITY CONTROL: Organophosphorus Pesticides					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-12	162119-57
Date extracted	-			[NT]	44	08/03/2017	08/03/2017		08/03/2017	08/03/2017
Date analysed	-			[NT]	44	08/03/2017	08/03/2017		08/03/2017	08/03/2017
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-008	[NT]	44	<0.1	<0.1	0	[NT]	[NT]
Bromophos-ethyl	mg/kg	0.1	Org-008	[NT]	44	<0.1	<0.1	0	[NT]	[NT]
Chlorpyrifos	mg/kg	0.1	Org-008	[NT]	44	<0.1	<0.1	0	79	97
Chlorpyrifos-methyl	mg/kg	0.1	Org-008	[NT]	44	<0.1	<0.1	0	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-008	[NT]	44	<0.1	<0.1	0	[NT]	[NT]
Dichlorvos	mg/kg	0.1	Org-008	[NT]	44	<0.1	<0.1	0	81	73
Dimethoate	mg/kg	0.1	Org-008	[NT]	44	<0.1	<0.1	0	[NT]	[NT]
Ethion	mg/kg	0.1	Org-008	[NT]	44	<0.1	<0.1	0	100	110
Fenitrothion	mg/kg	0.1	Org-008	[NT]	44	<0.1	<0.1	0	82	100
Malathion	mg/kg	0.1	Org-008	[NT]	44	<0.1	<0.1	0	74	72
Parathion	mg/kg	0.1	Org-008	[NT]	44	<0.1	<0.1	0	100	100
Ronnel	mg/kg	0.1	Org-008	[NT]	44	<0.1	<0.1	0	78	110
Surrogate TCMX	%		Org-008	[NT]	44	117	96	20	119	103

QUALITY CONTROL: Organophosphorus Pesticides					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-7	[NT]
Date extracted	-			[NT]	55	08/03/2017	08/03/2017		08/03/2017	[NT]
Date analysed	-			[NT]	55	08/03/2017	08/03/2017		16/03/2017	[NT]
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-008	[NT]	55	<0.1	<0.1	0	[NT]	[NT]
Bromophos-ethyl	mg/kg	0.1	Org-008	[NT]	55	<0.1	<0.1	0	[NT]	[NT]
Chlorpyrifos	mg/kg	0.1	Org-008	[NT]	55	<0.1	<0.1	0	88	[NT]
Chlorpyrifos-methyl	mg/kg	0.1	Org-008	[NT]	55	<0.1	<0.1	0	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-008	[NT]	55	<0.1	<0.1	0	[NT]	[NT]
Dichlorvos	mg/kg	0.1	Org-008	[NT]	55	<2	<2	0	110	[NT]
Dimethoate	mg/kg	0.1	Org-008	[NT]	55	<0.1	<0.1	0	[NT]	[NT]
Ethion	mg/kg	0.1	Org-008	[NT]	55	<0.1	<0.1	0	100	[NT]
Fenitrothion	mg/kg	0.1	Org-008	[NT]	55	<0.1	<0.1	0	96	[NT]
Malathion	mg/kg	0.1	Org-008	[NT]	55	<0.1	<0.1	0	75	[NT]
Parathion	mg/kg	0.1	Org-008	[NT]	55	<0.1	<0.1	0	110	[NT]
Ronnel	mg/kg	0.1	Org-008	[NT]	55	<0.1	<0.1	0	82	[NT]
Surrogate TCMX	%		Org-008	[NT]	55	90	100	11	92	[NT]

Client Reference: Hydro Aluminium AS130515

QUALITY CONTROL: Organophosphorus Pesticides					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-8	[NT]
Date extracted	-			[NT]	67	08/03/2017	08/03/2017		08/03/2017	[NT]
Date analysed	-			[NT]	67	08/03/2017	08/03/2017		16/03/2017	[NT]
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-008	[NT]	67	<0.1	<0.1	0	[NT]	[NT]
Bromophos-ethyl	mg/kg	0.1	Org-008	[NT]	67	<0.1	<0.1	0	[NT]	[NT]
Chlorpyrifos	mg/kg	0.1	Org-008	[NT]	67	<0.1	<0.1	0	93	[NT]
Chlorpyrifos-methyl	mg/kg	0.1	Org-008	[NT]	67	<0.1	<0.1	0	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-008	[NT]	67	<0.2	<0.2	0	[NT]	[NT]
Dichlorvos	mg/kg	0.1	Org-008	[NT]	67	<1	<1	0	81	[NT]
Dimethoate	mg/kg	0.1	Org-008	[NT]	67	<0.1	<0.1	0	[NT]	[NT]
Ethion	mg/kg	0.1	Org-008	[NT]	67	<0.1	<0.1	0	89	[NT]
Fenitrothion	mg/kg	0.1	Org-008	[NT]	67	<0.1	<0.1	0	99	[NT]
Malathion	mg/kg	0.1	Org-008	[NT]	67	<0.1	<0.1	0	86	[NT]
Parathion	mg/kg	0.1	Org-008	[NT]	67	<0.1	<0.1	0	94	[NT]
Ronnel	mg/kg	0.1	Org-008	[NT]	67	<0.1	<0.1	0	100	[NT]
Surrogate TCMX	%		Org-008	[NT]	67	99	105	6	99	[NT]

Client Reference: Hydro Aluminium AS130515

QUALITY CONTROL: SVOCs in Soil				Duplicate				Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-10	162119-3
Date extracted	-			08/03/2017	1	08/03/2017	08/03/2017		08/03/2017	08/03/2017
Date analysed	-			09/03/2017	1	09/03/2017	09/03/2017		09/03/2017	09/03/2017
Phenol	mg/kg	0.5	Org-012	<0.5	1	<0.5	<0.5	0	62	65
Bis-(2-chloroethyl) ether	mg/kg	1	Org-012	<1	1	<1	<1	0	[NT]	[NT]
2-Chlorophenol	mg/kg	0.5	Org-012	<0.5	1	<0.5	<0.5	0	130	97
1,3-Dichlorobenzene	mg/kg	0.5	Org-012	<0.5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,4-Dichlorobenzene	mg/kg	0.5	Org-012	<0.5	[NT]	[NT]	[NT]	[NT]	68	80
2-Methylphenol	mg/kg	0.5	Org-012	<0.5	1	<0.5	<0.5	0	[NT]	[NT]
1,2-Dichlorobenzene	mg/kg	0.5	Org-012	<0.5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Bis (2-chloroisopropyl) ether	mg/kg	1	Org-012	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
3/4-Methylphenol	mg/kg	1	Org-012	<1	1	<1	<1	0	[NT]	[NT]
N-nitrosodi-n-propylamine	mg/kg	1	Org-012	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Hexachloroethane	mg/kg	0.5	Org-012	<0.5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Nitrobenzene	mg/kg	1	Org-012	<1	1	<1	<1	0	[NT]	[NT]
Isophorone	mg/kg	1	Org-012	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
2,4-Dimethylphenol	mg/kg	0.5	Org-012	<0.5	1	<0.5	<0.5	0	[NT]	[NT]
2-Nitrophenol	mg/kg	0.5	Org-012	<0.5	1	<0.5	<0.5	0	[NT]	[NT]
Bis(2-chloroethoxy )methane	mg/kg	1	Org-012	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
2,4-Dichlorophenol	mg/kg	0.5	Org-012	<0.5	1	<0.5	<0.5	0	[NT]	[NT]
1,2,4-Trichlorobenzene	mg/kg	0.5	Org-012	<0.5	1	<0.5	<0.5	0	[NT]	[NT]
Naphthalene	mg/kg	0.5	Org-012	<0.5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
4-Chloroaniline	mg/kg	1	Org-012	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Hexachlorobutadiene	mg/kg	0.5	Org-012	<0.5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
4-Chloro-3-methylphenol	mg/kg	5	Org-012	<5	1	<5	<5	0	[NT]	[NT]
2-Methylnaphthalene	mg/kg	0.5	Org-012	<0.5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Hexachlorocyclopentadiene	mg/kg	2	Org-012	<2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
2,4,6-trichlorophenol	mg/kg	0.5	Org-012	<0.5	1	<0.5	<0.5	0	[NT]	[NT]
2,4,5-trichlorophenol	mg/kg	0.5	Org-012	<0.5	1	<0.5	<0.5	0	[NT]	[NT]
2-Chloronaphthalene	mg/kg	0.5	Org-012	<0.5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
2-nitroaniline	mg/kg	1	Org-012	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Dimethylphthalate	mg/kg	1	Org-012	<1	1	<1	<1	0	78	78
2,6-Dinitrotoluene	mg/kg	1	Org-012	<1	1	<1	<1	0	[NT]	[NT]
Acenaphthylene	mg/kg	0.5	Org-012	<0.5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
3-Nitroaniline	mg/kg	1	Org-012	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Acenaphthene	mg/kg	0.5	Org-012	<0.5	[NT]	[NT]	[NT]	[NT]	83	140
2,4-dinitrophenol	mg/kg	10	Org-012	<10	1	<10	<10	0	[NT]	[NT]
4-nitrophenol	mg/kg	10	Org-012	<10	1	<10	<10	0	40	50
Dibenzofuran	mg/kg	1	Org-012	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
diethylphthalate	mg/kg	1	Org-012	<1	1	<1	<1	0	84	87
4-chlorophenylphenylether	mg/kg	1	Org-012	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
4-nitroaniline	mg/kg	1	Org-012	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]

Client Reference: Hydro Aluminium AS130515

QUALITY CONTROL: SVOCs in Soil					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-10	162119-3
Fluorene	mg/kg	0.5	Org-012	<0.5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
2-methyl-4,6-dinitrophenol	mg/kg	10	Org-012	<10	1	<10	<10	0	[NT]	[NT]
azobenzene	mg/kg	1	Org-012	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
4-bromophenylphenylether	mg/kg	1	Org-012	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
hexachlorobenzene	mg/kg	0.5	Org-012	<0.5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
pentachlorophenol	mg/kg	5	Org-012	<5	1	<5	<5	0	[NT]	[NT]
Phenanthrene	mg/kg	0.5	Org-012	<0.5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Anthracene	mg/kg	0.5	Org-012	<0.5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
carbazole	mg/kg	1	Org-012	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
di-n-butylphthalate	mg/kg	1	Org-012	<1	1	<1	<1	0	[NT]	[NT]
Fluoranthene	mg/kg	0.5	Org-012	<0.5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Pyrene	mg/kg	0.5	Org-012	<0.5	[NT]	[NT]	[NT]	[NT]	94	#
butylbenzylphthalate	mg/kg	1	Org-012	<1	1	<1	<1	0	[NT]	[NT]
bis(2-ethylhexyl)phthalate	mg/kg	1	Org-012	<1	1	3	3	0	[NT]	[NT]
Benzo(a)anthracene	mg/kg	0.5	Org-012	<0.5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Chrysene	mg/kg	0.5	Org-012	<0.5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
di-n-octylphthalate	mg/kg	1	Org-012	<1	1	<1	<1	0	[NT]	[NT]
Benzo(b+j+k)fluoranthene	mg/kg	1	Org-012	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.5	Org-012	<0.5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Indeno(1,2,3-c,d)pyrene	mg/kg	0.5	Org-012	<0.5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.5	Org-012	<0.5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.5	Org-012	<0.5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
ethylmethanesulfonate	mg/kg	1	Org-012	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
aniline	mg/kg	1	Org-012	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
pentachloroethane	mg/kg	0.5	Org-012	<0.5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
benzyl alcohol	mg/kg	1	Org-012	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
acetophenone	mg/kg	1	Org-012	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
N-nitrosomorpholine	mg/kg	1	Org-012	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
N-nitrosopiperidine	mg/kg	1	Org-012	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
2,6-dichlorophenol	mg/kg	0.5	Org-012	<0.5	1	<0.5	<0.5	0	[NT]	[NT]
hexachloropropene-1	mg/kg	0.5	Org-012	<0.5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
N-nitroso-n-butylamine	mg/kg	1	Org-012	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
safrole	mg/kg	1	Org-012	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,2,4,5-tetrachlorobenzene	mg/kg	0.5	Org-012	<0.5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
cis and trans iso-safrole	mg/kg	1	Org-012	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,3-dinitrobenzene	mg/kg	1	Org-012	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
pentachlorobenzene	mg/kg	0.5	Org-012	<0.5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1-naphthylamine	mg/kg	1	Org-012	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
2,3,4,6-tetrachlorophenol	mg/kg	0.5	Org-012	<0.5	1	<0.5	<0.5	0	[NT]	[NT]
2-naphthylamine	mg/kg	1	Org-012	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
5-nitro-o-toluidine	mg/kg	1	Org-012	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]

Client Reference: Hydro Aluminium AS130515

QUALITY CONTROL: SVOCs in Soil					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-10	162119-3
diphenylamine	mg/kg	1	Org-012	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
phenacetin	mg/kg	1	Org-012	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
pentachloronitrobenzene	mg/kg	1	Org-012	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
dinoseb	mg/kg	1	Org-012	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
methapyrilene	mg/kg	1	Org-012	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
p-dimethylaminoazobenzene	mg/kg	1	Org-012	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
2-acetylaminofluorene	mg/kg	0.5	Org-012	<0.5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
7,12-dimethylbenz(a)anthracene	mg/kg	0.5	Org-012	<0.5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
3-methylcholanthrene	mg/kg	0.5	Org-012	<0.5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
a-BHC	mg/kg	0.5	Org-012	<0.5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
b-BHC	mg/kg	0.5	Org-012	<0.5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
g-BHC	mg/kg	0.5	Org-012	<0.5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
d-BHC	mg/kg	0.5	Org-012	<0.5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Heptachlor	mg/kg	0.5	Org-012	<0.5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aldrin	mg/kg	0.5	Org-012	<0.5	[NT]	[NT]	[NT]	[NT]	78	83
Heptachlor Epoxide	mg/kg	0.5	Org-012	<0.5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
g-Chlordane	mg/kg	0.5	Org-012	<0.5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
a-Chlordane	mg/kg	0.5	Org-012	<0.5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Endosulfan I	mg/kg	0.5	Org-012	<0.5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
p,p'-DDE	mg/kg	0.5	Org-012	<0.5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Dieldrin	mg/kg	0.5	Org-012	<0.5	[NT]	[NT]	[NT]	[NT]	83	83
Endrin	mg/kg	0.5	Org-012	<0.5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
p,p'-DDD	mg/kg	0.5	Org-012	<0.5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Endosulfan II	mg/kg	0.5	Org-012	<0.5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Endrin Aldehyde	mg/kg	0.5	Org-012	<0.5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
p,p'-DDT	mg/kg	0.5	Org-012	<0.5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Endrin Ketone	mg/kg	0.5	Org-012	<0.5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.5	Org-012	<0.5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Methoxychlor	mg/kg	1	Org-012	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate Phenol-d <sub>6</sub>	%		Org-012	89	1	74	74	0	78	118
Surrogate Nitrobenzene-d <sub>5</sub>	%		Org-012	84	1	56	80	35	91	98
Surrogate 2-fluorobiphenyl	%		Org-012	79	1	83	92	10	80	87
Surrogate 2,4,6-Tribromophenol	%		Org-012	70	1	94	107	13	85	#
Surrogate p-Terphenyl-d <sub>14</sub>	%		Org-012	105	1	97	100	3	105	92

Client Reference: Hydro Aluminium AS130515

QUALITY CONTROL: SVOCs in Soil					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-11	162119-35
Date extracted	-			[NT]	33	08/03/2017	08/03/2017		08/03/2017	08/03/2017
Date analysed	-			[NT]	33	09/03/2017	09/03/2017		09/03/2017	09/03/2017
Phenol	mg/kg	0.5	Org-012	[NT]	33	<5	<5	0	81	93
2-Chlorophenol	mg/kg	0.5	Org-012	[NT]	33	<5	<5	0	110	140
1,4-Dichlorobenzene	mg/kg	0.5	Org-012	[NT]	[NT]	[NT]	[NT]	[NT]	110	130
2-Methylphenol	mg/kg	0.5	Org-012	[NT]	33	<5	<5	0	[NT]	[NT]
3/4-Methylphenol	mg/kg	1	Org-012	[NT]	33	<10	<10	0	[NT]	[NT]
Nitrobenzene	mg/kg	1	Org-012	[NT]	33	<10	<10	0	[NT]	[NT]
2,4-Dimethylphenol	mg/kg	0.5	Org-012	[NT]	33	<5	<5	0	[NT]	[NT]
2-Nitrophenol	mg/kg	0.5	Org-012	[NT]	33	<5	<5	0	[NT]	[NT]
2,4-Dichlorophenol	mg/kg	0.5	Org-012	[NT]	33	<5	<5	0	[NT]	[NT]
4-Chloro-3-methylphenol	mg/kg	5	Org-012	[NT]	33	<50	<50	0	[NT]	[NT]
2,4,6-trichlorophenol	mg/kg	0.5	Org-012	[NT]	33	<5	<5	0	[NT]	[NT]
2,4,5-trichlorophenol	mg/kg	0.5	Org-012	[NT]	33	<5	<5	0	[NT]	[NT]
Dimethylphthalate	mg/kg	1	Org-012	[NT]	33	<10	<10	0	63	130
Acenaphthene	mg/kg	0.5	Org-012	[NT]	[NT]	[NT]	[NT]	[NT]	87	#
2,4-dinitrophenol	mg/kg	10	Org-012	[NT]	33	<100	<100	0	[NT]	[NT]
4-nitrophenol	mg/kg	10	Org-012	[NT]	33	<100	<100	0	60	140
diethylphthalate	mg/kg	1	Org-012	[NT]	33	<10	<10	0	130	#
2-methyl-4,6-dinitrophenol	mg/kg	10	Org-012	[NT]	33	<100	<100	0	[NT]	[NT]
pentachlorophenol	mg/kg	5	Org-012	[NT]	33	<50	<50	0	[NT]	[NT]
di-n-butylphthalate	mg/kg	1	Org-012	[NT]	33	<10	<10	0	[NT]	[NT]
Pyrene	mg/kg	0.5	Org-012	[NT]	[NT]	[NT]	[NT]	[NT]	120	#
butylbenzylphthalate	mg/kg	1	Org-012	[NT]	33	<10	<10	0	[NT]	[NT]
di-n-octylphthalate	mg/kg	1	Org-012	[NT]	33	<10	<10	0	[NT]	[NT]
2,6-dichlorophenol	mg/kg	0.5	Org-012	[NT]	33	<5	<5	0	[NT]	[NT]
2,3,4,6-tetrachlorophenol	mg/kg	0.5	Org-012	[NT]	33	<5	<5	0	[NT]	[NT]
Aldrin	mg/kg	0.5	Org-012	[NT]	[NT]	[NT]	[NT]	[NT]	57	#
Dieldrin	mg/kg	0.5	Org-012	[NT]	[NT]	[NT]	[NT]	[NT]	60	140
Surrogate Phenol-d <sub>6</sub>	%		Org-012	[NT]	33	#	#		126	40
Surrogate Nitrobenzene-d <sub>5</sub>	%		Org-012	[NT]	33	50	60	18	121	60
Surrogate 2-fluorobiphenyl	%		Org-012	[NT]	33	70	80	13	68	70
Surrogate 2,4,6-Tribromophenol	%		Org-012	[NT]	33	#	#		89	#
Surrogate p-Terphenyl-d <sub>14</sub>	%		Org-012	[NT]	33	94	106	12	92	102



Client Reference: Hydro Aluminium AS130515

QUALITY CONTROL: SVOCs in Soil						Duplicate		Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-12	162119-57
Date extracted	-			[NT]	44	08/03/2017	08/03/2017		08/03/2017	08/03/2017
Date analysed	-			[NT]	44	09/03/2017	09/03/2017		09/03/2017	09/03/2017
Phenol	mg/kg	0.5	Org-012	[NT]	44	<5	<5	0	43	53
2-Chlorophenol	mg/kg	0.5	Org-012	[NT]	44	<5	<5	0	83	80
1,4-Dichlorobenzene	mg/kg	0.5	Org-012	[NT]	[NT]	[NT]	[NT]	[NT]	70	67
2-Methylphenol	mg/kg	0.5	Org-012	[NT]	44	<5	<5	0	[NT]	[NT]
3/4-Methylphenol	mg/kg	1	Org-012	[NT]	44	<10	<10	0	[NT]	[NT]
Nitrobenzene	mg/kg	1	Org-012	[NT]	44	<10	<10	0	[NT]	[NT]
2,4-Dimethylphenol	mg/kg	0.5	Org-012	[NT]	44	<5	<5	0	[NT]	[NT]
2-Nitrophenol	mg/kg	0.5	Org-012	[NT]	44	<5	<5	0	[NT]	[NT]
2,4-Dichlorophenol	mg/kg	0.5	Org-012	[NT]	44	<5	<5	0	[NT]	[NT]
4-Chloro-3-methylphenol	mg/kg	5	Org-012	[NT]	44	<50	<50	0	[NT]	[NT]
2,4,6-trichlorophenol	mg/kg	0.5	Org-012	[NT]	44	<5	<5	0	[NT]	[NT]
2,4,5-trichlorophenol	mg/kg	0.5	Org-012	[NT]	44	<5	<5	0	[NT]	[NT]
Dimethylphthalate	mg/kg	1	Org-012	[NT]	44	<10	<10	0	57	40
Acenaphthene	mg/kg	0.5	Org-012	[NT]	[NT]	[NT]	[NT]	[NT]	87	#
2,4-dinitrophenol	mg/kg	10	Org-012	[NT]	44	<100	<100	0	[NT]	[NT]
4-nitrophenol	mg/kg	10	Org-012	[NT]	44	<100	<100	0	40	100
diethylphthalate	mg/kg	1	Org-012	[NT]	44	<10	<10	0	110	80
2-methyl-4,6-dinitrophenol	mg/kg	10	Org-012	[NT]	44	<100	<100	0	[NT]	[NT]
pentachlorophenol	mg/kg	5	Org-012	[NT]	44	<50	<50	0	[NT]	[NT]
di-n-butylphthalate	mg/kg	1	Org-012	[NT]	44	<10	<10	0	[NT]	[NT]
Pyrene	mg/kg	0.5	Org-012	[NT]	[NT]	[NT]	[NT]	[NT]	110	#
butylbenzylphthalate	mg/kg	1	Org-012	[NT]	44	<10	<10	0	[NT]	[NT]
di-n-octylphthalate	mg/kg	1	Org-012	[NT]	44	<10	<10	0	[NT]	[NT]
2,6-dichlorophenol	mg/kg	0.5	Org-012	[NT]	44	<5	<5	0	[NT]	[NT]
2,3,4,6-tetrachlorophenol	mg/kg	0.5	Org-012	[NT]	44	<5	<5	0	[NT]	[NT]
Aldrin	mg/kg	0.5	Org-012	[NT]	[NT]	[NT]	[NT]	[NT]	57	87
Dieldrin	mg/kg	0.5	Org-012	[NT]	[NT]	[NT]	[NT]	[NT]	57	120
Surrogate Phenol-d <sub>6</sub>	%		Org-012	[NT]	44	80	90	12	75	90
Surrogate Nitrobenzene-d <sub>5</sub>	%		Org-012	[NT]	44	50	70	33	78	50
Surrogate 2-fluorobiphenyl	%		Org-012	[NT]	44	80	80	0	63	70
Surrogate 2,4,6-Tribromophenol	%		Org-012	[NT]	44	#	#		66	#
Surrogate p-Terphenyl-d <sub>14</sub>	%		Org-012	[NT]	44	120	112	7	96	106

Client Reference: Hydro Aluminium AS130515

QUALITY CONTROL: SVOCs in Soil					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-7	[NT]
Date extracted	-			[NT]	55	08/03/2017	08/03/2017		15/03/2017	[NT]
Date analysed	-			[NT]	55	09/03/2017	09/03/2017		16/03/2017	[NT]
Phenol	mg/kg	0.5	Org-012	[NT]	55	<5	<5	0	45	[NT]
2-Chlorophenol	mg/kg	0.5	Org-012	[NT]	55	<5	<5	0	83	[NT]
2-Methylphenol	mg/kg	0.5	Org-012	[NT]	55	<5	<5	0	[NT]	[NT]
3/4-Methylphenol	mg/kg	1	Org-012	[NT]	55	<10	<10	0	[NT]	[NT]
Nitrobenzene	mg/kg	1	Org-012	[NT]	55	<10	<10	0	[NT]	[NT]
2,4-Dimethylphenol	mg/kg	0.5	Org-012	[NT]	55	<5	<5	0	[NT]	[NT]
2-Nitrophenol	mg/kg	0.5	Org-012	[NT]	55	<5	<5	0	[NT]	[NT]
2,4-Dichlorophenol	mg/kg	0.5	Org-012	[NT]	55	<5	<5	0	[NT]	[NT]
4-Chloro-3-methylphenol	mg/kg	5	Org-012	[NT]	55	<50	<50	0	[NT]	[NT]
2,4,6-trichlorophenol	mg/kg	0.5	Org-012	[NT]	55	<5	<5	0	[NT]	[NT]
2,4,5-trichlorophenol	mg/kg	0.5	Org-012	[NT]	55	<5	<5	0	[NT]	[NT]
Dimethylphthalate	mg/kg	1	Org-012	[NT]	55	<10	<10	0	83	[NT]
2,4-dinitrophenol	mg/kg	10	Org-012	[NT]	55	<100	<100	0	[NT]	[NT]
4-nitrophenol	mg/kg	10	Org-012	[NT]	55	<100	<100	0	30	[NT]
diethylphthalate	mg/kg	1	Org-012	[NT]	55	<10	<10	0	85	[NT]
2-methyl-4,6-dinitrophenol	mg/kg	10	Org-012	[NT]	55	<100	<100	0	[NT]	[NT]
pentachlorophenol	mg/kg	5	Org-012	[NT]	55	<50	<50	0	[NT]	[NT]
di-n-butylphthalate	mg/kg	1	Org-012	[NT]	55	<10	<10	0	[NT]	[NT]
butylbenzylphthalate	mg/kg	1	Org-012	[NT]	55	<10	<10	0	[NT]	[NT]
di-n-octylphthalate	mg/kg	1	Org-012	[NT]	55	<10	<10	0	[NT]	[NT]
2,6-dichlorophenol	mg/kg	0.5	Org-012	[NT]	55	<5	<5	0	[NT]	[NT]
2,3,4,6-tetrachlorophenol	mg/kg	0.5	Org-012	[NT]	55	<5	<5	0	[NT]	[NT]
Surrogate Phenol-d <sub>6</sub>	%		Org-012	[NT]	55	70	80	13	77	[NT]
Surrogate Nitrobenzene-d <sub>5</sub>	%		Org-012	[NT]	55	60	50	18	56	[NT]
Surrogate 2-fluorobiphenyl	%		Org-012	[NT]	55	70	70	0	90	[NT]
Surrogate 2,4,6-Tribromophenol	%		Org-012	[NT]	55	#	#		40	[NT]
Surrogate p-Terphenyl-d <sub>14</sub>	%		Org-012	[NT]	55	112	112	0	113	[NT]
1,4-Dichlorobenzene	mg/kg	0.5	Org-012	[NT]	[NT]	[NT]	[NT]	[NT]	87	[NT]
Acenaphthene	mg/kg	0.5	Org-012	[NT]	[NT]	[NT]	[NT]	[NT]	87	[NT]
Pyrene	mg/kg	0.5	Org-012	[NT]	[NT]	[NT]	[NT]	[NT]	96	[NT]
Aldrin	mg/kg	0.5	Org-012	[NT]	[NT]	[NT]	[NT]	[NT]	83	[NT]
Dieldrin	mg/kg	0.5	Org-012	[NT]	[NT]	[NT]	[NT]	[NT]	90	[NT]

Client Reference: Hydro Aluminium AS130515

QUALITY CONTROL: SVOCs in Soil					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-8	[NT]
Date extracted	-			[NT]	67	08/03/2017	08/03/2017		15/03/2017	[NT]
Date analysed	-			[NT]	67	09/03/2017	09/03/2017		16/03/2017	[NT]
Phenol	mg/kg	0.5	Org-012	[NT]	67	<5	<5	0	47	[NT]
2-Chlorophenol	mg/kg	0.5	Org-012	[NT]	67	<5	<5	0	87	[NT]
2-Methylphenol	mg/kg	0.5	Org-012	[NT]	67	<5	<5	0	[NT]	[NT]
3/4-Methylphenol	mg/kg	1	Org-012	[NT]	67	<10	<10	0	[NT]	[NT]
Nitrobenzene	mg/kg	1	Org-012	[NT]	67	<10	<10	0	[NT]	[NT]
2,4-Dimethylphenol	mg/kg	0.5	Org-012	[NT]	67	<5	<5	0	[NT]	[NT]
2-Nitrophenol	mg/kg	0.5	Org-012	[NT]	67	<5	<5	0	[NT]	[NT]
2,4-Dichlorophenol	mg/kg	0.5	Org-012	[NT]	67	<5	<5	0	[NT]	[NT]
4-Chloro-3-methylphenol	mg/kg	5	Org-012	[NT]	67	<50	<50	0	[NT]	[NT]
2,4,6-trichlorophenol	mg/kg	0.5	Org-012	[NT]	67	<5	<5	0	[NT]	[NT]
2,4,5-trichlorophenol	mg/kg	0.5	Org-012	[NT]	67	<5	<5	0	[NT]	[NT]
Dimethylphthalate	mg/kg	1	Org-012	[NT]	67	<10	<10	0	77	[NT]
2,4-dinitrophenol	mg/kg	10	Org-012	[NT]	67	<100	<100	0	[NT]	[NT]
4-nitrophenol	mg/kg	10	Org-012	[NT]	67	<100	<100	0	60	[NT]
diethylphthalate	mg/kg	1	Org-012	[NT]	67	<10	<10	0	86	[NT]
2-methyl-4,6-dinitrophenol	mg/kg	10	Org-012	[NT]	67	<100	<100	0	[NT]	[NT]
pentachlorophenol	mg/kg	5	Org-012	[NT]	67	<50	<50	0	[NT]	[NT]
di-n-butylphthalate	mg/kg	1	Org-012	[NT]	67	<10	<10	0	[NT]	[NT]
butylbenzylphthalate	mg/kg	1	Org-012	[NT]	67	<10	<10	0	[NT]	[NT]
di-n-octylphthalate	mg/kg	1	Org-012	[NT]	67	<10	<10	0	[NT]	[NT]
2,6-dichlorophenol	mg/kg	0.5	Org-012	[NT]	67	<5	<5	0	[NT]	[NT]
2,3,4,6-tetrachlorophenol	mg/kg	0.5	Org-012	[NT]	67	<5	<5	0	[NT]	[NT]
Surrogate Phenol-d <sub>6</sub>	%		Org-012	[NT]	67	80	70	13	97	[NT]
Surrogate Nitrobenzene-d <sub>5</sub>	%		Org-012	[NT]	67	50	60	18	57	[NT]
Surrogate 2-fluorobiphenyl	%		Org-012	[NT]	67	70	70	0	86	[NT]
Surrogate 2,4,6-Tribromophenol	%		Org-012	[NT]	67	#	#		96	[NT]
Surrogate p-Terphenyl-d <sub>14</sub>	%		Org-012	[NT]	67	106	100	6	108	[NT]
1,4-Dichlorobenzene	mg/kg	0.5	Org-012	[NT]	[NT]	[NT]	[NT]	[NT]	90	[NT]
Acenaphthene	mg/kg	0.5	Org-012	[NT]	[NT]	[NT]	[NT]	[NT]	90	[NT]
Pyrene	mg/kg	0.5	Org-012	[NT]	[NT]	[NT]	[NT]	[NT]	97	[NT]
Aldrin	mg/kg	0.5	Org-012	[NT]	[NT]	[NT]	[NT]	[NT]	83	[NT]
Dieldrin	mg/kg	0.5	Org-012	[NT]	[NT]	[NT]	[NT]	[NT]	67	[NT]

Client Reference: Hydro Aluminium AS130515

QUALITY CONTROL: VOCs in soil				Duplicate				Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-10	162119-2
Date extracted	-			15/03/2017	1	10/03/2017	10/03/2017		10/03/2017	10/03/2017
Date analysed	-			17/03/2017	1	13/03/2017	13/03/2017		13/03/2017	13/03/2017
Dichlorodifluoromethane	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
Chloromethane	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
Vinyl Chloride	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
Bromomethane	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
Chloroethane	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
Trichlorofluoromethane	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
1,1-Dichloroethene	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
trans-1,2-dichloroethene	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
1,1-dichloroethane	mg/kg	1	Org-014	<1	1	<1	<1	0	100	100
cis-1,2-dichloroethene	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
bromochloromethane	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
chloroform	mg/kg	1	Org-014	<1	1	<1	<1	0	100	97
2,2-dichloropropane	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
1,2-dichloroethane	mg/kg	1	Org-014	<1	1	<1	<1	0	99	96
1,1,1-trichloroethane	mg/kg	1	Org-014	<1	1	<1	<1	0	93	98
1,1-dichloropropene	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
Cyclohexane	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
carbon tetrachloride	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
Benzene	mg/kg	0.2	Org-014	<0.2	1	<0.2	<0.2	0	[NT]	[NT]
dibromomethane	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
1,2-dichloropropane	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
trichloroethene	mg/kg	1	Org-014	<1	1	<1	<1	0	100	99
bromodichloromethane	mg/kg	1	Org-014	<1	1	<1	<1	0	99	96
trans-1,3-dichloropropene	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
cis-1,3-dichloropropene	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
1,1,2-trichloroethane	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
Toluene	mg/kg	0.5	Org-014	<0.5	1	<0.5	<0.5	0	[NT]	[NT]
1,3-dichloropropane	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
dibromochloromethane	mg/kg	1	Org-014	<1	1	<1	<1	0	99	94
1,2-dibromoethane	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
tetrachloroethene	mg/kg	1	Org-014	<1	1	<1	<1	0	100	100
1,1,1,2-tetrachloroethane	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
chlorobenzene	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
Ethylbenzene	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
bromoform	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
m+p-xylene	mg/kg	2	Org-014	<2	1	<2	<2	0	[NT]	[NT]
styrene	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
1,1,2,2-tetrachloroethane	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
o-Xylene	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]

Client Reference: Hydro Aluminium AS130515

QUALITY CONTROL: VOCs in soil						Duplicate		Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-10	162119-2
1,2,3-trichloropropane	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
isopropylbenzene	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
bromobenzene	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
n-propyl benzene	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
2-chlorotoluene	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
4-chlorotoluene	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
1,3,5-trimethyl benzene	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
tert-butyl benzene	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
1,2,4-trimethyl benzene	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
1,3-dichlorobenzene	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
sec-butyl benzene	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
1,4-dichlorobenzene	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
4-isopropyl toluene	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
1,2-dichlorobenzene	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
n-butyl benzene	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
1,2-dibromo-3-chloropropane	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
1,2,4-trichlorobenzene	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
hexachlorobutadiene	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
1,2,3-trichlorobenzene	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
Surrogate Dibromofluorometha	%		Org-014	101	1	102	103	1	101	101
Surrogate aaa-Trifluorotoluene	%		Org-014	93	1	88	92	4	83	84
Surrogate Toluene-d <sub>8</sub>	%		Org-014	98	1	100	99	1	99	100
Surrogate 4-Bromofluorobenzene	%		Org-014	99	1	99	97	2	101	100

Client Reference: Hydro Aluminium AS130515

QUALITY CONTROL: VOCs in soil					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-11	162119-34
Date extracted	-			[NT]	33	10/03/2017	10/03/2017		10/03/2017	10/03/2017
Date analysed	-			[NT]	33	13/03/2017	13/03/2017		13/03/2017	13/03/2017
Dichlorodifluoromethane	mg/kg	1	Org-014	[NT]	33	<1	<1	0	[NT]	[NT]
Chloromethane	mg/kg	1	Org-014	[NT]	33	<1	<1	0	[NT]	[NT]
Vinyl Chloride	mg/kg	1	Org-014	[NT]	33	<1	<1	0	[NT]	[NT]
Bromomethane	mg/kg	1	Org-014	[NT]	33	<1	<1	0	[NT]	[NT]
Chloroethane	mg/kg	1	Org-014	[NT]	33	<1	<1	0	[NT]	[NT]
Trichlorofluoromethane	mg/kg	1	Org-014	[NT]	33	<1	<1	0	[NT]	[NT]
1,1-Dichloroethene	mg/kg	1	Org-014	[NT]	33	<1	<1	0	[NT]	[NT]
trans-1,2-dichloroethene	mg/kg	1	Org-014	[NT]	33	<1	<1	0	[NT]	[NT]
1,1-dichloroethane	mg/kg	1	Org-014	[NT]	33	<1	<1	0	100	98
cis-1,2-dichloroethene	mg/kg	1	Org-014	[NT]	33	<1	<1	0	[NT]	[NT]
bromochloromethane	mg/kg	1	Org-014	[NT]	33	<1	<1	0	[NT]	[NT]
chloroform	mg/kg	1	Org-014	[NT]	33	<1	<1	0	100	92
2,2-dichloropropane	mg/kg	1	Org-014	[NT]	33	<1	<1	0	[NT]	[NT]
1,2-dichloroethane	mg/kg	1	Org-014	[NT]	33	<1	<1	0	99	93
1,1,1-trichloroethane	mg/kg	1	Org-014	[NT]	33	<1	<1	0	93	94
1,1-dichloropropene	mg/kg	1	Org-014	[NT]	33	<1	<1	0	[NT]	[NT]
Cyclohexane	mg/kg	1	Org-014	[NT]	33	<1	<1	0	[NT]	[NT]
carbon tetrachloride	mg/kg	1	Org-014	[NT]	33	<1	<1	0	[NT]	[NT]
Benzene	mg/kg	0.2	Org-014	[NT]	33	<0.2	<0.2	0	[NT]	[NT]
dibromomethane	mg/kg	1	Org-014	[NT]	33	<1	<1	0	[NT]	[NT]
1,2-dichloropropane	mg/kg	1	Org-014	[NT]	33	<1	<1	0	[NT]	[NT]
trichloroethene	mg/kg	1	Org-014	[NT]	33	<1	<1	0	100	95
bromodichloromethane	mg/kg	1	Org-014	[NT]	33	<1	<1	0	99	93
trans-1,3-dichloropropene	mg/kg	1	Org-014	[NT]	33	<1	<1	0	[NT]	[NT]
cis-1,3-dichloropropene	mg/kg	1	Org-014	[NT]	33	<1	<1	0	[NT]	[NT]
1,1,2-trichloroethane	mg/kg	1	Org-014	[NT]	33	<1	<1	0	[NT]	[NT]
Toluene	mg/kg	0.5	Org-014	[NT]	33	<0.5	<0.5	0	[NT]	[NT]
1,3-dichloropropane	mg/kg	1	Org-014	[NT]	33	<1	<1	0	[NT]	[NT]
dibromochloromethane	mg/kg	1	Org-014	[NT]	33	<1	<1	0	99	91
1,2-dibromoethane	mg/kg	1	Org-014	[NT]	33	<1	<1	0	[NT]	[NT]
tetrachloroethene	mg/kg	1	Org-014	[NT]	33	<1	<1	0	100	93
1,1,1,2-tetrachloroethane	mg/kg	1	Org-014	[NT]	33	<1	<1	0	[NT]	[NT]
chlorobenzene	mg/kg	1	Org-014	[NT]	33	<1	<1	0	[NT]	[NT]
Ethylbenzene	mg/kg	1	Org-014	[NT]	33	<1	<1	0	[NT]	[NT]
bromoform	mg/kg	1	Org-014	[NT]	33	<1	<1	0	[NT]	[NT]
m+p-xylene	mg/kg	2	Org-014	[NT]	33	<2	<2	0	[NT]	[NT]
styrene	mg/kg	1	Org-014	[NT]	33	<1	<1	0	[NT]	[NT]
1,1,2,2-tetrachloroethane	mg/kg	1	Org-014	[NT]	33	<1	<1	0	[NT]	[NT]
o-Xylene	mg/kg	1	Org-014	[NT]	33	<1	<1	0	[NT]	[NT]

Client Reference: Hydro Aluminium AS130515

QUALITY CONTROL: VOCs in soil						Duplicate		Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-11	162119-34
1,2,3-trichloropropane	mg/kg	1	Org-014	[NT]	33	<1	<1	0	[NT]	[NT]
isopropylbenzene	mg/kg	1	Org-014	[NT]	33	<1	<1	0	[NT]	[NT]
bromobenzene	mg/kg	1	Org-014	[NT]	33	<1	<1	0	[NT]	[NT]
n-propyl benzene	mg/kg	1	Org-014	[NT]	33	<1	<1	0	[NT]	[NT]
2-chlorotoluene	mg/kg	1	Org-014	[NT]	33	<1	<1	0	[NT]	[NT]
4-chlorotoluene	mg/kg	1	Org-014	[NT]	33	<1	<1	0	[NT]	[NT]
1,3,5-trimethyl benzene	mg/kg	1	Org-014	[NT]	33	<1	<1	0	[NT]	[NT]
tert-butyl benzene	mg/kg	1	Org-014	[NT]	33	<1	<1	0	[NT]	[NT]
1,2,4-trimethyl benzene	mg/kg	1	Org-014	[NT]	33	<1	<1	0	[NT]	[NT]
1,3-dichlorobenzene	mg/kg	1	Org-014	[NT]	33	<1	<1	0	[NT]	[NT]
sec-butyl benzene	mg/kg	1	Org-014	[NT]	33	<1	<1	0	[NT]	[NT]
1,4-dichlorobenzene	mg/kg	1	Org-014	[NT]	33	<1	<1	0	[NT]	[NT]
4-isopropyl toluene	mg/kg	1	Org-014	[NT]	33	<1	<1	0	[NT]	[NT]
1,2-dichlorobenzene	mg/kg	1	Org-014	[NT]	33	<1	<1	0	[NT]	[NT]
n-butyl benzene	mg/kg	1	Org-014	[NT]	33	<1	<1	0	[NT]	[NT]
1,2-dibromo-3-chloropropane	mg/kg	1	Org-014	[NT]	33	<1	<1	0	[NT]	[NT]
1,2,4-trichlorobenzene	mg/kg	1	Org-014	[NT]	33	<1	<1	0	[NT]	[NT]
hexachlorobutadiene	mg/kg	1	Org-014	[NT]	33	<1	<1	0	[NT]	[NT]
1,2,3-trichlorobenzene	mg/kg	1	Org-014	[NT]	33	<1	<1	0	[NT]	[NT]
<i>Surrogate</i> Dibromofluorometha	%		Org-014	[NT]	33	102	106	4	101	103
<i>Surrogate</i> aaa-Trifluorotoluene	%		Org-014	[NT]	33	76	87	13	83	79
<i>Surrogate</i> Toluene-d <sub>8</sub>	%		Org-014	[NT]	33	98	99	1	99	97
<i>Surrogate</i> 4-Bromofluorobenzene	%		Org-014	[NT]	33	98	98	0	101	101

Client Reference: Hydro Aluminium AS130515

QUALITY CONTROL: VOCs in soil					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-12	162119-56
Date extracted	-			[NT]	44	10/03/2017	10/03/2017		10/03/2017	10/03/2017
Date analysed	-			[NT]	44	13/03/2017	13/03/2017		13/03/2017	13/03/2017
Dichlorodifluoromethane	mg/kg	1	Org-014	[NT]	44	<1	<1	0	[NT]	[NT]
Chloromethane	mg/kg	1	Org-014	[NT]	44	<1	<1	0	[NT]	[NT]
Vinyl Chloride	mg/kg	1	Org-014	[NT]	44	<1	<1	0	[NT]	[NT]
Bromomethane	mg/kg	1	Org-014	[NT]	44	<1	<1	0	[NT]	[NT]
Chloroethane	mg/kg	1	Org-014	[NT]	44	<1	<1	0	[NT]	[NT]
Trichlorofluoromethane	mg/kg	1	Org-014	[NT]	44	<1	<1	0	[NT]	[NT]
1,1-Dichloroethene	mg/kg	1	Org-014	[NT]	44	<1	<1	0	[NT]	[NT]
trans-1,2-dichloroethene	mg/kg	1	Org-014	[NT]	44	<1	<1	0	[NT]	[NT]
1,1-dichloroethane	mg/kg	1	Org-014	[NT]	44	<1	<1	0	130	120
cis-1,2-dichloroethene	mg/kg	1	Org-014	[NT]	44	<1	<1	0	[NT]	[NT]
bromochloromethane	mg/kg	1	Org-014	[NT]	44	<1	<1	0	[NT]	[NT]
chloroform	mg/kg	1	Org-014	[NT]	44	<1	<1	0	120	120
2,2-dichloropropane	mg/kg	1	Org-014	[NT]	44	<1	<1	0	[NT]	[NT]
1,2-dichloroethane	mg/kg	1	Org-014	[NT]	44	<1	<1	0	120	120
1,1,1-trichloroethane	mg/kg	1	Org-014	[NT]	44	<1	<1	0	110	120
1,1-dichloropropene	mg/kg	1	Org-014	[NT]	44	<1	<1	0	[NT]	[NT]
Cyclohexane	mg/kg	1	Org-014	[NT]	44	<1	<1	0	[NT]	[NT]
carbon tetrachloride	mg/kg	1	Org-014	[NT]	44	<1	<1	0	[NT]	[NT]
Benzene	mg/kg	0.2	Org-014	[NT]	44	<0.2	<0.2	0	[NT]	[NT]
dibromomethane	mg/kg	1	Org-014	[NT]	44	<1	<1	0	[NT]	[NT]
1,2-dichloropropane	mg/kg	1	Org-014	[NT]	44	<1	<1	0	[NT]	[NT]
trichloroethene	mg/kg	1	Org-014	[NT]	44	<1	<1	0	120	120
bromodichloromethane	mg/kg	1	Org-014	[NT]	44	<1	<1	0	120	120
trans-1,3-dichloropropene	mg/kg	1	Org-014	[NT]	44	<1	<1	0	[NT]	[NT]
cis-1,3-dichloropropene	mg/kg	1	Org-014	[NT]	44	<1	<1	0	[NT]	[NT]
1,1,2-trichloroethane	mg/kg	1	Org-014	[NT]	44	<1	<1	0	[NT]	[NT]
Toluene	mg/kg	0.5	Org-014	[NT]	44	<0.5	<0.5	0	[NT]	[NT]
1,3-dichloropropane	mg/kg	1	Org-014	[NT]	44	<1	<1	0	[NT]	[NT]
dibromochloromethane	mg/kg	1	Org-014	[NT]	44	<1	<1	0	120	110
1,2-dibromoethane	mg/kg	1	Org-014	[NT]	44	<1	<1	0	[NT]	[NT]
tetrachloroethene	mg/kg	1	Org-014	[NT]	44	<1	<1	0	120	110
1,1,1,2-tetrachloroethane	mg/kg	1	Org-014	[NT]	44	<1	<1	0	[NT]	[NT]
chlorobenzene	mg/kg	1	Org-014	[NT]	44	<1	<1	0	[NT]	[NT]
Ethylbenzene	mg/kg	1	Org-014	[NT]	44	<1	<1	0	[NT]	[NT]
bromoform	mg/kg	1	Org-014	[NT]	44	<1	<1	0	[NT]	[NT]
m+p-xylene	mg/kg	2	Org-014	[NT]	44	<2	<2	0	[NT]	[NT]
styrene	mg/kg	1	Org-014	[NT]	44	<1	<1	0	[NT]	[NT]
1,1,2,2-tetrachloroethane	mg/kg	1	Org-014	[NT]	44	<1	<1	0	[NT]	[NT]
o-Xylene	mg/kg	1	Org-014	[NT]	44	<1	<1	0	[NT]	[NT]



Client Reference: Hydro Aluminium AS130515

QUALITY CONTROL: VOCs in soil						Duplicate		Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-12	162119-56
1,2,3-trichloropropane	mg/kg	1	Org-014	[NT]	44	<1	<1	0	[NT]	[NT]
isopropylbenzene	mg/kg	1	Org-014	[NT]	44	<1	<1	0	[NT]	[NT]
bromobenzene	mg/kg	1	Org-014	[NT]	44	<1	<1	0	[NT]	[NT]
n-propyl benzene	mg/kg	1	Org-014	[NT]	44	<1	<1	0	[NT]	[NT]
2-chlorotoluene	mg/kg	1	Org-014	[NT]	44	<1	<1	0	[NT]	[NT]
4-chlorotoluene	mg/kg	1	Org-014	[NT]	44	<1	<1	0	[NT]	[NT]
1,3,5-trimethyl benzene	mg/kg	1	Org-014	[NT]	44	<1	<1	0	[NT]	[NT]
tert-butyl benzene	mg/kg	1	Org-014	[NT]	44	<1	<1	0	[NT]	[NT]
1,2,4-trimethyl benzene	mg/kg	1	Org-014	[NT]	44	<1	<1	0	[NT]	[NT]
1,3-dichlorobenzene	mg/kg	1	Org-014	[NT]	44	<1	<1	0	[NT]	[NT]
sec-butyl benzene	mg/kg	1	Org-014	[NT]	44	<1	<1	0	[NT]	[NT]
1,4-dichlorobenzene	mg/kg	1	Org-014	[NT]	44	<1	<1	0	[NT]	[NT]
4-isopropyl toluene	mg/kg	1	Org-014	[NT]	44	<1	<1	0	[NT]	[NT]
1,2-dichlorobenzene	mg/kg	1	Org-014	[NT]	44	<1	<1	0	[NT]	[NT]
n-butyl benzene	mg/kg	1	Org-014	[NT]	44	<1	<1	0	[NT]	[NT]
1,2-dibromo-3-chloropropane	mg/kg	1	Org-014	[NT]	44	<1	<1	0	[NT]	[NT]
1,2,4-trichlorobenzene	mg/kg	1	Org-014	[NT]	44	<1	<1	0	[NT]	[NT]
hexachlorobutadiene	mg/kg	1	Org-014	[NT]	44	<1	<1	0	[NT]	[NT]
1,2,3-trichlorobenzene	mg/kg	1	Org-014	[NT]	44	<1	<1	0	[NT]	[NT]
Surrogate Dibromofluorometha	%		Org-014	[NT]	44	102	107	5	107	108
Surrogate aaa-Trifluorotoluene	%		Org-014	[NT]	44	92	99	7	95	89
Surrogate Toluene-d <sub>8</sub>	%		Org-014	[NT]	44	96	98	2	97	97
Surrogate 4-Bromofluorobenzene	%		Org-014	[NT]	44	94	95	1	101	100

Client Reference: Hydro Aluminium AS130515

QUALITY CONTROL: VOCs in soil					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-7	[NT]
Date extracted	-			[NT]	55	10/03/2017	10/03/2017		15/03/2017	[NT]
Date analysed	-			[NT]	55	13/03/2017	13/03/2017		17/03/2017	[NT]
Dichlorodifluoromethane	mg/kg	1	Org-014	[NT]	55	<1	<1	0	[NT]	[NT]
Chloromethane	mg/kg	1	Org-014	[NT]	55	<1	<1	0	[NT]	[NT]
Vinyl Chloride	mg/kg	1	Org-014	[NT]	55	<1	<1	0	[NT]	[NT]
Bromomethane	mg/kg	1	Org-014	[NT]	55	<1	<1	0	[NT]	[NT]
Chloroethane	mg/kg	1	Org-014	[NT]	55	<1	<1	0	[NT]	[NT]
Trichlorofluoromethane	mg/kg	1	Org-014	[NT]	55	<1	<1	0	[NT]	[NT]
1,1-Dichloroethene	mg/kg	1	Org-014	[NT]	55	<1	<1	0	[NT]	[NT]
trans-1,2-dichloroethene	mg/kg	1	Org-014	[NT]	55	<1	<1	0	[NT]	[NT]
1,1-dichloroethane	mg/kg	1	Org-014	[NT]	55	<1	<1	0	97	[NT]
cis-1,2-dichloroethene	mg/kg	1	Org-014	[NT]	55	<1	<1	0	[NT]	[NT]
bromochloromethane	mg/kg	1	Org-014	[NT]	55	<1	<1	0	[NT]	[NT]
chloroform	mg/kg	1	Org-014	[NT]	55	<1	<1	0	92	[NT]
2,2-dichloropropane	mg/kg	1	Org-014	[NT]	55	<1	<1	0	[NT]	[NT]
1,2-dichloroethane	mg/kg	1	Org-014	[NT]	55	<1	<1	0	93	[NT]
1,1,1-trichloroethane	mg/kg	1	Org-014	[NT]	55	<1	<1	0	86	[NT]
1,1-dichloropropene	mg/kg	1	Org-014	[NT]	55	<1	<1	0	[NT]	[NT]
Cyclohexane	mg/kg	1	Org-014	[NT]	55	<1	<1	0	[NT]	[NT]
carbon tetrachloride	mg/kg	1	Org-014	[NT]	55	<1	<1	0	[NT]	[NT]
Benzene	mg/kg	0.2	Org-014	[NT]	55	<0.2	<0.2	0	[NT]	[NT]
dibromomethane	mg/kg	1	Org-014	[NT]	55	<1	<1	0	[NT]	[NT]
1,2-dichloropropane	mg/kg	1	Org-014	[NT]	55	<1	<1	0	[NT]	[NT]
trichloroethene	mg/kg	1	Org-014	[NT]	55	<1	<1	0	87	[NT]
bromodichloromethane	mg/kg	1	Org-014	[NT]	55	<1	<1	0	92	[NT]
trans-1,3-dichloropropene	mg/kg	1	Org-014	[NT]	55	<1	<1	0	[NT]	[NT]
cis-1,3-dichloropropene	mg/kg	1	Org-014	[NT]	55	<1	<1	0	[NT]	[NT]
1,1,2-trichloroethane	mg/kg	1	Org-014	[NT]	55	<1	<1	0	[NT]	[NT]
Toluene	mg/kg	0.5	Org-014	[NT]	55	<0.5	<0.5	0	[NT]	[NT]
1,3-dichloropropane	mg/kg	1	Org-014	[NT]	55	<1	<1	0	[NT]	[NT]
dibromochloromethane	mg/kg	1	Org-014	[NT]	55	<1	<1	0	93	[NT]
1,2-dibromoethane	mg/kg	1	Org-014	[NT]	55	<1	<1	0	[NT]	[NT]
tetrachloroethene	mg/kg	1	Org-014	[NT]	55	<1	<1	0	94	[NT]
1,1,1,2-tetrachloroethane	mg/kg	1	Org-014	[NT]	55	<1	<1	0	[NT]	[NT]
chlorobenzene	mg/kg	1	Org-014	[NT]	55	<1	<1	0	[NT]	[NT]
Ethylbenzene	mg/kg	1	Org-014	[NT]	55	<1	<1	0	[NT]	[NT]
bromoform	mg/kg	1	Org-014	[NT]	55	<1	<1	0	[NT]	[NT]
m+p-xylene	mg/kg	2	Org-014	[NT]	55	<2	<2	0	[NT]	[NT]
styrene	mg/kg	1	Org-014	[NT]	55	<1	<1	0	[NT]	[NT]
1,1,2,2-tetrachloroethane	mg/kg	1	Org-014	[NT]	55	<1	<1	0	[NT]	[NT]
o-Xylene	mg/kg	1	Org-014	[NT]	55	<1	<1	0	[NT]	[NT]

Client Reference: Hydro Aluminium AS130515

QUALITY CONTROL: VOCs in soil						Duplicate		Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-7	[NT]
1,2,3-trichloropropane	mg/kg	1	Org-014	[NT]	55	<1	<1	0	[NT]	[NT]
isopropylbenzene	mg/kg	1	Org-014	[NT]	55	<1	<1	0	[NT]	[NT]
bromobenzene	mg/kg	1	Org-014	[NT]	55	<1	<1	0	[NT]	[NT]
n-propyl benzene	mg/kg	1	Org-014	[NT]	55	<1	<1	0	[NT]	[NT]
2-chlorotoluene	mg/kg	1	Org-014	[NT]	55	<1	<1	0	[NT]	[NT]
4-chlorotoluene	mg/kg	1	Org-014	[NT]	55	<1	<1	0	[NT]	[NT]
1,3,5-trimethyl benzene	mg/kg	1	Org-014	[NT]	55	<1	<1	0	[NT]	[NT]
tert-butyl benzene	mg/kg	1	Org-014	[NT]	55	<1	<1	0	[NT]	[NT]
1,2,4-trimethyl benzene	mg/kg	1	Org-014	[NT]	55	<1	<1	0	[NT]	[NT]
1,3-dichlorobenzene	mg/kg	1	Org-014	[NT]	55	<1	<1	0	[NT]	[NT]
sec-butyl benzene	mg/kg	1	Org-014	[NT]	55	<1	<1	0	[NT]	[NT]
1,4-dichlorobenzene	mg/kg	1	Org-014	[NT]	55	<1	<1	0	[NT]	[NT]
4-isopropyl toluene	mg/kg	1	Org-014	[NT]	55	<1	<1	0	[NT]	[NT]
1,2-dichlorobenzene	mg/kg	1	Org-014	[NT]	55	<1	<1	0	[NT]	[NT]
n-butyl benzene	mg/kg	1	Org-014	[NT]	55	<1	<1	0	[NT]	[NT]
1,2-dibromo-3-chloropropane	mg/kg	1	Org-014	[NT]	55	<1	<1	0	[NT]	[NT]
1,2,4-trichlorobenzene	mg/kg	1	Org-014	[NT]	55	<1	<1	0	[NT]	[NT]
hexachlorobutadiene	mg/kg	1	Org-014	[NT]	55	<1	<1	0	[NT]	[NT]
1,2,3-trichlorobenzene	mg/kg	1	Org-014	[NT]	55	<1	<1	0	[NT]	[NT]
Surrogate Dibromofluorometha	%		Org-014	[NT]	55	108	109	1	97	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-014	[NT]	55	94	94	0	80	[NT]
Surrogate Toluene-d <sub>8</sub>	%		Org-014	[NT]	55	97	96	1	100	[NT]
Surrogate 4-Bromofluorobenzene	%		Org-014	[NT]	55	95	94	1	100	[NT]

Client Reference: Hydro Aluminium AS130515

QUALITY CONTROL: VOCs in soil					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-8	[NT]
Date extracted	-			[NT]	67	10/03/2017	10/03/2017		15/03/2017	[NT]
Date analysed	-			[NT]	67	13/03/2017	13/03/2017		17/03/2017	[NT]
Dichlorodifluoromethane	mg/kg	1	Org-014	[NT]	67	<1	<1	0	[NT]	[NT]
Chloromethane	mg/kg	1	Org-014	[NT]	67	<1	<1	0	[NT]	[NT]
Vinyl Chloride	mg/kg	1	Org-014	[NT]	67	<1	<1	0	[NT]	[NT]
Bromomethane	mg/kg	1	Org-014	[NT]	67	<1	<1	0	[NT]	[NT]
Chloroethane	mg/kg	1	Org-014	[NT]	67	<1	<1	0	[NT]	[NT]
Trichlorofluoromethane	mg/kg	1	Org-014	[NT]	67	<1	<1	0	[NT]	[NT]
1,1-Dichloroethene	mg/kg	1	Org-014	[NT]	67	<1	<1	0	[NT]	[NT]
trans-1,2-dichloroethene	mg/kg	1	Org-014	[NT]	67	<1	<1	0	[NT]	[NT]
1,1-dichloroethane	mg/kg	1	Org-014	[NT]	67	<1	<1	0	120	[NT]
cis-1,2-dichloroethene	mg/kg	1	Org-014	[NT]	67	<1	<1	0	[NT]	[NT]
bromochloromethane	mg/kg	1	Org-014	[NT]	67	<1	<1	0	[NT]	[NT]
chloroform	mg/kg	1	Org-014	[NT]	67	<1	<1	0	110	[NT]
2,2-dichloropropane	mg/kg	1	Org-014	[NT]	67	<1	<1	0	[NT]	[NT]
1,2-dichloroethane	mg/kg	1	Org-014	[NT]	67	<1	<1	0	120	[NT]
1,1,1-trichloroethane	mg/kg	1	Org-014	[NT]	67	<1	<1	0	100	[NT]
1,1-dichloropropene	mg/kg	1	Org-014	[NT]	67	<1	<1	0	[NT]	[NT]
Cyclohexane	mg/kg	1	Org-014	[NT]	67	<1	<1	0	[NT]	[NT]
carbon tetrachloride	mg/kg	1	Org-014	[NT]	67	<1	<1	0	[NT]	[NT]
Benzene	mg/kg	0.2	Org-014	[NT]	67	<0.2	<0.2	0	[NT]	[NT]
dibromomethane	mg/kg	1	Org-014	[NT]	67	<1	<1	0	[NT]	[NT]
1,2-dichloropropane	mg/kg	1	Org-014	[NT]	67	<1	<1	0	[NT]	[NT]
trichloroethene	mg/kg	1	Org-014	[NT]	67	<1	<1	0	110	[NT]
bromodichloromethane	mg/kg	1	Org-014	[NT]	67	<1	<1	0	110	[NT]
trans-1,3-dichloropropene	mg/kg	1	Org-014	[NT]	67	<1	<1	0	[NT]	[NT]
cis-1,3-dichloropropene	mg/kg	1	Org-014	[NT]	67	<1	<1	0	[NT]	[NT]
1,1,2-trichloroethane	mg/kg	1	Org-014	[NT]	67	<1	<1	0	[NT]	[NT]
Toluene	mg/kg	0.5	Org-014	[NT]	67	<0.5	<0.5	0	[NT]	[NT]
1,3-dichloropropane	mg/kg	1	Org-014	[NT]	67	<1	<1	0	[NT]	[NT]
dibromochloromethane	mg/kg	1	Org-014	[NT]	67	<1	<1	0	110	[NT]
1,2-dibromoethane	mg/kg	1	Org-014	[NT]	67	<1	<1	0	[NT]	[NT]
tetrachloroethene	mg/kg	1	Org-014	[NT]	67	<1	<1	0	110	[NT]
1,1,1,2-tetrachloroethane	mg/kg	1	Org-014	[NT]	67	<1	<1	0	[NT]	[NT]
chlorobenzene	mg/kg	1	Org-014	[NT]	67	<1	<1	0	[NT]	[NT]
Ethylbenzene	mg/kg	1	Org-014	[NT]	67	<1	<1	0	[NT]	[NT]
bromoform	mg/kg	1	Org-014	[NT]	67	<1	<1	0	[NT]	[NT]
m+p-xylene	mg/kg	2	Org-014	[NT]	67	<2	<2	0	[NT]	[NT]
styrene	mg/kg	1	Org-014	[NT]	67	<1	<1	0	[NT]	[NT]
1,1,2,2-tetrachloroethane	mg/kg	1	Org-014	[NT]	67	<1	<1	0	[NT]	[NT]
o-Xylene	mg/kg	1	Org-014	[NT]	67	<1	<1	0	[NT]	[NT]

Client Reference: Hydro Aluminium AS130515

QUALITY CONTROL: VOCs in soil						Duplicate		Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-8	[NT]
1,2,3-trichloropropane	mg/kg	1	Org-014	[NT]	67	<1	<1	0	[NT]	[NT]
isopropylbenzene	mg/kg	1	Org-014	[NT]	67	<1	<1	0	[NT]	[NT]
bromobenzene	mg/kg	1	Org-014	[NT]	67	<1	<1	0	[NT]	[NT]
n-propyl benzene	mg/kg	1	Org-014	[NT]	67	<1	<1	0	[NT]	[NT]
2-chlorotoluene	mg/kg	1	Org-014	[NT]	67	<1	<1	0	[NT]	[NT]
4-chlorotoluene	mg/kg	1	Org-014	[NT]	67	<1	<1	0	[NT]	[NT]
1,3,5-trimethyl benzene	mg/kg	1	Org-014	[NT]	67	<1	<1	0	[NT]	[NT]
tert-butyl benzene	mg/kg	1	Org-014	[NT]	67	<1	<1	0	[NT]	[NT]
1,2,4-trimethyl benzene	mg/kg	1	Org-014	[NT]	67	<1	<1	0	[NT]	[NT]
1,3-dichlorobenzene	mg/kg	1	Org-014	[NT]	67	<1	<1	0	[NT]	[NT]
sec-butyl benzene	mg/kg	1	Org-014	[NT]	67	<1	<1	0	[NT]	[NT]
1,4-dichlorobenzene	mg/kg	1	Org-014	[NT]	67	<1	<1	0	[NT]	[NT]
4-isopropyl toluene	mg/kg	1	Org-014	[NT]	67	<1	<1	0	[NT]	[NT]
1,2-dichlorobenzene	mg/kg	1	Org-014	[NT]	67	<1	<1	0	[NT]	[NT]
n-butyl benzene	mg/kg	1	Org-014	[NT]	67	<1	<1	0	[NT]	[NT]
1,2-dibromo-3-chloropropane	mg/kg	1	Org-014	[NT]	67	<1	<1	0	[NT]	[NT]
1,2,4-trichlorobenzene	mg/kg	1	Org-014	[NT]	67	<1	<1	0	[NT]	[NT]
hexachlorobutadiene	mg/kg	1	Org-014	[NT]	67	<1	<1	0	[NT]	[NT]
1,2,3-trichlorobenzene	mg/kg	1	Org-014	[NT]	67	<1	<1	0	[NT]	[NT]
Surrogate Dibromofluorometha	%		Org-014	[NT]	67	109	109	0	96	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-014	[NT]	67	93	95	2	96	[NT]
Surrogate Toluene-d <sub>8</sub>	%		Org-014	[NT]	67	97	97	0	100	[NT]
Surrogate 4-Bromofluorobenzene	%		Org-014	[NT]	67	94	94	0	97	[NT]

Client Reference: Hydro Aluminium AS130515

QUALITY CONTROL: Acid Extractable metals in soil				Duplicate				Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	162119-4
Date prepared	-			08/03/2017	1	08/03/2017	08/03/2017		08/03/2017	08/03/2017
Date analysed	-			16/03/2017	1	10/03/2017	10/03/2017		10/03/2017	10/03/2017
Arsenic	mg/kg	4	Metals-020	<4	1	6	6	0	110	100
Cadmium	mg/kg	0.4	Metals-020	<0.4	1	0.5	0.5	0	100	86
Copper	mg/kg	1	Metals-020	<1	1	24	30	22	110	84
Lead	mg/kg	1	Metals-020	<1	1	25	27	8	110	89
Mercury	mg/kg	0.1	Metals-021	<0.1	1	<0.1	<0.1	0	100	110
Molybdenum	mg/kg	1	Metals-020	<1	1	2	4	67	100	85
Nickel	mg/kg	1	Metals-020	<1	1	43	45	5	98	70
Selenium	mg/kg	2	Metals-020	<2	1	<2	<2	0	100	94
Silver	mg/kg	1	Metals-020	<1	1	<1	<1	0	96	96
Tin	mg/kg	1	Metals-020	<1	1	2	3	40	97	81
Zinc	mg/kg	1	Metals-020	<1	1	170	180	6	99	120

QUALITY CONTROL: Acid Extractable metals in soil				Duplicate				Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-2	162119-36
Date prepared	-			[NT]	33	08/03/2017	08/03/2017		08/03/2017	08/03/2017
Date analysed	-			[NT]	33	10/03/2017	10/03/2017		10/03/2017	10/03/2017
Arsenic	mg/kg	4	Metals-020	[NT]	33	180	160	12	110	110
Cadmium	mg/kg	0.4	Metals-020	[NT]	33	0.5	0.6	18	100	92
Copper	mg/kg	1	Metals-020	[NT]	33	390	410	5	110	81
Lead	mg/kg	1	Metals-020	[NT]	33	330	350	6	100	91
Mercury	mg/kg	0.1	Metals-021	[NT]	33	<0.1	<0.1	0	98	100
Molybdenum	mg/kg	1	Metals-020	[NT]	33	7	8	13	100	92
Nickel	mg/kg	1	Metals-020	[NT]	33	44	46	4	97	81
Selenium	mg/kg	2	Metals-020	[NT]	33	<2	<2	0	99	97
Silver	mg/kg	1	Metals-020	[NT]	33	<1	<1	0	95	97
Tin	mg/kg	1	Metals-020	[NT]	33	16	16	0	95	84
Zinc	mg/kg	1	Metals-020	[NT]	33	3800	3800	0	99	73

Client Reference: Hydro Aluminium AS130515

QUALITY CONTROL: Acid Extractable metals in soil					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	162119-58
Date prepared	-			[NT]	44	08/03/2017	08/03/2017		08/03/2017	08/03/2017
Date analysed	-			[NT]	44	10/03/2017	10/03/2017		10/03/2017	10/03/2017
Arsenic	mg/kg	4	Metals-020	[NT]	44	410	83	133	110	100
Cadmium	mg/kg	0.4	Metals-020	[NT]	44	0.5	0.5	0	100	86
Copper	mg/kg	1	Metals-020	[NT]	44	450	250	57	100	100
Lead	mg/kg	1	Metals-020	[NT]	44	800	740	8	100	86
Mercury	mg/kg	0.1	Metals-021	[NT]	44	<0.1	<0.1	0	100	100
Molybdenum	mg/kg	1	Metals-020	[NT]	44	9	5	57	98	93
Nickel	mg/kg	1	Metals-020	[NT]	44	84	67	23	96	110
Selenium	mg/kg	2	Metals-020	[NT]	44	<2	<2	0	95	93
Silver	mg/kg	1	Metals-020	[NT]	44	2	1	67	94	93
Tin	mg/kg	1	Metals-020	[NT]	44	20	11	58	96	80
Zinc	mg/kg	1	Metals-020	[NT]	44	3200	3100	3	98	110

QUALITY CONTROL: Acid Extractable metals in soil					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-7	[NT]
Date prepared	-			[NT]	55	08/03/2017	08/03/2017		08/03/2017	[NT]
Date analysed	-			[NT]	55	10/03/2017	10/03/2017		10/03/2017	[NT]
Arsenic	mg/kg	4	Metals-020	[NT]	55	6	6	0	110	[NT]
Cadmium	mg/kg	0.4	Metals-020	[NT]	55	0.4	0.4	0	99	[NT]
Copper	mg/kg	1	Metals-020	[NT]	55	22	22	0	100	[NT]
Lead	mg/kg	1	Metals-020	[NT]	55	23	20	14	94	[NT]
Mercury	mg/kg	0.1	Metals-021	[NT]	55	<0.1	<0.1	0	92	[NT]
Molybdenum	mg/kg	1	Metals-020	[NT]	55	3	3	0	100	[NT]
Nickel	mg/kg	1	Metals-020	[NT]	55	43	39	10	97	[NT]
Selenium	mg/kg	2	Metals-020	[NT]	55	<2	<2	0	96	[NT]
Silver	mg/kg	1	Metals-020	[NT]	55	<1	<1	0	100	[NT]
Tin	mg/kg	1	Metals-020	[NT]	55	2	2	0	94	[NT]
Zinc	mg/kg	1	Metals-020	[NT]	55	160	110	37	98	[NT]

Client Reference: Hydro Aluminium AS130515

QUALITY CONTROL: Acid Extractable metals in soil					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-8	[NT]
Date prepared	-			[NT]	67	08/03/2017	08/03/2017		08/03/2017	[NT]
Date analysed	-			[NT]	67	10/03/2017	10/03/2017		10/03/2017	[NT]
Arsenic	mg/kg	4	Metals-020	[NT]	67	7	6	15	110	[NT]
Cadmium	mg/kg	0.4	Metals-020	[NT]	67	0.5	0.5	0	99	[NT]
Copper	mg/kg	1	Metals-020	[NT]	67	25	30	18	100	[NT]
Lead	mg/kg	1	Metals-020	[NT]	67	27	29	7	93	[NT]
Mercury	mg/kg	0.1	Metals-021	[NT]	67	<0.1	<0.1	0	97	[NT]
Molybdenum	mg/kg	1	Metals-020	[NT]	67	3	3	0	100	[NT]
Nickel	mg/kg	1	Metals-020	[NT]	67	42	43	2	97	[NT]
Selenium	mg/kg	2	Metals-020	[NT]	67	<2	<2	0	97	[NT]
Silver	mg/kg	1	Metals-020	[NT]	67	<1	<1	0	100	[NT]
Tin	mg/kg	1	Metals-020	[NT]	67	2	5	86	96	[NT]
Zinc	mg/kg	1	Metals-020	[NT]	67	190	250	27	99	[NT]



Client Reference: Hydro Aluminium AS130515

QUALITY CONTROL: Misc Soil - Inorg					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	162119-2
Date prepared	-			13/03/2017	1	08/03/2017	08/03/2017		13/03/2017	13/03/2017
Date analysed	-			13/03/2017	1	13/03/2017	13/03/2017		13/03/2017	13/03/2017
Free Cyanide in soil	mg/kg	0.5	Inorg-014	<0.5	1	0.9	0.7	25	100	97
Total Cyanide	mg/kg	0.5	Inorg-014	<0.5	1	110	100	10	110	#

QUALITY CONTROL: Misc Soil - Inorg					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-2	162119-34
Date prepared	-			[NT]	33	08/03/2017	08/03/2017		13/03/2017	13/03/2017
Date analysed	-			[NT]	33	13/03/2017	13/03/2017		13/03/2017	13/03/2017
Free Cyanide in soil	mg/kg	0.5	Inorg-014	[NT]	33	0.7	0.6	15	100	110
Total Cyanide	mg/kg	0.5	Inorg-014	[NT]	33	190	200	5	110	#

QUALITY CONTROL: Misc Soil - Inorg					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	162119-54
Date prepared	-			[NT]	43	08/03/2017	08/03/2017		13/03/2017	13/03/2017
Date analysed	-			[NT]	43	13/03/2017	13/03/2017		13/03/2017	13/03/2017
Free Cyanide in soil	mg/kg	0.5	Inorg-014	[NT]	43	<0.5	<0.5	0	110	120
Total Cyanide	mg/kg	0.5	Inorg-014	[NT]	43	93	91	2	110	#

QUALITY CONTROL: Misc Soil - Inorg					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-7	162119-74
Date prepared	-			[NT]	53	08/03/2017	08/03/2017		17/03/2017	17/03/2017
Date analysed	-			[NT]	53	13/03/2017	13/03/2017		17/03/2017	17/03/2017
Free Cyanide in soil	mg/kg	0.5	Inorg-014	[NT]	53	4	3	29	100	100
Total Cyanide	mg/kg	0.5	Inorg-014	[NT]	53	250	260	4	100	100

QUALITY CONTROL: Misc Soil - Inorg					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-8	162119-94
Date prepared	-			[NT]	63	08/03/2017	08/03/2017		17/03/2017	17/03/2017
Date analysed	-			[NT]	63	13/03/2017	13/03/2017		17/03/2017	17/03/2017
Free Cyanide in soil	mg/kg	0.5	Inorg-014	[NT]	63	3	3	0	100	100
Total Cyanide	mg/kg	0.5	Inorg-014	[NT]	63	270	270	0	100	96

QUALITY CONTROL: Misc Soil - Inorg					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	11	08/03/2017	08/03/2017		[NT]	[NT]
Date analysed	-			[NT]	11	13/03/2017	13/03/2017		[NT]	[NT]
Free Cyanide in soil	mg/kg	0.5	Inorg-014	[NT]	11	4	3	29	[NT]	[NT]
Total Cyanide	mg/kg	0.5	Inorg-014	[NT]	11	190	190	0	[NT]	[NT]

QUALITY CONTROL: Misc Soil - Inorg					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	73	08/03/2017	08/03/2017		[NT]	[NT]
Date analysed	-			[NT]	73	13/03/2017	13/03/2017		[NT]	[NT]
Free Cyanide in soil	mg/kg	0.5	Inorg-014	[NT]	73	0.7	0.7	0	[NT]	[NT]
Total Cyanide	mg/kg	0.5	Inorg-014	[NT]	73	3.1	2.4	25	[NT]	[NT]

Client Reference: Hydro Aluminium AS130515

QUALITY CONTROL: Misc Soil - Inorg					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	83	08/03/2017	08/03/2017		[NT]	[NT]
Date analysed	-			[NT]	83	13/03/2017	13/03/2017		[NT]	[NT]
Free Cyanide in soil	mg/kg	0.5	Inorg-014	[NT]	83	<0.5	<0.5	0	[NT]	[NT]
Total Cyanide	mg/kg	0.5	Inorg-014	[NT]	83	1.7	1.6	6	[NT]	[NT]

QUALITY CONTROL: Misc Soil - Inorg					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	93	08/03/2017	08/03/2017		[NT]	[NT]
Date analysed	-			[NT]	93	13/03/2017	13/03/2017		[NT]	[NT]
Free Cyanide in soil	mg/kg	0.5	Inorg-014	[NT]	93	5.5	5.5	0	[NT]	[NT]
Total Cyanide	mg/kg	0.5	Inorg-014	[NT]	93	9.3	9.4	1	[NT]	[NT]

QUALITY CONTROL: Misc Soil - Inorg					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	103	08/03/2017	08/03/2017		[NT]	[NT]
Date analysed	-			[NT]	103	13/03/2017	13/03/2017		[NT]	[NT]
Free Cyanide in soil	mg/kg	0.5	Inorg-014	[NT]	103	1	1	0	[NT]	[NT]
Total Cyanide	mg/kg	0.5	Inorg-014	[NT]	103	60	61	2	[NT]	[NT]

Client Reference: Hydro Aluminium AS130515

QUALITY CONTROL: Miscellaneous Inorg - soil					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	162119-62
Date prepared	-			09/03/2017	1	09/03/2017	09/03/2017		09/03/2017	09/03/2017
Date analysed	-			22/03/2017	1	23/03/2017	23/03/2017		22/03/2017	22/03/2017
Hexavalent Chromium, Cr <sup>6+</sup>	mg/kg	1	Inorg-024	<1	1	<1	[NT]		100	[NT]
Total Fluoride	mg/kg	50	Inorg-026/53	<50	1	35000	34000	3	80	60

QUALITY CONTROL: Miscellaneous Inorg - soil					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-2	162119-82
Date prepared	-			[NT]	11	09/03/2017	09/03/2017		09/03/2017	09/03/2017
Date analysed	-			[NT]	11	23/03/2017	23/03/2017		22/03/2017	22/03/2017
Hexavalent Chromium, Cr <sup>6+</sup>	mg/kg	1	Inorg-024	[NT]	11	<1	[NT]		110	[NT]
Total Fluoride	mg/kg	50	Inorg-026/53	[NT]	11	23000	24000	4	60	100

QUALITY CONTROL: Miscellaneous Inorg - soil					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	162119-102
Date prepared	-			[NT]	31	09/03/2017	09/03/2017		09/03/2017	09/03/2017
Date analysed	-			[NT]	31	23/03/2017	23/03/2017		22/03/2017	22/03/2017
Hexavalent Chromium, Cr <sup>6+</sup>	mg/kg	1	Inorg-024	[NT]	31	<1	[NT]		100	[NT]
Total Fluoride	mg/kg	50	Inorg-026/53	[NT]	31	25000	26000	4	60	100

QUALITY CONTROL: Miscellaneous Inorg - soil					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-5	162119-42
Date prepared	-			[NT]	41	09/03/2017	09/03/2017		09/03/2017	09/03/2017
Date analysed	-			[NT]	41	23/03/2017	23/03/2017		22/03/2017	22/03/2017
Hexavalent Chromium, Cr <sup>6+</sup>	mg/kg	1	Inorg-024	[NT]	41	<1	[NT]		99	[NT]
Total Fluoride	mg/kg	50	Inorg-026/53	[NT]	41	22000	30000	31	80	#

QUALITY CONTROL: Miscellaneous Inorg - soil					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-4	[NT]
Date prepared	-			[NT]	51	09/03/2017	09/03/2017		09/03/2017	[NT]
Date analysed	-			[NT]	51	23/03/2017	23/03/2017		22/03/2017	[NT]
Hexavalent Chromium, Cr <sup>6+</sup>	mg/kg	1	Inorg-024	[NT]	51	<1	[NT]		78	[NT]
Total Fluoride	mg/kg	50	Inorg-026/53	[NT]	51	32000	32000	0	100	[NT]

QUALITY CONTROL: Miscellaneous Inorg - soil					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	61	09/03/2017	09/03/2017		[NT]	[NT]
Date analysed	-			[NT]	61	23/03/2017	23/03/2017		[NT]	[NT]
Hexavalent Chromium, Cr <sup>6+</sup>	mg/kg	1	Inorg-024	[NT]	61	<1	[NT]		[NT]	[NT]
Total Fluoride	mg/kg	50	Inorg-026/53	[NT]	61	39000	25000	44	[NT]	[NT]

QUALITY CONTROL: Miscellaneous Inorg - soil					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	71	09/03/2017	09/03/2017		[NT]	[NT]
Date analysed	-			[NT]	71	23/03/2017	23/03/2017		[NT]	[NT]
Hexavalent Chromium, Cr <sup>6+</sup>	mg/kg	1	Inorg-024	[NT]	71	<1	[NT]		[NT]	[NT]
Total Fluoride	mg/kg	50	Inorg-026/53	[NT]	71	31000	28000	10	[NT]	[NT]

Client Reference: Hydro Aluminium AS130515

QUALITY CONTROL: Miscellaneous Inorg - soil					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	81	09/03/2017	09/03/2017		[NT]	[NT]
Date analysed	-			[NT]	81	23/03/2017	23/03/2017		[NT]	[NT]
Hexavalent Chromium, Cr <sup>6+</sup>	mg/kg	1	Inorg-024	[NT]	81	<1	[NT]		[NT]	[NT]
Total Fluoride	mg/kg	50	Inorg-026/53	[NT]	81	43000	44000	2	[NT]	[NT]

QUALITY CONTROL: Miscellaneous Inorg - soil					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	91	09/03/2017	09/03/2017		[NT]	[NT]
Date analysed	-			[NT]	91	23/03/2017	23/03/2017		[NT]	[NT]
Hexavalent Chromium, Cr <sup>6+</sup>	mg/kg	1	Inorg-024	[NT]	91	<1	[NT]		[NT]	[NT]
Total Fluoride	mg/kg	50	Inorg-026/53	[NT]	91	19000	16000	17	[NT]	[NT]

QUALITY CONTROL: Miscellaneous Inorg - soil					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	101	09/03/2017	09/03/2017		[NT]	[NT]
Date analysed	-			[NT]	101	23/03/2017	23/03/2017		[NT]	[NT]
Hexavalent Chromium, Cr <sup>6+</sup>	mg/kg	1	Inorg-024	[NT]	101	<1	[NT]		[NT]	[NT]
Total Fluoride	mg/kg	50	Inorg-026/53	[NT]	101	17000	20000	16	[NT]	[NT]

QUALITY CONTROL: Miscellaneous Inorg - soil					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	40	09/03/2017	21/06/2017		[NT]	[NT]
Date analysed	-			[NT]	40	23/03/2017	21/06/2017		[NT]	[NT]
Hexavalent Chromium, Cr <sup>6+</sup>	mg/kg	1	Inorg-024	[NT]	40	<1	[NT]		[NT]	[NT]
Total Fluoride	mg/kg	50	Inorg-026/53	[NT]	40	410000	97000	123	[NT]	[NT]

Client Reference: Hydro Aluminium AS130515

QUALITY CONTROL: Miscellaneous Inorganics							Duplicate		Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date analysed	-			08/03/2017	[NT]	[NT]	[NT]	[NT]	08/03/2017	[NT]
Date prepared	-			08/03/2017	[NT]	[NT]	[NT]	[NT]	08/03/2017	[NT]
Fluoride in TCLPs	mg/L	0.1	Inorg-026	<0.1	[NT]	[NT]	[NT]	[NT]	100	[NT]

QUALITY CONTROL: Miscellaneous Inorganics							Duplicate		Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W2	[NT]
Date analysed	-			[NT]	[NT]	[NT]	[NT]	[NT]	08/03/2017	[NT]
Date prepared	-			[NT]	[NT]	[NT]	[NT]	[NT]	08/03/2017	[NT]
Fluoride in TCLPs	mg/L	0.1	Inorg-026	[NT]	[NT]	[NT]	[NT]	[NT]	100	[NT]

QUALITY CONTROL: Miscellaneous Inorganics							Duplicate		Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W3	[NT]
Date analysed	-			[NT]	[NT]	[NT]	[NT]	[NT]	08/03/2017	[NT]
Date prepared	-			[NT]	[NT]	[NT]	[NT]	[NT]	08/03/2017	[NT]
Fluoride in TCLPs	mg/L	0.1	Inorg-026	[NT]	[NT]	[NT]	[NT]	[NT]	99	[NT]

QUALITY CONTROL: Miscellaneous Inorganics							Duplicate		Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W4	[NT]
Date analysed	-			[NT]	[NT]	[NT]	[NT]	[NT]	08/03/2017	[NT]
Date prepared	-			[NT]	[NT]	[NT]	[NT]	[NT]	08/03/2017	[NT]
Fluoride in TCLPs	mg/L	0.1	Inorg-026	[NT]	[NT]	[NT]	[NT]	[NT]	97	[NT]

QUALITY CONTROL: Miscellaneous Inorganics							Duplicate		Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W5	[NT]
Date analysed	-			[NT]	[NT]	[NT]	[NT]	[NT]	08/03/2017	[NT]
Date prepared	-			[NT]	[NT]	[NT]	[NT]	[NT]	08/03/2017	[NT]
Fluoride in TCLPs	mg/L	0.1	Inorg-026	[NT]	[NT]	[NT]	[NT]	[NT]	94	[NT]

Client Reference: Hydro Aluminium AS130515

QUALITY CONTROL: PAHs in TCLP (USEPA 1311)					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date extracted	-			07/04/2017	[NT]	[NT]	[NT]	[NT]	17/03/2017	[NT]
Date analysed	-			07/04/2017	[NT]	[NT]	[NT]	[NT]	17/03/2017	[NT]
Naphthalene in TCLP	mg/L	0.001	Org-012	<0.001	[NT]	[NT]	[NT]	[NT]	70	[NT]
Acenaphthylene in TCLP	mg/L	0.001	Org-012	<0.001	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Acenaphthene in TCLP	mg/L	0.001	Org-012	<0.001	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Fluorene in TCLP	mg/L	0.001	Org-012	<0.001	[NT]	[NT]	[NT]	[NT]	71	[NT]
Phenanthrene in TCLP	mg/L	0.001	Org-012	<0.001	[NT]	[NT]	[NT]	[NT]	83	[NT]
Anthracene in TCLP	mg/L	0.001	Org-012	<0.001	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Fluoranthene in TCLP	mg/L	0.001	Org-012	<0.001	[NT]	[NT]	[NT]	[NT]	81	[NT]
Pyrene in TCLP	mg/L	0.001	Org-012	<0.001	[NT]	[NT]	[NT]	[NT]	81	[NT]
Benzo(a)anthracene in TCLP	mg/L	0.001	Org-012	<0.001	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Chrysene in TCLP	mg/L	0.001	Org-012	<0.001	[NT]	[NT]	[NT]	[NT]	64	[NT]
Benzo(bjk)fluoranthene in TCLP	mg/L	0.002	Org-012	<0.002	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Benzo(a)pyrene in TCLP	mg/L	0.001	Org-012	<0.001	[NT]	[NT]	[NT]	[NT]	65	[NT]
Indeno(1,2,3-c,d)pyrene - TCLP	mg/L	0.001	Org-012	<0.001	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Dibenzo(a,h)anthracene in TCLP	mg/L	0.001	Org-012	<0.001	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Benzo(g,h,i)perylene in TCLP	mg/L	0.001	Org-012	<0.001	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-012	79	[NT]	[NT]	[NT]	[NT]	73	[NT]

Client Reference: Hydro Aluminium AS130515

QUALITY CONTROL: PAHs in TCLP (USEPA 1311)				Duplicate				Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W2	[NT]
Date extracted	-			[NT]	[NT]	[NT]	[NT]	[NT]	28/03/2017	[NT]
Date analysed	-			[NT]	[NT]	[NT]	[NT]	[NT]	28/03/2017	[NT]
Naphthalene in TCLP	mg/L	0.001	Org-012	[NT]	[NT]	[NT]	[NT]	[NT]	86	[NT]
Fluorene in TCLP	mg/L	0.001	Org-012	[NT]	[NT]	[NT]	[NT]	[NT]	83	[NT]
Phenanthrene in TCLP	mg/L	0.001	Org-012	[NT]	[NT]	[NT]	[NT]	[NT]	91	[NT]
Fluoranthene in TCLP	mg/L	0.001	Org-012	[NT]	[NT]	[NT]	[NT]	[NT]	85	[NT]
Pyrene in TCLP	mg/L	0.001	Org-012	[NT]	[NT]	[NT]	[NT]	[NT]	81	[NT]
Chrysene in TCLP	mg/L	0.001	Org-012	[NT]	[NT]	[NT]	[NT]	[NT]	85	[NT]
Benzo(a)pyrene in TCLP	mg/L	0.001	Org-012	[NT]	[NT]	[NT]	[NT]	[NT]	89	[NT]
Surrogate p-Terphenyl-d14	%		Org-012	[NT]	[NT]	[NT]	[NT]	[NT]	75	[NT]

QUALITY CONTROL: PAHs in TCLP (USEPA 1311)				Duplicate				Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W3	[NT]
Date extracted	-			[NT]	[NT]	[NT]	[NT]	[NT]	07/04/2017	[NT]
Date analysed	-			[NT]	[NT]	[NT]	[NT]	[NT]	07/04/2017	[NT]
Naphthalene in TCLP	mg/L	0.001	Org-012	[NT]	[NT]	[NT]	[NT]	[NT]	89	[NT]
Fluorene in TCLP	mg/L	0.001	Org-012	[NT]	[NT]	[NT]	[NT]	[NT]	110	[NT]
Phenanthrene in TCLP	mg/L	0.001	Org-012	[NT]	[NT]	[NT]	[NT]	[NT]	120	[NT]
Fluoranthene in TCLP	mg/L	0.001	Org-012	[NT]	[NT]	[NT]	[NT]	[NT]	120	[NT]
Pyrene in TCLP	mg/L	0.001	Org-012	[NT]	[NT]	[NT]	[NT]	[NT]	110	[NT]
Chrysene in TCLP	mg/L	0.001	Org-012	[NT]	[NT]	[NT]	[NT]	[NT]	87	[NT]
Benzo(a)pyrene in TCLP	mg/L	0.001	Org-012	[NT]	[NT]	[NT]	[NT]	[NT]	87	[NT]
Surrogate p-Terphenyl-d14	%		Org-012	[NT]	[NT]	[NT]	[NT]	[NT]	78	[NT]

**Client Reference: Hydro Aluminium AS130515**

QUALITY CONTROL: TCLP - ASLP4439.3							Duplicate		Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date prepared	-			10/03/2017	[NT]	[NT]	[NT]	[NT]	10/03/2017	[NT]
Date analysed	-			10/03/2017	[NT]	[NT]	[NT]	[NT]	10/03/2017	[NT]
Total Cyanide in ASLPs	mg/L	0.004	Inorg-014	<0.004	[NT]	[NT]	[NT]	[NT]	110	[NT]

QUALITY CONTROL: TCLP - ASLP4439.3							Duplicate		Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-2	[NT]
Date prepared	-			[NT]	[NT]	[NT]	[NT]	[NT]	10/03/2017	[NT]
Date analysed	-			[NT]	[NT]	[NT]	[NT]	[NT]	10/03/2017	[NT]
Total Cyanide in ASLPs	mg/L	0.004	Inorg-014	[NT]	[NT]	[NT]	[NT]	[NT]	100	[NT]

QUALITY CONTROL: TCLP - ASLP4439.3							Duplicate		Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	[NT]
Date prepared	-			[NT]	[NT]	[NT]	[NT]	[NT]	10/03/2017	[NT]
Date analysed	-			[NT]	[NT]	[NT]	[NT]	[NT]	10/03/2017	[NT]
Total Cyanide in ASLPs	mg/L	0.004	Inorg-014	[NT]	[NT]	[NT]	[NT]	[NT]	120	[NT]



## Result Definitions

<b>NT</b>	Not tested
<b>NA</b>	Test not required
<b>INS</b>	Insufficient sample for this test
<b>PQL</b>	Practical Quantitation Limit
<b>&lt;</b>	Less than
<b>&gt;</b>	Greater than
<b>RPD</b>	Relative Percent Difference
<b>LCS</b>	Laboratory Control Sample
<b>NS</b>	Not specified
<b>NEPM</b>	National Environmental Protection Measure
<b>NR</b>	Not Reported

## Quality Control Definitions

<b>Blank</b>	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
<b>Duplicate</b>	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
<b>Matrix Spike</b>	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
<b>LCS (Laboratory Control Sample)</b>	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
<b>Surrogate Spike</b>	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.

## Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: <5xPQL - any RPD is acceptable; >5xPQL - 0-50% RPD is acceptable.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals; 60-140% for organics (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Measurement Uncertainty estimates are available for most tests upon request.

## Report Comments

### PAH\_S:

# Percent recovery is not possible to report as the high concentration of analytes in the sample/s have caused interference. PQL has been raised due to interference from analytes(other than those being tested) in the sample/s.

OC/OP\_S: # Percent recovery is not possible to report as the high concentration of analytes in the sample/s have caused interference.

PQL has been raised due to interference from analytes(other than those being tested) in the sample/s.

Acid Extractable Metals in Soil: The laboratory RPD acceptance criteria has been exceeded for 162119-44 for As, Cu, Mo, Sn. Therefore a triplicate result has been issued as laboratory sample number 162119-109.

### SVOC in soil:

PQL has been raised due to interference from analytes(other than those being tested) in the sample/s.

# Percent recovery is not possible to report due to interference from analytes (other than those being tested) in the sample/s.

Sample 162119-40 was repeated in duplicate and triplicate as the Fluoride result was very high. The triplicate is present as sample 162119-110.



## CERTIFICATE OF ANALYSIS 162119-D

### Client Details

<b>Client</b>	Ramboll Environ Australia Pty Ltd
<b>Attention</b>	Fiona Robinson, Stephen Cadman
<b>Address</b>	PO Box 560, North Sydney, NSW, 2060

### Sample Details

<b>Your Reference</b>	<b>Hydro Aluminium AS130515 Monoliths Filtered</b>
<b>Number of Samples</b>	Monolith LEAF testing
<b>Date samples received</b>	17/02/2017
<b>Date completed instructions received</b>	17/02/2017

### Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.  
Samples were analysed as received from the client. Results relate specifically to the samples as received.  
Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

### Report Details

<b>Date results requested by</b>	02/06/2017
<b>Date of Issue</b>	08/06/2017

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### Report Comments

Where Rock samples were provided for LEAF analysis, the exposed surface area calculated is an estimate only.

Note, Organics are not recommended in USEPA 1315, however, there is a modified USEPA method i.e. 1315M that is being used in the US but is yet to be finally approved.

#### Results Approved By

Simon Mills, Group R&D Manager

#### Authorised By

David Springer, General Manager

Client Reference: Hydro Aluminium AS130515 Monoliths Filtered

PAHs in Eluates						
Our Reference		162119-D-1	162119-D-2	162119-D-3	162119-D-4	162119-D-5
Your Reference	UNITS	MW201_>125 T01	MW201_>125 T02	MW201_>125 T03	MW201_>125 T04	MW201_>125 T05
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date extracted	-	24/03/2017	28/03/2017	05/04/2017	07/04/2017	07/04/2017
Date analysed	-	25/03/2017	29/03/2017	06/04/2017	07/04/2017	07/04/2017
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	1	<1	<1	<1	<1
Chrysene	µg/L	2	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	5	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	10	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	100	60	95	71	105

Client Reference: Hydro Aluminium AS130515 Monoliths Filtered

PAHs in Eluates						
Our Reference		162119-D-6	162119-D-7	162119-D-8	162119-D-9	162119-D-10
Your Reference	UNITS	MW201_>125 T06	MW201_>125 T07	MW201_>125 T08	MW201_>125 T09	MW202_>125 T01
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date extracted	-	24/04/2017	5/05/2017	12/05/2017	26/05/2017	24/03/2017
Date analysed	-	24/04/2017	8/05/2017	15/05/2017	29/05/2017	25/03/2017
Naphthalene	µg/L	<1	<1	2	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE	2.1	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	84	107	111	68	112

Client Reference: Hydro Aluminium AS130515 Monoliths Filtered

PAHs in Eluates						
Our Reference		162119-D-11	162119-D-12	162119-D-13	162119-D-14	162119-D-15
Your Reference	UNITS	MW202_>125 T02	MW202_>125 T03	MW202_>125 T04	MW202_>125 T05	MW202_>125 T06
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date extracted	-	28/03/2017	05/04/2017	07/04/2017	07/04/2017	24/04/2017
Date analysed	-	29/03/2017	06/04/2017	07/04/2017	07/04/2017	24/04/2017
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	73	125	71	109	99

Client Reference: Hydro Aluminium AS130515 Monoliths Filtered

PAHs in Eluates						
Our Reference		162119-D-16	162119-D-17	162119-D-18	162119-D-19	162119-D-20
Your Reference	UNITS	MW202_>125 T07	MW202_>125 T08	MW202_>125 T09	MW203_>125 T01	MW203_>125 T02
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date extracted	-	5/05/2017	12/05/2017	26/05/2017	24/03/2017	28/03/2017
Date analysed	-	8/05/2017	15/05/2017	29/05/2017	25/03/2017	29/03/2017
Naphthalene	µg/L	<1	2	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	1.7	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	98	97	80	116	76



Client Reference: Hydro Aluminium AS130515 Monoliths Filtered

PAHs in Eluates						
Our Reference		162119-D-21	162119-D-22	162119-D-23	162119-D-24	162119-D-25
Your Reference	UNITS	MW203_>125 T03	MW203_>125 T04	MW203_>125 T05	MW203_>125 T06	MW203_>125 T07
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date extracted	-	05/04/2017	07/04/2017	07/04/2017	24/04/2017	5/05/2017
Date analysed	-	06/04/2017	07/04/2017	07/04/2017	24/04/2017	8/05/2017
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	105	78	106	105	97

Client Reference: Hydro Aluminium AS130515 Monoliths Filtered

PAHs in Eluates						
Our Reference		162119-D-26	162119-D-27	162119-D-28	162119-D-29	162119-D-30
Your Reference	UNITS	MW203_>125 T08	MW203_>125 T09	MW204_>125 T01	MW204_>125 T02	MW204_>125 T03
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date extracted	-	12/05/2017	26/05/2017	24/03/2017	28/03/2017	05/04/2017
Date analysed	-	15/05/2017	29/05/2017	25/03/2017	29/03/2017	06/04/2017
Naphthalene	µg/L	1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	1.2	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	116	87	134	63	96

Client Reference: Hydro Aluminium AS130515 Monoliths Filtered

PAHs in Eluates						
Our Reference		162119-D-31	162119-D-32	162119-D-33	162119-D-34	162119-D-35
Your Reference	UNITS	MW204_>125 T04	MW204_>125 T05	MW204_>125 T06	MW204_>125 T07	MW204_>125 T08
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date extracted	-	07/04/2017	07/04/2017	24/04/2017	5/05/2017	12/05/2017
Date analysed	-	07/04/2017	07/04/2017	24/04/2017	8/05/2017	15/05/2017
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	78	110	112	118	121

Client Reference: Hydro Aluminium AS130515 Monoliths Filtered

PAHs in Eluates						
Our Reference		162119-D-36	162119-D-37	162119-D-38	162119-D-39	162119-D-40
Your Reference	UNITS	MW204_>125 T09	MW205_>125 T01	MW205_>125 T02	MW205_>125 T03	MW205_>125 T04
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date extracted	-	26/05/2017	24/03/2017	28/03/2017	05/04/2017	07/04/2017
Date analysed	-	29/05/2017	25/03/2017	29/03/2017	06/04/2017	07/04/2017
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	70	86	77	108	89

Client Reference: Hydro Aluminium AS130515 Monoliths Filtered

PAHs in Eluates						
Our Reference		162119-D-41	162119-D-42	162119-D-43	162119-D-44	162119-D-45
Your Reference	UNITS	MW205_>125 T05	MW205_>125 T06	MW205_>125 T07	MW205_>125 T08	MW205_>125 T09
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date extracted	-	07/04/2017	24/04/2017	5/05/2017	12/05/2017	26/05/2017
Date analysed	-	07/04/2017	24/04/2017	8/05/2017	15/05/2017	29/05/2017
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	70	109	94	124	92

Client Reference: Hydro Aluminium AS130515 Monoliths Filtered

PAHs in Eluates						
Our Reference		162119-D-46	162119-D-47	162119-D-48	162119-D-49	162119-D-50
Your Reference	UNITS	MW206_>125 T01	MW206_>125 T02	MW206_>125 T03	MW206_>125 T04	MW206_>125 T05
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date extracted	-	24/03/2017	28/03/2017	05/04/2017	07/04/2017	07/04/2017
Date analysed	-	25/03/2017	29/03/2017	06/04/2017	07/04/2017	07/04/2017
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	90	87	108	85	108

Client Reference: Hydro Aluminium AS130515 Monoliths Filtered

PAHs in Eluates						
Our Reference		162119-D-51	162119-D-52	162119-D-53	162119-D-54	162119-D-55
Your Reference	UNITS	MW206_>125 T06	MW206_>125 T07	MW206_>125 T08	MW206_>125 T09	SPL_First Cut_1 T01
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date extracted	-	24/04/2017	5/05/2017	07/04/2017	26/05/2017	24/03/2017
Date analysed	-	24/04/2017	8/05/2017	15/05/2017	29/05/2017	25/03/2017
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	112	93	104	85	104

Client Reference: Hydro Aluminium AS130515 Monoliths Filtered

PAHs in Eluates						
Our Reference		162119-D-56	162119-D-57	162119-D-58	162119-D-59	162119-D-60
Your Reference	UNITS	SPL_First Cut_1 T02	SPL_First Cut_1 T03	SPL_First Cut_1 T04	SPL_First Cut_1 T05	SPL_First Cut_1 T06
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date extracted	-	28/03/2017	05/04/2017	07/04/2017	07/04/2017	24/04/2017
Date analysed	-	29/03/2017	06/04/2017	07/04/2017	07/04/2017	24/04/2017
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	78	101	83	104	106



Client Reference: Hydro Aluminium AS130515 Monoliths Filtered

PAHs in Eluates						
Our Reference		162119-D-61	162119-D-62	162119-D-63	162119-D-64	162119-D-65
Your Reference	UNITS	SPL_First Cut_1 T07	SPL_First Cut_1 T08	SPL_First Cut_1 T09	SPL_First Cut_2 T01	SPL_First Cut_2 T02
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date extracted	-	5/05/2017	12/05/2017	26/05/2017	24/03/2017	28/03/2017
Date analysed	-	8/05/2017	15/05/2017	29/05/2017	25/03/2017	29/03/2017
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	104	114	98	94	87

Client Reference: Hydro Aluminium AS130515 Monoliths Filtered

PAHs in Eluates						
Our Reference		162119-D-66	162119-D-67	162119-D-68	162119-D-69	162119-D-70
Your Reference	UNITS	SPL_First Cut_2 T03	SPL_First Cut_2 T04	SPL_First Cut_2 T05	SPL_First Cut_2 T06	SPL_First Cut_2 T07
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date extracted	-	05/04/2017	07/04/2017	07/04/2017	24/04/2017	5/05/2017
Date analysed	-	06/04/2017	07/04/2017	07/04/2017	24/04/2017	8/05/2017
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	122	71	101	79	105

Client Reference: Hydro Aluminium AS130515 Monoliths Filtered

PAHs in Eluates						
Our Reference		162119-D-71	162119-D-72	162119-D-73	162119-D-74	162119-D-75
Your Reference	UNITS	SPL_First Cut_2 T08	SPL_First Cut_2 T09	SPL_First Cut_3 T01	SPL_First Cut_3 T02	SPL_First Cut_3 T03
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date extracted	-	12/05/2017	26/05/2017	24/03/2017	28/03/2017	05/04/2017
Date analysed	-	15/05/2017	29/05/2017	25/03/2017	29/03/2017	07/04/2017
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	92	108	98	83	96

Client Reference: Hydro Aluminium AS130515 Monoliths Filtered

PAHs in Eluates						
Our Reference		162119-D-76	162119-D-77	162119-D-78	162119-D-79	162119-D-80
Your Reference	UNITS	SPL_First Cut_3 T04	SPL_First Cut_3 T05	SPL_First Cut_3 T06	SPL_First Cut_3 T07	SPL_First Cut_3 T08
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date extracted	-	07/04/2017	07/04/2017	24/04/2017	5/05/2017	12/05/2017
Date analysed	-	07/04/2017	07/04/2017	24/04/2017	8/05/2017	15/05/2017
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	90	109	120	125	107

Client Reference: Hydro Aluminium AS130515 Monoliths Filtered

PAHs in Eluates						
Our Reference		162119-D-81	162119-D-82	162119-D-83	162119-D-84	162119-D-85
Your Reference	UNITS	SPL_First Cut_3 T09	SPL_First Cut_4 T01	SPL_First Cut_4 T02	SPL_First Cut_4 T03	SPL_First Cut_4 T04
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date extracted	-	26/05/2017	24/03/2017	28/03/2017	05/04/2017	07/04/2017
Date analysed	-	29/05/2017	25/03/2017	29/03/2017	07/04/2017	07/04/2017
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	100	82	86	96	86

Client Reference: Hydro Aluminium AS130515 Monoliths Filtered

PAHs in Eluates						
Our Reference		162119-D-86	162119-D-87	162119-D-88	162119-D-89	162119-D-90
Your Reference	UNITS	SPL_First Cut_4 T05	SPL_First Cut_4 T06	SPL_First Cut_4 T07	SPL_First Cut_4 T08	SPL_First Cut_4 T09
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date extracted	-	07/04/2017	24/04/2017	5/05/2017	12/05/2017	26/05/2017
Date analysed	-	07/04/2017	24/04/2017	8/05/2017	15/05/2017	29/05/2017
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	107	123	128	115	97

Client Reference: Hydro Aluminium AS130515 Monoliths Filtered

PAHs in Eluates						
Our Reference		162119-D-91	162119-D-92	162119-D-93	162119-D-94	162119-D-95
Your Reference	UNITS	SPL_First Cut_5 T01	SPL_First Cut_5 T02	SPL_First Cut_5 T03	SPL_First Cut_5 T04	SPL_First Cut_5 T05
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date extracted	-	24/03/2017	28/03/2017	05/04/2017	07/04/2017	07/04/2017
Date analysed	-	25/03/2017	29/03/2017	07/04/2017	07/04/2017	07/04/2017
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	92	116	80	99	107

Client Reference: Hydro Aluminium AS130515 Monoliths Filtered

PAHs in Eluates						
Our Reference		162119-D-96	162119-D-97	162119-D-98	162119-D-99	162119-D-100
Your Reference	UNITS	SPL_First Cut_5 T06	SPL_First Cut_5 T07	SPL_First Cut_5 T08	SPL_First Cut_5 T09	SPL_Second Cut_1 T01
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date extracted	-	24/04/2017	5/05/2017	12/05/2017	26/05/2017	24/03/2017
Date analysed	-	24/04/2017	8/05/2017	15/05/2017	29/05/2017	25/03/2017
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	104	110	107	101	78



Client Reference: Hydro Aluminium AS130515 Monoliths Filtered

PAHs in Eluates						
Our Reference		162119-D-101	162119-D-102	162119-D-103	162119-D-104	162119-D-105
Your Reference	UNITS	SPL_Second Cut_1 T02	SPL_Second Cut_1 T03	SPL_Second Cut_1 T04	SPL_Second Cut_1 T05	SPL_Second Cut_1 T06
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date extracted	-	28/03/2017	05/04/2017	07/04/2017	07/04/2017	24/04/2017
Date analysed	-	29/03/2017	07/04/2017	07/04/2017	07/04/2017	24/04/2017
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	112	75	80	99	106

Client Reference: Hydro Aluminium AS130515 Monoliths Filtered

PAHs in Eluates						
Our Reference		162119-D-106	162119-D-107	162119-D-108	162119-D-109	162119-D-110
Your Reference	UNITS	SPL_Second Cut_1 T07	SPL_Second Cut_1 T08	SPL_Second Cut_1 T09	SPL_Second Cut_2 T01	SPL_Second Cut_2 T02
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date extracted	-	5/05/2017	12/05/2017	26/05/2017	24/03/2017	28/03/2017
Date analysed	-	8/05/2017	15/05/2017	29/05/2017	25/03/2017	29/03/2017
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	104	114	135	88	78

Client Reference: Hydro Aluminium AS130515 Monoliths Filtered

PAHs in Eluates						
Our Reference		162119-D-111	162119-D-112	162119-D-113	162119-D-114	162119-D-115
Your Reference	UNITS	SPL_Second Cut_2 T03	SPL_Second Cut_2 T04	SPL_Second Cut_2 T05	SPL_Second Cut_2 T06	SPL_Second Cut_2 T07
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date extracted	-	05/04/2017	07/04/2017	07/04/2017	24/04/2017	5/05/2017
Date analysed	-	07/04/2017	07/04/2017	07/04/2017	24/04/2017	8/05/2017
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	68	80	111	112	108

Client Reference: Hydro Aluminium AS130515 Monoliths Filtered

PAHs in Eluates						
Our Reference		162119-D-116	162119-D-117	162119-D-118	162119-D-119	162119-D-120
Your Reference	UNITS	SPL_Second Cut_2 T08	SPL_Second Cut_2 T09	SPL_Second Cut_3 T01	SPL_Second Cut_3 T02	SPL_Second Cut_3 T03
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date extracted	-	12/05/2017	26/05/2017	24/03/2017	28/03/2017	05/04/2017
Date analysed	-	15/05/2017	29/05/2017	25/03/2017	29/03/2017	07/04/2017
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	101	92	78	78	71

Client Reference: Hydro Aluminium AS130515 Monoliths Filtered

PAHs in Eluates						
Our Reference		162119-D-121	162119-D-122	162119-D-123	162119-D-124	162119-D-125
Your Reference	UNITS	SPL_Second Cut_3 T04	SPL_Second Cut_3 T05	SPL_Second Cut_3 T06	SPL_Second Cut_3 T07	SPL_Second Cut_3 T08
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date extracted	-	07/04/2017	07/04/2017	24/04/2017	5/05/2017	12/05/2017
Date analysed	-	07/04/2017	07/04/2017	24/04/2017	8/05/2017	15/05/2017
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	84	102	118	85	115

Client Reference: Hydro Aluminium AS130515 Monoliths Filtered

PAHs in Eluates						
Our Reference		162119-D-126	162119-D-127	162119-D-128	162119-D-129	162119-D-130
Your Reference	UNITS	SPL_Second Cut_3 T09	SPL_Second Cut_4 T01	SPL_Second Cut_4 T02	SPL_Second Cut_4 T03	SPL_Second Cut_4 T04
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date extracted	-	26/05/2017	27/03/2017	28/03/2017	05/04/2017	07/04/2017
Date analysed	-	29/05/2017	28/03/2017	29/03/2017	07/04/2017	07/04/2017
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	90	60	82	77	76

Client Reference: Hydro Aluminium AS130515 Monoliths Filtered

PAHs in Eluates						
Our Reference		162119-D-131	162119-D-132	162119-D-133	162119-D-134	162119-D-135
Your Reference	UNITS	SPL_Second Cut_4 T05	SPL_Second Cut_4 T06	SPL_Second Cut_4 T07	SPL_Second Cut_4 T08	SPL_Second Cut_4 T09
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date extracted	-	07/04/2017	24/04/2017	5/05/2017	12/05/2017	26/05/2017
Date analysed	-	07/04/2017	24/04/2017	8/05/2017	15/05/2017	29/05/2017
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	102	108	105	120	84

Client Reference: Hydro Aluminium AS130515 Monoliths Filtered

PAHs in Eluates						
Our Reference		162119-D-136	162119-D-137	162119-D-138	162119-D-139	162119-D-140
Your Reference	UNITS	SPL_Second Cut_5 T01	SPL_Second Cut_5 T02	SPL_Second Cut_5 T03	SPL_Second Cut_5 T04	SPL_Second Cut_5 T05
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date extracted	-	27/03/2017	28/03/2017	05/04/2017	07/04/2017	11/04/2017
Date analysed	-	28/03/2017	29/03/2017	07/04/2017	07/04/2017	11/04/2017
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	71	83	78	80	121



Client Reference: Hydro Aluminium AS130515 Monoliths Filtered

PAHs in Eluates						
Our Reference		162119-D-141	162119-D-142	162119-D-143	162119-D-144	162119-D-145
Your Reference	UNITS	SPL_Second Cut_5 T06	SPL_Second Cut_5 T07	SPL_Second Cut_5 T08	SPL_Second Cut_5 T09	MW201 - 2nd sub-sample >125mm T01
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date extracted	-	24/04/2017	5/05/2017	12/05/2017	26/05/2017	27/03/2017
Date analysed	-	24/04/2017	8/05/2017	15/05/2017	29/05/2017	28/03/2017
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	113	102	119	102	60

Client Reference: Hydro Aluminium AS130515 Monoliths Filtered

PAHs in Eluates						
Our Reference		162119-D-146	162119-D-147	162119-D-148	162119-D-149	162119-D-150
Your Reference	UNITS	MW201 - 2nd sub-sample>125mm T02	MW201 - 2nd sub-sample>125mm T03	MW201 - 2nd sub-sample>125mm T04	MW201 - 2nd sub-sample>125mm T05	MW201 - 2nd sub-sample>125mm T06
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date extracted	-	28/03/2017	05/04/2017	07/04/2017	11/04/2017	24/04/2017
Date analysed	-	30/03/2017	07/04/2017	07/04/2017	11/04/2017	24/04/2017
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	82	69	71	118	99

**Client Reference: Hydro Aluminium AS130515 Monoliths Filtered**

<b>PAHs in Eluates</b>						
Our Reference		162119-D-151	162119-D-152	162119-D-153	162119-D-154	162119-D-155
Your Reference	UNITS	MW201 - 2nd sub-sample>125mm T07	MW201 - 2nd sub-sample>125mm T08	MW201 - 2nd sub-sample>125mm T09	MW202 - 2nd sub-sample>125mm T01	MW202 - 2nd sub-sample>125mm T02
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date extracted	-	5/05/2017	12/05/2017	26/05/2017	27/03/2017	28/03/2017
Date analysed	-	8/05/2017	15/05/2017	29/05/2017	28/03/2017	30/03/2017
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	92	117	94	60	72

Client Reference: Hydro Aluminium AS130515 Monoliths Filtered

PAHs in Eluates						
Our Reference		162119-D-156	162119-D-157	162119-D-158	162119-D-159	162119-D-160
Your Reference	UNITS	MW202 - 2nd sub-sample>125mm T03	MW202 - 2nd sub-sample>125mm T04	MW202 - 2nd sub-sample>125mm T05	MW202 - 2nd sub-sample>125mm T06	MW202 - 2nd sub-sample>125mm T07
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date extracted	-	05/04/2017	07/04/2017	11/04/2017	24/04/2017	5/05/2017
Date analysed	-	07/04/2017	07/04/2017	11/04/2017	24/04/2017	8/05/2017
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	97	88	115	81	100

Client Reference: Hydro Aluminium AS130515 Monoliths Filtered

PAHs in Eluates						
Our Reference		162119-D-161	162119-D-162	162119-D-163	162119-D-164	162119-D-165
Your Reference	UNITS	MW202 - 2nd sub-sample>125mm T08	MW202 - 2nd sub-sample>125mm T09	MW203 - 2nd sub-sample>125mm T01	MW203 - 2nd sub-sample>125mm T02	MW203 - 2nd sub-sample>125mm T03
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date extracted	-	12/05/2017	26/05/2017	27/03/2017	28/03/2017	06/04/2017
Date analysed	-	15/05/2017	29/05/2017	28/03/2017	30/03/2017	07/04/2017
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	97	81	68	81	81

Client Reference: Hydro Aluminium AS130515 Monoliths Filtered

PAHs in Eluates						
Our Reference		162119-D-166	162119-D-167	162119-D-168	162119-D-169	162119-D-170
Your Reference	UNITS	MW203 - 2nd sub-sample>125mm T04	MW203 - 2nd sub-sample>125mm T05	MW203 - 2nd sub-sample>125mm T06	MW203 - 2nd sub-sample>125mm T07	MW203 - 2nd sub-sample>125mm T08
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date extracted	-	07/04/2017	11/04/2017	24/04/2017	5/05/2017	12/05/2017
Date analysed	-	07/04/2017	11/04/2017	24/04/2017	8/05/2017	15/05/2017
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	85	109	107	89	118

Client Reference: Hydro Aluminium AS130515 Monoliths Filtered

PAHs in Eluates						
Our Reference		162119-D-171	162119-D-172	162119-D-173	162119-D-174	162119-D-175
Your Reference	UNITS	MW203 - 2nd sub-sample>125mm T09	MW204 - 2nd sub-sample>125mm T01	MW204 - 2nd sub-sample>125mm T02	MW204 - 2nd sub-sample>125mm T03	MW204 - 2nd sub-sample>125mm T04
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date extracted	-	29/05/2017	27/03/2017	28/03/2017	06/04/2017	07/04/2017
Date analysed	-	30/05/2017	28/03/2017	30/03/2017	07/04/2017	07/04/2017
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	94	90	71	74	90

Client Reference: Hydro Aluminium AS130515 Monoliths Filtered

PAHs in Eluates						
Our Reference		162119-D-176	162119-D-177	162119-D-178	162119-D-179	162119-D-180
Your Reference	UNITS	MW204 - 2nd sub-sample>125mm T05	MW204 - 2nd sub-sample>125mm T06	MW204 - 2nd sub-sample>125mm T07	MW204 - 2nd sub-sample>125mm T08	MW204 - 2nd sub-sample>125mm T09
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date extracted	-	11/04/2017	24/04/2017	5/05/2017	12/05/2017	29/05/2017
Date analysed	-	11/04/2017	24/04/2017	8/05/2017	15/05/2017	30/05/2017
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	118	100	121	115	114



**Client Reference: Hydro Aluminium AS130515 Monoliths Filtered**

<b>PAHs in Eluates</b>						
Our Reference		162119-D-181	162119-D-182	162119-D-183	162119-D-184	162119-D-185
Your Reference	UNITS	MW205 - 2nd sub-sample>125mm T01	MW205 - 2nd sub-sample>125mm T02	MW205 - 2nd sub-sample>125mm T03	MW205 - 2nd sub-sample>125mm T04	MW205 - 2nd sub-sample>125mm T05
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date extracted	-	27/03/2017	28/03/2017	06/04/2017	07/04/2017	11/04/2017
Date analysed	-	28/03/2017	30/03/2017	07/04/2017	07/04/2017	11/04/2017
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	88	76	72	89	85

**Client Reference: Hydro Aluminium AS130515 Monoliths Filtered**

<b>PAHs in Eluates</b>						
Our Reference		162119-D-186	162119-D-187	162119-D-188	162119-D-189	162119-D-190
Your Reference	UNITS	MW205 - 2nd sub-sample>125mm T06	MW205 - 2nd sub-sample>125mm T07	MW205 - 2nd sub-sample>125mm T08	MW205 - 2nd sub-sample>125mm T09	MW206 - 2nd sub-sample>125mm T01
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date extracted	-	24/04/2017	5/05/2017	12/05/2017	29/05/2017	27/03/2017
Date analysed	-	24/04/2017	8/05/2017	15/05/2017	30/05/2017	28/03/2017
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	110	106	118	94	81

Client Reference: Hydro Aluminium AS130515 Monoliths Filtered

PAHs in Eluates						
Our Reference		162119-D-191	162119-D-192	162119-D-193	162119-D-194	162119-D-195
Your Reference	UNITS	MW206 - 2nd sub-sample>125mm T02	MW206 - 2nd sub-sample>125mm T03	MW206 - 2nd sub-sample>125mm T04	MW206 - 2nd sub-sample>125mm T05	MW206 - 2nd sub-sample>125mm T06
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date extracted	-	28/03/2017	06/04/2017	07/04/2017	11/04/2017	24/04/2017
Date analysed	-	30/03/2017	07/04/2017	07/04/2017	11/04/2017	24/04/2017
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	1	<1
Chrysene	µg/L	<1	<1	<1	1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE	2.4	NIL (+)VE
Surrogate p-Terphenyl-d14	%	70	87	82	92	104

Client Reference: Hydro Aluminium AS130515 Monoliths Filtered

PAHs in Eluates						
Our Reference		162119-D-196	162119-D-197	162119-D-198	162119-D-199	162119-D-200
Your Reference	UNITS	MW206 - 2nd sub-sample>125mm T07	MW206 - 2nd sub-sample>125mm T08	MW206 - 2nd sub-sample>125mm T09	MW201 + 50% Lime WET T01	MW201 + 50% Lime WET T02
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date extracted	-	5/05/2017	12/05/2017	29/05/2017	27/03/2017	28/03/2017
Date analysed	-	8/05/2017	15/05/2017	30/05/2017	28/03/2017	30/03/2017
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	110	116	111	90	74

**Client Reference: Hydro Aluminium AS130515 Monoliths Filtered**

<b>PAHs in Eluates</b>						
Our Reference		162119-D-201	162119-D-202	162119-D-203	162119-D-204	162119-D-205
Your Reference	UNITS	MW201 + 50% Lime WET T03	MW201 + 50% Lime WET T04	MW201 + 50% Lime WET T05	MW201 + 50% Lime WET T06	MW201 + 50% Lime WET T07
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date extracted	-	06/04/2017	07/04/2017	11/04/2017	24/04/2017	5/05/2017
Date analysed	-	07/04/2017	07/04/2017	11/04/2017	24/04/2017	8/05/2017
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	66	73	106	104	100

Client Reference: Hydro Aluminium AS130515 Monoliths Filtered

PAHs in Eluates						
Our Reference		162119-D-206	162119-D-207	162119-D-208	162119-D-209	162119-D-210
Your Reference	UNITS	MW201 + 50% Lime WET T08	MW201 + 50% Lime WET T09	MW202 + 50% Lime WET T01	MW202 + 50% Lime WET T02	MW202 + 50% Lime WET T03
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date extracted	-	12/05/2017	29/05/2017	27/03/2017	28/03/2017	06/04/2017
Date analysed	-	15/05/2017	30/05/2017	28/03/2017	30/03/2017	07/04/2017
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	112	92	75	70	66

Client Reference: Hydro Aluminium AS130515 Monoliths Filtered

PAHs in Eluates						
Our Reference		162119-D-211	162119-D-212	162119-D-213	162119-D-214	162119-D-215
Your Reference	UNITS	MW202 + 50% Lime WET T04	MW202 + 50% Lime WET T05	MW202 + 50% Lime WET T06	MW202 + 50% Lime WET T07	MW202 + 50% Lime WET T08
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date extracted	-	11/04/2017	11/04/2017	24/04/2017	5/05/2017	12/05/2017
Date analysed	-	11/04/2017	11/04/2017	24/04/2017	8/05/2017	15/05/2017
Naphthalene	µg/L	2	1	2	2	2
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	2	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	1.7	1	2.3	3.3	2.5
Surrogate p-Terphenyl-d14	%	76	111	110	93	111

Client Reference: Hydro Aluminium AS130515 Monoliths Filtered

PAHs in Eluates						
Our Reference		162119-D-216	162119-D-217	162119-D-218	162119-D-219	162119-D-220
Your Reference	UNITS	MW202 + 50% Lime WET T09	MW203 + 50% Lime WET T01	MW203 + 50% Lime WET T02	MW203 + 50% Lime WET T03	MW203 + 50% Lime WET T04
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date extracted	-	29/05/2017	27/03/2017	28/03/2017	06/04/2017	07/04/2017
Date analysed	-	30/05/2017	28/03/2017	30/03/2017	07/04/2017	07/04/2017
Naphthalene	µg/L	2	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	2.2	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	76	80	85	73	75



Client Reference: Hydro Aluminium AS130515 Monoliths Filtered

PAHs in Eluates						
Our Reference		162119-D-221	162119-D-222	162119-D-223	162119-D-224	162119-D-225
Your Reference	UNITS	MW203 + 50% Lime WET T05	MW203 + 50% Lime WET T06	MW203 + 50% Lime WET T07	MW203 + 50% Lime WET T08	MW203 + 50% Lime WET T09
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date extracted	-	11/04/2017	24/04/2017	5/05/2017	12/05/2017	29/05/2017
Date analysed	-	11/04/2017	24/04/2017	8/05/2017	15/05/2017	30/05/2017
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	113	109	110	120	91

Client Reference: Hydro Aluminium AS130515 Monoliths Filtered

PAHs in Eluates						
Our Reference		162119-D-226	162119-D-227	162119-D-228	162119-D-229	162119-D-230
Your Reference	UNITS	MW204 + 50% Lime WET T01	MW204 + 50% Lime WET T02	MW204 + 50% Lime WET T03	MW204 + 50% Lime WET T04	MW204 + 50% Lime WET T05
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date extracted	-	27/03/2017	28/03/2017	06/04/2017	07/04/2017	11/04/2017
Date analysed	-	28/03/2017	30/03/2017	07/04/2017	07/04/2017	11/04/2017
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	73	88	74	69	63

Client Reference: Hydro Aluminium AS130515 Monoliths Filtered

PAHs in Eluates						
Our Reference		162119-D-231	162119-D-232	162119-D-233	162119-D-234	162119-D-235
Your Reference	UNITS	MW204 + 50% Lime WET T06	MW204 + 50% Lime WET T07	MW204 + 50% Lime WET T08	MW204 + 50% Lime WET T09	MW205 + 50% Lime WET T01
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date extracted	-	24/04/2017	12/05/2017	07/04/2017	29/05/2017	27/03/2017
Date analysed	-	24/04/2017	15/05/2017	15/05/2017	30/05/2017	28/03/2017
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	115	120	103	91	86

Client Reference: Hydro Aluminium AS130515 Monoliths Filtered

PAHs in Eluates						
Our Reference		162119-D-236	162119-D-237	162119-D-238	162119-D-239	162119-D-240
Your Reference	UNITS	MW205 + 50% Lime WET T02	MW205 + 50% Lime WET T03	MW205 + 50% Lime WET T04	MW205 + 50% Lime WET T05	MW205 + 50% Lime WET T06
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date extracted	-	28/03/2017	06/04/2017	07/04/2017	11/04/2017	24/04/2017
Date analysed	-	30/03/2017	07/04/2017	07/04/2017	11/04/2017	24/04/2017
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	68	72	76	61	110

Client Reference: Hydro Aluminium AS130515 Monoliths Filtered

PAHs in Eluates						
Our Reference		162119-D-241	162119-D-242	162119-D-243	162119-D-244	162119-D-245
Your Reference	UNITS	MW205 + 50% Lime WET T07	MW205 + 50% Lime WET T08	MW205 + 50% Lime WET T09	MW206 + 50% Lime WET T01	MW206 + 50% Lime WET T02
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date extracted	-	5/05/2017	12/05/2017	29/05/2017	27/03/2017	31/03/2017
Date analysed	-	8/05/2017	15/05/2017	30/05/2017	28/03/2017	31/03/2017
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	115	102	92	89	65

Client Reference: Hydro Aluminium AS130515 Monoliths Filtered

PAHs in Eluates						
Our Reference		162119-D-246	162119-D-247	162119-D-248	162119-D-249	162119-D-250
Your Reference	UNITS	MW206 + 50% Lime WET T03	MW206 + 50% Lime WET T04	MW206 + 50% Lime WET T05	MW206 + 50% Lime WET T06	MW206 + 50% Lime WET T07
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date extracted	-	06/04/2017	07/04/2017	19/04/2017	24/04/2017	5/05/2017
Date analysed	-	07/04/2017	07/04/2017	19/04/2017	24/04/2017	8/05/2017
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE	1.2	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	76	68	77	94	112

Client Reference: Hydro Aluminium AS130515 Monoliths Filtered

PAHs in Eluates						
Our Reference		162119-D-251	162119-D-252	162119-D-253	162119-D-254	162119-D-255
Your Reference	UNITS	MW206 + 50% Lime WET T08	MW206 + 50% Lime WET T09	MW201 + 30% Cement WET T01	MW201 + 30% Cement WET T02	MW201 + 30% Cement WET
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date extracted	-	12/05/2017	29/05/2017	27/03/2017	31/03/2017	07/04/2017
Date analysed	-	15/05/2017	30/05/2017	28/03/2017	31/03/2017	07/04/2017
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	85	89	75	68	79

**Client Reference: Hydro Aluminium AS130515 Monoliths Filtered**

<b>PAHs in Eluates</b>						
Our Reference		162119-D-256	162119-D-257	162119-D-258	162119-D-259	162119-D-260
Your Reference	UNITS	MW201 + 30% Cement WET T04	MW201 + 30% Cement WET T05	MW201 + 30% Cement WET T06	MW201 + 30% Cement WET T07	MW201 + 30% Cement WET
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date extracted	-	07/04/2017	19/04/2017	24/04/2017	5/05/2017	12/05/2017
Date analysed	-	07/04/2017	19/04/2017	24/04/2017	8/05/2017	15/05/2017
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	81	60	106	116	115



Client Reference: Hydro Aluminium AS130515 Monoliths Filtered

PAHs in Eluates						
Our Reference		162119-D-261	162119-D-262	162119-D-263	162119-D-264	162119-D-265
Your Reference	UNITS	MW201 + 30% Cement WET T09	MW202 + 30% Cement WET T01	MW202 + 30% Cement WET T02	MW202 + 30% Cement WET T03	MW202 + 30% Cement WET
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date extracted	-	29/05/2017	28/03/2017	31/03/2017	07/04/2017	07/04/2017
Date analysed	-	30/05/2017	28/03/2017	31/03/2017	07/04/2017	07/04/2017
Naphthalene	µg/L	<1	<1	<1	<1	2
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	2.0
Surrogate p-Terphenyl-d14	%	92	64	106	73	69

Client Reference: Hydro Aluminium AS130515 Monoliths Filtered

PAHs in Eluates						
Our Reference		162119-D-266	162119-D-267	162119-D-268	162119-D-269	162119-D-270
Your Reference	UNITS	MW202 + 30% Cement WET T05	MW202 + 30% Cement WET T06	MW202 + 30% Cement WET T07	MW202 + 30% Cement WET T08	MW202 + 30% Cement WET
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date extracted	-	19/04/2017	24/04/2017	5/05/2017	12/05/2017	29/05/2017
Date analysed	-	19/04/2017	24/04/2017	8/05/2017	15/05/2017	30/05/2017
Naphthalene	µg/L	<1	2	2	3	1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	2	2	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	2.5	3.9	4.8	1.3
Surrogate p-Terphenyl-d14	%	62	109	102	113	87

Client Reference: Hydro Aluminium AS130515 Monoliths Filtered

PAHs in Eluates						
Our Reference		162119-D-271	162119-D-272	162119-D-273	162119-D-274	162119-D-275
Your Reference	UNITS	MW203+ 30% Cement WET T01	MW203+ 30% Cement WET T02	MW203+ 30% Cement WET T03	MW203+ 30% Cement WET T04	MW203+ 30% Cement WET
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date extracted	-	28/03/2017	31/03/2017	07/04/2017	07/04/2017	19/04/2017
Date analysed	-	28/03/2017	31/03/2017	07/04/2017	07/04/2017	19/04/2017
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	80	112	69	62	60

Client Reference: Hydro Aluminium AS130515 Monoliths Filtered

PAHs in Eluates						
Our Reference		162119-D-276	162119-D-277	162119-D-278	162119-D-279	162119-D-280
Your Reference	UNITS	MW203+ 30% Cement WET T06	MW203+ 30% Cement WET T07	MW203+ 30% Cement WET T08	MW203+ 30% Cement WET T09	MW204 + 30% Cement WET T01
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date extracted	-	24/04/2017	5/05/2017	12/05/2017	29/05/2017	28/03/2017
Date analysed	-	24/04/2017	8/05/2017	15/05/2017	30/05/2017	28/03/2017
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate <i>p</i> -Terphenyl-d14	%	100	103	112	88	84

Client Reference: Hydro Aluminium AS130515 Monoliths Filtered

PAHs in Eluates						
Our Reference		162119-D-281	162119-D-282	162119-D-283	162119-D-284	162119-D-285
Your Reference	UNITS	MW204 + 30% Cement WET T02	MW204 + 30% Cement WET T03	MW204 + 30% Cement WET T04	MW204 + 30% Cement WET T05	MW204 + 30% Cement WET
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date extracted	-	31/03/2017	07/04/2017	07/04/2017	19/04/2017	24/04/2017
Date analysed	-	31/03/2017	07/04/2017	07/04/2017	19/04/2017	24/04/2017
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	62	65	70	74	112

Client Reference: Hydro Aluminium AS130515 Monoliths Filtered

PAHs in Eluates						
Our Reference		162119-D-286	162119-D-287	162119-D-288	162119-D-298	162119-D-299
Your Reference	UNITS	MW204 + 30% Cement WET T07	MW204 + 30% Cement WET T08	MW204 + 30% Cement WET T09	MW206 + 30% Cement WET T01	MW206 + 30% Cement WET
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date extracted	-	5/05/2017	12/05/2017	29/05/2017	28/03/2017	31/03/2017
Date analysed	-	8/05/2017	15/05/2017	30/05/2017	28/03/2017	31/03/2017
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	97	125	88	82	112

Client Reference: Hydro Aluminium AS130515 Monoliths Filtered

PAHs in Eluates						
Our Reference		162119-D-300	162119-D-301	162119-D-302	162119-D-303	162119-D-304
Your Reference	UNITS	MW206 + 30% Cement WET T03	MW206 + 30% Cement WET T04	MW206 + 30% Cement WET T05	MW206 + 30% Cement WET T06	MW206 + 30% Cement WET
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date extracted	-	07/04/2017	07/04/2017	19/04/2017	24/04/2017	5/05/2017
Date analysed	-	07/04/2017	07/04/2017	19/04/2017	24/04/2017	8/05/2017
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	<1	3
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	2
Pyrene	µg/L	<1	<1	<1	<1	2
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	8.5
Surrogate p-Terphenyl-d14	%	62	69	60	107	89

PAHs in Eluates			
Our Reference		162119-D-305	162119-D-306
Your Reference	UNITS	MW206 + 30% Cement WET T08	MW206 + 30% Cement WET
Date Sampled		10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date extracted	-	12/05/2017	29/05/2017
Date analysed	-	15/05/2017	30/05/2017
Naphthalene	µg/L	<1	<1
Acenaphthylene	µg/L	<1	<1
Acenaphthene	µg/L	<1	<1
Fluorene	µg/L	<1	<1
Phenanthrene	µg/L	<1	<1
Anthracene	µg/L	<1	<1
Fluoranthene	µg/L	<1	<1
Pyrene	µg/L	<1	<1
Benzo(a)anthracene	µg/L	<1	<1
Chrysene	µg/L	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2
Benzo(a)pyrene	µg/L	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE
Surrogate <i>p</i> -Terphenyl-d14	%	109	80



**Client Reference: Hydro Aluminium AS130515 Monoliths Filtered**

SW846-1315 LEAF Monolith						
Our Reference		162119-D-1	162119-D-2	162119-D-3	162119-D-4	162119-D-5
Your Reference	UNITS	MW201_>125 T01	MW201_>125 T02	MW201_>125 T03	MW201_>125 T04	MW201_>125 T05
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	Rock Sample	Rock Sample	Rock Sample	Rock Sample	Rock Sample
Mass Used	g	388.4	388.3	388.6	389.7	390.6
Mass of Sample before Elutriation Step	g	388.3	388.6	389.7	390.6	390.7
Geometry and Dimensions 3D or 1D	mm D x mm H	289cm2 Surface Area	289cm2 Surface Area	289cm2 Surface Area	289cm2 Surface Area	289cm2 Surface Area
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	DI Water	DI Water	DI Water	DI Water	DI Water
Elutriate Volume Used	mL	2,600	2,600	2,600	2,600	2,600
Elutriate Exchange Time/Day	--	12:30am 22/03/2017	12:30am 23/03/2017	12:30am 24/03/2017	12:30am 29/03/2017	12:30am 05/04/2017
Elutriate Final EC	µS/cm	910	240	190	380	390
Elutriate Final pH	pH units	9.0	8.8	9.1	8.9	7.8
Total Cyanide in Eluates	mg/L	1.2	0.24	0.18	0.72	0.74
Fluoride, F in Eluates	mg/L	67	41	30	52	56

SW846-1315 LEAF Monolith						
Our Reference		162119-D-6	162119-D-7	162119-D-8	162119-D-9	162119-D-10
Your Reference	UNITS	MW201_>125 T06	MW201_>125 T07	MW201_>125 T08	MW201_>125 T09	MW202_>125 T01
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	Rock Sample	Rock Sample	Rock Sample	Rock Sample	Rock Sample
Mass Used	g	390.7	388.2	389.2	390.6	326.5
Mass of Sample before Elutriation Step	g	388.2	389.2	390.6	389.0	326.9
Geometry and Dimensions 3D or 1D	mm D x mm H	289cm2 Surface Area	289cm2 Surface Area	289cm2 Surface Area	289cm2 Surface Area	256cm2 Surface Area
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	DI Water	DI Water	DI Water	DI Water	DI Water
Elutriate Volume Used	mL	2,600	2,600	2,600	2,600	2,300
Elutriate Exchange Time/Day	--	12:30am 19/04/2017	12:30am 03/05/2017	12:30am 11/05/2017	12:30am 24/05/2017	12:30am 22/03/2017
Elutriate Final EC	µS/cm	430	320	170	220	22
Elutriate Final pH	pH units	7.9	7.6	7.6	6.9	9.3
Total Cyanide in Eluates	mg/L	0.92	0.72	0.25	0.24	<0.004
Fluoride, F in Eluates	mg/L	55	52	27	35	1.7

**Client Reference: Hydro Aluminium AS130515 Monoliths Filtered**

SW846-1315 LEAF Monolith						
Our Reference		162119-D-11	162119-D-12	162119-D-13	162119-D-14	162119-D-15
Your Reference	UNITS	MW202_>125 T02	MW202_>125 T03	MW202_>125 T04	MW202_>125 T05	MW202_>125 T06
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	Rock Sample	Rock Sample	Rock Sample	Rock Sample	Rock Sample
Mass Used	g	326.9	327	327.2	327.8	328.8
Mass of Sample before Elutriation Step	g	327	327.2	327.8	328.8	328.1
Geometry and Dimensions 3D or 1D	mm D x mm H	256cm2 Surface Area	256cm2 Surface Area	256cm2 Surface Area	256cm2 Surface Area	256cm2 Surface Area
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	DI Water	DI Water	DI Water	DI Water	DI Water
Elutriate Volume Used	mL	2,300	2,300	2,300	2,300	2,300
Elutriate Exchange Time/Day	--	12:30am 23/03/2017	12:30am 24/03/2017	12:30am 29/03/2017	12:30am 05/04/2017	12:30am 19/04/2017
Elutriate Final EC	µS/cm	14	9	10	13	23
Elutriate Final pH	pH units	9.8	9.1	8.8	6.6	6.7
Total Cyanide in Eluates	mg/L	<0.004	<0.004	0.005	0.004	<0.004
Fluoride, F in Eluates	mg/L	0.4	0.4	0.8	1.2	1.4

SW846-1315 LEAF Monolith						
Our Reference		162119-D-16	162119-D-17	162119-D-18	162119-D-19	162119-D-20
Your Reference	UNITS	MW202_>125 T07	MW202_>125 T08	MW202_>125 T09	MW203_>125 T01	MW203_>125 T02
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	Rock Sample	Rock Sample	Rock Sample	Rock Sample	Rock Sample
Mass Used	g	328.1	328.5	328.9	751	746.5
Mass of Sample before Elutriation Step	g	328.5	328.9	328.5	746.5	744.3
Geometry and Dimensions 3D or 1D	mm D x mm H	256cm2 Surface Area	256cm2 Surface Area	256cm2 Surface Area	289cm2 Surface Area	289cm2 Surface Area
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	DI Water	DI Water	DI Water	DI Water	DI Water
Elutriate Volume Used	mL	2,300	2,300	2,300	2,600	2,600
Elutriate Exchange Time/Day	--	12:30am 03/05/2017	12:30am 11/05/2017	12:30am 24/05/2017	12:30am 22/03/2017	12:30am 23/03/2017
Elutriate Final EC	µS/cm	13	17	8	1,000	790
Elutriate Final pH	pH units	6.5	7.2	5.8	8.6	9.0
Total Cyanide in Eluates	mg/L	<0.004	<0.004	<0.004	0.86	0.47
Fluoride, F in Eluates	mg/L	0.7	0.2	0.4	190	140

**Client Reference: Hydro Aluminium AS130515 Monoliths Filtered**

SW846-1315 LEAF Monolith						
Our Reference		162119-D-21	162119-D-22	162119-D-23	162119-D-24	162119-D-25
Your Reference	UNITS	MW203_>125 T03	MW203_>125 T04	MW203_>125 T05	MW203_>125 T06	MW203_>125 T07
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	Rock Sample	Rock Sample	Rock Sample	Rock Sample	Rock Sample
Mass Used	g	744.3	743.2	742.4	741	735.4
Mass of Sample before Elutriation Step	g	743.2	742.4	741	735.4	735.4
Geometry and Dimensions 3D or 1D	mm D x mm H	289cm2 Surface Area	289cm2 Surface Area	289cm2 Surface Area	289cm2 Surface Area	289cm2 Surface Area
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	DI Water	DI Water	DI Water	DI Water	DI Water
Elutriate Volume Used	mL	2,600	2,600	2,600	2,600	2,600
Elutriate Exchange Time/Day	--	12:30am 24/03/2017	12:30am 29/03/2017	12:30am 05/04/2017	12:30am 19/04/2017	12:30am 03/05/2017
Elutriate Final EC	µS/cm	530	1,400	1,400	1,500	1,200
Elutriate Final pH	pH units	9.1	8.8	8.9	8.9	8.5
Total Cyanide in Eluates	mg/L	0.28	0.74	0.60	0.71	0.53
Fluoride, F in Eluates	mg/L	100	220	210	300	240

SW846-1315 LEAF Monolith						
Our Reference		162119-D-26	162119-D-27	162119-D-28	162119-D-29	162119-D-30
Your Reference	UNITS	MW203_>125 T08	MW203_>125 T09	MW204_>125 T01	MW204_>125 T02	MW204_>125 T03
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	Rock Sample	Rock Sample	Rock Sample	Rock Sample	Rock Sample
Mass Used	g	735.4	736.6	594	559.2	558.4
Mass of Sample before Elutriation Step	g	736.6	733.4	559.2	558.4	558.8
Geometry and Dimensions 3D or 1D	mm D x mm H	289cm2 Surface Area	289cm2 Surface Area	281cm2 Surface area	281cm2 Surface area	281cm2 Surface area
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	DI Water	DI Water	DI Water	DI Water	DI Water
Elutriate Volume Used	mL	2,600	2,600	2,500	2,500	2,500
Elutriate Exchange Time/Day	--	12:30am 11/05/2017	12:30am 24/05/2017	12:30am 22/03/2017	12:30am 23/03/2017	12:30am 24/03/2017
Elutriate Final EC	µS/cm	390	750	1,400	440	320
Elutriate Final pH	pH units	8.0	8.3	9.2	8.8	8.9
Total Cyanide in Eluates	mg/L	0.20	0.27	0.74	0.23	0.18
Fluoride, F in Eluates	mg/L	79	130	110	68	51

**Client Reference: Hydro Aluminium AS130515 Monoliths Filtered**

SW846-1315 LEAF Monolith						
Our Reference		162119-D-31	162119-D-32	162119-D-33	162119-D-34	162119-D-35
Your Reference	UNITS	MW204_>125 T04	MW204_>125 T05	MW204_>125 T06	MW204_>125 T07	MW204_>125 T08
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	Rock Sample	Rock Sample	Rock Sample	Rock Sample	Rock Sample
Mass Used	g	558.8	558.8	558.4	554.6	554.9
Mass of Sample before Elutriation Step	g	558.8	558.4	554.6	554.9	555.6
Geometry and Dimensions 3D or 1D	mm D x mm H	281cm2 Surface area	281cm2 Surface area	281cm2 Surface area	281cm2 Surface area	281cm2 Surface area
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	DI Water	DI Water	DI Water	DI Water	DI Water
Elutriate Volume Used	mL	2,500	2,500	2,500	2,500	2,500
Elutriate Exchange Time/Day	--	12:30am 29/03/2017	12:30am 05/04/2017	12:30am 19/04/2017	12:30am 03/05/2017	12:30am 11/05/2017
Elutriate Final EC	µS/cm	930	880	1,100	930	520
Elutriate Final pH	pH units	8.6	8.9	8.9	8.8	7.8
Total Cyanide in Eluates	mg/L	0.51	0.50	0.66	0.55	0.18
Fluoride, F in Eluates	mg/L	130	150	190	160	110

SW846-1315 LEAF Monolith						
Our Reference		162119-D-36	162119-D-37	162119-D-38	162119-D-39	162119-D-40
Your Reference	UNITS	MW204_>125 T09	MW205_>125 T01	MW205_>125 T02	MW205_>125 T03	MW205_>125 T04
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	Rock Sample	Rock Sample	Rock Sample	Rock Sample	Rock Sample
Mass Used	g	555.6	468.5	476.5	477.5	479.4
Mass of Sample before Elutriation Step	g	553.0	476.5	477.5	479.4	481.2
Geometry and Dimensions 3D or 1D	mm D x mm H	281cm2 Surface area	298cm2 Surface area	298cm2 Surface area	298cm2 Surface area	298cm2 Surface area
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	DI Water	DI Water	DI Water	DI Water	DI Water
Elutriate Volume Used	mL	2,500	2,700	2,700	2,700	2,700
Elutriate Exchange Time/Day	--	12:30am 24/05/2017	12:30am 22/03/2017	12:30am 23/03/2017	12:30am 24/03/2017	12:30am 29/03/2017
Elutriate Final EC	µS/cm	960	630	200	180	460
Elutriate Final pH	pH units	8.0	9.0	8.9	9.1	9.2
Total Cyanide in Eluates	mg/L	0.26	2.2	0.85	0.96	2.9
Fluoride, F in Eluates	mg/L	170	49	24	13	17

**Client Reference: Hydro Aluminium AS130515 Monoliths Filtered**

<b>SW846-1315 LEAF Monolith</b>						
Our Reference		162119-D-41	162119-D-42	162119-D-43	162119-D-44	162119-D-45
Your Reference	UNITS	MW205_>125 T05	MW205_>125 T06	MW205_>125 T07	MW205_>125 T08	MW205_>125 T09
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	Rock Sample	Rock Sample	Rock Sample	Rock Sample	Rock Sample
Mass Used	g	481.2	482.2	477.2	479.5	480.5
Mass of Sample before Elutriation Step	g	482.2	477.2	479.5	480.5	477.9
Geometry and Dimensions 3D or 1D	mm D x mm H	298cm2 Surafce area	298cm2 Surafce area	298cm2 Surafce area	298cm2 Surafce area	298cm2 Surafce area
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	DI Water	DI Water	DI Water	DI Water	DI Water
Elutriate Volume Used	mL	2,700	2,700	2,700	2,700	2,700
Elutriate Exchange Time/Day	--	12:30am 05/04/2017	12:30am 19/04/2017	12:30am 03/05/2017	12:30am 11/05/2017	12:30am 24/05/2017
Elutriate Final EC	µS/cm	290	150	54	25	26
Elutriate Final pH	pH units	9.9	9.4	8.0	6.8	7.6
Total Cyanide in Eluates	mg/L	2.0	1.2	0.32	0.038	0.018
Fluoride, F in Eluates	mg/L	11	5.6	3.0	1.2	1.5

<b>SW846-1315 LEAF Monolith</b>						
Our Reference		162119-D-46	162119-D-47	162119-D-48	162119-D-49	162119-D-50
Your Reference	UNITS	MW206_>125 T01	MW206_>125 T02	MW206_>125 T03	MW206_>125 T04	MW206_>125 T05
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	Rock Sample	Rock Sample	Rock Sample	Rock Sample	Rock Sample
Mass Used	g	510.6	512.2	511.2	511	510.5
Mass of Sample before Elutriation Step	g	512.2	511.2	511	510.5	509.7
Geometry and Dimensions 3D or 1D	mm D x mm H	272cm2 Surface area	272cm2 Surface area	272cm2 Surface area	272cm2 Surface area	272cm2 Surface area
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	DI Water	DI Water	DI Water	DI Water	DI Water
Elutriate Volume Used	mL	2,400	2,400	2,400	2,400	2,400
Elutriate Exchange Time/Day	--	12:30am 22/03/2017	12:30am 23/03/2017	12:30am 24/03/2017	12:30am 29/03/2017	12:30am 05/04/2017
Elutriate Final EC	µS/cm	750	390	390	1,000	980
Elutriate Final pH	pH units	9.2	8.6	8.6	8.8	8.4
Total Cyanide in Eluates	mg/L	0.62	0.29	0.24	0.59	0.52
Fluoride, F in Eluates	mg/L	140	95	73	160	170

**Client Reference: Hydro Aluminium AS130515 Monoliths Filtered**

SW846-1315 LEAF Monolith						
Our Reference		162119-D-51	162119-D-52	162119-D-53	162119-D-54	162119-D-55
Your Reference	UNITS	MW206_>125 T06	MW206_>125 T07	MW206_>125 T08	MW206_>125 T09	SPL_First Cut_1 T01
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	Rock Sample	Rock Sample	Rock Sample	Rock Sample	Slab sample
Mass Used	g	509.1	505.1	506.3	506.8	6,688.4
Mass of Sample before Elutriation Step	g	505.1	506.3	506.8	504.1	6,687.2
Geometry and Dimensions 3D or 1D	mm D x mm H	272cm2 Surface area	272cm2 Surface area	272cm2 Surface area	272cm2 Surface area	240mm x 150mm x 60
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	DI Water	DI Water	DI Water	DI Water	DI Water
Elutriate Volume Used	mL	2,400	2,400	2,400	2,400	10,700
Elutriate Exchange Time/Day	--	12:30am 19/04/2017	12:30am 03/05/2017	12:30am 11/05/2017	12:30am 24/05/2017	12:30am 22/03/2017
Elutriate Final EC	µS/cm	1,200	910	450	750	2,600
Elutriate Final pH	pH units	8.5	8.2	7.5	7.8	10.0
Total Cyanide in Eluates	mg/L	0.67	0.48	0.18	0.21	0.032
Fluoride, F in Eluates	mg/L	230	190	95	140	300

SW846-1315 LEAF Monolith						
Our Reference		162119-D-56	162119-D-57	162119-D-58	162119-D-59	162119-D-60
Your Reference	UNITS	SPL_First Cut_1 T02	SPL_First Cut_1 T03	SPL_First Cut_1 T04	SPL_First Cut_1 T05	SPL_First Cut_1 T06
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	Slab sample	Slab sample	Slab sample	Slab sample	Slab sample
Mass Used	g	6,687.2	6,686.1	6,695.1	6,699.7	6,694.6
Mass of Sample before Elutriation Step	g	6,686.1	6,695.1	6,699.7	6,694.6	6,685.0
Geometry and Dimensions 3D or 1D	mm D x mm H	240mm x 150mm x 60	240mm x 150mm x 60	240mm x 150mm x 60	240mm x 150mm x 60	240mm x 150mm x 60
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	DI Water	DI Water	DI Water	DI Water	DI Water
Elutriate Volume Used	mL	10,700	10,700	10,700	10,700	10,700
Elutriate Exchange Time/Day	--	12:30am 23/03/2017	12:30am 24/03/2017	12:30am 29/03/2017	12:30am 05/04/2017	12:30am 19/04/2017
Elutriate Final EC	µS/cm	1,600	620	940	860	1,100
Elutriate Final pH	pH units	9.7	8.6	10.0	10.2	10.2
Total Cyanide in Eluates	mg/L	0.021	0.019	0.062	0.055	0.082
Fluoride, F in Eluates	mg/L	260	80	55	26	26

**Client Reference: Hydro Aluminium AS130515 Monoliths Filtered**

SW846-1315 LEAF Monolith						
Our Reference		162119-D-61	162119-D-62	162119-D-63	162119-D-64	162119-D-65
Your Reference	UNITS	SPL_First Cut_1 T07	SPL_First Cut_1 T08	SPL_First Cut_1 T09	SPL_First Cut_2 T01	SPL_First Cut_2 T02
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	Slab sample	Slab sample	Slab sample	Slab sample	Slab sample
Mass Used	g	6,685.0	6,680.7	6,694.2	4,553.2	4,554.3
Mass of Sample before Elutriation Step	g	6,680.7	6,694.2	6,692.3	4,554.3	4,551.8
Geometry and Dimensions 3D or 1D	mm D x mm H	240mm x 150mm x 60	240mm x 150mm x 60	240mm x 150mm x 60	250mm x 130mm x 50mm	250mm x 150mm x 50mm
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	DI Water	DI Water	DI Water	DI Water	DI Water
Elutriate Volume Used	mL	10,700	10,700	10,700	9,300	9,300
Elutriate Exchange Time/Day	--	12:30am 03/05/2017	12:30am 11/05/2017	12:30am 24/05/2017	12:30am 22/03/2017	12:30am 23/03/2017
Elutriate Final EC	µS/cm	960	450	780	240	180
Elutriate Final pH	pH units	10.2	10.0	10.1	8.6	8.1
Total Cyanide in Eluates	mg/L	0.076	0.031	0.054	0.056	0.027
Fluoride, F in Eluates	mg/L	26	13	20	29	26

SW846-1315 LEAF Monolith						
Our Reference		162119-D-66	162119-D-67	162119-D-68	162119-D-69	162119-D-70
Your Reference	UNITS	SPL_First Cut_2 T03	SPL_First Cut_2 T04	SPL_First Cut_2 T05	SPL_First Cut_2 T06	SPL_First Cut_2 T07
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	Slab sample	Slab sample	Slab sample	Slab sample	Slab sample
Mass Used	g	4,551.8	4,559	4,562.1	4,558.5	4,551.6
Mass of Sample before Elutriation Step	g	4,559	4,562.1	4,558.5	4,551.6	4,550.1
Geometry and Dimensions 3D or 1D	mm D x mm H	250mm x 130mm x 50mm	250mm x 130mm x 50mm	250mm x 130 x 50mm	250mm x 130 x 50mm	250mm x 130mm x 50mm
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	DI Water	DI Water	DI Water	DI Water	DI Water
Elutriate Volume Used	mL	9,300	9,300	9,300	9,300	9,300
Elutriate Exchange Time/Day	--	12:30am 24/03/2017	12:30am 29/03/2017	12:30am 05/04/2017	12:30am 19/04/2017	12:30am 03/05/2017
Elutriate Final EC	µS/cm	170	410	400	500	370
Elutriate Final pH	pH units	7.9	7.9	7.2	7.2	7.1
Total Cyanide in Eluates	mg/L	<0.004	0.016	0.006	<0.004	<0.004
Fluoride, F in Eluates	mg/L	23	43	54	67	53

**Client Reference: Hydro Aluminium AS130515 Monoliths Filtered**

SW846-1315 LEAF Monolith						
Our Reference		162119-D-71	162119-D-72	162119-D-73	162119-D-74	162119-D-75
Your Reference	UNITS	SPL_First Cut_2 T08	SPL_First Cut_2 T09	SPL_First Cut_3 T01	SPL_First Cut_3 T02	SPL_First Cut_3 T03
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	Slab sample	Slab sample	Slab sample	Slab sample	Slab sample
Mass Used	g	4,550.1	4,559.4	6,765.7	6,765.2	67.63.1
Mass of Sample before Elutriation Step	g	4,559.4	4,548.9	6,765.2	67.63.1	6,744.6
Geometry and Dimensions 3D or 1D	mm D x mm H	250mm x 130mm x 50mm	250mm x 130mm x 50mm	250mm x 150mm x 70mm	250mm x 150 x 70mm	250mm x 150mm x 70mm
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	DI Water	DI Water	DI Water	DI Water	DI Water
Elutriate Volume Used	mL	9,300	9,300	11,800	11,800	11,800
Elutriate Exchange Time/Day	--	12:30am 11/05/2017	12:30am 24/05/2017	12:30am 22/03/2017	12:30am 23/03/2017	12:30am 24/03/2017
Elutriate Final EC	µS/cm	280	380	6,500	3,900	3,600
Elutriate Final pH	pH units	7.0	6.9	11.2	11.8	11.8
Total Cyanide in Eluates	mg/L	<0.004	<0.004	32	23	24
Fluoride, F in Eluates	mg/L	57	72	110	35	18

SW846-1315 LEAF Monolith						
Our Reference		162119-D-76	162119-D-77	162119-D-78	162119-D-79	162119-D-80
Your Reference	UNITS	SPL_First Cut_3 T04	SPL_First Cut_3 T05	SPL_First Cut_3 T06	SPL_First Cut_3 T07	SPL_First Cut_3 T08
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	Slab sample	Slab sample	Slab sample	Slab sample	Slab sample
Mass Used	g	6,744.6	6,713.2	6,682.1	6,640.6	6,605.6
Mass of Sample before Elutriation Step	g	6,713.2	6,682.1	6,640.6	6,605.6	6,597.9
Geometry and Dimensions 3D or 1D	mm D x mm H	250mm x 150mm x 70mm	250mm x 150mm x 70mm	250mm x 150mm x 70mm	250mm x 150mm x 70mm	250mm x 150mm x 70mm
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	DI Water	DI Water	DI Water	DI Water	DI Water
Elutriate Volume Used	mL	11,800	11,800	11,800	11,800	11,800
Elutriate Exchange Time/Day	--	12:30am 29/03/2017	12:30am 05/04/2017	12:30am 19/04/2017	12:30am 03/05/2017	12:30am 11/05/2017
Elutriate Final EC	µS/cm	7,100	5,600	5,600	4,200	2,200
Elutriate Final pH	pH units	11.9	11.7	11.7	11.6	11.7
Total Cyanide in Eluates	mg/L	77	80	78	64	19
Fluoride, F in Eluates	mg/L	42	43	34	28	15



**Client Reference: Hydro Aluminium AS130515 Monoliths Filtered**

SW846-1315 LEAF Monolith						
Our Reference		162119-D-81	162119-D-82	162119-D-83	162119-D-84	162119-D-85
Your Reference	UNITS	SPL_First Cut_3 T09	SPL_First Cut_4 T01	SPL_First Cut_4 T02	SPL_First Cut_4 T03	SPL_First Cut_4 T04
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	Slab sample	Slab sample	Slab sample	Slab sample	Slab sample
Mass Used	g	6,597.9	3,669.7	3,669.1	3,668.6	3,673.5
Mass of Sample before Elutriation Step	g	6,579.7	3,669.1	3,668.6	3,673.5	3,676
Geometry and Dimensions 3D or 1D	mm D x mm H	250mm x 150mm x 70mm	250mm x 110mm x 60mm	250mm x 110 x 60mm	250mm x 110mm x 60mm	250mm x 110mm x 60mm
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	DI Water	DI Water	DI Water	DI Water	DI Water
Elutriate Volume Used	mL	11,800	8,800	8,800	8,800	8,800
Elutriate Exchange Time/Day	--	12:30am 24/05/2017	12:30am 22/03/2017	12:30am 23/03/2017	12:30am 24/03/2017	12:30am 29/03/2017
Elutriate Final EC	µS/cm	3,700	610	460	410	1,000
Elutriate Final pH	pH units	11.8	9.5	9.2	9.6	9.1
Total Cyanide in Eluates	mg/L	36	0.37	0.31	0.27	0.41
Fluoride, F in Eluates	mg/L	26	70	50	35	69

SW846-1315 LEAF Monolith						
Our Reference		162119-D-86	162119-D-87	162119-D-88	162119-D-89	162119-D-90
Your Reference	UNITS	SPL_First Cut_4 T05	SPL_First Cut_4 T06	SPL_First Cut_4 T07	SPL_First Cut_4 T08	SPL_First Cut_4 T09
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	Slab sample	Slab sample	Slab sample	Slab sample	Slab sample
Mass Used	g	3,676	3,676.2	3,672.5	3,668.4	3,672.2
Mass of Sample before Elutriation Step	g	3,676.2	3,672.5	3,668.4	3,676.2	3,667.4
Geometry and Dimensions 3D or 1D	mm D x mm H	250mm x 110mm x 60mm	250mm x 110mm x 60mm	250mm x 110mm x 60mm	250mm x 110mm x 60mm	250mm x 110mm x 60mm
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	DI Water	DI Water	DI Water	DI Water	DI Water
Elutriate Volume Used	mL	8,800	8,800	8,800	8,800	8,800
Elutriate Exchange Time/Day	--	12:30am 05/04/2017	12:30am 19/04/2017	12:30am 03/05/2017	12:30am 11/05/2017	12:30am 24/05/2017
Elutriate Final EC	µS/cm	1,100	1,200	860	410	600
Elutriate Final pH	pH units	8.2	8.3	7.9	7.8	7.7
Total Cyanide in Eluates	mg/L	0.17	0.060	0.030	0.013	0.016
Fluoride, F in Eluates	mg/L	78	93	82	40	61

**Client Reference: Hydro Aluminium AS130515 Monoliths Filtered**

SW846-1315 LEAF Monolith						
Our Reference		162119-D-91	162119-D-92	162119-D-93	162119-D-94	162119-D-95
Your Reference	UNITS	SPL_First Cut_5 T01	SPL_First Cut_5 T02	SPL_First Cut_5 T03	SPL_First Cut_5 T04	SPL_First Cut_5 T05
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	Slab sample	Slab sample	Slab sample	Slab sample	Slab sample
Mass Used	g	2,584.5	2,583.1	2,582.4	2,585.9	2,588.1
Mass of Sample before Elutriation Step	g	2,583.1	2,582.4	2,585.9	2,588.1	2,590
Geometry and Dimensions 3D or 1D	mm D x mm H	180mm x 120 x 65mm	180mm x 120 x 65mm	180mm x 120 x 65mm	180mm x 120 x 65mm	180mm x 120 x 65mm
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	DI Water	DI Water	DI Water	DI Water	DI Water
Elutriate Volume Used	mL	7,400	7,400	7,400	7,400	7,400
Elutriate Exchange Time/Day	--	12:30am 22/03/2017	12:30am 23/03/2017	12:30am 24/03/2017	12:30am 29/03/2017	12:30am 05/04/2017
Elutriate Final EC	µS/cm	130	130	110	280	280
Elutriate Final pH	pH units	8.8	8.1	8.1	[NT]	6.5
Total Cyanide in Eluates	mg/L	0.064	0.053	0.022	0.009	<0.004
Fluoride, F in Eluates	mg/L	13	8.1	3.7	4.2	3.3

SW846-1315 LEAF Monolith						
Our Reference		162119-D-96	162119-D-97	162119-D-98	162119-D-99	162119-D-100
Your Reference	UNITS	SPL_First Cut_5 T06	SPL_First Cut_5 T07	SPL_First Cut_5 T08	SPL_First Cut_5 T09	SPL_Second Cut_1 T01
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	Slab sample	Slab sample	Slab sample	Slab sample	Slab sample
Mass Used	g	2,590	2,589.2	2,587.5	2,596.9	3,868.9
Mass of Sample before Elutriation Step	g	2,589.2	2,587.5	2,596.9	2,590.6	3,868.4
Geometry and Dimensions 3D or 1D	mm D x mm H	180mm x 120 x 65mm	180mm x 120 x 65mm	180mm x 120 x 65mm	180mm x 120 x 65mm	230mm x 150mm x 50mm
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	DI Water	DI Water	DI Water	DI Water	DI Water
Elutriate Volume Used	mL	7,400	7,400	7,400	7,400	9,600
Elutriate Exchange Time/Day	--	12:30am 19/04/2017	12:30am 03/05/2017	12:30am 11/05/2017	12:30am 24/05/2017	12:30am 22/03/2017
Elutriate Final EC	µS/cm	340	180	75	110	60
Elutriate Final pH	pH units	6.3	6.0	6.5	5.8	8.4
Total Cyanide in Eluates	mg/L	<0.004	<0.004	<0.004	<0.004	<0.004
Fluoride, F in Eluates	mg/L	3.4	1.9	0.8	1.3	9.1

**Client Reference: Hydro Aluminium AS130515 Monoliths Filtered**

SW846-1315 LEAF Monolith						
Our Reference		162119-D-101	162119-D-102	162119-D-103	162119-D-104	162119-D-105
Your Reference	UNITS	SPL_Second Cut_1 T02	SPL_Second Cut_1 T03	SPL_Second Cut_1 T04	SPL_Second Cut_1 T05	SPL_Second Cut_1 T06
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	Slab sample	Slab sample	Slab sample	Slab sample	Slab sample
Mass Used	g	3,868.4	3,867.1	3,875.6	3,881.1	3,885.1
Mass of Sample before Elutriation Step	g	3,867.1	3,875.6	3,881.1	3,885.1	3,883.8
Geometry and Dimensions 3D or 1D	mm D x mm H	230mm x 150mm x 50mm	230mm x 150mm x 50mm	230mm x 150mm x 50mm	230mm x 150mm x 50mm	230mm x 150mm x 50mm
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	DI Water	DI Water	DI Water	DI Water	DI Water
Elutriate Volume Used	mL	9,600	9,600	9,600	9,600	9,600
Elutriate Exchange Time/Day	--	12:30am 23/03/2017	12:30am 24/03/2017	12:30am 29/03/2017	12:30am 05/04/2017	12:30am 19/04/2017
Elutriate Final EC	µS/cm	18	13	20	20	23
Elutriate Final pH	pH units	8.3	8.6	8.6	6.8	7.1
Total Cyanide in Eluates	mg/L	<0.004	<0.004	<0.004	<0.004	<0.004
Fluoride, F in Eluates	mg/L	2.3	0.9	1.5	1.5	1.3

SW846-1315 LEAF Monolith						
Our Reference		162119-D-106	162119-D-107	162119-D-108	162119-D-109	162119-D-110
Your Reference	UNITS	SPL_Second Cut_1 T07	SPL_Second Cut_1 T08	SPL_Second Cut_1 T09	SPL_Second Cut_2 T01	SPL_Second Cut_2 T02
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	Slab sample	Slab sample	Slab sample	Slab sample	Slab sample
Mass Used	g	3,883.8	3,883.3	3,892.7	3,899.4	3,898.6
Mass of Sample before Elutriation Step	g	3,883.3	3,892.7	3,886.6	3,898.6	3,897.5
Geometry and Dimensions 3D or 1D	mm D x mm H	230mm x 150mm x 50mm	230mm x 150mm x 50mm	230mm x 150mm x 50mm	230mm x 140mm x 50mm	230mm x 140mm x 50mm
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	DI Water	DI Water	DI Water	DI Water	DI Water
Elutriate Volume Used	mL	9,600	9,600	9,600	9,100	9,100
Elutriate Exchange Time/Day	--	12:30am 03/05/2017	12:30am 11/05/2017	12:30am 24/05/2017	12:30am 22/03/2017	12:30am 23/03/2017
Elutriate Final EC	µS/cm	19	12	14	30	12
Elutriate Final pH	pH units	7.0	6.7	6.5	8.4	8.1
Total Cyanide in Eluates	mg/L	<0.004	<0.004	<0.004	<0.004	<0.004
Fluoride, F in Eluates	mg/L	0.8	0.3	0.3	4.8	1.6

**Client Reference: Hydro Aluminium AS130515 Monoliths Filtered**

<b>SW846-1315 LEAF Monolith</b>						
Our Reference		162119-D-111	162119-D-112	162119-D-113	162119-D-114	162119-D-115
Your Reference	UNITS	SPL_Second Cut_2 T03	SPL_Second Cut_2 T04	SPL_Second Cut_2 T05	SPL_Second Cut_2 T06	SPL_Second Cut_2 T07
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	Slab sample	Slab sample	Slab sample	Slab sample	Slab sample
Mass Used	g	3,897.5	3,906.2	3,913.7	3,918.8	3,916.7
Mass of Sample before Elutriation Step	g	3,906.2	3,913.7	3,918.8	3,916.7	3,917.5
Geometry and Dimensions 3D or 1D	mm D x mm H	230mm x 140mmx 50mm	230mm x 140mmx 50mm	230mm x 140mmx 50mm	230mm x 140mmx 50mm	230mm x 140mmx 50mm
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	DI Water	DI Water	DI Water	DI Water	DI Water
Elutriate Volume Used	mL	9,100	9,100	9,100	9,100	9,100
Elutriate Exchange Time/Day	--	12:30am 24/03/2017	12:30am 29/03/2017	12:30am 05/04/2017	12:30am 19/04/2017	12:30am 03/05/2017
Elutriate Final EC	µS/cm	8	15	16	20	14
Elutriate Final pH	pH units	8.3	8.4	6.8	6.9	6.7
Total Cyanide in Eluates	mg/L	<0.004	<0.004	<0.004	<0.004	<0.004
Fluoride, F in Eluates	mg/L	0.7	1.4	1.6	1.6	1.1

<b>SW846-1315 LEAF Monolith</b>						
Our Reference		162119-D-116	162119-D-117	162119-D-118	162119-D-119	162119-D-120
Your Reference	UNITS	SPL_Second Cut_2 T08	SPL_Second Cut_2 T09	SPL_Second Cut_3 T01	SPL_Second Cut_3 T02	SPL_Second Cut_3 T03
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	Slab sample	Slab sample	Slab sample	Slab sample	Slab sample
Mass Used	g	3,917.5	3,928.6	2,985.8	2,984.7	2,983.8
Mass of Sample before Elutriation Step	g	3,928.6	3,920.5	2,984.7	2,983.8	2,990.1
Geometry and Dimensions 3D or 1D	mm D x mm H	230mm x 140mmx 50mm	230mm x 140mmx 50mm	230mm x 120mm x 50mm	230mm x 120mm x 50mm	230mm x 120mm x 50mm
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	DI Water	DI Water	DI Water	DI Water	DI Water
Elutriate Volume Used	mL	9,100	9,100	8,100	8,100	8,100
Elutriate Exchange Time/Day	--	12:30am 11/05/2017	12:30am 24/05/2017	12:30am 22/03/2017	12:30am 23/03/2017	12:30am 24/03/2017
Elutriate Final EC	µS/cm	9	11	40	14	9
Elutriate Final pH	pH units	6.6	6.3	8.4	7.9	8.2
Total Cyanide in Eluates	mg/L	<0.004	<0.004	<0.004	<0.004	<0.004
Fluoride, F in Eluates	mg/L	0.4	0.6	6.7	1.7	0.6

**Client Reference: Hydro Aluminium AS130515 Monoliths Filtered**

SW846-1315 LEAF Monolith						
Our Reference		162119-D-121	162119-D-122	162119-D-123	162119-D-124	162119-D-125
Your Reference	UNITS	SPL_Second Cut_3 T04	SPL_Second Cut_3 T05	SPL_Second Cut_3 T06	SPL_Second Cut_3 T07	SPL_Second Cut_3 T08
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	Slab sample	Slab sample	Slab sample	Slab sample	Slab sample
Mass Used	g	2,990.1	2,995.8	3,000.5	2,996.5	2,998.7
Mass of Sample before Elutriation Step	g	2,995.8	3,000.5	2,996.5	2,998.7	3,006.0
Geometry and Dimensions 3D or 1D	mm D x mm H	230mm x x120mm x 50mm	230mm x 120mm x 50mm	230mm x 120mm x 50mm	230mm x 120mm x 50mm	230mm x 120mm x 50mm
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	DI Water	DI Water	DI Water	DI Water	DI Water
Elutriate Volume Used	mL	8,100	8,100	8,100	8,100	8,100
Elutriate Exchange Time/Day	--	12:30am 29/03/2017	12:30am 05/04/2017	12:30am 19/04/2017	12:30am 03/05/2017	12:30am 11/05/2017
Elutriate Final EC	µS/cm	17	16	17	14	9
Elutriate Final pH	pH units	8.8	6.7	6.6	6.8	6.6
Total Cyanide in Eluates	mg/L	<0.004	<0.004	<0.004	<0.004	<0.004
Fluoride, F in Eluates	mg/L	0.9	0.8	0.6	0.4	0.2

SW846-1315 LEAF Monolith						
Our Reference		162119-D-126	162119-D-127	162119-D-128	162119-D-129	162119-D-130
Your Reference	UNITS	SPL_Second Cut_3 T09	SPL_Second Cut_4 T01	SPL_Second Cut_4 T02	SPL_Second Cut_4 T03	SPL_Second Cut_4 T04
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	Slab sample	Slab sample	Slab sample	Slab sample	Slab sample
Mass Used	g	3,006.0	3,564.9	3,563.9	3,562.8	3,570.7
Mass of Sample before Elutriation Step	g	3,000.9	3,563.9	3,562.8	3,570.7	3,576.4
Geometry and Dimensions 3D or 1D	mm D x mm H	230mm x 120mm x 50mm	230mm x 140mm x 50mm	230mm x 140mm x 50mm	230mm x 140mm x 50mm	230mm x 140mm x 50mm
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	DI Water	DI Water	DI Water	DI Water	DI Water
Elutriate Volume Used	mL	8,100	9,100	9,100	9,100	9,100
Elutriate Exchange Time/Day	--	12:30am 24/05/2017	12:30am 22/03/2017	12:30am 23/03/2017	12:30am 24/03/2017	12:30am 29/03/2017
Elutriate Final EC	µS/cm	11	42	17	11	22
Elutriate Final pH	pH units	6.3	8.4	7.7	8.0	8.3
Total Cyanide in Eluates	mg/L	<0.004	<0.004	<0.004	<0.004	<0.004
Fluoride, F in Eluates	mg/L	0.2	6.5	1.4	0.5	0.6

**Client Reference: Hydro Aluminium AS130515 Monoliths Filtered**

SW846-1315 LEAF Monolith						
Our Reference		162119-D-131	162119-D-132	162119-D-133	162119-D-134	162119-D-135
Your Reference	UNITS	SPL_Second Cut_4 T05	SPL_Second Cut_4 T06	SPL_Second Cut_4 T07	SPL_Second Cut_4 T08	SPL_Second Cut_4 T09
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	Slab sample	Slab sample	Slab sample	Slab sample	Slab sample
Mass Used	g	3,576.4	3,581.7	3,354.8	3,357.2	3,366.6
Mass of Sample before Elutriation Step	g	3,581.7	3,354.8	3,357.2	3,366.6	3,359.8
Geometry and Dimensions 3D or 1D	mm D x mm H	230mm x 140mm x 50mm	230mm x 140mm x 50mm	230mm x 140mm x 50mm	230mm x 140mm x 50mm	230mm x 140mm x 50mm
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	DI Water	DI Water	DI Water	DI Water	DI Water
Elutriate Volume Used	mL	9,100	9,100	9,100	9,100	9,100
Elutriate Exchange Time/Day	--	12:30am 05/04/2017	12:30am 19/04/2017	12:30am 03/05/2017	12:30am 11/05/2017	12:30am 24/05/2017
Elutriate Final EC	µS/cm	19	16	14	10	11
Elutriate Final pH	pH units	6.7	6.7	6.9	6.6	6.4
Total Cyanide in Eluates	mg/L	<0.004	<0.004	<0.004	<0.004	<0.004
Fluoride, F in Eluates	mg/L	0.5	1.2	0.8	0.3	0.3

SW846-1315 LEAF Monolith						
Our Reference		162119-D-136	162119-D-137	162119-D-138	162119-D-139	162119-D-140
Your Reference	UNITS	SPL_Second Cut_5 T01	SPL_Second Cut_5 T02	SPL_Second Cut_5 T03	SPL_Second Cut_5 T04	SPL_Second Cut_5 T05
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	Slab sample	Slab sample	Slab sample	Slab sample	Slab sample
Mass Used	g	3,343.5	3,341.5	3,340.5	3,347.2	3,354.8
Mass of Sample before Elutriation Step	g	3,341.5	3,340.5	3,347.2	3,354.8	3,358.7
Geometry and Dimensions 3D or 1D	mm D x mm H	230mm x 130mm x 50mm	230mm x 130mm x 50mm	230mm x 130mm x 50mm	230mm x 130mm x 50mm	230mm x 130mm x 50mm
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	DI Water	DI Water	DI Water	DI Water	DI Water
Elutriate Volume Used	mL	8,600	8,600	8,600	8,600	8,600
Elutriate Exchange Time/Day	--	12:30am 22/03/2017	12:30am 23/03/2017	12:30am 24/03/2017	12:30am 29/03/2017	12:30am 05/04/2017
Elutriate Final EC	µS/cm	62	15	10	19	17
Elutriate Final pH	pH units	8.1	7.7	8.0	8.4	6.7
Total Cyanide in Eluates	mg/L	<0.004	<0.004	<0.004	<0.004	0.004
Fluoride, F in Eluates	mg/L	10	2.3	0.9	1.6	1.2

**Client Reference: Hydro Aluminium AS130515 Monoliths Filtered**

SW846-1315 LEAF Monolith						
Our Reference		162119-D-141	162119-D-142	162119-D-143	162119-D-144	162119-D-145
Your Reference	UNITS	SPL_Second Cut_5 T06	SPL_Second Cut_5 T07	SPL_Second Cut_5 T08	SPL_Second Cut_5 T09	MW201 - 2nd sub-sample>125mm T01
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	Slab sample	Slab sample	Slab sample	Slab sample	Rock Sample
Mass Used	g	3,358.7	3,576.9	3,580.2	3,590.0	400.8
Mass of Sample before Elutriation Step	g	3,576.9	3,580.2	3,590.0	3,581.9	400.8
Geometry and Dimensions 3D or 1D	mm D x mm H	230mm x 130mm x 50mm	230mm x 130mm x 50mm	230mm x 130mm x 50mm	230mm x 130mm x 50mm	298cm2 Surface area
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	DI Water	DI Water	DI Water	DI Water	DI Water
Elutriate Volume Used	mL	8,600	8,600	8,600	8,600	2,700
Elutriate Exchange Time/Day	--	12:30am 19/04/2017	12:30am 03/05/2017	12:30am 11/05/2017	12:30am 24/05/2017	12:30am 22/03/2017
Elutriate Final EC	µS/cm	18	14	10	10	310
Elutriate Final pH	pH units	6.4	6.7	6.5	6.1	7.8
Total Cyanide in Eluates	mg/L	<0.004	<0.004	<0.004	<0.004	0.94
Fluoride, F in Eluates	mg/L	0.5	0.3	0.1	0.2	36

SW846-1315 LEAF Monolith						
Our Reference		162119-D-146	162119-D-147	162119-D-148	162119-D-149	162119-D-150
Your Reference	UNITS	MW201 - 2nd sub-sample>125mm T02	MW201 - 2nd sub-sample>125mm T03	MW201 - 2nd sub-sample>125mm T04	MW201 - 2nd sub-sample>125mm T05	MW201 - 2nd sub-sample>125mm T06
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	Rock Sample	Rock Sample	Rock Sample	Rock Sample	Rock Sample
Mass Used	g	400.8	401.6	402.2	403.1	402.9
Mass of Sample before Elutriation Step	g	401.6	402.2	403.1	402.9	400.5
Geometry and Dimensions 3D or 1D	mm D x mm H	298cm2 Surface area	298cm2 Surface area	298cm2 Surface area	298cm2 Surface area	298cm2 Surface area
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	DI Water	DI Water	DI Water	DI Water	DI Water
Elutriate Volume Used	mL	2,700	2,700	2,700	2,700	2,700
Elutriate Exchange Time/Day	--	12:30am 23/03/2017	12:30am 24/03/2017	12:30am 29/03/2017	12:30am 05/04/2017	12:30am 19/04/2017
Elutriate Final EC	µS/cm	220	190	400	370	470
Elutriate Final pH	pH units	7.7	7.8	7.8	7.5	7.6
Total Cyanide in Eluates	mg/L	0.75	0.53	1.2	1.0	1.4
Fluoride, F in Eluates	mg/L	39	36	59	71	88

**Client Reference: Hydro Aluminium AS130515 Monoliths Filtered**

<b>SW846-1315 LEAF Monolith</b>						
Our Reference		162119-D-151	162119-D-152	162119-D-153	162119-D-154	162119-D-155
Your Reference	UNITS	MW201 - 2nd sub-sample>125mm T07	MW201 - 2nd sub-sample>125mm T08	MW201 - 2nd sub-sample>125mm T09	MW202 - 2nd sub-sample>125mm T01	MW202 - 2nd sub-sample>125mm T02
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	Rock Sample	Rock Sample	Rock Sample	Rock Sample	Rock Sample
Mass Used	g	400.5	400.7	401.7	340.7	341.1
Mass of Sample before Elutriation Step	g	400.7	401.7	400.0	341.1	341.1
Geometry and Dimensions 3D or 1D	mm D x mm H	298cm2 Surface area	298cm2 Surface area	298cm2 Surface area	272cm2 Surface area	272cm2 Surface area
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	DI Water	DI Water	DI Water	DI Water	DI Water
Elutriate Volume Used	mL	2,700	2,700	2,700	2,400	2,400
Elutriate Exchange Time/Day	--	12:30am 03/05/2017	12:30am 11/05/2017	12:30am 24/05/2017	12:30am 22/03/2017	12:30am 23/03/2017
Elutriate Final EC	µS/cm	420	210	360	19	9
Elutriate Final pH	pH units	7.6	7.1	7.1	8.5	7.2
Total Cyanide in Eluates	mg/L	1.1	0.36	0.46	0.006	<0.004
Fluoride, F in Eluates	mg/L	85	49	71	1.9	0.6

<b>SW846-1315 LEAF Monolith</b>						
Our Reference		162119-D-156	162119-D-157	162119-D-158	162119-D-159	162119-D-160
Your Reference	UNITS	MW202 - 2nd sub-sample>125mm T03	MW202 - 2nd sub-sample>125mm T04	MW202 - 2nd sub-sample>125mm T05	MW202 - 2nd sub-sample>125mm T06	MW202 - 2nd sub-sample>125mm T07
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	Rock Sample	Rock Sample	Rock Sample	Rock Sample	Rock Sample
Mass Used	g	341.1	341.3	342.5	343.2	342.5
Mass of Sample before Elutriation Step	g	341.3	342.5	343.2	342.5	342.9
Geometry and Dimensions 3D or 1D	mm D x mm H	272cm2 Surface area	272cm2 Surface area	272cm2 Surface area	272cm2 Surface area	272cm2 Surface area
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	DI Water	DI Water	DI Water	DI Water	DI Water
Elutriate Volume Used	mL	2,400	2,400	2,400	2,400	2,400
Elutriate Exchange Time/Day	--	12:30am 24/03/2017	12:30am 29/03/2017	12:30am 05/04/2017	12:30am 19/04/2017	12:30am 03/05/2017
Elutriate Final EC	µS/cm	8	9	12	15	14
Elutriate Final pH	pH units	7.4	7.7	6.3	6.2	6.4
Total Cyanide in Eluates	mg/L	<0.004	0.005	0.004	<0.004	<0.004
Fluoride, F in Eluates	mg/L	0.4	0.8	1.0	1.8	1.2



**Client Reference: Hydro Aluminium AS130515 Monoliths Filtered**

<b>SW846-1315 LEAF Monolith</b>						
Our Reference		162119-D-161	162119-D-162	162119-D-163	162119-D-164	162119-D-165
Your Reference	UNITS	MW202 - 2nd sub-sample>125mm T08	MW202 - 2nd sub-sample>125mm T09	MW203 - 2nd sub-sample>125mm T01	MW203 - 2nd sub-sample>125mm T02	MW203 - 2nd sub-sample>125mm T03
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	Rock Sample	Rock Sample	Rock Sample	Rock Sample	Rock Sample
Mass Used	g	342.9	343.5	600.4	543.9	544.3
Mass of Sample before Elutriation Step	g	343.5	342.9	543.9	544.3	544.5
Geometry and Dimensions 3D or 1D	mm D x mm H	272cm2 Surface area	272cm2 Surface area	324cm2 Surface area	324cm2 Surface area	324cm2 Surface area
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	DI Water	DI Water	DI Water	DI Water	DI Water
Elutriate Volume Used	mL	2,400	2,400	2,900	2,900	2,900
Elutriate Exchange Time/Day	--	12:30am 11/05/2017	12:30am 24/05/2017	12:30am 22/03/2017	12:30am 23/03/2017	12:30am 24/03/2017
Elutriate Final EC	µS/cm	9	10	1,500	490	350
Elutriate Final pH	pH units	6.1	5.9	9.4	7.8	7.9
Total Cyanide in Eluates	mg/L	<0.004	<0.004	7.4	1.7	1.0
Fluoride, F in Eluates	mg/L	0.4	0.7	88	67	54

<b>SW846-1315 LEAF Monolith</b>						
Our Reference		162119-D-166	162119-D-167	162119-D-168	162119-D-169	162119-D-170
Your Reference	UNITS	MW203 - 2nd sub-sample>125mm T04	MW203 - 2nd sub-sample>125mm T05	MW203 - 2nd sub-sample>125mm T06	MW203 - 2nd sub-sample>125mm T07	MW203 - 2nd sub-sample>125mm T08
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	Rock Sample	Rock Sample	Rock Sample	Rock Sample	Rock Sample
Mass Used	g	544.5	545.4	545.5	541.3	541.3
Mass of Sample before Elutriation Step	g	545.4	545.5	541.3	541.3	543.8
Geometry and Dimensions 3D or 1D	mm D x mm H	324cm2 Surface area	324cm2 Surface area	324cm2 Surface area	324cm2 Surface area	324cm2 Surface area
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	DI Water	DI Water	DI Water	DI Water	DI Water
Elutriate Volume Used	mL	2,900	2,900	2,900	2,900	2,900
Elutriate Exchange Time/Day	--	12:30am 29/03/2017	12:30am 05/04/2017	12:30am 19/04/2017	12:30am 03/05/2017	12:30am 11/05/2017
Elutriate Final EC	µS/cm	740	770	810	680	410
Elutriate Final pH	pH units	8.5	8.1	8.0	8.0	7.3
Total Cyanide in Eluates	mg/L	3.0	2.6	3.7	2.7	1.0
Fluoride, F in Eluates	mg/L	84	110	120	120	8.3

**Client Reference: Hydro Aluminium AS130515 Monoliths Filtered**

<b>SW846-1315 LEAF Monolith</b>						
Our Reference		162119-D-171	162119-D-172	162119-D-173	162119-D-174	162119-D-175
Your Reference	UNITS	MW203 - 2nd sub-sample>125mm T09	MW204 - 2nd sub-sample>125mm T01	MW204 - 2nd sub-sample>125mm T02	MW204 - 2nd sub-sample>125mm T03	MW204 - 2nd sub-sample>125mm T04
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	Rock Sample	Rock Sample	Rock Sample	Rock Sample	Rock Sample
Mass Used	g	543.8	413.5	410.8	410.6	411.4
Mass of Sample before Elutriation Step	g	540.8	410.8	410.6	411.4	412.3
Geometry and Dimensions 3D or 1D	mm D x mm H	324cm2 Surface area	298cm2 Surface area	298cm2 Surface area	298cm2 Surface area	298cm2 Surface area
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	DI Water	DI Water	DI Water	DI Water	DI Water
Elutriate Volume Used	mL	2,900	2,700	2,700	2,700	2,700
Elutriate Exchange Time/Day	--	12:30am 24/05/2017	12:30am 22/03/2017	12:30am 23/03/2017	12:30am 24/03/2017	12:30am 29/03/2017
Elutriate Final EC	µS/cm	540	950	440	290	750
Elutriate Final pH	pH units	7.5	9.6	7.8	7.8	8.5
Total Cyanide in Eluates	mg/L	1.6	0.63	0.37	0.24	0.61
Fluoride, F in Eluates	mg/L	95	77	66	45	100

<b>SW846-1315 LEAF Monolith</b>						
Our Reference		162119-D-176	162119-D-177	162119-D-178	162119-D-179	162119-D-180
Your Reference	UNITS	MW204 - 2nd sub-sample>125mm T05	MW204 - 2nd sub-sample>125mm T06	MW204 - 2nd sub-sample>125mm T07	MW204 - 2nd sub-sample>125mm T08	MW204 - 2nd sub-sample>125mm T09
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	Rock Sample	Rock Sample	Rock Sample	Rock Sample	Rock Sample
Mass Used	g	412.3	412.6	410.6	409.9	410.9
Mass of Sample before Elutriation Step	g	412.6	410.6	409.9	410.9	408.7
Geometry and Dimensions 3D or 1D	mm D x mm H	298cm2 Surface area	298cm2 Surface area	298cm2 Surface area	298cm2 Surface area	298cm2 Surface area
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	DI Water	DI Water	DI Water	DI Water	DI Water
Elutriate Volume Used	mL	2,700	2,700	2,700	2,700	2,700
Elutriate Exchange Time/Day	--	12:30am 05/04/2017	12:30am 19/04/2017	12:30am 03/05/2017	12:30am 11/05/2017	12:30am 24/05/2017
Elutriate Final EC	µS/cm	760	940	940	400	690
Elutriate Final pH	pH units	8.3	8.5	8.4	7.5	8.2
Total Cyanide in Eluates	mg/L	0.60	0.75	0.85	0.30	0.45
Fluoride, F in Eluates	mg/L	130	160	170	7.3	110

**Client Reference: Hydro Aluminium AS130515 Monoliths Filtered**

<b>SW846-1315 LEAF Monolith</b>						
Our Reference		162119-D-181	162119-D-182	162119-D-183	162119-D-184	162119-D-185
Your Reference	UNITS	MW205 - 2nd sub-sample>125mm T01	MW205 - 2nd sub-sample>125mm T02	MW205 - 2nd sub-sample>125mm T03	MW205 - 2nd sub-sample>125mm T04	MW205 - 2nd sub-sample>125mm T05
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	Rock Sample	Rock Sample	Rock Sample	Rock Sample	Rock Sample
Mass Used	g	281.6	282.2	281.6	281.8	281.1
Mass of Sample before Elutriation Step	g	282.2	281.6	281.8	281.1	280.0
Geometry and Dimensions 3D or 1D	mm D x mm H	264cm2 Surface area	264cm2 Surface area	264cm2 Surface area	264cm2 Surface area	264cm2 Surface area
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	DI Water	DI Water	DI Water	DI Water	DI Water
Elutriate Volume Used	mL	2,400	2,400	2,400	2,400	2,400
Elutriate Exchange Time/Day	--	12:30am 22/03/2017	12:30am 23/03/2017	12:30am 24/03/2017	12:30am 29/03/2017	12:30am 05/04/2017
Elutriate Final EC	µS/cm	570	500	310	830	1,000
Elutriate Final pH	pH units	9.2	7.9	7.8	8.5	8.8
Total Cyanide in Eluates	mg/L	0.91	0.52	0.38	0.56	0.66
Fluoride, F in Eluates	mg/L	120	100	72	120	200

<b>SW846-1315 LEAF Monolith</b>						
Our Reference		162119-D-186	162119-D-187	162119-D-188	162119-D-189	162119-D-190
Your Reference	UNITS	MW205 - 2nd sub-sample>125mm T06	MW205 - 2nd sub-sample>125mm T07	MW205 - 2nd sub-sample>125mm T08	MW205 - 2nd sub-sample>125mm T09	MW206 - 2nd sub-sample>125mm T01
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	Rock Sample	Rock Sample	Rock Sample	Rock Sample	Rock Sample
Mass Used	g	280.0	277.0	276.3	277.1	616.9
Mass of Sample before Elutriation Step	g	277.0	276.3	277.1	275.0	617.9
Geometry and Dimensions 3D or 1D	mm D x mm H	264cm2 Surface area	264cm2 Surface area	264cm2 Surface area	264cm2 Surface area	306cm2 Surface area
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	DI Water	DI Water	DI Water	DI Water	DI Water
Elutriate Volume Used	mL	2,400	2,400	2,400	2,400	2,700
Elutriate Exchange Time/Day	--	12:30am 19/04/2017	12:30am 03/05/2017	12:30am 11/05/2017	12:30am 24/05/2017	12:30am 22/03/2017
Elutriate Final EC	µS/cm	1,100	1,100	510	800	1,200
Elutriate Final pH	pH units	8.7	8.6	7.8	8.3	8.9
Total Cyanide in Eluates	mg/L	0.67	0.54	0.19	0.19	0.77
Fluoride, F in Eluates	mg/L	230	210	100	150	200

**Client Reference: Hydro Aluminium AS130515 Monoliths Filtered**

<b>SW846-1315 LEAF Monolith</b>						
Our Reference		162119-D-191	162119-D-192	162119-D-193	162119-D-194	162119-D-195
Your Reference	UNITS	MW206 - 2nd sub-sample>125mm T02	MW206 - 2nd sub-sample>125mm T03	MW206 - 2nd sub-sample>125mm T04	MW206 - 2nd sub-sample>125mm T05	MW206 - 2nd sub-sample>125mm T06
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	Rock Sample	Rock Sample	Rock Sample	Rock Sample	Rock Sample
Mass Used	g	617.9	617.5	617.5	617	615.6
Mass of Sample before Elutriation Step	g	617.5	617.5	617	615.6	610.6
Geometry and Dimensions 3D or 1D	mm D x mm H	306cm2 Surface area	306cm2 Surface area	306cm2 Surface area	306cm2 Surface area	306cm2 Surface area
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	DI Water	DI Water	DI Water	DI Water	DI Water
Elutriate Volume Used	mL	2,700	2,700	2,700	2,700	2,700
Elutriate Exchange Time/Day	--	12:30am 23/03/2017	12:30am 24/03/2017	12:30am 29/03/2017	12:30am 05/04/2017	12:30am 19/04/2017
Elutriate Final EC	µS/cm	810	630	1,500	1,700	1,900
Elutriate Final pH	pH units	8.0	7.9	8.7	8.8	8.9
Total Cyanide in Eluates	mg/L	0.47	0.31	0.83	0.76	0.96
Fluoride, F in Eluates	mg/L	170	130	340	340	370

<b>SW846-1315 LEAF Monolith</b>						
Our Reference		162119-D-196	162119-D-197	162119-D-198	162119-D-199	162119-D-200
Your Reference	UNITS	MW206 - 2nd sub-sample>125mm T07	MW206 - 2nd sub-sample>125mm T08	MW206 - 2nd sub-sample>125mm T09	MW201 + 50% Lime WET T01	MW201 + 50% Lime WET T02
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	Rock Sample	Rock Sample	Rock Sample	Monolith	Monolith
Mass Used	g	610.6	609.1	609.7	532.4	547.9
Mass of Sample before Elutriation Step	g	609.1	609.7	606.6	547.9	547
Geometry and Dimensions 3D or 1D	mm D x mm H	306cm2 Surface area	306cm2 Surface area	306cm2 Surface area	60mm D x 110mm H	60mm D x 110mm H
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	DI Water	DI Water	DI Water	DI Water	DI Water
Elutriate Volume Used	mL	2,700	2,700	2,700	2,400	2,400
Elutriate Exchange Time/Day	--	12:30am 03/05/2017	12:30am 11/05/2017	12:30am 24/05/2017	12:30am 22/03/2017	12:30am 23/03/2017
Elutriate Final EC	µS/cm	1,600	710	1,200	9,300	7,800
Elutriate Final pH	pH units	8.6	7.8	8.3	12.2	12.2
Total Cyanide in Eluates	mg/L	0.75	0.29	0.34	0.14	0.079
Fluoride, F in Eluates	mg/L	330	160	220	14	12

**Client Reference: Hydro Aluminium AS130515 Monoliths Filtered**

SW846-1315 LEAF Monolith						
Our Reference		162119-D-201	162119-D-202	162119-D-203	162119-D-204	162119-D-205
Your Reference	UNITS	MW201 + 50% Lime WET T03	MW201 + 50% Lime WET T04	MW201 + 50% Lime WET T05	MW201 + 50% Lime WET T06	MW201 + 50% Lime WET T07
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	Monolith	Monolith	Monolith	Monolith	Monolith
Mass Used	g	547	547.6	547.1	548.4	543.9
Mass of Sample before Elutriation Step	g	547.6	547.1	548.4	543.9	543.7
Geometry and Dimensions 3D or 1D	mm D x mm H	60mm D x 110mm H	60mm D x 110mm H	60mm D x 110mm H	60mm D x 110mm H	60mm D x 110mm H
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	DI Water	DI Water	DI Water	DI Water	DI Water
Elutriate Volume Used	mL	2,400	2,400	2,400	2,400	2,400
Elutriate Exchange Time/Day	--	12:30am 24/03/2017	12:30am 29/03/2017	12:30am 05/04/2017	12:30am 19/04/2017	12:30am 03/05/2017
Elutriate Final EC	µS/cm	4,700	9,000	5,500	5,100	3,400
Elutriate Final pH	pH units	12.0	12.2	12.4	12.8	12.4
Total Cyanide in Eluates	mg/L	0.033	0.063	0.037	0.027	0.022
Fluoride, F in Eluates	mg/L	5.3	7.3	5.7	4.7	3.9

SW846-1315 LEAF Monolith						
Our Reference		162119-D-206	162119-D-207	162119-D-208	162119-D-209	162119-D-210
Your Reference	UNITS	MW201 + 50% Lime WET T08	MW201 + 50% Lime WET T09	MW202 + 50% Lime WET T01	MW202 + 50% Lime WET T02	MW202 + 50% Lime WET T03
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	Monolith	Monolith	Monolith	Monolith	Monolith
Mass Used	g	543.7	544.6	533.8	547.3	542.9
Mass of Sample before Elutriation Step	g	544.6	540.4	547.3	542.9	542.7
Geometry and Dimensions 3D or 1D	mm D x mm H	60mm D x 110mm H	60mm D x 110mm H	60mm D x 110mm H	60mm D x 110mm H	60mm D x 110mm H
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	DI Water	DI Water	DI Water	DI Water	DI Water
Elutriate Volume Used	mL	2,400	2,400	2,400	2,400	2,400
Elutriate Exchange Time/Day	--	12:30am 11/05/2017	12:30am 24/05/2017	12:30am 22/03/2017	12:30am 23/03/2017	12:30am 24/03/2017
Elutriate Final EC	µS/cm	2,000	2,400	8,800	9,700	7,000
Elutriate Final pH	pH units	12.2	12.2	12.3	12.3	12.2
Total Cyanide in Eluates	mg/L	0.009	0.011	0.090	0.091	0.052
Fluoride, F in Eluates	mg/L	27	2.6	26	21	9.6

**Client Reference: Hydro Aluminium AS130515 Monoliths Filtered**

SW846-1315 LEAF Monolith						
Our Reference		162119-D-211	162119-D-212	162119-D-213	162119-D-214	162119-D-215
Your Reference	UNITS	MW202 + 50% Lime WET T04	MW202 + 50% Lime WET T05	MW202 + 50% Lime WET T06	MW202 + 50% Lime WET T07	MW202 + 50% Lime WET T08
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	Monolith	Monolith	Monolith	Monolith	Monolith
Mass Used	g	542.7	540.8	543	538.6	538.8
Mass of Sample before Elutriation Step	g	540.8	543	538.6	538.8	540.4
Geometry and Dimensions 3D or 1D	mm D x mm H	60mm D x 110mm H	60mm D x 110mm H	60mm D x 110mm H	60mm D x 110mm H	60mm D x 110mm H
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	DI Water	DI Water	DI Water	DI Water	DI Water
Elutriate Volume Used	mL	2,400	2,400	2,400	2,400	2,400
Elutriate Exchange Time/Day	--	12:30am 29/03/2017	12:30am 05/04/2017	12:30am 19/04/2017	12:30am 03/05/2017	12:30am 11/05/2017
Elutriate Final EC	µS/cm	11,000	4,700	4,100	2,600	1,200
Elutriate Final pH	pH units	12.3	12.3	12.2	12.2	12.0
Total Cyanide in Eluates	mg/L	0.11	0.069	0.025	0.016	0.006
Fluoride, F in Eluates	mg/L	16	12	4.9	4.6	2.9

SW846-1315 LEAF Monolith						
Our Reference		162119-D-216	162119-D-217	162119-D-218	162119-D-219	162119-D-220
Your Reference	UNITS	MW202 + 50% Lime WET T09	MW203 + 50% Lime WET T01	MW203 + 50% Lime WET T02	MW203 + 50% Lime WET T03	MW203 + 50% Lime WET T04
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	Monolith	Monolith	Monolith	Monolith	Monolith
Mass Used	g	540.4	555	566.4	562.1	561.5
Mass of Sample before Elutriation Step	g	537.4	566.4	562.1	561.5	558.4
Geometry and Dimensions 3D or 1D	mm D x mm H	60mm D x 110mm H	60mm D x 110mm H	60mm D x 110mm H	60mm D x 110mm H	60mm D x 110mm H
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	DI Water	DI Water	DI Water	DI Water	DI Water
Elutriate Volume Used	mL	2,400	2,400	2,400	2,400	2,400
Elutriate Exchange Time/Day	--	12:30am 24/05/2017	12:30am 22/03/2017	12:30am 23/03/2017	12:30am 24/03/2017	12:30am 29/03/2017
Elutriate Final EC	µS/cm	1,600	13,000	12,000	8,100	15,000
Elutriate Final pH	pH units	12.0	12.4	12.4	12.3	12.5
Total Cyanide in Eluates	mg/L	0.008	0.47	0.26	0.089	0.15
Fluoride, F in Eluates	mg/L	3.5	47	39	15	26

**Client Reference: Hydro Aluminium AS130515 Monoliths Filtered**

SW846-1315 LEAF Monolith						
Our Reference		162119-D-221	162119-D-222	162119-D-223	162119-D-224	162119-D-225
Your Reference	UNITS	MW203 + 50% Lime WET T05	MW203 + 50% Lime WET T06	MW203 + 50% Lime WET T07	MW203 + 50% Lime WET T08	MW203 + 50% Lime WET T09
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	Monolith	Monolith	Monolith	Monolith	Monolith
Mass Used	g	558.4	558.5	553.3	552.9	554.4
Mass of Sample before Elutriation Step	g	558.5	553.3	552.9	554.4	550.8
Geometry and Dimensions 3D or 1D	mm D x mm H	60mm D x 110mm H	60mm D x 110mm H	60mm D x 110mm H	60mm D x 110mm H	60mm D x 110mm H
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	DI Water	DI Water	DI Water	DI Water	DI Water
Elutriate Volume Used	mL	2,400	2,400	2,400	2,400	2,400
Elutriate Exchange Time/Day	--	12:30am 05/04/2017	12:30am 19/04/2017	12:30am 03/05/2017	12:30am 11/05/2017	12:30am 24/05/2017
Elutriate Final EC	µS/cm	6,900	3,600	1,600	920	980
Elutriate Final pH	pH units	12.4	12.1	11.9	11.8	11.8
Total Cyanide in Eluates	mg/L	0.048	0.017	<0.004	<0.004	<0.004
Fluoride, F in Eluates	mg/L	11	6.9	5.2	3.5	4.0

SW846-1315 LEAF Monolith						
Our Reference		162119-D-226	162119-D-227	162119-D-228	162119-D-229	162119-D-230
Your Reference	UNITS	MW204 + 50% Lime WET T01	MW204 + 50% Lime WET T02	MW204 + 50% Lime WET T03	MW204 + 50% Lime WET T04	MW204 + 50% Lime WET T05
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	Monolith	Monolith	Monolith	Monolith	Monolith
Mass Used	g	526.9	538.8	534.8	534.2	530.3
Mass of Sample before Elutriation Step	g	538.8	534.8	534.2	530.3	530.2
Geometry and Dimensions 3D or 1D	mm D x mm H	60mm D x 110mm H	60mm D x 110mm H	60mm D x 110mm H	60mm D x 110mm H	60mm D x 110mm H
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	DI Water	DI Water	DI Water	DI Water	DI Water
Elutriate Volume Used	mL	2,400	2,400	2,400	2,400	2,400
Elutriate Exchange Time/Day	--	12:30am 22/03/2017	12:30am 23/03/2017	12:30am 24/03/2017	12:30am 29/03/2017	12:30am 05/04/2017
Elutriate Final EC	µS/cm	11,000	10,000	7,500	15,000	8,600
Elutriate Final pH	pH units	12.4	12.4	12.3	12.5	12.5
Total Cyanide in Eluates	mg/L	0.50	0.48	0.27	0.79	0.47
Fluoride, F in Eluates	mg/L	46	30	13	24	13

**Client Reference: Hydro Aluminium AS130515 Monoliths Filtered**

SW846-1315 LEAF Monolith						
Our Reference		162119-D-231	162119-D-232	162119-D-233	162119-D-234	162119-D-235
Your Reference	UNITS	MW204 + 50% Lime WET T06	MW204 + 50% Lime WET T07	MW204 + 50% Lime WET T08	MW204 + 50% Lime WET T09	MW205 + 50% Lime WET T01
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	Monolith	Monolith	Monolith	Monolith	Monolith
Mass Used	g	530.2	526.3	527.2	529.2	501.6
Mass of Sample before Elutriation Step	g	526.3	527.2	529.2	526.0	530.6
Geometry and Dimensions 3D or 1D	mm D x mm H	60mm D x 110mm H	60mm D x 110mm H	60mm D x 110mm H	60mm D x 110mm H	60mm D x 110mm H
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	DI Water	DI Water	DI Water	DI Water	DI Water
Elutriate Volume Used	mL	2,400	2,400	2,400	2,400	2,400
Elutriate Exchange Time/Day	--	12:30am 19/04/2017	12:30am 03/05/2017	12:30am 11/05/2017	12:30am 24/05/2017	12:30am 22/03/2017
Elutriate Final EC	µS/cm	2,100	2,200	890	990	14,000
Elutriate Final pH	pH units	11.9	12.1	11.8	11.8	12.5
Total Cyanide in Eluates	mg/L	0.16	0.040	<0.004	0.011	0.62
Fluoride, F in Eluates	mg/L	8.0	5.3	3.3	3.7	60

SW846-1315 LEAF Monolith						
Our Reference		162119-D-236	162119-D-237	162119-D-238	162119-D-239	162119-D-240
Your Reference	UNITS	MW205 + 50% Lime WET T02	MW205 + 50% Lime WET T03	MW205 + 50% Lime WET T04	MW205 + 50% Lime WET T05	MW205 + 50% Lime WET T06
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	Monolith	Monolith	Monolith	Monolith	Monolith
Mass Used	g	530.6	525.1	523.5	519.8	519.8
Mass of Sample before Elutriation Step	g	525.1	523.5	519.8	519.8	514.9
Geometry and Dimensions 3D or 1D	mm D x mm H	60mm D x 110mm H	60mm D x 110mm H	60mm D x 110mm H	60mm D x 110mm H	60mm D x 110mm H
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	DI Water	DI Water	DI Water	DI Water	DI Water
Elutriate Volume Used	mL	2,400	2,400	2,400	2,400	2,400
Elutriate Exchange Time/Day	--	12:30am 23/03/2017	12:30am 24/03/2017	12:30am 29/03/2017	12:30am 05/04/2017	12:30am 19/04/2017
Elutriate Final EC	µS/cm	13,000	8,900	13,000	4,800	3,300
Elutriate Final pH	pH units	12.5	12.3	12.4	12.3	12.1
Total Cyanide in Eluates	mg/L	0.34	0.13	0.28	0.089	0.025
Fluoride, F in Eluates	mg/L	44	20	27	13	5.3



**Client Reference: Hydro Aluminium AS130515 Monoliths Filtered**

SW846-1315 LEAF Monolith						
Our Reference		162119-D-241	162119-D-242	162119-D-243	162119-D-244	162119-D-245
Your Reference	UNITS	MW205 + 50% Lime WET T07	MW205 + 50% Lime WET T08	MW205 + 50% Lime WET T09	MW206 + 50% Lime WET T01	MW206 + 50% Lime WET T02
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	Monolith	Monolith	Monolith	Monolith	Monolith
Mass Used	g	514.9	513.8	515.3	521.8	519.9
Mass of Sample before Elutriation Step	g	513.8	515.3	510.4	519.9	516.3
Geometry and Dimensions 3D or 1D	mm D x mm H	60mm D x 110mm H	60mm D x 110mm H	60mm D x 110mm H	60mm D x 110mm H	60mm D x 110mm H
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	DI Water	DI Water	DI Water	DI Water	DI Water
Elutriate Volume Used	mL	2,400	2,400	2,400	2,400	2,400
Elutriate Exchange Time/Day	--	12:30am 03/05/2017	12:30am 11/05/2017	12:30am 24/05/2017	12:30am 22/03/2017	12:30am 23/03/2017
Elutriate Final EC	µS/cm	1,200	760	720	8,900	8,400
Elutriate Final pH	pH units	11.8	11.7	11.7	12.4	12.4
Total Cyanide in Eluates	mg/L	0.015	0.008	0.007	0.13	0.057
Fluoride, F in Eluates	mg/L	4.7	3.5	3.7	24	19

SW846-1315 LEAF Monolith						
Our Reference		162119-D-246	162119-D-247	162119-D-248	162119-D-249	162119-D-250
Your Reference	UNITS	MW206 + 50% Lime WET T03	MW206 + 50% Lime WET T04	MW206 + 50% Lime WET T05	MW206 + 50% Lime WET T06	MW206 + 50% Lime WET T07
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	Monolith	Monolith	Monolith	Monolith	Monolith
Mass Used	g	516.3	515.7	513	513.5	508.8
Mass of Sample before Elutriation Step	g	515.7	513	513.5	508.8	510.0
Geometry and Dimensions 3D or 1D	mm D x mm H	60mm D x 110mm H	60mm D x 110mm H	60mm D x 110mm H	60mm D x 110mm H	60mm D x 110mm H
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	DI Water	DI Water	DI Water	DI Water	DI Water
Elutriate Volume Used	mL	2,400	2,400	2,400	2,400	2,400
Elutriate Exchange Time/Day	--	12:30am 24/03/2017	12:30am 29/03/2017	12:30am 05/04/2017	12:30am 19/04/2017	12:30am 03/05/2017
Elutriate Final EC	µS/cm	5,900	10,000	5,900	3,100	1,100
Elutriate Final pH	pH units	12.2	12.4	12.4	11.9	11.8
Total Cyanide in Eluates	mg/L	0.025	0.057	0.029	0.015	0.007
Fluoride, F in Eluates	mg/L	9.1	16	9.7	5.0	4.1

**Client Reference: Hydro Aluminium AS130515 Monoliths Filtered**

SW846-1315 LEAF Monolith						
Our Reference		162119-D-251	162119-D-252	162119-D-253	162119-D-254	162119-D-255
Your Reference	UNITS	MW206 + 50% Lime WET T08	MW206 + 50% Lime WET T09	MW201 + 30% Cement WET T01	MW201 + 30% Cement WET T02	MW201 + 30% Cement WET
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	Monolith	Monolith	Monolith	Monolith	Monolith
Mass Used	g	510.0	511.7	521.8	537.9	535.9
Mass of Sample before Elutriation Step	g	511.7	507.6	537.9	535.9	535.3
Geometry and Dimensions 3D or 1D	mm D x mm H	60mm D x 110mm H	60mm D x 110mm H	60mm D x 110mm H	60mm D x 110mm H	60mm D x 110mm H
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	DI Water	DI Water	DI Water	DI Water	DI Water
Elutriate Volume Used	mL	2,400	2,400	2,400	2,400	2,400
Elutriate Exchange Time/Day	--	12:30am 11/05/2017	12:30am 24/05/2017	12:30am 22/03/2017	12:30am 23/03/2017	12:30am 24/03/2017
Elutriate Final EC	µS/cm	870	1,000	3,900	3,900	2,600
Elutriate Final pH	pH units	11.7	11.8	11.9	12.0	11.8
Total Cyanide in Eluates	mg/L	0.004	<0.004	1.6	1.7	1.1
Fluoride, F in Eluates	mg/L	3.1	2.9	130	110	75

SW846-1315 LEAF Monolith						
Our Reference		162119-D-256	162119-D-257	162119-D-258	162119-D-259	162119-D-260
Your Reference	UNITS	MW201 + 30% Cement WET T04	MW201 + 30% Cement WET T05	MW201 + 30% Cement WET T06	MW201 + 30% Cement WET T07	MW201 + 30% Cement WET
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	Monolith	Monolith	Monolith	Monolith	Monolith
Mass Used	g	535.3	533.1	531.9	527.8	527.9
Mass of Sample before Elutriation Step	g	533.1	531.9	527.8	527.9	529.4
Geometry and Dimensions 3D or 1D	mm D x mm H	60mm D x 110mm H	60mm D x 110mm H	60mm D x 110mm H	60mm D x 110mm H	60mm D x 110mm H
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	DI Water	DI Water	DI Water	DI Water	DI Water
Elutriate Volume Used	mL	2,400	2,400	2,400	2,400	2,400
Elutriate Exchange Time/Day	--	12:30am 29/03/2017	12:30am 05/04/2017	12:30am 19/04/2017	12:30am 03/05/2017	12:30am 11/05/2017
Elutriate Final EC	µS/cm	4,900	5,100	4,700	2,200	810
Elutriate Final pH	pH units	12.1	12.1	12.3	11.9	11.5
Total Cyanide in Eluates	mg/L	2.5	1.6	0.89	0.24	0.028
Fluoride, F in Eluates	mg/L	130	66	38	33	12

**Client Reference: Hydro Aluminium AS130515 Monoliths Filtered**

SW846-1315 LEAF Monolith						
Our Reference		162119-D-261	162119-D-262	162119-D-263	162119-D-264	162119-D-265
Your Reference	UNITS	MW201 + 30% Cement WET T09	MW202 + 30% Cement WET T01	MW202 + 30% Cement WET T02	MW202 + 30% Cement WET T03	MW202 + 30% Cement WET
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	Monolith	Monolith	Monolith	Monolith	Monolith
Mass Used	g	529.4	526	539.4	536.9	535.9
Mass of Sample before Elutriation Step	g	527.1	539.4	536.9	535.9	532.4
Geometry and Dimensions 3D or 1D	mm D x mm H	60mm D x 110mm H	60mm D x 110mm H	60mm D x 110mm H	60mm D x 110mm H	60mm D x 110mm H
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	DI Water	DI Water	DI Water	DI Water	DI Water
Elutriate Volume Used	mL	2,400	2,400	2,400	2,400	2,400
Elutriate Exchange Time/Day	--	12:30am 24/05/2017	12:30am 22/03/2017	12:30am 23/03/2017	12:30am 24/03/2017	12:30am 29/03/2017
Elutriate Final EC	µS/cm	590	3,200	3,500	2,500	6,400
Elutriate Final pH	pH units	11.1	11.3	11.6	11.3	11.9
Total Cyanide in Eluates	mg/L	0.029	1.4	1.6	1.1	2.0
Fluoride, F in Eluates	mg/L	14	100	120	110	230

SW846-1315 LEAF Monolith						
Our Reference		162119-D-266	162119-D-267	162119-D-268	162119-D-269	162119-D-270
Your Reference	UNITS	MW202 + 30% Cement WET T05	MW202 + 30% Cement WET T06	MW202 + 30% Cement WET T07	MW202 + 30% Cement WET T08	MW202 + 30% Cement WET
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	Monolith	Monolith	Monolith	Monolith	Monolith
Mass Used	g	532.4	531.4	527	526.9	528.9
Mass of Sample before Elutriation Step	g	531.4	527	526.9	528.9	527.0
Geometry and Dimensions 3D or 1D	mm D x mm H	60mm D x 110mm H	60mm D x 110mm H	60mm D x 110mm H	60mm D x 110mm H	60mm D x 110mm H
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	DI Water	DI Water	DI Water	DI Water	DI Water
Elutriate Volume Used	mL	2,400	2,400	2,400	2,400	2,400
Elutriate Exchange Time/Day	--	12:30am 05/04/2017	12:30am 19/04/2017	12:30am 03/05/2017	12:30am 11/05/2017	12:30am 24/05/2017
Elutriate Final EC	µS/cm	5,400	4,600	2,900	1,200	930
Elutriate Final pH	pH units	12.1	12.1	12.0	11.7	11.2
Total Cyanide in Eluates	mg/L	1.6	1.0	0.33	0.058	0.049
Fluoride, F in Eluates	mg/L	220	160	86	26	37

**Client Reference: Hydro Aluminium AS130515 Monoliths Filtered**

SW846-1315 LEAF Monolith						
Our Reference		162119-D-271	162119-D-272	162119-D-273	162119-D-274	162119-D-275
Your Reference	UNITS	MW203+ 30% Cement WET T01	MW203+ 30% Cement WET T02	MW203+ 30% Cement WET T03	MW203+ 30% Cement WET T04	MW203+ 30% Cement WET
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	Monolith	Monolith	Monolith	Monolith	Monolith
Mass Used	g	511.5	522.4	519.4	518.2	513.3
Mass of Sample before Elutriation Step	g	522.4	519.4	518.2	513.3	510.2
Geometry and Dimensions 3D or 1D	mm D x mm H	60mm D x 110mm H	60mm D x 110mm H	60mm D x 110mm H	60mm D x 110mm H	60mm D x 110mm H
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	DI Water	DI Water	DI Water	DI Water	DI Water
Elutriate Volume Used	mL	2,400	2,400	2,400	2,400	2,400
Elutriate Exchange Time/Day	--	12:30am 22/03/2017	12:30am 23/03/2017	12:30am 24/03/2017	12:30am 29/03/2017	12:30am 05/04/2017
Elutriate Final EC	µS/cm	4,500	3,300	3,100	6,000	4,500
Elutriate Final pH	pH units	11.6	11.4	11.5	11.8	11.9
Total Cyanide in Eluates	mg/L	6.1	4.7	3.0	4.9	3.8
Fluoride, F in Eluates	mg/L	160	160	150	300	300

SW846-1315 LEAF Monolith						
Our Reference		162119-D-276	162119-D-277	162119-D-278	162119-D-279	162119-D-280
Your Reference	UNITS	MW203+ 30% Cement WET T06	MW203+ 30% Cement WET T07	MW203+ 30% Cement WET T08	MW203+ 30% Cement WET T09	MW204 + 30% Cement WET T01
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	Monolith	Monolith	Monolith	Monolith	Monolith
Mass Used	g	510.2	504.0	503.4	507.9	524.1
Mass of Sample before Elutriation Step	g	504.0	503.4	504.9	501.4	536.2
Geometry and Dimensions 3D or 1D	mm D x mm H	60mm D x 110mm H	60mm D x 110mm H	60mm D x 110mm H	60mm D x 110mm H	60mm D x 110mm H
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	DI Water	DI Water	DI Water	DI Water	DI Water
Elutriate Volume Used	mL	2,400	2,400	2,400	2,400	2,400
Elutriate Exchange Time/Day	--	12:30am 19/04/2017	12:30am 03/05/2017	12:30am 11/05/2017	12:30am 24/05/2017	12:30am 22/03/2017
Elutriate Final EC	µS/cm	4,100	2,200	1,300	1,500	5,600
Elutriate Final pH	pH units	11.9	10.7	11.6	11.7	11.6
Total Cyanide in Eluates	mg/L	1.8	0.47	0.092	0.080	4.3
Fluoride, F in Eluates	mg/L	270	140	55	55	120

**Client Reference: Hydro Aluminium AS130515 Monoliths Filtered**

SW846-1315 LEAF Monolith						
Our Reference		162119-D-281	162119-D-282	162119-D-283	162119-D-284	162119-D-285
Your Reference	UNITS	MW204 + 30% Cement WET T02	MW204 + 30% Cement WET T03	MW204 + 30% Cement WET T04	MW204 + 30% Cement WET T05	MW204 + 30% Cement WET
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	Monolith	Monolith	Monolith	Monolith	Monolith
Mass Used	g	536.2	532	530.6	525.7	522.8
Mass of Sample before Elutriation Step	g	532	530.6	525.7	522.8	516.1
Geometry and Dimensions 3D or 1D	mm D x mm H	60mm D x 110mm H	60mm D x 110mm H	60mm D x 110mm H	60mm D x 110mm H	60mm D x 110mm H
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	DI Water	DI Water	DI Water	DI Water	DI Water
Elutriate Volume Used	mL	2,400	2,400	2,400	2,400	2,400
Elutriate Exchange Time/Day	--	12:30am 23/03/2017	12:30am 24/03/2017	12:30am 29/03/2017	12:30am 05/04/2017	12:30am 19/04/2017
Elutriate Final EC	µS/cm	3,400	3,400	6,700	5,800	4,600
Elutriate Final pH	pH units	11.5	11.5	11.9	12.1	12.1
Total Cyanide in Eluates	mg/L	3.2	2.0	3.2	2.3	1.3
Fluoride, F in Eluates	mg/L	120	110	210	200	150

SW846-1315 LEAF Monolith						
Our Reference		162119-D-286	162119-D-287	162119-D-288	162119-D-298	162119-D-299
Your Reference	UNITS	MW204 + 30% Cement WET T07	MW204 + 30% Cement WET T08	MW204 + 30% Cement WET T09	MW206 + 30% Cement WET T01	MW206 + 30% Cement WET
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	Monolith	Monolith	Monolith	Monolith	Monolith
Mass Used	g	516.1	515.8	517.7	514.7	533
Mass of Sample before Elutriation Step	g	515.8	517.7	514.8	533	530.4
Geometry and Dimensions 3D or 1D	mm D x mm H	60mm D x 110mm H	60mm D x 110mm H	60mm D x 110mm H	60mm D x 110mm H	60mm D x 110mm H
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	DI Water	DI Water	DI Water	DI Water	DI Water
Elutriate Volume Used	mL	2,400	2,400	2,400	2,400	2,400
Elutriate Exchange Time/Day	--	12:30am 03/05/2017	12:30am 11/05/2017	12:30am 24/05/2017	12:30am 22/03/2017	12:30am 23/03/2017
Elutriate Final EC	µS/cm	3,300	1,400	980	3,300	2,900
Elutriate Final pH	pH units	12.0	11.7	10.5	11.3	11.5
Total Cyanide in Eluates	mg/L	0.40	0.081	0.062	4.5	4.0
Fluoride, F in Eluates	mg/L	86	28	42	110	100

**Client Reference: Hydro Aluminium AS130515 Monoliths Filtered**

SW846-1315 LEAF Monolith						
Our Reference		162119-D-300	162119-D-301	162119-D-302	162119-D-303	162119-D-304
Your Reference	UNITS	MW206 + 30% Cement WET T03	MW206 + 30% Cement WET T04	MW206 + 30% Cement WET T05	MW206 + 30% Cement WET T06	MW206 + 30% Cement WET
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	Monolith	Monolith	Monolith	Monolith	Monolith
Mass Used	g	530.4	530	526.1	522.9	517.4
Mass of Sample before Elutriation Step	g	530	526.1	522.9	517.4	516.9
Geometry and Dimensions 3D or 1D	mm D x mm H	60mm D x 110mm H	60mm D x 110mm H	60mm D x 110mm H	60mm D x 110mm H	60mm D x 110mm H
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	DI Water	DI Water	DI Water	DI Water	DI Water
Elutriate Volume Used	mL	2,400	2,400	2,400	2,400	2,400
Elutriate Exchange Time/Day	--	12:30am 24/03/2017	12:30am 29/03/2017	12:30am 05/04/2017	12:30am 19/04/2017	12:30am 03/05/2017
Elutriate Final EC	µS/cm	2,500	6,500	6,000	4,200	2,600
Elutriate Final pH	pH units	11.5	12.0	12.2	12.0	12.0
Total Cyanide in Eluates	mg/L	2.7	5.5	4.5	1.8	0.44
Fluoride, F in Eluates	mg/L	85	170	160	97	50

SW846-1315 LEAF Monolith			
Our Reference		162119-D-305	162119-D-306
Your Reference	UNITS	MW206 + 30% Cement WET T08	MW206 + 30% Cement WET
Date Sampled		10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Filtered	Monolith LEAF Eluate Filtered
Date prepared	-	22/03/2017	22/03/2017
Material Description	--	Monolith	Monolith
Mass Used	g	516.9	519.3
Mass of Sample before Elutriation Step	g	519.3	516.2
Geometry and Dimensions 3D or 1D	mm D x mm H	60mm D x 110mm H	60mm D x 110mm H
Moisture	%(w/w)	--	--
Elutriate Liquid Type	--	DI Water	DI Water
Elutriate Volume Used	mL	2,400	2,400
Elutriate Exchange Time/Day	--	12:30am 11/05/2017	12:30am 24/05/2017
Elutriate Final EC	µS/cm	1,200	1,200
Elutriate Final pH	pH units	11.7	11.7
Total Cyanide in Eluates	mg/L	0.11	0.079
Fluoride, F in Eluates	mg/L	21	23

**Client Reference: Hydro Aluminium AS130515 Monoliths Filtered**

Method ID	Methodology Summary
<b>Inorg-014</b>	Cyanide - free, total, weak acid dissociable by segmented flow analyser (in line dialysis with colourimetric finish). Solids are extracted in a caustic media prior to analysis.
<b>Inorg-026</b>	Fluoride determined by ion selective electrode (ISE) in accordance with APHA latest edition, 4500-F-C.
<b>INORG-125</b>	Leaching Environment Assessment Framework (LEAF) methods of leaching using USEPA methods SW846 1313, 1314, 1315 or 1316.
<b>Org-012</b>	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS. Benzo(a)pyrene TEQ as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater - 2013.

Client Reference: Hydro Aluminium AS130515 Monoliths Filtered

QUALITY CONTROL: PAHs in Eluates					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	162119-D-192
Date extracted	-			24/03/2017	93	05/04/2017	05/04/2017		24/03/2017	06/04/2017
Date analysed	-			24/03/2017	93	07/04/2017	07/04/2017		24/03/2017	07/04/2017
Naphthalene	µg/L	1	Org-012	<1	93	<1	<1	0	84	110
Acenaphthylene	µg/L	1	Org-012	<1	93	<1	<1	0	[NT]	[NT]
Acenaphthene	µg/L	1	Org-012	<1	93	<1	<1	0	[NT]	[NT]
Fluorene	µg/L	1	Org-012	<1	93	<1	<1	0	78	110
Phenanthrene	µg/L	1	Org-012	<1	93	<1	<1	0	84	110
Anthracene	µg/L	1	Org-012	<1	93	<1	<1	0	[NT]	[NT]
Fluoranthene	µg/L	1	Org-012	<1	93	<1	<1	0	78	110
Pyrene	µg/L	1	Org-012	<1	93	<1	<1	0	80	110
Benzo(a)anthracene	µg/L	1	Org-012	<1	93	<1	<1	0	[NT]	[NT]
Chrysene	µg/L	1	Org-012	<1	93	<1	<1	0	84	85
Benzo(b,j+k)fluoranthene	µg/L	2	Org-012	<2	93	<2	<2	0	[NT]	[NT]
Benzo(a)pyrene	µg/L	1	Org-012	<1	93	<1	<1	0	130	93
Indeno(1,2,3-c,d)pyrene	µg/L	1	Org-012	<1	93	<1	<1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	µg/L	1	Org-012	<1	93	<1	<1	0	[NT]	[NT]
Benzo(g,h,i)perylene	µg/L	1	Org-012	<1	93	<1	<1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-012	88	93	80	80	0	86	82

QUALITY CONTROL: PAHs in Eluates					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W2	162119-D-12
Date extracted	-			[NT]	183	06/04/2017	06/04/2017		27/03/2017	05/04/2017
Date analysed	-			[NT]	183	07/04/2017	07/04/2017		27/03/2017	06/04/2017
Naphthalene	µg/L	1	Org-012	[NT]	183	<1	<1	0	92	90
Acenaphthylene	µg/L	1	Org-012	[NT]	183	<1	<1	0	[NT]	[NT]
Acenaphthene	µg/L	1	Org-012	[NT]	183	<1	<1	0	[NT]	[NT]
Fluorene	µg/L	1	Org-012	[NT]	183	<1	<1	0	93	95
Phenanthrene	µg/L	1	Org-012	[NT]	183	<1	<1	0	110	88
Anthracene	µg/L	1	Org-012	[NT]	183	<1	<1	0	[NT]	[NT]
Fluoranthene	µg/L	1	Org-012	[NT]	183	<1	<1	0	100	90
Pyrene	µg/L	1	Org-012	[NT]	183	<1	<1	0	100	93
Benzo(a)anthracene	µg/L	1	Org-012	[NT]	183	<1	<1	0	[NT]	[NT]
Chrysene	µg/L	1	Org-012	[NT]	183	<1	<1	0	100	92
Benzo(b,j+k)fluoranthene	µg/L	2	Org-012	[NT]	183	<2	<2	0	[NT]	[NT]
Benzo(a)pyrene	µg/L	1	Org-012	[NT]	183	<1	<1	0	100	110
Indeno(1,2,3-c,d)pyrene	µg/L	1	Org-012	[NT]	183	<1	<1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	µg/L	1	Org-012	[NT]	183	<1	<1	0	[NT]	[NT]
Benzo(g,h,i)perylene	µg/L	1	Org-012	[NT]	183	<1	<1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-012	[NT]	183	72	74	3	87	102



**Client Reference: Hydro Aluminium AS130515 Monoliths Filtered**

QUALITY CONTROL: PAHs in Eluates				Duplicate				Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W3	162119-D-67
Date extracted	-			[NT]	3	05/04/2017	05/04/2017		05/04/2017	07/04/2017
Date analysed	-			[NT]	3	06/04/2017	06/04/2017		06/04/2017	07/04/2017
Naphthalene	µg/L	1	Org-012	[NT]	3	<1	<1	0	84	84
Acenaphthylene	µg/L	1	Org-012	[NT]	3	<1	<1	0	[NT]	[NT]
Acenaphthene	µg/L	1	Org-012	[NT]	3	<1	<1	0	[NT]	[NT]
Fluorene	µg/L	1	Org-012	[NT]	3	<1	<1	0	92	85
Phenanthrene	µg/L	1	Org-012	[NT]	3	<1	<1	0	95	100
Anthracene	µg/L	1	Org-012	[NT]	3	<1	<1	0	[NT]	[NT]
Fluoranthene	µg/L	1	Org-012	[NT]	3	<1	<1	0	97	97
Pyrene	µg/L	1	Org-012	[NT]	3	<1	<1	0	95	98
Benzo(a)anthracene	µg/L	1	Org-012	[NT]	3	<1	<1	0	[NT]	[NT]
Chrysene	µg/L	1	Org-012	[NT]	3	<1	<1	0	95	75
Benzo(b,j+k)fluoranthene	µg/L	2	Org-012	[NT]	3	<2	<2	0	[NT]	[NT]
Benzo(a)pyrene	µg/L	1	Org-012	[NT]	3	<1	<1	0	110	80
Indeno(1,2,3-c,d)pyrene	µg/L	1	Org-012	[NT]	3	<1	<1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	µg/L	1	Org-012	[NT]	3	<1	<1	0	[NT]	[NT]
Benzo(g,h,i)perylene	µg/L	1	Org-012	[NT]	3	<1	<1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-012	[NT]	3	95	108	13	95	73

QUALITY CONTROL: PAHs in Eluates				Duplicate				Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W4	162119-D-256
Date extracted	-			[NT]	273	07/04/2017	07/04/2017		06/04/2017	07/04/2017
Date analysed	-			[NT]	273	07/04/2017	07/04/2017		07/04/2017	07/04/2017
Naphthalene	µg/L	1	Org-012	[NT]	273	<1	<1	0	110	100
Acenaphthylene	µg/L	1	Org-012	[NT]	273	<1	<1	0	[NT]	[NT]
Acenaphthene	µg/L	1	Org-012	[NT]	273	<1	<1	0	[NT]	[NT]
Fluorene	µg/L	1	Org-012	[NT]	273	<1	<1	0	110	110
Phenanthrene	µg/L	1	Org-012	[NT]	273	<1	<1	0	130	110
Anthracene	µg/L	1	Org-012	[NT]	273	<1	<1	0	[NT]	[NT]
Fluoranthene	µg/L	1	Org-012	[NT]	273	<1	<1	0	110	110
Pyrene	µg/L	1	Org-012	[NT]	273	<1	<1	0	110	100
Benzo(a)anthracene	µg/L	1	Org-012	[NT]	273	<1	<1	0	[NT]	[NT]
Chrysene	µg/L	1	Org-012	[NT]	273	<1	<1	0	100	83
Benzo(b,j+k)fluoranthene	µg/L	2	Org-012	[NT]	273	<2	<2	0	[NT]	[NT]
Benzo(a)pyrene	µg/L	1	Org-012	[NT]	273	<1	<1	0	100	86
Indeno(1,2,3-c,d)pyrene	µg/L	1	Org-012	[NT]	273	<1	<1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	µg/L	1	Org-012	[NT]	273	<1	<1	0	[NT]	[NT]
Benzo(g,h,i)perylene	µg/L	1	Org-012	[NT]	273	<1	<1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-012	[NT]	273	69	72	4	84	78

**Client Reference: Hydro Aluminium AS130515 Monoliths Filtered**

QUALITY CONTROL: PAHs in Eluates					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W5	162119-D-194
Date extracted	-			[NT]	58	07/04/2017	07/04/2017		05/04/2017	11/04/2017
Date analysed	-			[NT]	58	07/04/2017	07/04/2017		06/04/2017	11/04/2017
Naphthalene	µg/L	1	Org-012	[NT]	58	<1	<1	0	98	96
Acenaphthylene	µg/L	1	Org-012	[NT]	58	<1	<1	0	[NT]	[NT]
Acenaphthene	µg/L	1	Org-012	[NT]	58	<1	<1	0	[NT]	[NT]
Fluorene	µg/L	1	Org-012	[NT]	58	<1	<1	0	110	88
Phenanthrene	µg/L	1	Org-012	[NT]	58	<1	<1	0	110	87
Anthracene	µg/L	1	Org-012	[NT]	58	<1	<1	0	[NT]	[NT]
Fluoranthene	µg/L	1	Org-012	[NT]	58	<1	<1	0	100	86
Pyrene	µg/L	1	Org-012	[NT]	58	<1	<1	0	110	82
Benzo(a)anthracene	µg/L	1	Org-012	[NT]	58	<1	<1	0	[NT]	[NT]
Chrysene	µg/L	1	Org-012	[NT]	58	<1	<1	0	100	80
Benzo(b,j+k)fluoranthene	µg/L	2	Org-012	[NT]	58	<2	<2	0	[NT]	[NT]
Benzo(a)pyrene	µg/L	1	Org-012	[NT]	58	<1	<1	0	120	85
Indeno(1,2,3-c,d)pyrene	µg/L	1	Org-012	[NT]	58	<1	<1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	µg/L	1	Org-012	[NT]	58	<1	<1	0	[NT]	[NT]
Benzo(g,h,i)perylene	µg/L	1	Org-012	[NT]	58	<1	<1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-012	[NT]	58	83	86	4	101	102

QUALITY CONTROL: PAHs in Eluates					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W6	162119-D-15
Date extracted	-			[NT]	157	07/04/2017	07/04/2017		05/04/2017	24/04/2017
Date analysed	-			[NT]	157	07/04/2017	07/04/2017		06/04/2017	24/04/2017
Naphthalene	µg/L	1	Org-012	[NT]	157	<1	<1	0	75	86
Acenaphthylene	µg/L	1	Org-012	[NT]	157	<1	<1	0	[NT]	[NT]
Acenaphthene	µg/L	1	Org-012	[NT]	157	<1	<1	0	[NT]	[NT]
Fluorene	µg/L	1	Org-012	[NT]	157	<1	<1	0	84	120
Phenanthrene	µg/L	1	Org-012	[NT]	157	<1	<1	0	85	120
Anthracene	µg/L	1	Org-012	[NT]	157	<1	<1	0	[NT]	[NT]
Fluoranthene	µg/L	1	Org-012	[NT]	157	<1	<1	0	85	110
Pyrene	µg/L	1	Org-012	[NT]	157	<1	<1	0	80	100
Benzo(a)anthracene	µg/L	1	Org-012	[NT]	157	<1	<1	0	[NT]	[NT]
Chrysene	µg/L	1	Org-012	[NT]	157	<1	<1	0	78	100
Benzo(b,j+k)fluoranthene	µg/L	2	Org-012	[NT]	157	<2	<2	0	[NT]	[NT]
Benzo(a)pyrene	µg/L	1	Org-012	[NT]	157	<1	<1	0	86	110
Indeno(1,2,3-c,d)pyrene	µg/L	1	Org-012	[NT]	157	<1	<1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	µg/L	1	Org-012	[NT]	157	<1	<1	0	[NT]	[NT]
Benzo(g,h,i)perylene	µg/L	1	Org-012	[NT]	157	<1	<1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-012	[NT]	157	88	73	19	101	77

**Client Reference: Hydro Aluminium AS130515 Monoliths Filtered**

QUALITY CONTROL: PAHs in Eluates					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W7	162119-D-195
Date extracted	-			[NT]	247	07/04/2017	07/04/2017		05/04/2017	24/04/2017
Date analysed	-			[NT]	247	07/04/2017	07/04/2017		06/04/2017	24/04/2017
Naphthalene	µg/L	1	Org-012	[NT]	247	<1	<1	0	75	84
Acenaphthylene	µg/L	1	Org-012	[NT]	247	<1	<1	0	[NT]	[NT]
Acenaphthene	µg/L	1	Org-012	[NT]	247	<1	<1	0	[NT]	[NT]
Fluorene	µg/L	1	Org-012	[NT]	247	<1	<1	0	86	88
Phenanthrene	µg/L	1	Org-012	[NT]	247	<1	<1	0	99	92
Anthracene	µg/L	1	Org-012	[NT]	247	<1	<1	0	[NT]	[NT]
Fluoranthene	µg/L	1	Org-012	[NT]	247	<1	<1	0	95	84
Pyrene	µg/L	1	Org-012	[NT]	247	<1	<1	0	94	84
Benzo(a)anthracene	µg/L	1	Org-012	[NT]	247	<1	<1	0	[NT]	[NT]
Chrysene	µg/L	1	Org-012	[NT]	247	<1	<1	0	79	84
Benzo(b,j+k)fluoranthene	µg/L	2	Org-012	[NT]	247	<2	<2	0	[NT]	[NT]
Benzo(a)pyrene	µg/L	1	Org-012	[NT]	247	<1	<1	0	78	94
Indeno(1,2,3-c,d)pyrene	µg/L	1	Org-012	[NT]	247	<1	<1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	µg/L	1	Org-012	[NT]	247	<1	<1	0	[NT]	[NT]
Benzo(g,h,i)perylene	µg/L	1	Org-012	[NT]	247	<1	<1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-012	[NT]	247	68	74	8	70	110

QUALITY CONTROL: PAHs in Eluates					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	185	11/04/2017	11/04/2017		[NT]	[NT]
Date analysed	-			[NT]	185	11/04/2017	11/04/2017		[NT]	[NT]
Naphthalene	µg/L	1	Org-012	[NT]	185	<1	1	0	[NT]	[NT]
Acenaphthylene	µg/L	1	Org-012	[NT]	185	<1	<1	0	[NT]	[NT]
Acenaphthene	µg/L	1	Org-012	[NT]	185	<1	<1	0	[NT]	[NT]
Fluorene	µg/L	1	Org-012	[NT]	185	<1	<1	0	[NT]	[NT]
Phenanthrene	µg/L	1	Org-012	[NT]	185	<1	<1	0	[NT]	[NT]
Anthracene	µg/L	1	Org-012	[NT]	185	<1	<1	0	[NT]	[NT]
Fluoranthene	µg/L	1	Org-012	[NT]	185	<1	<1	0	[NT]	[NT]
Pyrene	µg/L	1	Org-012	[NT]	185	<1	<1	0	[NT]	[NT]
Benzo(a)anthracene	µg/L	1	Org-012	[NT]	185	<1	<1	0	[NT]	[NT]
Chrysene	µg/L	1	Org-012	[NT]	185	<1	<1	0	[NT]	[NT]
Benzo(b,j+k)fluoranthene	µg/L	2	Org-012	[NT]	185	<2	<2	0	[NT]	[NT]
Benzo(a)pyrene	µg/L	1	Org-012	[NT]	185	<1	<1	0	[NT]	[NT]
Indeno(1,2,3-c,d)pyrene	µg/L	1	Org-012	[NT]	185	<1	<1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	µg/L	1	Org-012	[NT]	185	<1	<1	0	[NT]	[NT]
Benzo(g,h,i)perylene	µg/L	1	Org-012	[NT]	185	<1	<1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-012	[NT]	185	85	120	34	[NT]	[NT]

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QUALITY CONTROL: PAHs in Eluates					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	6	24/04/2017	24/04/2017		[NT]	[NT]
Date analysed	-			[NT]	6	24/04/2017	24/04/2017		[NT]	[NT]
Naphthalene	µg/L	1	Org-012	[NT]	6	<1	<1	0	[NT]	[NT]
Acenaphthylene	µg/L	1	Org-012	[NT]	6	<1	<1	0	[NT]	[NT]
Acenaphthene	µg/L	1	Org-012	[NT]	6	<1	<1	0	[NT]	[NT]
Fluorene	µg/L	1	Org-012	[NT]	6	<1	<1	0	[NT]	[NT]
Phenanthrene	µg/L	1	Org-012	[NT]	6	<1	<1	0	[NT]	[NT]
Anthracene	µg/L	1	Org-012	[NT]	6	<1	<1	0	[NT]	[NT]
Fluoranthene	µg/L	1	Org-012	[NT]	6	<1	<1	0	[NT]	[NT]
Pyrene	µg/L	1	Org-012	[NT]	6	<1	<1	0	[NT]	[NT]
Benzo(a)anthracene	µg/L	1	Org-012	[NT]	6	<1	<1	0	[NT]	[NT]
Chrysene	µg/L	1	Org-012	[NT]	6	<1	<1	0	[NT]	[NT]
Benzo(b,j+k)fluoranthene	µg/L	2	Org-012	[NT]	6	<2	<2	0	[NT]	[NT]
Benzo(a)pyrene	µg/L	1	Org-012	[NT]	6	<1	<1	0	[NT]	[NT]
Indeno(1,2,3-c,d)pyrene	µg/L	1	Org-012	[NT]	6	<1	<1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	µg/L	1	Org-012	[NT]	6	<1	<1	0	[NT]	[NT]
Benzo(g,h,i)perylene	µg/L	1	Org-012	[NT]	6	<1	<1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-012	[NT]	6	84	68	21	[NT]	[NT]

QUALITY CONTROL: PAHs in Eluates					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	96	24/04/2017	24/04/2017		[NT]	[NT]
Date analysed	-			[NT]	96	24/04/2017	24/04/2017		[NT]	[NT]
Naphthalene	µg/L	1	Org-012	[NT]	96	<1	<1	0	[NT]	[NT]
Acenaphthylene	µg/L	1	Org-012	[NT]	96	<1	<1	0	[NT]	[NT]
Acenaphthene	µg/L	1	Org-012	[NT]	96	<1	<1	0	[NT]	[NT]
Fluorene	µg/L	1	Org-012	[NT]	96	<1	<1	0	[NT]	[NT]
Phenanthrene	µg/L	1	Org-012	[NT]	96	<1	<1	0	[NT]	[NT]
Anthracene	µg/L	1	Org-012	[NT]	96	<1	<1	0	[NT]	[NT]
Fluoranthene	µg/L	1	Org-012	[NT]	96	<1	<1	0	[NT]	[NT]
Pyrene	µg/L	1	Org-012	[NT]	96	<1	<1	0	[NT]	[NT]
Benzo(a)anthracene	µg/L	1	Org-012	[NT]	96	<1	<1	0	[NT]	[NT]
Chrysene	µg/L	1	Org-012	[NT]	96	<1	<1	0	[NT]	[NT]
Benzo(b,j+k)fluoranthene	µg/L	2	Org-012	[NT]	96	<2	<2	0	[NT]	[NT]
Benzo(a)pyrene	µg/L	1	Org-012	[NT]	96	<1	<1	0	[NT]	[NT]
Indeno(1,2,3-c,d)pyrene	µg/L	1	Org-012	[NT]	96	<1	<1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	µg/L	1	Org-012	[NT]	96	<1	<1	0	[NT]	[NT]
Benzo(g,h,i)perylene	µg/L	1	Org-012	[NT]	96	<1	<1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-012	[NT]	96	104	118	13	[NT]	[NT]

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QUALITY CONTROL: PAHs in Eluates					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	186	24/04/2017	24/04/2017		[NT]	[NT]
Date analysed	-			[NT]	186	24/04/2017	24/04/2017		[NT]	[NT]
Naphthalene	µg/L	1	Org-012	[NT]	186	<1	<1	0	[NT]	[NT]
Acenaphthylene	µg/L	1	Org-012	[NT]	186	<1	<1	0	[NT]	[NT]
Acenaphthene	µg/L	1	Org-012	[NT]	186	<1	<1	0	[NT]	[NT]
Fluorene	µg/L	1	Org-012	[NT]	186	<1	<1	0	[NT]	[NT]
Phenanthrene	µg/L	1	Org-012	[NT]	186	<1	<1	0	[NT]	[NT]
Anthracene	µg/L	1	Org-012	[NT]	186	<1	<1	0	[NT]	[NT]
Fluoranthene	µg/L	1	Org-012	[NT]	186	<1	<1	0	[NT]	[NT]
Pyrene	µg/L	1	Org-012	[NT]	186	<1	<1	0	[NT]	[NT]
Benzo(a)anthracene	µg/L	1	Org-012	[NT]	186	<1	<1	0	[NT]	[NT]
Chrysene	µg/L	1	Org-012	[NT]	186	<1	<1	0	[NT]	[NT]
Benzo(b,j+k)fluoranthene	µg/L	2	Org-012	[NT]	186	<2	<2	0	[NT]	[NT]
Benzo(a)pyrene	µg/L	1	Org-012	[NT]	186	<1	<1	0	[NT]	[NT]
Indeno(1,2,3-c,d)pyrene	µg/L	1	Org-012	[NT]	186	<1	<1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	µg/L	1	Org-012	[NT]	186	<1	<1	0	[NT]	[NT]
Benzo(g,h,i)perylene	µg/L	1	Org-012	[NT]	186	<1	<1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-012	[NT]	186	110	109	1	[NT]	[NT]

QUALITY CONTROL: PAHs in Eluates					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	276	24/04/2017	24/04/2017		[NT]	[NT]
Date analysed	-			[NT]	276	24/04/2017	24/04/2017		[NT]	[NT]
Naphthalene	µg/L	1	Org-012	[NT]	276	<1	<1	0	[NT]	[NT]
Acenaphthylene	µg/L	1	Org-012	[NT]	276	<1	<1	0	[NT]	[NT]
Acenaphthene	µg/L	1	Org-012	[NT]	276	<1	<1	0	[NT]	[NT]
Fluorene	µg/L	1	Org-012	[NT]	276	<1	<1	0	[NT]	[NT]
Phenanthrene	µg/L	1	Org-012	[NT]	276	<1	<1	0	[NT]	[NT]
Anthracene	µg/L	1	Org-012	[NT]	276	<1	<1	0	[NT]	[NT]
Fluoranthene	µg/L	1	Org-012	[NT]	276	<1	<1	0	[NT]	[NT]
Pyrene	µg/L	1	Org-012	[NT]	276	<1	<1	0	[NT]	[NT]
Benzo(a)anthracene	µg/L	1	Org-012	[NT]	276	<1	<1	0	[NT]	[NT]
Chrysene	µg/L	1	Org-012	[NT]	276	<1	<1	0	[NT]	[NT]
Benzo(b,j+k)fluoranthene	µg/L	2	Org-012	[NT]	276	<2	<2	0	[NT]	[NT]
Benzo(a)pyrene	µg/L	1	Org-012	[NT]	276	<1	<1	0	[NT]	[NT]
Indeno(1,2,3-c,d)pyrene	µg/L	1	Org-012	[NT]	276	<1	<1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	µg/L	1	Org-012	[NT]	276	<1	<1	0	[NT]	[NT]
Benzo(g,h,i)perylene	µg/L	1	Org-012	[NT]	276	<1	<1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-012	[NT]	276	100	112	11	[NT]	[NT]

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QUALITY CONTROL: PAHs in Eluates					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	302	19/04/2017	19/04/2017		[NT]	[NT]
Date analysed	-			[NT]	302	19/04/2017	19/04/2017		[NT]	[NT]
Naphthalene	µg/L	1	Org-012	[NT]	302	<1	<1	0	[NT]	[NT]
Acenaphthylene	µg/L	1	Org-012	[NT]	302	<1	<1	0	[NT]	[NT]
Acenaphthene	µg/L	1	Org-012	[NT]	302	<1	<1	0	[NT]	[NT]
Fluorene	µg/L	1	Org-012	[NT]	302	<1	<1	0	[NT]	[NT]
Phenanthrene	µg/L	1	Org-012	[NT]	302	<1	<1	0	[NT]	[NT]
Anthracene	µg/L	1	Org-012	[NT]	302	<1	<1	0	[NT]	[NT]
Fluoranthene	µg/L	1	Org-012	[NT]	302	<1	<1	0	[NT]	[NT]
Pyrene	µg/L	1	Org-012	[NT]	302	<1	<1	0	[NT]	[NT]
Benzo(a)anthracene	µg/L	1	Org-012	[NT]	302	<1	<1	0	[NT]	[NT]
Chrysene	µg/L	1	Org-012	[NT]	302	<1	<1	0	[NT]	[NT]
Benzo(b,j+k)fluoranthene	µg/L	2	Org-012	[NT]	302	<2	<2	0	[NT]	[NT]
Benzo(a)pyrene	µg/L	1	Org-012	[NT]	302	<1	<1	0	[NT]	[NT]
Indeno(1,2,3-c,d)pyrene	µg/L	1	Org-012	[NT]	302	<1	<1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	µg/L	1	Org-012	[NT]	302	<1	<1	0	[NT]	[NT]
Benzo(g,h,i)perylene	µg/L	1	Org-012	[NT]	302	<1	<1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-012	[NT]	302	60	60	0	[NT]	[NT]

QUALITY CONTROL: PAHs in Eluates					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	9	26/05/2017	26/05/2017		[NT]	[NT]
Date analysed	-			[NT]	9	29/05/2017	29/05/2017		[NT]	[NT]
Naphthalene	µg/L	1	Org-012	[NT]	9	<1	<1	0	[NT]	[NT]
Acenaphthylene	µg/L	1	Org-012	[NT]	9	<1	<1	0	[NT]	[NT]
Acenaphthene	µg/L	1	Org-012	[NT]	9	<1	<1	0	[NT]	[NT]
Fluorene	µg/L	1	Org-012	[NT]	9	<1	<1	0	[NT]	[NT]
Phenanthrene	µg/L	1	Org-012	[NT]	9	<1	<1	0	[NT]	[NT]
Anthracene	µg/L	1	Org-012	[NT]	9	<1	<1	0	[NT]	[NT]
Fluoranthene	µg/L	1	Org-012	[NT]	9	<1	<1	0	[NT]	[NT]
Pyrene	µg/L	1	Org-012	[NT]	9	<1	<1	0	[NT]	[NT]
Benzo(a)anthracene	µg/L	1	Org-012	[NT]	9	<1	<1	0	[NT]	[NT]
Chrysene	µg/L	1	Org-012	[NT]	9	<1	<1	0	[NT]	[NT]
Benzo(b,j+k)fluoranthene	µg/L	2	Org-012	[NT]	9	<2	<2	0	[NT]	[NT]
Benzo(a)pyrene	µg/L	1	Org-012	[NT]	9	<1	<1	0	[NT]	[NT]
Indeno(1,2,3-c,d)pyrene	µg/L	1	Org-012	[NT]	9	<1	<1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	µg/L	1	Org-012	[NT]	9	<1	<1	0	[NT]	[NT]
Benzo(g,h,i)perylene	µg/L	1	Org-012	[NT]	9	<1	<1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-012	[NT]	9	68	90	28	[NT]	[NT]

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QUALITY CONTROL: PAHs in Eluates					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	99	26/05/2017	26/05/2017		[NT]	[NT]
Date analysed	-			[NT]	99	29/05/2017	29/05/2017		[NT]	[NT]
Naphthalene	µg/L	1	Org-012	[NT]	99	<1	<1	0	[NT]	[NT]
Acenaphthylene	µg/L	1	Org-012	[NT]	99	<1	<1	0	[NT]	[NT]
Acenaphthene	µg/L	1	Org-012	[NT]	99	<1	<1	0	[NT]	[NT]
Fluorene	µg/L	1	Org-012	[NT]	99	<1	<1	0	[NT]	[NT]
Phenanthrene	µg/L	1	Org-012	[NT]	99	<1	<1	0	[NT]	[NT]
Anthracene	µg/L	1	Org-012	[NT]	99	<1	<1	0	[NT]	[NT]
Fluoranthene	µg/L	1	Org-012	[NT]	99	<1	<1	0	[NT]	[NT]
Pyrene	µg/L	1	Org-012	[NT]	99	<1	<1	0	[NT]	[NT]
Benzo(a)anthracene	µg/L	1	Org-012	[NT]	99	<1	<1	0	[NT]	[NT]
Chrysene	µg/L	1	Org-012	[NT]	99	<1	<1	0	[NT]	[NT]
Benzo(b,j+k)fluoranthene	µg/L	2	Org-012	[NT]	99	<2	<2	0	[NT]	[NT]
Benzo(a)pyrene	µg/L	1	Org-012	[NT]	99	<1	<1	0	[NT]	[NT]
Indeno(1,2,3-c,d)pyrene	µg/L	1	Org-012	[NT]	99	<1	<1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	µg/L	1	Org-012	[NT]	99	<1	<1	0	[NT]	[NT]
Benzo(g,h,i)perylene	µg/L	1	Org-012	[NT]	99	<1	<1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-012	[NT]	99	101	119	16	[NT]	[NT]

**Client Reference: Hydro Aluminium AS130515 Monoliths Filtered**

QUALITY CONTROL: SW846-1315 LEAF Monolith					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	162119-D-10
Date prepared	-			22/03/2017	1	22/03/2017	22/03/2017		22/03/2017	22/03/2017
Total Cyanide in Eluates	mg/L	0.004	Inorg-014	<0.004	1	1.2	[NT]		100	[NT]
Fluoride, F in Eluates	mg/L	0.1	Inorg-026	<0.1	1	67	67	0	92	120

QUALITY CONTROL: SW846-1315 LEAF Monolith					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W2	162119-D-100
Date prepared	-			[NT]	91	22/03/2017	22/03/2017		22/03/2017	22/03/2017
Total Cyanide in Eluates	mg/L	0.004	Inorg-014	[NT]	91	0.064	[NT]		100	110
Fluoride, F in Eluates	mg/L	0.1	Inorg-026	[NT]	91	13	13	0	90	100

QUALITY CONTROL: SW846-1315 LEAF Monolith					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W3	162119-D-190
Date prepared	-			[NT]	181	22/03/2017	22/03/2017		22/03/2017	22/03/2017
Total Cyanide in Eluates	mg/L	0.004	Inorg-014	[NT]	181	0.91	[NT]		120	[NT]
Fluoride, F in Eluates	mg/L	0.1	Inorg-026	[NT]	181	120	120	0	94	100

QUALITY CONTROL: SW846-1315 LEAF Monolith					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W4	162119-D-280
Date prepared	-			[NT]	271	22/03/2017	22/03/2017		22/03/2017	22/03/2017
Total Cyanide in Eluates	mg/L	0.004	Inorg-014	[NT]	271	6.1	[NT]		110	[NT]
Fluoride, F in Eluates	mg/L	0.1	Inorg-026	[NT]	271	160	160	0	98	95

QUALITY CONTROL: SW846-1315 LEAF Monolith					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W5	162119-D-101
Date prepared	-			[NT]	2	22/03/2017	22/03/2017		22/03/2017	22/03/2017
Total Cyanide in Eluates	mg/L	0.004	Inorg-014	[NT]	2	0.24	[NT]		110	[NT]
Fluoride, F in Eluates	mg/L	0.1	Inorg-026	[NT]	2	41	41	0	94	100

QUALITY CONTROL: SW846-1315 LEAF Monolith					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W6	162119-D-191
Date prepared	-			[NT]	11	22/03/2017	22/03/2017		22/03/2017	22/03/2017
Total Cyanide in Eluates	mg/L	0.004	Inorg-014	[NT]	11	<0.004	[NT]		120	[NT]
Fluoride, F in Eluates	mg/L	0.1	Inorg-026	[NT]	11	0.4	[NT]		97	110

QUALITY CONTROL: SW846-1315 LEAF Monolith					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W7	162119-D-281
Date prepared	-			[NT]	92	22/03/2017	22/03/2017		22/03/2017	22/03/2017
Total Cyanide in Eluates	mg/L	0.004	Inorg-014	[NT]	92	0.053	[NT]		100	[NT]
Fluoride, F in Eluates	mg/L	0.1	Inorg-026	[NT]	92	8.1	8.1	0	94	97

QUALITY CONTROL: SW846-1315 LEAF Monolith					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W8	162119-D-192
Date prepared	-			[NT]	182	22/03/2017	22/03/2017		22/03/2017	22/03/2017
Total Cyanide in Eluates	mg/L	0.004	Inorg-014	[NT]	182	0.52	[NT]		98	[NT]
Fluoride, F in Eluates	mg/L	0.1	Inorg-026	[NT]	182	100	100	0	99	110



**Client Reference: Hydro Aluminium AS130515 Monoliths Filtered**

QUALITY CONTROL: SW846-1315 LEAF Monolith					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W9	162119-D-12
Date prepared	-			[NT]	272	22/03/2017	22/03/2017		22/03/2017	22/03/2017
Total Cyanide in Eluates	mg/L	0.004	Inorg-014	[NT]	272	4.7	[NT]		110	[NT]
Fluoride, F in Eluates	mg/L	0.1	Inorg-026	[NT]	272	160	170	6	88	96

QUALITY CONTROL: SW846-1315 LEAF Monolith					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W10	162119-D-13
Date prepared	-			[NT]	93	22/03/2017	22/03/2017		22/03/2017	22/03/2017
Total Cyanide in Eluates	mg/L	0.004	Inorg-014	[NT]	93	0.022	[NT]		[NT]	[NT]
Fluoride, F in Eluates	mg/L	0.1	Inorg-026	[NT]	93	3.7	3.7	0	94	100

QUALITY CONTROL: SW846-1315 LEAF Monolith					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W11	162119-D-102
Date prepared	-			[NT]	183	22/03/2017	22/03/2017		22/03/2017	22/03/2017
Total Cyanide in Eluates	mg/L	0.004	Inorg-014	[NT]	183	0.38	[NT]		[NT]	[NT]
Fluoride, F in Eluates	mg/L	0.1	Inorg-026	[NT]	183	72	73	1	89	84

QUALITY CONTROL: SW846-1315 LEAF Monolith					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W12	162119-D-103
Date prepared	-			[NT]	3	22/03/2017	22/03/2017		22/03/2017	22/03/2017
Total Cyanide in Eluates	mg/L	0.004	Inorg-014	[NT]	3	0.18	[NT]		[NT]	[NT]
Fluoride, F in Eluates	mg/L	0.1	Inorg-026	[NT]	3	30	30	0	100	96

QUALITY CONTROL: SW846-1315 LEAF Monolith					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	162119-D-193
Date prepared	-			[NT]	4	22/03/2017	22/03/2017		22/03/2017	22/03/2017
Total Cyanide in Eluates	mg/L	0.004	Inorg-014	[NT]	4	0.72	[NT]		[NT]	[NT]
Fluoride, F in Eluates	mg/L	0.1	Inorg-026	[NT]	4	52	47	10	[NT]	100

QUALITY CONTROL: SW846-1315 LEAF Monolith					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W13	162119-D-282
Date prepared	-			[NT]	94	22/03/2017	22/03/2017		22/03/2017	22/03/2017
Total Cyanide in Eluates	mg/L	0.004	Inorg-014	[NT]	94	0.009	[NT]		[NT]	[NT]
Fluoride, F in Eluates	mg/L	0.1	Inorg-026	[NT]	94	4.2	4.3	2	100	97

QUALITY CONTROL: SW846-1315 LEAF Monolith					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W14	162119-D-283
Date prepared	-			[NT]	184	22/03/2017	22/03/2017		22/03/2017	22/03/2017
Total Cyanide in Eluates	mg/L	0.004	Inorg-014	[NT]	184	0.56	[NT]		[NT]	[NT]
Fluoride, F in Eluates	mg/L	0.1	Inorg-026	[NT]	184	120	120	0	96	99

QUALITY CONTROL: SW846-1315 LEAF Monolith					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W15	162119-D-194
Date prepared	-			[NT]	273	22/03/2017	22/03/2017		22/03/2017	22/03/2017
Total Cyanide in Eluates	mg/L	0.004	Inorg-014	[NT]	273	3.0	[NT]		[NT]	[NT]
Fluoride, F in Eluates	mg/L	0.1	Inorg-026	[NT]	273	150	150	0	94	110

**Client Reference: Hydro Aluminium AS130515 Monoliths Filtered**

QUALITY CONTROL: SW846-1315 LEAF Monolith					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W16	162119-D-14
Date prepared	-			[NT]	185	22/03/2017	22/03/2017		22/03/2017	22/03/2017
Total Cyanide in Eluates	mg/L	0.004	Inorg-014	[NT]	185	0.66	[NT]		[NT]	[NT]
Fluoride, F in Eluates	mg/L	0.1	Inorg-026	[NT]	185	200	200	0	98	110

QUALITY CONTROL: SW846-1315 LEAF Monolith					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W17	162119-D-104
Date prepared	-			[NT]	5	22/03/2017	22/03/2017		22/03/2017	22/03/2017
Total Cyanide in Eluates	mg/L	0.004	Inorg-014	[NT]	5	0.74	[NT]		[NT]	[NT]
Fluoride, F in Eluates	mg/L	0.1	Inorg-026	[NT]	5	56	56	0	96	110

QUALITY CONTROL: SW846-1315 LEAF Monolith					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-2	162119-D-284
Date prepared	-			[NT]	95	22/03/2017	22/03/2017		23/03/2017	22/03/2017
Total Cyanide in Eluates	mg/L	0.004	Inorg-014	[NT]	95	<0.004	[NT]		[NT]	[NT]
Fluoride, F in Eluates	mg/L	0.1	Inorg-026	[NT]	95	3.3	3.0	10	[NT]	100

QUALITY CONTROL: SW846-1315 LEAF Monolith					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	162119-D-15
Date prepared	-			[NT]	275	22/03/2017	22/03/2017		24/03/2017	22/03/2017
Total Cyanide in Eluates	mg/L	0.004	Inorg-014	[NT]	275	3.8	[NT]		[NT]	[NT]
Fluoride, F in Eluates	mg/L	0.1	Inorg-026	[NT]	275	300	300	0	[NT]	96

QUALITY CONTROL: SW846-1315 LEAF Monolith					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-4	162119-D-105
Date prepared	-			[NT]	6	22/03/2017	22/03/2017		29/03/2017	22/03/2017
Total Cyanide in Eluates	mg/L	0.004	Inorg-014	[NT]	6	0.92	0.92	0	[NT]	[NT]
Fluoride, F in Eluates	mg/L	0.1	Inorg-026	[NT]	6	55	53	4	[NT]	99

QUALITY CONTROL: SW846-1315 LEAF Monolith					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-5	162119-D-195
Date prepared	-			[NT]	96	22/03/2017	22/03/2017		05/04/2017	22/03/2017
Total Cyanide in Eluates	mg/L	0.004	Inorg-014	[NT]	96	<0.004	[NT]		[NT]	[NT]
Fluoride, F in Eluates	mg/L	0.1	Inorg-026	[NT]	96	3.4	3.4	0	[NT]	100

QUALITY CONTROL: SW846-1315 LEAF Monolith					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-6	162119-D-285
Date prepared	-			[NT]	186	22/03/2017	22/03/2017		19/04/2017	22/03/2017
Total Cyanide in Eluates	mg/L	0.004	Inorg-014	[NT]	186	0.67	[NT]		[NT]	[NT]
Fluoride, F in Eluates	mg/L	0.1	Inorg-026	[NT]	186	230	230	0	[NT]	98

QUALITY CONTROL: SW846-1315 LEAF Monolith					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-7	162119-D-16
Date prepared	-			[NT]	276	22/03/2017	22/03/2017		03/05/2017	22/03/2017
Total Cyanide in Eluates	mg/L	0.004	Inorg-014	[NT]	276	1.8	[NT]		[NT]	[NT]
Fluoride, F in Eluates	mg/L	0.1	Inorg-026	[NT]	276	270	260	4	[NT]	99

**Client Reference: Hydro Aluminium AS130515 Monoliths Filtered**

QUALITY CONTROL: SW846-1315 LEAF Monolith							Duplicate		Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-8	162119-D-106
Date prepared	-			[NT]	7	22/03/2017	[NT]		10/05/2017	22/03/2017
Total Cyanide in Eluates	mg/L	0.004	Inorg-014	[NT]	7	0.72	0.72	0	[NT]	[NT]
Fluoride, F in Eluates	mg/L	0.1	Inorg-026	[NT]	7	52	52	0	[NT]	100

QUALITY CONTROL: SW846-1315 LEAF Monolith							Duplicate		Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-9	162119-D-196
Date prepared	-			[NT]	17	22/03/2017	22/03/2017		24/05/2017	22/03/2017
Total Cyanide in Eluates	mg/L	0.004	Inorg-014	[NT]	17	<0.004	<0.004	0	[NT]	[NT]
Fluoride, F in Eluates	mg/L	0.1	Inorg-026	[NT]	17	0.2	[NT]		[NT]	96

QUALITY CONTROL: SW846-1315 LEAF Monolith							Duplicate		Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	162119-D-286
Date prepared	-			[NT]	187	22/03/2017	22/03/2017		[NT]	22/03/2017
Total Cyanide in Eluates	mg/L	0.004	Inorg-014	[NT]	187	0.54	[NT]		[NT]	[NT]
Fluoride, F in Eluates	mg/L	0.1	Inorg-026	[NT]	187	210	210	0	[NT]	98

QUALITY CONTROL: SW846-1315 LEAF Monolith							Duplicate		Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	162119-D-17
Date prepared	-			[NT]	277	22/03/2017	[NT]		[NT]	22/03/2017
Total Cyanide in Eluates	mg/L	0.004	Inorg-014	[NT]	277	0.47	[NT]		[NT]	[NT]
Fluoride, F in Eluates	mg/L	0.1	Inorg-026	[NT]	277	140	140	0	[NT]	100

QUALITY CONTROL: SW846-1315 LEAF Monolith							Duplicate		Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	162119-D-107
Date prepared	-			[NT]	97	22/03/2017	[NT]		[NT]	22/03/2017
Total Cyanide in Eluates	mg/L	0.004	Inorg-014	[NT]	97	<0.004	[NT]		[NT]	[NT]
Fluoride, F in Eluates	mg/L	0.1	Inorg-026	[NT]	97	1.9	1.9	0	[NT]	100

QUALITY CONTROL: SW846-1315 LEAF Monolith							Duplicate		Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	162119-D-197
Date prepared	-			[NT]	8	22/03/2017	22/03/2017		[NT]	22/03/2017
Total Cyanide in Eluates	mg/L	0.004	Inorg-014	[NT]	8	0.25	0.26	4	[NT]	[NT]
Fluoride, F in Eluates	mg/L	0.1	Inorg-026	[NT]	8	27	28	4	[NT]	97

QUALITY CONTROL: SW846-1315 LEAF Monolith							Duplicate		Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	162119-D-287
Date prepared	-			[NT]	53	22/03/2017	22/03/2017		[NT]	22/03/2017
Total Cyanide in Eluates	mg/L	0.004	Inorg-014	[NT]	53	0.18	[NT]		[NT]	[NT]
Fluoride, F in Eluates	mg/L	0.1	Inorg-026	[NT]	53	95	97	2	[NT]	100

QUALITY CONTROL: SW846-1315 LEAF Monolith							Duplicate		Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	162119-D-210
Date prepared	-			[NT]	98	22/03/2017	22/03/2017		[NT]	22/03/2017
Total Cyanide in Eluates	mg/L	0.004	Inorg-014	[NT]	98	<0.004	[NT]		[NT]	110
Fluoride, F in Eluates	mg/L	0.1	Inorg-026	[NT]	98	0.8	0.8	0	[NT]	[NT]

**Client Reference: Hydro Aluminium AS130515 Monoliths Filtered**

QUALITY CONTROL: SW846-1315 LEAF Monolith							Duplicate		Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	162119-D-26
Date prepared	-			[NT]	188	22/03/2017	22/03/2017		[NT]	22/03/2017
Total Cyanide in Eluates	mg/L	0.004	Inorg-014	[NT]	188	0.19	[NT]		[NT]	120
Fluoride, F in Eluates	mg/L	0.1	Inorg-026	[NT]	188	100	100	0	[NT]	[NT]

QUALITY CONTROL: SW846-1315 LEAF Monolith							Duplicate		Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	162119-D-62
Date prepared	-			[NT]	278	22/03/2017	22/03/2017		[NT]	22/03/2017
Total Cyanide in Eluates	mg/L	0.004	Inorg-014	[NT]	278	0.092	[NT]		[NT]	110
Fluoride, F in Eluates	mg/L	0.1	Inorg-026	[NT]	278	55	55	0	[NT]	[NT]

QUALITY CONTROL: SW846-1315 LEAF Monolith							Duplicate		Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	162119-D-61
Date prepared	-			[NT]	233	22/03/2017	22/03/2017		[NT]	22/03/2017
Total Cyanide in Eluates	mg/L	0.004	Inorg-014	[NT]	233	<0.004	[NT]		[NT]	120
Fluoride, F in Eluates	mg/L	0.1	Inorg-026	[NT]	233	3.3	3.4	3	[NT]	[NT]

QUALITY CONTROL: SW846-1315 LEAF Monolith							Duplicate		Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	162119-D-25
Date prepared	-			[NT]	15	22/03/2017	22/03/2017		[NT]	22/03/2017
Total Cyanide in Eluates	mg/L	0.004	Inorg-014	[NT]	15	<0.004	<0.004	0	[NT]	120
Fluoride, F in Eluates	mg/L	0.1	Inorg-026	[NT]	15	1.4	[NT]		[NT]	[NT]

QUALITY CONTROL: SW846-1315 LEAF Monolith							Duplicate		Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	162119-D-60
Date prepared	-			[NT]	16	22/03/2017	22/03/2017		[NT]	22/03/2017
Total Cyanide in Eluates	mg/L	0.004	Inorg-014	[NT]	16	<0.004	<0.004	0	[NT]	110
Fluoride, F in Eluates	mg/L	0.1	Inorg-026	[NT]	16	0.7	[NT]		[NT]	[NT]

QUALITY CONTROL: SW846-1315 LEAF Monolith							Duplicate		Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	162119-D-24
Date prepared	-			[NT]	64	22/03/2017	22/03/2017		[NT]	22/03/2017
Total Cyanide in Eluates	mg/L	0.004	Inorg-014	[NT]	64	0.056	0.053	6	[NT]	92
Fluoride, F in Eluates	mg/L	0.1	Inorg-026	[NT]	64	29	[NT]		[NT]	[NT]

QUALITY CONTROL: SW846-1315 LEAF Monolith							Duplicate		Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	162119-D-18
Date prepared	-			[NT]	160	22/03/2017	22/03/2017		[NT]	22/03/2017
Total Cyanide in Eluates	mg/L	0.004	Inorg-014	[NT]	160	<0.004	<0.004	0	[NT]	110
Fluoride, F in Eluates	mg/L	0.1	Inorg-026	[NT]	160	1.2	[NT]		[NT]	97

QUALITY CONTROL: SW846-1315 LEAF Monolith							Duplicate		Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	162119-D-108
Date prepared	-			[NT]	161	22/03/2017	22/03/2017		[NT]	22/03/2017
Total Cyanide in Eluates	mg/L	0.004	Inorg-014	[NT]	161	<0.004	<0.004	0	[NT]	[NT]
Fluoride, F in Eluates	mg/L	0.1	Inorg-026	[NT]	161	0.4	[NT]		[NT]	98

**Client Reference: Hydro Aluminium AS130515 Monoliths Filtered**

QUALITY CONTROL: SW846-1315 LEAF Monolith						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	162119-D-198
Date prepared	-			[NT]	170	22/03/2017	22/03/2017		[NT]	22/03/2017
Total Cyanide in Eluates	mg/L	0.004	Inorg-014	[NT]	170	1.0	1.1	10	[NT]	[NT]
Fluoride, F in Eluates	mg/L	0.1	Inorg-026	[NT]	170	8.3	[NT]		[NT]	100

QUALITY CONTROL: SW846-1315 LEAF Monolith						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	162119-D-288
Date prepared	-			[NT]	195	22/03/2017	22/03/2017		[NT]	22/03/2017
Total Cyanide in Eluates	mg/L	0.004	Inorg-014	[NT]	195	0.96	0.95	1	[NT]	[NT]
Fluoride, F in Eluates	mg/L	0.1	Inorg-026	[NT]	195	370	[NT]		[NT]	98

QUALITY CONTROL: SW846-1315 LEAF Monolith						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	162119-D-207
Date prepared	-			[NT]	9	22/03/2017	[NT]		[NT]	22/03/2017
Total Cyanide in Eluates	mg/L	0.004	Inorg-014	[NT]	9	0.24	0.26	8	[NT]	66
Fluoride, F in Eluates	mg/L	0.1	Inorg-026	[NT]	9	35	35	0	[NT]	[NT]

QUALITY CONTROL: SW846-1315 LEAF Monolith						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	99	22/03/2017	[NT]		[NT]	[NT]
Total Cyanide in Eluates	mg/L	0.004	Inorg-014	[NT]	99	<0.004	[NT]		[NT]	[NT]
Fluoride, F in Eluates	mg/L	0.1	Inorg-026	[NT]	99	1.3	1.3	0	[NT]	[NT]

QUALITY CONTROL: SW846-1315 LEAF Monolith						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	189	22/03/2017	22/03/2017		[NT]	[NT]
Total Cyanide in Eluates	mg/L	0.004	Inorg-014	[NT]	189	0.19	[NT]		[NT]	[NT]
Fluoride, F in Eluates	mg/L	0.1	Inorg-026	[NT]	189	150	150	0	[NT]	[NT]

QUALITY CONTROL: SW846-1315 LEAF Monolith						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	279	22/03/2017	22/03/2017		[NT]	[NT]
Total Cyanide in Eluates	mg/L	0.004	Inorg-014	[NT]	279	0.080	[NT]		[NT]	[NT]
Fluoride, F in Eluates	mg/L	0.1	Inorg-026	[NT]	279	55	54	2	[NT]	[NT]

QUALITY CONTROL: SW846-1315 LEAF Monolith						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	108	22/03/2017	22/03/2017		[NT]	[NT]
Total Cyanide in Eluates	mg/L	0.004	Inorg-014	[NT]	108	<0.004	<0.004	0	[NT]	[NT]
Fluoride, F in Eluates	mg/L	0.1	Inorg-026	[NT]	108	0.3	[NT]		[NT]	[NT]

QUALITY CONTROL: SW846-1315 LEAF Monolith						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	198	22/03/2017	22/03/2017		[NT]	[NT]
Total Cyanide in Eluates	mg/L	0.004	Inorg-014	[NT]	198	0.34	0.35	3	[NT]	[NT]
Fluoride, F in Eluates	mg/L	0.1	Inorg-026	[NT]	198	220	[NT]		[NT]	[NT]

**Client Reference: Hydro Aluminium AS130515 Monoliths Filtered**

QUALITY CONTROL: SW846-1315 LEAF Monolith						Duplicate		Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	288	22/03/2017	22/03/2017		[NT]	[NT]
Total Cyanide in Eluates	mg/L	0.004	Inorg-014	[NT]	288	0.062	0.061	2	[NT]	[NT]
Fluoride, F in Eluates	mg/L	0.1	Inorg-026	[NT]	288	42	[NT]		[NT]	[NT]

## Result Definitions

<b>NT</b>	Not tested
<b>NA</b>	Test not required
<b>INS</b>	Insufficient sample for this test
<b>PQL</b>	Practical Quantitation Limit
<b>&lt;</b>	Less than
<b>&gt;</b>	Greater than
<b>RPD</b>	Relative Percent Difference
<b>LCS</b>	Laboratory Control Sample
<b>NS</b>	Not specified
<b>NEPM</b>	National Environmental Protection Measure
<b>NR</b>	Not Reported

## Quality Control Definitions

<b>Blank</b>	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
<b>Duplicate</b>	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
<b>Matrix Spike</b>	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
<b>LCS (Laboratory Control Sample)</b>	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
<b>Surrogate Spike</b>	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.

## Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: <5xPQL - any RPD is acceptable; >5xPQL - 0-50% RPD is acceptable.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals; 60-140% for organics (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Measurement Uncertainty estimates are available for most tests upon request.





Envirolab Services Pty Ltd  
ABN 37 112 535 645  
12 Ashley St Chatswood NSW 2067  
ph 02 9910 6200 fax 02 9910 6201  
customerservice@envirolab.com.au  
www.envirolab.com.au

## **CERTIFICATE OF ANALYSIS 162119-E**

### **Client Details**

<b>Client</b>	Ramboll Environ Australia Pty Ltd
<b>Attention</b>	Fiona Robinson, Stephen Cadman
<b>Address</b>	PO Box 560, North Sydney, NSW, 2060

### **Sample Details**

<b>Your Reference</b>	<b><u>Hydro Aluminium AS130515 Monoliths Unfiltered</u></b>
<b>Number of Samples</b>	Monolith LEAF testing
<b>Date samples received</b>	17/02/2017
<b>Date completed instructions received</b>	17/02/2017

### **Analysis Details**

Please refer to the following pages for results, methodology summary and quality control data.  
Samples were analysed as received from the client. Results relate specifically to the samples as received.  
Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

### **Report Details**

<b>Date results requested by</b>	02/06/2017
<b>Date of Issue</b>	08/06/2017

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Accredited for compliance with ISO/IEC 17025 - Testing. **Tests not covered by NATA are denoted with \***

### **Report Comments**

Note, Organics are not recommended in USEPA 1315, however, there is a modified USEPA method i.e. 1315M that is being used in the US but is yet to be finally approved.

#### **Results Approved By**

Simon Mills, Group R&D Manager

#### **Authorised By**

David Springer, General Manager

Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered

PAHs in Water						
Our Reference		162119-E-1	162119-E-2	162119-E-3	162119-E-4	162119-E-5
Your Reference	UNITS	MW201_>125 T01	MW201_>125 T02	MW201_>125 T03	MW201_>125 T04	MW201_>125 T05
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date extracted	-	28/03/2017	31/03/2017	05/04/2017	11/04/2017	11/04/2017
Date analysed	-	28/03/2017	01/04/2017	06/04/2017	11/04/2017	11/04/2017
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	8	2	1	<1	<1
Anthracene	µg/L	1	<1	<1	<1	<1
Fluoranthene	µg/L	21	3	1	<1	<1
Pyrene	µg/L	21	3	1	<1	<1
Benzo(a)anthracene	µg/L	10	<1	<1	<1	<1
Chrysene	µg/L	21	2	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	20	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	7	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	10	<5	<5	<5	<5
Total +ve PAH's	µg/L	110	11	3.8	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	64	60	116	75	88

Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered

PAHs in Water						
Our Reference		162119-E-6	162119-E-7	162119-E-8	162119-E-9	162119-E-10
Your Reference	UNITS	MW201_>125 T06	MW201_>125 T07	MW201_>125 T08	MW201_>125 T09	MW202_>125 T01
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date extracted	-	19/04/2017	5/05/2017	12/05/2017	26/05/2017	28/03/2017
Date analysed	-	19/04/2017	8/05/2017	15/05/2017	29/05/2017	28/03/2017
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	79	113	107	85	77

Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered

PAHs in Water						
Our Reference		162119-E-11	162119-E-12	162119-E-13	162119-E-14	162119-E-15
Your Reference	UNITS	MW202_>125 T02	MW202_>125 T03	MW202_>125 T04	MW202_>125 T05	MW202_>125 T06
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date extracted	-	31/03/2017	05/04/2017	07/04/2017	11/04/2017	19/04/2017
Date analysed	-	01/04/2017	06/04/2017	07/04/2017	11/04/2017	19/04/2017
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	1	1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	1	1	2	2	2
Pyrene	µg/L	<1	1	2	2	2
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	1	2.2	3.6	4.4	5.2
Surrogate p-Terphenyl-d14	%	68	122	70	69	76

Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered

PAHs in Water						
Our Reference		162119-E-16	162119-E-17	162119-E-18	162119-E-19	162119-E-20
Your Reference	UNITS	MW202_>125 T07	MW202_>125 T08	MW202_>125 T09	MW203_>125 T01	MW203_>125 T02
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date extracted	-	5/05/2017	12/05/2017	26/05/2017	28/03/2017	31/03/2017
Date analysed	-	8/05/2017	15/05/2017	29/05/2017	28/03/2017	01/04/2017
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	2	2	2	<1	<1
Pyrene	µg/L	1	1	2	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	2.9	3.0	4.7	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	115	109	99	84	63

Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered

PAHs in Water						
Our Reference		162119-E-21	162119-E-22	162119-E-23	162119-E-24	162119-E-25
Your Reference	UNITS	MW203_>125 T03	MW203_>125 T04	MW203_>125 T05	MW203_>125 T06	MW203_>125 T07
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date extracted	-	05/04/2017	07/04/2017	11/04/2017	19/04/2017	5/05/2017
Date analysed	-	06/04/2017	07/04/2017	11/04/2017	19/04/2017	8/05/2017
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	68	74	89	86	109

**Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered**

<b>PAHs in Water</b>						
Our Reference		162119-E-26	162119-E-27	162119-E-28	162119-E-29	162119-E-30
Your Reference	UNITS	MW203_>125 T08	MW203_>125 T09	MW204_>125 T01	MW204_>125 T02	MW204_>125 T03
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date extracted	-	12/05/2017	26/05/2017	28/03/2017	31/03/2017	05/04/2017
Date analysed	-	15/05/2017	29/05/2017	28/03/2017	01/04/2017	06/04/2017
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	2	3	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	3	<1	<1
Pyrene	µg/L	<1	<1	3	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	1	<1	<1
Chrysene	µg/L	<1	<1	2	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	3	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	1.7	19	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	97	87	89	66	85

**Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered**

<b>PAHs in Water</b>						
Our Reference		162119-E-31	162119-E-32	162119-E-33	162119-E-34	162119-E-35
Your Reference	UNITS	MW204_>125 T04	MW204_>125 T05	MW204_>125 T06	MW204_>125 T07	MW204_>125 T08
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date extracted	-	07/04/2017	11/04/2017	19/04/2017	5/05/2017	12/05/2017
Date analysed	-	07/04/2017	11/04/2017	19/04/2017	8/05/2017	15/05/2017
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	77	89	91	100	102



Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered

PAHs in Water						
Our Reference		162119-E-36	162119-E-37	162119-E-38	162119-E-39	162119-E-40
Your Reference	UNITS	MW204_>125 T09	MW205_>125 T01	MW205_>125 T02	MW205_>125 T03	MW205_>125 T04
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date extracted	-	26/05/2017	28/03/2017	31/03/2017	05/04/2017	07/04/2017
Date analysed	-	29/05/2017	28/03/2017	01/04/2017	06/04/2017	07/04/2017
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	10	<1	<1	<1
Anthracene	µg/L	<1	3	<1	<1	<1
Fluoranthene	µg/L	<1	39	<1	<1	<1
Pyrene	µg/L	<1	36	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	41	<1	<1	<1
Chrysene	µg/L	<1	36	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	78	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	44	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	31	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	10	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	35	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	70	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	360	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	104	78	66	121	83

Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered

PAHs in Water						
Our Reference		162119-E-41	162119-E-42	162119-E-43	162119-E-44	162119-E-45
Your Reference	UNITS	MW205_>125 T05	MW205_>125 T06	MW205_>125 T07	MW205_>125 T08	MW205_>125 T09
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date extracted	-	11/04/2017	19/04/2017	5/05/2017	12/05/2017	26/05/2017
Date analysed	-	11/04/2017	19/04/2017	8/05/2017	15/05/2017	29/05/2017
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	88	90	110	109	101

Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered

PAHs in Water						
Our Reference		162119-E-46	162119-E-47	162119-E-48	162119-E-49	162119-E-50
Your Reference	UNITS	MW206_>125 T01	MW206_>125 T02	MW206_>125 T03	MW206_>125 T04	MW206_>125 T05
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date extracted	-	11/04/2017	31/03/2017	05/04/2017	07/04/2017	11/04/2017
Date analysed	-	11/04/2017	01/04/2017	06/04/2017	07/04/2017	11/04/2017
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	88	69	86	79	87

Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered

PAHs in Water						
Our Reference		162119-E-51	162119-E-52	162119-E-53	162119-E-54	162119-E-55
Your Reference	UNITS	MW206_>125 T06	MW206_>125 T07	MW206_>125 T08	MW206_>125 T09	SPL_First Cut_1 T01
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date extracted	-	19/04/2017	5/05/2017	12/05/2017	26/05/2017	28/03/2017
Date analysed	-	19/04/2017	8/05/2017	15/05/2017	29/05/2017	28/03/2017
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	60	131	112	110	83

**Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered**

<b>PAHs in Water</b>						
Our Reference		162119-E-56	162119-E-57	162119-E-58	162119-E-59	162119-E-60
Your Reference	UNITS	SPL_First Cut_1 T02	SPL_First Cut_1 T03	SPL_First Cut_1 T04	SPL_First Cut_1 T05	SPL_First Cut_1 T06
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date extracted	-	31/03/2017	05/04/2017	07/04/2017	11/04/2017	19/04/2017
Date analysed	-	01/04/2017	06/04/2017	07/04/2017	11/04/2017	19/04/2017
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	64	90	73	93	86

Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered

PAHs in Water						
Our Reference		162119-E-61	162119-E-62	162119-E-63	162119-E-64	162119-E-65
Your Reference	UNITS	SPL_First Cut_1 T07	SPL_First Cut_1 T08	SPL_First Cut_1 T09	SPL_First Cut_2 T01	SPL_First Cut_2 T02
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date extracted	-	5/05/2017	12/05/2017	26/05/2017	28/03/2017	31/03/2017
Date analysed	-	8/05/2017	15/05/2017	29/05/2017	28/03/2017	01/04/2017
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	127	117	93	76	80

Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered

PAHs in Water						
Our Reference		162119-E-66	162119-E-67	162119-E-68	162119-E-69	162119-E-70
Your Reference	UNITS	SPL_First Cut_2 T03	SPL_First Cut_2 T04	SPL_First Cut_2 T05	SPL_First Cut_2 T06	SPL_First Cut_2 T07
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date extracted	-	05/04/2017	07/04/2017	11/04/2017	19/04/2017	5/05/2017
Date analysed	-	06/04/2017	07/04/2017	11/04/2017	19/04/2017	8/05/2017
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	110	77	88	75	118

Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered

PAHs in Water						
Our Reference		162119-E-71	162119-E-72	162119-E-73	162119-E-74	162119-E-75
Your Reference	UNITS	SPL_First Cut_2 T08	SPL_First Cut_2 T09	SPL_First Cut_3 T01	SPL_First Cut_3 T02	SPL_First Cut_3 T03
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date extracted	-	12/05/2017	26/05/2017	28/03/2017	31/03/2017	05/04/2017
Date analysed	-	15/05/2017	29/05/2017	28/03/2017	01/04/2017	06/04/2017
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	121	97	75	62	80



Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered

PAHs in Water						
Our Reference		162119-E-76	162119-E-77	162119-E-78	162119-E-79	162119-E-80
Your Reference	UNITS	SPL_First Cut_3 T04	SPL_First Cut_3 T05	SPL_First Cut_3 T06	SPL_First Cut_3 T07	SPL_First Cut_3 T08
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date extracted	-	07/04/2017	11/04/2017	19/04/2017	5/05/2017	12/05/2017
Date analysed	-	07/04/2017	11/04/2017	19/04/2017	8/05/2017	15/05/2017
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	101	88	93	123	114

Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered

PAHs in Water						
Our Reference		162119-E-81	162119-E-82	162119-E-83	162119-E-84	162119-E-85
Your Reference	UNITS	SPL_First Cut_3 T09	SPL_First Cut_4 T01	SPL_First Cut_4 T02	SPL_First Cut_4 T03	SPL_First Cut_4 T04
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date extracted	-	26/05/2017	28/03/2017	31/03/2017	05/04/2017	07/04/2017
Date analysed	-	29/05/2017	28/03/2017	01/04/2017	06/04/2017	07/04/2017
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	80	79	94	104	100

Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered

PAHs in Water						
Our Reference		162119-E-86	162119-E-87	162119-E-88	162119-E-89	162119-E-90
Your Reference	UNITS	SPL_First Cut_4 T05	SPL_First Cut_4 T06	SPL_First Cut_4 T07	SPL_First Cut_4 T08	SPL_First Cut_4 T09
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date extracted	-	11/04/2017	19/04/2017	5/05/2017	12/05/2017	26/05/2017
Date analysed	-	11/04/2017	19/04/2017	8/05/2017	15/05/2017	29/05/2017
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	83	96	112	116	95

**Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered**

<b>PAHs in Water</b>						
Our Reference		162119-E-91	162119-E-92	162119-E-93	162119-E-94	162119-E-95
Your Reference	UNITS	SPL_First Cut_5 T01	SPL_First Cut_5 T02	SPL_First Cut_5 T03	SPL_First Cut_5 T04	SPL_First Cut_5 T05
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date extracted	-	28/03/2017	31/03/2017	05/04/2017	07/04/2017	11/04/2017
Date analysed	-	29/03/2017	01/04/2017	06/04/2017	07/04/2017	11/04/2017
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	71	66	90	85	73

Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered

PAHs in Water						
Our Reference		162119-E-96	162119-E-97	162119-E-98	162119-E-99	162119-E-100
Your Reference	UNITS	SPL_First Cut_5 T06	SPL_First Cut_5 T07	SPL_First Cut_5 T08	SPL_First Cut_5 T09	SPL_Second Cut_1 T01
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date extracted	-	19/04/2017	5/05/2017	12/05/2017	26/05/2017	28/03/2017
Date analysed	-	19/04/2017	8/05/2017	15/05/2017	29/05/2017	29/03/2017
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	93	93	103	92	85

Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered

PAHs in Water						
Our Reference		162119-E-101	162119-E-102	162119-E-103	162119-E-104	162119-E-105
Your Reference	UNITS	SPL_Second Cut_1 T02	SPL_Second Cut_1 T03	SPL_Second Cut_1 T04	SPL_Second Cut_1 T05	SPL_Second Cut_1 T06
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date extracted	-	31/03/2017	05/04/2017	07/04/2017	11/04/2017	19/04/2017
Date analysed	-	01/04/2017	06/04/2017	07/04/2017	11/04/2017	19/04/2017
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	73	78	80	79	94

Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered

PAHs in Water						
Our Reference		162119-E-106	162119-E-107	162119-E-108	162119-E-109	162119-E-110
Your Reference	UNITS	SPL_Second Cut_1 T07	SPL_Second Cut_1 T08	SPL_Second Cut_1 T09	SPL_Second Cut_2 T01	SPL_Second Cut_2 T02
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date extracted	-	5/05/2017	12/05/2017	26/05/2017	28/03/2017	05/04/2017
Date analysed	-	8/05/2017	15/05/2017	29/05/2017	29/03/2017	06/04/2017
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	117	80	91	79	73

Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered

PAHs in Water						
Our Reference		162119-E-111	162119-E-112	162119-E-113	162119-E-114	162119-E-115
Your Reference	UNITS	SPL_Second Cut_2 T03	SPL_Second Cut_2 T04	SPL_Second Cut_2 T05	SPL_Second Cut_2 T06	SPL_Second Cut_2 T07
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date extracted	-	05/04/2017	07/04/2017	11/04/2017	19/04/2017	5/05/2017
Date analysed	-	06/04/2017	07/04/2017	11/04/2017	19/04/2017	8/05/2017
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	114	75	89	93	138



Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered

PAHs in Water						
Our Reference		162119-E-116	162119-E-117	162119-E-118	162119-E-119	162119-E-120
Your Reference	UNITS	SPL_Second Cut_2 T08	SPL_Second Cut_2 T09	SPL_Second Cut_3 T01	SPL_Second Cut_3 T02	SPL_Second Cut_3 T03
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date extracted	-	12/05/2017	26/05/2017	28/03/2017	05/04/2017	05/04/2017
Date analysed	-	15/05/2017	29/05/2017	29/03/2017	06/04/2017	06/04/2017
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	83	83	87	76	115

Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered

PAHs in Water						
Our Reference		162119-E-121	162119-E-122	162119-E-123	162119-E-124	162119-E-125
Your Reference	UNITS	SPL_Second Cut_3 T04	SPL_Second Cut_3 T05	SPL_Second Cut_3 T06	SPL_Second Cut_3 T07	SPL_Second Cut_3 T08
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date extracted	-	07/04/2017	11/04/2017	19/04/2017	5/05/2017	12/05/2017
Date analysed	-	07/04/2017	11/04/2017	19/04/2017	8/05/2017	15/05/2017
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	86	90	82	119	121

**Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered**

<b>PAHs in Water</b>						
Our Reference		162119-E-126	162119-E-127	162119-E-128	162119-E-129	162119-E-130
Your Reference	UNITS	SPL_Second Cut_3 T09	SPL_Second Cut_4 T01	SPL_Second Cut_4 T02	SPL_Second Cut_4 T03	SPL_Second Cut_4 T04
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date extracted	-	26/05/2017	28/03/2017	05/04/2017	05/04/2017	07/04/2017
Date analysed	-	29/05/2017	29/03/2017	06/04/2017	06/04/2017	07/04/2017
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	98	72	69	98	79

Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered

PAHs in Water						
Our Reference		162119-E-131	162119-E-132	162119-E-133	162119-E-134	162119-E-135
Your Reference	UNITS	SPL_Second Cut_4 T05	SPL_Second Cut_4 T06	SPL_Second Cut_4 T07	SPL_Second Cut_4 T08	SPL_Second Cut_4 T09
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date extracted	-	11/04/2017	19/04/2017	5/05/2017	12/05/2017	26/05/2017
Date analysed	-	11/04/2017	19/04/2017	8/05/2017	15/05/2017	29/05/2017
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	99	70	138	105	88

Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered

PAHs in Water						
Our Reference		162119-E-136	162119-E-137	162119-E-138	162119-E-139	162119-E-140
Your Reference	UNITS	SPL_Second Cut_5 T01	SPL_Second Cut_5 T02	SPL_Second Cut_5 T03	SPL_Second Cut_5 T04	SPL_Second Cut_5 T05
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date extracted	-	28/03/2017	05/04/2017	05/04/2017	07/04/2017	11/04/2017
Date analysed	-	29/03/2017	06/04/2017	06/04/2017	07/04/2017	11/04/2017
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	93	72	84	62	78

Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered

PAHs in Water						
Our Reference		162119-E-141	162119-E-142	162119-E-143	162119-E-144	162119-E-145
Your Reference	UNITS	SPL_Second Cut_5 T06	SPL_Second Cut_5 T07	SPL_Second Cut_5 T08	SPL_Second Cut_5 T09	MW201 - 2nd sub-sample >125mm T01
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date extracted	-	20/04/2017	5/05/2017	12/05/2017	26/05/2017	28/03/2017
Date analysed	-	20/04/2017	8/05/2017	15/05/2017	29/05/2017	29/03/2017
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	2	<1	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	2.0	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	82	135	116	105	75

Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered

PAHs in Water						
Our Reference		162119-E-146	162119-E-147	162119-E-148	162119-E-149	162119-E-150
Your Reference	UNITS	MW201 - 2nd sub-sample>125mm T02	MW201 - 2nd sub-sample>125mm T03	MW201 - 2nd sub-sample>125mm T04	MW201 - 2nd sub-sample>125mm T05	MW201 - 2nd sub-sample>125mm T06
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date extracted	-	05/04/2017	05/04/2017	07/04/2017	11/04/2017	20/04/2017
Date analysed	-	06/04/2017	06/04/2017	07/04/2017	11/04/2017	20/04/2017
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	70	105	73	69	74

**Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered**

<b>PAHs in Water</b>						
Our Reference		162119-E-151	162119-E-152	162119-E-153	162119-E-154	162119-E-155
Your Reference	UNITS	MW201 - 2nd sub-sample>125mm T07	MW201 - 2nd sub-sample>125mm T08	MW201 - 2nd sub-sample>125mm T09	MW202 - 2nd sub-sample>125mm T01	MW202 - 2nd sub-sample>125mm T02
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date extracted	-	5/05/2017	12/05/2017	26/05/2017	28/03/2017	05/04/2017
Date analysed	-	8/05/2017	15/05/2017	29/05/2017	29/03/2017	06/04/2017
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	1
Pyrene	µg/L	<1	<1	<1	<1	1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	2.8
Surrogate p-Terphenyl-d14	%	114	118	111	77	64



Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered

PAHs in Water						
Our Reference		162119-E-156	162119-E-157	162119-E-158	162119-E-159	162119-E-160
Your Reference	UNITS	MW202 - 2nd sub-sample>125mm T03	MW202 - 2nd sub-sample>125mm T04	MW202 - 2nd sub-sample>125mm T05	MW202 - 2nd sub-sample>125mm T06	MW202 - 2nd sub-sample>125mm T07
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date extracted	-	05/04/2017	07/04/2017	11/04/2017	20/04/2017	5/05/2017
Date analysed	-	06/04/2017	07/04/2017	11/04/2017	20/04/2017	8/05/2017
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	1	2	1	1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	1	2	3	2	2
Pyrene	µg/L	1	2	2	2	2
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	2.6	5.9	6.5	5.1	5.1
Surrogate p-Terphenyl-d14	%	100	75	75	73	103

Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered

PAHs in Water						
Our Reference		162119-E-161	162119-E-162	162119-E-163	162119-E-164	162119-E-165
Your Reference	UNITS	MW202 - 2nd sub-sample>125mm T08	MW202 - 2nd sub-sample>125mm T09	MW203 - 2nd sub-sample>125mm T01	MW203 - 2nd sub-sample>125mm T02	MW203 - 2nd sub-sample>125mm T03
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date extracted	-	12/05/2017	26/05/2017	28/03/2017	05/04/2017	05/04/2017
Date analysed	-	15/05/2017	29/05/2017	29/03/2017	06/04/2017	06/04/2017
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	1	1	1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	2	2	1	<1	<1
Pyrene	µg/L	2	2	1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	5.7	4.9	3.8	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	111	92	74	73	105

Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered

PAHs in Water						
Our Reference		162119-E-166	162119-E-167	162119-E-168	162119-E-169	162119-E-170
Your Reference	UNITS	MW203 - 2nd sub-sample>125mm T04	MW203 - 2nd sub-sample>125mm T05	MW203 - 2nd sub-sample>125mm T06	MW203 - 2nd sub-sample>125mm T07	MW203 - 2nd sub-sample>125mm T08
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date extracted	-	07/04/2017	11/04/2017	20/04/2017	5/05/2017	12/05/2017
Date analysed	-	07/04/2017	11/04/2017	20/04/2017	8/05/2017	15/05/2017
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	68	78	74	103	99

Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered

PAHs in Water						
Our Reference		162119-E-171	162119-E-172	162119-E-173	162119-E-174	162119-E-175
Your Reference	UNITS	MW203 - 2nd sub-sample>125mm T09	MW204 - 2nd sub-sample>125mm T01	MW204 - 2nd sub-sample>125mm T02	MW204 - 2nd sub-sample>125mm T03	MW204 - 2nd sub-sample>125mm T04
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date extracted	-	26/05/2017	28/03/2017	05/04/2017	05/04/2017	07/04/2017
Date analysed	-	29/05/2017	29/03/2017	06/04/2017	07/04/2017	07/04/2017
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	61	94	78	112	77

Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered

PAHs in Water						
Our Reference		162119-E-176	162119-E-177	162119-E-178	162119-E-179	162119-E-180
Your Reference	UNITS	MW204 - 2nd sub-sample>125mm T05	MW204 - 2nd sub-sample>125mm T06	MW204 - 2nd sub-sample>125mm T07	MW204 - 2nd sub-sample>125mm T08	MW204 - 2nd sub-sample>125mm T09
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date extracted	-	11/04/2017	20/04/2017	5/05/2017	12/05/2017	26/05/2017
Date analysed	-	11/04/2017	20/04/2017	8/05/2017	15/05/2017	29/05/2017
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	77	66	60	125	72

Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered

PAHs in Water						
Our Reference		162119-E-181	162119-E-182	162119-E-183	162119-E-184	162119-E-185
Your Reference	UNITS	MW205 - 2nd sub-sample>125mm T01	MW205 - 2nd sub-sample>125mm T02	MW205 - 2nd sub-sample>125mm T03	MW205 - 2nd sub-sample>125mm T04	MW205 - 2nd sub-sample>125mm T05
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date extracted	-	28/03/2017	05/04/2017	05/04/2017	07/04/2017	11/04/2017
Date analysed	-	29/03/2017	06/04/2017	07/04/2017	07/04/2017	11/04/2017
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	65	107	117	77	74

Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered

PAHs in Water						
Our Reference		162119-E-186	162119-E-187	162119-E-188	162119-E-189	162119-E-190
Your Reference	UNITS	MW205 - 2nd sub-sample>125mm T06	MW205 - 2nd sub-sample>125mm T07	MW205 - 2nd sub-sample>125mm T08	MW205 - 2nd sub-sample>125mm T09	MW206 - 2nd sub-sample>125mm T01
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date extracted	-	20/04/2017	5/05/2017	12/05/2017	30/05/2017	28/03/2017
Date analysed	-	20/04/2017	8/05/2017	15/05/2017	31/05/2017	29/03/2017
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	4	2
Pyrene	µg/L	<1	<1	<1	4	2
Benzo(a)anthracene	µg/L	<1	<1	<1	6	2
Chrysene	µg/L	<1	<1	<1	4	2
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	9	5
Benzo(a)pyrene	µg/L	<1	<1	<1	5	2
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	3	2
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	4	2
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	7	<5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE	39	19
Surrogate p-Terphenyl-d14	%	71	114	97	106	88

Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered

PAHs in Water						
Our Reference		162119-E-191	162119-E-192	162119-E-193	162119-E-194	162119-E-195
Your Reference	UNITS	MW206 - 2nd sub-sample>125mm T02	MW206 - 2nd sub-sample>125mm T03	MW206 - 2nd sub-sample>125mm T04	MW206 - 2nd sub-sample>125mm T05	MW206 - 2nd sub-sample>125mm T06
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date extracted	-	05/04/2017	05/04/2017	07/04/2017	11/04/2017	20/04/2017
Date analysed	-	06/04/2017	07/04/2017	07/04/2017	11/04/2017	20/04/2017
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	109	96	75	78	81



Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered

PAHs in Water						
Our Reference		162119-E-196	162119-E-197	162119-E-198	162119-E-199	162119-E-200
Your Reference	UNITS	MW206 - 2nd sub-sample >125mm T07	MW206 - 2nd sub-sample >125mm T08	MW206 - 2nd sub-sample >125mm T09	MW201 + 50% Lime WET T01	MW201 + 50% Lime WET T02
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date extracted	-	5/05/2017	12/05/2017	26/05/2017	28/03/2017	05/04/2017
Date analysed	-	8/05/2017	15/05/2017	29/05/2017	29/03/2017	06/04/2017
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	116	70	69	80	117

Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered

PAHs in Water						
Our Reference		162119-E-201	162119-E-202	162119-E-203	162119-E-204	162119-E-205
Your Reference	UNITS	MW201 + 50% Lime WET T03	MW201 + 50% Lime WET T04	MW201 + 50% Lime WET T05	MW201 + 50% Lime WET T06	MW201 + 50% Lime WET T07
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date extracted	-	05/04/2017	07/04/2017	11/04/2017	20/04/2017	5/05/2017
Date analysed	-	07/04/2017	07/04/2017	11/04/2017	20/04/2017	8/05/2017
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	118	76	79	71	103

**Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered**

<b>PAHs in Water</b>						
Our Reference		162119-E-206	162119-E-207	162119-E-208	162119-E-209	162119-E-210
Your Reference	UNITS	MW201 + 50% Lime WET T08	MW201 + 50% Lime WET T09	MW202 + 50% Lime WET T01	MW202 + 50% Lime WET T02	MW202 + 50% Lime WET T03
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date extracted	-	12/05/2017	26/05/2017	28/03/2017	05/04/2017	05/04/2017
Date analysed	-	15/05/2017	29/05/2017	29/03/2017	06/04/2017	07/04/2017
Naphthalene	µg/L	<1	<1	2	2	1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	1	3	2
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	2	3	3
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	1	2	2
Pyrene	µg/L	<1	<1	<1	2	1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE	5.7	12	9.6
Surrogate p-Terphenyl-d14	%	116	90	85	102	70

**Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered**

<b>PAHs in Water</b>						
Our Reference		162119-E-211	162119-E-212	162119-E-213	162119-E-214	162119-E-215
Your Reference	UNITS	MW202 + 50% Lime WET T04	MW202 + 50% Lime WET T05	MW202 + 50% Lime WET T06	MW202 + 50% Lime WET T07	MW202 + 50% Lime WET T08
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date extracted	-	07/04/2017	11/04/2017	21/04/2017	5/05/2017	12/05/2017
Date analysed	-	07/04/2017	11/04/2017	21/04/2017	8/05/2017	15/05/2017
Naphthalene	µg/L	4	4	12	3	8
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	4	4	9	3	6
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	4	4	5	2	4
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	2	2	2	<1	2
Pyrene	µg/L	2	2	2	<1	1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	15	16	31	8.6	21
Surrogate p-Terphenyl-d14	%	62	60	74	66	98

Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered

PAHs in Water						
Our Reference		162119-E-216	162119-E-217	162119-E-218	162119-E-219	162119-E-220
Your Reference	UNITS	MW202 + 50% Lime WET T09	MW203 + 50% Lime WET T01	MW203 + 50% Lime WET T02	MW203 + 50% Lime WET T03	MW203 + 50% Lime WET T04
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date extracted	-	26/05/2017	28/03/2017	05/04/2017	05/04/2017	07/04/2017
Date analysed	-	29/05/2017	29/03/2017	06/04/2017	07/04/2017	07/04/2017
Naphthalene	µg/L	9	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	5	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	4	<1	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	19	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	85	87	98	77	73

Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered

PAHs in Water						
Our Reference		162119-E-221	162119-E-222	162119-E-223	162119-E-224	162119-E-225
Your Reference	UNITS	MW203 + 50% Lime WET T05	MW203 + 50% Lime WET T06	MW203 + 50% Lime WET T07	MW203 + 50% Lime WET T08	MW203 + 50% Lime WET T09
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date extracted	-	11/04/2017	21/04/2017	5/05/2017	12/05/2017	26/05/2017
Date analysed	-	11/04/2017	21/04/2017	8/05/2017	15/05/2017	29/05/2017
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	65	119	115	85	85

**Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered**

<b>PAHs in Water</b>						
Our Reference		162119-E-226	162119-E-227	162119-E-228	162119-E-229	162119-E-230
Your Reference	UNITS	MW204 + 50% Lime WET T01	MW204 + 50% Lime WET T02	MW204 + 50% Lime WET T03	MW204 + 50% Lime WET T04	MW204 + 50% Lime WET T05
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date extracted	-	28/03/2017	05/04/2017	05/04/2017	07/04/2017	11/04/2017
Date analysed	-	29/03/2017	06/04/2017	07/04/2017	07/04/2017	11/04/2017
Naphthalene	µg/L	<1	<1	<1	<1	2
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	2
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	1	1	2	4
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	1
Pyrene	µg/L	<1	<1	<1	<1	1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	1.3	1.5	1.7	9.7
Surrogate p-Terphenyl-d14	%	84	95	102	122	70

Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered

PAHs in Water						
Our Reference		162119-E-231	162119-E-232	162119-E-233	162119-E-234	162119-E-235
Your Reference	UNITS	MW204 + 50% Lime WET T06	MW204 + 50% Lime WET T07	MW204 + 50% Lime WET T08	MW204 + 50% Lime WET T09	MW205 + 50% Lime WET T01
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date extracted	-	21/04/2017	5/05/2017	12/05/2017	26/05/2017	28/03/2017
Date analysed	-	21/04/2017	8/05/2017	15/05/2017	29/05/2017	29/03/2017
Naphthalene	µg/L	1	<1	1	1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	2	1	1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	2	2	2	1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	4.5	2.7	3.8	2.5	NIL (+)VE
Surrogate p-Terphenyl-d14	%	121	95	99	87	84



Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered

PAHs in Water						
Our Reference		162119-E-236	162119-E-237	162119-E-238	162119-E-239	162119-E-240
Your Reference	UNITS	MW205 + 50% Lime WET T02	MW205 + 50% Lime WET T03	MW205 + 50% Lime WET T04	MW205 + 50% Lime WET T05	MW205 + 50% Lime WET T06
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date extracted	-	05/04/2017	05/04/2017	07/04/2017	11/04/2017	21/04/2017
Date analysed	-	06/04/2017	07/04/2017	07/04/2017	11/04/2017	21/04/2017
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	1	<1	2	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	1	<1	1	<1
Pyrene	µg/L	<1	1	<1	1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	3.5	NIL (+)VE	4.2	NIL (+)VE
Surrogate p-Terphenyl-d14	%	90	104	99	77	108

Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered

PAHs in Water						
Our Reference		162119-E-241	162119-E-242	162119-E-243	162119-E-244	162119-E-245
Your Reference	UNITS	MW205 + 50% Lime WET T07	MW205 + 50% Lime WET T08	MW205 + 50% Lime WET T09	MW206 + 50% Lime WET T01	MW206 + 50% Lime WET T02
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date extracted	-	5/05/2017	12/05/2017	26/05/2017	28/03/2017	05/04/2017
Date analysed	-	8/05/2017	15/05/2017	29/05/2017	29/03/2017	06/04/2017
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	1	<1	<1	1	2
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	1	1	<1	1	2
Pyrene	µg/L	<1	<1	<1	<1	1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	2.1	1.1	NIL (+)VE	2.2	5.0
Surrogate p-Terphenyl-d14	%	123	98	85	80	98

Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered

PAHs in Water						
Our Reference		162119-E-246	162119-E-247	162119-E-248	162119-E-249	162119-E-250
Your Reference	UNITS	MW206 + 50% Lime WET T03	MW206 + 50% Lime WET T04	MW206 + 50% Lime WET T05	MW206 + 50% Lime WET T06	MW206 + 50% Lime WET T07
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date extracted	-	05/04/2017	07/04/2017	11/04/2017	21/04/2017	5/05/2017
Date analysed	-	07/04/2017	07/04/2017	11/04/2017	21/04/2017	8/05/2017
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	1	1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	1	2	4	2	2
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	1	2	3	2	2
Pyrene	µg/L	<1	1	2	1	1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	2.6	5.0	11	6.3	5.7
Surrogate p-Terphenyl-d14	%	60	108	70	92	112

Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered

PAHs in Water						
Our Reference		162119-E-251	162119-E-252	162119-E-253	162119-E-254	162119-E-255
Your Reference	UNITS	MW206 + 50% Lime WET T08	MW206 + 50% Lime WET T09	MW201 + 30% Cement WET T01	MW201 + 30% Cement WET T02	MW201 + 30% Cement WET
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date extracted	-	12/05/2017	26/05/2017	28/03/2017	05/04/2017	05/04/2017
Date analysed	-	15/05/2017	29/05/2017	29/03/2017	06/04/2017	07/04/2017
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	2	2	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	2	1	<1	<1	<1
Pyrene	µg/L	1	1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	5.3	4.8	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	105	98	90	125	66

Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered

PAHs in Water						
Our Reference		162119-E-256	162119-E-257	162119-E-258	162119-E-259	162119-E-260
Your Reference	UNITS	MW201 + 30% Cement WET T04	MW201 + 30% Cement WET T05	MW201 + 30% Cement WET T06	MW201 + 30% Cement WET T07	MW201 + 30% Cement WET
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date extracted	-	07/04/2017	11/04/2017	21/04/2017	5/05/2017	12/05/2017
Date analysed	-	07/04/2017	11/04/2017	21/04/2017	8/05/2017	15/05/2017
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	109	75	124	77	103

**Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered**

<b>PAHs in Water</b>						
Our Reference		162119-E-261	162119-E-262	162119-E-263	162119-E-264	162119-E-265
Your Reference	UNITS	MW201 + 30% Cement WET T09	MW202 + 30% Cement WET T01	MW202 + 30% Cement WET T02	MW202 + 30% Cement WET T03	MW202 + 30% Cement WET
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date extracted	-	26/05/2017	28/03/2017	05/04/2017	05/04/2017	07/04/2017
Date analysed	-	29/05/2017	29/03/2017	06/04/2017	07/04/2017	07/04/2017
Naphthalene	µg/L	<1	3	2	2	7
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	2	3	3	6
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	2	4	4	4
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	2	2	2	2
Pyrene	µg/L	<1	1	2	2	2
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	9.8	12	13	20
Surrogate p-Terphenyl-d14	%	97	75	95	115	103

**Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered**

<b>PAHs in Water</b>						
Our Reference		162119-E-266	162119-E-267	162119-E-268	162119-E-269	162119-E-270
Your Reference	UNITS	MW202 + 30% Cement WET T05	MW202 + 30% Cement WET T06	MW202 + 30% Cement WET T07	MW202 + 30% Cement WET T08	MW202 + 30% Cement WET
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date extracted	-	11/04/2017	21/04/2017	5/05/2017	12/05/2017	26/05/2017
Date analysed	-	11/04/2017	21/04/2017	8/05/2017	15/05/2017	29/05/2017
Naphthalene	µg/L	12	5	11	7	7
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	9	6	6	5	3
Fluorene	µg/L	1	1	<1	<1	<1
Phenanthrene	µg/L	5	4	3	4	4
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	2	2	1	2	2
Pyrene	µg/L	2	1	1	1	1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	31	19	23	19	17
Surrogate p-Terphenyl-d14	%	110	93	98	82	109

Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered

PAHs in Water						
Our Reference		162119-E-271	162119-E-272	162119-E-273	162119-E-274	162119-E-275
Your Reference	UNITS	MW203+ 30% Cement WET T01	MW203+ 30% Cement WET T02	MW203+ 30% Cement WET T03	MW203+ 30% Cement WET T04	MW203+ 30% Cement WET
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date extracted	-	28/03/2017	05/04/2017	05/04/2017	07/04/2017	11/04/2017
Date analysed	-	29/03/2017	06/04/2017	07/04/2017	07/04/2017	11/04/2017
Naphthalene	µg/L	<1	<1	<1	1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE	1.1	NIL (+)VE
Surrogate p-Terphenyl-d14	%	81	104	98	123	105



Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered

PAHs in Water						
Our Reference		162119-E-276	162119-E-277	162119-E-278	162119-E-279	162119-E-280
Your Reference	UNITS	MW203+ 30% Cement WET T06	MW203+ 30% Cement WET T07	MW203+ 30% Cement WET T08	MW203+ 30% Cement WET T09	MW204 + 30% Cement WET T01
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date extracted	-	21/04/2017	5/05/2017	12/05/2017	26/05/2017	28/03/2017
Date analysed	-	21/04/2017	8/05/2017	15/05/2017	29/05/2017	29/03/2017
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	<1	1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	1
Surrogate <i>p</i> -Terphenyl-d14	%	124	108	87	97	87

**Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered**

<b>PAHs in Water</b>						
Our Reference		162119-E-281	162119-E-282	162119-E-283	162119-E-284	162119-E-285
Your Reference	UNITS	MW204 + 30% Cement WET T02	MW204 + 30% Cement WET T03	MW204 + 30% Cement WET T04	MW204 + 30% Cement WET T05	MW204 + 30% Cement WET
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date extracted	-	05/04/2017	05/04/2017	07/04/2017	11/04/2017	21/04/2017
Date analysed	-	06/04/2017	07/04/2017	07/04/2017	11/04/2017	21/04/2017
Naphthalene	µg/L	<1	<1	<1	1	2
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	2	2
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	1	1	1	2	2
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	1.3	1.2	1.4	6.7	6.4
Surrogate p-Terphenyl-d14	%	98	115	97	120	123

Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered

PAHs in Water						
Our Reference		162119-E-286	162119-E-287	162119-E-288	162119-E-298	162119-E-299
Your Reference	UNITS	MW204 + 30% Cement WET T07	MW204 + 30% Cement WET T08	MW204 + 30% Cement WET T09	MW206 + 30% Cement WET T01	MW206 + 30% Cement WET
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date extracted	-	5/05/2017	12/05/2017	26/05/2017	26/05/2017	26/05/2017
Date analysed	-	8/05/2017	15/05/2017	29/05/2017	29/05/2017	29/05/2017
Naphthalene	µg/L	1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	2	7	2	<1	2
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	4	<1	<1	2
Pyrene	µg/L	<1	2	<1	<1	1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	3.8	13	1.9	NIL (+)VE	5.2
Surrogate p-Terphenyl-d14	%	101	70	94	124	80

Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered

PAHs in Water						
Our Reference		162119-E-300	162119-E-301	162119-E-302	162119-E-303	162119-E-304
Your Reference	UNITS	MW206 + 30% Cement WET T03	MW206 + 30% Cement WET T04	MW206 + 30% Cement WET T05	MW206 + 30% Cement WET T06	MW206 + 30% Cement WET
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date extracted	-	26/05/2017	26/05/2017	26/05/2017	26/05/2017	26/05/2017
Date analysed	-	29/05/2017	29/05/2017	29/05/2017	29/05/2017	29/05/2017
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	1
Acenaphthene	µg/L	<1	<1	1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	3	2	3	2	3
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	3	2	3	1	2
Pyrene	µg/L	2	2	2	1	2
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	8.0	5.9	8.9	4.2	8.5
Surrogate p-Terphenyl-d14	%	108	100	112	100	98

Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered

PAHs in Water			
Our Reference		162119-E-305	162119-E-306
Your Reference	UNITS	MW206 + 30% Cement WET T08	MW206 + 30% Cement WET
Date Sampled		10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date extracted	-	12/05/2017	26/05/2017
Date analysed	-	15/05/2017	29/05/2017
Naphthalene	µg/L	<1	<1
Acenaphthylene	µg/L	<1	<1
Acenaphthene	µg/L	<1	<1
Fluorene	µg/L	<1	<1
Phenanthrene	µg/L	3	2
Anthracene	µg/L	<1	<1
Fluoranthene	µg/L	2	1
Pyrene	µg/L	2	1
Benzo(a)anthracene	µg/L	<1	<1
Chrysene	µg/L	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2
Benzo(a)pyrene	µg/L	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5
Total +ve PAH's	µg/L	7.1	4.5
Surrogate <i>p</i> -Terphenyl-d14	%	95	71

**Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered**

SW846-1315 LEAF Monolith						
Our Reference		162119-E-1	162119-E-2	162119-E-3	162119-E-4	162119-E-5
Your Reference	UNITS	MW201_>125 T01	MW201_>125 T02	MW201_>125 T03	MW201_>125 T04	MW201_>125 T05
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass Used	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass of Sample before Elutriation Step	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Geometry and Dimensions 3D or 1D	mm D x mm H	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Volume Used	mL	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Exchange Time/Day	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Final EC	µS/cm	540	260	170	380	390
Elutriate Final pH	pH units	8.2	7.4	6.8	7.8	7.4
Total Cyanide in Eluates	mg/L	1.2	0.24	0.18	0.73	0.76
Fluoride, F in Eluates	mg/L	66	41	30	50	53

SW846-1315 LEAF Monolith						
Our Reference		162119-E-6	162119-E-7	162119-E-8	162119-E-9	162119-E-10
Your Reference	UNITS	MW201_>125 T06	MW201_>125 T07	MW201_>125 T08	MW201_>125 T09	MW202_>125 T01
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass Used	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass of Sample before Elutriation Step	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Geometry and Dimensions 3D or 1D	mm D x mm H	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Volume Used	mL	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Exchange Time/Day	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Final EC	µS/cm	410	350	170	230	20
Elutriate Final pH	pH units	7.8	7.6	7.3	6.4	6.8
Total Cyanide in Eluates	mg/L	0.94	0.73	0.27	0.23	<0.004
Fluoride, F in Eluates	mg/L	54	53	28	35	1.7

**Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered**

SW846-1315 LEAF Monolith						
Our Reference		162119-E-11	162119-E-12	162119-E-13	162119-E-14	162119-E-15
Your Reference	UNITS	MW202_>125 T02	MW202_>125 T03	MW202_>125 T04	MW202_>125 T05	MW202_>125 T06
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass Used	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass of Sample before Elutriation Step	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Geometry and Dimensions 3D or 1D	mm D x mm H	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Volume Used	mL	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Exchange Time/Day	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Final EC	µS/cm	13	6	13	13	17
Elutriate Final pH	pH units	6.5	5.9	6.5	6.3	6.5
Total Cyanide in Eluates	mg/L	<0.004	<0.004	<0.004	0.007	<0.004
Fluoride, F in Eluates	mg/L	0.4	0.4	0.7	0.9	1.3

SW846-1315 LEAF Monolith						
Our Reference		162119-E-16	162119-E-17	162119-E-18	162119-E-19	162119-E-20
Your Reference	UNITS	MW202_>125 T07	MW202_>125 T08	MW202_>125 T09	MW203_>125 T01	MW203_>125 T02
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass Used	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass of Sample before Elutriation Step	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Geometry and Dimensions 3D or 1D	mm D x mm H	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Volume Used	mL	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Exchange Time/Day	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Final EC	µS/cm	7	7	10	1,300	790
Elutriate Final pH	pH units	6.9	6.6	5.4	9.1	8.5
Total Cyanide in Eluates	mg/L	<0.004	<0.004	<0.004	0.86	0.49
Fluoride, F in Eluates	mg/L	0.7	0.2	0.4	190	150

**Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered**

SW846-1315 LEAF Monolith						
Our Reference		162119-E-21	162119-E-22	162119-E-23	162119-E-24	162119-E-25
Your Reference	UNITS	MW203_>125 T03	MW203_>125 T04	MW203_>125 T05	MW203_>125 T06	MW203_>125 T07
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass Used	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass of Sample before Elutriation Step	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Geometry and Dimensions 3D or 1D	mm D x mm H	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Volume Used	mL	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Exchange Time/Day	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Final EC	µS/cm	600	1,400	1,400	1,600	1,300
Elutriate Final pH	pH units	7.9	9.0	8.8	8.9	8.5
Total Cyanide in Eluates	mg/L	0.29	0.78	0.63	0.71	0.52
Fluoride, F in Eluates	mg/L	100	250	260	300	240

SW846-1315 LEAF Monolith						
Our Reference		162119-E-26	162119-E-27	162119-E-28	162119-E-29	162119-E-30
Your Reference	UNITS	MW203_>125 T08	MW203_>125 T09	MW204_>125 T01	MW204_>125 T02	MW204_>125 T03
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass Used	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass of Sample before Elutriation Step	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Geometry and Dimensions 3D or 1D	mm D x mm H	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Volume Used	mL	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Exchange Time/Day	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Final EC	µS/cm	450	750	960	440	330
Elutriate Final pH	pH units	7.8	8.1	9.6	8.3	7.7
Total Cyanide in Eluates	mg/L	0.25	0.27	0.76	0.22	0.18
Fluoride, F in Eluates	mg/L	79	130	110	67	51



**Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered**

SW846-1315 LEAF Monolith						
Our Reference		162119-E-31	162119-E-32	162119-E-33	162119-E-34	162119-E-35
Your Reference	UNITS	MW204_>125 T04	MW204_>125 T05	MW204_>125 T06	MW204_>125 T07	MW204_>125 T08
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass Used	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass of Sample before Elutriation Step	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Geometry and Dimensions 3D or 1D	mm D x mm H	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Volume Used	mL	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Exchange Time/Day	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Final EC	µS/cm	880	900	1,100	1,000	590
Elutriate Final pH	pH units	8.9	8.9	9.0	8.8	7.6
Total Cyanide in Eluates	mg/L	0.55	0.47	0.64	0.63	0.19
Fluoride, F in Eluates	mg/L	140	140	200	170	110

SW846-1315 LEAF Monolith						
Our Reference		162119-E-36	162119-E-37	162119-E-38	162119-E-39	162119-E-40
Your Reference	UNITS	MW204_>125 T09	MW205_>125 T01	MW205_>125 T02	MW205_>125 T03	MW205_>125 T04
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass Used	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass of Sample before Elutriation Step	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Geometry and Dimensions 3D or 1D	mm D x mm H	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Volume Used	mL	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Exchange Time/Day	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Final EC	µS/cm	990	550	220	180	470
Elutriate Final pH	pH units	7.9	9.3	7.8	8.0	9.9
Total Cyanide in Eluates	mg/L	0.24	2.3	0.86	0.97	3.2
Fluoride, F in Eluates	mg/L	170	48	24	13	21

**Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered**

SW846-1315 LEAF Monolith						
Our Reference		162119-E-41	162119-E-42	162119-E-43	162119-E-44	162119-E-45
Your Reference	UNITS	MW205_>125 T05	MW205_>125 T06	MW205_>125 T07	MW205_>125 T08	MW205_>125 T09
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass Used	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass of Sample before Elutriation Step	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Geometry and Dimensions 3D or 1D	mm D x mm H	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Volume Used	mL	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Exchange Time/Day	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Final EC	µS/cm	300	150	57	23	30
Elutriate Final pH	pH units	10.0	9.5	8.7	6.8	7.4
Total Cyanide in Eluates	mg/L	1.9	1.2	0.33	0.038	0.028
Fluoride, F in Eluates	mg/L	11	5.7	2.9	1.3	1.4

SW846-1315 LEAF Monolith						
Our Reference		162119-E-46	162119-E-47	162119-E-48	162119-E-49	162119-E-50
Your Reference	UNITS	MW206_>125 T01	MW206_>125 T02	MW206_>125 T03	MW206_>125 T04	MW206_>125 T05
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass Used	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass of Sample before Elutriation Step	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Geometry and Dimensions 3D or 1D	mm D x mm H	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Volume Used	mL	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Exchange Time/Day	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Final EC	µS/cm	790	540	420	1,000	1,000
Elutriate Final pH	pH units	8.6	8.2	7.7	8.5	8.4
Total Cyanide in Eluates	mg/L	0.64	0.30	0.23	0.63	0.55
Fluoride, F in Eluates	mg/L	140	94	74	170	170

**Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered**

SW846-1315 LEAF Monolith						
Our Reference		162119-E-51	162119-E-52	162119-E-53	162119-E-54	162119-E-55
Your Reference	UNITS	MW206_>125 T06	MW206_>125 T07	MW206_>125 T08	MW206_>125 T09	SPL_First Cut_1 T01
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass Used	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass of Sample before Elutriation Step	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Geometry and Dimensions 3D or 1D	mm D x mm H	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Volume Used	mL	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Exchange Time/Day	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Final EC	µS/cm	1,100	1,000	490	770	2,300
Elutriate Final pH	pH units	8.5	8.2	7.5	7.7	9.9
Total Cyanide in Eluates	mg/L	0.67	0.48	0.17	0.20	0.033
Fluoride, F in Eluates	mg/L	230	190	96	140	300

SW846-1315 LEAF Monolith						
Our Reference		162119-E-56	162119-E-57	162119-E-58	162119-E-59	162119-E-60
Your Reference	UNITS	SPL_First Cut_1 T02	SPL_First Cut_1 T03	SPL_First Cut_1 T04	SPL_First Cut_1 T05	SPL_First Cut_1 T06
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass Used	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass of Sample before Elutriation Step	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Geometry and Dimensions 3D or 1D	mm D x mm H	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Volume Used	mL	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Exchange Time/Day	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Final EC	µS/cm	1,700	650	900	860	1,200
Elutriate Final pH	pH units	10.2	9.8	10.2	10.2	10.3
Total Cyanide in Eluates	mg/L	0.019	0.019	0.065	0.053	0.079
Fluoride, F in Eluates	mg/L	270	81	68	26	26

**Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered**

SW846-1315 LEAF Monolith						
Our Reference		162119-E-61	162119-E-62	162119-E-63	162119-E-64	162119-E-65
Your Reference	UNITS	SPL_First Cut_1 T07	SPL_First Cut_1 T08	SPL_First Cut_1 T09	SPL_First Cut_2 T01	SPL_First Cut_2 T02
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass Used	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass of Sample before Elutriation Step	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Geometry and Dimensions 3D or 1D	mm D x mm H	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Volume Used	mL	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Exchange Time/Day	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Final EC	µS/cm	1,000	480	790	250	190
Elutriate Final pH	pH units	10.2	10.0	10.0	7.2	7.1
Total Cyanide in Eluates	mg/L	0.075	0.037	0.053	0.059	0.027
Fluoride, F in Eluates	mg/L	25	13	20	30	26

SW846-1315 LEAF Monolith						
Our Reference		162119-E-66	162119-E-67	162119-E-68	162119-E-69	162119-E-70
Your Reference	UNITS	SPL_First Cut_2 T03	SPL_First Cut_2 T04	SPL_First Cut_2 T05	SPL_First Cut_2 T06	SPL_First Cut_2 T07
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass Used	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass of Sample before Elutriation Step	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Geometry and Dimensions 3D or 1D	mm D x mm H	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Volume Used	mL	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Exchange Time/Day	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Final EC	µS/cm	180	390	390	500	410
Elutriate Final pH	pH units	6.8	6.9	7.1	7.1	7.1
Total Cyanide in Eluates	mg/L	<0.004	0.015	0.007	<0.004	<0.004
Fluoride, F in Eluates	mg/L	23	48	53	78	52

**Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered**

SW846-1315 LEAF Monolith						
Our Reference		162119-E-71	162119-E-72	162119-E-73	162119-E-74	162119-E-75
Your Reference	UNITS	SPL_First Cut_2 T08	SPL_First Cut_2 T09	SPL_First Cut_3 T01	SPL_First Cut_3 T02	SPL_First Cut_3 T03
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass Used	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass of Sample before Elutriation Step	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Geometry and Dimensions 3D or 1D	mm D x mm H	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Volume Used	mL	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Exchange Time/Day	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Final EC	µS/cm	300	390	6,700	4,100	3,600
Elutriate Final pH	pH units	7.0	6.9	11.4	12.1	12.0
Total Cyanide in Eluates	mg/L	<0.004	<0.004	33	24	23
Fluoride, F in Eluates	mg/L	58	70	110	35	18

SW846-1315 LEAF Monolith						
Our Reference		162119-E-76	162119-E-77	162119-E-78	162119-E-79	162119-E-80
Your Reference	UNITS	SPL_First Cut_3 T04	SPL_First Cut_3 T05	SPL_First Cut_3 T06	SPL_First Cut_3 T07	SPL_First Cut_3 T08
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass Used	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass of Sample before Elutriation Step	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Geometry and Dimensions 3D or 1D	mm D x mm H	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Volume Used	mL	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Exchange Time/Day	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Final EC	µS/cm	6,900	5,900	6,600	4,900	2,000
Elutriate Final pH	pH units	12.0	11.7	11.9	11.7	11.5
Total Cyanide in Eluates	mg/L	80	79	77	62	20
Fluoride, F in Eluates	mg/L	47	39	34	29	15

**Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered**

SW846-1315 LEAF Monolith						
Our Reference		162119-E-81	162119-E-82	162119-E-83	162119-E-84	162119-E-85
Your Reference	UNITS	SPL_First Cut_3 T09	SPL_First Cut_4 T01	SPL_First Cut_4 T02	SPL_First Cut_4 T03	SPL_First Cut_4 T04
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass Used	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass of Sample before Elutriation Step	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Geometry and Dimensions 3D or 1D	mm D x mm H	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Volume Used	mL	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Exchange Time/Day	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Final EC	µS/cm	3,800	140	490	440	1,000
Elutriate Final pH	pH units	11.8	6.5	8.3	7.6	8.2
Total Cyanide in Eluates	mg/L	36	0.38	0.30	0.27	0.42
Fluoride, F in Eluates	mg/L	27	70	49	34	77

SW846-1315 LEAF Monolith						
Our Reference		162119-E-86	162119-E-87	162119-E-88	162119-E-89	162119-E-90
Your Reference	UNITS	SPL_First Cut_4 T05	SPL_First Cut_4 T06	SPL_First Cut_4 T07	SPL_First Cut_4 T08	SPL_First Cut_4 T09
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass Used	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass of Sample before Elutriation Step	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Geometry and Dimensions 3D or 1D	mm D x mm H	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Volume Used	mL	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Exchange Time/Day	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Final EC	µS/cm	1,100	1,200	960	430	630
Elutriate Final pH	pH units	8.3	8.3	8.0	7.6	7.8
Total Cyanide in Eluates	mg/L	0.15	0.060	0.030	0.013	0.017
Fluoride, F in Eluates	mg/L	80	92	84	40	59

**Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered**

SW846-1315 LEAF Monolith						
Our Reference		162119-E-91	162119-E-92	162119-E-93	162119-E-94	162119-E-95
Your Reference	UNITS	SPL_First Cut_5 T01	SPL_First Cut_5 T02	SPL_First Cut_5 T03	SPL_First Cut_5 T04	SPL_First Cut_5 T05
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass Used	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass of Sample before Elutriation Step	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Geometry and Dimensions 3D or 1D	mm D x mm H	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Volume Used	mL	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Exchange Time/Day	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Final EC	µS/cm	120	120	130	270	280
Elutriate Final pH	pH units	6.2	6.4	6.6	6.6	6.4
Total Cyanide in Eluates	mg/L	0.067	0.054	0.021	0.008	<0.004
Fluoride, F in Eluates	mg/L	14	8.1	3.7	4.2	3.2

SW846-1315 LEAF Monolith						
Our Reference		162119-E-96	162119-E-97	162119-E-98	162119-E-99	162119-E-100
Your Reference	UNITS	SPL_First Cut_5 T06	SPL_First Cut_5 T07	SPL_First Cut_5 T08	SPL_First Cut_5 T09	SPL_Second Cut_1 T01
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass Used	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass of Sample before Elutriation Step	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Geometry and Dimensions 3D or 1D	mm D x mm H	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Volume Used	mL	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Exchange Time/Day	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Final EC	µS/cm	330	200	81	120	52
Elutriate Final pH	pH units	6.0	6.0	6.4	6.3	6.3
Total Cyanide in Eluates	mg/L	<0.004	<0.004	<0.004	<0.004	0.004
Fluoride, F in Eluates	mg/L	3.2	2.0	0.9	1.3	9.5

**Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered**

SW846-1315 LEAF Monolith						
Our Reference		162119-E-101	162119-E-102	162119-E-103	162119-E-104	162119-E-105
Your Reference	UNITS	SPL_Second Cut_1 T02	SPL_Second Cut_1 T03	SPL_Second Cut_1 T04	SPL_Second Cut_1 T05	SPL_Second Cut_1 T06
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass Used	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass of Sample before Elutriation Step	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Geometry and Dimensions 3D or 1D	mm D x mm H	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Volume Used	mL	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Exchange Time/Day	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Final EC	µS/cm	29	16	22	21	22
Elutriate Final pH	pH units	7.5	6.5	6.8	6.9	7.0
Total Cyanide in Eluates	mg/L	<0.004	<0.004	<0.004	<0.004	<0.004
Fluoride, F in Eluates	mg/L	2.3	1	1.8	1.5	1.3

SW846-1315 LEAF Monolith						
Our Reference		162119-E-106	162119-E-107	162119-E-108	162119-E-109	162119-E-110
Your Reference	UNITS	SPL_Second Cut_1 T07	SPL_Second Cut_1 T08	SPL_Second Cut_1 T09	SPL_Second Cut_2 T01	SPL_Second Cut_2 T02
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass Used	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass of Sample before Elutriation Step	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Geometry and Dimensions 3D or 1D	mm D x mm H	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Volume Used	mL	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Exchange Time/Day	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Final EC	µS/cm	21	14	16	27	16
Elutriate Final pH	pH units	7.1	6.5	7.1	6.1	7.0
Total Cyanide in Eluates	mg/L	<0.004	<0.004	<0.004	<0.004	<0.004
Fluoride, F in Eluates	mg/L	0.8	0.3	0.3	5.2	1.6



**Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered**

SW846-1315 LEAF Monolith						
Our Reference		162119-E-111	162119-E-112	162119-E-113	162119-E-114	162119-E-115
Your Reference	UNITS	SPL_Second Cut_2 T03	SPL_Second Cut_2 T04	SPL_Second Cut_2 T05	SPL_Second Cut_2 T06	SPL_Second Cut_2 T07
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass Used	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass of Sample before Elutriation Step	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Geometry and Dimensions 3D or 1D	mm D x mm H	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Volume Used	mL	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Exchange Time/Day	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Final EC	µS/cm	11	16	16	21	16
Elutriate Final pH	pH units	6.4	6.7	6.8	6.9	6.8
Total Cyanide in Eluates	mg/L	<0.004	<0.004	<0.004	<0.004	<0.004
Fluoride, F in Eluates	mg/L	0.7	1.6	1.6	1.6	1.1

SW846-1315 LEAF Monolith						
Our Reference		162119-E-116	162119-E-117	162119-E-118	162119-E-119	162119-E-120
Your Reference	UNITS	SPL_Second Cut_2 T08	SPL_Second Cut_2 T09	SPL_Second Cut_3 T01	SPL_Second Cut_3 T02	SPL_Second Cut_3 T03
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass Used	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass of Sample before Elutriation Step	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Geometry and Dimensions 3D or 1D	mm D x mm H	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Volume Used	mL	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Exchange Time/Day	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Final EC	µS/cm	9	12	37	16	12
Elutriate Final pH	pH units	6.3	6.8	6.4	6.8	6.4
Total Cyanide in Eluates	mg/L	<0.004	<0.004	<0.004	<0.004	<0.004
Fluoride, F in Eluates	mg/L	0.4	0.6	6.9	1.6	0.6

**Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered**

SW846-1315 LEAF Monolith						
Our Reference		162119-E-121	162119-E-122	162119-E-123	162119-E-124	162119-E-125
Your Reference	UNITS	SPL_Second Cut_3 T04	SPL_Second Cut_3 T05	SPL_Second Cut_3 T06	SPL_Second Cut_3 T07	SPL_Second Cut_3 T08
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass Used	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass of Sample before Elutriation Step	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Geometry and Dimensions 3D or 1D	mm D x mm H	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Volume Used	mL	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Exchange Time/Day	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Final EC	µS/cm	19	17	17	15	9
Elutriate Final pH	pH units	6.6	6.6	6.5	6.8	6.3
Total Cyanide in Eluates	mg/L	<0.004	<0.004	<0.004	<0.004	<0.004
Fluoride, F in Eluates	mg/L	1.1	0.8	0.6	0.4	0.2

SW846-1315 LEAF Monolith						
Our Reference		162119-E-126	162119-E-127	162119-E-128	162119-E-129	162119-E-130
Your Reference	UNITS	SPL_Second Cut_3 T09	SPL_Second Cut_4 T01	SPL_Second Cut_4 T02	SPL_Second Cut_4 T03	SPL_Second Cut_4 T04
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass Used	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass of Sample before Elutriation Step	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Geometry and Dimensions 3D or 1D	mm D x mm H	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Volume Used	mL	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Exchange Time/Day	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Final EC	µS/cm	11	42	18	13	22
Elutriate Final pH	pH units	6.7	6.5	6.7	6.4	6.6
Total Cyanide in Eluates	mg/L	<0.004	<0.004	<0.004	<0.004	<0.004
Fluoride, F in Eluates	mg/L	0.2	6.6	1.4	0.5	0.7

**Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered**

SW846-1315 LEAF Monolith						
Our Reference		162119-E-131	162119-E-132	162119-E-133	162119-E-134	162119-E-135
Your Reference	UNITS	SPL_Second Cut_4 T05	SPL_Second Cut_4 T06	SPL_Second Cut_4 T07	SPL_Second Cut_4 T08	SPL_Second Cut_4 T09
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass Used	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass of Sample before Elutriation Step	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Geometry and Dimensions 3D or 1D	mm D x mm H	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Volume Used	mL	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Exchange Time/Day	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Final EC	µS/cm	20	17	15	8	11
Elutriate Final pH	pH units	6.6	6.6	6.9	6.3	6.8
Total Cyanide in Eluates	mg/L	<0.004	<0.004	<0.004	<0.004	<0.004
Fluoride, F in Eluates	mg/L	0.5	1.1	0.8	0.3	0.3

SW846-1315 LEAF Monolith						
Our Reference		162119-E-136	162119-E-137	162119-E-138	162119-E-139	162119-E-140
Your Reference	UNITS	SPL_Second Cut_5 T01	SPL_Second Cut_5 T02	SPL_Second Cut_5 T03	SPL_Second Cut_5 T04	SPL_Second Cut_5 T05
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass Used	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass of Sample before Elutriation Step	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Geometry and Dimensions 3D or 1D	mm D x mm H	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Volume Used	mL	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Exchange Time/Day	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Final EC	µS/cm	56	17	12	19	16
Elutriate Final pH	pH units	6.6	6.7	6.4	6.7	6.8
Total Cyanide in Eluates	mg/L	<0.004	<0.004	<0.004	<0.004	<0.004
Fluoride, F in Eluates	mg/L	10	2.2	1	1.7	1.3

**Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered**

SW846-1315 LEAF Monolith						
Our Reference		162119-E-141	162119-E-142	162119-E-143	162119-E-144	162119-E-145
Your Reference	UNITS	SPL_Second Cut_5 T06	SPL_Second Cut_5 T07	SPL_Second Cut_5 T08	SPL_Second Cut_5 T09	MW201 - 2nd sub-sample>125mm T01
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass Used	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass of Sample before Elutriation Step	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Geometry and Dimensions 3D or 1D	mm D x mm H	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Volume Used	mL	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Exchange Time/Day	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Final EC	µS/cm	20	14	8	10	260
Elutriate Final pH	pH units	6.4	6.8	6.2	6.6	7.7
Total Cyanide in Eluates	mg/L	<0.004	<0.004	<0.004	<0.004	0.95
Fluoride, F in Eluates	mg/L	0.4	0.3	0.1	0.2	35

SW846-1315 LEAF Monolith						
Our Reference		162119-E-146	162119-E-147	162119-E-148	162119-E-149	162119-E-150
Your Reference	UNITS	MW201 - 2nd sub-sample>125mm T02	MW201 - 2nd sub-sample>125mm T03	MW201 - 2nd sub-sample>125mm T04	MW201 - 2nd sub-sample>125mm T05	MW201 - 2nd sub-sample>125mm T06
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass Used	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass of Sample before Elutriation Step	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Geometry and Dimensions 3D or 1D	mm D x mm H	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Volume Used	mL	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Exchange Time/Day	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Final EC	µS/cm	230	200	390	390	490
Elutriate Final pH	pH units	7.3	7.0	7.4	7.5	7.6
Total Cyanide in Eluates	mg/L	0.76	0.50	1.3	0.91	1.3
Fluoride, F in Eluates	mg/L	38	35	67	70	86

**Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered**

SW846-1315 LEAF Monolith						
Our Reference		162119-E-151	162119-E-152	162119-E-153	162119-E-154	162119-E-155
Your Reference	UNITS	MW201 - 2nd sub-sample>125mm T07	MW201 - 2nd sub-sample>125mm T08	MW201 - 2nd sub-sample>125mm T09	MW202 - 2nd sub-sample>125mm T01	MW202 - 2nd sub-sample>125mm T02
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass Used	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass of Sample before Elutriation Step	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Geometry and Dimensions 3D or 1D	mm D x mm H	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Volume Used	mL	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Exchange Time/Day	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Final EC	µS/cm	440	240	360	19	11
Elutriate Final pH	pH units	7.5	6.9	7.3	6.6	6.4
Total Cyanide in Eluates	mg/L	1.1	0.36	0.44	0.006	<0.004
Fluoride, F in Eluates	mg/L	85	49	72	2.0	0.6

SW846-1315 LEAF Monolith						
Our Reference		162119-E-156	162119-E-157	162119-E-158	162119-E-159	162119-E-160
Your Reference	UNITS	MW202 - 2nd sub-sample>125mm T03	MW202 - 2nd sub-sample>125mm T04	MW202 - 2nd sub-sample>125mm T05	MW202 - 2nd sub-sample>125mm T06	MW202 - 2nd sub-sample>125mm T07
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass Used	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass of Sample before Elutriation Step	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Geometry and Dimensions 3D or 1D	mm D x mm H	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Volume Used	mL	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Exchange Time/Day	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Final EC	µS/cm	6	10	10	14	11
Elutriate Final pH	pH units	6.1	6.3	6.2	6.2	6.3
Total Cyanide in Eluates	mg/L	<0.004	0.004	<0.004	<0.004	<0.004
Fluoride, F in Eluates	mg/L	0.4	1	1	1.8	1.2

**Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered**

SW846-1315 LEAF Monolith						
Our Reference		162119-E-161	162119-E-162	162119-E-163	162119-E-164	162119-E-165
Your Reference	UNITS	MW202 - 2nd sub-sample>125mm T08	MW202 - 2nd sub-sample>125mm T09	MW203 - 2nd sub-sample>125mm T01	MW203 - 2nd sub-sample>125mm T02	MW203 - 2nd sub-sample>125mm T03
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass Used	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass of Sample before Elutriation Step	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Geometry and Dimensions 3D or 1D	mm D x mm H	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Volume Used	mL	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Exchange Time/Day	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Final EC	µS/cm	7	12	1,200	500	370
Elutriate Final pH	pH units	5.9	6.1	9.8	8.0	7.6
Total Cyanide in Eluates	mg/L	<0.004	0.004	7.8	1.7	1.1
Fluoride, F in Eluates	mg/L	0.4	0.8	88	64	56

SW846-1315 LEAF Monolith						
Our Reference		162119-E-166	162119-E-167	162119-E-168	162119-E-169	162119-E-170
Your Reference	UNITS	MW203 - 2nd sub-sample>125mm T04	MW203 - 2nd sub-sample>125mm T05	MW203 - 2nd sub-sample>125mm T06	MW203 - 2nd sub-sample>125mm T07	MW203 - 2nd sub-sample>125mm T08
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass Used	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass of Sample before Elutriation Step	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Geometry and Dimensions 3D or 1D	mm D x mm H	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Volume Used	mL	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Exchange Time/Day	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Final EC	µS/cm	730	800	820	710	460
Elutriate Final pH	pH units	8.0	8.0	8.0	7.9	7.2
Total Cyanide in Eluates	mg/L	3.2	2.9	3.6	2.7	1.0
Fluoride, F in Eluates	mg/L	96	110	120	120	82

**Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered**

SW846-1315 LEAF Monolith						
Our Reference		162119-E-171	162119-E-172	162119-E-173	162119-E-174	162119-E-175
Your Reference	UNITS	MW203 - 2nd sub-sample>125mm T09	MW204 - 2nd sub-sample>125mm T01	MW204 - 2nd sub-sample>125mm T02	MW204 - 2nd sub-sample>125mm T03	MW204 - 2nd sub-sample>125mm T04
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass Used	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass of Sample before Elutriation Step	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Geometry and Dimensions 3D or 1D	mm D x mm H	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Volume Used	mL	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Exchange Time/Day	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Final EC	µS/cm	500	660	450	310	770
Elutriate Final pH	pH units	6.8	9.5	8.0	7.7	8.5
Total Cyanide in Eluates	mg/L	1.6	0.63	0.37	0.24	0.61
Fluoride, F in Eluates	mg/L	96	77	64	45	120

SW846-1315 LEAF Monolith						
Our Reference		162119-E-176	162119-E-177	162119-E-178	162119-E-179	162119-E-180
Your Reference	UNITS	MW204 - 2nd sub-sample>125mm T05	MW204 - 2nd sub-sample>125mm T06	MW204 - 2nd sub-sample>125mm T07	MW204 - 2nd sub-sample>125mm T08	MW204 - 2nd sub-sample>125mm T09
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass Used	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass of Sample before Elutriation Step	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Geometry and Dimensions 3D or 1D	mm D x mm H	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Volume Used	mL	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Exchange Time/Day	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Final EC	µS/cm	800	930	1,000	440	680
Elutriate Final pH	pH units	8.4	8.5	8.4	7.5	7.4
Total Cyanide in Eluates	mg/L	0.60	0.85	0.85	0.32	0.45
Fluoride, F in Eluates	mg/L	120	160	180	75	110

**Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered**

SW846-1315 LEAF Monolith						
Our Reference		162119-E-181	162119-E-182	162119-E-183	162119-E-184	162119-E-185
Your Reference	UNITS	MW205 - 2nd sub-sample>125mm T01	MW205 - 2nd sub-sample>125mm T02	MW205 - 2nd sub-sample>125mm T03	MW205 - 2nd sub-sample>125mm T04	MW205 - 2nd sub-sample>125mm T05
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass Used	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass of Sample before Elutriation Step	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Geometry and Dimensions 3D or 1D	mm D x mm H	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Volume Used	mL	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Exchange Time/Day	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Final EC	µS/cm	830	580	440	1,200	1,100
Elutriate Final pH	pH units	9.7	8.4	8.3	9.1	8.8
Total Cyanide in Eluates	mg/L	0.90	0.52	0.37	0.56	0.69
Fluoride, F in Eluates	mg/L	120	98	72	110	200

SW846-1315 LEAF Monolith						
Our Reference		162119-E-186	162119-E-187	162119-E-188	162119-E-189	162119-E-190
Your Reference	UNITS	MW205 - 2nd sub-sample>125mm T06	MW205 - 2nd sub-sample>125mm T07	MW205 - 2nd sub-sample>125mm T08	MW205 - 2nd sub-sample>125mm T09	MW206 - 2nd sub-sample>125mm T01
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass Used	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass of Sample before Elutriation Step	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Geometry and Dimensions 3D or 1D	mm D x mm H	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Volume Used	mL	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Exchange Time/Day	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Final EC	µS/cm	1,300	1,100	560	750	1,100
Elutriate Final pH	pH units	8.9	8.6	7.8	7.7	9.3
Total Cyanide in Eluates	mg/L	0.66	0.55	0.19	0.19	0.78
Fluoride, F in Eluates	mg/L	240	210	110	150	190



**Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered**

SW846-1315 LEAF Monolith						
Our Reference		162119-E-191	162119-E-192	162119-E-193	162119-E-194	162119-E-195
Your Reference	UNITS	MW206 - 2nd sub-sample>125mm T02	MW206 - 2nd sub-sample>125mm T03	MW206 - 2nd sub-sample>125mm T04	MW206 - 2nd sub-sample>125mm T05	MW206 - 2nd sub-sample>125mm T06
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass Used	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass of Sample before Elutriation Step	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Geometry and Dimensions 3D or 1D	mm D x mm H	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Volume Used	mL	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Exchange Time/Day	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Final EC	µS/cm	910	710	1,700	1,800	2,100
Elutriate Final pH	pH units	8.6	8.1	8.9	8.9	9.0
Total Cyanide in Eluates	mg/L	0.47	0.30	0.90	0.79	0.93
Fluoride, F in Eluates	mg/L	160	130	330	340	400

SW846-1315 LEAF Monolith						
Our Reference		162119-E-196	162119-E-197	162119-E-198	162119-E-199	162119-E-200
Your Reference	UNITS	MW206 - 2nd sub-sample>125mm T07	MW206 - 2nd sub-sample>125mm T08	MW206 - 2nd sub-sample>125mm T09	MW201 + 50% Lime WET T01	MW201 + 50% Lime WET T02
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass Used	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass of Sample before Elutriation Step	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Geometry and Dimensions 3D or 1D	mm D x mm H	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Volume Used	mL	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Exchange Time/Day	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Final EC	µS/cm	1,700	820	1,100	8,000	8,900
Elutriate Final pH	pH units	8.6	7.8	7.8	12.5	12.6
Total Cyanide in Eluates	mg/L	0.75	0.28	0.33	0.14	0.085
Fluoride, F in Eluates	mg/L	330	150	220	15	12

**Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered**

SW846-1315 LEAF Monolith						
Our Reference		162119-E-201	162119-E-202	162119-E-203	162119-E-204	162119-E-205
Your Reference	UNITS	MW201 + 50% Lime WET T03	MW201 + 50% Lime WET T04	MW201 + 50% Lime WET T05	MW201 + 50% Lime WET T06	MW201 + 50% Lime WET T07
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass Used	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass of Sample before Elutriation Step	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Geometry and Dimensions 3D or 1D	mm D x mm H	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Volume Used	mL	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Exchange Time/Day	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Final EC	µS/cm	5,000	9,200	6,000	5,200	4,300
Elutriate Final pH	pH units	12.3	12.5	12.4	12.3	12.4
Total Cyanide in Eluates	mg/L	0.034	0.058	0.037	0.026	0.021
Fluoride, F in Eluates	mg/L	5.3	7.1	5.9	4.7	4.1

SW846-1315 LEAF Monolith						
Our Reference		162119-E-206	162119-E-207	162119-E-208	162119-E-209	162119-E-210
Your Reference	UNITS	MW201 + 50% Lime WET T08	MW201 + 50% Lime WET T09	MW202 + 50% Lime WET T01	MW202 + 50% Lime WET T02	MW202 + 50% Lime WET T03
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass Used	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass of Sample before Elutriation Step	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Geometry and Dimensions 3D or 1D	mm D x mm H	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Volume Used	mL	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Exchange Time/Day	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Final EC	µS/cm	2,300	2,400	9,900	12,000	7,300
Elutriate Final pH	pH units	12.2	12.2	12.6	12.7	12.4
Total Cyanide in Eluates	mg/L	0.010	0.011	0.092	0.093	0.053
Fluoride, F in Eluates	mg/L	2.7	2.6	25	21	9.7

**Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered**

SW846-1315 LEAF Monolith						
Our Reference		162119-E-211	162119-E-212	162119-E-213	162119-E-214	162119-E-215
Your Reference	UNITS	MW202 + 50% Lime WET T04	MW202 + 50% Lime WET T05	MW202 + 50% Lime WET T06	MW202 + 50% Lime WET T07	MW202 + 50% Lime WET T08
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass Used	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass of Sample before Elutriation Step	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Geometry and Dimensions 3D or 1D	mm D x mm H	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Volume Used	mL	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Exchange Time/Day	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Final EC	µS/cm	11,000	5,000	4,100	2,900	1,400
Elutriate Final pH	pH units	12.6	12.3	12.2	12.2	12.0
Total Cyanide in Eluates	mg/L	0.11	0.060	0.025	0.015	0.006
Fluoride, F in Eluates	mg/L	17	11	4.9	4.5	3.1

SW846-1315 LEAF Monolith						
Our Reference		162119-E-216	162119-E-217	162119-E-218	162119-E-219	162119-E-220
Your Reference	UNITS	MW202 + 50% Lime WET T09	MW203 + 50% Lime WET T01	MW203 + 50% Lime WET T02	MW203 + 50% Lime WET T03	MW203 + 50% Lime WET T04
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass Used	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass of Sample before Elutriation Step	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Geometry and Dimensions 3D or 1D	mm D x mm H	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Volume Used	mL	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Exchange Time/Day	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Final EC	µS/cm	1,500	15,000	14,000	7,600	14,000
Elutriate Final pH	pH units	12.2	12.7	12.7	12.4	12.6
Total Cyanide in Eluates	mg/L	0.009	0.46	0.26	0.089	0.13
Fluoride, F in Eluates	mg/L	3.4	47	38	16	26

**Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered**

SW846-1315 LEAF Monolith						
Our Reference		162119-E-221	162119-E-222	162119-E-223	162119-E-224	162119-E-225
Your Reference	UNITS	MW203 + 50% Lime WET T05	MW203 + 50% Lime WET T06	MW203 + 50% Lime WET T07	MW203 + 50% Lime WET T08	MW203 + 50% Lime WET T09
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass Used	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass of Sample before Elutriation Step	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Geometry and Dimensions 3D or 1D	mm D x mm H	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Volume Used	mL	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Exchange Time/Day	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Final EC	µS/cm	7,300	3,600	1,900	1,000	1,000
Elutriate Final pH	pH units	12.5	12.1	12.0	11.8	11.9
Total Cyanide in Eluates	mg/L	0.047	0.017	0.007	<0.004	<0.004
Fluoride, F in Eluates	mg/L	11	7.0	5.2	3.5	3.9

SW846-1315 LEAF Monolith						
Our Reference		162119-E-226	162119-E-227	162119-E-228	162119-E-229	162119-E-230
Your Reference	UNITS	MW204 + 50% Lime WET T01	MW204 + 50% Lime WET T02	MW204 + 50% Lime WET T03	MW204 + 50% Lime WET T04	MW204 + 50% Lime WET T05
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass Used	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass of Sample before Elutriation Step	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Geometry and Dimensions 3D or 1D	mm D x mm H	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Volume Used	mL	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Exchange Time/Day	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Final EC	µS/cm	13,000	12,000	6,900	14,000	8,900
Elutriate Final pH	pH units	12.7	12.6	12.4	12.6	12.5
Total Cyanide in Eluates	mg/L	0.49	0.49	0.28	0.69	0.46
Fluoride, F in Eluates	mg/L	45	30	13	23	13

**Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered**

SW846-1315 LEAF Monolith						
Our Reference		162119-E-231	162119-E-232	162119-E-233	162119-E-234	162119-E-235
Your Reference	UNITS	MW204 + 50% Lime WET T06	MW204 + 50% Lime WET T07	MW204 + 50% Lime WET T08	MW204 + 50% Lime WET T09	MW205 + 50% Lime WET T01
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass Used	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass of Sample before Elutriation Step	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Geometry and Dimensions 3D or 1D	mm D x mm H	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Volume Used	mL	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Exchange Time/Day	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Final EC	µS/cm	4,800	2,300	1,000	1,000	15,000
Elutriate Final pH	pH units	12.3	12.0	11.8	11.9	12.7
Total Cyanide in Eluates	mg/L	0.16	0.050	<0.004	0.011	0.63
Fluoride, F in Eluates	mg/L	8.2	5.2	3.3	3.7	61

SW846-1315 LEAF Monolith						
Our Reference		162119-E-236	162119-E-237	162119-E-238	162119-E-239	162119-E-240
Your Reference	UNITS	MW205 + 50% Lime WET T02	MW205 + 50% Lime WET T03	MW205 + 50% Lime WET T04	MW205 + 50% Lime WET T05	MW205 + 50% Lime WET T06
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass Used	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass of Sample before Elutriation Step	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Geometry and Dimensions 3D or 1D	mm D x mm H	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Volume Used	mL	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Exchange Time/Day	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Final EC	µS/cm	14,000	8,500	13,000	5,100	2,100
Elutriate Final pH	pH units	12.7	12.5	12.6	12.3	11.9
Total Cyanide in Eluates	mg/L	0.35	0.14	0.28	0.090	0.024
Fluoride, F in Eluates	mg/L	46	20	27	12	5.8

**Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered**

SW846-1315 LEAF Monolith						
Our Reference		162119-E-241	162119-E-242	162119-E-243	162119-E-244	162119-E-245
Your Reference	UNITS	MW205 + 50% Lime WET T07	MW205 + 50% Lime WET T08	MW205 + 50% Lime WET T09	MW206 + 50% Lime WET T01	MW206 + 50% Lime WET T02
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass Used	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass of Sample before Elutriation Step	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Geometry and Dimensions 3D or 1D	mm D x mm H	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Volume Used	mL	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Exchange Time/Day	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Final EC	µS/cm	1,200	840	740	8,300	8,900
Elutriate Final pH	pH units	11.8	11.8	11.7	12.6	12.6
Total Cyanide in Eluates	mg/L	0.015	0.008	0.007	0.13	0.060
Fluoride, F in Eluates	mg/L	4.9	4.8	3.8	24	19

SW846-1315 LEAF Monolith						
Our Reference		162119-E-246	162119-E-247	162119-E-248	162119-E-249	162119-E-250
Your Reference	UNITS	MW206 + 50% Lime WET T03	MW206 + 50% Lime WET T04	MW206 + 50% Lime WET T05	MW206 + 50% Lime WET T06	MW206 + 50% Lime WET T07
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass Used	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass of Sample before Elutriation Step	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Geometry and Dimensions 3D or 1D	mm D x mm H	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Volume Used	mL	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Exchange Time/Day	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Final EC	µS/cm	5,000	9,900	6,200	3,500	1,300
Elutriate Final pH	pH units	12.3	12.6	12.4	12.2	11.8
Total Cyanide in Eluates	mg/L	0.025	0.057	0.031	0.018	0.007
Fluoride, F in Eluates	mg/L	9.3	16	9.4	5.0	4.1

**Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered**

SW846-1315 LEAF Monolith						
Our Reference		162119-E-251	162119-E-252	162119-E-253	162119-E-254	162119-E-255
Your Reference	UNITS	MW206 + 50% Lime WET T08	MW206 + 50% Lime WET T09	MW201 + 30% Cement WET T01	MW201 + 30% Cement WET T02	MW201 + 30% Cement WET
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass Used	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass of Sample before Elutriation Step	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Geometry and Dimensions 3D or 1D	mm D x mm H	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Volume Used	mL	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Exchange Time/Day	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Final EC	µS/cm	1,000	1,100	5,000	4,600	3,200
Elutriate Final pH	pH units	11.8	11.9	12.2	12.2	12.0
Total Cyanide in Eluates	mg/L	0.004	0.004	1.6	1.7	1.1
Fluoride, F in Eluates	mg/L	3.5	2.9	120	110	77

SW846-1315 LEAF Monolith						
Our Reference		162119-E-256	162119-E-257	162119-E-258	162119-E-259	162119-E-260
Your Reference	UNITS	MW201 + 30% Cement WET T04	MW201 + 30% Cement WET T05	MW201 + 30% Cement WET T06	MW201 + 30% Cement WET T07	MW201 + 30% Cement WET
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass Used	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass of Sample before Elutriation Step	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Geometry and Dimensions 3D or 1D	mm D x mm H	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Volume Used	mL	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Exchange Time/Day	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Final EC	µS/cm	5,800	5,000	3,100	2,300	880
Elutriate Final pH	pH units	12.3	12.3	12.0	11.9	11.7
Total Cyanide in Eluates	mg/L	2.5	1.7	0.89	0.24	0.028
Fluoride, F in Eluates	mg/L	130	74	37	31	12

**Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered**

SW846-1315 LEAF Monolith						
Our Reference		162119-E-261	162119-E-262	162119-E-263	162119-E-264	162119-E-265
Your Reference	UNITS	MW201 + 30% Cement WET T09	MW202 + 30% Cement WET T01	MW202 + 30% Cement WET T02	MW202 + 30% Cement WET T03	MW202 + 30% Cement WET
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass Used	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass of Sample before Elutriation Step	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Geometry and Dimensions 3D or 1D	mm D x mm H	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Volume Used	mL	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Exchange Time/Day	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Final EC	µS/cm	620	3,200	3,600	2,900	5,700
Elutriate Final pH	pH units	11.2	11.6	11.7	11.7	12.0
Total Cyanide in Eluates	mg/L	0.030	1.4	1.5	1.0	2.5
Fluoride, F in Eluates	mg/L	13	120	120	110	300

SW846-1315 LEAF Monolith						
Our Reference		162119-E-266	162119-E-267	162119-E-268	162119-E-269	162119-E-270
Your Reference	UNITS	MW202 + 30% Cement WET T05	MW202 + 30% Cement WET T06	MW202 + 30% Cement WET T07	MW202 + 30% Cement WET T08	MW202 + 30% Cement WET
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass Used	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass of Sample before Elutriation Step	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Geometry and Dimensions 3D or 1D	mm D x mm H	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Volume Used	mL	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Exchange Time/Day	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Final EC	µS/cm	5,700	4,700	3,000	1,300	960
Elutriate Final pH	pH units	12.1	12.1	12.0	11.8	11.2
Total Cyanide in Eluates	mg/L	1.7	1.0	0.32	0.061	0.049
Fluoride, F in Eluates	mg/L	220	160	88	26	37



**Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered**

SW846-1315 LEAF Monolith						
Our Reference		162119-E-271	162119-E-272	162119-E-273	162119-E-274	162119-E-275
Your Reference	UNITS	MW203+ 30% Cement WET T01	MW203+ 30% Cement WET T02	MW203+ 30% Cement WET T03	MW203+ 30% Cement WET T04	MW203+ 30% Cement WET
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass Used	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass of Sample before Elutriation Step	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Geometry and Dimensions 3D or 1D	mm D x mm H	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Volume Used	mL	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Exchange Time/Day	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Final EC	µS/cm	5,000	4,000	3,100	5,000	5,300
Elutriate Final pH	pH units	11.8	11.7	11.6	11.8	12.0
Total Cyanide in Eluates	mg/L	6.4	4.7	3.0	4.9	4.0
Fluoride, F in Eluates	mg/L	160	170	150	270	340

SW846-1315 LEAF Monolith						
Our Reference		162119-E-276	162119-E-277	162119-E-278	162119-E-279	162119-E-280
Your Reference	UNITS	MW203+ 30% Cement WET T06	MW203+ 30% Cement WET T07	MW203+ 30% Cement WET T08	MW203+ 30% Cement WET T09	MW204 + 30% Cement WET T01
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass Used	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass of Sample before Elutriation Step	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Geometry and Dimensions 3D or 1D	mm D x mm H	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Volume Used	mL	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Exchange Time/Day	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Final EC	µS/cm	4,300	2,200	1,400	1,500	4,900
Elutriate Final pH	pH units	11.9	10.7	11.7	11.8	11.7
Total Cyanide in Eluates	mg/L	1.8	0.48	0.092	0.080	4.2
Fluoride, F in Eluates	mg/L	270	150	56	55	140

**Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered**

SW846-1315 LEAF Monolith						
Our Reference		162119-E-281	162119-E-282	162119-E-283	162119-E-284	162119-E-285
Your Reference	UNITS	MW204 + 30% Cement WET T02	MW204 + 30% Cement WET T03	MW204 + 30% Cement WET T04	MW204 + 30% Cement WET T05	MW204 + 30% Cement WET
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass Used	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass of Sample before Elutriation Step	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Geometry and Dimensions 3D or 1D	mm D x mm H	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Volume Used	mL	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Exchange Time/Day	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Final EC	µS/cm	4,400	3,400	5,600	6,200	4,900
Elutriate Final pH	pH units	11.8	11.7	12.0	12.2	12.1
Total Cyanide in Eluates	mg/L	3.2	2.0	3.3	2.4	1.3
Fluoride, F in Eluates	mg/L	130	120	210	220	150

SW846-1315 LEAF Monolith						
Our Reference		162119-E-286	162119-E-287	162119-E-288	162119-E-298	162119-E-299
Your Reference	UNITS	MW204 + 30% Cement WET T07	MW204 + 30% Cement WET T08	MW204 + 30% Cement WET T09	MW206 + 30% Cement WET T01	MW206 + 30% Cement WET
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass Used	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass of Sample before Elutriation Step	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Geometry and Dimensions 3D or 1D	mm D x mm H	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Volume Used	mL	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Exchange Time/Day	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Final EC	µS/cm	3,400	1,500	1,000	3,700	3,500
Elutriate Final pH	pH units	12.0	11.8	10.6	11.7	11.8
Total Cyanide in Eluates	mg/L	0.42	0.10	0.061	4.4	4.1
Fluoride, F in Eluates	mg/L	86	28	42	110	100

**Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered**

SW846-1315 LEAF Monolith						
Our Reference		162119-E-300	162119-E-301	162119-E-302	162119-E-303	162119-E-304
Your Reference	UNITS	MW206 + 30% Cement WET T03	MW206 + 30% Cement WET T04	MW206 + 30% Cement WET T05	MW206 + 30% Cement WET T06	MW206 + 30% Cement WET
Date Sampled		10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date prepared	-	22/03/2017	22/03/2017	22/03/2017	22/03/2017	22/03/2017
Material Description	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass Used	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Mass of Sample before Elutriation Step	g	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Geometry and Dimensions 3D or 1D	mm D x mm H	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Moisture	%(w/w)	--	--	--	--	--
Elutriate Liquid Type	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Volume Used	mL	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Exchange Time/Day	--	See 162119-D	See 162119-D	See 162119-D	See 162119-D	See 162119-D
Elutriate Final EC	µS/cm	2,800	5,300	6,200	4,500	2,600
Elutriate Final pH	pH units	11.8	12.1	12.2	12.1	11.9
Total Cyanide in Eluates	mg/L	2.6	5.7	4.8	1.8	0.45
Fluoride, F in Eluates	mg/L	99	360	160	94	50

SW846-1315 LEAF Monolith			
Our Reference		162119-E-305	162119-E-306
Your Reference	UNITS	MW206 + 30% Cement WET T08	MW206 + 30% Cement WET
Date Sampled		10/02/2017	10/02/2017
Type of sample		Monolith LEAF Eluate Unfilt	Monolith LEAF Eluate Unfilt
Date prepared	-	22/03/2017	22/03/2017
Material Description	--	See 162119-D	See 162119-D
Mass Used	g	See 162119-D	See 162119-D
Mass of Sample before Elutriation Step	g	See 162119-D	See 162119-D
Geometry and Dimensions 3D or 1D	mm D x mm H	See 162119-D	See 162119-D
Moisture	%(w/w)	--	--
Elutriate Liquid Type	--	See 162119-D	See 162119-D
Elutriate Volume Used	mL	See 162119-D	See 162119-D
Elutriate Exchange Time/Day	--	See 162119-D	See 162119-D
Elutriate Final EC	µS/cm	1,200	1,300
Elutriate Final pH	pH units	11.8	11.8
Total Cyanide in Eluates	mg/L	0.092	0.079
Fluoride, F in Eluates	mg/L	19	23

## Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered

Method ID	Methodology Summary
<b>Inorg-014</b>	Cyanide - free, total, weak acid dissociable by segmented flow analyser (in line dialysis with colourimetric finish). Solids are extracted in a caustic media prior to analysis.
<b>Inorg-026</b>	Fluoride determined by ion selective electrode (ISE) in accordance with APHA latest edition, 4500-F-C.
<b>INORG-125</b>	Leaching Environment Assessment Framework (LEAF) methods of leaching using USEPA methods SW846 1313, 1314, 1315 or 1316.
<b>Org-012</b>	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS. Benzo(a)pyrene TEQ as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater - 2013.

**Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered**

QUALITY CONTROL: PAHs in Water					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	162119-E-191
Date extracted	-			30/05/2017	182	05/04/2017	05/04/2017		26/05/2017	05/04/2017
Date analysed	-			31/05/2017	182	06/04/2017	06/04/2017		29/05/2017	06/04/2017
Naphthalene	µg/L	1	Org-012	<1	182	<1	<1	0	63	64
Acenaphthylene	µg/L	1	Org-012	<1	182	<1	<1	0	[NT]	[NT]
Acenaphthene	µg/L	1	Org-012	<1	182	<1	<1	0	[NT]	[NT]
Fluorene	µg/L	1	Org-012	<1	182	<1	<1	0	65	67
Phenanthrene	µg/L	1	Org-012	<1	182	<1	<1	0	74	75
Anthracene	µg/L	1	Org-012	<1	182	<1	<1	0	[NT]	[NT]
Fluoranthene	µg/L	1	Org-012	<1	182	<1	<1	0	71	76
Pyrene	µg/L	1	Org-012	<1	182	<1	<1	0	70	80
Benzo(a)anthracene	µg/L	1	Org-012	<1	182	<1	<1	0	[NT]	[NT]
Chrysene	µg/L	1	Org-012	<1	182	<1	<1	0	82	83
Benzo(b,j+k)fluoranthene	µg/L	2	Org-012	<2	182	<2	<2	0	[NT]	[NT]
Benzo(a)pyrene	µg/L	1	Org-012	<1	182	<1	<1	0	94	100
Indeno(1,2,3-c,d)pyrene	µg/L	1	Org-012	<1	182	<1	<1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	µg/L	1	Org-012	<1	182	<1	<1	0	[NT]	[NT]
Benzo(g,h,i)perylene	µg/L	1	Org-012	<1	182	<1	<1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-012	110	182	107	91	16	71	86

QUALITY CONTROL: PAHs in Water					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W2	162119-E-75
Date extracted	-			[NT]	272	05/04/2017	05/04/2017		30/05/2017	05/04/2017
Date analysed	-			[NT]	272	06/04/2017	06/04/2017		31/05/2017	06/04/2017
Naphthalene	µg/L	1	Org-012	[NT]	272	<1	<1	0	80	61
Acenaphthylene	µg/L	1	Org-012	[NT]	272	<1	<1	0	[NT]	[NT]
Acenaphthene	µg/L	1	Org-012	[NT]	272	<1	<1	0	[NT]	[NT]
Fluorene	µg/L	1	Org-012	[NT]	272	<1	<1	0	73	77
Phenanthrene	µg/L	1	Org-012	[NT]	272	<1	<1	0	83	77
Anthracene	µg/L	1	Org-012	[NT]	272	<1	<1	0	[NT]	[NT]
Fluoranthene	µg/L	1	Org-012	[NT]	272	<1	<1	0	82	80
Pyrene	µg/L	1	Org-012	[NT]	272	<1	<1	0	81	84
Benzo(a)anthracene	µg/L	1	Org-012	[NT]	272	<1	<1	0	[NT]	[NT]
Chrysene	µg/L	1	Org-012	[NT]	272	<1	<1	0	96	84
Benzo(b,j+k)fluoranthene	µg/L	2	Org-012	[NT]	272	<2	<2	0	[NT]	[NT]
Benzo(a)pyrene	µg/L	1	Org-012	[NT]	272	<1	<1	0	78	100
Indeno(1,2,3-c,d)pyrene	µg/L	1	Org-012	[NT]	272	<1	<1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	µg/L	1	Org-012	[NT]	272	<1	<1	0	[NT]	[NT]
Benzo(g,h,i)perylene	µg/L	1	Org-012	[NT]	272	<1	<1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-012	[NT]	272	104	105	1	92	91

**Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered**

QUALITY CONTROL: PAHs in Water					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W3	162119-E-282
Date extracted	-			[NT]	66	05/04/2017	05/04/2017		12/05/2017	05/04/2017
Date analysed	-			[NT]	66	06/04/2017	06/04/2017		15/05/2017	07/04/2017
Naphthalene	µg/L	1	Org-012	[NT]	66	<1	<1	0	61	74
Acenaphthylene	µg/L	1	Org-012	[NT]	66	<1	<1	0	[NT]	[NT]
Acenaphthene	µg/L	1	Org-012	[NT]	66	<1	<1	0	[NT]	[NT]
Fluorene	µg/L	1	Org-012	[NT]	66	<1	<1	0	82	73
Phenanthrene	µg/L	1	Org-012	[NT]	66	<1	<1	0	85	79
Anthracene	µg/L	1	Org-012	[NT]	66	<1	<1	0	[NT]	[NT]
Fluoranthene	µg/L	1	Org-012	[NT]	66	<1	<1	0	75	82
Pyrene	µg/L	1	Org-012	[NT]	66	<1	<1	0	74	86
Benzo(a)anthracene	µg/L	1	Org-012	[NT]	66	<1	<1	0	[NT]	[NT]
Chrysene	µg/L	1	Org-012	[NT]	66	<1	<1	0	63	86
Benzo(b,j+k)fluoranthene	µg/L	2	Org-012	[NT]	66	<2	<2	0	[NT]	[NT]
Benzo(a)pyrene	µg/L	1	Org-012	[NT]	66	<1	<1	0	64	100
Indeno(1,2,3-c,d)pyrene	µg/L	1	Org-012	[NT]	66	<1	<1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	µg/L	1	Org-012	[NT]	66	<1	<1	0	[NT]	[NT]
Benzo(g,h,i)perylene	µg/L	1	Org-012	[NT]	66	<1	<1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-012	[NT]	66	110	103	7	83	96

QUALITY CONTROL: PAHs in Water					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W4	162119-E-193
Date extracted	-			[NT]	156	05/04/2017	05/04/2017		12/05/2017	07/04/2017
Date analysed	-			[NT]	156	06/04/2017	06/04/2017		15/05/2017	07/04/2017
Naphthalene	µg/L	1	Org-012	[NT]	156	<1	<1	0	85	87
Acenaphthylene	µg/L	1	Org-012	[NT]	156	<1	<1	0	[NT]	[NT]
Acenaphthene	µg/L	1	Org-012	[NT]	156	<1	<1	0	[NT]	[NT]
Fluorene	µg/L	1	Org-012	[NT]	156	<1	<1	0	82	95
Phenanthrene	µg/L	1	Org-012	[NT]	156	<1	<1	0	99	100
Anthracene	µg/L	1	Org-012	[NT]	156	<1	<1	0	[NT]	[NT]
Fluoranthene	µg/L	1	Org-012	[NT]	156	1	2	67	86	92
Pyrene	µg/L	1	Org-012	[NT]	156	1	2	67	85	94
Benzo(a)anthracene	µg/L	1	Org-012	[NT]	156	<1	<1	0	[NT]	[NT]
Chrysene	µg/L	1	Org-012	[NT]	156	<1	<1	0	73	93
Benzo(b,j+k)fluoranthene	µg/L	2	Org-012	[NT]	156	<2	<2	0	[NT]	[NT]
Benzo(a)pyrene	µg/L	1	Org-012	[NT]	156	<1	<1	0	74	95
Indeno(1,2,3-c,d)pyrene	µg/L	1	Org-012	[NT]	156	<1	<1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	µg/L	1	Org-012	[NT]	156	<1	<1	0	[NT]	[NT]
Benzo(g,h,i)perylene	µg/L	1	Org-012	[NT]	156	<1	<1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-012	[NT]	156	100	121	19	83	60

**Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered**

QUALITY CONTROL: PAHs in Water					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W5	162119-E-14
Date extracted	-			[NT]	273	05/04/2017	05/04/2017		05/04/2017	11/04/2017
Date analysed	-			[NT]	273	07/04/2017	07/04/2017		07/04/2017	11/04/2017
Naphthalene	µg/L	1	Org-012	[NT]	273	<1	<1	0	68	97
Acenaphthylene	µg/L	1	Org-012	[NT]	273	<1	<1	0	[NT]	[NT]
Acenaphthene	µg/L	1	Org-012	[NT]	273	<1	<1	0	[NT]	[NT]
Fluorene	µg/L	1	Org-012	[NT]	273	<1	<1	0	78	92
Phenanthrene	µg/L	1	Org-012	[NT]	273	<1	<1	0	90	99
Anthracene	µg/L	1	Org-012	[NT]	273	<1	<1	0	[NT]	[NT]
Fluoranthene	µg/L	1	Org-012	[NT]	273	<1	<1	0	80	96
Pyrene	µg/L	1	Org-012	[NT]	273	<1	<1	0	78	99
Benzo(a)anthracene	µg/L	1	Org-012	[NT]	273	<1	<1	0	[NT]	[NT]
Chrysene	µg/L	1	Org-012	[NT]	273	<1	<1	0	71	73
Benzo(b,j+k)fluoranthene	µg/L	2	Org-012	[NT]	273	<2	<2	0	[NT]	[NT]
Benzo(a)pyrene	µg/L	1	Org-012	[NT]	273	<1	<1	0	73	82
Indeno(1,2,3-c,d)pyrene	µg/L	1	Org-012	[NT]	273	<1	<1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	µg/L	1	Org-012	[NT]	273	<1	<1	0	[NT]	[NT]
Benzo(g,h,i)perylene	µg/L	1	Org-012	[NT]	273	<1	<1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-012	[NT]	273	98	98	0	88	86

QUALITY CONTROL: PAHs in Water					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W6	162119-E-203
Date extracted	-			[NT]	94	07/04/2017	07/04/2017		05/04/2017	11/04/2017
Date analysed	-			[NT]	94	07/04/2017	07/04/2017		07/04/2017	11/04/2017
Naphthalene	µg/L	1	Org-012	[NT]	94	<1	<1	0	70	94
Acenaphthylene	µg/L	1	Org-012	[NT]	94	<1	<1	0	[NT]	[NT]
Acenaphthene	µg/L	1	Org-012	[NT]	94	<1	<1	0	[NT]	[NT]
Fluorene	µg/L	1	Org-012	[NT]	94	<1	<1	0	75	130
Phenanthrene	µg/L	1	Org-012	[NT]	94	<1	<1	0	71	130
Anthracene	µg/L	1	Org-012	[NT]	94	<1	<1	0	[NT]	[NT]
Fluoranthene	µg/L	1	Org-012	[NT]	94	<1	<1	0	81	120
Pyrene	µg/L	1	Org-012	[NT]	94	<1	<1	0	79	120
Benzo(a)anthracene	µg/L	1	Org-012	[NT]	94	<1	<1	0	[NT]	[NT]
Chrysene	µg/L	1	Org-012	[NT]	94	<1	<1	0	72	110
Benzo(b,j+k)fluoranthene	µg/L	2	Org-012	[NT]	94	<2	<2	0	[NT]	[NT]
Benzo(a)pyrene	µg/L	1	Org-012	[NT]	94	<1	<1	0	74	110
Indeno(1,2,3-c,d)pyrene	µg/L	1	Org-012	[NT]	94	<1	<1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	µg/L	1	Org-012	[NT]	94	<1	<1	0	[NT]	[NT]
Benzo(g,h,i)perylene	µg/L	1	Org-012	[NT]	94	<1	<1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-012	[NT]	94	85	86	1	80	94

**Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered**

QUALITY CONTROL: PAHs in Water					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W7	162119-E-15
Date extracted	-			[NT]	184	07/04/2017	07/04/2017		05/04/2017	19/04/2017
Date analysed	-			[NT]	184	07/04/2017	07/04/2017		07/04/2017	19/04/2017
Naphthalene	µg/L	1	Org-012	[NT]	184	<1	<1	0	94	91
Acenaphthylene	µg/L	1	Org-012	[NT]	184	<1	<1	0	[NT]	[NT]
Acenaphthene	µg/L	1	Org-012	[NT]	184	<1	<1	0	[NT]	[NT]
Fluorene	µg/L	1	Org-012	[NT]	184	<1	<1	0	100	90
Phenanthrene	µg/L	1	Org-012	[NT]	184	<1	<1	0	110	96
Anthracene	µg/L	1	Org-012	[NT]	184	<1	<1	0	[NT]	[NT]
Fluoranthene	µg/L	1	Org-012	[NT]	184	<1	<1	0	110	92
Pyrene	µg/L	1	Org-012	[NT]	184	<1	<1	0	100	94
Benzo(a)anthracene	µg/L	1	Org-012	[NT]	184	<1	<1	0	[NT]	[NT]
Chrysene	µg/L	1	Org-012	[NT]	184	<1	<1	0	80	79
Benzo(b,j+k)fluoranthene	µg/L	2	Org-012	[NT]	184	<2	<2	0	[NT]	[NT]
Benzo(a)pyrene	µg/L	1	Org-012	[NT]	184	<1	<1	0	80	79
Indeno(1,2,3-c,d)pyrene	µg/L	1	Org-012	[NT]	184	<1	<1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	µg/L	1	Org-012	[NT]	184	<1	<1	0	[NT]	[NT]
Benzo(g,h,i)perylene	µg/L	1	Org-012	[NT]	184	<1	<1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-012	[NT]	184	77	73	5	70	72

QUALITY CONTROL: PAHs in Water					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	162119-E-195
Date extracted	-			[NT]	5	11/04/2017	11/04/2017		[NT]	20/04/2017
Date analysed	-			[NT]	5	11/04/2017	11/04/2017		[NT]	20/04/2017
Naphthalene	µg/L	1	Org-012	[NT]	5	<1	<1	0	[NT]	70
Acenaphthylene	µg/L	1	Org-012	[NT]	5	<1	<1	0	[NT]	[NT]
Acenaphthene	µg/L	1	Org-012	[NT]	5	<1	<1	0	[NT]	[NT]
Fluorene	µg/L	1	Org-012	[NT]	5	<1	<1	0	[NT]	66
Phenanthrene	µg/L	1	Org-012	[NT]	5	<1	<1	0	[NT]	78
Anthracene	µg/L	1	Org-012	[NT]	5	<1	<1	0	[NT]	[NT]
Fluoranthene	µg/L	1	Org-012	[NT]	5	<1	<1	0	[NT]	78
Pyrene	µg/L	1	Org-012	[NT]	5	<1	<1	0	[NT]	79
Benzo(a)anthracene	µg/L	1	Org-012	[NT]	5	<1	<1	0	[NT]	[NT]
Chrysene	µg/L	1	Org-012	[NT]	5	<1	<1	0	[NT]	60
Benzo(b,j+k)fluoranthene	µg/L	2	Org-012	[NT]	5	<2	<2	0	[NT]	[NT]
Benzo(a)pyrene	µg/L	1	Org-012	[NT]	5	<1	<1	0	[NT]	72
Indeno(1,2,3-c,d)pyrene	µg/L	1	Org-012	[NT]	5	<1	<1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	µg/L	1	Org-012	[NT]	5	<1	<1	0	[NT]	[NT]
Benzo(g,h,i)perylene	µg/L	1	Org-012	[NT]	5	<1	<1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-012	[NT]	5	88	80	10	[NT]	73



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QUALITY CONTROL: PAHs in Water					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	162119-E-196
Date extracted	-			[NT]	95	11/04/2017	11/04/2017		[NT]	20/04/2017
Date analysed	-			[NT]	95	11/04/2017	11/04/2017		[NT]	20/04/2017
Naphthalene	µg/L	1	Org-012	[NT]	95	<1	<1	0	[NT]	90
Acenaphthylene	µg/L	1	Org-012	[NT]	95	<1	<1	0	[NT]	[NT]
Acenaphthene	µg/L	1	Org-012	[NT]	95	<1	<1	0	[NT]	[NT]
Fluorene	µg/L	1	Org-012	[NT]	95	<1	<1	0	[NT]	69
Phenanthrene	µg/L	1	Org-012	[NT]	95	<1	<1	0	[NT]	100
Anthracene	µg/L	1	Org-012	[NT]	95	<1	<1	0	[NT]	[NT]
Fluoranthene	µg/L	1	Org-012	[NT]	95	<1	<1	0	[NT]	99
Pyrene	µg/L	1	Org-012	[NT]	95	<1	<1	0	[NT]	96
Benzo(a)anthracene	µg/L	1	Org-012	[NT]	95	<1	<1	0	[NT]	[NT]
Chrysene	µg/L	1	Org-012	[NT]	95	<1	<1	0	[NT]	90
Benzo(b,j+k)fluoranthene	µg/L	2	Org-012	[NT]	95	<2	<2	0	[NT]	[NT]
Benzo(a)pyrene	µg/L	1	Org-012	[NT]	95	<1	<1	0	[NT]	96
Indeno(1,2,3-c,d)pyrene	µg/L	1	Org-012	[NT]	95	<1	<1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	µg/L	1	Org-012	[NT]	95	<1	<1	0	[NT]	[NT]
Benzo(g,h,i)perylene	µg/L	1	Org-012	[NT]	95	<1	<1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-012	[NT]	95	73	79	8	[NT]	92

QUALITY CONTROL: PAHs in Water					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	162119-E-17
Date extracted	-			[NT]	194	11/04/2017	11/04/2017		[NT]	20/04/2017
Date analysed	-			[NT]	194	11/04/2017	11/04/2017		[NT]	20/04/2017
Naphthalene	µg/L	1	Org-012	[NT]	194	<1	<1	0	[NT]	63
Acenaphthylene	µg/L	1	Org-012	[NT]	194	<1	<1	0	[NT]	[NT]
Acenaphthene	µg/L	1	Org-012	[NT]	194	<1	<1	0	[NT]	[NT]
Fluorene	µg/L	1	Org-012	[NT]	194	<1	<1	0	[NT]	85
Phenanthrene	µg/L	1	Org-012	[NT]	194	<1	<1	0	[NT]	110
Anthracene	µg/L	1	Org-012	[NT]	194	<1	<1	0	[NT]	[NT]
Fluoranthene	µg/L	1	Org-012	[NT]	194	<1	<1	0	[NT]	88
Pyrene	µg/L	1	Org-012	[NT]	194	<1	<1	0	[NT]	100
Benzo(a)anthracene	µg/L	1	Org-012	[NT]	194	<1	<1	0	[NT]	[NT]
Chrysene	µg/L	1	Org-012	[NT]	194	<1	<1	0	[NT]	81
Benzo(b,j+k)fluoranthene	µg/L	2	Org-012	[NT]	194	<2	<2	0	[NT]	[NT]
Benzo(a)pyrene	µg/L	1	Org-012	[NT]	194	<1	<1	0	[NT]	83
Indeno(1,2,3-c,d)pyrene	µg/L	1	Org-012	[NT]	194	<1	<1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	µg/L	1	Org-012	[NT]	194	<1	<1	0	[NT]	[NT]
Benzo(g,h,i)perylene	µg/L	1	Org-012	[NT]	194	<1	<1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-012	[NT]	194	78	68	14	[NT]	104

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QUALITY CONTROL: PAHs in Water					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	162119-E-197
Date extracted	-			[NT]	6	19/04/2017	19/04/2017		[NT]	11/05/2017
Date analysed	-			[NT]	6	19/04/2017	19/04/2017		[NT]	11/05/2017
Naphthalene	µg/L	1	Org-012	[NT]	6	<1	1	0	[NT]	75
Acenaphthylene	µg/L	1	Org-012	[NT]	6	<1	<1	0	[NT]	[NT]
Acenaphthene	µg/L	1	Org-012	[NT]	6	<1	<1	0	[NT]	[NT]
Fluorene	µg/L	1	Org-012	[NT]	6	<1	<1	0	[NT]	94
Phenanthrene	µg/L	1	Org-012	[NT]	6	<1	<1	0	[NT]	120
Anthracene	µg/L	1	Org-012	[NT]	6	<1	<1	0	[NT]	[NT]
Fluoranthene	µg/L	1	Org-012	[NT]	6	<1	<1	0	[NT]	95
Pyrene	µg/L	1	Org-012	[NT]	6	<1	<1	0	[NT]	100
Benzo(a)anthracene	µg/L	1	Org-012	[NT]	6	<1	<1	0	[NT]	[NT]
Chrysene	µg/L	1	Org-012	[NT]	6	<1	<1	0	[NT]	94
Benzo(b,j+k)fluoranthene	µg/L	2	Org-012	[NT]	6	<2	<2	0	[NT]	[NT]
Benzo(a)pyrene	µg/L	1	Org-012	[NT]	6	<1	<1	0	[NT]	93
Indeno(1,2,3-c,d)pyrene	µg/L	1	Org-012	[NT]	6	<1	<1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	µg/L	1	Org-012	[NT]	6	<1	<1	0	[NT]	[NT]
Benzo(g,h,i)perylene	µg/L	1	Org-012	[NT]	6	<1	<1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-012	[NT]	6	79	78	1	[NT]	100

QUALITY CONTROL: PAHs in Water					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	96	19/04/2017	19/04/2017		[NT]	[NT]
Date analysed	-			[NT]	96	19/04/2017	19/04/2017		[NT]	[NT]
Naphthalene	µg/L	1	Org-012	[NT]	96	<1	<1	0	[NT]	[NT]
Acenaphthylene	µg/L	1	Org-012	[NT]	96	<1	<1	0	[NT]	[NT]
Acenaphthene	µg/L	1	Org-012	[NT]	96	<1	<1	0	[NT]	[NT]
Fluorene	µg/L	1	Org-012	[NT]	96	<1	<1	0	[NT]	[NT]
Phenanthrene	µg/L	1	Org-012	[NT]	96	<1	<1	0	[NT]	[NT]
Anthracene	µg/L	1	Org-012	[NT]	96	<1	<1	0	[NT]	[NT]
Fluoranthene	µg/L	1	Org-012	[NT]	96	<1	<1	0	[NT]	[NT]
Pyrene	µg/L	1	Org-012	[NT]	96	<1	<1	0	[NT]	[NT]
Benzo(a)anthracene	µg/L	1	Org-012	[NT]	96	<1	<1	0	[NT]	[NT]
Chrysene	µg/L	1	Org-012	[NT]	96	<1	<1	0	[NT]	[NT]
Benzo(b,j+k)fluoranthene	µg/L	2	Org-012	[NT]	96	<2	<2	0	[NT]	[NT]
Benzo(a)pyrene	µg/L	1	Org-012	[NT]	96	<1	<1	0	[NT]	[NT]
Indeno(1,2,3-c,d)pyrene	µg/L	1	Org-012	[NT]	96	<1	<1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	µg/L	1	Org-012	[NT]	96	<1	<1	0	[NT]	[NT]
Benzo(g,h,i)perylene	µg/L	1	Org-012	[NT]	96	<1	<1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-012	[NT]	96	93	92	1	[NT]	[NT]

**Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered**

QUALITY CONTROL: PAHs in Water					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	186	20/04/2017	20/04/2017		[NT]	[NT]
Date analysed	-			[NT]	186	20/04/2017	20/04/2017		[NT]	[NT]
Naphthalene	µg/L	1	Org-012	[NT]	186	<1	<1	0	[NT]	[NT]
Acenaphthylene	µg/L	1	Org-012	[NT]	186	<1	<1	0	[NT]	[NT]
Acenaphthene	µg/L	1	Org-012	[NT]	186	<1	<1	0	[NT]	[NT]
Fluorene	µg/L	1	Org-012	[NT]	186	<1	<1	0	[NT]	[NT]
Phenanthrene	µg/L	1	Org-012	[NT]	186	<1	<1	0	[NT]	[NT]
Anthracene	µg/L	1	Org-012	[NT]	186	<1	<1	0	[NT]	[NT]
Fluoranthene	µg/L	1	Org-012	[NT]	186	<1	<1	0	[NT]	[NT]
Pyrene	µg/L	1	Org-012	[NT]	186	<1	<1	0	[NT]	[NT]
Benzo(a)anthracene	µg/L	1	Org-012	[NT]	186	<1	<1	0	[NT]	[NT]
Chrysene	µg/L	1	Org-012	[NT]	186	<1	<1	0	[NT]	[NT]
Benzo(b,j+k)fluoranthene	µg/L	2	Org-012	[NT]	186	<2	<2	0	[NT]	[NT]
Benzo(a)pyrene	µg/L	1	Org-012	[NT]	186	<1	<1	0	[NT]	[NT]
Indeno(1,2,3-c,d)pyrene	µg/L	1	Org-012	[NT]	186	<1	<1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	µg/L	1	Org-012	[NT]	186	<1	<1	0	[NT]	[NT]
Benzo(g,h,i)perylene	µg/L	1	Org-012	[NT]	186	<1	<1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-012	[NT]	186	71	72	1	[NT]	[NT]

QUALITY CONTROL: PAHs in Water					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	276	21/04/2017	21/04/2017		[NT]	[NT]
Date analysed	-			[NT]	276	21/04/2017	21/04/2017		[NT]	[NT]
Naphthalene	µg/L	1	Org-012	[NT]	276	<1	<1	0	[NT]	[NT]
Acenaphthylene	µg/L	1	Org-012	[NT]	276	<1	<1	0	[NT]	[NT]
Acenaphthene	µg/L	1	Org-012	[NT]	276	<1	<1	0	[NT]	[NT]
Fluorene	µg/L	1	Org-012	[NT]	276	<1	<1	0	[NT]	[NT]
Phenanthrene	µg/L	1	Org-012	[NT]	276	<1	<1	0	[NT]	[NT]
Anthracene	µg/L	1	Org-012	[NT]	276	<1	<1	0	[NT]	[NT]
Fluoranthene	µg/L	1	Org-012	[NT]	276	<1	<1	0	[NT]	[NT]
Pyrene	µg/L	1	Org-012	[NT]	276	<1	<1	0	[NT]	[NT]
Benzo(a)anthracene	µg/L	1	Org-012	[NT]	276	<1	<1	0	[NT]	[NT]
Chrysene	µg/L	1	Org-012	[NT]	276	<1	<1	0	[NT]	[NT]
Benzo(b,j+k)fluoranthene	µg/L	2	Org-012	[NT]	276	<2	<2	0	[NT]	[NT]
Benzo(a)pyrene	µg/L	1	Org-012	[NT]	276	<1	<1	0	[NT]	[NT]
Indeno(1,2,3-c,d)pyrene	µg/L	1	Org-012	[NT]	276	<1	<1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	µg/L	1	Org-012	[NT]	276	<1	<1	0	[NT]	[NT]
Benzo(g,h,i)perylene	µg/L	1	Org-012	[NT]	276	<1	<1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-012	[NT]	276	124	121	2	[NT]	[NT]

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QUALITY CONTROL: PAHs in Water					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	99	26/05/2017	26/05/2017		[NT]	[NT]
Date analysed	-			[NT]	99	29/05/2017	29/05/2017		[NT]	[NT]
Naphthalene	µg/L	1	Org-012	[NT]	99	<1	<1	0	[NT]	[NT]
Acenaphthylene	µg/L	1	Org-012	[NT]	99	<1	<1	0	[NT]	[NT]
Acenaphthene	µg/L	1	Org-012	[NT]	99	<1	<1	0	[NT]	[NT]
Fluorene	µg/L	1	Org-012	[NT]	99	<1	<1	0	[NT]	[NT]
Phenanthrene	µg/L	1	Org-012	[NT]	99	<1	<1	0	[NT]	[NT]
Anthracene	µg/L	1	Org-012	[NT]	99	<1	<1	0	[NT]	[NT]
Fluoranthene	µg/L	1	Org-012	[NT]	99	<1	<1	0	[NT]	[NT]
Pyrene	µg/L	1	Org-012	[NT]	99	<1	<1	0	[NT]	[NT]
Benzo(a)anthracene	µg/L	1	Org-012	[NT]	99	<1	<1	0	[NT]	[NT]
Chrysene	µg/L	1	Org-012	[NT]	99	<1	<1	0	[NT]	[NT]
Benzo(b,j+k)fluoranthene	µg/L	2	Org-012	[NT]	99	<2	<2	0	[NT]	[NT]
Benzo(a)pyrene	µg/L	1	Org-012	[NT]	99	<1	<1	0	[NT]	[NT]
Indeno(1,2,3-c,d)pyrene	µg/L	1	Org-012	[NT]	99	<1	<1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	µg/L	1	Org-012	[NT]	99	<1	<1	0	[NT]	[NT]
Benzo(g,h,i)perylene	µg/L	1	Org-012	[NT]	99	<1	<1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-012	[NT]	99	92	95	3	[NT]	[NT]

QUALITY CONTROL: PAHs in Water					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	180	26/05/2017	30/05/2017		[NT]	[NT]
Date analysed	-			[NT]	180	29/05/2017	31/05/2017		[NT]	[NT]
Naphthalene	µg/L	1	Org-012	[NT]	180	<1	<1	0	[NT]	[NT]
Acenaphthylene	µg/L	1	Org-012	[NT]	180	<1	<1	0	[NT]	[NT]
Acenaphthene	µg/L	1	Org-012	[NT]	180	<1	<1	0	[NT]	[NT]
Fluorene	µg/L	1	Org-012	[NT]	180	<1	<1	0	[NT]	[NT]
Phenanthrene	µg/L	1	Org-012	[NT]	180	<1	<1	0	[NT]	[NT]
Anthracene	µg/L	1	Org-012	[NT]	180	<1	<1	0	[NT]	[NT]
Fluoranthene	µg/L	1	Org-012	[NT]	180	<1	<1	0	[NT]	[NT]
Pyrene	µg/L	1	Org-012	[NT]	180	<1	<1	0	[NT]	[NT]
Benzo(a)anthracene	µg/L	1	Org-012	[NT]	180	<1	<1	0	[NT]	[NT]
Chrysene	µg/L	1	Org-012	[NT]	180	<1	<1	0	[NT]	[NT]
Benzo(b,j+k)fluoranthene	µg/L	2	Org-012	[NT]	180	<2	<2	0	[NT]	[NT]
Benzo(a)pyrene	µg/L	1	Org-012	[NT]	180	<1	<1	0	[NT]	[NT]
Indeno(1,2,3-c,d)pyrene	µg/L	1	Org-012	[NT]	180	<1	<1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	µg/L	1	Org-012	[NT]	180	<1	<1	0	[NT]	[NT]
Benzo(g,h,i)perylene	µg/L	1	Org-012	[NT]	180	<1	<1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-012	[NT]	180	72	97	30	[NT]	[NT]

**Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered**

QUALITY CONTROL: PAHs in Water					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	270	26/05/2017	26/05/2017		[NT]	[NT]
Date analysed	-			[NT]	270	29/05/2017	29/05/2017		[NT]	[NT]
Naphthalene	µg/L	1	Org-012	[NT]	270	7	7	0	[NT]	[NT]
Acenaphthylene	µg/L	1	Org-012	[NT]	270	<1	<1	0	[NT]	[NT]
Acenaphthene	µg/L	1	Org-012	[NT]	270	3	3	0	[NT]	[NT]
Fluorene	µg/L	1	Org-012	[NT]	270	<1	<1	0	[NT]	[NT]
Phenanthrene	µg/L	1	Org-012	[NT]	270	4	3	29	[NT]	[NT]
Anthracene	µg/L	1	Org-012	[NT]	270	<1	<1	0	[NT]	[NT]
Fluoranthene	µg/L	1	Org-012	[NT]	270	2	1	67	[NT]	[NT]
Pyrene	µg/L	1	Org-012	[NT]	270	1	1	0	[NT]	[NT]
Benzo(a)anthracene	µg/L	1	Org-012	[NT]	270	<1	<1	0	[NT]	[NT]
Chrysene	µg/L	1	Org-012	[NT]	270	<1	<1	0	[NT]	[NT]
Benzo(b,j+k)fluoranthene	µg/L	2	Org-012	[NT]	270	<2	<2	0	[NT]	[NT]
Benzo(a)pyrene	µg/L	1	Org-012	[NT]	270	<1	<1	0	[NT]	[NT]
Indeno(1,2,3-c,d)pyrene	µg/L	1	Org-012	[NT]	270	<1	<1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	µg/L	1	Org-012	[NT]	270	<1	<1	0	[NT]	[NT]
Benzo(g,h,i)perylene	µg/L	1	Org-012	[NT]	270	<1	<1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-012	[NT]	270	109	99	10	[NT]	[NT]

**Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered**

QUALITY CONTROL: SW846-1315 LEAF Monolith					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	162119-E-10
Date prepared	-			22/03/2017	1	22/03/2017	22/03/2017		22/03/2017	22/03/2017
Total Cyanide in Eluates	mg/L	0.004	Inorg-014	<0.004	1	1.2	[NT]		99	110
Fluoride, F in Eluates	mg/L	0.1	Inorg-026	<0.1	1	66	66	0	100	100

QUALITY CONTROL: SW846-1315 LEAF Monolith					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W2	162119-E-11
Date prepared	-			[NT]	91	22/03/2017	22/03/2017		22/03/2017	22/03/2017
Total Cyanide in Eluates	mg/L	0.004	Inorg-014	[NT]	91	0.067	[NT]		110	[NT]
Fluoride, F in Eluates	mg/L	0.1	Inorg-026	[NT]	91	14	14	0	97	100

QUALITY CONTROL: SW846-1315 LEAF Monolith					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W3	162119-E-100
Date prepared	-			[NT]	92	22/03/2017	22/03/2017		22/03/2017	22/03/2017
Total Cyanide in Eluates	mg/L	0.004	Inorg-014	[NT]	92	0.054	[NT]		110	[NT]
Fluoride, F in Eluates	mg/L	0.1	Inorg-026	[NT]	92	8.1	8.1	0	100	100

QUALITY CONTROL: SW846-1315 LEAF Monolith					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W4	162119-E-101
Date prepared	-			[NT]	2	22/03/2017	22/03/2017		22/03/2017	22/03/2017
Total Cyanide in Eluates	mg/L	0.004	Inorg-014	[NT]	2	0.24	[NT]		110	[NT]
Fluoride, F in Eluates	mg/L	0.1	Inorg-026	[NT]	2	41	40	2	98	100

QUALITY CONTROL: SW846-1315 LEAF Monolith					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W5	162119-E-190
Date prepared	-			[NT]	181	22/03/2017	22/03/2017		22/03/2017	22/03/2017
Total Cyanide in Eluates	mg/L	0.004	Inorg-014	[NT]	181	0.90	[NT]		110	[NT]
Fluoride, F in Eluates	mg/L	0.1	Inorg-026	[NT]	181	120	120	0	97	100

QUALITY CONTROL: SW846-1315 LEAF Monolith					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W6	162119-E-191
Date prepared	-			[NT]	182	22/03/2017	22/03/2017		22/03/2017	22/03/2017
Total Cyanide in Eluates	mg/L	0.004	Inorg-014	[NT]	182	0.52	[NT]		120	[NT]
Fluoride, F in Eluates	mg/L	0.1	Inorg-026	[NT]	182	98	100	2	97	100

QUALITY CONTROL: SW846-1315 LEAF Monolith					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W7	162119-E-280
Date prepared	-			[NT]	271	22/03/2017	22/03/2017		22/03/2017	22/03/2017
Total Cyanide in Eluates	mg/L	0.004	Inorg-014	[NT]	271	6.4	[NT]		100	[NT]
Fluoride, F in Eluates	mg/L	0.1	Inorg-026	[NT]	271	160	160	0	100	98

QUALITY CONTROL: SW846-1315 LEAF Monolith					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W8	162119-E-281
Date prepared	-			[NT]	272	22/03/2017	22/03/2017		22/03/2017	22/03/2017
Total Cyanide in Eluates	mg/L	0.004	Inorg-014	[NT]	272	4.7	[NT]		100	[NT]
Fluoride, F in Eluates	mg/L	0.1	Inorg-026	[NT]	272	170	160	6	100	95

**Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered**

QUALITY CONTROL: SW846-1315 LEAF Monolith					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W9	162119-E-12
Date prepared	-			[NT]	273	22/03/2017	22/03/2017		22/03/2017	22/03/2017
Total Cyanide in Eluates	mg/L	0.004	Inorg-014	[NT]	273	3.0	[NT]		110	[NT]
Fluoride, F in Eluates	mg/L	0.1	Inorg-026	[NT]	273	150	150	0	100	100

QUALITY CONTROL: SW846-1315 LEAF Monolith					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W10	162119-E-13
Date prepared	-			[NT]	3	22/03/2017	22/03/2017		22/03/2017	22/03/2017
Total Cyanide in Eluates	mg/L	0.004	Inorg-014	[NT]	3	0.18	[NT]		[NT]	[NT]
Fluoride, F in Eluates	mg/L	0.1	Inorg-026	[NT]	3	30	30	0	99	100

QUALITY CONTROL: SW846-1315 LEAF Monolith					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W11	162119-E-102
Date prepared	-			[NT]	4	22/03/2017	22/03/2017		22/03/2017	22/03/2017
Total Cyanide in Eluates	mg/L	0.004	Inorg-014	[NT]	4	0.73	[NT]		[NT]	[NT]
Fluoride, F in Eluates	mg/L	0.1	Inorg-026	[NT]	4	50	49	2	93	97

QUALITY CONTROL: SW846-1315 LEAF Monolith					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W12	162119-E-103
Date prepared	-			[NT]	93	22/03/2017	22/03/2017		22/03/2017	22/03/2017
Total Cyanide in Eluates	mg/L	0.004	Inorg-014	[NT]	93	0.021	[NT]		[NT]	[NT]
Fluoride, F in Eluates	mg/L	0.1	Inorg-026	[NT]	93	3.7	3.7	0	100	99

QUALITY CONTROL: SW846-1315 LEAF Monolith					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W13	162119-E-192
Date prepared	-			[NT]	94	22/03/2017	22/03/2017		22/03/2017	22/03/2017
Total Cyanide in Eluates	mg/L	0.004	Inorg-014	[NT]	94	0.008	[NT]		[NT]	[NT]
Fluoride, F in Eluates	mg/L	0.1	Inorg-026	[NT]	94	4.2	3.9	7	100	100

QUALITY CONTROL: SW846-1315 LEAF Monolith					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W14	162119-E-193
Date prepared	-			[NT]	183	22/03/2017	22/03/2017		22/03/2017	22/03/2017
Total Cyanide in Eluates	mg/L	0.004	Inorg-014	[NT]	183	0.37	[NT]		[NT]	[NT]
Fluoride, F in Eluates	mg/L	0.1	Inorg-026	[NT]	183	72	73	1	100	110

QUALITY CONTROL: SW846-1315 LEAF Monolith					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W15	162119-E-283
Date prepared	-			[NT]	184	22/03/2017	22/03/2017		24/05/2017	22/03/2017
Total Cyanide in Eluates	mg/L	0.004	Inorg-014	[NT]	184	0.56	[NT]		[NT]	[NT]
Fluoride, F in Eluates	mg/L	0.1	Inorg-026	[NT]	184	110	110	0	[NT]	93

QUALITY CONTROL: SW846-1315 LEAF Monolith					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W16	162119-E-14
Date prepared	-			[NT]	274	22/03/2017	22/03/2017		22/03/2017	22/03/2017
Total Cyanide in Eluates	mg/L	0.004	Inorg-014	[NT]	274	4.9	[NT]		[NT]	[NT]
Fluoride, F in Eluates	mg/L	0.1	Inorg-026	[NT]	274	270	270	0	100	110

**Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered**

QUALITY CONTROL: SW846-1315 LEAF Monolith					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W17	162119-E-104
Date prepared	-			[NT]	5	22/03/2017	22/03/2017		22/03/2017	22/03/2017
Total Cyanide in Eluates	mg/L	0.004	Inorg-014	[NT]	5	0.76	[NT]		[NT]	[NT]
Fluoride, F in Eluates	mg/L	0.1	Inorg-026	[NT]	5	53	53	0	99	110

QUALITY CONTROL: SW846-1315 LEAF Monolith					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	162119-E-194
Date prepared	-			[NT]	95	22/03/2017	22/03/2017		22/03/2017	22/03/2017
Total Cyanide in Eluates	mg/L	0.004	Inorg-014	[NT]	95	<0.004	[NT]		[NT]	[NT]
Fluoride, F in Eluates	mg/L	0.1	Inorg-026	[NT]	95	3.2	3.2	0	[NT]	110

QUALITY CONTROL: SW846-1315 LEAF Monolith					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-2	162119-E-284
Date prepared	-			[NT]	185	22/03/2017	22/03/2017		23/03/2017	22/03/2017
Total Cyanide in Eluates	mg/L	0.004	Inorg-014	[NT]	185	0.69	[NT]		[NT]	[NT]
Fluoride, F in Eluates	mg/L	0.1	Inorg-026	[NT]	185	200	200	0	[NT]	100

QUALITY CONTROL: SW846-1315 LEAF Monolith					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	162119-E-15
Date prepared	-			[NT]	275	22/03/2017	22/03/2017		24/03/2017	22/03/2017
Total Cyanide in Eluates	mg/L	0.004	Inorg-014	[NT]	275	4.0	[NT]		[NT]	[NT]
Fluoride, F in Eluates	mg/L	0.1	Inorg-026	[NT]	275	340	340	0	[NT]	97

QUALITY CONTROL: SW846-1315 LEAF Monolith					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-4	162119-E-195
Date prepared	-			[NT]	6	22/03/2017	22/03/2017		29/03/2017	22/03/2017
Total Cyanide in Eluates	mg/L	0.004	Inorg-014	[NT]	6	0.94	0.92	2	[NT]	[NT]
Fluoride, F in Eluates	mg/L	0.1	Inorg-026	[NT]	6	54	54	0	[NT]	99

QUALITY CONTROL: SW846-1315 LEAF Monolith					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-5	162119-E-105
Date prepared	-			[NT]	96	22/03/2017	22/03/2017		05/04/2017	22/03/2017
Total Cyanide in Eluates	mg/L	0.004	Inorg-014	[NT]	96	<0.004	[NT]		[NT]	[NT]
Fluoride, F in Eluates	mg/L	0.1	Inorg-026	[NT]	96	3.2	3.2	0	[NT]	98

QUALITY CONTROL: SW846-1315 LEAF Monolith					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-6	162119-E-285
Date prepared	-			[NT]	186	22/03/2017	22/03/2017		19/04/2017	22/03/2017
Total Cyanide in Eluates	mg/L	0.004	Inorg-014	[NT]	186	0.66	[NT]		[NT]	[NT]
Fluoride, F in Eluates	mg/L	0.1	Inorg-026	[NT]	186	240	240	0	[NT]	96

QUALITY CONTROL: SW846-1315 LEAF Monolith					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-7	162119-E-196
Date prepared	-			[NT]	276	22/03/2017	22/03/2017		03/05/2017	22/03/2017
Total Cyanide in Eluates	mg/L	0.004	Inorg-014	[NT]	276	1.8	[NT]		[NT]	[NT]
Fluoride, F in Eluates	mg/L	0.1	Inorg-026	[NT]	276	270	270	0	[NT]	98



**Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered**

QUALITY CONTROL: SW846-1315 LEAF Monolith					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-8	162119-E-17
Date prepared	-			[NT]	7	22/03/2017	22/03/2017		10/05/2017	22/03/2017
Total Cyanide in Eluates	mg/L	0.004	Inorg-014	[NT]	7	0.73	0.73	0	[NT]	[NT]
Fluoride, F in Eluates	mg/L	0.1	Inorg-026	[NT]	7	53	54	2	[NT]	100

QUALITY CONTROL: SW846-1315 LEAF Monolith					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-9	162119-E-106
Date prepared	-			[NT]	97	22/03/2017	22/03/2017		24/05/2017	22/03/2017
Total Cyanide in Eluates	mg/L	0.004	Inorg-014	[NT]	97	<0.004	[NT]		[NT]	[NT]
Fluoride, F in Eluates	mg/L	0.1	Inorg-026	[NT]	97	2.0	2.0	0	[NT]	100

QUALITY CONTROL: SW846-1315 LEAF Monolith					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	162119-E-286
Date prepared	-			[NT]	188	22/03/2017	22/03/2017		[NT]	22/03/2017
Total Cyanide in Eluates	mg/L	0.004	Inorg-014	[NT]	188	0.19	[NT]		[NT]	[NT]
Fluoride, F in Eluates	mg/L	0.1	Inorg-026	[NT]	188	110	110	0	[NT]	100

QUALITY CONTROL: SW846-1315 LEAF Monolith					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	162119-E-107
Date prepared	-			[NT]	277	22/03/2017	22/03/2017		[NT]	22/03/2017
Total Cyanide in Eluates	mg/L	0.004	Inorg-014	[NT]	277	0.48	[NT]		[NT]	[NT]
Fluoride, F in Eluates	mg/L	0.1	Inorg-026	[NT]	277	150	140	7	[NT]	100

QUALITY CONTROL: SW846-1315 LEAF Monolith					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	162119-E-197
Date prepared	-			[NT]	187	22/03/2017	22/03/2017		[NT]	22/03/2017
Total Cyanide in Eluates	mg/L	0.004	Inorg-014	[NT]	187	0.55	[NT]		[NT]	[NT]
Fluoride, F in Eluates	mg/L	0.1	Inorg-026	[NT]	187	210	210	0	[NT]	100

QUALITY CONTROL: SW846-1315 LEAF Monolith					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	162119-E-287
Date prepared	-			[NT]	8	22/03/2017	22/03/2017		[NT]	22/03/2017
Total Cyanide in Eluates	mg/L	0.004	Inorg-014	[NT]	8	0.27	0.26	4	[NT]	[NT]
Fluoride, F in Eluates	mg/L	0.1	Inorg-026	[NT]	8	28	28	0	[NT]	100

QUALITY CONTROL: SW846-1315 LEAF Monolith					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	162119-E-55
Date prepared	-			[NT]	53	22/03/2017	22/03/2017		[NT]	22/03/2017
Total Cyanide in Eluates	mg/L	0.004	Inorg-014	[NT]	53	0.17	[NT]		[NT]	110
Fluoride, F in Eluates	mg/L	0.1	Inorg-026	[NT]	53	96	97	1	[NT]	[NT]

QUALITY CONTROL: SW846-1315 LEAF Monolith					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	162119-E-154
Date prepared	-			[NT]	98	22/03/2017	22/03/2017		[NT]	22/03/2017
Total Cyanide in Eluates	mg/L	0.004	Inorg-014	[NT]	98	<0.004	[NT]		[NT]	120
Fluoride, F in Eluates	mg/L	0.1	Inorg-026	[NT]	98	0.9	0.9	0	[NT]	[NT]

**Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered**

QUALITY CONTROL: SW846-1315 LEAF Monolith							Duplicate		Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	162119-E-26
Date prepared	-			[NT]	233	22/03/2017	22/03/2017		[NT]	22/03/2017
Total Cyanide in Eluates	mg/L	0.004	Inorg-014	[NT]	233	<0.004	[NT]		[NT]	110
Fluoride, F in Eluates	mg/L	0.1	Inorg-026	[NT]	233	3.3	3.4	3	[NT]	[NT]

QUALITY CONTROL: SW846-1315 LEAF Monolith							Duplicate		Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	162119-E-62
Date prepared	-			[NT]	278	22/03/2017	22/03/2017		[NT]	22/03/2017
Total Cyanide in Eluates	mg/L	0.004	Inorg-014	[NT]	278	0.092	[NT]		[NT]	110
Fluoride, F in Eluates	mg/L	0.1	Inorg-026	[NT]	278	56	54	4	[NT]	[NT]

QUALITY CONTROL: SW846-1315 LEAF Monolith							Duplicate		Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	162119-E-61
Date prepared	-			[NT]	15	22/03/2017	22/03/2017		[NT]	22/03/2017
Total Cyanide in Eluates	mg/L	0.004	Inorg-014	[NT]	15	<0.004	<0.004	0	[NT]	120
Fluoride, F in Eluates	mg/L	0.1	Inorg-026	[NT]	15	1.3	[NT]		[NT]	[NT]

QUALITY CONTROL: SW846-1315 LEAF Monolith							Duplicate		Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	162119-E-25
Date prepared	-			[NT]	16	22/03/2017	22/03/2017		[NT]	22/03/2017
Total Cyanide in Eluates	mg/L	0.004	Inorg-014	[NT]	16	<0.004	<0.004	0	[NT]	120
Fluoride, F in Eluates	mg/L	0.1	Inorg-026	[NT]	16	0.7	[NT]		[NT]	[NT]

QUALITY CONTROL: SW846-1315 LEAF Monolith							Duplicate		Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	162119-E-60
Date prepared	-			[NT]	20	22/03/2017	22/03/2017		[NT]	22/03/2017
Total Cyanide in Eluates	mg/L	0.004	Inorg-014	[NT]	20	0.49	0.48	2	[NT]	96
Fluoride, F in Eluates	mg/L	0.1	Inorg-026	[NT]	20	150	[NT]		[NT]	[NT]

QUALITY CONTROL: SW846-1315 LEAF Monolith							Duplicate		Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	162119-E-24
Date prepared	-			[NT]	109	22/03/2017	22/03/2017		[NT]	22/03/2017
Total Cyanide in Eluates	mg/L	0.004	Inorg-014	[NT]	109	<0.004	<0.004	0	[NT]	87
Fluoride, F in Eluates	mg/L	0.1	Inorg-026	[NT]	109	5.2	[NT]		[NT]	[NT]

QUALITY CONTROL: SW846-1315 LEAF Monolith							Duplicate		Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	162119-E-18
Date prepared	-			[NT]	145	22/03/2017	22/03/2017		[NT]	22/03/2017
Total Cyanide in Eluates	mg/L	0.004	Inorg-014	[NT]	145	0.95	0.95	0	[NT]	110
Fluoride, F in Eluates	mg/L	0.1	Inorg-026	[NT]	145	35	[NT]		[NT]	98

QUALITY CONTROL: SW846-1315 LEAF Monolith							Duplicate		Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	162119-E-108
Date prepared	-			[NT]	160	22/03/2017	22/03/2017		[NT]	22/03/2017
Total Cyanide in Eluates	mg/L	0.004	Inorg-014	[NT]	160	<0.004	<0.004	0	[NT]	[NT]
Fluoride, F in Eluates	mg/L	0.1	Inorg-026	[NT]	160	1.2	[NT]		[NT]	99

**Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered**

QUALITY CONTROL: SW846-1315 LEAF Monolith						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	162119-E-198
Date prepared	-			[NT]	161	22/03/2017	22/03/2017		[NT]	22/03/2017
Total Cyanide in Eluates	mg/L	0.004	Inorg-014	[NT]	161	<0.004	<0.004	0	[NT]	[NT]
Fluoride, F in Eluates	mg/L	0.1	Inorg-026	[NT]	161	0.4	[NT]		[NT]	100

QUALITY CONTROL: SW846-1315 LEAF Monolith						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	162119-E-288
Date prepared	-			[NT]	169	22/03/2017	22/03/2017		[NT]	22/03/2017
Total Cyanide in Eluates	mg/L	0.004	Inorg-014	[NT]	169	2.7	2.8	4	[NT]	[NT]
Fluoride, F in Eluates	mg/L	0.1	Inorg-026	[NT]	169	120	[NT]		[NT]	99

QUALITY CONTROL: SW846-1315 LEAF Monolith						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	162119-E-207
Date prepared	-			[NT]	170	22/03/2017	22/03/2017		[NT]	24/05/2017
Total Cyanide in Eluates	mg/L	0.004	Inorg-014	[NT]	170	1.0	1.1	10	[NT]	65
Fluoride, F in Eluates	mg/L	0.1	Inorg-026	[NT]	170	82	[NT]		[NT]	[NT]

QUALITY CONTROL: SW846-1315 LEAF Monolith						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	195	22/03/2017	22/03/2017		[NT]	[NT]
Total Cyanide in Eluates	mg/L	0.004	Inorg-014	[NT]	195	0.93	0.89	4	[NT]	[NT]
Fluoride, F in Eluates	mg/L	0.1	Inorg-026	[NT]	195	400	[NT]		[NT]	[NT]

QUALITY CONTROL: SW846-1315 LEAF Monolith						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	9	22/03/2017	22/03/2017		[NT]	[NT]
Total Cyanide in Eluates	mg/L	0.004	Inorg-014	[NT]	9	0.23	0.24	4	[NT]	[NT]
Fluoride, F in Eluates	mg/L	0.1	Inorg-026	[NT]	9	35	35	0	[NT]	[NT]

QUALITY CONTROL: SW846-1315 LEAF Monolith						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	99	22/03/2017	22/03/2017		[NT]	[NT]
Total Cyanide in Eluates	mg/L	0.004	Inorg-014	[NT]	99	<0.004	[NT]		[NT]	[NT]
Fluoride, F in Eluates	mg/L	0.1	Inorg-026	[NT]	99	1.3	1.2	8	[NT]	[NT]

QUALITY CONTROL: SW846-1315 LEAF Monolith						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	189	22/03/2017	22/03/2017		[NT]	[NT]
Total Cyanide in Eluates	mg/L	0.004	Inorg-014	[NT]	189	0.19	[NT]		[NT]	[NT]
Fluoride, F in Eluates	mg/L	0.1	Inorg-026	[NT]	189	150	150	0	[NT]	[NT]

QUALITY CONTROL: SW846-1315 LEAF Monolith						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	279	22/03/2017	22/03/2017		[NT]	[NT]
Total Cyanide in Eluates	mg/L	0.004	Inorg-014	[NT]	279	0.080	[NT]		[NT]	[NT]
Fluoride, F in Eluates	mg/L	0.1	Inorg-026	[NT]	279	55	55	0	[NT]	[NT]

**Client Reference: Hydro Aluminium AS130515 Monoliths Unfiltered**

QUALITY CONTROL: SW846-1315 LEAF Monolith							Duplicate		Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	108	22/03/2017	22/03/2017		[NT]	[NT]
Total Cyanide in Eluates	mg/L	0.004	Inorg-014	[NT]	108	<0.004	<0.004	0	[NT]	[NT]
Fluoride, F in Eluates	mg/L	0.1	Inorg-026	[NT]	108	0.3	[NT]		[NT]	[NT]

QUALITY CONTROL: SW846-1315 LEAF Monolith							Duplicate		Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	198	22/03/2017	22/03/2017		[NT]	[NT]
Total Cyanide in Eluates	mg/L	0.004	Inorg-014	[NT]	198	0.33	0.34	3	[NT]	[NT]
Fluoride, F in Eluates	mg/L	0.1	Inorg-026	[NT]	198	220	[NT]		[NT]	[NT]

QUALITY CONTROL: SW846-1315 LEAF Monolith							Duplicate		Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	288	22/03/2017	22/03/2017		[NT]	[NT]
Total Cyanide in Eluates	mg/L	0.004	Inorg-014	[NT]	288	0.061	0.061	0	[NT]	[NT]
Fluoride, F in Eluates	mg/L	0.1	Inorg-026	[NT]	288	42	[NT]		[NT]	[NT]

**Result Definitions**

<b>NT</b>	Not tested
<b>NA</b>	Test not required
<b>INS</b>	Insufficient sample for this test
<b>PQL</b>	Practical Quantitation Limit
<b>&lt;</b>	Less than
<b>&gt;</b>	Greater than
<b>RPD</b>	Relative Percent Difference
<b>LCS</b>	Laboratory Control Sample
<b>NS</b>	Not specified
<b>NEPM</b>	National Environmental Protection Measure
<b>NR</b>	Not Reported

**Quality Control Definitions**

<b>Blank</b>	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
<b>Duplicate</b>	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
<b>Matrix Spike</b>	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
<b>LCS (Laboratory Control Sample)</b>	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
<b>Surrogate Spike</b>	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.

## Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: <5xPQL - any RPD is acceptable; >5xPQL - 0-50% RPD is acceptable.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals; 60-140% for organics (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Measurement Uncertainty estimates are available for most tests upon request.



**CERTIFICATE OF ANALYSIS**

**162119-F**

**Client:**

**Ramboll Environ Australia Pty Ltd**  
PO Box 560  
North Sydney  
NSW 2060

**Attention:** Fiona Robinson, Craig Goodbody

**Sample log in details:**

Your Reference:	<b><u>Hydro Aluminium AS130515</u></b>
No. of samples:	Additional Amendments and Fly Ash analysis
Date samples received / completed instructions received	26/04//2017 / 26/04/2017

**Analysis Details:**

Please refer to the following pages for results, methodology summary and quality control data. Samples were analysed as received from the client. Results relate specifically to the samples as received. Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

***Please refer to the last page of this report for any comments relating to the results.***

**Report Details:**

Date results requested by: / Issue Date: 15/05/17 / 12/05/17  
Date of Preliminary Report: Not Issued

NATA accreditation number 2901. This document shall not be reproduced except in full.

Accredited for compliance with ISO/IEC 17025 - Testing **Tests not covered by NATA are denoted with \*.**

**Results Approved By:**

David Springer  
General Manager

**Client Reference: Hydro Aluminium AS130515**

vTRH(C6-C10)/BTEXN in Soil Our Reference: Your Reference	UNITS ----- -	162119-F-1 MW201 10% LIMEDRY	162119-F-2 MW202 10% LIMEDRY	162119-F-3 MW203 10% LIMEDRY	162119-F-4 MW204 10% LIMEDRY	162119-F-5 MW205 10% LIMEDRY
Date Sampled	-----	27/04/2017	27/04/2017	27/04/2017	27/04/2017	27/04/2017
Type of sample		Treated Solid Waste	Treated Solid Waste	Treated Solid Waste	Treated Solid Waste	Treated Solid Waste
Date extracted	-	2/05/2017	2/05/2017	2/05/2017	2/05/2017	2/05/2017
Date analysed	-	4/05/2017	4/05/2017	4/05/2017	4/05/2017	4/05/2017
TRHC <sub>6</sub> - C <sub>9</sub>	mg/kg	<25	<25	<25	<25	<25
TRHC <sub>6</sub> - C <sub>10</sub>	mg/kg	<25	<25	<25	<25	<25
vTPHC <sub>6</sub> - C <sub>10</sub> less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	106	100	98	102	99

vTRH(C6-C10)/BTEXN in Soil Our Reference: Your Reference	UNITS ----- -	162119-F-6 MW206 10% LIMEDRY	162119-F-7 MW201 10% CEMENTDRY	162119-F-8 MW202 10% CEMENTDRY	162119-F-9 MW203 10% CEMENTDRY	162119-F-10 MW204 10% CEMENTDRY
Date Sampled	-----	27/04/2017	27/04/2017	27/04/2017	27/04/2017	27/04/2017
Type of sample		Treated Solid Waste	Treated Solid Waste	Treated Solid Waste	Treated Solid Waste	Treated Solid Waste
Date extracted	-	2/05/2017	2/05/2017	2/05/2017	2/05/2017	2/05/2017
Date analysed	-	4/05/2017	4/05/2017	4/05/2017	4/05/2017	4/05/2017
TRHC <sub>6</sub> - C <sub>9</sub>	mg/kg	<25	<25	<25	<25	<25
TRHC <sub>6</sub> - C <sub>10</sub>	mg/kg	<25	<25	<25	<25	<25
vTPHC <sub>6</sub> - C <sub>10</sub> less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	99	108	107	98	103



**Client Reference: Hydro Aluminium AS130515**

vTRH(C6-C10)/BTEXn in Soil Our Reference: Your Reference	UNITS ----- -	162119-F-11 MW205 10% CEMENTDRY	162119-F-12 MW206 10% CEMENTDRY	162119-F-13 MW201 10% LIMEWET	162119-F-14 MW202 10% LIMEWET	162119-F-15 MW203 10% LIMEWET
Date Sampled	-----	27/04/2017	27/04/2017	27/04/2017	27/04/2017	27/04/2017
Type of sample		Treated Solid Waste	Treated Solid Waste	Treated Solid Waste	Treated Solid Waste	Treated Solid Waste
Date extracted	-	2/05/2017	2/05/2017	2/05/2017	2/05/2017	2/05/2017
Date analysed	-	4/05/2017	4/05/2017	4/05/2017	4/05/2017	4/05/2017
TRHC <sub>6</sub> - C <sub>9</sub>	mg/kg	<25	<25	<25	<25	<25
TRHC <sub>6</sub> - C <sub>10</sub>	mg/kg	<25	<25	<25	<25	<25
vTPHC <sub>6</sub> - C <sub>10</sub> less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	103	104	92	94	91

vTRH(C6-C10)/BTEXn in Soil Our Reference: Your Reference	UNITS ----- -	162119-F-16 MW204 10% LIMEWET	162119-F-17 MW205 10% LIMEWET	162119-F-18 MW206 10% LIMEWET	162119-F-19 MW201 10% CEMENTWET	162119-F-20 MW202 10% CEMENTWET
Date Sampled	-----	27/04/2017	27/04/2017	27/04/2017	27/04/2017	27/04/2017
Type of sample		Treated Solid Waste	Treated Solid Waste	Treated Solid Waste	Treated Solid Waste	Treated Solid Waste
Date extracted	-	2/05/2017	2/05/2017	2/05/2017	2/05/2017	2/05/2017
Date analysed	-	4/05/2017	4/05/2017	4/05/2017	4/05/2017	4/05/2017
TRHC <sub>6</sub> - C <sub>9</sub>	mg/kg	<25	<25	<25	<25	<25
TRHC <sub>6</sub> - C <sub>10</sub>	mg/kg	<25	<25	<25	<25	<25
vTPHC <sub>6</sub> - C <sub>10</sub> less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	90	91	90	90	95

**Client Reference: Hydro Aluminium AS130515**

vTRH(C6-C10)/BTEXN in Soil Our Reference: Your Reference	UNITS ----- -	162119-F-21 MW203 10% CEMENTWET	162119-F-22 MW204 10% CEMENTWET	162119-F-23 MW205 10% CEMENTWET	162119-F-24 MW206 10% CEMENTWET	162119-F-25 B.W.F.G
Date Sampled	-----	27/04/2017	27/04/2017	27/04/2017	27/04/2017	27/04/2017
Type of sample		Treated Solid Waste	Treated Solid Waste	Treated Solid Waste	Treated Solid Waste	Treated Solid Waste
Date extracted	-	2/05/2017	2/05/2017	2/05/2017	2/05/2017	2/05/2017
Date analysed	-	4/05/2017	4/05/2017	4/05/2017	4/05/2017	4/05/2017
TRHC <sub>6</sub> - C <sub>9</sub>	mg/kg	<25	<25	<25	<25	<25
TRHC <sub>6</sub> - C <sub>10</sub>	mg/kg	<25	<25	<25	<25	<25
vTPHC <sub>6</sub> - C <sub>10</sub> less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	96	90	93	90	99

vTRH(C6-C10)/BTEXN in Soil Our Reference: Your Reference	UNITS ----- -	162119-F-26 B.W.R.O.S	162119-F-27 ERERINGR.O.S	162119-F-28 ERARINGF.G
Date Sampled	-----	27/04/2017	27/04/2017	27/04/2017
Type of sample		Treated Solid Waste	Treated Solid Waste	Treated Solid Waste
Date extracted	-	2/05/2017	2/05/2017	2/05/2017
Date analysed	-	4/05/2017	4/05/2017	4/05/2017
TRHC <sub>6</sub> - C <sub>9</sub>	mg/kg	<25	<25	<25
TRHC <sub>6</sub> - C <sub>10</sub>	mg/kg	<25	<25	<25
vTPHC <sub>6</sub> - C <sub>10</sub> less BTEX (F1)	mg/kg	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1
naphthalene	mg/kg	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	98	101	97

**Client Reference: Hydro Aluminium AS130515**

svTRH (C10-C40) in Soil Our Reference: Your Reference	UNITS ----- -	162119-F-1 MW201 10% LIMEDRY	162119-F-2 MW202 10% LIMEDRY	162119-F-3 MW203 10% LIMEDRY	162119-F-4 MW204 10% LIMEDRY	162119-F-5 MW205 10% LIMEDRY
Date Sampled	-----	27/04/2017	27/04/2017	27/04/2017	27/04/2017	27/04/2017
Type of sample		Treated Solid Waste	Treated Solid Waste	Treated Solid Waste	Treated Solid Waste	Treated Solid Waste
Date extracted	-	02/05/2017	02/05/2017	02/05/2017	02/05/2017	02/05/2017
Date analysed	-	03/05/2017	03/05/2017	03/05/2017	03/05/2017	03/05/2017
TRHC <sub>10</sub> - C <sub>14</sub>	mg/kg	<50	<50	<50	<50	<50
TRHC <sub>15</sub> - C <sub>28</sub>	mg/kg	290	4,100	680	2,400	3,600
TRHC <sub>29</sub> - C <sub>36</sub>	mg/kg	250	3,800	940	4,100	4,100
TRH>C <sub>10</sub> -C <sub>16</sub>	mg/kg	<50	120	<50	68	<50
TRH>C <sub>10</sub> - C <sub>16</sub> less Naphthalene (F2)	mg/kg	<50	120	<50	68	<50
TRH>C <sub>16</sub> -C <sub>34</sub>	mg/kg	480	7,100	1,400	5,500	6,800
TRH>C <sub>34</sub> -C <sub>40</sub>	mg/kg	130	1,500	580	2,400	2,200
Total +ve TRH (>C <sub>10</sub> -C <sub>40</sub> )	mg/kg	600	8,700	2,000	8,000	8,900
Surrogate o-Terphenyl	%	87	98	90	110	90

svTRH (C10-C40) in Soil Our Reference: Your Reference	UNITS ----- -	162119-F-6 MW206 10% LIMEDRY	162119-F-7 MW201 10% CEMENTDRY	162119-F-8 MW202 10% CEMENTDRY	162119-F-9 MW203 10% CEMENTDRY	162119-F-10 MW204 10% CEMENTDRY
Date Sampled	-----	27/04/2017	27/04/2017	27/04/2017	27/04/2017	27/04/2017
Type of sample		Treated Solid Waste	Treated Solid Waste	Treated Solid Waste	Treated Solid Waste	Treated Solid Waste
Date extracted	-	02/05/2017	02/05/2017	02/05/2017	02/05/2017	02/05/2017
Date analysed	-	03/05/2017	03/05/2017	03/05/2017	03/05/2017	03/05/2017
TRHC <sub>10</sub> - C <sub>14</sub>	mg/kg	<50	<50	<50	<50	<50
TRHC <sub>15</sub> - C <sub>28</sub>	mg/kg	4,900	300	4,000	590	2,500
TRHC <sub>29</sub> - C <sub>36</sub>	mg/kg	5,600	410	3,900	850	4,200
TRH>C <sub>10</sub> -C <sub>16</sub>	mg/kg	78	<50	100	<50	66
TRH>C <sub>10</sub> - C <sub>16</sub> less Naphthalene (F2)	mg/kg	78	<50	100	<50	66
TRH>C <sub>16</sub> -C <sub>34</sub>	mg/kg	9,200	590	7,100	1,200	5,700
TRH>C <sub>34</sub> -C <sub>40</sub>	mg/kg	2,900	300	1,600	560	2,400
Total +ve TRH (>C <sub>10</sub> -C <sub>40</sub> )	mg/kg	12,000	890	8,900	1,800	8,100
Surrogate o-Terphenyl	%	97	85	99	87	109

**Client Reference: Hydro Aluminium AS130515**

svTRH (C10-C40) in Soil Our Reference: Your Reference  Date Sampled Type of sample	UNITS ----- - -----	162119-F-11 MW205 10% CEMENTDRY  27/04/2017 Treated Solid Waste	162119-F-12 MW206 10% CEMENTDRY  27/04/2017 Treated Solid Waste	162119-F-13 MW201 10% LIMEWET  27/04/2017 Treated Solid Waste	162119-F-14 MW202 10% LIMEWET  27/04/2017 Treated Solid Waste	162119-F-15 MW203 10% LIMEWET  27/04/2017 Treated Solid Waste
Date extracted	-	02/05/2017	02/05/2017	02/05/2017	02/05/2017	02/05/2017
Date analysed	-	03/05/2017	03/05/2017	03/05/2017	03/05/2017	03/05/2017
TRHC <sub>10</sub> - C <sub>14</sub>	mg/kg	<50	<50	<50	<50	<50
TRHC <sub>15</sub> - C <sub>28</sub>	mg/kg	3,600	5,100	150	1,300	<100
TRHC <sub>29</sub> - C <sub>36</sub>	mg/kg	4,200	5,800	260	1,200	130
TRH>C <sub>10</sub> -C <sub>16</sub>	mg/kg	<50	74	<50	71	<50
TRH>C <sub>10</sub> - C <sub>16</sub> less Naphthalene (F2)	mg/kg	<50	74	<50	71	<50
TRH>C <sub>16</sub> -C <sub>34</sub>	mg/kg	6,800	9,600	320	2,200	160
TRH>C <sub>34</sub> -C <sub>40</sub>	mg/kg	2,000	2,900	220	550	<100
Total +ve TRH (>C10-C40)	mg/kg	8,900	13,000	550	2,900	160
Surrogate o-Terphenyl	%	91	99	82	85	80

svTRH (C10-C40) in Soil Our Reference: Your Reference  Date Sampled Type of sample	UNITS ----- - -----	162119-F-16 MW204 10% LIMEWET  27/04/2017 Treated Solid Waste	162119-F-17 MW205 10% LIMEWET  27/04/2017 Treated Solid Waste	162119-F-18 MW206 10% LIMEWET  27/04/2017 Treated Solid Waste	162119-F-19 MW201 10% CEMENTWET  27/04/2017 Treated Solid Waste	162119-F-20 MW202 10% CEMENTWET  27/04/2017 Treated Solid Waste
Date extracted	-	02/05/2017	02/05/2017	02/05/2017	02/05/2017	02/05/2017
Date analysed	-	03/05/2017	03/05/2017	03/05/2017	03/05/2017	03/05/2017
TRHC <sub>10</sub> - C <sub>14</sub>	mg/kg	<50	<50	<50	<50	<50
TRHC <sub>15</sub> - C <sub>28</sub>	mg/kg	1,200	270	1,800	<100	3,000
TRHC <sub>29</sub> - C <sub>36</sub>	mg/kg	1,900	330	2,300	<100	2,900
TRH>C <sub>10</sub> -C <sub>16</sub>	mg/kg	<50	<50	<50	<50	87
TRH>C <sub>10</sub> - C <sub>16</sub> less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	87
TRH>C <sub>16</sub> -C <sub>34</sub>	mg/kg	2,600	520	3,600	<100	5,300
TRH>C <sub>34</sub> -C <sub>40</sub>	mg/kg	1,100	190	1,300	<100	1,400
Total +ve TRH (>C10-C40)	mg/kg	3,700	710	5,000	<50	6,800
Surrogate o-Terphenyl	%	90	80	84	79	87

**Client Reference: Hydro Aluminium AS130515**

svTRH (C10-C40) in Soil Our Reference: Your Reference	UNITS ----- -	162119-F-21 MW203 10% CEMENTWET	162119-F-22 MW204 10% CEMENTWET	162119-F-23 MW205 10% CEMENTWET	162119-F-24 MW206 10% CEMENTWET	162119-F-25 B.WF.G
Date Sampled	-----	27/04/2017	27/04/2017	27/04/2017	27/04/2017	27/04/2017
Type of sample		Treated Solid Waste	Treated Solid Waste	Treated Solid Waste	Treated Solid Waste	Treated Solid Waste
Date extracted	-	02/05/2017	02/05/2017	02/05/2017	02/05/2017	02/05/2017
Date analysed	-	03/05/2017	03/05/2017	03/05/2017	03/05/2017	03/05/2017
TRHC <sub>10</sub> - C <sub>14</sub>	mg/kg	<50	<50	<50	<50	<50
TRHC <sub>15</sub> - C <sub>28</sub>	mg/kg	350	1,700	2,800	3,300	<100
TRHC <sub>29</sub> - C <sub>36</sub>	mg/kg	510	2,700	3,400	4,100	<100
TRH>C <sub>10</sub> -C <sub>16</sub>	mg/kg	<50	<50	<50	<50	<50
TRH>C <sub>10</sub> - C <sub>16</sub> less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH>C <sub>16</sub> -C <sub>34</sub>	mg/kg	730	3,700	5,500	6,500	<100
TRH>C <sub>34</sub> -C <sub>40</sub>	mg/kg	360	1,600	1,800	2,100	<100
Total +ve TRH (>C10-C40)	mg/kg	1,100	5,300	7,200	8,600	<50
Surrogate o-Terphenyl	%	79	92	83	86	75

svTRH (C10-C40) in Soil Our Reference: Your Reference	UNITS ----- -	162119-F-26 B.WR.O.S	162119-F-27 ERERINGR.O.S	162119-F-28 ERARINGF.G
Date Sampled	-----	27/04/2017	27/04/2017	27/04/2017
Type of sample		Treated Solid Waste	Treated Solid Waste	Treated Solid Waste
Date extracted	-	02/05/2017	02/05/2017	02/05/2017
Date analysed	-	03/05/2017	03/05/2017	03/05/2017
TRHC <sub>10</sub> - C <sub>14</sub>	mg/kg	<50	<50	<50
TRHC <sub>15</sub> - C <sub>28</sub>	mg/kg	<100	<100	<100
TRHC <sub>29</sub> - C <sub>36</sub>	mg/kg	<100	<100	<100
TRH>C <sub>10</sub> -C <sub>16</sub>	mg/kg	<50	<50	<50
TRH>C <sub>10</sub> - C <sub>16</sub> less Naphthalene (F2)	mg/kg	<50	<50	<50
TRH>C <sub>16</sub> -C <sub>34</sub>	mg/kg	<100	<100	<100
TRH>C <sub>34</sub> -C <sub>40</sub>	mg/kg	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	<50
Surrogate o-Terphenyl	%	67	81	76

**Client Reference: Hydro Aluminium AS130515**

PAHs in Soil Our Reference: Your Reference	UNITS ----- -	162119-F-1 MW201 10% LIMEDRY	162119-F-2 MW202 10% LIMEDRY	162119-F-3 MW203 10% LIMEDRY	162119-F-4 MW204 10% LIMEDRY	162119-F-5 MW205 10% LIMEDRY
Date Sampled	-----	27/04/2017	27/04/2017	27/04/2017	27/04/2017	27/04/2017
Type of sample		Treated Solid Waste	Treated Solid Waste	Treated Solid Waste	Treated Solid Waste	Treated Solid Waste
Date extracted	-	2/05/2017	2/05/2017	2/05/2017	2/05/2017	2/05/2017
Date analysed	-	9/05/2017	9/05/2017	9/05/2017	9/05/2017	9/05/2017
Naphthalene	mg/kg	1.4	2.5	0.6	1.2	1.9
Acenaphthylene	mg/kg	<0.1	0.2	<0.1	0.4	0.3
Acenaphthene	mg/kg	2.4	34	4.8	9.3	15
Fluorene	mg/kg	0.6	20	1.8	3.3	7.7
Phenanthrene	mg/kg	7.7	120	13	43	84
Anthracene	mg/kg	0.8	16	1.9	4.0	5.8
Fluoranthene	mg/kg	25	310	42	100	290
Pyrene	mg/kg	24	300	39	96	290
Benzo(a)anthracene	mg/kg	15	190	23	64	270
Chrysene	mg/kg	20	190	24	59	250
Benzo(b,j+k)fluoranthene	mg/kg	33	340	44	110	470
Benzo(a)pyrene	mg/kg	12	200	24	64	270
Indeno(1,2,3-c,d)pyrene	mg/kg	9.8	160	20	56	210
Dibenzo(a,h)anthracene	mg/kg	1.8	15	2.2	9.5	24
Benzo(g,h,i)perylene	mg/kg	9.0	140	18	47	170
Benzo(a)pyrene TEQ calc (zero)	mg/kg	19	290	36	98	390
Benzo(a)pyrene TEQ calc(half)	mg/kg	19	290	36	98	390
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	19	290	36	98	390
Total +ve PAH's	mg/kg	160	2,000	260	670	2,400
Surrogate p-Terphenyl-d14	%	#	126	100	115	12

**Client Reference: Hydro Aluminium AS130515**

PAHs in Soil Our Reference: Your Reference	UNITS ----- -	162119-F-6 MW206 10% LIMEDRY	162119-F-7 MW201 10% CEMENTDRY	162119-F-8 MW202 10% CEMENTDRY	162119-F-9 MW203 10% CEMENTDRY	162119-F-10 MW204 10% CEMENTDRY
Date Sampled	-----	27/04/2017	27/04/2017	27/04/2017	27/04/2017	27/04/2017
Type of sample		Treated Solid Waste	Treated Solid Waste	Treated Solid Waste	Treated Solid Waste	Treated Solid Waste
Date extracted	-	2/05/2017	2/05/2017	2/05/2017	2/05/2017	2/05/2017
Date analysed	-	9/05/2017	8/05/2017	9/05/2017	9/05/2017	9/05/2017
Naphthalene	mg/kg	1.6	0.9	2.1	1.1	1.1
Acenaphthylene	mg/kg	0.2	<0.1	0.3	0.2	0.4
Acenaphthene	mg/kg	25	1.5	25	3.9	8.1
Fluorene	mg/kg	12	0.5	14	1.8	3.9
Phenanthrene	mg/kg	83	6.6	90	15	46
Anthracene	mg/kg	19	1.4	12	1.9	4.2
Fluoranthene	mg/kg	380	19	310	39	110
Pyrene	mg/kg	360	18	310	36	96
Benzo(a)anthracene	mg/kg	370	18	200	19	63
Chrysene	mg/kg	340	15	200	22	59
Benzo(b,j+k)fluoranthene	mg/kg	670	37	360	38	110
Benzo(a)pyrene	mg/kg	370	16	220	21	63
Indeno(1,2,3-c,d)pyrene	mg/kg	290	11	170	17	56
Dibenzo(a,h)anthracene	mg/kg	37	2.8	16	1.8	9.4
Benzo(g,h,i)perylene	mg/kg	230	7.5	150	16	48
Benzo(a)pyrene TEQ calc (zero)	mg/kg	550	26	310	31	97
Benzo(a)pyrene TEQ calc(half)	mg/kg	550	26	310	31	97
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	550	26	310	31	97
Total +ve PAH's	mg/kg	3,200	160	2,100	230	670
Surrogate p-Terphenyl-d14	%	129	84	129	#	129

**Client Reference: Hydro Aluminium AS130515**

PAHs in Soil Our Reference: Your Reference	UNITS ----- -	162119-F-11 MW205 10% CEMENTDRY	162119-F-12 MW206 10% CEMENTDRY	162119-F-13 MW201 10% LIMEWET	162119-F-14 MW202 10% LIMEWET	162119-F-15 MW203 10% LIMEWET
Date Sampled	-----	27/04/2017	27/04/2017	27/04/2017	27/04/2017	27/04/2017
Type of sample		Treated Solid Waste	Treated Solid Waste	Treated Solid Waste	Treated Solid Waste	Treated Solid Waste
Date extracted	-	2/05/2017	2/05/2017	2/05/2017	2/05/2017	2/05/2017
Date analysed	-	9/05/2017	9/05/2017	8/05/2017	9/05/2017	8/05/2017
Naphthalene	mg/kg	2.5	1.5	0.4	1.2	0.2
Acenaphthylene	mg/kg	0.3	0.2	<0.1	0.1	<0.1
Acenaphthene	mg/kg	16	23	0.7	14	0.8
Fluorene	mg/kg	8.0	11	0.3	12	0.4
Phenanthrene	mg/kg	80	120	3.3	52	3.1
Anthracene	mg/kg	5.4	16	0.4	6.1	0.5
Fluoranthene	mg/kg	280	360	13	110	7.6
Pyrene	mg/kg	280	340	12	100	7.0
Benzo(a)anthracene	mg/kg	250	350	12	69	4.3
Chrysene	mg/kg	230	340	9.8	60	4.2
Benzo(b,j+k)fluoranthene	mg/kg	430	690	22	120	8.1
Benzo(a)pyrene	mg/kg	240	350	8.5	70	4.7
Indeno(1,2,3-c,d)pyrene	mg/kg	190	300	5.8	57	4.1
Dibenzo(a,h)anthracene	mg/kg	21	37	1.3	8.4	0.7
Benzo(g,h,i)perylene	mg/kg	160	220	3.2	49	3.5
Benzo(a)pyrene TEQ calc (zero)	mg/kg	350	520	14	100	7.1
Benzo(a)pyrene TEQ calc(half)	mg/kg	350	520	14	100	7.1
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	350	520	14	100	7.1
Total +ve PAH's	mg/kg	2,200	3,100	94	720	49
Surrogate p-Terphenyl-d14	%	135	135	93	125	76



**Client Reference: Hydro Aluminium AS130515**

PAHs in Soil Our Reference: Your Reference	UNITS ----- -	162119-F-16 MW204 10% LIMEWET	162119-F-17 MW205 10% LIMEWET	162119-F-18 MW206 10% LIMEWET	162119-F-19 MW201 10% CEMENTWET	162119-F-20 MW202 10% CEMENTWET
Date Sampled	-----	27/04/2017	27/04/2017	27/04/2017	27/04/2017	27/04/2017
Type of sample		Treated Solid Waste	Treated Solid Waste	Treated Solid Waste	Treated Solid Waste	Treated Solid Waste
Date extracted	-	2/05/2017	2/05/2017	2/05/2017	2/05/2017	2/05/2017
Date analysed	-	9/05/2017	9/05/2017	9/05/2017	8/05/2017	9/05/2017
Naphthalene	mg/kg	0.7	1.2	1.3	0.1	2.0
Acenaphthylene	mg/kg	0.7	<0.1	0.1	<0.1	0.2
Acenaphthene	mg/kg	3.9	1	6.6	0.2	20
Fluorene	mg/kg	2.1	0.8	4.8	<0.1	16
Phenanthrene	mg/kg	21	5.7	45	1.1	98
Anthracene	mg/kg	1.6	0.7	13	0.2	22
Fluoranthene	mg/kg	59	24	120	3.8	230
Pyrene	mg/kg	55	23	110	3.6	230
Benzo(a)anthracene	mg/kg	35	17	120	2.5	160
Chrysene	mg/kg	33	19	110	3.0	140
Benzo(b,j+k)fluoranthene	mg/kg	59	32	240	6.0	270
Benzo(a)pyrene	mg/kg	31	18	140	2.2	180
Indeno(1,2,3-c,d)pyrene	mg/kg	25	13	110	2.1	150
Dibenzo(a,h)anthracene	mg/kg	2.9	1.9	23	0.3	24
Benzo(g,h,i)perylene	mg/kg	21	10	93	1.7	130
Benzo(a)pyrene TEQ calc (zero)	mg/kg	46	26	220	3.6	260
Benzo(a)pyrene TEQ calc(half)	mg/kg	46	26	220	3.6	260
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	46	26	220	3.6	260
Total +ve PAH's	mg/kg	350	170	1,100	27	1,700
Surrogate p-Terphenyl-d14	%	#	106	112	83	96

**Client Reference: Hydro Aluminium AS130515**

PAHs in Soil Our Reference: Your Reference	UNITS ----- -	162119-F-21 MW203 10% CEMENTWET	162119-F-22 MW204 10% CEMENTWET	162119-F-23 MW205 10% CEMENTWET	162119-F-24 MW206 10% CEMENTWET	162119-F-25 B.WF.G
Date Sampled	-----	27/04/2017	27/04/2017	27/04/2017	27/04/2017	27/04/2017
Type of sample		Treated Solid Waste	Treated Solid Waste	Treated Solid Waste	Treated Solid Waste	Treated Solid Waste
Date extracted	-	2/05/2017	2/05/2017	2/05/2017	2/05/2017	2/05/2017
Date analysed	-	8/05/2017	9/05/2017	9/05/2017	9/05/2017	8/05/2017
Naphthalene	mg/kg	0.6	1.4	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	0.3	0.2	0.2	<0.1
Acenaphthene	mg/kg	2.2	3.8	<0.1	11	<0.1
Fluorene	mg/kg	1.0	3.7	5.3	5.5	<0.1
Phenanthrene	mg/kg	10	38	53	75	<0.1
Anthracene	mg/kg	1.7	2.9	3.7	7.0	<0.1
Fluoranthene	mg/kg	23	93	200	250	0.2
Pyrene	mg/kg	22	86	190	230	0.2
Benzo(a)anthracene	mg/kg	14	57	180	230	0.1
Chrysene	mg/kg	14	52	170	240	0.1
Benzo(b,j+k)fluoranthene	mg/kg	28	97	300	470	0.3
Benzo(a)pyrene	mg/kg	17	54	170	250	0.2
Indeno(1,2,3-c,d)pyrene	mg/kg	14	46	130	190	0.1
Dibenzo(a,h)anthracene	mg/kg	2.5	7.2	<0.1	22	<0.1
Benzo(g,h,i)perylene	mg/kg	13	38	110	160	0.1
Benzo(a)pyrene TEQ calc (zero)	mg/kg	25	82	240	370	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	25	82	240	370	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	25	82	240	370	<0.5
Total +ve PAH's	mg/kg	160	580	1,500	2,100	1.3
Surrogate p-Terphenyl-d14	%	74	101	106	#	99

**Client Reference: Hydro Aluminium AS130515**

PAHs in Soil Our Reference: Your Reference	UNITS ----- -	162119-F-26 B.W.R.O.S	162119-F-27 ERERINGR.O.S	162119-F-28 ERARINGF.G
Date Sampled	-----	27/04/2017	27/04/2017	27/04/2017
Type of sample		Treated Solid Waste	Treated Solid Waste	Treated Solid Waste
Date extracted	-	2/05/2017	2/05/2017	2/05/2017
Date analysed	-	8/05/2017	8/05/2017	8/05/2017
Naphthalene	mg/kg	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	<0.1
Pyrene	mg/kg	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	<0.5
Total +ve PAH's	mg/kg	<0.05	<0.05	<0.05
Surrogate <i>p</i> -Terphenyl-d14	%	#	#	#

**Client Reference: Hydro Aluminium AS130515**

Organochlorine Pesticides in soil	UNITS	162119-F-1	162119-F-2	162119-F-3	162119-F-4	162119-F-5
Our Reference:	-----	MW201 10%	MW202 10%	MW203 10%	MW204 10%	MW205 10%
Your Reference	-	LIMEDRY	LIMEDRY	LIMEDRY	LIMEDRY	LIMEDRY
Date Sampled	-----	27/04/2017	27/04/2017	27/04/2017	27/04/2017	27/04/2017
Type of sample		Treated Solid Waste	Treated Solid Waste	Treated Solid Waste	Treated Solid Waste	Treated Solid Waste
Date extracted	-	02/05/2017	02/05/2017	02/05/2017	02/05/2017	02/05/2017
Date analysed	-	02/05/2017	02/05/2017	02/05/2017	02/05/2017	02/05/2017
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.2	<0.4	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	84	82	73	82	90

**Client Reference: Hydro Aluminium AS130515**

Organochlorine Pesticides in soil	UNITS	162119-F-6	162119-F-7	162119-F-8	162119-F-9	162119-F-10
Our Reference:	-----	MW206 10%	MW201 10%	MW202 10%	MW203 10%	MW204 10%
Your Reference	-	LIMEDRY	CEMENTDRY	CEMENTDRY	CEMENTDRY	CEMENTDRY
Date Sampled	-----	27/04/2017	27/04/2017	27/04/2017	27/04/2017	27/04/2017
Type of sample		Treated Solid Waste	Treated Solid Waste	Treated Solid Waste	Treated Solid Waste	Treated Solid Waste
Date extracted	-	02/05/2017	02/05/2017	02/05/2017	02/05/2017	02/05/2017
Date analysed	-	02/05/2017	02/05/2017	02/05/2017	02/05/2017	02/05/2017
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.3	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.2	<0.4
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	83	89	109	81	73

**Client Reference: Hydro Aluminium AS130515**

Organochlorine Pesticides in soil	UNITS	162119-F-11	162119-F-12	162119-F-13	162119-F-14	162119-F-15
Our Reference:	-----	MW205 10%	MW206 10%	MW201 10%	MW202 10%	MW203 10%
Your Reference	-	CEMENTDRY	CEMENTDRY	LIMEWET	LIMEWET	LIMEWET
Date Sampled	-----	27/04/2017	27/04/2017	27/04/2017	27/04/2017	27/04/2017
Type of sample		Treated Solid Waste	Treated Solid Waste	Treated Solid Waste	Treated Solid Waste	Treated Solid Waste
Date extracted	-	02/05/2017	02/05/2017	02/05/2017	02/05/2017	02/05/2017
Date analysed	-	02/05/2017	02/05/2017	02/05/2017	02/05/2017	02/05/2017
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.3	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	88	82	75	90	77

**Client Reference: Hydro Aluminium AS130515**

Organochlorine Pesticides in soil	UNITS	162119-F-16	162119-F-17	162119-F-18	162119-F-19	162119-F-20
Our Reference:	-----	MW204 10%	MW205 10%	MW206 10%	MW201 10%	MW202 10%
Your Reference	-	LIMEWET	LIMEWET	LIMEWET	CEMENTWET	CEMENTWET
Date Sampled	-----	27/04/2017	27/04/2017	27/04/2017	27/04/2017	27/04/2017
Type of sample		Treated Solid Waste	Treated Solid Waste	Treated Solid Waste	Treated Solid Waste	Treated Solid Waste
Date extracted	-	02/05/2017	02/05/2017	02/05/2017	02/05/2017	02/05/2017
Date analysed	-	02/05/2017	02/05/2017	02/05/2017	02/05/2017	02/05/2017
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.3	<0.1	<0.2	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	84	81	83	85	78

**Client Reference: Hydro Aluminium AS130515**

Organochlorine Pesticides in soil	UNITS	162119-F-21	162119-F-22	162119-F-23	162119-F-24	162119-F-25
Our Reference:	-----	MW203 10%	MW204 10%	MW205 10%	MW206 10%	B.WF.G
Your Reference	-	CEMENTWET	CEMENTWET	CEMENTWET	CEMENTWET	
Date Sampled	-----	27/04/2017	27/04/2017	27/04/2017	27/04/2017	27/04/2017
Type of sample		Treated Solid Waste	Treated Solid Waste	Treated Solid Waste	Treated Solid Waste	Treated Solid Waste
Date extracted	-	02/05/2017	02/05/2017	02/05/2017	02/05/2017	02/05/2017
Date analysed	-	02/05/2017	02/05/2017	02/05/2017	02/05/2017	02/05/2017
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.3	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	84	75	79	80	100



**Client Reference: Hydro Aluminium AS130515**

Organochlorine Pesticides in soil	UNITS	162119-F-26	162119-F-27	162119-F-28
Our Reference:	-----	B.W.R.O.S	ERERINGR.O.S	ERARINGF.G
Your Reference	-			
Date Sampled	-----	27/04/2017	27/04/2017	27/04/2017
Type of sample		Treated Solid Waste	Treated Solid Waste	Treated Solid Waste
Date extracted	-	02/05/2017	02/05/2017	02/05/2017
Date analysed	-	02/05/2017	02/05/2017	02/05/2017
HCB	mg/kg	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1
Surrogate TCMX	%	35	79	58

**Client Reference: Hydro Aluminium AS130515**

Organophosphorus Pesticides	UNITS	162119-F-1	162119-F-2	162119-F-3	162119-F-4	162119-F-5
Our Reference:	-----	MW201 10%	MW202 10%	MW203 10%	MW204 10%	MW205 10%
Your Reference	-	LIMEDRY	LIMEDRY	LIMEDRY	LIMEDRY	LIMEDRY
Date Sampled	-----	27/04/2017	27/04/2017	27/04/2017	27/04/2017	27/04/2017
Type of sample		Treated Solid Waste	Treated Solid Waste	Treated Solid Waste	Treated Solid Waste	Treated Solid Waste
Date extracted	-	02/05/2017	02/05/2017	02/05/2017	02/05/2017	02/05/2017
Date analysed	-	02/05/2017	02/05/2017	02/05/2017	02/05/2017	02/05/2017
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dichlorvos	mg/kg	<0.1	<0.5	<0.1	<0.2	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	84	82	73	82	90

Organophosphorus Pesticides	UNITS	162119-F-6	162119-F-7	162119-F-8	162119-F-9	162119-F-10
Our Reference:	-----	MW206 10%	MW201 10%	MW202 10%	MW203 10%	MW204 10%
Your Reference	-	LIMEDRY	CEMENTDRY	CEMENTDRY	CEMENTDRY	CEMENTDRY
Date Sampled	-----	27/04/2017	27/04/2017	27/04/2017	27/04/2017	27/04/2017
Type of sample		Treated Solid Waste	Treated Solid Waste	Treated Solid Waste	Treated Solid Waste	Treated Solid Waste
Date extracted	-	02/05/2017	02/05/2017	02/05/2017	02/05/2017	02/05/2017
Date analysed	-	02/05/2017	02/05/2017	02/05/2017	02/05/2017	02/05/2017
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.5
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	83	89	109	81	73

**Client Reference: Hydro Aluminium AS130515**

Organophosphorus Pesticides	UNITS	162119-F-11	162119-F-12	162119-F-13	162119-F-14	162119-F-15
Our Reference:	-----	MW205 10%	MW206 10%	MW201 10%	MW202 10%	MW203 10%
Your Reference	-	CEMENTDRY	CEMENTDRY	LIMEWET	LIMEWET	LIMEWET
Date Sampled	-----	27/04/2017	27/04/2017	27/04/2017	27/04/2017	27/04/2017
Type of sample		Treated Solid Waste	Treated Solid Waste	Treated Solid Waste	Treated Solid Waste	Treated Solid Waste
Date extracted	-	02/05/2017	02/05/2017	02/05/2017	02/05/2017	02/05/2017
Date analysed	-	02/05/2017	02/05/2017	02/05/2017	02/05/2017	02/05/2017
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dichlorvos	mg/kg	<0.4	<0.5	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	88	82	75	90	77

Organophosphorus Pesticides	UNITS	162119-F-16	162119-F-17	162119-F-18	162119-F-19	162119-F-20
Our Reference:	-----	MW204 10%	MW205 10%	MW206 10%	MW201 10%	MW202 10%
Your Reference	-	LIMEWET	LIMEWET	LIMEWET	CEMENTWET	CEMENTWET
Date Sampled	-----	27/04/2017	27/04/2017	27/04/2017	27/04/2017	27/04/2017
Type of sample		Treated Solid Waste	Treated Solid Waste	Treated Solid Waste	Treated Solid Waste	Treated Solid Waste
Date extracted	-	02/05/2017	02/05/2017	02/05/2017	02/05/2017	02/05/2017
Date analysed	-	02/05/2017	02/05/2017	02/05/2017	02/05/2017	02/05/2017
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.5
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	84	81	83	85	78

**Client Reference: Hydro Aluminium AS130515**

Organophosphorus Pesticides	UNITS	162119-F-21	162119-F-22	162119-F-23	162119-F-24	162119-F-25
Our Reference:	-----	MW203 10%	MW204 10%	MW205 10%	MW206 10%	B.WF.G
Your Reference	-	CEMENTWET	CEMENTWET	CEMENTWET	CEMENTWET	
Date Sampled	-----	27/04/2017	27/04/2017	27/04/2017	27/04/2017	27/04/2017
Type of sample		Treated Solid Waste	Treated Solid Waste	Treated Solid Waste	Treated Solid Waste	Treated Solid Waste
Date extracted	-	02/05/2017	02/05/2017	02/05/2017	02/05/2017	02/05/2017
Date analysed	-	02/05/2017	02/05/2017	02/05/2017	02/05/2017	02/05/2017
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	84	75	79	80	100

Organophosphorus Pesticides	UNITS	162119-F-26	162119-F-27	162119-F-28
Our Reference:	-----	B.WR.O.S	ERERINGR.O.S	ERARINGF.G
Your Reference	-			
Date Sampled	-----	27/04/2017	27/04/2017	27/04/2017
Type of sample		Treated Solid Waste	Treated Solid Waste	Treated Solid Waste
Date extracted	-	02/05/2017	02/05/2017	02/05/2017
Date analysed	-	02/05/2017	02/05/2017	02/05/2017
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1
Dichlorvos	mg/kg	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1
Surrogate TCMX	%	#	79	58

**Client Reference: Hydro Aluminium AS130515**

SVOCs in Soil Our Reference: Your Reference	UNITS ----- -	162119-F-1 MW201 10% LIMEDRY	162119-F-2 MW202 10% LIMEDRY	162119-F-3 MW203 10% LIMEDRY	162119-F-4 MW204 10% LIMEDRY	162119-F-5 MW205 10% LIMEDRY
Date Sampled	-----	27/04/2017	27/04/2017	27/04/2017	27/04/2017	27/04/2017
Type of sample		Treated Solid Waste	Treated Solid Waste	Treated Solid Waste	Treated Solid Waste	Treated Solid Waste
Date extracted	-	02/05/2017	02/05/2017	02/05/2017	02/05/2017	02/05/2017
Date analysed	-	03/05/2017	03/05/2017	03/05/2017	03/05/2017	03/05/2017
Phenol	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2-Chlorophenol	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2-Methylphenol	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
3/4-Methylphenol	mg/kg	<1	<1	<1	<1	<1
2,4-Dimethylphenol	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2-Nitrophenol	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,4-Dichlorophenol	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
4-Chloro-3-methylphenol	mg/kg	<5	<5	<5	<5	<5
2,4,6-trichlorophenol	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,4,5-trichlorophenol	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,4-dinitrophenol	mg/kg	<10	<10	<10	<10	<10
4-nitrophenol	mg/kg	<10	<10	<10	<10	<10
diethylphthalate	mg/kg	<1	<1	<1	<1	<1
2-methyl-4,6-dinitrophenol	mg/kg	<10	<10	<10	<10	<10
pentachlorophenol	mg/kg	<5	<5	<5	<5	<5
di-n-butylphthalate	mg/kg	<1	<1	<1	<1	<1
butylbenzylphthalate	mg/kg	<1	<1	<1	<1	<1
bis(2-ethylhexyl)phthalate	mg/kg	<1	<1	<1	<1	<1
di-n-octylphthalate	mg/kg	<1	<1	<1	<1	<1
2,6-dichlorophenol	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,3,4,6-tetrachlorophenol	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Surrogate 2-fluorophenol	%	47	35	38	42	66
Surrogate Phenol-d6	%	47	54	68	40	64
Surrogate Nitrobenzene-d5	%	63	69	103	62	92
Surrogate 2-fluorobiphenyl	%	85	95	106	97	91
Surrogate 2,4,6-Tribromophenol	%	115	72	33	#	#
Surrogate p-Terphenyl-d14	%	112	138	119	129	124

**Client Reference: Hydro Aluminium AS130515**

SVOCs in Soil Our Reference: Your Reference	UNITS ----- -	162119-F-6 MW206 10% LIMEDRY	162119-F-7 MW201 10% CEMENTDRY	162119-F-8 MW202 10% CEMENTDRY	162119-F-9 MW203 10% CEMENTDRY	162119-F-10 MW204 10% CEMENTDRY
Date Sampled	-----	27/04/2017	27/04/2017	27/04/2017	27/04/2017	27/04/2017
Type of sample		Treated Solid Waste	Treated Solid Waste	Treated Solid Waste	Treated Solid Waste	Treated Solid Waste
Date extracted	-	02/05/2017	02/05/2017	02/05/2017	02/05/2017	02/05/2017
Date analysed	-	03/05/2017	03/05/2017	03/05/2017	03/05/2017	03/05/2017
Phenol	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2-Chlorophenol	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2-Methylphenol	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
3/4-Methylphenol	mg/kg	<1	<1	<1	<1	<1
2,4-Dimethylphenol	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2-Nitrophenol	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,4-Dichlorophenol	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
4-Chloro-3-methylphenol	mg/kg	<5	<5	<5	<5	<5
2,4,6-trichlorophenol	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,4,5-trichlorophenol	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,4-dinitrophenol	mg/kg	<10	<10	<10	<10	<10
4-nitrophenol	mg/kg	<10	<10	<10	<10	<10
diethylphthalate	mg/kg	<1	<1	<1	<1	<1
2-methyl-4,6-dinitrophenol	mg/kg	<10	<10	<10	<10	<10
pentachlorophenol	mg/kg	<5	<5	<5	<5	<5
di-n-butylphthalate	mg/kg	<1	<1	<1	<1	<1
butylbenzylphthalate	mg/kg	<1	<1	<1	<1	<1
bis(2-ethylhexyl)phthalate	mg/kg	<1	<1	<1	<1	<1
di-n-octylphthalate	mg/kg	<1	<1	<1	<1	<1
2,6-dichlorophenol	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,3,4,6-tetrachlorophenol	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Surrogate 2-fluorophenol	%	44	60	73	49	56
Surrogate Phenol-d6	%	44	57	73	68	71
Surrogate Nitrobenzene-d5	%	66	63	61	50	51
Surrogate 2-fluorobiphenyl	%	97	90	87	108	98
Surrogate 2,4,6-Tribromophenol	%	#	#	#	#	#
Surrogate p-Terphenyl-d14	%	140	112	124	124	129

**Client Reference: Hydro Aluminium AS130515**

SVOCs in Soil Our Reference: Your Reference	UNITS ----- -	162119-F-11 MW205 10% CEMENTDRY	162119-F-12 MW206 10% CEMENTDRY	162119-F-13 MW201 10% LIMEWET	162119-F-14 MW202 10% LIMEWET	162119-F-15 MW203 10% LIMEWET
Date Sampled	-----	27/04/2017	27/04/2017	27/04/2017	27/04/2017	27/04/2017
Type of sample		Treated Solid Waste	Treated Solid Waste	Treated Solid Waste	Treated Solid Waste	Treated Solid Waste
Date extracted	-	02/05/2017	02/05/2017	02/05/2017	02/05/2017	02/05/2017
Date analysed	-	03/05/2017	03/05/2017	03/05/2017	03/05/2017	03/05/2017
Phenol	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2-Chlorophenol	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2-Methylphenol	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
3/4-Methylphenol	mg/kg	<1	<1	<1	<1	<1
2,4-Dimethylphenol	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2-Nitrophenol	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,4-Dichlorophenol	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
4-Chloro-3-methylphenol	mg/kg	<5	<5	<5	<5	<5
2,4,6-trichlorophenol	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,4,5-trichlorophenol	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,4-dinitrophenol	mg/kg	<10	<10	<10	<10	<10
4-nitrophenol	mg/kg	<10	<10	<10	<10	<10
diethylphthalate	mg/kg	<1	<1	<1	<1	<1
2-methyl-4,6-dinitrophenol	mg/kg	<10	<10	<10	<10	<10
pentachlorophenol	mg/kg	<5	<5	<5	<5	<5
di-n-butylphthalate	mg/kg	<1	<1	<1	<1	<1
butylbenzylphthalate	mg/kg	<1	<1	<1	<1	<1
bis(2-ethylhexyl)phthalate	mg/kg	<1	<1	<1	<1	<1
di-n-octylphthalate	mg/kg	<1	<1	<1	<1	<1
2,6-dichlorophenol	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,3,4,6-tetrachlorophenol	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Surrogate 2-fluorophenol	%	54	43	#	45	#
Surrogate Phenol-d6	%	74	60	#	48	#
Surrogate Nitrobenzene-d5	%	76	69	46	61	40
Surrogate 2-fluorobiphenyl	%	103	97	93	94	91
Surrogate 2,4,6-Tribromophenol	%	#	#	#	#	#
Surrogate p-Terphenyl-d14	%	140	135	106	118	99

**Client Reference: Hydro Aluminium AS130515**

SVOCs in Soil Our Reference: Your Reference	UNITS ----- -	162119-F-16 MW204 10% LIMEWET	162119-F-17 MW205 10% LIMEWET	162119-F-18 MW206 10% LIMEWET	162119-F-19 MW201 10% CEMENTWET	162119-F-20 MW202 10% CEMENTWET
Date Sampled	-----	27/04/2017	27/04/2017	27/04/2017	27/04/2017	27/04/2017
Type of sample		Treated Solid Waste	Treated Solid Waste	Treated Solid Waste	Treated Solid Waste	Treated Solid Waste
Date extracted	-	02/05/2017	02/05/2017	02/05/2017	02/05/2017	02/05/2017
Date analysed	-	03/05/2017	03/05/2017	03/05/2017	03/05/2017	03/05/2017
Phenol	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2-Chlorophenol	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2-Methylphenol	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
3/4-Methylphenol	mg/kg	<1	<1	<1	<1	<1
2,4-Dimethylphenol	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2-Nitrophenol	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,4-Dichlorophenol	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
4-Chloro-3-methylphenol	mg/kg	<5	<5	<5	<5	<5
2,4,6-trichlorophenol	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,4,5-trichlorophenol	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,4-dinitrophenol	mg/kg	<10	<10	<10	<10	<10
4-nitrophenol	mg/kg	<10	<10	<10	<10	<10
diethylphthalate	mg/kg	<1	<1	<1	<1	<1
2-methyl-4,6-dinitrophenol	mg/kg	<10	<10	<10	<10	<10
pentachlorophenol	mg/kg	<5	<5	<5	<5	<5
di-n-butylphthalate	mg/kg	<1	<1	<1	<1	<1
butylbenzylphthalate	mg/kg	<1	<1	<1	<1	<1
bis(2-ethylhexyl)phthalate	mg/kg	<1	<1	<1	<1	<1
di-n-octylphthalate	mg/kg	<1	<1	<1	<1	<1
2,6-dichlorophenol	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,3,4,6-tetrachlorophenol	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Surrogate 2-fluorophenol	%	#	20	35	21	61
Surrogate Phenol-d6	%	21	22	31	32	65
Surrogate Nitrobenzene-d5	%	46	50	51	39	48
Surrogate 2-fluorobiphenyl	%	97	94	96	95	95
Surrogate 2,4,6-Tribromophenol	%	#	#	#	#	#
Surrogate p-Terphenyl-d14	%	118	115	124	100	129



**Client Reference: Hydro Aluminium AS130515**

SVOCs in Soil Our Reference: Your Reference	UNITS ----- -	162119-F-21 MW203 10% CEMENTWET	162119-F-22 MW204 10% CEMENTWET	162119-F-23 MW205 10% CEMENTWET	162119-F-24 MW206 10% CEMENTWET	162119-F-25 B.WF.G
Date Sampled	-----	27/04/2017	27/04/2017	27/04/2017	27/04/2017	27/04/2017
Type of sample		Treated Solid Waste	Treated Solid Waste	Treated Solid Waste	Treated Solid Waste	Treated Solid Waste
Date extracted	-	02/05/2017	02/05/2017	02/05/2017	02/05/2017	02/05/2017
Date analysed	-	03/05/2017	03/05/2017	03/05/2017	03/05/2017	03/05/2017
Phenol	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2-Chlorophenol	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2-Methylphenol	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
3/4-Methylphenol	mg/kg	<1	<1	<1	<1	<1
2,4-Dimethylphenol	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2-Nitrophenol	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,4-Dichlorophenol	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
4-Chloro-3-methylphenol	mg/kg	<5	<5	<5	<5	<5
2,4,6-trichlorophenol	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,4,5-trichlorophenol	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,4-dinitrophenol	mg/kg	<10	<10	<10	<10	<10
4-nitrophenol	mg/kg	<10	<10	<10	<10	<10
diethylphthalate	mg/kg	<1	<1	<1	<1	<1
2-methyl-4,6-dinitrophenol	mg/kg	<10	<10	<10	<10	<10
pentachlorophenol	mg/kg	<5	<5	<5	<5	<5
di-n-butylphthalate	mg/kg	<1	<1	<1	<1	<1
butylbenzylphthalate	mg/kg	<1	<1	<1	<1	<1
bis(2-ethylhexyl)phthalate	mg/kg	<1	<1	<1	<1	<1
di-n-octylphthalate	mg/kg	<1	<1	<1	<1	<1
2,6-dichlorophenol	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,3,4,6-tetrachlorophenol	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Surrogate 2-fluorophenol	%	44	58	79	53	25
Surrogate Phenol-d6	%	51	65	83	64	37
Surrogate Nitrobenzene-d5	%	38	53	57	51	58
Surrogate 2-fluorobiphenyl	%	98	107	95	99	88
Surrogate 2,4,6-Tribromophenol	%	#	#	#	#	#
Surrogate p-Terphenyl-d14	%	116	129	124	124	#

**Client Reference: Hydro Aluminium AS130515**

SVOCs in Soil Our Reference: Your Reference	UNITS ----- -	162119-F-26 B.W.R.O.S	162119-F-27 ERERINGR.O.S	162119-F-28 ERARINGF.G
Date Sampled	-----	27/04/2017	27/04/2017	27/04/2017
Type of sample		Treated Solid Waste	Treated Solid Waste	Treated Solid Waste
Date extracted	-	02/05/2017	02/05/2017	02/05/2017
Date analysed	-	03/05/2017	03/05/2017	03/05/2017
Phenol	mg/kg	<0.5	<0.5	<0.5
2-Chlorophenol	mg/kg	<0.5	<0.5	<0.5
2-Methylphenol	mg/kg	<0.5	<0.5	<0.5
3/4-Methylphenol	mg/kg	<1	<1	<1
2,4-Dimethylphenol	mg/kg	<0.5	<0.5	<0.5
2-Nitrophenol	mg/kg	<0.5	<0.5	<0.5
2,4-Dichlorophenol	mg/kg	<0.5	<0.5	<0.5
4-Chloro-3-methylphenol	mg/kg	<5	<5	<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
2,4-dinitrophenol	mg/kg	<10	<10	<10
4-nitrophenol	mg/kg	<10	<10	<10
diethylphthalate	mg/kg	<1	<1	<1
2-methyl-4,6-dinitrophenol	mg/kg	<10	<10	<10
pentachlorophenol	mg/kg	<5	<5	<5
di-n-butylphthalate	mg/kg	<1	<1	<1
butylbenzylphthalate	mg/kg	<1	<1	<1
bis(2-ethylhexyl)phthalate	mg/kg	<1	<1	<1
di-n-octylphthalate	mg/kg	<1	<1	<1
2,6-dichlorophenol	mg/kg	<0.5	<0.5	<0.5
2,3,4,6-tetrachlorophenol	mg/kg	<0.5	<0.5	<0.5
Surrogate 2-fluorophenol	%	#	#	#
Surrogate Phenol-d6	%	25	30	23
Surrogate Nitrobenzene-d5	%	32	57	36
Surrogate 2-fluorobiphenyl	%	53	86	74
Surrogate 2,4,6-Tribromophenol	%	#	#	#
Surrogate p-Terphenyl-d14	%	#	#	#

**Client Reference: Hydro Aluminium AS130515**

VOCs in soil Our Reference: Your Reference  Date Sampled Type of sample	UNITS ----- - -----	162119-F-1 MW201 10% LIMEDRY  27/04/2017 Treated Solid Waste	162119-F-2 MW202 10% LIMEDRY  27/04/2017 Treated Solid Waste	162119-F-3 MW203 10% LIMEDRY  27/04/2017 Treated Solid Waste	162119-F-4 MW204 10% LIMEDRY  27/04/2017 Treated Solid Waste	162119-F-5 MW205 10% LIMEDRY  27/04/2017 Treated Solid Waste
Date extracted	-	2/05/2017	2/05/2017	2/05/2017	2/05/2017	2/05/2017
Date analysed	-	4/05/2017	4/05/2017	4/05/2017	4/05/2017	4/05/2017
Dichlorodifluoromethane	mg/kg	<1	<1	<1	<1	<1
Chloromethane	mg/kg	<1	<1	<1	<1	<1
Vinyl Chloride	mg/kg	<1	<1	<1	<1	<1
Bromomethane	mg/kg	<1	<1	<1	<1	<1
Chloroethane	mg/kg	<1	<1	<1	<1	<1
Trichlorofluoromethane	mg/kg	<1	<1	<1	<1	<1
1,1-Dichloroethene	mg/kg	<1	<1	<1	<1	<1
trans-1,2-dichloroethene	mg/kg	<1	<1	<1	<1	<1
1,1-dichloroethane	mg/kg	<1	<1	<1	<1	<1
cis-1,2-dichloroethene	mg/kg	<1	<1	<1	<1	<1
bromochloromethane	mg/kg	<1	<1	<1	<1	<1
chloroform	mg/kg	<1	<1	<1	<1	<1
2,2-dichloropropane	mg/kg	<1	<1	<1	<1	<1
1,2-dichloroethane	mg/kg	<1	<1	<1	<1	<1
1,1,1-trichloroethane	mg/kg	<1	<1	<1	<1	<1
1,1-dichloropropene	mg/kg	<1	<1	<1	<1	<1
Cyclohexane	mg/kg	<1	<1	<1	<1	<1
carbon tetrachloride	mg/kg	<1	<1	<1	<1	<1
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
dibromomethane	mg/kg	<1	<1	<1	<1	<1
1,2-dichloropropane	mg/kg	<1	<1	<1	<1	<1
trichloroethene	mg/kg	<1	<1	<1	<1	<1
bromodichloromethane	mg/kg	<1	<1	<1	<1	<1
trans-1,3-dichloropropene	mg/kg	<1	<1	<1	<1	<1
cis-1,3-dichloropropene	mg/kg	<1	<1	<1	<1	<1
1,1,2-trichloroethane	mg/kg	<1	<1	<1	<1	<1
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,3-dichloropropane	mg/kg	<1	<1	<1	<1	<1
dibromochloromethane	mg/kg	<1	<1	<1	<1	<1
1,2-dibromoethane	mg/kg	<1	<1	<1	<1	<1
tetrachloroethene	mg/kg	<1	<1	<1	<1	<1
1,1,1,2-tetrachloroethane	mg/kg	<1	<1	<1	<1	<1
chlorobenzene	mg/kg	<1	<1	<1	<1	<1
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
bromoform	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
styrene	mg/kg	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	mg/kg	<1	<1	<1	<1	<1
o-Xylene	mg/kg	<1	<1	<1	<1	<1

**Client Reference: Hydro Aluminium AS130515**

VOCs in soil Our Reference: Your Reference	UNITS ----- -	162119-F-1 MW201 10% LIMEDRY	162119-F-2 MW202 10% LIMEDRY	162119-F-3 MW203 10% LIMEDRY	162119-F-4 MW204 10% LIMEDRY	162119-F-5 MW205 10% LIMEDRY
Date Sampled	-----	27/04/2017	27/04/2017	27/04/2017	27/04/2017	27/04/2017
Type of sample		Treated Solid Waste	Treated Solid Waste	Treated Solid Waste	Treated Solid Waste	Treated Solid Waste
1,2,3-trichloropropane	mg/kg	<1	<1	<1	<1	<1
isopropylbenzene	mg/kg	<1	<1	<1	<1	<1
bromobenzene	mg/kg	<1	<1	<1	<1	<1
n-propyl benzene	mg/kg	<1	<1	<1	<1	<1
2-chlorotoluene	mg/kg	<1	<1	<1	<1	<1
4-chlorotoluene	mg/kg	<1	<1	<1	<1	<1
1,3,5-trimethyl benzene	mg/kg	<1	<1	<1	<1	<1
tert-butyl benzene	mg/kg	<1	<1	<1	<1	<1
1,2,4-trimethyl benzene	mg/kg	<1	<1	<1	<1	<1
1,3-dichlorobenzene	mg/kg	<1	<1	<1	<1	<1
sec-butyl benzene	mg/kg	<1	<1	<1	<1	<1
1,4-dichlorobenzene	mg/kg	<1	<1	<1	<1	<1
4-isopropyl toluene	mg/kg	<1	<1	<1	<1	<1
1,2-dichlorobenzene	mg/kg	<1	<1	<1	<1	<1
n-butyl benzene	mg/kg	<1	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	mg/kg	<1	<1	<1	<1	<1
1,2,4-trichlorobenzene	mg/kg	<1	<1	<1	<1	<1
hexachlorobutadiene	mg/kg	<1	<1	<1	<1	<1
1,2,3-trichlorobenzene	mg/kg	<1	<1	<1	<1	<1
Surrogate Dibromofluorometha	%	128	130	130	130	129
Surrogate aaa-Trifluorotoluene	%	106	100	98	102	99
Surrogate Toluene-d8	%	93	93	93	94	93
Surrogate 4-Bromofluorobenzene	%	88	89	89	90	89

**Client Reference: Hydro Aluminium AS130515**

VOCs in soil Our Reference: Your Reference  Date Sampled Type of sample	UNITS ----- - -----	162119-F-6 MW206 10% LIMEDRY  27/04/2017 Treated Solid Waste	162119-F-7 MW201 10% CEMENTDRY  27/04/2017 Treated Solid Waste	162119-F-8 MW202 10% CEMENTDRY  27/04/2017 Treated Solid Waste	162119-F-9 MW203 10% CEMENTDRY  27/04/2017 Treated Solid Waste	162119-F-10 MW204 10% CEMENTDRY  27/04/2017 Treated Solid Waste
Date extracted	-	2/05/2017	2/05/2017	2/05/2017	2/05/2017	2/05/2017
Date analysed	-	4/05/2017	4/05/2017	4/05/2017	4/05/2017	4/05/2017
Dichlorodifluoromethane	mg/kg	<1	<1	<1	<1	<1
Chloromethane	mg/kg	<1	<1	<1	<1	<1
Vinyl Chloride	mg/kg	<1	<1	<1	<1	<1
Bromomethane	mg/kg	<1	<1	<1	<1	<1
Chloroethane	mg/kg	<1	<1	<1	<1	<1
Trichlorofluoromethane	mg/kg	<1	<1	<1	<1	<1
1,1-Dichloroethene	mg/kg	<1	<1	<1	<1	<1
trans-1,2-dichloroethene	mg/kg	<1	<1	<1	<1	<1
1,1-dichloroethane	mg/kg	<1	<1	<1	<1	<1
cis-1,2-dichloroethene	mg/kg	<1	<1	<1	<1	<1
bromochloromethane	mg/kg	<1	<1	<1	<1	<1
chloroform	mg/kg	<1	<1	<1	<1	<1
2,2-dichloropropane	mg/kg	<1	<1	<1	<1	<1
1,2-dichloroethane	mg/kg	<1	<1	<1	<1	<1
1,1,1-trichloroethane	mg/kg	<1	<1	<1	<1	<1
1,1-dichloropropene	mg/kg	<1	<1	<1	<1	<1
Cyclohexane	mg/kg	<1	<1	<1	<1	<1
carbon tetrachloride	mg/kg	<1	<1	<1	<1	<1
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
dibromomethane	mg/kg	<1	<1	<1	<1	<1
1,2-dichloropropane	mg/kg	<1	<1	<1	<1	<1
trichloroethene	mg/kg	<1	<1	<1	<1	<1
bromodichloromethane	mg/kg	<1	<1	<1	<1	<1
trans-1,3-dichloropropene	mg/kg	<1	<1	<1	<1	<1
cis-1,3-dichloropropene	mg/kg	<1	<1	<1	<1	<1
1,1,2-trichloroethane	mg/kg	<1	<1	<1	<1	<1
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,3-dichloropropane	mg/kg	<1	<1	<1	<1	<1
dibromochloromethane	mg/kg	<1	<1	<1	<1	<1
1,2-dibromoethane	mg/kg	<1	<1	<1	<1	<1
tetrachloroethene	mg/kg	<1	<1	<1	<1	<1
1,1,1,2-tetrachloroethane	mg/kg	<1	<1	<1	<1	<1
chlorobenzene	mg/kg	<1	<1	<1	<1	<1
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
bromoform	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
styrene	mg/kg	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	mg/kg	<1	<1	<1	<1	<1
o-Xylene	mg/kg	<1	<1	<1	<1	<1

**Client Reference: Hydro Aluminium AS130515**

VOCs in soil Our Reference: Your Reference	UNITS ----- -	162119-F-6 MW206 10% LIMEDRY	162119-F-7 MW201 10% CEMENTDRY	162119-F-8 MW202 10% CEMENTDRY	162119-F-9 MW203 10% CEMENTDRY	162119-F-10 MW204 10% CEMENTDRY
Date Sampled	-----	27/04/2017	27/04/2017	27/04/2017	27/04/2017	27/04/2017
Type of sample		Treated Solid Waste	Treated Solid Waste	Treated Solid Waste	Treated Solid Waste	Treated Solid Waste
1,2,3-trichloropropane	mg/kg	<1	<1	<1	<1	<1
isopropylbenzene	mg/kg	<1	<1	<1	<1	<1
bromobenzene	mg/kg	<1	<1	<1	<1	<1
n-propyl benzene	mg/kg	<1	<1	<1	<1	<1
2-chlorotoluene	mg/kg	<1	<1	<1	<1	<1
4-chlorotoluene	mg/kg	<1	<1	<1	<1	<1
1,3,5-trimethyl benzene	mg/kg	<1	<1	<1	<1	<1
tert-butyl benzene	mg/kg	<1	<1	<1	<1	<1
1,2,4-trimethyl benzene	mg/kg	<1	<1	<1	<1	<1
1,3-dichlorobenzene	mg/kg	<1	<1	<1	<1	<1
sec-butyl benzene	mg/kg	<1	<1	<1	<1	<1
1,4-dichlorobenzene	mg/kg	<1	<1	<1	<1	<1
4-isopropyl toluene	mg/kg	<1	<1	<1	<1	<1
1,2-dichlorobenzene	mg/kg	<1	<1	<1	<1	<1
n-butyl benzene	mg/kg	<1	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	mg/kg	<1	<1	<1	<1	<1
1,2,4-trichlorobenzene	mg/kg	<1	<1	<1	<1	<1
hexachlorobutadiene	mg/kg	<1	<1	<1	<1	<1
1,2,3-trichlorobenzene	mg/kg	<1	<1	<1	<1	<1
Surrogate Dibromofluorometha	%	126	134	132	131	131
Surrogate aaa-Trifluorotoluene	%	99	108	107	98	103
Surrogate Toluene-d8	%	94	95	93	94	94
Surrogate 4-Bromofluorobenzene	%	85	88	88	90	89

**Client Reference: Hydro Aluminium AS130515**

VOCs in soil Our Reference: Your Reference  Date Sampled Type of sample	UNITS ----- - -----	162119-F-11 MW205 10% CEMENTDRY  27/04/2017 Treated Solid Waste	162119-F-12 MW206 10% CEMENTDRY  27/04/2017 Treated Solid Waste	162119-F-13 MW201 10% LIMEWET  27/04/2017 Treated Solid Waste	162119-F-14 MW202 10% LIMEWET  27/04/2017 Treated Solid Waste	162119-F-15 MW203 10% LIMEWET  27/04/2017 Treated Solid Waste
Date extracted	-	2/05/2017	2/05/2017	2/05/2017	2/05/2017	2/05/2017
Date analysed	-	4/05/2017	4/05/2017	4/05/2017	4/05/2017	4/05/2017
Dichlorodifluoromethane	mg/kg	<1	<1	<1	<1	<1
Chloromethane	mg/kg	<1	<1	<1	<1	<1
Vinyl Chloride	mg/kg	<1	<1	<1	<1	<1
Bromomethane	mg/kg	<1	<1	<1	<1	<1
Chloroethane	mg/kg	<1	<1	<1	<1	<1
Trichlorofluoromethane	mg/kg	<1	<1	<1	<1	<1
1,1-Dichloroethene	mg/kg	<1	<1	<1	<1	<1
trans-1,2-dichloroethene	mg/kg	<1	<1	<1	<1	<1
1,1-dichloroethane	mg/kg	<1	<1	<1	<1	<1
cis-1,2-dichloroethene	mg/kg	<1	<1	<1	<1	<1
bromochloromethane	mg/kg	<1	<1	<1	<1	<1
chloroform	mg/kg	<1	<1	<1	<1	<1
2,2-dichloropropane	mg/kg	<1	<1	<1	<1	<1
1,2-dichloroethane	mg/kg	<1	<1	<1	<1	<1
1,1,1-trichloroethane	mg/kg	<1	<1	<1	<1	<1
1,1-dichloropropene	mg/kg	<1	<1	<1	<1	<1
Cyclohexane	mg/kg	<1	<1	<1	<1	<1
carbon tetrachloride	mg/kg	<1	<1	<1	<1	<1
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
dibromomethane	mg/kg	<1	<1	<1	<1	<1
1,2-dichloropropane	mg/kg	<1	<1	<1	<1	<1
trichloroethene	mg/kg	<1	<1	<1	<1	<1
bromodichloromethane	mg/kg	<1	<1	<1	<1	<1
trans-1,3-dichloropropene	mg/kg	<1	<1	<1	<1	<1
cis-1,3-dichloropropene	mg/kg	<1	<1	<1	<1	<1
1,1,2-trichloroethane	mg/kg	<1	<1	<1	<1	<1
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,3-dichloropropane	mg/kg	<1	<1	<1	<1	<1
dibromochloromethane	mg/kg	<1	<1	<1	<1	<1
1,2-dibromoethane	mg/kg	<1	<1	<1	<1	<1
tetrachloroethene	mg/kg	<1	<1	<1	<1	<1
1,1,1,2-tetrachloroethane	mg/kg	<1	<1	<1	<1	<1
chlorobenzene	mg/kg	<1	<1	<1	<1	<1
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
bromoform	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
styrene	mg/kg	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	mg/kg	<1	<1	<1	<1	<1
o-Xylene	mg/kg	<1	<1	<1	<1	<1

**Client Reference: Hydro Aluminium AS130515**

VOCs in soil Our Reference: Your Reference  Date Sampled Type of sample	UNITS ----- - -----	162119-F-11 MW205 10% CEMENTDRY  27/04/2017 Treated Solid Waste	162119-F-12 MW206 10% CEMENTDRY  27/04/2017 Treated Solid Waste	162119-F-13 MW201 10% LIMEWET  27/04/2017 Treated Solid Waste	162119-F-14 MW202 10% LIMEWET  27/04/2017 Treated Solid Waste	162119-F-15 MW203 10% LIMEWET  27/04/2017 Treated Solid Waste
1,2,3-trichloropropane	mg/kg	<1	<1	<1	<1	<1
isopropylbenzene	mg/kg	<1	<1	<1	<1	<1
bromobenzene	mg/kg	<1	<1	<1	<1	<1
n-propyl benzene	mg/kg	<1	<1	<1	<1	<1
2-chlorotoluene	mg/kg	<1	<1	<1	<1	<1
4-chlorotoluene	mg/kg	<1	<1	<1	<1	<1
1,3,5-trimethyl benzene	mg/kg	<1	<1	<1	<1	<1
tert-butyl benzene	mg/kg	<1	<1	<1	<1	<1
1,2,4-trimethyl benzene	mg/kg	<1	<1	<1	<1	<1
1,3-dichlorobenzene	mg/kg	<1	<1	<1	<1	<1
sec-butyl benzene	mg/kg	<1	<1	<1	<1	<1
1,4-dichlorobenzene	mg/kg	<1	<1	<1	<1	<1
4-isopropyl toluene	mg/kg	<1	<1	<1	<1	<1
1,2-dichlorobenzene	mg/kg	<1	<1	<1	<1	<1
n-butyl benzene	mg/kg	<1	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	mg/kg	<1	<1	<1	<1	<1
1,2,4-trichlorobenzene	mg/kg	<1	<1	<1	<1	<1
hexachlorobutadiene	mg/kg	<1	<1	<1	<1	<1
1,2,3-trichlorobenzene	mg/kg	<1	<1	<1	<1	<1
Surrogate Dibromofluorometha	%	131	130	130	129	131
Surrogate aaa-Trifluorotoluene	%	103	104	92	94	91
Surrogate Toluene-d8	%	95	93	94	94	93
Surrogate 4-Bromofluorobenzene	%	88	87	89	87	88



**Client Reference: Hydro Aluminium AS130515**

VOCs in soil Our Reference: Your Reference  Date Sampled Type of sample	UNITS ----- - -----	162119-F-16 MW204 10% LIMEWET  27/04/2017 Treated Solid Waste	162119-F-17 MW205 10% LIMEWET  27/04/2017 Treated Solid Waste	162119-F-18 MW206 10% LIMEWET  27/04/2017 Treated Solid Waste	162119-F-19 MW201 10% CEMENTWET  27/04/2017 Treated Solid Waste	162119-F-20 MW202 10% CEMENTWET  27/04/2017 Treated Solid Waste
Date extracted	-	2/05/2017	2/05/2017	2/05/2017	2/05/2017	2/05/2017
Date analysed	-	4/05/2017	4/05/2017	4/05/2017	4/05/2017	4/05/2017
Dichlorodifluoromethane	mg/kg	<1	<1	<1	<1	<1
Chloromethane	mg/kg	<1	<1	<1	<1	<1
Vinyl Chloride	mg/kg	<1	<1	<1	<1	<1
Bromomethane	mg/kg	<1	<1	<1	<1	<1
Chloroethane	mg/kg	<1	<1	<1	<1	<1
Trichlorofluoromethane	mg/kg	<1	<1	<1	<1	<1
1,1-Dichloroethene	mg/kg	<1	<1	<1	<1	<1
trans-1,2-dichloroethene	mg/kg	<1	<1	<1	<1	<1
1,1-dichloroethane	mg/kg	<1	<1	<1	<1	<1
cis-1,2-dichloroethene	mg/kg	<1	<1	<1	<1	<1
bromochloromethane	mg/kg	<1	<1	<1	<1	<1
chloroform	mg/kg	<1	<1	<1	<1	<1
2,2-dichloropropane	mg/kg	<1	<1	<1	<1	<1
1,2-dichloroethane	mg/kg	<1	<1	<1	<1	<1
1,1,1-trichloroethane	mg/kg	<1	<1	<1	<1	<1
1,1-dichloropropene	mg/kg	<1	<1	<1	<1	<1
Cyclohexane	mg/kg	<1	<1	<1	<1	<1
carbon tetrachloride	mg/kg	<1	<1	<1	<1	<1
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
dibromomethane	mg/kg	<1	<1	<1	<1	<1
1,2-dichloropropane	mg/kg	<1	<1	<1	<1	<1
trichloroethene	mg/kg	<1	<1	<1	<1	<1
bromodichloromethane	mg/kg	<1	<1	<1	<1	<1
trans-1,3-dichloropropene	mg/kg	<1	<1	<1	<1	<1
cis-1,3-dichloropropene	mg/kg	<1	<1	<1	<1	<1
1,1,2-trichloroethane	mg/kg	<1	<1	<1	<1	<1
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,3-dichloropropane	mg/kg	<1	<1	<1	<1	<1
dibromochloromethane	mg/kg	<1	<1	<1	<1	<1
1,2-dibromoethane	mg/kg	<1	<1	<1	<1	<1
tetrachloroethene	mg/kg	<1	<1	<1	<1	<1
1,1,1,2-tetrachloroethane	mg/kg	<1	<1	<1	<1	<1
chlorobenzene	mg/kg	<1	<1	<1	<1	<1
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
bromoform	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
styrene	mg/kg	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	mg/kg	<1	<1	<1	<1	<1
o-Xylene	mg/kg	<1	<1	<1	<1	<1

**Client Reference: Hydro Aluminium AS130515**

VOCs in soil Our Reference: Your Reference  Date Sampled Type of sample	UNITS ----- - -----	162119-F-16 MW204 10% LIMEWET  27/04/2017 Treated Solid Waste	162119-F-17 MW205 10% LIMEWET  27/04/2017 Treated Solid Waste	162119-F-18 MW206 10% LIMEWET  27/04/2017 Treated Solid Waste	162119-F-19 MW201 10% CEMENTWET  27/04/2017 Treated Solid Waste	162119-F-20 MW202 10% CEMENTWET  27/04/2017 Treated Solid Waste
1,2,3-trichloropropane	mg/kg	<1	<1	<1	<1	<1
isopropylbenzene	mg/kg	<1	<1	<1	<1	<1
bromobenzene	mg/kg	<1	<1	<1	<1	<1
n-propyl benzene	mg/kg	<1	<1	<1	<1	<1
2-chlorotoluene	mg/kg	<1	<1	<1	<1	<1
4-chlorotoluene	mg/kg	<1	<1	<1	<1	<1
1,3,5-trimethyl benzene	mg/kg	<1	<1	<1	<1	<1
tert-butyl benzene	mg/kg	<1	<1	<1	<1	<1
1,2,4-trimethyl benzene	mg/kg	<1	<1	<1	<1	<1
1,3-dichlorobenzene	mg/kg	<1	<1	<1	<1	<1
sec-butyl benzene	mg/kg	<1	<1	<1	<1	<1
1,4-dichlorobenzene	mg/kg	<1	<1	<1	<1	<1
4-isopropyl toluene	mg/kg	<1	<1	<1	<1	<1
1,2-dichlorobenzene	mg/kg	<1	<1	<1	<1	<1
n-butyl benzene	mg/kg	<1	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	mg/kg	<1	<1	<1	<1	<1
1,2,4-trichlorobenzene	mg/kg	<1	<1	<1	<1	<1
hexachlorobutadiene	mg/kg	<1	<1	<1	<1	<1
1,2,3-trichlorobenzene	mg/kg	<1	<1	<1	<1	<1
Surrogate Dibromofluorometha	%	130	131	129	130	132
Surrogate aaa-Trifluorotoluene	%	90	91	90	90	95
Surrogate Toluene-d8	%	93	94	94	92	92
Surrogate 4-Bromofluorobenzene	%	88	87	89	89	88

**Client Reference: Hydro Aluminium AS130515**

VOCs in soil Our Reference: Your Reference	UNITS ----- -	162119-F-21 MW203 10% CEMENTWET	162119-F-22 MW204 10% CEMENTWET	162119-F-23 MW205 10% CEMENTWET	162119-F-24 MW206 10% CEMENTWET	162119-F-25 B.WF.G
Date Sampled	-----	27/04/2017	27/04/2017	27/04/2017	27/04/2017	27/04/2017
Type of sample		Treated Solid Waste	Treated Solid Waste	Treated Solid Waste	Treated Solid Waste	Treated Solid Waste
Date extracted	-	2/05/2017	2/05/2017	2/05/2017	2/05/2017	2/05/2017
Date analysed	-	4/05/2017	4/05/2017	4/05/2017	4/05/2017	4/05/2017
Dichlorodifluoromethane	mg/kg	<1	<1	<1	<1	<1
Chloromethane	mg/kg	<1	<1	<1	<1	<1
Vinyl Chloride	mg/kg	<1	<1	<1	<1	<1
Bromomethane	mg/kg	<1	<1	<1	<1	<1
Chloroethane	mg/kg	<1	<1	<1	<1	<1
Trichlorofluoromethane	mg/kg	<1	<1	<1	<1	<1
1,1-Dichloroethene	mg/kg	<1	<1	<1	<1	<1
trans-1,2-dichloroethene	mg/kg	<1	<1	<1	<1	<1
1,1-dichloroethane	mg/kg	<1	<1	<1	<1	<1
cis-1,2-dichloroethene	mg/kg	<1	<1	<1	<1	<1
bromochloromethane	mg/kg	<1	<1	<1	<1	<1
chloroform	mg/kg	<1	<1	<1	<1	<1
2,2-dichloropropane	mg/kg	<1	<1	<1	<1	<1
1,2-dichloroethane	mg/kg	<1	<1	<1	<1	<1
1,1,1-trichloroethane	mg/kg	<1	<1	<1	<1	<1
1,1-dichloropropene	mg/kg	<1	<1	<1	<1	<1
Cyclohexane	mg/kg	<1	<1	<1	<1	<1
carbon tetrachloride	mg/kg	<1	<1	<1	<1	<1
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
dibromomethane	mg/kg	<1	<1	<1	<1	<1
1,2-dichloropropane	mg/kg	<1	<1	<1	<1	<1
trichloroethene	mg/kg	<1	<1	<1	<1	<1
bromodichloromethane	mg/kg	<1	<1	<1	<1	<1
trans-1,3-dichloropropene	mg/kg	<1	<1	<1	<1	<1
cis-1,3-dichloropropene	mg/kg	<1	<1	<1	<1	<1
1,1,2-trichloroethane	mg/kg	<1	<1	<1	<1	<1
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,3-dichloropropane	mg/kg	<1	<1	<1	<1	<1
dibromochloromethane	mg/kg	<1	<1	<1	<1	<1
1,2-dibromoethane	mg/kg	<1	<1	<1	<1	<1
tetrachloroethene	mg/kg	<1	<1	<1	<1	<1
1,1,1,2-tetrachloroethane	mg/kg	<1	<1	<1	<1	<1
chlorobenzene	mg/kg	<1	<1	<1	<1	<1
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
bromoform	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
styrene	mg/kg	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	mg/kg	<1	<1	<1	<1	<1
o-Xylene	mg/kg	<1	<1	<1	<1	<1

**Client Reference: Hydro Aluminium AS130515**

VOCs in soil Our Reference: Your Reference	UNITS ----- -	162119-F-21 MW203 10% CEMENTWET	162119-F-22 MW204 10% CEMENTWET	162119-F-23 MW205 10% CEMENTWET	162119-F-24 MW206 10% CEMENTWET	162119-F-25 B.WF.G
Date Sampled	-----	27/04/2017	27/04/2017	27/04/2017	27/04/2017	27/04/2017
Type of sample		Treated Solid Waste	Treated Solid Waste	Treated Solid Waste	Treated Solid Waste	Treated Solid Waste
1,2,3-trichloropropane	mg/kg	<1	<1	<1	<1	<1
isopropylbenzene	mg/kg	<1	<1	<1	<1	<1
bromobenzene	mg/kg	<1	<1	<1	<1	<1
n-propyl benzene	mg/kg	<1	<1	<1	<1	<1
2-chlorotoluene	mg/kg	<1	<1	<1	<1	<1
4-chlorotoluene	mg/kg	<1	<1	<1	<1	<1
1,3,5-trimethyl benzene	mg/kg	<1	<1	<1	<1	<1
tert-butyl benzene	mg/kg	<1	<1	<1	<1	<1
1,2,4-trimethyl benzene	mg/kg	<1	<1	<1	<1	<1
1,3-dichlorobenzene	mg/kg	<1	<1	<1	<1	<1
sec-butyl benzene	mg/kg	<1	<1	<1	<1	<1
1,4-dichlorobenzene	mg/kg	<1	<1	<1	<1	<1
4-isopropyl toluene	mg/kg	<1	<1	<1	<1	<1
1,2-dichlorobenzene	mg/kg	<1	<1	<1	<1	<1
n-butyl benzene	mg/kg	<1	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	mg/kg	<1	<1	<1	<1	<1
1,2,4-trichlorobenzene	mg/kg	<1	<1	<1	<1	<1
hexachlorobutadiene	mg/kg	<1	<1	<1	<1	<1
1,2,3-trichlorobenzene	mg/kg	<1	<1	<1	<1	<1
Surrogate Dibromofluorometha	%	130	132	133	134	132
Surrogate aaa-Trifluorotoluene	%	96	90	93	90	99
Surrogate Toluene-d8	%	92	92	94	93	94
Surrogate 4-Bromofluorobenzene	%	88	87	88	87	87

Client Reference: Hydro Aluminium AS130515

VOCs in soil Our Reference: Your Reference	UNITS ----- -	162119-F-26 B.WR.O.S	162119-F-27 ERERINGR.O.S	162119-F-28 ERARINGF.G
Date Sampled Type of sample	-----	27/04/2017 Treated Solid Waste	27/04/2017 Treated Solid Waste	27/04/2017 Treated Solid Waste
Date extracted	-	2/05/2017	2/05/2017	2/05/2017
Date analysed	-	4/05/2017	4/05/2017	4/05/2017
Dichlorodifluoromethane	mg/kg	<1	<1	<1
Chloromethane	mg/kg	<1	<1	<1
Vinyl Chloride	mg/kg	<1	<1	<1
Bromomethane	mg/kg	<1	<1	<1
Chloroethane	mg/kg	<1	<1	<1
Trichlorofluoromethane	mg/kg	<1	<1	<1
1,1-Dichloroethene	mg/kg	<1	<1	<1
trans-1,2-dichloroethene	mg/kg	<1	<1	<1
1,1-dichloroethane	mg/kg	<1	<1	<1
cis-1,2-dichloroethene	mg/kg	<1	<1	<1
bromochloromethane	mg/kg	<1	<1	<1
chloroform	mg/kg	<1	<1	<1
2,2-dichloropropane	mg/kg	<1	<1	<1
1,2-dichloroethane	mg/kg	<1	<1	<1
1,1,1-trichloroethane	mg/kg	<1	<1	<1
1,1-dichloropropene	mg/kg	<1	<1	<1
Cyclohexane	mg/kg	<1	<1	<1
carbon tetrachloride	mg/kg	<1	<1	<1
Benzene	mg/kg	<0.2	<0.2	<0.2
dibromomethane	mg/kg	<1	<1	<1
1,2-dichloropropane	mg/kg	<1	<1	<1
trichloroethene	mg/kg	<1	<1	<1
bromodichloromethane	mg/kg	<1	<1	<1
trans-1,3-dichloropropene	mg/kg	<1	<1	<1
cis-1,3-dichloropropene	mg/kg	<1	<1	<1
1,1,2-trichloroethane	mg/kg	<1	<1	<1
Toluene	mg/kg	<0.5	<0.5	<0.5
1,3-dichloropropane	mg/kg	<1	<1	<1
dibromochloromethane	mg/kg	<1	<1	<1
1,2-dibromoethane	mg/kg	<1	<1	<1
tetrachloroethene	mg/kg	<1	<1	<1
1,1,1,2-tetrachloroethane	mg/kg	<1	<1	<1
chlorobenzene	mg/kg	<1	<1	<1
Ethylbenzene	mg/kg	<1	<1	<1
bromoform	mg/kg	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2
styrene	mg/kg	<1	<1	<1
1,1,2,2-tetrachloroethane	mg/kg	<1	<1	<1
o-Xylene	mg/kg	<1	<1	<1

VOCs in soil Our Reference: Your Reference	UNITS ----- -	162119-F-26 B.W.R.O.S	162119-F-27 ERERINGR.O.S	162119-F-28 ERARINGF.G
Date Sampled	-----	27/04/2017	27/04/2017	27/04/2017
Type of sample		Treated Solid Waste	Treated Solid Waste	Treated Solid Waste
1,2,3-trichloropropane	mg/kg	<1	<1	<1
isopropylbenzene	mg/kg	<1	<1	<1
bromobenzene	mg/kg	<1	<1	<1
n-propyl benzene	mg/kg	<1	<1	<1
2-chlorotoluene	mg/kg	<1	<1	<1
4-chlorotoluene	mg/kg	<1	<1	<1
1,3,5-trimethyl benzene	mg/kg	<1	<1	<1
tert-butyl benzene	mg/kg	<1	<1	<1
1,2,4-trimethyl benzene	mg/kg	<1	<1	<1
1,3-dichlorobenzene	mg/kg	<1	<1	<1
sec-butyl benzene	mg/kg	<1	<1	<1
1,4-dichlorobenzene	mg/kg	<1	<1	<1
4-isopropyl toluene	mg/kg	<1	<1	<1
1,2-dichlorobenzene	mg/kg	<1	<1	<1
n-butyl benzene	mg/kg	<1	<1	<1
1,2-dibromo-3-chloropropane	mg/kg	<1	<1	<1
1,2,4-trichlorobenzene	mg/kg	<1	<1	<1
hexachlorobutadiene	mg/kg	<1	<1	<1
1,2,3-trichlorobenzene	mg/kg	<1	<1	<1
Surrogate Dibromofluorometha	%	134	134	133
Surrogate aaa-Trifluorotoluene	%	98	101	97
Surrogate Toluene-d8	%	94	95	91
Surrogate 4-Bromofluorobenzene	%	91	87	86

**Client Reference: Hydro Aluminium AS130515**

Acid Extractable metals in soil Our Reference: Your Reference	UNITS ----- -	162119-F-1 MW201 10% LIMEDRY	162119-F-2 MW202 10% LIMEDRY	162119-F-3 MW203 10% LIMEDRY	162119-F-4 MW204 10% LIMEDRY	162119-F-5 MW205 10% LIMEDRY
Date Sampled	-----	27/04/2017	27/04/2017	27/04/2017	27/04/2017	27/04/2017
Type of sample		Treated Solid Waste	Treated Solid Waste	Treated Solid Waste	Treated Solid Waste	Treated Solid Waste
Date prepared	-	02/05/2017	02/05/2017	02/05/2017	02/05/2017	02/05/2017
Date analysed	-	04/05/2017	04/05/2017	04/05/2017	04/05/2017	04/05/2017
Arsenic	mg/kg	5	35	46	7	40
Cadmium	mg/kg	<0.4	0.5	0.5	<0.4	0.4
Copper	mg/kg	15	110	290	32	63
Lead	mg/kg	12	180	240	24	54
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Molybdenum	mg/kg	2	6	9	3	5
Nickel	mg/kg	34	180	39	49	100
Selenium	mg/kg	<2	<2	<2	<2	<2
Silver	mg/kg	<1	<1	<1	<1	<1
Tin	mg/kg	2	5	12	2	5
Zinc	mg/kg	71	740	2,600	150	620

Acid Extractable metals in soil Our Reference: Your Reference	UNITS ----- -	162119-F-6 MW206 10% LIMEDRY	162119-F-7 MW201 10% CEMENTDRY	162119-F-8 MW202 10% CEMENTDRY	162119-F-9 MW203 10% CEMENTDRY	162119-F-10 MW204 10% CEMENTDRY
Date Sampled	-----	27/04/2017	27/04/2017	27/04/2017	27/04/2017	27/04/2017
Type of sample		Treated Solid Waste	Treated Solid Waste	Treated Solid Waste	Treated Solid Waste	Treated Solid Waste
Date prepared	-	02/05/2017	02/05/2017	02/05/2017	02/05/2017	02/05/2017
Date analysed	-	04/05/2017	04/05/2017	04/05/2017	04/05/2017	04/05/2017
Arsenic	mg/kg	10	5	22	44	8
Cadmium	mg/kg	0.5	<0.4	0.5	0.5	<0.4
Copper	mg/kg	40	15	110	250	31
Lead	mg/kg	22	12	190	170	27
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Molybdenum	mg/kg	7	2	6	7	2
Nickel	mg/kg	70	32	170	40	48
Selenium	mg/kg	<2	<2	<2	<2	<2
Silver	mg/kg	<1	<1	<1	<1	<1
Tin	mg/kg	3	2	6	9	2
Zinc	mg/kg	180	88	680	1,900	160

**Client Reference: Hydro Aluminium AS130515**

Acid Extractable metals in soil Our Reference: Your Reference	UNITS ----- -	162119-F-11 MW205 10% CEMENTDRY	162119-F-12 MW206 10% CEMENTDRY	162119-F-13 MW201 10% LIMEWET	162119-F-14 MW202 10% LIMEWET	162119-F-15 MW203 10% LIMEWET
Date Sampled	-----	27/04/2017	27/04/2017	27/04/2017	27/04/2017	27/04/2017
Type of sample		Treated Solid Waste	Treated Solid Waste	Treated Solid Waste	Treated Solid Waste	Treated Solid Waste
Date prepared	-	02/05/2017	02/05/2017	02/05/2017	02/05/2017	02/05/2017
Date analysed	-	04/05/2017	04/05/2017	04/05/2017	04/05/2017	04/05/2017
Arsenic	mg/kg	32	10	5	15	24
Cadmium	mg/kg	0.5	0.5	<0.4	0.5	0.4
Copper	mg/kg	58	35	19	80	210
Lead	mg/kg	51	19	15	140	150
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Molybdenum	mg/kg	4	4	2	4	8
Nickel	mg/kg	66	70	35	180	43
Selenium	mg/kg	<2	<2	<2	<2	<2
Silver	mg/kg	<1	<1	<1	<1	<1
Tin	mg/kg	5	3	2	5	8
Zinc	mg/kg	600	150	120	540	1,200

Acid Extractable metals in soil Our Reference: Your Reference	UNITS ----- -	162119-F-16 MW204 10% LIMEWET	162119-F-17 MW205 10% LIMEWET	162119-F-18 MW206 10% LIMEWET	162119-F-19 MW201 10% CEMENTWET	162119-F-20 MW202 10% CEMENTWET
Date Sampled	-----	27/04/2017	27/04/2017	27/04/2017	27/04/2017	27/04/2017
Type of sample		Treated Solid Waste	Treated Solid Waste	Treated Solid Waste	Treated Solid Waste	Treated Solid Waste
Date prepared	-	02/05/2017	02/05/2017	02/05/2017	02/05/2017	02/05/2017
Date analysed	-	04/05/2017	04/05/2017	04/05/2017	04/05/2017	04/05/2017
Arsenic	mg/kg	8	18	10	5	17
Cadmium	mg/kg	0.4	0.5	0.5	<0.4	0.5
Copper	mg/kg	32	55	38	23	110
Lead	mg/kg	22	42	19	20	200
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Molybdenum	mg/kg	3	4	5	2	5
Nickel	mg/kg	53	64	75	33	160
Selenium	mg/kg	<2	<2	<2	<2	<2
Silver	mg/kg	<1	<1	<1	<1	<1
Tin	mg/kg	2	4	3	6	7
Zinc	mg/kg	170	510	150	140	920



**Client Reference: Hydro Aluminium AS130515**

Acid Extractable metals in soil Our Reference: Your Reference	UNITS ----- -	162119-F-21 MW203 10% CEMENTWET	162119-F-22 MW204 10% CEMENTWET	162119-F-23 MW205 10% CEMENTWET	162119-F-24 MW206 10% CEMENTWET	162119-F-25 B.WF.G
Date Sampled Type of sample	-----	27/04/2017 Treated Solid Waste	27/04/2017 Treated Solid Waste	27/04/2017 Treated Solid Waste	27/04/2017 Treated Solid Waste	27/04/2017 Treated Solid Waste
Date prepared	-	02/05/2017	02/05/2017	02/05/2017	02/05/2017	02/05/2017
Date analysed	-	04/05/2017	04/05/2017	04/05/2017	04/05/2017	04/05/2017
Arsenic	mg/kg	52	8	22	11	7
Cadmium	mg/kg	0.5	<0.4	0.5	0.5	<0.4
Copper	mg/kg	230	32	69	48	4
Lead	mg/kg	160	23	63	25	4
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Molybdenum	mg/kg	9	3	5	5	5
Nickel	mg/kg	42	49	82	81	3
Selenium	mg/kg	<2	<2	<2	<2	<2
Silver	mg/kg	<1	<1	<1	<1	<1
Tin	mg/kg	9	2	6	3	2
Zinc	mg/kg	1,200	150	820	210	13

Acid Extractable metals in soil Our Reference: Your Reference	UNITS ----- -	162119-F-26 B.WR.O.S	162119-F-27 ERERINGR.O.S	162119-F-28 ERARINGF.G
Date Sampled Type of sample	-----	27/04/2017 Treated Solid Waste	27/04/2017 Treated Solid Waste	27/04/2017 Treated Solid Waste
Date prepared	-	02/05/2017	02/05/2017	02/05/2017
Date analysed	-	04/05/2017	04/05/2017	04/05/2017
Arsenic	mg/kg	6	7	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4
Copper	mg/kg	6	5	7
Lead	mg/kg	5	4	6
Mercury	mg/kg	0.2	<0.1	0.2
Molybdenum	mg/kg	5	5	4
Nickel	mg/kg	2	5	2
Selenium	mg/kg	2	<2	2
Silver	mg/kg	<1	<1	<1
Tin	mg/kg	3	2	3
Zinc	mg/kg	11	15	10

**Client Reference: Hydro Aluminium AS130515**

Misc Soil - Inorg Our Reference: Your Reference	UNITS ----- -	162119-F-1 MW201 10% LIMEDRY	162119-F-2 MW202 10% LIMEDRY	162119-F-3 MW203 10% LIMEDRY	162119-F-4 MW204 10% LIMEDRY	162119-F-5 MW205 10% LIMEDRY
Date Sampled	-----	27/04/2017	27/04/2017	27/04/2017	27/04/2017	27/04/2017
Type of sample		Treated Solid Waste	Treated Solid Waste	Treated Solid Waste	Treated Solid Waste	Treated Solid Waste
Date prepared	-	03/05/2017	03/05/2017	03/05/2017	03/05/2017	03/05/2017
Date analysed	-	03/05/2017	03/05/2017	03/05/2017	03/05/2017	03/05/2017
Free Cyanide in soil	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Total Cyanide	mg/kg	92	73	220	150	240

Misc Soil - Inorg Our Reference: Your Reference	UNITS ----- -	162119-F-6 MW206 10% LIMEDRY	162119-F-7 MW201 10% CEMENTDRY	162119-F-8 MW202 10% CEMENTDRY	162119-F-9 MW203 10% CEMENTDRY	162119-F-10 MW204 10% CEMENTDRY
Date Sampled	-----	27/04/2017	27/04/2017	27/04/2017	27/04/2017	27/04/2017
Type of sample		Treated Solid Waste	Treated Solid Waste	Treated Solid Waste	Treated Solid Waste	Treated Solid Waste
Date prepared	-	03/05/2017	03/05/2017	03/05/2017	03/05/2017	03/05/2017
Date analysed	-	03/05/2017	03/05/2017	03/05/2017	03/05/2017	03/05/2017
Free Cyanide in soil	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Total Cyanide	mg/kg	200	92	66	220	130

Misc Soil - Inorg Our Reference: Your Reference	UNITS ----- -	162119-F-11 MW205 10% CEMENTDRY	162119-F-12 MW206 10% CEMENTDRY	162119-F-13 MW201 10% LIMEWET	162119-F-14 MW202 10% LIMEWET	162119-F-15 MW203 10% LIMEWET
Date Sampled	-----	27/04/2017	27/04/2017	27/04/2017	27/04/2017	27/04/2017
Type of sample		Treated Solid Waste	Treated Solid Waste	Treated Solid Waste	Treated Solid Waste	Treated Solid Waste
Date prepared	-	03/05/2017	03/05/2017	03/05/2017	03/05/2017	03/05/2017
Date analysed	-	03/05/2017	03/05/2017	03/05/2017	03/05/2017	03/05/2017
Free Cyanide in soil	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Total Cyanide	mg/kg	210	190	95	68	200

Misc Soil - Inorg Our Reference: Your Reference	UNITS ----- -	162119-F-16 MW204 10% LIMEWET	162119-F-17 MW205 10% LIMEWET	162119-F-18 MW206 10% LIMEWET	162119-F-19 MW201 10% CEMENTWET	162119-F-20 MW202 10% CEMENTWET
Date Sampled	-----	27/04/2017	27/04/2017	27/04/2017	27/04/2017	27/04/2017
Type of sample		Treated Solid Waste	Treated Solid Waste	Treated Solid Waste	Treated Solid Waste	Treated Solid Waste
Date prepared	-	03/05/2017	03/05/2017	03/05/2017	03/05/2017	03/05/2017
Date analysed	-	03/05/2017	03/05/2017	03/05/2017	03/05/2017	03/05/2017
Free Cyanide in soil	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Total Cyanide	mg/kg	140	180	170	97	67

**Client Reference: Hydro Aluminium AS130515**

Misc Soil - Inorg Our Reference: Your Reference	UNITS ----- -	162119-F-21 MW203 10% CEMENTWET	162119-F-22 MW204 10% CEMENTWET	162119-F-23 MW205 10% CEMENTWET	162119-F-24 MW206 10% CEMENTWET	162119-F-25 B.WF.G
Date Sampled Type of sample	----- -----	27/04/2017 Treated Solid Waste	27/04/2017 Treated Solid Waste	27/04/2017 Treated Solid Waste	27/04/2017 Treated Solid Waste	27/04/2017 Treated Solid Waste
Date prepared	-	03/05/2017	03/05/2017	03/05/2017	03/05/2017	03/05/2017
Date analysed	-	03/05/2017	03/05/2017	03/05/2017	03/05/2017	03/05/2017
Free Cyanide in soil	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Total Cyanide	mg/kg	190	83	200	180	<0.5

Misc Soil - Inorg Our Reference: Your Reference	UNITS ----- -	162119-F-26 B.WR.O.S	162119-F-27 ERERINGR.O.S	162119-F-28 ERARINGF.G
Date Sampled Type of sample	----- -----	27/04/2017 Treated Solid Waste	27/04/2017 Treated Solid Waste	27/04/2017 Treated Solid Waste
Date prepared	-	03/05/2017	03/05/2017	03/05/2017
Date analysed	-	03/05/2017	03/05/2017	03/05/2017
Free Cyanide in soil	mg/kg	<0.5	<0.5	<0.5
Total Cyanide	mg/kg	<0.5	<0.5	<0.5

**Client Reference: Hydro Aluminium AS130515**

Miscellaneous Inorg - soil Our Reference: Your Reference	UNITS ----- -	162119-F-1 MW201 10% LIMEDRY	162119-F-2 MW202 10% LIMEDRY	162119-F-3 MW203 10% LIMEDRY	162119-F-4 MW204 10% LIMEDRY	162119-F-5 MW205 10% LIMEDRY
Date Sampled	-----	27/04/2017	27/04/2017	27/04/2017	27/04/2017	27/04/2017
Type of sample		Treated Solid Waste	Treated Solid Waste	Treated Solid Waste	Treated Solid Waste	Treated Solid Waste
Date prepared	-	05/05/2017	05/05/2017	05/05/2017	05/05/2017	05/05/2017
Date analysed	-	05/05/2017	05/05/2017	05/05/2017	05/05/2017	05/05/2017
Hexavalent Chromium, Cr <sup>6+</sup>	mg/kg	<1	<1	<1	<1	<1
Total Fluoride	mg/kg	17,000	19,000	33,000	19,000	14,000

Miscellaneous Inorg - soil Our Reference: Your Reference	UNITS ----- -	162119-F-6 MW206 10% LIMEDRY	162119-F-7 MW201 10% CEMENTDRY	162119-F-8 MW202 10% CEMENTDRY	162119-F-9 MW203 10% CEMENTDRY	162119-F-10 MW204 10% CEMENTDRY
Date Sampled	-----	27/04/2017	27/04/2017	27/04/2017	27/04/2017	27/04/2017
Type of sample		Treated Solid Waste	Treated Solid Waste	Treated Solid Waste	Treated Solid Waste	Treated Solid Waste
Date prepared	-	05/05/2017	05/05/2017	05/05/2017	05/05/2017	05/05/2017
Date analysed	-	05/05/2017	05/05/2017	05/05/2017	05/05/2017	05/05/2017
Hexavalent Chromium, Cr <sup>6+</sup>	mg/kg	<1	<1	<1	<1	<1
Total Fluoride	mg/kg	9,500	33,000	21,000	27,000	22,000

Miscellaneous Inorg - soil Our Reference: Your Reference	UNITS ----- -	162119-F-11 MW205 10% CEMENTDRY	162119-F-12 MW206 10% CEMENTDRY	162119-F-13 MW201 10% LIMEWET	162119-F-14 MW202 10% LIMEWET	162119-F-15 MW203 10% LIMEWET
Date Sampled	-----	27/04/2017	27/04/2017	27/04/2017	27/04/2017	27/04/2017
Type of sample		Treated Solid Waste	Treated Solid Waste	Treated Solid Waste	Treated Solid Waste	Treated Solid Waste
Date prepared	-	05/05/2017	05/05/2017	05/05/2017	05/05/2017	05/05/2017
Date analysed	-	05/05/2017	05/05/2017	05/05/2017	05/05/2017	05/05/2017
Hexavalent Chromium, Cr <sup>6+</sup>	mg/kg	<1	<1	<1	<1	<1
Total Fluoride	mg/kg	18,000	28,000	31,000	20,000	33,000

Miscellaneous Inorg - soil Our Reference: Your Reference	UNITS ----- -	162119-F-16 MW204 10% LIMEWET	162119-F-17 MW205 10% LIMEWET	162119-F-18 MW206 10% LIMEWET	162119-F-19 MW201 10% CEMENTWET	162119-F-20 MW202 10% CEMENTWET
Date Sampled	-----	27/04/2017	27/04/2017	27/04/2017	27/04/2017	27/04/2017
Type of sample		Treated Solid Waste	Treated Solid Waste	Treated Solid Waste	Treated Solid Waste	Treated Solid Waste
Date prepared	-	05/05/2017	05/05/2017	05/05/2017	05/05/2017	05/05/2017
Date analysed	-	05/05/2017	05/05/2017	05/05/2017	05/05/2017	05/05/2017
Hexavalent Chromium, Cr <sup>6+</sup>	mg/kg	<1	<1	<1	<1	<1
Total Fluoride	mg/kg	30,000	12,000	25,000	19,000	27,000

**Client Reference: Hydro Aluminium AS130515**

Miscellaneous Inorg - soil Our Reference: Your Reference	UNITS ----- -	162119-F-21 MW203 10% CEMENTWET	162119-F-22 MW204 10% CEMENTWET	162119-F-23 MW205 10% CEMENTWET	162119-F-24 MW206 10% CEMENTWET	162119-F-25 B.WF.G
Date Sampled Type of sample	----- -----	27/04/2017 Treated Solid Waste	27/04/2017 Treated Solid Waste	27/04/2017 Treated Solid Waste	27/04/2017 Treated Solid Waste	27/04/2017 Treated Solid Waste
Date prepared	-	05/05/2017	05/05/2017	05/05/2017	05/05/2017	05/05/2017
Date analysed	-	05/05/2017	05/05/2017	05/05/2017	05/05/2017	05/05/2017
Hexavalent Chromium, Cr <sup>6+</sup>	mg/kg	<1	<1	<1	<1	<1
Total Fluoride	mg/kg	35,000	26,000	23,000	16,000	<50

Miscellaneous Inorg - soil Our Reference: Your Reference	UNITS ----- -	162119-F-26 B.WR.O.S	162119-F-27 ERERINGR.O.S	162119-F-28 ERARINGF.G
Date Sampled Type of sample	----- -----	27/04/2017 Treated Solid Waste	27/04/2017 Treated Solid Waste	27/04/2017 Treated Solid Waste
Date prepared	-	05/05/2017	05/05/2017	05/05/2017
Date analysed	-	05/05/2017	05/05/2017	05/05/2017
Hexavalent Chromium, Cr <sup>6+</sup>	mg/kg	<1	<1	<1
Total Fluoride	mg/kg	70	<50	<50

**Client Reference: Hydro Aluminium AS130515**

Moisture Our Reference: Your Reference	UNITS ----- -	162119-F-1 MW201 10% LIMEDRY	162119-F-2 MW202 10% LIMEDRY	162119-F-3 MW203 10% LIMEDRY	162119-F-4 MW204 10% LIMEDRY	162119-F-5 MW205 10% LIMEDRY
Date Sampled Type of sample	----- -----	27/04/2017 Treated Solid Waste	27/04/2017 Treated Solid Waste	27/04/2017 Treated Solid Waste	27/04/2017 Treated Solid Waste	27/04/2017 Treated Solid Waste
Date prepared	-	2/05/2017	2/05/2017	2/05/2017	2/05/2017	2/05/2017
Date analysed	-	3/05/2017	3/05/2017	3/05/2017	3/05/2017	3/05/2017
Moisture	%	2.8	2.1	6.9	6.5	4.5

Moisture Our Reference: Your Reference	UNITS ----- -	162119-F-6 MW206 10% LIMEDRY	162119-F-7 MW201 10% CEMENTDRY	162119-F-8 MW202 10% CEMENTDRY	162119-F-9 MW203 10% CEMENTDRY	162119-F-10 MW204 10% CEMENTDRY
Date Sampled Type of sample	----- -----	27/04/2017 Treated Solid Waste	27/04/2017 Treated Solid Waste	27/04/2017 Treated Solid Waste	27/04/2017 Treated Solid Waste	27/04/2017 Treated Solid Waste
Date prepared	-	2/05/2017	2/05/2017	2/05/2017	2/05/2017	2/05/2017
Date analysed	-	3/05/2017	3/05/2017	3/05/2017	3/05/2017	3/05/2017
Moisture	%	4.3	2.6	2.3	7.2	6.7

Moisture Our Reference: Your Reference	UNITS ----- -	162119-F-11 MW205 10% CEMENTDRY	162119-F-12 MW206 10% CEMENTDRY	162119-F-13 MW201 10% LIMEWET	162119-F-14 MW202 10% LIMEWET	162119-F-15 MW203 10% LIMEWET
Date Sampled Type of sample	----- -----	27/04/2017 Treated Solid Waste	27/04/2017 Treated Solid Waste	27/04/2017 Treated Solid Waste	27/04/2017 Treated Solid Waste	27/04/2017 Treated Solid Waste
Date prepared	-	2/05/2017	2/05/2017	2/05/2017	2/05/2017	2/05/2017
Date analysed	-	3/05/2017	3/05/2017	3/05/2017	3/05/2017	3/05/2017
Moisture	%	4.5	4.1	25	23	24

Moisture Our Reference: Your Reference	UNITS ----- -	162119-F-16 MW204 10% LIMEWET	162119-F-17 MW205 10% LIMEWET	162119-F-18 MW206 10% LIMEWET	162119-F-19 MW201 10% CEMENTWET	162119-F-20 MW202 10% CEMENTWET
Date Sampled Type of sample	----- -----	27/04/2017 Treated Solid Waste	27/04/2017 Treated Solid Waste	27/04/2017 Treated Solid Waste	27/04/2017 Treated Solid Waste	27/04/2017 Treated Solid Waste
Date prepared	-	2/05/2017	2/05/2017	2/05/2017	2/05/2017	2/05/2017
Date analysed	-	3/05/2017	3/05/2017	3/05/2017	3/05/2017	3/05/2017
Moisture	%	28	19	26	20	19

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Moisture Our Reference: Your Reference	UNITS ----- -	162119-F-21 MW203 10% CEMENTWET	162119-F-22 MW204 10% CEMENTWET	162119-F-23 MW205 10% CEMENTWET	162119-F-24 MW206 10% CEMENTWET	162119-F-25 B.WF.G
Date Sampled Type of sample	----- -	27/04/2017 Treated Solid Waste	27/04/2017 Treated Solid Waste	27/04/2017 Treated Solid Waste	27/04/2017 Treated Solid Waste	27/04/2017 Treated Solid Waste
Date prepared	-	2/05/2017	2/05/2017	2/05/2017	2/05/2017	2/05/2017
Date analysed	-	3/05/2017	3/05/2017	3/05/2017	3/05/2017	3/05/2017
Moisture	%	21	25	22	23	[ND]

Moisture Our Reference: Your Reference	UNITS ----- -	162119-F-26 B.WR.O.S	162119-F-27 ERERINGR.O.S	162119-F-28 ERARINGF.G
Date Sampled Type of sample	----- -	27/04/2017 Treated Solid Waste	27/04/2017 Treated Solid Waste	27/04/2017 Treated Solid Waste
Date prepared	-	2/05/2017	2/05/2017	2/05/2017
Date analysed	-	3/05/2017	3/05/2017	3/05/2017
Moisture	%	0.3	[ND]	0.3

**Client Reference: Hydro Aluminium AS130515**

TCLP - ASLP4439.3 Our Reference: Your Reference	UNITS ----- -	162119-F-1 MW201 10% LIMEDRY	162119-F-2 MW202 10% LIMEDRY	162119-F-3 MW203 10% LIMEDRY	162119-F-4 MW204 10% LIMEDRY	162119-F-5 MW205 10% LIMEDRY
Date Sampled Type of sample	----- Treated Solid Waste	27/04/2017 Treated Solid Waste	27/04/2017 Treated Solid Waste	27/04/2017 Treated Solid Waste	27/04/2017 Treated Solid Waste	27/04/2017 Treated Solid Waste
Date prepared	-	04/05/2017	04/05/2017	04/05/2017	04/05/2017	04/05/2017
Date analysed	-	08/05/2017	08/05/2017	08/05/2017	08/05/2017	08/05/2017
pH of final Leachate	pH units	12.6	12.1	11.8	11.9	11.1
Total Cyanide in Leachate	mg/L	3.9	3.1	9.6	5.7	10

TCLP - ASLP4439.3 Our Reference: Your Reference	UNITS ----- -	162119-F-6 MW206 10% LIMEDRY	162119-F-7 MW201 10% CEMENTDRY	162119-F-8 MW202 10% CEMENTDRY	162119-F-9 MW203 10% CEMENTDRY	162119-F-10 MW204 10% CEMENTDRY
Date Sampled Type of sample	----- Treated Solid Waste	27/04/2017 Treated Solid Waste	27/04/2017 Treated Solid Waste	27/04/2017 Treated Solid Waste	27/04/2017 Treated Solid Waste	27/04/2017 Treated Solid Waste
Date prepared	-	04/05/2017	04/05/2017	04/05/2017	04/05/2017	04/05/2017
Date analysed	-	08/05/2017	08/05/2017	08/05/2017	08/05/2017	08/05/2017
pH of final Leachate	pH units	12.3	10.7	10.4	10.4	10.5
Total Cyanide in Leachate	mg/L	8.6	5.8	2.6	9.9	6.5

TCLP - ASLP4439.3 Our Reference: Your Reference	UNITS ----- -	162119-F-11 MW205 10% CEMENTDRY	162119-F-12 MW206 10% CEMENTDRY	162119-F-13 MW201 10% LIMEWET	162119-F-14 MW202 10% LIMEWET	162119-F-15 MW203 10% LIMEWET
Date Sampled Type of sample	----- Treated Solid Waste	27/04/2017 Treated Solid Waste	27/04/2017 Treated Solid Waste	27/04/2017 Treated Solid Waste	27/04/2017 Treated Solid Waste	27/04/2017 Treated Solid Waste
Date prepared	-	04/05/2017	04/05/2017	04/05/2017	04/05/2017	04/05/2017
Date analysed	-	08/05/2017	08/05/2017	08/05/2017	08/05/2017	08/05/2017
pH of final Leachate	pH units	10.4	10.6	12.3	11.2	11.2
Total Cyanide in Leachate	mg/L	8.9	7.9	3.7	2.5	6.9

TCLP - ASLP4439.3 Our Reference: Your Reference	UNITS ----- -	162119-F-16 MW204 10% LIMEWET	162119-F-17 MW205 10% LIMEWET	162119-F-18 MW206 10% LIMEWET	162119-F-19 MW201 10% CEMENTWET	162119-F-20 MW202 10% CEMENTWET
Date Sampled Type of sample	----- Treated Solid Waste	27/04/2017 Treated Solid Waste	27/04/2017 Treated Solid Waste	27/04/2017 Treated Solid Waste	27/04/2017 Treated Solid Waste	27/04/2017 Treated Solid Waste
Date prepared	-	04/05/2017	04/05/2017	04/05/2017	04/05/2017	04/05/2017
Date analysed	-	08/05/2017	08/05/2017	08/05/2017	08/05/2017	08/05/2017
pH of final Leachate	pH units	11.4	11.1	11.5	10.7	10.3
Total Cyanide in Leachate	mg/L	5.3	7.1	5.7	3.3	3.1



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TCLP - ASLP4439.3 Our Reference: Your Reference	UNITS ----- -	162119-F-21 MW203 10% CEMENTWET	162119-F-22 MW204 10% CEMENTWET	162119-F-23 MW205 10% CEMENTWET	162119-F-24 MW206 10% CEMENTWET	162119-F-25 B.WF.G
Date Sampled Type of sample	----- -----	27/04/2017 Treated Solid Waste	27/04/2017 Treated Solid Waste	27/04/2017 Treated Solid Waste	27/04/2017 Treated Solid Waste	27/04/2017 Treated Solid Waste
Date prepared	-	04/05/2017	04/05/2017	04/05/2017	04/05/2017	04/05/2017
Date analysed	-	08/05/2017	08/05/2017	08/05/2017	08/05/2017	08/05/2017
pH of final Leachate	pH units	10.4	10.4	10.3	10.5	11.0
Total Cyanide in Leachate	mg/L	7.3	4.2	7.3	6.7	<0.004

TCLP - ASLP4439.3 Our Reference: Your Reference	UNITS ----- -	162119-F-26 B.WR.O.S	162119-F-27 ERERINGR.O.S	162119-F-28 ERARINGF.G
Date Sampled Type of sample	----- -----	27/04/2017 Treated Solid Waste	27/04/2017 Treated Solid Waste	27/04/2017 Treated Solid Waste
Date prepared	-	04/05/2017	04/05/2017	04/05/2017
Date analysed	-	08/05/2017	08/05/2017	08/05/2017
pH of final Leachate	pH units	11.9	11.0	11.9
Total Cyanide in Leachate	mg/L	<0.004	<0.004	<0.004

**Client Reference: Hydro Aluminium AS130515**

PAHs in TCLP (USEPA 1311)	UNITS	162119-F-1	162119-F-2	162119-F-3	162119-F-4	162119-F-5
Our Reference:	-----	MW201 10%	MW202 10%	MW203 10%	MW204 10%	MW205 10%
Your Reference:	-	LIMEDRY	LIMEDRY	LIMEDRY	LIMEDRY	LIMEDRY
Date Sampled	-----	27/04/2017	27/04/2017	27/04/2017	27/04/2017	27/04/2017
Type of sample		Treated Solid Waste	Treated Solid Waste	Treated Solid Waste	Treated Solid Waste	Treated Solid Waste
pH of soil for fluid# determ.	pH units	12.4	12.4	12.5	12.4	12.5
pH of soil TCLP (after HCl)	pH units	12.2	11.9	11.5	11.5	10.5
Extraction fluid used	-	2	2	2	2	2
pH of final Leachate	pH units	6.0	6.4	6.7	6.6	6.4
Fluoride, F in leachate	mg/L	84	28	23	34	32
Date extracted	-	04/05/2017	04/05/2017	04/05/2017	04/05/2017	04/05/2017
Date analysed	-	04/05/2017	04/05/2017	04/05/2017	04/05/2017	04/05/2017
Naphthalene in TCLP	mg/L	<0.001	0.003	0.001	<0.001	<0.001
Acenaphthylene in TCLP	mg/L	<0.001	<0.001	<0.001	0.001	<0.001
Acenaphthene in TCLP	mg/L	<0.001	0.020	0.001	0.005	<0.001
Fluorene in TCLP	mg/L	<0.001	0.004	<0.001	<0.001	<0.001
Phenanthrene in TCLP	mg/L	<0.001	0.015	0.001	0.007	0.003
Anthracene in TCLP	mg/L	<0.001	0.002	<0.001	<0.001	<0.001
Fluoranthene in TCLP	mg/L	<0.001	0.007	0.002	0.004	0.004
Pyrene in TCLP	mg/L	<0.001	0.005	0.002	0.003	0.003
Benzo(a)anthracene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Chrysene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Benzo(bjk)fluoranthene in TCLP	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002
Benzo(a)pyrene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Indeno(1,2,3-c,d)pyrene - TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Dibenzo(a,h)anthracene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Benzo(g,h,i)perylene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Total +ve PAH's	mg/L	NIL (+)VE	0.057	0.0070	0.020	0.010
Surrogate p-Terphenyl-d14	%	91	95	104	99	102

**Client Reference: Hydro Aluminium AS130515**

PAHs in TCLP (USEPA 1311)	UNITS	162119-F-6	162119-F-7	162119-F-8	162119-F-9	162119-F-10
Our Reference:	-----	MW206 10%	MW201 10%	MW202 10%	MW203 10%	MW204 10%
Your Reference:	-	LIMEDRY	CEMENTDRY	CEMENTDRY	CEMENTDRY	CEMENTDRY
Date Sampled	-----	27/04/2017	27/04/2017	27/04/2017	27/04/2017	27/04/2017
Type of sample		Treated Solid Waste	Treated Solid Waste	Treated Solid Waste	Treated Solid Waste	Treated Solid Waste
pH of soil for fluid# determ.	pH units	12.5	11.3	10.0	10.6	11.2
pH of soil TCLP (after HCl)	pH units	11.8	5.6	5.3	7.6	6.5
Extraction fluid used	-	2	2	2	2	2
pH of final Leachate	pH units	6.2	6.0	6.5	5.8	6.0
Fluoride, F in leachate	mg/L	54	130	95	220	130
Date extracted	-	04/05/2017	04/05/2017	04/05/2017	04/05/2017	04/05/2017
Date analysed	-	04/05/2017	04/05/2017	04/05/2017	04/05/2017	04/05/2017
Naphthalene in TCLP	mg/L	<0.001	<0.001	0.003	<0.001	<0.001
Acenaphthylene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Acenaphthene in TCLP	mg/L	0.002	<0.001	0.014	0.001	0.004
Fluorene in TCLP	mg/L	<0.001	<0.001	0.003	<0.001	<0.001
Phenanthrene in TCLP	mg/L	0.014	<0.001	0.014	<0.001	0.006
Anthracene in TCLP	mg/L	0.005	<0.001	0.002	<0.001	<0.001
Fluoranthene in TCLP	mg/L	0.010	<0.001	0.006	<0.001	0.003
Pyrene in TCLP	mg/L	0.008	<0.001	0.005	<0.001	0.002
Benzo(a)anthracene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Chrysene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Benzo(b)fluoranthene in TCLP	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002
Benzo(a)pyrene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Indeno(1,2,3-c,d)pyrene - TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Dibenzo(a,h)anthracene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Benzo(g,h,i)perylene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Total +ve PAH's	mg/L	0.038	NIL(+)-VE	0.047	0.001	0.016
Surrogate p-Terphenyl-d14	%	95	107	86	99	90

**Client Reference: Hydro Aluminium AS130515**

PAHs in TCLP (USEPA 1311)	UNITS	162119-F-11	162119-F-12	162119-F-13	162119-F-14	162119-F-15
Our Reference:	-----	MW205 10%	MW206 10%	MW201 10%	MW202 10%	MW203 10%
Your Reference:	-	CEMENTDRY	CEMENTDRY	LIMEWET	LIMEWET	LIMEWET
Date Sampled	-----	27/04/2017	27/04/2017	27/04/2017	27/04/2017	27/04/2017
Type of sample		Treated Solid Waste	Treated Solid Waste	Treated Solid Waste	Treated Solid Waste	Treated Solid Waste
pH of soil for fluid# determ.	pH units	10.5	11.5	12.4	12.3	12.1
pH of soil TCLP (after HCl)	pH units	5.8	7.2	9.3	9.8	9.7
Extraction fluid used	-	2	2	2	2	2
pH of final Leachate	pH units	5.9	6.2	5.7	5.4	5.5
Fluoride, F in leachate	mg/L	170	72	170	300	190
Date extracted	-	04/05/2017	04/05/2017	04/05/2017	04/05/2017	04/05/2017
Date analysed	-	04/05/2017	04/05/2017	04/05/2017	04/05/2017	04/05/2017
Naphthalene in TCLP	mg/L	<0.001	<0.001	<0.001	0.004	0.001
Acenaphthylene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Acenaphthene in TCLP	mg/L	0.001	0.002	<0.001	0.016	0.001
Fluorene in TCLP	mg/L	<0.001	<0.001	<0.001	0.003	<0.001
Phenanthrene in TCLP	mg/L	0.004	0.014	<0.001	0.012	<0.001
Anthracene in TCLP	mg/L	<0.001	0.004	<0.001	0.003	<0.001
Fluoranthene in TCLP	mg/L	0.004	0.01	<0.001	0.005	<0.001
Pyrene in TCLP	mg/L	0.003	0.008	<0.001	0.004	<0.001
Benzo(a)anthracene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Chrysene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Benzo(b,j,k)fluoranthene in TCLP	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002
Benzo(a)pyrene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Indeno(1,2,3-c,d)pyrene - TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Dibenzo(a,h)anthracene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Benzo(g,h,i)perylene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Total +ve PAH's	mg/L	0.014	0.037	NIL(+)/VE	0.047	0.0030
Surrogate <i>p</i> -Terphenyl-d14	%	118	95	102	92	104

**Client Reference: Hydro Aluminium AS130515**

PAHs in TCLP (USEPA 1311)	UNITS	162119-F-16	162119-F-17	162119-F-18	162119-F-19	162119-F-20
Our Reference:	-----	MW204 10%	MW205 10%	MW206 10%	MW201 10%	MW202 10%
Your Reference:	-	LIMEWET	LIMEWET	LIMEWET	CEMENTWET	CEMENTWET
Date Sampled	-----	27/04/2017	27/04/2017	27/04/2017	27/04/2017	27/04/2017
Type of sample		Treated Solid Waste	Treated Solid Waste	Treated Solid Waste	Treated Solid Waste	Treated Solid Waste
pH of soil for fluid# determ.	pH units	12.1	12.1	12.1	10.8	10.3
pH of soil TCLP (after HCl)	pH units	9.1	9.6	9.9	6.5	5.9
Extraction fluid used	-	2	2	2	2	2
pH of final Leachate	pH units	5.8	5.5	5.4	5.4	5.4
Fluoride, F in leachate	mg/L	140	280	240	190	220
Date extracted	-	04/05/2017	04/05/2017	04/05/2017	04/05/2017	04/05/2017
Date analysed	-	04/05/2017	04/05/2017	04/05/2017	04/05/2017	04/05/2017
Naphthalene in TCLP	mg/L	0.001	<0.001	<0.001	<0.001	0.004
Acenaphthylene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Acenaphthene in TCLP	mg/L	0.004	0.001	0.001	<0.001	0.014
Fluorene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	0.003
Phenanthrene in TCLP	mg/L	0.006	0.003	0.010	<0.001	0.014
Anthracene in TCLP	mg/L	0.001	<0.001	0.003	0.001	0.003
Fluoranthene in TCLP	mg/L	0.003	0.003	0.008	<0.001	0.007
Pyrene in TCLP	mg/L	0.002	0.002	0.006	<0.001	0.005
Benzo(a)anthracene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Chrysene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Benzo(b,j,k)fluoranthene in TCLP	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002
Benzo(a)pyrene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Indeno(1,2,3-c,d)pyrene - TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Dibenzo(a,h)anthracene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Benzo(g,h,i)perylene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Total +ve PAH's	mg/L	0.018	0.010	0.029	0.001	0.051
Surrogate <i>p</i> -Terphenyl-d14	%	89	101	95	103	98

**Client Reference: Hydro Aluminium AS130515**

PAHs in TCLP (USEPA 1311)	UNITS	162119-F-21	162119-F-22	162119-F-23	162119-F-24	162119-F-25
Our Reference:	-----	MW203 10%	MW204 10%	MW205 10%	MW206 10%	B.W.F.G
Your Reference:	-	CEMENTWET	CEMENTWET	CEMENTWET	CEMENTWET	
Date Sampled	-----	27/04/2017	27/04/2017	27/04/2017	27/04/2017	27/04/2017
Type of sample		Treated Solid Waste	Treated Solid Waste	Treated Solid Waste	Treated Solid Waste	Treated Solid Waste
pH of soil for fluid# determ.	pH units	10.3	10.8	10.1	10.5	9.7
pH of soil TCLP (after HCl)	pH units	5.7	6.0	6.0	5.5	2.0
Extraction fluid used	-	2	2	2	2	1
pH of final Leachate	pH units	5.6	5.8	5.6	5.6	5.0
Fluoride, F in leachate	mg/L	250	130	270	220	1.7
Date extracted	-	04/05/2017	04/05/2017	04/05/2017	04/05/2017	04/05/2017
Date analysed	-	04/05/2017	04/05/2017	04/05/2017	04/05/2017	04/05/2017
Naphthalene in TCLP	mg/L	0.001	<0.001	<0.001	<0.001	<0.001
Acenaphthylene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Acenaphthene in TCLP	mg/L	0.002	0.004	0.001	0.002	<0.001
Fluorene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Phenanthrene in TCLP	mg/L	0.001	0.007	0.004	0.012	<0.001
Anthracene in TCLP	mg/L	<0.001	0.001	0.001	0.004	<0.001
Fluoranthene in TCLP	mg/L	0.001	0.004	0.004	0.011	<0.001
Pyrene in TCLP	mg/L	<0.001	0.003	0.003	0.008	<0.001
Benzo(a)anthracene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Chrysene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Benzo(b)fluoranthene in TCLP	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002
Benzo(a)pyrene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Indeno(1,2,3-c,d)pyrene - TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Dibenzo(a,h)anthracene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Benzo(g,h,i)perylene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Total +ve PAH's	mg/L	0.0060	0.019	0.014	0.038	NIL(+)/VE
Surrogate p-Terphenyl-d14	%	106	114	117	100	109

**Client Reference: Hydro Aluminium AS130515**

PAHs in TCLP (USEPA 1311)	UNITS	162119-F-26	162119-F-27	162119-F-28
Our Reference:	-----	B.W.R.O.S	ERERINGR.O.S	ERARINGF.G
Your Reference	-			
Date Sampled	-----	27/04/2017	27/04/2017	27/04/2017
Type of sample		Treated Solid Waste	Treated Solid Waste	Treated Solid Waste
pH of soil for fluid# determ.	pH units	11.4	9.8	11.8
pH of soil TCLP (after HCl)	pH units	2.0	2.0	2.0
Extraction fluid used	-	1	1	1
pH of final Leachate	pH units	5.3	5.1	5.3
Fluoride, F in leachate	mg/L	0.9	1.0	1.3
Date extracted	-	04/05/2017	04/05/2017	04/05/2017
Date analysed	-	04/05/2017	04/05/2017	04/05/2017
Naphthalene in TCLP	mg/L	<0.001	<0.001	<0.001
Acenaphthylene in TCLP	mg/L	<0.001	<0.001	<0.001
Acenaphthene in TCLP	mg/L	<0.001	<0.001	<0.001
Fluorene in TCLP	mg/L	<0.001	<0.001	<0.001
Phenanthrene in TCLP	mg/L	<0.001	<0.001	<0.001
Anthracene in TCLP	mg/L	<0.001	<0.001	<0.001
Fluoranthene in TCLP	mg/L	<0.001	<0.001	<0.001
Pyrene in TCLP	mg/L	<0.001	<0.001	<0.001
Benzo(a)anthracene in TCLP	mg/L	<0.001	<0.001	<0.001
Chrysene in TCLP	mg/L	<0.001	<0.001	<0.001
Benzo(b,j,k)fluoranthene in TCLP	mg/L	<0.002	<0.002	<0.002
Benzo(a)pyrene in TCLP	mg/L	<0.001	<0.001	<0.001
Indeno(1,2,3-c,d)pyrene - TCLP	mg/L	<0.001	<0.001	<0.001
Dibenzo(a,h)anthracene in TCLP	mg/L	<0.001	<0.001	<0.001
Benzo(g,h,i)perylene in TCLP	mg/L	<0.001	<0.001	<0.001
Total +ve PAH's	mg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate <i>p</i> -Terphenyl-d14	%	92	116	122

MethodID	Methodology Summary
Org-016	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater.
Org-016	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater. Note, the Total +ve Xylene PQL is reflective of the lowest individual PQL and is therefore "Total +ve Xylenes" is simply a sum of the positive individual Xylenes.
Org-014	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS.
Org-003	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis.
Org-003	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID.  F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis.  Note, the Total +ve TRH PQL is reflective of the lowest individual PQL and is therefore "Total +ve TRH" is simply a sum of the positive individual TRH fractions (>C10-C40).
Org-012	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS. Benzo(a)pyrene TEQ as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater - 2013. For soil results:- 1. 'TEQ PQL' values are assuming all contributing PAHs reported as <PQL are actually at the PQL. This is the most conservative approach and can give false positive TEQs given that PAHs that contribute to the TEQ calculation may not be present. 2. 'TEQ zero' values are assuming all contributing PAHs reported as <PQL are zero. This is the least conservative approach and is more susceptible to false negative TEQs when PAHs that contribute to the TEQ calculation are present but below PQL. 3. 'TEQ half PQL' values are assuming all contributing PAHs reported as <PQL are half the stipulated PQL. Hence a mid-point between the most and least conservative approaches above. Note, the Total +ve PAHs PQL is reflective of the lowest individual PQL and is therefore "Total +ve PAHs" is simply a sum of the positive individual PAHs.
Org-005	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC with dual ECD's.
Org-005	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC with dual ECD's. Note, the Total +ve reported DDD+DDE+DDT PQL is reflective of the lowest individual PQL and is therefore simply a sum of the positive individually report DDD+DDE+DDT.
Org-008	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC with dual ECD's.
Org-012	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS.
Metals-020	Determination of various metals by ICP-AES.
Metals-021	Determination of Mercury by Cold Vapour AAS.



MethodID	Methodology Summary
Inorg-014	Cyanide - free, total, weak acid dissociable by segmented flow analyser (in line dialysis with colourimetric finish). Solids are extracted in a caustic media prior to analysis.
Inorg-024	Hexavalent Chromium (Cr6+) - determined colourimetrically.
Inorg-026/53	Fluoride by caustic fusion and determined by ion selective electrode (ISE) analysis.
Inorg-008	Moisture content determined by heating at 105+/-5 °C for a minimum of 12 hours.
Inorg-001	pH - Measured using pH meter and electrode in accordance with APHA latest edition, 4500-H+. Please note that the results for water analyses are indicative only, as analysis outside of the APHA storage times.
Inorg-004	Toxicity Characteristic Leaching Procedure (TCLP) using in house method INORG-004.
EXTRACT.7	Toxicity Characteristic Leaching Procedure (TCLP) using Zero Headspace Extraction (zHE) using AS4439 and USEPA 1311.
Inorg-026	Fluoride determined by ion selective electrode (ISE) in accordance with APHA latest edition, 4500-F-C.
Org-012	Leachates are extracted with Dichloromethane and analysed by GC-MS.
Org-012	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS. Benzo(a)pyrene TEQ as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater - 2013.

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QUALITYCONTROL	UNITS	PQL	METHOD	Blank		
vTRH(C6-C10)/BTEXN in Soil						
Date extracted	-			2/05/2017		
Date analysed	-			4/05/2017		
TRHC <sub>6</sub> - C <sub>9</sub>	mg/kg	25	Org-016	<25		
TRHC <sub>6</sub> - C <sub>10</sub>	mg/kg	25	Org-016	<25		
Benzene	mg/kg	0.2	Org-016	<0.2		
Toluene	mg/kg	0.5	Org-016	<0.5		
Ethylbenzene	mg/kg	1	Org-016	<1		
m+p-xylene	mg/kg	2	Org-016	<2		
o-Xylene	mg/kg	1	Org-016	<1		
naphthalene	mg/kg	1	Org-014	<1		
Surrogate aaa-Trifluorotoluene	%		Org-016	102		
QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results
svTRH (C10-C40) in Soil						Base II Duplicate II %RPD
Date extracted	-			02/05/2017	162119-F-3	02/05/2017    02/05/2017
Date analysed	-			03/05/2017	162119-F-3	03/05/2017    03/05/2017
TRHC <sub>10</sub> - C <sub>14</sub>	mg/kg	50	Org-003	<50	162119-F-3	<50    <50
TRHC <sub>15</sub> - C <sub>28</sub>	mg/kg	100	Org-003	<100	162119-F-3	680    630    RPD: 8
TRHC <sub>29</sub> - C <sub>36</sub>	mg/kg	100	Org-003	<100	162119-F-3	940    880    RPD: 7
TRH>C <sub>10</sub> -C <sub>16</sub>	mg/kg	50	Org-003	<50	162119-F-3	<50    <50
TRH>C <sub>16</sub> -C <sub>34</sub>	mg/kg	100	Org-003	<100	162119-F-3	1400    1300    RPD: 7
TRH>C <sub>34</sub> -C <sub>40</sub>	mg/kg	100	Org-003	<100	162119-F-3	580    580    RPD: 0
Surrogate o-Terphenyl	%		Org-003	80	162119-F-3	90    89    RPD: 1
QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results
PAHs in Soil						Base II Duplicate II %RPD
Date extracted	-			2/05/2017	162119-F-3	2/05/2017    2/05/2017
Date analysed	-			9/05/2017	162119-F-3	9/05/2017    9/05/2017
Naphthalene	mg/kg	0.1	Org-012	<0.1	162119-F-3	0.6    0.8    RPD: 29
Acenaphthylene	mg/kg	0.1	Org-012	<0.1	162119-F-3	<0.1    <0.1
Acenaphthene	mg/kg	0.1	Org-012	<0.1	162119-F-3	4.8    4.3    RPD: 11
Fluorene	mg/kg	0.1	Org-012	<0.1	162119-F-3	1.8    1.5    RPD: 18
Phenanthrene	mg/kg	0.1	Org-012	<0.1	162119-F-3	13    12    RPD: 8
Anthracene	mg/kg	0.1	Org-012	<0.1	162119-F-3	1.9    2.4    RPD: 23
Fluoranthene	mg/kg	0.1	Org-012	<0.1	162119-F-3	42    37    RPD: 13
Pyrene	mg/kg	0.1	Org-012	<0.1	162119-F-3	39    35    RPD: 11
Benzo(a)anthracene	mg/kg	0.1	Org-012	<0.1	162119-F-3	23    19    RPD: 19
Chrysene	mg/kg	0.1	Org-012	<0.1	162119-F-3	24    21    RPD: 13
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-012	<0.2	162119-F-3	44    37    RPD: 17
Benzo(a)pyrene	mg/kg	0.05	Org-012	<0.05	162119-F-3	24    20    RPD: 18

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QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results
PAHs in Soil						Base II Duplicate II %RPD
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-012	<0.1	162119-F-3	20    16    RPD: 22
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-012	<0.1	162119-F-3	2.2    1.7    RPD: 26
Benzo(g,h,i)perylene	mg/kg	0.1	Org-012	<0.1	162119-F-3	18    15    RPD: 18
Surrogate p-Terphenyl-d14	%		Org-012	75	162119-F-3	100    101    RPD: 1
QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results
Organochlorine Pesticides in soil						Base II Duplicate II %RPD
Date extracted	-			02/05/2017	162119-F-3	02/05/2017    02/05/2017
Date analysed	-			02/05/2017	162119-F-3	02/05/2017    02/05/2017
HCB	mg/kg	0.1	Org-005	<0.1	162119-F-3	<0.1    <0.1
alpha-BHC	mg/kg	0.1	Org-005	<0.1	162119-F-3	<0.1    <0.1
gamma-BHC	mg/kg	0.1	Org-005	<0.1	162119-F-3	<0.1    <0.1
beta-BHC	mg/kg	0.1	Org-005	<0.1	162119-F-3	<0.1    <0.1
Heptachlor	mg/kg	0.1	Org-005	<0.1	162119-F-3	<0.1    <0.1
delta-BHC	mg/kg	0.1	Org-005	<0.1	162119-F-3	<0.1    <0.1
Aldrin	mg/kg	0.1	Org-005	<0.1	162119-F-3	<0.1    <0.1
Heptachlor Epoxide	mg/kg	0.1	Org-005	<0.1	162119-F-3	<0.1    <0.1
gamma-Chlordane	mg/kg	0.1	Org-005	<0.1	162119-F-3	<0.1    <0.1
alpha-chlordane	mg/kg	0.1	Org-005	<0.1	162119-F-3	<0.1    <0.1
Endosulfan I	mg/kg	0.1	Org-005	<0.1	162119-F-3	<0.1    <0.1
pp-DDE	mg/kg	0.1	Org-005	<0.1	162119-F-3	<0.1    <0.1
Dieldrin	mg/kg	0.1	Org-005	<0.1	162119-F-3	<0.1    <0.1
Endrin	mg/kg	0.1	Org-005	<0.1	162119-F-3	<0.1    <0.1
pp-DDD	mg/kg	0.1	Org-005	<0.1	162119-F-3	<0.1    <0.1
Endosulfan II	mg/kg	0.1	Org-005	<0.1	162119-F-3	<0.1    <0.1
pp-DDT	mg/kg	0.1	Org-005	<0.1	162119-F-3	<0.1    <0.1
Endrin Aldehyde	mg/kg	0.1	Org-005	<0.1	162119-F-3	<0.1    <0.1
Endosulfan Sulphate	mg/kg	0.1	Org-005	<0.1	162119-F-3	<0.1    <0.1
Methoxychlor	mg/kg	0.1	Org-005	<0.1	162119-F-3	<0.2    <0.2
Surrogate TCMX	%		Org-005	90	162119-F-3	73    74    RPD: 1

**Client Reference: Hydro Aluminium AS130515**

QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results
Organophosphorus Pesticides						Base II Duplicate II %RPD
Date extracted	-			02/05/2017	162119-F-3	02/05/2017    02/05/2017
Date analysed	-			02/05/2017	162119-F-3	02/05/2017    02/05/2017
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-008	<0.1	162119-F-3	<0.1    <0.1
Bromophos-ethyl	mg/kg	0.1	Org-008	<0.1	162119-F-3	<0.1    <0.1
Chlorpyrifos	mg/kg	0.1	Org-008	<0.1	162119-F-3	<0.1    <0.1
Chlorpyrifos-methyl	mg/kg	0.1	Org-008	<0.1	162119-F-3	<0.1    <0.1
Diazinon	mg/kg	0.1	Org-008	<0.1	162119-F-3	<0.1    <0.1
Dichlorvos	mg/kg	0.1	Org-008	<0.1	162119-F-3	<0.1    <0.1
Dimethoate	mg/kg	0.1	Org-008	<0.1	162119-F-3	<0.1    <0.1
Ethion	mg/kg	0.1	Org-008	<0.1	162119-F-3	<0.1    <0.1
Fenitrothion	mg/kg	0.1	Org-008	<0.1	162119-F-3	<0.1    <0.1
Malathion	mg/kg	0.1	Org-008	<0.1	162119-F-3	<0.1    <0.1
Parathion	mg/kg	0.1	Org-008	<0.1	162119-F-3	<0.1    <0.1
Ronnel	mg/kg	0.1	Org-008	<0.1	162119-F-3	<0.1    <0.1
Surrogate TCMX	%		Org-008	90	162119-F-3	73    74    RPD: 1
QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results
SVOCs in Soil						Base II Duplicate II %RPD
Date extracted	-			02/05/2017	162119-F-3	02/05/2017    02/05/2017
Date analysed	-			03/05/2017	162119-F-3	03/05/2017    03/05/2017
Phenol	mg/kg	0.5	Org-012	<0.5	162119-F-3	<0.5    <0.5
2-Chlorophenol	mg/kg	0.5	Org-012	<0.5	162119-F-3	<0.5    <0.5
2-Methylphenol	mg/kg	0.5	Org-012	<0.5	162119-F-3	<0.5    <0.5
3/4-Methylphenol	mg/kg	1	Org-012	<1	162119-F-3	<1    <1
2,4-Dimethylphenol	mg/kg	0.5	Org-012	<0.5	162119-F-3	<0.5    <0.5
2-Nitrophenol	mg/kg	0.5	Org-012	<0.5	162119-F-3	<0.5    <0.5
2,4-Dichlorophenol	mg/kg	0.5	Org-012	<0.5	162119-F-3	<0.5    <0.5
4-Chloro-3-methylphenol	mg/kg	5	Org-012	<5	162119-F-3	<5    <5
2,4,6-trichlorophenol	mg/kg	0.5	Org-012	<0.5	162119-F-3	<0.5    <0.5
2,4,5-trichlorophenol	mg/kg	0.5	Org-012	<0.5	162119-F-3	<0.5    <0.5
2,4-dinitrophenol	mg/kg	10	Org-012	<10	162119-F-3	<10    <10
4-nitrophenol	mg/kg	10	Org-012	<10	162119-F-3	<10    <10
diethylphthalate	mg/kg	1	Org-012	<1	162119-F-3	<1    <1
2-methyl-4,6-dinitrophenol	mg/kg	10	Org-012	<10	162119-F-3	<10    <10
pentachlorophenol	mg/kg	5	Org-012	<5	162119-F-3	<5    <5
di-n-butylphthalate	mg/kg	1	Org-012	<1	162119-F-3	<1    <1
butylbenzylphthalate	mg/kg	1	Org-012	<1	162119-F-3	<1    <1
bis(2-ethylhexyl)phthalate	mg/kg	1	Org-012	<1	162119-F-3	<1    <1
di-n-octylphthalate	mg/kg	1	Org-012	<1	162119-F-3	<1    <1

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QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results
SVOCs in Soil						Base II Duplicate II %RPD
2,6-dichlorophenol	mg/kg	0.5	Org-012	<0.5	162119-F-3	<0.5    <0.5
2,3,4,6-tetrachlorophenol	mg/kg	0.5	Org-012	<0.5	162119-F-3	<0.5    <0.5
Surrogate 2-fluorophenol	%		Org-012	89	162119-F-3	38    45    RPD: 17
Surrogate Phenol-d6	%		Org-012	81	162119-F-3	68    52    RPD: 27
Surrogate Nitrobenzene-d5	%		Org-012	74	162119-F-3	103    84    RPD: 20
Surrogate 2-fluorobiphenyl	%		Org-012	93	162119-F-3	106    94    RPD: 12
Surrogate 2,4,6-Tribromophenol	%		Org-012	80	162119-F-3	33    #
Surrogate p-Terphenyl-d14	%		Org-012	98	162119-F-3	119    121    RPD: 2

QUALITY CONTROL	UNITS	PQL	METHOD	Blank
VOCs in soil				
Date extracted	-			2/05/2017
Date analysed	-			4/05/2017
Dichlorodifluoromethane	mg/kg	1	Org-014	<1
Chloromethane	mg/kg	1	Org-014	<1
Vinyl Chloride	mg/kg	1	Org-014	<1
Bromomethane	mg/kg	1	Org-014	<1
Chloroethane	mg/kg	1	Org-014	<1
Trichlorofluoromethane	mg/kg	1	Org-014	<1
1,1-Dichloroethene	mg/kg	1	Org-014	<1
trans-1,2-dichloroethene	mg/kg	1	Org-014	<1
1,1-dichloroethane	mg/kg	1	Org-014	<1
cis-1,2-dichloroethene	mg/kg	1	Org-014	<1
bromochloromethane	mg/kg	1	Org-014	<1
chloroform	mg/kg	1	Org-014	<1
2,2-dichloropropane	mg/kg	1	Org-014	<1
1,2-dichloroethane	mg/kg	1	Org-014	<1
1,1,1-trichloroethane	mg/kg	1	Org-014	<1
1,1-dichloropropene	mg/kg	1	Org-014	<1
Cyclohexane	mg/kg	1	Org-014	<1
carbon tetrachloride	mg/kg	1	Org-014	<1
Benzene	mg/kg	0.2	Org-014	<0.2
dibromomethane	mg/kg	1	Org-014	<1
1,2-dichloropropane	mg/kg	1	Org-014	<1
trichloroethene	mg/kg	1	Org-014	<1
bromodichloromethane	mg/kg	1	Org-014	<1
trans-1,3-dichloropropene	mg/kg	1	Org-014	<1
cis-1,3-dichloropropene	mg/kg	1	Org-014	<1
1,1,2-trichloroethane	mg/kg	1	Org-014	<1
Toluene	mg/kg	0.5	Org-014	<0.5
1,3-dichloropropane	mg/kg	1	Org-014	<1

QUALITYCONTROL VOCs in soil	UNITS	PQL	METHOD	Blank
dibromochloromethane	mg/kg	1	Org-014	<1
1,2-dibromoethane	mg/kg	1	Org-014	<1
tetrachloroethene	mg/kg	1	Org-014	<1
1,1,1,2- tetrachloroethane	mg/kg	1	Org-014	<1
chlorobenzene	mg/kg	1	Org-014	<1
Ethylbenzene	mg/kg	1	Org-014	<1
bromoform	mg/kg	1	Org-014	<1
m+p-xylene	mg/kg	2	Org-014	<2
styrene	mg/kg	1	Org-014	<1
1,1,2,2- tetrachloroethane	mg/kg	1	Org-014	<1
o-Xylene	mg/kg	1	Org-014	<1
1,2,3-trichloropropane	mg/kg	1	Org-014	<1
isopropylbenzene	mg/kg	1	Org-014	<1
bromobenzene	mg/kg	1	Org-014	<1
n-propyl benzene	mg/kg	1	Org-014	<1
2-chlorotoluene	mg/kg	1	Org-014	<1
4-chlorotoluene	mg/kg	1	Org-014	<1
1,3,5-trimethyl benzene	mg/kg	1	Org-014	<1
tert-butyl benzene	mg/kg	1	Org-014	<1
1,2,4-trimethyl benzene	mg/kg	1	Org-014	<1
1,3-dichlorobenzene	mg/kg	1	Org-014	<1
sec-butyl benzene	mg/kg	1	Org-014	<1
1,4-dichlorobenzene	mg/kg	1	Org-014	<1
4-isopropyl toluene	mg/kg	1	Org-014	<1
1,2-dichlorobenzene	mg/kg	1	Org-014	<1
n-butyl benzene	mg/kg	1	Org-014	<1
1,2-dibromo-3- chloropropane	mg/kg	1	Org-014	<1
1,2,4-trichlorobenzene	mg/kg	1	Org-014	<1
hexachlorobutadiene	mg/kg	1	Org-014	<1
1,2,3-trichlorobenzene	mg/kg	1	Org-014	<1
<i>Surrogate</i> Dibromofluorometha	%		Org-014	130
<i>Surrogate</i> aaa- Trifluorotoluene	%		Org-014	102
<i>Surrogate</i> Toluene-d <sub>8</sub>	%		Org-014	93
<i>Surrogate</i> 4- Bromofluorobenzene	%		Org-014	88

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QUALITYCONTROL	UNITS	PQL	METHOD	Blank
Acid Extractable metals in soil				
Date prepared	-			02/05/2017
Date analysed	-			04/05/2017
Arsenic	mg/kg	4	Metals-020	<4
Cadmium	mg/kg	0.4	Metals-020	<0.4
Copper	mg/kg	1	Metals-020	<1
Lead	mg/kg	1	Metals-020	<1
Mercury	mg/kg	0.1	Metals-021	<0.1
Molybdenum	mg/kg	1	Metals-020	<1
Nickel	mg/kg	1	Metals-020	<1
Selenium	mg/kg	2	Metals-020	<2
Silver	mg/kg	1	Metals-020	<1
Tin	mg/kg	1	Metals-020	<1
Zinc	mg/kg	1	Metals-020	<1

QUALITYCONTROL	UNITS	PQL	METHOD	Blank
Misc Soil - Inorg				
Date prepared	-			03/05/2017
Date analysed	-			03/05/2017
Free Cyanide in soil	mg/kg	0.5	Inorg-014	<0.5
Total Cyanide	mg/kg	0.5	Inorg-014	<0.5

QUALITYCONTROL	UNITS	PQL	METHOD	Blank
Miscellaneous Inorg - soil				
Date prepared	-			05/05/2017
Date analysed	-			05/05/2017
Hexavalent Chromium, Cr <sup>6+</sup>	mg/kg	1	Inorg-024	<1
Total Fluoride	mg/kg	50	Inorg-026/53	<50

QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
TCLP - ASLP4439.3						Base II Duplicate II %RPD		
Date prepared	-			04/05/2017	[NT]	[NT]		04/05/2017
Date analysed	-			04/05/2017	[NT]	[NT]		04/05/2017
Total Cyanide in Leachate	mg/L	0.004	Inorg-014	<0.004	[NT]	[NT]		106%

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QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
PAHsinTCLP (USEPA 1311)						Base    Duplicate    %RPD		
Fluoride, F in leachate	mg/L	0.1	Inorg-026	<0.1	[NT]	[NT]	LCS-W2	99%
Date extracted	-			04/05/2017	[NT]	[NT]	LCS-W2	04/05/2017
Date analysed	-			04/05/2017	[NT]	[NT]	LCS-W2	04/05/2017
Naphthalene in TCLP	mg/L	0.001	Org-012	<0.001	[NT]	[NT]	LCS-W2	76%
Acenaphthylene in TCLP	mg/L	0.001	Org-012	<0.001	[NT]	[NT]	[NR]	[NR]
Acenaphthene in TCLP	mg/L	0.001	Org-012	<0.001	[NT]	[NT]	[NR]	[NR]
Fluorene in TCLP	mg/L	0.001	Org-012	<0.001	[NT]	[NT]	LCS-W2	95%
Phenanthrene in TCLP	mg/L	0.001	Org-012	<0.001	[NT]	[NT]	LCS-W2	107%
Anthracene in TCLP	mg/L	0.001	Org-012	<0.001	[NT]	[NT]	[NR]	[NR]
Fluoranthene in TCLP	mg/L	0.001	Org-012	<0.001	[NT]	[NT]	LCS-W2	103%
Pyrene in TCLP	mg/L	0.001	Org-012	<0.001	[NT]	[NT]	LCS-W2	100%
Benzo(a)anthracene in TCLP	mg/L	0.001	Org-012	<0.001	[NT]	[NT]	[NR]	[NR]
Chrysene in TCLP	mg/L	0.001	Org-012	<0.001	[NT]	[NT]	LCS-W2	95%
Benzo(bjk)fluoranthene in TCLP	mg/L	0.002	Org-012	<0.002	[NT]	[NT]	[NR]	[NR]
Benzo(a)pyrene in TCLP	mg/L	0.001	Org-012	<0.001	[NT]	[NT]	LCS-W2	113%
Indeno(1,2,3-c,d)pyrene -TCLP	mg/L	0.001	Org-012	<0.001	[NT]	[NT]	[NR]	[NR]
Dibenzo(a,h)anthracene in TCLP	mg/L	0.001	Org-012	<0.001	[NT]	[NT]	[NR]	[NR]
Benzo(g,h,i)perylene in TCLP	mg/L	0.001	Org-012	<0.001	[NT]	[NT]	[NR]	[NR]
Surrogate p-Terphenyl-d14	%		Org-012	112	[NT]	[NT]	LCS-W2	99%

QUALITYCONTROL	UNITS	Dup. Sm#	Duplicate
svTRH (C10-C40) in Soil			Base + Duplicate + %RPD
Date extracted	-	162119-F-13	02/05/2017    02/05/2017
Date analysed	-	162119-F-13	03/05/2017    03/05/2017
TRHC <sub>10</sub> - C <sub>14</sub>	mg/kg	162119-F-13	<50    <50
TRHC <sub>15</sub> - C <sub>28</sub>	mg/kg	162119-F-13	150    180    RPD: 18
TRHC <sub>29</sub> - C <sub>36</sub>	mg/kg	162119-F-13	260    170    RPD: 42
TRH>C <sub>10</sub> -C <sub>16</sub>	mg/kg	162119-F-13	<50    <50
TRH>C <sub>16</sub> -C <sub>34</sub>	mg/kg	162119-F-13	320    310    RPD: 3
TRH>C <sub>34</sub> -C <sub>40</sub>	mg/kg	162119-F-13	220    110    RPD: 67
Surrogate o-Terphenyl	%	162119-F-13	82    82    RPD: 0



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QUALITYCONTROL PAHs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD
Date extracted	-	162119-F-13	2/05/2017    2/05/2017
Date analysed	-	162119-F-13	8/05/2017    8/05/2017
Naphthalene	mg/kg	162119-F-13	0.4    0.8    RPD: 67
Acenaphthylene	mg/kg	162119-F-13	<0.1    <0.1
Acenaphthene	mg/kg	162119-F-13	0.7    0.8    RPD: 13
Fluorene	mg/kg	162119-F-13	0.3    0.3    RPD: 0
Phenanthrene	mg/kg	162119-F-13	3.3    3.8    RPD: 14
Anthracene	mg/kg	162119-F-13	0.4    0.7    RPD: 55
Fluoranthene	mg/kg	162119-F-13	13    17    RPD: 27
Pyrene	mg/kg	162119-F-13	12    17    RPD: 34
Benzo(a)anthracene	mg/kg	162119-F-13	12    20    RPD: 50
Chrysene	mg/kg	162119-F-13	9.8    16    RPD: 48
Benzo(b,j+k)fluoranthene	mg/kg	162119-F-13	22    37    RPD: 51
Benzo(a)pyrene	mg/kg	162119-F-13	8.5    12    RPD: 34
Indeno(1,2,3-c,d)pyrene	mg/kg	162119-F-13	5.8    7.8    RPD: 29
Dibenzo(a,h)anthracene	mg/kg	162119-F-13	1.3    1.9    RPD: 37
Benzo(g,h,i)perylene	mg/kg	162119-F-13	3.2    4.3    RPD: 29
Surrogate p-Terphenyl-d14	%	162119-F-13	93    98    RPD: 5
QUALITYCONTROL Organochlorine Pesticides in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD
Date extracted	-	162119-F-13	02/05/2017    02/05/2017
Date analysed	-	162119-F-13	02/05/2017    02/05/2017
HCB	mg/kg	162119-F-13	<0.1    <0.1
alpha-BHC	mg/kg	162119-F-13	<0.1    <0.1
gamma-BHC	mg/kg	162119-F-13	<0.1    <0.1
beta-BHC	mg/kg	162119-F-13	<0.1    <0.1
Heptachlor	mg/kg	162119-F-13	<0.1    <0.1
delta-BHC	mg/kg	162119-F-13	<0.1    <0.1
Aldrin	mg/kg	162119-F-13	<0.1    <0.1
Heptachlor Epoxide	mg/kg	162119-F-13	<0.1    <0.1
gamma-Chlordane	mg/kg	162119-F-13	<0.1    <0.1
alpha-chlordane	mg/kg	162119-F-13	<0.1    <0.1
Endosulfan I	mg/kg	162119-F-13	<0.1    <0.1
pp-DDE	mg/kg	162119-F-13	<0.1    <0.1
Dieldrin	mg/kg	162119-F-13	<0.1    <0.1
Endrin	mg/kg	162119-F-13	<0.1    <0.1
pp-DDD	mg/kg	162119-F-13	<0.1    <0.1
Endosulfan II	mg/kg	162119-F-13	<0.1    <0.1
pp-DDT	mg/kg	162119-F-13	<0.1    <0.1
Endrin Aldehyde	mg/kg	162119-F-13	<0.1    <0.1
Endosulfan Sulphate	mg/kg	162119-F-13	<0.1    <0.1

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QUALITYCONTROL Organochlorine Pesticides in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD
Methoxychlor	mg/kg	162119-F-13	<0.3    <0.1
<i>Surrogate</i> TCMX	%	162119-F-13	75    84    RPD: 11
QUALITYCONTROL Organophosphorus Pesticides	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD
Date extracted	-	162119-F-13	02/05/2017    02/05/2017
Date analysed	-	162119-F-13	02/05/2017    02/05/2017
Azinphos-methyl (Guthion)	mg/kg	162119-F-13	<0.1    <0.1
Bromophos-ethyl	mg/kg	162119-F-13	<0.1    <0.1
Chlorpyrifos	mg/kg	162119-F-13	<0.1    <0.1
Chlorpyrifos-methyl	mg/kg	162119-F-13	<0.1    <0.1
Diazinon	mg/kg	162119-F-13	<0.1    <0.1
Dichlorvos	mg/kg	162119-F-13	<0.1    <0.1
Dimethoate	mg/kg	162119-F-13	<0.1    <0.1
Ethion	mg/kg	162119-F-13	<0.1    <0.1
Fenitrothion	mg/kg	162119-F-13	<0.1    <0.1
Malathion	mg/kg	162119-F-13	<0.1    <0.1
Parathion	mg/kg	162119-F-13	<0.1    <0.1
Ronnel	mg/kg	162119-F-13	<0.1    <0.1
<i>Surrogate</i> TCMX	%	162119-F-13	75    84    RPD: 11
QUALITYCONTROL SVOCs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD
Date extracted	-	162119-F-13	02/05/2017    02/05/2017
Date analysed	-	162119-F-13	03/05/2017    03/05/2017
Phenol	mg/kg	162119-F-13	<0.5    <0.5
2-Chlorophenol	mg/kg	162119-F-13	<0.5    <0.5
2-Methylphenol	mg/kg	162119-F-13	<0.5    <0.5
3/4-Methylphenol	mg/kg	162119-F-13	<1    <1
2,4-Dimethylphenol	mg/kg	162119-F-13	<0.5    <0.5
2-Nitrophenol	mg/kg	162119-F-13	<0.5    <0.5
2,4-Dichlorophenol	mg/kg	162119-F-13	<0.5    <0.5
4-Chloro-3-methylphenol	mg/kg	162119-F-13	<5    <5
2,4,6-trichlorophenol	mg/kg	162119-F-13	<0.5    <0.5
2,4,5-trichlorophenol	mg/kg	162119-F-13	<0.5    <0.5
2,4-dinitrophenol	mg/kg	162119-F-13	<10    <10
4-nitrophenol	mg/kg	162119-F-13	<10    <10
diethylphthalate	mg/kg	162119-F-13	<1    <1
2-methyl-4,6-dinitrophenol	mg/kg	162119-F-13	<10    <10
pentachlorophenol	mg/kg	162119-F-13	<5    <5
di-n-butylphthalate	mg/kg	162119-F-13	<1    <1
butylbenzylphthalate	mg/kg	162119-F-13	<1    <1

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QUALITY CONTROL SVOCs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD		
bis(2-ethylhexyl)phthalate	mg/kg	162119-F-13	<1    <1		
di-n-octylphthalate	mg/kg	162119-F-13	<1    <1		
2,6-dichlorophenol	mg/kg	162119-F-13	<0.5    <0.5		
2,3,4,6-tetrachlorophenol	mg/kg	162119-F-13	<0.5    <0.5		
Surrogate 2-fluorophenol	%	162119-F-13	#    20		
Surrogate Phenol-d6	%	162119-F-13	#    20		
Surrogate Nitrobenzene-d5	%	162119-F-13	46    57    RPD: 21		
Surrogate 2-fluorobiphenyl	%	162119-F-13	93    93    RPD: 0		
Surrogate 2,4,6-Tribromophenol	%	162119-F-13	#    #		
Surrogate p-Terphenyl-d14	%	162119-F-13	106    112    RPD: 6		
QUALITY CONTROL TCLP - ASLP4439.3	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date prepared	-	[NT]	[NT]		04/05/2017
Date analysed	-	[NT]	[NT]		04/05/2017
Total Cyanide in Leachate	mg/L	[NT]	[NT]		105%
QUALITY CONTROL PAHs in TCLP (USEPA 1311)	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Fluoride, F in leachate	mg/L	[NT]	[NT]	LCS-W3	101%
Date extracted	-	[NT]	[NT]	LCS-W3	04/05/2017
Date analysed	-	[NT]	[NT]	LCS-W3	04/05/2017
Naphthalene in TCLP	mg/L	[NT]	[NT]	LCS-W3	78%
Acenaphthylene in TCLP	mg/L	[NT]	[NT]	[NR]	[NR]
Acenaphthene in TCLP	mg/L	[NT]	[NT]	[NR]	[NR]
Fluorene in TCLP	mg/L	[NT]	[NT]	LCS-W3	79%
Phenanthrene in TCLP	mg/L	[NT]	[NT]	LCS-W3	90%
Anthracene in TCLP	mg/L	[NT]	[NT]	[NR]	[NR]
Fluoranthene in TCLP	mg/L	[NT]	[NT]	LCS-W3	86%
Pyrene in TCLP	mg/L	[NT]	[NT]	LCS-W3	85%
Benzo(a)anthracene in TCLP	mg/L	[NT]	[NT]	[NR]	[NR]
Chrysene in TCLP	mg/L	[NT]	[NT]	LCS-W3	84%
Benzo(bjk)fluoranthene in TCLP	mg/L	[NT]	[NT]	[NR]	[NR]
Benzo(a)pyrene in TCLP	mg/L	[NT]	[NT]	LCS-W3	94%
Indeno(1,2,3-c,d)pyrene - TCLP	mg/L	[NT]	[NT]	[NR]	[NR]
Dibenzo(a,h)anthracene in TCLP	mg/L	[NT]	[NT]	[NR]	[NR]
Benzo(g,h,i)perylene in TCLP	mg/L	[NT]	[NT]	[NR]	[NR]
Surrogate p-Terphenyl-d14	%	[NT]	[NT]	LCS-W3	92%

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QUALITYCONTROL svTRH (C10-C40) in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	162119-F-23	02/05/2017    02/05/2017	162119-F-8	02/05/2017
Date analysed	-	162119-F-23	03/05/2017    03/05/2017	162119-F-8	03/05/2017
TRHC <sub>10</sub> - C <sub>14</sub>	mg/kg	162119-F-23	<50    <50	162119-F-8	#
TRHC <sub>15</sub> - C <sub>28</sub>	mg/kg	162119-F-23	2800    2800    RPD: 0	162119-F-8	#
TRHC <sub>28</sub> - C <sub>36</sub>	mg/kg	162119-F-23	3400    3300    RPD: 3	162119-F-8	#
TRH>C <sub>10</sub> -C <sub>16</sub>	mg/kg	162119-F-23	<50    <50	162119-F-8	#
TRH>C <sub>16</sub> -C <sub>34</sub>	mg/kg	162119-F-23	5500    5300    RPD: 4	162119-F-8	#
TRH>C <sub>34</sub> -C <sub>40</sub>	mg/kg	162119-F-23	1800    1700    RPD: 6	162119-F-8	#
Surrogate o-Terphenyl	%	162119-F-23	83    83    RPD: 0	162119-F-8	120%
QUALITYCONTROL PAHs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	162119-F-23	2/05/2017    2/05/2017	162119-F-8	2/05/2017
Date analysed	-	162119-F-23	9/05/2017    9/05/2017	162119-F-8	8/05/2017
Naphthalene	mg/kg	162119-F-23	<0.1    <0.1	162119-F-8	97%
Acenaphthylene	mg/kg	162119-F-23	0.2    0.2    RPD: 0	[NR]	[NR]
Acenaphthene	mg/kg	162119-F-23	<0.1    <0.1	[NR]	[NR]
Fluorene	mg/kg	162119-F-23	5.3    <0.1	162119-F-8	79%
Phenanthrene	mg/kg	162119-F-23	53    52    RPD: 2	162119-F-8	#
Anthracene	mg/kg	162119-F-23	3.7    4.9    RPD: 28	[NR]	[NR]
Fluoranthene	mg/kg	162119-F-23	200    210    RPD: 5	162119-F-8	#
Pyrene	mg/kg	162119-F-23	190    200    RPD: 5	162119-F-8	#
Benzo(a)anthracene	mg/kg	162119-F-23	180    170    RPD: 6	[NR]	[NR]
Chrysene	mg/kg	162119-F-23	170    180    RPD: 6	162119-F-8	#
Benzo(b,j+k)fluoranthene	mg/kg	162119-F-23	300    340    RPD: 12	[NR]	[NR]
Benzo(a)pyrene	mg/kg	162119-F-23	170    190    RPD: 11	162119-F-8	#
Indeno(1,2,3-c,d)pyrene	mg/kg	162119-F-23	130    140    RPD: 7	[NR]	[NR]
Dibenzo(a,h)anthracene	mg/kg	162119-F-23	<0.1    <0.1	[NR]	[NR]
Benzo(g,h,i)perylene	mg/kg	162119-F-23	110    120    RPD: 9	[NR]	[NR]
Surrogate p-Terphenyl-d14	%	162119-F-23	106    101    RPD: 5	162119-F-8	77%

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QUALITYCONTROL Organochlorine Pesticides in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	162119-F-23	02/05/2017    02/05/2017	162119-F-8	02/05/2017
Date analysed	-	162119-F-23	02/05/2017    02/05/2017	162119-F-8	02/05/2017
HCB	mg/kg	162119-F-23	<0.1    <0.1	[NR]	[NR]
alpha-BHC	mg/kg	162119-F-23	<0.1    <0.1	162119-F-8	76%
gamma-BHC	mg/kg	162119-F-23	<0.1    <0.1	[NR]	[NR]
beta-BHC	mg/kg	162119-F-23	<0.1    <0.1	162119-F-8	68%
Heptachlor	mg/kg	162119-F-23	<0.1    <0.1	162119-F-8	80%
delta-BHC	mg/kg	162119-F-23	<0.1    <0.1	[NR]	[NR]
Aldrin	mg/kg	162119-F-23	<0.1    <0.1	162119-F-8	87%
Heptachlor Epoxide	mg/kg	162119-F-23	<0.1    <0.1	162119-F-8	73%
gamma-Chlordane	mg/kg	162119-F-23	<0.1    <0.2	[NR]	[NR]
alpha-chlordane	mg/kg	162119-F-23	<0.1    <0.1	[NR]	[NR]
Endosulfan I	mg/kg	162119-F-23	<0.1    <0.1	[NR]	[NR]
pp-DDE	mg/kg	162119-F-23	<0.1    <0.1	162119-F-8	76%
Dieldrin	mg/kg	162119-F-23	<0.1    <0.1	162119-F-8	84%
Endrin	mg/kg	162119-F-23	<0.1    <0.1	162119-F-8	72%
pp-DDD	mg/kg	162119-F-23	<0.1    <0.1	162119-F-8	89%
Endosulfan II	mg/kg	162119-F-23	<0.1    <0.1	[NR]	[NR]
pp-DDT	mg/kg	162119-F-23	<0.1    <0.1	[NR]	[NR]
Endrin Aldehyde	mg/kg	162119-F-23	<0.1    <0.1	[NR]	[NR]
Endosulfan Sulphate	mg/kg	162119-F-23	<0.1    <0.1	162119-F-8	86%
Methoxychlor	mg/kg	162119-F-23	<0.1    <0.1	[NR]	[NR]
Surrogate TCMX	%	162119-F-23	79    69    RPD: 14	162119-F-8	89%

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QUALITYCONTROL Organophosphorus Pesticides	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD
Date extracted	-	162119-F-23	02/05/2017    02/05/2017
Date analysed	-	162119-F-23	02/05/2017    02/05/2017
Azinphos-methyl (Guthion)	mg/kg	162119-F-23	<0.1    <0.1
Bromophos-ethyl	mg/kg	162119-F-23	<0.1    <0.1
Chlorpyriphos	mg/kg	162119-F-23	<0.1    <0.1
Chlorpyriphos-methyl	mg/kg	162119-F-23	<0.1    <0.1
Diazinon	mg/kg	162119-F-23	<0.1    <0.1
Dichlorvos	mg/kg	162119-F-23	<0.1    <0.1
Dimethoate	mg/kg	162119-F-23	<0.1    <0.1
Ethion	mg/kg	162119-F-23	<0.1    <0.1
Fenitrothion	mg/kg	162119-F-23	<0.1    <0.1
Malathion	mg/kg	162119-F-23	<0.1    <0.1
Parathion	mg/kg	162119-F-23	<0.1    <0.1
Ronnel	mg/kg	162119-F-23	<0.1    <0.1
Surrogate TCMX	%	162119-F-23	79    69    RPD: 14
QUALITYCONTROL SVOCs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD
Date extracted	-	162119-F-23	02/05/2017    02/05/2017
Date analysed	-	162119-F-23	03/05/2017    03/05/2017
Phenol	mg/kg	162119-F-23	<0.5    <0.5
2-Chlorophenol	mg/kg	162119-F-23	<0.5    <0.5
2-Methylphenol	mg/kg	162119-F-23	<0.5    <0.5
3/4-Methylphenol	mg/kg	162119-F-23	<1    <1
2,4-Dimethylphenol	mg/kg	162119-F-23	<0.5    <0.5
2-Nitrophenol	mg/kg	162119-F-23	<0.5    <0.5
2,4-Dichlorophenol	mg/kg	162119-F-23	<0.5    <0.5
4-Chloro-3-methylphenol	mg/kg	162119-F-23	<5    <5
2,4,6-trichlorophenol	mg/kg	162119-F-23	<0.5    <0.5
2,4,5-trichlorophenol	mg/kg	162119-F-23	<0.5    <0.5
2,4-dinitrophenol	mg/kg	162119-F-23	<10    <10
4-nitrophenol	mg/kg	162119-F-23	<10    <10
diethylphthalate	mg/kg	162119-F-23	<1    <1
2-methyl-4,6-dinitrophenol	mg/kg	162119-F-23	<10    <10
pentachlorophenol	mg/kg	162119-F-23	<5    <5
di-n-butylphthalate	mg/kg	162119-F-23	<1    <1
butylbenzylphthalate	mg/kg	162119-F-23	<1    <1
bis(2-ethylhexyl)phthalate	mg/kg	162119-F-23	<1    <1
di-n-octylphthalate	mg/kg	162119-F-23	<1    <1
2,6-dichlorophenol	mg/kg	162119-F-23	<0.5    <0.5
2,3,4,6-tetrachlorophenol	mg/kg	162119-F-23	<0.5    <0.5
Surrogate 2-fluorophenol	%	162119-F-23	79    55    RPD: 36

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QUALITY CONTROL SVOCs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD		
<i>Surrogate</i> Phenol-d6	%	162119-F-23	83    68    RPD: 20		
<i>Surrogate</i> Nitrobenzene-d5	%	162119-F-23	57    51    RPD: 11		
<i>Surrogate</i> 2-fluorobiphenyl	%	162119-F-23	95    102    RPD: 7		
<i>Surrogate</i> 2,4,6-Tribromophenol	%	162119-F-23	#    #		
<i>Surrogate</i> p-Terphenyl-d14	%	162119-F-23	124    129    RPD: 4		
QUALITY CONTROL vTRH(C6-C10)/BTEXN in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD		
Date extracted	-	162119-F-1	2/05/2017    2/05/2017		
Date analysed	-	162119-F-1	4/05/2017    4/05/2017		
TRHC6 - C9	mg/kg	162119-F-1	<25    <25		
TRHC6 - C10	mg/kg	162119-F-1	<25    <25		
Benzene	mg/kg	162119-F-1	<0.2    <0.2		
Toluene	mg/kg	162119-F-1	<0.5    <0.5		
Ethylbenzene	mg/kg	162119-F-1	<1    <1		
m+p-xylene	mg/kg	162119-F-1	<2    <2		
o-Xylene	mg/kg	162119-F-1	<1    <1		
naphthalene	mg/kg	162119-F-1	<1    <1		
<i>Surrogate</i> aaa-Trifluorotoluene	%	162119-F-1	106    99    RPD: 7		
QUALITY CONTROL svTRH (C10-C40) in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	162119-F-26	02/05/2017
Date analysed	-	[NT]	[NT]	162119-F-26	03/05/2017
TRHC10 - C14	mg/kg	[NT]	[NT]	162119-F-26	91%
TRHC15 - C28	mg/kg	[NT]	[NT]	162119-F-26	83%
TRHC29 - C36	mg/kg	[NT]	[NT]	162119-F-26	91%
TRH>C10-C16	mg/kg	[NT]	[NT]	162119-F-26	91%
TRH>C16-C34	mg/kg	[NT]	[NT]	162119-F-26	83%
TRH>C34-C40	mg/kg	[NT]	[NT]	162119-F-26	91%
<i>Surrogate</i> o-Terphenyl	%	[NT]	[NT]	162119-F-26	71%

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QUALITY CONTROL PAHs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	162119-F-26	2/05/2017
Date analysed	-	[NT]	[NT]	162119-F-26	8/05/2017
Naphthalene	mg/kg	[NT]	[NT]	162119-F-26	84%
Acenaphthylene	mg/kg	[NT]	[NT]	[NR]	[NR]
Acenaphthene	mg/kg	[NT]	[NT]	[NR]	[NR]
Fluorene	mg/kg	[NT]	[NT]	162119-F-26	73%
Phenanthrene	mg/kg	[NT]	[NT]	162119-F-26	#
Anthracene	mg/kg	[NT]	[NT]	[NR]	[NR]
Fluoranthene	mg/kg	[NT]	[NT]	162119-F-26	#
Pyrene	mg/kg	[NT]	[NT]	162119-F-26	#
Benzo(a)anthracene	mg/kg	[NT]	[NT]	[NR]	[NR]
Chrysene	mg/kg	[NT]	[NT]	162119-F-26	#
Benzo(b,j+k)fluoranthene	mg/kg	[NT]	[NT]	[NR]	[NR]
Benzo(a)pyrene	mg/kg	[NT]	[NT]	162119-F-26	#
Indeno(1,2,3-c,d)pyrene	mg/kg	[NT]	[NT]	[NR]	[NR]
Dibenzo(a,h)anthracene	mg/kg	[NT]	[NT]	[NR]	[NR]
Benzo(g,h,i)perylene	mg/kg	[NT]	[NT]	[NR]	[NR]
Surrogate p-Terphenyl-d14	%	[NT]	[NT]	162119-F-26	#
QUALITY CONTROL Organochlorine Pesticides in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	162119-F-26	02/05/2017
Date analysed	-	[NT]	[NT]	162119-F-26	02/05/2017
HCB	mg/kg	[NT]	[NT]	[NR]	[NR]
alpha-BHC	mg/kg	[NT]	[NT]	162119-F-26	82%
gamma-BHC	mg/kg	[NT]	[NT]	[NR]	[NR]
beta-BHC	mg/kg	[NT]	[NT]	162119-F-26	78%
Heptachlor	mg/kg	[NT]	[NT]	162119-F-26	89%
delta-BHC	mg/kg	[NT]	[NT]	[NR]	[NR]
Aldrin	mg/kg	[NT]	[NT]	162119-F-26	79%
Heptachlor Epoxide	mg/kg	[NT]	[NT]	162119-F-26	91%
gamma-Chlordane	mg/kg	[NT]	[NT]	[NR]	[NR]
alpha-chlordane	mg/kg	[NT]	[NT]	[NR]	[NR]
Endosulfan I	mg/kg	[NT]	[NT]	[NR]	[NR]
pp-DDE	mg/kg	[NT]	[NT]	162119-F-26	100%
Dieldrin	mg/kg	[NT]	[NT]	162119-F-26	96%
Endrin	mg/kg	[NT]	[NT]	162119-F-26	84%
pp-DDD	mg/kg	[NT]	[NT]	162119-F-26	106%
Endosulfan II	mg/kg	[NT]	[NT]	[NR]	[NR]
pp-DDT	mg/kg	[NT]	[NT]	[NR]	[NR]
Endrin Aldehyde	mg/kg	[NT]	[NT]	[NR]	[NR]
Endosulfan Sulphate	mg/kg	[NT]	[NT]	162119-F-26	68%



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QUALITY CONTROL Organochlorine Pesticides in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Methoxychlor	mg/kg	[NT]	[NT]	[NR]	[NR]
Surrogate TCMX	%	[NT]	[NT]	162119-F-26	80%
QUALITY CONTROL VOCs in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD		
Date extracted	-	162119-F-1	2/05/2017    2/05/2017		
Date analysed	-	162119-F-1	4/05/2017    4/05/2017		
Dichlorodifluoromethane	mg/kg	162119-F-1	<1    <1		
Chloromethane	mg/kg	162119-F-1	<1    <1		
Vinyl Chloride	mg/kg	162119-F-1	<1    <1		
Bromomethane	mg/kg	162119-F-1	<1    <1		
Chloroethane	mg/kg	162119-F-1	<1    <1		
Trichlorofluoromethane	mg/kg	162119-F-1	<1    <1		
1,1-Dichloroethene	mg/kg	162119-F-1	<1    <1		
trans-1,2-dichloroethene	mg/kg	162119-F-1	<1    <1		
1,1-dichloroethane	mg/kg	162119-F-1	<1    <1		
cis-1,2-dichloroethene	mg/kg	162119-F-1	<1    <1		
bromochloromethane	mg/kg	162119-F-1	<1    <1		
chloroform	mg/kg	162119-F-1	<1    <1		
2,2-dichloropropane	mg/kg	162119-F-1	<1    <1		
1,2-dichloroethane	mg/kg	162119-F-1	<1    <1		
1,1,1-trichloroethane	mg/kg	162119-F-1	<1    <1		
1,1-dichloropropene	mg/kg	162119-F-1	<1    <1		
Cyclohexane	mg/kg	162119-F-1	<1    <1		
carbon tetrachloride	mg/kg	162119-F-1	<1    <1		
Benzene	mg/kg	162119-F-1	<0.2    <0.2		
dibromomethane	mg/kg	162119-F-1	<1    <1		
1,2-dichloropropane	mg/kg	162119-F-1	<1    <1		
trichloroethene	mg/kg	162119-F-1	<1    <1		
bromodichloromethane	mg/kg	162119-F-1	<1    <1		
trans-1,3-dichloropropene	mg/kg	162119-F-1	<1    <1		
cis-1,3-dichloropropene	mg/kg	162119-F-1	<1    <1		
1,1,2-trichloroethane	mg/kg	162119-F-1	<1    <1		
Toluene	mg/kg	162119-F-1	<0.5    <0.5		
1,3-dichloropropane	mg/kg	162119-F-1	<1    <1		
dibromochloromethane	mg/kg	162119-F-1	<1    <1		
1,2-dibromoethane	mg/kg	162119-F-1	<1    <1		
tetrachloroethene	mg/kg	162119-F-1	<1    <1		
1,1,1,2-tetrachloroethane	mg/kg	162119-F-1	<1    <1		
chlorobenzene	mg/kg	162119-F-1	<1    <1		
Ethylbenzene	mg/kg	162119-F-1	<1    <1		
bromoform	mg/kg	162119-F-1	<1    <1		

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QUALITY CONTROL VOCs in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD
m+p-xylene	mg/kg	162119-F-1	<2    <2
styrene	mg/kg	162119-F-1	<1    <1
1,1,2,2-tetrachloroethane	mg/kg	162119-F-1	<1    <1
o-Xylene	mg/kg	162119-F-1	<1    <1
1,2,3-trichloropropane	mg/kg	162119-F-1	<1    <1
isopropylbenzene	mg/kg	162119-F-1	<1    <1
bromobenzene	mg/kg	162119-F-1	<1    <1
n-propyl benzene	mg/kg	162119-F-1	<1    <1
2-chlorotoluene	mg/kg	162119-F-1	<1    <1
4-chlorotoluene	mg/kg	162119-F-1	<1    <1
1,3,5-trimethyl benzene	mg/kg	162119-F-1	<1    <1
tert-butyl benzene	mg/kg	162119-F-1	<1    <1
1,2,4-trimethyl benzene	mg/kg	162119-F-1	<1    <1
1,3-dichlorobenzene	mg/kg	162119-F-1	<1    <1
sec-butyl benzene	mg/kg	162119-F-1	<1    <1
1,4-dichlorobenzene	mg/kg	162119-F-1	<1    <1
4-isopropyl toluene	mg/kg	162119-F-1	<1    <1
1,2-dichlorobenzene	mg/kg	162119-F-1	<1    <1
n-butyl benzene	mg/kg	162119-F-1	<1    <1
1,2-dibromo-3-chloropropane	mg/kg	162119-F-1	<1    <1
1,2,4-trichlorobenzene	mg/kg	162119-F-1	<1    <1
hexachlorobutadiene	mg/kg	162119-F-1	<1    <1
1,2,3-trichlorobenzene	mg/kg	162119-F-1	<1    <1
Surrogate Dibromofluorometha	%	162119-F-1	128    129    RPD: 1
Surrogate aaa- Trifluorotoluene	%	162119-F-1	106    99    RPD: 7
Surrogate Toluene-d8	%	162119-F-1	93    93    RPD: 0
Surrogate 4- Bromofluorobenzene	%	162119-F-1	88    87    RPD: 1

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QUALITY CONTROL Miscellaneous Inorg - soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD		
Date prepared	-	162119-F-1	05/05/2017    05/05/2017		
Date analysed	-	162119-F-1	05/05/2017    05/05/2017		
Hexavalent Chromium, Cr <sup>6+</sup>	mg/kg	162119-F-1	<1    <1		
Total Fluoride	mg/kg	162119-F-1	17000    17000    RPD: 0		
QUALITY CONTROL vTRH(C6-C10)/BTEXN in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	162119-F-11	2/05/2017    2/05/2017	LCS-9	2/05/2017
Date analysed	-	162119-F-11	4/05/2017    4/05/2017	LCS-9	4/05/2017
TRHC <sub>6</sub> - C <sub>9</sub>	mg/kg	162119-F-11	<25    <25	LCS-9	75%
TRHC <sub>6</sub> - C <sub>10</sub>	mg/kg	162119-F-11	<25    <25	LCS-9	75%
Benzene	mg/kg	162119-F-11	<0.2    <0.2	LCS-9	78%
Toluene	mg/kg	162119-F-11	<0.5    <0.5	LCS-9	73%
Ethylbenzene	mg/kg	162119-F-11	<1    <1	LCS-9	70%
m+p-xylene	mg/kg	162119-F-11	<2    <2	LCS-9	76%
o-Xylene	mg/kg	162119-F-11	<1    <1	LCS-9	70%
naphthalene	mg/kg	162119-F-11	<1    <1	[NR]	[NR]
Surrogate aaa- Trifluorotoluene	%	162119-F-11	103    98    RPD: 5	LCS-9	103%
QUALITY CONTROL svTRH (C10-C40) in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	LCS-9	02/05/2017
Date analysed	-	[NT]	[NT]	LCS-9	03/05/2017
TRHC <sub>10</sub> - C <sub>14</sub>	mg/kg	[NT]	[NT]	LCS-9	110%
TRHC <sub>15</sub> - C <sub>28</sub>	mg/kg	[NT]	[NT]	LCS-9	110%
TRHC <sub>29</sub> - C <sub>36</sub>	mg/kg	[NT]	[NT]	LCS-9	106%
TRH>C <sub>10</sub> -C <sub>16</sub>	mg/kg	[NT]	[NT]	LCS-9	110%
TRH>C <sub>16</sub> -C <sub>34</sub>	mg/kg	[NT]	[NT]	LCS-9	110%
TRH>C <sub>34</sub> -C <sub>40</sub>	mg/kg	[NT]	[NT]	LCS-9	106%
Surrogate o-Terphenyl	%	[NT]	[NT]	LCS-9	92%
QUALITY CONTROL PAHs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	LCS-9	2/05/2017
Date analysed	-	[NT]	[NT]	LCS-9	8/05/2017
Naphthalene	mg/kg	[NT]	[NT]	LCS-9	98%
Acenaphthylene	mg/kg	[NT]	[NT]	[NR]	[NR]
Acenaphthene	mg/kg	[NT]	[NT]	[NR]	[NR]
Fluorene	mg/kg	[NT]	[NT]	LCS-9	92%
Phenanthrene	mg/kg	[NT]	[NT]	LCS-9	103%
Anthracene	mg/kg	[NT]	[NT]	[NR]	[NR]
Fluoranthene	mg/kg	[NT]	[NT]	LCS-9	91%
Pyrene	mg/kg	[NT]	[NT]	LCS-9	89%

**Client Reference: Hydro Aluminium AS130515**

QUALITY CONTROL PAHs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Benzo(a)anthracene	mg/kg	[NT]	[NT]	[NR]	[NR]
Chrysene	mg/kg	[NT]	[NT]	LCS-9	86%
Benzo(b,j+k)fluoranthene	mg/kg	[NT]	[NT]	[NR]	[NR]
Benzo(a)pyrene	mg/kg	[NT]	[NT]	LCS-9	103%
Indeno(1,2,3-c,d)pyrene	mg/kg	[NT]	[NT]	[NR]	[NR]
Dibenzo(a,h)anthracene	mg/kg	[NT]	[NT]	[NR]	[NR]
Benzo(g,h,i)perylene	mg/kg	[NT]	[NT]	[NR]	[NR]
Surrogate p-Terphenyl-d14	%	[NT]	[NT]	LCS-9	63%
QUALITY CONTROL Organochlorine Pesticides in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	LCS-9	02/05/2017
Date analysed	-	[NT]	[NT]	LCS-9	02/05/2017
HCB	mg/kg	[NT]	[NT]	[NR]	[NR]
alpha-BHC	mg/kg	[NT]	[NT]	LCS-9	76%
gamma-BHC	mg/kg	[NT]	[NT]	[NR]	[NR]
beta-BHC	mg/kg	[NT]	[NT]	LCS-9	90%
Heptachlor	mg/kg	[NT]	[NT]	LCS-9	87%
delta-BHC	mg/kg	[NT]	[NT]	[NR]	[NR]
Aldrin	mg/kg	[NT]	[NT]	LCS-9	83%
Heptachlor Epoxide	mg/kg	[NT]	[NT]	LCS-9	90%
gamma-Chlordane	mg/kg	[NT]	[NT]	[NR]	[NR]
alpha-chlordane	mg/kg	[NT]	[NT]	[NR]	[NR]
Endosulfan I	mg/kg	[NT]	[NT]	[NR]	[NR]
pp-DDE	mg/kg	[NT]	[NT]	LCS-9	107%
Dieldrin	mg/kg	[NT]	[NT]	LCS-9	93%
Endrin	mg/kg	[NT]	[NT]	LCS-9	83%
pp-DDD	mg/kg	[NT]	[NT]	LCS-9	109%
Endosulfan II	mg/kg	[NT]	[NT]	[NR]	[NR]
pp-DDT	mg/kg	[NT]	[NT]	[NR]	[NR]
Endrin Aldehyde	mg/kg	[NT]	[NT]	[NR]	[NR]
Endosulfan Sulphate	mg/kg	[NT]	[NT]	LCS-9	86%
Methoxychlor	mg/kg	[NT]	[NT]	[NR]	[NR]
Surrogate TCMX	%	[NT]	[NT]	LCS-9	95%

**Client Reference: Hydro Aluminium AS130515**

QUALITY CONTROL Organophosphorus Pesticides	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	LCS-9	02/05/2017
Date analysed	-	[NT]	[NT]	LCS-9	02/05/2017
Azinphos-methyl (Guthion)	mg/kg	[NT]	[NT]	[NR]	[NR]
Bromophos-ethyl	mg/kg	[NT]	[NT]	[NR]	[NR]
Chlorpyriphos	mg/kg	[NT]	[NT]	LCS-9	85%
Chlorpyriphos-methyl	mg/kg	[NT]	[NT]	[NR]	[NR]
Diazinon	mg/kg	[NT]	[NT]	[NR]	[NR]
Dichlorvos	mg/kg	[NT]	[NT]	LCS-9	89%
Dimethoate	mg/kg	[NT]	[NT]	[NR]	[NR]
Ethion	mg/kg	[NT]	[NT]	LCS-9	109%
Fenitrothion	mg/kg	[NT]	[NT]	LCS-9	77%
Malathion	mg/kg	[NT]	[NT]	LCS-9	77%
Parathion	mg/kg	[NT]	[NT]	LCS-9	119%
Ronnel	mg/kg	[NT]	[NT]	LCS-9	94%
Surrogate TCMX	%	[NT]	[NT]	LCS-9	81%
QUALITY CONTROL SVOCs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	LCS-9	02/05/2017
Date analysed	-	[NT]	[NT]	LCS-9	03/05/2017
Phenol	mg/kg	[NT]	[NT]	LCS-9	58%
2-Chlorophenol	mg/kg	[NT]	[NT]	LCS-9	83%
2-Methylphenol	mg/kg	[NT]	[NT]	[NR]	[NR]
3/4-Methylphenol	mg/kg	[NT]	[NT]	[NR]	[NR]
2,4-Dimethylphenol	mg/kg	[NT]	[NT]	[NR]	[NR]
2-Nitrophenol	mg/kg	[NT]	[NT]	[NR]	[NR]
2,4-Dichlorophenol	mg/kg	[NT]	[NT]	[NR]	[NR]
4-Chloro-3-methylphenol	mg/kg	[NT]	[NT]	[NR]	[NR]
2,4,6-trichlorophenol	mg/kg	[NT]	[NT]	[NR]	[NR]
2,4,5-trichlorophenol	mg/kg	[NT]	[NT]	[NR]	[NR]
2,4-dinitrophenol	mg/kg	[NT]	[NT]	[NR]	[NR]
4-nitrophenol	mg/kg	[NT]	[NT]	LCS-9	82%
diethylphthalate	mg/kg	[NT]	[NT]	LCS-9	88%
2-methyl-4,6-dinitrophenol	mg/kg	[NT]	[NT]	[NR]	[NR]
pentachlorophenol	mg/kg	[NT]	[NT]	[NR]	[NR]
di-n-butylphthalate	mg/kg	[NT]	[NT]	[NR]	[NR]
butylbenzylphthalate	mg/kg	[NT]	[NT]	[NR]	[NR]
bis(2-ethylhexyl)phthalate	mg/kg	[NT]	[NT]	[NR]	[NR]
di-n-octylphthalate	mg/kg	[NT]	[NT]	[NR]	[NR]
2,6-dichlorophenol	mg/kg	[NT]	[NT]	[NR]	[NR]
2,3,4,6-tetrachlorophenol	mg/kg	[NT]	[NT]	[NR]	[NR]
Surrogate 2-fluorophenol	%	[NT]	[NT]	LCS-9	91%

**Client Reference: Hydro Aluminium AS130515**

QUALITY CONTROL SVOCs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
<i>Surrogate</i> Phenol-d6	%	[NT]	[NT]	LCS-9	40%
<i>Surrogate</i> Nitrobenzene-d5	%	[NT]	[NT]	LCS-9	76%
<i>Surrogate</i> 2-fluorobiphenyl	%	[NT]	[NT]	LCS-9	96%
<i>Surrogate</i> 2,4,6-Tribromophenol	%	[NT]	[NT]	LCS-9	78%
<i>Surrogate</i> p-Terphenyl-d14	%	[NT]	[NT]	LCS-9	94%
QUALITY CONTROL VOCs in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	162119-F-11	2/05/2017    2/05/2017	LCS-9	2/05/2017
Date analysed	-	162119-F-11	4/05/2017    4/05/2017	LCS-9	4/05/2017
Dichlorodifluoromethane	mg/kg	162119-F-11	<1    <1	[NR]	[NR]
Chloromethane	mg/kg	162119-F-11	<1    <1	[NR]	[NR]
Vinyl Chloride	mg/kg	162119-F-11	<1    <1	[NR]	[NR]
Bromomethane	mg/kg	162119-F-11	<1    <1	[NR]	[NR]
Chloroethane	mg/kg	162119-F-11	<1    <1	[NR]	[NR]
Trichlorofluoromethane	mg/kg	162119-F-11	<1    <1	[NR]	[NR]
1,1-Dichloroethene	mg/kg	162119-F-11	<1    <1	[NR]	[NR]
trans-1,2-dichloroethene	mg/kg	162119-F-11	<1    <1	[NR]	[NR]
1,1-dichloroethane	mg/kg	162119-F-11	<1    <1	LCS-9	122%
cis-1,2-dichloroethene	mg/kg	162119-F-11	<1    <1	[NR]	[NR]
bromochloromethane	mg/kg	162119-F-11	<1    <1	[NR]	[NR]
chloroform	mg/kg	162119-F-11	<1    <1	LCS-9	126%
2,2-dichloropropane	mg/kg	162119-F-11	<1    <1	[NR]	[NR]
1,2-dichloroethane	mg/kg	162119-F-11	<1    <1	LCS-9	126%
1,1,1-trichloroethane	mg/kg	162119-F-11	<1    <1	LCS-9	109%
1,1-dichloropropene	mg/kg	162119-F-11	<1    <1	[NR]	[NR]
Cyclohexane	mg/kg	162119-F-11	<1    <1	[NR]	[NR]
carbon tetrachloride	mg/kg	162119-F-11	<1    <1	[NR]	[NR]
Benzene	mg/kg	162119-F-11	<0.2    <0.2	[NR]	[NR]
dibromomethane	mg/kg	162119-F-11	<1    <1	[NR]	[NR]
1,2-dichloropropane	mg/kg	162119-F-11	<1    <1	[NR]	[NR]
trichloroethene	mg/kg	162119-F-11	<1    <1	LCS-9	95%
bromodichloromethane	mg/kg	162119-F-11	<1    <1	LCS-9	132%
trans-1,3-dichloropropene	mg/kg	162119-F-11	<1    <1	[NR]	[NR]
cis-1,3-dichloropropene	mg/kg	162119-F-11	<1    <1	[NR]	[NR]
1,1,2-trichloroethane	mg/kg	162119-F-11	<1    <1	[NR]	[NR]
Toluene	mg/kg	162119-F-11	<0.5    <0.5	[NR]	[NR]
1,3-dichloropropane	mg/kg	162119-F-11	<1    <1	[NR]	[NR]
dibromochloromethane	mg/kg	162119-F-11	<1    <1	LCS-9	124%
1,2-dibromoethane	mg/kg	162119-F-11	<1    <1	[NR]	[NR]
tetrachloroethene	mg/kg	162119-F-11	<1    <1	LCS-9	109%

**Client Reference: Hydro Aluminium AS130515**

QUALITY CONTROL VOCs in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
1,1,1,2-tetrachloroethane	mg/kg	162119-F-11	<1    <1	[NR]	[NR]
chlorobenzene	mg/kg	162119-F-11	<1    <1	[NR]	[NR]
Ethylbenzene	mg/kg	162119-F-11	<1    <1	[NR]	[NR]
bromoform	mg/kg	162119-F-11	<1    <1	[NR]	[NR]
m+p-xylene	mg/kg	162119-F-11	<2    <2	[NR]	[NR]
styrene	mg/kg	162119-F-11	<1    <1	[NR]	[NR]
1,1,2,2-tetrachloroethane	mg/kg	162119-F-11	<1    <1	[NR]	[NR]
o-Xylene	mg/kg	162119-F-11	<1    <1	[NR]	[NR]
1,2,3-trichloropropane	mg/kg	162119-F-11	<1    <1	[NR]	[NR]
isopropylbenzene	mg/kg	162119-F-11	<1    <1	[NR]	[NR]
bromobenzene	mg/kg	162119-F-11	<1    <1	[NR]	[NR]
n-propyl benzene	mg/kg	162119-F-11	<1    <1	[NR]	[NR]
2-chlorotoluene	mg/kg	162119-F-11	<1    <1	[NR]	[NR]
4-chlorotoluene	mg/kg	162119-F-11	<1    <1	[NR]	[NR]
1,3,5-trimethyl benzene	mg/kg	162119-F-11	<1    <1	[NR]	[NR]
tert-butyl benzene	mg/kg	162119-F-11	<1    <1	[NR]	[NR]
1,2,4-trimethyl benzene	mg/kg	162119-F-11	<1    <1	[NR]	[NR]
1,3-dichlorobenzene	mg/kg	162119-F-11	<1    <1	[NR]	[NR]
sec-butyl benzene	mg/kg	162119-F-11	<1    <1	[NR]	[NR]
1,4-dichlorobenzene	mg/kg	162119-F-11	<1    <1	[NR]	[NR]
4-isopropyl toluene	mg/kg	162119-F-11	<1    <1	[NR]	[NR]
1,2-dichlorobenzene	mg/kg	162119-F-11	<1    <1	[NR]	[NR]
n-butyl benzene	mg/kg	162119-F-11	<1    <1	[NR]	[NR]
1,2-dibromo-3-chloropropane	mg/kg	162119-F-11	<1    <1	[NR]	[NR]
1,2,4-trichlorobenzene	mg/kg	162119-F-11	<1    <1	[NR]	[NR]
hexachlorobutadiene	mg/kg	162119-F-11	<1    <1	[NR]	[NR]
1,2,3-trichlorobenzene	mg/kg	162119-F-11	<1    <1	[NR]	[NR]
<i>Surrogate</i> Dibromofluorometha	%	162119-F-11	131    132    RPD: 1	LCS-9	126%
<i>Surrogate</i> aaa- Trifluorotoluene	%	162119-F-11	103    98    RPD: 5	LCS-9	103%
<i>Surrogate</i> Toluene-d8	%	162119-F-11	95    95    RPD: 0	LCS-9	93%
<i>Surrogate</i> 4- Bromofluorobenzene	%	162119-F-11	88    89    RPD: 1	LCS-9	92%

**Client Reference: Hydro Aluminium AS130515**

QUALITYCONTROL Acid Extractable metals in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date prepared	-	[NT]	[NT]	LCS-9	02/05/2017
Date analysed	-	[NT]	[NT]	LCS-9	04/05/2017
Arsenic	mg/kg	[NT]	[NT]	LCS-9	118%
Cadmium	mg/kg	[NT]	[NT]	LCS-9	104%
Copper	mg/kg	[NT]	[NT]	LCS-9	113%
Lead	mg/kg	[NT]	[NT]	LCS-9	105%
Mercury	mg/kg	[NT]	[NT]	LCS-9	106%
Molybdenum	mg/kg	[NT]	[NT]	LCS-9	111%
Nickel	mg/kg	[NT]	[NT]	LCS-9	102%
Selenium	mg/kg	[NT]	[NT]	LCS-9	107%
Silver	mg/kg	[NT]	[NT]	LCS-9	114%
Tin	mg/kg	[NT]	[NT]	LCS-9	100%
Zinc	mg/kg	[NT]	[NT]	LCS-9	103%
QUALITYCONTROL Misc Soil - Inorg	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date prepared	-	[NT]	[NT]	LCS-9	03/05/2017
Date analysed	-	[NT]	[NT]	LCS-9	03/05/2017
Free Cyanide in soil	mg/kg	[NT]	[NT]	LCS-9	100%
Total Cyanide	mg/kg	[NT]	[NT]	LCS-9	107%
QUALITYCONTROL Miscellaneous Inorg - soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date prepared	-	162119-F-11	05/05/2017    05/05/2017	LCS-9	05/05/2017
Date analysed	-	162119-F-11	05/05/2017    05/05/2017	LCS-9	05/05/2017
Hexavalent Chromium, Cr <sup>6+</sup>	mg/kg	162119-F-11	<1    <1	LCS-9	90%
Total Fluoride	mg/kg	162119-F-11	18000    26000    RPD: 36	LCS-9	107%
QUALITYCONTROL vTRH(C6-C10)/BTEXN in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	162119-F-21	2/05/2017    2/05/2017	LCS-10	2/05/2017
Date analysed	-	162119-F-21	4/05/2017    4/05/2017	LCS-10	4/05/2017
TRHC <sub>6</sub> - C <sub>9</sub>	mg/kg	162119-F-21	<25    <25	LCS-10	76%
TRHC <sub>6</sub> - C <sub>10</sub>	mg/kg	162119-F-21	<25    <25	LCS-10	76%
Benzene	mg/kg	162119-F-21	<0.2    <0.2	LCS-10	79%
Toluene	mg/kg	162119-F-21	<0.5    <0.5	LCS-10	75%
Ethylbenzene	mg/kg	162119-F-21	<1    <1	LCS-10	70%
m+p-xylene	mg/kg	162119-F-21	<2    <2	LCS-10	78%
o-Xylene	mg/kg	162119-F-21	<1    <1	LCS-10	71%
naphthalene	mg/kg	162119-F-21	<1    <1	[NR]	[NR]
Surrogate aaa-Trifluorotoluene	%	162119-F-21	96    91    RPD: 5	LCS-10	105%



**Client Reference: Hydro Aluminium AS130515**

QUALITYCONTROL svTRH (C10-C40) in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	LCS-10	02/05/2017
Date analysed	-	[NT]	[NT]	LCS-10	03/05/2017
TRHC <sub>10</sub> - C <sub>14</sub>	mg/kg	[NT]	[NT]	LCS-10	100%
TRHC <sub>15</sub> - C <sub>28</sub>	mg/kg	[NT]	[NT]	LCS-10	97%
TRHC <sub>28</sub> - C <sub>36</sub>	mg/kg	[NT]	[NT]	LCS-10	91%
TRH>C <sub>10</sub> -C <sub>16</sub>	mg/kg	[NT]	[NT]	LCS-10	100%
TRH>C <sub>16</sub> -C <sub>34</sub>	mg/kg	[NT]	[NT]	LCS-10	97%
TRH>C <sub>34</sub> -C <sub>40</sub>	mg/kg	[NT]	[NT]	LCS-10	91%
Surrogate o-Terphenyl	%	[NT]	[NT]	LCS-10	85%
QUALITYCONTROL PAHs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	LCS-10	2/05/2017
Date analysed	-	[NT]	[NT]	LCS-10	8/05/2017
Naphthalene	mg/kg	[NT]	[NT]	LCS-10	97%
Acenaphthylene	mg/kg	[NT]	[NT]	[NR]	[NR]
Acenaphthene	mg/kg	[NT]	[NT]	[NR]	[NR]
Fluorene	mg/kg	[NT]	[NT]	LCS-10	118%
Phenanthrene	mg/kg	[NT]	[NT]	LCS-10	108%
Anthracene	mg/kg	[NT]	[NT]	[NR]	[NR]
Fluoranthene	mg/kg	[NT]	[NT]	LCS-10	98%
Pyrene	mg/kg	[NT]	[NT]	LCS-10	98%
Benzo(a)anthracene	mg/kg	[NT]	[NT]	[NR]	[NR]
Chrysene	mg/kg	[NT]	[NT]	LCS-10	85%
Benzo(b,j+k)fluoranthene	mg/kg	[NT]	[NT]	[NR]	[NR]
Benzo(a)pyrene	mg/kg	[NT]	[NT]	LCS-10	87%
Indeno(1,2,3-c,d)pyrene	mg/kg	[NT]	[NT]	[NR]	[NR]
Dibenzo(a,h)anthracene	mg/kg	[NT]	[NT]	[NR]	[NR]
Benzo(g,h,i)perylene	mg/kg	[NT]	[NT]	[NR]	[NR]
Surrogate p-Terphenyl-d14	%	[NT]	[NT]	LCS-10	62%

**Client Reference: Hydro Aluminium AS130515**

QUALITYCONTROL Organochlorine Pesticides in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	LCS-10	02/05/2017
Date analysed	-	[NT]	[NT]	LCS-10	02/05/2017
HCB	mg/kg	[NT]	[NT]	[NR]	[NR]
alpha-BHC	mg/kg	[NT]	[NT]	LCS-10	73%
gamma-BHC	mg/kg	[NT]	[NT]	[NR]	[NR]
beta-BHC	mg/kg	[NT]	[NT]	LCS-10	85%
Heptachlor	mg/kg	[NT]	[NT]	LCS-10	90%
delta-BHC	mg/kg	[NT]	[NT]	[NR]	[NR]
Aldrin	mg/kg	[NT]	[NT]	LCS-10	84%
Heptachlor Epoxide	mg/kg	[NT]	[NT]	LCS-10	93%
gamma-Chlordane	mg/kg	[NT]	[NT]	[NR]	[NR]
alpha-chlordane	mg/kg	[NT]	[NT]	[NR]	[NR]
Endosulfan I	mg/kg	[NT]	[NT]	[NR]	[NR]
pp-DDE	mg/kg	[NT]	[NT]	LCS-10	106%
Dieldrin	mg/kg	[NT]	[NT]	LCS-10	98%
Endrin	mg/kg	[NT]	[NT]	LCS-10	89%
pp-DDD	mg/kg	[NT]	[NT]	LCS-10	115%
Endosulfan II	mg/kg	[NT]	[NT]	[NR]	[NR]
pp-DDT	mg/kg	[NT]	[NT]	[NR]	[NR]
Endrin Aldehyde	mg/kg	[NT]	[NT]	[NR]	[NR]
Endosulfan Sulphate	mg/kg	[NT]	[NT]	LCS-10	86%
Methoxychlor	mg/kg	[NT]	[NT]	[NR]	[NR]
Surrogate TCMX	%	[NT]	[NT]	LCS-10	96%

**Client Reference: Hydro Aluminium AS130515**

QUALITY CONTROL Organophosphorus Pesticides	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	LCS-10	02/05/2017
Date analysed	-	[NT]	[NT]	LCS-10	02/05/2017
Azinphos-methyl (Guthion)	mg/kg	[NT]	[NT]	[NR]	[NR]
Bromophos-ethyl	mg/kg	[NT]	[NT]	[NR]	[NR]
Chlorpyriphos	mg/kg	[NT]	[NT]	LCS-10	86%
Chlorpyriphos-methyl	mg/kg	[NT]	[NT]	[NR]	[NR]
Diazinon	mg/kg	[NT]	[NT]	[NR]	[NR]
Dichlorvos	mg/kg	[NT]	[NT]	LCS-10	79%
Dimethoate	mg/kg	[NT]	[NT]	[NR]	[NR]
Ethion	mg/kg	[NT]	[NT]	LCS-10	113%
Fenitrothion	mg/kg	[NT]	[NT]	LCS-10	102%
Malathion	mg/kg	[NT]	[NT]	LCS-10	84%
Parathion	mg/kg	[NT]	[NT]	LCS-10	111%
Ronnel	mg/kg	[NT]	[NT]	LCS-10	96%
Surrogate TCMX	%	[NT]	[NT]	LCS-10	95%
QUALITY CONTROL SVOCs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	LCS-10	02/05/2017
Date analysed	-	[NT]	[NT]	LCS-10	03/05/2017
Phenol	mg/kg	[NT]	[NT]	LCS-10	60%
2-Chlorophenol	mg/kg	[NT]	[NT]	LCS-10	82%
2-Methylphenol	mg/kg	[NT]	[NT]	[NR]	[NR]
3/4-Methylphenol	mg/kg	[NT]	[NT]	[NR]	[NR]
2,4-Dimethylphenol	mg/kg	[NT]	[NT]	[NR]	[NR]
2-Nitrophenol	mg/kg	[NT]	[NT]	[NR]	[NR]
2,4-Dichlorophenol	mg/kg	[NT]	[NT]	[NR]	[NR]
4-Chloro-3-methylphenol	mg/kg	[NT]	[NT]	[NR]	[NR]
2,4,6-trichlorophenol	mg/kg	[NT]	[NT]	[NR]	[NR]
2,4,5-trichlorophenol	mg/kg	[NT]	[NT]	[NR]	[NR]
2,4-dinitrophenol	mg/kg	[NT]	[NT]	[NR]	[NR]
4-nitrophenol	mg/kg	[NT]	[NT]	LCS-10	78%
diethylphthalate	mg/kg	[NT]	[NT]	LCS-10	87%
2-methyl-4,6-dinitrophenol	mg/kg	[NT]	[NT]	[NR]	[NR]
pentachlorophenol	mg/kg	[NT]	[NT]	[NR]	[NR]
di-n-butylphthalate	mg/kg	[NT]	[NT]	[NR]	[NR]
butylbenzylphthalate	mg/kg	[NT]	[NT]	[NR]	[NR]
bis(2-ethylhexyl)phthalate	mg/kg	[NT]	[NT]	[NR]	[NR]
di-n-octylphthalate	mg/kg	[NT]	[NT]	[NR]	[NR]
2,6-dichlorophenol	mg/kg	[NT]	[NT]	[NR]	[NR]
2,3,4,6-tetrachlorophenol	mg/kg	[NT]	[NT]	[NR]	[NR]
Surrogate 2-fluorophenol	%	[NT]	[NT]	LCS-10	88%

**Client Reference: Hydro Aluminium AS130515**

QUALITY CONTROL SVOCs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
<i>Surrogate</i> Phenol-d6	%	[NT]	[NT]	LCS-10	73%
<i>Surrogate</i> Nitrobenzene-d5	%	[NT]	[NT]	LCS-10	75%
<i>Surrogate</i> 2-fluorobiphenyl	%	[NT]	[NT]	LCS-10	85%
<i>Surrogate</i> 2,4,6-Tribromophenol	%	[NT]	[NT]	LCS-10	71%
<i>Surrogate</i> p-Terphenyl-d14	%	[NT]	[NT]	LCS-10	87%
QUALITY CONTROL VOCs in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	162119-F-21	2/05/2017    2/05/2017	LCS-10	2/05/2017
Date analysed	-	162119-F-21	4/05/2017    4/05/2017	LCS-10	4/05/2017
Dichlorodifluoromethane	mg/kg	162119-F-21	<1    <1	[NR]	[NR]
Chloromethane	mg/kg	162119-F-21	<1    <1	[NR]	[NR]
Vinyl Chloride	mg/kg	162119-F-21	<1    <1	[NR]	[NR]
Bromomethane	mg/kg	162119-F-21	<1    <1	[NR]	[NR]
Chloroethane	mg/kg	162119-F-21	<1    <1	[NR]	[NR]
Trichlorofluoromethane	mg/kg	162119-F-21	<1    <1	[NR]	[NR]
1,1-Dichloroethene	mg/kg	162119-F-21	<1    <1	[NR]	[NR]
trans-1,2-dichloroethene	mg/kg	162119-F-21	<1    <1	[NR]	[NR]
1,1-dichloroethane	mg/kg	162119-F-21	<1    <1	LCS-10	128%
cis-1,2-dichloroethene	mg/kg	162119-F-21	<1    <1	[NR]	[NR]
bromochloromethane	mg/kg	162119-F-21	<1    <1	[NR]	[NR]
chloroform	mg/kg	162119-F-21	<1    <1	LCS-10	133%
2,2-dichloropropane	mg/kg	162119-F-21	<1    <1	[NR]	[NR]
1,2-dichloroethane	mg/kg	162119-F-21	<1    <1	LCS-10	135%
1,1,1-trichloroethane	mg/kg	162119-F-21	<1    <1	LCS-10	122%
1,1-dichloropropene	mg/kg	162119-F-21	<1    <1	[NR]	[NR]
Cyclohexane	mg/kg	162119-F-21	<1    <1	[NR]	[NR]
carbon tetrachloride	mg/kg	162119-F-21	<1    <1	[NR]	[NR]
Benzene	mg/kg	162119-F-21	<0.2    <0.2	[NR]	[NR]
dibromomethane	mg/kg	162119-F-21	<1    <1	[NR]	[NR]
1,2-dichloropropane	mg/kg	162119-F-21	<1    <1	[NR]	[NR]
trichloroethene	mg/kg	162119-F-21	<1    <1	LCS-10	99%
bromodichloromethane	mg/kg	162119-F-21	<1    <1	LCS-10	138%
trans-1,3-dichloropropene	mg/kg	162119-F-21	<1    <1	[NR]	[NR]
cis-1,3-dichloropropene	mg/kg	162119-F-21	<1    <1	[NR]	[NR]
1,1,2-trichloroethane	mg/kg	162119-F-21	<1    <1	[NR]	[NR]
Toluene	mg/kg	162119-F-21	<0.5    <0.5	[NR]	[NR]
1,3-dichloropropane	mg/kg	162119-F-21	<1    <1	[NR]	[NR]
dibromochloromethane	mg/kg	162119-F-21	<1    <1	LCS-10	136%
1,2-dibromoethane	mg/kg	162119-F-21	<1    <1	[NR]	[NR]
tetrachloroethene	mg/kg	162119-F-21	<1    <1	LCS-10	113%

**Client Reference: Hydro Aluminium AS130515**

QUALITY CONTROL VOCs in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
1,1,1,2-tetrachloroethane	mg/kg	162119-F-21	<1    <1	[NR]	[NR]
chlorobenzene	mg/kg	162119-F-21	<1    <1	[NR]	[NR]
Ethylbenzene	mg/kg	162119-F-21	<1    <1	[NR]	[NR]
bromoform	mg/kg	162119-F-21	<1    <1	[NR]	[NR]
m+p-xylene	mg/kg	162119-F-21	<2    <2	[NR]	[NR]
styrene	mg/kg	162119-F-21	<1    <1	[NR]	[NR]
1,1,2,2-tetrachloroethane	mg/kg	162119-F-21	<1    <1	[NR]	[NR]
o-Xylene	mg/kg	162119-F-21	<1    <1	[NR]	[NR]
1,2,3-trichloropropane	mg/kg	162119-F-21	<1    <1	[NR]	[NR]
isopropylbenzene	mg/kg	162119-F-21	<1    <1	[NR]	[NR]
bromobenzene	mg/kg	162119-F-21	<1    <1	[NR]	[NR]
n-propyl benzene	mg/kg	162119-F-21	<1    <1	[NR]	[NR]
2-chlorotoluene	mg/kg	162119-F-21	<1    <1	[NR]	[NR]
4-chlorotoluene	mg/kg	162119-F-21	<1    <1	[NR]	[NR]
1,3,5-trimethyl benzene	mg/kg	162119-F-21	<1    <1	[NR]	[NR]
tert-butyl benzene	mg/kg	162119-F-21	<1    <1	[NR]	[NR]
1,2,4-trimethyl benzene	mg/kg	162119-F-21	<1    <1	[NR]	[NR]
1,3-dichlorobenzene	mg/kg	162119-F-21	<1    <1	[NR]	[NR]
sec-butyl benzene	mg/kg	162119-F-21	<1    <1	[NR]	[NR]
1,4-dichlorobenzene	mg/kg	162119-F-21	<1    <1	[NR]	[NR]
4-isopropyl toluene	mg/kg	162119-F-21	<1    <1	[NR]	[NR]
1,2-dichlorobenzene	mg/kg	162119-F-21	<1    <1	[NR]	[NR]
n-butyl benzene	mg/kg	162119-F-21	<1    <1	[NR]	[NR]
1,2-dibromo-3-chloropropane	mg/kg	162119-F-21	<1    <1	[NR]	[NR]
1,2,4-trichlorobenzene	mg/kg	162119-F-21	<1    <1	[NR]	[NR]
hexachlorobutadiene	mg/kg	162119-F-21	<1    <1	[NR]	[NR]
1,2,3-trichlorobenzene	mg/kg	162119-F-21	<1    <1	[NR]	[NR]
<i>Surrogate</i> Dibromofluorometha	%	162119-F-21	130    134    RPD: 3	LCS-10	130%
<i>Surrogate</i> aaa- Trifluorotoluene	%	162119-F-21	96    91    RPD: 5	LCS-10	105%
<i>Surrogate</i> Toluene-d8	%	162119-F-21	92    94    RPD: 2	LCS-10	95%
<i>Surrogate</i> 4- Bromofluorobenzene	%	162119-F-21	88    87    RPD: 1	LCS-10	93%

**Client Reference: Hydro Aluminium AS130515**

QUALITYCONTROL Acid Extractable metals in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date prepared	-	[NT]	[NT]	LCS-10	02/05/2017
Date analysed	-	[NT]	[NT]	LCS-10	04/05/2017
Arsenic	mg/kg	[NT]	[NT]	LCS-10	115%
Cadmium	mg/kg	[NT]	[NT]	LCS-10	102%
Copper	mg/kg	[NT]	[NT]	LCS-10	110%
Lead	mg/kg	[NT]	[NT]	LCS-10	103%
Mercury	mg/kg	[NT]	[NT]	LCS-10	95%
Molybdenum	mg/kg	[NT]	[NT]	LCS-10	108%
Nickel	mg/kg	[NT]	[NT]	LCS-10	99%
Selenium	mg/kg	[NT]	[NT]	LCS-10	103%
Silver	mg/kg	[NT]	[NT]	LCS-10	110%
Tin	mg/kg	[NT]	[NT]	LCS-10	96%
Zinc	mg/kg	[NT]	[NT]	LCS-10	100%
QUALITYCONTROL Misc Soil - Inorg	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date prepared	-	[NT]	[NT]	LCS-10	03/05/2017
Date analysed	-	[NT]	[NT]	LCS-10	03/05/2017
Free Cyanide in soil	mg/kg	[NT]	[NT]	LCS-10	101%
Total Cyanide	mg/kg	[NT]	[NT]	LCS-10	113%
QUALITYCONTROL Miscellaneous Inorg - soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date prepared	-	162119-F-21	05/05/2017    05/05/2017	LCS-10	05/05/2017
Date analysed	-	162119-F-21	05/05/2017    05/05/2017	LCS-10	05/05/2017
Hexavalent Chromium, Cr <sup>6+</sup>	mg/kg	162119-F-21	<1    <1	LCS-10	90%
Total Fluoride	mg/kg	162119-F-21	35000    48000    RPD: 31	LCS-10	107%
QUALITYCONTROL Acid Extractable metals in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date prepared	-	162119-F-2	02/05/2017    02/05/2017	162119-F-7	02/05/2017
Date analysed	-	162119-F-2	04/05/2017    04/05/2017	162119-F-7	04/05/2017
Arsenic	mg/kg	162119-F-2	35    32    RPD: 9	162119-F-7	105%
Cadmium	mg/kg	162119-F-2	0.5    0.6    RPD: 18	162119-F-7	94%
Copper	mg/kg	162119-F-2	110    110    RPD: 0	162119-F-7	108%
Lead	mg/kg	162119-F-2	180    180    RPD: 0	162119-F-7	97%
Mercury	mg/kg	162119-F-2	<0.1    <0.1	162119-F-7	103%
Molybdenum	mg/kg	162119-F-2	6    7    RPD: 15	162119-F-7	99%
Nickel	mg/kg	162119-F-2	180    170    RPD: 6	162119-F-7	85%
Selenium	mg/kg	162119-F-2	<2    <2	162119-F-7	99%
Silver	mg/kg	162119-F-2	<1    <1	162119-F-7	116%
Tin	mg/kg	162119-F-2	5    6    RPD: 18	162119-F-7	87%
Zinc	mg/kg	162119-F-2	740    770    RPD: 4	162119-F-7	111%

**Client Reference: Hydro Aluminium AS130515**

QUALITYCONTROL Misc Soil - Inorg	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date prepared	-	162119-F-2	03/05/2017    03/05/2017	162119-F-7	03/05/2017
Date analysed	-	162119-F-2	03/05/2017    03/05/2017	162119-F-7	03/05/2017
Free Cyanide in soil	mg/kg	162119-F-2	<0.5    <0.5	162119-F-7	78%
Total Cyanide	mg/kg	162119-F-2	73    78    RPD: 7	162119-F-7	111%
QUALITYCONTROL Acid Extractable metals in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date prepared	-	162119-F-12	02/05/2017    02/05/2017	162119-F-25	02/05/2017
Date analysed	-	162119-F-12	04/05/2017    04/05/2017	162119-F-25	04/05/2017
Arsenic	mg/kg	162119-F-12	10    12    RPD: 18	162119-F-25	98%
Cadmium	mg/kg	162119-F-12	0.5    0.4    RPD: 22	162119-F-25	104%
Copper	mg/kg	162119-F-12	35    35    RPD: 0	162119-F-25	107%
Lead	mg/kg	162119-F-12	19    20    RPD: 5	162119-F-25	100%
Mercury	mg/kg	162119-F-12	<0.1    <0.1	162119-F-25	98%
Molybdenum	mg/kg	162119-F-12	4    4    RPD: 0	162119-F-25	103%
Nickel	mg/kg	162119-F-12	70    73    RPD: 4	162119-F-25	96%
Selenium	mg/kg	162119-F-12	<2    <2	162119-F-25	95%
Silver	mg/kg	162119-F-12	<1    <1	162119-F-25	103%
Tin	mg/kg	162119-F-12	3    3    RPD: 0	162119-F-25	91%
Zinc	mg/kg	162119-F-12	150    140    RPD: 7	162119-F-25	95%
QUALITYCONTROL Misc Soil - Inorg	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date prepared	-	162119-F-12	03/05/2017    03/05/2017	162119-F-25	03/05/2017
Date analysed	-	162119-F-12	03/05/2017    03/05/2017	162119-F-25	03/05/2017
Free Cyanide in soil	mg/kg	162119-F-12	<0.5    <0.5	162119-F-25	84%
Total Cyanide	mg/kg	162119-F-12	190    180    RPD: 5	162119-F-25	106%
QUALITYCONTROL vTRH(C6-C10)/BTEXN in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	162119-F-6	2/05/2017
Date analysed	-	[NT]	[NT]	162119-F-6	4/05/2017
TRHC <sub>6</sub> - C <sub>9</sub>	mg/kg	[NT]	[NT]	162119-F-6	95%
TRHC <sub>6</sub> - C <sub>10</sub>	mg/kg	[NT]	[NT]	162119-F-6	95%
Benzene	mg/kg	[NT]	[NT]	162119-F-6	95%
Toluene	mg/kg	[NT]	[NT]	162119-F-6	95%
Ethylbenzene	mg/kg	[NT]	[NT]	162119-F-6	86%
m+p-xylene	mg/kg	[NT]	[NT]	162119-F-6	100%
o-Xylene	mg/kg	[NT]	[NT]	162119-F-6	87%
naphthalene	mg/kg	[NT]	[NT]	[NR]	[NR]
Surrogate aaa- Trifluorotoluene	%	[NT]	[NT]	162119-F-6	95%

**Client Reference: Hydro Aluminium AS130515**

QUALITY CONTROL VOCs in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	162119-F-6	2/05/2017
Date analysed	-	[NT]	[NT]	162119-F-6	4/05/2017
Dichlorodifluoromethane	mg/kg	[NT]	[NT]	[NR]	[NR]
Chloromethane	mg/kg	[NT]	[NT]	[NR]	[NR]
Vinyl Chloride	mg/kg	[NT]	[NT]	[NR]	[NR]
Bromomethane	mg/kg	[NT]	[NT]	[NR]	[NR]
Chloroethane	mg/kg	[NT]	[NT]	[NR]	[NR]
Trichlorofluoromethane	mg/kg	[NT]	[NT]	[NR]	[NR]
1,1-Dichloroethene	mg/kg	[NT]	[NT]	[NR]	[NR]
trans-1,2-dichloroethene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,1-dichloroethane	mg/kg	[NT]	[NT]	162119-F-6	117%
cis-1,2-dichloroethene	mg/kg	[NT]	[NT]	[NR]	[NR]
bromochloromethane	mg/kg	[NT]	[NT]	[NR]	[NR]
chloroform	mg/kg	[NT]	[NT]	162119-F-6	120%
2,2-dichloropropane	mg/kg	[NT]	[NT]	[NR]	[NR]
1,2-dichloroethane	mg/kg	[NT]	[NT]	162119-F-6	133%
1,1,1-trichloroethane	mg/kg	[NT]	[NT]	162119-F-6	119%
1,1-dichloropropene	mg/kg	[NT]	[NT]	[NR]	[NR]
Cyclohexane	mg/kg	[NT]	[NT]	[NR]	[NR]
carbon tetrachloride	mg/kg	[NT]	[NT]	[NR]	[NR]
Benzene	mg/kg	[NT]	[NT]	[NR]	[NR]
dibromomethane	mg/kg	[NT]	[NT]	[NR]	[NR]
1,2-dichloropropane	mg/kg	[NT]	[NT]	[NR]	[NR]
trichloroethene	mg/kg	[NT]	[NT]	162119-F-6	90%
bromodichloromethane	mg/kg	[NT]	[NT]	162119-F-6	128%
trans-1,3-dichloropropene	mg/kg	[NT]	[NT]	[NR]	[NR]
cis-1,3-dichloropropene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,1,2-trichloroethane	mg/kg	[NT]	[NT]	[NR]	[NR]
Toluene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,3-dichloropropane	mg/kg	[NT]	[NT]	[NR]	[NR]
dibromochloromethane	mg/kg	[NT]	[NT]	162119-F-6	119%
1,2-dibromoethane	mg/kg	[NT]	[NT]	[NR]	[NR]
tetrachloroethene	mg/kg	[NT]	[NT]	162119-F-6	100%
1,1,1,2-tetrachloroethane	mg/kg	[NT]	[NT]	[NR]	[NR]
chlorobenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
Ethylbenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
bromoform	mg/kg	[NT]	[NT]	[NR]	[NR]
m+p-xylene	mg/kg	[NT]	[NT]	[NR]	[NR]
styrene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,1,2,2-tetrachloroethane	mg/kg	[NT]	[NT]	[NR]	[NR]
o-Xylene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,2,3-trichloropropane	mg/kg	[NT]	[NT]	[NR]	[NR]



**Client Reference: Hydro Aluminium AS130515**

QUALITY CONTROL VOCs in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
isopropylbenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
bromobenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
n-propyl benzene	mg/kg	[NT]	[NT]	[NR]	[NR]
2-chlorotoluene	mg/kg	[NT]	[NT]	[NR]	[NR]
4-chlorotoluene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,3,5-trimethyl benzene	mg/kg	[NT]	[NT]	[NR]	[NR]
tert-butyl benzene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,2,4-trimethyl benzene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,3-dichlorobenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
sec-butyl benzene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,4-dichlorobenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
4-isopropyl toluene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,2-dichlorobenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
n-butyl benzene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,2-dibromo-3- chloropropane	mg/kg	[NT]	[NT]	[NR]	[NR]
1,2,4-trichlorobenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
hexachlorobutadiene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,2,3-trichlorobenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
<i>Surrogate</i> Dibromofluorometha	%	[NT]	[NT]	162119-F-6	128%
<i>Surrogate</i> aaa- Trifluorotoluene	%	[NT]	[NT]	162119-F-6	95%
<i>Surrogate</i> Toluene-d8	%	[NT]	[NT]	162119-F-6	92%
<i>Surrogate</i> 4- Bromofluorobenzene	%	[NT]	[NT]	162119-F-6	93%

**Client Reference: Hydro Aluminium AS130515**

QUALITYCONTROL Acid Extractable metals in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD		
Date prepared	-	162119-F-22	02/05/2017    02/05/2017		
Date analysed	-	162119-F-22	04/05/2017    04/05/2017		
Arsenic	mg/kg	162119-F-22	8    8    RPD: 0		
Cadmium	mg/kg	162119-F-22	<0.4    <0.4		
Copper	mg/kg	162119-F-22	32    31    RPD: 3		
Lead	mg/kg	162119-F-22	23    23    RPD: 0		
Mercury	mg/kg	162119-F-22	<0.1    <0.1		
Molybdenum	mg/kg	162119-F-22	3    3    RPD: 0		
Nickel	mg/kg	162119-F-22	49    53    RPD: 8		
Selenium	mg/kg	162119-F-22	<2    <2		
Silver	mg/kg	162119-F-22	<1    <1		
Tin	mg/kg	162119-F-22	2    3    RPD: 40		
Zinc	mg/kg	162119-F-22	150    130    RPD: 14		
QUALITYCONTROL Misc Soil - Inorg	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD		
Date prepared	-	162119-F-22	03/05/2017    03/05/2017		
Date analysed	-	162119-F-22	03/05/2017    03/05/2017		
Free Cyanide in soil	mg/kg	162119-F-22	<0.5    <0.5		
Total Cyanide	mg/kg	162119-F-22	83    140    RPD: 51		
QUALITYCONTROL Miscellaneous Inorg - soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date prepared	-	[NT]	[NT]	162119-F-6	05/05/2017
Date analysed	-	[NT]	[NT]	162119-F-6	05/05/2017
Hexavalent Chromium, Cr <sup>6+</sup>	mg/kg	[NT]	[NT]	162119-F-6	#
Total Fluoride	mg/kg	[NT]	[NT]	162119-F-6	101%
QUALITYCONTROL vTRH(C6-C10)/BTEXN in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	162119-F-24	2/05/2017
Date analysed	-	[NT]	[NT]	162119-F-24	4/05/2017
TRHC <sub>6</sub> - C <sub>9</sub>	mg/kg	[NT]	[NT]	162119-F-24	90%
TRHC <sub>6</sub> - C <sub>10</sub>	mg/kg	[NT]	[NT]	162119-F-24	90%
Benzene	mg/kg	[NT]	[NT]	162119-F-24	89%
Toluene	mg/kg	[NT]	[NT]	162119-F-24	89%
Ethylbenzene	mg/kg	[NT]	[NT]	162119-F-24	82%
m+p-xylene	mg/kg	[NT]	[NT]	162119-F-24	95%
o-Xylene	mg/kg	[NT]	[NT]	162119-F-24	83%
naphthalene	mg/kg	[NT]	[NT]	[NR]	[NR]
Surrogate aaa- Trifluorotoluene	%	[NT]	[NT]	162119-F-24	90%

**Client Reference: Hydro Aluminium AS130515**

QUALITY CONTROL VOCs in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	162119-F-24	2/05/2017
Date analysed	-	[NT]	[NT]	162119-F-24	4/05/2017
Dichlorodifluoromethane	mg/kg	[NT]	[NT]	[NR]	[NR]
Chloromethane	mg/kg	[NT]	[NT]	[NR]	[NR]
Vinyl Chloride	mg/kg	[NT]	[NT]	[NR]	[NR]
Bromomethane	mg/kg	[NT]	[NT]	[NR]	[NR]
Chloroethane	mg/kg	[NT]	[NT]	[NR]	[NR]
Trichlorofluoromethane	mg/kg	[NT]	[NT]	[NR]	[NR]
1,1-Dichloroethene	mg/kg	[NT]	[NT]	[NR]	[NR]
trans-1,2-dichloroethene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,1-dichloroethane	mg/kg	[NT]	[NT]	162119-F-24	110%
cis-1,2-dichloroethene	mg/kg	[NT]	[NT]	[NR]	[NR]
bromochloromethane	mg/kg	[NT]	[NT]	[NR]	[NR]
chloroform	mg/kg	[NT]	[NT]	162119-F-24	115%
2,2-dichloropropane	mg/kg	[NT]	[NT]	[NR]	[NR]
1,2-dichloroethane	mg/kg	[NT]	[NT]	162119-F-24	130%
1,1,1-trichloroethane	mg/kg	[NT]	[NT]	162119-F-24	112%
1,1-dichloropropene	mg/kg	[NT]	[NT]	[NR]	[NR]
Cyclohexane	mg/kg	[NT]	[NT]	[NR]	[NR]
carbon tetrachloride	mg/kg	[NT]	[NT]	[NR]	[NR]
Benzene	mg/kg	[NT]	[NT]	[NR]	[NR]
dibromomethane	mg/kg	[NT]	[NT]	[NR]	[NR]
1,2-dichloropropane	mg/kg	[NT]	[NT]	[NR]	[NR]
trichloroethene	mg/kg	[NT]	[NT]	162119-F-24	84%
bromodichloromethane	mg/kg	[NT]	[NT]	162119-F-24	121%
trans-1,3-dichloropropene	mg/kg	[NT]	[NT]	[NR]	[NR]
cis-1,3-dichloropropene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,1,2-trichloroethane	mg/kg	[NT]	[NT]	[NR]	[NR]
Toluene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,3-dichloropropane	mg/kg	[NT]	[NT]	[NR]	[NR]
dibromochloromethane	mg/kg	[NT]	[NT]	162119-F-24	114%
1,2-dibromoethane	mg/kg	[NT]	[NT]	[NR]	[NR]
tetrachloroethene	mg/kg	[NT]	[NT]	162119-F-24	97%
1,1,1,2-tetrachloroethane	mg/kg	[NT]	[NT]	[NR]	[NR]
chlorobenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
Ethylbenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
bromoform	mg/kg	[NT]	[NT]	[NR]	[NR]
m+p-xylene	mg/kg	[NT]	[NT]	[NR]	[NR]
styrene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,1,2,2-tetrachloroethane	mg/kg	[NT]	[NT]	[NR]	[NR]
o-Xylene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,2,3-trichloropropane	mg/kg	[NT]	[NT]	[NR]	[NR]

Client Reference: Hydro Aluminium AS130515

QUALITY CONTROL VOCs in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
isopropylbenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
bromobenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
n-propyl benzene	mg/kg	[NT]	[NT]	[NR]	[NR]
2-chlorotoluene	mg/kg	[NT]	[NT]	[NR]	[NR]
4-chlorotoluene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,3,5-trimethyl benzene	mg/kg	[NT]	[NT]	[NR]	[NR]
tert-butyl benzene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,2,4-trimethyl benzene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,3-dichlorobenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
sec-butyl benzene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,4-dichlorobenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
4-isopropyl toluene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,2-dichlorobenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
n-butyl benzene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,2-dibromo-3- chloropropane	mg/kg	[NT]	[NT]	[NR]	[NR]
1,2,4-trichlorobenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
hexachlorobutadiene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,2,3-trichlorobenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
<i>Surrogate</i> Dibromofluorometha	%	[NT]	[NT]	162119-F-24	127%
<i>Surrogate</i> aaa- Trifluorotoluene	%	[NT]	[NT]	162119-F-24	90%
<i>Surrogate</i> Toluene-d8	%	[NT]	[NT]	162119-F-24	90%
<i>Surrogate</i> 4- Bromofluorobenzene	%	[NT]	[NT]	162119-F-24	92%

**Client Reference: Hydro Aluminium AS130515**

QUALITY CONTROL Miscellaneous Inorg - soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date prepared	-	[NT]	[NT]	162119-F-24	05/05/2017
Date analysed	-	[NT]	[NT]	162119-F-24	05/05/2017
Hexavalent Chromium, Cr <sup>6+</sup>	mg/kg	[NT]	[NT]	162119-F-24	#
Total Fluoride	mg/kg	[NT]	[NT]	[NR]	[NR]
QUALITY CONTROL Organophosphorus Pesticides	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	162119-F-9	02/05/2017
Date analysed	-	[NT]	[NT]	162119-F-9	02/05/2017
Azinphos-methyl (Guthion)	mg/kg	[NT]	[NT]	[NR]	[NR]
Bromophos-ethyl	mg/kg	[NT]	[NT]	[NR]	[NR]
Chlorpyriphos	mg/kg	[NT]	[NT]	162119-F-9	80%
Chlorpyriphos-methyl	mg/kg	[NT]	[NT]	[NR]	[NR]
Diazinon	mg/kg	[NT]	[NT]	[NR]	[NR]
Dichlorvos	mg/kg	[NT]	[NT]	162119-F-9	103%
Dimethoate	mg/kg	[NT]	[NT]	[NR]	[NR]
Ethion	mg/kg	[NT]	[NT]	162119-F-9	105%
Fenitrothion	mg/kg	[NT]	[NT]	162119-F-9	90%
Malathion	mg/kg	[NT]	[NT]	162119-F-9	71%
Parathion	mg/kg	[NT]	[NT]	162119-F-9	96%
Ronnel	mg/kg	[NT]	[NT]	162119-F-9	115%
Surrogate TCMX	%	[NT]	[NT]	162119-F-9	81%
QUALITY CONTROL SVOCs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	162119-F-10	02/05/2017
Date analysed	-	[NT]	[NT]	162119-F-10	03/05/2017
Phenol	mg/kg	[NT]	[NT]	162119-F-10	99%
2-Chlorophenol	mg/kg	[NT]	[NT]	162119-F-10	106%
2-Methylphenol	mg/kg	[NT]	[NT]	[NR]	[NR]
3/4-Methylphenol	mg/kg	[NT]	[NT]	[NR]	[NR]
2,4-Dimethylphenol	mg/kg	[NT]	[NT]	[NR]	[NR]
2-Nitrophenol	mg/kg	[NT]	[NT]	[NR]	[NR]
2,4-Dichlorophenol	mg/kg	[NT]	[NT]	[NR]	[NR]
4-Chloro-3-methylphenol	mg/kg	[NT]	[NT]	[NR]	[NR]
2,4,6-trichlorophenol	mg/kg	[NT]	[NT]	[NR]	[NR]
2,4,5-trichlorophenol	mg/kg	[NT]	[NT]	[NR]	[NR]
2,4-dinitrophenol	mg/kg	[NT]	[NT]	[NR]	[NR]
4-nitrophenol	mg/kg	[NT]	[NT]	162119-F-10	88%
diethylphthalate	mg/kg	[NT]	[NT]	162119-F-10	56%
2-methyl-4,6-dinitrophenol	mg/kg	[NT]	[NT]	[NR]	[NR]
pentachlorophenol	mg/kg	[NT]	[NT]	[NR]	[NR]

**Client Reference: Hydro Aluminium AS130515**

QUALITY CONTROL SVOCs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
di-n-butylphthalate	mg/kg	[NT]	[NT]	[NR]	[NR]
butylbenzylphthalate	mg/kg	[NT]	[NT]	[NR]	[NR]
bis(2-ethylhexyl)phthalate	mg/kg	[NT]	[NT]	[NR]	[NR]
di-n-octylphthalate	mg/kg	[NT]	[NT]	[NR]	[NR]
2,6-dichlorophenol	mg/kg	[NT]	[NT]	[NR]	[NR]
2,3,4,6-tetrachlorophenol	mg/kg	[NT]	[NT]	[NR]	[NR]
Surrogate 2-fluorophenol	%	[NT]	[NT]	162119-F-10	81%
Surrogate Phenol-d6	%	[NT]	[NT]	162119-F-10	110%
Surrogate Nitrobenzene-d5	%	[NT]	[NT]	162119-F-10	72%
Surrogate 2-fluorobiphenyl	%	[NT]	[NT]	162119-F-10	106%
Surrogate 2,4,6-Tribromophenol	%	[NT]	[NT]	162119-F-10	#
Surrogate p-Terphenyl-d14	%	[NT]	[NT]	162119-F-10	110%
QUALITY CONTROL Organophosphorus Pesticides	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	162119-F-27	02/05/2017
Date analysed	-	[NT]	[NT]	162119-F-27	02/05/2017
Azinphos-methyl (Guthion)	mg/kg	[NT]	[NT]	[NR]	[NR]
Bromophos-ethyl	mg/kg	[NT]	[NT]	[NR]	[NR]
Chlorpyriphos	mg/kg	[NT]	[NT]	162119-F-27	82%
Chlorpyriphos-methyl	mg/kg	[NT]	[NT]	[NR]	[NR]
Diazinon	mg/kg	[NT]	[NT]	[NR]	[NR]
Dichlorvos	mg/kg	[NT]	[NT]	162119-F-27	82%
Dimethoate	mg/kg	[NT]	[NT]	[NR]	[NR]
Ethion	mg/kg	[NT]	[NT]	162119-F-27	107%
Fenitrothion	mg/kg	[NT]	[NT]	162119-F-27	75%
Malathion	mg/kg	[NT]	[NT]	162119-F-27	81%
Parathion	mg/kg	[NT]	[NT]	162119-F-27	92%
Ronnel	mg/kg	[NT]	[NT]	162119-F-27	100%
Surrogate TCMX	%	[NT]	[NT]	162119-F-27	79%

**Client Reference: Hydro Aluminium AS130515**

QUALITY CONTROL SVOCs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	162119-F-28	02/05/2017
Date analysed	-	[NT]	[NT]	162119-F-28	03/05/2017
Phenol	mg/kg	[NT]	[NT]	162119-F-28	41%
2-Chlorophenol	mg/kg	[NT]	[NT]	162119-F-28	21%
2-Methylphenol	mg/kg	[NT]	[NT]	[NR]	[NR]
3/4-Methylphenol	mg/kg	[NT]	[NT]	[NR]	[NR]
2,4-Dimethylphenol	mg/kg	[NT]	[NT]	[NR]	[NR]
2-Nitrophenol	mg/kg	[NT]	[NT]	[NR]	[NR]
2,4-Dichlorophenol	mg/kg	[NT]	[NT]	[NR]	[NR]
4-Chloro-3-methylphenol	mg/kg	[NT]	[NT]	[NR]	[NR]
2,4,6-trichlorophenol	mg/kg	[NT]	[NT]	[NR]	[NR]
2,4,5-trichlorophenol	mg/kg	[NT]	[NT]	[NR]	[NR]
2,4-dinitrophenol	mg/kg	[NT]	[NT]	[NR]	[NR]
4-nitrophenol	mg/kg	[NT]	[NT]	162119-F-28	86%
diethylphthalate	mg/kg	[NT]	[NT]	162119-F-28	32%
2-methyl-4,6-dinitrophenol	mg/kg	[NT]	[NT]	[NR]	[NR]
pentachlorophenol	mg/kg	[NT]	[NT]	[NR]	[NR]
di-n-butylphthalate	mg/kg	[NT]	[NT]	[NR]	[NR]
butylbenzylphthalate	mg/kg	[NT]	[NT]	[NR]	[NR]
bis(2-ethylhexyl)phthalate	mg/kg	[NT]	[NT]	[NR]	[NR]
di-n-octylphthalate	mg/kg	[NT]	[NT]	[NR]	[NR]
2,6-dichlorophenol	mg/kg	[NT]	[NT]	[NR]	[NR]
2,3,4,6-tetrachlorophenol	mg/kg	[NT]	[NT]	[NR]	[NR]
Surrogate 2-fluorophenol	%	[NT]	[NT]	162119-F-28	22%
Surrogate Phenol-d6	%	[NT]	[NT]	162119-F-28	37%
Surrogate Nitrobenzene-d5	%	[NT]	[NT]	162119-F-28	57%
Surrogate 2-fluorobiphenyl	%	[NT]	[NT]	162119-F-28	81%
Surrogate 2,4,6-Tribromophenol	%	[NT]	[NT]	162119-F-28	#
Surrogate p-Terphenyl-d14	%	[NT]	[NT]	162119-F-28	#

**Client Reference: Hydro Aluminium AS130515**

QUALITY CONTROL Miscellaneous Inorg - soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date prepared	-	[NT]	[NT]	162119-F-2	03/05/2017
Date analysed	-	[NT]	[NT]	162119-F-2	11/05/2017
Hexavalent Chromium, Cr <sup>6+</sup>	mg/kg	[NT]	[NT]	[NR]	[NR]
Total Fluoride	mg/kg	[NT]	[NT]	162119-F-2	104%
QUALITY CONTROL Miscellaneous Inorg - soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date prepared	-	[NT]	[NT]	162119-F-12	03/05/2017
Date analysed	-	[NT]	[NT]	162119-F-12	11/05/2017
Hexavalent Chromium, Cr <sup>6+</sup>	mg/kg	[NT]	[NT]	[NR]	[NR]
Total Fluoride	mg/kg	[NT]	[NT]	162119-F-12	104%
QUALITY CONTROL Miscellaneous Inorg - soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date prepared	-	[NT]	[NT]	162119-F-22	03/05/2017
Date analysed	-	[NT]	[NT]	162119-F-22	11/05/2017
Hexavalent Chromium, Cr <sup>6+</sup>	mg/kg	[NT]	[NT]	[NR]	[NR]
Total Fluoride	mg/kg	[NT]	[NT]	162119-F-22	83%
QUALITY CONTROL Miscellaneous Inorg - soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date prepared	-	[NT]	[NT]	162119-F-3	03/05/2017
Date analysed	-	[NT]	[NT]	162119-F-3	11/05/2017
Hexavalent Chromium, Cr <sup>6+</sup>	mg/kg	[NT]	[NT]	[NR]	[NR]
Total Fluoride	mg/kg	[NT]	[NT]	162119-F-3	99%
QUALITY CONTROL Miscellaneous Inorg - soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date prepared	-	[NT]	[NT]	162119-F-13	03/05/2017
Date analysed	-	[NT]	[NT]	162119-F-13	11/05/2017
Hexavalent Chromium, Cr <sup>6+</sup>	mg/kg	[NT]	[NT]	[NR]	[NR]
Total Fluoride	mg/kg	[NT]	[NT]	162119-F-13	108%
QUALITY CONTROL Miscellaneous Inorg - soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date prepared	-	[NT]	[NT]	162119-F-16	03/05/2017
Date analysed	-	[NT]	[NT]	162119-F-16	11/05/2017
Hexavalent Chromium, Cr <sup>6+</sup>	mg/kg	[NT]	[NT]	[NR]	[NR]
Total Fluoride	mg/kg	[NT]	[NT]	162119-F-16	95%



**Client Reference: Hydro Aluminium AS130515**

QUALITY CONTROL Miscellaneous Inorg - soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date prepared	-	[NT]	[NT]	162119-F-23	03/05/2017
Date analysed	-	[NT]	[NT]	162119-F-23	11/05/2017
Hexavalent Chromium, Cr <sup>6+</sup>	mg/kg	[NT]	[NT]	[NR]	[NR]
Total Fluoride	mg/kg	[NT]	[NT]	162119-F-23	98%

**Report Comments:**

sTRH in soil: # Percent recovery is not possible to report as the high concentration of analytes in the sample/s have caused interference.

Hexavalent Chromium: Matrix spike recovery was outside recommended acceptance criteria, however an acceptable recovery was achieved for the LCS. This indicates a sample matrix interference.

**PAH\_S:**

# Percent recovery is not possible to report as the high concentration of analytes in the sample/s have caused interference.

The RPD for duplicate results is accepted due to the non homogenous nature of the sample/s.

**OCOP\_S:**

PQL has been raised due to interference from analytes(other than those being tested) in the sample/s.

# Percent recovery is not possible to report due to interference from analytes (other than those being tested) in the sample/s.

**SVOC\_S\_SCAN:**

# Percent recovery is not possible to report due to interference from analytes (other than those being tested) in the sample/s.

Asbestos ID was analysed by Approved Identifier:

Not applicable for this job

Asbestos ID was authorised by Approved Signatory:

Not applicable for this job

INS: Insufficient sample for this test

PQL: Practical Quantitation Limit

NT: Not tested

NR: Test not required

RPD: Relative Percent Difference

NA: Test not required

<: Less than

>: Greater than

LCS: Laboratory Control Sample

### Quality Control Definitions

**Blank:** This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.

**Duplicate:** This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.

**Matrix Spike:** A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.

**LCS (Laboratory Control Sample):** This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.

**Surrogate Spike:** Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

### Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: <5xPQL - any RPD is acceptable; >5xPQL - 0-50% RPD is acceptable.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals; 60-140% for organics (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Measurement Uncertainty estimates are available for most tests upon request.



**CERTIFICATE OF ANALYSIS**

**162119-G**

**Client:**

**Ramboll Environ Australia Pty Ltd**  
PO Box 560  
North Sydney  
NSW 2060

**Attention:** Craig Goodbody

**Sample log in details:**

Your Reference:	<b>Hydro Aluminium AS130515 TCLPs Metals</b>
No. of samples:	TCLP Solids
Date samples received / completed instructions received	16/02/2017 / 28/06/2017
<i>R01 replaces R00 as sample idents corrected.</i>	

**Analysis Details:**

Please refer to the following pages for results, methodology summary and quality control data. Samples were analysed as received from the client. Results relate specifically to the samples as received. Results are reported on a dry weight basis for solids and on an as received basis for other matrices. ***Please refer to the last page of this report for any comments relating to the results.***

**Report Details:**

Date results requested by: / Issue Date: 7/07/17 / 7/07/17  
Date of Preliminary Report: Not Issued  
NATA accreditation number 2901. This document shall not be reproduced except in full.  
Accredited for compliance with ISO/IEC 17025 - Testing **Tests not covered by NATA are denoted with \*.**

**Results Approved By:**

David Springer  
General Manager

**Client Reference: Hydro Aluminium AS130515 TCLPs Metals**

Metals in TCLP USEPA 1311		162119-G-2	162119-G-5	162119-G-32	162119-G-50	162119-G-56
Our Reference:	UNITS	MW202 - BULK	MW205 - BULK	MW202 - BULK	MW202 - BULK	MW202 - BULK
Your Reference:	-----	1st sub-sample	1st sub-sample	2nd sub-sample	3rd sub-sample	4TH sub-sample
Date Sampled	-	10/02/2017	10/02/2017	10/02/2017	10/02/2017	10/02/2017
Type of sample	-----	Solid Waste	Solid Waste	Solid Waste	Solid Waste	Solid Waste
Date extracted	-	05/07/2017	05/07/2017	05/07/2017	05/07/2017	05/07/2017
Date analysed	-	06/07/2017	06/07/2017	06/07/2017	06/07/2017	06/07/2017
pH of soil for fluid# determ.	pH units	8.9	10.2	8.9	9.1	9.5
pH of soil TCLP (after HCl)	pH units	2.1	2.2	1.9	2.0	1.9
Extraction fluid used	-	1	1	1	1	1
pH of final Leachate	pH units	5.4	5.6	5.4	5.4	5.4
Arsenic in TCLP	mg/L	<0.05	0.08	<0.05	<0.05	<0.05
Lead in TCLP	mg/L	0.41	<0.03	0.41	0.56	0.3
Nickel in TCLP	mg/L	0.09	0.06	0.1	0.1	0.09

Metals in TCLP USEPA 1311		162119-G-62	162119-G-63	162119-G-69
Our Reference:	UNITS	MW202 - BULK	MW203 - BULK	MW203 - BULK
Your Reference:	-----	5TH sub-sample	5TH sub-sample	6TH sub-sample
Date Sampled	-	10/02/2017	10/02/2017	10/02/2017
Type of sample	-----	Solid Waste	Solid Waste	Solid Waste
Date extracted	-	05/07/2017	05/07/2017	05/07/2017
Date analysed	-	06/07/2017	06/07/2017	06/07/2017
pH of soil for fluid# determ.	pH units	9.3	10.1	10.2
pH of soil TCLP (after HCl)	pH units	1.9	2.7	4.1
Extraction fluid used	-	1	1	1
pH of final Leachate	pH units	5.4	6.2	6.1
Arsenic in TCLP	mg/L	<0.05	<0.05	<0.05
Lead in TCLP	mg/L	0.3	<0.03	<0.03
Nickel in TCLP	mg/L	0.1	0.02	0.03

**Client Reference: Hydro Aluminium AS130515 TCLPs Metals**

MethodID	Methodology Summary
Inorg-004	Toxicity Characteristic Leaching Procedure (TCLP) using in house method INORG-004.
EXTRACT.7	Toxicity Characteristic Leaching Procedure (TCLP) using Zero Headspace Extraction (zHE) using AS4439 and USEPA 1311.
Inorg-001	pH - Measured using pH meter and electrode in accordance with APHA latest edition, 4500-H+. Please note that the results for water analyses are indicative only, as analysis outside of the APHA storage times.
Metals-020 ICP-AES	Determination of various metals by ICP-AES.

**Client Reference: Hydro Aluminium AS130515 TCLPs Metals**

QUALITYCONTROL Metals in TCLP USEPA1311	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base    Duplicate    %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			05/07/2017	[NT]	[NT]	LCSW-1	05/07/2017
Date analysed	-			06/07/2017	[NT]	[NT]	LCSW-1	06/07/2017
Arsenic in TCLP	mg/L	0.05	Metals-020 ICP-AES	<0.05	[NT]	[NT]	LCSW-1	111%
Lead in TCLP	mg/L	0.03	Metals-020 ICP-AES	<0.03	[NT]	[NT]	LCSW-1	107%
Nickel in TCLP	mg/L	0.02	Metals-020 ICP-AES	<0.02	[NT]	[NT]	LCSW-1	111%

QUALITYCONTROL Metals in TCLP USEPA1311	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD
Date extracted	-	162119-G-50	05/07/2017    05/07/2017
Date analysed	-	162119-G-50	06/07/2017    06/07/2017
Arsenic in TCLP	mg/L	162119-G-50	<0.05    <0.05
Lead in TCLP	mg/L	162119-G-50	0.56    0.50    RPD: 11
Nickel in TCLP	mg/L	162119-G-50	0.1    0.1    RPD: 0

**Report Comments:**

Note, Organics are not recommended in USEPA 1315, however, there is a modified USEPA method i.e. 1315M that is being used in the US but is yet to be finally approved.

Asbestos ID was analysed by Approved Identifier: Not applicable for this job  
Asbestos ID was authorised by Approved Signatory: Not applicable for this job

INS: Insufficient sample for this test  
NR: Test not required  
<: Less than

PQL: Practical Quantitation Limit  
RPD: Relative Percent Difference  
>: Greater than

NT: Not tested  
NA: Test not required  
LCS: Laboratory Control Sample



### Quality Control Definitions

**Blank:** This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.

**Duplicate:** This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.

**Matrix Spike:** A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.

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Measurement Uncertainty estimates are available for most tests upon request.

# Certificate of Analysis

Ramboll Environ Australia Pty Ltd  
 Level 3/100 Pacific Highway  
 North Sydney  
 NSW 2060



NATA Accredited  
 Accreditation Number 1261  
 Site Number 18217

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

Attention: **Craig Goodbody**

Report **541839-L**  
 Project name **LEACHATE ANALYSIS**  
 Received Date **Apr 07, 2017**

Client Sample ID			QA201	QA202	QA203	QA204
Sample Matrix			US Leachate	US Leachate	US Leachate	US Leachate
Eurofins   mgt Sample No.			S17-Ap07854	S17-Ap07855	S17-Ap07856	S17-Ap07857
Date Sampled			Not Provided	Not Provided	Not Provided	Not Provided
Test/Reference	LOR	Unit				
Fluoride	0.2	mg/L	48	150	280	450
<b>USA Leaching Procedure</b>						
Leachate Fluid <sup>C01</sup>		comment	1.0	1.0	1.0	1.0
pH (initial)	0.1	pH Units	9.2	7.7	9.3	9.7
pH (off)	0.1	pH Units	6.1	6.0	9.3	9.4
pH (USA HCl addition)	0.1	pH Units	1.8	1.7	1.9	1.9

Client Sample ID			QA205	QA206	QA201<125mm	QA201>125mm
Sample Matrix			US Leachate	US Leachate	US Leachate	US Leachate
Eurofins   mgt Sample No.			S17-Ap07858	S17-Ap07859	S17-Ap07860	S17-Ap07861
Date Sampled			Not Provided	Not Provided	Not Provided	Not Provided
Test/Reference	LOR	Unit				
Fluoride	0.2	mg/L	46	120	78	320
<b>USA Leaching Procedure</b>						
Leachate Fluid <sup>C01</sup>		comment	1.0	1.0	1.0	1.0
pH (initial)	0.1	pH Units	8.8	9.1	9.1	9.3
pH (off)	0.1	pH Units	7.0	6.2	6.8	9.4
pH (USA HCl addition)	0.1	pH Units	1.8	1.8	1.8	1.8

Client Sample ID			QA203<125mm	QA203>125mm	QA201	QA202
Sample Matrix			US Leachate	US Leachate	AUS Leachate - Reagent Water	AUS Leachate - Reagent Water
Eurofins   mgt Sample No.			S17-Ap07862	S17-Ap07863	S17-Ap07864	S17-Ap07865
Date Sampled			Not Provided	Not Provided	Not Provided	Not Provided
Test/Reference	LOR	Unit				
Cyanide (total)	0.25	mg/L	-	-	< 0.25	< 0.25
Fluoride	0.2	mg/L	57	180	-	-
<b>AUS Leaching Procedure</b>						
Leachate Fluid <sup>C01</sup>		comment	-	-	4.0	4.0
pH (initial)	0.1	pH Units	-	-	9.2	7.7
pH (Leachate fluid)	0.1	pH Units	-	-	7.0	7.0
pH (off)	0.1	pH Units	-	-	9.0	8.4

<b>Client Sample ID</b>			<b>QA203&lt;125mm</b>	<b>QA203&gt;125mm</b>	<b>QA201</b>	<b>QA202</b>
<b>Sample Matrix</b>			<b>US Leachate</b>	<b>US Leachate</b>	<b>AUS Leachate - Reagent Water</b>	<b>AUS Leachate - Reagent Water</b>
<b>Eurofins   mgt Sample No.</b>			<b>S17-Ap07862</b>	<b>S17-Ap07863</b>	<b>S17-Ap07864</b>	<b>S17-Ap07865</b>
<b>Date Sampled</b>			<b>Not Provided</b>	<b>Not Provided</b>	<b>Not Provided</b>	<b>Not Provided</b>
<b>Test/Reference</b>	LOR	Unit				
<b>USA Leaching Procedure</b>						
Leachate Fluid <sup>C01</sup>		comment	1.0	1.0	-	-
pH (initial)	0.1	pH Units	9.4	9.5	-	-
pH (off)	0.1	pH Units	7.0	9.4	-	-
pH (USA HCl addition)	0.1	pH Units	1.9	1.8	-	-

<b>Client Sample ID</b>			<b>QA203</b>	<b>QA204</b>	<b>QA205</b>	<b>QA206</b>
<b>Sample Matrix</b>			<b>AUS Leachate - Reagent Water</b>	<b>AUS Leachate - Reagent Water</b>	<b>AUS Leachate - Reagent Water</b>	<b>AUS Leachate - Reagent Water</b>
<b>Eurofins   mgt Sample No.</b>			<b>S17-Ap07866</b>	<b>S17-Ap07867</b>	<b>S17-Ap07868</b>	<b>S17-Ap07869</b>
<b>Date Sampled</b>			<b>Not Provided</b>	<b>Not Provided</b>	<b>Not Provided</b>	<b>Not Provided</b>
<b>Test/Reference</b>	LOR	Unit				
Cyanide (total)	0.25	mg/L	< 0.25	< 0.25	< 0.25	< 0.25
<b>AUS Leaching Procedure</b>						
Leachate Fluid <sup>C01</sup>		comment	4.0	4.0	4.0	4.0
pH (initial)	0.1	pH Units	9.3	9.7	8.8	9.1
pH (Leachate fluid)	0.1	pH Units	7.0	7.0	7.0	7.0
pH (off)	0.1	pH Units	9.1	9.3	8.9	8.8

<b>Client Sample ID</b>			<b>QA201&lt;125mm</b>	<b>QA201&gt;125mm</b>	<b>QA203&lt;125mm</b>	<b>QA203&gt;125mm</b>
<b>Sample Matrix</b>			<b>AUS Leachate - Reagent Water</b>	<b>AUS Leachate - Reagent Water</b>	<b>AUS Leachate - Reagent Water</b>	<b>AUS Leachate - Reagent Water</b>
<b>Eurofins   mgt Sample No.</b>			<b>S17-Ap07870</b>	<b>S17-Ap07871</b>	<b>S17-Ap07872</b>	<b>S17-Ap07873</b>
<b>Date Sampled</b>			<b>Not Provided</b>	<b>Not Provided</b>	<b>Not Provided</b>	<b>Not Provided</b>
<b>Test/Reference</b>	LOR	Unit				
Cyanide (total)	0.25	mg/L	< 0.25	< 0.25	< 0.25	< 0.25
<b>AUS Leaching Procedure</b>						
Leachate Fluid <sup>C01</sup>		comment	4.0	4.0	4.0	4.0
pH (initial)	0.1	pH Units	9.1	9.3	9.4	9.5
pH (Leachate fluid)	0.1	pH Units	7.0	7.0	7.0	7.0
pH (off)	0.1	pH Units	9.2	9.2	9.2	10

### 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).

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Cyanide (total) - Method: LTM-INO-4020 Total Free WAD Cyanide by CFA	Melbourne	Apr 13, 2017	14 Day
Fluoride - Method: NEPC 404 (Fusion followed by ISE)	Melbourne	Apr 13, 2017	28 Day
AUS Leaching Procedure - Method: LTM-GEN-7010 Leaching Procedure for Soils & Solid Wastes	Sydney	Apr 11, 2017	7 Days
USA Leaching Procedure - Method: LTM-GEN-7010 Leaching Procedure for Soils & Solid Wastes	Sydney	Apr 11, 2017	14 Day

<b>Company Name:</b> Ramboll Environ Australia Pty Ltd <b>Address:</b> Level 3/100 Pacific Highway North Sydney NSW 2060  <b>Project Name:</b> LEACHATE ANALYSIS	<b>Order No.:</b> <b>Report #:</b> 541839 <b>Phone:</b> 02 9954 8118 <b>Fax:</b> 02 9954 8150	<b>Received:</b> Apr 7, 2017 4:45 PM <b>Due:</b> Apr 18, 2017 <b>Priority:</b> 5 Day <b>Contact Name:</b> Craig Goodbody
<b>Eurofins   mgt Analytical Services Manager : Nibha Vaidya</b>		

Sample Detail						Cyanide (total)	Fluoride	AUS Leaching Procedure	USA Leaching Procedure
<b>Melbourne Laboratory - NATA Site # 1254 &amp; 14271</b>						X	X		
<b>Sydney Laboratory - NATA Site # 18217</b>								X	X
<b>Brisbane Laboratory - NATA Site # 20794</b>									
<b>Perth Laboratory - NATA Site # 18217</b>									
<b>External Laboratory</b>									
No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID				
1	QA201	Not Provided		US Leachate	S17-Ap07854		X		X
2	QA202	Not Provided		US Leachate	S17-Ap07855		X		X
3	QA203	Not Provided		US Leachate	S17-Ap07856		X		X
4	QA204	Not Provided		US Leachate	S17-Ap07857		X		X
5	QA205	Not Provided		US Leachate	S17-Ap07858		X		X
6	QA206	Not Provided		US Leachate	S17-Ap07859		X		X
7	QA201<125m m	Not Provided		US Leachate	S17-Ap07860		X		X
8	QA201>125m m	Not Provided		US Leachate	S17-Ap07861		X		X
9	QA203<125m	Not Provided		US Leachate	S17-Ap07862		X		X

<b>Company Name:</b> Ramboll Environ Australia Pty Ltd	<b>Order No.:</b>	<b>Received:</b> Apr 7, 2017 4:45 PM
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<b>Project Name:</b> LEACHATE ANALYSIS	<b>Eurofins   mgt Analytical Services Manager : Nibha Vaidya</b>	

Sample Detail						Cyanide (total)	Fluoride	AUS Leaching Procedure	USA Leaching Procedure
<b>Melbourne Laboratory - NATA Site # 1254 &amp; 14271</b>						X	X		
<b>Sydney Laboratory - NATA Site # 18217</b>								X	X
<b>Brisbane Laboratory - NATA Site # 20794</b>									
<b>Perth Laboratory - NATA Site # 18217</b>									
	m								
10	QA203>125m m	Not Provided		US Leachate	S17-Ap07863		X		X
11	QA201	Not Provided		AUS Leachate - Reagent Water	S17-Ap07864	X		X	
12	QA202	Not Provided		AUS Leachate - Reagent Water	S17-Ap07865	X		X	
13	QA203	Not Provided		AUS Leachate - Reagent Water	S17-Ap07866	X		X	
14	QA204	Not Provided		AUS Leachate - Reagent Water	S17-Ap07867	X		X	
15	QA205	Not Provided		AUS Leachate	S17-Ap07868	X		X	

**Company Name:** Ramboll Environ Australia Pty Ltd  
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NSW 2060

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**Received:** Apr 7, 2017 4:45 PM  
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**Contact Name:** Craig Goodbody

**Project Name:** LEACHATE ANALYSIS

**Eurofins | mgt Analytical Services Manager : Nibha Vaidya**

Sample Detail					Cyanide (total)	Fluoride	AUS Leaching Procedure	USA Leaching Procedure
<b>Melbourne Laboratory - NATA Site # 1254 &amp; 14271</b>					X	X		
<b>Sydney Laboratory - NATA Site # 18217</b>							X	X
<b>Brisbane Laboratory - NATA Site # 20794</b>								
<b>Perth Laboratory - NATA Site # 18217</b>								
				- Reagent Water				
16	QA206	Not Provided		AUS Leachate - Reagent Water	S17-Ap07869	X	X	
17	QA201<125m m	Not Provided		AUS Leachate - Reagent Water	S17-Ap07870	X	X	
18	QA201>125m m	Not Provided		AUS Leachate - Reagent Water	S17-Ap07871	X	X	
19	QA203<125m m	Not Provided		AUS Leachate - Reagent Water	S17-Ap07872	X	X	
20	QA203>125m m	Not Provided		AUS Leachate - Reagent	S17-Ap07873	X	X	

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	<b>Fax:</b> 02 9954 8150	<b>Contact Name:</b> Craig Goodbody
<b>Project Name:</b> LEACHATE ANALYSIS	<b>Eurofins   mgt Analytical Services Manager : Nibha Vaidya</b>	

Sample Detail	Cyanide (total)	Fluoride	AUS Leaching Procedure	USA Leaching Procedure
Melbourne Laboratory - NATA Site # 1254 & 14271	X	X		
Sydney Laboratory - NATA Site # 18217			X	X
Brisbane Laboratory - NATA Site # 20794				
Perth Laboratory - NATA Site # 18217				
Water				
<b>Test Counts</b>	10	10	10	10



## 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 LORs are matrix dependant. Quoted LORs 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 Advice.

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:** Nephelometric Turbidity Units

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

### Terms

<b>Dry</b>	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
<b>LOR</b>	Limit of Reporting.
<b>SPIKE</b>	Addition of the analyte to the sample and reported as percentage recovery.
<b>RPD</b>	Relative Percent Difference between two Duplicate pieces of analysis.
<b>LCS</b>	Laboratory Control Sample - reported as percent recovery
<b>CRM</b>	Certified Reference Material - reported as percent recovery
<b>Method Blank</b>	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.
<b>Surr - Surrogate</b>	The addition of a like compound to the analyte target and reported as percentage recovery.
<b>Duplicate</b>	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
<b>Batch Duplicate</b>	A second piece of analysis from a sample outside of the clients batch of samples but run within the laboratory batch of analysis.
<b>Batch SPIKE</b>	Spike recovery reported on a sample from outside of the clients batch of samples but run within the laboratory batch of analysis.
<b>USEPA</b>	United States Environmental Protection Agency
<b>APHA</b>	American Public Health Association
<b>TCLP</b>	Toxicity Characteristic Leaching Procedure
<b>COC</b>	Chain of Custody
<b>SRA</b>	Sample Receipt Advice
<b>CP</b>	Client Parent - QC was performed on samples pertaining to this report
<b>NCP</b>	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
<b>TEQ</b>	Toxic Equivalency Quotient

### 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 & PFASs 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, Toxaphene & Chlordane are not added to the LCS.
4. Organochlorine Pesticide analysis - where reporting Spike data, Toxaphene 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 Aroclor 1260 in Matrix Spikes and LCS.
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 RPDs are calculated from raw analytical data thus it is possible to have two sets of data.

**Quality Control Results**

Test			Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
<b>Method Blank</b>									
Fluoride			mg/L	< 0.2			0.2	Pass	
Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
<b>Duplicate</b>									
				Result 1	Result 2	RPD			
Fluoride	S17-Ap07854	CP	mg/L	48	58	19	30%	Pass	
<b>Duplicate</b>									
				Result 1	Result 2	RPD			
Fluoride	S17-Ap07865	CP	mg/L	320	300	4.2	30%	Pass	

**Comments**
**Sample Integrity**

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	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
C01	Leachate Fluid Key: 1 - pH 5.0; 2 - pH 2.9; 3 - pH 9.2; 4 - Reagent (DI) water; 5 - Client sample, 6 - other

**Authorised By**

Nibha Vaidya	Analytical Services Manager
Huong Le	Senior Analyst-Inorganic (VIC)


**Glenn Jackson**
**National Operations Manager**

Final report - this Report replaces any previously issued Report

- Indicates Not Requested

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

Measurement uncertainty of test data is available on request or please [click here](#).

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## CERTIFICATE OF ANALYSIS

**Work Order** : **ES1712930**  
**Client** : **RAMBOLL ENVIRON**  
**Contact** : MR CRAIG GOODBODY  
**Address** : PO BOX 560  
 NORTH SYDNEY NSW, AUSTRALIA 2060  
**Telephone** : 02 4962 5444  
**Project** : ----  
**Order number** : ----  
**C-O-C number** : ----  
**Sampler** : ----  
**Site** : ----  
**Quote number** : SY/256/17  
**No. of samples received** : 33  
**No. of samples analysed** : 33

**Page** : 1 of 10  
**Laboratory** : Environmental Division Sydney  
**Contact** : Sepan Mahamad  
**Address** : 277-289 Woodpark Road Smithfield NSW Australia 2164  
**Telephone** : +61-2-8784 8555  
**Date Samples Received** : 26-May-2017 11:00  
**Date Analysis Commenced** : 29-May-2017  
**Issue Date** : 02-Jun-2017 16:29



This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

**Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to assist with Quality Review and Sample Receipt Notification.**

### Signatories

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

<i>Signatories</i>	<i>Position</i>	<i>Accreditation Category</i>
Ankit Joshi	Inorganic Chemist	Sydney Inorganics, Smithfield, NSW
Edwandy Fadjjar	Organic Coordinator	Sydney Organics, Smithfield, NSW



## 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 no sampling time is provided, the sampling time will default 00:00 on the date of sampling. If no sampling date is provided, the sampling date will be assumed by the laboratory and displayed in brackets without a time component.

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contact for details.

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  
ø = ALS is not NATA accredited for these tests.  
~ = Indicates an estimated value.

- Benzo(a)pyrene Toxicity Equivalent Quotient (TEQ) is the sum total of the concentration of the eight carcinogenic PAHs multiplied by their Toxicity Equivalence Factor (TEF) relative to Benzo(a)pyrene. TEF values are provided in brackets as follows: Benz(a)anthracene (0.1), Chrysene (0.01), Benzo(b+j) & Benzo(k)fluoranthene (0.1), Benzo(a)pyrene (1.0), Indeno(1.2.3.cd)pyrene (0.1), Dibenz(a,h)anthracene (1.0), Benzo(g,h,i)perylene (0.01). Less than LOR results for 'TEQ Zero' are treated as zero.



## Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Client sample ID	162119-D-9	162119-D-18	162119-D-27	162119-D-36	162119-D-45
Client sampling date / time				[24-May-2017]	[24-May-2017]	[24-May-2017]	[24-May-2017]	[24-May-2017]	
Compound	CAS Number	LOR	Unit	ES1712930-001	ES1712930-002	ES1712930-003	ES1712930-004	ES1712930-005	
				Result	Result	Result	Result	Result	
<b>EK026SF: Total CN by Segmented Flow Analyser</b>									
Total Cyanide	57-12-5	0.004	mg/L	0.281	<0.004	0.257	0.220	0.028	
<b>EK040P: Fluoride by PC Titrator</b>									
Fluoride	16984-48-8	0.1	mg/L	35.5	0.4	142	190	1.2	
<b>EP075(SIM)B: Polynuclear Aromatic Hydrocarbons</b>									
Naphthalene	91-20-3	1	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
Acenaphthylene	208-96-8	1	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
Acenaphthene	83-32-9	1	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
Fluorene	86-73-7	1	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
Phenanthrene	85-01-8	1	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
Anthracene	120-12-7	1	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
Fluoranthene	206-44-0	1	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
Pyrene	129-00-0	1	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
Benzo(a)anthracene	56-55-3	1	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
Chrysene	218-01-9	1	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
Benzo(b+j)fluoranthene	205-99-2 205-82-3	1	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
Benzo(k)fluoranthene	207-08-9	1	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
Benzo(a)pyrene	50-32-8	0.5	µg/L	<0.5	<0.7	<0.5	<0.5	<0.5	
Indeno(1.2.3.cd)pyrene	193-39-5	1	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
Dibenz(a.h)anthracene	53-70-3	1	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
Benzo(g,h,i)perylene	191-24-2	1	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	µg/L	<0.5	<0.7	<0.5	<0.5	<0.5	
^ Benzo(a)pyrene TEQ (zero)	----	0.5	µg/L	<0.5	<0.7	<0.5	<0.5	<0.5	
<b>EP075(SIM)S: Phenolic Compound Surrogates</b>									
Phenol-d6	13127-88-3	1	%	23.1	29.8	24.2	24.6	21.6	
2-Chlorophenol-D4	93951-73-6	1	%	44.8	52.6	44.5	43.9	43.2	
2,4,6-Tribromophenol	118-79-6	1	%	42.9	54.9	44.1	46.7	42.7	
<b>EP075(SIM)T: PAH Surrogates</b>									
2-Fluorobiphenyl	321-60-8	1	%	65.5	69.4	67.6	68.0	57.4	
Anthracene-d10	1719-06-8	1	%	79.8	82.4	81.8	83.3	54.7	
4-Terphenyl-d14	1718-51-0	1	%	69.2	70.1	69.0	70.2	63.7	



## Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Client sample ID	162119-D-54	162119-D-63	162119-D-72	162119-D-81	162119-D-90
Client sampling date / time				[24-May-2017]	[24-May-2017]	[24-May-2017]	[24-May-2017]	[24-May-2017]	
Compound	CAS Number	LOR	Unit	ES1712930-006	ES1712930-007	ES1712930-008	ES1712930-009	ES1712930-010	
				Result	Result	Result	Result	Result	
<b>EK026SF: Total CN by Segmented Flow Analyser</b>									
Total Cyanide	57-12-5	0.004	mg/L	0.206	0.037	<0.004	35.4	0.014	
<b>EK040P: Fluoride by PC Titrator</b>									
Fluoride	16984-48-8	0.1	mg/L	160	17.4	92.7	31.3	65.0	
<b>EP075(SIM)B: Polynuclear Aromatic Hydrocarbons</b>									
Naphthalene	91-20-3	1	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
Acenaphthylene	208-96-8	1	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
Acenaphthene	83-32-9	1	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
Fluorene	86-73-7	1	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
Phenanthrene	85-01-8	1	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
Anthracene	120-12-7	1	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
Fluoranthene	206-44-0	1	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
Pyrene	129-00-0	1	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
Benzo(a)anthracene	56-55-3	1	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
Chrysene	218-01-9	1	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
Benzo(b+j)fluoranthene	205-99-2 205-82-3	1	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
Benzo(k)fluoranthene	207-08-9	1	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
Benzo(a)pyrene	50-32-8	0.5	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	
Indeno(1.2.3.cd)pyrene	193-39-5	1	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
Dibenz(a.h)anthracene	53-70-3	1	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
Benzo(g,h,i)perylene	191-24-2	1	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	
^ Benzo(a)pyrene TEQ (zero)	----	0.5	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	
<b>EP075(SIM)S: Phenolic Compound Surrogates</b>									
Phenol-d6	13127-88-3	1	%	23.8	20.5	18.8	16.6	24.1	
2-Chlorophenol-D4	93951-73-6	1	%	39.8	39.5	49.2	41.8	51.9	
2,4,6-Tribromophenol	118-79-6	1	%	50.1	38.9	38.6	35.2	43.5	
<b>EP075(SIM)T: PAH Surrogates</b>									
2-Fluorobiphenyl	321-60-8	1	%	67.2	71.8	65.9	79.3	63.7	
Anthracene-d10	1719-06-8	1	%	81.6	85.4	77.2	84.8	79.5	
4-Terphenyl-d14	1718-51-0	1	%	68.9	70.0	72.5	72.6	67.1	



## Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Client sample ID	162119-D-99	162119-D-108	162119-D-117	162119-D-126	162119-D-135
Client sampling date / time				[24-May-2017]	[24-May-2017]	[24-May-2017]	[24-May-2017]	[24-May-2017]	
Compound	CAS Number	LOR	Unit	ES1712930-011	ES1712930-012	ES1712930-013	ES1712930-014	ES1712930-015	
				Result	Result	Result	Result	Result	
<b>EK026SF: Total CN by Segmented Flow Analyser</b>									
Total Cyanide	57-12-5	0.004	mg/L	0.007	<0.004	<0.004	<0.004	<0.004	
<b>EK040P: Fluoride by PC Titrator</b>									
Fluoride	16984-48-8	0.1	mg/L	1.4	0.2	0.6	0.2	0.3	
<b>EP075(SIM)B: Polynuclear Aromatic Hydrocarbons</b>									
Naphthalene	91-20-3	1	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
Acenaphthylene	208-96-8	1	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
Acenaphthene	83-32-9	1	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
Fluorene	86-73-7	1	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
Phenanthrene	85-01-8	1	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
Anthracene	120-12-7	1	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
Fluoranthene	206-44-0	1	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
Pyrene	129-00-0	1	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
Benzo(a)anthracene	56-55-3	1	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
Chrysene	218-01-9	1	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
Benzo(b+j)fluoranthene	205-99-2 205-82-3	1	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
Benzo(k)fluoranthene	207-08-9	1	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
Benzo(a)pyrene	50-32-8	0.5	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	
Indeno(1.2.3.cd)pyrene	193-39-5	1	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
Dibenz(a.h)anthracene	53-70-3	1	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
Benzo(g,h,i)perylene	191-24-2	1	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	
^ Benzo(a)pyrene TEQ (zero)	----	0.5	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	
<b>EP075(SIM)S: Phenolic Compound Surrogates</b>									
Phenol-d6	13127-88-3	1	%	18.0	23.7	24.4	19.3	25.5	
2-Chlorophenol-D4	93951-73-6	1	%	39.0	41.0	44.1	48.8	65.0	
2,4,6-Tribromophenol	118-79-6	1	%	42.8	36.1	42.7	36.9	46.3	
<b>EP075(SIM)T: PAH Surrogates</b>									
2-Fluorobiphenyl	321-60-8	1	%	80.3	62.7	70.9	53.1	63.4	
Anthracene-d10	1719-06-8	1	%	74.2	80.2	77.1	68.4	78.6	
4-Terphenyl-d14	1718-51-0	1	%	64.2	70.6	76.8	66.8	74.7	





## Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Client sample ID	162119-D-144	162119-D-153	162119-D-162	162119-D-171	162119-D-180
Client sampling date / time				[24-May-2017]	[24-May-2017]	[24-May-2017]	[24-May-2017]	[24-May-2017]	
Compound	CAS Number	LOR	Unit	ES1712930-016	ES1712930-017	ES1712930-018	ES1712930-019	ES1712930-020	
				Result	Result	Result	Result	Result	
<b>EK026SF: Total CN by Segmented Flow Analyser</b>									
Total Cyanide	57-12-5	0.004	mg/L	<0.004	0.448	<0.004	1.51	0.405	
<b>EK040P: Fluoride by PC Titrator</b>									
Fluoride	16984-48-8	0.1	mg/L	0.1	87.0	0.9	106	122	
<b>EP075(SIM)B: Polynuclear Aromatic Hydrocarbons</b>									
Naphthalene	91-20-3	1	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
Acenaphthylene	208-96-8	1	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
Acenaphthene	83-32-9	1	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
Fluorene	86-73-7	1	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
Phenanthrene	85-01-8	1	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
Anthracene	120-12-7	1	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
Fluoranthene	206-44-0	1	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
Pyrene	129-00-0	1	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
Benzo(a)anthracene	56-55-3	1	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
Chrysene	218-01-9	1	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
Benzo(b+j)fluoranthene	205-99-2 205-82-3	1	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
Benzo(k)fluoranthene	207-08-9	1	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
Benzo(a)pyrene	50-32-8	0.5	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	
Indeno(1.2.3.cd)pyrene	193-39-5	1	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
Dibenz(a.h)anthracene	53-70-3	1	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
Benzo(g.h.i)perylene	191-24-2	1	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	
^ Benzo(a)pyrene TEQ (zero)	----	0.5	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	
<b>EP075(SIM)S: Phenolic Compound Surrogates</b>									
Phenol-d6	13127-88-3	1	%	21.4	28.6	24.7	27.5	27.9	
2-Chlorophenol-D4	93951-73-6	1	%	58.6	62.6	63.8	69.4	63.2	
2,4,6-Tribromophenol	118-79-6	1	%	40.8	47.9	51.5	47.4	47.5	
<b>EP075(SIM)T: PAH Surrogates</b>									
2-Fluorobiphenyl	321-60-8	1	%	61.4	64.8	65.5	71.5	68.9	
Anthracene-d10	1719-06-8	1	%	52.5	54.8	76.1	79.5	76.6	
4-Terphenyl-d14	1718-51-0	1	%	72.6	70.1	71.9	76.8	74.1	



## Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Client sample ID	162119-D-189	162119-D-198	162119-D-207	162119-D-216	162119-D-225
Client sampling date / time				[24-May-2017]	[24-May-2017]	[24-May-2017]	[24-May-2017]	[24-May-2017]	
Compound	CAS Number	LOR	Unit	ES1712930-021	ES1712930-022	ES1712930-023	ES1712930-024	ES1712930-025	
				Result	Result	Result	Result	Result	
<b>EK026SF: Total CN by Segmented Flow Analyser</b>									
Total Cyanide	57-12-5	0.004	mg/L	0.199	0.312	0.010	0.008	<0.004	
<b>EK040P: Fluoride by PC Titrator</b>									
Fluoride	16984-48-8	0.1	mg/L	156	494	2.8	3.1	3.5	
<b>EP075(SIM)B: Polynuclear Aromatic Hydrocarbons</b>									
Naphthalene	91-20-3	1	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
Acenaphthylene	208-96-8	1	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
Acenaphthene	83-32-9	1	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
Fluorene	86-73-7	1	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
Phenanthrene	85-01-8	1	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
Anthracene	120-12-7	1	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
Fluoranthene	206-44-0	1	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
Pyrene	129-00-0	1	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
Benzo(a)anthracene	56-55-3	1	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
Chrysene	218-01-9	1	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
Benzo(b+j)fluoranthene	205-99-2 205-82-3	1	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
Benzo(k)fluoranthene	207-08-9	1	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
Benzo(a)pyrene	50-32-8	0.5	µg/L	<0.5	<0.6	<0.5	<0.5	<0.5	
Indeno(1.2.3.cd)pyrene	193-39-5	1	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
Dibenz(a.h)anthracene	53-70-3	1	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
Benzo(g.h.i)perylene	191-24-2	1	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	µg/L	<0.5	<0.6	<0.5	<0.5	<0.5	
^ Benzo(a)pyrene TEQ (zero)	----	0.5	µg/L	<0.5	<0.6	<0.5	<0.5	<0.5	
<b>EP075(SIM)S: Phenolic Compound Surrogates</b>									
Phenol-d6	13127-88-3	1	%	27.5	25.4	18.7	19.6	19.0	
2-Chlorophenol-D4	93951-73-6	1	%	63.9	64.9	44.6	51.3	55.2	
2,4,6-Tribromophenol	118-79-6	1	%	38.8	42.4	35.8	42.7	35.8	
<b>EP075(SIM)T: PAH Surrogates</b>									
2-Fluorobiphenyl	321-60-8	1	%	67.3	67.6	83.2	81.2	86.7	
Anthracene-d10	1719-06-8	1	%	74.9	86.2	53.2	75.2	55.6	
4-Terphenyl-d14	1718-51-0	1	%	72.0	79.8	73.3	76.7	76.4	



## Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Client sample ID	162119-D-234	162119-D-243	162119-D-252	162119-D-261	162119-D-270
Client sampling date / time				[24-May-2017]	[24-May-2017]	[24-May-2017]	[24-May-2017]	[24-May-2017]	
Compound	CAS Number	LOR	Unit	ES1712930-026	ES1712930-027	ES1712930-028	ES1712930-029	ES1712930-030	
				Result	Result	Result	Result	Result	
<b>EK026SF: Total CN by Segmented Flow Analyser</b>									
Total Cyanide	57-12-5	0.004	mg/L	0.012	0.009	0.005	0.025	0.036	
<b>EK040P: Fluoride by PC Titrator</b>									
Fluoride	16984-48-8	0.1	mg/L	3.2	3.2	2.6	13.3	39.1	
<b>EP075(SIM)B: Polynuclear Aromatic Hydrocarbons</b>									
Naphthalene	91-20-3	1	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
Acenaphthylene	208-96-8	1	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
Acenaphthene	83-32-9	1	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
Fluorene	86-73-7	1	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
Phenanthrene	85-01-8	1	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
Anthracene	120-12-7	1	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
Fluoranthene	206-44-0	1	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
Pyrene	129-00-0	1	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
Benzo(a)anthracene	56-55-3	1	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
Chrysene	218-01-9	1	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
Benzo(b+j)fluoranthene	205-99-2 205-82-3	1	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
Benzo(k)fluoranthene	207-08-9	1	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
Benzo(a)pyrene	50-32-8	0.5	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	
Indeno(1.2.3.cd)pyrene	193-39-5	1	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
Dibenz(a.h)anthracene	53-70-3	1	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
Benzo(g,h,i)perylene	191-24-2	1	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	
^ Benzo(a)pyrene TEQ (zero)	----	0.5	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	
<b>EP075(SIM)S: Phenolic Compound Surrogates</b>									
Phenol-d6	13127-88-3	1	%	22.4	19.6	19.2	21.4	20.4	
2-Chlorophenol-D4	93951-73-6	1	%	57.6	47.4	52.2	48.8	40.1	
2,4,6-Tribromophenol	118-79-6	1	%	49.6	39.6	38.8	44.4	39.2	
<b>EP075(SIM)T: PAH Surrogates</b>									
2-Fluorobiphenyl	321-60-8	1	%	96.9	77.7	89.4	77.5	93.2	
Anthracene-d10	1719-06-8	1	%	57.1	60.5	76.5	55.8	80.6	
4-Terphenyl-d14	1718-51-0	1	%	76.1	71.7	75.4	73.6	77.7	



## Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Client sample ID	162119-D-279	162119-D-288	162119-D-306	----	----
Client sampling date / time				[24-May-2017]	[24-May-2017]	[24-May-2017]	----	----	
Compound	CAS Number	LOR	Unit	ES1712930-031	ES1712930-032	ES1712930-033	-----	-----	
				Result	Result	Result	----	----	
<b>EK026SF: Total CN by Segmented Flow Analyser</b>									
Total Cyanide	57-12-5	0.004	mg/L	0.056	0.049	0.065	----	----	
<b>EK040P: Fluoride by PC Titrator</b>									
Fluoride	16984-48-8	0.1	mg/L	57.6	43.3	21.2	----	----	
<b>EP075(SIM)B: Polynuclear Aromatic Hydrocarbons</b>									
Naphthalene	91-20-3	1	µg/L	<1.0	<1.0	<1.0	----	----	
Acenaphthylene	208-96-8	1	µg/L	<1.0	<1.0	<1.0	----	----	
Acenaphthene	83-32-9	1	µg/L	<1.0	<1.0	<1.0	----	----	
Fluorene	86-73-7	1	µg/L	<1.0	<1.0	<1.0	----	----	
Phenanthrene	85-01-8	1	µg/L	<1.0	<1.0	<1.0	----	----	
Anthracene	120-12-7	1	µg/L	<1.0	<1.0	<1.0	----	----	
Fluoranthene	206-44-0	1	µg/L	<1.0	<1.0	<1.0	----	----	
Pyrene	129-00-0	1	µg/L	<1.0	<1.0	<1.0	----	----	
Benzo(a)anthracene	56-55-3	1	µg/L	<1.0	<1.0	<1.0	----	----	
Chrysene	218-01-9	1	µg/L	<1.0	<1.0	<1.0	----	----	
Benzo(b+j)fluoranthene	205-99-2 205-82-3	1	µg/L	<1.0	<1.0	<1.0	----	----	
Benzo(k)fluoranthene	207-08-9	1	µg/L	<1.0	<1.0	<1.0	----	----	
Benzo(a)pyrene	50-32-8	0.5	µg/L	<0.5	<0.5	<0.5	----	----	
Indeno(1.2.3.cd)pyrene	193-39-5	1	µg/L	<1.0	<1.0	<1.0	----	----	
Dibenz(a,h)anthracene	53-70-3	1	µg/L	<1.0	<1.0	<1.0	----	----	
Benzo(g,h,i)perylene	191-24-2	1	µg/L	<1.0	<1.0	<1.0	----	----	
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	µg/L	<0.5	<0.5	<0.5	----	----	
^ Benzo(a)pyrene TEQ (zero)	----	0.5	µg/L	<0.5	<0.5	<0.5	----	----	
<b>EP075(SIM)S: Phenolic Compound Surrogates</b>									
Phenol-d6	13127-88-3	1	%	17.7	18.9	17.9	----	----	
2-Chlorophenol-D4	93951-73-6	1	%	50.5	47.0	49.4	----	----	
2,4,6-Tribromophenol	118-79-6	1	%	47.0	42.1	48.5	----	----	
<b>EP075(SIM)T: PAH Surrogates</b>									
2-Fluorobiphenyl	321-60-8	1	%	97.8	80.1	97.9	----	----	
Anthracene-d10	1719-06-8	1	%	79.2	73.8	68.2	----	----	
4-Terphenyl-d14	1718-51-0	1	%	73.8	74.8	64.3	----	----	



## Surrogate Control Limits

Sub-Matrix: WATER		Recovery Limits (%)	
Compound	CAS Number	Low	High
<b>EP075(SIM)S: Phenolic Compound Surrogates</b>			
Phenol-d6	13127-88-3	10	44
2-Chlorophenol-D4	93951-73-6	14	94
2,4,6-Tribromophenol	118-79-6	17	125
<b>EP075(SIM)T: PAH Surrogates</b>			
2-Fluorobiphenyl	321-60-8	20	104
Anthracene-d10	1719-06-8	27	113
4-Terphenyl-d14	1718-51-0	32	112