October 27, 2017

Project 0106270030

Ms. Carmen Santos
U.S. EPA Region 9
Land Division, RCRA Branch
75 Hawthorne Street
San Francisco, CA 94104

Re: UPRR Segment Soil Sampling Letter Report
Former Pechiney Cast Plate, Inc. Facility
3200 Fruitland Avenue, Vernon, California

Dear Ms. Santos:

Pursuant to the December 18, 2015 letter from United States Environmental Protection Agency[1] (U.S. EPA), Amec Foster Wheeler Environment & Infrastructure, Inc. (Amec Foster Wheeler) conducted sampling and has prepared this letter report on behalf of Pechiney Cast Plate, Inc. (Pechiney) for the Union Pacific Railroad (UPRR) property located at Railroad Milepost 4.2 - San Pedro Subdivision, Vernon, Los Angeles, California, Folder 3009-75 (the UPRR property or UPRR segment; Figure 1). The work described herein was conducted as required by U.S. EPA for additional characterization of polychlorinated biphenyls (PCBs) that may be present in soil on the UPRR property. Prior to and during demolition at the former Pechiney Cast Plate facility, located at 3200 Fruitland Avenue, Vernon, California (the Pechiney site), total PCBs were detected above the site-specific remediation goal of 3.5 milligrams per kilogram (mg/kg) at three locations (W-1/W-2 and near former storm water outfall 6 at SWO-6-N and SWO-6-S; Amec, 2015[2]) on the UPRR property as shown on Figure 2. In addition, arsenic was detected above the site-specific remediation goal of 10 mg/kg in two soil samples (W-24 and W-25) as shown on Figure 3. Amec Foster Wheeler completed the work described below.

WORK COMPLETED

The field work completed consisted of soil sampling on the UPRR property, equipment decontamination, laboratory analysis, and managing and characterization of investigation derived waste.

PRE-FIELD ACTIVITIES

Pre-field activities conducted before mobilization to the UPRR property included an update and review of the site-specific health and safety plan (HASP), obtaining access and coordinating

[1] United States Environmental Protection Agency (U.S. EPA) Region IX, 2015, Letter Re: PCB Cleanup Completion at Former Pechiney Cast Plate Facility, December 18.
[2] Amec Environment & Infrastructure, Inc., 2015, Final Phase III, IV and VI Completion Report, Former Pechiney Cast Plate, Inc. Facility, Vernon, California, September 4.

Amec Foster Wheeler Environment & Infrastructure, Inc.
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www.amecfw.com

with UPRR, notification of appropriate agencies, marking field locations, and notifying Underground Services Alert (USA). Each of the pre-field activities is described below.

- The site-specific HASP prepared for the field activities performed by Amec Foster Wheeler personnel and subcontractors was reviewed and updated to address the planned scope of work. The objective of the HASP was to support the safety of the investigative team during field activities.
- Amec Foster Wheeler coordinated with UPRR to obtain an access agreement and have a railroad flag man on site per conditions of the access agreement.
- USA was notified at least 48 hours prior to the start of fieldwork.
- Subcontractors were procured for laboratory analysis (Eurofins Calscience, Inc. of Garden Grove, California) and for waste disposal (American Integrated Services Inc. [AIS] of Wilmington, California).

SOIL SAMPLING AND ANALYSIS

Soil samples were collected on the UPRR right-of-way using a 4-inch stainless steel hand auger. Borings were sampled at depths of 1, 3, and/or 5 feet below ground surface (bgs). Soil was collected from the decontaminated bucket of the hand auger and placed into glass jars. Soil samples collected for analysis were submitted to Eurofins Calscience. Inc. and were analyzed for PCBs by U.S. EPA Method 8082 (using Soxhlet Extraction Method 3540C) and arsenic by U.S. EPA Method 6010B. Sample identification, collection depth, and analytical results are summarized in Table 1.

Soil borings were backfilled with hydrated bentonite chips per conditions of the access agreement.

SAMPLE RESULTS

Soil sample results are summarized in Table 1. Laboratory analytical reports and chain-of-custody forms are provided in Appendix A. A brief summary of soil results is provided below.

PCBs

- PCB Aroclors detected in the soil samples included 1248, 1254, 1260, and 1268 (Table 1). Where detected, Aroclor 1254 was observed at a higher concentration than Aroclor 1248 (UPR-1, UPR-7, UPR-14, UPR-17, UPR-20 and UPR-28). Samples collected previously on the UPRR property during the assessment of former storm water outfall 6 in 1999 (Amec, 2012[3]), Aroclor 1248 was detected but not

[3] Amec Environment & Infrastructure, Inc., 2012, Feasibility Study, Former Pechiney Cast Plate, Inc., Facility, 3200 Fruitland Avenue, Vernon, California, May 7.

1254. Previous assessments and soil removals conducted at the adjacent Pechiney site, also indicated that Aroclor 1248 was the predominant Aroclor (Amec, 2012[3]).

- Total PCBs were detected in samples UPR-1, UPR-4, UPR-7, UPR-14, UPR-17, UPR-20 and UPR-23 (Figure 2) at concentrations ranging between 0.08 and 194 mg/kg. The highest total PCB concentration was detected at UPR-17 at a depth of 1 foot. PCBs were not detected above the reporting limits in the remaining samples.
- Total PCBs were detected in the soil samples above the site-specific remediation goal of 3.5 mg/kg as follows (see Figure 2):
    - at 1 foot at UPR-7, UPR-14, UPR-17, and UPR-28 (Aroclor 1254 was also above the site-specific remediation goal of 2.0 mg/kg);
    - at 1 to 1.5 feet at previous sample locations W-1/W-2 and W-24/W-25; and
    - at 2 feet at previous sample locations SWO-6-N and SWO-6-S.
- Deeper soil samples collected at depths between 3 and 10 feet were predominantly non-detect with only two locations with total PCBs at concentrations between 0.056 to 0.150 mg/kg.

Arsenic

- Arsenic was detected in all samples with the exception of UPR-2 at concentrations ranging between 0.82 and 123 mg/kg (Table 1). The highest arsenic concentration was detected at UPR-14 at a depth of 1 foot.
- Arsenic was detected in the soil samples above the site-specific remediation goal of 10 mg/kg as follows:
    - at 1 foot at UPR-1, UPR-4, UPR-7, UPR-14, UPR-17,UPR-20, and UPR-28;
    - at 1 and 1.5 feet at previous sample locations W-1/W-2; and
    - at 3 and 5 feet at UPR-10, UPR-15 and UPR-16; UPR-18 and UPR-19; UPR-24 and UPR-25; and UPR-29 and UPR-30. As a note, PCBs were not detected in these deeper samples, suggesting the arsenic impacts are associated with the operation/maintenance of the rail line

Summary

Based on the additional soil sampling, the vertical and lateral extent of total PCBs in soil in the UPRR segment has been characterized, with concentrations above the site-specific remediation goal of 3.5 mg/kg in the 1-foot samples and at 2 feet in the vicinity of former storm water outfall 6. In addition, the lateral extent of soil with PCBs above the site-specific remediation goal has been characterized to the north, west (by the rail bed area), and south (to the area that was accessible). The area to the east was characterized during the below grade sampling and soil removal actions for the Pechiney site (Amec, 2015).

Given the detection of arsenic above the site-specific remediation goal of 10 mg/kg at depths of 1, 3 and 5 feet, and the lack of the detection of PCBs in the deeper samples, suggests that the presence of arsenic in soil on the UPRR segment is not derived from the former operations at the Pechiney site or former storm water outfall 6, but may be associated with the operation/maintenance of the rail line.

EQUIPMENT DECONTAMINATION AND INVESTIGATION DERIVED WASTE DISPOSAL

The hand auger and other digging equipment were washed in non-phosphate detergent, double rinsed in potable water, and rinsed with hexane before use in each borehole and/or between samples. Soil cuttings and water generated during the equipment decontamination and sampling activities (IDW) were stored in 55-gallon drums and placed on a secondary containment pallet staged at the Pechiney site. IDW was characterized as non-hazardous waste for disposal. The IDW was transported by AIS for disposal to the appropriate facilities.

QUALITY ASSURANCE/QUALITY CONTROL RESULTS

Amec Foster Wheeler and the analytical laboratory followed specific quality assurance/quality control (QA/QC) procedures to evaluate analytical data generated. These procedures included the collection and analysis of a field equipment blank, and laboratory blank samples, laboratory duplicates, and laboratory spike samples.

Data from the QA/QC samples were evaluated to assess precision, accuracy, completeness, and data usability. The QA/QC review was performed in general accordance with the U.S. EPA National Functional Guidelines[4] and a summary of the results is provided below. The laboratory reported that the sample shipments were received at temperatures within the acceptable range. The soil and QA/QC samples were analyzed within the method holding times and the requested analyses were performed by the analytical laboratory.

[4] U.S. EPA, 2016, U.S. EPA National Functional Guidelines for Superfund Organic Methods Data Review, OSWER 9355.0-134, EPA 540-R-2016-002, September.

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Blanks

The QA/QC program included the analysis of an equipment blank (QCEB-051617) and laboratory method blanks corresponding to each analytical batch of samples. No analytes were detected in the equipment blank or method blank samples for this event.

Spike Recoveries in Laboratory Control Sample/Laboratory Control Spike Sample (LCS/LCSD

Spike recoveries (%Rs) were within laboratory control limits in LCS/LCSD samples analyzed by the laboratory for this program.

Spike Recoveries in Matrix Spike/Matrix Spike Duplicate (MS/MSD) Samples

Spike recoveries were evaluated for MS/MSD samples. %Rs were within laboratory control limits in associated MS/MSD samples analyzed by the laboratory for this program with the exception of:

- The MS %R was above the QC limits for arsenic in the QC batch associated with samples UPR-23, UPR-24, UPR-25, UPR-26, UPR-27, UPR-28, UPR-29 and UPR-30. Arsenic was detected above the reporting limit in the associated samples and were therefore qualified with "J+" flags.

Surrogate Recoveries

The surrogate compound recoveries associated with soil samples for this program were within laboratory control limits with the exception of:

- Surrogate decachlorobiphenyl recovery associated with sample UPR-17 for Aroclor-1254 was above the QC limit. Aroclor-1254 was detected above the reporting limit in sample UPR-17 and qualified with a "J+" flag.

- Surrogate decachlorobiphenyl recovery associated with sample UPR-28 for PCB (1248, 1254, and 1260) analysis was above the QC limit. Aroclors that were detected above the reporting limit in sample UPR-28 were qualified with a "J+" flags. Non-detected PCB results were not qualified.

- Surrogate 2,4,5,6-tetrachloro-m-xylene recovery associated with sample UPR-14 for Aroclor-1254 analysis was above the QC limit. Aroclor-1254 was detected above reporting limit in the UPR-14. The Aroclor-1254 result for UPR-14 was qualified with a J+ flag.

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Laboratory Duplicates

The RPDs for the LCS/LCSD and MS/MSD pairs associated with soil samples for this program were within laboratory control limits.

In summary, the field and laboratory quality control results indicate that the sampling and analyses performed for this project were generally consistent with the analytical methods and provided data suitable for project objectives. Overall, the data generated are acceptable and suitable for decision-making purposes.

CONCLUSIONS

Based on the past detections of PCBs in soil near storm water outfall 6, PCBs detected in soil along the UPRR segment sampled during this investigation appear to be related to the former site operations.

Based on the distribution of arsenic in soil, the occurrence of arsenic in soil along the UPRR segment sampled during this investigation appears to be related to railroad operation/maintenance, rather than from former operations at the Pechiney site or the former storm water outfall 6.

If you have any questions or need any additional information, please call either of the undersigned at (949) 642-0245.

Sincerely yours,
Amec Foster Wheeler Environment & Infrastructure, Inc.

Kimberly Holland-Chominsky, PG
Senior Associate Geologist

Linda Conlan, PG
Principal Geologist

Attachments

Table 1	Soil Sample Results – PCBs and Arsenic
Figure 1	Site Location Map
Figure 2	Soil Sample Locations with Total PCBs Concentrations
Figure 3	Soil Sample Locations with Arsenic Concentrations
Appendix A	Laboratory Analytical Reports

cc: David Cline, Pechiney
Gerald Pepper, Rio Tinto AUM Company
John Cermak, Baker & Hostetler, LLP
Chand Sultana, DTSC Chatsworth
Joel Strafelda, Union Pacific Railroad Company

TABLE

TABLE 1

SOIL SAMPLE RESULTS - PCBs AND ARSENIC

Union Pacific Rail Road - Pechiney Cast Plate, Inc. Facility

3200 Fruitland Avenue

Vernon, California

Results reported in micrograms per kilogram (ug/kg) unless otherwise noted.

Sample ID	Date Sampled	Sample Depth - Bottom (feet bls)	Sample Elevation	EPA Method 8082											EPA Method 6010B
				PCB 1016	PCB 1221	PCB 1232	PCB 1242	PCB 1248	PCB 1254	PCB 1260	PCB 1262	PCB 1268	Total PCBs	Total PCBs (mg/kg)	Arsenic (mg/kg)
UPR-1	6/15/2017	1	180	<49	<49	<49	<49	150	460	210	<49	98	918	0.918	40.8
UPR-2	6/15/2017	3	178	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<0.05	0.82
UPR-3	6/15/2017	5	176	<49	<49	<49	<49	<49	<49	<49	<49	<49	<49	<0.049	<0.743
UPR-4	6/15/2017	1	180	<49	<49	<49	<49	490	200	68	<49	49	807	0.807	55.7
UPR-5	6/15/2017	3	178	<49	<49	<49	<49	<49	<49	<49	<49	<49	<49	<0.049	5.15
UPR-6	6/15/2017	5	176	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<0.05	2.29
UPR-7	6/15/2017	1	180	<500	<500	<500	<500	4000	13000	2400	<500	<500	19400	19.4	51.1
UPR-8	6/15/2017	3	178	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<0.05	3.24
UPR-9	6/15/2017	5	176	<49	<49	<49	<49	<49	<49	<49	<49	<49	<49	<0.049	1.31
UPR-10	6/15/2017	5	176	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<0.05	23.4
UPR-12	6/15/2017	5	176	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<0.05	8.75
UPR-14	6/15/2017	1	180	<490	<490	<490	<490	9500	30000 J+	5400	<490	<490	44900	44.9	123
UPR-15	6/15/2017	3	178	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<0.05	36.5
UPR-16	6/15/2017	5	176	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<0.05	30.8
UPR-17	6/15/2017	1	180	<4900	<4900	<4900	<4900	67000	110000 J+	17000	<4900	<4900	194000	194	120
UPR-18	6/15/2017	3	178	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<0.05	33.4
UPR-19	6/15/2017	5	176	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<0.05	31.2
UPR-20	6/15/2017	1	180	<980	<980	<980	<980	11000	18000	3500	<980	<980	32500	32.5	60.8
UPR-21	6/15/2017	3	178	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<0.05	9.47
UPR-22	6/15/2017	5	176	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<0.05	3.38
UPR-23	6/15/2017	1	180	<49	<49	<49	<49	80	<49	<49	<49	<49	80	0.08	26.3 J+
UPR-24	6/15/2017	3	178	<49	<49	<49	<49	<49	<49	<49	<49	<49	<49	<0.049	21 J+
UPR-25	6/15/2017	5	176	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<0.05	11.5 J+
UPR-26	6/15/2017	5	176	<49	<49	<49	<49	<49	<49	<49	<49	<49	<49	<0.049	4.36 J+
UPR-27	6/15/2017	5	176	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<0.05	4.5 J+
UPR-28	6/15/2017	1	180	<2400	<2400	<2400	<2400	26000 J+	38000 J+	8200 J+	<2400	<2400	72200	72.2	33.7 J+
UPR-29	6/15/2017	3	178	<49	<49	<49	<49	<49	<49	<49	<49	<49	<49	<0.049	39.3 J+
UPR-30	6/15/2017	5	176	<49	<49	<49	<49	<49	<49	<49	<49	<49	<49	<0.049	20.7 J+

Abbreviations

EPA = United States Environmental Protection Agency.

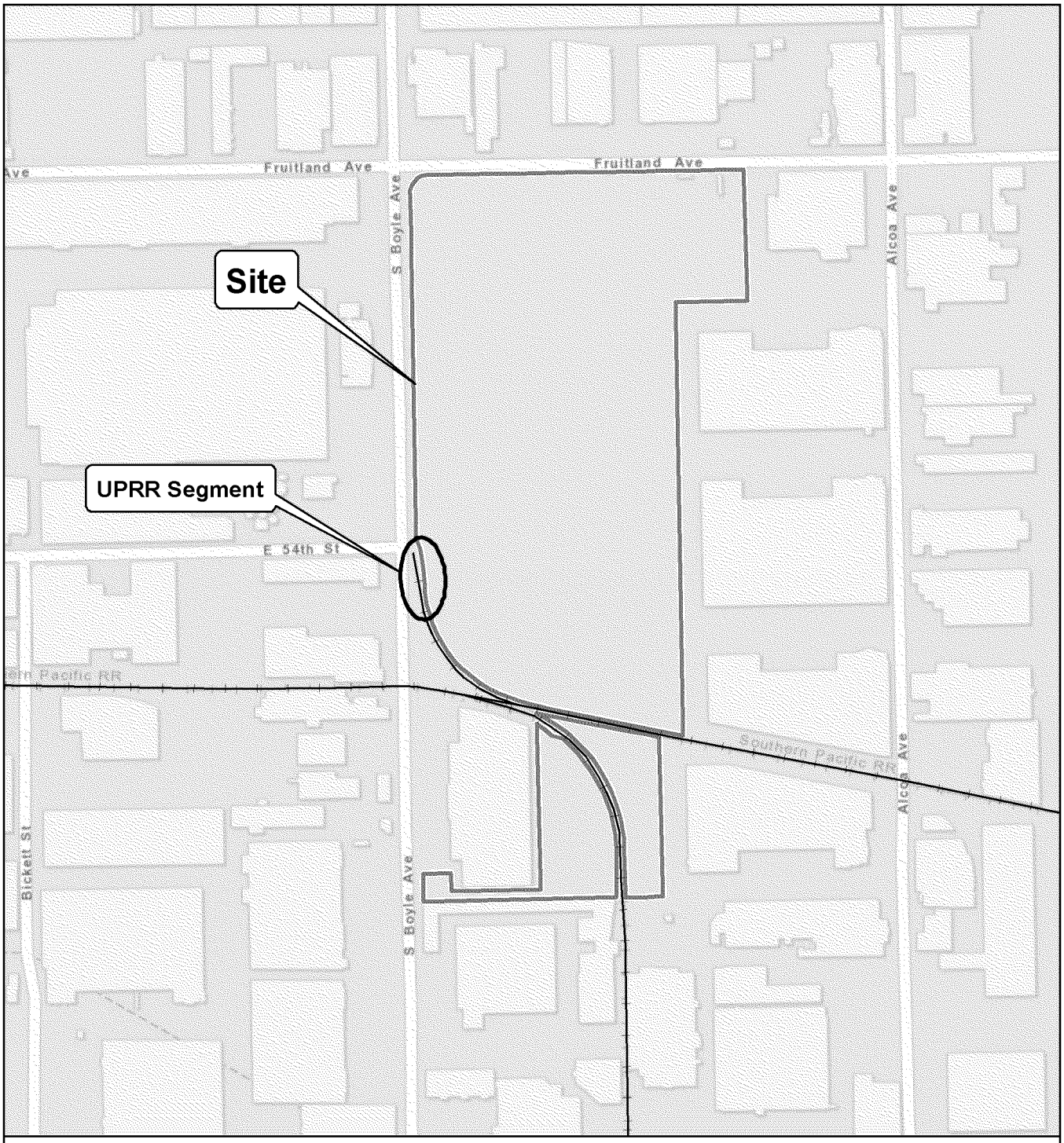
mg/kg = milligrams per kilogram.

< = Not detected at or above the laboratory reporting limit (RL) shown.

J+ = The analyte was positively identified and the associated numerical value is estimated/biased high.

bgs= below ground surface

FIGURES



Basemap modified from Street map provided by Esri, HERE, DeLorme, USGS Intermap, INCREMENT P, ©OpenStreetMap contributors, and the GIS User Community.

N

0 200 400

Approximate Scale in Feet

SITE LOCATION MAP
Former Pechiney Cast Plate, Inc. Facility
3200 Fruitland Avenue
Vernon, California

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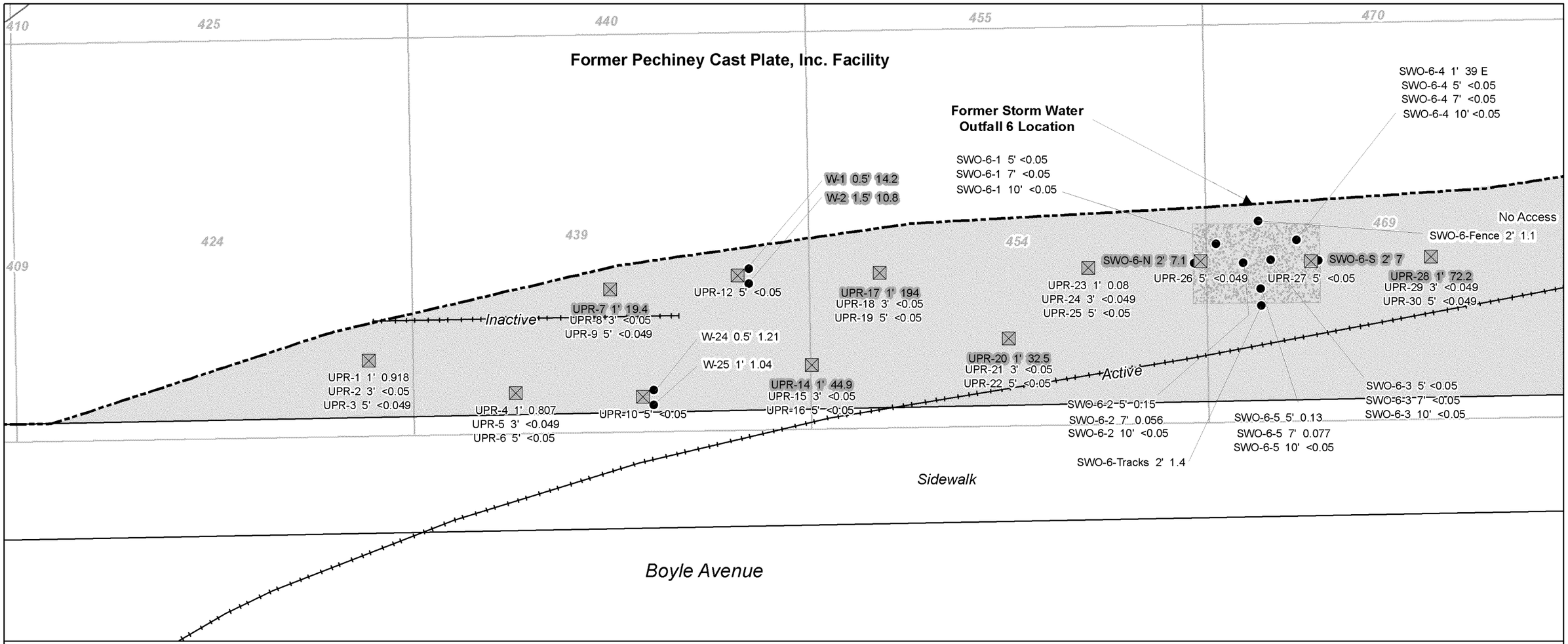
Date: 10/27/2017	Project No.: 10627.003	Figure 1
Submitted By: lc	Drawn By: pah	

File path: Y:\10627.003.0\esri\Proposed UPRR Soil Sample_tb_002_site_location map.mxd



Explanation

- June 2017 soil sample with total PCBs in milligrams per kilogram (mg/kg). Yellow highlighted results exceed 3.5 mg/kg
- Soil sample collected prior to or during below grade demolition/soil removal with total PCBs in mg/kg. Yellow highlighted results exceed 3.5 mg/kg
- E Soil has been excavated
- Railroad tracks (at grade)
- Site boundary
- Previous excavation area [all previous limits of excavation are approximate (AMEC, 2012)]
- Sample index grid and reference number (AMEC, 2015)
- Union Pacific Railroad Property

Note:

June 2017 soil sample locations are approximate.

0 5 10
Approximate Scale in Feet

Basemap modified from surveys conducted May 31, 2006 and June 6, 2006 by CalVada Surveyors; and surveys conducted October 12, 2011 and September 10, 2013 by Dulin & Boynton.

SOIL SAMPLE LOCATIONS
WITH TOTAL PCBs CONCENTRATIONS
Former Pechiney Cast Plate, Inc. Facility
3200 Fruitland Avenue
Vernon, California

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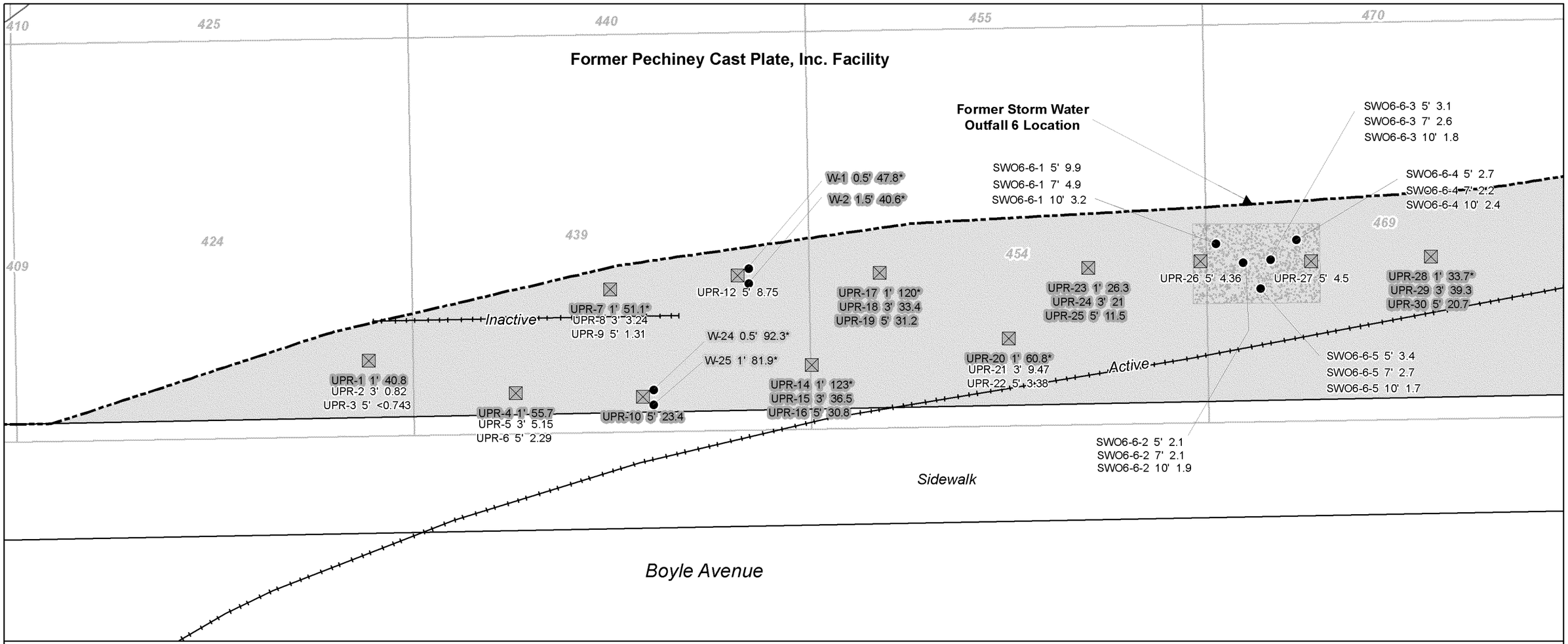
Date: 10/27/2017	Project No.: 10627.003	Figure 2
Submitted By: lc	Drawn By: mww	

Path: Y:\10627.003.0\esri\Proposed UPRR Soil Sample\tb_Soil_Sample_Results_pcb_UPRR.mxd



Explanation

- June 2017 Soil sample with arsenic in milligrams per kilogram (mg/kg). Yellow highlighted results exceed 10 mg/kg
- Soil sample collected prior to or during below grade demolition/soil removal with arsenic in mg/kg. Yellow highlighted results exceed 10 mg/kg
- * Total PCBs exceeds 3.5 mg/kg
- Railroad tracks (at grade)
- Site boundary
- Previous excavation area [all previous limits of excavation are approximate (AMEC, 2012)]
- Sample index grid and reference number (AMEC, 2015)
- Union Pacific Railroad Property

Note:

June 2017 soil sample locations are approximate.

0 5 10
Approximate Scale in Feet

Basemap modified from surveys conducted May 31, 2006 and June 6, 2006 by CalVada Surveyors; and surveys conducted October 12, 2011 and September 10, 2013 by Dulin & Boynton.

SOIL SAMPLE LOCATIONS
WITH ARSENIC CONCENTRATIONS
Former Pechiney Cast Plate, Inc. Facility
3200 Fruitland Avenue
Vernon, California

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Date: 10/27/2017	Project No.: 10627.003	Figure 3
Submitted By: lc	Drawn By: mww	

Path: Y:\10627.003.0\esri\Proposed UPRR Soil Sample\tb_Soil_Sample_Results_as_UPRR.mxd

APPENDIX A

Laboratory Analytical Reports

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WORK ORDER NUMBER: 17-06-1195

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Amec Foster Wheeler Environment & Infrastructure,

Client Project Name: Former Pechiney / 0010627

Attention: Kim Holland
121 Innovation Drive
Suite 200
Irvine, CA 92617-3094

Approved for release on 06/26/2017 by:
Stephen Nowak
Project Manager

ResultLink ▸

Email your PM ▸

Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

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CA ELAP ID: 2944 | ACLASS DoD-ELAP ID: ADE-1864 (ISO/IEC 17025:2005) | CSDLAC ID: 10109

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Contents

Client Project Name: Former Pechiney / 0010627
Work Order Number: 17-06-1195

1 Work Order Narrative. 3

2 Sample Summary. 4

3 Detections Summary. 5

4 Client Sample Data. 8
- 4.1 EPA 8015B (M) C6-C44 (Solid). 8
- 4.2 EPA 6010B ICP Metals (Solid). 10
- 4.3 EPA 6010B/7471A CAC Title 22 Metals (Solid). 14
- 4.4 EPA 6010B ICP Metals (Aqueous). 16
- 4.5 EPA 7471A Mercury (Solid). 17
- 4.6 EPA 8082 PCB Aroclors (Solid). 18
- 4.7 EPA 8082 PCB Aroclors (Aqueous). 35
- 4.8 EPA 8260B Volatile Organics (Solid). 36

5 Quality Control Sample Data. 40
- 5.1 MS/MSD. 40
- 5.2 LCS/LCSD. 48

6 Sample Analysis Summary. 57

7 Glossary of Terms and Qualifiers. 58

8 Chain-of-Custody/Sample Receipt Form. 59

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Work Order Narrative

Work Order: 17-06-1195 Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 06/15/17. They were assigned to Work Order 17-06-1195.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

Return to Contents

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Sample Summary

Client:	Amec Foster Wheeler Environment & Infrastructure, 121 Innovation Drive, Suite 200 Irvine, CA 92617-3094	Work Order:	17-06-1195
		Project Name:	Former Pechiney / 0010627
		PO Number:	
		Date/Time Received:	06/15/17 18:00
		Number of Containers:	33
Attn:	Kim Holland		

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
UPR-1	17-06-1195-1	06/15/17 07:55	1	Solid
UPR-2	17-06-1195-2	06/15/17 08:07	1	Solid
UPR-3	17-06-1195-3	06/15/17 08:30	1	Solid
UPR-4	17-06-1195-4	06/15/17 08:50	1	Solid
UPR-5	17-06-1195-5	06/15/17 08:57	1	Solid
UPR-6	17-06-1195-6	06/15/17 09:02	1	Solid
UPR-7	17-06-1195-7	06/15/17 09:15	1	Solid
UPR-8	17-06-1195-8	06/15/17 09:30	1	Solid
UPR-9	17-06-1195-9	06/15/17 09:40	1	Solid
UPR-10	17-06-1195-10	06/15/17 10:00	1	Solid
UPR-11	17-06-1195-11	06/15/17 10:10	1	Solid
UPR-12	17-06-1195-12	06/15/17 10:40	1	Solid
UPR-13	17-06-1195-13	06/15/17 10:50	1	Solid
UPR-14	17-06-1195-14	06/15/17 11:05	1	Solid
UPR-15	17-06-1195-15	06/15/17 11:30	1	Solid
UPR-16	17-06-1195-16	06/15/17 11:40	1	Solid
UPR-17	17-06-1195-17	06/15/17 11:45	1	Solid
UPR-18	17-06-1195-18	06/15/17 11:55	1	Solid
UPR-19	17-06-1195-19	06/15/17 12:05	1	Solid
UPR-20	17-06-1195-20	06/15/17 12:15	1	Solid
UPR-21	17-06-1195-21	06/15/17 13:15	1	Solid
UPR-22	17-06-1195-22	06/15/17 13:25	1	Solid
UPR-23	17-06-1195-23	06/15/17 13:30	1	Solid
UPR-24	17-06-1195-24	06/15/17 13:35	1	Solid
UPR-25	17-06-1195-25	06/15/17 13:40	1	Solid
UPR-26	17-06-1195-26	06/15/17 14:00	1	Solid
UPR-27	17-06-1195-27	06/15/17 14:25	1	Solid
UPR-28	17-06-1195-28	06/15/17 14:40	1	Solid
UPR-29	17-06-1195-29	06/15/17 14:50	1	Solid
UPR-30	17-06-1195-30	06/15/17 15:00	1	Solid
QCEB-051617	17-06-1195-31	06/15/17 15:30	2	Aqueous
IDW-051617	17-06-1195-32	06/15/17 15:10	1	Solid

Return to Contents

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Detections Summary

Client:	Amec Foster Wheeler Environment & Infrastructure, 121 Innovation Drive, Suite 200 Irvine, CA 92617-3094	Work Order:	17-06-1195
		Project Name:	Former Pechiney / 0010627
		Received:	06/15/17
Attn:	Kim Holland		

Client SampleID / Analyte	Result	Qualifiers	RL	Units	Method	Extraction
UPR-1 (17-06-1195-1)						
Arsenic	40.8		0.718	mg/kg	EPA 6010B	EPA 3050B
Aroclor-1248	150		49	ug/kg	EPA 8082	EPA 3540C
Aroclor-1254	460		49	ug/kg	EPA 8082	EPA 3540C
Aroclor-1260	210		49	ug/kg	EPA 8082	EPA 3540C
Aroclor-1268	98		49	ug/kg	EPA 8082	EPA 3540C
UPR-2 (17-06-1195-2)						
Arsenic	0.820		0.725	mg/kg	EPA 6010B	EPA 3050B
UPR-4 (17-06-1195-4)						
Arsenic	55.7		0.725	mg/kg	EPA 6010B	EPA 3050B
Aroclor-1248	490		49	ug/kg	EPA 8082	EPA 3540C
Aroclor-1254	200		49	ug/kg	EPA 8082	EPA 3540C
Aroclor-1260	68		49	ug/kg	EPA 8082	EPA 3540C
Aroclor-1268	49		49	ug/kg	EPA 8082	EPA 3540C
UPR-5 (17-06-1195-5)						
Arsenic	5.15		0.750	mg/kg	EPA 6010B	EPA 3050B
UPR-6 (17-06-1195-6)						
Arsenic	2.29		0.735	mg/kg	EPA 6010B	EPA 3050B
UPR-7 (17-06-1195-7)						
Arsenic	51.1		0.754	mg/kg	EPA 6010B	EPA 3050B
Aroclor-1248	4000		500	ug/kg	EPA 8082	EPA 3540C
Aroclor-1254	13000		2500	ug/kg	EPA 8082	EPA 3540C
Aroclor-1260	2400		500	ug/kg	EPA 8082	EPA 3540C
UPR-8 (17-06-1195-8)						
Arsenic	3.24		0.725	mg/kg	EPA 6010B	EPA 3050B
UPR-9 (17-06-1195-9)						
Arsenic	1.31		0.754	mg/kg	EPA 6010B	EPA 3050B
UPR-10 (17-06-1195-10)						
Arsenic	23.4		0.758	mg/kg	EPA 6010B	EPA 3050B
UPR-12 (17-06-1195-12)						
Arsenic	8.75		0.769	mg/kg	EPA 6010B	EPA 3050B
UPR-14 (17-06-1195-14)						
Arsenic	123		0.777	mg/kg	EPA 6010B	EPA 3050B
Aroclor-1248	9500		490	ug/kg	EPA 8082	EPA 3540C
Aroclor-1254	30000		4900	ug/kg	EPA 8082	EPA 3540C
Aroclor-1260	5400		490	ug/kg	EPA 8082	EPA 3540C
UPR-15 (17-06-1195-15)						
Arsenic	36.5		0.714	mg/kg	EPA 6010B	EPA 3050B

* MDL is shown

Return to Contents

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Detections Summary

Client:	Amec Foster Wheeler Environment & Infrastructure, 121 Innovation Drive, Suite 200 Irvine, CA 92617-3094	Work Order:	17-06-1195
		Project Name:	Former Pechiney / 0010627
		Received:	06/15/17
Attn:	Kim Holland		Page 2 of 3

Client SampleID / Analyte	Result	Qualifiers	RL	Units	Method	Extraction
UPR-16 (17-06-1195-16)						
Arsenic	30.8		0.728	mg/kg	EPA 6010B	EPA 3050B
UPR-17 (17-06-1195-17)						
Arsenic	120		0.721	mg/kg	EPA 6010B	EPA 3050B
Aroclor-1248	67000		4900	ug/kg	EPA 8082	EPA 3540C
Aroclor-1254	110000		49000	ug/kg	EPA 8082	EPA 3540C
Aroclor-1260	17000		4900	ug/kg	EPA 8082	EPA 3540C
UPR-18 (17-06-1195-18)						
Arsenic	33.4		0.743	mg/kg	EPA 6010B	EPA 3050B
UPR-19 (17-06-1195-19)						
Arsenic	31.2		0.785	mg/kg	EPA 6010B	EPA 3050B
UPR-20 (17-06-1195-20)						
Arsenic	60.8		0.718	mg/kg	EPA 6010B	EPA 3050B
Aroclor-1248	11000		980	ug/kg	EPA 8082	EPA 3540C
Aroclor-1254	18000		980	ug/kg	EPA 8082	EPA 3540C
Aroclor-1260	3500		980	ug/kg	EPA 8082	EPA 3540C
UPR-21 (17-06-1195-21)						
Arsenic	9.47		0.728	mg/kg	EPA 6010B	EPA 3050B
UPR-22 (17-06-1195-22)						
Arsenic	3.38		0.725	mg/kg	EPA 6010B	EPA 3050B
UPR-23 (17-06-1195-23)						
Arsenic	26.3		0.754	mg/kg	EPA 6010B	EPA 3050B
Aroclor-1248	80		49	ug/kg	EPA 8082	EPA 3540C
UPR-24 (17-06-1195-24)						
Arsenic	21.0		0.732	mg/kg	EPA 6010B	EPA 3050B
UPR-25 (17-06-1195-25)						
Arsenic	11.5		0.758	mg/kg	EPA 6010B	EPA 3050B
UPR-26 (17-06-1195-26)						
Arsenic	4.36		0.781	mg/kg	EPA 6010B	EPA 3050B
UPR-27 (17-06-1195-27)						
Arsenic	4.50		0.739	mg/kg	EPA 6010B	EPA 3050B
UPR-28 (17-06-1195-28)						
Arsenic	33.7		0.781	mg/kg	EPA 6010B	EPA 3050B
Aroclor-1248	26000		2400	ug/kg	EPA 8082	EPA 3540C
Aroclor-1254	38000		2400	ug/kg	EPA 8082	EPA 3540C
Aroclor-1260	8200		2400	ug/kg	EPA 8082	EPA 3540C
UPR-29 (17-06-1195-29)						
Arsenic	39.3		0.750	mg/kg	EPA 6010B	EPA 3050B

* MDL is shown

Return to Contents

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Detections Summary

Client:	Amec Foster Wheeler Environment & Infrastructure, 121 Innovation Drive, Suite 200 Irvine, CA 92617-3094	Work Order:	17-06-1195
		Project Name:	Former Pechiney / 0010627
		Received:	06/15/17
Attn:	Kim Holland		

Client SampleID / Analyte	Result	Qualifiers	RL	Units	Method	Extraction
UPR-30 (17-06-1195-30)						
Arsenic	20.7		0.773	mg/kg	EPA 6010B	EPA 3050B
IDW-051617 (17-06-1195-32)						
Arsenic	20.6		0.773	mg/kg	EPA 6010B	EPA 3050B
Barium	140		0.515	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.421		0.258	mg/kg	EPA 6010B	EPA 3050B
Cadmium	0.534		0.515	mg/kg	EPA 6010B	EPA 3050B
Chromium	16.9		0.258	mg/kg	EPA 6010B	EPA 3050B
Cobalt	12.2		0.258	mg/kg	EPA 6010B	EPA 3050B
Copper	36.3		0.515	mg/kg	EPA 6010B	EPA 3050B
Lead	11.9		0.515	mg/kg	EPA 6010B	EPA 3050B
Nickel	13.9		0.258	mg/kg	EPA 6010B	EPA 3050B
Vanadium	40.0		0.258	mg/kg	EPA 6010B	EPA 3050B
Zinc	110		1.03	mg/kg	EPA 6010B	EPA 3050B

Subcontracted analyses, if any, are not included in this summary.

Return to Contents

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Analytical Report

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	06/15/17
121 Innovation Drive, Suite 200	Work Order:	17-06-1195
Irvine, CA 92617-3094	Preparation:	EPA 3550B
	Method:	EPA 8015B (M)
	Units:	mg/kg
Project: Former Pechiney / 0010627		Page 1 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
IDW-051617	**17-06-1195-32-A**	**06/15/17 15:10**	**Solid**	**GC 47**	**06/15/17**	**06/16/17 08:52**	**170615B01B**

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	ND	5.0	1.00	
C29-C32	ND	5.0	1.00	
C33-C36	ND	5.0	1.00	
C37-C40	ND	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	72	61-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,		Date Received:	06/15/17
121 Innovation Drive, Suite 200		Work Order:	17-06-1195
Irvine, CA 92617-3094		Preparation:	EPA 3550B
		Method:	EPA 8015B (M)
		Units:	mg/kg
Project: Former Pechiney / 0010627			Page 2 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-15-490-2670**	**N/A**	**Solid**	**GC 47**	**06/15/17**	**06/15/17 10:56**	**170615B01B**

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	ND	5.0	1.00	
C29-C32	ND	5.0	1.00	
C33-C36	ND	5.0	1.00	
C37-C40	ND	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	94	61-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,		Date Received:	06/15/17
121 Innovation Drive, Suite 200		Work Order:	17-06-1195
Irvine, CA 92617-3094		Preparation:	EPA 3050B
		Method:	EPA 6010B
		Units:	mg/kg
Project: Former Pechiney / 0010627			Page 1 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
UPR-1	**17-06-1195-1-A**	**06/15/17 07:55**	**Solid**	**ICP 7300**	**06/21/17**	**06/21/17 15:55**	**170621L01**

Parameter	Result	RL	DF	Qualifiers
Arsenic	40.8	0.718	0.957	

UPR-2	**17-06-1195-2-A**	**06/15/17 08:07**	**Solid**	**ICP 7300**	**06/21/17**	**06/21/17 15:56**	**170621L01**

Parameter	Result	RL	DF	Qualifiers
Arsenic	0.820	0.725	0.966	

UPR-3	**17-06-1195-3-A**	**06/15/17 08:30**	**Solid**	**ICP 7300**	**06/21/17**	**06/21/17 15:56**	**170621L01**

Parameter	Result	RL	DF	Qualifiers
Arsenic	ND	0.743	0.990	

UPR-4	**17-06-1195-4-A**	**06/15/17 08:50**	**Solid**	**ICP 7300**	**06/21/17**	**06/21/17 15:57**	**170621L01**

Parameter	Result	RL	DF	Qualifiers
Arsenic	55.7	0.725	0.966	

UPR-5	**17-06-1195-5-A**	**06/15/17 08:57**	**Solid**	**ICP 7300**	**06/21/17**	**06/21/17 15:58**	**170621L01**

Parameter	Result	RL	DF	Qualifiers
Arsenic	5.15	0.750	1.00	

UPR-6	**17-06-1195-6-A**	**06/15/17 09:02**	**Solid**	**ICP 7300**	**06/21/17**	**06/21/17 15:58**	**170621L01**

Parameter	Result	RL	DF	Qualifiers
Arsenic	2.29	0.735	0.980	

UPR-7	**17-06-1195-7-A**	**06/15/17 09:15**	**Solid**	**ICP 7300**	**06/21/17**	**06/21/17 16:01**	**170621L01**

Parameter	Result	RL	DF	Qualifiers
Arsenic	51.1	0.754	1.01	

UPR-8	**17-06-1195-8-A**	**06/15/17 09:30**	**Solid**	**ICP 7300**	**06/21/17**	**06/21/17 16:02**	**170621L01**

Parameter	Result	RL	DF	Qualifiers
Arsenic	3.24	0.725	0.966	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,		Date Received:	06/15/17
121 Innovation Drive, Suite 200		Work Order:	17-06-1195
Irvine, CA 92617-3094		Preparation:	EPA 3050B
		Method:	EPA 6010B
		Units:	mg/kg
Project: Former Pechiney / 0010627			Page 2 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
UPR-9	**17-06-1195-9-A**	**06/15/17 09:40**	**Solid**	**ICP 7300**	**06/21/17**	**06/21/17 16:02**	**170621L01**

Parameter	Result	RL	DF	Qualifiers
Arsenic	1.31	0.754	1.01	

UPR-10	**17-06-1195-10-A**	**06/15/17 10:00**	**Solid**	**ICP 7300**	**06/21/17**	**06/21/17 16:03**	**170621L01**

Parameter	Result	RL	DF	Qualifiers
Arsenic	23.4	0.758	1.01	

UPR-12	**17-06-1195-12-A**	**06/15/17 10:40**	**Solid**	**ICP 7300**	**06/21/17**	**06/21/17 16:04**	**170621L01**

Parameter	Result	RL	DF	Qualifiers
Arsenic	8.75	0.769	1.03	

UPR-14	**17-06-1195-14-A**	**06/15/17 11:05**	**Solid**	**ICP 7300**	**06/21/17**	**06/21/17 16:04**	**170621L01**

Parameter	Result	RL	DF	Qualifiers
Arsenic	123	0.777	1.04	

UPR-15	**17-06-1195-15-A**	**06/15/17 11:30**	**Solid**	**ICP 7300**	**06/21/17**	**06/21/17 16:05**	**170621L01**

Parameter	Result	RL	DF	Qualifiers
Arsenic	36.5	0.714	0.952	

UPR-16	**17-06-1195-16-A**	**06/15/17 11:40**	**Solid**	**ICP 7300**	**06/21/17**	**06/21/17 16:06**	**170621L01**

Parameter	Result	RL	DF	Qualifiers
Arsenic	30.8	0.728	0.971	

UPR-17	**17-06-1195-17-A**	**06/15/17 11:45**	**Solid**	**ICP 7300**	**06/21/17**	**06/21/17 16:07**	**170621L01**

Parameter	Result	RL	DF	Qualifiers
Arsenic	120	0.721	0.962	

UPR-18	**17-06-1195-18-A**	**06/15/17 11:55**	**Solid**	**ICP 7300**	**06/21/17**	**06/21/17 16:07**	**170621L01**

Parameter	Result	RL	DF	Qualifiers
Arsenic	33.4	0.743	0.990	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,		Date Received:	06/15/17
121 Innovation Drive, Suite 200		Work Order:	17-06-1195
Irvine, CA 92617-3094		Preparation:	EPA 3050B
		Method:	EPA 6010B
		Units:	mg/kg
Project: Former Pechiney / 0010627			Page 3 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
UPR-19	**17-06-1195-19-A**	**06/15/17 12:05**	**Solid**	**ICP 7300**	**06/21/17**	**06/21/17 16:10**	**170621L01**

Parameter	Result	RL	DF	Qualifiers
Arsenic	31.2	0.785	1.05	

UPR-20	**17-06-1195-20-A**	**06/15/17 12:15**	**Solid**	**ICP 7300**	**06/21/17**	**06/21/17 16:12**	**170621L01**

Parameter	Result	RL	DF	Qualifiers
Arsenic	60.8	0.718	0.957	

UPR-21	**17-06-1195-21-A**	**06/15/17 13:15**	**Solid**	**ICP 7300**	**06/21/17**	**06/21/17 16:13**	**170621L01**

Parameter	Result	RL	DF	Qualifiers
Arsenic	9.47	0.728	0.971	

UPR-22	**17-06-1195-22-A**	**06/15/17 13:25**	**Solid**	**ICP 7300**	**06/21/17**	**06/21/17 16:13**	**170621L01**

Parameter	Result	RL	DF	Qualifiers
Arsenic	3.38	0.725	0.966	

UPR-23	**17-06-1195-23-A**	**06/15/17 13:30**	**Solid**	**ICP 7300**	**06/21/17**	**06/21/17 16:14**	**170621L02**

Parameter	Result	RL	DF	Qualifiers
Arsenic	26.3	0.754	1.01	

UPR-24	**17-06-1195-24-A**	**06/15/17 13:35**	**Solid**	**ICP 7300**	**06/21/17**	**06/21/17 16:15**	**170621L02**

Parameter	Result	RL	DF	Qualifiers
Arsenic	21.0	0.732	0.976	

UPR-25	**17-06-1195-25-A**	**06/15/17 13:40**	**Solid**	**ICP 7300**	**06/21/17**	**06/21/17 16:15**	**170621L02**

Parameter	Result	RL	DF	Qualifiers
Arsenic	11.5	0.758	1.01	

UPR-26	**17-06-1195-26-A**	**06/15/17 14:00**	**Solid**	**ICP 7300**	**06/21/17**	**06/21/17 16:16**	**170621L02**

Parameter	Result	RL	DF	Qualifiers
Arsenic	4.36	0.781	1.04	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,		Date Received:	06/15/17
121 Innovation Drive, Suite 200		Work Order:	17-06-1195
Irvine, CA 92617-3094		Preparation:	EPA 3050B
		Method:	EPA 6010B
		Units:	mg/kg
Project: Former Pechiney / 0010627			Page 4 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
UPR-27	**17-06-1195-27-A**	**06/15/17 14:25**	**Solid**	**ICP 7300**	**06/21/17**	**06/21/17 16:17**	**170621L02**

Parameter	Result	RL	DF	Qualifiers
Arsenic	4.50	0.739	0.985	

UPR-28	**17-06-1195-28-A**	**06/15/17 14:40**	**Solid**	**ICP 7300**	**06/21/17**	**06/21/17 16:18**	**170621L02**

Parameter	Result	RL	DF	Qualifiers
Arsenic	33.7	0.781	1.04	

UPR-29	**17-06-1195-29-A**	**06/15/17 14:50**	**Solid**	**ICP 7300**	**06/21/17**	**06/21/17 16:20**	**170621L02**

Parameter	Result	RL	DF	Qualifiers
Arsenic	39.3	0.750	1.00	

UPR-30	**17-06-1195-30-A**	**06/15/17 15:00**	**Solid**	**ICP 7300**	**06/21/17**	**06/21/17 16:21**	**170621L02**

Parameter	Result	RL	DF	Qualifiers
Arsenic	20.7	0.773	1.03	

Method Blank	**097-01-002-24996**	**N/A**	**Solid**	**ICP 7300**	**06/21/17**	**06/21/17 14:46**	**170621L01**

Parameter	Result	RL	DF	Qualifiers
Arsenic	ND	0.725	0.966	

Method Blank	**097-01-002-24997**	**N/A**	**Solid**	**ICP 7300**	**06/21/17**	**06/21/17 14:48**	**170621L02**

Parameter	Result	RL	DF	Qualifiers
Arsenic	ND	0.735	0.980	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	06/15/17
121 Innovation Drive, Suite 200	Work Order:	17-06-1195
Irvine, CA 92617-3094	Preparation:	EPA 3050B
	Method:	EPA 6010B
	Units:	mg/kg
Project: Former Pechiney / 0010627		Page 1 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
IDW-051617	**17-06-1195-32-A**	**06/15/17 15:10**	**Solid**	**ICP 7300**	**06/21/17**	**06/21/17 16:22**	**170621L02**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.773	1.03	
Arsenic	20.6	0.773	1.03	
Barium	140	0.515	1.03	
Beryllium	0.421	0.258	1.03	
Cadmium	0.534	0.515	1.03	
Chromium	16.9	0.258	1.03	
Cobalt	12.2	0.258	1.03	
Copper	36.3	0.515	1.03	
Lead	11.9	0.515	1.03	
Molybdenum	ND	0.258	1.03	
Nickel	13.9	0.258	1.03	
Selenium	ND	0.773	1.03	
Silver	ND	0.258	1.03	
Thallium	ND	0.773	1.03	
Vanadium	40.0	0.258	1.03	
Zinc	110	1.03	1.03	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	06/15/17
121 Innovation Drive, Suite 200	Work Order:	17-06-1195
Irvine, CA 92617-3094	Preparation:	EPA 3050B
	Method:	EPA 6010B
	Units:	mg/kg
Project: Former Pechiney / 0010627		Page 2 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**097-01-002-24997**	**N/A**	**Solid**	**ICP 7300**	**06/21/17**	**06/21/17 14:48**	**170621L02**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.735	0.980	
Arsenic	ND	0.735	0.980	
Barium	ND	0.490	0.980	
Beryllium	ND	0.245	0.980	
Cadmium	ND	0.490	0.980	
Chromium	ND	0.245	0.980	
Cobalt	ND	0.245	0.980	
Copper	ND	0.490	0.980	
Lead	ND	0.490	0.980	
Molybdenum	ND	0.245	0.980	
Nickel	ND	0.245	0.980	
Selenium	ND	0.735	0.980	
Silver	ND	0.245	0.980	
Thallium	ND	0.735	0.980	
Vanadium	ND	0.245	0.980	
Zinc	ND	0.980	0.980	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Amec Foster Wheeler Environment & Infrastructure,		Date Received:	06/15/17
121 Innovation Drive, Suite 200		Work Order:	17-06-1195
Irvine, CA 92617-3094		Preparation:	EPA 3010A Total
		Method:	EPA 6010B
		Units:	mg/L
Project: Former Pechiney / 0010627			Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
QCEB-051617	**17-06-1195-31-B**	**06/15/17 15:30**	**Aqueous**	**ICP 7300**	**06/20/17**	**06/20/17 13:11**	**170619LA6**

Parameter	Result	RL	DF	Qualifiers
Arsenic	ND	0.0100	1.00	

Method Blank	**097-01-003-16503**	**N/A**	**Aqueous**	**ICP 7300**	**06/19/17**	**06/20/17 12:48**	**170619LA6**

Parameter	Result	RL	DF	Qualifiers
Arsenic	ND	0.0100	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Amec Foster Wheeler Environment & Infrastructure,		Date Received:	06/15/17
121 Innovation Drive, Suite 200		Work Order:	17-06-1195
Irvine, CA 92617-3094		Preparation:	EPA 7471A Total
		Method:	EPA 7471A
		Units:	mg/kg
Project: Former Pechiney / 0010627			Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
IDW-051617	**17-06-1195-32-A**	**06/15/17 15:10**	**Solid**	**Mercury 08**	**06/22/17**	**06/22/17 15:50**	**170622L01**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0833	1.00	

Method Blank	**099-16-272-3096**	**N/A**	**Solid**	**Mercury 08**	**06/22/17**	**06/22/17 15:02**	**170622L01**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0833	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Amec Foster Wheeler Environment & Infrastructure,		Date Received:	06/15/17
121 Innovation Drive, Suite 200		Work Order:	17-06-1195
Irvine, CA 92617-3094		Preparation:	EPA 3540C
		Method:	EPA 8082
		Units:	ug/kg
Project: Former Pechiney / 0010627			Page 1 of 17

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
UPR-1	**17-06-1195-1-A**	**06/15/17 07:55**	**Solid**	**GC 31**	**06/16/17**	**06/20/17 15:18**	**170616L04A**

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	49	1.00	
Aroclor-1221	ND	49	1.00	
Aroclor-1232	ND	49	1.00	
Aroclor-1242	ND	49	1.00	
Aroclor-1248	150	49	1.00	
Aroclor-1254	460	49	1.00	
Aroclor-1260	210	49	1.00	
Aroclor-1262	ND	49	1.00	
Aroclor-1268	98	49	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	97	24-168	
2,4,5,6-Tetrachloro-m-Xylene	76	25-145	

UPR-2	**17-06-1195-2-A**	**06/15/17 08:07**	**Solid**	**GC 31**	**06/16/17**	**06/20/17 18:09**	**170616L04A**

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	132	24-168	
2,4,5,6-Tetrachloro-m-Xylene	103	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,		Date Received:	06/15/17
121 Innovation Drive, Suite 200		Work Order:	17-06-1195
Irvine, CA 92617-3094		Preparation:	EPA 3540C
		Method:	EPA 8082
		Units:	ug/kg
Project: Former Pechiney / 0010627			Page 2 of 17

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
UPR-3	**17-06-1195-3-A**	**06/15/17 08:30**	**Solid**	**GC 31**	**06/16/17**	**06/20/17 18:28**	**170616L04A**

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	49	1.00	
Aroclor-1221	ND	49	1.00	
Aroclor-1232	ND	49	1.00	
Aroclor-1242	ND	49	1.00	
Aroclor-1248	ND	49	1.00	
Aroclor-1254	ND	49	1.00	
Aroclor-1260	ND	49	1.00	
Aroclor-1262	ND	49	1.00	
Aroclor-1268	ND	49	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	116	24-168	
2,4,5,6-Tetrachloro-m-Xylene	107	25-145	

UPR-4	**17-06-1195-4-A**	**06/15/17 08:50**	**Solid**	**GC 31**	**06/16/17**	**06/20/17 18:47**	**170616L04A**

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	49	1.00	
Aroclor-1221	ND	49	1.00	
Aroclor-1232	ND	49	1.00	
Aroclor-1242	ND	49	1.00	
Aroclor-1248	490	49	1.00	
Aroclor-1254	200	49	1.00	
Aroclor-1260	68	49	1.00	
Aroclor-1262	ND	49	1.00	
Aroclor-1268	49	49	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	120	24-168	
2,4,5,6-Tetrachloro-m-Xylene	106	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,		Date Received:	06/15/17
121 Innovation Drive, Suite 200		Work Order:	17-06-1195
Irvine, CA 92617-3094		Preparation:	EPA 3540C
		Method:	EPA 8082
		Units:	ug/kg
Project: Former Pechiney / 0010627			Page 3 of 17

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
UPR-5	**17-06-1195-5-A**	**06/15/17 08:57**	**Solid**	**GC 31**	**06/16/17**	**06/20/17 19:06**	**170616L04A**

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	49	1.00	
Aroclor-1221	ND	49	1.00	
Aroclor-1232	ND	49	1.00	
Aroclor-1242	ND	49	1.00	
Aroclor-1248	ND	49	1.00	
Aroclor-1254	ND	49	1.00	
Aroclor-1260	ND	49	1.00	
Aroclor-1262	ND	49	1.00	
Aroclor-1268	ND	49	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	128	24-168	
2,4,5,6-Tetrachloro-m-Xylene	109	25-145	

UPR-6	**17-06-1195-6-A**	**06/15/17 09:02**	**Solid**	**GC 31**	**06/16/17**	**06/20/17 19:25**	**170616L04A**

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	118	24-168	
2,4,5,6-Tetrachloro-m-Xylene	108	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,		Date Received:	06/15/17
121 Innovation Drive, Suite 200		Work Order:	17-06-1195
Irvine, CA 92617-3094		Preparation:	EPA 3540C
		Method:	EPA 8082
		Units:	ug/kg
Project: Former Pechiney / 0010627			Page 4 of 17

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
UPR-7	**17-06-1195-7-A**	**06/15/17 09:15**	**Solid**	**GC 31**	**06/16/17**	**06/20/17 15:37**	**170616L04A**

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	500	10.0	
Aroclor-1221	ND	500	10.0	
Aroclor-1232	ND	500	10.0	
Aroclor-1242	ND	500	10.0	
Aroclor-1248	4000	500	10.0	
Aroclor-1260	2400	500	10.0	
Aroclor-1262	ND	500	10.0	
Aroclor-1268	ND	500	10.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	122	24-168	
2,4,5,6-Tetrachloro-m-Xylene	99	25-145	

UPR-7	**17-06-1195-7-A**	**06/15/17 09:15**	**Solid**	**GC 31**	**06/16/17**	**06/23/17 16:49**	**170616L04A**

Parameter	Result	RL	DF	Qualifiers
Aroclor-1254	13000	2500	50.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	132	24-168	
2,4,5,6-Tetrachloro-m-Xylene	124	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	06/15/17
121 Innovation Drive, Suite 200	Work Order:	17-06-1195
Irvine, CA 92617-3094	Preparation:	EPA 3540C
	Method:	EPA 8082
	Units:	ug/kg
Project: Former Pechiney / 0010627		Page 5 of 17

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
UPR-8	**17-06-1195-8-A**	**06/15/17 09:30**	**Solid**	**GC 31**	**06/16/17**	**06/20/17 19:44**	**170616L04A**

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	124	24-168	
2,4,5,6-Tetrachloro-m-Xylene	102	25-145	

UPR-9	**17-06-1195-9-A**	**06/15/17 09:40**	**Solid**	**GC 31**	**06/16/17**	**06/20/17 20:03**	**170616L04A**

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	49	1.00	
Aroclor-1221	ND	49	1.00	
Aroclor-1232	ND	49	1.00	
Aroclor-1242	ND	49	1.00	
Aroclor-1248	ND	49	1.00	
Aroclor-1254	ND	49	1.00	
Aroclor-1260	ND	49	1.00	
Aroclor-1262	ND	49	1.00	
Aroclor-1268	ND	49	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	121	24-168	
2,4,5,6-Tetrachloro-m-Xylene	101	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,		Date Received:	06/15/17
121 Innovation Drive, Suite 200		Work Order:	17-06-1195
Irvine, CA 92617-3094		Preparation:	EPA 3540C
		Method:	EPA 8082
		Units:	ug/kg
Project: Former Pechiney / 0010627			Page 6 of 17

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
UPR-10	**17-06-1195-10-A**	**06/15/17 10:00**	**Solid**	**GC 31**	**06/16/17**	**06/20/17 20:22**	**170616L04A**

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	130	24-168	
2,4,5,6-Tetrachloro-m-Xylene	106	25-145	

UPR-12	**17-06-1195-12-A**	**06/15/17 10:40**	**Solid**	**GC 31**	**06/16/17**	**06/20/17 20:41**	**170616L04A**

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	123	24-168	
2,4,5,6-Tetrachloro-m-Xylene	100	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,		Date Received:	06/15/17
121 Innovation Drive, Suite 200		Work Order:	17-06-1195
Irvine, CA 92617-3094		Preparation:	EPA 3540C
		Method:	EPA 8082
		Units:	ug/kg
Project: Former Pechiney / 0010627			Page 7 of 17

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
UPR-14	**17-06-1195-14-A**	**06/15/17 11:05**	**Solid**	**GC 31**	**06/16/17**	**06/20/17 15:56**	**170616L04A**

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	490	10.0	
Aroclor-1221	ND	490	10.0	
Aroclor-1232	ND	490	10.0	
Aroclor-1242	ND	490	10.0	
Aroclor-1248	9500	490	10.0	
Aroclor-1260	5400	490	10.0	
Aroclor-1262	ND	490	10.0	
Aroclor-1268	ND	490	10.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	122	24-168	
2,4,5,6-Tetrachloro-m-Xylene	116	25-145	

UPR-14	**17-06-1195-14-A**	**06/15/17 11:05**	**Solid**	**GC 31**	**06/16/17**	**06/23/17 17:08**	**170616L04A**

Parameter	Result	RL	DF	Qualifiers
Aroclor-1254	30000	4900	100	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	164	24-168	
2,4,5,6-Tetrachloro-m-Xylene	226	25-145	1,2,7

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	06/15/17
121 Innovation Drive, Suite 200	Work Order:	17-06-1195
Irvine, CA 92617-3094	Preparation:	EPA 3540C
	Method:	EPA 8082
	Units:	ug/kg
Project: Former Pechiney / 0010627		Page 8 of 17

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
UPR-15	**17-06-1195-15-A**	**06/15/17 11:30**	**Solid**	**GC 31**	**06/16/17**	**06/20/17 21:00**	**170616L04A**

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	123	24-168	
2,4,5,6-Tetrachloro-m-Xylene	99	25-145	

UPR-16	**17-06-1195-16-A**	**06/15/17 11:40**	**Solid**	**GC 31**	**06/16/17**	**06/20/17 10:32**	**170616L04A**

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	105	24-168	
2,4,5,6-Tetrachloro-m-Xylene	90	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,		Date Received:	06/15/17
121 Innovation Drive, Suite 200		Work Order:	17-06-1195
Irvine, CA 92617-3094		Preparation:	EPA 3540C
		Method:	EPA 8082
		Units:	ug/kg
Project: Former Pechiney / 0010627			Page 9 of 17

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
UPR-17	**17-06-1195-17-A**	**06/15/17 11:45**	**Solid**	**GC 31**	**06/16/17**	**06/20/17 17:50**	**170616L04A**

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	4900	100	
Aroclor-1221	ND	4900	100	
Aroclor-1232	ND	4900	100	
Aroclor-1242	ND	4900	100	
Aroclor-1248	67000	4900	100	
Aroclor-1260	17000	4900	100	
Aroclor-1262	ND	4900	100	
Aroclor-1268	ND	4900	100	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	142	24-168	
2,4,5,6-Tetrachloro-m-Xylene	104	25-145	

UPR-17	**17-06-1195-17-A**	**06/15/17 11:45**	**Solid**	**GC 31**	**06/16/17**	**06/23/17 17:27**	**170616L04A**

Parameter	Result	RL	DF	Qualifiers
Aroclor-1254	110000	49000	1000	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	196	24-168	1,2,7
2,4,5,6-Tetrachloro-m-Xylene	141	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

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Analytical Report

Amec Foster Wheeler Environment & Infrastructure,		Date Received:	06/15/17
121 Innovation Drive, Suite 200		Work Order:	17-06-1195
Irvine, CA 92617-3094		Preparation:	EPA 3540C
		Method:	EPA 8082
		Units:	ug/kg
Project: Former Pechiney / 0010627			Page 10 of 17

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
UPR-18	**17-06-1195-18-A**	**06/15/17 11:55**	**Solid**	**GC 31**	**06/16/17**	**06/20/17 21:19**	**170616L04A**

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	105	24-168	
2,4,5,6-Tetrachloro-m-Xylene	86	25-145	

UPR-19	**17-06-1195-19-A**	**06/15/17 12:05**	**Solid**	**GC 31**	**06/16/17**	**06/20/17 11:30**	**170616L04A**

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	106	24-168	
2,4,5,6-Tetrachloro-m-Xylene	106	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	06/15/17
121 Innovation Drive, Suite 200	Work Order:	17-06-1195
Irvine, CA 92617-3094	Preparation:	EPA 3540C
	Method:	EPA 8082
	Units:	ug/kg
Project: Former Pechiney / 0010627		Page 11 of 17

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
UPR-20	**17-06-1195-20-A**	**06/15/17 12:15**	**Solid**	**GC 31**	**06/16/17**	**06/20/17 17:31**	**170616L04A**

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	980	20.0	
Aroclor-1221	ND	980	20.0	
Aroclor-1232	ND	980	20.0	
Aroclor-1242	ND	980	20.0	
Aroclor-1248	11000	980	20.0	
Aroclor-1254	18000	980	20.0	
Aroclor-1260	3500	980	20.0	
Aroclor-1262	ND	980	20.0	
Aroclor-1268	ND	980	20.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	129	24-168	
2,4,5,6-Tetrachloro-m-Xylene	99	25-145	

UPR-21	**17-06-1195-21-A**	**06/15/17 13:15**	**Solid**	**GC 31**	**06/16/17**	**06/20/17 21:38**	**170616L05**

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	121	24-168	
2,4,5,6-Tetrachloro-m-Xylene	96	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,		Date Received:	06/15/17
121 Innovation Drive, Suite 200		Work Order:	17-06-1195
Irvine, CA 92617-3094		Preparation:	EPA 3540C
		Method:	EPA 8082
		Units:	ug/kg
Project: Former Pechiney / 0010627			Page 12 of 17

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
UPR-22	**17-06-1195-22-A**	**06/15/17 13:25**	**Solid**	**GC 31**	**06/16/17**	**06/20/17 12:27**	**170616L05**

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	105	24-168	
2,4,5,6-Tetrachloro-m-Xylene	92	25-145	

UPR-23	**17-06-1195-23-A**	**06/15/17 13:30**	**Solid**	**GC 31**	**06/16/17**	**06/20/17 12:46**	**170616L05**

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	49	1.00	
Aroclor-1221	ND	49	1.00	
Aroclor-1232	ND	49	1.00	
Aroclor-1242	ND	49	1.00	
Aroclor-1248	80	49	1.00	
Aroclor-1254	ND	49	1.00	
Aroclor-1260	ND	49	1.00	
Aroclor-1262	ND	49	1.00	
Aroclor-1268	ND	49	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	108	24-168	
2,4,5,6-Tetrachloro-m-Xylene	93	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,		Date Received:	06/15/17
121 Innovation Drive, Suite 200		Work Order:	17-06-1195
Irvine, CA 92617-3094		Preparation:	EPA 3540C
		Method:	EPA 8082
		Units:	ug/kg
Project: Former Pechiney / 0010627			Page 13 of 17

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
UPR-24	**17-06-1195-24-A**	**06/15/17 13:35**	**Solid**	**GC 31**	**06/16/17**	**06/20/17 13:05**	**170616L05**

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	49	1.00	
Aroclor-1221	ND	49	1.00	
Aroclor-1232	ND	49	1.00	
Aroclor-1242	ND	49	1.00	
Aroclor-1248	ND	49	1.00	
Aroclor-1254	ND	49	1.00	
Aroclor-1260	ND	49	1.00	
Aroclor-1262	ND	49	1.00	
Aroclor-1268	ND	49	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	107	24-168	
2,4,5,6-Tetrachloro-m-Xylene	95	25-145	

UPR-25	**17-06-1195-25-A**	**06/15/17 13:40**	**Solid**	**GC 31**	**06/16/17**	**06/20/17 13:24**	**170616L05**

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	105	24-168	
2,4,5,6-Tetrachloro-m-Xylene	88	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,		Date Received:	06/15/17
121 Innovation Drive, Suite 200		Work Order:	17-06-1195
Irvine, CA 92617-3094		Preparation:	EPA 3540C
		Method:	EPA 8082
		Units:	ug/kg
Project: Former Pechiney / 0010627			Page 14 of 17

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
UPR-26	**17-06-1195-26-A**	**06/15/17 14:00**	**Solid**	**GC 31**	**06/16/17**	**06/20/17 13:43**	**170616L05**

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	49	1.00	
Aroclor-1221	ND	49	1.00	
Aroclor-1232	ND	49	1.00	
Aroclor-1242	ND	49	1.00	
Aroclor-1248	ND	49	1.00	
Aroclor-1254	ND	49	1.00	
Aroclor-1260	ND	49	1.00	
Aroclor-1262	ND	49	1.00	
Aroclor-1268	ND	49	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	113	24-168	
2,4,5,6-Tetrachloro-m-Xylene	98	25-145	

UPR-27	**17-06-1195-27-A**	**06/15/17 14:25**	**Solid**	**GC 31**	**06/16/17**	**06/20/17 14:02**	**170616L05**

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	108	24-168	
2,4,5,6-Tetrachloro-m-Xylene	95	25-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,		Date Received:	06/15/17
121 Innovation Drive, Suite 200		Work Order:	17-06-1195
Irvine, CA 92617-3094		Preparation:	EPA 3540C
		Method:	EPA 8082
		Units:	ug/kg
Project: Former Pechiney / 0010627			Page 15 of 17

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
UPR-28	**17-06-1195-28-A**	**06/15/17 14:40**	**Solid**	**GC 31**	**06/16/17**	**06/20/17 17:12**	**170616L05**

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	2400	50.0	
Aroclor-1221	ND	2400	50.0	
Aroclor-1232	ND	2400	50.0	
Aroclor-1242	ND	2400	50.0	
Aroclor-1248	26000	2400	50.0	
Aroclor-1254	38000	2400	50.0	
Aroclor-1260	8200	2400	50.0	
Aroclor-1262	ND	2400	50.0	
Aroclor-1268	ND	2400	50.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	212	24-168	1,2,7
2,4,5,6-Tetrachloro-m-Xylene	116	25-145	

UPR-29	**17-06-1195-29-A**	**06/15/17 14:50**	**Solid**	**GC 31**	**06/16/17**	**06/20/17 21:57**	**170616L05**

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	49	1.00	
Aroclor-1221	ND	49	1.00	
Aroclor-1232	ND	49	1.00	
Aroclor-1242	ND	49	1.00	
Aroclor-1248	ND	49	1.00	
Aroclor-1254	ND	49	1.00	
Aroclor-1260	ND	49	1.00	
Aroclor-1262	ND	49	1.00	
Aroclor-1268	ND	49	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	118	24-168	
2,4,5,6-Tetrachloro-m-Xylene	90	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,		Date Received:	06/15/17
121 Innovation Drive, Suite 200		Work Order:	17-06-1195
Irvine, CA 92617-3094		Preparation:	EPA 3540C
		Method:	EPA 8082
		Units:	ug/kg
Project: Former Pechiney / 0010627			Page 16 of 17

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
UPR-30	**17-06-1195-30-A**	**06/15/17 15:00**	**Solid**	**GC 31**	**06/16/17**	**06/20/17 14:59**	**170616L05**

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	49	1.00	
Aroclor-1221	ND	49	1.00	
Aroclor-1232	ND	49	1.00	
Aroclor-1242	ND	49	1.00	
Aroclor-1248	ND	49	1.00	
Aroclor-1254	ND	49	1.00	
Aroclor-1260	ND	49	1.00	
Aroclor-1262	ND	49	1.00	
Aroclor-1268	ND	49	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	109	24-168	
2,4,5,6-Tetrachloro-m-Xylene	91	25-145	

Method Blank	**099-12-535-4232**	**N/A**	**Solid**	**GC 31**	**06/16/17**	**06/19/17 15:17**	**170616L04A**

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	86	24-168	
2,4,5,6-Tetrachloro-m-Xylene	88	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,		Date Received:	06/15/17
121 Innovation Drive, Suite 200		Work Order:	17-06-1195
Irvine, CA 92617-3094		Preparation:	EPA 3540C
		Method:	EPA 8082
		Units:	ug/kg
Project: Former Pechiney / 0010627			Page 17 of 17

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-535-4229**	**N/A**	**Solid**	**GC 31**	**06/16/17**	**06/19/17 13:26**	**170616L05**

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	104	24-168	
2,4,5,6-Tetrachloro-m-Xylene	103	25-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	06/15/17
121 Innovation Drive, Suite 200	Work Order:	17-06-1195
Irvine, CA 92617-3094	Preparation:	EPA 3510C
	Method:	EPA 8082
	Units:	ug/L
Project: Former Pechiney / 0010627		Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
QCEB-051617	**17-06-1195-31-A**	**06/15/17 15:30**	**Aqueous**	**GC 66**	**06/20/17**	**06/21/17 14:22**	**170620L08A**

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	0.96	1.00	
Aroclor-1221	ND	0.96	1.00	
Aroclor-1232	ND	0.96	1.00	
Aroclor-1242	ND	0.96	1.00	
Aroclor-1248	ND	0.96	1.00	
Aroclor-1254	ND	0.96	1.00	
Aroclor-1260	ND	0.96	1.00	
Aroclor-1262	ND	0.96	1.00	
Aroclor-1268	ND	0.96	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	88	50-135	
2,4,5,6-Tetrachloro-m-Xylene	74	50-135	

Method Blank	**099-12-640-28**	**N/A**	**Aqueous**	**GC 66**	**06/20/17**	**06/21/17 13:46**	**170620L08A**

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	1.0	1.00	
Aroclor-1221	ND	1.0	1.00	
Aroclor-1232	ND	1.0	1.00	
Aroclor-1242	ND	1.0	1.00	
Aroclor-1248	ND	1.0	1.00	
Aroclor-1254	ND	1.0	1.00	
Aroclor-1260	ND	1.0	1.00	
Aroclor-1262	ND	1.0	1.00	
Aroclor-1268	ND	1.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	91	50-135	
2,4,5,6-Tetrachloro-m-Xylene	75	50-135	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	06/15/17
121 Innovation Drive, Suite 200	Work Order:	17-06-1195
Irvine, CA 92617-3094	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/kg
Project: Former Pechiney / 0010627		Page 1 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
IDW-051617	**17-06-1195-32-A**	**06/15/17 15:10**	**Solid**	**GC/MS LL**	**06/16/17**	**06/16/17 17:33**	**170616L001**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	120	1.00	
Benzene	ND	5.0	1.00	
Bromobenzene	ND	5.0	1.00	
Bromochloromethane	ND	5.0	1.00	
Bromodichloromethane	ND	5.0	1.00	
Bromoform	ND	5.0	1.00	
Bromomethane	ND	25	1.00	
2-Butanone	ND	50	1.00	
n-Butylbenzene	ND	5.0	1.00	
sec-Butylbenzene	ND	5.0	1.00	
tert-Butylbenzene	ND	5.0	1.00	
Carbon Disulfide	ND	50	1.00	
Carbon Tetrachloride	ND	5.0	1.00	
Chlorobenzene	ND	5.0	1.00	
Chloroethane	ND	5.0	1.00	
Chloroform	ND	5.0	1.00	
Chloromethane	ND	25	1.00	
2-Chlorotoluene	ND	5.0	1.00	
4-Chlorotoluene	ND	5.0	1.00	
Dibromochloromethane	ND	5.0	1.00	
1,2-Dibromo-3-Chloropropane	ND	10	1.00	
1,2-Dibromoethane	ND	5.0	1.00	
Dibromomethane	ND	5.0	1.00	
1,2-Dichlorobenzene	ND	5.0	1.00	
1,3-Dichlorobenzene	ND	5.0	1.00	
1,4-Dichlorobenzene	ND	5.0	1.00	
Dichlorodifluoromethane	ND	5.0	1.00	
1,1-Dichloroethane	ND	5.0	1.00	
1,2-Dichloroethane	ND	5.0	1.00	
1,1-Dichloroethene	ND	5.0	1.00	
c-1,2-Dichloroethene	ND	5.0	1.00	
t-1,2-Dichloroethene	ND	5.0	1.00	
1,2-Dichloropropane	ND	5.0	1.00	
1,3-Dichloropropane	ND	5.0	1.00	
2,2-Dichloropropane	ND	5.0	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	06/15/17
121 Innovation Drive, Suite 200	Work Order:	17-06-1195
Irvine, CA 92617-3094	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/kg
Project: Former Pechiney / 0010627		Page 2 of 4

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	5.0	1.00	
c-1,3-Dichloropropene	ND	5.0	1.00	
t-1,3-Dichloropropene	ND	5.0	1.00	
Ethylbenzene	ND	5.0	1.00	
2-Hexanone	ND	50	1.00	
Isopropylbenzene	ND	5.0	1.00	
p-Isopropyltoluene	ND	5.0	1.00	
Methylene Chloride	ND	50	1.00	
4-Methyl-2-Pentanone	ND	50	1.00	
Naphthalene	ND	50	1.00	
n-Propylbenzene	ND	5.0	1.00	
Styrene	ND	5.0	1.00	
1,1,1,2-Tetrachloroethane	ND	5.0	1.00	
1,1,2,2-Tetrachloroethane	ND	5.0	1.00	
Tetrachloroethene	ND	5.0	1.00	
Toluene	ND	5.0	1.00	
1,2,3-Trichlorobenzene	ND	10	1.00	
1,2,4-Trichlorobenzene	ND	5.0	1.00	
1,1,1-Trichloroethane	ND	5.0	1.00	
1,1,2-Trichloroethane	ND	5.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	50	1.00	
Trichloroethene	ND	5.0	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	5.0	1.00	
Trichlorofluoromethane	ND	50	1.00	
1,3,5-Trimethylbenzene	ND	5.0	1.00	
Vinyl Acetate	ND	50	1.00	
Vinyl Chloride	ND	5.0	1.00	
p/m-Xylene	ND	5.0	1.00	
o-Xylene	ND	5.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	94	80-120	
Dibromofluoromethane	102	79-133	
1,2-Dichloroethane-d4	99	71-155	
Toluene-d8	101	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,		Date Received:	06/15/17
121 Innovation Drive, Suite 200		Work Order:	17-06-1195
Irvine, CA 92617-3094		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/kg
Project: Former Pechiney / 0010627			Page 3 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-796-12850**	**N/A**	**Solid**	**GC/MS LL**	**06/16/17**	**06/16/17 11:51**	**170616L001**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	120	1.00	
Benzene	ND	5.0	1.00	
Bromobenzene	ND	5.0	1.00	
Bromochloromethane	ND	5.0	1.00	
Bromodichloromethane	ND	5.0	1.00	
Bromoform	ND	5.0	1.00	
Bromomethane	ND	25	1.00	
2-Butanone	ND	50	1.00	
n-Butylbenzene	ND	5.0	1.00	
sec-Butylbenzene	ND	5.0	1.00	
tert-Butylbenzene	ND	5.0	1.00	
Carbon Disulfide	ND	50	1.00	
Carbon Tetrachloride	ND	5.0	1.00	
Chlorobenzene	ND	5.0	1.00	
Chloroethane	ND	5.0	1.00	
Chloroform	ND	5.0	1.00	
Chloromethane	ND	25	1.00	
2-Chlorotoluene	ND	5.0	1.00	
4-Chlorotoluene	ND	5.0	1.00	
Dibromochloromethane	ND	5.0	1.00	
1,2-Dibromo-3-Chloropropane	ND	10	1.00	
1,2-Dibromoethane	ND	5.0	1.00	
Dibromomethane	ND	5.0	1.00	
1,2-Dichlorobenzene	ND	5.0	1.00	
1,3-Dichlorobenzene	ND	5.0	1.00	
1,4-Dichlorobenzene	ND	5.0	1.00	
Dichlorodifluoromethane	ND	5.0	1.00	
1,1-Dichloroethane	ND	5.0	1.00	
1,2-Dichloroethane	ND	5.0	1.00	
1,1-Dichloroethene	ND	5.0	1.00	
c-1,2-Dichloroethene	ND	5.0	1.00	
t-1,2-Dichloroethene	ND	5.0	1.00	
1,2-Dichloropropane	ND	5.0	1.00	
1,3-Dichloropropane	ND	5.0	1.00	
2,2-Dichloropropane	ND	5.0	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	06/15/17
121 Innovation Drive, Suite 200	Work Order:	17-06-1195
Irvine, CA 92617-3094	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/kg
Project: Former Pechiney / 0010627		Page 4 of 4

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	5.0	1.00	
c-1,3-Dichloropropene	ND	5.0	1.00	
t-1,3-Dichloropropene	ND	5.0	1.00	
Ethylbenzene	ND	5.0	1.00	
2-Hexanone	ND	50	1.00	
Isopropylbenzene	ND	5.0	1.00	
p-Isopropyltoluene	ND	5.0	1.00	
Methylene Chloride	ND	50	1.00	
4-Methyl-2-Pentanone	ND	50	1.00	
Naphthalene	ND	50	1.00	
n-Propylbenzene	ND	5.0	1.00	
Styrene	ND	5.0	1.00	
1,1,1,2-Tetrachloroethane	ND	5.0	1.00	
1,1,2,2-Tetrachloroethane	ND	5.0	1.00	
Tetrachloroethene	ND	5.0	1.00	
Toluene	ND	5.0	1.00	
1,2,3-Trichlorobenzene	ND	10	1.00	
1,2,4-Trichlorobenzene	ND	5.0	1.00	
1,1,1-Trichloroethane	ND	5.0	1.00	
1,1,2-Trichloroethane	ND	5.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	50	1.00	
Trichloroethene	ND	5.0	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	5.0	1.00	
Trichlorofluoromethane	ND	50	1.00	
1,3,5-Trimethylbenzene	ND	5.0	1.00	
Vinyl Acetate	ND	50	1.00	
Vinyl Chloride	ND	5.0	1.00	
p/m-Xylene	ND	5.0	1.00	
o-Xylene	ND	5.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	93	80-120	
Dibromofluoromethane	102	79-133	
1,2-Dichloroethane-d4	100	71-155	
Toluene-d8	100	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Quality Control - Spike/Spike Duplicate

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	06/15/17
121 Innovation Drive, Suite 200	Work Order:	17-06-1195
Irvine, CA 92617-3094	Preparation:	EPA 3550B
	Method:	EPA 8015B (M)
Project: Former Pechiney / 0010627		Page 1 of 8

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
17-06-1117-5	**Sample**	**Solid**	**GC 47**	**06/15/17**	**06/15/17 18:59**	**170615S01**
17-06-1117-5	**Matrix Spike**	**Solid**	**GC 47**	**06/15/17**	**06/15/17 17:35**	**170615S01**
17-06-1117-5	**Matrix Spike Duplicate**	**Solid**	**GC 47**	**06/15/17**	**06/15/17 17:57**	**170615S01**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Diesel	ND	400.0	429.6	107	374.5	94	64-130	14	0-15	

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

eurofins | Calscience

Quality Control - Spike/Spike Duplicate

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	06/15/17
121 Innovation Drive, Suite 200	Work Order:	17-06-1195
Irvine, CA 92617-3094	Preparation:	EPA 3050B
	Method:	EPA 6010B
Project: Former Pechiney / 0010627		Page 2 of 8

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
UPR-1	**Sample**	**Solid**	**ICP 7300**	**06/21/17**	**06/21/17 15:55**	**170621S01**
UPR-1	**Matrix Spike**	**Solid**	**ICP 7300**	**06/21/17**	**06/21/17 15:52**	**170621S01**
UPR-1	**Matrix Spike Duplicate**	**Solid**	**ICP 7300**	**06/21/17**	**06/21/17 15:53**	**170621S01**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Arsenic	40.83	25.00	63.14	89	65.18	97	75-125	3	0-20	

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

eurofins | Calscience

Quality Control - Spike/Spike Duplicate

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	06/15/17
121 Innovation Drive, Suite 200	Work Order:	17-06-1195
Irvine, CA 92617-3094	Preparation:	EPA 3050B
	Method:	EPA 6010B
Project: Former Pechiney / 0010627		Page 3 of 8

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
UPR-23	**Sample**	**Solid**	**ICP 7300**	**06/21/17**	**06/21/17 16:14**	**170621S02**
UPR-23	**Matrix Spike**	**Solid**	**ICP 7300**	**06/21/17**	**06/21/17 15:53**	**170621S02**
UPR-23	**Matrix Spike Duplicate**	**Solid**	**ICP 7300**	**06/21/17**	**06/21/17 15:54**	**170621S02**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Antimony	0.7568	25.00	8.967	33	8.023	29	50-115	11	0-20	3
Arsenic	26.30	25.00	58.67	129	56.85	122	75-125	3	0-20	3
Barium	116.9	25.00	157.1	4X	154.9	4X	75-125	4X	0-20	Q
Beryllium	0.2816	25.00	29.23	116	28.60	113	75-125	2	0-20	
Cadmium	ND	25.00	28.78	115	28.05	112	75-125	3	0-20	
Chromium	13.49	25.00	41.82	113	41.09	110	75-125	2	0-20	
Cobalt	9.948	25.00	38.50	114	37.56	110	75-125	2	0-20	
Copper	24.63	25.00	54.91	121	54.33	119	75-125	1	0-20	
Lead	5.303	25.00	35.60	121	34.42	116	75-125	3	0-20	
Molybdenum	ND	25.00	27.01	108	26.50	106	75-125	2	0-20	
Nickel	11.33	25.00	39.80	114	38.57	109	75-125	3	0-20	
Selenium	ND	25.00	28.58	114	25.50	102	75-125	11	0-20	
Silver	ND	12.50	13.87	111	13.60	109	75-125	2	0-20	
Thallium	ND	25.00	19.08	76	22.55	90	75-125	17	0-20	
Vanadium	31.18	25.00	60.47	117	59.30	112	75-125	2	0-20	
Zinc	76.90	25.00	107.2	121	106.4	118	75-125	1	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Amec Foster Wheeler Environment & Infrastructure,		Date Received:	06/15/17
121 Innovation Drive, Suite 200		Work Order:	17-06-1195
Irvine, CA 92617-3094		Preparation:	EPA 3010A Total
		Method:	EPA 6010B
Project: Former Pechiney / 0010627			Page 4 of 8

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
17-06-1241-3	**Sample**	**Aqueous**	**ICP 7300**	**06/19/17**	**06/20/17 12:59**	**170619SA6**
17-06-1241-3	**Matrix Spike**	**Aqueous**	**ICP 7300**	**06/19/17**	**06/20/17 13:00**	**170619SA6**
17-06-1241-3	**Matrix Spike Duplicate**	**Aqueous**	**ICP 7300**	**06/19/17**	**06/20/17 13:01**	**170619SA6**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Arsenic	0.02152	0.5000	0.5650	109	0.5644	109	80-140	0	0-11	

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

eurofins | Calscience

Quality Control - Spike/Spike Duplicate

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	06/15/17
121 Innovation Drive, Suite 200	Work Order:	17-06-1195
Irvine, CA 92617-3094	Preparation:	EPA 7471A Total
	Method:	EPA 7471A
Project: Former Pechiney / 0010627		Page 5 of 8

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
17-06-1466-1	**Sample**	**Solid**	**Mercury 08**	**06/22/17**	**06/22/17 15:07**	**170622S01**
17-06-1466-1	**Matrix Spike**	**Solid**	**Mercury 08**	**06/22/17**	**06/22/17 15:09**	**170622S01**
17-06-1466-1	**Matrix Spike Duplicate**	**Solid**	**Mercury 08**	**06/22/17**	**06/22/17 18:10**	**170622S01**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	ND	0.8350	0.8470	101	0.8173	98	71-137	4	0-14	

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

eurofins | Calscience

Quality Control - Spike/Spike Duplicate

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	06/15/17
121 Innovation Drive, Suite 200	Work Order:	17-06-1195
Irvine, CA 92617-3094	Preparation:	EPA 3540C
	Method:	EPA 8082
Project: Former Pechiney / 0010627		Page 6 of 8

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
UPR-2	**Sample**	**Solid**	**GC 31**	**06/16/17**	**06/20/17 18:09**	**170616S04A**
UPR-2	**Matrix Spike**	**Solid**	**GC 31**	**06/16/17**	**06/19/17 15:55**	**170616S04A**
UPR-2	**Matrix Spike Duplicate**	**Solid**	**GC 31**	**06/16/17**	**06/19/17 16:14**	**170616S04A**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Aroclor-1016	ND	100.0	101.0	101	96.00	96	50-135	5	0-20	
Aroclor-1260	ND	100.0	101.0	101	91.00	91	50-135	10	0-20	

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

eurofins | Calscience

Quality Control - Spike/Spike Duplicate

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	06/15/17
121 Innovation Drive, Suite 200	Work Order:	17-06-1195
Irvine, CA 92617-3094	Preparation:	EPA 3540C
	Method:	EPA 8082
Project: Former Pechiney / 0010627		Page 7 of 8

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
17-06-1212-1	**Sample**	**Solid**	**GC 31**	**06/16/17**	**06/19/17 14:04**	**170616S05**
17-06-1212-1	**Matrix Spike**	**Solid**	**GC 31**	**06/16/17**	**06/19/17 14:23**	**170616S05**
17-06-1212-1	**Matrix Spike Duplicate**	**Solid**	**GC 31**	**06/16/17**	**06/19/17 14:42**	**170616S05**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Aroclor-1016	ND	100.0	98.00	98	91.00	91	50-135	7	0-20	
Aroclor-1260	ND	100.0	91.00	91	96.00	96	50-135	5	0-20	

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

eurofins | Calscience

Quality Control - Spike/Spike Duplicate

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	06/15/17
121 Innovation Drive, Suite 200	Work Order:	17-06-1195
Irvine, CA 92617-3094	Preparation:	EPA 5030C
	Method:	EPA 8260B
Project: Former Pechiney / 0010627		Page 8 of 8

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
17-06-1141-1	**Sample**	**Solid**	**GC/MS LL**	**06/15/17**	**06/16/17 12:48**	**170616S001**
17-06-1141-1	**Matrix Spike**	**Solid**	**GC/MS LL**	**06/15/17**	**06/16/17 13:17**	**170616S001**
17-06-1141-1	**Matrix Spike Duplicate**	**Solid**	**GC/MS LL**	**06/15/17**	**06/16/17 13:45**	**170616S001**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Benzene	ND	50.00	45.01	90	45.04	90	61-127	0	0-20	
Carbon Tetrachloride	ND	50.00	52.35	105	53.67	107	51-135	2	0-29	
Chlorobenzene	ND	50.00	43.06	86	42.37	85	57-123	2	0-20	
1,2-Dibromoethane	ND	50.00	45.64	91	45.53	91	64-124	0	0-20	
1,2-Dichlorobenzene	ND	50.00	37.58	75	37.03	74	35-131	1	0-25	
1,2-Dichloroethane	ND	50.00	43.48	87	42.30	85	80-120	3	0-20	
1,1-Dichloroethene	ND	50.00	46.01	92	43.92	88	47-143	5	0-25	
Ethylbenzene	ND	50.00	44.23	88	43.24	86	57-129	2	0-22	
Toluene	ND	50.00	44.69	89	44.27	89	63-123	1	0-20	
Trichloroethene	ND	50.00	44.02	88	42.49	85	44-158	4	0-20	
Vinyl Chloride	ND	50.00	45.99	92	44.74	89	49-139	3	0-47	
p/m-Xylene	ND	100.0	86.11	86	83.26	83	70-130	3	0-30	
o-Xylene	ND	50.00	43.90	88	42.50	85	70-130	3	0-30	
Methyl-t-Butyl Ether (MTBE)	ND	50.00	44.72	89	45.77	92	57-123	2	0-21	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	06/15/17
121 Innovation Drive, Suite 200	Work Order:	17-06-1195
Irvine, CA 92617-3094	Preparation:	EPA 3550B
	Method:	EPA 8015B (M)
Project: Former Pechiney / 0010627		Page 1 of 9

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-15-490-2670	**LCS**	**Solid**	**GC 47**	**06/15/17**	**06/15/17 11:17**	**170615B01B**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
TPH as Diesel	400.0	422.5	106	75-123	

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	06/15/17
121 Innovation Drive, Suite 200	Work Order:	17-06-1195
Irvine, CA 92617-3094	Preparation:	EPA 3050B
	Method:	EPA 6010B
Project: Former Pechiney / 0010627		Page 2 of 9

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
097-01-002-24996	**LCS**	**Solid**	**ICP 7300**	**06/21/17**	**06/21/17 14:47**	**170621L01**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Arsenic	25.00	24.32	97	80-120	

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

eurofins | Calscience

Quality Control - LCS

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	06/15/17
121 Innovation Drive, Suite 200	Work Order:	17-06-1195
Irvine, CA 92617-3094	Preparation:	EPA 3050B
	Method:	EPA 6010B
Project: Former Pechiney / 0010627		Page 3 of 9

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
097-01-002-24997	**LCS**	**Solid**	**ICP 7300**	**06/21/17**	**06/21/17 14:49**	**170621L02**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Antimony	25.00	24.86	99	80-120	73-127	
Arsenic	25.00	25.67	103	80-120	73-127	
Barium	25.00	27.03	108	80-120	73-127	
Beryllium	25.00	26.15	105	80-120	73-127	
Cadmium	25.00	26.44	106	80-120	73-127	
Chromium	25.00	26.28	105	80-120	73-127	
Cobalt	25.00	27.31	109	80-120	73-127	
Copper	25.00	26.04	104	80-120	73-127	
Lead	25.00	27.78	111	80-120	73-127	
Molybdenum	25.00	26.31	105	80-120	73-127	
Nickel	25.00	27.33	109	80-120	73-127	
Selenium	25.00	25.49	102	80-120	73-127	
Silver	12.50	11.41	91	80-120	73-127	
Thallium	25.00	26.97	108	80-120	73-127	
Vanadium	25.00	25.13	101	80-120	73-127	
Zinc	25.00	26.21	105	80-120	73-127	

Total number of LCS compounds: 16
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	06/15/17
121 Innovation Drive, Suite 200	Work Order:	17-06-1195
Irvine, CA 92617-3094	Preparation:	EPA 3010A Total
	Method:	EPA 6010B
Project: Former Pechiney / 0010627		Page 4 of 9

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
097-01-003-16503	**LCS**	**Aqueous**	**ICP 7300**	**06/19/17**	**06/20/17 12:49**	**170619LA6**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Arsenic	0.5000	0.5071	101	80-120	

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	06/15/17
121 Innovation Drive, Suite 200	Work Order:	17-06-1195
Irvine, CA 92617-3094	Preparation:	EPA 7471A Total
	Method:	EPA 7471A
Project: Former Pechiney / 0010627		Page 5 of 9

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-16-272-3096	**LCS**	**Solid**	**Mercury 08**	**06/22/17**	**06/22/17 15:05**	**170622L01**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Mercury	0.8350	0.7725	93	85-121	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	06/15/17
121 Innovation Drive, Suite 200	Work Order:	17-06-1195
Irvine, CA 92617-3094	Preparation:	EPA 3540C
	Method:	EPA 8082
Project: Former Pechiney / 0010627		Page 6 of 9

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-12-535-4232	**LCS**	**Solid**	**GC 31**	**06/16/17**	**06/19/17 15:36**	**170616L04A**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Aroclor-1016	100.0	99.50	100	50-135	
Aroclor-1260	100.0	95.50	96	50-135	

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

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Quality Control - LCS

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	06/15/17
121 Innovation Drive, Suite 200	Work Order:	17-06-1195
Irvine, CA 92617-3094	Preparation:	EPA 3540C
	Method:	EPA 8082
Project: Former Pechiney / 0010627		Page 7 of 9

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-12-535-4229	**LCS**	**Solid**	**GC 31**	**06/16/17**	**06/19/17 13:45**	**170616L05**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Aroclor-1016	100.0	99.00	99	50-135	
Aroclor-1260	100.0	95.00	95	50-135	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	06/15/17
121 Innovation Drive, Suite 200	Work Order:	17-06-1195
Irvine, CA 92617-3094	Preparation:	EPA 3510C
	Method:	EPA 8082
Project: Former Pechiney / 0010627		Page 8 of 9

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-640-28	**LCS**	**Aqueous**	**GC 66**	**06/20/17**	**06/21/17 13:10**	**170620L08A**
099-12-640-28	**LCSD**	**Aqueous**	**GC 66**	**06/20/17**	**06/21/17 13:28**	**170620L08A**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Aroclor-1016	2.000	1.670	84	1.710	86	50-135	2	0-25	
Aroclor-1260	2.000	1.940	97	1.810	90	50-135	7	0-25	

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

eurofins | Calscience

Quality Control - LCS

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	06/15/17
121 Innovation Drive, Suite 200	Work Order:	17-06-1195
Irvine, CA 92617-3094	Preparation:	EPA 5030C
	Method:	EPA 8260B
Project: Former Pechiney / 0010627		Page 9 of 9

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-12-796-12850	**LCS**	**Solid**	**GC/MS LL**	**06/16/17**	**06/16/17 09:28**	**170616L001**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Benzene	50.00	46.94	94	80-120	73-127	
Carbon Tetrachloride	50.00	62.63	125	65-137	53-149	
Chlorobenzene	50.00	47.47	95	80-120	73-127	
1,2-Dibromoethane	50.00	47.28	95	80-120	73-127	
1,2-Dichlorobenzene	50.00	48.08	96	80-120	73-127	
1,2-Dichloroethane	50.00	44.43	89	80-120	73-127	
1,1-Dichloroethene	50.00	49.38	99	68-128	58-138	
Ethylbenzene	50.00	48.93	98	80-120	73-127	
Toluene	50.00	48.00	96	80-120	73-127	
Trichloroethene	50.00	46.82	94	80-120	73-127	
Vinyl Chloride	50.00	50.85	102	67-127	57-137	
p/m-Xylene	100.0	96.98	97	75-125	67-133	
o-Xylene	50.00	49.25	99	75-125	67-133	
Methyl-t-Butyl Ether (MTBE)	50.00	44.87	90	70-124	61-133	

Total number of LCS compounds: 14
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Sample Analysis Summary Report

Work Order: 17-06-1195

Method	Extraction	Chemist ID	Instrument	Analytical Location
EPA 6010B	EPA 3010A Total	935	ICP 7300	1
EPA 6010B	EPA 3050B	935	ICP 7300	1
EPA 7471A	EPA 7471A Total	868	Mercury 08	1
EPA 8015B (M)	EPA 3550B	682	GC 47	1
EPA 8082	EPA 3510C	944	GC 66	1
EPA 8082	EPA 3540C	1028	GC 31	1
EPA 8260B	EPA 5030C	867	GC/MS LL	2

Return to Contents

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Glossary of Terms and Qualifiers

Work Order: 17-06-1195 Page 1 of 1

Qualifiers	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
	Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.
	A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

Return to Contents

CHAIN-OF-CUSTODY RECORD

IRV 36349

PROJECT NAME: Former Pechiney

DATE 6/15/17 PAGE 1 OF 2

PROJECT NUMBER: 00 1X627

LABORATORY NAME: Eurofins Calscience

CLIENT INFORMATION:

REPORTING REQUIREMENTS: 17-06-1195

RESULTS TO: Kimberly Holland - Chomansky

LABORATORY ADDRESS:

TURNAROUND TIME: Standard

SAMPLE SHIPMENT METHOD: Drop Off

LABORATORY CONTACT: Stephen Nowak

LABORATORY PHONE NUMBER:

amec foster wheeler
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094
+1 (949) 642-0245 • Fax +1 (949) 642-4474

SAMPLERS (SIGNATURE):

GEOTRACKER REQUIRED YES NO

SITE SPECIFIC GLOBAL ID NO.

ANALYSES

	DATE	TIME	SAMPLE ID	PCBs (EPA 8082A)*	Arsenic (EPA 6010B)	CONTAINER TYPE AND SIZE	Soil (S), Water (W), Vapor (V), or Other (O)	Filtered	Preservative Type	Cooled	MS/MSD	No. of Containers	ADDITIONAL COMMENTS
1	6/15/17	0755	UPR-1	X	X	4 oz Jar	S			X		1	
2		0807	UPR-2	X	X								
3		0830	UPR-3	X	X								
4		0856	UPR-4	X	X								
5		0857	UPR-5	X	X								
6		0902	UPR-6	X	X								
7		0915	UPR-7	X	X								
8		0930	UPR-8	X	X								
9		0940	UPR-9	X	X								
10		1000	UPR-10	X	X								
11		1010	UPR-11	X	X								
12		1040	UPR-12	X	X								
13		1050	UPR-13	X	X								
14		1105	UPR-14	X	X								

RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	DATE	TIME
SIGNATURE:	6/15/17	1800	SIGNATURE:	6/15/17	1800
PRINTED NAME: Cameron Dobbs			PRINTED NAME: Tom Liao		
COMPANY: AmecFW			COMPANY: ECI		
SIGNATURE:			SIGNATURE:		
PRINTED NAME:			PRINTED NAME:		
COMPANY:			COMPANY:		
SIGNATURE:			SIGNATURE:		
PRINTED NAME:			PRINTED NAME:		
COMPANY:			COMPANY:		

TOTAL NUMBER OF CONTAINERS 14

SAMPLING COMMENTS:

* Using extraction method 3540C for PCBs

Return to Contents

CHAIN-OF-CUSTODY RECORD

IRV 36351

PROJECT NAME: Former Pechiney

DATE 6/15/17 PAGE 2 OF 3

PROJECT NUMBER: 0010627

LABORATORY NAME: Eurofins Calscience

CLIENT INFORMATION:

REPORTING REQUIREMENTS: 1195

RESULTS TO: Kimberly Holland - Cramirsky

LABORATORY ADDRESS:

TURNAROUND TIME: Standard

SAMPLE SHIPMENT METHOD: Drop Off

LABORATORY CONTACT: Stephen Nowak

LABORATORY PHONE NUMBER:

amec foster wheeler
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094
+1 (949) 642-0245 • Fax +1 (949) 642-4474

SAMPLERS (SIGNATURE):

GEOTRACKER REQUIRED YES NO

SITE SPECIFIC GLOBAL ID NO.

ANALYSES

	DATE	TIME	SAMPLE ID	PCBs (EPA 8082)*	Arsenic (EPA 6010B)	CONTAINER TYPE AND SIZE	Soil (S), Water (W), Vapor (V), or Other (O)	Filtered	Preservative Type	Cooled	MS/MSD	No. of Containers	ADDITIONAL COMMENTS
15	6/15/17	1130	UPR-15	X	X	4oz Jar	S			X		1	
16		1140	UPR-16	X	X								
17		1145	UPR-17	X	X								
18		1155	UPR-18	X	X								
19		1205	UPR-19	X	X								
20		1215	UPR-20	X	X								
21		1315	UPR-21	X	X								
22		1325	UPR-22	X	X								
23		1330	UPR-23	X	X								
24	1335	~~1340~~	UPR-24	X	X								
25	1340	~~1400~~	UPR-25	X	X								
26	1400	~~1425~~	UPR-26	X	X								
27	1425	~~1450~~	UPR-27	X	X								
28	~~1440~~	1440	UPR-28	X	X								

RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	DATE	TIME
SIGNATURE:	6/15/17	1800	SIGNATURE:	6/15/17	1800
PRINTED NAME: Cameron Debs			PRINTED NAME: Yau Liao		
COMPANY: Amec FW			COMPANY: ECS		
SIGNATURE:			SIGNATURE:		
PRINTED NAME:			PRINTED NAME:		
COMPANY:			COMPANY:		
SIGNATURE:			SIGNATURE:		
PRINTED NAME:			PRINTED NAME:		
COMPANY:			COMPANY:		

TOTAL NUMBER OF CONTAINERS 14

SAMPLING COMMENTS:

* PCBs using Extraction method 3540C

Return to Contents

CHAIN-OF-CUSTODY RECORD

IRV 36352

PROJECT NAME: Former Pechiney			DATE 6/15/17 PAGE 3 OF 3
PROJECT NUMBER: 00100627	LABORATORY NAME: Eurofins Calscience	CLIENT INFORMATION:	REPORTING REQUIREMENTS: 1195
RESULTS TO: Kimberly Holland - Chominsky	LABORATORY ADDRESS:		
TURNAROUND TIME: Standard			
SAMPLE SHIPMENT METHOD: Drop Off	LABORATORY CONTACT: Stephen Nowak		
	LABORATORY PHONE NUMBER:		

amec foster wheeler

121 Innovation Drive, Suite 200
Irvine, CA 92617-3094
+1 (949) 642-0245 • Fax +1 (949) 642-4474

SAMPLERS (SIGNATURE):

GEOTRACKER REQUIRED YES NO

SITE SPECIFIC GLOBAL ID NO.

ANALYSES

	DATE	TIME	SAMPLE ID	PCBs (EPA 8082)*	Arsenic (EPA 6010B)		VOCs (8260B)	Title 22 metals (6010B)	Carbon chain (8015B)	CONTAINER TYPE AND SIZE	Soil (S), Water (W), Vapor (V), or Other (O)	Filtered	Preservative Type	Cooled	MS/MSD	No. of Containers	ADDITIONAL COMMENTS
29	6/15/17	1450	VPR-29	X	X					4oz classJar	S			X		1	
30	↓	1505	VPR-30	X	X					↓	S			X		1	
31	↓	1530	Q2CEB-051617	X	X					Varies	W		Varies	X		2	
32	↓	1510	IDW-051617				X	X	X	4 oz Jar	S			X		1	

RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	DATE	TIME
SIGNATURE:	6/15/17	1800	SIGNATURE:	6/15/17	1800
PRINTED NAME: Cameron Dobbs			PRINTED NAME: Yan		
COMPANY: AmecFW			COMPANY: ECE		
SIGNATURE:			SIGNATURE:		
PRINTED NAME:			PRINTED NAME:		
COMPANY:			COMPANY:		
SIGNATURE:			SIGNATURE:		
PRINTED NAME:			PRINTED NAME:		
COMPANY:			COMPANY:		

TOTAL NUMBER OF CONTAINERS ~~4~~ 5

SAMPLING COMMENTS:

* PCBs using extraction method 3540C

Return to Contents

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WORK ORDER NUMBER: 17-06- 1195

SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 1

CLIENT: AMEC

DATE: 06 / 15 / 2017

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC3B (CF: 0.0°C); Temperature (w/o CF): 3.2 °C (w/ CF): 3.2 °C; ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

☐ Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature: ☐ Air ☐ Filter Checked by: SR

CUSTODY SEAL:

Cooler	☐ Present and Intact	☐ Present but Not Intact	☑ Not Present	☐ N/A	Checked by: SR
Sample(s)	☐ Present and Intact	☐ Present but Not Intact	☑ Not Present	☐ N/A	Checked by: SR

SAMPLE CONDITION:

	Yes	No	N/A
Chain-of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Sampling date ☐ Sampling time ☐ Matrix ☐ Number of containers			
☐ No analysis requested ☐ Not relinquished ☐ No relinquished date ☐ No relinquished time			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and in good condition	☑	☐	☐
Proper containers for analyses requested	☑	☐	☐
Sufficient volume/mass for analyses requested	☑	☐	☐
Samples received within holding time	☑	☐	☐
Aqueous samples for certain analyses received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfide ☐ Dissolved Oxygen	☐	☐	☑
Proper preservation chemical(s) noted on COC and/or sample container	☑	☐	☐
Unpreserved aqueous sample(s) received for certain analyses			
☐ Volatile Organics ☐ Total Metals ☐ Dissolved Metals			
Container(s) for certain analysis free of headspace	☐	☐	☑
☐ Volatile Organics ☐ Dissolved Gases (RSK-175) ☐ Dissolved Oxygen (SM 4500)			
☐ Carbon Dioxide (SM 4500) ☐ Ferrous Iron (SM 3500) ☐ Hydrogen Sulfide (Hach)			
Tedlar™ bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE: **(Trip Blank Lot Number: _____)**

Aqueous: ☐ VOA ☐ VOA**h** ☐ VOA**na$_2$** ☐ 100PJ ☐ 100PJ**na$_2$** ☐ 125AGB ☐ 125AGB**h** ☐ 125AGB**p** ☐ 125PB

☐ 125PB**znna** ☐ 250AGB ☐ 250CGB ☐ 250CGB**s** ☐ 250PB ☑ 250PB**n** ☐ 500AGB ☐ 500AGJ ☐ 500AGJ**s**

☐ 500PB ☑ 1AGB ☐ 1AGB**na$_2$** ☐ 1AGB**s** ☐ 1PB ☐ 1PB**na** ☐ _____ ☐ _____ ☐ _____ ☐ _____

Solid: ☑ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve (_____) ☐ EnCores® (_____) ☐ TerraCores® (_____) ☐ _____

Air: ☐ Tedlar™ ☐ Canister ☐ Sorbent Tube ☐ PUF ☐ _____ **Other Matrix** (_____): ☐ _____ ☐ _____

Container: **A** = Amber, **B** = Bottle, **C** = Clear, **E** = Envelope, **G** = Glass, **J** = Jar, **P** = Plastic, and **Z** = Ziploc/Resealable Bag

Preservative: **b** = buffered, **f** = filtered, **h** = HCl, **n** = HNO_3, **na** = NaOH, **na$_2$** = $Na_2S_2O_3$, **p** = H_3PO_4, Labeled/Checked by: SR

s = H_2SO_4, **u** = ultra-pure, **x** = Na_2SO_3+$NaHSO_4$.H_2O, **znna** = Zn $(CH_3CO_2)_2$ + NaOH Reviewed by: TB

2016-09-23 Revision

Return to Contents

Stephen Nowak

From: Dobbs, Cameron <cameron.dobbs@amecfw.com>
Sent: Friday, June 16, 2017 1:21 PM
To: Stephen Nowak
Subject: Hold samples for pechiney

Hi Steve,

Per our conversation, please hold samples UPR-11 and UPR-13.

Thank you,

Cameron Dobbs
Technical Professional I - Geology, Environment & Infrastructure, Amec Foster Wheeler
[121 Innovation Drive, Suite 200, Irvine, CA 92617, USA]
T +1 949 642 0245 D +1 949 574 7636 M +1 949 813 8625
Cameron.dobbs@amecfw.com amecfw.com

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Return to Contents