

Covanta Durham York Renewable Energy Limited Partnership.

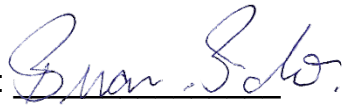
Commissioning Period Facility Ash

Report – Bottom Ash and Fly Ash

Characterizations

COVANTA REPORT NUMBER: 4060

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COVANTA

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November 2015

EXECUTIVE SUMMARY

This executive summary presents bottom ash and fly ash characterization data from the conduct of a Comprehensive Ash Sample and Test Program (CASTP) collected during the Durham York Energy Centre (DYEC) site commissioning period, in conformance with the approved DYEC Ash Sampling and Testing Protocol, dated June 2014. Ash characterization results are presented is divided into two sub-reports; one for bottom ash and the second for conditioned fly ash. Each sub-report details the respective sampling procedure, laboratory analysis and statistical results for characterization conducted during the commissioning period.

Incinerator Ash, as defined under Ontario Reg. 347 is “ash residue, other than fly ash, resulting from incineration where the waste is reduced to ashes containing less than 10% by weight combustible materials.” The bottom ash (Incinerator Ash) generated at the DYEC facility between October 15 and October 19, 2015 was sampled and analyzed in accordance with DYEC Ash Sampling and Testing Protocol (Report. 11-1151-0132, dated June 2014). All bottom ash, generated during the sampling period and the subsequent time period to receive the laboratory analyses was quarantined at the DYEC site. Utilizing the Loss of Ignition (LOI) testing procedure, the statistical analysis of the bottom ash data resulted in a combustible materials content of 2.85% by weight. These results of the statistical evaluation demonstrates that the bottom ash meets the Ontario Reg. 347 definition of incinerator ash and that it should be managed as a non-hazardous solid waste. A review of these analyses by the receiving landfill concurred with this conclusion. As a result all quarantined bottom ash was released for disposal as a non-hazardous solid waste.

Under Ontario Reg. 347, land disposal of untreated hazardous waste is prohibited. Fly ash is considered a hazardous waste unless the operator proves otherwise through leach toxicity testing. An initial commissioning period fly ash characterization was conducted on conditioned and stabilized fly ash generated at the DYEC site between September 29 and October 3, 2015. The fly ash, which was conditioned and stabilized with predetermined levels of cement and pozzolan, was sampled and analyzed in accordance with the Ash Sampling and Testing Protocol (Report. 11-1151-0132, dated June 2014). All conditioned and stabilized fly ash, generated during the sampling period and the subsequent time period to receive the laboratory analyses was quarantined at the DYEC site. Laboratory analyses, in accordance with the USEPA Toxicity Characteristic Leaching Procedure (TCLP), Method 1311, was performed on the conditioned and stabilized fly ash samples. TCLP analysis included the 88 listed organic compounds and metals listed in Ontario Reg. 347, Schedule 4. The relevant statistical results for the September 29 - October 3 fly ash characterization for all 88 listed analytes were compared with the regulatory thresholds identified in Ontario Reg. 347, Schedule 4. For this fly ash sampling period the statistical results for all 88 analytes were below their corresponding regulatory thresholds. A review of these analyses by the receiving landfill concurred with this conclusion. As a result all

quarantined conditioned and stabilized fly ash was released for disposal as a non-hazardous solid waste.

A second commissioning period fly ash characterization was conducted on conditioned and stabilized fly ash generated between October 22 and October 26, 2015. During this time a substantially reduced rate of cement and pozzolan rate was utilized for conditioning and stabilization in comparison to the initial commissioning period fly ash characterization; however, the same sampling procedure, laboratory analysis and statistical evaluations were followed for both characterizations. All conditioned and stabilized fly ash, generated during the sampling period and the subsequent time period to receive the laboratory analyses was quarantined at the DYEC site. The statistical results for all 88 analytes were below the corresponding regulatory thresholds for the October 22-26 fly ash characterization. The analytical data for both fly ash characterizations were evaluated in accordance with the procedures set forth in the Ash Sampling and Testing Protocol. Both statistical evaluations have determined that the waste does not exhibit a hazardous characteristic and that it should be managed as a nonhazardous solid waste. A review of these analyses by the receiving landfill concurred with this conclusion. As a result all quarantined conditioned and stabilized fly ash was released for disposal as a non-hazardous solid waste.

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1.0 INTRODUCTION

In 2011 the Durham York Energy Centre (DYEC) received a Certificate of Approval from the Ministry of the Environment (MOE) which included requirements for residual waste testing. Now referenced as the Environmental Compliance Approval (ECA) No. 7306-8FDNKX, the document requires testing of both bottom ash and fly ash to comply with the Ministry's regulatory testing and monitoring requirements. As part of those requirements an Ash Sampling and Testing Protocol (Report No. 11-1151-0132, June 2014) was generated which outlines the methodology to test, manage and handle bottom and fly ash at DYEC.

This report covers the sampling and analysis of bottom ash only during the site Commissioning period. The Commissioning period occurred at the time of the Acceptance Test, during which the initial source testing program was conducted. For the Commissioning period the bottom ash characterization was conducted during the five day period from October 15- October 19, 2015. This bottom ash characterization demonstrated that the combustible materials content of the bottom ash is less than 10% by weight and thus meets the definition of incinerator ash set forth by Ontario Reg. 347, which permits the bottom ash to be transported offsite as a solid non-hazardous waste for disposal in Ontario.

2.0 BOTTOM ASH HANDLING SYSTEM

The Bottom Ash Handling System serves several purposes. The Bottom Ash Handling System receives and transports water-quenched bottom ash from the ash discharger to the Residue Storage Building. The Bottom Ash Handling System also includes equipment that provides for the separation of ferrous and non-ferrous metals from the bottom ash residue stream. The Residue Storage Building is the temporary storage destination for all bottom ash residue and recovered metals before subsequent off-site as per ECA conditions 2.(5) (c), (d) and (e), the storage duration of the bottom ash residue is limited to seven (7) days. This condition will be met during normal operations but maybe extended as required from sampling to analysis. Bottom ash materials generated during the conduct of sampling and analysis will not be shipped offsite until such time as laboratory results confirm the characterization meets requirements.

The two water filled boiler ash dischargers, one per boiler, deliver bottom ash to the main vibrating conveyor. The vibrating conveyor has an integral grizzly scalper which removes oversized items (greater than 200 mm), such as large metal objects, to protect the downstream conveyors and ferrous and non-ferrous metals separating equipment. Once removed, the

oversized objects are moved by front end loader to the appropriate storage bunker in the Residue Storage Building. The smaller bottom ash that falls through the scalper drops onto a vibrating feeder which feeds the bottom ash onto an inclined conveyor belt.

Bottom ash on the inclined belt is conveyed to the Residue Storage Building where it is subjected to magnetic separation by a magnetic drum separator for ferrous material separation and subsequently by an eddy current magnetic separator for non-ferrous material separation. Prior to deposition into dedicated material storage bunkers, vibrating screens may be used for both separated ferrous and non-ferrous materials to help minimize the amount of ash residue carried with the respective recovered metals. All bottom ash residue falls into one of two storage bunkers. Recovered ferrous material drops to a ferrous metal storage bunker and recovered non-ferrous material falls into a non-ferrous storage bunker.

All bottom ash, non-ferrous metal and ferrous materials accumulated in the Residue Storage Building are removed for disposal as it becomes necessary. Trucks are loaded via a front end loader for removal of the materials from the site.

3.0 BOTTOM ASH SAMPLING PROCEDURE

During commissioning period operation, in conformance with MOE sampling guidelines, the Comprehensive Ash Sample and Test Program (CASTP) was conducted, which consisted of a minimum five-day sampling period for bottom ash characterization. This program consisted of sampling for a minimum of five days (2 shifts per day), yielding 10 shift samples for each characterization. The following procedure details the sampling method carried out for the bottom ash characterization. The location has been determined to be representative of the point of generation and is consistent with the January 25, 1995 EPA decision regarding appropriate ash testing locations.

The two shift samples from each day were mixed to form one gross daily composite sample. Collected grab sample material for that day was well mixed in a cement mixer and distributed on a clean solid flat surface, divided into quadrants, with samples randomly selected from the quadrants to yield four (4) daily composite subsamples (each filling 500-ml wide mouth glass containers) plus two spares- one laboratory and one onsite spare. This process was repeated to yield five primary daily composite subsamples and a total of ten daily composite spare subsamples for the four day test period. A minimum of 20 aliquots, four from each primary daily composite subsample, were developed by the laboratory and analyzed for loss on ignition. Loss on ignition was evaluated in terms of percent of ash by weight of combustible materials in the ash. Accordingly as required by the Ash Sampling and Testing Protocol less than 10% combustible material by SW-846 statistical evaluation of the twenty samples would meet the definition of incinerator ash per Ontario Reg. 347 allowing the bottom ash to be transported

offsite as a solid non-hazardous waste for disposal. Additional aliquots from a subsample were available for analysis for better definition of a subsample. The following sampling procedures were followed.

Field sampling occurred during the period between October 16 and October 20, 2015. Field sampling consisted of two phases: 1) acquisition of hourly grab samples, and 2) generation of shift composite samples.

The grab samples occurred at a one-hour frequency. Samples were obtained by placing a shovel below the upper end of the inclined conveyor and collecting bottom ash in free fall just prior to the ferrous magnet. Each one hour sample filled approximately 1/8 of a five-gallon pail. Two five-gallon pails were filled in the course of each 8-hour shift.

The same procedure as above was used for the second shift sample. When completed, the four five-gallon pails generated for the day were used to create the daily composite subsamples identified in the first part of this section. Each subsample was labeled to identify the type of ash and date of collection. The subsamples, including an additional laboratory spare were packaged and transported to a certified laboratory for analysis along with an appropriate chain-of-custody itemizing the analyses to be done.

All of the shift sample periods were documented in a log identifying sample date and sample time. The sample log appears in Appendix B for the bottom ash characterization.

4.0 LABORATORY INFORMATION

The certified analytical laboratory (Maxxam Analytics) performed loss on ignition (LOI) laboratory analyses as required by the Ash Sampling and Testing Protocol. A second lab, SGS North America, conducted ASTM D 5468 Standard Test Method for Gross Calorific and Ash Value of Waste Materials laboratory analyses, also as required by the Ash Sampling and Testing Protocol. Once the samples were received, each laboratory began preparation of representative aliquots of bottom ash for analysis. Each lab received bottom ash samples from five days of sampling which were ultimately analyzed for and reported as percent loss on ignition or analyzed for gross calorific value and moisture content to report combustible materials content. Several laboratory-initiated duplicate analyses were conducted on separate portions of the same subsample. The average of those analyses represented the analytical result for that specific subsample.

5.0 STATISTICAL ANALYSIS

Per the Ash and Sampling Protocol, a statistical analysis of the data is used to determine if the bottom ash combustible content determined from either loss on ignition analyses or ASTM D 5468 analyses complies with the land disposal restrictions laid out in Ontario Reg. 347. The statistical analysis requires the calculation of the following, where n is the number of samples. The statistical evaluation below utilizes the calculation procedures specified by US EPA, SW-846, "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods".

Student "t" value for $n-1$ degrees of freedom at the single-tailed 90% confidence level (which is equal to an 80% upper confidence interval as a two-tailed distribution);

Mean (μ) and standard deviation (σ) of the population; and

The upper limit $U = t^* \sigma / \text{sqrt}(n)$

The value U is added to the mean (μ) and if this is less than the regulatory value, the waste is considered non-hazardous. If the mean plus the value U produced is greater than the regulatory value, the waste must undergo further analyses to ensure the bottom ash is not hazardous as described in the hazardous waste definition in Ontario Reg. 347.

6.0 DATA ANALYSIS

6.1 Overview

The laboratory analytical data presented as Appendix A for the October 16-20, 2015 bottom ash characterization has been evaluated in accordance with the procedures in SW-846, Chapter 9. The quality assurance and quality control results for the characterization is included with the laboratory results in Appendix A.

The statistical procedures set forth in Section 9.1.1.2 and Table 9-1 of SW-846 are based on the set of individual concentrations being treated as a normal distribution.

6.2 Analytical Results

The laboratory analytical results for the bottom ash characterization is presented in Appendix A of this report.

6.3 Statistical Results

Table 1 presents daily sample results and Table 2 presents a comparison of the Regulatory Threshold for loss on ignition analyses and the relevant SW-846 statistical value for determining whether the bottom ash meets the definition of incinerator ash set forth by Ontario Reg. 347, which allows bottom ash to be transported offsite as a solid non-hazardous waste for disposal in Ontario. Similarly, Table 3 presents daily sample results and Table 4 presents the statistical results for the analyses conducted using ASTM D 5468.

6.4 Conclusion

The analytical data for the bottom ash characterization was evaluated in complete compliance with the procedures set forth in SW-846 and as noted in the Ash Sampling and Testing Protocol. The statistical evaluations has determined that bottom ash meets the Ontario Reg. 347 definition of incinerator ash with either using the LOI or ASTM D 5468 analyses procedures and that it should be managed as a non-hazardous solid waste.

TABLE 1
DURHAM YORK ENERGY CENTRE
SUMMARY OF LOI LABORATORY RESULTS:
COMMISSIONING PERIOD BOTTOM ASH

DAILY SAMPLE RESULTS

Maxxam ID	Sample ID	Covanta ID	LOSS OF IGNITION
BEP717	2015/10/16 08:30	DYEC/BA/151015/1M	1.2
BEP718	2015/10/16 08:30	DYEC/BA/151015/2M	3.4
BEP719	2015/10/16 08:30	DYEC/BA/151015/3M	0.9
BEP720	2015/10/16 08:30	DYEC/BA/151015/4M	1.9
BEP721	2015/10/17 08:30	DYEC/BA/151016/1M	5.4
BEP722	2015/10/17 08:30	DYEC/BA/151016/2M	1.2
BEP723	2015/10/17 08:30	DYEC/BA/151016/3M	2.2
BEP724	2015/10/17 08:30	DYEC/BA/151016/4M	1.4
BEP725	2015/10/18 08:30	DYEC/BA/151017/1M average(1)	5.0
BEP726	2015/10/18 08:30	DYEC/BA/151017/2M average(1)	2.3
BEP727	2015/10/18 08:30	DYEC/BA/151017/3M	2.1
BEP728	2015/10/18 08:30	DYEC/BA/151017/4M	1.3
BEP729	2015/10/19 08:30	DYEC/BA/151018/1M	1.8
BEP730	2015/10/19 08:30	DYEC/BA/151018/2M	1.6
BEP731	2015/10/19 08:30	DYEC/BA/151018/3M	1.9
BEP732	2015/10/19 08:30	DYEC/BA/151018/4M	1.0
BEP733	2015/10/20 08:30	DYEC/BA/151019/1M	1.6
BEP734	2015/10/20 08:30	DYEC/BA/151019/2M	3.1
BEP735	2015/10/20 08:30	DYEC/BA/151019/3M	1.5
BEP736	2015/10/20 08:30	DYEC/BA/151019/4M average(1)	5.6

TABLE 2
CONSOLIDATED COMPOSITE SAMPLE STATISTICAL RESULTS
COMMISSIONING PERIOD BOTTOM ASH

NUMBER OF SAMPLES	20
DEGREES OF FREEDOM	19
SAMPLE MEAN (XBAR)	2.3
SAMPLE VARIANCE (S ²)	2.1
STANDARD DEVIATION (S)	1.4
STD ERROR (S XBAR)	0.3
80% CI Upper Limit (actual) (2)	2.85
MAXIMUM	5.6
MINIMUM	0.9
REGULATORY THRESHOLD	10

NOTES:

- (1) Duplicate analyses conducted of a separate portion of the same sample.
- (2) 80% Upper Confidence Interval as a two-tailed distribution is equivalent to a 90% Upper Confidence Interval as a single-tailed distribution.

TABLE 3
DURHAM YORK ENERGY CENTRE
SUMMARY OF LABORATORY RESULTS: COMMISSIONING PERIOD
USING ASTM D5468

INDIVIDUAL SAMPLE RESULTS

SAMPLE ID NUMBER	SAMPLE DATE	MOISTURE TOTAL (%)	LOSS OF IGNITION (Wt %) ^a	
DYEC/BA/151018/1 Run 1	10/18-19/2015	10.66	<	0.69
DYEC/BA/151018/1 Run 2	10/18-19/2015	10.65	<	0.69
DYEC/BA/151018/1 Run 3	10/18-19/2015	10.63	<	0.69
DYEC/BA/151018/2 Run 1	10/18-19/2015	11.03	<	0.69
DYEC/BA/151018/2 Run 2	10/18-19/2015	11.00	<	0.69
DYEC/BA/151018/2 Run 3	10/18-19/2015	11.02	<	0.69
DYEC/BA/151018/3 Run 1	10/18-19/2015	11.01	<	0.69
DYEC/BA/151018/3 Run 2	10/18-19/2015	11.06	<	0.69
DYEC/BA/151018/3 Run 3	10/18-19/2015	11.04	<	0.69
DYEC/BA/151017/1 Run 1	10/17-18/2015	13.06	<	0.69
DYEC/BA/151017/1 Run 2	10/17-18/2015	13.00	<	0.69
DYEC/BA/151017/1 Run 3	10/17-18/2015	13.05	<	0.69
DYEC/BA/151017/2 Run 1	10/17-18/2015	13.69	<	0.69
DYEC/BA/151017/2 Run 2	10/17-18/2015	13.69	<	0.69
DYEC/BA/151017/2 Run 3	10/17-18/2015	13.68	<	0.69
DYEC/BA/151017/3 Run 1	10/17-18/2015	13.59	<	0.69
DYEC/BA/151017/3 Run 2	10/17-18/2015	13.60	<	0.69
DYEC/BA/151017/3 Run 3	10/17-18/2015	13.60	<	0.69
DYEC/BA/1510161/1 Run 1	10/16-17/2015	11.15	<	0.69
DYEC/BA/1510161/1 Run 2	10/16-17/2015	11.13	<	0.69
DYEC/BA/1510161/1 Run 3	10/16-17/2015	11.17	<	0.69
DYEC/BA/1510161/2 Run 1	10/16-17/2015	11.78	<	0.69
DYEC/BA/1510161/2 Run 2	10/16-17/2015	11.82	<	0.69
DYEC/BA/1510161/2 Run 3	10/16-17/2015	11.79	<	0.69
DYEC/BA/1510161/3 Run 1	10/16-17/2015	11.35	<	0.69
DYEC/BA/1510161/3 Run 2	10/16-17/2015	11.37	<	0.69
DYEC/BA/1510161/3 Run 3	10/16-17/2015	11.35	<	0.69
DYEC/BA/151015/1 Run 1	10/15-16/2015	11.48	<	0.69
DYEC/BA/151015/1 Run 2	10/15-16/2015	11.45	<	0.69
DYEC/BA/151015/1 Run 3	10/15-16/2015	11.48	<	0.69
DYEC/BA/151015/2 Run 1	10/15-16/2015	11.73	<	0.69
DYEC/BA/151015/2 Run 2	10/15-16/2015	11.75	<	0.69
DYEC/BA/151015/2 Run 3	10/15-16/2015	11.73	<	0.69
DYEC/BA/151015/3 Run 1	10/15-16/2015	11.71	<	0.69
DYEC/BA/151015/3 Run 2	10/15-16/2015	11.71	<	0.69

TABLE 4

CONSOLIDATED COMPOSITE SAMPLE STATISTICAL
RESULTS
USING ASTM D 5468
COMMISSIONING PERIOD BOTTOM ASH

NUMBER OF SAMPLES	35
DEGREES OF FREEDOM	34
SAMPLE MEAN (XBAR)	0.69
SAMPLE VARIANCE (S ²)	0.00
STANDARD DEVIATION (S)	0.00
STD ERROR (S XBAR)	0.00
80% CI Upper Limit (actual)	0.69
MAX	0.69
MIN	0.69
REGULATORY THRESHOLD	10

NOTES:

(a) Less than symbol (<) indicates laboratory result below the detection limit.
The value used in this table is the detection limit provided by the laboratory.

APPENDIX A

LABORATORY AND QA/QC RESULTS OCTOBER 15-19, 2015

Your C.O.C. #: na

Attention:Amanda Huxter

Covanta Durham York Renewable Energy Limited Partnership
1835 Energy Drive
Courtice, ON
Canada L1E 2R2

Report Date: 2015/10/22
Report #: R3729014
Version: 2 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B5L3223

Received: 2015/10/20, 14:00

Sample Matrix: Soil
Samples Received: 20

Analyses	Date		Laboratory Method	Reference
	Quantity	Extracted		
Loss On Ignition (LOI) (1, 2)	3	N/A	2015/10/22 SLA SOP-00093	CAL SOP-0046 Rev.4
Loss On Ignition (LOI) (1, 2)	17	N/A	N/A SLA SOP-00093	CAL SOP-0046 Rev.4

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) This test was performed by Maxxam Sladeview Petrochemical

(2) Sample(s) analyzed using methodologies that have not been subjected to Maxxam's standard validation process for the submitted matrix and is not an Accredited method.

Analysis performed with client consent, however results should be viewed with discretion

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Jolanta Goralczyk, Project Manager

Email: JGoralczyk@maxxam.ca

Phone# (905)817-5751

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Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

RESULTS OF ANALYSES OF SOIL

Maxxam ID		BEP717	BEP718	BEP719	BEP720		
Sampling Date		2015/10/16 08:30	2015/10/16 08:30	2015/10/16 08:30	2015/10/16 08:30		
COC Number		na	na	na	na		
	UNITS	DYEC/BA/151015/1M	DYEC/BA/151015/2M	DYEC/BA/151015/3M	DYEC/BA/151015/4M	RDL	QC Batch

Subcontracted Analysis							
Loss on Ignition	%	1.2	3.4	0.9	1.9	0.2	4237172

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam ID		BEP721	BEP722	BEP723	BEP724		
Sampling Date		2015/10/17 08:30	2015/10/17 08:30	2015/10/17 08:30	2015/10/17 08:30		
COC Number		na	na	na	na		
	UNITS	DYEC/BA/151016/1M	DYEC/BA/151016/2M	DYEC/BA/151016/3M	DYEC/BA/151016/4M	RDL	QC Batch

Subcontracted Analysis							
Loss on Ignition	%	5.4	1.2	2.2	1.4	0.2	4237172

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam ID		BEP725	BEP725	BEP725	BEP726		
Sampling Date		2015/10/18 08:30	2015/10/18 08:30	2015/10/18 08:30	2015/10/18 08:30		
COC Number		na	na	na	na		
	UNITS	DYEC/BA/151017/1M	DYEC/BA/151017/1M Lab-Dup	DYEC/BA/151017/1M Lab-Dup 2	DYEC/BA/151017/2M	RDL	QC Batch

Subcontracted Analysis							
Loss on Ignition	%	11	1.3 (1)	2.6 (1)	3.1	0.2	4237172

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
(1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.

RESULTS OF ANALYSES OF SOIL

Maxxam ID		BEP726	BEP726	BEP727	BEP728		
Sampling Date		2015/10/18 08:30	2015/10/18 08:30	2015/10/18 08:30	2015/10/18 08:30		
COC Number		na	na	na	na		
	UNITS	DYEC/BA/151017/2M Lab-Dup	DYEC/BA/151017/2M Lab-Dup 2	DYEC/BA/151017/3M	DYEC/BA/151017/4M	RDL	QC Batch

Subcontracted Analysis							
Loss on Ignition	%	2.2	1.7 (1)	2.1	1.3	0.2	4237172
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate (1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.							

Maxxam ID		BEP729	BEP730	BEP731	BEP732		
Sampling Date		2015/10/19 08:30	2015/10/19 08:30	2015/10/19 08:30	2015/10/19 08:30		
COC Number		na	na	na	na		
	UNITS	DYEC/BA/151018/1M	DYEC/BA/151018/2M	DYEC/BA/151018/3M	DYEC/BA/151018/4M	RDL	QC Batch

Subcontracted Analysis							
Loss on Ignition	%	1.8	1.6	1.9	1.0	0.2	4237172
RDL = Reportable Detection Limit QC Batch = Quality Control Batch							

Maxxam ID		BEP733	BEP734	BEP735	BEP736		
Sampling Date		2015/10/20 08:30	2015/10/20 08:30	2015/10/20 08:30	2015/10/20 08:30		
COC Number		na	na	na	na		
	UNITS	DYEC/BA/151019/1M	DYEC/BA/151019/2M	DYEC/BA/151019/3M	DYEC/BA/151019/4M	RDL	QC Batch

Subcontracted Analysis							
Loss on Ignition	%	1.6	3.1	1.5	1.3	0.2	4237172
RDL = Reportable Detection Limit QC Batch = Quality Control Batch							

RESULTS OF ANALYSES OF SOIL

Maxxam ID		BEP736	BEP736		
Sampling Date		2015/10/20 08:30	2015/10/20 08:30		
COC Number		na	na		
	UNITS	DYEC/BA/151019/4M Lab-Dup	DYEC/BA/151019/4M Lab-Dup 2	RDL	QC Batch
Subcontracted Analysis					
Loss on Ignition	%	2.4 (1)	13 (1)	0.2	4237172
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate (1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.					

GENERAL COMMENTS

Loss on Ignition Test (LOI): All samples were heterogeneous in nature; composed of stones, gravel, ceramics, broken glass, fibrous materials, etc. A representative test sample was difficult to obtain.

Results relate only to the items tested.

QUALITY ASSURANCE REPORT

QA/QC				Date				
Batch	Init	QC Type	Parameter	Analyzed	Value	Recovery	UNITS	QC Limits
4237172	MJP	RPD [BEP725-01]	Loss on Ignition	2015/10/22	157 (1)		%	N/A
4237172	MJP	RPD [BEP726-01]	Loss on Ignition	2015/10/22	35		%	N/A
4237172	MJP	RPD [BEP736-01]	Loss on Ignition	2015/10/22	61 (1)		%	N/A

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

(1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).




Grace Sison, B.Sc., C.Chem, Senior Project Manager - Petroleum Division

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.



Analysis Report

November 25, 2015

COVANTA ENERGY WBH LLC
445 SOUTH STREET
MORRISTOWN NJ 07960

Page 1 of 1

ATTN: Amanda Huxter

Client Sample ID:	DYEC/BA/151015/1 Run 1	Sample ID By:	Covanta
Date Sampled:	N/A	Sample Taken At:	DYEC
Date Received:	Oct 21, 2015	Sample Taken By:	Facility
Product Description:	BOTTOM ASH	Date(s) Sampled:	Oct 15-16, 2015
Comments:	NOTE: CALORIFIC VALUE DETERMINED BY ASTM D5468.		

SGS Minerals Sample ID: 491-1588605-001

	<u>Method</u>	<u>As Received</u>	<u>Dry</u>
Moisture, Total %	ASTM D3302	11.48	
Gross Calorific Value Btu/lb	ASTM D5865		<100

<u>Tests</u>	<u>Result</u>	<u>Unit</u>	<u>Method</u>
UOM, Sample Weight		g	---
Sample Weight	4035.3	---	

Vanessa Chambliss
Branch Manager

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Analysis Report

November 25, 2015

COVANTA ENERGY WBH LLC
445 SOUTH STREET
MORRISTOWN NJ 07960

Page 1 of 1

ATTN: Amanda Huxter

Client Sample ID:	DYEC/BA/151015/1 Run 3	Sample ID By:	Covanta
Date Sampled:	N/A	Sample Taken At:	DYEC
Date Received:	Oct 21, 2015	Sample Taken By:	Facility
Product Description:	BOTTOM ASH	Date(s) Sampled:	Oct 15-16, 2015
Comments:	NOTE: CALORIFIC VALUE DETERMINED BY ASTM D5468.		

SGS Minerals Sample ID: 491-1588605-003

	<u>Method</u>	<u>As Received</u>	<u>Dry</u>
Moisture, Total %	ASTM D3302	11.48	
Gross Calorific Value Btu/lb	ASTM D5865		<100

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November 25, 2015

COVANTA ENERGY WBH LLC
445 SOUTH STREET
MORRISTOWN NJ 07960

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ATTN: Amanda Huxter

Client Sample ID:	DYEC/BA/151015/2 Run 2	Sample ID By:	Covanta
Date Sampled:	N/A	Sample Taken At:	DYEC
Date Received:	Oct 21, 2015	Sample Taken By:	Facility
Product Description:	BOTTOM ASH	Date(s) Sampled:	Oct 15-16, 2015
Comments:	NOTE: CALORIFIC VALUE DETERMINED BY ASTM D5468.		

SGS Minerals Sample ID: 491-1588605-005

	<u>Method</u>	<u>As Received</u>	<u>Dry</u>
Moisture, Total %	ASTM D3302	11.75	
Gross Calorific Value Btu/lb	ASTM D5865	<100	<100

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ATTN: Amanda Huxter

Client Sample ID:	DYEC/BA/151015/3 Run 1	Sample ID By:	Covanta
Date Sampled:	N/A	Sample Taken At:	DYEC
Date Received:	Oct 21, 2015	Sample Taken By:	Facility
Product Description:	BOTTOM ASH	Date(s) Sampled:	Oct 15-16, 2015
Comments:	NOTE: CALORIFIC VALUE DETERMINED BY ASTM D5468.		

SGS Minerals Sample ID: 491-1588605-007

	<u>Method</u>	<u>As Received</u>	<u>Dry</u>
Moisture, Total %	ASTM D3302	11.71	
Gross Calorific Value Btu/lb	ASTM D5865		<100

<u>Tests</u>	<u>Result</u>	<u>Unit</u>	<u>Method</u>
UOM, Sample Weight		g	--
Sample Weight	3987.1		--

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MORRISTOWN NJ 07960

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ATTN: Amanda Huxter

Client Sample ID:	DYEC/BA/151015/3 Run 3	Sample ID By:	Covanta
Date Sampled:	N/A	Sample Taken At:	DYEC
Date Received:	Oct 21, 2015	Sample Taken By:	Facility
Product Description:	BOTTOM ASH	Date(s) Sampled:	Oct 15-16, 2015
Comments:	NOTE: CALORIFIC VALUE DETERMINED BY ASTM D5468.		

SGS Minerals Sample ID: 491-1588605-009

	<u>Method</u>	<u>As Received</u>	<u>Dry</u>
Moisture, Total %	ASTM D3302	11.71	
Gross Calorific Value Btu/lb	ASTM D5865		<100

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COVANTA ENERGY WBH LLC
445 SOUTH STREET
MORRISTOWN NJ 07960

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ATTN: Amanda Huxter

Client Sample ID:	DYEC/BA/151016/1 Run 1	Sample ID By:	Covanta
Date Sampled:	N/A	Sample Taken At:	DYEC
Date Received:	Oct 21, 2015	Sample Taken By:	Facility
Product Description:	BOTTOM ASH	Date(s) Sampled:	Oct 16-17, 2015
Comments:	NOTE: CALORIFIC VALUE DETERMINED BY ASTM D5468.		

SGS Minerals Sample ID: 491-1588606-001

	<u>Method</u>	<u>As Received</u>	<u>Dry</u>
Moisture, Total %	ASTM D3302	11.15	
Gross Calorific Value Btu/lb	ASTM D5865		<100

<u>Tests</u>	<u>Result</u>	<u>Unit</u>	<u>Method</u>
UOM, Sample Weight		g	---
Sample Weight	5181.8	---	

Vanessa Chambliss

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ATTN: Amanda Huxter

Client Sample ID:	DYEC/BA/151016/1 Run 3	Sample ID By:	Covanta
Date Sampled:	N/A	Sample Taken At:	DYEC
Date Received:	Oct 21, 2015	Sample Taken By:	Facility
Product Description:	BOTTOM ASH	Date(s) Sampled:	Oct 16-17, 2015
Comments:	NOTE: CALORIFIC VALUE DETERMINED BY ASTM D5468.		

SGS Minerals Sample ID: 491-1588606-003

	<u>Method</u>	<u>As Received</u>	<u>Dry</u>
Moisture, Total %	ASTM D3302	11.17	
Gross Calorific Value Btu/lb	ASTM D5865		<100

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November 25, 2015

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MORRISTOWN NJ 07960

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ATTN: Amanda Huxter

Client Sample ID:	DYEC/BA/151016/2 Run 2	Sample ID By:	Covanta
Date Sampled:	N/A	Sample Taken At:	DYEC
Date Received:	Oct 21, 2015	Sample Taken By:	Facility
Product Description:	BOTTOM ASH	Date(s) Sampled:	Oct 16-17, 2015
Comments:	NOTE: CALORIFIC VALUE DETERMINED BY ASTM D5468.		

SGS Minerals Sample ID: 491-1588606-005

	<u>Method</u>	<u>As Received</u>	<u>Dry</u>
Moisture, Total %	ASTM D3302	11.82	
Gross Calorific Value Btu/lb	ASTM D5865		<100

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November 25, 2015

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MORRISTOWN NJ 07960

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ATTN: Amanda Huxter

Client Sample ID:	DYEC/BA/151016/3 Run 1	Sample ID By:	Covanta
Date Sampled:	N/A	Sample Taken At:	DYEC
Date Received:	Oct 21, 2015	Sample Taken By:	Facility
Product Description:	BOTTOM ASH	Date(s) Sampled:	Oct 16-17, 2015
Comments:	NOTE: CALORIFIC VALUE DETERMINED BY ASTM D5468.		

SGS Minerals Sample ID: 491-1588606-007

	<u>Method</u>	<u>As Received</u>	<u>Dry</u>
Moisture, Total %	ASTM D3302	11.35	
Gross Calorific Value Btu/lb	ASTM D5865		<100

<u>Tests</u>	<u>Result</u>	<u>Unit</u>	<u>Method</u>
UOM, Sample Weight		g	---
Sample Weight	5053.7	---	

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November 25, 2015

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445 SOUTH STREET
MORRISTOWN NJ 07960

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ATTN: Amanda Huxter

Client Sample ID:	DYEC/BA/151016/3 Run 3	Sample ID By:	Covanta
Date Sampled:	N/A	Sample Taken At:	DYEC
Date Received:	Oct 21, 2015	Sample Taken By:	Facility
Product Description:	BOTTOM ASH	Date(s) Sampled:	Oct 16-17, 2015
Comments:	NOTE: CALORIFIC VALUE DETERMINED BY ASTM D5468.		

SGS Minerals Sample ID: 491-1588606-009

	<u>Method</u>	<u>As Received</u>	<u>Dry</u>
Moisture, Total %	ASTM D3302	11.35	
Gross Calorific Value Btu/lb	ASTM D5865		<100

Vanessa Chambliss
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Analysis Report

November 25, 2015

COVANTA ENERGY WBH LLC
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ATTN: Amanda Huxter

Client Sample ID:	DYEC/BA/151017/1 Run 1	Sample ID By:	Covanta
Date Sampled:	N/A	Sample Taken At:	DYEC
Date Received:	Oct 21, 2015	Sample Taken By:	Facility
Product Description:	BOTTOM ASH	Date(s) Sampled:	Oct 17-18, 2015
Comments:	NOTE: CALORIFIC VALUE DETERMINED BY ASTM D5468.		

SGS Minerals Sample ID: 491-1588607-001

	<u>Method</u>	<u>As Received</u>	<u>Dry</u>
Moisture, Total %	ASTM D3302	13.06	
Gross Calorific Value Btu/lb	ASTM D5865		<100

Tests

UOM, Sample Weight
Sample Weight

<u>Result</u>	<u>Unit</u>	<u>Method</u>
	g ---	
4263.7	---	

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445 SOUTH STREET
MORRISTOWN NJ 07960

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ATTN: Amanda Huxter

Client Sample ID:	DYEC/BA/151017/1 Run 3	Sample ID By:	Covanta
Date Sampled:	N/A	Sample Taken At:	DYEC
Date Received:	Oct 21, 2015	Sample Taken By:	Facility
Product Description:	BOTTOM ASH	Date(s) Sampled:	Oct 17-18, 2015
Comments:	NOTE: CALORIFIC VALUE DETERMINED BY ASTM D5468.		

SGS Minerals Sample ID: 491-1588607-003

	<u>Method</u>	<u>As Received</u>	<u>Dry</u>
Moisture, Total %	ASTM D3302	13.05	
Gross Calorific Value Btu/lb	ASTM D5865		<100

Vanessa Chambliss

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November 25, 2015

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445 SOUTH STREET
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Page 1 of 1

ATTN: Amanda Huxter

Client Sample ID:	DYEC/BA/151017/2 Run 2	Sample ID By:	Covanta
Date Sampled:	N/A	Sample Taken At:	DYEC
Date Received:	Oct 21, 2015	Sample Taken By:	Facility
Product Description:	BOTTOM ASH	Date(s) Sampled:	Oct 17-18, 2015
Comments:	NOTE: CALORIFIC VALUE DETERMINED BY ASTM D5468.		

SGS Minerals Sample ID: 491-1588607-005

	<u>Method</u>	<u>As Received</u>	<u>Dry</u>
Moisture, Total %	ASTM D3302	13.69	
Gross Calorific Value Btu/lb	ASTM D5865		<100

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ATTN: Amanda Huxter

Client Sample ID:	DYEC/BA/151017/3 Run 1	Sample ID By:	Covanta
Date Sampled:	N/A	Sample Taken At:	DYEC
Date Received:	Oct 21, 2015	Sample Taken By:	Facility
Product Description:	BOTTOM ASH	Date(s) Sampled:	Oct 17-18, 2015
Comments:	NOTE: CALORIFIC VALUE DETERMINED BY ASTM D5468.		

SGS Minerals Sample ID: 491-1588607-007

	<u>Method</u>	<u>As Received</u>	<u>Dry</u>
Moisture, Total %	ASTM D3302	13.59	
Gross Calorific Value Btu/lb	ASTM D5865		<100

<u>Tests</u>	<u>Result</u>	<u>Unit</u>	<u>Method</u>
UOM, Sample Weight		g ---	
Sample Weight	3911.5	---	

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ATTN: Amanda Huxter

Client Sample ID:	DYEC/BA/151017/3 Run 3	Sample ID By:	Covanta
Date Sampled:	N/A	Sample Taken At:	DYEC
Date Received:	Oct 21, 2015	Sample Taken By:	Facility
Product Description:	BOTTOM ASH	Date(s) Sampled:	Oct 17-18, 2015
Comments:	NOTE: CALORIFIC VALUE DETERMINED BY ASTM D5468.		

SGS Minerals Sample ID: 491-1588607-009

	<u>Method</u>	<u>As Received</u>	<u>Dry</u>
Moisture, Total %	ASTM D3302	13.60	
Gross Calorific Value Btu/lb	ASTM D5865		<100

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ATTN: Amanda Huxter

Client Sample ID:	DYEC/BA/151018/1 Run 1	Sample ID By:	Covanta
Date Sampled:	N/A	Sample Taken At:	DYEC
Date Received:	Oct 21, 2015	Sample Taken By:	Facility
Product Description:	BOTTOM ASH	Date(s) Sampled:	Oct 18-19, 2015
Comments:	NOTE: CALORIFIC VALUE DETERMINED BY ASTM D5468.		

SGS Minerals Sample ID: 491-1588608-001

	<u>Method</u>	<u>As Received</u>	<u>Dry</u>
Moisture, Total %	ASTM D3302	10.66	
Gross Calorific Value Btu/lb	ASTM D5865		<100

<u>Tests</u>	<u>Result</u>	<u>Unit</u>	<u>Method</u>
UOM, Sample Weight		g	---
Sample Weight	4356.7		---

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Branch Manager

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Analysis Report

November 25, 2015

COVANTA ENERGY WBH LLC
445 SOUTH STREET
MORRISTOWN NJ 07960

Page 1 of 1

ATTN: Amanda Huxter

Client Sample ID:	DYEC/BA/151018/1 Run 3	Sample ID By:	Covanta
Date Sampled:	N/A	Sample Taken At:	DYEC
Date Received:	Oct 21, 2015	Sample Taken By:	Facility
Product Description:	BOTTOM ASH	Date(s) Sampled:	Oct 18-19, 2015
Comments:	NOTE: CALORIFIC VALUE DETERMINED BY ASTM D5468.		

SGS Minerals Sample ID: 491-1588608-003

	<u>Method</u>	<u>As Received</u>	<u>Dry</u>
Moisture, Total %	ASTM D3302	10.63	
Gross Calorific Value Btu/lb	ASTM D5865		<100

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November 25, 2015

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445 SOUTH STREET
MORRISTOWN NJ 07960

Page 1 of 1

ATTN: Amanda Huxter

Client Sample ID:	DYEC/BA/151018/2 Run 2	Sample ID By:	Covanta
Date Sampled:	N/A	Sample Taken At:	DYEC
Date Received:	Oct 21, 2015	Sample Taken By:	Facility
Product Description:	BOTTOM ASH	Date(s) Sampled:	Oct 18-19, 2015
Comments:	NOTE: CALORIFIC VALUE DETERMINED BY ASTM D5468.		

SGS Minerals Sample ID: 491-1588608-005

	<u>Method</u>	<u>As Received</u>	<u>Dry</u>
Moisture, Total %	ASTM D3302	11.00	
Gross Calorific Value Btu/lb	ASTM D5865		<100

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Analysis Report

November 25, 2015

COVANTA ENERGY WBH LLC
445 SOUTH STREET
MORRISTOWN NJ 07960

Page 1 of 1

ATTN: Amanda Huxter

Client Sample ID:	DYEC/BA/151018/3 Run 1	Sample ID By:	Covanta
Date Sampled:	N/A	Sample Taken At:	DYEC
Date Received:	Oct 21, 2015	Sample Taken By:	Facility
Product Description:	BOTTOM ASH	Date(s) Sampled:	Oct 18-19, 2015
Comments:	NOTE: CALORIFIC VALUE DETERMINED BY ASTM D5468.		

SGS Minerals Sample ID: 491-1588608-007

	<u>Method</u>	<u>As Received</u>	<u>Dry</u>
Moisture, Total %	ASTM D3302	11.01	
Gross Calorific Value Btu/lb	ASTM D5865		<100

<u>Tests</u>	<u>Result</u>	<u>Unit</u>	<u>Method</u>
UOM, Sample Weight		g	---
Sample Weight	3534.6		---

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MORRISTOWN NJ 07960

Page 1 of 1

ATTN: Amanda Huxter

Client Sample ID:	DYEC/BA/151018/3 Run 3	Sample ID By:	Covanta
Date Sampled:	N/A	Sample Taken At:	DYEC
Date Received:	Oct 21, 2015	Sample Taken By:	Facility
Product Description:	BOTTOM ASH	Date(s) Sampled:	Oct 18-19, 2015
Comments:	NOTE: CALORIFIC VALUE DETERMINED BY ASTM D5468.		

SGS Minerals Sample ID: 491-1588608-009

	<u>Method</u>	<u>As Received</u>	<u>Dry</u>
Moisture, Total %	ASTM D3302	11.04	
Gross Calorific Value Btu/lb	ASTM D5865		<100

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November 25, 2015

COVANTA ENERGY WBH LLC
445 SOUTH STREET
MORRISTOWN NJ 07960

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ATTN: Amanda Huxter

Client Sample ID:	DYEC/BA/151019/1 Run 1	Sample ID By:	Covanta
Date Sampled:	N/A	Sample Taken At:	DYEC
Date Received:	Oct 21, 2015	Sample Taken By:	Facility
Product Description:	BOTTOM ASH	Date(s) Sampled:	Oct 19-20, 2015
Comments:	NOTE: CALORIFIC VALUE DETERMINED BY ASTM D5468.		

SGS Minerals Sample ID: 491-1588609-001

	<u>Method</u>	<u>As Received</u>	<u>Dry</u>
Moisture, Total %	ASTM D3302	12.74	
Gross Calorific Value Btu/lb	ASTM D5865		<100

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COVANTA ENERGY WBH LLC
445 SOUTH STREET
MORRISTOWN NJ 07960

Page 1 of 1

ATTN: Amanda Huxter

Client Sample ID:	DYEC/BA/151019/1 Run 3	Sample ID By:	Covanta
Date Sampled:	N/A	Sample Taken At:	DYEC
Date Received:	Oct 21, 2015	Sample Taken By:	Facility
Product Description:	BOTTOM ASH	Date(s) Sampled:	Oct 19-20, 2015
Comments:	NOTE: CALORIFIC VALUE DETERMINED BY ASTM D5468.		

SGS Minerals Sample ID: 491-1588609-003

	<u>Method</u>	<u>As Received</u>	<u>Dry</u>
Moisture, Total %	ASTM D3302	12.81	
Gross Calorific Value Btu/lb	ASTM D5865		<100

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November 25, 2015

COVANTA ENERGY WBH LLC
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MORRISTOWN NJ 07960

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ATTN: Amanda Huxter

Client Sample ID:	DYEC/BA/151019/2 Run 2	Sample ID By:	Covanta
Date Sampled:	N/A	Sample Taken At:	DYEC
Date Received:	Oct 21, 2015	Sample Taken By:	Facility
Product Description:	BOTTOM ASH	Date(s) Sampled:	Oct 19-20, 2015
Comments:	NOTE: CALORIFIC VALUE DETERMINED BY ASTM D5468.		

SGS Minerals Sample ID: 491-1588609-005

	<u>Method</u>	<u>As Received</u>	<u>Dry</u>
Moisture, Total %	ASTM D3302	13.48	
Gross Calorific Value Btu/lb	ASTM D5865		<100

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November 25, 2015

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MORRISTOWN NJ 07960

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ATTN: Amanda Huxter

Client Sample ID:	DYEC/BA/151019/3 Run 1	Sample ID By:	Covanta
Date Sampled:	N/A	Sample Taken At:	DYEC
Date Received:	Oct 21, 2015	Sample Taken By:	Facility
Product Description:	BOTTOM ASH	Date(s) Sampled:	Oct 19-20, 2015
Comments:	NOTE: CALORIFIC VALUE DETERMINED BY ASTM D5468.		

SGS Minerals Sample ID: 491-1588609-007

	<u>Method</u>	<u>As Received</u>	<u>Dry</u>
Moisture, Total %	ASTM D3302	13.02	
Gross Calorific Value Btu/lb	ASTM D5865		<100

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Analysis Report

November 25, 2015

COVANTA ENERGY WBH LLC
445 SOUTH STREET
MORRISTOWN NJ 07960

Page 1 of 1

ATTN: Amanda Huxter

Client Sample ID:	DYEC/BA/151019/3 Run 3	Sample ID By:	Covanta
Date Sampled:	N/A	Sample Taken At:	DYEC
Date Received:	Oct 21, 2015	Sample Taken By:	Facility
Product Description:	BOTTOM ASH	Date(s) Sampled:	Oct 19-20, 2015
Comments:	NOTE: CALORIFIC VALUE DETERMINED BY ASTM D5468.		

SGS Minerals Sample ID: 491-1588609-009

	<u>Method</u>	<u>As Received</u>	<u>Dry</u>
Moisture, Total %	ASTM D3302	13.03	
Gross Calorific Value Btu/lb	ASTM D5865		<100

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APPENDIX B

BOTTOM ASH SAMPLING LOG OCT 15-19, 2015

Durham York Energy Centre

Commissioning Period Bottom Ash Sampling Record

Date	Scheduled Time	Actual Time	Steam Production Rate (kg/hr)		Sampler Initials	Composite ID	Comments
			Boiler 1	Boiler 2			
10/14/2015	700	7:05	34.51	34.73	48	151014/1-4	Shift 1
10/14/2015	800	8:03	35.24	34.73	48	151014/1-4	Shift 1
10/14/2015	900	9:15	34.29	34.49	48	151014/1-4	Shift 1
10/14/2015	1000	10:20	34.66	35.08	AH	151014/1-4	Shift 1
10/14/2015	1100	11:05	35.03	35.01	AA	151014/1-4	Shift 1
10/14/2015	1200	12:07	33.90	33.42	AA	151014/1-4	Shift 1
10/14/2015	1300	13:05	34.32	34.95	AA	151014/1-4	Shift 1
10/14/2015	1400	14:05	34.00	33.78	48	151014/1-4	Shift 1
10/14/2015	1500	15:07	34.41	34.69	AA	151014/1-4	Shift 2
10/14/2015	1600	16:04	34.67	33.69	AA	151014/1-4	Shift 2
10/14/2015	1700	17:10	34.45	33.71	48	151014/1-4	Shift 2
10/14/2015	1800	17:57	33.76	34.35	48	151014/1-4	Shift 2
10/14/2015	1900	19:04	33.82	33.29	48	151014/1-4	Shift 2
10/14/2015	2000	20:15	33.94	34.08	48	151014/1-4	Shift 2
10/14/2015	2100	21:00	34.52	34.11	48	151014/1-4	Shift 2
10/14/2015	2200	21:56	33.87	33.29	48	151014/1-4	Shift 2

Date	Scheduled Time	Actual Time	Steam Production Rate (kg/hr)	Sampler Initials	Composite ID	Comments
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Durham York Energy Centre

Commissioning Period Bottom Ash Sampling Record

Date	Scheduled Time	Actual Time	Steam Production Rate (kg/hr)		Sampler Initials	Composite ID	Comments
			Boiler 1	Boiler 2			
10/15/2015	700	07:06	35.19	33.90	AA	151015/1-4	sample?
10/15/2015	800	08:08	33.60	34.15	LP	151015/1-4	Shift 3
10/15/2015	900	09:01	34.74	33.93	JFC	151015/1-4	Shift 3
10/15/2015	1000	10:03	33.96	34.82	JFC	151015/1-4	Shift 3
10/15/2015	1100	11:00	34.25	34.56	JFC	151015/1-4	Shift 3
10/15/2015	1200	12:03	34.15	33.66	JFC	151015/1-4	Shift 3
10/15/2015	1300	1:01	33.55	34.41	JFC	151015/1-4	Shift 3
10/15/2015	1400	2:03	34.30	34.56	JFC	151015/1-4	Shift 3
10/15/2015	1500	3:01	34.03	34.39	JFC	151015/1-4	Shift 4
10/15/2015	1600	4:05	34.02	33.06	JFC	151015/1-4	Shift 4
10/15/2015	1700	5:01	34.08	34.40	JFC	151015/1-4	Shift 4
10/15/2015	1800	6:01	33.81	33.99	JFC	151015/1-4	Shift 4
10/15/2015	1900	7:03	34.29	34.37	JFC	151015/1-4	Shift 4
10/15/2015	2000	8:05	34.31	34.20	BM	151015/1-4	Shift 4
10/15/2015	2100	9:07	33.93	33.54	BM	151015/1-4	Shift 4
10/15/2015	2200	10:01	33.73	33.66	BM	151015/1-4	Shift 4

Date	Scheduled Time	Actual Time	Steam Production Rate (k kg/hr)	Sampler Initials	Composite ID	Comments
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Durham York Energy Centre
Commissioning Period Bottom Ash Sampling Record

Date	Scheduled Time	Actual Time	Steam Production Rate (k kg/hr)		Sampler Initials	Composite ID	Comments
			Boiler 1	Boiler 2			
10/16/2015	700					151016/1-4	Shift 5
10/16/2015	800	8:01	33.76	34.06	JFC	151016/1-4	Shift 5
10/16/2015	900	9:03	34.26	34.15	JFC	151016/1-4	Shift 5
10/16/2015	1000	10:01	33.87	34.45	JFC	151016/1-4	Shift 5
10/16/2015	1100	11:04	35.04	33.63	JFC	151016/1-4	Shift 5
10/16/2015	1200	12:00	33.70	34.42	JFC	151016/1-4	Shift 5
10/16/2015	1300	1:00	33.59	33.78	JFC	151016/1-4	Shift 5
10/16/2015	1400	2:05	33.61	34.09	JFC	151016/1-4	Shift 5
10/16/2015	1500	3:00	34.89	34.53	JFC	151016/1-4	Shift 6
10/16/2015	1600	4:00	33.86	33.52	JFC	151016/1-4	Shift 6
10/16/2015	1700	5:00	33.78	34.18	JFC	151016/1-4	Shift 6
10/16/2015	1800	6:00	33.69	34.06	JFC	151016/1-4	Shift 6
10/16/2015	1900	7:00	33.07	33.31	JFC	151016/1-4	Shift 6
10/16/2015	2000	8:00	34.17	34.78	B.M	151016/1-4	Shift 6
10/16/2015	2100	9:05	34.24	33.98	B.M	151016/1-4	Shift 6
10/16/2015	2200	10:05	34.39	33.71	B.M	151016/1-4	Shift 6
10/16/2015	2300	11:05	33.58	34.35	B.M	151016/1-4	Shift 6

Date	Scheduled Time	Actual Time	Steam Production Rate (kg/hr)	Sampler Initials	Composite ID	Comments
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Durham York Energy Centre
Commissioning Period Bottom Ash Sampling Record

Date	Scheduled Time	Actual Time	Steam Production Rate (kg/hr)		Sampler Initials	Composite ID	Comments
			Boiler 1	Boiler 2			
10/17/2015	700					151017/1-4	Shift 7
10/17/2015	800	8:00	34.02	34.27	JFC	151017/1-4	Shift 7
10/17/2015	900	9:01	34.15	34.33	JFC	151017/1-4	Shift 7
10/17/2015	1000	9:59	33.76	34.16	JFC	151017/1-4	Shift 7
10/17/2015	1100	11:00	34.34	33.84	JFC	151017/1-4	Shift 7
10/17/2015	1200	12:01	34.16	34.26	JFC	151017/1-4	Shift 7
10/17/2015	1300	1:20	33.91	34.04	JFC	151017/1-4	Shift 7 Condenser down
10/17/2015	1400	2:05	34.22	34.67	JFC	151017/1-4	Shift 7
10/17/2015	1500	3:00	33.89	33.99	JFC	151017/1-4	Shift 8
10/17/2015	1600	4:00	33.78	34.22	JFC	151017/1-4	Shift 8
10/17/2015	1700	5:01	33.97	34.28	JFC	151017/1-4	Shift 8
10/17/2015	1800	6:07	34.11	34.20	JFC	151017/1-4	Shift 8
10/17/2015	1900	7:00	33.44	34.34	JFC	151017/1-4	Shift 8
10/17/2015	2000	8:15	33.93	33.28	BM	151017/1-4	Shift 8
10/17/2015	2100	9:00	34.30	35.01	BM	151017/1-4	Shift 8
10/17/2015	2200	10:05	33.72	33.64	BM	151017/1-4	Shift 8
	2300	11:00	34.37	34.14	BM		

Date	Scheduled Time	Actual Time	Steam Production Rate (kg/hr)	Sampler Initials	Composite ID	Comments
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Durham York Energy Centre
Commissioning Period Bottom Ash Sampling Record

Date	Scheduled Time	Actual Time	Steam Production Rate (kg/hr)		Sampler Initials	Composite ID	Comments
			Boiler 1	Boiler 2			
10/18/2015	700					151018/1-4	Shift 9
10/18/2015	800	8:00	34.01	34.51	JFC	151018/1-4	Shift 9
10/18/2015	900	9:00	33.78	34.19	JFC	151018/1-4	Shift 9
10/18/2015	1000	10:02	34.40	34.65	JFC	151018/1-4	Shift 9
10/18/2015	1100	11:00	34.42	33.88	JFC	151018/1-4	Shift 9
10/18/2015	1200	12:00	33.94	34.12	JFC	151018/1-4	Shift 9
10/18/2015	1300	1:00	34.60	34.60	JFC	151018/1-4	Shift 9
10/18/2015	1400	2:00	33.59	33.80	JFC	151018/1-4	Shift 9
10/18/2015	1500	2:05	34.07	34.21	JFC	151018/1-4	Shift 10
10/18/2015	1600	4:00	34.40	34.50	JFC	151018/1-4	Shift 10
10/18/2015	1700	5:05	34.67	34.67	JFC	151018/1-4	Shift 10
10/18/2015	1800	6:00	33.73	33.33	JFC	151018/1-4	Shift 10
10/18/2015	1900	7:00	34.35	34.36	JFC	151018/1-4	Shift 10
10/18/2015	2000	8:15	33.45	33.63	JFC	151018/1-4	Shift 10
10/18/2015	2100	9:00	32.63	33.64	JFC	151018/1-4	Shift 10 20:52 for bin trip
10/18/2015	2200	10:05	34.31	33.34	JFC	151018/1-4	Shift 10
	2300		34.53	34.79	JFC		

Durham York Energy Centre

Commissioning Period Bottom Ash Sampling Record

Date	Scheduled Time	Actual Time	Steam Production Rate (k kg/hr)		Sampler Initials	Composite ID	Comments
			Boiler 1	Boiler 2			
10/19/2015	700	7:00	33.57	33.01	JFC	151019/1-4	Shift 1
10/19/2015	800	8:00	34.54	30.75	JFC	151019/1-4	Shift 1
10/19/2015	900	9:03	33.29	34.53	JFC	151019/1-4	Shift 1
10/19/2015	1000	10:05	34.19	34.01	JFC	151019/1-4	Shift 1
10/19/2015	1100	11:00	33.99	33.59	JFC	151019/1-4	Shift 1
10/19/2015	1200	12:00	33.18	32.90	JFC	151019/1-4	Shift 1
10/19/2015	1300	13:02	34.83	37.47	JFC	151019/1-4	Shift 1
10/19/2015	1400	14:05	33.83	33.26	JFC	151019/1-4	Shift 1
10/19/2015	1500	15:00	32.25	33.35	JFC	151019/1-4	Shift 2
10/19/2015	1600	16:22	33.66	33.57	JFC	151019/1-4	Shift 2
10/19/2015	1700	17:20	33.48	33.57	JFC	151019/1-4	Shift 2
10/19/2015	1800	18:40	33.21	33.20	JFC	151019/1-4	Shift 2
10/19/2015	1900					151019/1-4	Shift 2
10/19/2015	2000	20:01	34.15	33.26	JFC	151019/1-4	Shift 2
10/19/2015	2100					151019/1-4	Shift 2
10/19/2015	2200					151019/1-4	Shift 2

23:00
 04:00 04:10 33.39 33.26
 05:00 05:00 32.90 33.38
 06:00 06:03 33.14 33.41

Commissioning Period Fly Ash Characterization Report Table of Contents

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2.0 Fly Ash Handling System

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4.0 Laboratory Information

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B – LABORATORY AND QA/QC RESULTS OCT 22-26, 2015

C – STATISTICAL EVALUATION SPREADSHEET SEPT 29-OCT 3, 2015

D – STATISTICAL EVALUATION SPREADSHEET OCT 22-26, 2015

E – FLY ASH SAMPLING RECORD SEPT 29-OCT 3, 2015

F – FLY ASH SAMPLING RECORD OCT 22-26, 2015

1.0 INTRODUCTION

In 2011 the Durham York Energy Centre (DYEC) received a Certificate of Approval from the Ministry of the Environment (MOE) which included requirements for residual waste testing. Now referenced as the Environmental Compliance Approval (ECA) No. 7306-8FDNKX, the document requires testing of both bottom ash and fly ash to comply with the Ministry's regulatory testing and monitoring requirements. As part of those requirements an Ash Sampling and Testing Protocol (Report No. 11-1151-0132, June 2014) was generated which outlines the methodology to test, manage and handle bottom and fly ash at DYEC.

This report covers the sampling and analysis of fly ash only during the site Commissioning period. The Commissioning period occurred at the time of the Acceptance Test, during which the initial source testing program was conducted. For this Commissioning period two individual fly ash characterizations were independently conducted in different weeks utilizing different conditioning reagent set points. The first characterization using higher levels of conditioning reagent was conducted between September 29 and October 3, 2015. The second fly ash characterization using reduced levels of conditioning reagent was conducted between October 22 and 26, 2015. The characterizations successfully confirmed that fly ash sent for disposal is not leachate toxic following reagent conditioning at each operating condition. This has enabled continued operation at the lower level of conditioning reagent successfully tested.

2.0 FLY ASH HANDLING SYSTEM

The Fly Ash Handling System transports fly ash from the boiler and the air pollution control system to the Residue Storage Building and conditions and stabilizes the fly ash such that it is not leachate toxic prior to offsite disposal.

The boiler sources of fly ash include the second pass hoppers, the economizer hoppers and the superheater hoppers. The air pollution control system source of fly ash is the baghouse hoppers. The screw conveyors used to transport the fly ash are isolated from other sources by single and double flap gates (dump valves) and rotary valves. These valves prevent air and fly ash infiltration back into the source. The conveyor system is also completely sealed from the atmosphere. This not only prevents the escape of fly ash into the environment but also prevents cold air infiltration that would result in corrosion and plugging of conveyors and decreased boiler efficiency.

The fly ash is conveyed into one of two surge bins located in the Residue Storage Building from which it is metered into one of two pug mills for conditioning and stabilization. Stabilization of

the fly ash requires a blend of pozzolanic material, Portland cement and water. The pozzolan and cement are stored in silos that are located exterior to the Residue Storage Building. The pozzolan and cement are metered via rotary valves and are conveyed into the pug mills via the Portland Cement/Pozzolan Conveyors. Finally, water is added in the pug mills to the fly ash, pozzolan and cement and then thoroughly mixed. The ash mixture is then discharged into the first of seven fly ash bays.

The Residue Storage Building includes seven (7) storage bays, each of which has the capacity to store fly ash for approximately 3 days for the curing of stabilized fly ash. The general principle is that fly ash can reside in each of the seven bays for three (3) days each, up to the required curing period, allowing up to a maximum of 21 days before the stabilized ash is removed from the site. After three days of conditioning, the stabilized ash mixture is broken up by the front end loader and moved via front end loader to the next adjacent storage bay to continue curing. After three more days, the mixture is again moved to the next adjacent bunker. This process continues as deemed necessary, consistent with the previous testing results which establishes the required curing period, which is up to 21 days (3 days - 7 storage bays). Stabilized ash, after the established curing period, is removed from the bays in the Residue Storage Building by a front end loader and loaded into trucks for removal from the site. The curing period is established from the curing period of the samples which test results demonstrate non-hazardous characterization. Prior to the conduct of the commissioning period sampling and testing, conditioned and stabilized fly ash was kept onsite for a period of five days, being moved daily from bunker to bunker until shipped offsite. The maximum stabilization period for the fly ash characterizations in this report is three days.

3.0 FLY ASH SAMPLING PROCEDURE

During commissioning period operation, in conformance with MOE sampling guidelines, the Comprehensive Ash Sample and Test Program (CASTP) was conducted, which consisted of a minimum five-day sampling period for each of the fly ash characterizations conducted. This program consisted of sampling for a minimum of five days (2 shifts per day), yielding 10 shift samples for each characterization. The following procedure details the sampling method carried out for both fly ash characterizations. The location has been determined to be representative of the point of generation and is consistent with the January 25, 1995 EPA decision regarding appropriate ash testing locations for determining toxicity characteristics.

The two shift samples from each day were mixed to form one gross daily composite sample. Collected grab sample material for that day was well mixed in a cement mixer and distributed on a clean flat surface, divided into quadrants, with samples randomly selected from the quadrants to yield four (4) daily composite subsamples (each filling 500-ml wide mouth glass containers) plus two spares- one laboratory and one onsite spare. This process was repeated to

yield four primary daily composite subsamples and a total of ten daily composite spare subsamples for the five day test period. A minimum of 20 aliquots, four from each primary daily composite subsample, were developed by the laboratory and analyzed. Additional aliquots from a subsample were available for analysis for better definition of a subsample. The following sampling procedures were followed.

Just prior to the beginning of a sampling shift, the ash building operator would clear out the bay into which the conditioned fly ash would fall (bay 1). This represented the start of the 8-hour sampling shift. After approximately four hours a substantial amount of conditioned fly ash was generated in bay 1. The ash was picked up several times, overturned and mixed well by the loader operator. A full bucket of well mixed ash was extracted by the loader operator and the sampling personnel took shovelfuls from random areas of the bucket and place them into two 5-gallon pails until each pail was approximately 1/3 full.

The operator then cleared out the bay and allowed a new batch of fly ash to accumulate for four more hours after which the same mixing and sampling procedures were followed and the 5-gallon pails were approximately 2/3 full. These two pails represented one shift sample. All of the shift sample periods were documented in a log identifying sample date and sample time, and pozzolan and cement feeder operating set points. The sample logs appear in Appendix C for the September 29- October 3 characterization and Appendix D for the October 22-26 fly ash characterization.

The same procedure as above was used for the second shift sample. When completed, the four 5-gallon pails generated for the day were used to create the daily composite subsamples identified in the first part of this section. Each subsample was labeled to identify the type of ash and date of collection. The subsamples, including an additional laboratory spare were packed in ice and transported to a certified laboratory for analysis along with an appropriate chain-of-custody itemizing the analyses to be done.

4.0 LABORATORY INFORMATION

The certified analytical laboratory (ALS Environmental located in Waterloo, ON) performed laboratory analyses in accordance with the USEPA Toxicity Characteristic Leaching Procedure (TCLP), Method 1311, as described in 40 CFR 261, Appendix II. TCLP analysis was carried out on each of the 20 fly ash subsamples, which included the 88 organic compounds and metals listed in Ontario Reg. 347, Schedule 4, all with the threshold limits indicated.

Once the samples were received, the laboratory began preparation of representative aliquots of fly ash for TCLP analysis, and documented the date and preparation start time. TCLP preparation of each aliquot began within 3 days of ash generation, effectively limiting the fly ash stabilization time to three days or less. This stabilization time is important because it

determines the minimum required stabilization time at the facility before the fly ash can be released for shipment to the landfill, with the requirement that the fly ash characterization result is less than the TCLP regulatory limit for every analyte tested. The statistical result of each individual analyte appears in Table 1 for both fly ash characterizations. Daily monitored records of the age of the fly ash in individual bays by facility personnel enable determination of earliest allowable shipping date.

5.0 STATISTICAL ANALYSIS

Per the Ash and Sampling Protocol, a statistical analysis of the data is used to determine if the fly ash exhibits Leachate Toxicity Criteria. The statistical analysis requires the calculation of the following, where n is the number of samples. The statistical evaluation below utilizes the calculation procedures specified by US EPA, SW-846, *“Test Methods for Evaluating Solid Waste, Physical/Chemical Methods”*.

Student “ t ” value for $n-1$ degrees of freedom at the single-tailed 90% confidence level (which is equal to an 80% upper confidence interval as a two-tailed distribution);

Mean (μ) and standard deviation (σ) of the population; and

The upper limit $U = t * \sigma / \text{sqrt}(n)$

The value U is added to the mean (μ) and if this is less than the regulatory value, the waste is considered non-hazardous. If the mean plus the value U produced is greater than the regulatory value, the waste is judged to be leachate toxic.

6.0 DATA ANALYSIS

6.1 Overview

The laboratory analytical data presented as Appendix A for the September 29- October 3 characterization and Appendix B for the October 22-26 characterization have been evaluated in accordance with the procedures in SW-846, Chapter 9. The quality assurance and quality control results for both characterizations are included with the laboratory results in Appendices A and B.

The statistical procedures set forth in Section 9.1.1.2 and Table 9-1 of SW-846 are based on the set of individual concentrations being treated as a normal distribution.

6.2 Analytical Results

The laboratory analytical results for the September 29- October 3, 2015 characterization is presented in in Appendix A of this report. The laboratory analytical results for the October 22-26, 2015 characterization is presented in Appendix B. The respective statistical evaluations for each characterization are presented in Appendix C and Appendix D of this report. Laboratory results below the detection limit are used as the detection limit.

6.3 Statistical Results

Table 1 presents a comparison of the Regulatory Threshold for each Ontario Reg. 347, Schedule 4 analyte and the relevant SW-846 statistical value for determining whether a waste material exhibits a toxic characteristic for both characterizations. Laboratory results below the detection limit are reported as the detection limit.

6.4 Conclusion

The analytical data for both fly ash characterizations were evaluated in complete compliance with the procedures set forth in SW-846 and as noted in the Ash Sampling and Testing Protocol. Both statistical evaluations have determined that the waste does not exhibit a hazardous characteristic and that it should be managed as a nonhazardous solid waste.

TABLE 1
 COMPARISON OF SW-846 STATISTICAL RESULTS
 AND ON. 347, SCHEDULE 4 REGULATORY THRESHOLDS
 FOR BOTH COMMISSIONING FLY ASH CHARACTERIZATIONS

	90% CI (Single Tail Distribution)			
	LOR(a)	REG 347 Limit	Sept 29-Oct 3, 2015	Oct 22-Oct 26, 2015
	mg/L	mg/L	mg/L	mg/L
Aldicarb	0.01	0.9	< 0.01	< 0.01
Aldrin + Dieldrin	0.0004	0.07	< 0.0004	< 0.0004
Atrazine & Metabolites	0.002	0.5	< 0.002	< 0.002
Azinphos methyl	0.001	2	< 0.001	< 0.001
Bendiocarb	0.005	4	< 0.005	< 0.005
Benzo(a)-pyrene	0.0002	0.001	< 0.0002	< 0.0002
Bromoxynil	0.002	0.5	< 0.002	< 0.002
Carbaryl	0.002	9	< 0.002	< 0.002
Carbofuran	0.002	9	< 0.002	< 0.002
Chlordane (Total)	0.003	0.7	< 0.003	< 0.003
Chlorpyrifos	0.001	9	< 0.001	< 0.001
Cresols (total)	0.015	200	< 0.015	< 0.015
Cyanazine	0.001	1	< 0.001	< 0.001
Cyanide, Weak Acid Diss TCLP	0.002	20	< 0.002	< 0.002
2,4-D	0.002	10	< 0.002	< 0.002
DDT + metabolites	0.004	3	< 0.004	< 0.004
Diazinon	0.001	2	< 0.001	< 0.001
Dicamba	0.005	12	< 0.005	< 0.005
2,4-Dichloro-phenol	0.005	90	< 0.005	< 0.005
Diclofop methyl	0.002	0.9	< 0.002	< 0.002
Dimethoate	0.001	2	< 0.001	< 0.001
2,4-Dinitro-toluene	0.004	0.13	< 0.004	< 0.004
Dinoseb	0.002	1	< 0.002	< 0.002
Diquat	0.1	7	< 0.1	< 0.1
Diuron	0.01	15	< 0.01	< 0.01
Endrin	0.001	0.02	< 0.001	< 0.001
Parathion	0.001	5	< 0.001	< 0.001
Fluoride (F) Leachable	10	150	< 10	< 10
gamma-BHC	0.001	0.4	< 0.001	< 0.001
Glyphosate	0.05	28	< 0.05	< 0.05
Heptachlor + Heptachlor Epoxide	0.002	0.3	< 0.002	< 0.002
Hexachloro-benzene	0.004	0.13	< 0.004	< 0.004
Hexachloro-butadiene	0.004	0.5	< 0.004	< 0.004
Hexachloro-ethane	0.004	3	< 0.004	< 0.004
Malathion	0.001	19	< 0.001	< 0.001
Methoxychlor	0.001	90	< 0.001	< 0.001

Methyl Parathion	0.001	0.7	<	0.001	<	0.001
Metolachlor	0.001	5	<	0.001	<	0.001
Metribuzin	0.001	8	<	0.001	<	0.001
Nitrate and Nitrite as N	2.8	1000	<	2.8	<	2.8
Nitrilotriacetic Acid (NTA)	40	40	<	40	<	40
Nitrobenzene	0.004	2	<	0.004	<	0.004
N-Nitrosodi-methylamine	0.0002	0.0009	<	0.0002	<	0.0002
Paraquat	0.1	1	<	0.1	<	0.1
Total PCBs	0.0004	0.3	<	0.0004	<	0.0004
Pentachloro-phenol	0.005	6	<	0.005	<	0.005
Phorate	0.001	0.2	<	0.001	<	0.001
Picloram	0.005	19	<	0.005	<	0.005
Pyridine	5	5	<	5	<	5
Simazine	0.001	1	<	0.001	<	0.001
2,4,5-T	0.002	28	<	0.002	<	0.002
Temephos	0.001	28	<	0.001	<	0.001
Terbufos	0.002	0.1	<	0.002	<	0.002
2,3,4,6-Tetrachlorophenol	0.005	10	<	0.005	<	0.005
Toxaphene	0.0035	0.5	<	0.0035	<	0.0035
2,4,5-TP	0.002	1	<	0.002	<	0.002
Triallate	0.001	23	<	0.001	<	0.001
2,4,5-Trichloro-phenol	0.005	400	<	0.005	<	0.005
2,4,6-Trichloro-phenol	0.005	0.5	<	0.005	<	0.005
Trifluralin	0.005	4.5	<	0.005	<	0.005
Arsenic (As) Leachable	0.05	2.5	<	0.05	<	0.05
Barium (Ba) Leachable	0.5	100		1.68		2.14
Boron (B) Leachable	2.5	500	<	2.5	<	2.5
Cadmium (Cd) Leachable	0.005	0.5	<	0.005	<	0.005
Chromium (Cr) Leachable	0.05	5	<	0.05	<	0.05
Lead (Pb) Leachable	0.05	5	<	0.05	<	0.225
Mercury (Hg) TCLP	0.0001	0.1	<	0.0001	<	0.0001
Selenium (Se) Leachable	0.25	1	<	0.25	<	0.25
Silver (Ag) Leachable	0.005	5	<	0.005	<	0.005
Uranium (U) Leachable	0.25	10	<	0.25	<	0.25
1,1-Dichloro-ethylene	0.025	1.4	<	0.025	<	0.025
1,2-Dichloro-benzene	0.025	20	<	0.025	<	0.025
1,2-Dichloro-ethane	0.025	0.5	<	0.025	<	0.025
1,4-Dichloro-benzene	0.025	0.5	<	0.025	<	0.025
Benzene	0.025	0.5	<	0.025	<	0.025
Carbon tetrachloride	0.025	0.5	<	0.025	<	0.025
Chloro-benzene	0.025	8	<	0.025	<	0.025
Chloroform	0.1	10	<	0.1	<	0.1
Dichloro-methane	0.5	5	<	0.5	<	0.5
Methyl Ethyl Ketone	1	200	<	1	<	1

Tetrachloro-ethylene	0.025	3	<	0.025	<	0.025
Trichloro-ethylene	0.025	5	<	0.025	<	0.025
Vinyl chloride	0.05	0.2	<	0.05	<	0.05
Lower Bound PCDD/F TEQ (WHO 2005)	n/a	-		0.00		0.02
Mid Point PCDD/F TEQ (WHO 2005)	n/a	-		3.16		1.82
Upper Bound PCDD/F TEQ (WHO 2005)	n/a	1500		6.32		3.62

(a) Limit of Reporting, Less than symbol (<) indicates laboratory result below the detection limit. The value used in this table is provided by ALS.

APPENDIX A

LABORATORY AND QA/QC RESULTS SEPT 29-OCT 3, 2015



Covanta - Durham York Renewable Energy
LP
ATTN: Leon Brasowski
1835 Energy Drive
Courtice ON L1E 2R2

Date Received: 04-OCT-15
Report Date: 09-OCT-15 11:24 (MT)
Version: FINAL

Client Phone: 905-404-4041

Certificate of Analysis

Lab Work Order #: L1682896
Project P.O. #: NOT SUBMITTED
Job Reference: DYEC - FLY ASH PROJECT
C of C Numbers:
Legal Site Desc:

Mary-Lynn Pires
Account Manager

[This report shall not be reproduced except in full without the written authority of the Laboratory.]

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ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte									
L1682896-1	DYEC/FA/151003/1									
Sampled By: A. HUXTER on 03-OCT-15 @ 23:0										
Matrix: SOIL										#1
Sample Preparation										
	Initial pH	12.44		0.10	pH units	04-OCT-15				
	Final pH	11.61		0.10	pH units	04-OCT-15				
TCLP Extractables										
	Alachlor	<0.0010		0.0010	mg/L	07-OCT-15				
	Aldicarb	<0.010		0.010	mg/L	05-OCT-15	0.9			
	Aldrin	<0.00020		0.00020	mg/L	07-OCT-15				
	Aldrin + Dieldrin	<0.00040		0.00040	mg/L	07-OCT-15	0.07			
	alpha-Chlordane	<0.0010		0.0010	mg/L	07-OCT-15				
	Aroclor 1242	<0.00020		0.00020	mg/L	07-OCT-15				
	Aroclor 1248	<0.00020		0.00020	mg/L	07-OCT-15				
	Aroclor 1254	<0.00020		0.00020	mg/L	07-OCT-15				
	Aroclor 1260	<0.00020		0.00020	mg/L	07-OCT-15				
	Atrazine	<0.0010		0.0010	mg/L	07-OCT-15				
	Atrazine Desethyl	<0.0010		0.0010	mg/L	07-OCT-15				
	Atrazine & Metabolites	<0.0020		0.0020	mg/L	07-OCT-15	0.5			
	Azinphos methyl	<0.0010		0.0010	mg/L	07-OCT-15	2			
	Bendiocarb	<0.0050		0.0050	mg/L	07-OCT-15	4			
	Benzo(a)pyrene	<0.00020		0.00020	mg/L	07-OCT-15	0.001			
							0.001			
	Benzo(a)pyrene	<0.0010		0.0010	mg/L	07-OCT-15	0.001			
							0.001			
	Bromoxynil	<0.0020		0.0020	mg/L	06-OCT-15	0.5			
	Carbaryl	<0.0020		0.0020	mg/L	07-OCT-15	9			
	Carbofuran	<0.0020		0.0020	mg/L	07-OCT-15	9			
	Chlordane (Total)	<0.0030		0.0030	mg/L	07-OCT-15	0.7			
	Chlorpyrifos	<0.0010		0.0010	mg/L	07-OCT-15	9			
	3&4-Methylphenol	<0.010		0.010	mg/L	07-OCT-15				
	Cresols (total)	<0.015		0.015	mg/L	07-OCT-15	200			
	Cyanazine	<0.0010		0.0010	mg/L	07-OCT-15	1.0			
	Cyanide, Weak Acid Diss	<0.10		0.10	mg/L	05-OCT-15	20			
	2,4-D	<0.0020		0.0020	mg/L	06-OCT-15	10			
	p,p-DDD	<0.0010		0.0010	mg/L	07-OCT-15				
	p,p-DDE	<0.0010		0.0010	mg/L	07-OCT-15				
	o,p-DDT	<0.0010		0.0010	mg/L	07-OCT-15				
	p,p-DDT	<0.0010		0.0010	mg/L	07-OCT-15				
	DDT + metabolites	<0.0040		0.0040	mg/L	07-OCT-15	3			
	Diazinon	<0.0010		0.0010	mg/L	07-OCT-15	2			
	Dicamba	<0.0050		0.0050	mg/L	06-OCT-15	12			
	2,4-Dichlorophenol	<0.0050		0.0050	mg/L	07-OCT-15	90			
	Diclofop methyl	<0.0020		0.0020	mg/L	07-OCT-15	0.9			
	Dieldrin	<0.00020		0.00020	mg/L	07-OCT-15				
	Dimethoate	<0.0010		0.0010	mg/L	07-OCT-15	2			
	2,4-Dinitrotoluene	<0.0040		0.0040	mg/L	07-OCT-15	0.13			
	Dinoseb	<0.0020		0.0020	mg/L	06-OCT-15	1			
	Diquat	<0.1	DLM	0.10	mg/L	05-OCT-15	7			
	Diuron	<0.010		0.010	mg/L	05-OCT-15	15			
	Endrin	<0.0010		0.0010	mg/L	07-OCT-15				

** Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.

* Analytical result for this parameter exceeds Guideline Limit listed on this report. Guideline Limits applied:

Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte						#1			
L1682896-1	DYEC/FA/151003/1									
Sampled By: A. HUXTER on 03-OCT-15 @ 23:0										
Matrix: SOIL										
TCLP Extractables										
	Surrogate: 2-Fluorobiphenyl	103.2		40-160	%	07-OCT-15				
	Surrogate: 2-Fluorobiphenyl	82.3		40-160	%	07-OCT-15				
	Surrogate: 2-Fluorobiphenyl	90.0		40-160	%	07-OCT-15				
	Surrogate: Nitrobenzene d5	102.3		50-150	%	07-OCT-15				
	Surrogate: d14-Terphenyl	117.7		60-140	%	07-OCT-15				
	Surrogate: d14-Terphenyl	99.3		60-140	%	07-OCT-15				
	Surrogate: p-Terphenyl d14	123.8		60-140	%	07-OCT-15				
TCLP Metals										
	Arsenic (As)	<0.050		0.050	mg/L	05-OCT-15	2.5			
	Barium (Ba)	1.66		0.50	mg/L	05-OCT-15	100			
	Boron (B)	<2.5		2.5	mg/L	05-OCT-15	500			
	Cadmium (Cd)	<0.0050		0.0050	mg/L	05-OCT-15	0.5			
	Chromium (Cr)	<0.050		0.050	mg/L	05-OCT-15	5.0			
	Lead (Pb)	<0.050		0.050	mg/L	05-OCT-15	5.0			
	Mercury (Hg)	<0.00010		0.00010	mg/L	05-OCT-15	0.1			
	Selenium (Se)	<0.25		0.25	mg/L	05-OCT-15	1.0			
	Silver (Ag)	<0.0050		0.0050	mg/L	05-OCT-15	5.0			
	Uranium (U)	<0.25		0.25	mg/L	05-OCT-15	10			
TCLP VOCs										
	1,1-Dichloroethylene	<0.025		0.025	mg/L	06-OCT-15	1.4			
	1,2-Dichlorobenzene	<0.025		0.025	mg/L	06-OCT-15	20.0			
	1,2-Dichloroethane	<0.025		0.025	mg/L	06-OCT-15	0.5			
	1,4-Dichlorobenzene	<0.025		0.025	mg/L	06-OCT-15	0.5			
	Benzene	<0.025		0.025	mg/L	06-OCT-15	0.5			
	Carbon tetrachloride	<0.025		0.025	mg/L	06-OCT-15	0.5			
	Chlorobenzene	<0.025		0.025	mg/L	06-OCT-15	8			
	Chloroform	<0.10		0.10	mg/L	06-OCT-15	10			
	Dichloromethane	<0.50		0.50	mg/L	06-OCT-15	5.0			
	Methyl Ethyl Ketone	<1.0		1.0	mg/L	06-OCT-15	200.0			
	Tetrachloroethylene	<0.025		0.025	mg/L	06-OCT-15	3			
	Trichloroethylene	<0.025		0.025	mg/L	06-OCT-15	5			
	Vinyl chloride	<0.050		0.050	mg/L	06-OCT-15	0.2			
	Surrogate: 4-Bromofluorobenzene	97.1		70-130	%	06-OCT-15				
Volatile Organic Compounds										
	Surrogate: 1,4-Difluorobenzene	99.5		50-150	%	06-OCT-15				
Polychlorinated Biphenyls										

** Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.

* Analytical result for this parameter exceeds Guideline Limit listed on this report. Guideline Limits applied:

Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte									
L1682896-1	DYEC/FA/151003/1									
Sampled By: A. HUXTER on 03-OCT-15 @ 23:0										
Matrix: SOIL										
Polychlorinated Biphenyls										
Surrogate: Decachlorobiphenyl		108.0		50-150	%	06-OCT-15				
Surrogate: Tetrachloro-m-xylene		95.5		50-150	%	06-OCT-15				
L1682896-2	DYEC/FA/151003/2									
Sampled By: A. HUXTER on 03-OCT-15 @ 23:0										
Matrix: SOIL										
Sample Preparation										
Initial pH		12.43		0.10	pH units	04-OCT-15				
Final pH		11.60		0.10	pH units	04-OCT-15				
TCLP Extractables										
Alachlor		<0.0010		0.0010	mg/L	07-OCT-15				
Aldicarb		<0.010		0.010	mg/L	05-OCT-15	0.9			
Aldrin		<0.00020		0.00020	mg/L	07-OCT-15				
Aldrin + Dieldrin		<0.00040		0.00040	mg/L	07-OCT-15	0.07			
alpha-Chlordane		<0.0010		0.0010	mg/L	07-OCT-15				
Aroclor 1242		<0.00020		0.00020	mg/L	07-OCT-15				
Aroclor 1248		<0.00020		0.00020	mg/L	07-OCT-15				
Aroclor 1254		<0.00020		0.00020	mg/L	07-OCT-15				
Aroclor 1260		<0.00020		0.00020	mg/L	07-OCT-15				
Atrazine		<0.0010		0.0010	mg/L	07-OCT-15				
Atrazine Desethyl		<0.0010		0.0010	mg/L	07-OCT-15				
Atrazine & Metabolites		<0.0020		0.0020	mg/L	07-OCT-15	0.5			
Azinphos methyl		<0.0010		0.0010	mg/L	07-OCT-15	2			
Bendiocarb		<0.0050		0.0050	mg/L	07-OCT-15	4			
Benzo(a)pyrene		<0.00020		0.00020	mg/L	07-OCT-15	0.001			
Benzo(a)pyrene		<0.0010		0.0010	mg/L	07-OCT-15	0.001			
Benzo(a)pyrene		<0.0010		0.0010	mg/L	07-OCT-15	0.001			
Bromoxynil		<0.0020		0.0020	mg/L	06-OCT-15	0.5			
Carbaryl		<0.0020		0.0020	mg/L	07-OCT-15	9			
Carbofuran		<0.0020		0.0020	mg/L	07-OCT-15	9			
Chlordane (Total)		<0.0030		0.0030	mg/L	07-OCT-15	0.7			
Chlorpyrifos		<0.0010		0.0010	mg/L	07-OCT-15	9			
3&4-Methylphenol		<0.010		0.010	mg/L	07-OCT-15				
Cresols (total)		<0.015		0.015	mg/L	07-OCT-15	200			
Cyanazine		<0.0010		0.0010	mg/L	07-OCT-15	1.0			
Cyanide, Weak Acid Diss		<0.10		0.10	mg/L	05-OCT-15	20			
2,4-D		<0.0020		0.0020	mg/L	06-OCT-15	10			
p,p-DDD		<0.0010		0.0010	mg/L	07-OCT-15				
p,p-DDE		<0.0010		0.0010	mg/L	07-OCT-15				
o,p-DDT		<0.0010		0.0010	mg/L	07-OCT-15				
p,p-DDT		<0.0010		0.0010	mg/L	07-OCT-15				
DDT + metabolites		<0.0040		0.0040	mg/L	07-OCT-15	3			
Diazinon		<0.0010		0.0010	mg/L	07-OCT-15	2			
Dicamba		<0.0050		0.0050	mg/L	06-OCT-15	12			
2,4-Dichlorophenol		<0.0050		0.0050	mg/L	07-OCT-15	90			

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Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte									
L1682896-2	DYEC/FA/151003/2									
Sampled By: A. HUXTER on 03-OCT-15 @ 23:0										
Matrix: SOIL										#1
TCLP Extractables										
	Diclofop methyl	<0.0020		0.0020	mg/L	07-OCT-15	0.9			
	Dieldrin	<0.00020		0.00020	mg/L	07-OCT-15				
	Dimethoate	<0.0010		0.0010	mg/L	07-OCT-15	2			
	2,4-Dinitrotoluene	<0.0040		0.0040	mg/L	07-OCT-15	0.13			
	Dinoseb	<0.0020		0.0020	mg/L	06-OCT-15	1			
	Diquat	<0.1	DLM	0.10	mg/L	05-OCT-15	7			
	Diuron	<0.010		0.010	mg/L	05-OCT-15	15			
	Endrin	<0.0010		0.0010	mg/L	07-OCT-15	0.02			
	Parathion	<0.0010		0.0010	mg/L	07-OCT-15	5			
	Fluoride (F)	<10		10	mg/L	05-OCT-15	150.0			
	gamma-BHC	<0.0010		0.0010	mg/L	07-OCT-15	0.4			
	gamma-Chlordane	<0.0010		0.0010	mg/L	07-OCT-15				
	Glyphosate	<0.050		0.050	mg/L	06-OCT-15	28			
	Heptachlor	<0.0010		0.0010	mg/L	07-OCT-15				
	Heptachlor + Heptachlor Epoxide	<0.0020		0.0020	mg/L	07-OCT-15	0.3			
	Heptachlor epoxide	<0.0010		0.0010	mg/L	07-OCT-15				
	Hexachlorobenzene	<0.0040		0.0040	mg/L	07-OCT-15	0.13			
	Hexachlorobutadiene	<0.0040		0.0040	mg/L	07-OCT-15	0.5			
	Hexachloroethane	<0.0040		0.0040	mg/L	07-OCT-15	3.0			
	Malathion	<0.0010		0.0010	mg/L	07-OCT-15	19			
	MCPA	<0.0020		0.0020	mg/L	06-OCT-15				
	Methoxychlor	<0.0010		0.0010	mg/L	07-OCT-15	90			
	Methyl Parathion	<0.0010		0.0010	mg/L	07-OCT-15	0.7			
	2-Methylphenol	<0.0050		0.0050	mg/L	07-OCT-15				
	Metolachlor	<0.0010		0.0010	mg/L	07-OCT-15	5			
	Metribuzin	<0.0010		0.0010	mg/L	07-OCT-15	8			
	Nitrate and Nitrite as N	<4.0		4.0	mg/L	05-OCT-15	1000			
	Nitrate-N	<2.0		2.0	mg/L	05-OCT-15				
	Nitrilotriacetic Acid (NTA)	<40		0.20	mg/L	05-OCT-15	40			
	Nitrite-N	<2.0		2.0	mg/L	05-OCT-15				
	Nitrobenzene	<0.0040		0.0040	mg/L	07-OCT-15	2.0			
	N-Nitrosodimethylamine	<0.00020		0.00020	mg/L	08-OCT-15	0.0009			
	Oxychlordane	<0.0010		0.0010	mg/L	07-OCT-15				
	Paraquat	<0.10	DLM	0.10	mg/L	05-OCT-15	1			
	Total PCBs	<0.00040		0.00040	mg/L	07-OCT-15	0.3			
	Pentachlorophenol	<0.0050		0.0050	mg/L	07-OCT-15	6			
	Phorate	<0.0010		0.0010	mg/L	07-OCT-15	0.2			
	Picloram	<0.0050		0.0050	mg/L	06-OCT-15	19			
	Prometryne	<0.0010		0.0010	mg/L	07-OCT-15				
	Pyridine	<5.0		5.0	mg/L	05-OCT-15	5.0			
	Simazine	<0.0010		0.0010	mg/L	07-OCT-15	1			
	2,4,5-T	<0.0020		0.0020	mg/L	06-OCT-15	28			
	Temephos	<0.0010		0.0010	mg/L	07-OCT-15	28			
	Terbufos	<0.0020		0.0020	mg/L	07-OCT-15	0.1			
	2,3,4,6-Tetrachlorophenol	<0.0050		0.0050	mg/L	07-OCT-15	10.0			
	Toxaphene	<0.0035		0.0035	mg/L	06-OCT-15	0.5			

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Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte									
L1682896-2	DYEC/FA/151003/2									
Sampled By: A. HUXTER on 03-OCT-15 @ 23:0						#1				
Matrix: SOIL										
TCLP Extractables										
	2,4,5-TP	<0.0020		0.0020	mg/L	06-OCT-15	1			
	Triallate	<0.0010		0.0010	mg/L	07-OCT-15	23			
	2,4,5-Trichlorophenol	<0.0050		0.0050	mg/L	07-OCT-15	400			
	2,4,6-Trichlorophenol	<0.0050		0.0050	mg/L	07-OCT-15	0.5			
	Trifluralin	<0.0050		0.0050	mg/L	07-OCT-15	4.5			
	Surrogate: 2,4,6-Tribromophenol	90.8		50-150	%	07-OCT-15				
	Surrogate: 2,4-Dichlorophenylacetic Acid	110.3		50-150	%	06-OCT-15				
	Surrogate: 2-Fluorobiphenyl	104.9		40-160	%	07-OCT-15				
	Surrogate: 2-Fluorobiphenyl	66.8		40-160	%	07-OCT-15				
	Surrogate: 2-Fluorobiphenyl	88.3		40-160	%	07-OCT-15				
	Surrogate: Nitrobenzene d5	105.4		50-150	%	07-OCT-15				
	Surrogate: d14-Terphenyl	103.3		60-140	%	07-OCT-15				
	Surrogate: d14-Terphenyl	90.2		60-140	%	07-OCT-15				
	Surrogate: p-Terphenyl d14	114.7		60-140	%	07-OCT-15				
TCLP Metals										
	Arsenic (As)	<0.050		0.050	mg/L	05-OCT-15	2.5			
	Barium (Ba)	1.62		0.50	mg/L	05-OCT-15	100			
	Boron (B)	<2.5		2.5	mg/L	05-OCT-15	500			
	Cadmium (Cd)	<0.0050		0.0050	mg/L	05-OCT-15	0.5			
	Chromium (Cr)	<0.050		0.050	mg/L	05-OCT-15	5.0			
	Lead (Pb)	<0.050		0.050	mg/L	05-OCT-15	5.0			
	Mercury (Hg)	<0.00010		0.00010	mg/L	05-OCT-15	0.1			
	Selenium (Se)	<0.25		0.25	mg/L	05-OCT-15	1.0			
	Silver (Ag)	<0.0050		0.0050	mg/L	05-OCT-15	5.0			
	Uranium (U)	<0.25		0.25	mg/L	05-OCT-15	10			
TCLP VOCs										
	1,1-Dichloroethylene	<0.025		0.025	mg/L	06-OCT-15	1.4			
	1,2-Dichlorobenzene	<0.025		0.025	mg/L	06-OCT-15	20.0			
	1,2-Dichloroethane	<0.025		0.025	mg/L	06-OCT-15	0.5			
	1,4-Dichlorobenzene	<0.025		0.025	mg/L	06-OCT-15	0.5			
	Benzene	<0.025		0.025	mg/L	06-OCT-15	0.5			
	Carbon tetrachloride	<0.025		0.025	mg/L	06-OCT-15	0.5			
	Chlorobenzene	<0.025		0.025	mg/L	06-OCT-15	8			
	Chloroform	<0.10		0.10	mg/L	06-OCT-15	10			
	Dichloromethane	<0.50		0.50	mg/L	06-OCT-15	5.0			
	Methyl Ethyl Ketone	<1.0		1.0	mg/L	06-OCT-15	200.0			
	Tetrachloroethylene	<0.025		0.025	mg/L	06-OCT-15	3			

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Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte									
L1682896-2	DYEC/FA/151003/2									
Sampled By: A. HUXTER on 03-OCT-15 @ 23:0										
Matrix: SOIL										
TCLP VOCs										
	Trichloroethylene	<0.025		0.025	mg/L	06-OCT-15	5			
	Vinyl chloride	<0.050		0.050	mg/L	06-OCT-15	0.2			
	Surrogate: 4-Bromofluorobenzene	95.8		70-130	%	06-OCT-15				
Volatile Organic Compounds										
	Surrogate: 1,4-Difluorobenzene	99.6		50-150	%	06-OCT-15				
Polychlorinated Biphenyls										
	Surrogate: Decachlorobiphenyl	105.0		50-150	%	06-OCT-15				
	Surrogate: Tetrachloro-m-xylene	91.1		50-150	%	06-OCT-15				
L1682896-3	DYEC/FA/151003/3									
Sampled By: A. HUXTER on 03-OCT-15 @ 23:0										
Matrix: SOIL										
Sample Preparation										
	Initial pH	12.42		0.10	pH units	04-OCT-15				
	Final pH	11.61		0.10	pH units	04-OCT-15				
TCLP Extractables										
	Alachlor	<0.0010		0.0010	mg/L	07-OCT-15				
	Aldicarb	<0.010		0.010	mg/L	05-OCT-15	0.9			
	Aldrin	<0.00020		0.00020	mg/L	07-OCT-15				
	Aldrin + Dieldrin	<0.00040		0.00040	mg/L	07-OCT-15	0.07			
	alpha-Chlordane	<0.0010		0.0010	mg/L	07-OCT-15				
	Aroclor 1242	<0.00020		0.00020	mg/L	07-OCT-15				
	Aroclor 1248	<0.00020		0.00020	mg/L	07-OCT-15				
	Aroclor 1254	<0.00020		0.00020	mg/L	07-OCT-15				
	Aroclor 1260	<0.00020		0.00020	mg/L	07-OCT-15				
	Atrazine	<0.0010		0.0010	mg/L	07-OCT-15				
	Atrazine Desethyl	<0.0010		0.0010	mg/L	07-OCT-15				
	Atrazine & Metabolites	<0.0020		0.0020	mg/L	07-OCT-15	0.5			
	Azinphos methyl	<0.0010		0.0010	mg/L	07-OCT-15	2			
	Bendiocarb	<0.0050		0.0050	mg/L	07-OCT-15	4			
	Benzo(a)pyrene	<0.00020		0.00020	mg/L	07-OCT-15	0.001			
							0.001			
	Benzo(a)pyrene	<0.0010		0.0010	mg/L	07-OCT-15	0.001			
							0.001			
	Bromoxynil	<0.0020		0.0020	mg/L	06-OCT-15	0.5			
	Carbaryl	<0.0020		0.0020	mg/L	07-OCT-15	9			
	Carbofuran	<0.0020		0.0020	mg/L	07-OCT-15	9			
	Chlordane (Total)	<0.0030		0.0030	mg/L	07-OCT-15	0.7			
	Chlorpyrifos	<0.0010		0.0010	mg/L	07-OCT-15	9			
	3&4-Methylphenol	<0.010		0.010	mg/L	07-OCT-15				
	Cresols (total)	<0.015		0.015	mg/L	07-OCT-15	200			
	Cyanazine	<0.0010		0.0010	mg/L	07-OCT-15	1.0			
	Cyanide, Weak Acid Diss	<0.10		0.10	mg/L	05-OCT-15	20			
	2,4-D	<0.0020		0.0020	mg/L	06-OCT-15	10			
	p,p-DDD	<0.0010		0.0010	mg/L	07-OCT-15				
	p,p-DDE	<0.0010		0.0010	mg/L	07-OCT-15				

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Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte									
L1682896-3	DYEC/FA/151003/3									
Sampled By: A. HUXTER on 03-OCT-15 @ 23:0										
Matrix: SOIL										#1
TCLP Extractables										
	o,p-DDT	<0.0010		0.0010	mg/L	07-OCT-15				
	p,p-DDT	<0.0010		0.0010	mg/L	07-OCT-15				
	DDT + metabolites	<0.0040		0.0040	mg/L	07-OCT-15	3			
	Diazinon	<0.0010		0.0010	mg/L	07-OCT-15	2			
	Dicamba	<0.0050		0.0050	mg/L	06-OCT-15	12			
	2,4-Dichlorophenol	<0.0050		0.0050	mg/L	07-OCT-15	90			
	Diclofop methyl	<0.0020		0.0020	mg/L	07-OCT-15	0.9			
	Dieldrin	<0.00020		0.00020	mg/L	07-OCT-15				
	Dimethoate	<0.0010		0.0010	mg/L	07-OCT-15	2			
	2,4-Dinitrotoluene	<0.0040		0.0040	mg/L	07-OCT-15	0.13			
	Dinoseb	<0.0020		0.0020	mg/L	06-OCT-15	1			
	Diquat	<0.1	DLM	0.10	mg/L	05-OCT-15	7			
	Diuron	<0.010		0.010	mg/L	05-OCT-15	15			
	Endrin	<0.0010		0.0010	mg/L	07-OCT-15	0.02			
	Parathion	<0.0010		0.0010	mg/L	07-OCT-15	5			
	Fluoride (F)	<10		10	mg/L	05-OCT-15	150.0			
	gamma-BHC	<0.0010		0.0010	mg/L	07-OCT-15	0.4			
	gamma-Chlordane	<0.0010		0.0010	mg/L	07-OCT-15				
	Glyphosate	<0.050		0.050	mg/L	06-OCT-15	28			
	Heptachlor	<0.0010		0.0010	mg/L	07-OCT-15				
	Heptachlor + Heptachlor Epoxide	<0.0020		0.0020	mg/L	07-OCT-15	0.3			
	Heptachlor epoxide	<0.0010		0.0010	mg/L	07-OCT-15				
	Hexachlorobenzene	<0.0040		0.0040	mg/L	07-OCT-15	0.13			
	Hexachlorobutadiene	<0.0040		0.0040	mg/L	07-OCT-15	0.5			
	Hexachloroethane	<0.0040		0.0040	mg/L	07-OCT-15	3.0			
	Malathion	<0.0010		0.0010	mg/L	07-OCT-15	19			
	MCPA	<0.0020		0.0020	mg/L	06-OCT-15				
	Methoxychlor	<0.0010		0.0010	mg/L	07-OCT-15	90			
	Methyl Parathion	<0.0010		0.0010	mg/L	07-OCT-15	0.7			
	2-Methylphenol	<0.0050		0.0050	mg/L	07-OCT-15				
	Metolachlor	<0.0010		0.0010	mg/L	07-OCT-15	5			
	Metribuzin	<0.0010		0.0010	mg/L	07-OCT-15	8			
	Nitrate and Nitrite as N	<4.0		4.0	mg/L	05-OCT-15	1000			
	Nitrate-N	<2.0		2.0	mg/L	05-OCT-15				
	Nitritotriacetic Acid (NTA)	<40		0.20	mg/L	05-OCT-15	40			
	Nitrite-N	<2.0		2.0	mg/L	05-OCT-15				
	Nitrobenzene	<0.0040		0.0040	mg/L	07-OCT-15	2.0			
	N-Nitrosodimethylamine	<0.00020		0.00020	mg/L	08-OCT-15	0.0009			
	Oxychlordane	<0.0010		0.0010	mg/L	07-OCT-15				
	Paraquat	<0.10	DLM	0.10	mg/L	05-OCT-15	1			
	Total PCBs	<0.00040		0.00040	mg/L	07-OCT-15	0.3			
	Pentachlorophenol	<0.0050		0.0050	mg/L	07-OCT-15	6			
	Phorate	<0.0010		0.0010	mg/L	07-OCT-15	0.2			
	Picloram	<0.0050		0.0050	mg/L	06-OCT-15	19			
	Prometryne	<0.0010		0.0010	mg/L	07-OCT-15				
	Pyridine	<5.0		5.0	mg/L	05-OCT-15	5.0			

** Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.

* Analytical result for this parameter exceeds Guideline Limit listed on this report. Guideline Limits applied:

Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte									
L1682896-3	DYEC/FA/151003/3									
Sampled By: A. HUXTER on 03-OCT-15 @ 23:0										
Matrix: SOIL										#1
TCLP Extractables										
	Simazine	<0.0010		0.0010	mg/L	07-OCT-15	1			
	2,4,5-T	<0.0020		0.0020	mg/L	06-OCT-15	28			
	Temephos	<0.0010		0.0010	mg/L	07-OCT-15	28			
	Terbufos	<0.0020		0.0020	mg/L	07-OCT-15	0.1			
	2,3,4,6-Tetrachlorophenol	<0.0050		0.0050	mg/L	07-OCT-15	10.0			
	Toxaphene	<0.0035		0.0035	mg/L	06-OCT-15	0.5			
	2,4,5-TP	<0.0020		0.0020	mg/L	06-OCT-15	1			
	Triallate	<0.0010		0.0010	mg/L	07-OCT-15	23			
	2,4,5-Trichlorophenol	<0.0050		0.0050	mg/L	07-OCT-15	400			
	2,4,6-Trichlorophenol	<0.0050		0.0050	mg/L	07-OCT-15	0.5			
	Trifluralin	<0.0050		0.0050	mg/L	07-OCT-15	4.5			
	Surrogate: 2,4,6-Tribromophenol	90.2		50-150	%	07-OCT-15				
	Surrogate: 2,4-Dichlorophenylacetic Acid	113.8		50-150	%	06-OCT-15				
	Surrogate: 2-Fluorobiphenyl	102.3		40-160	%	07-OCT-15				
	Surrogate: 2-Fluorobiphenyl	65.9		40-160	%	07-OCT-15				
	Surrogate: 2-Fluorobiphenyl	87.4		40-160	%	07-OCT-15				
	Surrogate: Nitrobenzene d5	105.1		50-150	%	07-OCT-15				
	Surrogate: d14-Terphenyl	117.5		60-140	%	07-OCT-15				
	Surrogate: d14-Terphenyl	76.0		60-140	%	07-OCT-15				
	Surrogate: p-Terphenyl d14	123.5		60-140	%	07-OCT-15				
TCLP Metals										
	Arsenic (As)	<0.050		0.050	mg/L	05-OCT-15	2.5			
	Barium (Ba)	1.75		0.50	mg/L	05-OCT-15	100			
	Boron (B)	<2.5		2.5	mg/L	05-OCT-15	500			
	Cadmium (Cd)	<0.0050		0.0050	mg/L	05-OCT-15	0.5			
	Chromium (Cr)	<0.050		0.050	mg/L	05-OCT-15	5.0			
	Lead (Pb)	<0.050		0.050	mg/L	05-OCT-15	5.0			
	Mercury (Hg)	<0.00010		0.00010	mg/L	05-OCT-15	0.1			
	Selenium (Se)	<0.25		0.25	mg/L	05-OCT-15	1.0			
	Silver (Ag)	<0.0050		0.0050	mg/L	05-OCT-15	5.0			
	Uranium (U)	<0.25		0.25	mg/L	05-OCT-15	10			
TCLP VOCs										
	1,1-Dichloroethylene	<0.025		0.025	mg/L	06-OCT-15	1.4			
	1,2-Dichlorobenzene	<0.025		0.025	mg/L	06-OCT-15	20.0			
	1,2-Dichloroethane	<0.025		0.025	mg/L	06-OCT-15	0.5			
	1,4-Dichlorobenzene	<0.025		0.025	mg/L	06-OCT-15	0.5			
	Benzene	<0.025		0.025	mg/L	06-OCT-15	0.5			

** Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.

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Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte									
L1682896-3	DYEC/FA/151003/3									
Sampled By: A. HUXTER on 03-OCT-15 @ 23:0										
Matrix: SOIL										
TCLP VOCs										
	Carbon tetrachloride	<0.025		0.025	mg/L	06-OCT-15	0.5			
	Chlorobenzene	<0.025		0.025	mg/L	06-OCT-15	8			
	Chloroform	<0.10		0.10	mg/L	06-OCT-15	10			
	Dichloromethane	<0.50		0.50	mg/L	06-OCT-15	5.0			
	Methyl Ethyl Ketone	<1.0		1.0	mg/L	06-OCT-15	200.0			
	Tetrachloroethylene	<0.025		0.025	mg/L	06-OCT-15	3			
	Trichloroethylene	<0.025		0.025	mg/L	06-OCT-15	5			
	Vinyl chloride	<0.050		0.050	mg/L	06-OCT-15	0.2			
	Surrogate: 4-Bromofluorobenzene	96.2		70-130	%	06-OCT-15				
Volatile Organic Compounds										
	Surrogate: 1,4-Difluorobenzene	99.2		50-150	%	06-OCT-15				
Polychlorinated Biphenyls										
	Surrogate: Decachlorobiphenyl	101.0		50-150	%	06-OCT-15				
	Surrogate: Tetrachloro-m-xylene	88.5		50-150	%	06-OCT-15				
L1682896-4	DYEC/FA/151003/4									
Sampled By: A. HUXTER on 03-OCT-15 @ 23:0										
Matrix: SOIL										
Sample Preparation										
	Initial pH	12.43		0.10	pH units	04-OCT-15				
	Final pH	11.59		0.10	pH units	04-OCT-15				
TCLP Extractables										
	Alachlor	<0.0010		0.0010	mg/L	07-OCT-15				
	Aldicarb	<0.010		0.010	mg/L	05-OCT-15	0.9			
	Aldrin	<0.00020		0.00020	mg/L	07-OCT-15				
	Aldrin + Dieldrin	<0.00040		0.00040	mg/L	07-OCT-15	0.07			
	alpha-Chlordane	<0.0010		0.0010	mg/L	07-OCT-15				
	Aroclor 1242	<0.00020		0.00020	mg/L	07-OCT-15				
	Aroclor 1248	<0.00020		0.00020	mg/L	07-OCT-15				
	Aroclor 1254	<0.00020		0.00020	mg/L	07-OCT-15				
	Aroclor 1260	<0.00020		0.00020	mg/L	07-OCT-15				
	Atrazine	<0.0010		0.0010	mg/L	07-OCT-15				
	Atrazine Desethyl	<0.0010		0.0010	mg/L	07-OCT-15				
	Atrazine & Metabolites	<0.0020		0.0020	mg/L	07-OCT-15	0.5			
	Azinphos methyl	<0.0010		0.0010	mg/L	07-OCT-15	2			
	Bendiocarb	<0.0050		0.0050	mg/L	07-OCT-15	4			
	Benzo(a)pyrene	<0.00020		0.00020	mg/L	07-OCT-15	0.001			
							0.001			
	Benzo(a)pyrene	<0.0010		0.0010	mg/L	07-OCT-15	0.001			
							0.001			
	Bromoxynil	<0.0020		0.0020	mg/L	06-OCT-15	0.5			
	Carbaryl	<0.0020		0.0020	mg/L	07-OCT-15	9			
	Carbofuran	<0.0020		0.0020	mg/L	07-OCT-15	9			
	Chlordane (Total)	<0.0030		0.0030	mg/L	07-OCT-15	0.7			
	Chlorpyrifos	<0.0010		0.0010	mg/L	07-OCT-15	9			
	3&4-Methylphenol	<0.010		0.010	mg/L	07-OCT-15				

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Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte									
L1682896-4	DYEC/FA/151003/4									
Sampled By: A. HUXTER on 03-OCT-15 @ 23:0										
Matrix: SOIL										#1
TCLP Extractables										
	Cresols (total)	<0.015		0.015	mg/L	07-OCT-15	200			
	Cyanazine	<0.0010		0.0010	mg/L	07-OCT-15	1.0			
	Cyanide, Weak Acid Diss	<0.10		0.10	mg/L	05-OCT-15	20			
	2,4-D	<0.0020		0.0020	mg/L	06-OCT-15	10			
	p,p-DDD	<0.0010		0.0010	mg/L	07-OCT-15				
	p,p-DDE	<0.0010		0.0010	mg/L	07-OCT-15				
	o,p-DDT	<0.0010		0.0010	mg/L	07-OCT-15				
	p,p-DDT	<0.0010		0.0010	mg/L	07-OCT-15				
	DDT + metabolites	<0.0040		0.0040	mg/L	07-OCT-15	3			
	Diazinon	<0.0010		0.0010	mg/L	07-OCT-15	2			
	Dicamba	<0.0050		0.0050	mg/L	06-OCT-15	12			
	2,4-Dichlorophenol	<0.0050		0.0050	mg/L	07-OCT-15	90			
	Diclofop methyl	<0.0020		0.0020	mg/L	07-OCT-15	0.9			
	Dieldrin	<0.00020		0.00020	mg/L	07-OCT-15				
	Dimethoate	<0.0010		0.0010	mg/L	07-OCT-15	2			
	2,4-Dinitrotoluene	<0.0040		0.0040	mg/L	07-OCT-15	0.13			
	Dinoseb	<0.0020		0.0020	mg/L	06-OCT-15	1			
	Diquat	<0.1	DLM	0.10	mg/L	05-OCT-15	7			
	Diuron	<0.010		0.010	mg/L	05-OCT-15	15			
	Endrin	<0.0010		0.0010	mg/L	07-OCT-15	0.02			
	Parathion	<0.0010		0.0010	mg/L	07-OCT-15	5			
	Fluoride (F)	<10		10	mg/L	05-OCT-15	150.0			
	gamma-BHC	<0.0010		0.0010	mg/L	07-OCT-15	0.4			
	gamma-Chlordane	<0.0010		0.0010	mg/L	07-OCT-15				
	Glyphosate	<0.050		0.050	mg/L	06-OCT-15	28			
	Heptachlor	<0.0010		0.0010	mg/L	07-OCT-15				
	Heptachlor + Heptachlor Epoxide	<0.0020		0.0020	mg/L	07-OCT-15	0.3			
	Heptachlor epoxide	<0.0010		0.0010	mg/L	07-OCT-15				
	Hexachlorobenzene	<0.0040		0.0040	mg/L	07-OCT-15	0.13			
	Hexachlorobutadiene	<0.0040		0.0040	mg/L	07-OCT-15	0.5			
	Hexachloroethane	<0.0040		0.0040	mg/L	07-OCT-15	3.0			
	Malathion	<0.0010		0.0010	mg/L	07-OCT-15	19			
	MCPA	<0.0020		0.0020	mg/L	06-OCT-15				
	Methoxychlor	<0.0010		0.0010	mg/L	07-OCT-15	90			
	Methyl Parathion	<0.0010		0.0010	mg/L	07-OCT-15	0.7			
	2-Methylphenol	<0.0050		0.0050	mg/L	07-OCT-15				
	Metolachlor	<0.0010		0.0010	mg/L	07-OCT-15	5			
	Metribuzin	<0.0010		0.0010	mg/L	07-OCT-15	8			
	Nitrate and Nitrite as N	<4.0		4.0	mg/L	05-OCT-15	1000			
	Nitrate-N	<2.0		2.0	mg/L	05-OCT-15				
	Nitrioltriacetic Acid (NTA)	<40		0.20	mg/L	05-OCT-15	40			
	Nitrite-N	<2.0		2.0	mg/L	05-OCT-15				
	Nitrobenzene	<0.0040		0.0040	mg/L	07-OCT-15	2.0			
	N-Nitrosodimethylamine	<0.00020		0.00020	mg/L	08-OCT-15	0.0009			
	Oxychlordane	<0.0010		0.0010	mg/L	07-OCT-15				
	Paraquat	<0.10	DLM	0.10	mg/L	05-OCT-15	1			

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Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte						#1			
L1682896-4	DYEC/FA/151003/4									
Sampled By: A. HUXTER on 03-OCT-15 @ 23:0										
Matrix: SOIL										
TCLP Extractables										
	Total PCBs	<0.00040		0.00040	mg/L	07-OCT-15	0.3			
	Pentachlorophenol	<0.0050		0.0050	mg/L	07-OCT-15	6			
	Phorate	<0.0010		0.0010	mg/L	07-OCT-15	0.2			
	Picloram	<0.0050		0.0050	mg/L	06-OCT-15	19			
	Prometryne	<0.0010		0.0010	mg/L	07-OCT-15				
	Pyridine	<5.0		5.0	mg/L	05-OCT-15	5.0			
	Simazine	<0.0010		0.0010	mg/L	07-OCT-15	1			
	2,4,5-T	<0.0020		0.0020	mg/L	06-OCT-15	28			
	Temephos	<0.0010		0.0010	mg/L	07-OCT-15	28			
	Terbufos	<0.0020		0.0020	mg/L	07-OCT-15	0.1			
	2,3,4,6-Tetrachlorophenol	<0.0050		0.0050	mg/L	07-OCT-15	10.0			
	Toxaphene	<0.0035		0.0035	mg/L	06-OCT-15	0.5			
	2,4,5-TP	<0.0020		0.0020	mg/L	06-OCT-15	1			
	Triallate	<0.0010		0.0010	mg/L	07-OCT-15	23			
	2,4,5-Trichlorophenol	<0.0050		0.0050	mg/L	07-OCT-15	400			
	2,4,6-Trichlorophenol	<0.0050		0.0050	mg/L	07-OCT-15	0.5			
	Trifluralin	<0.0050		0.0050	mg/L	07-OCT-15	4.5			
	Surrogate: 2,4,6-Tribromophenol	89.7		50-150	%	07-OCT-15				
	Surrogate: 2,4-Dichlorophenylacetic Acid	115.7		50-150	%	06-OCT-15				
	Surrogate: 2-Fluorobiphenyl	102.8		40-160	%	07-OCT-15				
	Surrogate: 2-Fluorobiphenyl	69.9		40-160	%	07-OCT-15				
	Surrogate: 2-Fluorobiphenyl	83.6		40-160	%	07-OCT-15				
	Surrogate: Nitrobenzene d5	105.2		50-150	%	07-OCT-15				
	Surrogate: d14-Terphenyl	103.8		60-140	%	07-OCT-15				
	Surrogate: d14-Terphenyl	75.8		60-140	%	07-OCT-15				
	Surrogate: p-Terphenyl d14	120.9		60-140	%	07-OCT-15				
TCLP Metals										
	Arsenic (As)	<0.050		0.050	mg/L	05-OCT-15	2.5			
	Barium (Ba)	1.70		0.50	mg/L	05-OCT-15	100			
	Boron (B)	<2.5		2.5	mg/L	05-OCT-15	500			
	Cadmium (Cd)	<0.0050		0.0050	mg/L	05-OCT-15	0.5			
	Chromium (Cr)	<0.050		0.050	mg/L	05-OCT-15	5.0			
	Lead (Pb)	<0.050		0.050	mg/L	05-OCT-15	5.0			
	Mercury (Hg)	<0.00010		0.00010	mg/L	05-OCT-15	0.1			
	Selenium (Se)	<0.25		0.25	mg/L	05-OCT-15	1.0			
	Silver (Ag)	<0.0050		0.0050	mg/L	05-OCT-15	5.0			
	Uranium (U)	<0.25		0.25	mg/L	05-OCT-15	10			

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Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits		
Grouping	Analyte						#1		
L1682896-4	DYEC/FA/151003/4								
Sampled By: A. HUXTER on 03-OCT-15 @ 23:0									
Matrix: SOIL									
TCLP VOCs									
	1,1-Dichloroethylene	<0.025		0.025	mg/L	06-OCT-15	1.4		
	1,2-Dichlorobenzene	<0.025		0.025	mg/L	06-OCT-15	20.0		
	1,2-Dichloroethane	<0.025		0.025	mg/L	06-OCT-15	0.5		
	1,4-Dichlorobenzene	<0.025		0.025	mg/L	06-OCT-15	0.5		
	Benzene	<0.025		0.025	mg/L	06-OCT-15	0.5		
	Carbon tetrachloride	<0.025		0.025	mg/L	06-OCT-15	0.5		
	Chlorobenzene	<0.025		0.025	mg/L	06-OCT-15	8		
	Chloroform	<0.10		0.10	mg/L	06-OCT-15	10		
	Dichloromethane	<0.50		0.50	mg/L	06-OCT-15	5.0		
	Methyl Ethyl Ketone	<1.0		1.0	mg/L	06-OCT-15	200.0		
	Tetrachloroethylene	<0.025		0.025	mg/L	06-OCT-15	3		
	Trichloroethylene	<0.025		0.025	mg/L	06-OCT-15	5		
	Vinyl chloride	<0.050		0.050	mg/L	06-OCT-15	0.2		
	Surrogate: 4-Bromofluorobenzene	97.9		70-130	%	06-OCT-15			
Volatile Organic Compounds									
	Surrogate: 1,4-Difluorobenzene	99.1		50-150	%	06-OCT-15			
Polychlorinated Biphenyls									
	Surrogate: Decachlorobiphenyl	99.7		50-150	%	06-OCT-15			
	Surrogate: Tetrachloro-m-xylene	87.3		50-150	%	06-OCT-15			

** Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.

* Analytical result for this parameter exceeds Guideline Limit listed on this report. Guideline Limits applied:

Reference Information

Sample Parameter Qualifier key listed:

Qualifier	Description
DLM	Detection Limit Adjusted due to sample matrix effects.

Methods Listed (if applicable):

ALS Test Code	Matrix	Test Description	Method Reference***
ALDICARB-TCLP-WT	Waste	O. Reg 347 Aldicarb	LC/MS-MS
BNA-TCLP-WT	Waste	BNAs for O. Reg 347	SW846 8270
Samples are leached according to TCLP protocol and then the aqueous leachate is extracted and the resulting extracts are analyzed on GC/MSD			
CN-TCLP-WT	Waste	Cyanide for O. Reg 347	APHA 4500CN C E
DIQUAT-TCLP-WT	Waste	Diquat for O. Reg 347	LC/MS/MS
DIURON-TCLP-WT	Waste	Diuron for O. Reg 347	MOE PWAUH-E3436 (MOD)
F-TCLP-WT	Waste	Fluoride (F) for O. Reg 347	APHA 4110 B-Ion Chromatography
GLYPHOSATE-TCLP-WT	Waste	Glyphosate for O. Reg 347	LC/MS/MS
HG-TCLP-WT	Waste	Mercury (CVAA) for O.Reg 347	SW846 7470A
LEACH-TCLP-WT	Waste	Leachate Procedure for Reg 347	EPA 1311

Inorganic and Semi-Volatile Organic contaminants are leached from waste samples in strict accordance with US EPA Method 1311, "Toxicity Characteristic Leaching Procedure" (TCLP). Test results are reported in leachate concentration units (normally mg/L).

MET-TCLP-WT	Waste	O.Reg 347 TCLP Leachable Metals	EPA 200.8
N2N3-TCLP-WT	Waste	Nitrate/Nitrite-N for O. Reg 347	APHA 4110 B-Ion Chromatography
NDMA-TCLP-WT	Waste	NDMA for O. Reg 347	In House/GC/MS
NTA-TCLP-WT	Waste	NTA for O. Reg 347	EPA 430.2
PARAQUAT-TCLP-WT	Waste	Paraquat for O. Reg 347	LC/MS-MS
PCB-TCLP-WT	Waste	PCBs for O. Reg 347	SW846 8270
PEST-MISC-TCLP-WT	Waste	O. Reg 347 TCLP Miscellaneous Pesticides	SW846 8270
PEST-OC-TCLP-WT	Waste	O. Reg 347TCLP Organochlorine Pesticides	SW846 8270
Samples are leached according to TCLP protocol and then the aqueous leachate is extracted and the resulting extracts are analyzed on GC/MSD			
PEST-PAHERB-TCLP-WT	Waste	Phenoxyacid Herbicides for O. Reg 347	SW846 8270
PYR-TCLP-WT	Waste	Pyridine for O. Reg 347	SW846 8260D
Samples are leached according to TCLP protocol and then analyzed on GC/MSD			
TOXAPHENE-TCLP-WT	Waste	Toxaphene by GC/ECD for O. Reg 347	SW846 8270
VOC-TCLP-WT	Waste	VOC for O. Reg 347	SW846 8260

A sample of waste is leached in a zero headspace extractor at 30–2 rpm for 18–2.0 hours with the appropriate leaching solution. After tumbling the leachate is analyzed directly by headspace technology, followed by GC/MS using internal standard quantitation.

*** ALS test methods may incorporate modifications from specified reference methods to improve performance.

Chain of Custody numbers:

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location	Laboratory Definition Code	Laboratory Location
WT	ALS ENVIRONMENTAL - WATERLOO, ONTARIO, CANADA		

Reference Information

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.

mg/kg - milligrams per kilogram based on dry weight of sample

mg/kg wwt - milligrams per kilogram based on wet weight of sample

mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight

mg/L - unit of concentration based on volume, parts per million.

< - Less than.

D.L. - The reporting limit.

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.

Application of guidelines is provided "as is" without warranty of any kind, either expressed or implied, including, but not limited to fitness for a particular purpose, or non-infringement. ALS assumes no responsibility for errors or omissions in the information.



Quality Control Report

Workorder: L1682896

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Client: Covanta - Durham York Renewable Energy LP
 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
ALDICARB-TCLP-WT		Waste						
Batch	R3283822							
WG2185838-3	DUP	L1682822-1						
Aldicarb		<0.010	<0.010	RPD-NA	mg/L	N/A	30	05-OCT-15
WG2185838-2	LCS							
Aldicarb			105.0		%		70-130	05-OCT-15
WG2185838-1	MB							
Aldicarb			<0.010		mg/L		0.01	05-OCT-15
BNA-TCLP-WT		Waste						
Batch	R3283781							
WG2185631-5	DUP	WG2185631-4						
2,3,4,6-Tetrachlorophenol		<0.0050	<0.0050	RPD-NA	mg/L	N/A	50	06-OCT-15
2,4,5-Trichlorophenol		<0.0050	<0.0050	RPD-NA	mg/L	N/A	50	06-OCT-15
2,4,6-Trichlorophenol		<0.0050	<0.0050	RPD-NA	mg/L	N/A	50	06-OCT-15
2,4-Dichlorophenol		<0.0050	<0.0050	RPD-NA	mg/L	N/A	50	06-OCT-15
2,4-Dinitrotoluene		<0.0040	<0.0040	RPD-NA	mg/L	N/A	50	06-OCT-15
2-Methylphenol		<0.0050	<0.0050	RPD-NA	mg/L	N/A	50	06-OCT-15
3&4-Methylphenol		<0.010	<0.010	RPD-NA	mg/L	N/A	50	06-OCT-15
Benzo(a)pyrene		<0.00020	<0.00020	RPD-NA	mg/L	N/A	50	06-OCT-15
Hexachlorobenzene		<0.0040	<0.0040	RPD-NA	mg/L	N/A	50	06-OCT-15
Hexachlorobutadiene		<0.0040	<0.0040	RPD-NA	mg/L	N/A	50	06-OCT-15
Hexachloroethane		<0.0040	<0.0040	RPD-NA	mg/L	N/A	50	06-OCT-15
Nitrobenzene		<0.0040	<0.0040	RPD-NA	mg/L	N/A	50	06-OCT-15
Pentachlorophenol		<0.0050	<0.0050	RPD-NA	mg/L	N/A	50	06-OCT-15
WG2185631-2	LCS							
2,3,4,6-Tetrachlorophenol			91.6		%		60-140	06-OCT-15
2,4,5-Trichlorophenol			89.9		%		60-140	06-OCT-15
2,4,6-Trichlorophenol			85.7		%		60-140	06-OCT-15
2,4-Dichlorophenol			76.6		%		60-140	06-OCT-15
2,4-Dinitrotoluene			104.7		%		50-150	06-OCT-15
2-Methylphenol			74.1		%		60-140	06-OCT-15
3&4-Methylphenol			76.9		%		60-140	06-OCT-15
Benzo(a)pyrene			106.5		%		60-140	06-OCT-15
Hexachlorobenzene			86.0		%		60-140	06-OCT-15
Hexachlorobutadiene			72.0		%		40-130	06-OCT-15
Hexachloroethane			63.4		%		40-130	06-OCT-15
Nitrobenzene			83.8		%		60-140	06-OCT-15



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 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
BNA-TCLP-WT		Waste						
Batch	R3283781							
WG2185631-2	LCS							
Pentachlorophenol			105.9		%		50-160	06-OCT-15
WG2185631-1	MB							
2,3,4,6-Tetrachlorophenol			<0.0050		mg/L		0.005	06-OCT-15
2,4,5-Trichlorophenol			<0.0050		mg/L		0.005	06-OCT-15
2,4,6-Trichlorophenol			<0.0050		mg/L		0.005	06-OCT-15
2,4-Dichlorophenol			<0.0050		mg/L		0.005	06-OCT-15
2,4-Dinitrotoluene			<0.0040		mg/L		0.004	06-OCT-15
2-Methylphenol			<0.0050		mg/L		0.005	06-OCT-15
3&4-Methylphenol			<0.010		mg/L		0.01	06-OCT-15
Benzo(a)pyrene			<0.00020		mg/L		0.0002	06-OCT-15
Hexachlorobenzene			<0.0040		mg/L		0.004	06-OCT-15
Hexachlorobutadiene			<0.0040		mg/L		0.004	06-OCT-15
Hexachloroethane			<0.0040		mg/L		0.004	06-OCT-15
Nitrobenzene			<0.0040		mg/L		0.004	06-OCT-15
Pentachlorophenol			<0.0050		mg/L		0.005	06-OCT-15
Surrogate: Nitrobenzene d5			100.2		%		50-150	06-OCT-15
Surrogate: 2-Fluorobiphenyl			93.9		%		40-160	06-OCT-15
Surrogate: p-Terphenyl d14			106.9		%		60-140	06-OCT-15
Surrogate: 2,4,6-Tribromophenol			93.5		%		50-150	06-OCT-15
WG2185631-3	MS	WG2185631-4						
2,3,4,6-Tetrachlorophenol			91.7		%		50-150	06-OCT-15
2,4,5-Trichlorophenol			88.4		%		50-150	06-OCT-15
2,4,6-Trichlorophenol			81.7		%		50-150	06-OCT-15
2,4-Dichlorophenol			72.9		%		50-150	06-OCT-15
2,4-Dinitrotoluene			96.4		%		50-150	06-OCT-15
2-Methylphenol			71.4		%		50-150	06-OCT-15
3&4-Methylphenol			73.7		%		50-150	06-OCT-15
Benzo(a)pyrene			104.9		%		50-150	06-OCT-15
Hexachlorobenzene			75.6		%		40-150	06-OCT-15
Hexachlorobutadiene			59.4		%		40-150	06-OCT-15
Hexachloroethane			51.7		%		40-150	06-OCT-15
Nitrobenzene			76.5		%		50-150	06-OCT-15
Pentachlorophenol			120.3		%		50-150	06-OCT-15

CN-TCLP-WT **Waste**



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 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-TCLP-WT		Waste						
Batch R3283322								
WG2185803-11	DUP	L1682286-1						
	Cyanide, Weak Acid Diss	<0.10	<0.10	RPD-NA	mg/L	N/A	20	05-OCT-15
WG2185803-10	LCS							
	Cyanide, Weak Acid Diss		93.1		%		70-130	05-OCT-15
WG2185803-9	MB							
	Cyanide, Weak Acid Diss		<0.10		mg/L		0.1	05-OCT-15
WG2185803-12	MS	L1682286-1						
	Cyanide, Weak Acid Diss		95.0		%		50-150	05-OCT-15
DIQUAT-TCLP-WT		Waste						
Batch R3283490								
WG2185655-3	DUP	L1682822-1						
	Diquat	<0.1	<0.1		mg/L	N/A	30	05-OCT-15
WG2185655-2	LCS							
	Diquat		100.0		%		70-130	05-OCT-15
WG2185655-1	MB							
	Diquat		<0.010		mg/L		0.01	05-OCT-15
DIURON-TCLP-WT		Waste						
Batch R3283825								
WG2185840-3	DUP	L1682822-1						
	Diuron	<0.010	<0.010	RPD-NA	mg/L	N/A	30	05-OCT-15
WG2185840-2	LCS							
	Diuron		94.7		%		70-130	05-OCT-15
WG2185840-1	MB							
	Diuron		<0.010		mg/L		0.01	05-OCT-15
F-TCLP-WT		Waste						
Batch R3283413								
WG2185664-3	DUP	L1682822-1						
	Fluoride (F)	<10	<10	RPD-NA	mg/L	N/A	30	05-OCT-15
WG2185664-2	LCS							
	Fluoride (F)		95.4		%		70-130	05-OCT-15
WG2185664-1	MB							
	Fluoride (F)		<10		mg/L		10	05-OCT-15
WG2185664-4	MS	L1682822-1						
	Fluoride (F)		103.0		%		50-150	05-OCT-15
GLYPHOSATE-TCLP-WT		Waste						



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 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
GLYPHOSATE-TCLP-WT								
	Waste							
Batch	R3284125							
WG2185810-3	DUP	L1682822-1						
Glyphosate		<0.050	<0.050	RPD-NA	mg/L	N/A	30	06-OCT-15
WG2185810-2	LCS							
Glyphosate			111.8		%		70-130	06-OCT-15
WG2185810-1	MB							
Glyphosate			<0.050		mg/L		0.05	06-OCT-15
HG-TCLP-WT								
	Waste							
Batch	R3283080							
WG2185872-3	DUP	L1682896-1						
Mercury (Hg)		<0.00010	<0.00010	RPD-NA	mg/L	N/A	50	05-OCT-15
WG2185872-2	LCS							
Mercury (Hg)			96.9		%		70-130	05-OCT-15
WG2185872-1	MB							
Mercury (Hg)			<0.00010		mg/L		0.0001	05-OCT-15
WG2185872-4	MS	L1682896-1						
Mercury (Hg)			99.0		%		50-140	05-OCT-15
MET-TCLP-WT								
	Waste							
Batch	R3283681							
WG2185808-4	DUP	WG2185808-3						
Silver (Ag)		<0.0050	<0.0050	RPD-NA	mg/L	N/A	40	05-OCT-15
Arsenic (As)		<0.050	<0.050	RPD-NA	mg/L	N/A	40	05-OCT-15
Boron (B)		<2.5	<2.5	RPD-NA	mg/L	N/A	40	05-OCT-15
Barium (Ba)		1.66	1.62		mg/L	2.2	40	05-OCT-15
Cadmium (Cd)		<0.0050	<0.0050	RPD-NA	mg/L	N/A	40	05-OCT-15
Chromium (Cr)		<0.050	<0.050	RPD-NA	mg/L	N/A	40	05-OCT-15
Lead (Pb)		<0.050	<0.050	RPD-NA	mg/L	N/A	40	05-OCT-15
Selenium (Se)		<0.25	<0.25	RPD-NA	mg/L	N/A	40	05-OCT-15
Uranium (U)		<0.25	<0.25	RPD-NA	mg/L	N/A	40	05-OCT-15
WG2185808-2	LCS							
Silver (Ag)			97.6		%		70-130	05-OCT-15
Arsenic (As)			104.6		%		70-130	05-OCT-15
Boron (B)			114.2		%		70-130	05-OCT-15
Barium (Ba)			113.1		%		70-130	05-OCT-15
Cadmium (Cd)			106.1		%		70-130	05-OCT-15
Chromium (Cr)			104.2		%		70-130	05-OCT-15
Lead (Pb)			111.3		%		70-130	05-OCT-15



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 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-TCLP-WT		Waste						
Batch	R3283681							
WG2185808-2	LCS							
Selenium (Se)			101.9		%		70-130	05-OCT-15
Uranium (U)			109.7		%		70-130	05-OCT-15
WG2185808-1	MB							
Silver (Ag)			<0.0050		mg/L		0.005	05-OCT-15
Arsenic (As)			<0.050		mg/L		0.05	05-OCT-15
Boron (B)			<2.5		mg/L		2.5	05-OCT-15
Barium (Ba)			<0.50		mg/L		0.5	05-OCT-15
Cadmium (Cd)			<0.0050		mg/L		0.005	05-OCT-15
Chromium (Cr)			<0.050		mg/L		0.05	05-OCT-15
Lead (Pb)			<0.050		mg/L		0.05	05-OCT-15
Selenium (Se)			<0.25		mg/L		0.25	05-OCT-15
Uranium (U)			<0.25		mg/L		0.25	05-OCT-15
WG2185808-5	MS	WG2185808-3						
Silver (Ag)			97.3		%		50-150	05-OCT-15
Arsenic (As)			101.5		%		50-150	05-OCT-15
Boron (B)			110.9		%		50-150	05-OCT-15
Barium (Ba)			101.3		%		50-150	05-OCT-15
Cadmium (Cd)			99.6		%		50-150	05-OCT-15
Chromium (Cr)			98.9		%		50-150	05-OCT-15
Lead (Pb)			100.1		%		50-150	05-OCT-15
Selenium (Se)			99.8		%		50-150	05-OCT-15
Uranium (U)			106.9		%		50-150	05-OCT-15
N2N3-TCLP-WT		Waste						
Batch	R3283413							
WG2185664-3	DUP	L1682822-1						
Nitrate-N			<2.0		mg/L	RPD-NA	N/A	30
Nitrite-N			<2.0		mg/L	RPD-NA	N/A	30
WG2185664-2	LCS							
Nitrate-N			110.3		%		70-130	05-OCT-15
Nitrite-N			116.4		%		70-130	05-OCT-15
WG2185664-1	MB							
Nitrate-N			<2.0		mg/L		2	05-OCT-15
Nitrite-N			<2.0		mg/L		2	05-OCT-15
WG2185664-4	MS	L1682822-1						
Nitrate-N			124.2		%		50-150	05-OCT-15



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1835 Energy Drive
Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
N2N3-TCLP-WT								
	Waste							
Batch	R3283413							
WG2185664-4	MS	L1682822-1						
Nitrite-N			122.9		%		50-150	05-OCT-15
NDMA-TCLP-WT								
	Waste							
Batch	R3285529							
WG2188097-3	DUP	WG2188097-5						
N-Nitrosodimethylamine		<0.00020	<0.00020	RPD-NA	mg/L	N/A	50	08-OCT-15
WG2188097-2	LCS		97.7		%		50-150	08-OCT-15
N-Nitrosodimethylamine								
WG2188097-1	MB		<0.00020		mg/L		0.0002	08-OCT-15
N-Nitrosodimethylamine								
WG2188097-4	MS	WG2188097-5						
N-Nitrosodimethylamine			113.2		%		50-150	08-OCT-15
NTA-TCLP-WT								
	Waste							
Batch	R3283476							
WG2186037-3	DUP	L1682286-1						
Nitrotriacetic Acid (NTA)		<40	<40	RPD-NA	mg/L	N/A	25	05-OCT-15
WG2186037-2	LCS		85.0		%		75-125	05-OCT-15
Nitrotriacetic Acid (NTA)								
WG2186037-1	MB		<0.20		mg/L		0.2	05-OCT-15
Nitrotriacetic Acid (NTA)								
PARAQUAT-TCLP-WT								
	Waste							
Batch	R3283490							
WG2185655-3	DUP	L1682822-1						
Paraquat		<0.10	<0.10	RPD-NA	mg/L	N/A	50	05-OCT-15
WG2185655-2	LCS		103.6		%		50-150	05-OCT-15
Paraquat								
WG2185655-1	MB		<0.010		mg/L		0.01	05-OCT-15
Paraquat								
PCB-TCLP-WT								
	Waste							
Batch	R3284629							
WG2186412-4	DUP	L1682896-1						
Aroclor 1242		<0.00020	<0.00020	RPD-NA	mg/L	N/A	50	07-OCT-15
Aroclor 1248		<0.00020	<0.00020	RPD-NA	mg/L	N/A	50	07-OCT-15
Aroclor 1254		<0.00020	<0.00020	RPD-NA	mg/L	N/A	50	07-OCT-15
Aroclor 1260		<0.00020	<0.00020	RPD-NA	mg/L	N/A	50	07-OCT-15
WG2186412-2	LCS							



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Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PCB-TCLP-WT		Waste						
Batch	R3284629							
WG2186412-2	LCS							
Aroclor 1242			67.8		%		65-130	07-OCT-15
Aroclor 1248			80.8		%		65-130	07-OCT-15
Aroclor 1254			65.5		%		65-130	07-OCT-15
Aroclor 1260			70.1		%		65-130	07-OCT-15
WG2186412-1	MB							
Aroclor 1242			<0.00020		mg/L		0.0002	07-OCT-15
Aroclor 1248			<0.00020		mg/L		0.0002	07-OCT-15
Aroclor 1254			<0.00020		mg/L		0.0002	07-OCT-15
Aroclor 1260			<0.00020		mg/L		0.0002	07-OCT-15
Surrogate: 2-Fluorobiphenyl			76.8		%		40-160	07-OCT-15
WG2186412-3	MS	L1682896-1						
Aroclor 1242			77.6		%		50-150	07-OCT-15
Aroclor 1254			64.0		%		50-150	07-OCT-15
Aroclor 1260			73.3		%		50-150	07-OCT-15
PEST-MISC-TCLP-WT		Waste						
Batch	R3284693							
WG2186332-4	DUP	WG2186332-5						
Atrazine Desethyl		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	07-OCT-15
Atrazine		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	07-OCT-15
Bendiocarb		<0.0050	<0.0050	RPD-NA	mg/L	N/A	50	07-OCT-15
Trifluralin		<0.0050	<0.0050	RPD-NA	mg/L	N/A	50	07-OCT-15
Phorate		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	07-OCT-15
Dimethoate		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	07-OCT-15
Simazine		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	07-OCT-15
Carbofuran		<0.0020	<0.0020	RPD-NA	mg/L	N/A	50	07-OCT-15
Terbufos		<0.0020	<0.0020	RPD-NA	mg/L	N/A	50	07-OCT-15
Diazinon		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	07-OCT-15
Triallate		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	07-OCT-15
Metribuzin		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	07-OCT-15
Carbaryl		<0.0020	<0.0020	RPD-NA	mg/L	N/A	50	07-OCT-15
Alachlor		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	07-OCT-15
Prometryne		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	07-OCT-15
Malathion		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	07-OCT-15
Metolachlor		<0.0010	<0.0010		mg/L			07-OCT-15



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1835 Energy Drive
Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PEST-MISC-TCLP-WT								
	Waste							
Batch	R3284693							
WG2186332-4	DUP	WG2186332-5						
Metolachlor		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	07-OCT-15
Methyl Parathion		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	07-OCT-15
Parathion		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	07-OCT-15
Cyanazine		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	07-OCT-15
Chlorpyrifos		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	07-OCT-15
Diclofop methyl		<0.0020	<0.0020	RPD-NA	mg/L	N/A	50	07-OCT-15
Azinphos methyl		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	07-OCT-15
Benzo(a)pyrene		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	07-OCT-15
Temephos		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	07-OCT-15
WG2186332-2	LCS							
Atrazine Desethyl			57.2		%		50-140	07-OCT-15
Atrazine			97.3		%		60-140	07-OCT-15
Bendiocarb			103.8		%		50-140	07-OCT-15
Trifluralin			89.6		%		60-140	07-OCT-15
Phorate			92.7		%		60-140	07-OCT-15
Dimethoate			90.0		%		60-140	07-OCT-15
Simazine			87.2		%		60-140	07-OCT-15
Carbofuran			100.6		%		60-140	07-OCT-15
Terbufos			96.1		%		60-140	07-OCT-15
Diazinon			91.1		%		60-140	07-OCT-15
Triallate			101.5		%		60-140	07-OCT-15
Metribuzin			106.2		%		60-140	07-OCT-15
Carbaryl			107.6		%		50-175	07-OCT-15
Alachlor			104.0		%		60-140	07-OCT-15
Prometryne			102.4		%		60-140	07-OCT-15
Malathion			92.8		%		60-130	07-OCT-15
Metolachlor			92.8		%		60-140	07-OCT-15
Methyl Parathion			94.8		%		60-140	07-OCT-15
Parathion			104.9		%		60-140	07-OCT-15
Cyanazine			116.8		%		60-140	07-OCT-15
Chlorpyrifos			97.7		%		60-140	07-OCT-15
Diclofop methyl			94.1		%		60-140	07-OCT-15
Azinphos methyl			106.5		%		60-140	07-OCT-15



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Client: Covanta - Durham York Renewable Energy LP
1835 Energy Drive
Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PEST-MISC-TCLP-WT								
	Waste							
Batch	R3284693							
WG2186332-2	LCS							
Benzo(a)pyrene			96.5		%		60-140	07-OCT-15
Temephos			103.8		%		60-140	07-OCT-15
WG2186332-1	MB							
Atrazine Desethyl			<0.0010		mg/L		0.001	07-OCT-15
Atrazine			<0.0010		mg/L		0.001	07-OCT-15
Bendiocarb			<0.0050		mg/L		0.005	07-OCT-15
Trifluralin			<0.0050		mg/L		0.005	07-OCT-15
Phorate			<0.0010		mg/L		0.001	07-OCT-15
Dimethoate			<0.0010		mg/L		0.001	07-OCT-15
Simazine			<0.0010		mg/L		0.001	07-OCT-15
Carbofuran			<0.0020		mg/L		0.002	07-OCT-15
Terbufos			<0.0020		mg/L		0.002	07-OCT-15
Diazinon			<0.0010		mg/L		0.001	07-OCT-15
Triallate			<0.0010		mg/L		0.001	07-OCT-15
Metribuzin			<0.0010		mg/L		0.001	07-OCT-15
Carbaryl			<0.0020		mg/L		0.002	07-OCT-15
Alachlor			<0.0010		mg/L		0.001	07-OCT-15
Prometryne			<0.0010		mg/L		0.001	07-OCT-15
Malathion			<0.0010		mg/L		0.001	07-OCT-15
Metolachlor			<0.0010		mg/L		0.001	07-OCT-15
Methyl Parathion			<0.0010		mg/L		0.001	07-OCT-15
Parathion			<0.0010		mg/L		0.001	07-OCT-15
Cyanazine			<0.0010		mg/L		0.001	07-OCT-15
Chlorpyrifos			<0.0010		mg/L		0.001	07-OCT-15
Diclofop methyl			<0.0020		mg/L		0.002	07-OCT-15
Azinphos methyl			<0.0010		mg/L		0.001	07-OCT-15
Benzo(a)pyrene			<0.0010		mg/L		0.001	07-OCT-15
Temephos			<0.0010		mg/L		0.001	07-OCT-15
Surrogate: 2-Fluorobiphenyl			89.6		%		40-160	07-OCT-15
Surrogate: d14-Terphenyl			88.3		%		60-140	07-OCT-15
WG2186332-3	MS	WG2186332-5						
Atrazine Desethyl			58.3		%		50-150	07-OCT-15
Atrazine			106.1		%		50-150	07-OCT-15
Bendiocarb			97.2		%		50-150	07-OCT-15



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Client: Covanta - Durham York Renewable Energy LP
 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed	
PEST-MISC-TCLP-WT		Waste							
Batch	R3284693								
WG2186332-3	MS	WG2186332-5							
Trifluralin			91.2		%		50-150	07-OCT-15	
Phorate			91.4		%		50-150	07-OCT-15	
Dimethoate			85.2		%		50-150	07-OCT-15	
Simazine			91.3		%		50-150	07-OCT-15	
Carbofuran			93.9		%		50-150	07-OCT-15	
Terbufos			94.5		%		50-150	07-OCT-15	
Diazinon			94.8		%		50-150	07-OCT-15	
Triallate			103.3		%		50-150	07-OCT-15	
Metribuzin			104.4		%		50-150	07-OCT-15	
Carbaryl			97.5		%		50-150	07-OCT-15	
Alachlor			106.8		%		50-150	07-OCT-15	
Prometryne			107.4		%		50-150	07-OCT-15	
Malathion			95.2		%		50-150	07-OCT-15	
Metolachlor			97.6		%		50-150	07-OCT-15	
Methyl Parathion			94.2		%		50-150	07-OCT-15	
Parathion			104.5		%		50-150	07-OCT-15	
Cyanazine			104.7		%		50-150	07-OCT-15	
Chlorpyrifos			97.8		%		50-150	07-OCT-15	
Diclofop methyl			116.6		%		50-150	07-OCT-15	
Azinphos methyl			98.3		%		50-150	07-OCT-15	
Benzo(a)pyrene			93.1		%		50-150	07-OCT-15	
Temephos			98.9		%		50-150	07-OCT-15	
PEST-OC-TCLP-WT		Waste							
Batch	R3284757								
WG2186332-4	DUP	WG2186332-5							
gamma-BHC			<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	07-OCT-15
Heptachlor			<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	07-OCT-15
Heptachlor epoxide			<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	07-OCT-15
Oxychlordan			<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	07-OCT-15
gamma-Chlordane			<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	07-OCT-15
alpha-Chlordane			<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	07-OCT-15
Aldrin			<0.00020	<0.00020	RPD-NA	mg/L	N/A	50	07-OCT-15
Dieldrin			<0.00020	<0.00020	RPD-NA	mg/L	N/A	50	07-OCT-15



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Client: Covanta - Durham York Renewable Energy LP
1835 Energy Drive
Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PEST-OC-TCLP-WT		Waste						
Batch	R3284757							
WG2186332-4	DUP	WG2186332-5						
Endrin		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	07-OCT-15
p,p-DDE		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	07-OCT-15
p,p-DDD		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	07-OCT-15
p,p-DDT		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	07-OCT-15
o,p-DDT		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	07-OCT-15
Methoxychlor		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	07-OCT-15
WG2186332-2	LCS							
gamma-BHC			101.9		%		50-150	07-OCT-15
Heptachlor			100.6		%		25-175	07-OCT-15
Heptachlor epoxide			95.5		%		25-175	07-OCT-15
Oxychlordane			102.3		%		25-175	07-OCT-15
gamma-Chlordane			103.0		%		25-175	07-OCT-15
alpha-Chlordane			100.7		%		25-175	07-OCT-15
Aldrin			117.3		%		25-175	07-OCT-15
Dieldrin			90.9		%		25-175	07-OCT-15
Endrin			117.8		%		50-150	07-OCT-15
p,p-DDE			92.0		%		25-175	07-OCT-15
p,p-DDD			95.7		%		25-175	07-OCT-15
p,p-DDT			102.3		%		25-175	07-OCT-15
o,p-DDT			102.8		%		50-130	07-OCT-15
Methoxychlor			117.6		%		25-175	07-OCT-15
WG2186332-1	MB							
gamma-BHC			<0.0010		mg/L		0.001	07-OCT-15
Heptachlor			<0.0010		mg/L		0.001	07-OCT-15
Heptachlor epoxide			<0.0010		mg/L		0.001	07-OCT-15
Oxychlordane			<0.0010		mg/L		0.001	07-OCT-15
gamma-Chlordane			<0.0010		mg/L		0.001	07-OCT-15
alpha-Chlordane			<0.0010		mg/L		0.001	07-OCT-15
Aldrin			<0.00020		mg/L		0.0002	07-OCT-15
Dieldrin			<0.00020		mg/L		0.0002	07-OCT-15
Endrin			<0.0010		mg/L		0.001	07-OCT-15
p,p-DDE			<0.0010		mg/L		0.001	07-OCT-15
p,p-DDD			<0.0010		mg/L		0.001	07-OCT-15
p,p-DDT			<0.0010		mg/L		0.001	07-OCT-15



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Client: Covanta - Durham York Renewable Energy LP
 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PEST-OC-TCLP-WT		Waste						
Batch	R3284757							
WG2186332-1	MB							
o,p-DDT			<0.0010		mg/L		0.001	07-OCT-15
Methoxychlor			<0.0010		mg/L		0.001	07-OCT-15
Surrogate: d14-Terphenyl			108.9		%		60-140	07-OCT-15
WG2186332-3	MS	WG2186332-5						
gamma-BHC			102.1		%		50-150	07-OCT-15
Heptachlor			105.8		%		50-150	07-OCT-15
Heptachlor epoxide			132.6		%		50-150	07-OCT-15
Oxychlordane			134.1		%		50-150	07-OCT-15
gamma-Chlordane			136.9		%		50-150	07-OCT-15
alpha-Chlordane			132.8		%		50-150	07-OCT-15
Aldrin			119.8		%		50-150	07-OCT-15
Dieldrin			125.7		%		50-150	07-OCT-15
Endrin			143.6		%		50-150	07-OCT-15
p,p-DDE			126.3		%		50-150	07-OCT-15
p,p-DDD			125.9		%		50-150	07-OCT-15
p,p-DDT			116.0		%		50-150	07-OCT-15
o,p-DDT			129.5		%		50-150	07-OCT-15
Methoxychlor			126.1		%		50-150	07-OCT-15
PEST-PAHERB-TCLP-WT		Waste						
Batch	R3283978							
WG2186115-3	DUP	L1682286-4						
2,4,5-TP		<0.0020	<0.0020	RPD-NA	mg/L	N/A	50	06-OCT-15
MCPA		<0.0020	<0.0020	RPD-NA	mg/L	N/A	50	06-OCT-15
2,4,5-T		<0.0020	<0.0020	RPD-NA	mg/L	N/A	50	06-OCT-15
2,4-D		<0.0020	<0.0020	RPD-NA	mg/L	N/A	50	06-OCT-15
Bromoxynil		<0.0020	<0.0020	RPD-NA	mg/L	N/A	50	06-OCT-15
Dicamba		<0.0050	<0.0050	RPD-NA	mg/L	N/A	50	06-OCT-15
Dinoseb		<0.0020	<0.0020	RPD-NA	mg/L	N/A	50	06-OCT-15
Picloram		<0.0050	<0.0050	RPD-NA	mg/L	N/A	50	06-OCT-15
WG2186115-2	LCS							
2,4,5-TP			116.0		%		65-135	06-OCT-15
MCPA			118.2		%		65-135	06-OCT-15
2,4,5-T			124.3		%		65-135	06-OCT-15
2,4-D			128.3		%		25-175	06-OCT-15



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Client: Covanta - Durham York Renewable Energy LP
 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PEST-PAHERB-TCLP-WT Waste								
Batch R3283978								
WG2186115-2 LCS								
	Bromoxynil		112.5		%		65-135	06-OCT-15
	Dicamba		56.7		%		30-150	06-OCT-15
	Dinoseb		75.7		%		30-150	06-OCT-15
	Picloram		47.8		%		25-120	06-OCT-15
WG2186115-1 MB								
	2,4,5-TP		<0.0020		mg/L		0.002	06-OCT-15
	MCPA		<0.0020		mg/L		0.002	06-OCT-15
	2,4,5-T		<0.0020		mg/L		0.002	06-OCT-15
	2,4-D		<0.0020		mg/L		0.002	06-OCT-15
	Bromoxynil		<0.0020		mg/L		0.002	06-OCT-15
	Dicamba		<0.0050		mg/L		0.005	06-OCT-15
	Dinoseb		<0.0020		mg/L		0.002	06-OCT-15
	Picloram		<0.0050		mg/L		0.005	06-OCT-15
	Surrogate: 2,4-Dichlorophenylacetic Acid		102.1		%		50-150	06-OCT-15
WG2186115-4 MS L1682286-4								
	2,4,5-TP		125.0		%		50-150	06-OCT-15
	MCPA		131.6		%		50-150	06-OCT-15
	2,4,5-T		131.1		%		50-150	06-OCT-15
	2,4-D		137.6		%		50-150	06-OCT-15
	Bromoxynil		132.1		%		50-150	06-OCT-15
	Dicamba		71.6		%		50-150	06-OCT-15
	Dinoseb		147.9		%		30-150	06-OCT-15
	Picloram		48.2		%		25-150	06-OCT-15
PYR-TCLP-WT Waste								
Batch R3283469								
WG2185611-4 DUP L1681932-2								
	Pyridine	<5.0	<5.0	RPD-NA	mg/L	N/A	30	05-OCT-15
WG2185611-6 DUP L1682896-1								
	Pyridine	<5.0	<5.0	RPD-NA	mg/L	N/A	30	05-OCT-15
WG2185611-2 LCS								
	Pyridine		103.0		%		70-130	05-OCT-15
WG2185611-9 LCS								
	Pyridine		99.0		%		70-130	05-OCT-15
WG2185611-3 MB								
	Pyridine		<5.0		mg/L		5	05-OCT-15



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Client: Covanta - Durham York Renewable Energy LP
 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PYR-TCLP-WT		Waste						
Batch	R3283469							
WG2185611-8	MB							
Pyridine			<5.0		mg/L		5	05-OCT-15
WG2185611-5	MS	L1682286-4						
Pyridine			104.0		%		50-150	05-OCT-15
WG2185611-7	MS	L1682896-4						
Pyridine			105.0		%		50-150	05-OCT-15
TOXAPHENE-TCLP-WT		Waste						
Batch	R3284163							
WG2185636-4	DUP	WG2185636-3						
Toxaphene		<0.0035	<0.0035	RPD-NA	mg/L	N/A	50	06-OCT-15
WG2185636-2	LCS							
Toxaphene			113.0		%		50-150	06-OCT-15
WG2185636-1	MB							
Toxaphene			<0.0035		mg/L		0.0035	06-OCT-15
Surrogate: Decachlorobiphenyl			93.0		%		50-150	06-OCT-15
Surrogate: Tetrachloro-m-xylene			78.4		%		50-150	06-OCT-15
WG2185636-5	MS	WG2185636-3						
Toxaphene			119.0		%		50-150	06-OCT-15
VOC-TCLP-WT		Waste						
Batch	R3283793							
WG2181279-4	DUP	WG2181279-7						
1,1-Dichloroethylene		<0.025	<0.025	RPD-NA	mg/L	N/A	50	06-OCT-15
1,2-Dichlorobenzene		<0.025	<0.025	RPD-NA	mg/L	N/A	50	06-OCT-15
1,2-Dichloroethane		<0.025	<0.025	RPD-NA	mg/L	N/A	50	06-OCT-15
1,4-Dichlorobenzene		<0.025	<0.025	RPD-NA	mg/L	N/A	50	06-OCT-15
Benzene		<0.025	<0.025	RPD-NA	mg/L	N/A	50	06-OCT-15
Carbon tetrachloride		<0.025	<0.025	RPD-NA	mg/L	N/A	50	06-OCT-15
Chlorobenzene		<0.025	<0.025	RPD-NA	mg/L	N/A	50	06-OCT-15
Chloroform		<0.10	<0.10	RPD-NA	mg/L	N/A	50	06-OCT-15
Dichloromethane		<0.50	<0.50	RPD-NA	mg/L	N/A	50	06-OCT-15
Methyl Ethyl Ketone		<1.0	<1.0	RPD-NA	mg/L	N/A	50	06-OCT-15
Tetrachloroethylene		<0.025	<0.025	RPD-NA	mg/L	N/A	50	06-OCT-15
Trichloroethylene		<0.025	<0.025	RPD-NA	mg/L	N/A	50	06-OCT-15
Vinyl chloride		<0.050	<0.050	RPD-NA	mg/L	N/A	50	06-OCT-15
WG2181279-1	LCS							
1,1-Dichloroethylene			88.6		%		70-130	06-OCT-15



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Client: Covanta - Durham York Renewable Energy LP
1835 Energy Drive
Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-TCLP-WT		Waste						
Batch	R3283793							
WG2181279-1	LCS							
1,2-Dichlorobenzene			95.9		%		70-130	06-OCT-15
1,2-Dichloroethane			101.7		%		70-130	06-OCT-15
1,4-Dichlorobenzene			91.7		%		70-130	06-OCT-15
Benzene			97.0		%		70-130	06-OCT-15
Carbon tetrachloride			90.1		%		60-140	06-OCT-15
Chlorobenzene			96.1		%		70-130	06-OCT-15
Chloroform			96.8		%		70-130	06-OCT-15
Dichloromethane			95.8		%		70-130	06-OCT-15
Methyl Ethyl Ketone			104.6		%		50-150	06-OCT-15
Tetrachloroethylene			91.2		%		70-130	06-OCT-15
Trichloroethylene			98.5		%		70-130	06-OCT-15
Vinyl chloride			89.2		%		60-130	06-OCT-15
WG2181279-2	MB							
1,1-Dichloroethylene			<0.025		mg/L		0.025	06-OCT-15
1,2-Dichlorobenzene			<0.025		mg/L		0.025	06-OCT-15
1,2-Dichloroethane			<0.025		mg/L		0.025	06-OCT-15
1,4-Dichlorobenzene			<0.025		mg/L		0.025	06-OCT-15
Benzene			<0.025		mg/L		0.025	06-OCT-15
Carbon tetrachloride			<0.025		mg/L		0.025	06-OCT-15
Chlorobenzene			<0.025		mg/L		0.025	06-OCT-15
Chloroform			<0.10		mg/L		0.1	06-OCT-15
Dichloromethane			<0.50		mg/L		0.5	06-OCT-15
Methyl Ethyl Ketone			<1.0		mg/L		1	06-OCT-15
Tetrachloroethylene			<0.025		mg/L		0.025	06-OCT-15
Trichloroethylene			<0.025		mg/L		0.025	06-OCT-15
Vinyl chloride			<0.050		mg/L		0.05	06-OCT-15
Surrogate: 1,4-Difluorobenzene			101.0		%		50-150	06-OCT-15
Surrogate: 4-Bromofluorobenzene			97.4		%		70-130	06-OCT-15
COMMENTS: 03-OCT-15								
WG2181279-3	MB							
1,1-Dichloroethylene			<0.025		mg/L		0.025	06-OCT-15
1,2-Dichlorobenzene			<0.025		mg/L		0.025	06-OCT-15
1,2-Dichloroethane			<0.025		mg/L		0.025	06-OCT-15
1,4-Dichlorobenzene			<0.025		mg/L		0.025	06-OCT-15



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Client: Covanta - Durham York Renewable Energy LP
 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-TCLP-WT		Waste						
Batch	R3283793							
WG2181279-3 MB								
Benzene			<0.025		mg/L		0.025	06-OCT-15
Carbon tetrachloride			<0.025		mg/L		0.025	06-OCT-15
Chlorobenzene			<0.025		mg/L		0.025	06-OCT-15
Chloroform			<0.10		mg/L		0.1	06-OCT-15
Dichloromethane			<0.50		mg/L		0.5	06-OCT-15
Methyl Ethyl Ketone			<1.0		mg/L		1	06-OCT-15
Tetrachloroethylene			<0.025		mg/L		0.025	06-OCT-15
Trichloroethylene			<0.025		mg/L		0.025	06-OCT-15
Vinyl chloride			<0.050		mg/L		0.05	06-OCT-15
Surrogate: 1,4-Difluorobenzene			99.8		%		50-150	06-OCT-15
Surrogate: 4-Bromofluorobenzene			97.0		%		70-130	06-OCT-15
COMMENTS: 04-OCT-15								
WG2181279-6 MB								
1,1-Dichloroethylene			<0.025		mg/L		0.025	06-OCT-15
1,2-Dichlorobenzene			<0.025		mg/L		0.025	06-OCT-15
1,2-Dichloroethane			<0.025		mg/L		0.025	06-OCT-15
1,4-Dichlorobenzene			<0.025		mg/L		0.025	06-OCT-15
Benzene			<0.025		mg/L		0.025	06-OCT-15
Carbon tetrachloride			<0.025		mg/L		0.025	06-OCT-15
Chlorobenzene			<0.025		mg/L		0.025	06-OCT-15
Chloroform			<0.10		mg/L		0.1	06-OCT-15
Dichloromethane			<0.50		mg/L		0.5	06-OCT-15
Methyl Ethyl Ketone			<1.0		mg/L		1	06-OCT-15
Tetrachloroethylene			<0.025		mg/L		0.025	06-OCT-15
Trichloroethylene			<0.025		mg/L		0.025	06-OCT-15
Vinyl chloride			<0.050		mg/L		0.05	06-OCT-15
Surrogate: 1,4-Difluorobenzene			99.7		%		50-150	06-OCT-15
Surrogate: 4-Bromofluorobenzene			97.0		%		70-130	06-OCT-15
COMMENTS: 05-OCT-15								
WG2181279-5 MS		WG2181279-7						
1,1-Dichloroethylene			90.9		%		50-140	06-OCT-15
1,2-Dichlorobenzene			95.4		%		50-140	06-OCT-15
1,2-Dichloroethane			97.0		%		50-140	06-OCT-15
1,4-Dichlorobenzene			92.3		%		50-140	06-OCT-15



Quality Control Report

Workorder: L1682896

Report Date: 09-OCT-15

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Client: Covanta - Durham York Renewable Energy LP
1835 Energy Drive
Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-TCLP-WT								
	Waste							
Batch	R3283793							
WG2181279-5 MS		WG2181279-7						
Benzene			97.3		%		50-140	06-OCT-15
Carbon tetrachloride			92.6		%		50-140	06-OCT-15
Chlorobenzene			95.8		%		50-140	06-OCT-15
Chloroform			96.3		%		50-140	06-OCT-15
Dichloromethane			94.9		%		50-140	06-OCT-15
Methyl Ethyl Ketone			93.1		%		50-140	06-OCT-15
Tetrachloroethylene			92.9		%		50-140	06-OCT-15
Trichloroethylene			98.6		%		50-140	06-OCT-15
Vinyl chloride			92.1		%		50-140	06-OCT-15

Quality Control Report

Workorder: L1682896

Report Date: 09-OCT-15

Client: Covanta - Durham York Renewable Energy LP
1835 Energy Drive
Courtice ON L1E 2R2

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Contact: Leon Brasowski

Legend:

Limit	ALS Control Limit (Data Quality Objectives)
DUP	Duplicate
RPD	Relative Percent Difference
N/A	Not Available
LCS	Laboratory Control Sample
SRM	Standard Reference Material
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ADE	Average Desorption Efficiency
MB	Method Blank
IRM	Internal Reference Material
CRM	Certified Reference Material
CCV	Continuing Calibration Verification
CVS	Calibration Verification Standard
LCSD	Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
DLM	Detection Limit Adjusted due to sample matrix effects.
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.

Hold Time Exceedances:

All test results reported with this submission were conducted within ALS recommended hold times.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.



1435 Norjohn Court, Unit 1, Burlington, ON, Canada L7L 0E6
Phone: 905-331-3111, FAX: 905-331-4567

Certificate of Analysis

ALS Project Contact: Steve Kennedy
ALS Project ID: 24244
ALS WO#: WG2185811
Date of Report: 9-Oct-15

Client Name: Covanta - Durham York Renewable Energy LP
Client Address: 1835 Energy Drive
Courtice, ON L1E 2R2
Canada
Client Contact: Amanda Huxter
Client Project ID: DYEC-FLY ASH PROJECT

COMMENTS: PCDD/F by EPA 1613B

Data as reported have the C-13 labeled extraction standard 13C12-2,3,7,8-TCDD/F below targeted control limits. In addition, a select few of the 13C12-PeCDF extraction standard recoveries are also just below targeted control limits. Despite these QC failures and because of isotope dilution technique where losses from extraction and cleanup are compensated for in the reported analytical results, these data are still fit for purpose to demonstrate the absence of PCDD/F contamination to well below the Reg 347 leachate criterion of TEQ below 1500pg/L

A handwritten signature in black ink that reads "R.A. McLeod".

Ron McLeod Ph.D.
Technical Director, Air Toxics and Special Chemistries

ALS Life sciences

Sample Analysis summary Report

Sample Name	DYEC/FA/151001/ 1	DYEC/FA/151001/ 2	DYEC/FA/151001/ 3	DYEC/FA/151001/ 4	DYEC/FA/151002/ 1	DYEC/FA/151002/ 2
ALS Sample ID	L1682286-1	L1682286-2	L1682286-3	L1682286-4	L1682282-1	L1682282-2
Sample Size	0.96	0.91	0.96	0.89	0.95	0.985
Sample size units	L	L	L	L	L	L
Percent Moisture	n/a	n/a	n/a	n/a	n/a	n/a
Sample Matrix	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sampling Date	2-Oct-15	2-Oct-15	2-Oct-15	2-Oct-15	3-Oct-15	3-Oct-15
Extraction Date	5-Oct-15	5-Oct-15	5-Oct-15	5-Oct-15	5-Oct-15	5-Oct-15
Target Analytes	pg/L	pg/L	pg/L	pg/L	pg/L	pg/L
2,3,7,8-TCDD	<3.1	<4.0	<4.7	<11	<3.8	<3.3
1,2,3,7,8-PeCDD	<1.0	<1.4	<1.7	<2.0	<1.1	<1.2
1,2,3,4,7,8-HxCDD	<0.53	<0.70	<0.79	<0.79	<0.61	<0.52
1,2,3,6,7,8-HxCDD	<0.47	<0.55	<0.66	<0.64	<0.51	<0.44
1,2,3,7,8,9-HxCDD	<0.49	<0.61	<0.70	<0.68	<0.55	<0.47
1,2,3,4,6,7,8-HpCDD	<0.54	<0.85	<0.66	<0.72	<0.89	<0.80
OCDD	<0.58	<1.1	<0.48	<0.90	<0.54	<0.54
2,3,7,8-TCDF	<7.6	<8.1	<13	<28	<13	<10
1,2,3,7,8-PeCDF	<1.0	<1.4	<1.7	<2.3	<1.7	<1.1
2,3,4,7,8-PeCDF	<0.96	<1.3	<1.3	<2.3	<1.5	<1.0
1,2,3,4,7,8-HxCDF	<0.52	<0.61	<0.68	<0.78	<0.51	<0.53
1,2,3,6,7,8-HxCDF	<0.37	<0.45	<0.45	<0.52	<0.34	<0.40
2,3,4,6,7,8-HxCDF	<0.39	<0.49	<0.42	<0.50	<0.35	<0.39
1,2,3,7,8,9-HxCDF	<0.52	<0.62	<0.55	<0.66	<0.51	<0.55
1,2,3,4,6,7,8-HpCDF	<0.30	<0.48	<0.44	<0.47	<0.48	<0.34
1,2,3,4,7,8,9-HpCDF	<0.38	<0.62	<0.61	<0.66	<0.65	<0.44
OCDF	<0.63	<0.74	<0.59	<0.76	<0.67	<0.72
Extraction Standards	% Rec	% Rec	% Rec	% Rec	% Rec	% Rec
13C12-2,3,7,8-TCDD	30	24	20	11	29	75
13C12-1,2,3,7,8-PeCDD	55	49	45	30	47	98
13C12-1,2,3,4,7,8-HxCDD	58	52	53	39	60	103
13C12-1,2,3,6,7,8-HxCDD	90	71	75	69	79	153
13C12-1,2,3,4,6,7,8-HpCDD	95	74	93	84	94	167
13C12-OCDD	98	76	99	91	98	172
13C12-2,3,7,8-TCDF	7	8	7	3	6	15
13C12-1,2,3,7,8-PeCDF	39	35	29	20	32	69
13C12-2,3,4,7,8-PeCDF	39	35	30	18	33	66
13C12-1,2,3,4,7,8-HxCDF	60	49	50	42	59	104
13C12-1,2,3,6,7,8-HxCDF	91	74	74	70	85	155
13C12-2,3,4,6,7,8-HxCDF	90	73	89	80	92	163
13C12-1,2,3,7,8,9-HxCDF	80	67	75	68	77	139
13C12-1,2,3,4,6,7,8-HpCDF	94	75	97	85	95	168
13C12-1,2,3,4,7,8,9-HpCDF	94	76	92	81	93	167
Cleanup Standard						
37Cl4-2,3,7,8-TCDD (Cleanup)	33	29	24	13	31	77
Homologue Group Totals	pg/L	pg/L	pg/L	pg/L	pg/L	pg/L
Total-TCDD	<4.0	<4.7	<4.7	<11	<4.0	<4.0
Total-PeCDD	<1.0	<1.4	<1.7	<2.0	<1.1	<1.2
Total-HxCDD	<0.53	<0.70	<0.79	<0.79	<0.61	<0.52
Total-HpCDD	<0.54	<0.85	<0.66	<0.72	<0.89	<0.55
Total-TCDF	<12	<12	<14	<28	<16	<12
Total-PeCDF	<1.0	<1.4	<1.7	<2.3	<1.7	<1.1
Total-HxCDF	<0.52	<0.62	<0.68	<0.78	<0.51	<0.55
Total-HpCDF	<0.38	<0.62	<0.61	<0.66	<0.65	<0.44
Toxic Equivalency - (WHO 2005)						
Lower Bound PCDD/F TEQ (WHO 2005)	0.00	0.00	0.00	0.00	0.00	0.00
Mid Point PCDD/F TEQ (WHO 2005)	2.76	3.53	4.29	8.52	3.56	3.09
Upper Bound PCDD/F TEQ (WHO 2005)	5.52	7.07	8.58	17.0	7.06	6.18

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Sample Analysis summary Report

Sample Name	DYEC/FA/151002/ 3	DYEC/FA/151002/ 4	DYEC/FA/151003/ 1	DYEC/FA/151003/ 2	DYEC/FA/151003/ 3	DYEC/FA/151003/ 4
ALS Sample ID	L1682822-3	L1682822-4	L1682896-1	L1682896-2	L1682896-3	L1682896-4
Sample Size	0.95	0.88	0.91	0.985	0.89	0.89
Sample size units	L	L	L	L	L	L
Percent Moisture	n/a	n/a	n/a	n/a	n/a	n/a
Sample Matrix	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sampling Date	3-Oct-15	3-Oct-15	3-Oct-15	3-Oct-15	3-Oct-15	3-Oct-15
Extraction Date	5-Oct-15	5-Oct-15	5-Oct-15	5-Oct-15	5-Oct-15	5-Oct-15
Target Analytes	pg/L	pg/L	pg/L	pg/L	pg/L	pg/L
2,3,7,8-TCDD	<15	<3.3	<3.0	<5.1	<3.2	<3.1
1,2,3,7,8-PeCDD	<4.9	<2.8	<1.2	<1.7	<1.5	<1.5
1,2,3,4,7,8-HxCDD	<2.6	<1.3	<0.53	<0.86	<0.73	<0.91
1,2,3,6,7,8-HxCDD	<2.4	<1.1	<0.46	<0.74	<0.66	<0.83
1,2,3,7,8,9-HxCDD	<2.5	<1.2	<0.49	<0.78	<0.69	<0.86
1,2,3,4,6,7,8-HpCDD	<2.1	<1.5	<0.42	<0.61	<0.69	<0.63
OCDD	<2.9	<1.6	<0.36	<0.47	<0.46	<0.81
2,3,7,8-TCDF	<50	<13	<10	<19	<10	<11
1,2,3,7,8-PeCDF	<5.0	<2.7	<1.1	<2.0	<1.3	<1.2
2,3,4,7,8-PeCDF	<4.0	<2.4	<0.98	<1.7	<1.0	<1.1
1,2,3,4,7,8-HxCDF	<2.2	<0.95	<0.51	<0.74	<0.53	<0.63
1,2,3,6,7,8-HxCDF	<1.7	<0.67	<0.37	<0.47	<0.39	<0.49
2,3,4,6,7,8-HxCDF	<1.7	<0.71	<0.34	<0.41	<0.36	<0.49
1,2,3,7,8,9-HxCDF	<2.4	<0.90	<0.45	<0.59	<0.49	<0.62
1,2,3,4,6,7,8-HpCDF	<1.5	<0.77	<0.25	<0.46	<0.26	<0.49
1,2,3,4,7,8,9-HpCDF	<2.1	<1.2	<0.36	<0.71	<0.39	<0.66
OCDF	<3.1	<1.9	<0.46	<0.63	<0.56	<0.96
Extraction Standards	% Rec	% Rec	% Rec	% Rec	% Rec	% Rec
13C12-2,3,7,8-TCDD	33	26	23	20	27	37
13C12-1,2,3,7,8-PeCDD	53	29	33	32	40	56
13C12-1,2,3,4,7,8-HxCDD	65	38	62	49	59	74
13C12-1,2,3,6,7,8-HxCDD	87	56	76	69	77	81
13C12-1,2,3,4,6,7,8-HpCDD	96	62	101	94	95	94
13C12-OCDD	98	61	104	98	101	95
13C12-2,3,7,8-TCDF	9	4	4	4	5	8
13C12-1,2,3,7,8-PeCDF	39	19	21	21	26	38
13C12-2,3,4,7,8-PeCDF	41	19	22	21	27	37
13C12-1,2,3,4,7,8-HxCDF	63	39	60	49	57	69
13C12-1,2,3,6,7,8-HxCDF	82	58	76	65	74	81
13C12-2,3,4,6,7,8-HxCDF	93	62	94	87	90	92
13C12-1,2,3,7,8,9-HxCDF	81	53	81	73	77	84
13C12-1,2,3,4,6,7,8-HpCDF	99	66	104	96	99	96
13C12-1,2,3,4,7,8,9-HpCDF	94	58	98	88	91	94
Cleanup Standard						
37Cl4-2,3,7,8-TCDD (Cleanup)	39	27	25	22	30	40
Homologue Group Totals	pg/L	pg/L	pg/L	pg/L	pg/L	pg/L
Total-TCDD	<15	<9.2	<3.0	<5.1	<3.2	<3.1
Total-PeCDD	<4.9	<2.8	<1.2	<1.7	<1.5	<1.5
Total-HxCDD	<2.6	<1.3	1.89	<0.86	<0.73	<0.91
Total-HpCDD	<2.1	<1.5	<0.42	<0.61	<0.69	<0.63
Total-TCDF	<50	<33	<10	<19	<10	<11
Total-PeCDF	<5.0	<2.7	<1.1	<2.0	<1.3	<1.2
Total-HxCDF	<2.4	<0.95	<0.51	<0.74	<0.53	<0.63
Total-HpCDF	<2.1	<1.2	<0.36	<0.71	<0.39	<0.66
Toxic Equivalency - (WHO 2005)						
Lower Bound PCDD/F TEQ (WHO 2005)	0.00	0.00	0.00	0.00	0.00	0.00
Mid Point PCDD/F TEQ (WHO 2005)	13.9	4.46	2.93	4.87	3.22	3.28
Upper Bound PCDD/F TEQ (WHO 2005)	27.9	8.92	5.85	9.75	6.44	6.57

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Quality Control Summary Report

Sample Name	Method Blank	Method Blank	Method Blank	Laboratory Control Sample
ALS Sample ID	WG2185811-1	WG2185811-2	WG2185811-3	WG2185811-4
Sample Size	1.00	0.98	0.91	1.00
Sample size units	L	L	L	n/a
Percent Moisture	n/a	n/a	n/a	n/a
Sample Matrix	QC	QC	QC	QC
Sampling Date	n/a	n/a	n/a	n/a
Extraction Date	5-Oct-15	5-Oct-15	5-Oct-15	5-Oct-15
Target Analytes	pg/L	pg/L	pg/L	% Rec
2,3,7,8-TCDD	<1.6	<7.6	<2.6	104
1,2,3,7,8-PeCDD	<0.93	<1.5	<1.0	106
1,2,3,4,7,8-HxCDD	<0.50	<0.66	<0.54	104
1,2,3,6,7,8-HxCDD	<0.44	<0.58	<0.49	99
1,2,3,7,8,9-HxCDD	<0.46	<0.61	<0.51	132
1,2,3,4,6,7,8-HpCDD	<0.63	<0.48	<0.76	104
OCDD	<1.4	1.11	<5.5	103
2,3,7,8-TCDF	<4.3	<16	<5.0	113
1,2,3,7,8-PeCDF	<0.88	<1.3	<0.85	99
2,3,4,7,8-PeCDF	<0.81	<1.2	<0.73	97
1,2,3,4,7,8-HxCDF	<0.54	<0.32	<0.40	106
1,2,3,6,7,8-HxCDF	<0.42	<0.22	<0.30	95
2,3,4,6,7,8-HxCDF	<0.46	<0.24	<0.34	111
1,2,3,7,8,9-HxCDF	0.760	<0.50	<0.40	109
1,2,3,4,6,7,8-HpCDF	<0.43	<0.35	<0.50	98
1,2,3,4,7,8,9-HpCDF	<0.55	<0.46	<0.68	98
OCDF	0.740	<0.73	<0.72	104
Extraction Standards	% Rec	% Rec	% Rec	% Rec
13C12-2,3,7,8-TCDD	41	15	42	20
13C12-1,2,3,7,8-PeCDD	70	49	63	52
13C12-1,2,3,4,7,8-HxCDD	66	63	66	61
13C12-1,2,3,6,7,8-HxCDD	87	79	86	83
13C12-1,2,3,4,6,7,8-HpCDD	91	92	86	96
13C12-OCDD	91	103	91	99
13C12-2,3,7,8-TCDF	10	5	15	6
13C12-1,2,3,7,8-PeCDF	48	34	53	38
13C12-2,3,4,7,8-PeCDF	45	30	50	34
13C12-1,2,3,4,7,8-HxCDF	67	62	67	61
13C12-1,2,3,6,7,8-HxCDF	82	82	87	79
13C12-2,3,4,6,7,8-HxCDF	87	87	87	87
13C12-1,2,3,7,8,9-HxCDF	84	80	81	81
13C12-1,2,3,4,6,7,8-HpCDF	97	98	92	97
13C12-1,2,3,4,7,8,9-HpCDF	96	99	90	97
Cleanup Standard				
37Cl4-2,3,7,8-TCDD (Cleanup)	41	15	45	22
Homologue Group Totals	pg/L	pg/L	pg/L	
Total-TCDD	<4.2	<7.6	<3.0	
Total-PeCDD	<0.93	<1.5	<1.0	
Total-HxCDD	<0.50	<0.66	<0.54	
Total-HpCDD	<0.63	<0.48	<0.76	
Total-TCDF	<7.4	<16	<6.2	
Total-PeCDF	<0.88	<1.3	<0.85	
Total-HxCDF	0.760	<0.32	<0.40	
Total-HpCDF	<0.55	<0.46	<0.68	
Toxic Equivalency - (WHO 2005)				
Lower Bound PCDD/F TEQ (WHO 2005)	0.0762	0.000333	0.00	
Mid Point PCDD/F TEQ (WHO 2005)	1.84	5.74	2.33	
Upper Bound PCDD/F TEQ (WHO 2005)	3.60	11.4	4.66	

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Sample Analysis Report

Sample Name DYEC/FA/151001/1
ALS Sample ID L1682286-1
Analysis Method EPA 1613B
Analysis Type Sample
Sample Matrix SOIL

Sampling Date 2-Oct-15
Extraction Date 5-Oct-15
Sample Size 0.96 L
Percent Moisture n/a
Split Ratio 1

Approved:
T. Patterson
 --e-signature--
 00-Jan-1900

Run Information

Run 1

Run 2

Filename 7-151007A09
Run Date 07-Oct-15 21:57
Final Volume 20 uL
Dilution Factor 1
Analysis Units pg/L
Instrument - Column HRMS-7 DB5MSUSE700122H

Filename 7-151008A14
Run Date 08-Oct-15 19:18
Final Volume 20 uL
Dilution Factor 1
Analysis Units pg/L
Instrument - Column HRMS-7 DB5MSUSE700122H

Target Analytes	TEF (WHO 2005)	Ret. Time	Conc. pg/L	EDL pg/L	Flags	EMPC pg/L	LQL	Ret. Time	Conc. pg/L	EDL pg/L	Flags	EMPC pg/L	LQL
2,3,7,8-TCDD	1	NotFnd	<4.0	4.0	U		10	NotFnd	<3.1	3.1	U		10
1,2,3,7,8-PeCDD	1	NotFnd	<1.0	1.0	U		52	NotFnd	<0.78	0.78	U		52
1,2,3,4,7,8-HxCDD	0.1	NotFnd	<0.53	0.53	U		52	NotFnd	<0.50	0.50	U		52
1,2,3,6,7,8-HxCDD	0.1	NotFnd	<0.47	0.47	U		52	NotFnd	<0.47	0.47	U		52
1,2,3,7,8,9-HxCDD	0.1	NotFnd	<0.49	0.49	U		52	NotFnd	<0.48	0.48	U		52
1,2,3,4,6,7,8-HpCDD	0.01	35.54	<0.54	0.54	M,U	0.38	52	NotFnd	<0.52	0.52	U		52
OCDD	0.0003	37.02	<0.58	0.58	M,J,R	0.58	100	NotFnd	<0.50	0.50	U		100
2,3,7,8-TCDF	0.1	NotFnd	<12	12	U		10	NotFnd	<7.6	7.6	U		10
1,2,3,7,8-PeCDF	0.03	NotFnd	<1.0	1.0	U		52	NotFnd	<0.82	0.82	U		52
2,3,4,7,8-PeCDF	0.3	NotFnd	<0.96	0.96	U		52	NotFnd	<0.74	0.74	U		52
1,2,3,4,7,8-HxCDF	0.1	NotFnd	<0.52	0.52	U		52	NotFnd	<0.41	0.41	U		52
1,2,3,6,7,8-HxCDF	0.1	NotFnd	<0.37	0.37	U		52	NotFnd	<0.32	0.32	U		52
2,3,4,6,7,8-HxCDF	0.1	NotFnd	<0.39	0.39	U		52	NotFnd	<0.33	0.33	U		52
1,2,3,7,8,9-HxCDF	0.1	NotFnd	<0.52	0.52	U		52	NotFnd	<0.47	0.47	U		52
1,2,3,4,6,7,8-HpCDF	0.01	NotFnd	<0.30	0.30	U		52	NotFnd	<0.35	0.35	U		52
1,2,3,4,7,8,9-HpCDF	0.01	NotFnd	<0.38	0.38	U		52	NotFnd	<0.49	0.49	U		52
OCDF	0.0003	NotFnd	<0.63	0.63	U		100	NotFnd	<0.51	0.51	U		100

Extraction Standards	pg	% Rec	Limits	% Rec
13C12-2,3,7,8-TCDD	2000	27.47	27 25-164	27.52 30
13C12-1,2,3,7,8-PeCDD	2000	31.81	55 25-181	31.84 57
13C12-1,2,3,4,7,8-HxCDD	2000	33.90	58 32-141	33.92 70
13C12-1,2,3,6,7,8-HxCDD	2000	33.95	90 28-130	33.97 95
13C12-1,2,3,4,6,7,8-HpCDD	2000	35.54	95 23-140	35.56 102
13C12-OCDD	4000	37.00	98 17-157	37.03 98
13C12-2,3,7,8-TCDF	2000	26.55	6 24-169	26.61 7
13C12-1,2,3,7,8-PeCDF	2000	30.85	39 24-185	30.88 41
13C12-2,3,4,7,8-PeCDF	2000	31.59	39 21-178	31.63 40
13C12-1,2,3,4,7,8-HxCDF	2000	33.40	60 26-152	33.42 71
13C12-1,2,3,6,7,8-HxCDF	2000	33.47	91 26-123	33.49 92
13C12-2,3,4,6,7,8-HxCDF	2000	33.80	90 29-147	33.82 94
13C12-1,2,3,7,8,9-HxCDF	2000	34.22	80 28-136	34.25 85
13C12-1,2,3,4,6,7,8-HpCDF	2000	34.98	94 28-143	35.00 98
13C12-1,2,3,4,7,8,9-HpCDF	2000	35.78	94 26-138	35.80 102

Cleanup Standard	pg	% Rec	Limits	% Rec
7Cl4-2,3,7,8-TCDD (Cleanup)	40	27.48	28 35-197	27.54 33

Homologue Group Totals	# peaks	Conc. pg/L	EDL pg/L	# peaks	Conc. pg/L	EDL pg/L
Total-TCDD	0.00	<4.0	4.0	U	10	0.00 <3.1 3.1 U
Total-PeCDD	0.00	<1.0	1.0	U	52	0.00 <0.78 0.78 U
Total-HxCDD	0.00	<0.53	0.53	U	52	0.00 <0.50 0.50 U
Total-HpCDD	0.00	<0.54	0.54	U	52	0.00 <0.52 0.52 U
Total-TCDF	0.00	<12	12	U	10	0.00 <7.6 7.6 U
Total-PeCDF	0.00	<1.0	1.0	U	52	0.00 <0.82 0.82 U
Total-HxCDF	0.00	<0.52	0.52	U	52	0.00 <0.47 0.47 U
Total-HpCDF	0.00	<0.38	0.38	U	52	0.00 <0.49 0.49 U

Toxic Equivalency - (WHO 2005)	pg/L
Lower Bound PCDD/F TEQ (WHO 2005)	0.00
Mid Point PCDD/F TEQ (WHO 2005)	2.76
Upper Bound PCDD/F TEQ (WHO 2005)	5.52

EDL Indicates the Estimated Detection Limit, based on the measured background noise for this target in this sample.
 TEF Indicates the Toxic Equivalency Factor
 M Indicates that a peak has been manually integrated.
 U Indicates that this compound was not detected above the MDL.
 J indicates that a target analyte was detected below the calibrated range.
 R Indicates that the ion abundance ratio for this compound did not meet the acceptance criterion.

ALS Life sciences

Sample Analysis Report

Sample Name DYEC/FA/151001/2
ALS Sample ID L1682286-2
Analysis Method EPA 1613B
Analysis Type Sample
Sample Matrix SOIL

Sampling Date 2-Oct-15
Extraction Date 5-Oct-15
Sample Size 0.91 L
Percent Moisture n/a
Split Ratio 1

Approved:
T. Patterson
 --e-signature--
 00-Jan-1900

Run Information	Run 1	Run 2
Filename	7-151007A10	7-151008A15
Run Date	07-Oct-15 22:39	08-Oct-15 20:00
Final Volume	20 uL	20 uL
Dilution Factor	1	1
Analysis Units	pg/L	pg/L
Instrument - Column	HRMS-7 DB5MSUSE700122H	HRMS-7 DB5MSUSE700122H

Target Analytes	TEF (WHO 2005)	Ret. Time	Conc. pg/L	EDL pg/L	Flags	EMPC pg/L	LQL	Ret. Time	Conc. pg/L	EDL pg/L	Flags	EMPC pg/L	LQL
2,3,7,8-TCDD	1	NotFnd	<4.7	4.7	U	11		NotFnd	<4.0	4.0	U	11	
1,2,3,7,8-PeCDD	1	NotFnd	<1.4	1.4	U	55		NotFnd	<1.1	1.1	U	55	
1,2,3,4,7,8-HxCDD	0.1	NotFnd	<0.70	0.70	U	55		NotFnd	<0.77	0.77	U	55	
1,2,3,6,7,8-HxCDD	0.1	NotFnd	<0.55	0.55	U	55		NotFnd	<0.73	0.73	U	55	
1,2,3,7,8,9-HxCDD	0.1	NotFnd	<0.61	0.61	U	55		NotFnd	<0.75	0.75	U	55	
1,2,3,4,6,7,8-HpCDD	0.01	NotFnd	<0.85	0.85	U	55		NotFnd	<0.65	0.65	U	55	
OCDD	0.0003	37.01	<1.1	0.66	M,J,R	1.1	110	NotFnd	<0.86	0.86	U	110	
2,3,7,8-TCDF	0.1	NotFnd	<12	12	U	11		NotFnd	<8.1	8.1	U	11	
1,2,3,7,8-PeCDF	0.03	30.86	<1.4	1.4	M,U	0.45	55	NotFnd	<1.3	1.3	U	55	
2,3,4,7,8-PeCDF	0.3	NotFnd	<1.3	1.3	U	55		NotFnd	<1.2	1.2	U	55	
1,2,3,4,7,8-HxCDF	0.1	NotFnd	<0.61	0.61	U	55		NotFnd	<0.56	0.56	U	55	
1,2,3,6,7,8-HxCDF	0.1	NotFnd	<0.45	0.45	U	55		NotFnd	<0.42	0.42	U	55	
2,3,4,6,7,8-HxCDF	0.1	NotFnd	<0.49	0.49	U	55		NotFnd	<0.45	0.45	U	55	
1,2,3,7,8,9-HxCDF	0.1	NotFnd	<0.62	0.62	U	55		NotFnd	<0.58	0.58	U	55	
1,2,3,4,6,7,8-HpCDF	0.01	NotFnd	<0.48	0.48	U	55		NotFnd	<0.50	0.50	U	55	
1,2,3,4,7,8,9-HpCDF	0.01	NotFnd	<0.62	0.62	U	55		NotFnd	<0.68	0.68	U	55	
OCDF	0.0003	NotFnd	<0.74	0.74	U	110		NotFnd	<0.91	0.91	U	110	

Extraction Standards	pg	% Rec	Limits	% Rec
13C12-2,3,7,8-TCDD	2000	27.47	23 25-164	27.54 24
13C12-1,2,3,7,8-PeCDD	2000	31.82	49 25-181	31.85 48
13C12-1,2,3,4,7,8-HxCDD	2000	33.90	52 32-141	33.93 61
13C12-1,2,3,6,7,8-HxCDD	2000	33.95	71 28-130	33.98 69
13C12-1,2,3,4,6,7,8-HpCDD	2000	35.54	74 23-140	35.57 73
13C12-OCDD	4000	37.00	76 17-157	37.04 73
13C12-2,3,7,8-TCDF	2000	26.55	8 24-169	26.62 8
13C12-1,2,3,7,8-PeCDF	2000	30.85	35 24-185	30.89 35
13C12-2,3,4,7,8-PeCDF	2000	31.60	35 21-178	31.64 36
13C12-1,2,3,4,7,8-HxCDF	2000	33.40	49 26-152	33.44 57
13C12-1,2,3,6,7,8-HxCDF	2000	33.47	74 26-123	33.50 67
13C12-2,3,4,6,7,8-HxCDF	2000	33.80	73 29-147	33.83 73
13C12-1,2,3,7,8,9-HxCDF	2000	34.22	67 28-136	34.26 66
13C12-1,2,3,4,6,7,8-HpCDF	2000	34.98	75 28-143	35.03 77
13C12-1,2,3,4,7,8,9-HpCDF	2000	35.79	76 26-138	35.82 75

Cleanup Standard	pg	% Rec	Limits
7Cl4-2,3,7,8-TCDD (Cleanup)	40	27.50	25 35-197

Homologue Group Totals	# peaks	Conc. pg/L	EDL pg/L	# peaks	Conc. pg/L	EDL pg/L
Total-TCDD	0.00	<4.7	4.7	U	11	0.00 <4.0 4.0 U
Total-PeCDD	0.00	<1.4	1.4	U	55	0.00 <1.1 1.1 U
Total-HxCDD	0.00	<0.70	0.70	U	55	0.00 <0.77 0.77 U
Total-HpCDD	0.00	<0.85	0.85	U	55	0.00 <0.65 0.65 U
Total-TCDF	0.00	<12	12	U	11	0.00 <8.1 8.1 U
Total-PeCDF	0.00	<1.4	1.4	U	55	0.00 <1.3 1.3 U
Total-HxCDF	0.00	<0.62	0.62	U	55	0.00 <0.58 0.58 U
Total-HpCDF	0.00	<0.62	0.62	U	55	0.00 <0.68 0.68 U

Toxic Equivalency - (WHO 2005)	pg/L
Lower Bound PCDD/F TEQ (WHO 2005)	0.00
Mid Point PCDD/F TEQ (WHO 2005)	3.53
Upper Bound PCDD/F TEQ (WHO 2005)	7.07

EDL Indicates the Estimated Detection Limit, based on the measured background noise for this target in this sample.
 TEF Indicates the Toxic Equivalency Factor
 M Indicates that a peak has been manually integrated.
 U Indicates that this compound was not detected above the MDL.
 J indicates that a target analyte was detected below the calibrated range.
 R Indicates that the ion abundance ratio for this compound did not meet the acceptance criterion.

ALS Life sciences

Sample Analysis Report

Sample Name DYEC/FA/151001/3
ALS Sample ID L1682286-3
Analysis Method EPA 1613B
Analysis Type Sample
Sample Matrix SOIL

Sampling Date 2-Oct-15
Extraction Date 5-Oct-15
Sample Size 0.96 L
Percent Moisture n/a
Split Ratio 1

Approved:
T. Patterson
 --e-signature--
 00-Jan-1900

Run Information	Run 1	Run 2
Filename	7-151007A11	7-151008A16
Run Date	07-Oct-15 23:21	08-Oct-15 20:42
Final Volume	20 uL	20 uL
Dilution Factor	1	1
Analysis Units	pg/L	pg/L
Instrument - Column	HRMS-7 DB5MSUSE700122H	HRMS-7 DB5MSUSE700122H

Target Analytes	TEF (WHO 2005)	Ret. Time	Conc. pg/L	EDL pg/L	Flags	EMPC pg/L	LQL	Ret. Time	Conc. pg/L	EDL pg/L	Flags	EMPC pg/L	LQL
2,3,7,8-TCDD	1	NotFnd	<4.7	4.7	U		10	NotFnd	<5.6	5.6	U		10
1,2,3,7,8-PeCDD	1	NotFnd	<1.7	1.7	U		52	NotFnd	<1.4	1.4	U		52
1,2,3,4,7,8-HxCDD	0.1	NotFnd	<0.79	0.79	U		52	NotFnd	<0.94	0.94	U		52
1,2,3,6,7,8-HxCDD	0.1	NotFnd	<0.66	0.66	U		52	NotFnd	<0.84	0.84	U		52
1,2,3,7,8,9-HxCDD	0.1	NotFnd	<0.70	0.70	U		52	NotFnd	<0.88	0.88	U		52
1,2,3,4,6,7,8-HpCDD	0.01	35.55	<0.66	0.66	M,U	0.48	52	NotFnd	<0.66	0.66	U		52
OCDD	0.0003	NotFnd	<0.48	0.48	U		100	NotFnd	<0.76	0.76	U		100
2,3,7,8-TCDF	0.1	NotFnd	<14	14	U		10	NotFnd	<13	13	U		10
1,2,3,7,8-PeCDF	0.03	NotFnd	<1.7	1.7	U		52	NotFnd	<1.7	1.7	U		52
2,3,4,7,8-PeCDF	0.3	NotFnd	<1.3	1.3	U		52	NotFnd	<1.5	1.5	U		52
1,2,3,4,7,8-HxCDF	0.1	NotFnd	<0.68	0.68	U		52	NotFnd	<0.67	0.67	U		52
1,2,3,6,7,8-HxCDF	0.1	NotFnd	<0.45	0.45	U		52	NotFnd	<0.52	0.52	U		52
2,3,4,6,7,8-HxCDF	0.1	NotFnd	<0.42	0.42	U		52	NotFnd	<0.46	0.46	U		52
1,2,3,7,8,9-HxCDF	0.1	NotFnd	<0.55	0.55	U		52	NotFnd	<0.61	0.61	U		52
1,2,3,4,6,7,8-HpCDF	0.01	NotFnd	<0.44	0.44	U		52	NotFnd	<0.32	0.32	U		52
1,2,3,4,7,8,9-HpCDF	0.01	NotFnd	<0.61	0.61	U		52	NotFnd	<0.47	0.47	U		52
OCDF	0.0003	NotFnd	<0.59	0.59	U		100	NotFnd	<0.77	0.77	U		100

Extraction Standards	pg	% Rec	Limits	% Rec
13C12-2,3,7,8-TCDD	2000	27.47	20 25-164	27.54 21
13C12-1,2,3,7,8-PeCDD	2000	31.82	45 25-181	31.85 44
13C12-1,2,3,4,7,8-HxCDD	2000	33.91	53 32-141	33.93 57
13C12-1,2,3,6,7,8-HxCDD	2000	33.96	75 28-130	33.98 76
13C12-1,2,3,4,6,7,8-HpCDD	2000	35.54	93 23-140	35.57 96
13C12-OCDD	4000	37.01	99 17-157	37.03 102
13C12-2,3,7,8-TCDF	2000	26.56	7 24-169	26.62 7
13C12-1,2,3,7,8-PeCDF	2000	30.86	29 24-185	30.89 30
13C12-2,3,4,7,8-PeCDF	2000	31.60	30 21-178	31.64 31
13C12-1,2,3,4,7,8-HxCDF	2000	33.41	50 26-152	33.43 53
13C12-1,2,3,6,7,8-HxCDF	2000	33.47	74 26-123	33.49 70
13C12-2,3,4,6,7,8-HxCDF	2000	33.81	89 29-147	33.83 88
13C12-1,2,3,7,8,9-HxCDF	2000	34.22	75 28-136	34.25 75
13C12-1,2,3,4,6,7,8-HpCDF	2000	34.99	97 28-143	35.01 96
13C12-1,2,3,4,7,8,9-HpCDF	2000	35.79	92 26-138	35.81 92

Cleanup Standard	pg	% Rec	Limits
13C14-2,3,7,8-TCDD (Cleanup)	40	27.50	22 35-197

Homologue Group Totals	# peaks	Conc. pg/L	EDL pg/L	# peaks	Conc. pg/L	EDL pg/L
Total-TCDD	0.00	<4.7	4.7	0.00	<5.6	5.6
Total-PeCDD	0.00	<1.7	1.7	0.00	<1.4	1.4
Total-HxCDD	0.00	<0.79	0.79	0.00	<0.94	0.94
Total-HpCDD	0.00	<0.66	0.66	0.00	<0.66	0.66
Total-TCDF	0.00	<14	14	0.00	<13	13
Total-PeCDF	0.00	<1.7	1.7	0.00	<1.7	1.7
Total-HxCDF	0.00	<0.68	0.68	0.00	<0.67	0.67
Total-HpCDF	0.00	<0.61	0.61	0.00	<0.47	0.47

Toxic Equivalency - (WHO 2005)	pg/L
Lower Bound PCDD/F TEQ (WHO 2005)	0.00
Mid Point PCDD/F TEQ (WHO 2005)	4.29
Upper Bound PCDD/F TEQ (WHO 2005)	8.58

EDL Indicates the Estimated Detection Limit, based on the measured background noise for this target in this sample.
 TEF Indicates the Toxic Equivalency Factor
 M Indicates that a peak has been manually integrated.
 U Indicates that this compound was not detected above the MDL.

ALS Life sciences

Sample Analysis Report

Sample Name DYEC/FA/151001/4 ALS Sample ID L1682286-4 Analysis Method EPA 1613B Analysis Type Sample Sample Matrix SOIL	Sampling Date 2-Oct-15 Extraction Date 5-Oct-15 Sample Size 0.89 L Percent Moisture n/a Split Ratio 1	Approved: <i>T. Patterson</i> --e-signature-- 00-Jan-1900
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Run Information	Run 1	Run 2
Filename	7-151007A12	7-151008A24
Run Date	08-Oct-15 00:03	09-Oct-15 02:24
Final Volume	20 uL	20 uL
Dilution Factor	1	1
Analysis Units	pg/L	pg/L
Instrument - Column	HRMS-7 DB5MSUSE700122H	HRMS-7 DB5MSUSE700122H

Target Analytes	TEF (WHO 2005)	Ret. Time	Conc. pg/L	EDL pg/L	Flags	EMPC pg/L	LQL	Ret. Time	Conc. pg/L	EDL pg/L	Flags	EMPC pg/L	LQL
2,3,7,8-TCDD	1	NotFnd	<11	11	U	11		NotFnd	<13	13	U	11	
1,2,3,7,8-PeCDD	1	NotFnd	<2.0	2.0	U	56		NotFnd	<2.2	2.2	U	56	
1,2,3,4,7,8-HxCDD	0.1	NotFnd	<0.79	0.79	U	56		NotFnd	<1.2	1.2	U	56	
1,2,3,6,7,8-HxCDD	0.1	NotFnd	<0.64	0.64	U	56		NotFnd	<1.1	1.1	U	56	
1,2,3,7,8,9-HxCDD	0.1	NotFnd	<0.68	0.68	U	56		NotFnd	<1.1	1.1	U	56	
1,2,3,4,6,7,8-HpCDD	0.01	NotFnd	<0.72	0.72	U	56		NotFnd	<0.71	0.71	U	56	
OCDD	0.0003	37.02	<0.90	0.55	M,J,R	0.90	110	NotFnd	<0.58	0.58	U	110	
2,3,7,8-TCDF	0.1	NotFnd	<28	28	U	11		NotFnd	<29	29	U	11	
1,2,3,7,8-PeCDF	0.03	NotFnd	<2.3	2.3	U	56		NotFnd	<2.5	2.5	U	56	
2,3,4,7,8-PeCDF	0.3	NotFnd	<2.3	2.3	U	56		NotFnd	<2.5	2.5	U	56	
1,2,3,4,7,8-HxCDF	0.1	NotFnd	<0.78	0.78	U	56		NotFnd	<0.93	0.93	U	56	
1,2,3,6,7,8-HxCDF	0.1	NotFnd	<0.52	0.52	U	56		NotFnd	<0.63	0.63	U	56	
2,3,4,6,7,8-HxCDF	0.1	NotFnd	<0.50	0.50	U	56		NotFnd	<0.61	0.61	U	56	
1,2,3,7,8,9-HxCDF	0.1	NotFnd	<0.66	0.66	U	56		NotFnd	<0.79	0.79	U	56	
1,2,3,4,6,7,8-HpCDF	0.01	NotFnd	<0.47	0.47	U	56		NotFnd	<0.50	0.50	U	56	
1,2,3,4,7,8,9-HpCDF	0.01	NotFnd	<0.66	0.66	U	56		NotFnd	<0.66	0.66	U	56	
OCDF	0.0003	NotFnd	<0.76	0.76	U	110		NotFnd	<1.0	1.0	U	110	

Extraction Standards	pg	% Rec	Limits	% Rec
13C12-2,3,7,8-TCDD	2000	27.47	11 25-164	27.57 11
13C12-1,2,3,7,8-PeCDD	2000	31.82	30 25-181	31.87 29
13C12-1,2,3,4,7,8-HxCDD	2000	33.90	39 32-141	33.94 52
13C12-1,2,3,6,7,8-HxCDD	2000	33.95	69 28-130	33.99 65
13C12-1,2,3,4,6,7,8-HpCDD	2000	35.54	84 23-140	35.58 90
13C12-OCDD	4000	37.00	91 17-157	37.05 90
13C12-2,3,7,8-TCDF	2000	26.56	3 24-169	26.65 3
13C12-1,2,3,7,8-PeCDF	2000	30.85	20 24-185	30.91 21
13C12-2,3,4,7,8-PeCDF	2000	31.60	18 21-178	31.65 19
13C12-1,2,3,4,7,8-HxCDF	2000	33.40	42 26-152	33.45 50
13C12-1,2,3,6,7,8-HxCDF	2000	33.47	70 26-123	33.51 66
13C12-2,3,4,6,7,8-HxCDF	2000	33.80	80 29-147	33.84 81
13C12-1,2,3,7,8,9-HxCDF	2000	34.22	68 28-136	34.27 71
13C12-1,2,3,4,6,7,8-HpCDF	2000	34.99	85 28-143	35.04 90
13C12-1,2,3,4,7,8,9-HpCDF	2000	35.78	81 26-138	35.83 89

Cleanup Standard	pg	% Rec	Limits	% Rec
7Cl4-2,3,7,8-TCDD (Cleanup)	40	27.50	12 35-197	27.58 13

Homologue Group Totals	# peaks	Conc. pg/L	EDL pg/L	# peaks	Conc. pg/L	EDL pg/L
Total-TCDD	0.00	<11	11	U	11	0.00 <13 13 U
Total-PeCDD	0.00	<2.0	2.0	U	56	0.00 <2.2 2.2 U
Total-HxCDD	0.00	<0.79	0.79	U	56	0.00 <1.2 1.2 U
Total-HpCDD	0.00	<0.72	0.72	U	56	0.00 <0.71 0.71 U
Total-TCDF	0.00	<28	28	U	11	0.00 <29 29 U
Total-PeCDF	0.00	<2.3	2.3	U	56	0.00 <2.5 2.5 U
Total-HxCDF	0.00	<0.78	0.78	U	56	0.00 <0.93 0.93 U
Total-HpCDF	0.00	<0.66	0.66	U	56	0.00 <0.66 0.66 U

Toxic Equivalency - (WHO 2005)	pg/L
Lower Bound PCDD/F TEQ (WHO 2005)	0.00
Mid Point PCDD/F TEQ (WHO 2005)	8.52
Upper Bound PCDD/F TEQ (WHO 2005)	17.0

EDL	Indicates the Estimated Detection Limit, based on the measured background noise for this target in this sample.
TEF	Indicates the Toxic Equivalency Factor
M	Indicates that a peak has been manually integrated.
U	Indicates that this compound was not detected above the MDL.
J	Indicates that a target analyte was detected below the calibrated range.
R	Indicates that the ion abundance ratio for this compound did not meet the acceptance criterion.

ALS Life sciences

Sample Analysis Report

Sample Name DYEC/FA/151002/1
ALS Sample ID L1682822-1
Analysis Method EPA 1613B
Analysis Type Sample
Sample Matrix SOIL

Sampling Date 3-Oct-15
Extraction Date 5-Oct-15
Sample Size 0.95 L
Percent Moisture n/a
Split Ratio 1

Approved:
T. Patterson
 --e-signature--
 00-Jan-1900

Run Information	Run 1	Run 2
Filename	7-151007A13	7-151008A25
Run Date	08-Oct-15 00:45	09-Oct-15 03:06
Final Volume	20 uL	20 uL
Dilution Factor	1	1
Analysis Units	pg/L	pg/L
Instrument - Column	HRMS-7 DB5MSUSE700122H	HRMS-7 DB5MSUSE700122H

Target Analytes	TEF (WHO 2005)	Ret. Time	Conc. pg/L	EDL pg/L	Flags	EMPC pg/L	LQL	Ret. Time	Conc. pg/L	EDL pg/L	Flags	EMPC pg/L	LQL
2,3,7,8-TCDD	1	NotFnd	<4.0	4.0	U	11		NotFnd	<3.8	3.8	U	11	
1,2,3,7,8-PeCDD	1	NotFnd	<1.1	1.1	U	53		NotFnd	<1.4	1.4	U	53	
1,2,3,4,7,8-HxCDD	0.1	NotFnd	<0.61	0.61	U	53		NotFnd	<0.75	0.75	U	53	
1,2,3,6,7,8-HxCDD	0.1	NotFnd	<0.51	0.51	U	53		NotFnd	<0.71	0.71	U	53	
1,2,3,7,8,9-HxCDD	0.1	NotFnd	<0.55	0.55	U	53		NotFnd	<0.72	0.72	U	53	
1,2,3,4,6,7,8-HpCDD	0.01	NotFnd	<0.89	0.89	U	53		NotFnd	<0.82	0.82	U	53	
OCDD	0.0003	NotFnd	<0.54	0.54	U	110		NotFnd	<0.89	0.89	U	110	
2,3,7,8-TCDF	0.1	NotFnd	<16	16	U	11		NotFnd	<13	13	U	11	
1,2,3,7,8-PeCDF	0.03	NotFnd	<1.7	1.7	U	53		NotFnd	<1.2	1.2	U	53	
2,3,4,7,8-PeCDF	0.3	NotFnd	<1.5	1.5	U	53		NotFnd	<1.1	1.1	U	53	
1,2,3,4,7,8-HxCDF	0.1	NotFnd	<0.51	0.51	U	53		NotFnd	<0.62	0.62	U	53	
1,2,3,6,7,8-HxCDF	0.1	NotFnd	<0.34	0.34	U	53		NotFnd	<0.51	0.51	U	53	
2,3,4,6,7,8-HxCDF	0.1	NotFnd	<0.35	0.35	U	53		NotFnd	<0.50	0.50	U	53	
1,2,3,7,8,9-HxCDF	0.1	34.25	<0.51	0.48	M,J,R	0.51	53	NotFnd	<0.67	0.67	U	53	
1,2,3,4,6,7,8-HpCDF	0.01	NotFnd	<0.48	0.48	U	53		NotFnd	<0.56	0.56	U	53	
1,2,3,4,7,8,9-HpCDF	0.01	NotFnd	<0.65	0.65	U	53		NotFnd	<0.87	0.87	U	53	
OCDF	0.0003	NotFnd	<0.67	0.67	U	110		NotFnd	<0.98	0.98	U	110	

Extraction Standards	pg	% Rec	Limits	% Rec
13C12-2,3,7,8-TCDD	2000	27.47	25 25-164	27.57 29
13C12-1,2,3,7,8-PeCDD	2000	31.83	47 25-181	31.88 49
13C12-1,2,3,4,7,8-HxCDD	2000	33.91	60 32-141	33.95 70
13C12-1,2,3,6,7,8-HxCDD	2000	33.96	79 28-130	34.00 83
13C12-1,2,3,4,6,7,8-HpCDD	2000	35.55	94 23-140	35.59 94
13C12-OCDD	4000	37.02	98 17-157	37.06 92
13C12-2,3,7,8-TCDF	2000	26.56	6 24-169	26.65 6
13C12-1,2,3,7,8-PeCDF	2000	30.86	32 24-185	30.91 34
13C12-2,3,4,7,8-PeCDF	2000	31.61	33 21-178	31.65 35
13C12-1,2,3,4,7,8-HxCDF	2000	33.41	59 26-152	33.45 70
13C12-1,2,3,6,7,8-HxCDF	2000	33.48	85 26-123	33.52 82
13C12-2,3,4,6,7,8-HxCDF	2000	33.81	92 29-147	33.85 92
13C12-1,2,3,7,8,9-HxCDF	2000	34.24	77 28-136	34.27 79
13C12-1,2,3,4,6,7,8-HpCDF	2000	35.00	95 28-143	35.04 101
13C12-1,2,3,4,7,8,9-HpCDF	2000	35.80	93 26-138	35.83 97

Cleanup Standard	pg	% Rec	Limits
7Cl4-2,3,7,8-TCDD (Cleanup)	40	27.51	28 35-197

Homologue Group Totals	# peaks	Conc. pg/L	EDL pg/L	Flags	LQL	# peaks	Conc. pg/L	EDL pg/L	Flags	LQL
Total-TCDD	0.00	<4.0	4.0	U	11	0.00	<3.8	3.8	U	11
Total-PeCDD	0.00	<1.1	1.1	U	53	0.00	<1.4	1.4	U	53
Total-HxCDD	0.00	<0.61	0.61	U	53	0.00	<0.75	0.75	U	53
Total-HpCDD	0.00	<0.89	0.89	U	53	0.00	<0.82	0.82	U	53
Total-TCDF	0.00	<16	16	U	11	1.00	71.5	13	U	11
Total-PeCDF	0.00	<1.7	1.7	U	53	0.00	<1.2	1.2	U	53
Total-HxCDF	0.00	<0.51	0.51	U	53	0.00	<0.67	0.67	U	53
Total-HpCDF	0.00	<0.65	0.65	U	53	0.00	<0.87	0.87	U	53

Toxic Equivalency - (WHO 2005)	pg/L
Lower Bound PCDD/F TEQ (WHO 2005)	0.00
Mid Point PCDD/F TEQ (WHO 2005)	3.56
Upper Bound PCDD/F TEQ (WHO 2005)	7.06

EDL Indicates the Estimated Detection Limit, based on the measured background noise for this target in this sample.
 TEF Indicates the Toxic Equivalency Factor TEQ Indicates the Toxic Equivalency.
 M Indicates that a peak has been manually integrated.
 U Indicates that this compound was not detected above the MDL.
 J indicates that a target analyte was detected below the calibrated range.
 R Indicates that the ion abundance ratio for this compound did not meet the acceptance criterion.

ALS Life sciences

Sample Analysis Report

Sample Name DYEC/FA/151002/2
ALS Sample ID L1682822-2
Analysis Method EPA 1613B
Analysis Type Sample
Sample Matrix SOIL

Sampling Date 3-Oct-15
Extraction Date 5-Oct-15
Sample Size 0.985 L
Percent Moisture n/a
Split Ratio 1

Approved:
T. Patterson
 --e-signature--
 00-Jan-1900

Run Information

Run 1

Run 2

Filename 7-151007A14
Run Date 08-Oct-15 01:27
Final Volume 20 uL
Dilution Factor 1
Analysis Units pg/L
Instrument - Column HRMS-7 DB5MSUSE700122H

Filename 7-151008A26
Run Date 09-Oct-15 03:48
Final Volume 20 uL
Dilution Factor 1
Analysis Units pg/L
Instrument - Column HRMS-7 DB5MSUSE700122H

Target Analytes	TEF (WHO 2005)	Ret. Time	Conc. pg/L	EDL pg/L	Flags	EMPC pg/L	LQL	Ret. Time	Conc. pg/L	EDL pg/L	Flags	EMPC pg/L	LQL
2,3,7,8-TCDD	1	NotFnd	<4.0	4.0	U		10	NotFnd	<3.3	3.3	U		10
1,2,3,7,8-PeCDD	1	NotFnd	<1.2	1.2	U		51	NotFnd	<1.2	1.2	U		51
1,2,3,4,7,8-HxCDD	0.1	NotFnd	<0.52	0.52	U		51	NotFnd	<1.0	1.0	U		51
1,2,3,6,7,8-HxCDD	0.1	NotFnd	<0.44	0.44	U		51	NotFnd	<0.85	0.85	U		51
1,2,3,7,8,9-HxCDD	0.1	NotFnd	<0.47	0.47	U		51	NotFnd	<0.92	0.92	U		51
1,2,3,4,6,7,8-HpCDD	0.01	35.55	<0.80	0.55	M,J,R	0.80	51	NotFnd	<0.74	0.74	U		51
OCDD	0.0003	NotFnd	<0.54	0.54	U		100	NotFnd	<0.71	0.71	U		100
2,3,7,8-TCDF	0.1	NotFnd	<12	12	U		10	NotFnd	<10	10	U		10
1,2,3,7,8-PeCDF	0.03	NotFnd	<1.1	1.1	U		51	NotFnd	<1.4	1.4	U		51
2,3,4,7,8-PeCDF	0.3	NotFnd	<1.0	1.0	U		51	NotFnd	<1.2	1.2	U		51
1,2,3,4,7,8-HxCDF	0.1	NotFnd	<0.53	0.53	U		51	NotFnd	<0.65	0.65	U		51
1,2,3,6,7,8-HxCDF	0.1	NotFnd	<0.40	0.40	U		51	NotFnd	<0.55	0.55	U		51
2,3,4,6,7,8-HxCDF	0.1	NotFnd	<0.39	0.39	U		51	NotFnd	<0.48	0.48	U		51
1,2,3,7,8,9-HxCDF	0.1	NotFnd	<0.55	0.55	U		51	34.28	<1.1	0.64	J,R	1.1	51
1,2,3,4,6,7,8-HpCDF	0.01	NotFnd	<0.34	0.34	U		51	NotFnd	<0.81	0.81	U		51
1,2,3,4,7,8,9-HpCDF	0.01	NotFnd	<0.44	0.44	U		51	NotFnd	<1.1	1.1	U		51
OCDF	0.0003	NotFnd	<0.72	0.72	U		100	NotFnd	<0.86	0.86	U		100

Extraction Standards	pg	% Rec	Limits	% Rec
13C12-2,3,7,8-TCDD	4000	27.47	49 25-164	27.55 75
13C12-1,2,3,7,8-PeCDD	4000	31.82	98 25-181	31.87 102
13C12-1,2,3,4,7,8-HxCDD	4000	33.91	103 32-141	33.94 133
13C12-1,2,3,6,7,8-HxCDD	4000	33.96	153 28-130	33.99 156
13C12-1,2,3,4,6,7,8-HpCDD	4000	35.55	167 23-140	35.58 180
13C12-OCDD	8000	37.01	172 17-157	37.05 180
13C12-2,3,7,8-TCDF	4000	26.56	14 24-169	26.65 15
13C12-1,2,3,7,8-PeCDF	4000	30.86	69 24-185	30.90 73
13C12-2,3,4,7,8-PeCDF	4000	31.60	66 21-178	31.65 71
13C12-1,2,3,4,7,8-HxCDF	4000	33.41	104 26-152	33.44 131
13C12-1,2,3,6,7,8-HxCDF	4000	33.47	155 26-123	33.51 135
13C12-2,3,4,6,7,8-HxCDF	4000	33.81	163 29-147	33.84 173
13C12-1,2,3,7,8,9-HxCDF	4000	34.22	139 28-136	34.27 158
13C12-1,2,3,4,6,7,8-HpCDF	4000	34.99	168 28-143	35.03 183
13C12-1,2,3,4,7,8,9-HpCDF	4000	35.79	167 26-138	35.83 181

Cleanup Standard	pg	% Rec	Limits	% Rec
7Cl4-2,3,7,8-TCDD (Cleanup)	40	27.50	54 35-197	27.58 77

Homologue Group Totals	# peaks	Conc. pg/L	EDL pg/L	# peaks	Conc. pg/L	EDL pg/L
Total-TCDD	0.00	<4.0	4.0	U	10	0.00 <3.3 3.3 U
Total-PeCDD	0.00	<1.2	1.2	U	51	0.00 <1.2 1.2 U
Total-HxCDD	0.00	<0.52	0.52	U	51	0.00 <1.0 1.0 U
Total-HpCDD	0.00	<0.55	0.55	U	51	0.00 <0.74 0.74 U
Total-TCDF	0.00	<12	12	U	10	0.00 <10 10 U
Total-PeCDF	0.00	<1.1	1.1	U	51	0.00 <1.4 1.4 U
Total-HxCDF	0.00	<0.55	0.55	U	51	0.00 <0.65 0.65 U
Total-HpCDF	0.00	<0.44	0.44	U	51	0.00 <1.1 1.1 U

Toxic Equivalency - (WHO 2005)	pg/L
Lower Bound PCDD/F TEQ (WHO 2005)	0.00
Mid Point PCDD/F TEQ (WHO 2005)	3.09
Upper Bound PCDD/F TEQ (WHO 2005)	6.18

EDL Indicates the Estimated Detection Limit, based on the measured background noise for this target in this sample.
 TEF Indicates the Toxic Equivalency Factor TEQ Indicates the Toxic Equivalency;
 M Indicates that a peak has been manually integrated.
 U Indicates that this compound was not detected above the MDL.
 J indicates that a target analyte was detected below the calibrated range.
 R Indicates that the ion abundance ratio for this compound did not meet the acceptance criterion.

ALS Life sciences

Sample Analysis Report

Sample Name DYEC/FA/151002/3
ALS Sample ID L1682822-3
Analysis Method EPA 1613B
Analysis Type Sample
Sample Matrix SOIL

Sampling Date 3-Oct-15
Extraction Date 5-Oct-15
Sample Size 0.95 L
Percent Moisture n/a
Split Ratio 1

Approved:
T. Patterson
 --e-signature--
 00-Jan-1900

Run Information

Run 1

Run 2

Filename 7-151007A15
Run Date 08-Oct-15 02:08
Final Volume 20 uL
Dilution Factor 5
Analysis Units pg/L
Instrument - Column HRMS-7 DB5MSUSE700122H

Filename 7-151008A27
Run Date 09-Oct-15 04:30
Final Volume 20 uL
Dilution Factor 1
Analysis Units pg/L
Instrument - Column HRMS-7 DB5MSUSE700122H

Target Analytes	TEF (WHO 2005)	Ret. Time	Conc. pg/L	EDL pg/L	Flags	EMPC pg/L	LQL	Ret. Time	Conc. pg/L	EDL pg/L	Flags	EMPC pg/L	LQL
2,3,7,8-TCDD	1	NotFnd	#VALUE!	####	#VALUE!		53	NotFnd	<15	15	U		11
1,2,3,7,8-PeCDD	1	NotFnd	<0.96	0.96	U		260	NotFnd	<4.9	4.9	U		53
1,2,3,4,7,8-HxCDD	0.1	NotFnd	<0.32	0.32	U		260	NotFnd	<2.6	2.6	U		53
1,2,3,6,7,8-HxCDD	0.1	NotFnd	<0.42	0.42	U		260	NotFnd	<2.4	2.4	U		53
1,2,3,7,8,9-HxCDD	0.1	NotFnd	<0.35	0.35	U		260	NotFnd	<2.5	2.5	U		53
1,2,3,4,6,7,8-HpCDD	0.01	NotFnd	<0.41	0.41	U		260	NotFnd	<2.1	2.1	U		53
OCDD	0.0003	NotFnd	<0.36	0.36	U		530	NotFnd	<2.9	2.9	U		110
2,3,7,8-TCDF	0.1	NotFnd	<13	13	U		53	NotFnd	<50	50	U		11
1,2,3,7,8-PeCDF	0.03	NotFnd	<0.97	0.97	U		260	NotFnd	<5.0	5.0	U		53
2,3,4,7,8-PeCDF	0.3	NotFnd	<0.78	0.78	U		260	NotFnd	<4.0	4.0	U		53
1,2,3,4,7,8-HxCDF	0.1	NotFnd	#VALUE!	####	#VALUE!		260	NotFnd	<2.2	2.2	U		53
1,2,3,6,7,8-HxCDF	0.1	NotFnd	<0.43	0.43	U		260	NotFnd	<1.7	1.7	U		53
2,3,4,6,7,8-HxCDF	0.1	NotFnd	<0.26	0.26	U		260	NotFnd	<1.7	1.7	U		53
1,2,3,7,8,9-HxCDF	0.1	NotFnd	<0.32	0.32	U		260	NotFnd	<2.4	2.4	U		53
1,2,3,4,6,7,8-HpCDF	0.01	NotFnd	<0.27	0.27	U		260	NotFnd	<1.5	1.5	U		53
1,2,3,4,7,8,9-HpCDF	0.01	NotFnd	<0.34	0.34	U		260	NotFnd	<2.1	2.1	U		53
OCDF	0.0003	NotFnd	<0.45	0.45	U		530	NotFnd	<3.1	3.1	U		110

Extraction Standards	pg	% Rec	Limits	% Rec
13C12-2,3,7,8-TCDD	2000	NotFnd	0 25-164	27.57 33
13C12-1,2,3,7,8-PeCDD	2000	31.80	73 25-181	31.87 53
13C12-1,2,3,4,7,8-HxCDD	2000	33.90	99 32-141	33.94 65
13C12-1,2,3,6,7,8-HxCDD	2000	33.94	43 28-130	33.99 87
13C12-1,2,3,4,6,7,8-HpCDD	2000	35.53	91 23-140	35.58 96
13C12-OCDD	4000	37.00	92 17-157	37.05 98
13C12-2,3,7,8-TCDF	2000	26.48	8 24-169	26.65 9
13C12-1,2,3,7,8-PeCDF	2000	30.83	49 24-185	30.90 39
13C12-2,3,4,7,8-PeCDF	2000	31.58	53 21-178	31.65 41
13C12-1,2,3,4,7,8-HxCDF	2000	0.00	0 26-152	33.44 63
13C12-1,2,3,6,7,8-HxCDF	2000	33.46	78 26-123	33.51 82
13C12-2,3,4,6,7,8-HxCDF	2000	33.79	88 29-147	33.84 93
13C12-1,2,3,7,8,9-HxCDF	2000	34.21	78 28-136	34.26 81
13C12-1,2,3,4,6,7,8-HpCDF	2000	34.98	91 28-143	35.03 99
13C12-1,2,3,4,7,8,9-HpCDF	2000	35.78	88 26-138	35.82 94

Cleanup Standard	pg	% Rec	Limits	% Rec
7Cl4-2,3,7,8-TCDD (Cleanup)	40	0.00	0 35-197	27.58 39

Homologue Group Totals	# peaks	Conc. pg/L	EDL pg/L	# peaks	Conc. pg/L	EDL pg/L
Total-TCDD	#VALUE!	#VALUE!	####	U	53	0.00 <15 15 U
Total-PeCDD	0.00	<0.96	0.96	U	260	0.00 <4.9 4.9 U
Total-HxCDD	0.00	<0.42	0.42	U	260	0.00 <2.6 2.6 U
Total-HpCDD	0.00	<0.41	0.41	U	260	0.00 <2.1 2.1 U
Total-TCDF	0.00	<13	13	U	53	0.00 <50 50 U
Total-PeCDF	0.00	<0.97	0.97	U	260	0.00 <5.0 5.0 U
Total-HxCDF	#VALUE!	#VALUE!	####	U	260	0.00 <2.4 2.4 U
Total-HpCDF	0.00	<0.34	0.34	U	260	0.00 <2.1 2.1 U

Toxic Equivalency - (WHO 2005)	pg/L
Lower Bound PCDD/F TEQ (WHO 2005)	0.00
Mid Point PCDD/F TEQ (WHO 2005)	13.9
Upper Bound PCDD/F TEQ (WHO 2005)	27.9

EDL Indicates the Estimated Detection Limit, based on the measured background noise for this target in this sample.
 TEF Indicates the Toxic Equivalency Factor TEQ Indicates the Toxic Equivalency;
 U Indicates that this compound was not detected above the MDL.
 R Indicates that the ion abundance ratio for this compound did not meet the acceptance criterion.

ALS Life sciences

Sample Analysis Report

Sample Name DYEC/FA/151002/4
ALS Sample ID L1682822-4
Analysis Method EPA 1613B
Analysis Type Sample
Sample Matrix SOIL

Sampling Date 3-Oct-15
Extraction Date 5-Oct-15
Sample Size 0.88 L
Percent Moisture n/a
Split Ratio 1

Approved:
T. Patterson
 --e-signature--
 00-Jan-1900

Run Information
Run 1
Run 2

Filename 7-151007A16
Run Date 08-Oct-15 02:50
Final Volume 20 uL
Dilution Factor 1
Analysis Units pg/L
Instrument - Column HRMS-7 DB5MSUSE700122H

Filename 7-151008A28
Run Date 09-Oct-15 05:12
Final Volume 20 uL
Dilution Factor 1
Analysis Units pg/L
Instrument - Column HRMS-7 DB5MSUSE700122H

Target Analytes	TEF (WHO 2005)	Ret. Time	Conc. pg/L	EDL pg/L	Flags	EMPC pg/L	LQL	Ret. Time	Conc. pg/L	EDL pg/L	Flags	EMPC pg/L	LQL
2,3,7,8-TCDD	1	NotFnd	<9.2	9.2	U	11		NotFnd	<3.3	3.3	U	11	
1,2,3,7,8-PeCDD	1	NotFnd	<2.8	2.8	U	57		NotFnd	<1.3	1.3	U	57	
1,2,3,4,7,8-HxCDD	0.1	NotFnd	<1.3	1.3	U	57		NotFnd	<0.88	0.88	U	57	
1,2,3,6,7,8-HxCDD	0.1	NotFnd	<1.1	1.1	U	57		NotFnd	<0.79	0.79	U	57	
1,2,3,7,8,9-HxCDD	0.1	NotFnd	<1.2	1.2	U	57		NotFnd	<0.82	0.82	U	57	
1,2,3,4,6,7,8-HpCDD	0.01	NotFnd	<1.5	1.5	U	57		NotFnd	<0.69	0.69	U	57	
OCDD	0.0003	NotFnd	<1.6	1.6	U	110		NotFnd	<0.68	0.68	U	110	
2,3,7,8-TCDF	0.1	NotFnd	<33	33	U	11		NotFnd	<13	13	U	11	
1,2,3,7,8-PeCDF	0.03	NotFnd	<2.7	2.7	U	57		NotFnd	<1.3	1.3	U	57	
2,3,4,7,8-PeCDF	0.3	NotFnd	<2.4	2.4	U	57		NotFnd	<1.1	1.1	U	57	
1,2,3,4,7,8-HxCDF	0.1	NotFnd	<0.95	0.95	U	57		NotFnd	<0.79	0.79	U	57	
1,2,3,6,7,8-HxCDF	0.1	NotFnd	<0.67	0.67	U	57		NotFnd	<0.63	0.63	U	57	
2,3,4,6,7,8-HxCDF	0.1	NotFnd	<0.71	0.71	U	57		NotFnd	<0.62	0.62	U	57	
1,2,3,7,8,9-HxCDF	0.1	NotFnd	<0.90	0.90	U	57		NotFnd	<0.80	0.80	U	57	
1,2,3,4,6,7,8-HpCDF	0.01	NotFnd	<0.77	0.77	U	57		NotFnd	<0.59	0.59	U	57	
1,2,3,4,7,8,9-HpCDF	0.01	NotFnd	<1.2	1.2	U	57		NotFnd	<0.89	0.89	U	57	
OCDF	0.0003	NotFnd	<1.9	1.9	U	110		NotFnd	<0.95	0.95	U	110	

Extraction Standards	pg	% Rec	Limits	% Rec
13C12-2,3,7,8-TCDD	2000	27.50	16 25-164	27.57 26
13C12-1,2,3,7,8-PeCDD	2000	31.83	29 25-181	31.88 30
13C12-1,2,3,4,7,8-HxCDD	2000	33.92	38 32-141	33.95 43
13C12-1,2,3,6,7,8-HxCDD	2000	33.97	56 28-130	34.00 56
13C12-1,2,3,4,6,7,8-HpCDD	2000	35.55	62 23-140	35.59 64
13C12-OCDD	4000	37.02	61 17-157	37.06 63
13C12-2,3,7,8-TCDF	2000	26.59	4 24-169	26.65 4
13C12-1,2,3,7,8-PeCDF	2000	30.87	19 24-185	30.91 20
13C12-2,3,4,7,8-PeCDF	2000	31.61	19 21-178	31.66 20
13C12-1,2,3,4,7,8-HxCDF	2000	33.42	39 26-152	33.45 42
13C12-1,2,3,6,7,8-HxCDF	2000	33.48	58 26-123	33.52 53
13C12-2,3,4,6,7,8-HxCDF	2000	33.82	62 29-147	33.85 60
13C12-1,2,3,7,8,9-HxCDF	2000	34.24	53 28-136	34.27 53
13C12-1,2,3,4,6,7,8-HpCDF	2000	35.00	66 28-143	35.04 65
13C12-1,2,3,4,7,8,9-HpCDF	2000	35.80	58 26-138	35.83 60

Cleanup Standard	pg	% Rec	Limits
7C14-2,3,7,8-TCDD (Cleanup)	40	27.52	17 35-197

Homologue Group Totals	# peaks	Conc. pg/L	EDL pg/L	Flags	LQL	# peaks	Conc. pg/L	EDL pg/L	Flags	LQL
Total-TCDD	0.00	<9.2	9.2	U	11	0.00	<3.3	3.3	U	11
Total-PeCDD	0.00	<2.8	2.8	U	57	0.00	<1.3	1.3	U	57
Total-HxCDD	0.00	<1.3	1.3	U	57	0.00	<0.88	0.88	U	57
Total-HpCDD	0.00	<1.5	1.5	U	57	0.00	<0.69	0.69	U	57
Total-TCDF	0.00	<33	33	U	11	0.00	<13	13	U	11
Total-PeCDF	0.00	<2.7	2.7	U	57	0.00	<1.3	1.3	U	57
Total-HxCDF	0.00	<0.95	0.95	U	57	0.00	<0.80	0.80	U	57
Total-HpCDF	0.00	<1.2	1.2	U	57	0.00	<0.89	0.89	U	57

Toxic Equivalency - (WHO 2005)	pg/L
Lower Bound PCDD/F TEQ (WHO 2005)	0.00
Mid Point PCDD/F TEQ (WHO 2005)	4.46
Upper Bound PCDD/F TEQ (WHO 2005)	8.92

EDL Indicates the Estimated Detection Limit, based on the measured background noise for this target in this sample.
 TEF Indicates the Toxic Equivalency Factor TEQ Indicates the Toxic Equivalency;
 U Indicates that this compound was not detected above the MDL.

ALS Life sciences

Sample Analysis Report

Sample Name DYEC/FA/151003/1
ALS Sample ID L1682896-1
Analysis Method EPA 1613B
Analysis Type Sample
Sample Matrix SOIL

Sampling Date 3-Oct-15
Extraction Date 5-Oct-15
Sample Size 0.91 L
Percent Moisture n/a
Split Ratio 1

Approved:
T. Patterson
 --e-signature--
 00-Jan-1900

Run Information
Run 1

Filename 7-151008A29
Run Date 09-Oct-15 05:53
Final Volume 20 uL
Dilution Factor 1
Analysis Units pg/L
Instrument - Column HRMS-7 DB5MSUSE700122H

Target Analytes	TEF (WHO 2005)	Ret. Time	Conc. pg/L	EDL pg/L	Flags	EMPC pg/L	LQL
2,3,7,8-TCDD	1	NotFnd	<3.0	3.0	U		11
1,2,3,7,8-PeCDD	1	NotFnd	<1.2	1.2	U		55
1,2,3,4,7,8-HxCDD	0.1	NotFnd	<0.53	0.53	U		55
1,2,3,6,7,8-HxCDD	0.1	NotFnd	<0.46	0.46	U		55
1,2,3,7,8,9-HxCDD	0.1	NotFnd	<0.49	0.49	U		55
1,2,3,4,6,7,8-HpCDD	0.01	NotFnd	<0.42	0.42	U		55
OCDD	0.0003	NotFnd	<0.36	0.36	U		110
2,3,7,8-TCDF	0.1	NotFnd	<10	10	U		11
1,2,3,7,8-PeCDF	0.03	NotFnd	<1.1	1.1	U		55
2,3,4,7,8-PeCDF	0.3	NotFnd	<0.98	0.98	U		55
1,2,3,4,7,8-HxCDF	0.1	NotFnd	<0.51	0.51	U		55
1,2,3,6,7,8-HxCDF	0.1	NotFnd	<0.37	0.37	U		55
2,3,4,6,7,8-HxCDF	0.1	NotFnd	<0.34	0.34	U		55
1,2,3,7,8,9-HxCDF	0.1	NotFnd	<0.45	0.45	U		55
1,2,3,4,6,7,8-HpCDF	0.01	NotFnd	<0.25	0.25	U		55
1,2,3,4,7,8,9-HpCDF	0.01	NotFnd	<0.36	0.36	U		55
OCDF	0.0003	NotFnd	<0.46	0.46	U		110

Extraction Standards	pg	% Rec	Limits
13C12-2,3,7,8-TCDD	2000	27.58	23 25-164
13C12-1,2,3,7,8-PeCDD	2000	31.88	33 25-181
13C12-1,2,3,4,7,8-HxCDD	2000	33.96	62 32-141
13C12-1,2,3,6,7,8-HxCDD	2000	34.00	76 28-130
13C12-1,2,3,4,6,7,8-HpCDD	2000	35.59	101 23-140
13C12-OCDD	4000	37.07	104 17-157
13C12-2,3,7,8-TCDF	2000	26.67	4 24-169
13C12-1,2,3,7,8-PeCDF	2000	30.92	21 24-185
13C12-2,3,4,7,8-PeCDF	2000	31.66	22 21-178
13C12-1,2,3,4,7,8-HxCDF	2000	33.46	60 26-152
13C12-1,2,3,6,7,8-HxCDF	2000	33.52	76 26-123
13C12-2,3,4,6,7,8-HxCDF	2000	33.85	94 29-147
13C12-1,2,3,7,8,9-HxCDF	2000	34.28	81 28-136
13C12-1,2,3,4,6,7,8-HpCDF	2000	35.05	104 28-143
13C12-1,2,3,4,7,8,9-HpCDF	2000	35.85	98 26-138

Cleanup Standard	pg	% Rec	Limits
7Cl4-2,3,7,8-TCDD (Cleanup)	40	27.60	25 35-197

Homologue Group Totals	# peaks	Conc. pg/L	EDL pg/L	Flags	LQL
Total-TCDD	0.00	<3.0	3.0	U	11
Total-PeCDD	0.00	<1.2	1.2	U	55
Total-HxCDD	1.00	1.89	0.53		55
Total-HpCDD	0.00	<0.42	0.42	U	55
Total-TCDF	0.00	<10	10	U	11
Total-PeCDF	0.00	<1.1	1.1	U	55
Total-HxCDF	0.00	<0.51	0.51	U	55
Total-HpCDF	0.00	<0.36	0.36	U	55

Toxic Equivalency - (WHO 2005)	pg/L
Lower Bound PCDD/F TEQ (WHO 2005)	0.00
Mid Point PCDD/F TEQ (WHO 2005)	2.93
Upper Bound PCDD/F TEQ (WHO 2005)	5.85

EDL Indicates the Estimated Detection Limit, based on the measured background noise for this target in this sample.
 TEF Indicates the Toxic Equivalency Factor
 TEQ Indicates the Toxic Equivalency
 U Indicates that this compound was not detected above the MDL.

ALS Life sciences

Sample Analysis Report

Sample Name DYEC/FA/151003/2
ALS Sample ID L1682896-2
Analysis Method EPA 1613B
Analysis Type Sample
Sample Matrix SOIL

Sampling Date 3-Oct-15
Extraction Date 5-Oct-15
Sample Size 0.985 L
Percent Moisture n/a
Split Ratio 1

Approved:
T. Patterson
 --e-signature--
 00-Jan-1900

Run Information

Run 1

Filename 7-151008A30
Run Date 09-Oct-15 06:35
Final Volume 20 uL
Dilution Factor 1
Analysis Units pg/L
Instrument - Column HRMS-7 DB5MSUSE700122H

Target Analytes	TEF (WHO 2005)	Ret. Time	Conc. pg/L	EDL pg/L	Flags	EMPC pg/L	LQL
2,3,7,8-TCDD	1	NotFnd	<5.1	5.1	U		10
1,2,3,7,8-PeCDD	1	NotFnd	<1.7	1.7	U		51
1,2,3,4,7,8-HxCDD	0.1	NotFnd	<0.86	0.86	U		51
1,2,3,6,7,8-HxCDD	0.1	NotFnd	<0.74	0.74	U		51
1,2,3,7,8,9-HxCDD	0.1	NotFnd	<0.78	0.78	U		51
1,2,3,4,6,7,8-HpCDD	0.01	NotFnd	<0.61	0.61	U		51
OCDD	0.0003	NotFnd	<0.47	0.47	U		100
2,3,7,8-TCDF	0.1	NotFnd	<19	19	U		10
1,2,3,7,8-PeCDF	0.03	NotFnd	<2.0	2.0	U		51
2,3,4,7,8-PeCDF	0.3	NotFnd	<1.7	1.7	U		51
1,2,3,4,7,8-HxCDF	0.1	NotFnd	<0.74	0.74	U		51
1,2,3,6,7,8-HxCDF	0.1	NotFnd	<0.47	0.47	U		51
2,3,4,6,7,8-HxCDF	0.1	NotFnd	<0.41	0.41	U		51
1,2,3,7,8,9-HxCDF	0.1	NotFnd	<0.59	0.59	U		51
1,2,3,4,6,7,8-HpCDF	0.01	NotFnd	<0.46	0.46	U		51
1,2,3,4,7,8,9-HpCDF	0.01	NotFnd	<0.71	0.71	U		51
OCDF	0.0003	NotFnd	<0.63	0.63	U		100

Extraction Standards	pg	% Rec	Limits
13C12-2,3,7,8-TCDD	2000	27.58	20 25-164
13C12-1,2,3,7,8-PeCDD	2000	31.88	32 25-181
13C12-1,2,3,4,7,8-HxCDD	2000	33.95	49 32-141
13C12-1,2,3,6,7,8-HxCDD	2000	34.00	69 28-130
13C12-1,2,3,4,6,7,8-HpCDD	2000	35.59	94 23-140
13C12-OCDD	4000	37.06	98 17-157
13C12-2,3,7,8-TCDF	2000	26.67	4 24-169
13C12-1,2,3,7,8-PeCDF	2000	30.92	21 24-185
13C12-2,3,4,7,8-PeCDF	2000	31.66	21 21-178
13C12-1,2,3,4,7,8-HxCDF	2000	33.45	49 26-152
13C12-1,2,3,6,7,8-HxCDF	2000	33.52	65 26-123
13C12-2,3,4,6,7,8-HxCDF	2000	33.85	87 29-147
13C12-1,2,3,7,8,9-HxCDF	2000	34.28	73 28-136
13C12-1,2,3,4,6,7,8-HpCDF	2000	35.04	96 28-143
13C12-1,2,3,4,7,8,9-HpCDF	2000	35.85	88 26-138

Cleanup Standard	pg	% Rec	Limits
7Cl4-2,3,7,8-TCDD (Cleanup)	40	27.60	22 35-197

Homologue Group Totals	# peaks	Conc. pg/L	EDL pg/L	Flags	LQL
Total-TCDD	0.00	<5.1	5.1	U	10
Total-PeCDD	0.00	<1.7	1.7	U	51
Total-HxCDD	0.00	<0.86	0.86	U	51
Total-HpCDD	0.00	<0.61	0.61	U	51
Total-TCDF	0.00	<19	19	U	10
Total-PeCDF	0.00	<2.0	2.0	U	51
Total-HxCDF	0.00	<0.74	0.74	U	51
Total-HpCDF	0.00	<0.71	0.71	U	51

Toxic Equivalency - (WHO 2005)	pg/L
Lower Bound PCDD/F TEQ (WHO 2005)	0.00
Mid Point PCDD/F TEQ (WHO 2005)	4.87
Upper Bound PCDD/F TEQ (WHO 2005)	9.75

EDL Indicates the Estimated Detection Limit, based on the measured background noise for this target in this sample.
 TEF Indicates the Toxic Equivalency Factor
 TEQ Indicates the Toxic Equivalency
 U Indicates that this compound was not detected above the MDL.

ALS Life sciences

Sample Analysis Report

Sample Name DYEC/FA/151003/3
ALS Sample ID L1682896-3
Analysis Method EPA 1613B
Analysis Type Sample
Sample Matrix SOIL

Sampling Date 3-Oct-15
Extraction Date 5-Oct-15
Sample Size 0.89 L
Percent Moisture n/a
Split Ratio 1

Approved:
T. Patterson
 --e-signature--
 00-Jan-1900

Run Information

Run 1

Filename 7-151008A31
Run Date 09-Oct-15 07:17
Final Volume 20 uL
Dilution Factor 1
Analysis Units pg/L
Instrument - Column HRMS-7 DB5MSUSE700122H

Target Analytes	TEF (WHO 2005)	Ret. Time	Conc. pg/L	EDL pg/L	Flags	EMPC pg/L	LQL
2,3,7,8-TCDD	1	NotFnd	<3.2	3.2	U		11
1,2,3,7,8-PeCDD	1	NotFnd	<1.5	1.5	U		56
1,2,3,4,7,8-HxCDD	0.1	NotFnd	<0.73	0.73	U		56
1,2,3,6,7,8-HxCDD	0.1	NotFnd	<0.66	0.66	U		56
1,2,3,7,8,9-HxCDD	0.1	NotFnd	<0.69	0.69	U		56
1,2,3,4,6,7,8-HpCDD	0.01	NotFnd	<0.69	0.69	U		56
OCDD	0.0003	NotFnd	<0.46	0.46	U		110
2,3,7,8-TCDF	0.1	NotFnd	<10	10	U		11
1,2,3,7,8-PeCDF	0.03	NotFnd	<1.3	1.3	U		56
2,3,4,7,8-PeCDF	0.3	NotFnd	<1.0	1.0	U		56
1,2,3,4,7,8-HxCDF	0.1	NotFnd	<0.53	0.53	U		56
1,2,3,6,7,8-HxCDF	0.1	NotFnd	<0.39	0.39	U		56
2,3,4,6,7,8-HxCDF	0.1	NotFnd	<0.36	0.36	U		56
1,2,3,7,8,9-HxCDF	0.1	NotFnd	<0.49	0.49	U		56
1,2,3,4,6,7,8-HpCDF	0.01	NotFnd	<0.26	0.26	U		56
1,2,3,4,7,8,9-HpCDF	0.01	NotFnd	<0.39	0.39	U		56
OCDF	0.0003	NotFnd	<0.56	0.56	U		110

Extraction Standards	pg	% Rec	Limits
13C12-2,3,7,8-TCDD	2000	27.58	27 25-164
13C12-1,2,3,7,8-PeCDD	2000	31.88	40 25-181
13C12-1,2,3,4,7,8-HxCDD	2000	33.95	59 32-141
13C12-1,2,3,6,7,8-HxCDD	2000	34.00	77 28-130
13C12-1,2,3,4,6,7,8-HpCDD	2000	35.59	95 23-140
13C12-OCDD	4000	37.06	101 17-157
13C12-2,3,7,8-TCDF	2000	26.67	5 24-169
13C12-1,2,3,7,8-PeCDF	2000	30.91	26 24-185
13C12-2,3,4,7,8-PeCDF	2000	31.66	27 21-178
13C12-1,2,3,4,7,8-HxCDF	2000	33.45	57 26-152
13C12-1,2,3,6,7,8-HxCDF	2000	33.52	74 26-123
13C12-2,3,4,6,7,8-HxCDF	2000	33.85	90 29-147
13C12-1,2,3,7,8,9-HxCDF	2000	34.27	77 28-136
13C12-1,2,3,4,6,7,8-HpCDF	2000	35.04	99 28-143
13C12-1,2,3,4,7,8,9-HpCDF	2000	35.83	91 26-138

Cleanup Standard	pg	% Rec	Limits
7C14-2,3,7,8-TCDD (Cleanup)	40	27.60	30 35-197

Homologue Group Totals	# peaks	Conc. pg/L	EDL pg/L	Flags	LQL
Total-TCDD	0.00	<3.2	3.2	U	11
Total-PeCDD	0.00	<1.5	1.5	U	56
Total-HxCDD	0.00	<0.73	0.73	U	56
Total-HpCDD	0.00	<0.69	0.69	U	56
Total-TCDF	0.00	<10	10	U	11
Total-PeCDF	0.00	<1.3	1.3	U	56
Total-HxCDF	0.00	<0.53	0.53	U	56
Total-HpCDF	0.00	<0.39	0.39	U	56

Toxic Equivalency - (WHO 2005)	pg/L
Lower Bound PCDD/F TEQ (WHO 2005)	0.00
Mid Point PCDD/F TEQ (WHO 2005)	3.22
Upper Bound PCDD/F TEQ (WHO 2005)	6.44

EDL Indicates the Estimated Detection Limit, based on the measured background noise for this target in this sample.
 TEF Indicates the Toxic Equivalency Factor
 TEQ Indicates the Toxic Equivalency
 U Indicates that this compound was not detected above the MDL.

ALS Life sciences

Sample Analysis Report

Sample Name DYEC/FA/151003/4
ALS Sample ID L1682896-4
Analysis Method EPA 1613B
Analysis Type Sample
Sample Matrix SOIL

Sampling Date 3-Oct-15
Extraction Date 5-Oct-15
Sample Size 0.89 L
Percent Moisture n/a
Split Ratio 1

Approved:
T. Patterson
 --e-signature--
 00-Jan-1900

Run Information

Run 1

Filename 7-151008A32
Run Date 09-Oct-15 07:59
Final Volume 20 uL
Dilution Factor 1
Analysis Units pg/L
Instrument - Column HRMS-7 DB5MSUSE700122H

Target Analytes	TEF (WHO 2005)	Ret. Time	Conc. pg/L	EDL pg/L	Flags	EMPC pg/L	LQL
2,3,7,8-TCDD	1	NotFnd	<3.1	3.1	U		11
1,2,3,7,8-PeCDD	1	NotFnd	<1.5	1.5	U		56
1,2,3,4,7,8-HxCDD	0.1	NotFnd	<0.91	0.91	U		56
1,2,3,6,7,8-HxCDD	0.1	NotFnd	<0.83	0.83	U		56
1,2,3,7,8,9-HxCDD	0.1	NotFnd	<0.86	0.86	U		56
1,2,3,4,6,7,8-HpCDD	0.01	NotFnd	<0.63	0.63	U		56
OCDD	0.0003	NotFnd	<0.81	0.81	U		110
2,3,7,8-TCDF	0.1	NotFnd	<11	11	U		11
1,2,3,7,8-PeCDF	0.03	NotFnd	<1.2	1.2	U		56
2,3,4,7,8-PeCDF	0.3	NotFnd	<1.1	1.1	U		56
1,2,3,4,7,8-HxCDF	0.1	NotFnd	<0.63	0.63	U		56
1,2,3,6,7,8-HxCDF	0.1	NotFnd	<0.49	0.49	U		56
2,3,4,6,7,8-HxCDF	0.1	NotFnd	<0.49	0.49	U		56
1,2,3,7,8,9-HxCDF	0.1	NotFnd	<0.62	0.62	U		56
1,2,3,4,6,7,8-HpCDF	0.01	NotFnd	<0.49	0.49	U		56
1,2,3,4,7,8,9-HpCDF	0.01	NotFnd	<0.66	0.66	U		56
OCDF	0.0003	NotFnd	<0.96	0.96	U		110

Extraction Standards	pg	% Rec	Limits
13C12-2,3,7,8-TCDD	2000	27.58	37 25-164
13C12-1,2,3,7,8-PeCDD	2000	31.87	56 25-181
13C12-1,2,3,4,7,8-HxCDD	2000	33.94	74 32-141
13C12-1,2,3,6,7,8-HxCDD	2000	33.99	81 28-130
13C12-1,2,3,4,6,7,8-HpCDD	2000	35.58	94 23-140
13C12-OCDD	4000	37.05	95 17-157
13C12-2,3,7,8-TCDF	2000	26.67	8 24-169
13C12-1,2,3,7,8-PeCDF	2000	30.91	38 24-185
13C12-2,3,4,7,8-PeCDF	2000	31.65	37 21-178
13C12-1,2,3,4,7,8-HxCDF	2000	33.45	69 26-152
13C12-1,2,3,6,7,8-HxCDF	2000	33.51	81 26-123
13C12-2,3,4,6,7,8-HxCDF	2000	33.84	92 29-147
13C12-1,2,3,7,8,9-HxCDF	2000	34.27	84 28-136
13C12-1,2,3,4,6,7,8-HpCDF	2000	35.04	96 28-143
13C12-1,2,3,4,7,8,9-HpCDF	2000	35.83	94 26-138

Cleanup Standard	pg	% Rec	Limits
7Cl4-2,3,7,8-TCDD (Cleanup)	40	27.60	40 35-197

Homologue Group Totals	# peaks	Conc. pg/L	EDL pg/L	Flags	LQL
Total-TCDD	0.00	<3.1	3.1	U	11
Total-PeCDD	0.00	<1.5	1.5	U	56
Total-HxCDD	0.00	<0.91	0.91	U	56
Total-HpCDD	0.00	<0.63	0.63	U	56
Total-TCDF	0.00	<11	11	U	11
Total-PeCDF	0.00	<1.2	1.2	U	56
Total-HxCDF	0.00	<0.63	0.63	U	56
Total-HpCDF	0.00	<0.66	0.66	U	56

Toxic Equivalency - (WHO 2005)	pg/L
Lower Bound PCDD/F TEQ (WHO 2005)	0.00
Mid Point PCDD/F TEQ (WHO 2005)	3.28
Upper Bound PCDD/F TEQ (WHO 2005)	6.57

EDL Indicates the Estimated Detection Limit, based on the measured background noise for this target in this sample.
 TEF Indicates the Toxic Equivalency Factor
 TEQ Indicates the Toxic Equivalency
 U Indicates that this compound was not detected above the MDL.

ALS Life sciences

Laboratory Method Blank Analysis Report

Sample Name	Method Blank	Sampling Date	n/a		
ALS Sample ID	WG2185811-1	Extraction Date	5-Oct-15		
Analysis Method	EPA 1613B	Sample Size	1	L	
Analysis Type	Blank	Percent Moisture	n/a		Approved: <i>T. Patterson</i> --e-signature-- 00-Jan-1900
Sample Matrix	QC	Split Ratio	1		

Run Information	Run 1	Run 2
Filename	7-151007A06	7-151008A21
Run Date	07-Oct-15 19:52	09-Oct-15 00:18
Final Volume	20 uL	20 uL
Dilution Factor	1	1
Analysis Units	pg/L	pg/L
Instrument - Column	HRMS-7 DB5MSUSE700122H	HRMS-7 DB5MSUSE700122H

Target Analytes	TEF (WHO 2005)	Ret. Time	Conc. pg/L	EDL pg/L	Flags	EMPC pg/L	LQL	Ret. Time	Conc. pg/L	EDL pg/L	Flags	EMPC pg/L	LQL
2,3,7,8-TCDD	1	NotFnd	<4.2	4.2	U		10	NotFnd	<1.6	1.6	U		10
1,2,3,7,8-PeCDD	1	NotFnd	<0.93	0.93	U		50	NotFnd	<0.75	0.75	U		50
1,2,3,4,7,8-HxCDD	0.1	NotFnd	<0.50	0.50	U		50	NotFnd	<0.57	0.57	U		50
1,2,3,6,7,8-HxCDD	0.1	NotFnd	<0.44	0.44	U		50	NotFnd	<0.53	0.53	U		50
1,2,3,7,8,9-HxCDD	0.1	NotFnd	<0.46	0.46	U		50	NotFnd	<0.54	0.54	U		50
1,2,3,4,6,7,8-HpCDD	0.01	NotFnd	<0.63	0.63	U		50	NotFnd	<0.54	0.54	U		50
OCDD	0.0003	37.01	<1.4	0.46	M,J,R	1.4	100	NotFnd	<0.39	0.39	U		100
2,3,7,8-TCDF	0.1	NotFnd	<7.4	7.4	U		10	NotFnd	<4.3	4.3	U		10
1,2,3,7,8-PeCDF	0.03	NotFnd	<0.88	0.88	U		50	NotFnd	<0.55	0.55	U		50
2,3,4,7,8-PeCDF	0.3	NotFnd	<0.81	0.81	U		50	NotFnd	<0.55	0.55	U		50
1,2,3,4,7,8-HxCDF	0.1	NotFnd	<0.54	0.54	U		50	NotFnd	<0.30	0.30	U		50
1,2,3,6,7,8-HxCDF	0.1	NotFnd	<0.42	0.42	U		50	NotFnd	<0.26	0.26	U		50
2,3,4,6,7,8-HxCDF	0.1	NotFnd	<0.46	0.46	U		50	NotFnd	<0.27	0.27	U		50
1,2,3,7,8,9-HxCDF	0.1	34.24	0.760	0.52	M,J		50	NotFnd	<0.35	0.35	U		50
1,2,3,4,6,7,8-HpCDF	0.01	NotFnd	<0.43	0.43	U		50	NotFnd	<0.25	0.25	U		50
1,2,3,4,7,8,9-HpCDF	0.01	NotFnd	<0.55	0.55	U		50	NotFnd	<0.36	0.36	U		50
OCDF	0.0003	37.10	0.740	0.64	M,J		100	NotFnd	<0.59	0.59	U		100

Extraction Standards	pg	% Rec	Limits	% Rec
13C12-2,3,7,8-TCDD	2000	27.47	21 25-164	27.54 41
13C12-1,2,3,7,8-PeCDD	2000	31.82	70 25-181	31.85 64
13C12-1,2,3,4,7,8-HxCDD	2000	33.91	66 32-141	33.93 72
13C12-1,2,3,6,7,8-HxCDD	2000	33.96	87 28-130	33.98 87
13C12-1,2,3,4,6,7,8-HpCDD	2000	35.54	91 23-140	35.57 92
13C12-OCDD	4000	37.01	91 17-157	37.03 84
13C12-2,3,7,8-TCDF	2000	26.56	10 24-169	26.62 10
13C12-1,2,3,7,8-PeCDF	2000	30.86	48 24-185	30.89 48
13C12-2,3,4,7,8-PeCDF	2000	31.60	45 21-178	31.64 44
13C12-1,2,3,4,7,8-HxCDF	2000	33.41	67 26-152	33.43 72
13C12-1,2,3,6,7,8-HxCDF	2000	33.47	82 26-123	33.50 84
13C12-2,3,4,6,7,8-HxCDF	2000	33.81	87 29-147	33.83 88
13C12-1,2,3,7,8,9-HxCDF	2000	34.22	84 28-136	34.25 83
13C12-1,2,3,4,6,7,8-HpCDF	2000	34.99	97 28-143	35.01 91
13C12-1,2,3,4,7,8,9-HpCDF	2000	35.79	96 26-138	35.81 91

Cleanup Standard	pg	% Rec	Limits	% Rec
7Cl4-2,3,7,8-TCDD (Cleanup)	40	27.50	24 35-197	27.55 41

Homologue Group Totals	# peaks	Conc. pg/L	EDL pg/L	Flags	LQL	# peaks	Conc. pg/L	EDL pg/L	Flags	LQL
Total-TCDD	0.00	<4.2	4.2	U	10	0.00	<1.6	1.6	U	10
Total-PeCDD	0.00	<0.93	0.93	U	50	0.00	<0.75	0.75	U	50
Total-HxCDD	0.00	<0.50	0.50	U	50	0.00	<0.57	0.57	U	50
Total-HpCDD	0.00	<0.63	0.63	U	50	0.00	<0.54	0.54	U	50
Total-TCDF	0.00	<7.4	7.4	U	10	0.00	<4.3	4.3	U	10
Total-PeCDF	0.00	<0.88	0.88	U	50	0.00	<0.55	0.55	U	50
Total-HxCDF	1.00	0.760	0.54	U	50	0.00	<0.35	0.35	U	50
Total-HpCDF	0.00	<0.55	0.55	U	50	0.00	<0.36	0.36	U	50

Toxic Equivalency - (WHO 2005)	pg/L
Lower Bound PCDD/F TEQ (WHO 2005)	0.0762
Mid Point PCDD/F TEQ (WHO 2005)	1.84
Upper Bound PCDD/F TEQ (WHO 2005)	3.60

EDL	Indicates the Estimated Detection Limit, based on the measured background noise for this target in this sample.
TEF	Indicates the Toxic Equivalency Factor
M	Indicates that a peak has been manually integrated.
U	Indicates that this compound was not detected above the MDL.
J	Indicates that a target analyte was detected below the calibrated range.
R	Indicates that the ion abundance ratio for this compound did not meet the acceptance criterion.

ALS Life sciences

Laboratory Method Blank Analysis Report

Sample Name	Method Blank	Sampling Date	n/a		
ALS Sample ID	WG2185811-2	Extraction Date	5-Oct-15		
Analysis Method	EPA 1613B	Sample Size	0.98	L	
Analysis Type	Blank	Percent Moisture	n/a		
Sample Matrix	QC	Split Ratio	1		

Approved:
T. Patterson
--e-signature--
00-Jan-1900

Run Information	Run 1	Run 2
Filename	7-151007A07	7-151008A22
Run Date	07-Oct-15 20:34	09-Oct-15 01:00
Final Volume	20 uL	20 uL
Dilution Factor	1	1
Analysis Units	pg/L	pg/L
Instrument - Column	HRMS-7 DB5MSUSE700122H	HRMS-7 DB5MSUSE700122H

Target Analytes	TEF (WHO 2005)	Ret. Time	Conc. pg/L	EDL pg/L	Flags	EMPC pg/L	LQL	Ret. Time	Conc. pg/L	EDL pg/L	Flags	EMPC pg/L	LQL
2,3,7,8-TCDD	1	NotFnd	<7.6	7.6	U		10	NotFnd	<8.4	8.4	U		10
1,2,3,7,8-PeCDD	1	NotFnd	<1.5	1.5	U		51	NotFnd	<1.6	1.6	U		51
1,2,3,4,7,8-HxCDD	0.1	NotFnd	<0.66	0.66	U		51	NotFnd	<0.99	0.99	U		51
1,2,3,6,7,8-HxCDD	0.1	NotFnd	<0.58	0.58	U		51	NotFnd	<0.90	0.90	U		51
1,2,3,7,8,9-HxCDD	0.1	NotFnd	<0.61	0.61	U		51	NotFnd	<0.94	0.94	U		51
1,2,3,4,6,7,8-HpCDD	0.01	NotFnd	<0.48	0.48	U		51	NotFnd	<0.72	0.72	U		51
OCDD	0.0003	Fnd	37.03	1.11	0.44	M,J	100	NotFnd	<0.61	0.61	U		100
2,3,7,8-TCDF	0.1	NotFnd	<16	16	U		10	NotFnd	<18	18	U		10
1,2,3,7,8-PeCDF	0.03	NotFnd	<1.3	1.3	U		51	NotFnd	<1.4	1.4	U		51
2,3,4,7,8-PeCDF	0.3	NotFnd	<1.2	1.2	U		51	NotFnd	<1.4	1.4	U		51
1,2,3,4,7,8-HxCDF	0.1	NotFnd	<0.32	0.32	U		51	NotFnd	<0.65	0.65	U		51
1,2,3,6,7,8-HxCDF	0.1	NotFnd	<0.22	0.22	U		51	NotFnd	<0.49	0.49	U		51
2,3,4,6,7,8-HxCDF	0.1	NotFnd	<0.24	0.24	U		51	NotFnd	<0.52	0.52	U		51
1,2,3,7,8,9-HxCDF	0.1	Fnd	34.24	<0.50	0.29	M,J,R	0.50	51	NotFnd	<0.65	0.65	U	51
1,2,3,4,6,7,8-HpCDF	0.01	NotFnd	<0.35	0.35	U		51	NotFnd	<0.54	0.54	U		51
1,2,3,4,7,8,9-HpCDF	0.01	NotFnd	<0.46	0.46	U		51	NotFnd	<0.75	0.75	U		51
OCDF	0.0003	NotFnd	<0.73	0.73	U		100	NotFnd	<0.90	0.90	U		100

Extraction Standards	pg	% Rec	Limits	% Rec
13C12-2,3,7,8-TCDD	2000	27.48	15 25-164	27.55 15
13C12-1,2,3,7,8-PeCDD	2000	31.83	49 25-181	31.85 47
13C12-1,2,3,4,7,8-HxCDD	2000	33.91	63 32-141	33.93 71
13C12-1,2,3,6,7,8-HxCDD	2000	33.96	79 28-130	33.98 78
13C12-1,2,3,4,6,7,8-HpCDD	2000	35.55	92 23-140	35.57 89
13C12-OCDD	4000	37.02	103 17-157	37.04 89
13C12-2,3,7,8-TCDF	2000	26.56	5 24-169	26.64 5
13C12-1,2,3,7,8-PeCDF	2000	30.86	34 24-185	30.89 35
13C12-2,3,4,7,8-PeCDF	2000	31.61	30 21-178	31.64 31
13C12-1,2,3,4,7,8-HxCDF	2000	33.41	62 26-152	33.44 67
13C12-1,2,3,6,7,8-HxCDF	2000	33.48	82 26-123	33.50 80
13C12-2,3,4,6,7,8-HxCDF	2000	33.81	87 29-147	33.83 86
13C12-1,2,3,7,8,9-HxCDF	2000	34.24	80 28-136	34.26 80
13C12-1,2,3,4,6,7,8-HpCDF	2000	35.00	98 28-143	35.03 92
13C12-1,2,3,4,7,8,9-HpCDF	2000	35.80	99 26-138	35.82 90

Cleanup Standard	pg	% Rec	Limits	% Rec
7Cl4-2,3,7,8-TCDD (Cleanup)	40	27.50	15 35-197	27.57 16

Homologue Group Totals	# peaks	Conc. pg/L	EDL pg/L	# peaks	Conc. pg/L	EDL pg/L
Total-TCDD	0.00	<7.6	7.6	U	10	0.00 <8.4 8.4 U
Total-PeCDD	0.00	<1.5	1.5	U	51	0.00 <1.6 1.6 U
Total-HxCDD	0.00	<0.66	0.66	U	51	0.00 <0.99 0.99 U
Total-HpCDD	0.00	<0.48	0.48	U	51	0.00 <0.72 0.72 U
Total-TCDF	0.00	<16	16	U	10	0.00 <18 18 U
Total-PeCDF	0.00	<1.3	1.3	U	51	0.00 <1.4 1.4 U
Total-HxCDF	0.00	<0.32	0.32	U	51	0.00 <0.65 0.65 U
Total-HpCDF	0.00	<0.46	0.46	U	51	0.00 <0.75 0.75 U

Toxic Equivalency - (WHO 2005)	pg/L
Lower Bound PCDD/F TEQ (WHO 2005)	0.000333
Mid Point PCDD/F TEQ (WHO 2005)	5.74
Upper Bound PCDD/F TEQ (WHO 2005)	11.4

EDL Indicates the Estimated Detection Limit, based on the measured background noise for this target in this sample.
 TEF Indicates the Toxic Equivalency Factor
 M Indicates that a peak has been manually integrated.
 U Indicates that this compound was not detected above the MDL.
 J indicates that a target analyte was detected below the calibrated range.
 R Indicates that the ion abundance ratio for this compound did not meet the acceptance criterion.

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Laboratory Method Blank Analysis Report

Sample Name	Method Blank	Sampling Date	n/a		
ALS Sample ID	WG2185811-3	Extraction Date	5-Oct-15		
Analysis Method	EPA 1613B	Sample Size	0.91	L	
Analysis Type	Blank	Percent Moisture	n/a		
Sample Matrix	QC	Split Ratio	1		

Approved:
T. Patterson
--e-signature--
00-Jan-1900

Run Information	Run 1	Run 2
Filename	7-151007A08	7-151008A23
Run Date	07-Oct-15 21:16	09-Oct-15 01:42
Final Volume	20 uL	20 uL
Dilution Factor	1	1
Analysis Units	pg/L	pg/L
Instrument - Column	HRMS-7 DB5MSUSE700122H	HRMS-7 DB5MSUSE700122H

Target Analytes	TEF (WHO 2005)	Ret. Time	Conc. pg/L	EDL pg/L	Flags	EMPC pg/L	LQL	Ret. Time	Conc. pg/L	EDL pg/L	Flags	EMPC pg/L	LQL
2,3,7,8-TCDD	1	NotFnd	<3.0	3.0	U	11		NotFnd	<2.6	2.6	U	11	
1,2,3,7,8-PeCDD	1	NotFnd	<1.0	1.0	U	55		NotFnd	<0.91	0.91	U	55	
1,2,3,4,7,8-HxCDD	0.1	NotFnd	<0.54	0.54	U	55		NotFnd	<0.59	0.59	U	55	
1,2,3,6,7,8-HxCDD	0.1	NotFnd	<0.49	0.49	U	55		NotFnd	<0.51	0.51	U	55	
1,2,3,7,8,9-HxCDD	0.1	NotFnd	<0.51	0.51	U	55		NotFnd	<0.55	0.55	U	55	
1,2,3,4,6,7,8-HpCDD	0.01	NotFnd	<0.76	0.76	U	55		NotFnd	<0.67	0.67	U	55	
OCDD	0.0003	37.01	<5.5	5.5	J,R	5.5	110	37.04	<4.8	4.8	J,R	4.8	110
2,3,7,8-TCDF	0.1	NotFnd	<6.2	6.2	U	11		NotFnd	<5.0	5.0	U	11	
1,2,3,7,8-PeCDF	0.03	NotFnd	<0.85	0.85	U	55		NotFnd	<0.67	0.67	U	55	
2,3,4,7,8-PeCDF	0.3	NotFnd	<0.73	0.73	U	55		NotFnd	<0.60	0.60	U	55	
1,2,3,4,7,8-HxCDF	0.1	NotFnd	<0.40	0.40	U	55		NotFnd	<0.50	0.50	U	55	
1,2,3,6,7,8-HxCDF	0.1	NotFnd	<0.30	0.30	U	55		NotFnd	<0.38	0.38	U	55	
2,3,4,6,7,8-HxCDF	0.1	NotFnd	<0.34	0.34	U	55		NotFnd	<0.41	0.41	U	55	
1,2,3,7,8,9-HxCDF	0.1	34.24	<0.40	0.40	M,U	0.35	55	NotFnd	<0.54	0.54	U	55	
1,2,3,4,6,7,8-HpCDF	0.01	NotFnd	<0.50	0.50	U	55		NotFnd	<0.46	0.46	U	55	
1,2,3,4,7,8,9-HpCDF	0.01	NotFnd	<0.68	0.68	U	55		NotFnd	<0.61	0.61	U	55	
OCDF	0.0003	NotFnd	<0.72	0.72	U	110		NotFnd	<0.79	0.79	U	110	

Extraction Standards	pg	% Rec	Limits	% Rec
13C12-2,3,7,8-TCDD	2000	27.47	36 25-164	27.54 42
13C12-1,2,3,7,8-PeCDD	2000	31.82	63 25-181	31.85 65
13C12-1,2,3,4,7,8-HxCDD	2000	33.91	66 32-141	33.93 71
13C12-1,2,3,6,7,8-HxCDD	2000	33.96	86 28-130	33.98 83
13C12-1,2,3,4,6,7,8-HpCDD	2000	35.54	86 23-140	35.57 86
13C12-OCDD	4000	37.01	91 17-157	37.04 84
13C12-2,3,7,8-TCDF	2000	26.55	15 24-169	26.62 15
13C12-1,2,3,7,8-PeCDF	2000	30.86	53 24-185	30.89 53
13C12-2,3,4,7,8-PeCDF	2000	31.60	50 21-178	31.64 53
13C12-1,2,3,4,7,8-HxCDF	2000	33.41	67 26-152	33.43 71
13C12-1,2,3,6,7,8-HxCDF	2000	33.47	87 26-123	33.50 80
13C12-2,3,4,6,7,8-HxCDF	2000	33.81	87 29-147	33.83 83
13C12-1,2,3,7,8,9-HxCDF	2000	34.22	81 28-136	34.26 76
13C12-1,2,3,4,6,7,8-HpCDF	2000	34.99	92 28-143	35.03 86
13C12-1,2,3,4,7,8,9-HpCDF	2000	35.79	90 26-138	35.82 85

Cleanup Standard	pg	% Rec	Limits	% Rec
7Cl4-2,3,7,8-TCDD (Cleanup)	40	27.50	42 35-197	27.55 45

Homologue Group Totals	# peaks	Conc. pg/L	EDL pg/L	# peaks	Conc. pg/L	EDL pg/L
Total-TCDD	0.00	<3.0	3.0	U	11	0.00 <2.6 2.6 U
Total-PeCDD	0.00	<1.0	1.0	U	55	0.00 <0.91 0.91 U
Total-HxCDD	0.00	<0.54	0.54	U	55	0.00 <0.59 0.59 U
Total-HpCDD	0.00	<0.76	0.76	U	55	0.00 <0.67 0.67 U
Total-TCDF	0.00	<6.2	6.2	U	11	0.00 <5.0 5.0 U
Total-PeCDF	0.00	<0.85	0.85	U	55	0.00 <0.67 0.67 U
Total-HxCDF	0.00	<0.40	0.40	U	55	0.00 <0.54 0.54 U
Total-HpCDF	0.00	<0.68	0.68	U	55	0.00 <0.61 0.61 U

Toxic Equivalency - (WHO 2005)	pg/L
Lower Bound PCDD/F TEQ (WHO 2005)	0.00
Mid Point PCDD/F TEQ (WHO 2005)	2.33
Upper Bound PCDD/F TEQ (WHO 2005)	4.66

EDL Indicates the Estimated Detection Limit, based on the measured background noise for this target in this sample.
 TEF Indicates the Toxic Equivalency Factor
 M Indicates that a peak has been manually integrated.
 U Indicates that this compound was not detected above the MDL.
 J indicates that a target analyte was detected below the calibrated range.
 R Indicates that the ion abundance ratio for this compound did not meet the acceptance criterion.

ALS Life sciences

Laboratory Control Sample Analysis Report

Sample Name	Laboratory Control Sample	Sampling Date	n/a		
ALS Sample ID	WG2185811-4	Extraction Date	5-Oct-15		
Analysis Method	EPA 1613B	Sample Size	1	n/a	
Analysis Type	LCS	Percent Moisture	n/a		
Sample Matrix	QC	Split Ratio	1		

Approved:
T.Patterson
--e-signature--
00-Jan-1900

Run Information	Run 1	Run 2
Filename	7-151007A02	7-151008A18
Run Date	07-Oct-15 17:46	08-Oct-15 22:14
Final Volume	20 uL	20 uL
Dilution Factor	1	1
Analysis Units	%	%
Instrument - Column	HRMS-7 DB5MSUSE700122H	HRMS-7 DB5MSUSE700122H

Target Analytes	pg	Ret. Time	% Rec	Limits	Flags	Ret. Time	% Rec	Flags
2,3,7,8-TCDD	200	27.48	104	67-158		27.58	107	
1,2,3,7,8-PeCDD	1000	31.83	106	70-142		31.88	103	
1,2,3,4,7,8-HxCDD	1000	33.91	104	70-164		33.95	102	
1,2,3,6,7,8-HxCDD	1000	33.96	99	76-134		34.00	96	
1,2,3,7,8,9-HxCDD	1000	34.09	132	64-162		34.12	129	
1,2,3,4,6,7,8-HpCDD	1000	35.55	104	70-140		35.58	109	
OCDD	2000	37.02	103	78-144		37.05	99	
2,3,7,8-TCDF	200	26.59	113	75-158		26.67	106	
1,2,3,7,8-PeCDF	1000	30.87	99	80-134		30.91	106	
2,3,4,7,8-PeCDF	1000	31.61	97	68-160		31.66	99	
1,2,3,4,7,8-HxCDF	1000	33.42	106	72-134		33.45	103	
1,2,3,6,7,8-HxCDF	1000	33.48	95	84-130		33.52	94	
2,3,4,6,7,8-HxCDF	1000	33.82	111	78-130		33.85	108	
1,2,3,7,8,9-HxCDF	1000	34.24	109	70-156		34.27	107	
1,2,3,4,6,7,8-HpCDF	1000	35.00	98	82-122		35.04	97	
1,2,3,4,7,8,9-HpCDF	1000	35.80	98	78-138		35.83	98	
OCDF	2000	37.11	104	63-170		37.14	101	
Extraction Standards								
	pg		% Rec	Limits			% Rec	
13C12-2,3,7,8-TCDD	2000	27.47	20	20-175		27.55	21	
13C12-1,2,3,7,8-PeCDD	2000	31.82	52	21-227		31.87	51	
13C12-1,2,3,4,7,8-HxCDD	2000	33.91	61	21-193		33.94	63	
13C12-1,2,3,6,7,8-HxCDD	2000	33.96	83	25-163		33.99	81	
13C12-1,2,3,4,6,7,8-HpCDD	2000	35.55	96	26-166		35.58	85	
13C12-OCDD	4000	37.01	99	13-138		37.04	85	
13C12-2,3,7,8-TCDF	2000	26.56	6	22-152		26.65	6	
13C12-1,2,3,7,8-PeCDF	2000	30.86	38	21-192		30.90	37	
13C12-2,3,4,7,8-PeCDF	2000	31.60	34	13-328		31.65	34	
13C12-1,2,3,4,7,8-HxCDF	2000	33.41	61	19-202		33.44	63	
13C12-1,2,3,6,7,8-HxCDF	2000	33.47	79	21-159		33.51	77	
13C12-2,3,4,6,7,8-HxCDF	2000	33.81	87	17-205		33.84	83	
13C12-1,2,3,7,8,9-HxCDF	2000	34.22	81	22-176		34.26	76	
13C12-1,2,3,4,6,7,8-HpCDF	2000	34.99	97	21-158		35.03	88	
13C12-1,2,3,4,7,8,9-HpCDF	2000	35.79	97	20-186		35.82	85	
Cleanup Standard								
	pg							
7Cl4-2,3,7,8-TCDD (Cleanup)	40	27.50	22	31-191		27.58	22	



Covanta - Durham York Renewable Energy
LP
ATTN: AMANDA HUXTER
1835 Energy Drive
Courtice ON L1E 2R2

Date Received: 03-OCT-15
Report Date: 09-OCT-15 11:24 (MT)
Version: FINAL

Client Phone: 905-404-4041

Certificate of Analysis

Lab Work Order #: L1682822
Project P.O. #: NOT SUBMITTED
Job Reference: DYEC- FLY ASH PROJECT
C of C Numbers:
Legal Site Desc:

Mary-Lynn Pires
Account Manager

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ANALYTICAL GUIDELINE REPORT

DYEC- FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte									
L1682822-1	DYEC/FA/151002/1									
Sampled By: A. HUXTER on 03-OCT-15 @ 08:0										
Matrix: SOIL										
Sample Preparation										
Initial pH		12.32		0.10	pH units	03-OCT-15				
Final pH		11.52		0.10	pH units	03-OCT-15				
TCLP Extractables										
Alachlor		<0.0010		0.0010	mg/L	07-OCT-15				
Aldicarb		<0.010		0.010	mg/L	05-OCT-15	0.9			
Aldrin		<0.00020		0.00020	mg/L	06-OCT-15				
Aldrin + Dieldrin		<0.00040		0.00040	mg/L	06-OCT-15	0.07			
alpha-Chlordane		<0.0010		0.0010	mg/L	06-OCT-15				
Aroclor 1242		<0.00020		0.00020	mg/L	07-OCT-15				
Aroclor 1248		<0.00020		0.00020	mg/L	07-OCT-15				
Aroclor 1254		<0.00020		0.00020	mg/L	07-OCT-15				
Aroclor 1260		<0.00020		0.00020	mg/L	07-OCT-15				
Atrazine		<0.0010		0.0010	mg/L	07-OCT-15				
Atrazine Desethyl		<0.0010		0.0010	mg/L	07-OCT-15				
Atrazine & Metabolites		<0.0020		0.0020	mg/L	07-OCT-15	0.5			
Azinphos methyl		<0.0010		0.0010	mg/L	07-OCT-15	2			
Bendiocarb		<0.0050		0.0050	mg/L	07-OCT-15	4			
Benzo(a)pyrene		<0.0010		0.0010	mg/L	07-OCT-15	0.001			
Bromoxynil		<0.0020		0.0020	mg/L	06-OCT-15	0.5			
Carbaryl		<0.0020		0.0020	mg/L	07-OCT-15	9			
Carbofuran		<0.0020		0.0020	mg/L	07-OCT-15	9			
Chlordane (Total)		<0.0030		0.0030	mg/L	06-OCT-15	0.7			
Chlorpyrifos		<0.0010		0.0010	mg/L	07-OCT-15	9			
3&4-Methylphenol		<0.010		0.010	mg/L	06-OCT-15				
Cresols (total)		<0.015		0.015	mg/L	06-OCT-15	200			
Cyanazine		<0.0010		0.0010	mg/L	07-OCT-15	1.0			
Cyanide, Weak Acid Diss		<0.10		0.10	mg/L	05-OCT-15	20			
2,4-D		<0.0020		0.0020	mg/L	06-OCT-15	10			
p,p-DDD		<0.0010		0.0010	mg/L	06-OCT-15				
p,p-DDE		<0.0010		0.0010	mg/L	06-OCT-15				
o,p-DDT		<0.0010		0.0010	mg/L	06-OCT-15				
p,p-DDT		<0.0010		0.0010	mg/L	06-OCT-15				
DDT + metabolites		<0.0040		0.0040	mg/L	06-OCT-15	3			
Diazinon		<0.0010		0.0010	mg/L	07-OCT-15	2			
Dicamba		<0.0050		0.0050	mg/L	06-OCT-15	12			
2,4-Dichlorophenol		<0.0050		0.0050	mg/L	06-OCT-15	90			
Diclofop methyl		<0.0020		0.0020	mg/L	07-OCT-15	0.9			
Dieldrin		<0.00020		0.00020	mg/L	06-OCT-15				
Dimethoate		<0.0010		0.0010	mg/L	07-OCT-15	2			
2,4-Dinitrotoluene		<0.0040		0.0040	mg/L	06-OCT-15	0.13			
Dinoseb		<0.0020		0.0020	mg/L	06-OCT-15	1			
Diquat		<0.1	DLM	0.10	mg/L	05-OCT-15	7			
Diuron		<0.010		0.010	mg/L	05-OCT-15	15			
Endrin		<0.0010		0.0010	mg/L	06-OCT-15	0.02			
Parathion		<0.0010		0.0010	mg/L	07-OCT-15	5			
Fluoride (F)		<10		10	mg/L	05-OCT-15	150.0			

** Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.

* Analytical result for this parameter exceeds Guideline Limit listed on this report. Guideline Limits applied:

Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC- FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte									
L1682822-1	DYEC/FA/151002/1									
Sampled By: A. HUXTER on 03-OCT-15 @ 08:00										
Matrix: SOIL										#1
TCLP Extractables										
	gamma-BHC	<0.0010		0.0010	mg/L	06-OCT-15	0.4			
	gamma-Chlordane	<0.0010		0.0010	mg/L	06-OCT-15				
	Glyphosate	<0.050		0.050	mg/L	06-OCT-15	28			
	Heptachlor	<0.0010		0.0010	mg/L	06-OCT-15				
	Heptachlor + Heptachlor Epoxide	<0.0020		0.0020	mg/L	06-OCT-15	0.3			
	Heptachlor epoxide	<0.0010		0.0010	mg/L	06-OCT-15				
	Hexachlorobenzene	<0.0040		0.0040	mg/L	06-OCT-15	0.13			
	Hexachlorobutadiene	<0.0040		0.0040	mg/L	06-OCT-15	0.5			
	Hexachloroethane	<0.0040		0.0040	mg/L	06-OCT-15	3.0			
	Malathion	<0.0010		0.0010	mg/L	07-OCT-15	19			
	MCPA	<0.0020		0.0020	mg/L	06-OCT-15				
	Methoxychlor	<0.0010		0.0010	mg/L	06-OCT-15	90			
	Methyl Parathion	<0.0010		0.0010	mg/L	07-OCT-15	0.7			
	2-Methylphenol	<0.0050		0.0050	mg/L	06-OCT-15				
	Metolachlor	<0.0010		0.0010	mg/L	07-OCT-15	5			
	Metribuzin	<0.0010		0.0010	mg/L	07-OCT-15	8			
	Nitrate and Nitrite as N	<4.0		4.0	mg/L	05-OCT-15	1000			
	Nitrate-N	<2.0		2.0	mg/L	05-OCT-15				
	Nitrotriacetic Acid (NTA)	<40		0.20	mg/L	05-OCT-15	40			
	Nitrite-N	<2.0		2.0	mg/L	05-OCT-15				
	Nitrobenzene	<0.0040		0.0040	mg/L	06-OCT-15	2.0			
	N-Nitrosodimethylamine	<0.00020		0.00020	mg/L	06-OCT-15	0.0009			
	Oxychlordane	<0.0010		0.0010	mg/L	06-OCT-15				
	Paraquat	<0.10	DLM	0.10	mg/L	05-OCT-15	1			
	Total PCBs	<0.00040		0.00040	mg/L	07-OCT-15	0.3			
	Pentachlorophenol	<0.0050		0.0050	mg/L	06-OCT-15	6			
	Phorate	<0.0010		0.0010	mg/L	07-OCT-15	0.2			
	Picloram	<0.0050		0.0050	mg/L	06-OCT-15	19			
	Prometryne	<0.0010		0.0010	mg/L	07-OCT-15				
	Pyridine	<5.0		5.0	mg/L	05-OCT-15	5.0			
	Simazine	<0.0010		0.0010	mg/L	07-OCT-15	1			
	2,4,5-T	<0.0020		0.0020	mg/L	06-OCT-15	28			
	Temephos	<0.0010		0.0010	mg/L	07-OCT-15	28			
	Terbufos	<0.0020		0.0020	mg/L	07-OCT-15	0.1			
	2,3,4,6-Tetrachlorophenol	<0.0050		0.0050	mg/L	06-OCT-15	10.0			
	Toxaphene	<0.0035		0.0035	mg/L	06-OCT-15	0.5			
	2,4,5-TP	<0.0020		0.0020	mg/L	06-OCT-15	1			
	Triallate	<0.0010		0.0010	mg/L	07-OCT-15	23			
	2,4,5-Trichlorophenol	<0.0050		0.0050	mg/L	06-OCT-15	400			
	2,4,6-Trichlorophenol	<0.0050		0.0050	mg/L	06-OCT-15	0.5			
	Trifluralin	<0.0050		0.0050	mg/L	07-OCT-15	4.5			
	Surrogate: 2,4,6-Tribromophenol	91.5		50-150	%	06-OCT-15				
	Surrogate: 2,4-Dichlorophenylacetic Acid	117.5		50-150	%	06-OCT-15				
	Surrogate: 2-Fluorobiphenyl	76.5		40-160	%	07-OCT-15				
	Surrogate: 2-Fluorobiphenyl	81.6		40-160	%	07-OCT-15				

** Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.

* Analytical result for this parameter exceeds Guideline Limit listed on this report. Guideline Limits applied:

Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC- FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits		
Grouping	Analyte								
L1682822-1	DYEC/FA/151002/1								
Sampled By: A. HUXTER on 03-OCT-15 @ 08:0							#1		
Matrix: SOIL									
TCLP Extractables									
	Surrogate: 2-Fluorobiphenyl	94.5		40-160	%	06-OCT-15			
	Surrogate: Nitrobenzene d5	97.7		50-150	%	06-OCT-15			
	Surrogate: d14-Terphenyl	101.7		60-140	%	06-OCT-15			
	Surrogate: d14-Terphenyl	86.3		60-140	%	07-OCT-15			
	Surrogate: p-Terphenyl d14	109.3		60-140	%	06-OCT-15			
TCLP Metals									
	Arsenic (As)	<0.050		0.050	mg/L	05-OCT-15	2.5		
	Barium (Ba)	1.78		0.50	mg/L	05-OCT-15	100		
	Boron (B)	<2.5		2.5	mg/L	05-OCT-15	500		
	Cadmium (Cd)	<0.0050		0.0050	mg/L	05-OCT-15	0.5		
	Chromium (Cr)	<0.050		0.050	mg/L	05-OCT-15	5.0		
	Lead (Pb)	<0.050		0.050	mg/L	05-OCT-15	5.0		
	Mercury (Hg)	<0.00010		0.00010	mg/L	05-OCT-15	0.1		
	Selenium (Se)	<0.25		0.25	mg/L	05-OCT-15	1.0		
	Silver (Ag)	<0.0050		0.0050	mg/L	05-OCT-15	5.0		
	Uranium (U)	<0.25		0.25	mg/L	05-OCT-15	10		
TCLP VOCs									
	1,1-Dichloroethylene	<0.025		0.025	mg/L	06-OCT-15	1.4		
	1,2-Dichlorobenzene	<0.025		0.025	mg/L	06-OCT-15	20.0		
	1,2-Dichloroethane	<0.025		0.025	mg/L	06-OCT-15	0.5		
	1,4-Dichlorobenzene	<0.025		0.025	mg/L	06-OCT-15	0.5		
	Benzene	<0.025		0.025	mg/L	06-OCT-15	0.5		
	Carbon tetrachloride	<0.025		0.025	mg/L	06-OCT-15	0.5		
	Chlorobenzene	<0.025		0.025	mg/L	06-OCT-15	8		
	Chloroform	<0.10		0.10	mg/L	06-OCT-15	10		
	Dichloromethane	<0.50		0.50	mg/L	06-OCT-15	5.0		
	Methyl Ethyl Ketone	<1.0		1.0	mg/L	06-OCT-15	200.0		
	Tetrachloroethylene	<0.025		0.025	mg/L	06-OCT-15	3		
	Trichloroethylene	<0.025		0.025	mg/L	06-OCT-15	5		
	Vinyl chloride	<0.050		0.050	mg/L	06-OCT-15	0.2		
	Surrogate: 4-Bromofluorobenzene	95.8		70-130	%	06-OCT-15			
Volatile Organic Compounds									
	Surrogate: 1,4-Difluorobenzene	100.0		50-150	%	06-OCT-15			
Polychlorinated Biphenyls									
	Surrogate: Decachlorobiphenyl	103.0		50-150	%	06-OCT-15			
	Surrogate: Tetrachloro-m-xylene	90.8		50-150	%	06-OCT-15			

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Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC- FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte									
L1682822-2	DYEC/FA/151002/2									
Sampled By: A. HUXTER on 03-OCT-15 @ 08:0										
Matrix: SOIL										#1
Sample Preparation										
	Initial pH	12.34		0.10	pH units	03-OCT-15				
	Final pH	11.53		0.10	pH units	03-OCT-15				
TCLP Extractables										
	Alachlor	<0.0010		0.0010	mg/L	07-OCT-15				
	Aldicarb	<0.010		0.010	mg/L	05-OCT-15			0.9	
	Aldrin	<0.00020		0.00020	mg/L	07-OCT-15				
	Aldrin + Dieldrin	<0.00040		0.00040	mg/L	07-OCT-15			0.07	
	alpha-Chlordane	<0.0010		0.0010	mg/L	07-OCT-15				
	Aroclor 1242	<0.00020		0.00020	mg/L	07-OCT-15				
	Aroclor 1248	<0.00020		0.00020	mg/L	07-OCT-15				
	Aroclor 1254	<0.00020		0.00020	mg/L	07-OCT-15				
	Aroclor 1260	<0.00020		0.00020	mg/L	07-OCT-15				
	Atrazine	<0.0010		0.0010	mg/L	07-OCT-15				
	Atrazine Desethyl	<0.0010		0.0010	mg/L	07-OCT-15				
	Atrazine & Metabolites	<0.0020		0.0020	mg/L	07-OCT-15			0.5	
	Azinphos methyl	<0.0010		0.0010	mg/L	07-OCT-15			2	
	Bendiocarb	<0.0050		0.0050	mg/L	07-OCT-15			4	
	Benzo(a)pyrene	<0.0010		0.0010	mg/L	07-OCT-15			0.001	
	Bromoxynil	<0.0020		0.0020	mg/L	06-OCT-15			0.5	
	Carbaryl	<0.0020		0.0020	mg/L	07-OCT-15			9	
	Carbofuran	<0.0020		0.0020	mg/L	07-OCT-15			9	
	Chlordane (Total)	<0.0030		0.0030	mg/L	07-OCT-15			0.7	
	Chlorpyrifos	<0.0010		0.0010	mg/L	07-OCT-15			9	
	3&4-Methylphenol	<0.010		0.010	mg/L	06-OCT-15				
	Cresols (total)	<0.015		0.015	mg/L	06-OCT-15			200	
	Cyanazine	<0.0010		0.0010	mg/L	07-OCT-15			1.0	
	Cyanide, Weak Acid Diss	<0.10		0.10	mg/L	05-OCT-15			20	
	2,4-D	<0.0020		0.0020	mg/L	06-OCT-15			10	
	p,p-DDD	<0.0010		0.0010	mg/L	07-OCT-15				
	p,p-DDE	<0.0010		0.0010	mg/L	07-OCT-15				
	o,p-DDT	<0.0010		0.0010	mg/L	07-OCT-15				
	p,p-DDT	<0.0010		0.0010	mg/L	07-OCT-15				
	DDT + metabolites	<0.0040		0.0040	mg/L	07-OCT-15			3	
	Diazinon	<0.0010		0.0010	mg/L	07-OCT-15			2	
	Dicamba	<0.0050		0.0050	mg/L	06-OCT-15			12	
	2,4-Dichlorophenol	<0.0050		0.0050	mg/L	06-OCT-15			90	
	Diclofop methyl	<0.0020		0.0020	mg/L	07-OCT-15			0.9	
	Dieldrin	<0.00020		0.00020	mg/L	07-OCT-15				
	Dimethoate	<0.0010		0.0010	mg/L	07-OCT-15			2	
	2,4-Dinitrotoluene	<0.0040		0.0040	mg/L	06-OCT-15			0.13	
	Dinoseb	<0.0020		0.0020	mg/L	06-OCT-15			1	
	Diquat	<0.1	DLM	0.10	mg/L	05-OCT-15			7	
	Diuron	<0.010		0.010	mg/L	05-OCT-15			15	
	Endrin	<0.0010		0.0010	mg/L	07-OCT-15			0.02	
	Parathion	<0.0010		0.0010	mg/L	07-OCT-15			5	
	Fluoride (F)	<10		10	mg/L	05-OCT-15			150.0	

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* Analytical result for this parameter exceeds Guideline Limit listed on this report. Guideline Limits applied:

Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC- FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte									
L1682822-2	DYEC/FA/151002/2									
Sampled By: A. HUXTER on 03-OCT-15 @ 08:00										
Matrix: SOIL										#1
TCLP Extractables										
	gamma-BHC	<0.0010		0.0010	mg/L	07-OCT-15	0.4			
	gamma-Chlordane	<0.0010		0.0010	mg/L	07-OCT-15				
	Glyphosate	<0.050		0.050	mg/L	06-OCT-15	28			
	Heptachlor	<0.0010		0.0010	mg/L	07-OCT-15				
	Heptachlor + Heptachlor Epoxide	<0.0020		0.0020	mg/L	07-OCT-15	0.3			
	Heptachlor epoxide	<0.0010		0.0010	mg/L	07-OCT-15				
	Hexachlorobenzene	<0.0040		0.0040	mg/L	06-OCT-15	0.13			
	Hexachlorobutadiene	<0.0040		0.0040	mg/L	06-OCT-15	0.5			
	Hexachloroethane	<0.0040		0.0040	mg/L	06-OCT-15	3.0			
	Malathion	<0.0010		0.0010	mg/L	07-OCT-15	19			
	MCPA	<0.0020		0.0020	mg/L	06-OCT-15				
	Methoxychlor	<0.0010		0.0010	mg/L	07-OCT-15	90			
	Methyl Parathion	<0.0010		0.0010	mg/L	07-OCT-15	0.7			
	2-Methylphenol	<0.0050		0.0050	mg/L	06-OCT-15				
	Metolachlor	<0.0010		0.0010	mg/L	07-OCT-15	5			
	Metribuzin	<0.0010		0.0010	mg/L	07-OCT-15	8			
	Nitrate and Nitrite as N	<4.0		4.0	mg/L	05-OCT-15	1000			
	Nitrate-N	<2.0		2.0	mg/L	05-OCT-15				
	Nitrotriacetic Acid (NTA)	<40		0.20	mg/L	05-OCT-15	40			
	Nitrite-N	<2.0		2.0	mg/L	05-OCT-15				
	Nitrobenzene	<0.0040		0.0040	mg/L	06-OCT-15	2.0			
	N-Nitrosodimethylamine	<0.00020		0.00020	mg/L	06-OCT-15	0.0009			
	Oxychlordane	<0.0010		0.0010	mg/L	07-OCT-15				
	Paraquat	<0.10	DLM	0.10	mg/L	05-OCT-15	1			
	Total PCBs	<0.00040		0.00040	mg/L	07-OCT-15	0.3			
	Pentachlorophenol	<0.0050		0.0050	mg/L	06-OCT-15	6			
	Phorate	<0.0010		0.0010	mg/L	07-OCT-15	0.2			
	Picloram	<0.0050		0.0050	mg/L	06-OCT-15	19			
	Prometryne	<0.0010		0.0010	mg/L	07-OCT-15				
	Pyridine	<5.0		5.0	mg/L	05-OCT-15	5.0			
	Simazine	<0.0010		0.0010	mg/L	07-OCT-15	1			
	2,4,5-T	<0.0020		0.0020	mg/L	06-OCT-15	28			
	Temephos	<0.0010		0.0010	mg/L	07-OCT-15	28			
	Terbufos	<0.0020		0.0020	mg/L	07-OCT-15	0.1			
	2,3,4,6-Tetrachlorophenol	<0.0050		0.0050	mg/L	06-OCT-15	10.0			
	Toxaphene	<0.0035		0.0035	mg/L	06-OCT-15	0.5			
	2,4,5-TP	<0.0020		0.0020	mg/L	06-OCT-15	1			
	Triallate	<0.0010		0.0010	mg/L	07-OCT-15	23			
	2,4,5-Trichlorophenol	<0.0050		0.0050	mg/L	06-OCT-15	400			
	2,4,6-Trichlorophenol	<0.0050		0.0050	mg/L	06-OCT-15	0.5			
	Trifluralin	<0.0050		0.0050	mg/L	07-OCT-15	4.5			
	Surrogate: 2,4,6-Tribromophenol	98.4		50-150	%	06-OCT-15				
	Surrogate: 2,4-Dichlorophenylacetic Acid	111.4		50-150	%	06-OCT-15				
	Surrogate: 2-Fluorobiphenyl	103.0		40-160	%	06-OCT-15				
	Surrogate: 2-Fluorobiphenyl	73.0		40-160	%	07-OCT-15				

** Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.

* Analytical result for this parameter exceeds Guideline Limit listed on this report. Guideline Limits applied:

Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC- FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits		
Grouping	Analyte								
L1682822-2	DYEC/FA/151002/2								
Sampled By: A. HUXTER on 03-OCT-15 @ 08:0									
Matrix: SOIL									
TCLP Extractables									
	Surrogate: 2-Fluorobiphenyl	79.7		40-160	%	07-OCT-15			
	Surrogate: Nitrobenzene d5	105.3		50-150	%	06-OCT-15			
	Surrogate: d14-Terphenyl	100.7		60-140	%	07-OCT-15			
	Surrogate: d14-Terphenyl	83.7		60-140	%	07-OCT-15			
	Surrogate: p-Terphenyl d14	110.1		60-140	%	06-OCT-15			
TCLP Metals									
	Arsenic (As)	<0.050		0.050	mg/L	05-OCT-15	2.5		
	Barium (Ba)	1.68		0.50	mg/L	05-OCT-15	100		
	Boron (B)	<2.5		2.5	mg/L	05-OCT-15	500		
	Cadmium (Cd)	<0.0050		0.0050	mg/L	05-OCT-15	0.5		
	Chromium (Cr)	<0.050		0.050	mg/L	05-OCT-15	5.0		
	Lead (Pb)	<0.050		0.050	mg/L	05-OCT-15	5.0		
	Mercury (Hg)	<0.00010		0.00010	mg/L	05-OCT-15	0.1		
	Selenium (Se)	<0.25		0.25	mg/L	05-OCT-15	1.0		
	Silver (Ag)	<0.0050		0.0050	mg/L	05-OCT-15	5.0		
	Uranium (U)	<0.25		0.25	mg/L	05-OCT-15	10		
TCLP VOCs									
	1,1-Dichloroethylene	<0.025		0.025	mg/L	06-OCT-15	1.4		
	1,2-Dichlorobenzene	<0.025		0.025	mg/L	06-OCT-15	20.0		
	1,2-Dichloroethane	<0.025		0.025	mg/L	06-OCT-15	0.5		
	1,4-Dichlorobenzene	<0.025		0.025	mg/L	06-OCT-15	0.5		
	Benzene	<0.025		0.025	mg/L	06-OCT-15	0.5		
	Carbon tetrachloride	<0.025		0.025	mg/L	06-OCT-15	0.5		
	Chlorobenzene	<0.025		0.025	mg/L	06-OCT-15	8		
	Chloroform	<0.10		0.10	mg/L	06-OCT-15	10		
	Dichloromethane	<0.50		0.50	mg/L	06-OCT-15	5.0		
	Methyl Ethyl Ketone	<1.0		1.0	mg/L	06-OCT-15	200.0		
	Tetrachloroethylene	<0.025		0.025	mg/L	06-OCT-15	3		
	Trichloroethylene	<0.025		0.025	mg/L	06-OCT-15	5		
	Vinyl chloride	<0.050		0.050	mg/L	06-OCT-15	0.2		
	Surrogate: 4-Bromofluorobenzene	95.7		70-130	%	06-OCT-15			
Volatile Organic Compounds									
	Surrogate: 1,4-Difluorobenzene	99.8		50-150	%	06-OCT-15			
Polychlorinated Biphenyls									
	Surrogate: Decachlorobiphenyl	113.0		50-150	%	06-OCT-15			
	Surrogate: Tetrachloro-m-xylene	101.0		50-150	%	06-OCT-15			

** Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.

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ANALYTICAL GUIDELINE REPORT

DYEC- FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte									
L1682822-3	DYEC/FA/151002/3									
Sampled By: A. HUXTER on 03-OCT-15 @ 08:0										
Matrix: SOIL										
Sample Preparation										
Initial pH		12.32		0.10	pH units	03-OCT-15				
Final pH		11.50		0.10	pH units	03-OCT-15				
TCLP Extractables										
Alachlor		<0.0010		0.0010	mg/L	07-OCT-15				
Aldicarb		<0.010		0.010	mg/L	05-OCT-15	0.9			
Aldrin		<0.00020		0.00020	mg/L	07-OCT-15				
Aldrin + Dieldrin		<0.00040		0.00040	mg/L	07-OCT-15	0.07			
alpha-Chlordane		<0.0010		0.0010	mg/L	07-OCT-15				
Aroclor 1242		<0.00020		0.00020	mg/L	07-OCT-15				
Aroclor 1248		<0.00020		0.00020	mg/L	07-OCT-15				
Aroclor 1254		<0.00020		0.00020	mg/L	07-OCT-15				
Aroclor 1260		<0.00020		0.00020	mg/L	07-OCT-15				
Atrazine		<0.0010		0.0010	mg/L	07-OCT-15				
Atrazine Desethyl		<0.0010		0.0010	mg/L	07-OCT-15				
Atrazine & Metabolites		<0.0020		0.0020	mg/L	07-OCT-15	0.5			
Azinphos methyl		<0.0010		0.0010	mg/L	07-OCT-15	2			
Bendiocarb		<0.0050		0.0050	mg/L	07-OCT-15	4			
Benzo(a)pyrene		<0.0010		0.0010	mg/L	07-OCT-15	0.001			
Bromoxynil		<0.0020		0.0020	mg/L	06-OCT-15	0.5			
Carbaryl		<0.0020		0.0020	mg/L	07-OCT-15	9			
Carbofuran		<0.0020		0.0020	mg/L	07-OCT-15	9			
Chlordane (Total)		<0.0030		0.0030	mg/L	07-OCT-15	0.7			
Chlorpyrifos		<0.0010		0.0010	mg/L	07-OCT-15	9			
3&4-Methylphenol		<0.010		0.010	mg/L	06-OCT-15				
Cresols (total)		<0.015		0.015	mg/L	06-OCT-15	200			
Cyanazine		<0.0010		0.0010	mg/L	07-OCT-15	1.0			
Cyanide, Weak Acid Diss		<0.10		0.10	mg/L	05-OCT-15	20			
2,4-D		<0.0020		0.0020	mg/L	06-OCT-15	10			
p,p-DDD		<0.0010		0.0010	mg/L	07-OCT-15				
p,p-DDE		<0.0010		0.0010	mg/L	07-OCT-15				
o,p-DDT		<0.0010		0.0010	mg/L	07-OCT-15				
p,p-DDT		<0.0010		0.0010	mg/L	07-OCT-15				
DDT + metabolites		<0.0040		0.0040	mg/L	07-OCT-15	3			
Diazinon		<0.0010		0.0010	mg/L	07-OCT-15	2			
Dicamba		<0.0050		0.0050	mg/L	06-OCT-15	12			
2,4-Dichlorophenol		<0.0050		0.0050	mg/L	06-OCT-15	90			
Diclofop methyl		<0.0020		0.0020	mg/L	07-OCT-15	0.9			
Dieldrin		<0.00020		0.00020	mg/L	07-OCT-15				
Dimethoate		<0.0010		0.0010	mg/L	07-OCT-15	2			
2,4-Dinitrotoluene		<0.0040		0.0040	mg/L	06-OCT-15	0.13			
Dinoseb		<0.0020		0.0020	mg/L	06-OCT-15	1			
Diquat		<0.1	DLM	0.10	mg/L	05-OCT-15	7			
Diuron		<0.010		0.010	mg/L	05-OCT-15	15			
Endrin		<0.0010		0.0010	mg/L	07-OCT-15	0.02			
Parathion		<0.0010		0.0010	mg/L	07-OCT-15	5			
Fluoride (F)		<10		10	mg/L	05-OCT-15	150.0			

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Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC- FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte									
L1682822-3	DYEC/FA/151002/3									
Sampled By: A. HUXTER on 03-OCT-15 @ 08:0										
Matrix: SOIL										#1
TCLP Extractables										
	gamma-BHC	<0.0010		0.0010	mg/L	07-OCT-15	0.4			
	gamma-Chlordane	<0.0010		0.0010	mg/L	07-OCT-15				
	Glyphosate	<0.050		0.050	mg/L	06-OCT-15	28			
	Heptachlor	<0.0010		0.0010	mg/L	07-OCT-15				
	Heptachlor + Heptachlor Epoxide	<0.0020		0.0020	mg/L	07-OCT-15	0.3			
	Heptachlor epoxide	<0.0010		0.0010	mg/L	07-OCT-15				
	Hexachlorobenzene	<0.0040		0.0040	mg/L	06-OCT-15	0.13			
	Hexachlorobutadiene	<0.0040		0.0040	mg/L	06-OCT-15	0.5			
	Hexachloroethane	<0.0040		0.0040	mg/L	06-OCT-15	3.0			
	Malathion	<0.0010		0.0010	mg/L	07-OCT-15	19			
	MCPA	<0.0020		0.0020	mg/L	06-OCT-15				
	Methoxychlor	<0.0010		0.0010	mg/L	07-OCT-15	90			
	Methyl Parathion	<0.0010		0.0010	mg/L	07-OCT-15	0.7			
	2-Methylphenol	<0.0050		0.0050	mg/L	06-OCT-15				
	Metolachlor	<0.0010		0.0010	mg/L	07-OCT-15	5			
	Metribuzin	<0.0010		0.0010	mg/L	07-OCT-15	8			
	Nitrate and Nitrite as N	<4.0		4.0	mg/L	05-OCT-15	1000			
	Nitrate-N	<2.0		2.0	mg/L	05-OCT-15				
	Nitrotriacetic Acid (NTA)	<40		0.20	mg/L	05-OCT-15	40			
	Nitrite-N	<2.0		2.0	mg/L	05-OCT-15				
	Nitrobenzene	<0.0040		0.0040	mg/L	06-OCT-15	2.0			
	N-Nitrosodimethylamine	<0.00020		0.00020	mg/L	06-OCT-15	0.0009			
	Oxychlordane	<0.0010		0.0010	mg/L	07-OCT-15				
	Paraquat	<0.10	DLM	0.10	mg/L	05-OCT-15	1			
	Total PCBs	<0.00040		0.00040	mg/L	07-OCT-15	0.3			
	Pentachlorophenol	<0.0050		0.0050	mg/L	06-OCT-15	6			
	Phorate	<0.0010		0.0010	mg/L	07-OCT-15	0.2			
	Picloram	<0.0050		0.0050	mg/L	06-OCT-15	19			
	Prometryne	<0.0010		0.0010	mg/L	07-OCT-15				
	Pyridine	<5.0		5.0	mg/L	05-OCT-15	5.0			
	Simazine	<0.0010		0.0010	mg/L	07-OCT-15	1			
	2,4,5-T	<0.0020		0.0020	mg/L	06-OCT-15	28			
	Temephos	<0.0010		0.0010	mg/L	07-OCT-15	28			
	Terbufos	<0.0020		0.0020	mg/L	07-OCT-15	0.1			
	2,3,4,6-Tetrachlorophenol	<0.0050		0.0050	mg/L	06-OCT-15	10.0			
	Toxaphene	<0.0035		0.0035	mg/L	06-OCT-15	0.5			
	2,4,5-TP	<0.0020		0.0020	mg/L	06-OCT-15	1			
	Triallate	<0.0010		0.0010	mg/L	07-OCT-15	23			
	2,4,5-Trichlorophenol	<0.0050		0.0050	mg/L	06-OCT-15	400			
	2,4,6-Trichlorophenol	<0.0050		0.0050	mg/L	06-OCT-15	0.5			
	Trifluralin	<0.0050		0.0050	mg/L	07-OCT-15	4.5			
	Surrogate: 2,4,6-Tribromophenol	98.6		50-150	%	06-OCT-15				
	Surrogate: 2,4-Dichlorophenylacetic Acid	116.9		50-150	%	06-OCT-15				
	Surrogate: 2-Fluorobiphenyl	65.2		40-160	%	07-OCT-15				
	Surrogate: 2-Fluorobiphenyl	79.2		40-160	%	07-OCT-15				

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Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC- FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits		
Grouping	Analyte								
L1682822-3	DYEC/FA/151002/3								
Sampled By: A. HUXTER on 03-OCT-15 @ 08:0									
Matrix: SOIL									
TCLP Extractables									
	Surrogate: 2-Fluorobiphenyl	99.0		40-160	%	06-OCT-15			
	Surrogate: Nitrobenzene d5	101.7		50-150	%	06-OCT-15			
	Surrogate: d14-Terphenyl	81.4		60-140	%	07-OCT-15			
	Surrogate: d14-Terphenyl	93.6		60-140	%	07-OCT-15			
	Surrogate: p-Terphenyl d14	107.1		60-140	%	06-OCT-15			
TCLP Metals									
	Arsenic (As)	<0.050		0.050	mg/L	05-OCT-15	2.5		
	Barium (Ba)	1.85		0.50	mg/L	05-OCT-15	100		
	Boron (B)	<2.5		2.5	mg/L	05-OCT-15	500		
	Cadmium (Cd)	<0.0050		0.0050	mg/L	05-OCT-15	0.5		
	Chromium (Cr)	<0.050		0.050	mg/L	05-OCT-15	5.0		
	Lead (Pb)	<0.050		0.050	mg/L	05-OCT-15	5.0		
	Mercury (Hg)	<0.00010		0.00010	mg/L	05-OCT-15	0.1		
	Selenium (Se)	<0.25		0.25	mg/L	05-OCT-15	1.0		
	Silver (Ag)	<0.0050		0.0050	mg/L	05-OCT-15	5.0		
	Uranium (U)	<0.25		0.25	mg/L	05-OCT-15	10		
TCLP VOCs									
	1,1-Dichloroethylene	<0.025		0.025	mg/L	06-OCT-15	1.4		
	1,2-Dichlorobenzene	<0.025		0.025	mg/L	06-OCT-15	20.0		
	1,2-Dichloroethane	<0.025		0.025	mg/L	06-OCT-15	0.5		
	1,4-Dichlorobenzene	<0.025		0.025	mg/L	06-OCT-15	0.5		
	Benzene	<0.025		0.025	mg/L	06-OCT-15	0.5		
	Carbon tetrachloride	<0.025		0.025	mg/L	06-OCT-15	0.5		
	Chlorobenzene	<0.025		0.025	mg/L	06-OCT-15	8		
	Chloroform	<0.10		0.10	mg/L	06-OCT-15	10		
	Dichloromethane	<0.50		0.50	mg/L	06-OCT-15	5.0		
	Methyl Ethyl Ketone	<1.0		1.0	mg/L	06-OCT-15	200.0		
	Tetrachloroethylene	<0.025		0.025	mg/L	06-OCT-15	3		
	Trichloroethylene	<0.025		0.025	mg/L	06-OCT-15	5		
	Vinyl chloride	<0.050		0.050	mg/L	06-OCT-15	0.2		
	Surrogate: 4-Bromofluorobenzene	96.6		70-130	%	06-OCT-15			
Volatile Organic Compounds									
	Surrogate: 1,4-Difluorobenzene	99.7		50-150	%	06-OCT-15			
Polychlorinated Biphenyls									
	Surrogate: Decachlorobiphenyl	115.0		50-150	%	06-OCT-15			
	Surrogate: Tetrachloro-m-xylene	99.2		50-150	%	06-OCT-15			

** Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.

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Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC- FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte									
L1682822-4	DYEC/FA/151002/4									
Sampled By: A. HUXTER on 03-OCT-15 @ 08:0										
Matrix: SOIL										
Sample Preparation										
Initial pH		12.33		0.10	pH units	03-OCT-15				
Final pH		11.50		0.10	pH units	03-OCT-15				
TCLP Extractables										
Alachlor		<0.0010		0.0010	mg/L	07-OCT-15				
Aldicarb		<0.010		0.010	mg/L	05-OCT-15	0.9			
Aldrin		<0.00020		0.00020	mg/L	07-OCT-15				
Aldrin + Dieldrin		<0.00040		0.00040	mg/L	07-OCT-15	0.07			
alpha-Chlordane		<0.0010		0.0010	mg/L	07-OCT-15				
Aroclor 1242		<0.00020		0.00020	mg/L	07-OCT-15				
Aroclor 1248		<0.00020		0.00020	mg/L	07-OCT-15				
Aroclor 1254		<0.00020		0.00020	mg/L	07-OCT-15				
Aroclor 1260		<0.00020		0.00020	mg/L	07-OCT-15				
Atrazine		<0.0010		0.0010	mg/L	07-OCT-15				
Atrazine Desethyl		<0.0010		0.0010	mg/L	07-OCT-15				
Atrazine & Metabolites		<0.0020		0.0020	mg/L	07-OCT-15	0.5			
Azinphos methyl		<0.0010		0.0010	mg/L	07-OCT-15	2			
Bendiocarb		<0.0050		0.0050	mg/L	07-OCT-15	4			
Benzo(a)pyrene		<0.0010		0.0010	mg/L	07-OCT-15	0.001			
Bromoxynil		<0.0020		0.0020	mg/L	06-OCT-15	0.5			
Carbaryl		<0.0020		0.0020	mg/L	07-OCT-15	9			
Carbofuran		<0.0020		0.0020	mg/L	07-OCT-15	9			
Chlordane (Total)		<0.0030		0.0030	mg/L	07-OCT-15	0.7			
Chlorpyrifos		<0.0010		0.0010	mg/L	07-OCT-15	9			
3&4-Methylphenol		<0.010		0.010	mg/L	06-OCT-15				
Cresols (total)		<0.015		0.015	mg/L	06-OCT-15	200			
Cyanazine		<0.0010		0.0010	mg/L	07-OCT-15	1.0			
Cyanide, Weak Acid Diss		<0.10		0.10	mg/L	05-OCT-15	20			
2,4-D		<0.0020		0.0020	mg/L	06-OCT-15	10			
p,p-DDD		<0.0010		0.0010	mg/L	07-OCT-15				
p,p-DDE		<0.0010		0.0010	mg/L	07-OCT-15				
o,p-DDT		<0.0010		0.0010	mg/L	07-OCT-15				
p,p-DDT		<0.0010		0.0010	mg/L	07-OCT-15				
DDT + metabolites		<0.0040		0.0040	mg/L	07-OCT-15	3			
Diazinon		<0.0010		0.0010	mg/L	07-OCT-15	2			
Dicamba		<0.0050		0.0050	mg/L	06-OCT-15	12			
2,4-Dichlorophenol		<0.0050		0.0050	mg/L	06-OCT-15	90			
Diclofop methyl		<0.0020		0.0020	mg/L	07-OCT-15	0.9			
Dieldrin		<0.00020		0.00020	mg/L	07-OCT-15				
Dimethoate		<0.0010		0.0010	mg/L	07-OCT-15	2			
2,4-Dinitrotoluene		<0.0040		0.0040	mg/L	06-OCT-15	0.13			
Dinoseb		<0.0020		0.0020	mg/L	06-OCT-15	1			
Diquat		<0.1	DLM	0.10	mg/L	05-OCT-15	7			
Diuron		<0.010		0.010	mg/L	05-OCT-15	15			
Endrin		<0.0010		0.0010	mg/L	07-OCT-15	0.02			
Parathion		<0.0010		0.0010	mg/L	07-OCT-15	5			
Fluoride (F)		<10		10	mg/L	05-OCT-15	150.0			

** Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.

* Analytical result for this parameter exceeds Guideline Limit listed on this report. Guideline Limits applied:

Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC- FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte									
L1682822-4	DYEC/FA/151002/4									
Sampled By: A. HUXTER on 03-OCT-15 @ 08:0										
Matrix: SOIL										#1
TCLP Extractables										
	gamma-BHC	<0.0010		0.0010	mg/L	07-OCT-15	0.4			
	gamma-Chlordane	<0.0010		0.0010	mg/L	07-OCT-15				
	Glyphosate	<0.050		0.050	mg/L	06-OCT-15	28			
	Heptachlor	<0.0010		0.0010	mg/L	07-OCT-15				
	Heptachlor + Heptachlor Epoxide	<0.0020		0.0020	mg/L	07-OCT-15	0.3			
	Heptachlor epoxide	<0.0010		0.0010	mg/L	07-OCT-15				
	Hexachlorobenzene	<0.0040		0.0040	mg/L	06-OCT-15	0.13			
	Hexachlorobutadiene	<0.0040		0.0040	mg/L	06-OCT-15	0.5			
	Hexachloroethane	<0.0040		0.0040	mg/L	06-OCT-15	3.0			
	Malathion	<0.0010		0.0010	mg/L	07-OCT-15	19			
	MCPA	<0.0020		0.0020	mg/L	06-OCT-15				
	Methoxychlor	<0.0010		0.0010	mg/L	07-OCT-15	90			
	Methyl Parathion	<0.0010		0.0010	mg/L	07-OCT-15	0.7			
	2-Methylphenol	<0.0050		0.0050	mg/L	06-OCT-15				
	Metolachlor	<0.0010		0.0010	mg/L	07-OCT-15	5			
	Metribuzin	<0.0010		0.0010	mg/L	07-OCT-15	8			
	Nitrate and Nitrite as N	<4.0		4.0	mg/L	05-OCT-15	1000			
	Nitrate-N	<2.0		2.0	mg/L	05-OCT-15				
	Nitrotriacetic Acid (NTA)	<40		0.20	mg/L	05-OCT-15	40			
	Nitrite-N	<2.0		2.0	mg/L	05-OCT-15				
	Nitrobenzene	<0.0040		0.0040	mg/L	06-OCT-15	2.0			
	N-Nitrosodimethylamine	<0.00020		0.00020	mg/L	06-OCT-15	0.0009			
	Oxychlordane	<0.0010		0.0010	mg/L	07-OCT-15				
	Paraquat	<0.10	DLM	0.10	mg/L	05-OCT-15	1			
	Total PCBs	<0.00040		0.00040	mg/L	07-OCT-15	0.3			
	Pentachlorophenol	<0.0050		0.0050	mg/L	06-OCT-15	6			
	Phorate	<0.0010		0.0010	mg/L	07-OCT-15	0.2			
	Picloram	<0.0050		0.0050	mg/L	06-OCT-15	19			
	Prometryne	<0.0010		0.0010	mg/L	07-OCT-15				
	Pyridine	<5.0		5.0	mg/L	05-OCT-15	5.0			
	Simazine	<0.0010		0.0010	mg/L	07-OCT-15	1			
	2,4,5-T	<0.0020		0.0020	mg/L	06-OCT-15	28			
	Temephos	<0.0010		0.0010	mg/L	07-OCT-15	28			
	Terbufos	<0.0020		0.0020	mg/L	07-OCT-15	0.1			
	2,3,4,6-Tetrachlorophenol	<0.0050		0.0050	mg/L	06-OCT-15	10.0			
	Toxaphene	<0.0035		0.0035	mg/L	06-OCT-15	0.5			
	2,4,5-TP	<0.0020		0.0020	mg/L	06-OCT-15	1			
	Triallate	<0.0010		0.0010	mg/L	07-OCT-15	23			
	2,4,5-Trichlorophenol	<0.0050		0.0050	mg/L	06-OCT-15	400			
	2,4,6-Trichlorophenol	<0.0050		0.0050	mg/L	06-OCT-15	0.5			
	Trifluralin	<0.0050		0.0050	mg/L	07-OCT-15	4.5			
	Surrogate: 2,4,6-Tribromophenol	104.7		50-150	%	06-OCT-15				
	Surrogate: 2,4-Dichlorophenylacetic Acid	115.0		50-150	%	06-OCT-15				
	Surrogate: 2-Fluorobiphenyl	67.3		40-160	%	07-OCT-15				
	Surrogate: 2-Fluorobiphenyl	70.2		40-160	%	07-OCT-15				

** Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.

* Analytical result for this parameter exceeds Guideline Limit listed on this report. Guideline Limits applied:

Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC- FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits		
Grouping	Analyte								
L1682822-4	DYEC/FA/151002/4								
Sampled By: A. HUXTER on 03-OCT-15 @ 08:0									
Matrix: SOIL									
TCLP Extractables									
	Surrogate: 2-Fluorobiphenyl	99.0		40-160	%	06-OCT-15			
	Surrogate: Nitrobenzene d5	106.0		50-150	%	06-OCT-15			
	Surrogate: d14-Terphenyl	69.9		60-140	%	07-OCT-15			
	Surrogate: d14-Terphenyl	90.1		60-140	%	07-OCT-15			
	Surrogate: p-Terphenyl d14	107.6		60-140	%	06-OCT-15			
TCLP Metals									
	Arsenic (As)	<0.050		0.050	mg/L	05-OCT-15	2.5		
	Barium (Ba)	1.95		0.50	mg/L	05-OCT-15	100		
	Boron (B)	<2.5		2.5	mg/L	05-OCT-15	500		
	Cadmium (Cd)	<0.0050		0.0050	mg/L	05-OCT-15	0.5		
	Chromium (Cr)	<0.050		0.050	mg/L	05-OCT-15	5.0		
	Lead (Pb)	<0.050		0.050	mg/L	05-OCT-15	5.0		
	Mercury (Hg)	<0.00010		0.00010	mg/L	05-OCT-15	0.1		
	Selenium (Se)	<0.25		0.25	mg/L	05-OCT-15	1.0		
	Silver (Ag)	<0.0050		0.0050	mg/L	05-OCT-15	5.0		
	Uranium (U)	<0.25		0.25	mg/L	05-OCT-15	10		
TCLP VOCs									
	1,1-Dichloroethylene	<0.025		0.025	mg/L	06-OCT-15	1.4		
	1,2-Dichlorobenzene	<0.025		0.025	mg/L	06-OCT-15	20.0		
	1,2-Dichloroethane	<0.025		0.025	mg/L	06-OCT-15	0.5		
	1,4-Dichlorobenzene	<0.025		0.025	mg/L	06-OCT-15	0.5		
	Benzene	<0.025		0.025	mg/L	06-OCT-15	0.5		
	Carbon tetrachloride	<0.025		0.025	mg/L	06-OCT-15	0.5		
	Chlorobenzene	<0.025		0.025	mg/L	06-OCT-15	8		
	Chloroform	<0.10		0.10	mg/L	06-OCT-15	10		
	Dichloromethane	<0.50		0.50	mg/L	06-OCT-15	5.0		
	Methyl Ethyl Ketone	<1.0		1.0	mg/L	06-OCT-15	200.0		
	Tetrachloroethylene	<0.025		0.025	mg/L	06-OCT-15	3		
	Trichloroethylene	<0.025		0.025	mg/L	06-OCT-15	5		
	Vinyl chloride	<0.050		0.050	mg/L	06-OCT-15	0.2		
	Surrogate: 4-Bromofluorobenzene	95.9		70-130	%	06-OCT-15			
Volatile Organic Compounds									
	Surrogate: 1,4-Difluorobenzene	99.5		50-150	%	06-OCT-15			
Polychlorinated Biphenyls									
	Surrogate: Decachlorobiphenyl	105.0		50-150	%	06-OCT-15			
	Surrogate: Tetrachloro-m-xylene	95.1		50-150	%	06-OCT-15			

** Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.

* Analytical result for this parameter exceeds Guideline Limit listed on this report. Guideline Limits applied:

Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

Reference Information

Sample Parameter Qualifier key listed:

Qualifier	Description
DLM	Detection Limit Adjusted due to sample matrix effects.

Methods Listed (if applicable):

ALS Test Code	Matrix	Test Description	Method Reference***
ALDICARB-TCLP-WT	Waste	O. Reg 347 Aldicarb	LC/MS-MS
BNA-TCLP-WT	Waste	BNAs for O. Reg 347	SW846 8270
<p>Samples are leached according to TCLP protocol and then the aqueous leachate is extracted and the resulting extracts are analyzed on GC/MSD</p>			
CN-TCLP-WT	Waste	Cyanide for O. Reg 347	APHA 4500CN C E
DIQUAT-TCLP-WT	Waste	Diquat for O. Reg 347	LC/MS/MS
DIURON-TCLP-WT	Waste	Diuron for O. Reg 347	MOE PWAUH-E3436 (MOD)
F-TCLP-WT	Waste	Fluoride (F) for O. Reg 347	APHA 4110 B-Ion Chromatography
GLYPHOSATE-TCLP-WT	Waste	Glyphosate for O. Reg 347	LC/MS/MS
HG-TCLP-WT	Waste	Mercury (CVAA) for O.Reg 347	SW846 7470A
LEACH-TCLP-WT	Waste	Leachate Procedure for Reg 347	EPA 1311

Inorganic and Semi-Volatile Organic contaminants are leached from waste samples in strict accordance with US EPA Method 1311, "Toxicity Characteristic Leaching Procedure" (TCLP). Test results are reported in leachate concentration units (normally mg/L).

MET-TCLP-WT	Waste	O.Reg 347 TCLP Leachable Metals	EPA 200.8
N2N3-TCLP-WT	Waste	Nitrate/Nitrite-N for O. Reg 347	APHA 4110 B-Ion Chromatography
NDMA-TCLP-WT	Waste	NDMA for O. Reg 347	In House/GC/MS
NTA-TCLP-WT	Waste	NTA for O. Reg 347	EPA 430.2
PARAQUAT-TCLP-WT	Waste	Paraquat for O. Reg 347	LC/MS-MS
PCB-TCLP-WT	Waste	PCBs for O. Reg 347	SW846 8270
PEST-MISC-TCLP-WT	Waste	O. Reg 347 TCLP Miscellaneous Pesticides	SW846 8270
PEST-OC-TCLP-WT	Waste	O. Reg 347TCLP Organochlorine Pesticides	SW846 8270
<p>Samples are leached according to TCLP protocol and then the aqueous leachate is extracted and the resulting extracts are analyzed on GC/MSD</p>			
PEST-PAHERB-TCLP-WT	Waste	Phenoxyacid Herbicides for O. Reg 347	SW846 8270
PYR-TCLP-WT	Waste	Pyridine for O. Reg 347	SW846 8260D
<p>Samples are leached according to TCLP protocol and then analyzed on GC/MSD</p>			
TOXAPHENE-TCLP-WT	Waste	Toxaphene by GC/ECD for O. Reg 347	SW846 8270
VOC-TCLP-WT	Waste	VOC for O. Reg 347	SW846 8260

A sample of waste is leached in a zero headspace extractor at 30–2 rpm for 18–2.0 hours with the appropriate leaching solution. After tumbling the leachate is analyzed directly by headspace technology, followed by GC/MS using internal standard quantitation.

*** ALS test methods may incorporate modifications from specified reference methods to improve performance.

Chain of Custody numbers:

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location	Laboratory Definition Code	Laboratory Location
WT	ALS ENVIRONMENTAL - WATERLOO, ONTARIO, CANADA		

Reference Information

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.

mg/kg - milligrams per kilogram based on dry weight of sample

mg/kg wwt - milligrams per kilogram based on wet weight of sample

mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight

mg/L - unit of concentration based on volume, parts per million.

< - Less than.

D.L. - The reporting limit.

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.

Application of guidelines is provided "as is" without warranty of any kind, either expressed or implied, including, but not limited to fitness for a particular purpose, or non-infringement. ALS assumes no responsibility for errors or omissions in the information.



Quality Control Report

Workorder: L1682822

Report Date: 09-OCT-15

Page 1 of 19

Client: Covanta - Durham York Renewable Energy LP
 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: AMANDA HUXTER

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
ALDICARB-TCLP-WT		Waste						
Batch	R3283822							
WG2185838-3	DUP	L1682822-1						
Aldicarb		<0.010	<0.010	RPD-NA	mg/L	N/A	30	05-OCT-15
WG2185838-2	LCS							
Aldicarb			105.0		%		70-130	05-OCT-15
WG2185838-1	MB							
Aldicarb			<0.010		mg/L		0.01	05-OCT-15
BNA-TCLP-WT		Waste						
Batch	R3283781							
WG2185631-5	DUP	WG2185631-4						
2,3,4,6-Tetrachlorophenol		<0.0050	<0.0050	RPD-NA	mg/L	N/A	50	06-OCT-15
2,4,5-Trichlorophenol		<0.0050	<0.0050	RPD-NA	mg/L	N/A	50	06-OCT-15
2,4,6-Trichlorophenol		<0.0050	<0.0050	RPD-NA	mg/L	N/A	50	06-OCT-15
2,4-Dichlorophenol		<0.0050	<0.0050	RPD-NA	mg/L	N/A	50	06-OCT-15
2,4-Dinitrotoluene		<0.0040	<0.0040	RPD-NA	mg/L	N/A	50	06-OCT-15
2-Methylphenol		<0.0050	<0.0050	RPD-NA	mg/L	N/A	50	06-OCT-15
3&4-Methylphenol		<0.010	<0.010	RPD-NA	mg/L	N/A	50	06-OCT-15
Hexachlorobenzene		<0.0040	<0.0040	RPD-NA	mg/L	N/A	50	06-OCT-15
Hexachlorobutadiene		<0.0040	<0.0040	RPD-NA	mg/L	N/A	50	06-OCT-15
Hexachloroethane		<0.0040	<0.0040	RPD-NA	mg/L	N/A	50	06-OCT-15
Nitrobenzene		<0.0040	<0.0040	RPD-NA	mg/L	N/A	50	06-OCT-15
Pentachlorophenol		<0.0050	<0.0050	RPD-NA	mg/L	N/A	50	06-OCT-15
WG2185631-2	LCS							
2,3,4,6-Tetrachlorophenol			91.6		%		60-140	06-OCT-15
2,4,5-Trichlorophenol			89.9		%		60-140	06-OCT-15
2,4,6-Trichlorophenol			85.7		%		60-140	06-OCT-15
2,4-Dichlorophenol			76.6		%		60-140	06-OCT-15
2,4-Dinitrotoluene			104.7		%		50-150	06-OCT-15
2-Methylphenol			74.1		%		60-140	06-OCT-15
3&4-Methylphenol			76.9		%		60-140	06-OCT-15
Hexachlorobenzene			86.0		%		60-140	06-OCT-15
Hexachlorobutadiene			72.0		%		40-130	06-OCT-15
Hexachloroethane			63.4		%		40-130	06-OCT-15
Nitrobenzene			83.8		%		60-140	06-OCT-15
Pentachlorophenol			105.9		%		50-160	06-OCT-15
WG2185631-1	MB							



Quality Control Report

Workorder: L1682822

Report Date: 09-OCT-15

Page 2 of 19

Client: Covanta - Durham York Renewable Energy LP
 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: AMANDA HUXTER

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
BNA-TCLP-WT		Waste						
Batch	R3283781							
WG2185631-1 MB								
2,3,4,6-Tetrachlorophenol			<0.0050		mg/L		0.005	06-OCT-15
2,4,5-Trichlorophenol			<0.0050		mg/L		0.005	06-OCT-15
2,4,6-Trichlorophenol			<0.0050		mg/L		0.005	06-OCT-15
2,4-Dichlorophenol			<0.0050		mg/L		0.005	06-OCT-15
2,4-Dinitrotoluene			<0.0040		mg/L		0.004	06-OCT-15
2-Methylphenol			<0.0050		mg/L		0.005	06-OCT-15
3&4-Methylphenol			<0.010		mg/L		0.01	06-OCT-15
Hexachlorobenzene			<0.0040		mg/L		0.004	06-OCT-15
Hexachlorobutadiene			<0.0040		mg/L		0.004	06-OCT-15
Hexachloroethane			<0.0040		mg/L		0.004	06-OCT-15
Nitrobenzene			<0.0040		mg/L		0.004	06-OCT-15
Pentachlorophenol			<0.0050		mg/L		0.005	06-OCT-15
Surrogate: Nitrobenzene d5			100.2		%		50-150	06-OCT-15
Surrogate: 2-Fluorobiphenyl			93.9		%		40-160	06-OCT-15
Surrogate: p-Terphenyl d14			106.9		%		60-140	06-OCT-15
Surrogate: 2,4,6-Tribromophenol			93.5		%		50-150	06-OCT-15
WG2185631-3 MS		WG2185631-4						
2,3,4,6-Tetrachlorophenol			91.7		%		50-150	06-OCT-15
2,4,5-Trichlorophenol			88.4		%		50-150	06-OCT-15
2,4,6-Trichlorophenol			81.7		%		50-150	06-OCT-15
2,4-Dichlorophenol			72.9		%		50-150	06-OCT-15
2,4-Dinitrotoluene			96.4		%		50-150	06-OCT-15
2-Methylphenol			71.4		%		50-150	06-OCT-15
3&4-Methylphenol			73.7		%		50-150	06-OCT-15
Hexachlorobenzene			75.6		%		40-150	06-OCT-15
Hexachlorobutadiene			59.4		%		40-150	06-OCT-15
Hexachloroethane			51.7		%		40-150	06-OCT-15
Nitrobenzene			76.5		%		50-150	06-OCT-15
Pentachlorophenol			120.3		%		50-150	06-OCT-15
CN-TCLP-WT		Waste						
Batch	R3283322							
WG2185803-11 DUP		L1682286-1						
Cyanide, Weak Acid Diss		<0.10	<0.10	RPD-NA	mg/L	N/A	20	05-OCT-15
WG2185803-10 LCS								



Quality Control Report

Workorder: L1682822

Report Date: 09-OCT-15

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Client: Covanta - Durham York Renewable Energy LP
1835 Energy Drive
Courtice ON L1E 2R2

Contact: AMANDA HUXTER

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-TCLP-WT		Waste						
Batch	R3283322							
WG2185803-10	LCS							
	Cyanide, Weak Acid Diss		93.1		%		70-130	05-OCT-15
WG2185803-9	MB							
	Cyanide, Weak Acid Diss		<0.10		mg/L		0.1	05-OCT-15
WG2185803-12	MS	L1682286-1						
	Cyanide, Weak Acid Diss		95.0		%		50-150	05-OCT-15
DIQUAT-TCLP-WT		Waste						
Batch	R3283490							
WG2185655-3	DUP	L1682822-1						
	Diquat	<0.1	<0.1		mg/L	N/A	30	05-OCT-15
WG2185655-2	LCS							
	Diquat		100.0		%		70-130	05-OCT-15
WG2185655-1	MB							
	Diquat		<0.010		mg/L		0.01	05-OCT-15
DIURON-TCLP-WT		Waste						
Batch	R3283825							
WG2185840-3	DUP	L1682822-1						
	Diuron	<0.010	<0.010	RPD-NA	mg/L	N/A	30	05-OCT-15
WG2185840-2	LCS							
	Diuron		94.7		%		70-130	05-OCT-15
WG2185840-1	MB							
	Diuron		<0.010		mg/L		0.01	05-OCT-15
F-TCLP-WT		Waste						
Batch	R3283413							
WG2185664-3	DUP	L1682822-1						
	Fluoride (F)	<10	<10	RPD-NA	mg/L	N/A	30	05-OCT-15
WG2185664-2	LCS							
	Fluoride (F)		95.4		%		70-130	05-OCT-15
WG2185664-1	MB							
	Fluoride (F)		<10		mg/L		10	05-OCT-15
WG2185664-4	MS	L1682822-1						
	Fluoride (F)		103.0		%		50-150	05-OCT-15
GLYPHOSATE-TCLP-WT		Waste						
Batch	R3284125							
WG2185810-3	DUP	L1682822-1						
	Glyphosate	<0.050	<0.050	RPD-NA	mg/L	N/A	30	06-OCT-15
WG2185810-2	LCS							



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Client: Covanta - Durham York Renewable Energy LP
 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: AMANDA HUXTER

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
GLYPHOSATE-TCLP-WT Waste								
Batch R3284125								
WG2185810-2	LCS							
Glyphosate			111.8		%		70-130	06-OCT-15
WG2185810-1	MB							
Glyphosate			<0.050		mg/L		0.05	06-OCT-15
HG-TCLP-WT Waste								
Batch R3283068								
WG2185618-3	DUP	L1681085-1						
Mercury (Hg)		<0.00010	<0.00010	RPD-NA	mg/L	N/A	50	05-OCT-15
WG2185618-2	LCS							
Mercury (Hg)			104.0		%		70-130	05-OCT-15
WG2185618-1	MB							
Mercury (Hg)			<0.00010		mg/L		0.0001	05-OCT-15
WG2185618-4	MS	L1682286-1						
Mercury (Hg)			93.3		%		50-140	05-OCT-15
MET-TCLP-WT Waste								
Batch R3282743								
WG2185576-4	DUP	WG2185576-3						
Silver (Ag)		<0.0050	<0.0050	RPD-NA	mg/L	N/A	40	05-OCT-15
Arsenic (As)		<0.050	<0.050	RPD-NA	mg/L	N/A	40	05-OCT-15
Boron (B)		<2.5	<2.5	RPD-NA	mg/L	N/A	40	05-OCT-15
Barium (Ba)		1.78	1.68		mg/L	5.7	40	05-OCT-15
Cadmium (Cd)		<0.0050	<0.0050	RPD-NA	mg/L	N/A	40	05-OCT-15
Chromium (Cr)		<0.050	<0.050	RPD-NA	mg/L	N/A	40	05-OCT-15
Lead (Pb)		<0.050	<0.050	RPD-NA	mg/L	N/A	40	05-OCT-15
Selenium (Se)		<0.25	<0.25	RPD-NA	mg/L	N/A	40	05-OCT-15
Uranium (U)		<0.25	<0.25	RPD-NA	mg/L	N/A	40	05-OCT-15
WG2185576-2	LCS							
Silver (Ag)			103.7		%		70-130	05-OCT-15
Arsenic (As)			101.4		%		70-130	05-OCT-15
Boron (B)			95.0		%		70-130	05-OCT-15
Barium (Ba)			106.0		%		70-130	05-OCT-15
Cadmium (Cd)			101.5		%		70-130	05-OCT-15
Chromium (Cr)			101.9		%		70-130	05-OCT-15
Lead (Pb)			102.0		%		70-130	05-OCT-15
Selenium (Se)			102.1		%		70-130	05-OCT-15
Uranium (U)			100.4		%		70-130	05-OCT-15



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Client: Covanta - Durham York Renewable Energy LP
1835 Energy Drive
Courtice ON L1E 2R2

Contact: AMANDA HUXTER

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-TCLP-WT		Waste						
Batch	R3282743							
WG2185576-2	LCS							
Uranium (U)			100.4		%		70-130	05-OCT-15
WG2185576-1	MB							
Silver (Ag)			<0.0050		mg/L		0.005	05-OCT-15
Arsenic (As)			<0.050		mg/L		0.05	05-OCT-15
Boron (B)			<2.5		mg/L		2.5	05-OCT-15
Barium (Ba)			<0.50		mg/L		0.5	05-OCT-15
Cadmium (Cd)			<0.0050		mg/L		0.005	05-OCT-15
Chromium (Cr)			<0.050		mg/L		0.05	05-OCT-15
Lead (Pb)			<0.050		mg/L		0.05	05-OCT-15
Selenium (Se)			<0.25		mg/L		0.25	05-OCT-15
Uranium (U)			<0.25		mg/L		0.25	05-OCT-15
WG2185576-5	MS	WG2185576-3						
Silver (Ag)			116.1		%		50-150	05-OCT-15
Arsenic (As)			138.0		%		50-150	05-OCT-15
Boron (B)			120.1		%		50-150	05-OCT-15
Barium (Ba)			138.4		%		50-150	05-OCT-15
Cadmium (Cd)			131.8		%		50-150	05-OCT-15
Chromium (Cr)			135.6		%		50-150	05-OCT-15
Lead (Pb)			119.6		%		50-150	05-OCT-15
Selenium (Se)			129.8		%		50-150	05-OCT-15
Uranium (U)			122.5		%		50-150	05-OCT-15
N2N3-TCLP-WT		Waste						
Batch	R3283413							
WG2185664-3	DUP	L1682822-1						
Nitrate-N		<2.0	<2.0	RPD-NA	mg/L	N/A	30	05-OCT-15
Nitrite-N		<2.0	<2.0	RPD-NA	mg/L	N/A	30	05-OCT-15
WG2185664-2	LCS							
Nitrate-N			110.3		%		70-130	05-OCT-15
Nitrite-N			116.4		%		70-130	05-OCT-15
WG2185664-1	MB							
Nitrate-N			<2.0		mg/L		2	05-OCT-15
Nitrite-N			<2.0		mg/L		2	05-OCT-15
WG2185664-4	MS	L1682822-1						
Nitrate-N			124.2		%		50-150	05-OCT-15
Nitrite-N			122.9		%		50-150	05-OCT-15



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Client: Covanta - Durham York Renewable Energy LP
 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: AMANDA HUXTER

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
NDMA-TCLP-WT		Waste						
Batch	R3283230							
WG2185567-4	DUP	L1682286-2						
N-Nitrosodimethylamine		<0.00020	<0.00020	RPD-NA	mg/L	N/A	50	05-OCT-15
WG2185567-2	LCS							
N-Nitrosodimethylamine			108.2		%		50-150	05-OCT-15
WG2185567-1	MB							
N-Nitrosodimethylamine			<0.00020		mg/L		0.0002	05-OCT-15
WG2185567-3	MS	L1682286-2						
N-Nitrosodimethylamine			109.3		%		50-150	05-OCT-15
NTA-TCLP-WT		Waste						
Batch	R3283476							
WG2186037-3	DUP	L1682286-1						
Nitrotriacetic Acid (NTA)		<40	<40	RPD-NA	mg/L	N/A	25	05-OCT-15
WG2186037-2	LCS							
Nitrotriacetic Acid (NTA)			85.0		%		75-125	05-OCT-15
WG2186037-1	MB							
Nitrotriacetic Acid (NTA)			<0.20		mg/L		0.2	05-OCT-15
PARAQUAT-TCLP-WT		Waste						
Batch	R3283490							
WG2185655-3	DUP	L1682822-1						
Paraquat		<0.10	<0.10	RPD-NA	mg/L	N/A	50	05-OCT-15
WG2185655-2	LCS							
Paraquat			103.6		%		50-150	05-OCT-15
WG2185655-1	MB							
Paraquat			<0.010		mg/L		0.01	05-OCT-15
PCB-TCLP-WT		Waste						
Batch	R3284629							
WG2186412-4	DUP	L1682896-1						
Aroclor 1242		<0.00020	<0.00020	RPD-NA	mg/L	N/A	50	07-OCT-15
Aroclor 1248		<0.00020	<0.00020	RPD-NA	mg/L	N/A	50	07-OCT-15
Aroclor 1254		<0.00020	<0.00020	RPD-NA	mg/L	N/A	50	07-OCT-15
Aroclor 1260		<0.00020	<0.00020	RPD-NA	mg/L	N/A	50	07-OCT-15
WG2186412-2	LCS							
Aroclor 1242			67.8		%		65-130	07-OCT-15
Aroclor 1248			80.8		%		65-130	07-OCT-15
Aroclor 1254			65.5		%		65-130	07-OCT-15
Aroclor 1260			70.1		%		65-130	07-OCT-15
WG2186412-1	MB							



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Client: Covanta - Durham York Renewable Energy LP
 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: AMANDA HUXTER

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PCB-TCLP-WT		Waste						
Batch	R3284629							
WG2186412-1	MB							
Aroclor 1242			<0.00020		mg/L		0.0002	07-OCT-15
Aroclor 1248			<0.00020		mg/L		0.0002	07-OCT-15
Aroclor 1254			<0.00020		mg/L		0.0002	07-OCT-15
Aroclor 1260			<0.00020		mg/L		0.0002	07-OCT-15
Surrogate: 2-Fluorobiphenyl			76.8		%		40-160	07-OCT-15
WG2186412-3	MS	L1682896-1						
Aroclor 1242			77.6		%		50-150	07-OCT-15
Aroclor 1254			64.0		%		50-150	07-OCT-15
Aroclor 1260			73.3		%		50-150	07-OCT-15
PEST-MISC-TCLP-WT		Waste						
Batch	R3284155							
WG2185566-5	DUP	L1682286-1						
Atrazine Desethyl		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	06-OCT-15
Atrazine		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	06-OCT-15
Bendiocarb		<0.0050	<0.0050	RPD-NA	mg/L	N/A	50	06-OCT-15
Trifluralin		<0.0050	<0.0050	RPD-NA	mg/L	N/A	50	06-OCT-15
Phorate		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	06-OCT-15
Dimethoate		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	06-OCT-15
Simazine		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	06-OCT-15
Carbofuran		<0.0020	<0.0020	RPD-NA	mg/L	N/A	50	06-OCT-15
Terbufos		<0.0020	<0.0020	RPD-NA	mg/L	N/A	50	06-OCT-15
Diazinon		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	06-OCT-15
Triallate		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	06-OCT-15
Metribuzin		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	06-OCT-15
Carbaryl		<0.0020	<0.0020	RPD-NA	mg/L	N/A	50	06-OCT-15
Alachlor		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	06-OCT-15
Prometryne		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	06-OCT-15
Malathion		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	06-OCT-15
Metolachlor		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	06-OCT-15
Methyl Parathion		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	06-OCT-15
Parathion		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	06-OCT-15
Cyanazine		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	06-OCT-15
Chlorpyrifos		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	06-OCT-15



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Client: Covanta - Durham York Renewable Energy LP
1835 Energy Drive
Courtice ON L1E 2R2

Contact: AMANDA HUXTER

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PEST-MISC-TCLP-WT								
	Waste							
Batch	R3284155							
WG2185566-5	DUP	L1682286-1						
Diclofop methyl		<0.0020	<0.0020	RPD-NA	mg/L	N/A	50	06-OCT-15
Azinphos methyl		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	06-OCT-15
Benzo(a)pyrene		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	06-OCT-15
Temephos		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	06-OCT-15
WG2185566-2	LCS							
Atrazine Desethyl			52.6		%		50-140	06-OCT-15
Atrazine			95.7		%		60-140	06-OCT-15
Bendiocarb			87.1		%		50-140	06-OCT-15
Trifluralin			87.4		%		60-140	06-OCT-15
Phorate			86.7		%		60-140	06-OCT-15
Dimethoate			78.6		%		60-140	06-OCT-15
Simazine			82.4		%		60-140	06-OCT-15
Carbofuran			84.2		%		60-140	06-OCT-15
Terbufos			90.4		%		60-140	06-OCT-15
Diazinon			86.2		%		60-140	06-OCT-15
Triallate			98.0		%		60-140	06-OCT-15
Metribuzin			93.7		%		60-140	06-OCT-15
Carbaryl			85.1		%		50-175	06-OCT-15
Alachlor			98.1		%		60-140	06-OCT-15
Prometryne			99.1		%		60-140	06-OCT-15
Malathion			88.6		%		60-130	06-OCT-15
Metolachlor			92.6		%		60-140	06-OCT-15
Methyl Parathion			86.9		%		60-140	06-OCT-15
Parathion			95.7		%		60-140	06-OCT-15
Cyanazine			96.4		%		60-140	06-OCT-15
Chlorpyrifos			93.7		%		60-140	06-OCT-15
Diclofop methyl			123.1		%		60-140	06-OCT-15
Azinphos methyl			95.1		%		60-140	06-OCT-15
Benzo(a)pyrene			96.9		%		60-140	06-OCT-15
Temephos			110.0		%		60-140	06-OCT-15
WG2185566-1	MB							
Atrazine Desethyl			<0.0010		mg/L		0.001	06-OCT-15
Atrazine			<0.0010		mg/L		0.001	06-OCT-15
Bendiocarb			<0.0050		mg/L		0.005	06-OCT-15



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Client: Covanta - Durham York Renewable Energy LP
1835 Energy Drive
Courtice ON L1E 2R2

Contact: AMANDA HUXTER

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PEST-MISC-TCLP-WT		Waste						
Batch	R3284155							
WG2185566-1	MB							
Trifluralin			<0.0050		mg/L		0.005	06-OCT-15
Phorate			<0.0010		mg/L		0.001	06-OCT-15
Dimethoate			<0.0010		mg/L		0.001	06-OCT-15
Simazine			<0.0010		mg/L		0.001	06-OCT-15
Carbofuran			<0.0020		mg/L		0.002	06-OCT-15
Terbufos			<0.0020		mg/L		0.002	06-OCT-15
Diazinon			<0.0010		mg/L		0.001	06-OCT-15
Triallate			<0.0010		mg/L		0.001	06-OCT-15
Metribuzin			<0.0010		mg/L		0.001	06-OCT-15
Carbaryl			<0.0020		mg/L		0.002	06-OCT-15
Alachlor			<0.0010		mg/L		0.001	06-OCT-15
Prometryne			<0.0010		mg/L		0.001	06-OCT-15
Malathion			<0.0010		mg/L		0.001	06-OCT-15
Metolachlor			<0.0010		mg/L		0.001	06-OCT-15
Methyl Parathion			<0.0010		mg/L		0.001	06-OCT-15
Parathion			<0.0010		mg/L		0.001	06-OCT-15
Cyanazine			<0.0010		mg/L		0.001	06-OCT-15
Chlorpyrifos			<0.0010		mg/L		0.001	06-OCT-15
Diclofop methyl			<0.0020		mg/L		0.002	06-OCT-15
Azinphos methyl			<0.0010		mg/L		0.001	06-OCT-15
Benzo(a)pyrene			<0.0010		mg/L		0.001	06-OCT-15
Temephos			<0.0010		mg/L		0.001	06-OCT-15
Surrogate: 2-Fluorobiphenyl			76.9		%		40-160	06-OCT-15
Surrogate: d14-Terphenyl			82.5		%		60-140	06-OCT-15
WG2185566-3	MB							
Atrazine Desethyl			<0.0010		mg/L		0.001	07-OCT-15
Atrazine			<0.0010		mg/L		0.001	07-OCT-15
Bendiocarb			<0.0050		mg/L		0.005	07-OCT-15
Trifluralin			<0.0050		mg/L		0.005	07-OCT-15
Phorate			<0.0010		mg/L		0.001	07-OCT-15
Dimethoate			<0.0010		mg/L		0.001	07-OCT-15
Simazine			<0.0010		mg/L		0.001	07-OCT-15
Carbofuran			<0.0020		mg/L		0.002	07-OCT-15
Terbufos			<0.0020		mg/L		0.002	07-OCT-15



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Client: Covanta - Durham York Renewable Energy LP
 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: AMANDA HUXTER

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PEST-MISC-TCLP-WT								
	Waste							
Batch	R3284155							
WG2185566-3	MB							
Diazinon			<0.0010		mg/L		0.001	07-OCT-15
Triallate			<0.0010		mg/L		0.001	07-OCT-15
Metribuzin			<0.0010		mg/L		0.001	07-OCT-15
Carbaryl			<0.0020		mg/L		0.002	07-OCT-15
Alachlor			<0.0010		mg/L		0.001	07-OCT-15
Prometryne			<0.0010		mg/L		0.001	07-OCT-15
Malathion			<0.0010		mg/L		0.001	07-OCT-15
Metolachlor			<0.0010		mg/L		0.001	07-OCT-15
Methyl Parathion			<0.0010		mg/L		0.001	07-OCT-15
Parathion			<0.0010		mg/L		0.001	07-OCT-15
Cyanazine			<0.0010		mg/L		0.001	07-OCT-15
Chlorpyrifos			<0.0010		mg/L		0.001	07-OCT-15
Diclofop methyl			<0.0020		mg/L		0.002	07-OCT-15
Azinphos methyl			<0.0010		mg/L		0.001	07-OCT-15
Benzo(a)pyrene			<0.0010		mg/L		0.001	07-OCT-15
Temephos			<0.0010		mg/L		0.001	07-OCT-15
Surrogate: 2-Fluorobiphenyl			84.9		%		40-160	07-OCT-15
Surrogate: d14-Terphenyl			86.5		%		60-140	07-OCT-15
WG2185566-4	MS	L1682286-1						
Atrazine Desethyl			52.0		%		50-150	06-OCT-15
Atrazine			93.2		%		50-150	06-OCT-15
Bendiocarb			90.6		%		50-150	06-OCT-15
Trifluralin			87.0		%		50-150	06-OCT-15
Phorate			85.6		%		50-150	06-OCT-15
Dimethoate			77.7		%		50-150	06-OCT-15
Simazine			84.5		%		50-150	06-OCT-15
Carbofuran			87.7		%		50-150	06-OCT-15
Terbufos			89.9		%		50-150	06-OCT-15
Diazinon			86.2		%		50-150	06-OCT-15
Triallate			97.7		%		50-150	06-OCT-15
Metribuzin			95.0		%		50-150	06-OCT-15
Carbaryl			92.3		%		50-150	06-OCT-15
Alachlor			98.7		%		50-150	06-OCT-15
Prometryne			98.8		%		50-150	06-OCT-15



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Client: Covanta - Durham York Renewable Energy LP
 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: AMANDA HUXTER

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PEST-MISC-TCLP-WT								
	Waste							
Batch	R3284155							
WG2185566-4	MS	L1682286-1						
Malathion			88.5		%		50-150	06-OCT-15
Metolachlor			92.0		%		50-150	06-OCT-15
Methyl Parathion			84.7		%		50-150	06-OCT-15
Parathion			94.5		%		50-150	06-OCT-15
Cyanazine			100.2		%		50-150	06-OCT-15
Chlorpyrifos			96.8		%		50-150	06-OCT-15
Diclofop methyl			115.5		%		50-150	06-OCT-15
Azinphos methyl			96.3		%		50-150	06-OCT-15
Benzo(a)pyrene			94.7		%		50-150	06-OCT-15
Temephos			116.7		%		50-150	06-OCT-15
PEST-OC-TCLP-WT								
	Waste							
Batch	R3283815							
WG2185566-5	DUP	L1682286-1						
gamma-BHC		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	06-OCT-15
Heptachlor		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	06-OCT-15
Heptachlor epoxide		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	06-OCT-15
Oxychlordane		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	06-OCT-15
gamma-Chlordane		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	06-OCT-15
alpha-Chlordane		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	06-OCT-15
Aldrin		<0.00020	<0.00020	RPD-NA	mg/L	N/A	50	06-OCT-15
Dieldrin		<0.00020	<0.00020	RPD-NA	mg/L	N/A	50	06-OCT-15
Endrin		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	06-OCT-15
p,p-DDE		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	06-OCT-15
p,p-DDD		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	06-OCT-15
p,p-DDT		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	06-OCT-15
o,p-DDT		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	06-OCT-15
Methoxychlor		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	06-OCT-15
WG2185566-2	LCS							
gamma-BHC			88.4		%		50-150	06-OCT-15
Heptachlor			95.4		%		25-175	06-OCT-15
Heptachlor epoxide			99.5		%		25-175	06-OCT-15
Oxychlordane			94.9		%		25-175	06-OCT-15
gamma-Chlordane			100.7		%		25-175	06-OCT-15



Quality Control Report

Workorder: L1682822

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Client: Covanta - Durham York Renewable Energy LP
1835 Energy Drive
Courtice ON L1E 2R2

Contact: AMANDA HUXTER

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PEST-OC-TCLP-WT		Waste						
Batch	R3283815							
WG2185566-2	LCS							
alpha-Chlordane			97.0		%		25-175	06-OCT-15
Aldrin			105.8		%		25-175	06-OCT-15
Dieldrin			91.6		%		25-175	06-OCT-15
Endrin			124.5		%		50-150	06-OCT-15
p,p-DDE			92.7		%		25-175	06-OCT-15
p,p-DDD			101.1		%		25-175	06-OCT-15
p,p-DDT			102.3		%		25-175	06-OCT-15
o,p-DDT			97.6		%		50-130	06-OCT-15
Methoxychlor			117.8		%		25-175	06-OCT-15
WG2185566-1	MB							
gamma-BHC			<0.0010		mg/L		0.001	06-OCT-15
Heptachlor			<0.0010		mg/L		0.001	06-OCT-15
Heptachlor epoxide			<0.0010		mg/L		0.001	06-OCT-15
Oxychlordane			<0.0010		mg/L		0.001	06-OCT-15
gamma-Chlordane			<0.0010		mg/L		0.001	06-OCT-15
alpha-Chlordane			<0.0010		mg/L		0.001	06-OCT-15
Aldrin			<0.00020		mg/L		0.0002	06-OCT-15
Dieldrin			<0.00020		mg/L		0.0002	06-OCT-15
Endrin			<0.0010		mg/L		0.001	06-OCT-15
p,p-DDE			<0.0010		mg/L		0.001	06-OCT-15
p,p-DDD			<0.0010		mg/L		0.001	06-OCT-15
p,p-DDT			<0.0010		mg/L		0.001	06-OCT-15
o,p-DDT			<0.0010		mg/L		0.001	06-OCT-15
Methoxychlor			<0.0010		mg/L		0.001	06-OCT-15
Surrogate: d14-Terphenyl			92.1		%		60-140	06-OCT-15
WG2185566-3	MB							
gamma-BHC			<0.0010		mg/L		0.001	06-OCT-15
Heptachlor			<0.0010		mg/L		0.001	06-OCT-15
Heptachlor epoxide			<0.0010		mg/L		0.001	06-OCT-15
Oxychlordane			<0.0010		mg/L		0.001	06-OCT-15
gamma-Chlordane			<0.0010		mg/L		0.001	06-OCT-15
alpha-Chlordane			<0.0010		mg/L		0.001	06-OCT-15
Aldrin			<0.00020		mg/L		0.0002	06-OCT-15
Dieldrin			<0.00020		mg/L		0.0002	06-OCT-15



Quality Control Report

Workorder: L1682822

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Client: Covanta - Durham York Renewable Energy LP
1835 Energy Drive
Courtice ON L1E 2R2

Contact: AMANDA HUXTER

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PEST-OC-TCLP-WT		Waste						
Batch	R3283815							
WG2185566-3	MB							
Endrin			<0.0010		mg/L		0.001	06-OCT-15
p,p-DDE			<0.0010		mg/L		0.001	06-OCT-15
p,p-DDD			<0.0010		mg/L		0.001	06-OCT-15
p,p-DDT			<0.0010		mg/L		0.001	06-OCT-15
o,p-DDT			<0.0010		mg/L		0.001	06-OCT-15
Methoxychlor			<0.0010		mg/L		0.001	06-OCT-15
Surrogate: d14-Terphenyl			100.5		%		60-140	06-OCT-15
WG2185566-4	MS	L1682286-1						
gamma-BHC			92.0		%		50-150	06-OCT-15
Heptachlor			99.4		%		50-150	06-OCT-15
Heptachlor epoxide			96.6		%		50-150	06-OCT-15
Oxychlordane			99.2		%		50-150	06-OCT-15
gamma-Chlordane			102.5		%		50-150	06-OCT-15
alpha-Chlordane			97.5		%		50-150	06-OCT-15
Aldrin			113.2		%		50-150	06-OCT-15
Dieldrin			93.6		%		50-150	06-OCT-15
Endrin			129.8		%		50-150	06-OCT-15
p,p-DDE			96.2		%		50-150	06-OCT-15
p,p-DDD			101.3		%		50-150	06-OCT-15
p,p-DDT			106.2		%		50-150	06-OCT-15
o,p-DDT			99.2		%		50-150	06-OCT-15
Methoxychlor			122.2		%		50-150	06-OCT-15
PEST-PAHERB-TCLP-WT		Waste						
Batch	R3283978							
WG2186115-3	DUP	L1682286-4						
2,4,5-TP			<0.0020	RPD-NA	mg/L	N/A	50	06-OCT-15
MCPA			<0.0020	RPD-NA	mg/L	N/A	50	06-OCT-15
2,4,5-T			<0.0020	RPD-NA	mg/L	N/A	50	06-OCT-15
2,4-D			<0.0020	RPD-NA	mg/L	N/A	50	06-OCT-15
Bromoxynil			<0.0020	RPD-NA	mg/L	N/A	50	06-OCT-15
Dicamba			<0.0050	RPD-NA	mg/L	N/A	50	06-OCT-15
Dinoseb			<0.0020	RPD-NA	mg/L	N/A	50	06-OCT-15
Picloram			<0.0050	RPD-NA	mg/L	N/A	50	06-OCT-15
WG2186115-2	LCS							



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Workorder: L1682822

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Client: Covanta - Durham York Renewable Energy LP
 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: AMANDA HUXTER

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PEST-PAHERB-TCLP-WT Waste								
Batch R3283978								
WG2186115-2 LCS								
2,4,5-TP			116.0		%		65-135	06-OCT-15
MCPA			118.2		%		65-135	06-OCT-15
2,4,5-T			124.3		%		65-135	06-OCT-15
2,4-D			128.3		%		25-175	06-OCT-15
Bromoxynil			112.5		%		65-135	06-OCT-15
Dicamba			56.7		%		30-150	06-OCT-15
Dinoseb			75.7		%		30-150	06-OCT-15
Picloram			47.8		%		25-120	06-OCT-15
WG2186115-1 MB								
2,4,5-TP			<0.0020		mg/L		0.002	06-OCT-15
MCPA			<0.0020		mg/L		0.002	06-OCT-15
2,4,5-T			<0.0020		mg/L		0.002	06-OCT-15
2,4-D			<0.0020		mg/L		0.002	06-OCT-15
Bromoxynil			<0.0020		mg/L		0.002	06-OCT-15
Dicamba			<0.0050		mg/L		0.005	06-OCT-15
Dinoseb			<0.0020		mg/L		0.002	06-OCT-15
Picloram			<0.0050		mg/L		0.005	06-OCT-15
Surrogate: 2,4-Dichlorophenylacetic Acid			102.1		%		50-150	06-OCT-15
WG2186115-4 MS L1682286-4								
2,4,5-TP			125.0		%		50-150	06-OCT-15
MCPA			131.6		%		50-150	06-OCT-15
2,4,5-T			131.1		%		50-150	06-OCT-15
2,4-D			137.6		%		50-150	06-OCT-15
Bromoxynil			132.1		%		50-150	06-OCT-15
Dicamba			71.6		%		50-150	06-OCT-15
Dinoseb			147.9		%		30-150	06-OCT-15
Picloram			48.2		%		25-150	06-OCT-15
PYR-TCLP-WT Waste								
Batch R3283469								
WG2185611-4 DUP L1681932-2								
Pyridine		<5.0	<5.0	RPD-NA	mg/L	N/A	30	05-OCT-15
WG2185611-6 DUP L1682896-1								
Pyridine		<5.0	<5.0	RPD-NA	mg/L	N/A	30	05-OCT-15
WG2185611-2 LCS								



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Client: Covanta - Durham York Renewable Energy LP
 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: AMANDA HUXTER

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PYR-TCLP-WT		Waste						
Batch	R3283469							
WG2185611-2	LCS							
Pyridine			103.0		%		70-130	05-OCT-15
WG2185611-9	LCS							
Pyridine			99.0		%		70-130	05-OCT-15
WG2185611-3	MB							
Pyridine			<5.0		mg/L		5	05-OCT-15
WG2185611-8	MB							
Pyridine			<5.0		mg/L		5	05-OCT-15
WG2185611-5	MS	L1682286-4						
Pyridine			104.0		%		50-150	05-OCT-15
WG2185611-7	MS	L1682896-4						
Pyridine			105.0		%		50-150	05-OCT-15
TOXAPHENE-TCLP-WT		Waste						
Batch	R3284163							
WG2185636-4	DUP	WG2185636-3						
Toxaphene		<0.0035	<0.0035	RPD-NA	mg/L	N/A	50	06-OCT-15
WG2185636-2	LCS							
Toxaphene			113.0		%		50-150	06-OCT-15
WG2185636-1	MB							
Toxaphene			<0.0035		mg/L		0.0035	06-OCT-15
Surrogate: Decachlorobiphenyl			93.0		%		50-150	06-OCT-15
Surrogate: Tetrachloro-m-xylene			78.4		%		50-150	06-OCT-15
WG2185636-5	MS	WG2185636-3						
Toxaphene			119.0		%		50-150	06-OCT-15
VOC-TCLP-WT		Waste						
Batch	R3283793							
WG2181279-4	DUP	WG2181279-7						
1,1-Dichloroethylene		<0.025	<0.025	RPD-NA	mg/L	N/A	50	06-OCT-15
1,2-Dichlorobenzene		<0.025	<0.025	RPD-NA	mg/L	N/A	50	06-OCT-15
1,2-Dichloroethane		<0.025	<0.025	RPD-NA	mg/L	N/A	50	06-OCT-15
1,4-Dichlorobenzene		<0.025	<0.025	RPD-NA	mg/L	N/A	50	06-OCT-15
Benzene		<0.025	<0.025	RPD-NA	mg/L	N/A	50	06-OCT-15
Carbon tetrachloride		<0.025	<0.025	RPD-NA	mg/L	N/A	50	06-OCT-15
Chlorobenzene		<0.025	<0.025	RPD-NA	mg/L	N/A	50	06-OCT-15
Chloroform		<0.10	<0.10	RPD-NA	mg/L	N/A	50	06-OCT-15
Dichloromethane		<0.50	<0.50	RPD-NA	mg/L	N/A	50	06-OCT-15



Quality Control Report

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Client: Covanta - Durham York Renewable Energy LP
 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: AMANDA HUXTER

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-TCLP-WT		Waste						
Batch	R3283793							
WG2181279-4	DUP	WG2181279-7						
Methyl Ethyl Ketone		<1.0	<1.0	RPD-NA	mg/L	N/A	50	06-OCT-15
Tetrachloroethylene		<0.025	<0.025	RPD-NA	mg/L	N/A	50	06-OCT-15
Trichloroethylene		<0.025	<0.025	RPD-NA	mg/L	N/A	50	06-OCT-15
Vinyl chloride		<0.050	<0.050	RPD-NA	mg/L	N/A	50	06-OCT-15
WG2181279-1	LCS							
1,1-Dichloroethylene			88.6		%		70-130	06-OCT-15
1,2-Dichlorobenzene			95.9		%		70-130	06-OCT-15
1,2-Dichloroethane			101.7		%		70-130	06-OCT-15
1,4-Dichlorobenzene			91.7		%		70-130	06-OCT-15
Benzene			97.0		%		70-130	06-OCT-15
Carbon tetrachloride			90.1		%		60-140	06-OCT-15
Chlorobenzene			96.1		%		70-130	06-OCT-15
Chloroform			96.8		%		70-130	06-OCT-15
Dichloromethane			95.8		%		70-130	06-OCT-15
Methyl Ethyl Ketone			104.6		%		50-150	06-OCT-15
Tetrachloroethylene			91.2		%		70-130	06-OCT-15
Trichloroethylene			98.5		%		70-130	06-OCT-15
Vinyl chloride			89.2		%		60-130	06-OCT-15
WG2181279-2	MB							
1,1-Dichloroethylene			<0.025		mg/L		0.025	06-OCT-15
1,2-Dichlorobenzene			<0.025		mg/L		0.025	06-OCT-15
1,2-Dichloroethane			<0.025		mg/L		0.025	06-OCT-15
1,4-Dichlorobenzene			<0.025		mg/L		0.025	06-OCT-15
Benzene			<0.025		mg/L		0.025	06-OCT-15
Carbon tetrachloride			<0.025		mg/L		0.025	06-OCT-15
Chlorobenzene			<0.025		mg/L		0.025	06-OCT-15
Chloroform			<0.10		mg/L		0.1	06-OCT-15
Dichloromethane			<0.50		mg/L		0.5	06-OCT-15
Methyl Ethyl Ketone			<1.0		mg/L		1	06-OCT-15
Tetrachloroethylene			<0.025		mg/L		0.025	06-OCT-15
Trichloroethylene			<0.025		mg/L		0.025	06-OCT-15
Vinyl chloride			<0.050		mg/L		0.05	06-OCT-15
Surrogate: 1,4-Difluorobenzene			101.0		%		50-150	06-OCT-15
Surrogate: 4-Bromofluorobenzene			97.4		%		70-130	06-OCT-15



Quality Control Report

Workorder: L1682822

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Client: Covanta - Durham York Renewable Energy LP
1835 Energy Drive
Courtice ON L1E 2R2

Contact: AMANDA HUXTER

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-TCLP-WT		Waste						
Batch	R3283793							
WG2181279-2 MB								
COMMENTS: 03-OCT-15								
WG2181279-3 MB								
1,1-Dichloroethylene			<0.025		mg/L		0.025	06-OCT-15
1,2-Dichlorobenzene			<0.025		mg/L		0.025	06-OCT-15
1,2-Dichloroethane			<0.025		mg/L		0.025	06-OCT-15
1,4-Dichlorobenzene			<0.025		mg/L		0.025	06-OCT-15
Benzene			<0.025		mg/L		0.025	06-OCT-15
Carbon tetrachloride			<0.025		mg/L		0.025	06-OCT-15
Chlorobenzene			<0.025		mg/L		0.025	06-OCT-15
Chloroform			<0.10		mg/L		0.1	06-OCT-15
Dichloromethane			<0.50		mg/L		0.5	06-OCT-15
Methyl Ethyl Ketone			<1.0		mg/L		1	06-OCT-15
Tetrachloroethylene			<0.025		mg/L		0.025	06-OCT-15
Trichloroethylene			<0.025		mg/L		0.025	06-OCT-15
Vinyl chloride			<0.050		mg/L		0.05	06-OCT-15
Surrogate: 1,4-Difluorobenzene			99.8		%		50-150	06-OCT-15
Surrogate: 4-Bromofluorobenzene			97.0		%		70-130	06-OCT-15
COMMENTS: 04-OCT-15								
WG2181279-6 MB								
1,1-Dichloroethylene			<0.025		mg/L		0.025	06-OCT-15
1,2-Dichlorobenzene			<0.025		mg/L		0.025	06-OCT-15
1,2-Dichloroethane			<0.025		mg/L		0.025	06-OCT-15
1,4-Dichlorobenzene			<0.025		mg/L		0.025	06-OCT-15
Benzene			<0.025		mg/L		0.025	06-OCT-15
Carbon tetrachloride			<0.025		mg/L		0.025	06-OCT-15
Chlorobenzene			<0.025		mg/L		0.025	06-OCT-15
Chloroform			<0.10		mg/L		0.1	06-OCT-15
Dichloromethane			<0.50		mg/L		0.5	06-OCT-15
Methyl Ethyl Ketone			<1.0		mg/L		1	06-OCT-15
Tetrachloroethylene			<0.025		mg/L		0.025	06-OCT-15
Trichloroethylene			<0.025		mg/L		0.025	06-OCT-15
Vinyl chloride			<0.050		mg/L		0.05	06-OCT-15
Surrogate: 1,4-Difluorobenzene			99.7		%		50-150	06-OCT-15
Surrogate: 4-Bromofluorobenzene			97.0		%		70-130	06-OCT-15
COMMENTS: 05-OCT-15								



Quality Control Report

Workorder: L1682822

Report Date: 09-OCT-15

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Client: Covanta - Durham York Renewable Energy LP
 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: AMANDA HUXTER

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-TCLP-WT								
	Waste							
Batch	R3283793							
WG2181279-5 MS		WG2181279-7						
1,1-Dichloroethylene			90.9		%		50-140	06-OCT-15
1,2-Dichlorobenzene			95.4		%		50-140	06-OCT-15
1,2-Dichloroethane			97.0		%		50-140	06-OCT-15
1,4-Dichlorobenzene			92.3		%		50-140	06-OCT-15
Benzene			97.3		%		50-140	06-OCT-15
Carbon tetrachloride			92.6		%		50-140	06-OCT-15
Chlorobenzene			95.8		%		50-140	06-OCT-15
Chloroform			96.3		%		50-140	06-OCT-15
Dichloromethane			94.9		%		50-140	06-OCT-15
Methyl Ethyl Ketone			93.1		%		50-140	06-OCT-15
Tetrachloroethylene			92.9		%		50-140	06-OCT-15
Trichloroethylene			98.6		%		50-140	06-OCT-15
Vinyl chloride			92.1		%		50-140	06-OCT-15

Quality Control Report

Workorder: L1682822

Report Date: 09-OCT-15

Client: Covanta - Durham York Renewable Energy LP
1835 Energy Drive
Courtice ON L1E 2R2
Contact: AMANDA HUXTER

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Legend:

Limit	ALS Control Limit (Data Quality Objectives)
DUP	Duplicate
RPD	Relative Percent Difference
N/A	Not Available
LCS	Laboratory Control Sample
SRM	Standard Reference Material
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ADE	Average Desorption Efficiency
MB	Method Blank
IRM	Internal Reference Material
CRM	Certified Reference Material
CCV	Continuing Calibration Verification
CVS	Calibration Verification Standard
LCSD	Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
DLM	Detection Limit Adjusted due to sample matrix effects.
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.

Hold Time Exceedances:

All test results reported with this submission were conducted within ALS recommended hold times.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.



1435 Norjohn Court, Unit 1, Burlington, ON, Canada L7L 0E6
Phone: 905-331-3111, FAX: 905-331-4567

Certificate of Analysis

ALS Project Contact: Steve Kennedy
ALS Project ID: 24244
ALS WO#: WG2185811
Date of Report: 9-Oct-15

Client Name: Covanta - Durham York Renewable Energy LP
Client Address: 1835 Energy Drive
Courtice, ON L1E 2R2
Canada
Client Contact: Amanda Huxter
Client Project ID: DYEC-FLY ASH PROJECT

COMMENTS: PCDD/F by EPA 1613B

Data as reported have the C-13 labeled extraction standard $^{13}\text{C}_{12}$ -2,3,7,8-TCDD/F below targeted control limits. In addition, a select few of the $^{13}\text{C}_{12}$ -PeCDF extraction standard recoveries are also just below targeted control limits. Despite these QC failures and because of isotope dilution technique where losses from extraction and cleanup are compensated for in the reported analytical results, these data are still fit for purpose to demonstrate the absence of PCDD/F contamination to well below the Reg 347 leachate criterion of TEQ below 1500pg/L

A handwritten signature in black ink that reads "R.A. McLeod".

Ron McLeod Ph.D.
Technical Director, Air Toxics and Special Chemistries

ALS Life sciences

Sample Analysis summary Report

Sample Name	DYEC/FA/151001/ 1	DYEC/FA/151001/ 2	DYEC/FA/151001/ 3	DYEC/FA/151001/ 4	DYEC/FA/151002/ 1	DYEC/FA/151002/ 2
ALS Sample ID	L1682286-1	L1682286-2	L1682286-3	L1682286-4	L1682282-1	L1682282-2
Sample Size	0.96	0.91	0.96	0.89	0.95	0.985
Sample size units	L	L	L	L	L	L
Percent Moisture	n/a	n/a	n/a	n/a	n/a	n/a
Sample Matrix	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sampling Date	2-Oct-15	2-Oct-15	2-Oct-15	2-Oct-15	3-Oct-15	3-Oct-15
Extraction Date	5-Oct-15	5-Oct-15	5-Oct-15	5-Oct-15	5-Oct-15	5-Oct-15
Target Analytes	pg/L	pg/L	pg/L	pg/L	pg/L	pg/L
2,3,7,8-TCDD	<3.1	<4.0	<4.7	<11	<3.8	<3.3
1,2,3,7,8-PeCDD	<1.0	<1.4	<1.7	<2.0	<1.1	<1.2
1,2,3,4,7,8-HxCDD	<0.53	<0.70	<0.79	<0.79	<0.61	<0.52
1,2,3,6,7,8-HxCDD	<0.47	<0.55	<0.66	<0.64	<0.51	<0.44
1,2,3,7,8,9-HxCDD	<0.49	<0.61	<0.70	<0.68	<0.55	<0.47
1,2,3,4,6,7,8-HpCDD	<0.54	<0.85	<0.66	<0.72	<0.89	<0.80
OCDD	<0.58	<1.1	<0.48	<0.90	<0.54	<0.54
2,3,7,8-TCDF	<7.6	<8.1	<13	<28	<13	<10
1,2,3,7,8-PeCDF	<1.0	<1.4	<1.7	<2.3	<1.7	<1.1
2,3,4,7,8-PeCDF	<0.96	<1.3	<1.3	<2.3	<1.5	<1.0
1,2,3,4,7,8-HxCDF	<0.52	<0.61	<0.68	<0.78	<0.51	<0.53
1,2,3,6,7,8-HxCDF	<0.37	<0.45	<0.45	<0.52	<0.34	<0.40
2,3,4,6,7,8-HxCDF	<0.39	<0.49	<0.42	<0.50	<0.35	<0.39
1,2,3,7,8,9-HxCDF	<0.52	<0.62	<0.55	<0.66	<0.51	<0.55
1,2,3,4,6,7,8-HpCDF	<0.30	<0.48	<0.44	<0.47	<0.48	<0.34
1,2,3,4,7,8,9-HpCDF	<0.38	<0.62	<0.61	<0.66	<0.65	<0.44
OCDF	<0.63	<0.74	<0.59	<0.76	<0.67	<0.72
Extraction Standards	% Rec	% Rec	% Rec	% Rec	% Rec	% Rec
13C12-2,3,7,8-TCDD	30	24	20	11	29	75
13C12-1,2,3,7,8-PeCDD	55	49	45	30	47	98
13C12-1,2,3,4,7,8-HxCDD	58	52	53	39	60	103
13C12-1,2,3,6,7,8-HxCDD	90	71	75	69	79	153
13C12-1,2,3,4,6,7,8-HpCDD	95	74	93	84	94	167
13C12-OCDD	98	76	99	91	98	172
13C12-2,3,7,8-TCDF	7	8	7	3	6	15
13C12-1,2,3,7,8-PeCDF	39	35	29	20	32	69
13C12-2,3,4,7,8-PeCDF	39	35	30	18	33	66
13C12-1,2,3,4,7,8-HxCDF	60	49	50	42	59	104
13C12-1,2,3,6,7,8-HxCDF	91	74	74	70	85	155
13C12-2,3,4,6,7,8-HxCDF	90	73	89	80	92	163
13C12-1,2,3,7,8,9-HxCDF	80	67	75	68	77	139
13C12-1,2,3,4,6,7,8-HpCDF	94	75	97	85	95	168
13C12-1,2,3,4,7,8,9-HpCDF	94	76	92	81	93	167
Cleanup Standard						
37Cl4-2,3,7,8-TCDD (Cleanup)	33	29	24	13	31	77
Homologue Group Totals	pg/L	pg/L	pg/L	pg/L	pg/L	pg/L
Total-TCDD	<4.0	<4.7	<4.7	<11	<4.0	<4.0
Total-PeCDD	<1.0	<1.4	<1.7	<2.0	<1.1	<1.2
Total-HxCDD	<0.53	<0.70	<0.79	<0.79	<0.61	<0.52
Total-HpCDD	<0.54	<0.85	<0.66	<0.72	<0.89	<0.55
Total-TCDF	<12	<12	<14	<28	<16	<12
Total-PeCDF	<1.0	<1.4	<1.7	<2.3	<1.7	<1.1
Total-HxCDF	<0.52	<0.62	<0.68	<0.78	<0.51	<0.55
Total-HpCDF	<0.38	<0.62	<0.61	<0.66	<0.65	<0.44
Toxic Equivalency - (WHO 2005)						
Lower Bound PCDD/F TEQ (WHO 2005)	0.00	0.00	0.00	0.00	0.00	0.00
Mid Point PCDD/F TEQ (WHO 2005)	2.76	3.53	4.29	8.52	3.56	3.09
Upper Bound PCDD/F TEQ (WHO 2005)	5.52	7.07	8.58	17.0	7.06	6.18

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Sample Analysis summary Report

Sample Name	DYEC/FA/151002/ 3	DYEC/FA/151002/ 4	DYEC/FA/151003/ 1	DYEC/FA/151003/ 2	DYEC/FA/151003/ 3	DYEC/FA/151003/ 4
ALS Sample ID	L1682822-3	L1682822-4	L1682896-1	L1682896-2	L1682896-3	L1682896-4
Sample Size	0.95	0.88	0.91	0.985	0.89	0.89
Sample size units	L	L	L	L	L	L
Percent Moisture	n/a	n/a	n/a	n/a	n/a	n/a
Sample Matrix	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sampling Date	3-Oct-15	3-Oct-15	3-Oct-15	3-Oct-15	3-Oct-15	3-Oct-15
Extraction Date	5-Oct-15	5-Oct-15	5-Oct-15	5-Oct-15	5-Oct-15	5-Oct-15
Target Analytes	pg/L	pg/L	pg/L	pg/L	pg/L	pg/L
2,3,7,8-TCDD	<15	<3.3	<3.0	<5.1	<3.2	<3.1
1,2,3,7,8-PeCDD	<4.9	<2.8	<1.2	<1.7	<1.5	<1.5
1,2,3,4,7,8-HxCDD	<2.6	<1.3	<0.53	<0.86	<0.73	<0.91
1,2,3,6,7,8-HxCDD	<2.4	<1.1	<0.46	<0.74	<0.66	<0.83
1,2,3,7,8,9-HxCDD	<2.5	<1.2	<0.49	<0.78	<0.69	<0.86
1,2,3,4,6,7,8-HpCDD	<2.1	<1.5	<0.42	<0.61	<0.69	<0.63
OCDD	<2.9	<1.6	<0.36	<0.47	<0.46	<0.81
2,3,7,8-TCDF	<50	<13	<10	<19	<10	<11
1,2,3,7,8-PeCDF	<5.0	<2.7	<1.1	<2.0	<1.3	<1.2
2,3,4,7,8-PeCDF	<4.0	<2.4	<0.98	<1.7	<1.0	<1.1
1,2,3,4,7,8-HxCDF	<2.2	<0.95	<0.51	<0.74	<0.53	<0.63
1,2,3,6,7,8-HxCDF	<1.7	<0.67	<0.37	<0.47	<0.39	<0.49
2,3,4,6,7,8-HxCDF	<1.7	<0.71	<0.34	<0.41	<0.36	<0.49
1,2,3,7,8,9-HxCDF	<2.4	<0.90	<0.45	<0.59	<0.49	<0.62
1,2,3,4,6,7,8-HpCDF	<1.5	<0.77	<0.25	<0.46	<0.26	<0.49
1,2,3,4,7,8,9-HpCDF	<2.1	<1.2	<0.36	<0.71	<0.39	<0.66
OCDF	<3.1	<1.9	<0.46	<0.63	<0.56	<0.96
Extraction Standards	% Rec	% Rec	% Rec	% Rec	% Rec	% Rec
13C12-2,3,7,8-TCDD	33	26	23	20	27	37
13C12-1,2,3,7,8-PeCDD	53	29	33	32	40	56
13C12-1,2,3,4,7,8-HxCDD	65	38	62	49	59	74
13C12-1,2,3,6,7,8-HxCDD	87	56	76	69	77	81
13C12-1,2,3,4,6,7,8-HpCDD	96	62	101	94	95	94
13C12-OCDD	98	61	104	98	101	95
13C12-2,3,7,8-TCDF	9	4	4	4	5	8
13C12-1,2,3,7,8-PeCDF	39	19	21	21	26	38
13C12-2,3,4,7,8-PeCDF	41	19	22	21	27	37
13C12-1,2,3,4,7,8-HxCDF	63	39	60	49	57	69
13C12-1,2,3,6,7,8-HxCDF	82	58	76	65	74	81
13C12-2,3,4,6,7,8-HxCDF	93	62	94	87	90	92
13C12-1,2,3,7,8,9-HxCDF	81	53	81	73	77	84
13C12-1,2,3,4,6,7,8-HpCDF	99	66	104	96	99	96
13C12-1,2,3,4,7,8,9-HpCDF	94	58	98	88	91	94
Cleanup Standard						
37Cl4-2,3,7,8-TCDD (Cleanup)	39	27	25	22	30	40
Homologue Group Totals	pg/L	pg/L	pg/L	pg/L	pg/L	pg/L
Total-TCDD	<15	<9.2	<3.0	<5.1	<3.2	<3.1
Total-PeCDD	<4.9	<2.8	<1.2	<1.7	<1.5	<1.5
Total-HxCDD	<2.6	<1.3	1.89	<0.86	<0.73	<0.91
Total-HpCDD	<2.1	<1.5	<0.42	<0.61	<0.69	<0.63
Total-TCDF	<50	<33	<10	<19	<10	<11
Total-PeCDF	<5.0	<2.7	<1.1	<2.0	<1.3	<1.2
Total-HxCDF	<2.4	<0.95	<0.51	<0.74	<0.53	<0.63
Total-HpCDF	<2.1	<1.2	<0.36	<0.71	<0.39	<0.66
Toxic Equivalency - (WHO 2005)						
Lower Bound PCDD/F TEQ (WHO 2005)	0.00	0.00	0.00	0.00	0.00	0.00
Mid Point PCDD/F TEQ (WHO 2005)	13.9	4.46	2.93	4.87	3.22	3.28
Upper Bound PCDD/F TEQ (WHO 2005)	27.9	8.92	5.85	9.75	6.44	6.57

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Quality Control Summary Report

Sample Name	Method Blank	Method Blank	Method Blank	Laboratory Control Sample
ALS Sample ID	WG2185811-1	WG2185811-2	WG2185811-3	WG2185811-4
Sample Size	1.00	0.98	0.91	1.00
Sample size units	L	L	L	n/a
Percent Moisture	n/a	n/a	n/a	n/a
Sample Matrix	QC	QC	QC	QC
Sampling Date	n/a	n/a	n/a	n/a
Extraction Date	5-Oct-15	5-Oct-15	5-Oct-15	5-Oct-15
Target Analytes	pg/L	pg/L	pg/L	% Rec
2,3,7,8-TCDD	<1.6	<7.6	<2.6	104
1,2,3,7,8-PeCDD	<0.93	<1.5	<1.0	106
1,2,3,4,7,8-HxCDD	<0.50	<0.66	<0.54	104
1,2,3,6,7,8-HxCDD	<0.44	<0.58	<0.49	99
1,2,3,7,8,9-HxCDD	<0.46	<0.61	<0.51	132
1,2,3,4,6,7,8-HpCDD	<0.63	<0.48	<0.76	104
OCDD	<1.4	1.11	<5.5	103
2,3,7,8-TCDF	<4.3	<16	<5.0	113
1,2,3,7,8-PeCDF	<0.88	<1.3	<0.85	99
2,3,4,7,8-PeCDF	<0.81	<1.2	<0.73	97
1,2,3,4,7,8-HxCDF	<0.54	<0.32	<0.40	106
1,2,3,6,7,8-HxCDF	<0.42	<0.22	<0.30	95
2,3,4,6,7,8-HxCDF	<0.46	<0.24	<0.34	111
1,2,3,7,8,9-HxCDF	0.760	<0.50	<0.40	109
1,2,3,4,6,7,8-HpCDF	<0.43	<0.35	<0.50	98
1,2,3,4,7,8,9-HpCDF	<0.55	<0.46	<0.68	98
OCDF	0.740	<0.73	<0.72	104
Extraction Standards	% Rec	% Rec	% Rec	% Rec
13C12-2,3,7,8-TCDD	41	15	42	20
13C12-1,2,3,7,8-PeCDD	70	49	63	52
13C12-1,2,3,4,7,8-HxCDD	66	63	66	61
13C12-1,2,3,6,7,8-HxCDD	87	79	86	83
13C12-1,2,3,4,6,7,8-HpCDD	91	92	86	96
13C12-OCDD	91	103	91	99
13C12-2,3,7,8-TCDF	10	5	15	6
13C12-1,2,3,7,8-PeCDF	48	34	53	38
13C12-2,3,4,7,8-PeCDF	45	30	50	34
13C12-1,2,3,4,7,8-HxCDF	67	62	67	61
13C12-1,2,3,6,7,8-HxCDF	82	82	87	79
13C12-2,3,4,6,7,8-HxCDF	87	87	87	87
13C12-1,2,3,7,8,9-HxCDF	84	80	81	81
13C12-1,2,3,4,6,7,8-HpCDF	97	98	92	97
13C12-1,2,3,4,7,8,9-HpCDF	96	99	90	97
Cleanup Standard				
37Cl4-2,3,7,8-TCDD (Cleanup)	41	15	45	22
Homologue Group Totals	pg/L	pg/L	pg/L	
Total-TCDD	<4.2	<7.6	<3.0	
Total-PeCDD	<0.93	<1.5	<1.0	
Total-HxCDD	<0.50	<0.66	<0.54	
Total-HpCDD	<0.63	<0.48	<0.76	
Total-TCDF	<7.4	<16	<6.2	
Total-PeCDF	<0.88	<1.3	<0.85	
Total-HxCDF	0.760	<0.32	<0.40	
Total-HpCDF	<0.55	<0.46	<0.68	
Toxic Equivalency - (WHO 2005)				
Lower Bound PCDD/F TEQ (WHO 2005)	0.0762	0.000333	0.00	
Mid Point PCDD/F TEQ (WHO 2005)	1.84	5.74	2.33	
Upper Bound PCDD/F TEQ (WHO 2005)	3.60	11.4	4.66	

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Sample Analysis Report

Sample Name DYEC/FA/151001/1
ALS Sample ID L1682286-1
Analysis Method EPA 1613B
Analysis Type Sample
Sample Matrix SOIL

Sampling Date 2-Oct-15
Extraction Date 5-Oct-15
Sample Size 0.96 L
Percent Moisture n/a
Split Ratio 1

Approved:
T. Patterson
 --e-signature--
 00-Jan-1900

Run Information

Run 1

Run 2

Filename 7-151007A09
Run Date 07-Oct-15 21:57
Final Volume 20 uL
Dilution Factor 1
Analysis Units pg/L
Instrument - Column HRMS-7 DB5MSUSE700122H

Filename 7-151008A14
Run Date 08-Oct-15 19:18
Final Volume 20 uL
Dilution Factor 1
Analysis Units pg/L
Instrument - Column HRMS-7 DB5MSUSE700122H

Target Analytes	TEF (WHO 2005)	Ret. Time	Conc. pg/L	EDL pg/L	Flags	EMPC pg/L	LQL	Ret. Time	Conc. pg/L	EDL pg/L	Flags	EMPC pg/L	LQL
2,3,7,8-TCDD	1	NotFnd	<4.0	4.0	U		10	NotFnd	<3.1	3.1	U		10
1,2,3,7,8-PeCDD	1	NotFnd	<1.0	1.0	U		52	NotFnd	<0.78	0.78	U		52
1,2,3,4,7,8-HxCDD	0.1	NotFnd	<0.53	0.53	U		52	NotFnd	<0.50	0.50	U		52
1,2,3,6,7,8-HxCDD	0.1	NotFnd	<0.47	0.47	U		52	NotFnd	<0.47	0.47	U		52
1,2,3,7,8,9-HxCDD	0.1	NotFnd	<0.49	0.49	U		52	NotFnd	<0.48	0.48	U		52
1,2,3,4,6,7,8-HpCDD	0.01	35.54	<0.54	0.54	M,U	0.38	52	NotFnd	<0.52	0.52	U		52
OCDD	0.0003	37.02	<0.58	0.58	M,J,R	0.58	100	NotFnd	<0.50	0.50	U		100
2,3,7,8-TCDF	0.1	NotFnd	<12	12	U		10	NotFnd	<7.6	7.6	U		10
1,2,3,7,8-PeCDF	0.03	NotFnd	<1.0	1.0	U		52	NotFnd	<0.82	0.82	U		52
2,3,4,7,8-PeCDF	0.3	NotFnd	<0.96	0.96	U		52	NotFnd	<0.74	0.74	U		52
1,2,3,4,7,8-HxCDF	0.1	NotFnd	<0.52	0.52	U		52	NotFnd	<0.41	0.41	U		52
1,2,3,6,7,8-HxCDF	0.1	NotFnd	<0.37	0.37	U		52	NotFnd	<0.32	0.32	U		52
2,3,4,6,7,8-HxCDF	0.1	NotFnd	<0.39	0.39	U		52	NotFnd	<0.33	0.33	U		52
1,2,3,7,8,9-HxCDF	0.1	NotFnd	<0.52	0.52	U		52	NotFnd	<0.47	0.47	U		52
1,2,3,4,6,7,8-HpCDF	0.01	NotFnd	<0.30	0.30	U		52	NotFnd	<0.35	0.35	U		52
1,2,3,4,7,8,9-HpCDF	0.01	NotFnd	<0.38	0.38	U		52	NotFnd	<0.49	0.49	U		52
OCDF	0.0003	NotFnd	<0.63	0.63	U		100	NotFnd	<0.51	0.51	U		100

Extraction Standards	pg	% Rec	Limits	% Rec
13C12-2,3,7,8-TCDD	2000	27.47	27 25-164	27.52 30
13C12-1,2,3,7,8-PeCDD	2000	31.81	55 25-181	31.84 57
13C12-1,2,3,4,7,8-HxCDD	2000	33.90	58 32-141	33.92 70
13C12-1,2,3,6,7,8-HxCDD	2000	33.95	90 28-130	33.97 95
13C12-1,2,3,4,6,7,8-HpCDD	2000	35.54	95 23-140	35.56 102
13C12-OCDD	4000	37.00	98 17-157	37.03 98
13C12-2,3,7,8-TCDF	2000	26.55	6 24-169	26.61 7
13C12-1,2,3,7,8-PeCDF	2000	30.85	39 24-185	30.88 41
13C12-2,3,4,7,8-PeCDF	2000	31.59	39 21-178	31.63 40
13C12-1,2,3,4,7,8-HxCDF	2000	33.40	60 26-152	33.42 71
13C12-1,2,3,6,7,8-HxCDF	2000	33.47	91 26-123	33.49 92
13C12-2,3,4,6,7,8-HxCDF	2000	33.80	90 29-147	33.82 94
13C12-1,2,3,7,8,9-HxCDF	2000	34.22	80 28-136	34.25 85
13C12-1,2,3,4,6,7,8-HpCDF	2000	34.98	94 28-143	35.00 98
13C12-1,2,3,4,7,8,9-HpCDF	2000	35.78	94 26-138	35.80 102

Cleanup Standard	pg	% Rec	Limits
7Cl4-2,3,7,8-TCDD (Cleanup)	40	27.48	28 35-197

Homologue Group Totals	# peaks	Conc. pg/L	EDL pg/L	# peaks	Conc. pg/L	EDL pg/L
Total-TCDD	0.00	<4.0	4.0	U	10	0.00 <3.1 3.1 U
Total-PeCDD	0.00	<1.0	1.0	U	52	0.00 <0.78 0.78 U
Total-HxCDD	0.00	<0.53	0.53	U	52	0.00 <0.50 0.50 U
Total-HpCDD	0.00	<0.54	0.54	U	52	0.00 <0.52 0.52 U
Total-TCDF	0.00	<12	12	U	10	0.00 <7.6 7.6 U
Total-PeCDF	0.00	<1.0	1.0	U	52	0.00 <0.82 0.82 U
Total-HxCDF	0.00	<0.52	0.52	U	52	0.00 <0.47 0.47 U
Total-HpCDF	0.00	<0.38	0.38	U	52	0.00 <0.49 0.49 U

Toxic Equivalency - (WHO 2005)	pg/L
Lower Bound PCDD/F TEQ (WHO 2005)	0.00
Mid Point PCDD/F TEQ (WHO 2005)	2.76
Upper Bound PCDD/F TEQ (WHO 2005)	5.52

EDL Indicates the Estimated Detection Limit, based on the measured background noise for this target in this sample.
 TEF Indicates the Toxic Equivalency Factor
 M Indicates that a peak has been manually integrated.
 U Indicates that this compound was not detected above the MDL.
 J indicates that a target analyte was detected below the calibrated range.
 R Indicates that the ion abundance ratio for this compound did not meet the acceptance criterion.

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Sample Analysis Report

Sample Name DYEC/FA/151001/2
ALS Sample ID L1682286-2
Analysis Method EPA 1613B
Analysis Type Sample
Sample Matrix SOIL

Sampling Date 2-Oct-15
Extraction Date 5-Oct-15
Sample Size 0.91 L
Percent Moisture n/a
Split Ratio 1

Approved:
T. Patterson
 --e-signature--
 00-Jan-1900

Run Information	Run 1	Run 2
Filename	7-151007A10	7-151008A15
Run Date	07-Oct-15 22:39	08-Oct-15 20:00
Final Volume	20 uL	20 uL
Dilution Factor	1	1
Analysis Units	pg/L	pg/L
Instrument - Column	HRMS-7 DB5MSUSE700122H	HRMS-7 DB5MSUSE700122H

Target Analytes	TEF (WHO 2005)	Ret. Time	Conc. pg/L	EDL pg/L	Flags	EMPC pg/L	LQL	Ret. Time	Conc. pg/L	EDL pg/L	Flags	EMPC pg/L	LQL
2,3,7,8-TCDD	1	NotFnd	<4.7	4.7	U		11	NotFnd	<4.0	4.0	U		11
1,2,3,7,8-PeCDD	1	NotFnd	<1.4	1.4	U		55	NotFnd	<1.1	1.1	U		55
1,2,3,4,7,8-HxCDD	0.1	NotFnd	<0.70	0.70	U		55	NotFnd	<0.77	0.77	U		55
1,2,3,6,7,8-HxCDD	0.1	NotFnd	<0.55	0.55	U		55	NotFnd	<0.73	0.73	U		55
1,2,3,7,8,9-HxCDD	0.1	NotFnd	<0.61	0.61	U		55	NotFnd	<0.75	0.75	U		55
1,2,3,4,6,7,8-HpCDD	0.01	NotFnd	<0.85	0.85	U		55	NotFnd	<0.65	0.65	U		55
OCDD	0.0003	37.01	<1.1	0.66	M,J,R	1.1	110	NotFnd	<0.86	0.86	U		110
2,3,7,8-TCDF	0.1	NotFnd	<12	12	U		11	NotFnd	<8.1	8.1	U		11
1,2,3,7,8-PeCDF	0.03	30.86	<1.4	1.4	M,U	0.45	55	NotFnd	<1.3	1.3	U		55
2,3,4,7,8-PeCDF	0.3	NotFnd	<1.3	1.3	U		55	NotFnd	<1.2	1.2	U		55
1,2,3,4,7,8-HxCDF	0.1	NotFnd	<0.61	0.61	U		55	NotFnd	<0.56	0.56	U		55
1,2,3,6,7,8-HxCDF	0.1	NotFnd	<0.45	0.45	U		55	NotFnd	<0.42	0.42	U		55
2,3,4,6,7,8-HxCDF	0.1	NotFnd	<0.49	0.49	U		55	NotFnd	<0.45	0.45	U		55
1,2,3,7,8,9-HxCDF	0.1	NotFnd	<0.62	0.62	U		55	NotFnd	<0.58	0.58	U		55
1,2,3,4,6,7,8-HpCDF	0.01	NotFnd	<0.48	0.48	U		55	NotFnd	<0.50	0.50	U		55
1,2,3,4,7,8,9-HpCDF	0.01	NotFnd	<0.62	0.62	U		55	NotFnd	<0.68	0.68	U		55
OCDF	0.0003	NotFnd	<0.74	0.74	U		110	NotFnd	<0.91	0.91	U		110

Extraction Standards	pg	% Rec	Limits	% Rec
13C12-2,3,7,8-TCDD	2000	27.47	23 25-164	27.54 24
13C12-1,2,3,7,8-PeCDD	2000	31.82	49 25-181	31.85 48
13C12-1,2,3,4,7,8-HxCDD	2000	33.90	52 32-141	33.93 61
13C12-1,2,3,6,7,8-HxCDD	2000	33.95	71 28-130	33.98 69
13C12-1,2,3,4,6,7,8-HpCDD	2000	35.54	74 23-140	35.57 73
13C12-OCDD	4000	37.00	76 17-157	37.04 73
13C12-2,3,7,8-TCDF	2000	26.55	8 24-169	26.62 8
13C12-1,2,3,7,8-PeCDF	2000	30.85	35 24-185	30.89 35
13C12-2,3,4,7,8-PeCDF	2000	31.60	35 21-178	31.64 36
13C12-1,2,3,4,7,8-HxCDF	2000	33.40	49 26-152	33.44 57
13C12-1,2,3,6,7,8-HxCDF	2000	33.47	74 26-123	33.50 67
13C12-2,3,4,6,7,8-HxCDF	2000	33.80	73 29-147	33.83 73
13C12-1,2,3,7,8,9-HxCDF	2000	34.22	67 28-136	34.26 66
13C12-1,2,3,4,6,7,8-HpCDF	2000	34.98	75 28-143	35.03 77
13C12-1,2,3,4,7,8,9-HpCDF	2000	35.79	76 26-138	35.82 75

Cleanup Standard	pg	% Rec	Limits
7Cl4-2,3,7,8-TCDD (Cleanup)	40	27.50	25 35-197

Homologue Group Totals	# peaks	Conc. pg/L	EDL pg/L	# peaks	Conc. pg/L	EDL pg/L
Total-TCDD	0.00	<4.7	4.7	U	11	0.00 <4.0 4.0 U
Total-PeCDD	0.00	<1.4	1.4	U	55	0.00 <1.1 1.1 U
Total-HxCDD	0.00	<0.70	0.70	U	55	0.00 <0.77 0.77 U
Total-HpCDD	0.00	<0.85	0.85	U	55	0.00 <0.65 0.65 U
Total-TCDF	0.00	<12	12	U	11	0.00 <8.1 8.1 U
Total-PeCDF	0.00	<1.4	1.4	U	55	0.00 <1.3 1.3 U
Total-HxCDF	0.00	<0.62	0.62	U	55	0.00 <0.58 0.58 U
Total-HpCDF	0.00	<0.62	0.62	U	55	0.00 <0.68 0.68 U

Toxic Equivalency - (WHO 2005)	pg/L
Lower Bound PCDD/F TEQ (WHO 2005)	0.00
Mid Point PCDD/F TEQ (WHO 2005)	3.53
Upper Bound PCDD/F TEQ (WHO 2005)	7.07

EDL Indicates the Estimated Detection Limit, based on the measured background noise for this target in this sample.
 TEF Indicates the Toxic Equivalency Factor
 M Indicates that a peak has been manually integrated.
 U Indicates that this compound was not detected above the MDL.
 J indicates that a target analyte was detected below the calibrated range.
 R Indicates that the ion abundance ratio for this compound did not meet the acceptance criterion.

ALS Life sciences

Sample Analysis Report

Sample Name DYEC/FA/151001/3
ALS Sample ID L1682286-3
Analysis Method EPA 1613B
Analysis Type Sample
Sample Matrix SOIL

Sampling Date 2-Oct-15
Extraction Date 5-Oct-15
Sample Size 0.96 L
Percent Moisture n/a
Split Ratio 1

Approved:
T. Patterson
 --e-signature--
 00-Jan-1900

Run Information	Run 1	Run 2
Filename	7-151007A11	7-151008A16
Run Date	07-Oct-15 23:21	08-Oct-15 20:42
Final Volume	20 uL	20 uL
Dilution Factor	1	1
Analysis Units	pg/L	pg/L
Instrument - Column	HRMS-7 DB5MSUSE700122H	HRMS-7 DB5MSUSE700122H

Target Analytes	TEF (WHO 2005)	Ret. Time	Conc. pg/L	EDL pg/L	Flags	EMPC pg/L	LQL	Ret. Time	Conc. pg/L	EDL pg/L	Flags	EMPC pg/L	LQL
2,3,7,8-TCDD	1	NotFnd	<4.7	4.7	U		10	NotFnd	<5.6	5.6	U		10
1,2,3,7,8-PeCDD	1	NotFnd	<1.7	1.7	U		52	NotFnd	<1.4	1.4	U		52
1,2,3,4,7,8-HxCDD	0.1	NotFnd	<0.79	0.79	U		52	NotFnd	<0.94	0.94	U		52
1,2,3,6,7,8-HxCDD	0.1	NotFnd	<0.66	0.66	U		52	NotFnd	<0.84	0.84	U		52
1,2,3,7,8,9-HxCDD	0.1	NotFnd	<0.70	0.70	U		52	NotFnd	<0.88	0.88	U		52
1,2,3,4,6,7,8-HpCDD	0.01	35.55	<0.66	0.66	M,U	0.48	52	NotFnd	<0.66	0.66	U		52
OCDD	0.0003	NotFnd	<0.48	0.48	U		100	NotFnd	<0.76	0.76	U		100
2,3,7,8-TCDF	0.1	NotFnd	<14	14	U		10	NotFnd	<13	13	U		10
1,2,3,7,8-PeCDF	0.03	NotFnd	<1.7	1.7	U		52	NotFnd	<1.7	1.7	U		52
2,3,4,7,8-PeCDF	0.3	NotFnd	<1.3	1.3	U		52	NotFnd	<1.5	1.5	U		52
1,2,3,4,7,8-HxCDF	0.1	NotFnd	<0.68	0.68	U		52	NotFnd	<0.67	0.67	U		52
1,2,3,6,7,8-HxCDF	0.1	NotFnd	<0.45	0.45	U		52	NotFnd	<0.52	0.52	U		52
2,3,4,6,7,8-HxCDF	0.1	NotFnd	<0.42	0.42	U		52	NotFnd	<0.46	0.46	U		52
1,2,3,7,8,9-HxCDF	0.1	NotFnd	<0.55	0.55	U		52	NotFnd	<0.61	0.61	U		52
1,2,3,4,6,7,8-HpCDF	0.01	NotFnd	<0.44	0.44	U		52	NotFnd	<0.32	0.32	U		52
1,2,3,4,7,8,9-HpCDF	0.01	NotFnd	<0.61	0.61	U		52	NotFnd	<0.47	0.47	U		52
OCDF	0.0003	NotFnd	<0.59	0.59	U		100	NotFnd	<0.77	0.77	U		100

Extraction Standards	pg	% Rec	Limits	% Rec
13C12-2,3,7,8-TCDD	2000	27.47	20 25-164	27.54 21
13C12-1,2,3,7,8-PeCDD	2000	31.82	45 25-181	31.85 44
13C12-1,2,3,4,7,8-HxCDD	2000	33.91	53 32-141	33.93 57
13C12-1,2,3,6,7,8-HxCDD	2000	33.96	75 28-130	33.98 76
13C12-1,2,3,4,6,7,8-HpCDD	2000	35.54	93 23-140	35.57 96
13C12-OCDD	4000	37.01	99 17-157	37.03 102
13C12-2,3,7,8-TCDF	2000	26.56	7 24-169	26.62 7
13C12-1,2,3,7,8-PeCDF	2000	30.86	29 24-185	30.89 30
13C12-2,3,4,7,8-PeCDF	2000	31.60	30 21-178	31.64 31
13C12-1,2,3,4,7,8-HxCDF	2000	33.41	50 26-152	33.43 53
13C12-1,2,3,6,7,8-HxCDF	2000	33.47	74 26-123	33.49 70
13C12-2,3,4,6,7,8-HxCDF	2000	33.81	89 29-147	33.83 88
13C12-1,2,3,7,8,9-HxCDF	2000	34.22	75 28-136	34.25 75
13C12-1,2,3,4,6,7,8-HpCDF	2000	34.99	97 28-143	35.01 96
13C12-1,2,3,4,7,8,9-HpCDF	2000	35.79	92 26-138	35.81 92

Cleanup Standard	pg	% Rec	Limits
13C14-2,3,7,8-TCDD (Cleanup)	40	27.50	22 35-197

Homologue Group Totals	# peaks	Conc. pg/L	EDL pg/L	# peaks	Conc. pg/L	EDL pg/L
Total-TCDD	0.00	<4.7	4.7	0.00	<5.6	5.6
Total-PeCDD	0.00	<1.7	1.7	0.00	<1.4	1.4
Total-HxCDD	0.00	<0.79	0.79	0.00	<0.94	0.94
Total-HpCDD	0.00	<0.66	0.66	0.00	<0.66	0.66
Total-TCDF	0.00	<14	14	0.00	<13	13
Total-PeCDF	0.00	<1.7	1.7	0.00	<1.7	1.7
Total-HxCDF	0.00	<0.68	0.68	0.00	<0.67	0.67
Total-HpCDF	0.00	<0.61	0.61	0.00	<0.47	0.47

Toxic Equivalency - (WHO 2005)	pg/L
Lower Bound PCDD/F TEQ (WHO 2005)	0.00
Mid Point PCDD/F TEQ (WHO 2005)	4.29
Upper Bound PCDD/F TEQ (WHO 2005)	8.58

EDL Indicates the Estimated Detection Limit, based on the measured background noise for this target in this sample.
 TEF Indicates the Toxic Equivalency Factor
 M Indicates that a peak has been manually integrated.
 U Indicates that this compound was not detected above the MDL.

ALS Life sciences

Sample Analysis Report

Sample Name DYEC/FA/151001/4
ALS Sample ID L1682286-4
Analysis Method EPA 1613B
Analysis Type Sample
Sample Matrix SOIL

Sampling Date 2-Oct-15
Extraction Date 5-Oct-15
Sample Size 0.89 L
Percent Moisture n/a
Split Ratio 1

Approved:
T. Patterson
 --e-signature--
 00-Jan-1900

Run Information	Run 1	Run 2
Filename	7-151007A12	7-151008A24
Run Date	08-Oct-15 00:03	09-Oct-15 02:24
Final Volume	20 uL	20 uL
Dilution Factor	1	1
Analysis Units	pg/L	pg/L
Instrument - Column	HRMS-7 DB5MSUSE700122H	HRMS-7 DB5MSUSE700122H

Target Analytes	TEF (WHO 2005)	Ret. Time	Conc. pg/L	EDL pg/L	Flags	EMPC pg/L	LQL	Ret. Time	Conc. pg/L	EDL pg/L	Flags	EMPC pg/L	LQL
2,3,7,8-TCDD	1	NotFnd	<11	11	U	11	11	NotFnd	<13	13	U	11	11
1,2,3,7,8-PeCDD	1	NotFnd	<2.0	2.0	U	56	56	NotFnd	<2.2	2.2	U	56	56
1,2,3,4,7,8-HxCDD	0.1	NotFnd	<0.79	0.79	U	56	56	NotFnd	<1.2	1.2	U	56	56
1,2,3,6,7,8-HxCDD	0.1	NotFnd	<0.64	0.64	U	56	56	NotFnd	<1.1	1.1	U	56	56
1,2,3,7,8,9-HxCDD	0.1	NotFnd	<0.68	0.68	U	56	56	NotFnd	<1.1	1.1	U	56	56
1,2,3,4,6,7,8-HpCDD	0.01	NotFnd	<0.72	0.72	U	56	56	NotFnd	<0.71	0.71	U	56	56
OCDD	0.0003	37.02	<0.90	0.55	M,J,R	0.90	110	NotFnd	<0.58	0.58	U	110	110
2,3,7,8-TCDF	0.1	NotFnd	<28	28	U	11	11	NotFnd	<29	29	U	11	11
1,2,3,7,8-PeCDF	0.03	NotFnd	<2.3	2.3	U	56	56	NotFnd	<2.5	2.5	U	56	56
2,3,4,7,8-PeCDF	0.3	NotFnd	<2.3	2.3	U	56	56	NotFnd	<2.5	2.5	U	56	56
1,2,3,4,7,8-HxCDF	0.1	NotFnd	<0.78	0.78	U	56	56	NotFnd	<0.93	0.93	U	56	56
1,2,3,6,7,8-HxCDF	0.1	NotFnd	<0.52	0.52	U	56	56	NotFnd	<0.63	0.63	U	56	56
2,3,4,6,7,8-HxCDF	0.1	NotFnd	<0.50	0.50	U	56	56	NotFnd	<0.61	0.61	U	56	56
1,2,3,7,8,9-HxCDF	0.1	NotFnd	<0.66	0.66	U	56	56	NotFnd	<0.79	0.79	U	56	56
1,2,3,4,6,7,8-HpCDF	0.01	NotFnd	<0.47	0.47	U	56	56	NotFnd	<0.50	0.50	U	56	56
1,2,3,4,7,8,9-HpCDF	0.01	NotFnd	<0.66	0.66	U	56	56	NotFnd	<0.66	0.66	U	56	56
OCDF	0.0003	NotFnd	<0.76	0.76	U	110	110	NotFnd	<1.0	1.0	U	110	110

Extraction Standards	pg	% Rec	Limits	% Rec
13C12-2,3,7,8-TCDD	2000	27.47	11 25-164	27.57 11
13C12-1,2,3,7,8-PeCDD	2000	31.82	30 25-181	31.87 29
13C12-1,2,3,4,7,8-HxCDD	2000	33.90	39 32-141	33.94 52
13C12-1,2,3,6,7,8-HxCDD	2000	33.95	69 28-130	33.99 65
13C12-1,2,3,4,6,7,8-HpCDD	2000	35.54	84 23-140	35.58 90
13C12-OCDD	4000	37.00	91 17-157	37.05 90
13C12-2,3,7,8-TCDF	2000	26.56	3 24-169	26.65 3
13C12-1,2,3,7,8-PeCDF	2000	30.85	20 24-185	30.91 21
13C12-2,3,4,7,8-PeCDF	2000	31.60	18 21-178	31.65 19
13C12-1,2,3,4,7,8-HxCDF	2000	33.40	42 26-152	33.45 50
13C12-1,2,3,6,7,8-HxCDF	2000	33.47	70 26-123	33.51 66
13C12-2,3,4,6,7,8-HxCDF	2000	33.80	80 29-147	33.84 81
13C12-1,2,3,7,8,9-HxCDF	2000	34.22	68 28-136	34.27 71
13C12-1,2,3,4,6,7,8-HpCDF	2000	34.99	85 28-143	35.04 90
13C12-1,2,3,4,7,8,9-HpCDF	2000	35.78	81 26-138	35.83 89

Cleanup Standard	pg	% Rec	Limits
7C14-2,3,7,8-TCDD (Cleanup)	40	27.50	12 35-197

Homologue Group Totals	# peaks	Conc. pg/L	EDL pg/L	# peaks	Conc. pg/L	EDL pg/L
Total-TCDD	0.00	<11	11	U	11	0.00 <13 13 U
Total-PeCDD	0.00	<2.0	2.0	U	56	0.00 <2.2 2.2 U
Total-HxCDD	0.00	<0.79	0.79	U	56	0.00 <1.2 1.2 U
Total-HpCDD	0.00	<0.72	0.72	U	56	0.00 <0.71 0.71 U
Total-TCDF	0.00	<28	28	U	11	0.00 <29 29 U
Total-PeCDF	0.00	<2.3	2.3	U	56	0.00 <2.5 2.5 U
Total-HxCDF	0.00	<0.78	0.78	U	56	0.00 <0.93 0.93 U
Total-HpCDF	0.00	<0.66	0.66	U	56	0.00 <0.66 0.66 U

Toxic Equivalency - (WHO 2005)	pg/L
Lower Bound PCDD/F TEQ (WHO 2005)	0.00
Mid Point PCDD/F TEQ (WHO 2005)	8.52
Upper Bound PCDD/F TEQ (WHO 2005)	17.0

EDL Indicates the Estimated Detection Limit, based on the measured background noise for this target in this sample.
 TEF Indicates the Toxic Equivalency Factor TEQ Indicates the Toxic Equivalency;
 M Indicates that a peak has been manually integrated.
 U Indicates that this compound was not detected above the MDL.
 J indicates that a target analyte was detected below the calibrated range.
 R Indicates that the ion abundance ratio for this compound did not meet the acceptance criterion.

ALS Life sciences

Sample Analysis Report

Sample Name DYEC/FA/151002/1
ALS Sample ID L1682822-1
Analysis Method EPA 1613B
Analysis Type Sample
Sample Matrix SOIL

Sampling Date 3-Oct-15
Extraction Date 5-Oct-15
Sample Size 0.95 L
Percent Moisture n/a
Split Ratio 1

Approved:
T. Patterson
 --e-signature--
 00-Jan-1900

Run Information	Run 1	Run 2
Filename	7-151007A13	7-151008A25
Run Date	08-Oct-15 00:45	09-Oct-15 03:06
Final Volume	20 uL	20 uL
Dilution Factor	1	1
Analysis Units	pg/L	pg/L
Instrument - Column	HRMS-7 DB5MSUSE700122H	HRMS-7 DB5MSUSE700122H

Target Analytes	TEF (WHO 2005)	Ret. Time	Conc. pg/L	EDL pg/L	Flags	EMPC pg/L	LQL	Ret. Time	Conc. pg/L	EDL pg/L	Flags	EMPC pg/L	LQL
2,3,7,8-TCDD	1	NotFnd	<4.0	4.0	U	11		NotFnd	<3.8	3.8	U	11	
1,2,3,7,8-PeCDD	1	NotFnd	<1.1	1.1	U	53		NotFnd	<1.4	1.4	U	53	
1,2,3,4,7,8-HxCDD	0.1	NotFnd	<0.61	0.61	U	53		NotFnd	<0.75	0.75	U	53	
1,2,3,6,7,8-HxCDD	0.1	NotFnd	<0.51	0.51	U	53		NotFnd	<0.71	0.71	U	53	
1,2,3,7,8,9-HxCDD	0.1	NotFnd	<0.55	0.55	U	53		NotFnd	<0.72	0.72	U	53	
1,2,3,4,6,7,8-HpCDD	0.01	NotFnd	<0.89	0.89	U	53		NotFnd	<0.82	0.82	U	53	
OCDD	0.0003	NotFnd	<0.54	0.54	U	110		NotFnd	<0.89	0.89	U	110	
2,3,7,8-TCDF	0.1	NotFnd	<16	16	U	11		NotFnd	<13	13	U	11	
1,2,3,7,8-PeCDF	0.03	NotFnd	<1.7	1.7	U	53		NotFnd	<1.2	1.2	U	53	
2,3,4,7,8-PeCDF	0.3	NotFnd	<1.5	1.5	U	53		NotFnd	<1.1	1.1	U	53	
1,2,3,4,7,8-HxCDF	0.1	NotFnd	<0.51	0.51	U	53		NotFnd	<0.62	0.62	U	53	
1,2,3,6,7,8-HxCDF	0.1	NotFnd	<0.34	0.34	U	53		NotFnd	<0.51	0.51	U	53	
2,3,4,6,7,8-HxCDF	0.1	NotFnd	<0.35	0.35	U	53		NotFnd	<0.50	0.50	U	53	
1,2,3,7,8,9-HxCDF	0.1	34.25	<0.51	0.48	M,J,R	0.51	53	NotFnd	<0.67	0.67	U	53	
1,2,3,4,6,7,8-HpCDF	0.01	NotFnd	<0.48	0.48	U	53		NotFnd	<0.56	0.56	U	53	
1,2,3,4,7,8,9-HpCDF	0.01	NotFnd	<0.65	0.65	U	53		NotFnd	<0.87	0.87	U	53	
OCDF	0.0003	NotFnd	<0.67	0.67	U	110		NotFnd	<0.98	0.98	U	110	

Extraction Standards	pg	% Rec	Limits	% Rec
13C12-2,3,7,8-TCDD	2000	27.47	25 25-164	27.57 29
13C12-1,2,3,7,8-PeCDD	2000	31.83	47 25-181	31.88 49
13C12-1,2,3,4,7,8-HxCDD	2000	33.91	60 32-141	33.95 70
13C12-1,2,3,6,7,8-HxCDD	2000	33.96	79 28-130	34.00 83
13C12-1,2,3,4,6,7,8-HpCDD	2000	35.55	94 23-140	35.59 94
13C12-OCDD	4000	37.02	98 17-157	37.06 92
13C12-2,3,7,8-TCDF	2000	26.56	6 24-169	26.65 6
13C12-1,2,3,7,8-PeCDF	2000	30.86	32 24-185	30.91 34
13C12-2,3,4,7,8-PeCDF	2000	31.61	33 21-178	31.65 35
13C12-1,2,3,4,7,8-HxCDF	2000	33.41	59 26-152	33.45 70
13C12-1,2,3,6,7,8-HxCDF	2000	33.48	85 26-123	33.52 82
13C12-2,3,4,6,7,8-HxCDF	2000	33.81	92 29-147	33.85 92
13C12-1,2,3,7,8,9-HxCDF	2000	34.24	77 28-136	34.27 79
13C12-1,2,3,4,6,7,8-HpCDF	2000	35.00	95 28-143	35.04 101
13C12-1,2,3,4,7,8,9-HpCDF	2000	35.80	93 26-138	35.83 97

Cleanup Standard	pg	% Rec	Limits
7Cl4-2,3,7,8-TCDD (Cleanup)	40	27.51	28 35-197

Homologue Group Totals	# peaks	Conc. pg/L	EDL pg/L	# peaks	Conc. pg/L	EDL pg/L
Total-TCDD	0.00	<4.0	4.0	U	11	0.00 <3.8 3.8 U
Total-PeCDD	0.00	<1.1	1.1	U	53	0.00 <1.4 1.4 U
Total-HxCDD	0.00	<0.61	0.61	U	53	0.00 <0.75 0.75 U
Total-HpCDD	0.00	<0.89	0.89	U	53	0.00 <0.82 0.82 U
Total-TCDF	0.00	<16	16	U	11	1.00 71.5 13
Total-PeCDF	0.00	<1.7	1.7	U	53	0.00 <1.2 1.2 U
Total-HxCDF	0.00	<0.51	0.51	U	53	0.00 <0.67 0.67 U
Total-HpCDF	0.00	<0.65	0.65	U	53	0.00 <0.87 0.87 U

Toxic Equivalency - (WHO 2005)	pg/L
Lower Bound PCDD/F TEQ (WHO 2005)	0.00
Mid Point PCDD/F TEQ (WHO 2005)	3.56
Upper Bound PCDD/F TEQ (WHO 2005)	7.06

EDL Indicates the Estimated Detection Limit, based on the measured background noise for this target in this sample.
 TEF Indicates the Toxic Equivalency Factor TEQ Indicates the Toxic Equivalency;
 M Indicates that a peak has been manually integrated.
 U Indicates that this compound was not detected above the MDL.
 J indicates that a target analyte was detected below the calibrated range.
 R Indicates that the ion abundance ratio for this compound did not meet the acceptance criterion.

ALS Life sciences

Sample Analysis Report

Sample Name DYEC/FA/151002/2
ALS Sample ID L1682822-2
Analysis Method EPA 1613B
Analysis Type Sample
Sample Matrix SOIL

Sampling Date 3-Oct-15
Extraction Date 5-Oct-15
Sample Size 0.985 L
Percent Moisture n/a
Split Ratio 1

Approved:
T. Patterson
 --e-signature--
 00-Jan-1900

Run Information
Run 1
Run 2

Filename 7-151007A14
Run Date 08-Oct-15 01:27
Final Volume 20 uL
Dilution Factor 1
Analysis Units pg/L
Instrument - Column HRMS-7 DB5MSUSE700122H

Filename 7-151008A26
Run Date 09-Oct-15 03:48
Final Volume 20 uL
Dilution Factor 1
Analysis Units pg/L
Instrument - Column HRMS-7 DB5MSUSE700122H

Target Analytes	TEF (WHO 2005)	Ret. Time	Conc. pg/L	EDL pg/L	Flags	EMPC pg/L	LQL	Ret. Time	Conc. pg/L	EDL pg/L	Flags	EMPC pg/L	LQL
2,3,7,8-TCDD	1	NotFnd	<4.0	4.0	U		10	NotFnd	<3.3	3.3	U		10
1,2,3,7,8-PeCDD	1	NotFnd	<1.2	1.2	U		51	NotFnd	<1.2	1.2	U		51
1,2,3,4,7,8-HxCDD	0.1	NotFnd	<0.52	0.52	U		51	NotFnd	<1.0	1.0	U		51
1,2,3,6,7,8-HxCDD	0.1	NotFnd	<0.44	0.44	U		51	NotFnd	<0.85	0.85	U		51
1,2,3,7,8,9-HxCDD	0.1	NotFnd	<0.47	0.47	U		51	NotFnd	<0.92	0.92	U		51
1,2,3,4,6,7,8-HpCDD	0.01	35.55	<0.80	0.55	M,J,R	0.80	51	NotFnd	<0.74	0.74	U		51
OCDD	0.0003	NotFnd	<0.54	0.54	U		100	NotFnd	<0.71	0.71	U		100
2,3,7,8-TCDF	0.1	NotFnd	<12	12	U		10	NotFnd	<10	10	U		10
1,2,3,7,8-PeCDF	0.03	NotFnd	<1.1	1.1	U		51	NotFnd	<1.4	1.4	U		51
2,3,4,7,8-PeCDF	0.3	NotFnd	<1.0	1.0	U		51	NotFnd	<1.2	1.2	U		51
1,2,3,4,7,8-HxCDF	0.1	NotFnd	<0.53	0.53	U		51	NotFnd	<0.65	0.65	U		51
1,2,3,6,7,8-HxCDF	0.1	NotFnd	<0.40	0.40	U		51	NotFnd	<0.55	0.55	U		51
2,3,4,6,7,8-HxCDF	0.1	NotFnd	<0.39	0.39	U		51	NotFnd	<0.48	0.48	U		51
1,2,3,7,8,9-HxCDF	0.1	NotFnd	<0.55	0.55	U		51	34.28	<1.1	0.64	J,R	1.1	51
1,2,3,4,6,7,8-HpCDF	0.01	NotFnd	<0.34	0.34	U		51	NotFnd	<0.81	0.81	U		51
1,2,3,4,7,8,9-HpCDF	0.01	NotFnd	<0.44	0.44	U		51	NotFnd	<1.1	1.1	U		51
OCDF	0.0003	NotFnd	<0.72	0.72	U		100	NotFnd	<0.86	0.86	U		100

Extraction Standards	pg	% Rec	Limits	% Rec
13C12-2,3,7,8-TCDD	4000	27.47	49 25-164	27.55 75
13C12-1,2,3,7,8-PeCDD	4000	31.82	98 25-181	31.87 102
13C12-1,2,3,4,7,8-HxCDD	4000	33.91	103 32-141	33.94 133 R
13C12-1,2,3,6,7,8-HxCDD	4000	33.96	153 28-130	33.99 156
13C12-1,2,3,4,6,7,8-HpCDD	4000	35.55	167 23-140	35.58 180
13C12-OCDD	8000	37.01	172 17-157	37.05 180
13C12-2,3,7,8-TCDF	4000	26.56	14 24-169	26.65 15
13C12-1,2,3,7,8-PeCDF	4000	30.86	69 24-185	30.90 73
13C12-2,3,4,7,8-PeCDF	4000	31.60	66 21-178	31.65 71
13C12-1,2,3,4,7,8-HxCDF	4000	33.41	104 26-152	33.44 131
13C12-1,2,3,6,7,8-HxCDF	4000	33.47	155 26-123	33.51 135
13C12-2,3,4,6,7,8-HxCDF	4000	33.81	163 29-147	33.84 173
13C12-1,2,3,7,8,9-HxCDF	4000	34.22	139 28-136	34.27 158
13C12-1,2,3,4,6,7,8-HpCDF	4000	34.99	168 28-143	35.03 183
13C12-1,2,3,4,7,8,9-HpCDF	4000	35.79	167 26-138	35.83 181

Cleanup Standard	pg	% Rec	Limits	% Rec
7Cl4-2,3,7,8-TCDD (Cleanup)	40	27.50	54 35-197	27.58 77

Homologue Group Totals	# peaks	Conc. pg/L	EDL pg/L	# peaks	Conc. pg/L	EDL pg/L
Total-TCDD	0.00	<4.0	4.0	U	10	0.00 <3.3 3.3 U
Total-PeCDD	0.00	<1.2	1.2	U	51	0.00 <1.2 1.2 U
Total-HxCDD	0.00	<0.52	0.52	U	51	0.00 <1.0 1.0 U
Total-HpCDD	0.00	<0.55	0.55	U	51	0.00 <0.74 0.74 U
Total-TCDF	0.00	<12	12	U	10	0.00 <10 10 U
Total-PeCDF	0.00	<1.1	1.1	U	51	0.00 <1.4 1.4 U
Total-HxCDF	0.00	<0.55	0.55	U	51	0.00 <0.65 0.65 U
Total-HpCDF	0.00	<0.44	0.44	U	51	0.00 <1.1 1.1 U

Toxic Equivalency - (WHO 2005)	pg/L
Lower Bound PCDD/F TEQ (WHO 2005)	0.00
Mid Point PCDD/F TEQ (WHO 2005)	3.09
Upper Bound PCDD/F TEQ (WHO 2005)	6.18

EDL Indicates the Estimated Detection Limit, based on the measured background noise for this target in this sample.
 TEF Indicates the Toxic Equivalency Factor TEQ Indicates the Toxic Equivalency;
 M Indicates that a peak has been manually integrated.
 U Indicates that this compound was not detected above the MDL.
 J indicates that a target analyte was detected below the calibrated range.
 R Indicates that the ion abundance ratio for this compound did not meet the acceptance criterion.

ALS Life sciences

Sample Analysis Report

Sample Name DYEC/FA/151002/3
ALS Sample ID L1682822-3
Analysis Method EPA 1613B
Analysis Type Sample
Sample Matrix SOIL

Sampling Date 3-Oct-15
Extraction Date 5-Oct-15
Sample Size 0.95 L
Percent Moisture n/a
Split Ratio 1

Approved:
T. Patterson
 --e-signature--
 00-Jan-1900

Run Information	Run 1	Run 2
Filename	7-151007A15	7-151008A27
Run Date	08-Oct-15 02:08	09-Oct-15 04:30
Final Volume	20 uL	20 uL
Dilution Factor	5	1
Analysis Units	pg/L	pg/L
Instrument - Column	HRMS-7 DB5MSUSE700122H	HRMS-7 DB5MSUSE700122H

Target Analytes	TEF (WHO 2005)	Ret. Time	Conc. pg/L	EDL pg/L	Flags	EMPC pg/L	LQL	Ret. Time	Conc. pg/L	EDL pg/L	Flags	EMPC pg/L	LQL
2,3,7,8-TCDD	1	NotFnd	#VALUE!	####	#VALUE!		53	NotFnd	<15	15	U		11
1,2,3,7,8-PeCDD	1	NotFnd	<0.96	0.96	U		260	NotFnd	<4.9	4.9	U		53
1,2,3,4,7,8-HxCDD	0.1	NotFnd	<0.32	0.32	U		260	NotFnd	<2.6	2.6	U		53
1,2,3,6,7,8-HxCDD	0.1	NotFnd	<0.42	0.42	U		260	NotFnd	<2.4	2.4	U		53
1,2,3,7,8,9-HxCDD	0.1	NotFnd	<0.35	0.35	U		260	NotFnd	<2.5	2.5	U		53
1,2,3,4,6,7,8-HpCDD	0.01	NotFnd	<0.41	0.41	U		260	NotFnd	<2.1	2.1	U		53
OCDD	0.0003	NotFnd	<0.36	0.36	U		530	NotFnd	<2.9	2.9	U		110
2,3,7,8-TCDF	0.1	NotFnd	<13	13	U		53	NotFnd	<50	50	U		11
1,2,3,7,8-PeCDF	0.03	NotFnd	<0.97	0.97	U		260	NotFnd	<5.0	5.0	U		53
2,3,4,7,8-PeCDF	0.3	NotFnd	<0.78	0.78	U		260	NotFnd	<4.0	4.0	U		53
1,2,3,4,7,8-HxCDF	0.1	NotFnd	#VALUE!	####	#VALUE!		260	NotFnd	<2.2	2.2	U		53
1,2,3,6,7,8-HxCDF	0.1	NotFnd	<0.43	0.43	U		260	NotFnd	<1.7	1.7	U		53
2,3,4,6,7,8-HxCDF	0.1	NotFnd	<0.26	0.26	U		260	NotFnd	<1.7	1.7	U		53
1,2,3,7,8,9-HxCDF	0.1	NotFnd	<0.32	0.32	U		260	NotFnd	<2.4	2.4	U		53
1,2,3,4,6,7,8-HpCDF	0.01	NotFnd	<0.27	0.27	U		260	NotFnd	<1.5	1.5	U		53
1,2,3,4,7,8,9-HpCDF	0.01	NotFnd	<0.34	0.34	U		260	NotFnd	<2.1	2.1	U		53
OCDF	0.0003	NotFnd	<0.45	0.45	U		530	NotFnd	<3.1	3.1	U		110

Extraction Standards	pg	% Rec	Limits	% Rec
13C12-2,3,7,8-TCDD	2000	NotFnd	0 25-164	27.57 33
13C12-1,2,3,7,8-PeCDD	2000	31.80	73 25-181	31.87 53
13C12-1,2,3,4,7,8-HxCDD	2000	33.90	99 32-141	33.94 65
13C12-1,2,3,6,7,8-HxCDD	2000	33.94	43 28-130	33.99 87
13C12-1,2,3,4,6,7,8-HpCDD	2000	35.53	91 23-140	35.58 96
13C12-OCDD	4000	37.00	92 17-157	37.05 98
13C12-2,3,7,8-TCDF	2000	26.48	8 24-169	26.65 9
13C12-1,2,3,7,8-PeCDF	2000	30.83	49 24-185	30.90 39
13C12-2,3,4,7,8-PeCDF	2000	31.58	53 21-178	31.65 41
13C12-1,2,3,4,7,8-HxCDF	2000	0.00	0 26-152	33.44 63
13C12-1,2,3,6,7,8-HxCDF	2000	33.46	78 26-123	33.51 82
13C12-2,3,4,6,7,8-HxCDF	2000	33.79	88 29-147	33.84 93
13C12-1,2,3,7,8,9-HxCDF	2000	34.21	78 28-136	34.26 81
13C12-1,2,3,4,6,7,8-HpCDF	2000	34.98	91 28-143	35.03 99
13C12-1,2,3,4,7,8,9-HpCDF	2000	35.78	88 26-138	35.82 94

Cleanup Standard	pg	% Rec	Limits	% Rec
7C14-2,3,7,8-TCDD (Cleanup)	40	0.00	0 35-197	27.58 39

Homologue Group Totals	# peaks	Conc. pg/L	EDL pg/L	# peaks	Conc. pg/L	EDL pg/L
Total-TCDD	#VALUE!	#VALUE!	####	U	53	0.00 <15 15 U
Total-PeCDD	0.00	<0.96	0.96	U	260	0.00 <4.9 4.9 U
Total-HxCDD	0.00	<0.42	0.42	U	260	0.00 <2.6 2.6 U
Total-HpCDD	0.00	<0.41	0.41	U	260	0.00 <2.1 2.1 U
Total-TCDF	0.00	<13	13	U	53	0.00 <50 50 U
Total-PeCDF	0.00	<0.97	0.97	U	260	0.00 <5.0 5.0 U
Total-HxCDF	#VALUE!	#VALUE!	####	U	260	0.00 <2.4 2.4 U
Total-HpCDF	0.00	<0.34	0.34	U	260	0.00 <2.1 2.1 U

Toxic Equivalency - (WHO 2005)	pg/L
Lower Bound PCDD/F TEQ (WHO 2005)	0.00
Mid Point PCDD/F TEQ (WHO 2005)	13.9
Upper Bound PCDD/F TEQ (WHO 2005)	27.9

EDL Indicates the Estimated Detection Limit, based on the measured background noise for this target in this sample.
 TEF Indicates the Toxic Equivalency Factor TEQ Indicates the Toxic Equivalency;
 U Indicates that this compound was not detected above the MDL.
 R Indicates that the ion abundance ratio for this compound did not meet the acceptance criterion.

ALS Life sciences

Sample Analysis Report

Sample Name DYEC/FA/151002/4
ALS Sample ID L1682822-4
Analysis Method EPA 1613B
Analysis Type Sample
Sample Matrix SOIL

Sampling Date 3-Oct-15
Extraction Date 5-Oct-15
Sample Size 0.88 L
Percent Moisture n/a
Split Ratio 1

Approved:
T. Patterson
 --e-signature--
 00-Jan-1900

Run Information

Run 1

Run 2

Filename 7-151007A16
Run Date 08-Oct-15 02:50
Final Volume 20 uL
Dilution Factor 1
Analysis Units pg/L
Instrument - Column HRMS-7 DB5MSUSE700122H

Filename 7-151008A28
Run Date 09-Oct-15 05:12
Final Volume 20 uL
Dilution Factor 1
Analysis Units pg/L
Instrument - Column HRMS-7 DB5MSUSE700122H

Target Analytes	TEF (WHO 2005)	Ret. Time	Conc. pg/L	EDL pg/L	Flags	EMPC pg/L	LQL	Ret. Time	Conc. pg/L	EDL pg/L	Flags	EMPC pg/L	LQL
2,3,7,8-TCDD	1	NotFnd	<9.2	9.2	U	11		NotFnd	<3.3	3.3	U	11	
1,2,3,7,8-PeCDD	1	NotFnd	<2.8	2.8	U	57		NotFnd	<1.3	1.3	U	57	
1,2,3,4,7,8-HxCDD	0.1	NotFnd	<1.3	1.3	U	57		NotFnd	<0.88	0.88	U	57	
1,2,3,6,7,8-HxCDD	0.1	NotFnd	<1.1	1.1	U	57		NotFnd	<0.79	0.79	U	57	
1,2,3,7,8,9-HxCDD	0.1	NotFnd	<1.2	1.2	U	57		NotFnd	<0.82	0.82	U	57	
1,2,3,4,6,7,8-HpCDD	0.01	NotFnd	<1.5	1.5	U	57		NotFnd	<0.69	0.69	U	57	
OCDD	0.0003	NotFnd	<1.6	1.6	U	110		NotFnd	<0.68	0.68	U	110	
2,3,7,8-TCDF	0.1	NotFnd	<33	33	U	11		NotFnd	<13	13	U	11	
1,2,3,7,8-PeCDF	0.03	NotFnd	<2.7	2.7	U	57		NotFnd	<1.3	1.3	U	57	
2,3,4,7,8-PeCDF	0.3	NotFnd	<2.4	2.4	U	57		NotFnd	<1.1	1.1	U	57	
1,2,3,4,7,8-HxCDF	0.1	NotFnd	<0.95	0.95	U	57		NotFnd	<0.79	0.79	U	57	
1,2,3,6,7,8-HxCDF	0.1	NotFnd	<0.67	0.67	U	57		NotFnd	<0.63	0.63	U	57	
2,3,4,6,7,8-HxCDF	0.1	NotFnd	<0.71	0.71	U	57		NotFnd	<0.62	0.62	U	57	
1,2,3,7,8,9-HxCDF	0.1	NotFnd	<0.90	0.90	U	57		NotFnd	<0.80	0.80	U	57	
1,2,3,4,6,7,8-HpCDF	0.01	NotFnd	<0.77	0.77	U	57		NotFnd	<0.59	0.59	U	57	
1,2,3,4,7,8,9-HpCDF	0.01	NotFnd	<1.2	1.2	U	57		NotFnd	<0.89	0.89	U	57	
OCDF	0.0003	NotFnd	<1.9	1.9	U	110		NotFnd	<0.95	0.95	U	110	

Extraction Standards	pg	% Rec	Limits	% Rec
13C12-2,3,7,8-TCDD	2000	27.50	16 25-164	27.57 26
13C12-1,2,3,7,8-PeCDD	2000	31.83	29 25-181	31.88 30
13C12-1,2,3,4,7,8-HxCDD	2000	33.92	38 32-141	33.95 43
13C12-1,2,3,6,7,8-HxCDD	2000	33.97	56 28-130	34.00 56
13C12-1,2,3,4,6,7,8-HpCDD	2000	35.55	62 23-140	35.59 64
13C12-OCDD	4000	37.02	61 17-157	37.06 63
13C12-2,3,7,8-TCDF	2000	26.59	4 24-169	26.65 4
13C12-1,2,3,7,8-PeCDF	2000	30.87	19 24-185	30.91 20
13C12-2,3,4,7,8-PeCDF	2000	31.61	19 21-178	31.66 20
13C12-1,2,3,4,7,8-HxCDF	2000	33.42	39 26-152	33.45 42
13C12-1,2,3,6,7,8-HxCDF	2000	33.48	58 26-123	33.52 53
13C12-2,3,4,6,7,8-HxCDF	2000	33.82	62 29-147	33.85 60
13C12-1,2,3,7,8,9-HxCDF	2000	34.24	53 28-136	34.27 53
13C12-1,2,3,4,6,7,8-HpCDF	2000	35.00	66 28-143	35.04 65
13C12-1,2,3,4,7,8,9-HpCDF	2000	35.80	58 26-138	35.83 60

Cleanup Standard	pg	% Rec	Limits
7Cl4-2,3,7,8-TCDD (Cleanup)	40	27.52	17 35-197

Homologue Group Totals	# peaks	Conc. pg/L	EDL pg/L	# peaks	Conc. pg/L	EDL pg/L
Total-TCDD	0.00	<9.2	9.2	0.00	<3.3	3.3
Total-PeCDD	0.00	<2.8	2.8	0.00	<1.3	1.3
Total-HxCDD	0.00	<1.3	1.3	0.00	<0.88	0.88
Total-HpCDD	0.00	<1.5	1.5	0.00	<0.69	0.69
Total-TCDF	0.00	<33	33	0.00	<13	13
Total-PeCDF	0.00	<2.7	2.7	0.00	<1.3	1.3
Total-HxCDF	0.00	<0.95	0.95	0.00	<0.80	0.80
Total-HpCDF	0.00	<1.2	1.2	0.00	<0.89	0.89

Toxic Equivalency - (WHO 2005)	pg/L
Lower Bound PCDD/F TEQ (WHO 2005)	0.00
Mid Point PCDD/F TEQ (WHO 2005)	4.46
Upper Bound PCDD/F TEQ (WHO 2005)	8.92

EDL Indicates the Estimated Detection Limit, based on the measured background noise for this target in this sample.
 TEF Indicates the Toxic Equivalency Factor TEQ Indicates the Toxic Equivalency;
 U Indicates that this compound was not detected above the MDL.

ALS Life sciences

Sample Analysis Report

Sample Name DYEC/FA/151003/1
ALS Sample ID L1682896-1
Analysis Method EPA 1613B
Analysis Type Sample
Sample Matrix SOIL

Sampling Date 3-Oct-15
Extraction Date 5-Oct-15
Sample Size 0.91 L
Percent Moisture n/a
Split Ratio 1

Approved:
T.Patterson
 --e-signature--
 00-Jan-1900

Run Information

Run 1

Filename 7-151008A29
Run Date 09-Oct-15 05:53
Final Volume 20 uL
Dilution Factor 1
Analysis Units pg/L
Instrument - Column HRMS-7 DB5MSUSE700122H

Target Analytes	TEF (WHO 2005)	Ret. Time	Conc. pg/L	EDL pg/L	Flags	EMPC pg/L	LQL
2,3,7,8-TCDD	1	NotFnd	<3.0	3.0	U		11
1,2,3,7,8-PeCDD	1	NotFnd	<1.2	1.2	U		55
1,2,3,4,7,8-HxCDD	0.1	NotFnd	<0.53	0.53	U		55
1,2,3,6,7,8-HxCDD	0.1	NotFnd	<0.46	0.46	U		55
1,2,3,7,8,9-HxCDD	0.1	NotFnd	<0.49	0.49	U		55
1,2,3,4,6,7,8-HpCDD	0.01	NotFnd	<0.42	0.42	U		55
OCDD	0.0003	NotFnd	<0.36	0.36	U		110
2,3,7,8-TCDF	0.1	NotFnd	<10	10	U		11
1,2,3,7,8-PeCDF	0.03	NotFnd	<1.1	1.1	U		55
2,3,4,7,8-PeCDF	0.3	NotFnd	<0.98	0.98	U		55
1,2,3,4,7,8-HxCDF	0.1	NotFnd	<0.51	0.51	U		55
1,2,3,6,7,8-HxCDF	0.1	NotFnd	<0.37	0.37	U		55
2,3,4,6,7,8-HxCDF	0.1	NotFnd	<0.34	0.34	U		55
1,2,3,7,8,9-HxCDF	0.1	NotFnd	<0.45	0.45	U		55
1,2,3,4,6,7,8-HpCDF	0.01	NotFnd	<0.25	0.25	U		55
1,2,3,4,7,8,9-HpCDF	0.01	NotFnd	<0.36	0.36	U		55
OCDF	0.0003	NotFnd	<0.46	0.46	U		110

Extraction Standards	pg	% Rec	Limits
13C12-2,3,7,8-TCDD	2000	27.58	23 25-164
13C12-1,2,3,7,8-PeCDD	2000	31.88	33 25-181
13C12-1,2,3,4,7,8-HxCDD	2000	33.96	62 32-141
13C12-1,2,3,6,7,8-HxCDD	2000	34.00	76 28-130
13C12-1,2,3,4,6,7,8-HpCDD	2000	35.59	101 23-140
13C12-OCDD	4000	37.07	104 17-157
13C12-2,3,7,8-TCDF	2000	26.67	4 24-169
13C12-1,2,3,7,8-PeCDF	2000	30.92	21 24-185
13C12-2,3,4,7,8-PeCDF	2000	31.66	22 21-178
13C12-1,2,3,4,7,8-HxCDF	2000	33.46	60 26-152
13C12-1,2,3,6,7,8-HxCDF	2000	33.52	76 26-123
13C12-2,3,4,6,7,8-HxCDF	2000	33.85	94 29-147
13C12-1,2,3,7,8,9-HxCDF	2000	34.28	81 28-136
13C12-1,2,3,4,6,7,8-HpCDF	2000	35.05	104 28-143
13C12-1,2,3,4,7,8,9-HpCDF	2000	35.85	98 26-138

Cleanup Standard	pg	% Rec	Limits
7Cl4-2,3,7,8-TCDD (Cleanup)	40	27.60	25 35-197

Homologue Group Totals	# peaks	Conc. pg/L	EDL pg/L	Flags	LQL
Total-TCDD	0.00	<3.0	3.0	U	11
Total-PeCDD	0.00	<1.2	1.2	U	55
Total-HxCDD	1.00	1.89	0.53		55
Total-HpCDD	0.00	<0.42	0.42	U	55
Total-TCDF	0.00	<10	10	U	11
Total-PeCDF	0.00	<1.1	1.1	U	55
Total-HxCDF	0.00	<0.51	0.51	U	55
Total-HpCDF	0.00	<0.36	0.36	U	55

Toxic Equivalency - (WHO 2005)	pg/L
Lower Bound PCDD/F TEQ (WHO 2005)	0.00
Mid Point PCDD/F TEQ (WHO 2005)	2.93
Upper Bound PCDD/F TEQ (WHO 2005)	5.85

EDL Indicates the Estimated Detection Limit, based on the measured background noise for this target in this sample.
 TEF Indicates the Toxic Equivalency Factor TEQ Indicates the Toxic Equivalency;
 U Indicates that this compound was not detected above the MDL.

ALS Life sciences

Sample Analysis Report

Sample Name DYEC/FA/151003/2
ALS Sample ID L1682896-2
Analysis Method EPA 1613B
Analysis Type Sample
Sample Matrix SOIL

Sampling Date 3-Oct-15
Extraction Date 5-Oct-15
Sample Size 0.985 L
Percent Moisture n/a
Split Ratio 1

Approved:
T. Patterson
 --e-signature--
 00-Jan-1900

Run Information

Run 1

Filename 7-151008A30
Run Date 09-Oct-15 06:35
Final Volume 20 uL
Dilution Factor 1
Analysis Units pg/L
Instrument - Column HRMS-7 DB5MSUSE700122H

Target Analytes	TEF (WHO 2005)	Ret. Time	Conc. pg/L	EDL pg/L	Flags	EMPC pg/L	LQL
2,3,7,8-TCDD	1	NotFnd	<5.1	5.1	U		10
1,2,3,7,8-PeCDD	1	NotFnd	<1.7	1.7	U		51
1,2,3,4,7,8-HxCDD	0.1	NotFnd	<0.86	0.86	U		51
1,2,3,6,7,8-HxCDD	0.1	NotFnd	<0.74	0.74	U		51
1,2,3,7,8,9-HxCDD	0.1	NotFnd	<0.78	0.78	U		51
1,2,3,4,6,7,8-HpCDD	0.01	NotFnd	<0.61	0.61	U		51
OCDD	0.0003	NotFnd	<0.47	0.47	U		100
2,3,7,8-TCDF	0.1	NotFnd	<19	19	U		10
1,2,3,7,8-PeCDF	0.03	NotFnd	<2.0	2.0	U		51
2,3,4,7,8-PeCDF	0.3	NotFnd	<1.7	1.7	U		51
1,2,3,4,7,8-HxCDF	0.1	NotFnd	<0.74	0.74	U		51
1,2,3,6,7,8-HxCDF	0.1	NotFnd	<0.47	0.47	U		51
2,3,4,6,7,8-HxCDF	0.1	NotFnd	<0.41	0.41	U		51
1,2,3,7,8,9-HxCDF	0.1	NotFnd	<0.59	0.59	U		51
1,2,3,4,6,7,8-HpCDF	0.01	NotFnd	<0.46	0.46	U		51
1,2,3,4,7,8,9-HpCDF	0.01	NotFnd	<0.71	0.71	U		51
OCDF	0.0003	NotFnd	<0.63	0.63	U		100

Extraction Standards	pg	% Rec	Limits
13C12-2,3,7,8-TCDD	2000	27.58	20 25-164
13C12-1,2,3,7,8-PeCDD	2000	31.88	32 25-181
13C12-1,2,3,4,7,8-HxCDD	2000	33.95	49 32-141
13C12-1,2,3,6,7,8-HxCDD	2000	34.00	69 28-130
13C12-1,2,3,4,6,7,8-HpCDD	2000	35.59	94 23-140
13C12-OCDD	4000	37.06	98 17-157
13C12-2,3,7,8-TCDF	2000	26.67	4 24-169
13C12-1,2,3,7,8-PeCDF	2000	30.92	21 24-185
13C12-2,3,4,7,8-PeCDF	2000	31.66	21 21-178
13C12-1,2,3,4,7,8-HxCDF	2000	33.45	49 26-152
13C12-1,2,3,6,7,8-HxCDF	2000	33.52	65 26-123
13C12-2,3,4,6,7,8-HxCDF	2000	33.85	87 29-147
13C12-1,2,3,7,8,9-HxCDF	2000	34.28	73 28-136
13C12-1,2,3,4,6,7,8-HpCDF	2000	35.04	96 28-143
13C12-1,2,3,4,7,8,9-HpCDF	2000	35.85	88 26-138

Cleanup Standard	pg	% Rec	Limits
7Cl4-2,3,7,8-TCDD (Cleanup)	40	27.60	22 35-197

Homologue Group Totals	# peaks	Conc. pg/L	EDL pg/L	Flags	LQL
Total-TCDD	0.00	<5.1	5.1	U	10
Total-PeCDD	0.00	<1.7	1.7	U	51
Total-HxCDD	0.00	<0.86	0.86	U	51
Total-HpCDD	0.00	<0.61	0.61	U	51
Total-TCDF	0.00	<19	19	U	10
Total-PeCDF	0.00	<2.0	2.0	U	51
Total-HxCDF	0.00	<0.74	0.74	U	51
Total-HpCDF	0.00	<0.71	0.71	U	51

Toxic Equivalency - (WHO 2005)	pg/L
Lower Bound PCDD/F TEQ (WHO 2005)	0.00
Mid Point PCDD/F TEQ (WHO 2005)	4.87
Upper Bound PCDD/F TEQ (WHO 2005)	9.75

EDL Indicates the Estimated Detection Limit, based on the measured background noise for this target in this sample.
 TEF Indicates the Toxic Equivalency Factor
 TEQ Indicates the Toxic Equivalency
 U Indicates that this compound was not detected above the MDL.

ALS Life sciences

Sample Analysis Report

Sample Name DYEC/FA/151003/3
ALS Sample ID L1682896-3
Analysis Method EPA 1613B
Analysis Type Sample
Sample Matrix SOIL

Sampling Date 3-Oct-15
Extraction Date 5-Oct-15
Sample Size 0.89 L
Percent Moisture n/a
Split Ratio 1

Approved:
T. Patterson
 --e-signature--
 00-Jan-1900

Run Information

Run 1

Filename 7-151008A31
Run Date 09-Oct-15 07:17
Final Volume 20 uL
Dilution Factor 1
Analysis Units pg/L
Instrument - Column HRMS-7 DB5MSUSE700122H

Target Analytes	TEF (WHO 2005)	Ret. Time	Conc. pg/L	EDL pg/L	Flags	EMPC pg/L	LQL
2,3,7,8-TCDD	1	NotFnd	<3.2	3.2	U		11
1,2,3,7,8-PeCDD	1	NotFnd	<1.5	1.5	U		56
1,2,3,4,7,8-HxCDD	0.1	NotFnd	<0.73	0.73	U		56
1,2,3,6,7,8-HxCDD	0.1	NotFnd	<0.66	0.66	U		56
1,2,3,7,8,9-HxCDD	0.1	NotFnd	<0.69	0.69	U		56
1,2,3,4,6,7,8-HpCDD	0.01	NotFnd	<0.69	0.69	U		56
OCDD	0.0003	NotFnd	<0.46	0.46	U		110
2,3,7,8-TCDF	0.1	NotFnd	<10	10	U		11
1,2,3,7,8-PeCDF	0.03	NotFnd	<1.3	1.3	U		56
2,3,4,7,8-PeCDF	0.3	NotFnd	<1.0	1.0	U		56
1,2,3,4,7,8-HxCDF	0.1	NotFnd	<0.53	0.53	U		56
1,2,3,6,7,8-HxCDF	0.1	NotFnd	<0.39	0.39	U		56
2,3,4,6,7,8-HxCDF	0.1	NotFnd	<0.36	0.36	U		56
1,2,3,7,8,9-HxCDF	0.1	NotFnd	<0.49	0.49	U		56
1,2,3,4,6,7,8-HpCDF	0.01	NotFnd	<0.26	0.26	U		56
1,2,3,4,7,8,9-HpCDF	0.01	NotFnd	<0.39	0.39	U		56
OCDF	0.0003	NotFnd	<0.56	0.56	U		110

Extraction Standards	pg	% Rec	Limits
13C12-2,3,7,8-TCDD	2000	27.58	27 25-164
13C12-1,2,3,7,8-PeCDD	2000	31.88	40 25-181
13C12-1,2,3,4,7,8-HxCDD	2000	33.95	59 32-141
13C12-1,2,3,6,7,8-HxCDD	2000	34.00	77 28-130
13C12-1,2,3,4,6,7,8-HpCDD	2000	35.59	95 23-140
13C12-OCDD	4000	37.06	101 17-157
13C12-2,3,7,8-TCDF	2000	26.67	5 24-169
13C12-1,2,3,7,8-PeCDF	2000	30.91	26 24-185
13C12-2,3,4,7,8-PeCDF	2000	31.66	27 21-178
13C12-1,2,3,4,7,8-HxCDF	2000	33.45	57 26-152
13C12-1,2,3,6,7,8-HxCDF	2000	33.52	74 26-123
13C12-2,3,4,6,7,8-HxCDF	2000	33.85	90 29-147
13C12-1,2,3,7,8,9-HxCDF	2000	34.27	77 28-136
13C12-1,2,3,4,6,7,8-HpCDF	2000	35.04	99 28-143
13C12-1,2,3,4,7,8,9-HpCDF	2000	35.83	91 26-138

Cleanup Standard	pg	% Rec	Limits
7C14-2,3,7,8-TCDD (Cleanup)	40	27.60	30 35-197

Homologue Group Totals	# peaks	Conc. pg/L	EDL pg/L	Flags	LQL
Total-TCDD	0.00	<3.2	3.2	U	11
Total-PeCDD	0.00	<1.5	1.5	U	56
Total-HxCDD	0.00	<0.73	0.73	U	56
Total-HpCDD	0.00	<0.69	0.69	U	56
Total-TCDF	0.00	<10	10	U	11
Total-PeCDF	0.00	<1.3	1.3	U	56
Total-HxCDF	0.00	<0.53	0.53	U	56
Total-HpCDF	0.00	<0.39	0.39	U	56

Toxic Equivalency - (WHO 2005)	pg/L
Lower Bound PCDD/F TEQ (WHO 2005)	0.00
Mid Point PCDD/F TEQ (WHO 2005)	3.22
Upper Bound PCDD/F TEQ (WHO 2005)	6.44

EDL Indicates the Estimated Detection Limit, based on the measured background noise for this target in this sample.
 TEF Indicates the Toxic Equivalency Factor
 TEQ Indicates the Toxic Equivalency
 U Indicates that this compound was not detected above the MDL.

ALS Life sciences

Sample Analysis Report

Sample Name DYEC/FA/151003/4
ALS Sample ID L1682896-4
Analysis Method EPA 1613B
Analysis Type Sample
Sample Matrix SOIL

Sampling Date 3-Oct-15
Extraction Date 5-Oct-15
Sample Size 0.89 L
Percent Moisture n/a
Split Ratio 1

Approved:
T. Patterson
 --e-signature--
 00-Jan-1900

Run Information

Run 1

Filename 7-151008A32
Run Date 09-Oct-15 07:59
Final Volume 20 uL
Dilution Factor 1
Analysis Units pg/L
Instrument - Column HRMS-7 DB5MSUSE700122H

Target Analytes	TEF (WHO 2005)	Ret. Time	Conc. pg/L	EDL pg/L	Flags	EMPC pg/L	LQL
2,3,7,8-TCDD	1	NotFnd	<3.1	3.1	U		11
1,2,3,7,8-PeCDD	1	NotFnd	<1.5	1.5	U		56
1,2,3,4,7,8-HxCDD	0.1	NotFnd	<0.91	0.91	U		56
1,2,3,6,7,8-HxCDD	0.1	NotFnd	<0.83	0.83	U		56
1,2,3,7,8,9-HxCDD	0.1	NotFnd	<0.86	0.86	U		56
1,2,3,4,6,7,8-HpCDD	0.01	NotFnd	<0.63	0.63	U		56
OCDD	0.0003	NotFnd	<0.81	0.81	U		110
2,3,7,8-TCDF	0.1	NotFnd	<11	11	U		11
1,2,3,7,8-PeCDF	0.03	NotFnd	<1.2	1.2	U		56
2,3,4,7,8-PeCDF	0.3	NotFnd	<1.1	1.1	U		56
1,2,3,4,7,8-HxCDF	0.1	NotFnd	<0.63	0.63	U		56
1,2,3,6,7,8-HxCDF	0.1	NotFnd	<0.49	0.49	U		56
2,3,4,6,7,8-HxCDF	0.1	NotFnd	<0.49	0.49	U		56
1,2,3,7,8,9-HxCDF	0.1	NotFnd	<0.62	0.62	U		56
1,2,3,4,6,7,8-HpCDF	0.01	NotFnd	<0.49	0.49	U		56
1,2,3,4,7,8,9-HpCDF	0.01	NotFnd	<0.66	0.66	U		56
OCDF	0.0003	NotFnd	<0.96	0.96	U		110

Extraction Standards	pg	% Rec	Limits
13C12-2,3,7,8-TCDD	2000	27.58	37 25-164
13C12-1,2,3,7,8-PeCDD	2000	31.87	56 25-181
13C12-1,2,3,4,7,8-HxCDD	2000	33.94	74 32-141
13C12-1,2,3,6,7,8-HxCDD	2000	33.99	81 28-130
13C12-1,2,3,4,6,7,8-HpCDD	2000	35.58	94 23-140
13C12-OCDD	4000	37.05	95 17-157
13C12-2,3,7,8-TCDF	2000	26.67	8 24-169
13C12-1,2,3,7,8-PeCDF	2000	30.91	38 24-185
13C12-2,3,4,7,8-PeCDF	2000	31.65	37 21-178
13C12-1,2,3,4,7,8-HxCDF	2000	33.45	69 26-152
13C12-1,2,3,6,7,8-HxCDF	2000	33.51	81 26-123
13C12-2,3,4,6,7,8-HxCDF	2000	33.84	92 29-147
13C12-1,2,3,7,8,9-HxCDF	2000	34.27	84 28-136
13C12-1,2,3,4,6,7,8-HpCDF	2000	35.04	96 28-143
13C12-1,2,3,4,7,8,9-HpCDF	2000	35.83	94 26-138

Cleanup Standard	pg	% Rec	Limits
7C14-2,3,7,8-TCDD (Cleanup)	40	27.60	40 35-197

Homologue Group Totals	# peaks	Conc. pg/L	EDL pg/L	Flags	LQL
Total-TCDD	0.00	<3.1	3.1	U	11
Total-PeCDD	0.00	<1.5	1.5	U	56
Total-HxCDD	0.00	<0.91	0.91	U	56
Total-HpCDD	0.00	<0.63	0.63	U	56
Total-TCDF	0.00	<11	11	U	11
Total-PeCDF	0.00	<1.2	1.2	U	56
Total-HxCDF	0.00	<0.63	0.63	U	56
Total-HpCDF	0.00	<0.66	0.66	U	56

Toxic Equivalency - (WHO 2005)	pg/L
Lower Bound PCDD/F TEQ (WHO 2005)	0.00
Mid Point PCDD/F TEQ (WHO 2005)	3.28
Upper Bound PCDD/F TEQ (WHO 2005)	6.57

EDL Indicates the Estimated Detection Limit, based on the measured background noise for this target in this sample.
 TEF Indicates the Toxic Equivalency Factor TEQ Indicates the Toxic Equivalency;
 U Indicates that this compound was not detected above the MDL.

ALS Life sciences

Laboratory Method Blank Analysis Report

Sample Name	Method Blank	Sampling Date	n/a		
ALS Sample ID	WG2185811-1	Extraction Date	5-Oct-15		
Analysis Method	EPA 1613B	Sample Size	1	L	
Analysis Type	Blank	Percent Moisture	n/a		
Sample Matrix	QC	Split Ratio	1		Approved: T.Patterson --e-signature-- 00-Jan-1900

Run Information	Run 1	Run 2
Filename	7-151007A06	7-151008A21
Run Date	07-Oct-15 19:52	09-Oct-15 00:18
Final Volume	20 uL	20 uL
Dilution Factor	1	1
Analysis Units	pg/L	pg/L
Instrument - Column	HRMS-7 DB5MSUSE700122H	HRMS-7 DB5MSUSE700122H

Target Analytes	TEF (WHO 2005)	Ret. Time	Conc. pg/L	EDL pg/L	Flags	EMPC pg/L	LQL	Ret. Time	Conc. pg/L	EDL pg/L	Flags	EMPC pg/L	LQL
2,3,7,8-TCDD	1	NotFnd	<4.2	4.2	U		10	NotFnd	<1.6	1.6	U		10
1,2,3,7,8-PeCDD	1	NotFnd	<0.93	0.93	U		50	NotFnd	<0.75	0.75	U		50
1,2,3,4,7,8-HxCDD	0.1	NotFnd	<0.50	0.50	U		50	NotFnd	<0.57	0.57	U		50
1,2,3,6,7,8-HxCDD	0.1	NotFnd	<0.44	0.44	U		50	NotFnd	<0.53	0.53	U		50
1,2,3,7,8,9-HxCDD	0.1	NotFnd	<0.46	0.46	U		50	NotFnd	<0.54	0.54	U		50
1,2,3,4,6,7,8-HpCDD	0.01	NotFnd	<0.63	0.63	U		50	NotFnd	<0.54	0.54	U		50
OCDD	0.0003	37.01	<1.4	0.46	M,J,R	1.4	100	NotFnd	<0.39	0.39	U		100
2,3,7,8-TCDF	0.1	NotFnd	<7.4	7.4	U		10	NotFnd	<4.3	4.3	U		10
1,2,3,7,8-PeCDF	0.03	NotFnd	<0.88	0.88	U		50	NotFnd	<0.55	0.55	U		50
2,3,4,7,8-PeCDF	0.3	NotFnd	<0.81	0.81	U		50	NotFnd	<0.55	0.55	U		50
1,2,3,4,7,8-HxCDF	0.1	NotFnd	<0.54	0.54	U		50	NotFnd	<0.30	0.30	U		50
1,2,3,6,7,8-HxCDF	0.1	NotFnd	<0.42	0.42	U		50	NotFnd	<0.26	0.26	U		50
2,3,4,6,7,8-HxCDF	0.1	NotFnd	<0.46	0.46	U		50	NotFnd	<0.27	0.27	U		50
1,2,3,7,8,9-HxCDF	0.1	34.24	0.760	0.52	M,J		50	NotFnd	<0.35	0.35	U		50
1,2,3,4,6,7,8-HpCDF	0.01	NotFnd	<0.43	0.43	U		50	NotFnd	<0.25	0.25	U		50
1,2,3,4,7,8,9-HpCDF	0.01	NotFnd	<0.55	0.55	U		50	NotFnd	<0.36	0.36	U		50
OCDF	0.0003	37.10	0.740	0.64	M,J		100	NotFnd	<0.59	0.59	U		100

Extraction Standards	pg	% Rec	Limits	% Rec
13C12-2,3,7,8-TCDD	2000	27.47	21 25-164	27.54 41
13C12-1,2,3,7,8-PeCDD	2000	31.82	70 25-181	31.85 64
13C12-1,2,3,4,7,8-HxCDD	2000	33.91	66 32-141	33.93 72
13C12-1,2,3,6,7,8-HxCDD	2000	33.96	87 28-130	33.98 87
13C12-1,2,3,4,6,7,8-HpCDD	2000	35.54	91 23-140	35.57 92
13C12-OCDD	4000	37.01	91 17-157	37.03 84
13C12-2,3,7,8-TCDF	2000	26.56	10 24-169	26.62 10
13C12-1,2,3,7,8-PeCDF	2000	30.86	48 24-185	30.89 48
13C12-2,3,4,7,8-PeCDF	2000	31.60	45 21-178	31.64 44
13C12-1,2,3,4,7,8-HxCDF	2000	33.41	67 26-152	33.43 72
13C12-1,2,3,6,7,8-HxCDF	2000	33.47	82 26-123	33.50 84
13C12-2,3,4,6,7,8-HxCDF	2000	33.81	87 29-147	33.83 88
13C12-1,2,3,7,8,9-HxCDF	2000	34.22	84 28-136	34.25 83
13C12-1,2,3,4,6,7,8-HpCDF	2000	34.99	97 28-143	35.01 91
13C12-1,2,3,4,7,8,9-HpCDF	2000	35.79	96 26-138	35.81 91

Cleanup Standard	pg	% Rec	Limits	% Rec
7Cl4-2,3,7,8-TCDD (Cleanup)	40	27.50	24 35-197	27.55 41

Homologue Group Totals	# peaks	Conc. pg/L	EDL pg/L	Flags	LQL	# peaks	Conc. pg/L	EDL pg/L	Flags	LQL
Total-TCDD	0.00	<4.2	4.2	U	10	0.00	<1.6	1.6	U	10
Total-PeCDD	0.00	<0.93	0.93	U	50	0.00	<0.75	0.75	U	50
Total-HxCDD	0.00	<0.50	0.50	U	50	0.00	<0.57	0.57	U	50
Total-HpCDD	0.00	<0.63	0.63	U	50	0.00	<0.54	0.54	U	50
Total-TCDF	0.00	<7.4	7.4	U	10	0.00	<4.3	4.3	U	10
Total-PeCDF	0.00	<0.88	0.88	U	50	0.00	<0.55	0.55	U	50
Total-HxCDF	1.00	0.760	0.54	U	50	0.00	<0.35	0.35	U	50
Total-HpCDF	0.00	<0.55	0.55	U	50	0.00	<0.36	0.36	U	50

Toxic Equivalency - (WHO 2005)	pg/L
Lower Bound PCDD/F TEQ (WHO 2005)	0.0762
Mid Point PCDD/F TEQ (WHO 2005)	1.84
Upper Bound PCDD/F TEQ (WHO 2005)	3.60

EDL	Indicates the Estimated Detection Limit, based on the measured background noise for this target in this sample.	
TEF	Indicates the Toxic Equivalency Factor	TEQ Indicates the Toxic Equivalency
M	Indicates that a peak has been manually integrated.	
U	Indicates that this compound was not detected above the MDL.	
J	Indicates that a target analyte was detected below the calibrated range.	
R	Indicates that the ion abundance ratio for this compound did not meet the acceptance criterion.	

ALS Life sciences

Laboratory Method Blank Analysis Report

Sample Name	Method Blank	Sampling Date	n/a		
ALS Sample ID	WG2185811-2	Extraction Date	5-Oct-15		
Analysis Method	EPA 1613B	Sample Size	0.98	L	
Analysis Type	Blank	Percent Moisture	n/a		
Sample Matrix	QC	Split Ratio	1		

Approved:
T. Patterson
--e-signature--
00-Jan-1900

Run Information	Run 1	Run 2
Filename	7-151007A07	7-151008A22
Run Date	07-Oct-15 20:34	09-Oct-15 01:00
Final Volume	20 uL	20 uL
Dilution Factor	1	1
Analysis Units	pg/L	pg/L
Instrument - Column	HRMS-7 DB5MSUSE700122H	HRMS-7 DB5MSUSE700122H

Target Analytes	TEF (WHO 2005)	Ret. Time	Conc. pg/L	EDL pg/L	Flags	EMPC pg/L	LQL	Ret. Time	Conc. pg/L	EDL pg/L	Flags	EMPC pg/L	LQL
2,3,7,8-TCDD	1	NotFnd	<7.6	7.6	U		10	NotFnd	<8.4	8.4	U		10
1,2,3,7,8-PeCDD	1	NotFnd	<1.5	1.5	U		51	NotFnd	<1.6	1.6	U		51
1,2,3,4,7,8-HxCDD	0.1	NotFnd	<0.66	0.66	U		51	NotFnd	<0.99	0.99	U		51
1,2,3,6,7,8-HxCDD	0.1	NotFnd	<0.58	0.58	U		51	NotFnd	<0.90	0.90	U		51
1,2,3,7,8,9-HxCDD	0.1	NotFnd	<0.61	0.61	U		51	NotFnd	<0.94	0.94	U		51
1,2,3,4,6,7,8-HpCDD	0.01	NotFnd	<0.48	0.48	U		51	NotFnd	<0.72	0.72	U		51
OCDD	0.0003	Fnd	37.03	1.11	0.44	M,J	100	NotFnd	<0.61	0.61	U		100
2,3,7,8-TCDF	0.1	NotFnd	<16	16	U		10	NotFnd	<18	18	U		10
1,2,3,7,8-PeCDF	0.03	NotFnd	<1.3	1.3	U		51	NotFnd	<1.4	1.4	U		51
2,3,4,7,8-PeCDF	0.3	NotFnd	<1.2	1.2	U		51	NotFnd	<1.4	1.4	U		51
1,2,3,4,7,8-HxCDF	0.1	NotFnd	<0.32	0.32	U		51	NotFnd	<0.65	0.65	U		51
1,2,3,6,7,8-HxCDF	0.1	NotFnd	<0.22	0.22	U		51	NotFnd	<0.49	0.49	U		51
2,3,4,6,7,8-HxCDF	0.1	NotFnd	<0.24	0.24	U		51	NotFnd	<0.52	0.52	U		51
1,2,3,7,8,9-HxCDF	0.1	Fnd	34.24	<0.50	0.29	M,J,R	0.50	51	NotFnd	<0.65	0.65	U	51
1,2,3,4,6,7,8-HpCDF	0.01	NotFnd	<0.35	0.35	U		51	NotFnd	<0.54	0.54	U		51
1,2,3,4,7,8,9-HpCDF	0.01	NotFnd	<0.46	0.46	U		51	NotFnd	<0.75	0.75	U		51
OCDF	0.0003	NotFnd	<0.73	0.73	U		100	NotFnd	<0.90	0.90	U		100

Extraction Standards	pg	% Rec	Limits	% Rec
13C12-2,3,7,8-TCDD	2000	27.48	15 25-164	27.55 15
13C12-1,2,3,7,8-PeCDD	2000	31.83	49 25-181	31.85 47
13C12-1,2,3,4,7,8-HxCDD	2000	33.91	63 32-141	33.93 71
13C12-1,2,3,6,7,8-HxCDD	2000	33.96	79 28-130	33.98 78
13C12-1,2,3,4,6,7,8-HpCDD	2000	35.55	92 23-140	35.57 89
13C12-OCDD	4000	37.02	103 17-157	37.04 89
13C12-2,3,7,8-TCDF	2000	26.56	5 24-169	26.64 5
13C12-1,2,3,7,8-PeCDF	2000	30.86	34 24-185	30.89 35
13C12-2,3,4,7,8-PeCDF	2000	31.61	30 21-178	31.64 31
13C12-1,2,3,4,7,8-HxCDF	2000	33.41	62 26-152	33.44 67
13C12-1,2,3,6,7,8-HxCDF	2000	33.48	82 26-123	33.50 80
13C12-2,3,4,6,7,8-HxCDF	2000	33.81	87 29-147	33.83 86
13C12-1,2,3,7,8,9-HxCDF	2000	34.24	80 28-136	34.26 80
13C12-1,2,3,4,6,7,8-HpCDF	2000	35.00	98 28-143	35.03 92
13C12-1,2,3,4,7,8,9-HpCDF	2000	35.80	99 26-138	35.82 90

Cleanup Standard	pg	% Rec	Limits	% Rec
7Cl4-2,3,7,8-TCDD (Cleanup)	40	27.50	15 35-197	27.57 16

Homologue Group Totals	# peaks	Conc. pg/L	EDL pg/L	# peaks	Conc. pg/L	EDL pg/L
Total-TCDD	0.00	<7.6	7.6	U	10	0.00 <8.4 8.4 U
Total-PeCDD	0.00	<1.5	1.5	U	51	0.00 <1.6 1.6 U
Total-HxCDD	0.00	<0.66	0.66	U	51	0.00 <0.99 0.99 U
Total-HpCDD	0.00	<0.48	0.48	U	51	0.00 <0.72 0.72 U
Total-TCDF	0.00	<16	16	U	10	0.00 <18 18 U
Total-PeCDF	0.00	<1.3	1.3	U	51	0.00 <1.4 1.4 U
Total-HxCDF	0.00	<0.32	0.32	U	51	0.00 <0.65 0.65 U
Total-HpCDF	0.00	<0.46	0.46	U	51	0.00 <0.75 0.75 U

Toxic Equivalency - (WHO 2005)	pg/L
Lower Bound PCDD/F TEQ (WHO 2005)	0.000333
Mid Point PCDD/F TEQ (WHO 2005)	5.74
Upper Bound PCDD/F TEQ (WHO 2005)	11.4

EDL Indicates the Estimated Detection Limit, based on the measured background noise for this target in this sample.
 TEF Indicates the Toxic Equivalency Factor
 M Indicates that a peak has been manually integrated.
 U Indicates that this compound was not detected above the MDL.
 J indicates that a target analyte was detected below the calibrated range.
 R Indicates that the ion abundance ratio for this compound did not meet the acceptance criterion.

ALS Life sciences

Laboratory Method Blank Analysis Report

Sample Name	Method Blank	Sampling Date	n/a		
ALS Sample ID	WG2185811-3	Extraction Date	5-Oct-15		
Analysis Method	EPA 1613B	Sample Size	0.91	L	
Analysis Type	Blank	Percent Moisture	n/a		
Sample Matrix	QC	Split Ratio	1		

Approved:
T. Patterson
--e-signature--
00-Jan-1900

Run Information	Run 1	Run 2
Filename	7-151007A08	7-151008A23
Run Date	07-Oct-15 21:16	09-Oct-15 01:42
Final Volume	20 uL	20 uL
Dilution Factor	1	1
Analysis Units	pg/L	pg/L
Instrument - Column	HRMS-7 DB5MSUSE700122H	HRMS-7 DB5MSUSE700122H

Target Analytes	TEF (WHO 2005)	Ret. Time	Conc. pg/L	EDL pg/L	Flags	EMPC pg/L	LQL	Ret. Time	Conc. pg/L	EDL pg/L	Flags	EMPC pg/L	LQL
2,3,7,8-TCDD	1	NotFnd	<3.0	3.0	U	11		NotFnd	<2.6	2.6	U	11	
1,2,3,7,8-PeCDD	1	NotFnd	<1.0	1.0	U	55		NotFnd	<0.91	0.91	U	55	
1,2,3,4,7,8-HxCDD	0.1	NotFnd	<0.54	0.54	U	55		NotFnd	<0.59	0.59	U	55	
1,2,3,6,7,8-HxCDD	0.1	NotFnd	<0.49	0.49	U	55		NotFnd	<0.51	0.51	U	55	
1,2,3,7,8,9-HxCDD	0.1	NotFnd	<0.51	0.51	U	55		NotFnd	<0.55	0.55	U	55	
1,2,3,4,6,7,8-HpCDD	0.01	NotFnd	<0.76	0.76	U	55		NotFnd	<0.67	0.67	U	55	
OCDD	0.0003	37.01	<5.5	5.5	J,R	5.5	110	37.04	<4.8	4.8	J,R	4.8	110
2,3,7,8-TCDF	0.1	NotFnd	<6.2	6.2	U	11		NotFnd	<5.0	5.0	U	11	
1,2,3,7,8-PeCDF	0.03	NotFnd	<0.85	0.85	U	55		NotFnd	<0.67	0.67	U	55	
2,3,4,7,8-PeCDF	0.3	NotFnd	<0.73	0.73	U	55		NotFnd	<0.60	0.60	U	55	
1,2,3,4,7,8-HxCDF	0.1	NotFnd	<0.40	0.40	U	55		NotFnd	<0.50	0.50	U	55	
1,2,3,6,7,8-HxCDF	0.1	NotFnd	<0.30	0.30	U	55		NotFnd	<0.38	0.38	U	55	
2,3,4,6,7,8-HxCDF	0.1	NotFnd	<0.34	0.34	U	55		NotFnd	<0.41	0.41	U	55	
1,2,3,7,8,9-HxCDF	0.1	34.24	<0.40	0.40	M,U	0.35	55	NotFnd	<0.54	0.54	U	55	
1,2,3,4,6,7,8-HpCDF	0.01	NotFnd	<0.50	0.50	U	55		NotFnd	<0.46	0.46	U	55	
1,2,3,4,7,8,9-HpCDF	0.01	NotFnd	<0.68	0.68	U	55		NotFnd	<0.61	0.61	U	55	
OCDF	0.0003	NotFnd	<0.72	0.72	U	110		NotFnd	<0.79	0.79	U	110	

Extraction Standards	pg	% Rec	Limits	% Rec
13C12-2,3,7,8-TCDD	2000	27.47	36 25-164	27.54 42
13C12-1,2,3,7,8-PeCDD	2000	31.82	63 25-181	31.85 65
13C12-1,2,3,4,7,8-HxCDD	2000	33.91	66 32-141	33.93 71
13C12-1,2,3,6,7,8-HxCDD	2000	33.96	86 28-130	33.98 83
13C12-1,2,3,4,6,7,8-HpCDD	2000	35.54	86 23-140	35.57 86
13C12-OCDD	4000	37.01	91 17-157	37.04 84
13C12-2,3,7,8-TCDF	2000	26.55	15 24-169	26.62 15
13C12-1,2,3,7,8-PeCDF	2000	30.86	53 24-185	30.89 53
13C12-2,3,4,7,8-PeCDF	2000	31.60	50 21-178	31.64 53
13C12-1,2,3,4,7,8-HxCDF	2000	33.41	67 26-152	33.43 71
13C12-1,2,3,6,7,8-HxCDF	2000	33.47	87 26-123	33.50 80
13C12-2,3,4,6,7,8-HxCDF	2000	33.81	87 29-147	33.83 83
13C12-1,2,3,7,8,9-HxCDF	2000	34.22	81 28-136	34.26 76
13C12-1,2,3,4,6,7,8-HpCDF	2000	34.99	92 28-143	35.03 86
13C12-1,2,3,4,7,8,9-HpCDF	2000	35.79	90 26-138	35.82 85

Cleanup Standard	pg	% Rec	Limits	% Rec
7Cl4-2,3,7,8-TCDD (Cleanup)	40	27.50	42 35-197	27.55 45

Homologue Group Totals	# peaks	Conc. pg/L	EDL pg/L	# peaks	Conc. pg/L	EDL pg/L
Total-TCDD	0.00	<3.0	3.0	0.00	<2.6	2.6
Total-PeCDD	0.00	<1.0	1.0	0.00	<0.91	0.91
Total-HxCDD	0.00	<0.54	0.54	0.00	<0.59	0.59
Total-HpCDD	0.00	<0.76	0.76	0.00	<0.67	0.67
Total-TCDF	0.00	<6.2	6.2	0.00	<5.0	5.0
Total-PeCDF	0.00	<0.85	0.85	0.00	<0.67	0.67
Total-HxCDF	0.00	<0.40	0.40	0.00	<0.54	0.54
Total-HpCDF	0.00	<0.68	0.68	0.00	<0.61	0.61

Toxic Equivalency - (WHO 2005)	pg/L
Lower Bound PCDD/F TEQ (WHO 2005)	0.00
Mid Point PCDD/F TEQ (WHO 2005)	2.33
Upper Bound PCDD/F TEQ (WHO 2005)	4.66

EDL Indicates the Estimated Detection Limit, based on the measured background noise for this target in this sample.
 TEF Indicates the Toxic Equivalency Factor
 M Indicates that a peak has been manually integrated.
 U Indicates that this compound was not detected above the MDL.
 J indicates that a target analyte was detected below the calibrated range.
 R Indicates that the ion abundance ratio for this compound did not meet the acceptance criterion.

ALS Life sciences

Laboratory Control Sample Analysis Report

Sample Name	Laboratory Control Sample	Sampling Date	n/a		
ALS Sample ID	WG2185811-4	Extraction Date	5-Oct-15		
Analysis Method	EPA 1613B	Sample Size	1	n/a	
Analysis Type	LCS	Percent Moisture	n/a		
Sample Matrix	QC	Split Ratio	1		

Approved:
T. Patterson
--e-signature--
00-Jan-1900

Run Information	Run 1	Run 2
Filename	7-151007A02	7-151008A18
Run Date	07-Oct-15 17:46	08-Oct-15 22:14
Final Volume	20 uL	20 uL
Dilution Factor	1	1
Analysis Units	%	%
Instrument - Column	HRMS-7 DB5MSUSE700122H	HRMS-7 DB5MSUSE700122H

Target Analytes	pg	Ret. Time	% Rec	Limits	Flags	Ret. Time	% Rec	Flags
2,3,7,8-TCDD	200	27.48	104	67-158		27.58	107	
1,2,3,7,8-PeCDD	1000	31.83	106	70-142		31.88	103	
1,2,3,4,7,8-HxCDD	1000	33.91	104	70-164		33.95	102	
1,2,3,6,7,8-HxCDD	1000	33.96	99	76-134		34.00	96	
1,2,3,7,8,9-HxCDD	1000	34.09	132	64-162		34.12	129	
1,2,3,4,6,7,8-HpCDD	1000	35.55	104	70-140		35.58	109	
OCDD	2000	37.02	103	78-144		37.05	99	
2,3,7,8-TCDF	200	26.59	113	75-158		26.67	106	
1,2,3,7,8-PeCDF	1000	30.87	99	80-134		30.91	106	
2,3,4,7,8-PeCDF	1000	31.61	97	68-160		31.66	99	
1,2,3,4,7,8-HxCDF	1000	33.42	106	72-134		33.45	103	
1,2,3,6,7,8-HxCDF	1000	33.48	95	84-130		33.52	94	
2,3,4,6,7,8-HxCDF	1000	33.82	111	78-130		33.85	108	
1,2,3,7,8,9-HxCDF	1000	34.24	109	70-156		34.27	107	
1,2,3,4,6,7,8-HpCDF	1000	35.00	98	82-122		35.04	97	
1,2,3,4,7,8,9-HpCDF	1000	35.80	98	78-138		35.83	98	
OCDF	2000	37.11	104	63-170		37.14	101	
Extraction Standards								
	pg		% Rec	Limits			% Rec	
13C12-2,3,7,8-TCDD	2000	27.47	20	20-175		27.55	21	
13C12-1,2,3,7,8-PeCDD	2000	31.82	52	21-227		31.87	51	
13C12-1,2,3,4,7,8-HxCDD	2000	33.91	61	21-193		33.94	63	
13C12-1,2,3,6,7,8-HxCDD	2000	33.96	83	25-163		33.99	81	
13C12-1,2,3,4,6,7,8-HpCDD	2000	35.55	96	26-166		35.58	85	
13C12-OCDD	4000	37.01	99	13-138		37.04	85	
13C12-2,3,7,8-TCDF	2000	26.56	6	22-152		26.65	6	
13C12-1,2,3,7,8-PeCDF	2000	30.86	38	21-192		30.90	37	
13C12-2,3,4,7,8-PeCDF	2000	31.60	34	13-328		31.65	34	
13C12-1,2,3,4,7,8-HxCDF	2000	33.41	61	19-202		33.44	63	
13C12-1,2,3,6,7,8-HxCDF	2000	33.47	79	21-159		33.51	77	
13C12-2,3,4,6,7,8-HxCDF	2000	33.81	87	17-205		33.84	83	
13C12-1,2,3,7,8,9-HxCDF	2000	34.22	81	22-176		34.26	76	
13C12-1,2,3,4,6,7,8-HpCDF	2000	34.99	97	21-158		35.03	88	
13C12-1,2,3,4,7,8,9-HpCDF	2000	35.79	97	20-186		35.82	85	
Cleanup Standard								
	pg							
7Cl4-2,3,7,8-TCDD (Cleanup)	40	27.50	22	31-191		27.58	22	



Chain of Custody (COC) / Analytical Request Form



L1682822-COFC

COC Number: 14 -

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Invoice To		Invoice Distribution			Analysis Request									
Same as Report To <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Select Invoice Distribution: <input checked="" type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX			Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below									
Copy of Invoice with Report <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Email 1 or Fax lbrasowski@covanta.com												
Company:		Email 2 ahuxter@covanta.com												
Contact:														
Project Information		Oil and Gas Required Fields (client use)												
ALS Quote #: Q47832		Approver ID:			Cost Center:									
Job #: DYEC - FLY ASH PROJECT		GL Account:			Routing Code:									
PO / AFE:		Activity Code:												
LSD:		Location:												
ALS Lab Work Order # (lab use only)		ALS Contact: Wayne Smith			Sampler: Amanda Huxter									
L1682822														
ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	TCLP - COMPLETE SCHEDULE 4 (TCLP-COMP-GP-WT)		ALS ON-SITE PICK-UP (SHIPPING-WT)						Number of Containers	
1	DYEC/FA/151002/1	3-Oct-15	8:00	Soil	E		R							3
2	DYEC/FA/151002/2	3-Oct-15	8:00	Soil	E		R							3
3	DYEC/FA/151002/3	3-Oct-15	8:00	Soil	E		R							3
4	DYEC/FA/151002/4	3-Oct-15	8:00	Soil	E		R							3
Drinking Water (DW) Samples¹ (client use)		Special Instructions / Specify Criteria to add on report (client Use)			SAMPLE CONDITION AS RECEIVED (lab use only)									
Are samples taken from a Regulated DW System? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Regulation 347 Criteria Report			Frozen <input type="checkbox"/> SIF Observations Yes <input type="checkbox"/> No <input type="checkbox"/> Ice packs Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Custody seal intact Yes <input type="checkbox"/> No <input type="checkbox"/> Cooling Initiated <input checked="" type="checkbox"/>									
Are samples for human drinking water use? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					INITIAL COOLER TEMPERATURES °C					FINAL COOLER TEMPERATURES °C				
										12.0				
SHIPMENT RELEASE (client use)				INITIAL SHIPMENT RECEPTION (lab use only)				FINAL SHIPMENT RECEPTION (lab use only)						
Released by: John Coyne	Date: 3-Oct-15	Time: 9am	Received by:	Date:	Time:	Received by:	Date:	Time:	12:05 12.05					

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

NA-FM-0328-006 Rev04 January 2014

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a Regulated Drinking Water (DW) System, please submit using an Authorized DW COC form.



Covanta - Durham York Renewable Energy
LP
ATTN: Leon Brasowski
1835 Energy Drive
Courtice ON L1E 2R2

Date Received: 02-OCT-15
Report Date: 09-OCT-15 11:23 (MT)
Version: FINAL

Client Phone: 905-404-4041

Certificate of Analysis

Lab Work Order #: L1682286
Project P.O. #: NOT SUBMITTED
Job Reference: DYEC-FLY ASH PROJECT
C of C Numbers:
Legal Site Desc:

Mary-Lynn Pires
Account Manager

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ANALYTICAL GUIDELINE REPORT

DYEC-FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte									
L1682286-1	DYEC/FA/151001/1									
Sampled By: AMANDA HUXTER on 02-OCT-15										
Matrix: SOIL										
Sample Preparation										
Initial pH		12.29		0.10	pH units	02-OCT-15				
Final pH		11.57		0.10	pH units	02-OCT-15				
TCLP Extractables										
Alachlor		<0.0010		0.0010	mg/L	06-OCT-15				
Aldicarb		<0.010		0.010	mg/L	03-OCT-15	0.9			
Aldrin		<0.00020		0.00020	mg/L	06-OCT-15				
Aldrin + Dieldrin		<0.00040		0.00040	mg/L	06-OCT-15	0.07			
alpha-Chlordane		<0.0010		0.0010	mg/L	06-OCT-15				
Aroclor 1242		<0.00020		0.00020	mg/L	07-OCT-15				
Aroclor 1248		<0.00020		0.00020	mg/L	07-OCT-15				
Aroclor 1254		<0.00020		0.00020	mg/L	07-OCT-15				
Aroclor 1260		<0.00020		0.00020	mg/L	07-OCT-15				
Atrazine		<0.0010		0.0010	mg/L	06-OCT-15				
Atrazine Desethyl		<0.0010		0.0010	mg/L	06-OCT-15				
Atrazine & Metabolites		<0.0020		0.0020	mg/L	06-OCT-15	0.5			
Azinphos methyl		<0.0010		0.0010	mg/L	06-OCT-15	2			
Bendiocarb		<0.0050		0.0050	mg/L	06-OCT-15	4			
Benzo(a)pyrene		<0.0010		0.0010	mg/L	06-OCT-15	0.001			
Bromoxynil		<0.0020		0.0020	mg/L	06-OCT-15	0.5			
Carbaryl		<0.0020		0.0020	mg/L	06-OCT-15	9			
Carbofuran		<0.0020		0.0020	mg/L	06-OCT-15	9			
Chlordane (Total)		<0.0030		0.0030	mg/L	06-OCT-15	0.7			
Chlorpyrifos		<0.0010		0.0010	mg/L	06-OCT-15	9			
3&4-Methylphenol		<0.010		0.010	mg/L	06-OCT-15				
Cresols (total)		<0.015		0.015	mg/L	06-OCT-15	200			
Cyanazine		<0.0010		0.0010	mg/L	06-OCT-15	1.0			
Cyanide, Weak Acid Diss		<0.10		0.10	mg/L	05-OCT-15	20			
2,4-D		<0.0020		0.0020	mg/L	06-OCT-15	10			
p,p-DDD		<0.0010		0.0010	mg/L	06-OCT-15				
p,p-DDE		<0.0010		0.0010	mg/L	06-OCT-15				
o,p-DDT		<0.0010		0.0010	mg/L	06-OCT-15				
p,p-DDT		<0.0010		0.0010	mg/L	06-OCT-15				
DDT + metabolites		<0.0040		0.0040	mg/L	06-OCT-15	3			
Diazinon		<0.0010		0.0010	mg/L	06-OCT-15	2			
Dicamba		<0.0050		0.0050	mg/L	06-OCT-15	12			
2,4-Dichlorophenol		<0.0050		0.0050	mg/L	06-OCT-15	90			
Diclofop methyl		<0.0020		0.0020	mg/L	06-OCT-15	0.9			
Dieldrin		<0.00020		0.00020	mg/L	06-OCT-15				
Dimethoate		<0.0010		0.0010	mg/L	06-OCT-15	2			
2,4-Dinitrotoluene		<0.0040		0.0040	mg/L	06-OCT-15	0.13			
Dinoseb		<0.0020		0.0020	mg/L	06-OCT-15	1			
Diquat		<0.10	DLM	0.10	mg/L	03-OCT-15	7			
Diuron		<0.010		0.010	mg/L	03-OCT-15	15			
Endrin		<0.0010		0.0010	mg/L	06-OCT-15	0.02			
Parathion		<0.0010		0.0010	mg/L	06-OCT-15	5			
Fluoride (F)		<10		10	mg/L	05-OCT-15	150.0			

** Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.

* Analytical result for this parameter exceeds Guideline Limit listed on this report. Guideline Limits applied:

Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC-FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte									
L1682286-1	DYEC/FA/151001/1									
Sampled By: AMANDA HUXTER on 02-OCT-15										
Matrix: SOIL										
TCLP Extractables										
	gamma-BHC	<0.0010		0.0010	mg/L	06-OCT-15	0.4			
	gamma-Chlordane	<0.0010		0.0010	mg/L	06-OCT-15				
	Glyphosate	<0.050		0.050	mg/L	05-OCT-15	28			
	Heptachlor	<0.0010		0.0010	mg/L	06-OCT-15				
	Heptachlor + Heptachlor Epoxide	<0.0020		0.0020	mg/L	06-OCT-15	0.3			
	Heptachlor epoxide	<0.0010		0.0010	mg/L	06-OCT-15				
	Hexachlorobenzene	<0.0040		0.0040	mg/L	06-OCT-15	0.13			
	Hexachlorobutadiene	<0.0040		0.0040	mg/L	06-OCT-15	0.5			
	Hexachloroethane	<0.0040		0.0040	mg/L	06-OCT-15	3.0			
	Malathion	<0.0010		0.0010	mg/L	06-OCT-15	19			
	MCPA	<0.0020		0.0020	mg/L	06-OCT-15				
	Methoxychlor	<0.0010		0.0010	mg/L	06-OCT-15	90			
	Methyl Parathion	<0.0010		0.0010	mg/L	06-OCT-15	0.7			
	2-Methylphenol	<0.0050		0.0050	mg/L	06-OCT-15				
	Metolachlor	<0.0010		0.0010	mg/L	06-OCT-15	5			
	Metribuzin	<0.0010		0.0010	mg/L	06-OCT-15	8			
	Nitrate and Nitrite as N	<4.0		4.0	mg/L	05-OCT-15	1000			
	Nitrate-N	<2.0		2.0	mg/L	05-OCT-15				
	Nitrotriacetic Acid (NTA)	<40		0.20	mg/L	05-OCT-15	40			
	Nitrite-N	<2.0		2.0	mg/L	05-OCT-15				
	Nitrobenzene	<0.0040		0.0040	mg/L	06-OCT-15	2.0			
	N-Nitrosodimethylamine	<0.00020		0.00020	mg/L	06-OCT-15	0.0009			
	Oxychlordane	<0.0010		0.0010	mg/L	06-OCT-15				
	Paraquat	<0.10	DLM	0.10	mg/L	03-OCT-15	1			
	Total PCBs	<0.00040		0.00040	mg/L	07-OCT-15	0.3			
	Pentachlorophenol	<0.0050		0.0050	mg/L	06-OCT-15	6			
	Phorate	<0.0010		0.0010	mg/L	06-OCT-15	0.2			
	Picloram	<0.0050		0.0050	mg/L	06-OCT-15	19			
	Prometryne	<0.0010		0.0010	mg/L	06-OCT-15				
	Pyridine	<5.0		5.0	mg/L	05-OCT-15	5.0			
	Simazine	<0.0010		0.0010	mg/L	06-OCT-15	1			
	2,4,5-T	<0.0020		0.0020	mg/L	06-OCT-15	28			
	Temephos	<0.0010		0.0010	mg/L	06-OCT-15	28			
	Terbufos	<0.0020		0.0020	mg/L	06-OCT-15	0.1			
	2,3,4,6-Tetrachlorophenol	<0.0050		0.0050	mg/L	06-OCT-15	10.0			
	Toxaphene	<0.0035		0.0035	mg/L	06-OCT-15	0.5			
	2,4,5-TP	<0.0020		0.0020	mg/L	06-OCT-15	1			
	Triallate	<0.0010		0.0010	mg/L	06-OCT-15	23			
	2,4,5-Trichlorophenol	<0.0050		0.0050	mg/L	06-OCT-15	400			
	2,4,6-Trichlorophenol	<0.0050		0.0050	mg/L	06-OCT-15	0.5			
	Trifluralin	<0.0050		0.0050	mg/L	06-OCT-15	4.5			
	Surrogate: 2,4,6-Tribromophenol	103.7		50-150	%	06-OCT-15				
	Surrogate: 2,4-Dichlorophenylacetic Acid	100.4		50-150	%	06-OCT-15				
	Surrogate: 2-Fluorobiphenyl	108.6		40-160	%	06-OCT-15				
	Surrogate: 2-Fluorobiphenyl	84.4		40-160	%	07-OCT-15				

** Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.

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Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC-FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits		
Grouping	Analyte								
L1682286-1	DYEC/FA/151001/1								
Sampled By: AMANDA HUXTER on 02-OCT-15									
Matrix: SOIL									
TCLP Extractables									
	Surrogate: 2-Fluorobiphenyl	88.5		40-160	%	06-OCT-15			
	Surrogate: Nitrobenzene d5	110.5		50-150	%	06-OCT-15			
	Surrogate: d14-Terphenyl	93.2		60-140	%	06-OCT-15			
	Surrogate: d14-Terphenyl	98.5		60-140	%	06-OCT-15			
	Surrogate: p-Terphenyl d14	117.4		60-140	%	06-OCT-15			
TCLP Metals									
	Arsenic (As)	<0.050		0.050	mg/L	05-OCT-15	2.5		
	Barium (Ba)	1.74		0.50	mg/L	05-OCT-15	100		
	Boron (B)	<2.5		2.5	mg/L	05-OCT-15	500		
	Cadmium (Cd)	<0.0050		0.0050	mg/L	05-OCT-15	0.5		
	Chromium (Cr)	<0.050		0.050	mg/L	05-OCT-15	5.0		
	Lead (Pb)	<0.050		0.050	mg/L	05-OCT-15	5.0		
	Mercury (Hg)	<0.00010		0.00010	mg/L	05-OCT-15	0.1		
	Selenium (Se)	<0.25		0.25	mg/L	05-OCT-15	1.0		
	Silver (Ag)	<0.0050		0.0050	mg/L	05-OCT-15	5.0		
	Uranium (U)	<0.25		0.25	mg/L	05-OCT-15	10		
TCLP VOCs									
	1,1-Dichloroethylene	<0.025		0.025	mg/L	06-OCT-15	1.4		
	1,2-Dichlorobenzene	<0.025		0.025	mg/L	06-OCT-15	20.0		
	1,2-Dichloroethane	<0.025		0.025	mg/L	06-OCT-15	0.5		
	1,4-Dichlorobenzene	<0.025		0.025	mg/L	06-OCT-15	0.5		
	Benzene	<0.025		0.025	mg/L	06-OCT-15	0.5		
	Carbon tetrachloride	<0.025		0.025	mg/L	06-OCT-15	0.5		
	Chlorobenzene	<0.025		0.025	mg/L	06-OCT-15	8		
	Chloroform	<0.10		0.10	mg/L	06-OCT-15	10		
	Dichloromethane	<0.50		0.50	mg/L	06-OCT-15	5.0		
	Methyl Ethyl Ketone	<1.0		1.0	mg/L	06-OCT-15	200.0		
	Tetrachloroethylene	<0.025		0.025	mg/L	06-OCT-15	3		
	Trichloroethylene	<0.025		0.025	mg/L	06-OCT-15	5		
	Vinyl chloride	<0.050		0.050	mg/L	06-OCT-15	0.2		
	Surrogate: 4-Bromofluorobenzene	97.9		70-130	%	06-OCT-15			
Volatile Organic Compounds									
	Surrogate: 1,4-Difluorobenzene	99.8		50-150	%	06-OCT-15			
Polychlorinated Biphenyls									
	Surrogate: Decachlorobiphenyl	99.0		50-150	%	06-OCT-15			
	Surrogate: Tetrachloro-m-xylene	81.5		50-150	%	06-OCT-15			

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* Analytical result for this parameter exceeds Guideline Limit listed on this report. Guideline Limits applied:

Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC-FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte									
L1682286-2	DYEC/FA/151001/2									
Sampled By: AMANDA HUXTER on 02-OCT-15										
Matrix: SOIL										
Sample Preparation										
Initial pH		12.29		0.10	pH units	02-OCT-15				
Final pH		11.57		0.10	pH units	02-OCT-15				
TCLP Extractables										
Alachlor		<0.0010		0.0010	mg/L	06-OCT-15				
Aldicarb		<0.010		0.010	mg/L	03-OCT-15	0.9			
Aldrin		<0.00020		0.00020	mg/L	06-OCT-15				
Aldrin + Dieldrin		<0.00040		0.00040	mg/L	06-OCT-15	0.07			
alpha-Chlordane		<0.0010		0.0010	mg/L	06-OCT-15				
Aroclor 1242		<0.00020		0.00020	mg/L	07-OCT-15				
Aroclor 1248		<0.00020		0.00020	mg/L	07-OCT-15				
Aroclor 1254		<0.00020		0.00020	mg/L	07-OCT-15				
Aroclor 1260		<0.00020		0.00020	mg/L	07-OCT-15				
Atrazine		<0.0010		0.0010	mg/L	06-OCT-15				
Atrazine Desethyl		<0.0010		0.0010	mg/L	06-OCT-15				
Atrazine & Metabolites		<0.0020		0.0020	mg/L	06-OCT-15	0.5			
Azinphos methyl		<0.0010		0.0010	mg/L	06-OCT-15	2			
Bendiocarb		<0.0050		0.0050	mg/L	06-OCT-15	4			
Benzo(a)pyrene		<0.0010		0.0010	mg/L	06-OCT-15	0.001			
Bromoxynil		<0.0020		0.0020	mg/L	06-OCT-15	0.5			
Carbaryl		<0.0020		0.0020	mg/L	06-OCT-15	9			
Carbofuran		<0.0020		0.0020	mg/L	06-OCT-15	9			
Chlordane (Total)		<0.0030		0.0030	mg/L	06-OCT-15	0.7			
Chlorpyrifos		<0.0010		0.0010	mg/L	06-OCT-15	9			
3&4-Methylphenol		<0.010		0.010	mg/L	06-OCT-15				
Cresols (total)		<0.015		0.015	mg/L	06-OCT-15	200			
Cyanazine		<0.0010		0.0010	mg/L	06-OCT-15	1.0			
Cyanide, Weak Acid Diss		<0.10		0.10	mg/L	05-OCT-15	20			
2,4-D		<0.0020		0.0020	mg/L	06-OCT-15	10			
p,p-DDD		<0.0010		0.0010	mg/L	06-OCT-15				
p,p-DDE		<0.0010		0.0010	mg/L	06-OCT-15				
o,p-DDT		<0.0010		0.0010	mg/L	06-OCT-15				
p,p-DDT		<0.0010		0.0010	mg/L	06-OCT-15				
DDT + metabolites		<0.0040		0.0040	mg/L	06-OCT-15	3			
Diazinon		<0.0010		0.0010	mg/L	06-OCT-15	2			
Dicamba		<0.0050		0.0050	mg/L	06-OCT-15	12			
2,4-Dichlorophenol		<0.0050		0.0050	mg/L	06-OCT-15	90			
Diclofop methyl		<0.0020		0.0020	mg/L	06-OCT-15	0.9			
Dieldrin		<0.00020		0.00020	mg/L	06-OCT-15				
Dimethoate		<0.0010		0.0010	mg/L	06-OCT-15	2			
2,4-Dinitrotoluene		<0.0040		0.0040	mg/L	06-OCT-15	0.13			
Dinoseb		<0.0020		0.0020	mg/L	06-OCT-15	1			
Diquat		<0.10	DLM	0.10	mg/L	03-OCT-15	7			
Diuron		<0.010		0.010	mg/L	03-OCT-15	15			
Endrin		<0.0010		0.0010	mg/L	06-OCT-15	0.02			
Parathion		<0.0010		0.0010	mg/L	06-OCT-15	5			
Fluoride (F)		<10		10	mg/L	05-OCT-15	150.0			

** Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.

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Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC-FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte									
L1682286-2	DYEC/FA/151001/2									
Sampled By: AMANDA HUXTER on 02-OCT-15										
Matrix: SOIL										#1
TCLP Extractables										
	gamma-BHC	<0.0010		0.0010	mg/L	06-OCT-15	0.4			
	gamma-Chlordane	<0.0010		0.0010	mg/L	06-OCT-15				
	Glyphosate	<0.050		0.050	mg/L	05-OCT-15	28			
	Heptachlor	<0.0010		0.0010	mg/L	06-OCT-15				
	Heptachlor + Heptachlor Epoxide	<0.0020		0.0020	mg/L	06-OCT-15	0.3			
	Heptachlor epoxide	<0.0010		0.0010	mg/L	06-OCT-15				
	Hexachlorobenzene	<0.0040		0.0040	mg/L	06-OCT-15	0.13			
	Hexachlorobutadiene	<0.0040		0.0040	mg/L	06-OCT-15	0.5			
	Hexachloroethane	<0.0040		0.0040	mg/L	06-OCT-15	3.0			
	Malathion	<0.0010		0.0010	mg/L	06-OCT-15	19			
	MCPA	<0.0020		0.0020	mg/L	06-OCT-15				
	Methoxychlor	<0.0010		0.0010	mg/L	06-OCT-15	90			
	Methyl Parathion	<0.0010		0.0010	mg/L	06-OCT-15	0.7			
	2-Methylphenol	<0.0050		0.0050	mg/L	06-OCT-15				
	Metolachlor	<0.0010		0.0010	mg/L	06-OCT-15	5			
	Metribuzin	<0.0010		0.0010	mg/L	06-OCT-15	8			
	Nitrate and Nitrite as N	<4.0		4.0	mg/L	05-OCT-15	1000			
	Nitrate-N	<2.0		2.0	mg/L	05-OCT-15				
	Nitrotriacetic Acid (NTA)	<40		0.20	mg/L	05-OCT-15	40			
	Nitrite-N	<2.0		2.0	mg/L	05-OCT-15				
	Nitrobenzene	<0.0040		0.0040	mg/L	06-OCT-15	2.0			
	N-Nitrosodimethylamine	<0.00020		0.00020	mg/L	05-OCT-15	0.0009			
	Oxychlordane	<0.0010		0.0010	mg/L	06-OCT-15				
	Paraquat	<0.10	DLM	0.10	mg/L	03-OCT-15	1			
	Total PCBs	<0.00040		0.00040	mg/L	07-OCT-15	0.3			
	Pentachlorophenol	<0.0050		0.0050	mg/L	06-OCT-15	6			
	Phorate	<0.0010		0.0010	mg/L	06-OCT-15	0.2			
	Picloram	<0.0050		0.0050	mg/L	06-OCT-15	19			
	Prometryne	<0.0010		0.0010	mg/L	06-OCT-15				
	Pyridine	<5.0		5.0	mg/L	05-OCT-15	5.0			
	Simazine	<0.0010		0.0010	mg/L	06-OCT-15	1			
	2,4,5-T	<0.0020		0.0020	mg/L	06-OCT-15	28			
	Temephos	<0.0010		0.0010	mg/L	06-OCT-15	28			
	Terbufos	<0.0020		0.0020	mg/L	06-OCT-15	0.1			
	2,3,4,6-Tetrachlorophenol	<0.0050		0.0050	mg/L	06-OCT-15	10.0			
	Toxaphene	<0.0035		0.0035	mg/L	06-OCT-15	0.5			
	2,4,5-TP	<0.0020		0.0020	mg/L	06-OCT-15	1			
	Triallate	<0.0010		0.0010	mg/L	06-OCT-15	23			
	2,4,5-Trichlorophenol	<0.0050		0.0050	mg/L	06-OCT-15	400			
	2,4,6-Trichlorophenol	<0.0050		0.0050	mg/L	06-OCT-15	0.5			
	Trifluralin	<0.0050		0.0050	mg/L	06-OCT-15	4.5			
	Surrogate: 2,4,6-Tribromophenol	103.7		50-150	%	06-OCT-15				
	Surrogate: 2,4-Dichlorophenylacetic Acid	104.9		50-150	%	06-OCT-15				
	Surrogate: 2-Fluorobiphenyl	110.8		40-160	%	06-OCT-15				
	Surrogate: 2-Fluorobiphenyl	61.7		40-160	%	07-OCT-15				

** Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.

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Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC-FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits		
Grouping	Analyte						#1		
L1682286-2	DYEC/FA/151001/2								
Sampled By: AMANDA HUXTER on 02-OCT-15									
Matrix: SOIL									
TCLP Extractables									
	Surrogate: 2-Fluorobiphenyl	78.8		40-160	%	06-OCT-15			
	Surrogate: Nitrobenzene d5	114.5		50-150	%	06-OCT-15			
	Surrogate: d14-Terphenyl	81.3		60-140	%	06-OCT-15			
	Surrogate: d14-Terphenyl	94.3		60-140	%	06-OCT-15			
	Surrogate: p-Terphenyl d14	117.7		60-140	%	06-OCT-15			
TCLP Metals									
	Arsenic (As)	<0.050		0.050	mg/L	05-OCT-15	2.5		
	Barium (Ba)	1.92		0.50	mg/L	05-OCT-15	100		
	Boron (B)	<2.5		2.5	mg/L	05-OCT-15	500		
	Cadmium (Cd)	<0.0050		0.0050	mg/L	05-OCT-15	0.5		
	Chromium (Cr)	<0.050		0.050	mg/L	05-OCT-15	5.0		
	Lead (Pb)	<0.050		0.050	mg/L	05-OCT-15	5.0		
	Mercury (Hg)	<0.00010		0.00010	mg/L	05-OCT-15	0.1		
	Selenium (Se)	<0.25		0.25	mg/L	05-OCT-15	1.0		
	Silver (Ag)	<0.0050		0.0050	mg/L	05-OCT-15	5.0		
	Uranium (U)	<0.25		0.25	mg/L	05-OCT-15	10		
TCLP VOCs									
	1,1-Dichloroethylene	<0.025		0.025	mg/L	06-OCT-15	1.4		
	1,2-Dichlorobenzene	<0.025		0.025	mg/L	06-OCT-15	20.0		
	1,2-Dichloroethane	<0.025		0.025	mg/L	06-OCT-15	0.5		
	1,4-Dichlorobenzene	<0.025		0.025	mg/L	06-OCT-15	0.5		
	Benzene	<0.025		0.025	mg/L	06-OCT-15	0.5		
	Carbon tetrachloride	<0.025		0.025	mg/L	06-OCT-15	0.5		
	Chlorobenzene	<0.025		0.025	mg/L	06-OCT-15	8		
	Chloroform	<0.10		0.10	mg/L	06-OCT-15	10		
	Dichloromethane	<0.50		0.50	mg/L	06-OCT-15	5.0		
	Methyl Ethyl Ketone	<1.0		1.0	mg/L	06-OCT-15	200.0		
	Tetrachloroethylene	<0.025		0.025	mg/L	06-OCT-15	3		
	Trichloroethylene	<0.025		0.025	mg/L	06-OCT-15	5		
	Vinyl chloride	<0.050		0.050	mg/L	06-OCT-15	0.2		
	Surrogate: 4-Bromofluorobenzene	96.3		70-130	%	06-OCT-15			
Volatile Organic Compounds									
	Surrogate: 1,4-Difluorobenzene	100.4		50-150	%	06-OCT-15			
Polychlorinated Biphenyls									
	Surrogate: Decachlorobiphenyl	96.9		50-150	%	06-OCT-15			
	Surrogate: Tetrachloro-m-xylene	82.6		50-150	%	06-OCT-15			

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ANALYTICAL GUIDELINE REPORT

DYEC-FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte									
L1682286-3	DYEC/FA/151001/3									
Sampled By: AMANDA HUXTER on 02-OCT-15										
Matrix: SOIL										
Sample Preparation										
Initial pH		12.32		0.10	pH units	02-OCT-15				
Final pH		11.60		0.10	pH units	02-OCT-15				
TCLP Extractables										
Alachlor		<0.0010		0.0010	mg/L	06-OCT-15				
Aldicarb		<0.010		0.010	mg/L	03-OCT-15	0.9			
Aldrin		<0.00020		0.00020	mg/L	06-OCT-15				
Aldrin + Dieldrin		<0.00040		0.00040	mg/L	06-OCT-15	0.07			
alpha-Chlordane		<0.0010		0.0010	mg/L	06-OCT-15				
Aroclor 1242		<0.00020		0.00020	mg/L	07-OCT-15				
Aroclor 1248		<0.00020		0.00020	mg/L	07-OCT-15				
Aroclor 1254		<0.00020		0.00020	mg/L	07-OCT-15				
Aroclor 1260		<0.00020		0.00020	mg/L	07-OCT-15				
Atrazine		<0.0010		0.0010	mg/L	06-OCT-15				
Atrazine Desethyl		<0.0010		0.0010	mg/L	06-OCT-15				
Atrazine & Metabolites		<0.0020		0.0020	mg/L	06-OCT-15	0.5			
Azinphos methyl		<0.0010		0.0010	mg/L	06-OCT-15	2			
Bendiocarb		<0.0050		0.0050	mg/L	06-OCT-15	4			
Benzo(a)pyrene		<0.0010		0.0010	mg/L	06-OCT-15	0.001			
Bromoxynil		<0.0020		0.0020	mg/L	06-OCT-15	0.5			
Carbaryl		<0.0020		0.0020	mg/L	06-OCT-15	9			
Carbofuran		<0.0020		0.0020	mg/L	06-OCT-15	9			
Chlordane (Total)		<0.0030		0.0030	mg/L	06-OCT-15	0.7			
Chlorpyrifos		<0.0010		0.0010	mg/L	06-OCT-15	9			
3&4-Methylphenol		<0.010		0.010	mg/L	06-OCT-15				
Cresols (total)		<0.015		0.015	mg/L	06-OCT-15	200			
Cyanazine		<0.0010		0.0010	mg/L	06-OCT-15	1.0			
Cyanide, Weak Acid Diss		<0.10		0.10	mg/L	05-OCT-15	20			
2,4-D		<0.0020		0.0020	mg/L	06-OCT-15	10			
p,p-DDD		<0.0010		0.0010	mg/L	06-OCT-15				
p,p-DDE		<0.0010		0.0010	mg/L	06-OCT-15				
o,p-DDT		<0.0010		0.0010	mg/L	06-OCT-15				
p,p-DDT		<0.0010		0.0010	mg/L	06-OCT-15				
DDT + metabolites		<0.0040		0.0040	mg/L	06-OCT-15	3			
Diazinon		<0.0010		0.0010	mg/L	06-OCT-15	2			
Dicamba		<0.0050		0.0050	mg/L	06-OCT-15	12			
2,4-Dichlorophenol		<0.0050		0.0050	mg/L	06-OCT-15	90			
Diclofop methyl		<0.0020		0.0020	mg/L	06-OCT-15	0.9			
Dieldrin		<0.00020		0.00020	mg/L	06-OCT-15				
Dimethoate		<0.0010		0.0010	mg/L	06-OCT-15	2			
2,4-Dinitrotoluene		<0.0040		0.0040	mg/L	06-OCT-15	0.13			
Dinoseb		<0.0020		0.0020	mg/L	06-OCT-15	1			
Diquat		<0.10	DLM	0.10	mg/L	03-OCT-15	7			
Diuron		<0.010		0.010	mg/L	03-OCT-15	15			
Endrin		<0.0010		0.0010	mg/L	06-OCT-15	0.02			
Parathion		<0.0010		0.0010	mg/L	06-OCT-15	5			
Fluoride (F)		<10		10	mg/L	05-OCT-15	150.0			

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Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC-FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte									
L1682286-3	DYEC/FA/151001/3									
Sampled By: AMANDA HUXTER on 02-OCT-15										
Matrix: SOIL										
TCLP Extractables										
	gamma-BHC	<0.0010		0.0010	mg/L	06-OCT-15	0.4			
	gamma-Chlordane	<0.0010		0.0010	mg/L	06-OCT-15				
	Glyphosate	<0.050		0.050	mg/L	05-OCT-15	28			
	Heptachlor	<0.0010		0.0010	mg/L	06-OCT-15				
	Heptachlor + Heptachlor Epoxide	<0.0020		0.0020	mg/L	06-OCT-15	0.3			
	Heptachlor epoxide	<0.0010		0.0010	mg/L	06-OCT-15				
	Hexachlorobenzene	<0.0040		0.0040	mg/L	06-OCT-15	0.13			
	Hexachlorobutadiene	<0.0040		0.0040	mg/L	06-OCT-15	0.5			
	Hexachloroethane	<0.0040		0.0040	mg/L	06-OCT-15	3.0			
	Malathion	<0.0010		0.0010	mg/L	06-OCT-15	19			
	MCPA	<0.0020		0.0020	mg/L	06-OCT-15				
	Methoxychlor	<0.0010		0.0010	mg/L	06-OCT-15	90			
	Methyl Parathion	<0.0010		0.0010	mg/L	06-OCT-15	0.7			
	2-Methylphenol	<0.0050		0.0050	mg/L	06-OCT-15				
	Metolachlor	<0.0010		0.0010	mg/L	06-OCT-15	5			
	Metribuzin	<0.0010		0.0010	mg/L	06-OCT-15	8			
	Nitrate and Nitrite as N	<4.0		4.0	mg/L	05-OCT-15	1000			
	Nitrate-N	<2.0		2.0	mg/L	05-OCT-15				
	Nitrotriacetic Acid (NTA)	<40		0.20	mg/L	05-OCT-15	40			
	Nitrite-N	<2.0		2.0	mg/L	05-OCT-15				
	Nitrobenzene	<0.0040		0.0040	mg/L	06-OCT-15	2.0			
	N-Nitrosodimethylamine	<0.00020		0.00020	mg/L	06-OCT-15	0.0009			
	Oxychlordane	<0.0010		0.0010	mg/L	06-OCT-15				
	Paraquat	<0.10	DLM	0.10	mg/L	03-OCT-15	1			
	Total PCBs	<0.00040		0.00040	mg/L	07-OCT-15	0.3			
	Pentachlorophenol	<0.0050		0.0050	mg/L	06-OCT-15	6			
	Phorate	<0.0010		0.0010	mg/L	06-OCT-15	0.2			
	Picloram	<0.0050		0.0050	mg/L	06-OCT-15	19			
	Prometryne	<0.0010		0.0010	mg/L	06-OCT-15				
	Pyridine	<5.0		5.0	mg/L	05-OCT-15	5.0			
	Simazine	<0.0010		0.0010	mg/L	06-OCT-15	1			
	2,4,5-T	<0.0020		0.0020	mg/L	06-OCT-15	28			
	Temephos	<0.0010		0.0010	mg/L	06-OCT-15	28			
	Terbufos	<0.0020		0.0020	mg/L	06-OCT-15	0.1			
	2,3,4,6-Tetrachlorophenol	<0.0050		0.0050	mg/L	06-OCT-15	10.0			
	Toxaphene	<0.0035		0.0035	mg/L	06-OCT-15	0.5			
	2,4,5-TP	<0.0020		0.0020	mg/L	06-OCT-15	1			
	Triallate	<0.0010		0.0010	mg/L	06-OCT-15	23			
	2,4,5-Trichlorophenol	<0.0050		0.0050	mg/L	06-OCT-15	400			
	2,4,6-Trichlorophenol	<0.0050		0.0050	mg/L	06-OCT-15	0.5			
	Trifluralin	<0.0050		0.0050	mg/L	06-OCT-15	4.5			
	Surrogate: 2,4,6-Tribromophenol	98.9		50-150	%	06-OCT-15				
	Surrogate: 2,4-Dichlorophenylacetic Acid	112.2		50-150	%	06-OCT-15				
	Surrogate: 2-Fluorobiphenyl	105.3		40-160	%	06-OCT-15				
	Surrogate: 2-Fluorobiphenyl	85.5		40-160	%	06-OCT-15				

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Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC-FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits		
Grouping	Analyte								
L1682286-3 DYEC/FA/151001/3									
Sampled By: AMANDA HUXTER on 02-OCT-15									
Matrix: SOIL									
TCLP Extractables									
	Surrogate: 2-Fluorobiphenyl	88.0		40-160	%	07-OCT-15			
	Surrogate: Nitrobenzene d5	107.0		50-150	%	06-OCT-15			
	Surrogate: d14-Terphenyl	94.8		60-140	%	06-OCT-15			
	Surrogate: d14-Terphenyl	99.1		60-140	%	06-OCT-15			
	Surrogate: p-Terphenyl d14	107.1		60-140	%	06-OCT-15			
TCLP Metals									
	Arsenic (As)	<0.050		0.050	mg/L	05-OCT-15	2.5		
	Barium (Ba)	2.11		0.50	mg/L	05-OCT-15	100		
	Boron (B)	<2.5		2.5	mg/L	05-OCT-15	500		
	Cadmium (Cd)	<0.0050		0.0050	mg/L	05-OCT-15	0.5		
	Chromium (Cr)	0.053		0.050	mg/L	05-OCT-15	5.0		
	Lead (Pb)	<0.050		0.050	mg/L	05-OCT-15	5.0		
	Mercury (Hg)	<0.00010		0.00010	mg/L	05-OCT-15	0.1		
	Selenium (Se)	<0.25		0.25	mg/L	05-OCT-15	1.0		
	Silver (Ag)	<0.0050		0.0050	mg/L	05-OCT-15	5.0		
	Uranium (U)	<0.25		0.25	mg/L	05-OCT-15	10		
TCLP VOCs									
	1,1-Dichloroethylene	<0.025		0.025	mg/L	06-OCT-15	1.4		
	1,2-Dichlorobenzene	<0.025		0.025	mg/L	06-OCT-15	20.0		
	1,2-Dichloroethane	<0.025		0.025	mg/L	06-OCT-15	0.5		
	1,4-Dichlorobenzene	<0.025		0.025	mg/L	06-OCT-15	0.5		
	Benzene	<0.025		0.025	mg/L	06-OCT-15	0.5		
	Carbon tetrachloride	<0.025		0.025	mg/L	06-OCT-15	0.5		
	Chlorobenzene	<0.025		0.025	mg/L	06-OCT-15	8		
	Chloroform	<0.10		0.10	mg/L	06-OCT-15	10		
	Dichloromethane	<0.50		0.50	mg/L	06-OCT-15	5.0		
	Methyl Ethyl Ketone	<1.0		1.0	mg/L	06-OCT-15	200.0		
	Tetrachloroethylene	<0.025		0.025	mg/L	06-OCT-15	3		
	Trichloroethylene	<0.025		0.025	mg/L	06-OCT-15	5		
	Vinyl chloride	<0.050		0.050	mg/L	06-OCT-15	0.2		
	Surrogate: 4-Bromofluorobenzene	96.9		70-130	%	06-OCT-15			
Volatile Organic Compounds									
	Surrogate: 1,4-Difluorobenzene	100.3		50-150	%	06-OCT-15			
Polychlorinated Biphenyls									
	Surrogate: Decachlorobiphenyl	106.0		50-150	%	06-OCT-15			
	Surrogate: Tetrachloro-m-xylene	92.4		50-150	%	06-OCT-15			

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Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC-FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits												
Grouping	Analyte																		
L1682286-4	DYEC/FA/151001/4																		
Sampled By: AMANDA HUXTER on 02-OCT-15																			
Matrix: SOIL																			
Sample Preparation																			
	Initial pH	12.31		0.10	pH units	02-OCT-15													
	Final pH	11.56		0.10	pH units	02-OCT-15													
TCLP Extractables																			
	Alachlor	<0.0010		0.0010	mg/L	06-OCT-15													
	Aldicarb	<0.010		0.010	mg/L	03-OCT-15				0.9									
	Aldrin	<0.00020		0.00020	mg/L	06-OCT-15													
	Aldrin + Dieldrin	<0.00040		0.00040	mg/L	06-OCT-15				0.07									
	alpha-Chlordane	<0.0010		0.0010	mg/L	06-OCT-15													
	Aroclor 1242	<0.00020		0.00020	mg/L	07-OCT-15													
	Aroclor 1248	<0.00020		0.00020	mg/L	07-OCT-15													
	Aroclor 1254	<0.00020		0.00020	mg/L	07-OCT-15													
	Aroclor 1260	<0.00020		0.00020	mg/L	07-OCT-15													
	Atrazine	<0.0010		0.0010	mg/L	06-OCT-15													
	Atrazine Desethyl	<0.0010		0.0010	mg/L	06-OCT-15													
	Atrazine & Metabolites	<0.0020		0.0020	mg/L	06-OCT-15				0.5									
	Azinphos methyl	<0.0010		0.0010	mg/L	06-OCT-15				2									
	Bendiocarb	<0.0050		0.0050	mg/L	06-OCT-15				4									
	Benzo(a)pyrene	<0.0010		0.0010	mg/L	06-OCT-15				0.001									
	Bromoxynil	<0.0020		0.0020	mg/L	06-OCT-15				0.5									
	Carbaryl	<0.0020		0.0020	mg/L	06-OCT-15				9									
	Carbofuran	<0.0020		0.0020	mg/L	06-OCT-15				9									
	Chlordane (Total)	<0.0030		0.0030	mg/L	06-OCT-15				0.7									
	Chlorpyrifos	<0.0010		0.0010	mg/L	06-OCT-15				9									
	3&4-Methylphenol	<0.010		0.010	mg/L	06-OCT-15													
	Cresols (total)	<0.015		0.015	mg/L	06-OCT-15				200									
	Cyanazine	<0.0010		0.0010	mg/L	06-OCT-15				1.0									
	Cyanide, Weak Acid Diss	<0.10		0.10	mg/L	05-OCT-15				20									
	2,4-D	<0.0020		0.0020	mg/L	06-OCT-15				10									
	p,p-DDD	<0.0010		0.0010	mg/L	06-OCT-15													
	p,p-DDE	<0.0010		0.0010	mg/L	06-OCT-15													
	o,p-DDT	<0.0010		0.0010	mg/L	06-OCT-15													
	p,p-DDT	<0.0010		0.0010	mg/L	06-OCT-15													
	DDT + metabolites	<0.0040		0.0040	mg/L	06-OCT-15				3									
	Diazinon	<0.0010		0.0010	mg/L	06-OCT-15				2									
	Dicamba	<0.0050		0.0050	mg/L	06-OCT-15				12									
	2,4-Dichlorophenol	<0.0050		0.0050	mg/L	06-OCT-15				90									
	Diclofop methyl	<0.0020		0.0020	mg/L	06-OCT-15				0.9									
	Dieldrin	<0.00020		0.00020	mg/L	06-OCT-15													
	Dimethoate	<0.0010		0.0010	mg/L	06-OCT-15				2									
	2,4-Dinitrotoluene	<0.0040		0.0040	mg/L	06-OCT-15				0.13									
	Dinoseb	<0.0020		0.0020	mg/L	06-OCT-15				1									
	Diquat	<0.10	DLM	0.10	mg/L	03-OCT-15				7									
	Diuron	<0.010		0.010	mg/L	03-OCT-15				15									
	Endrin	<0.0010		0.0010	mg/L	06-OCT-15				0.02									
	Parathion	<0.0010		0.0010	mg/L	06-OCT-15				5									
	Fluoride (F)	<10		10	mg/L	05-OCT-15				150.0									

** Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.

* Analytical result for this parameter exceeds Guideline Limit listed on this report. Guideline Limits applied:

Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC-FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte									
L1682286-4	DYEC/FA/151001/4									
Sampled By: AMANDA HUXTER on 02-OCT-15										
Matrix: SOIL										
TCLP Extractables										
	gamma-BHC	<0.0010		0.0010	mg/L	06-OCT-15	0.4			
	gamma-Chlordane	<0.0010		0.0010	mg/L	06-OCT-15				
	Glyphosate	<0.050		0.050	mg/L	05-OCT-15	28			
	Heptachlor	<0.0010		0.0010	mg/L	06-OCT-15				
	Heptachlor + Heptachlor Epoxide	<0.0020		0.0020	mg/L	06-OCT-15	0.3			
	Heptachlor epoxide	<0.0010		0.0010	mg/L	06-OCT-15				
	Hexachlorobenzene	<0.0040		0.0040	mg/L	06-OCT-15	0.13			
	Hexachlorobutadiene	<0.0040		0.0040	mg/L	06-OCT-15	0.5			
	Hexachloroethane	<0.0040		0.0040	mg/L	06-OCT-15	3.0			
	Malathion	<0.0010		0.0010	mg/L	06-OCT-15	19			
	MCPA	<0.0020		0.0020	mg/L	06-OCT-15				
	Methoxychlor	<0.0010		0.0010	mg/L	06-OCT-15	90			
	Methyl Parathion	<0.0010		0.0010	mg/L	06-OCT-15	0.7			
	2-Methylphenol	<0.0050		0.0050	mg/L	06-OCT-15				
	Metolachlor	<0.0010		0.0010	mg/L	06-OCT-15	5			
	Metribuzin	<0.0010		0.0010	mg/L	06-OCT-15	8			
	Nitrate and Nitrite as N	<4.0		4.0	mg/L	05-OCT-15	1000			
	Nitrate-N	<2.0		2.0	mg/L	05-OCT-15				
	Nitrotriacetic Acid (NTA)	<40		0.20	mg/L	05-OCT-15	40			
	Nitrite-N	<2.0		2.0	mg/L	05-OCT-15				
	Nitrobenzene	<0.0040		0.0040	mg/L	06-OCT-15	2.0			
	N-Nitrosodimethylamine	<0.00020		0.00020	mg/L	06-OCT-15	0.0009			
	Oxychlordane	<0.0010		0.0010	mg/L	06-OCT-15				
	Paraquat	<0.10	DLM	0.10	mg/L	03-OCT-15	1			
	Total PCBs	<0.00040		0.00040	mg/L	07-OCT-15	0.3			
	Pentachlorophenol	<0.0050		0.0050	mg/L	06-OCT-15	6			
	Phorate	<0.0010		0.0010	mg/L	06-OCT-15	0.2			
	Picloram	<0.0050		0.0050	mg/L	06-OCT-15	19			
	Prometryne	<0.0010		0.0010	mg/L	06-OCT-15				
	Pyridine	<5.0		5.0	mg/L	05-OCT-15	5.0			
	Simazine	<0.0010		0.0010	mg/L	06-OCT-15	1			
	2,4,5-T	<0.0020		0.0020	mg/L	06-OCT-15	28			
	Temephos	<0.0010		0.0010	mg/L	06-OCT-15	28			
	Terbufos	<0.0020		0.0020	mg/L	06-OCT-15	0.1			
	2,3,4,6-Tetrachlorophenol	<0.0050		0.0050	mg/L	06-OCT-15	10.0			
	Toxaphene	<0.0037	DLM	0.0037	mg/L	06-OCT-15	0.5			
	2,4,5-TP	<0.0020		0.0020	mg/L	06-OCT-15	1			
	Triallate	<0.0010		0.0010	mg/L	06-OCT-15	23			
	2,4,5-Trichlorophenol	<0.0050		0.0050	mg/L	06-OCT-15	400			
	2,4,6-Trichlorophenol	<0.0050		0.0050	mg/L	06-OCT-15	0.5			
	Trifluralin	<0.0050		0.0050	mg/L	06-OCT-15	4.5			
	Surrogate: 2,4,6-Tribromophenol	108.4		50-150	%	06-OCT-15				
	Surrogate: 2,4-Dichlorophenylacetic Acid	102.6		50-150	%	06-OCT-15				
	Surrogate: 2-Fluorobiphenyl	109.3		40-160	%	06-OCT-15				
	Surrogate: 2-Fluorobiphenyl	82.0		40-160	%	06-OCT-15				

** Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.

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Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC-FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits		
Grouping	Analyte								
L1682286-4	DYEC/FA/151001/4								
Sampled By: AMANDA HUXTER on 02-OCT-15									
Matrix: SOIL									
TCLP Extractables									
Surrogate: 2-Fluorobiphenyl		86.9		40-160	%	07-OCT-15			
Surrogate: Nitrobenzene d5		112.3		50-150	%	06-OCT-15			
Surrogate: d14-Terphenyl		94.0		60-140	%	06-OCT-15			
Surrogate: d14-Terphenyl		97.7		60-140	%	06-OCT-15			
Surrogate: p-Terphenyl d14		104.4		60-140	%	06-OCT-15			
TCLP Metals									
Arsenic (As)		<0.050		0.050	mg/L	05-OCT-15	2.5		
Barium (Ba)		2.08		0.50	mg/L	05-OCT-15	100		
Boron (B)		<2.5		2.5	mg/L	05-OCT-15	500		
Cadmium (Cd)		<0.0050		0.0050	mg/L	05-OCT-15	0.5		
Chromium (Cr)		<0.050		0.050	mg/L	05-OCT-15	5.0		
Lead (Pb)		<0.050		0.050	mg/L	05-OCT-15	5.0		
Mercury (Hg)		<0.00010		0.00010	mg/L	05-OCT-15	0.1		
Selenium (Se)		<0.25		0.25	mg/L	05-OCT-15	1.0		
Silver (Ag)		<0.0050		0.0050	mg/L	05-OCT-15	5.0		
Uranium (U)		<0.25		0.25	mg/L	05-OCT-15	10		
TCLP VOCs									
1,1-Dichloroethylene		<0.025		0.025	mg/L	06-OCT-15	1.4		
1,2-Dichlorobenzene		<0.025		0.025	mg/L	06-OCT-15	20.0		
1,2-Dichloroethane		<0.025		0.025	mg/L	06-OCT-15	0.5		
1,4-Dichlorobenzene		<0.025		0.025	mg/L	06-OCT-15	0.5		
Benzene		<0.025		0.025	mg/L	06-OCT-15	0.5		
Carbon tetrachloride		<0.025		0.025	mg/L	06-OCT-15	0.5		
Chlorobenzene		<0.025		0.025	mg/L	06-OCT-15	8		
Chloroform		<0.10		0.10	mg/L	06-OCT-15	10		
Dichloromethane		<0.50		0.50	mg/L	06-OCT-15	5.0		
Methyl Ethyl Ketone		<1.0		1.0	mg/L	06-OCT-15	200.0		
Tetrachloroethylene		<0.025		0.025	mg/L	06-OCT-15	3		
Trichloroethylene		<0.025		0.025	mg/L	06-OCT-15	5		
Vinyl chloride		<0.050		0.050	mg/L	06-OCT-15	0.2		
Surrogate: 4-Bromofluorobenzene		96.3		70-130	%	06-OCT-15			
Volatile Organic Compounds									
Surrogate: 1,4-Difluorobenzene		100.3		50-150	%	06-OCT-15			
Polychlorinated Biphenyls									
Surrogate: Decachlorobiphenyl		113.0		50-150	%	06-OCT-15			
Surrogate: Tetrachloro-m-xylene		102.0		50-150	%	06-OCT-15			

** Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.

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Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

Reference Information

Sample Parameter Qualifier key listed:

Qualifier	Description
DLM	Detection Limit Adjusted due to sample matrix effects.

Methods Listed (if applicable):

ALS Test Code	Matrix	Test Description	Method Reference***
ALDICARB-TCLP-WT	Waste	O. Reg 347 Aldicarb	LC/MS-MS
BNA-TCLP-WT	Waste	BNAs for O. Reg 347	SW846 8270
Samples are leached according to TCLP protocol and then the aqueous leachate is extracted and the resulting extracts are analyzed on GC/MSD			
CN-TCLP-WT	Waste	Cyanide for O. Reg 347	APHA 4500CN C E
DIQUAT-TCLP-WT	Waste	Diquat for O. Reg 347	LC/MS/MS
DIURON-TCLP-WT	Waste	Diuron for O. Reg 347	MOE PWAUH-E3436 (MOD)
F-TCLP-WT	Waste	Fluoride (F) for O. Reg 347	APHA 4110 B-Ion Chromatography
GLYPHOSATE-TCLP-WT	Waste	Glyphosate for O. Reg 347	LC/MS/MS
HG-TCLP-WT	Waste	Mercury (CVAA) for O.Reg 347	SW846 7470A
LEACH-TCLP-WT	Waste	Leachate Procedure for Reg 347	EPA 1311

Inorganic and Semi-Volatile Organic contaminants are leached from waste samples in strict accordance with US EPA Method 1311, "Toxicity Characteristic Leaching Procedure" (TCLP). Test results are reported in leachate concentration units (normally mg/L).

MET-TCLP-WT	Waste	O.Reg 347 TCLP Leachable Metals	EPA 200.8
N2N3-TCLP-WT	Waste	Nitrate/Nitrite-N for O. Reg 347	APHA 4110 B-Ion Chromatography
NDMA-TCLP-WT	Waste	NDMA for O. Reg 347	In House/GC/MS
NTA-TCLP-WT	Waste	NTA for O. Reg 347	EPA 430.2
PARAQUAT-TCLP-WT	Waste	Paraquat for O. Reg 347	LC/MS-MS
PCB-TCLP-WT	Waste	PCBs for O. Reg 347	SW846 8270
PEST-MISC-TCLP-WT	Waste	O. Reg 347 TCLP Miscellaneous Pesticides	SW846 8270
PEST-OC-TCLP-WT	Waste	O. Reg 347TCLP Organochlorine Pesticides	SW846 8270
Samples are leached according to TCLP protocol and then the aqueous leachate is extracted and the resulting extracts are analyzed on GC/MSD			
PEST-PAHERB-TCLP-WT	Waste	Phenoxyacid Herbicides for O. Reg 347	SW846 8270
PYR-TCLP-WT	Waste	Pyridine for O. Reg 347	SW846 8260D
Samples are leached according to TCLP protocol and then analyzed on GC/MSD			
TOXAPHENE-TCLP-WT	Waste	Toxaphene by GC/ECD for O. Reg 347	SW846 8270
VOC-TCLP-WT	Waste	VOC for O. Reg 347	SW846 8260

A sample of waste is leached in a zero headspace extractor at 30–2 rpm for 18–2.0 hours with the appropriate leaching solution. After tumbling the leachate is analyzed directly by headspace technology, followed by GC/MS using internal standard quantitation.

*** ALS test methods may incorporate modifications from specified reference methods to improve performance.

Chain of Custody numbers:

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location	Laboratory Definition Code	Laboratory Location
WT	ALS ENVIRONMENTAL - WATERLOO, ONTARIO, CANADA		

Reference Information

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.

mg/kg - milligrams per kilogram based on dry weight of sample

mg/kg wwt - milligrams per kilogram based on wet weight of sample

mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight

mg/L - unit of concentration based on volume, parts per million.

< - Less than.

D.L. - The reporting limit.

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.

Application of guidelines is provided "as is" without warranty of any kind, either expressed or implied, including, but not limited to fitness for a particular purpose, or non-infringement. ALS assumes no responsibility for errors or omissions in the information.



Quality Control Report

Workorder: L1682286

Report Date: 09-OCT-15

Page 1 of 19

Client: Covanta - Durham York Renewable Energy LP
1835 Energy Drive
Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
ALDICARB-TCLP-WT		Waste						
Batch	R3282614							
WG2185038-3	DUP	L1682286-1						
Aldicarb		<0.010	<0.010	RPD-NA	mg/L	N/A	30	03-OCT-15
WG2185038-2	LCS							
Aldicarb			92.0		%		70-130	03-OCT-15
WG2185038-1	MB							
Aldicarb			<0.010		mg/L		0.01	03-OCT-15
BNA-TCLP-WT		Waste						
Batch	R3283781							
WG2185631-5	DUP	WG2185631-4						
2,3,4,6-Tetrachlorophenol		<0.0050	<0.0050	RPD-NA	mg/L	N/A	50	06-OCT-15
2,4,5-Trichlorophenol		<0.0050	<0.0050	RPD-NA	mg/L	N/A	50	06-OCT-15
2,4,6-Trichlorophenol		<0.0050	<0.0050	RPD-NA	mg/L	N/A	50	06-OCT-15
2,4-Dichlorophenol		<0.0050	<0.0050	RPD-NA	mg/L	N/A	50	06-OCT-15
2,4-Dinitrotoluene		<0.0040	<0.0040	RPD-NA	mg/L	N/A	50	06-OCT-15
2-Methylphenol		<0.0050	<0.0050	RPD-NA	mg/L	N/A	50	06-OCT-15
3&4-Methylphenol		<0.010	<0.010	RPD-NA	mg/L	N/A	50	06-OCT-15
Hexachlorobenzene		<0.0040	<0.0040	RPD-NA	mg/L	N/A	50	06-OCT-15
Hexachlorobutadiene		<0.0040	<0.0040	RPD-NA	mg/L	N/A	50	06-OCT-15
Hexachloroethane		<0.0040	<0.0040	RPD-NA	mg/L	N/A	50	06-OCT-15
Nitrobenzene		<0.0040	<0.0040	RPD-NA	mg/L	N/A	50	06-OCT-15
Pentachlorophenol		<0.0050	<0.0050	RPD-NA	mg/L	N/A	50	06-OCT-15
WG2185631-2	LCS							
2,3,4,6-Tetrachlorophenol			91.6		%		60-140	06-OCT-15
2,4,5-Trichlorophenol			89.9		%		60-140	06-OCT-15
2,4,6-Trichlorophenol			85.7		%		60-140	06-OCT-15
2,4-Dichlorophenol			76.6		%		60-140	06-OCT-15
2,4-Dinitrotoluene			104.7		%		50-150	06-OCT-15
2-Methylphenol			74.1		%		60-140	06-OCT-15
3&4-Methylphenol			76.9		%		60-140	06-OCT-15
Hexachlorobenzene			86.0		%		60-140	06-OCT-15
Hexachlorobutadiene			72.0		%		40-130	06-OCT-15
Hexachloroethane			63.4		%		40-130	06-OCT-15
Nitrobenzene			83.8		%		60-140	06-OCT-15
Pentachlorophenol			105.9		%		50-160	06-OCT-15
WG2185631-1	MB							



Quality Control Report

Workorder: L1682286

Report Date: 09-OCT-15

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Client: Covanta - Durham York Renewable Energy LP
 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
BNA-TCLP-WT		Waste						
Batch	R3283781							
WG2185631-1 MB								
2,3,4,6-Tetrachlorophenol			<0.0050		mg/L		0.005	06-OCT-15
2,4,5-Trichlorophenol			<0.0050		mg/L		0.005	06-OCT-15
2,4,6-Trichlorophenol			<0.0050		mg/L		0.005	06-OCT-15
2,4-Dichlorophenol			<0.0050		mg/L		0.005	06-OCT-15
2,4-Dinitrotoluene			<0.0040		mg/L		0.004	06-OCT-15
2-Methylphenol			<0.0050		mg/L		0.005	06-OCT-15
3&4-Methylphenol			<0.010		mg/L		0.01	06-OCT-15
Hexachlorobenzene			<0.0040		mg/L		0.004	06-OCT-15
Hexachlorobutadiene			<0.0040		mg/L		0.004	06-OCT-15
Hexachloroethane			<0.0040		mg/L		0.004	06-OCT-15
Nitrobenzene			<0.0040		mg/L		0.004	06-OCT-15
Pentachlorophenol			<0.0050		mg/L		0.005	06-OCT-15
Surrogate: Nitrobenzene d5			100.2		%		50-150	06-OCT-15
Surrogate: 2-Fluorobiphenyl			93.9		%		40-160	06-OCT-15
Surrogate: p-Terphenyl d14			106.9		%		60-140	06-OCT-15
Surrogate: 2,4,6-Tribromophenol			93.5		%		50-150	06-OCT-15
WG2185631-3 MS		WG2185631-4						
2,3,4,6-Tetrachlorophenol			91.7		%		50-150	06-OCT-15
2,4,5-Trichlorophenol			88.4		%		50-150	06-OCT-15
2,4,6-Trichlorophenol			81.7		%		50-150	06-OCT-15
2,4-Dichlorophenol			72.9		%		50-150	06-OCT-15
2,4-Dinitrotoluene			96.4		%		50-150	06-OCT-15
2-Methylphenol			71.4		%		50-150	06-OCT-15
3&4-Methylphenol			73.7		%		50-150	06-OCT-15
Hexachlorobenzene			75.6		%		40-150	06-OCT-15
Hexachlorobutadiene			59.4		%		40-150	06-OCT-15
Hexachloroethane			51.7		%		40-150	06-OCT-15
Nitrobenzene			76.5		%		50-150	06-OCT-15
Pentachlorophenol			120.3		%		50-150	06-OCT-15
CN-TCLP-WT		Waste						
Batch	R3283322							
WG2185803-11 DUP		L1682286-1						
Cyanide, Weak Acid Diss		<0.10	<0.10	RPD-NA	mg/L	N/A	20	05-OCT-15
WG2185803-10 LCS								



Quality Control Report

Workorder: L1682286

Report Date: 09-OCT-15

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Client: Covanta - Durham York Renewable Energy LP
1835 Energy Drive
Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-TCLP-WT		Waste						
Batch	R3283322							
WG2185803-10	LCS							
	Cyanide, Weak Acid Diss		93.1		%		70-130	05-OCT-15
WG2185803-9	MB							
	Cyanide, Weak Acid Diss		<0.10		mg/L		0.1	05-OCT-15
WG2185803-12	MS	L1682286-1						
	Cyanide, Weak Acid Diss		95.0		%		50-150	05-OCT-15
DIQUAT-TCLP-WT		Waste						
Batch	R3282507							
WG2185144-3	DUP	L1682286-1						
	Diquat	<0.10	<0.10	RPD-NA	mg/L	N/A	30	03-OCT-15
WG2185144-2	LCS							
	Diquat		97.2		%		70-130	03-OCT-15
WG2185144-1	MB							
	Diquat		<0.010		mg/L		0.01	03-OCT-15
DIURON-TCLP-WT		Waste						
Batch	R3282615							
WG2185148-3	DUP	L1682286-1						
	Diuron	<0.010	<0.010	RPD-NA	mg/L	N/A	30	03-OCT-15
WG2185148-2	LCS							
	Diuron		91.4		%		70-130	03-OCT-15
WG2185148-1	MB							
	Diuron		<0.010		mg/L		0.01	03-OCT-15
F-TCLP-WT		Waste						
Batch	R3283385							
WG2185660-3	DUP	L1682286-4						
	Fluoride (F)	<10	<10	RPD-NA	mg/L	N/A	30	05-OCT-15
WG2185660-2	LCS							
	Fluoride (F)		103.8		%		70-130	05-OCT-15
WG2185660-1	MB							
	Fluoride (F)		<10		mg/L		10	05-OCT-15
WG2185660-4	MS	L1682286-4						
	Fluoride (F)		104.4		%		50-150	05-OCT-15
GLYPHOSATE-TCLP-WT		Waste						
Batch	R3283228							
WG2185151-3	DUP	L1682286-1						
	Glyphosate	<0.050	<0.050	RPD-NA	mg/L	N/A	30	05-OCT-15
WG2185151-2	LCS							



Quality Control Report

Workorder: L1682286

Report Date: 09-OCT-15

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Client: Covanta - Durham York Renewable Energy LP
1835 Energy Drive
Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
GLYPHOSATE-TCLP-WT		Waste						
Batch	R3283228							
WG2185151-2	LCS							
Glyphosate			102.8		%		70-130	05-OCT-15
WG2185151-1	MB							
Glyphosate			<0.050		mg/L		0.05	05-OCT-15
HG-TCLP-WT		Waste						
Batch	R3283068							
WG2185618-3	DUP	L1681085-1						
Mercury (Hg)		<0.00010	<0.00010	RPD-NA	mg/L	N/A	50	05-OCT-15
WG2185618-2	LCS							
Mercury (Hg)			104.0		%		70-130	05-OCT-15
WG2185618-1	MB							
Mercury (Hg)			<0.00010		mg/L		0.0001	05-OCT-15
WG2185618-4	MS	L1682286-1						
Mercury (Hg)			93.3		%		50-140	05-OCT-15
MET-TCLP-WT		Waste						
Batch	R3282743							
WG2185576-4	DUP	WG2185576-3						
Silver (Ag)		<0.0050	<0.0050	RPD-NA	mg/L	N/A	40	05-OCT-15
Arsenic (As)		<0.050	<0.050	RPD-NA	mg/L	N/A	40	05-OCT-15
Boron (B)		<2.5	<2.5	RPD-NA	mg/L	N/A	40	05-OCT-15
Barium (Ba)		1.78	1.68		mg/L	5.7	40	05-OCT-15
Cadmium (Cd)		<0.0050	<0.0050	RPD-NA	mg/L	N/A	40	05-OCT-15
Chromium (Cr)		<0.050	<0.050	RPD-NA	mg/L	N/A	40	05-OCT-15
Lead (Pb)		<0.050	<0.050	RPD-NA	mg/L	N/A	40	05-OCT-15
Selenium (Se)		<0.25	<0.25	RPD-NA	mg/L	N/A	40	05-OCT-15
Uranium (U)		<0.25	<0.25	RPD-NA	mg/L	N/A	40	05-OCT-15
WG2185576-2	LCS							
Silver (Ag)			103.7		%		70-130	05-OCT-15
Arsenic (As)			101.4		%		70-130	05-OCT-15
Boron (B)			95.0		%		70-130	05-OCT-15
Barium (Ba)			106.0		%		70-130	05-OCT-15
Cadmium (Cd)			101.5		%		70-130	05-OCT-15
Chromium (Cr)			101.9		%		70-130	05-OCT-15
Lead (Pb)			102.0		%		70-130	05-OCT-15
Selenium (Se)			102.1		%		70-130	05-OCT-15
Uranium (U)			100.4		%		70-130	05-OCT-15



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Client: Covanta - Durham York Renewable Energy LP
 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-TCLP-WT		Waste						
Batch	R3282743							
WG2185576-2	LCS							
Uranium (U)			100.4		%		70-130	05-OCT-15
WG2185576-1	MB							
Silver (Ag)			<0.0050		mg/L		0.005	05-OCT-15
Arsenic (As)			<0.050		mg/L		0.05	05-OCT-15
Boron (B)			<2.5		mg/L		2.5	05-OCT-15
Barium (Ba)			<0.50		mg/L		0.5	05-OCT-15
Cadmium (Cd)			<0.0050		mg/L		0.005	05-OCT-15
Chromium (Cr)			<0.050		mg/L		0.05	05-OCT-15
Lead (Pb)			<0.050		mg/L		0.05	05-OCT-15
Selenium (Se)			<0.25		mg/L		0.25	05-OCT-15
Uranium (U)			<0.25		mg/L		0.25	05-OCT-15
WG2185576-5	MS	WG2185576-3						
Silver (Ag)			116.1		%		50-150	05-OCT-15
Arsenic (As)			138.0		%		50-150	05-OCT-15
Boron (B)			120.1		%		50-150	05-OCT-15
Barium (Ba)			138.4		%		50-150	05-OCT-15
Cadmium (Cd)			131.8		%		50-150	05-OCT-15
Chromium (Cr)			135.6		%		50-150	05-OCT-15
Lead (Pb)			119.6		%		50-150	05-OCT-15
Selenium (Se)			129.8		%		50-150	05-OCT-15
Uranium (U)			122.5		%		50-150	05-OCT-15
N2N3-TCLP-WT		Waste						
Batch	R3283385							
WG2185660-3	DUP	L1682286-4						
Nitrate-N		<2.0	<2.0	RPD-NA	mg/L	N/A	30	05-OCT-15
Nitrite-N		<2.0	<2.0	RPD-NA	mg/L	N/A	30	05-OCT-15
WG2185660-2	LCS							
Nitrate-N			109.4		%		70-130	05-OCT-15
Nitrite-N			109.5		%		70-130	05-OCT-15
WG2185660-1	MB							
Nitrate-N			<2.0		mg/L		2	05-OCT-15
Nitrite-N			<2.0		mg/L		2	05-OCT-15
WG2185660-4	MS	L1682286-4						
Nitrate-N			122.6		%		50-150	05-OCT-15
Nitrite-N			114.9		%		50-150	05-OCT-15



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Client: Covanta - Durham York Renewable Energy LP
 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
NDMA-TCLP-WT		Waste						
Batch	R3283230							
WG2185567-4	DUP	L1682286-2						
N-Nitrosodimethylamine		<0.00020	<0.00020	RPD-NA	mg/L	N/A	50	05-OCT-15
WG2185567-2	LCS							
N-Nitrosodimethylamine			108.2		%		50-150	05-OCT-15
WG2185567-1	MB							
N-Nitrosodimethylamine			<0.00020		mg/L		0.0002	05-OCT-15
WG2185567-3	MS	L1682286-2						
N-Nitrosodimethylamine			109.3		%		50-150	05-OCT-15
NTA-TCLP-WT		Waste						
Batch	R3283476							
WG2186037-3	DUP	L1682286-1						
Nitrotriacetic Acid (NTA)		<40	<40	RPD-NA	mg/L	N/A	25	05-OCT-15
WG2186037-2	LCS							
Nitrotriacetic Acid (NTA)			85.0		%		75-125	05-OCT-15
WG2186037-1	MB							
Nitrotriacetic Acid (NTA)			<0.20		mg/L		0.2	05-OCT-15
PARAQUAT-TCLP-WT		Waste						
Batch	R3282507							
WG2185144-3	DUP	L1682286-1						
Paraquat		<0.10	<0.10	RPD-NA	mg/L	N/A	50	03-OCT-15
WG2185144-2	LCS							
Paraquat			92.0		%		50-150	03-OCT-15
WG2185144-1	MB							
Paraquat			<0.010		mg/L		0.01	03-OCT-15
PCB-TCLP-WT		Waste						
Batch	R3284629							
WG2186412-4	DUP	L1682896-1						
Aroclor 1242		<0.00020	<0.00020	RPD-NA	mg/L	N/A	50	07-OCT-15
Aroclor 1248		<0.00020	<0.00020	RPD-NA	mg/L	N/A	50	07-OCT-15
Aroclor 1254		<0.00020	<0.00020	RPD-NA	mg/L	N/A	50	07-OCT-15
Aroclor 1260		<0.00020	<0.00020	RPD-NA	mg/L	N/A	50	07-OCT-15
WG2186412-2	LCS							
Aroclor 1242			67.8		%		65-130	07-OCT-15
Aroclor 1248			80.8		%		65-130	07-OCT-15
Aroclor 1254			65.5		%		65-130	07-OCT-15
Aroclor 1260			70.1		%		65-130	07-OCT-15
WG2186412-1	MB							



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Client: Covanta - Durham York Renewable Energy LP
 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PCB-TCLP-WT		Waste						
Batch	R3284629							
WG2186412-1	MB							
Aroclor 1242			<0.00020		mg/L		0.0002	07-OCT-15
Aroclor 1248			<0.00020		mg/L		0.0002	07-OCT-15
Aroclor 1254			<0.00020		mg/L		0.0002	07-OCT-15
Aroclor 1260			<0.00020		mg/L		0.0002	07-OCT-15
Surrogate: 2-Fluorobiphenyl			76.8		%		40-160	07-OCT-15
WG2186412-3	MS	L1682896-1						
Aroclor 1242			77.6		%		50-150	07-OCT-15
Aroclor 1254			64.0		%		50-150	07-OCT-15
Aroclor 1260			73.3		%		50-150	07-OCT-15
PEST-MISC-TCLP-WT		Waste						
Batch	R3284155							
WG2185566-5	DUP	L1682286-1						
Atrazine Desethyl		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	06-OCT-15
Atrazine		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	06-OCT-15
Bendiocarb		<0.0050	<0.0050	RPD-NA	mg/L	N/A	50	06-OCT-15
Trifluralin		<0.0050	<0.0050	RPD-NA	mg/L	N/A	50	06-OCT-15
Phorate		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	06-OCT-15
Dimethoate		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	06-OCT-15
Simazine		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	06-OCT-15
Carbofuran		<0.0020	<0.0020	RPD-NA	mg/L	N/A	50	06-OCT-15
Terbufos		<0.0020	<0.0020	RPD-NA	mg/L	N/A	50	06-OCT-15
Diazinon		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	06-OCT-15
Triallate		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	06-OCT-15
Metribuzin		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	06-OCT-15
Carbaryl		<0.0020	<0.0020	RPD-NA	mg/L	N/A	50	06-OCT-15
Alachlor		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	06-OCT-15
Prometryne		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	06-OCT-15
Malathion		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	06-OCT-15
Metolachlor		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	06-OCT-15
Methyl Parathion		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	06-OCT-15
Parathion		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	06-OCT-15
Cyanazine		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	06-OCT-15
Chlorpyrifos		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	06-OCT-15



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Client: Covanta - Durham York Renewable Energy LP
 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PEST-MISC-TCLP-WT								
	Waste							
Batch	R3284155							
WG2185566-5	DUP	L1682286-1						
Diclofop methyl		<0.0020	<0.0020	RPD-NA	mg/L	N/A	50	06-OCT-15
Azinphos methyl		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	06-OCT-15
Benzo(a)pyrene		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	06-OCT-15
Temephos		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	06-OCT-15
WG2185566-2	LCS							
Atrazine Desethyl			52.6		%		50-140	06-OCT-15
Atrazine			95.7		%		60-140	06-OCT-15
Bendiocarb			87.1		%		50-140	06-OCT-15
Trifluralin			87.4		%		60-140	06-OCT-15
Phorate			86.7		%		60-140	06-OCT-15
Dimethoate			78.6		%		60-140	06-OCT-15
Simazine			82.4		%		60-140	06-OCT-15
Carbofuran			84.2		%		60-140	06-OCT-15
Terbufos			90.4		%		60-140	06-OCT-15
Diazinon			86.2		%		60-140	06-OCT-15
Triallate			98.0		%		60-140	06-OCT-15
Metribuzin			93.7		%		60-140	06-OCT-15
Carbaryl			85.1		%		50-175	06-OCT-15
Alachlor			98.1		%		60-140	06-OCT-15
Prometryne			99.1		%		60-140	06-OCT-15
Malathion			88.6		%		60-130	06-OCT-15
Metolachlor			92.6		%		60-140	06-OCT-15
Methyl Parathion			86.9		%		60-140	06-OCT-15
Parathion			95.7		%		60-140	06-OCT-15
Cyanazine			96.4		%		60-140	06-OCT-15
Chlorpyrifos			93.7		%		60-140	06-OCT-15
Diclofop methyl			123.1		%		60-140	06-OCT-15
Azinphos methyl			95.1		%		60-140	06-OCT-15
Benzo(a)pyrene			96.9		%		60-140	06-OCT-15
Temephos			110.0		%		60-140	06-OCT-15
WG2185566-1	MB							
Atrazine Desethyl			<0.0010		mg/L		0.001	06-OCT-15
Atrazine			<0.0010		mg/L		0.001	06-OCT-15
Bendiocarb			<0.0050		mg/L		0.005	06-OCT-15



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Client: Covanta - Durham York Renewable Energy LP
1835 Energy Drive
Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PEST-MISC-TCLP-WT		Waste						
Batch	R3284155							
WG2185566-1	MB							
Trifluralin			<0.0050		mg/L		0.005	06-OCT-15
Phorate			<0.0010		mg/L		0.001	06-OCT-15
Dimethoate			<0.0010		mg/L		0.001	06-OCT-15
Simazine			<0.0010		mg/L		0.001	06-OCT-15
Carbofuran			<0.0020		mg/L		0.002	06-OCT-15
Terbufos			<0.0020		mg/L		0.002	06-OCT-15
Diazinon			<0.0010		mg/L		0.001	06-OCT-15
Triallate			<0.0010		mg/L		0.001	06-OCT-15
Metribuzin			<0.0010		mg/L		0.001	06-OCT-15
Carbaryl			<0.0020		mg/L		0.002	06-OCT-15
Alachlor			<0.0010		mg/L		0.001	06-OCT-15
Prometryne			<0.0010		mg/L		0.001	06-OCT-15
Malathion			<0.0010		mg/L		0.001	06-OCT-15
Metolachlor			<0.0010		mg/L		0.001	06-OCT-15
Methyl Parathion			<0.0010		mg/L		0.001	06-OCT-15
Parathion			<0.0010		mg/L		0.001	06-OCT-15
Cyanazine			<0.0010		mg/L		0.001	06-OCT-15
Chlorpyrifos			<0.0010		mg/L		0.001	06-OCT-15
Diclofop methyl			<0.0020		mg/L		0.002	06-OCT-15
Azinphos methyl			<0.0010		mg/L		0.001	06-OCT-15
Benzo(a)pyrene			<0.0010		mg/L		0.001	06-OCT-15
Temephos			<0.0010		mg/L		0.001	06-OCT-15
Surrogate: 2-Fluorobiphenyl			76.9		%		40-160	06-OCT-15
Surrogate: d14-Terphenyl			82.5		%		60-140	06-OCT-15
WG2185566-3	MB							
Atrazine Desethyl			<0.0010		mg/L		0.001	07-OCT-15
Atrazine			<0.0010		mg/L		0.001	07-OCT-15
Bendiocarb			<0.0050		mg/L		0.005	07-OCT-15
Trifluralin			<0.0050		mg/L		0.005	07-OCT-15
Phorate			<0.0010		mg/L		0.001	07-OCT-15
Dimethoate			<0.0010		mg/L		0.001	07-OCT-15
Simazine			<0.0010		mg/L		0.001	07-OCT-15
Carbofuran			<0.0020		mg/L		0.002	07-OCT-15
Terbufos			<0.0020		mg/L		0.002	07-OCT-15



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Client: Covanta - Durham York Renewable Energy LP
1835 Energy Drive
Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PEST-MISC-TCLP-WT								
	Waste							
Batch	R3284155							
WG2185566-3	MB							
Diazinon			<0.0010		mg/L		0.001	07-OCT-15
Triallate			<0.0010		mg/L		0.001	07-OCT-15
Metribuzin			<0.0010		mg/L		0.001	07-OCT-15
Carbaryl			<0.0020		mg/L		0.002	07-OCT-15
Alachlor			<0.0010		mg/L		0.001	07-OCT-15
Prometryne			<0.0010		mg/L		0.001	07-OCT-15
Malathion			<0.0010		mg/L		0.001	07-OCT-15
Metolachlor			<0.0010		mg/L		0.001	07-OCT-15
Methyl Parathion			<0.0010		mg/L		0.001	07-OCT-15
Parathion			<0.0010		mg/L		0.001	07-OCT-15
Cyanazine			<0.0010		mg/L		0.001	07-OCT-15
Chlorpyrifos			<0.0010		mg/L		0.001	07-OCT-15
Diclofop methyl			<0.0020		mg/L		0.002	07-OCT-15
Azinphos methyl			<0.0010		mg/L		0.001	07-OCT-15
Benzo(a)pyrene			<0.0010		mg/L		0.001	07-OCT-15
Temephos			<0.0010		mg/L		0.001	07-OCT-15
Surrogate: 2-Fluorobiphenyl			84.9		%		40-160	07-OCT-15
Surrogate: d14-Terphenyl			86.5		%		60-140	07-OCT-15
WG2185566-4	MS	L1682286-1						
Atrazine Desethyl			52.0		%		50-150	06-OCT-15
Atrazine			93.2		%		50-150	06-OCT-15
Bendiocarb			90.6		%		50-150	06-OCT-15
Trifluralin			87.0		%		50-150	06-OCT-15
Phorate			85.6		%		50-150	06-OCT-15
Dimethoate			77.7		%		50-150	06-OCT-15
Simazine			84.5		%		50-150	06-OCT-15
Carbofuran			87.7		%		50-150	06-OCT-15
Terbufos			89.9		%		50-150	06-OCT-15
Diazinon			86.2		%		50-150	06-OCT-15
Triallate			97.7		%		50-150	06-OCT-15
Metribuzin			95.0		%		50-150	06-OCT-15
Carbaryl			92.3		%		50-150	06-OCT-15
Alachlor			98.7		%		50-150	06-OCT-15
Prometryne			98.8		%		50-150	06-OCT-15



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Client: Covanta - Durham York Renewable Energy LP
1835 Energy Drive
Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PEST-MISC-TCLP-WT								
	Waste							
Batch	R3284155							
WG2185566-4	MS	L1682286-1						
Malathion			88.5		%		50-150	06-OCT-15
Metolachlor			92.0		%		50-150	06-OCT-15
Methyl Parathion			84.7		%		50-150	06-OCT-15
Parathion			94.5		%		50-150	06-OCT-15
Cyanazine			100.2		%		50-150	06-OCT-15
Chlorpyrifos			96.8		%		50-150	06-OCT-15
Diclofop methyl			115.5		%		50-150	06-OCT-15
Azinphos methyl			96.3		%		50-150	06-OCT-15
Benzo(a)pyrene			94.7		%		50-150	06-OCT-15
Temephos			116.7		%		50-150	06-OCT-15
PEST-OC-TCLP-WT								
	Waste							
Batch	R3283815							
WG2185566-5	DUP	L1682286-1						
gamma-BHC		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	06-OCT-15
Heptachlor		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	06-OCT-15
Heptachlor epoxide		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	06-OCT-15
Oxychlordane		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	06-OCT-15
gamma-Chlordane		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	06-OCT-15
alpha-Chlordane		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	06-OCT-15
Aldrin		<0.00020	<0.00020	RPD-NA	mg/L	N/A	50	06-OCT-15
Dieldrin		<0.00020	<0.00020	RPD-NA	mg/L	N/A	50	06-OCT-15
Endrin		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	06-OCT-15
p,p-DDE		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	06-OCT-15
p,p-DDD		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	06-OCT-15
p,p-DDT		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	06-OCT-15
o,p-DDT		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	06-OCT-15
Methoxychlor		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	06-OCT-15
WG2185566-2	LCS							
gamma-BHC			88.4		%		50-150	06-OCT-15
Heptachlor			95.4		%		25-175	06-OCT-15
Heptachlor epoxide			99.5		%		25-175	06-OCT-15
Oxychlordane			94.9		%		25-175	06-OCT-15
gamma-Chlordane			100.7		%		25-175	06-OCT-15



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Client: Covanta - Durham York Renewable Energy LP
 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PEST-OC-TCLP-WT		Waste						
Batch	R3283815							
WG2185566-2	LCS							
alpha-Chlordane			97.0		%		25-175	06-OCT-15
Aldrin			105.8		%		25-175	06-OCT-15
Dieldrin			91.6		%		25-175	06-OCT-15
Endrin			124.5		%		50-150	06-OCT-15
p,p-DDE			92.7		%		25-175	06-OCT-15
p,p-DDD			101.1		%		25-175	06-OCT-15
p,p-DDT			102.3		%		25-175	06-OCT-15
o,p-DDT			97.6		%		50-130	06-OCT-15
Methoxychlor			117.8		%		25-175	06-OCT-15
WG2185566-1	MB							
gamma-BHC			<0.0010		mg/L		0.001	06-OCT-15
Heptachlor			<0.0010		mg/L		0.001	06-OCT-15
Heptachlor epoxide			<0.0010		mg/L		0.001	06-OCT-15
Oxychlordane			<0.0010		mg/L		0.001	06-OCT-15
gamma-Chlordane			<0.0010		mg/L		0.001	06-OCT-15
alpha-Chlordane			<0.0010		mg/L		0.001	06-OCT-15
Aldrin			<0.00020		mg/L		0.0002	06-OCT-15
Dieldrin			<0.00020		mg/L		0.0002	06-OCT-15
Endrin			<0.0010		mg/L		0.001	06-OCT-15
p,p-DDE			<0.0010		mg/L		0.001	06-OCT-15
p,p-DDD			<0.0010		mg/L		0.001	06-OCT-15
p,p-DDT			<0.0010		mg/L		0.001	06-OCT-15
o,p-DDT			<0.0010		mg/L		0.001	06-OCT-15
Methoxychlor			<0.0010		mg/L		0.001	06-OCT-15
Surrogate: d14-Terphenyl			92.1		%		60-140	06-OCT-15
WG2185566-3	MB							
gamma-BHC			<0.0010		mg/L		0.001	06-OCT-15
Heptachlor			<0.0010		mg/L		0.001	06-OCT-15
Heptachlor epoxide			<0.0010		mg/L		0.001	06-OCT-15
Oxychlordane			<0.0010		mg/L		0.001	06-OCT-15
gamma-Chlordane			<0.0010		mg/L		0.001	06-OCT-15
alpha-Chlordane			<0.0010		mg/L		0.001	06-OCT-15
Aldrin			<0.00020		mg/L		0.0002	06-OCT-15
Dieldrin			<0.00020		mg/L		0.0002	06-OCT-15



Quality Control Report

Workorder: L1682286

Report Date: 09-OCT-15

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Client: Covanta - Durham York Renewable Energy LP
 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PEST-OC-TCLP-WT		Waste						
Batch	R3283815							
WG2185566-3	MB							
Endrin			<0.0010		mg/L		0.001	06-OCT-15
p,p-DDE			<0.0010		mg/L		0.001	06-OCT-15
p,p-DDD			<0.0010		mg/L		0.001	06-OCT-15
p,p-DDT			<0.0010		mg/L		0.001	06-OCT-15
o,p-DDT			<0.0010		mg/L		0.001	06-OCT-15
Methoxychlor			<0.0010		mg/L		0.001	06-OCT-15
Surrogate: d14-Terphenyl			100.5		%		60-140	06-OCT-15
WG2185566-4	MS	L1682286-1						
gamma-BHC			92.0		%		50-150	06-OCT-15
Heptachlor			99.4		%		50-150	06-OCT-15
Heptachlor epoxide			96.6		%		50-150	06-OCT-15
Oxychlordane			99.2		%		50-150	06-OCT-15
gamma-Chlordane			102.5		%		50-150	06-OCT-15
alpha-Chlordane			97.5		%		50-150	06-OCT-15
Aldrin			113.2		%		50-150	06-OCT-15
Dieldrin			93.6		%		50-150	06-OCT-15
Endrin			129.8		%		50-150	06-OCT-15
p,p-DDE			96.2		%		50-150	06-OCT-15
p,p-DDD			101.3		%		50-150	06-OCT-15
p,p-DDT			106.2		%		50-150	06-OCT-15
o,p-DDT			99.2		%		50-150	06-OCT-15
Methoxychlor			122.2		%		50-150	06-OCT-15
PEST-PAHERB-TCLP-WT		Waste						
Batch	R3283978							
WG2186115-3	DUP	L1682286-4						
2,4,5-TP			<0.0020	RPD-NA	mg/L	N/A	50	06-OCT-15
MCPA			<0.0020	RPD-NA	mg/L	N/A	50	06-OCT-15
2,4,5-T			<0.0020	RPD-NA	mg/L	N/A	50	06-OCT-15
2,4-D			<0.0020	RPD-NA	mg/L	N/A	50	06-OCT-15
Bromoxynil			<0.0020	RPD-NA	mg/L	N/A	50	06-OCT-15
Dicamba			<0.0050	RPD-NA	mg/L	N/A	50	06-OCT-15
Dinoseb			<0.0020	RPD-NA	mg/L	N/A	50	06-OCT-15
Picloram			<0.0050	RPD-NA	mg/L	N/A	50	06-OCT-15
WG2186115-2	LCS							



Quality Control Report

Workorder: L1682286

Report Date: 09-OCT-15

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Client: Covanta - Durham York Renewable Energy LP
 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PEST-PAHERB-TCLP-WT Waste								
Batch R3283978								
WG2186115-2 LCS								
2,4,5-TP			116.0		%		65-135	06-OCT-15
MCPA			118.2		%		65-135	06-OCT-15
2,4,5-T			124.3		%		65-135	06-OCT-15
2,4-D			128.3		%		25-175	06-OCT-15
Bromoxynil			112.5		%		65-135	06-OCT-15
Dicamba			56.7		%		30-150	06-OCT-15
Dinoseb			75.7		%		30-150	06-OCT-15
Picloram			47.8		%		25-120	06-OCT-15
WG2186115-1 MB								
2,4,5-TP			<0.0020		mg/L		0.002	06-OCT-15
MCPA			<0.0020		mg/L		0.002	06-OCT-15
2,4,5-T			<0.0020		mg/L		0.002	06-OCT-15
2,4-D			<0.0020		mg/L		0.002	06-OCT-15
Bromoxynil			<0.0020		mg/L		0.002	06-OCT-15
Dicamba			<0.0050		mg/L		0.005	06-OCT-15
Dinoseb			<0.0020		mg/L		0.002	06-OCT-15
Picloram			<0.0050		mg/L		0.005	06-OCT-15
Surrogate: 2,4-Dichlorophenylacetic Acid			102.1		%		50-150	06-OCT-15
WG2186115-4 MS L1682286-4								
2,4,5-TP			125.0		%		50-150	06-OCT-15
MCPA			131.6		%		50-150	06-OCT-15
2,4,5-T			131.1		%		50-150	06-OCT-15
2,4-D			137.6		%		50-150	06-OCT-15
Bromoxynil			132.1		%		50-150	06-OCT-15
Dicamba			71.6		%		50-150	06-OCT-15
Dinoseb			147.9		%		30-150	06-OCT-15
Picloram			48.2		%		25-150	06-OCT-15
PYR-TCLP-WT Waste								
Batch R3283469								
WG2185611-4 DUP L1681932-2								
Pyridine		<5.0	<5.0	RPD-NA	mg/L	N/A	30	05-OCT-15
WG2185611-6 DUP L1682896-1								
Pyridine		<5.0	<5.0	RPD-NA	mg/L	N/A	30	05-OCT-15
WG2185611-2 LCS								



Quality Control Report

Workorder: L1682286

Report Date: 09-OCT-15

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Client: Covanta - Durham York Renewable Energy LP
 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PYR-TCLP-WT		Waste						
Batch	R3283469							
WG2185611-2	LCS							
Pyridine			103.0		%		70-130	05-OCT-15
WG2185611-9	LCS							
Pyridine			99.0		%		70-130	05-OCT-15
WG2185611-3	MB							
Pyridine			<5.0		mg/L		5	05-OCT-15
WG2185611-8	MB							
Pyridine			<5.0		mg/L		5	05-OCT-15
WG2185611-5	MS	L1682286-4						
Pyridine			104.0		%		50-150	05-OCT-15
WG2185611-7	MS	L1682896-4						
Pyridine			105.0		%		50-150	05-OCT-15
TOXAPHENE-TCLP-WT		Waste						
Batch	R3284163							
WG2185636-4	DUP	WG2185636-3						
Toxaphene		<0.0035	<0.0035	RPD-NA	mg/L	N/A	50	06-OCT-15
WG2185636-2	LCS							
Toxaphene			113.0		%		50-150	06-OCT-15
WG2185636-1	MB							
Toxaphene			<0.0035		mg/L		0.0035	06-OCT-15
Surrogate: Decachlorobiphenyl			93.0		%		50-150	06-OCT-15
Surrogate: Tetrachloro-m-xylene			78.4		%		50-150	06-OCT-15
WG2185636-5	MS	WG2185636-3						
Toxaphene			119.0		%		50-150	06-OCT-15
VOC-TCLP-WT		Waste						
Batch	R3283793							
WG2181279-4	DUP	WG2181279-7						
1,1-Dichloroethylene		<0.025	<0.025	RPD-NA	mg/L	N/A	50	06-OCT-15
1,2-Dichlorobenzene		<0.025	<0.025	RPD-NA	mg/L	N/A	50	06-OCT-15
1,2-Dichloroethane		<0.025	<0.025	RPD-NA	mg/L	N/A	50	06-OCT-15
1,4-Dichlorobenzene		<0.025	<0.025	RPD-NA	mg/L	N/A	50	06-OCT-15
Benzene		<0.025	<0.025	RPD-NA	mg/L	N/A	50	06-OCT-15
Carbon tetrachloride		<0.025	<0.025	RPD-NA	mg/L	N/A	50	06-OCT-15
Chlorobenzene		<0.025	<0.025	RPD-NA	mg/L	N/A	50	06-OCT-15
Chloroform		<0.10	<0.10	RPD-NA	mg/L	N/A	50	06-OCT-15
Dichloromethane		<0.50	<0.50	RPD-NA	mg/L	N/A	50	06-OCT-15



Quality Control Report

Workorder: L1682286

Report Date: 09-OCT-15

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Client: Covanta - Durham York Renewable Energy LP
 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-TCLP-WT		Waste						
Batch	R3283793							
WG2181279-4	DUP	WG2181279-7						
Methyl Ethyl Ketone		<1.0	<1.0	RPD-NA	mg/L	N/A	50	06-OCT-15
Tetrachloroethylene		<0.025	<0.025	RPD-NA	mg/L	N/A	50	06-OCT-15
Trichloroethylene		<0.025	<0.025	RPD-NA	mg/L	N/A	50	06-OCT-15
Vinyl chloride		<0.050	<0.050	RPD-NA	mg/L	N/A	50	06-OCT-15
WG2181279-1	LCS							
1,1-Dichloroethylene			88.6		%		70-130	06-OCT-15
1,2-Dichlorobenzene			95.9		%		70-130	06-OCT-15
1,2-Dichloroethane			101.7		%		70-130	06-OCT-15
1,4-Dichlorobenzene			91.7		%		70-130	06-OCT-15
Benzene			97.0		%		70-130	06-OCT-15
Carbon tetrachloride			90.1		%		60-140	06-OCT-15
Chlorobenzene			96.1		%		70-130	06-OCT-15
Chloroform			96.8		%		70-130	06-OCT-15
Dichloromethane			95.8		%		70-130	06-OCT-15
Methyl Ethyl Ketone			104.6		%		50-150	06-OCT-15
Tetrachloroethylene			91.2		%		70-130	06-OCT-15
Trichloroethylene			98.5		%		70-130	06-OCT-15
Vinyl chloride			89.2		%		60-130	06-OCT-15
WG2181279-2	MB							
1,1-Dichloroethylene			<0.025		mg/L		0.025	06-OCT-15
1,2-Dichlorobenzene			<0.025		mg/L		0.025	06-OCT-15
1,2-Dichloroethane			<0.025		mg/L		0.025	06-OCT-15
1,4-Dichlorobenzene			<0.025		mg/L		0.025	06-OCT-15
Benzene			<0.025		mg/L		0.025	06-OCT-15
Carbon tetrachloride			<0.025		mg/L		0.025	06-OCT-15
Chlorobenzene			<0.025		mg/L		0.025	06-OCT-15
Chloroform			<0.10		mg/L		0.1	06-OCT-15
Dichloromethane			<0.50		mg/L		0.5	06-OCT-15
Methyl Ethyl Ketone			<1.0		mg/L		1	06-OCT-15
Tetrachloroethylene			<0.025		mg/L		0.025	06-OCT-15
Trichloroethylene			<0.025		mg/L		0.025	06-OCT-15
Vinyl chloride			<0.050		mg/L		0.05	06-OCT-15
Surrogate: 1,4-Difluorobenzene			101.0		%		50-150	06-OCT-15
Surrogate: 4-Bromofluorobenzene			97.4		%		70-130	06-OCT-15



Quality Control Report

Workorder: L1682286

Report Date: 09-OCT-15

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Client: Covanta - Durham York Renewable Energy LP
1835 Energy Drive
Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
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VOC-TCLP-WT Waste

Batch R3283793

WG2181279-2 MB

COMMENTS: 03-OCT-15

WG2181279-3 MB

1,1-Dichloroethylene	<0.025	mg/L	0.025	06-OCT-15
1,2-Dichlorobenzene	<0.025	mg/L	0.025	06-OCT-15
1,2-Dichloroethane	<0.025	mg/L	0.025	06-OCT-15
1,4-Dichlorobenzene	<0.025	mg/L	0.025	06-OCT-15
Benzene	<0.025	mg/L	0.025	06-OCT-15
Carbon tetrachloride	<0.025	mg/L	0.025	06-OCT-15
Chlorobenzene	<0.025	mg/L	0.025	06-OCT-15
Chloroform	<0.10	mg/L	0.1	06-OCT-15
Dichloromethane	<0.50	mg/L	0.5	06-OCT-15
Methyl Ethyl Ketone	<1.0	mg/L	1	06-OCT-15
Tetrachloroethylene	<0.025	mg/L	0.025	06-OCT-15
Trichloroethylene	<0.025	mg/L	0.025	06-OCT-15
Vinyl chloride	<0.050	mg/L	0.05	06-OCT-15
Surrogate: 1,4-Difluorobenzene	99.8	%	50-150	06-OCT-15
Surrogate: 4-Bromofluorobenzene	97.0	%	70-130	06-OCT-15

COMMENTS: 04-OCT-15

WG2181279-6 MB

1,1-Dichloroethylene	<0.025	mg/L	0.025	06-OCT-15
1,2-Dichlorobenzene	<0.025	mg/L	0.025	06-OCT-15
1,2-Dichloroethane	<0.025	mg/L	0.025	06-OCT-15
1,4-Dichlorobenzene	<0.025	mg/L	0.025	06-OCT-15
Benzene	<0.025	mg/L	0.025	06-OCT-15
Carbon tetrachloride	<0.025	mg/L	0.025	06-OCT-15
Chlorobenzene	<0.025	mg/L	0.025	06-OCT-15
Chloroform	<0.10	mg/L	0.1	06-OCT-15
Dichloromethane	<0.50	mg/L	0.5	06-OCT-15
Methyl Ethyl Ketone	<1.0	mg/L	1	06-OCT-15
Tetrachloroethylene	<0.025	mg/L	0.025	06-OCT-15
Trichloroethylene	<0.025	mg/L	0.025	06-OCT-15
Vinyl chloride	<0.050	mg/L	0.05	06-OCT-15
Surrogate: 1,4-Difluorobenzene	99.7	%	50-150	06-OCT-15
Surrogate: 4-Bromofluorobenzene	97.0	%	70-130	06-OCT-15

COMMENTS: 05-OCT-15



Quality Control Report

Workorder: L1682286

Report Date: 09-OCT-15

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Client: Covanta - Durham York Renewable Energy LP
 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-TCLP-WT								
	Waste							
Batch	R3283793							
WG2181279-5 MS		WG2181279-7						
1,1-Dichloroethylene			90.9		%		50-140	06-OCT-15
1,2-Dichlorobenzene			95.4		%		50-140	06-OCT-15
1,2-Dichloroethane			97.0		%		50-140	06-OCT-15
1,4-Dichlorobenzene			92.3		%		50-140	06-OCT-15
Benzene			97.3		%		50-140	06-OCT-15
Carbon tetrachloride			92.6		%		50-140	06-OCT-15
Chlorobenzene			95.8		%		50-140	06-OCT-15
Chloroform			96.3		%		50-140	06-OCT-15
Dichloromethane			94.9		%		50-140	06-OCT-15
Methyl Ethyl Ketone			93.1		%		50-140	06-OCT-15
Tetrachloroethylene			92.9		%		50-140	06-OCT-15
Trichloroethylene			98.6		%		50-140	06-OCT-15
Vinyl chloride			92.1		%		50-140	06-OCT-15

Quality Control Report

Workorder: L1682286

Report Date: 09-OCT-15

Client: Covanta - Durham York Renewable Energy LP
1835 Energy Drive
Courtice ON L1E 2R2
Contact: Leon Brasowski

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Legend:

Limit	ALS Control Limit (Data Quality Objectives)
DUP	Duplicate
RPD	Relative Percent Difference
N/A	Not Available
LCS	Laboratory Control Sample
SRM	Standard Reference Material
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ADE	Average Desorption Efficiency
MB	Method Blank
IRM	Internal Reference Material
CRM	Certified Reference Material
CCV	Continuing Calibration Verification
CVS	Calibration Verification Standard
LCSD	Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
DLM	Detection Limit Adjusted due to sample matrix effects.
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.

Hold Time Exceedances:

All test results reported with this submission were conducted within ALS recommended hold times.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.



1435 Norjohn Court, Unit 1, Burlington, ON, Canada L7L 0E6
Phone: 905-331-3111, FAX: 905-331-4567

Certificate of Analysis

ALS Project Contact: Steve Kennedy
ALS Project ID: 24244
ALS WO#: WG2185811
Date of Report: 9-Oct-15

Client Name: Covanta - Durham York Renewable Energy LP
Client Address: 1835 Energy Drive
Courtice, ON L1E 2R2
Canada
Client Contact: Amanda Huxter
Client Project ID: DYEC-FLY ASH PROJECT

COMMENTS: PCDD/F by EPA 1613B

Data as reported have the C-13 labeled extraction standard 13C12-2,3,7,8-TCDD/F below targeted control limits. In addition, a select few of the 13C12-PeCDF extraction standard recoveries are also just below targeted control limits. Despite these QC failures and because of isotope dilution technique where losses from extraction and cleanup are compensated for in the reported analytical results, these data are still fit for purpose to demonstrate the absence of PCDD/F contamination to well below the Reg 347 leachate criterion of TEQ below 1500pg/L

A handwritten signature in black ink that reads "R.A. McLeod".

Ron McLeod Ph.D.
Technical Director, Air Toxics and Special Chemistries

ALS Life sciences

Sample Analysis summary Report

Sample Name	DYEC/FA/151001/ 1	DYEC/FA/151001/ 2	DYEC/FA/151001/ 3	DYEC/FA/151001/ 4	DYEC/FA/151002/ 1	DYEC/FA/151002/ 2
ALS Sample ID	L1682286-1	L1682286-2	L1682286-3	L1682286-4	L1682282-1	L1682282-2
Sample Size	0.96	0.91	0.96	0.89	0.95	0.985
Sample size units	L	L	L	L	L	L
Percent Moisture	n/a	n/a	n/a	n/a	n/a	n/a
Sample Matrix	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sampling Date	2-Oct-15	2-Oct-15	2-Oct-15	2-Oct-15	3-Oct-15	3-Oct-15
Extraction Date	5-Oct-15	5-Oct-15	5-Oct-15	5-Oct-15	5-Oct-15	5-Oct-15
Target Analytes	pg/L	pg/L	pg/L	pg/L	pg/L	pg/L
2,3,7,8-TCDD	<3.1	<4.0	<4.7	<11	<3.8	<3.3
1,2,3,7,8-PeCDD	<1.0	<1.4	<1.7	<2.0	<1.1	<1.2
1,2,3,4,7,8-HxCDD	<0.53	<0.70	<0.79	<0.79	<0.61	<0.52
1,2,3,6,7,8-HxCDD	<0.47	<0.55	<0.66	<0.64	<0.51	<0.44
1,2,3,7,8,9-HxCDD	<0.49	<0.61	<0.70	<0.68	<0.55	<0.47
1,2,3,4,6,7,8-HpCDD	<0.54	<0.85	<0.66	<0.72	<0.89	<0.80
OCDD	<0.58	<1.1	<0.48	<0.90	<0.54	<0.54
2,3,7,8-TCDF	<7.6	<8.1	<13	<28	<13	<10
1,2,3,7,8-PeCDF	<1.0	<1.4	<1.7	<2.3	<1.7	<1.1
2,3,4,7,8-PeCDF	<0.96	<1.3	<1.3	<2.3	<1.5	<1.0
1,2,3,4,7,8-HxCDF	<0.52	<0.61	<0.68	<0.78	<0.51	<0.53
1,2,3,6,7,8-HxCDF	<0.37	<0.45	<0.45	<0.52	<0.34	<0.40
2,3,4,6,7,8-HxCDF	<0.39	<0.49	<0.42	<0.50	<0.35	<0.39
1,2,3,7,8,9-HxCDF	<0.52	<0.62	<0.55	<0.66	<0.51	<0.55
1,2,3,4,6,7,8-HpCDF	<0.30	<0.48	<0.44	<0.47	<0.48	<0.34
1,2,3,4,7,8,9-HpCDF	<0.38	<0.62	<0.61	<0.66	<0.65	<0.44
OCDF	<0.63	<0.74	<0.59	<0.76	<0.67	<0.72
Extraction Standards	% Rec	% Rec	% Rec	% Rec	% Rec	% Rec
13C12-2,3,7,8-TCDD	30	24	20	11	29	75
13C12-1,2,3,7,8-PeCDD	55	49	45	30	47	98
13C12-1,2,3,4,7,8-HxCDD	58	52	53	39	60	103
13C12-1,2,3,6,7,8-HxCDD	90	71	75	69	79	153
13C12-1,2,3,4,6,7,8-HpCDD	95	74	93	84	94	167
13C12-OCDD	98	76	99	91	98	172
13C12-2,3,7,8-TCDF	7	8	7	3	6	15
13C12-1,2,3,7,8-PeCDF	39	35	29	20	32	69
13C12-2,3,4,7,8-PeCDF	39	35	30	18	33	66
13C12-1,2,3,4,7,8-HxCDF	60	49	50	42	59	104
13C12-1,2,3,6,7,8-HxCDF	91	74	74	70	85	155
13C12-2,3,4,6,7,8-HxCDF	90	73	89	80	92	163
13C12-1,2,3,7,8,9-HxCDF	80	67	75	68	77	139
13C12-1,2,3,4,6,7,8-HpCDF	94	75	97	85	95	168
13C12-1,2,3,4,7,8,9-HpCDF	94	76	92	81	93	167
Cleanup Standard						
37Cl4-2,3,7,8-TCDD (Cleanup)	33	29	24	13	31	77
Homologue Group Totals	pg/L	pg/L	pg/L	pg/L	pg/L	pg/L
Total-TCDD	<4.0	<4.7	<4.7	<11	<4.0	<4.0
Total-PeCDD	<1.0	<1.4	<1.7	<2.0	<1.1	<1.2
Total-HxCDD	<0.53	<0.70	<0.79	<0.79	<0.61	<0.52
Total-HpCDD	<0.54	<0.85	<0.66	<0.72	<0.89	<0.55
Total-TCDF	<12	<12	<14	<28	<16	<12
Total-PeCDF	<1.0	<1.4	<1.7	<2.3	<1.7	<1.1
Total-HxCDF	<0.52	<0.62	<0.68	<0.78	<0.51	<0.55
Total-HpCDF	<0.38	<0.62	<0.61	<0.66	<0.65	<0.44
Toxic Equivalency - (WHO 2005)						
Lower Bound PCDD/F TEQ (WHO 2005)	0.00	0.00	0.00	0.00	0.00	0.00
Mid Point PCDD/F TEQ (WHO 2005)	2.76	3.53	4.29	8.52	3.56	3.09
Upper Bound PCDD/F TEQ (WHO 2005)	5.52	7.07	8.58	17.0	7.06	6.18

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Sample Analysis summary Report

Sample Name	DYEC/FA/151002/ 3	DYEC/FA/151002/ 4	DYEC/FA/151003/ 1	DYEC/FA/151003/ 2	DYEC/FA/151003/ 3	DYEC/FA/151003/ 4
ALS Sample ID	L1682822-3	L1682822-4	L1682896-1	L1682896-2	L1682896-3	L1682896-4
Sample Size	0.95	0.88	0.91	0.985	0.89	0.89
Sample size units	L	L	L	L	L	L
Percent Moisture	n/a	n/a	n/a	n/a	n/a	n/a
Sample Matrix	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sampling Date	3-Oct-15	3-Oct-15	3-Oct-15	3-Oct-15	3-Oct-15	3-Oct-15
Extraction Date	5-Oct-15	5-Oct-15	5-Oct-15	5-Oct-15	5-Oct-15	5-Oct-15
Target Analytes	pg/L	pg/L	pg/L	pg/L	pg/L	pg/L
2,3,7,8-TCDD	<15	<3.3	<3.0	<5.1	<3.2	<3.1
1,2,3,7,8-PeCDD	<4.9	<2.8	<1.2	<1.7	<1.5	<1.5
1,2,3,4,7,8-HxCDD	<2.6	<1.3	<0.53	<0.86	<0.73	<0.91
1,2,3,6,7,8-HxCDD	<2.4	<1.1	<0.46	<0.74	<0.66	<0.83
1,2,3,7,8,9-HxCDD	<2.5	<1.2	<0.49	<0.78	<0.69	<0.86
1,2,3,4,6,7,8-HpCDD	<2.1	<1.5	<0.42	<0.61	<0.69	<0.63
OCDD	<2.9	<1.6	<0.36	<0.47	<0.46	<0.81
2,3,7,8-TCDF	<50	<13	<10	<19	<10	<11
1,2,3,7,8-PeCDF	<5.0	<2.7	<1.1	<2.0	<1.3	<1.2
2,3,4,7,8-PeCDF	<4.0	<2.4	<0.98	<1.7	<1.0	<1.1
1,2,3,4,7,8-HxCDF	<2.2	<0.95	<0.51	<0.74	<0.53	<0.63
1,2,3,6,7,8-HxCDF	<1.7	<0.67	<0.37	<0.47	<0.39	<0.49
2,3,4,6,7,8-HxCDF	<1.7	<0.71	<0.34	<0.41	<0.36	<0.49
1,2,3,7,8,9-HxCDF	<2.4	<0.90	<0.45	<0.59	<0.49	<0.62
1,2,3,4,6,7,8-HpCDF	<1.5	<0.77	<0.25	<0.46	<0.26	<0.49
1,2,3,4,7,8,9-HpCDF	<2.1	<1.2	<0.36	<0.71	<0.39	<0.66
OCDF	<3.1	<1.9	<0.46	<0.63	<0.56	<0.96
Extraction Standards	% Rec	% Rec	% Rec	% Rec	% Rec	% Rec
13C12-2,3,7,8-TCDD	33	26	23	20	27	37
13C12-1,2,3,7,8-PeCDD	53	29	33	32	40	56
13C12-1,2,3,4,7,8-HxCDD	65	38	62	49	59	74
13C12-1,2,3,6,7,8-HxCDD	87	56	76	69	77	81
13C12-1,2,3,4,6,7,8-HpCDD	96	62	101	94	95	94
13C12-OCDD	98	61	104	98	101	95
13C12-2,3,7,8-TCDF	9	4	4	4	5	8
13C12-1,2,3,7,8-PeCDF	39	19	21	21	26	38
13C12-2,3,4,7,8-PeCDF	41	19	22	21	27	37
13C12-1,2,3,4,7,8-HxCDF	63	39	60	49	57	69
13C12-1,2,3,6,7,8-HxCDF	82	58	76	65	74	81
13C12-2,3,4,6,7,8-HxCDF	93	62	94	87	90	92
13C12-1,2,3,7,8,9-HxCDF	81	53	81	73	77	84
13C12-1,2,3,4,6,7,8-HpCDF	99	66	104	96	99	96
13C12-1,2,3,4,7,8,9-HpCDF	94	58	98	88	91	94
Cleanup Standard						
37Cl4-2,3,7,8-TCDD (Cleanup)	39	27	25	22	30	40
Homologue Group Totals	pg/L	pg/L	pg/L	pg/L	pg/L	pg/L
Total-TCDD	<15	<9.2	<3.0	<5.1	<3.2	<3.1
Total-PeCDD	<4.9	<2.8	<1.2	<1.7	<1.5	<1.5
Total-HxCDD	<2.6	<1.3	1.89	<0.86	<0.73	<0.91
Total-HpCDD	<2.1	<1.5	<0.42	<0.61	<0.69	<0.63
Total-TCDF	<50	<33	<10	<19	<10	<11
Total-PeCDF	<5.0	<2.7	<1.1	<2.0	<1.3	<1.2
Total-HxCDF	<2.4	<0.95	<0.51	<0.74	<0.53	<0.63
Total-HpCDF	<2.1	<1.2	<0.36	<0.71	<0.39	<0.66
Toxic Equivalency - (WHO 2005)						
Lower Bound PCDD/F TEQ (WHO 2005)	0.00	0.00	0.00	0.00	0.00	0.00
Mid Point PCDD/F TEQ (WHO 2005)	13.9	4.46	2.93	4.87	3.22	3.28
Upper Bound PCDD/F TEQ (WHO 2005)	27.9	8.92	5.85	9.75	6.44	6.57

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Quality Control Summary Report

Sample Name	Method Blank	Method Blank	Method Blank	Laboratory Control Sample
ALS Sample ID	WG2185811-1	WG2185811-2	WG2185811-3	WG2185811-4
Sample Size	1.00	0.98	0.91	1.00
Sample size units	L	L	L	n/a
Percent Moisture	n/a	n/a	n/a	n/a
Sample Matrix	QC	QC	QC	QC
Sampling Date	n/a	n/a	n/a	n/a
Extraction Date	5-Oct-15	5-Oct-15	5-Oct-15	5-Oct-15
Target Analytes	pg/L	pg/L	pg/L	% Rec
2,3,7,8-TCDD	<1.6	<7.6	<2.6	104
1,2,3,7,8-PeCDD	<0.93	<1.5	<1.0	106
1,2,3,4,7,8-HxCDD	<0.50	<0.66	<0.54	104
1,2,3,6,7,8-HxCDD	<0.44	<0.58	<0.49	99
1,2,3,7,8,9-HxCDD	<0.46	<0.61	<0.51	132
1,2,3,4,6,7,8-HpCDD	<0.63	<0.48	<0.76	104
OCDD	<1.4	1.11	<5.5	103
2,3,7,8-TCDF	<4.3	<16	<5.0	113
1,2,3,7,8-PeCDF	<0.88	<1.3	<0.85	99
2,3,4,7,8-PeCDF	<0.81	<1.2	<0.73	97
1,2,3,4,7,8-HxCDF	<0.54	<0.32	<0.40	106
1,2,3,6,7,8-HxCDF	<0.42	<0.22	<0.30	95
2,3,4,6,7,8-HxCDF	<0.46	<0.24	<0.34	111
1,2,3,7,8,9-HxCDF	0.760	<0.50	<0.40	109
1,2,3,4,6,7,8-HpCDF	<0.43	<0.35	<0.50	98
1,2,3,4,7,8,9-HpCDF	<0.55	<0.46	<0.68	98
OCDF	0.740	<0.73	<0.72	104
Extraction Standards	% Rec	% Rec	% Rec	% Rec
13C12-2,3,7,8-TCDD	41	15	42	20
13C12-1,2,3,7,8-PeCDD	70	49	63	52
13C12-1,2,3,4,7,8-HxCDD	66	63	66	61
13C12-1,2,3,6,7,8-HxCDD	87	79	86	83
13C12-1,2,3,4,6,7,8-HpCDD	91	92	86	96
13C12-OCDD	91	103	91	99
13C12-2,3,7,8-TCDF	10	5	15	6
13C12-1,2,3,7,8-PeCDF	48	34	53	38
13C12-2,3,4,7,8-PeCDF	45	30	50	34
13C12-1,2,3,4,7,8-HxCDF	67	62	67	61
13C12-1,2,3,6,7,8-HxCDF	82	82	87	79
13C12-2,3,4,6,7,8-HxCDF	87	87	87	87
13C12-1,2,3,7,8,9-HxCDF	84	80	81	81
13C12-1,2,3,4,6,7,8-HpCDF	97	98	92	97
13C12-1,2,3,4,7,8,9-HpCDF	96	99	90	97
Cleanup Standard				
37Cl4-2,3,7,8-TCDD (Cleanup)	41	15	45	22
Homologue Group Totals	pg/L	pg/L	pg/L	
Total-TCDD	<4.2	<7.6	<3.0	
Total-PeCDD	<0.93	<1.5	<1.0	
Total-HxCDD	<0.50	<0.66	<0.54	
Total-HpCDD	<0.63	<0.48	<0.76	
Total-TCDF	<7.4	<16	<6.2	
Total-PeCDF	<0.88	<1.3	<0.85	
Total-HxCDF	0.760	<0.32	<0.40	
Total-HpCDF	<0.55	<0.46	<0.68	
Toxic Equivalency - (WHO 2005)				
Lower Bound PCDD/F TEQ (WHO 2005)	0.0762	0.000333	0.00	
Mid Point PCDD/F TEQ (WHO 2005)	1.84	5.74	2.33	
Upper Bound PCDD/F TEQ (WHO 2005)	3.60	11.4	4.66	

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Sample Analysis Report

Sample Name DYEC/FA/151001/1
ALS Sample ID L1682286-1
Analysis Method EPA 1613B
Analysis Type Sample
Sample Matrix SOIL

Sampling Date 2-Oct-15
Extraction Date 5-Oct-15
Sample Size 0.96 L
Percent Moisture n/a
Split Ratio 1

Approved:
T. Patterson
 --e-signature--
 00-Jan-1900

Run Information

Run 1

Run 2

Filename 7-151007A09
Run Date 07-Oct-15 21:57
Final Volume 20 uL
Dilution Factor 1
Analysis Units pg/L
Instrument - Column HRMS-7 DB5MSUSE700122H

Filename 7-151008A14
Run Date 08-Oct-15 19:18
Final Volume 20 uL
Dilution Factor 1
Analysis Units pg/L
Instrument - Column HRMS-7 DB5MSUSE700122H

Target Analytes	TEF (WHO 2005)	Ret. Time	Conc. pg/L	EDL pg/L	Flags	EMPC pg/L	LQL	Ret. Time	Conc. pg/L	EDL pg/L	Flags	EMPC pg/L	LQL
2,3,7,8-TCDD	1	NotFnd	<4.0	4.0	U		10	NotFnd	<3.1	3.1	U		10
1,2,3,7,8-PeCDD	1	NotFnd	<1.0	1.0	U		52	NotFnd	<0.78	0.78	U		52
1,2,3,4,7,8-HxCDD	0.1	NotFnd	<0.53	0.53	U		52	NotFnd	<0.50	0.50	U		52
1,2,3,6,7,8-HxCDD	0.1	NotFnd	<0.47	0.47	U		52	NotFnd	<0.47	0.47	U		52
1,2,3,7,8,9-HxCDD	0.1	NotFnd	<0.49	0.49	U		52	NotFnd	<0.48	0.48	U		52
1,2,3,4,6,7,8-HpCDD	0.01	35.54	<0.54	0.54	M,U	0.38	52	NotFnd	<0.52	0.52	U		52
OCDD	0.0003	37.02	<0.58	0.58	M,J,R	0.58	100	NotFnd	<0.50	0.50	U		100
2,3,7,8-TCDF	0.1	NotFnd	<12	12	U		10	NotFnd	<7.6	7.6	U		10
1,2,3,7,8-PeCDF	0.03	NotFnd	<1.0	1.0	U		52	NotFnd	<0.82	0.82	U		52
2,3,4,7,8-PeCDF	0.3	NotFnd	<0.96	0.96	U		52	NotFnd	<0.74	0.74	U		52
1,2,3,4,7,8-HxCDF	0.1	NotFnd	<0.52	0.52	U		52	NotFnd	<0.41	0.41	U		52
1,2,3,6,7,8-HxCDF	0.1	NotFnd	<0.37	0.37	U		52	NotFnd	<0.32	0.32	U		52
2,3,4,6,7,8-HxCDF	0.1	NotFnd	<0.39	0.39	U		52	NotFnd	<0.33	0.33	U		52
1,2,3,7,8,9-HxCDF	0.1	NotFnd	<0.52	0.52	U		52	NotFnd	<0.47	0.47	U		52
1,2,3,4,6,7,8-HpCDF	0.01	NotFnd	<0.30	0.30	U		52	NotFnd	<0.35	0.35	U		52
1,2,3,4,7,8,9-HpCDF	0.01	NotFnd	<0.38	0.38	U		52	NotFnd	<0.49	0.49	U		52
OCDF	0.0003	NotFnd	<0.63	0.63	U		100	NotFnd	<0.51	0.51	U		100

Extraction Standards	pg	% Rec	Limits	% Rec
13C12-2,3,7,8-TCDD	2000	27.47	27 25-164	27.52 30
13C12-1,2,3,7,8-PeCDD	2000	31.81	55 25-181	31.84 57
13C12-1,2,3,4,7,8-HxCDD	2000	33.90	58 32-141	33.92 70
13C12-1,2,3,6,7,8-HxCDD	2000	33.95	90 28-130	33.97 95
13C12-1,2,3,4,6,7,8-HpCDD	2000	35.54	95 23-140	35.56 102
13C12-OCDD	4000	37.00	98 17-157	37.03 98
13C12-2,3,7,8-TCDF	2000	26.55	6 24-169	26.61 7
13C12-1,2,3,7,8-PeCDF	2000	30.85	39 24-185	30.88 41
13C12-2,3,4,7,8-PeCDF	2000	31.59	39 21-178	31.63 40
13C12-1,2,3,4,7,8-HxCDF	2000	33.40	60 26-152	33.42 71
13C12-1,2,3,6,7,8-HxCDF	2000	33.47	91 26-123	33.49 92
13C12-2,3,4,6,7,8-HxCDF	2000	33.80	90 29-147	33.82 94
13C12-1,2,3,7,8,9-HxCDF	2000	34.22	80 28-136	34.25 85
13C12-1,2,3,4,6,7,8-HpCDF	2000	34.98	94 28-143	35.00 98
13C12-1,2,3,4,7,8,9-HpCDF	2000	35.78	94 26-138	35.80 102

Cleanup Standard	pg	% Rec	Limits
7Cl4-2,3,7,8-TCDD (Cleanup)	40	27.48	28 35-197

Homologue Group Totals	# peaks	Conc. pg/L	EDL pg/L	# peaks	Conc. pg/L	EDL pg/L
Total-TCDD	0.00	<4.0	4.0	U	10	0.00 <3.1 3.1 U
Total-PeCDD	0.00	<1.0	1.0	U	52	0.00 <0.78 0.78 U
Total-HxCDD	0.00	<0.53	0.53	U	52	0.00 <0.50 0.50 U
Total-HpCDD	0.00	<0.54	0.54	U	52	0.00 <0.52 0.52 U
Total-TCDF	0.00	<12	12	U	10	0.00 <7.6 7.6 U
Total-PeCDF	0.00	<1.0	1.0	U	52	0.00 <0.82 0.82 U
Total-HxCDF	0.00	<0.52	0.52	U	52	0.00 <0.47 0.47 U
Total-HpCDF	0.00	<0.38	0.38	U	52	0.00 <0.49 0.49 U

Toxic Equivalency - (WHO 2005) pg/L
Lower Bound PCDD/F TEQ (WHO 2005) 0.00
Mid Point PCDD/F TEQ (WHO 2005) 2.76
Upper Bound PCDD/F TEQ (WHO 2005) 5.52

EDL Indicates the Estimated Detection Limit, based on the measured background noise for this target in this sample.
 TEF Indicates the Toxic Equivalency Factor TEQ Indicates the Toxic Equivalency
 M Indicates that a peak has been manually integrated.
 U Indicates that this compound was not detected above the MDL.
 J indicates that a target analyte was detected below the calibrated range.
 R Indicates that the ion abundance ratio for this compound did not meet the acceptance criterion.

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Sample Analysis Report

Sample Name DYEC/FA/151001/2
ALS Sample ID L1682286-2
Analysis Method EPA 1613B
Analysis Type Sample
Sample Matrix SOIL

Sampling Date 2-Oct-15
Extraction Date 5-Oct-15
Sample Size 0.91 L
Percent Moisture n/a
Split Ratio 1

Approved:
T. Patterson
 --e-signature--
 00-Jan-1900

Run Information	Run 1	Run 2
Filename	7-151007A10	7-151008A15
Run Date	07-Oct-15 22:39	08-Oct-15 20:00
Final Volume	20 uL	20 uL
Dilution Factor	1	1
Analysis Units	pg/L	pg/L
Instrument - Column	HRMS-7 DB5MSUSE700122H	HRMS-7 DB5MSUSE700122H

Target Analytes	TEF (WHO 2005)	Ret. Time	Conc. pg/L	EDL pg/L	Flags	EMPC pg/L	LQL	Ret. Time	Conc. pg/L	EDL pg/L	Flags	EMPC pg/L	LQL
2,3,7,8-TCDD	1	NotFnd	<4.7	4.7	U		11	NotFnd	<4.0	4.0	U		11
1,2,3,7,8-PeCDD	1	NotFnd	<1.4	1.4	U		55	NotFnd	<1.1	1.1	U		55
1,2,3,4,7,8-HxCDD	0.1	NotFnd	<0.70	0.70	U		55	NotFnd	<0.77	0.77	U		55
1,2,3,6,7,8-HxCDD	0.1	NotFnd	<0.55	0.55	U		55	NotFnd	<0.73	0.73	U		55
1,2,3,7,8,9-HxCDD	0.1	NotFnd	<0.61	0.61	U		55	NotFnd	<0.75	0.75	U		55
1,2,3,4,6,7,8-HpCDD	0.01	NotFnd	<0.85	0.85	U		55	NotFnd	<0.65	0.65	U		55
OCDD	0.0003	37.01	<1.1	0.66	M,J,R	1.1	110	NotFnd	<0.86	0.86	U		110
2,3,7,8-TCDF	0.1	NotFnd	<12	12	U		11	NotFnd	<8.1	8.1	U		11
1,2,3,7,8-PeCDF	0.03	30.86	<1.4	1.4	M,U	0.45	55	NotFnd	<1.3	1.3	U		55
2,3,4,7,8-PeCDF	0.3	NotFnd	<1.3	1.3	U		55	NotFnd	<1.2	1.2	U		55
1,2,3,4,7,8-HxCDF	0.1	NotFnd	<0.61	0.61	U		55	NotFnd	<0.56	0.56	U		55
1,2,3,6,7,8-HxCDF	0.1	NotFnd	<0.45	0.45	U		55	NotFnd	<0.42	0.42	U		55
2,3,4,6,7,8-HxCDF	0.1	NotFnd	<0.49	0.49	U		55	NotFnd	<0.45	0.45	U		55
1,2,3,7,8,9-HxCDF	0.1	NotFnd	<0.62	0.62	U		55	NotFnd	<0.58	0.58	U		55
1,2,3,4,6,7,8-HpCDF	0.01	NotFnd	<0.48	0.48	U		55	NotFnd	<0.50	0.50	U		55
1,2,3,4,7,8,9-HpCDF	0.01	NotFnd	<0.62	0.62	U		55	NotFnd	<0.68	0.68	U		55
OCDF	0.0003	NotFnd	<0.74	0.74	U		110	NotFnd	<0.91	0.91	U		110

Extraction Standards	pg	% Rec	Limits	% Rec
13C12-2,3,7,8-TCDD	2000	27.47	23 25-164	27.54 24
13C12-1,2,3,7,8-PeCDD	2000	31.82	49 25-181	31.85 48
13C12-1,2,3,4,7,8-HxCDD	2000	33.90	52 32-141	33.93 61
13C12-1,2,3,6,7,8-HxCDD	2000	33.95	71 28-130	33.98 69
13C12-1,2,3,4,6,7,8-HpCDD	2000	35.54	74 23-140	35.57 73
13C12-OCDD	4000	37.00	76 17-157	37.04 73
13C12-2,3,7,8-TCDF	2000	26.55	8 24-169	26.62 8
13C12-1,2,3,7,8-PeCDF	2000	30.85	35 24-185	30.89 35
13C12-2,3,4,7,8-PeCDF	2000	31.60	35 21-178	31.64 36
13C12-1,2,3,4,7,8-HxCDF	2000	33.40	49 26-152	33.44 57
13C12-1,2,3,6,7,8-HxCDF	2000	33.47	74 26-123	33.50 67
13C12-2,3,4,6,7,8-HxCDF	2000	33.80	73 29-147	33.83 73
13C12-1,2,3,7,8,9-HxCDF	2000	34.22	67 28-136	34.26 66
13C12-1,2,3,4,6,7,8-HpCDF	2000	34.98	75 28-143	35.03 77
13C12-1,2,3,4,7,8,9-HpCDF	2000	35.79	76 26-138	35.82 75

Cleanup Standard	pg	% Rec	Limits	% Rec
7Cl4-2,3,7,8-TCDD (Cleanup)	40	27.50	25 35-197	27.55 29

Homologue Group Totals	# peaks	Conc. pg/L	EDL pg/L	# peaks	Conc. pg/L	EDL pg/L
Total-TCDD	0.00	<4.7	4.7	0.00	<4.0	4.0
Total-PeCDD	0.00	<1.4	1.4	0.00	<1.1	1.1
Total-HxCDD	0.00	<0.70	0.70	0.00	<0.77	0.77
Total-HpCDD	0.00	<0.85	0.85	0.00	<0.65	0.65
Total-TCDF	0.00	<12	12	0.00	<8.1	8.1
Total-PeCDF	0.00	<1.4	1.4	0.00	<1.3	1.3
Total-HxCDF	0.00	<0.62	0.62	0.00	<0.58	0.58
Total-HpCDF	0.00	<0.62	0.62	0.00	<0.68	0.68

Toxic Equivalency - (WHO 2005)	pg/L
Lower Bound PCDD/F TEQ (WHO 2005)	0.00
Mid Point PCDD/F TEQ (WHO 2005)	3.53
Upper Bound PCDD/F TEQ (WHO 2005)	7.07

EDL Indicates the Estimated Detection Limit, based on the measured background noise for this target in this sample.
 TEF Indicates the Toxic Equivalency Factor
 M Indicates that a peak has been manually integrated.
 U Indicates that this compound was not detected above the MDL.
 J indicates that a target analyte was detected below the calibrated range.
 R Indicates that the ion abundance ratio for this compound did not meet the acceptance criterion.

ALS Life sciences

Sample Analysis Report

Sample Name DYEC/FA/151001/3
ALS Sample ID L1682286-3
Analysis Method EPA 1613B
Analysis Type Sample
Sample Matrix SOIL

Sampling Date 2-Oct-15
Extraction Date 5-Oct-15
Sample Size 0.96 L
Percent Moisture n/a
Split Ratio 1

Approved:
T. Patterson
 --e-signature--
 00-Jan-1900

Run Information	Run 1	Run 2
Filename	7-151007A11	7-151008A16
Run Date	07-Oct-15 23:21	08-Oct-15 20:42
Final Volume	20 uL	20 uL
Dilution Factor	1	1
Analysis Units	pg/L	pg/L
Instrument - Column	HRMS-7 DB5MSUSE700122H	HRMS-7 DB5MSUSE700122H

Target Analytes	TEF (WHO 2005)	Ret. Time	Conc. pg/L	EDL pg/L	Flags	EMPC pg/L	LQL	Ret. Time	Conc. pg/L	EDL pg/L	Flags	EMPC pg/L	LQL
2,3,7,8-TCDD	1	NotFnd	<4.7	4.7	U		10	NotFnd	<5.6	5.6	U		10
1,2,3,7,8-PeCDD	1	NotFnd	<1.7	1.7	U		52	NotFnd	<1.4	1.4	U		52
1,2,3,4,7,8-HxCDD	0.1	NotFnd	<0.79	0.79	U		52	NotFnd	<0.94	0.94	U		52
1,2,3,6,7,8-HxCDD	0.1	NotFnd	<0.66	0.66	U		52	NotFnd	<0.84	0.84	U		52
1,2,3,7,8,9-HxCDD	0.1	NotFnd	<0.70	0.70	U		52	NotFnd	<0.88	0.88	U		52
1,2,3,4,6,7,8-HpCDD	0.01	35.55	<0.66	0.66	M,U	0.48	52	NotFnd	<0.66	0.66	U		52
OCDD	0.0003	NotFnd	<0.48	0.48	U		100	NotFnd	<0.76	0.76	U		100
2,3,7,8-TCDF	0.1	NotFnd	<14	14	U		10	NotFnd	<13	13	U		10
1,2,3,7,8-PeCDF	0.03	NotFnd	<1.7	1.7	U		52	NotFnd	<1.7	1.7	U		52
2,3,4,7,8-PeCDF	0.3	NotFnd	<1.3	1.3	U		52	NotFnd	<1.5	1.5	U		52
1,2,3,4,7,8-HxCDF	0.1	NotFnd	<0.68	0.68	U		52	NotFnd	<0.67	0.67	U		52
1,2,3,6,7,8-HxCDF	0.1	NotFnd	<0.45	0.45	U		52	NotFnd	<0.52	0.52	U		52
2,3,4,6,7,8-HxCDF	0.1	NotFnd	<0.42	0.42	U		52	NotFnd	<0.46	0.46	U		52
1,2,3,7,8,9-HxCDF	0.1	NotFnd	<0.55	0.55	U		52	NotFnd	<0.61	0.61	U		52
1,2,3,4,6,7,8-HpCDF	0.01	NotFnd	<0.44	0.44	U		52	NotFnd	<0.32	0.32	U		52
1,2,3,4,7,8,9-HpCDF	0.01	NotFnd	<0.61	0.61	U		52	NotFnd	<0.47	0.47	U		52
OCDF	0.0003	NotFnd	<0.59	0.59	U		100	NotFnd	<0.77	0.77	U		100

Extraction Standards	pg	% Rec	Limits	% Rec
13C12-2,3,7,8-TCDD	2000	27.47	20 25-164	27.54 21
13C12-1,2,3,7,8-PeCDD	2000	31.82	45 25-181	31.85 44
13C12-1,2,3,4,7,8-HxCDD	2000	33.91	53 32-141	33.93 57
13C12-1,2,3,6,7,8-HxCDD	2000	33.96	75 28-130	33.98 76
13C12-1,2,3,4,6,7,8-HpCDD	2000	35.54	93 23-140	35.57 96
13C12-OCDD	4000	37.01	99 17-157	37.03 102
13C12-2,3,7,8-TCDF	2000	26.56	7 24-169	26.62 7
13C12-1,2,3,7,8-PeCDF	2000	30.86	29 24-185	30.89 30
13C12-2,3,4,7,8-PeCDF	2000	31.60	30 21-178	31.64 31
13C12-1,2,3,4,7,8-HxCDF	2000	33.41	50 26-152	33.43 53
13C12-1,2,3,6,7,8-HxCDF	2000	33.47	74 26-123	33.49 70
13C12-2,3,4,6,7,8-HxCDF	2000	33.81	89 29-147	33.83 88
13C12-1,2,3,7,8,9-HxCDF	2000	34.22	75 28-136	34.25 75
13C12-1,2,3,4,6,7,8-HpCDF	2000	34.99	97 28-143	35.01 96
13C12-1,2,3,4,7,8,9-HpCDF	2000	35.79	92 26-138	35.81 92

Cleanup Standard	pg	% Rec	Limits
13C14-2,3,7,8-TCDD (Cleanup)	40	27.50	22 35-197

Homologue Group Totals	# peaks	Conc. pg/L	EDL pg/L	# peaks	Conc. pg/L	EDL pg/L
Total-TCDD	0.00	<4.7	4.7	0.00	<5.6	5.6
Total-PeCDD	0.00	<1.7	1.7	0.00	<1.4	1.4
Total-HxCDD	0.00	<0.79	0.79	0.00	<0.94	0.94
Total-HpCDD	0.00	<0.66	0.66	0.00	<0.66	0.66
Total-TCDF	0.00	<14	14	0.00	<13	13
Total-PeCDF	0.00	<1.7	1.7	0.00	<1.7	1.7
Total-HxCDF	0.00	<0.68	0.68	0.00	<0.67	0.67
Total-HpCDF	0.00	<0.61	0.61	0.00	<0.47	0.47

Toxic Equivalency - (WHO 2005)	pg/L
Lower Bound PCDD/F TEQ (WHO 2005)	0.00
Mid Point PCDD/F TEQ (WHO 2005)	4.29
Upper Bound PCDD/F TEQ (WHO 2005)	8.58

EDL Indicates the Estimated Detection Limit, based on the measured background noise for this target in this sample.
 TEF Indicates the Toxic Equivalency Factor
 M Indicates that a peak has been manually integrated.
 U Indicates that this compound was not detected above the MDL.

ALS Life sciences

Sample Analysis Report

Sample Name DYEC/FA/151001/4
ALS Sample ID L1682286-4
Analysis Method EPA 1613B
Analysis Type Sample
Sample Matrix SOIL

Sampling Date 2-Oct-15
Extraction Date 5-Oct-15
Sample Size 0.89 L
Percent Moisture n/a
Split Ratio 1

Approved:
T. Patterson
 --e-signature--
 00-Jan-1900

Run Information	Run 1	Run 2
Filename	7-151007A12	7-151008A24
Run Date	08-Oct-15 00:03	09-Oct-15 02:24
Final Volume	20 uL	20 uL
Dilution Factor	1	1
Analysis Units	pg/L	pg/L
Instrument - Column	HRMS-7 DB5MSUSE700122H	HRMS-7 DB5MSUSE700122H

Target Analytes	TEF (WHO 2005)	Ret. Time	Conc. pg/L	EDL pg/L	Flags	EMPC pg/L	LQL	Ret. Time	Conc. pg/L	EDL pg/L	Flags	EMPC pg/L	LQL
2,3,7,8-TCDD	1	NotFnd	<11	11	U	11	11	NotFnd	<13	13	U	11	11
1,2,3,7,8-PeCDD	1	NotFnd	<2.0	2.0	U	56	56	NotFnd	<2.2	2.2	U	56	56
1,2,3,4,7,8-HxCDD	0.1	NotFnd	<0.79	0.79	U	56	56	NotFnd	<1.2	1.2	U	56	56
1,2,3,6,7,8-HxCDD	0.1	NotFnd	<0.64	0.64	U	56	56	NotFnd	<1.1	1.1	U	56	56
1,2,3,7,8,9-HxCDD	0.1	NotFnd	<0.68	0.68	U	56	56	NotFnd	<1.1	1.1	U	56	56
1,2,3,4,6,7,8-HpCDD	0.01	NotFnd	<0.72	0.72	U	56	56	NotFnd	<0.71	0.71	U	56	56
OCDD	0.0003	37.02	<0.90	0.55	M,J,R	0.90	110	NotFnd	<0.58	0.58	U	110	110
2,3,7,8-TCDF	0.1	NotFnd	<28	28	U	11	11	NotFnd	<29	29	U	11	11
1,2,3,7,8-PeCDF	0.03	NotFnd	<2.3	2.3	U	56	56	NotFnd	<2.5	2.5	U	56	56
2,3,4,7,8-PeCDF	0.3	NotFnd	<2.3	2.3	U	56	56	NotFnd	<2.5	2.5	U	56	56
1,2,3,4,7,8-HxCDF	0.1	NotFnd	<0.78	0.78	U	56	56	NotFnd	<0.93	0.93	U	56	56
1,2,3,6,7,8-HxCDF	0.1	NotFnd	<0.52	0.52	U	56	56	NotFnd	<0.63	0.63	U	56	56
2,3,4,6,7,8-HxCDF	0.1	NotFnd	<0.50	0.50	U	56	56	NotFnd	<0.61	0.61	U	56	56
1,2,3,7,8,9-HxCDF	0.1	NotFnd	<0.66	0.66	U	56	56	NotFnd	<0.79	0.79	U	56	56
1,2,3,4,6,7,8-HpCDF	0.01	NotFnd	<0.47	0.47	U	56	56	NotFnd	<0.50	0.50	U	56	56
1,2,3,4,7,8,9-HpCDF	0.01	NotFnd	<0.66	0.66	U	56	56	NotFnd	<0.66	0.66	U	56	56
OCDF	0.0003	NotFnd	<0.76	0.76	U	110	110	NotFnd	<1.0	1.0	U	110	110

Extraction Standards	pg	% Rec	Limits	% Rec
13C12-2,3,7,8-TCDD	2000	27.47	11 25-164	27.57 11
13C12-1,2,3,7,8-PeCDD	2000	31.82	30 25-181	31.87 29
13C12-1,2,3,4,7,8-HxCDD	2000	33.90	39 32-141	33.94 52
13C12-1,2,3,6,7,8-HxCDD	2000	33.95	69 28-130	33.99 65
13C12-1,2,3,4,6,7,8-HpCDD	2000	35.54	84 23-140	35.58 90
13C12-OCDD	4000	37.00	91 17-157	37.05 90
13C12-2,3,7,8-TCDF	2000	26.56	3 24-169	26.65 3
13C12-1,2,3,7,8-PeCDF	2000	30.85	20 24-185	30.91 21
13C12-2,3,4,7,8-PeCDF	2000	31.60	18 21-178	31.65 19
13C12-1,2,3,4,7,8-HxCDF	2000	33.40	42 26-152	33.45 50
13C12-1,2,3,6,7,8-HxCDF	2000	33.47	70 26-123	33.51 66
13C12-2,3,4,6,7,8-HxCDF	2000	33.80	80 29-147	33.84 81
13C12-1,2,3,7,8,9-HxCDF	2000	34.22	68 28-136	34.27 71
13C12-1,2,3,4,6,7,8-HpCDF	2000	34.99	85 28-143	35.04 90
13C12-1,2,3,4,7,8,9-HpCDF	2000	35.78	81 26-138	35.83 89

Cleanup Standard	pg	% Rec	Limits
7C14-2,3,7,8-TCDD (Cleanup)	40	27.50	12 35-197

Homologue Group Totals	# peaks	Conc. pg/L	EDL pg/L	# peaks	Conc. pg/L	EDL pg/L
Total-TCDD	0.00	<11	11	U	11	0.00 <13 13 U
Total-PeCDD	0.00	<2.0	2.0	U	56	0.00 <2.2 2.2 U
Total-HxCDD	0.00	<0.79	0.79	U	56	0.00 <1.2 1.2 U
Total-HpCDD	0.00	<0.72	0.72	U	56	0.00 <0.71 0.71 U
Total-TCDF	0.00	<28	28	U	11	0.00 <29 29 U
Total-PeCDF	0.00	<2.3	2.3	U	56	0.00 <2.5 2.5 U
Total-HxCDF	0.00	<0.78	0.78	U	56	0.00 <0.93 0.93 U
Total-HpCDF	0.00	<0.66	0.66	U	56	0.00 <0.66 0.66 U

Toxic Equivalency - (WHO 2005)	pg/L
Lower Bound PCDD/F TEQ (WHO 2005)	0.00
Mid Point PCDD/F TEQ (WHO 2005)	8.52
Upper Bound PCDD/F TEQ (WHO 2005)	17.0

EDL Indicates the Estimated Detection Limit, based on the measured background noise for this target in this sample.
 TEF Indicates the Toxic Equivalency Factor TEQ Indicates the Toxic Equivalency;
 M Indicates that a peak has been manually integrated.
 U Indicates that this compound was not detected above the MDL.
 J indicates that a target analyte was detected below the calibrated range.
 R Indicates that the ion abundance ratio for this compound did not meet the acceptance criterion.

ALS Life sciences

Sample Analysis Report

Sample Name DYEC/FA/151002/1
ALS Sample ID L1682822-1
Analysis Method EPA 1613B
Analysis Type Sample
Sample Matrix SOIL

Sampling Date 3-Oct-15
Extraction Date 5-Oct-15
Sample Size 0.95 L
Percent Moisture n/a
Split Ratio 1

Approved:
T. Patterson
 --e-signature--
 00-Jan-1900

Run Information	Run 1	Run 2
Filename	7-151007A13	7-151008A25
Run Date	08-Oct-15 00:45	09-Oct-15 03:06
Final Volume	20 uL	20 uL
Dilution Factor	1	1
Analysis Units	pg/L	pg/L
Instrument - Column	HRMS-7 DB5MSUSE700122H	HRMS-7 DB5MSUSE700122H

Target Analytes	TEF (WHO 2005)	Ret. Time	Conc. pg/L	EDL pg/L	Flags	EMPC pg/L	LQL	Ret. Time	Conc. pg/L	EDL pg/L	Flags	EMPC pg/L	LQL
2,3,7,8-TCDD	1	NotFnd	<4.0	4.0	U	11		NotFnd	<3.8	3.8	U	11	
1,2,3,7,8-PeCDD	1	NotFnd	<1.1	1.1	U	53		NotFnd	<1.4	1.4	U	53	
1,2,3,4,7,8-HxCDD	0.1	NotFnd	<0.61	0.61	U	53		NotFnd	<0.75	0.75	U	53	
1,2,3,6,7,8-HxCDD	0.1	NotFnd	<0.51	0.51	U	53		NotFnd	<0.71	0.71	U	53	
1,2,3,7,8,9-HxCDD	0.1	NotFnd	<0.55	0.55	U	53		NotFnd	<0.72	0.72	U	53	
1,2,3,4,6,7,8-HpCDD	0.01	NotFnd	<0.89	0.89	U	53		NotFnd	<0.82	0.82	U	53	
OCDD	0.0003	NotFnd	<0.54	0.54	U	110		NotFnd	<0.89	0.89	U	110	
2,3,7,8-TCDF	0.1	NotFnd	<16	16	U	11		NotFnd	<13	13	U	11	
1,2,3,7,8-PeCDF	0.03	NotFnd	<1.7	1.7	U	53		NotFnd	<1.2	1.2	U	53	
2,3,4,7,8-PeCDF	0.3	NotFnd	<1.5	1.5	U	53		NotFnd	<1.1	1.1	U	53	
1,2,3,4,7,8-HxCDF	0.1	NotFnd	<0.51	0.51	U	53		NotFnd	<0.62	0.62	U	53	
1,2,3,6,7,8-HxCDF	0.1	NotFnd	<0.34	0.34	U	53		NotFnd	<0.51	0.51	U	53	
2,3,4,6,7,8-HxCDF	0.1	NotFnd	<0.35	0.35	U	53		NotFnd	<0.50	0.50	U	53	
1,2,3,7,8,9-HxCDF	0.1	34.25	<0.51	0.48	M,J,R	0.51	53	NotFnd	<0.67	0.67	U	53	
1,2,3,4,6,7,8-HpCDF	0.01	NotFnd	<0.48	0.48	U	53		NotFnd	<0.56	0.56	U	53	
1,2,3,4,7,8,9-HpCDF	0.01	NotFnd	<0.65	0.65	U	53		NotFnd	<0.87	0.87	U	53	
OCDF	0.0003	NotFnd	<0.67	0.67	U	110		NotFnd	<0.98	0.98	U	110	

Extraction Standards	pg	% Rec	Limits	% Rec
13C12-2,3,7,8-TCDD	2000	27.47	25 25-164	27.57 29
13C12-1,2,3,7,8-PeCDD	2000	31.83	47 25-181	31.88 49
13C12-1,2,3,4,7,8-HxCDD	2000	33.91	60 32-141	33.95 70
13C12-1,2,3,6,7,8-HxCDD	2000	33.96	79 28-130	34.00 83
13C12-1,2,3,4,6,7,8-HpCDD	2000	35.55	94 23-140	35.59 94
13C12-OCDD	4000	37.02	98 17-157	37.06 92
13C12-2,3,7,8-TCDF	2000	26.56	6 24-169	26.65 6
13C12-1,2,3,7,8-PeCDF	2000	30.86	32 24-185	30.91 34
13C12-2,3,4,7,8-PeCDF	2000	31.61	33 21-178	31.65 35
13C12-1,2,3,4,7,8-HxCDF	2000	33.41	59 26-152	33.45 70
13C12-1,2,3,6,7,8-HxCDF	2000	33.48	85 26-123	33.52 82
13C12-2,3,4,6,7,8-HxCDF	2000	33.81	92 29-147	33.85 92
13C12-1,2,3,7,8,9-HxCDF	2000	34.24	77 28-136	34.27 79
13C12-1,2,3,4,6,7,8-HpCDF	2000	35.00	95 28-143	35.04 101
13C12-1,2,3,4,7,8,9-HpCDF	2000	35.80	93 26-138	35.83 97

Cleanup Standard	pg	% Rec	Limits
7Cl4-2,3,7,8-TCDD (Cleanup)	40	27.51	28 35-197

Homologue Group Totals	# peaks	Conc. pg/L	EDL pg/L	Flags	LQL	# peaks	Conc. pg/L	EDL pg/L	Flags	LQL
Total-TCDD	0.00	<4.0	4.0	U	11	0.00	<3.8	3.8	U	11
Total-PeCDD	0.00	<1.1	1.1	U	53	0.00	<1.4	1.4	U	53
Total-HxCDD	0.00	<0.61	0.61	U	53	0.00	<0.75	0.75	U	53
Total-HpCDD	0.00	<0.89	0.89	U	53	0.00	<0.82	0.82	U	53
Total-TCDF	0.00	<16	16	U	11	1.00	71.5	13	U	11
Total-PeCDF	0.00	<1.7	1.7	U	53	0.00	<1.2	1.2	U	53
Total-HxCDF	0.00	<0.51	0.51	U	53	0.00	<0.67	0.67	U	53
Total-HpCDF	0.00	<0.65	0.65	U	53	0.00	<0.87	0.87	U	53

Toxic Equivalency - (WHO 2005)	pg/L
Lower Bound PCDD/F TEQ (WHO 2005)	0.00
Mid Point PCDD/F TEQ (WHO 2005)	3.56
Upper Bound PCDD/F TEQ (WHO 2005)	7.06

EDL Indicates the Estimated Detection Limit, based on the measured background noise for this target in this sample.
 TEF Indicates the Toxic Equivalency Factor TEQ Indicates the Toxic Equivalency.
 M Indicates that a peak has been manually integrated.
 U Indicates that this compound was not detected above the MDL.
 J indicates that a target analyte was detected below the calibrated range.
 R Indicates that the ion abundance ratio for this compound did not meet the acceptance criterion.

ALS Life sciences

Sample Analysis Report

Sample Name DYEC/FA/151002/2
ALS Sample ID L1682822-2
Analysis Method EPA 1613B
Analysis Type Sample
Sample Matrix SOIL

Sampling Date 3-Oct-15
Extraction Date 5-Oct-15
Sample Size 0.985 L
Percent Moisture n/a
Split Ratio 1

Approved:
T. Patterson
 --e-signature--
 00-Jan-1900

Run Information

Run 1

Run 2

Filename 7-151007A14
Run Date 08-Oct-15 01:27
Final Volume 20 uL
Dilution Factor 1
Analysis Units pg/L
Instrument - Column HRMS-7 DB5MSUSE700122H

Filename 7-151008A26
Run Date 09-Oct-15 03:48
Final Volume 20 uL
Dilution Factor 1
Analysis Units pg/L
Instrument - Column HRMS-7 DB5MSUSE700122H

Target Analytes

	TEF (WHO 2005)	Ret. Time	Conc. pg/L	EDL pg/L	Flags	EMPC pg/L	LQL	Ret. Time	Conc. pg/L	EDL pg/L	Flags	EMPC pg/L	LQL
2,3,7,8-TCDD	1	NotFnd	<4.0	4.0	U		10	NotFnd	<3.3	3.3	U		10
1,2,3,7,8-PeCDD	1	NotFnd	<1.2	1.2	U		51	NotFnd	<1.2	1.2	U		51
1,2,3,4,7,8-HxCDD	0.1	NotFnd	<0.52	0.52	U		51	NotFnd	<1.0	1.0	U		51
1,2,3,6,7,8-HxCDD	0.1	NotFnd	<0.44	0.44	U		51	NotFnd	<0.85	0.85	U		51
1,2,3,7,8,9-HxCDD	0.1	NotFnd	<0.47	0.47	U		51	NotFnd	<0.92	0.92	U		51
1,2,3,4,6,7,8-HpCDD	0.01	35.55	<0.80	0.55	M,J,R	0.80	51	NotFnd	<0.74	0.74	U		51
OCDD	0.0003	NotFnd	<0.54	0.54	U		100	NotFnd	<0.71	0.71	U		100
2,3,7,8-TCDF	0.1	NotFnd	<12	12	U		10	NotFnd	<10	10	U		10
1,2,3,7,8-PeCDF	0.03	NotFnd	<1.1	1.1	U		51	NotFnd	<1.4	1.4	U		51
2,3,4,7,8-PeCDF	0.3	NotFnd	<1.0	1.0	U		51	NotFnd	<1.2	1.2	U		51
1,2,3,4,7,8-HxCDF	0.1	NotFnd	<0.53	0.53	U		51	NotFnd	<0.65	0.65	U		51
1,2,3,6,7,8-HxCDF	0.1	NotFnd	<0.40	0.40	U		51	NotFnd	<0.55	0.55	U		51
2,3,4,6,7,8-HxCDF	0.1	NotFnd	<0.39	0.39	U		51	NotFnd	<0.48	0.48	U		51
1,2,3,7,8,9-HxCDF	0.1	NotFnd	<0.55	0.55	U		51	34.28	<1.1	0.64	J,R	1.1	51
1,2,3,4,6,7,8-HpCDF	0.01	NotFnd	<0.34	0.34	U		51	NotFnd	<0.81	0.81	U		51
1,2,3,4,7,8,9-HpCDF	0.01	NotFnd	<0.44	0.44	U		51	NotFnd	<1.1	1.1	U		51
OCDF	0.0003	NotFnd	<0.72	0.72	U		100	NotFnd	<0.86	0.86	U		100

Extraction Standards

pg	% Rec	Limits	% Rec
13C12-2,3,7,8-TCDD 4000	27.47	49 25-164	27.55 75
13C12-1,2,3,7,8-PeCDD 4000	31.82	98 25-181	31.87 102
13C12-1,2,3,4,7,8-HxCDD 4000	33.91	103 32-141	33.94 133
13C12-1,2,3,6,7,8-HxCDD 4000	33.96	153 28-130	33.99 156
13C12-1,2,3,4,6,7,8-HpCDD 4000	35.55	167 23-140	35.58 180
13C12-OCDD 8000	37.01	172 17-157	37.05 180
13C12-2,3,7,8-TCDF 4000	26.56	14 24-169	26.65 15
13C12-1,2,3,7,8-PeCDF 4000	30.86	69 24-185	30.90 73
13C12-2,3,4,7,8-PeCDF 4000	31.60	66 21-178	31.65 71
13C12-1,2,3,4,7,8-HxCDF 4000	33.41	104 26-152	33.44 131
13C12-1,2,3,6,7,8-HxCDF 4000	33.47	155 26-123	33.51 135
13C12-2,3,4,6,7,8-HxCDF 4000	33.81	163 29-147	33.84 173
13C12-1,2,3,7,8,9-HxCDF 4000	34.22	139 28-136	34.27 158
13C12-1,2,3,4,6,7,8-HpCDF 4000	34.99	168 28-143	35.03 183
13C12-1,2,3,4,7,8,9-HpCDF 4000	35.79	167 26-138	35.83 181

Cleanup Standard

pg	% Rec	Limits
7Cl4-2,3,7,8-TCDD (Cleanup) 40	27.50	54 35-197

Homologue Group Totals

	# peaks	Conc. pg/L	EDL pg/L		# peaks	Conc. pg/L	EDL pg/L
Total-TCDD	0.00	<4.0	4.0	U	10	0.00	<3.3 3.3
Total-PeCDD	0.00	<1.2	1.2	U	51	0.00	<1.2 1.2
Total-HxCDD	0.00	<0.52	0.52	U	51	0.00	<1.0 1.0
Total-HpCDD	0.00	<0.55	0.55	U	51	0.00	<0.74 0.74
Total-TCDF	0.00	<12	12	U	10	0.00	<10 10
Total-PeCDF	0.00	<1.1	1.1	U	51	0.00	<1.4 1.4
Total-HxCDF	0.00	<0.55	0.55	U	51	0.00	<0.65 0.65
Total-HpCDF	0.00	<0.44	0.44	U	51	0.00	<1.1 1.1

Toxic Equivalency - (WHO 2005)

Lower Bound PCDD/F TEQ (WHO 2005) 0.00
Mid Point PCDD/F TEQ (WHO 2005) 3.09
Upper Bound PCDD/F TEQ (WHO 2005) 6.18

EDL Indicates the Estimated Detection Limit, based on the measured background noise for this target in this sample.
 TEF Indicates the Toxic Equivalency Factor
 M Indicates that a peak has been manually integrated.
 U Indicates that this compound was not detected above the MDL.
 J indicates that a target analyte was detected below the calibrated range.
 R Indicates that the ion abundance ratio for this compound did not meet the acceptance criterion.

ALS Life sciences

Sample Analysis Report

Sample Name DYEC/FA/151002/3
ALS Sample ID L1682822-3
Analysis Method EPA 1613B
Analysis Type Sample
Sample Matrix SOIL

Sampling Date 3-Oct-15
Extraction Date 5-Oct-15
Sample Size 0.95 L
Percent Moisture n/a
Split Ratio 1

Approved:
T. Patterson
 --e-signature--
 00-Jan-1900

Run Information	Run 1	Run 2
Filename	7-151007A15	7-151008A27
Run Date	08-Oct-15 02:08	09-Oct-15 04:30
Final Volume	20 uL	20 uL
Dilution Factor	5	1
Analysis Units	pg/L	pg/L
Instrument - Column	HRMS-7 DB5MSUSE700122H	HRMS-7 DB5MSUSE700122H

Target Analytes	TEF (WHO 2005)	Ret. Time	Conc. pg/L	EDL pg/L	Flags	EMPC pg/L	LQL	Ret. Time	Conc. pg/L	EDL pg/L	Flags	EMPC pg/L	LQL
2,3,7,8-TCDD	1	NotFnd	#VALUE!	####	#VALUE!		53	NotFnd	<15	15	U		11
1,2,3,7,8-PeCDD	1	NotFnd	<0.96	0.96	U		260	NotFnd	<4.9	4.9	U		53
1,2,3,4,7,8-HxCDD	0.1	NotFnd	<0.32	0.32	U		260	NotFnd	<2.6	2.6	U		53
1,2,3,6,7,8-HxCDD	0.1	NotFnd	<0.42	0.42	U		260	NotFnd	<2.4	2.4	U		53
1,2,3,7,8,9-HxCDD	0.1	NotFnd	<0.35	0.35	U		260	NotFnd	<2.5	2.5	U		53
1,2,3,4,6,7,8-HpCDD	0.01	NotFnd	<0.41	0.41	U		260	NotFnd	<2.1	2.1	U		53
OCDD	0.0003	NotFnd	<0.36	0.36	U		530	NotFnd	<2.9	2.9	U		110
2,3,7,8-TCDF	0.1	NotFnd	<13	13	U		53	NotFnd	<50	50	U		11
1,2,3,7,8-PeCDF	0.03	NotFnd	<0.97	0.97	U		260	NotFnd	<5.0	5.0	U		53
2,3,4,7,8-PeCDF	0.3	NotFnd	<0.78	0.78	U		260	NotFnd	<4.0	4.0	U		53
1,2,3,4,7,8-HxCDF	0.1	NotFnd	#VALUE!	####	#VALUE!		260	NotFnd	<2.2	2.2	U		53
1,2,3,6,7,8-HxCDF	0.1	NotFnd	<0.43	0.43	U		260	NotFnd	<1.7	1.7	U		53
2,3,4,6,7,8-HxCDF	0.1	NotFnd	<0.26	0.26	U		260	NotFnd	<1.7	1.7	U		53
1,2,3,7,8,9-HxCDF	0.1	NotFnd	<0.32	0.32	U		260	NotFnd	<2.4	2.4	U		53
1,2,3,4,6,7,8-HpCDF	0.01	NotFnd	<0.27	0.27	U		260	NotFnd	<1.5	1.5	U		53
1,2,3,4,7,8,9-HpCDF	0.01	NotFnd	<0.34	0.34	U		260	NotFnd	<2.1	2.1	U		53
OCDF	0.0003	NotFnd	<0.45	0.45	U		530	NotFnd	<3.1	3.1	U		110

Extraction Standards	pg	% Rec	Limits	% Rec
13C12-2,3,7,8-TCDD	2000	NotFnd	0 25-164	27.57 33
13C12-1,2,3,7,8-PeCDD	2000	31.80	73 25-181	31.87 53
13C12-1,2,3,4,7,8-HxCDD	2000	33.90	99 32-141	33.94 65
13C12-1,2,3,6,7,8-HxCDD	2000	33.94	43 28-130	33.99 87
13C12-1,2,3,4,6,7,8-HpCDD	2000	35.53	91 23-140	35.58 96
13C12-OCDD	4000	37.00	92 17-157	37.05 98
13C12-2,3,7,8-TCDF	2000	26.48	8 24-169	26.65 9
13C12-1,2,3,7,8-PeCDF	2000	30.83	49 24-185	30.90 39
13C12-2,3,4,7,8-PeCDF	2000	31.58	53 21-178	31.65 41
13C12-1,2,3,4,7,8-HxCDF	2000	0.00	0 26-152	33.44 63
13C12-1,2,3,6,7,8-HxCDF	2000	33.46	78 26-123	33.51 82
13C12-2,3,4,6,7,8-HxCDF	2000	33.79	88 29-147	33.84 93
13C12-1,2,3,7,8,9-HxCDF	2000	34.21	78 28-136	34.26 81
13C12-1,2,3,4,6,7,8-HpCDF	2000	34.98	91 28-143	35.03 99
13C12-1,2,3,4,7,8,9-HpCDF	2000	35.78	88 26-138	35.82 94

Cleanup Standard	pg	% Rec	Limits	% Rec
7Cl4-2,3,7,8-TCDD (Cleanup)	40	0.00	0 35-197	27.58 39

Homologue Group Totals	# peaks	Conc. pg/L	EDL pg/L	# peaks	Conc. pg/L	EDL pg/L
Total-TCDD	#VALUE!	#VALUE!	####	U	53	0.00 <15 15 U
Total-PeCDD	0.00	<0.96	0.96	U	260	0.00 <4.9 4.9 U
Total-HxCDD	0.00	<0.42	0.42	U	260	0.00 <2.6 2.6 U
Total-HpCDD	0.00	<0.41	0.41	U	260	0.00 <2.1 2.1 U
Total-TCDF	0.00	<13	13	U	53	0.00 <50 50 U
Total-PeCDF	0.00	<0.97	0.97	U	260	0.00 <5.0 5.0 U
Total-HxCDF	#VALUE!	#VALUE!	####	U	260	0.00 <2.4 2.4 U
Total-HpCDF	0.00	<0.34	0.34	U	260	0.00 <2.1 2.1 U

Toxic Equivalency - (WHO 2005)	pg/L
Lower Bound PCDD/F TEQ (WHO 2005)	0.00
Mid Point PCDD/F TEQ (WHO 2005)	13.9
Upper Bound PCDD/F TEQ (WHO 2005)	27.9

EDL Indicates the Estimated Detection Limit, based on the measured background noise for this target in this sample.
 TEF Indicates the Toxic Equivalency Factor TEQ Indicates the Toxic Equivalency;
 U Indicates that this compound was not detected above the MDL.
 R Indicates that the ion abundance ratio for this compound did not meet the acceptance criterion.

ALS Life sciences

Sample Analysis Report

Sample Name DYEC/FA/151002/4
ALS Sample ID L1682822-4
Analysis Method EPA 1613B
Analysis Type Sample
Sample Matrix SOIL

Sampling Date 3-Oct-15
Extraction Date 5-Oct-15
Sample Size 0.88 L
Percent Moisture n/a
Split Ratio 1

Approved:
T. Patterson
 --e-signature--
 00-Jan-1900

Run Information

Run 1

Run 2

Filename 7-151007A16
Run Date 08-Oct-15 02:50
Final Volume 20 uL
Dilution Factor 1
Analysis Units pg/L
Instrument - Column HRMS-7 DB5MSUSE700122H

Filename 7-151008A28
Run Date 09-Oct-15 05:12
Final Volume 20 uL
Dilution Factor 1
Analysis Units pg/L
Instrument - Column HRMS-7 DB5MSUSE700122H

Target Analytes	TEF (WHO 2005)	Ret. Time	Conc. pg/L	EDL pg/L	Flags	EMPC pg/L	LQL	Ret. Time	Conc. pg/L	EDL pg/L	Flags	EMPC pg/L	LQL
2,3,7,8-TCDD	1	NotFnd	<9.2	9.2	U	11		NotFnd	<3.3	3.3	U	11	
1,2,3,7,8-PeCDD	1	NotFnd	<2.8	2.8	U	57		NotFnd	<1.3	1.3	U	57	
1,2,3,4,7,8-HxCDD	0.1	NotFnd	<1.3	1.3	U	57		NotFnd	<0.88	0.88	U	57	
1,2,3,6,7,8-HxCDD	0.1	NotFnd	<1.1	1.1	U	57		NotFnd	<0.79	0.79	U	57	
1,2,3,7,8,9-HxCDD	0.1	NotFnd	<1.2	1.2	U	57		NotFnd	<0.82	0.82	U	57	
1,2,3,4,6,7,8-HpCDD	0.01	NotFnd	<1.5	1.5	U	57		NotFnd	<0.69	0.69	U	57	
OCDD	0.0003	NotFnd	<1.6	1.6	U	110		NotFnd	<0.68	0.68	U	110	
2,3,7,8-TCDF	0.1	NotFnd	<33	33	U	11		NotFnd	<13	13	U	11	
1,2,3,7,8-PeCDF	0.03	NotFnd	<2.7	2.7	U	57		NotFnd	<1.3	1.3	U	57	
2,3,4,7,8-PeCDF	0.3	NotFnd	<2.4	2.4	U	57		NotFnd	<1.1	1.1	U	57	
1,2,3,4,7,8-HxCDF	0.1	NotFnd	<0.95	0.95	U	57		NotFnd	<0.79	0.79	U	57	
1,2,3,6,7,8-HxCDF	0.1	NotFnd	<0.67	0.67	U	57		NotFnd	<0.63	0.63	U	57	
2,3,4,6,7,8-HxCDF	0.1	NotFnd	<0.71	0.71	U	57		NotFnd	<0.62	0.62	U	57	
1,2,3,7,8,9-HxCDF	0.1	NotFnd	<0.90	0.90	U	57		NotFnd	<0.80	0.80	U	57	
1,2,3,4,6,7,8-HpCDF	0.01	NotFnd	<0.77	0.77	U	57		NotFnd	<0.59	0.59	U	57	
1,2,3,4,7,8,9-HpCDF	0.01	NotFnd	<1.2	1.2	U	57		NotFnd	<0.89	0.89	U	57	
OCDF	0.0003	NotFnd	<1.9	1.9	U	110		NotFnd	<0.95	0.95	U	110	

Extraction Standards	pg	% Rec	Limits	% Rec
13C12-2,3,7,8-TCDD	2000	27.50	16 25-164	27.57 26
13C12-1,2,3,7,8-PeCDD	2000	31.83	29 25-181	31.88 30
13C12-1,2,3,4,7,8-HxCDD	2000	33.92	38 32-141	33.95 43
13C12-1,2,3,6,7,8-HxCDD	2000	33.97	56 28-130	34.00 56
13C12-1,2,3,4,6,7,8-HpCDD	2000	35.55	62 23-140	35.59 64
13C12-OCDD	4000	37.02	61 17-157	37.06 63
13C12-2,3,7,8-TCDF	2000	26.59	4 24-169	26.65 4
13C12-1,2,3,7,8-PeCDF	2000	30.87	19 24-185	30.91 20
13C12-2,3,4,7,8-PeCDF	2000	31.61	19 21-178	31.66 20
13C12-1,2,3,4,7,8-HxCDF	2000	33.42	39 26-152	33.45 42
13C12-1,2,3,6,7,8-HxCDF	2000	33.48	58 26-123	33.52 53
13C12-2,3,4,6,7,8-HxCDF	2000	33.82	62 29-147	33.85 60
13C12-1,2,3,7,8,9-HxCDF	2000	34.24	53 28-136	34.27 53
13C12-1,2,3,4,6,7,8-HpCDF	2000	35.00	66 28-143	35.04 65
13C12-1,2,3,4,7,8,9-HpCDF	2000	35.80	58 26-138	35.83 60

Cleanup Standard	pg	% Rec	Limits
7C14-2,3,7,8-TCDD (Cleanup)	40	27.52	17 35-197

Homologue Group Totals	# peaks	Conc. pg/L	EDL pg/L	# peaks	Conc. pg/L	EDL pg/L
Total-TCDD	0.00	<9.2	9.2	0.00	<3.3	3.3
Total-PeCDD	0.00	<2.8	2.8	0.00	<1.3	1.3
Total-HxCDD	0.00	<1.3	1.3	0.00	<0.88	0.88
Total-HpCDD	0.00	<1.5	1.5	0.00	<0.69	0.69
Total-TCDF	0.00	<33	33	0.00	<13	13
Total-PeCDF	0.00	<2.7	2.7	0.00	<1.3	1.3
Total-HxCDF	0.00	<0.95	0.95	0.00	<0.80	0.80
Total-HpCDF	0.00	<1.2	1.2	0.00	<0.89	0.89

Toxic Equivalency - (WHO 2005)	pg/L
Lower Bound PCDD/F TEQ (WHO 2005)	0.00
Mid Point PCDD/F TEQ (WHO 2005)	4.46
Upper Bound PCDD/F TEQ (WHO 2005)	8.92

EDL Indicates the Estimated Detection Limit, based on the measured background noise for this target in this sample.
 TEF Indicates the Toxic Equivalency Factor
 TEQ Indicates the Toxic Equivalency
 U Indicates that this compound was not detected above the MDL.

ALS Life sciences

Sample Analysis Report

Sample Name DYEC/FA/151003/1
ALS Sample ID L1682896-1
Analysis Method EPA 1613B
Analysis Type Sample
Sample Matrix SOIL

Sampling Date 3-Oct-15
Extraction Date 5-Oct-15
Sample Size 0.91 L
Percent Moisture n/a
Split Ratio 1

Approved:
T. Patterson
 --e-signature--
 00-Jan-1900

Run Information

Run 1

Filename 7-151008A29
Run Date 09-Oct-15 05:53
Final Volume 20 uL
Dilution Factor 1
Analysis Units pg/L
Instrument - Column HRMS-7 DB5MSUSE700122H

Target Analytes	TEF (WHO 2005)	Ret. Time	Conc. pg/L	EDL pg/L	Flags	EMPC pg/L	LQL
2,3,7,8-TCDD	1	NotFnd	<3.0	3.0	U		11
1,2,3,7,8-PeCDD	1	NotFnd	<1.2	1.2	U		55
1,2,3,4,7,8-HxCDD	0.1	NotFnd	<0.53	0.53	U		55
1,2,3,6,7,8-HxCDD	0.1	NotFnd	<0.46	0.46	U		55
1,2,3,7,8,9-HxCDD	0.1	NotFnd	<0.49	0.49	U		55
1,2,3,4,6,7,8-HpCDD	0.01	NotFnd	<0.42	0.42	U		55
OCDD	0.0003	NotFnd	<0.36	0.36	U		110
2,3,7,8-TCDF	0.1	NotFnd	<10	10	U		11
1,2,3,7,8-PeCDF	0.03	NotFnd	<1.1	1.1	U		55
2,3,4,7,8-PeCDF	0.3	NotFnd	<0.98	0.98	U		55
1,2,3,4,7,8-HxCDF	0.1	NotFnd	<0.51	0.51	U		55
1,2,3,6,7,8-HxCDF	0.1	NotFnd	<0.37	0.37	U		55
2,3,4,6,7,8-HxCDF	0.1	NotFnd	<0.34	0.34	U		55
1,2,3,7,8,9-HxCDF	0.1	NotFnd	<0.45	0.45	U		55
1,2,3,4,6,7,8-HpCDF	0.01	NotFnd	<0.25	0.25	U		55
1,2,3,4,7,8,9-HpCDF	0.01	NotFnd	<0.36	0.36	U		55
OCDF	0.0003	NotFnd	<0.46	0.46	U		110

Extraction Standards	pg	% Rec	Limits
13C12-2,3,7,8-TCDD	2000	27.58	23 25-164
13C12-1,2,3,7,8-PeCDD	2000	31.88	33 25-181
13C12-1,2,3,4,7,8-HxCDD	2000	33.96	62 32-141
13C12-1,2,3,6,7,8-HxCDD	2000	34.00	76 28-130
13C12-1,2,3,4,6,7,8-HpCDD	2000	35.59	101 23-140
13C12-OCDD	4000	37.07	104 17-157
13C12-2,3,7,8-TCDF	2000	26.67	4 24-169
13C12-1,2,3,7,8-PeCDF	2000	30.92	21 24-185
13C12-2,3,4,7,8-PeCDF	2000	31.66	22 21-178
13C12-1,2,3,4,7,8-HxCDF	2000	33.46	60 26-152
13C12-1,2,3,6,7,8-HxCDF	2000	33.52	76 26-123
13C12-2,3,4,6,7,8-HxCDF	2000	33.85	94 29-147
13C12-1,2,3,7,8,9-HxCDF	2000	34.28	81 28-136
13C12-1,2,3,4,6,7,8-HpCDF	2000	35.05	104 28-143
13C12-1,2,3,4,7,8,9-HpCDF	2000	35.85	98 26-138

Cleanup Standard	pg	% Rec	Limits
7Cl4-2,3,7,8-TCDD (Cleanup)	40	27.60	25 35-197

Homologue Group Totals	# peaks	Conc. pg/L	EDL pg/L	Flags	LQL
Total-TCDD	0.00	<3.0	3.0	U	11
Total-PeCDD	0.00	<1.2	1.2	U	55
Total-HxCDD	1.00	1.89	0.53		55
Total-HpCDD	0.00	<0.42	0.42	U	55
Total-TCDF	0.00	<10	10	U	11
Total-PeCDF	0.00	<1.1	1.1	U	55
Total-HxCDF	0.00	<0.51	0.51	U	55
Total-HpCDF	0.00	<0.36	0.36	U	55

Toxic Equivalency - (WHO 2005)	pg/L
Lower Bound PCDD/F TEQ (WHO 2005)	0.00
Mid Point PCDD/F TEQ (WHO 2005)	2.93
Upper Bound PCDD/F TEQ (WHO 2005)	5.85

EDL Indicates the Estimated Detection Limit, based on the measured background noise for this target in this sample.
 TEF Indicates the Toxic Equivalency Factor
 TEQ Indicates the Toxic Equivalency
 U Indicates that this compound was not detected above the MDL.

ALS Life sciences

Sample Analysis Report

Sample Name DYEC/FA/151003/2
ALS Sample ID L1682896-2
Analysis Method EPA 1613B
Analysis Type Sample
Sample Matrix SOIL

Sampling Date 3-Oct-15
Extraction Date 5-Oct-15
Sample Size 0.985 L
Percent Moisture n/a
Split Ratio 1

Approved:
T. Patterson
 --e-signature--
 00-Jan-1900

Run Information

Run 1

Filename 7-151008A30
Run Date 09-Oct-15 06:35
Final Volume 20 uL
Dilution Factor 1
Analysis Units pg/L
Instrument - Column HRMS-7 DB5MSUSE700122H

Target Analytes	TEF (WHO 2005)	Ret. Time	Conc. pg/L	EDL pg/L	Flags	EMPC pg/L	LQL
2,3,7,8-TCDD	1	NotFnd	<5.1	5.1	U		10
1,2,3,7,8-PeCDD	1	NotFnd	<1.7	1.7	U		51
1,2,3,4,7,8-HxCDD	0.1	NotFnd	<0.86	0.86	U		51
1,2,3,6,7,8-HxCDD	0.1	NotFnd	<0.74	0.74	U		51
1,2,3,7,8,9-HxCDD	0.1	NotFnd	<0.78	0.78	U		51
1,2,3,4,6,7,8-HpCDD	0.01	NotFnd	<0.61	0.61	U		51
OCDD	0.0003	NotFnd	<0.47	0.47	U		100
2,3,7,8-TCDF	0.1	NotFnd	<19	19	U		10
1,2,3,7,8-PeCDF	0.03	NotFnd	<2.0	2.0	U		51
2,3,4,7,8-PeCDF	0.3	NotFnd	<1.7	1.7	U		51
1,2,3,4,7,8-HxCDF	0.1	NotFnd	<0.74	0.74	U		51
1,2,3,6,7,8-HxCDF	0.1	NotFnd	<0.47	0.47	U		51
2,3,4,6,7,8-HxCDF	0.1	NotFnd	<0.41	0.41	U		51
1,2,3,7,8,9-HxCDF	0.1	NotFnd	<0.59	0.59	U		51
1,2,3,4,6,7,8-HpCDF	0.01	NotFnd	<0.46	0.46	U		51
1,2,3,4,7,8,9-HpCDF	0.01	NotFnd	<0.71	0.71	U		51
OCDF	0.0003	NotFnd	<0.63	0.63	U		100

Extraction Standards	pg	% Rec	Limits
13C12-2,3,7,8-TCDD	2000	27.58	20 25-164
13C12-1,2,3,7,8-PeCDD	2000	31.88	32 25-181
13C12-1,2,3,4,7,8-HxCDD	2000	33.95	49 32-141
13C12-1,2,3,6,7,8-HxCDD	2000	34.00	69 28-130
13C12-1,2,3,4,6,7,8-HpCDD	2000	35.59	94 23-140
13C12-OCDD	4000	37.06	98 17-157
13C12-2,3,7,8-TCDF	2000	26.67	4 24-169
13C12-1,2,3,7,8-PeCDF	2000	30.92	21 24-185
13C12-2,3,4,7,8-PeCDF	2000	31.66	21 21-178
13C12-1,2,3,4,7,8-HxCDF	2000	33.45	49 26-152
13C12-1,2,3,6,7,8-HxCDF	2000	33.52	65 26-123
13C12-2,3,4,6,7,8-HxCDF	2000	33.85	87 29-147
13C12-1,2,3,7,8,9-HxCDF	2000	34.28	73 28-136
13C12-1,2,3,4,6,7,8-HpCDF	2000	35.04	96 28-143
13C12-1,2,3,4,7,8,9-HpCDF	2000	35.85	88 26-138

Cleanup Standard	pg	% Rec	Limits
7Cl4-2,3,7,8-TCDD (Cleanup)	40	27.60	22 35-197

Homologue Group Totals	# peaks	Conc. pg/L	EDL pg/L	Flags	LQL
Total-TCDD	0.00	<5.1	5.1	U	10
Total-PeCDD	0.00	<1.7	1.7	U	51
Total-HxCDD	0.00	<0.86	0.86	U	51
Total-HpCDD	0.00	<0.61	0.61	U	51
Total-TCDF	0.00	<19	19	U	10
Total-PeCDF	0.00	<2.0	2.0	U	51
Total-HxCDF	0.00	<0.74	0.74	U	51
Total-HpCDF	0.00	<0.71	0.71	U	51

Toxic Equivalency - (WHO 2005)	pg/L
Lower Bound PCDD/F TEQ (WHO 2005)	0.00
Mid Point PCDD/F TEQ (WHO 2005)	4.87
Upper Bound PCDD/F TEQ (WHO 2005)	9.75

EDL Indicates the Estimated Detection Limit, based on the measured background noise for this target in this sample.
 TEF Indicates the Toxic Equivalency Factor
 TEQ Indicates the Toxic Equivalency
 U Indicates that this compound was not detected above the MDL.

ALS Life sciences

Sample Analysis Report

Sample Name DYEC/FA/151003/3
ALS Sample ID L1682896-3
Analysis Method EPA 1613B
Analysis Type Sample
Sample Matrix SOIL

Sampling Date 3-Oct-15
Extraction Date 5-Oct-15
Sample Size 0.89 L
Percent Moisture n/a
Split Ratio 1

Approved:
T. Patterson
 --e-signature--
 00-Jan-1900

Run Information

Run 1

Filename 7-151008A31
Run Date 09-Oct-15 07:17
Final Volume 20 uL
Dilution Factor 1
Analysis Units pg/L
Instrument - Column HRMS-7 DB5MSUSE700122H

Target Analytes	TEF (WHO 2005)	Ret. Time	Conc. pg/L	EDL pg/L	Flags	EMPC pg/L	LQL
2,3,7,8-TCDD	1	NotFnd	<3.2	3.2	U		11
1,2,3,7,8-PeCDD	1	NotFnd	<1.5	1.5	U		56
1,2,3,4,7,8-HxCDD	0.1	NotFnd	<0.73	0.73	U		56
1,2,3,6,7,8-HxCDD	0.1	NotFnd	<0.66	0.66	U		56
1,2,3,7,8,9-HxCDD	0.1	NotFnd	<0.69	0.69	U		56
1,2,3,4,6,7,8-HpCDD	0.01	NotFnd	<0.69	0.69	U		56
OCDD	0.0003	NotFnd	<0.46	0.46	U		110
2,3,7,8-TCDF	0.1	NotFnd	<10	10	U		11
1,2,3,7,8-PeCDF	0.03	NotFnd	<1.3	1.3	U		56
2,3,4,7,8-PeCDF	0.3	NotFnd	<1.0	1.0	U		56
1,2,3,4,7,8-HxCDF	0.1	NotFnd	<0.53	0.53	U		56
1,2,3,6,7,8-HxCDF	0.1	NotFnd	<0.39	0.39	U		56
2,3,4,6,7,8-HxCDF	0.1	NotFnd	<0.36	0.36	U		56
1,2,3,7,8,9-HxCDF	0.1	NotFnd	<0.49	0.49	U		56
1,2,3,4,6,7,8-HpCDF	0.01	NotFnd	<0.26	0.26	U		56
1,2,3,4,7,8,9-HpCDF	0.01	NotFnd	<0.39	0.39	U		56
OCDF	0.0003	NotFnd	<0.56	0.56	U		110

Extraction Standards	pg	% Rec	Limits
13C12-2,3,7,8-TCDD	2000	27.58	27 25-164
13C12-1,2,3,7,8-PeCDD	2000	31.88	40 25-181
13C12-1,2,3,4,7,8-HxCDD	2000	33.95	59 32-141
13C12-1,2,3,6,7,8-HxCDD	2000	34.00	77 28-130
13C12-1,2,3,4,6,7,8-HpCDD	2000	35.59	95 23-140
13C12-OCDD	4000	37.06	101 17-157
13C12-2,3,7,8-TCDF	2000	26.67	5 24-169
13C12-1,2,3,7,8-PeCDF	2000	30.91	26 24-185
13C12-2,3,4,7,8-PeCDF	2000	31.66	27 21-178
13C12-1,2,3,4,7,8-HxCDF	2000	33.45	57 26-152
13C12-1,2,3,6,7,8-HxCDF	2000	33.52	74 26-123
13C12-2,3,4,6,7,8-HxCDF	2000	33.85	90 29-147
13C12-1,2,3,7,8,9-HxCDF	2000	34.27	77 28-136
13C12-1,2,3,4,6,7,8-HpCDF	2000	35.04	99 28-143
13C12-1,2,3,4,7,8,9-HpCDF	2000	35.83	91 26-138

Cleanup Standard	pg	% Rec	Limits
7C14-2,3,7,8-TCDD (Cleanup)	40	27.60	30 35-197

Homologue Group Totals	# peaks	Conc. pg/L	EDL pg/L	Flags	LQL
Total-TCDD	0.00	<3.2	3.2	U	11
Total-PeCDD	0.00	<1.5	1.5	U	56
Total-HxCDD	0.00	<0.73	0.73	U	56
Total-HpCDD	0.00	<0.69	0.69	U	56
Total-TCDF	0.00	<10	10	U	11
Total-PeCDF	0.00	<1.3	1.3	U	56
Total-HxCDF	0.00	<0.53	0.53	U	56
Total-HpCDF	0.00	<0.39	0.39	U	56

Toxic Equivalency - (WHO 2005)	pg/L
Lower Bound PCDD/F TEQ (WHO 2005)	0.00
Mid Point PCDD/F TEQ (WHO 2005)	3.22
Upper Bound PCDD/F TEQ (WHO 2005)	6.44

EDL Indicates the Estimated Detection Limit, based on the measured background noise for this target in this sample.
 TEF Indicates the Toxic Equivalency Factor
 TEQ Indicates the Toxic Equivalency
 U Indicates that this compound was not detected above the MDL.

ALS Life sciences

Sample Analysis Report

Sample Name DYEC/FA/151003/4
ALS Sample ID L1682896-4
Analysis Method EPA 1613B
Analysis Type Sample
Sample Matrix SOIL

Sampling Date 3-Oct-15
Extraction Date 5-Oct-15
Sample Size 0.89 L
Percent Moisture n/a
Split Ratio 1

Approved:
T. Patterson
 --e-signature--
 00-Jan-1900

Run Information

Run 1

Filename 7-151008A32
Run Date 09-Oct-15 07:59
Final Volume 20 uL
Dilution Factor 1
Analysis Units pg/L
Instrument - Column HRMS-7 DB5MSUSE700122H

Target Analytes	TEF (WHO 2005)	Ret. Time	Conc. pg/L	EDL pg/L	Flags	EMPC pg/L	LQL
2,3,7,8-TCDD	1	NotFnd	<3.1	3.1	U		11
1,2,3,7,8-PeCDD	1	NotFnd	<1.5	1.5	U		56
1,2,3,4,7,8-HxCDD	0.1	NotFnd	<0.91	0.91	U		56
1,2,3,6,7,8-HxCDD	0.1	NotFnd	<0.83	0.83	U		56
1,2,3,7,8,9-HxCDD	0.1	NotFnd	<0.86	0.86	U		56
1,2,3,4,6,7,8-HpCDD	0.01	NotFnd	<0.63	0.63	U		56
OCDD	0.0003	NotFnd	<0.81	0.81	U		110
2,3,7,8-TCDF	0.1	NotFnd	<11	11	U		11
1,2,3,7,8-PeCDF	0.03	NotFnd	<1.2	1.2	U		56
2,3,4,7,8-PeCDF	0.3	NotFnd	<1.1	1.1	U		56
1,2,3,4,7,8-HxCDF	0.1	NotFnd	<0.63	0.63	U		56
1,2,3,6,7,8-HxCDF	0.1	NotFnd	<0.49	0.49	U		56
2,3,4,6,7,8-HxCDF	0.1	NotFnd	<0.49	0.49	U		56
1,2,3,7,8,9-HxCDF	0.1	NotFnd	<0.62	0.62	U		56
1,2,3,4,6,7,8-HpCDF	0.01	NotFnd	<0.49	0.49	U		56
1,2,3,4,7,8,9-HpCDF	0.01	NotFnd	<0.66	0.66	U		56
OCDF	0.0003	NotFnd	<0.96	0.96	U		110

Extraction Standards	pg	% Rec	Limits
13C12-2,3,7,8-TCDD	2000	27.58	37 25-164
13C12-1,2,3,7,8-PeCDD	2000	31.87	56 25-181
13C12-1,2,3,4,7,8-HxCDD	2000	33.94	74 32-141
13C12-1,2,3,6,7,8-HxCDD	2000	33.99	81 28-130
13C12-1,2,3,4,6,7,8-HpCDD	2000	35.58	94 23-140
13C12-OCDD	4000	37.05	95 17-157
13C12-2,3,7,8-TCDF	2000	26.67	8 24-169
13C12-1,2,3,7,8-PeCDF	2000	30.91	38 24-185
13C12-2,3,4,7,8-PeCDF	2000	31.65	37 21-178
13C12-1,2,3,4,7,8-HxCDF	2000	33.45	69 26-152
13C12-1,2,3,6,7,8-HxCDF	2000	33.51	81 26-123
13C12-2,3,4,6,7,8-HxCDF	2000	33.84	92 29-147
13C12-1,2,3,7,8,9-HxCDF	2000	34.27	84 28-136
13C12-1,2,3,4,6,7,8-HpCDF	2000	35.04	96 28-143
13C12-1,2,3,4,7,8,9-HpCDF	2000	35.83	94 26-138

Cleanup Standard	pg	% Rec	Limits
7C14-2,3,7,8-TCDD (Cleanup)	40	27.60	40 35-197

Homologue Group Totals	# peaks	Conc. pg/L	EDL pg/L	Flags	LQL
Total-TCDD	0.00	<3.1	3.1	U	11
Total-PeCDD	0.00	<1.5	1.5	U	56
Total-HxCDD	0.00	<0.91	0.91	U	56
Total-HpCDD	0.00	<0.63	0.63	U	56
Total-TCDF	0.00	<11	11	U	11
Total-PeCDF	0.00	<1.2	1.2	U	56
Total-HxCDF	0.00	<0.63	0.63	U	56
Total-HpCDF	0.00	<0.66	0.66	U	56

Toxic Equivalency - (WHO 2005)	pg/L
Lower Bound PCDD/F TEQ (WHO 2005)	0.00
Mid Point PCDD/F TEQ (WHO 2005)	3.28
Upper Bound PCDD/F TEQ (WHO 2005)	6.57

EDL Indicates the Estimated Detection Limit, based on the measured background noise for this target in this sample.
 TEF Indicates the Toxic Equivalency Factor TEQ Indicates the Toxic Equivalency;
 U Indicates that this compound was not detected above the MDL.

ALS Life sciences

Laboratory Method Blank Analysis Report

Sample Name	Method Blank	Sampling Date	n/a		
ALS Sample ID	WG2185811-1	Extraction Date	5-Oct-15		
Analysis Method	EPA 1613B	Sample Size	1	L	
Analysis Type	Blank	Percent Moisture	n/a		
Sample Matrix	QC	Split Ratio	1		Approved: T.Patterson --e-signature-- 00-Jan-1900

Run Information	Run 1	Run 2
Filename	7-151007A06	7-151008A21
Run Date	07-Oct-15 19:52	09-Oct-15 00:18
Final Volume	20 uL	20 uL
Dilution Factor	1	1
Analysis Units	pg/L	pg/L
Instrument - Column	HRMS-7 DB5MSUSE700122H	HRMS-7 DB5MSUSE700122H

Target Analytes	TEF (WHO 2005)	Ret. Time	Conc. pg/L	EDL pg/L	Flags	EMPC pg/L	LQL	Ret. Time	Conc. pg/L	EDL pg/L	Flags	EMPC pg/L	LQL
2,3,7,8-TCDD	1	NotFnd	<4.2	4.2	U		10	NotFnd	<1.6	1.6	U		10
1,2,3,7,8-PeCDD	1	NotFnd	<0.93	0.93	U		50	NotFnd	<0.75	0.75	U		50
1,2,3,4,7,8-HxCDD	0.1	NotFnd	<0.50	0.50	U		50	NotFnd	<0.57	0.57	U		50
1,2,3,6,7,8-HxCDD	0.1	NotFnd	<0.44	0.44	U		50	NotFnd	<0.53	0.53	U		50
1,2,3,7,8,9-HxCDD	0.1	NotFnd	<0.46	0.46	U		50	NotFnd	<0.54	0.54	U		50
1,2,3,4,6,7,8-HpCDD	0.01	NotFnd	<0.63	0.63	U		50	NotFnd	<0.54	0.54	U		50
OCDD	0.0003	37.01	<1.4	0.46	M,J,R	1.4	100	NotFnd	<0.39	0.39	U		100
2,3,7,8-TCDF	0.1	NotFnd	<7.4	7.4	U		10	NotFnd	<4.3	4.3	U		10
1,2,3,7,8-PeCDF	0.03	NotFnd	<0.88	0.88	U		50	NotFnd	<0.55	0.55	U		50
2,3,4,7,8-PeCDF	0.3	NotFnd	<0.81	0.81	U		50	NotFnd	<0.55	0.55	U		50
1,2,3,4,7,8-HxCDF	0.1	NotFnd	<0.54	0.54	U		50	NotFnd	<0.30	0.30	U		50
1,2,3,6,7,8-HxCDF	0.1	NotFnd	<0.42	0.42	U		50	NotFnd	<0.26	0.26	U		50
2,3,4,6,7,8-HxCDF	0.1	NotFnd	<0.46	0.46	U		50	NotFnd	<0.27	0.27	U		50
1,2,3,7,8,9-HxCDF	0.1	34.24	0.760	0.52	M,J		50	NotFnd	<0.35	0.35	U		50
1,2,3,4,6,7,8-HpCDF	0.01	NotFnd	<0.43	0.43	U		50	NotFnd	<0.25	0.25	U		50
1,2,3,4,7,8,9-HpCDF	0.01	NotFnd	<0.55	0.55	U		50	NotFnd	<0.36	0.36	U		50
OCDF	0.0003	37.10	0.740	0.64	M,J		100	NotFnd	<0.59	0.59	U		100

Extraction Standards	pg	% Rec	Limits	% Rec
13C12-2,3,7,8-TCDD	2000	27.47	21 25-164	27.54 41
13C12-1,2,3,7,8-PeCDD	2000	31.82	70 25-181	31.85 64
13C12-1,2,3,4,7,8-HxCDD	2000	33.91	66 32-141	33.93 72
13C12-1,2,3,6,7,8-HxCDD	2000	33.96	87 28-130	33.98 87
13C12-1,2,3,4,6,7,8-HpCDD	2000	35.54	91 23-140	35.57 92
13C12-OCDD	4000	37.01	91 17-157	37.03 84
13C12-2,3,7,8-TCDF	2000	26.56	10 24-169	26.62 10
13C12-1,2,3,7,8-PeCDF	2000	30.86	48 24-185	30.89 48
13C12-2,3,4,7,8-PeCDF	2000	31.60	45 21-178	31.64 44
13C12-1,2,3,4,7,8-HxCDF	2000	33.41	67 26-152	33.43 72
13C12-1,2,3,6,7,8-HxCDF	2000	33.47	82 26-123	33.50 84
13C12-2,3,4,6,7,8-HxCDF	2000	33.81	87 29-147	33.83 88
13C12-1,2,3,7,8,9-HxCDF	2000	34.22	84 28-136	34.25 83
13C12-1,2,3,4,6,7,8-HpCDF	2000	34.99	97 28-143	35.01 91
13C12-1,2,3,4,7,8,9-HpCDF	2000	35.79	96 26-138	35.81 91

Cleanup Standard	pg	% Rec	Limits	% Rec
7Cl4-2,3,7,8-TCDD (Cleanup)	40	27.50	24 35-197	27.55 41

Homologue Group Totals	# peaks	Conc. pg/L	EDL pg/L	Flags	LQL	# peaks	Conc. pg/L	EDL pg/L	Flags	LQL
Total-TCDD	0.00	<4.2	4.2	U	10	0.00	<1.6	1.6	U	10
Total-PeCDD	0.00	<0.93	0.93	U	50	0.00	<0.75	0.75	U	50
Total-HxCDD	0.00	<0.50	0.50	U	50	0.00	<0.57	0.57	U	50
Total-HpCDD	0.00	<0.63	0.63	U	50	0.00	<0.54	0.54	U	50
Total-TCDF	0.00	<7.4	7.4	U	10	0.00	<4.3	4.3	U	10
Total-PeCDF	0.00	<0.88	0.88	U	50	0.00	<0.55	0.55	U	50
Total-HxCDF	1.00	0.760	0.54	U	50	0.00	<0.35	0.35	U	50
Total-HpCDF	0.00	<0.55	0.55	U	50	0.00	<0.36	0.36	U	50

Toxic Equivalency - (WHO 2005)	pg/L
Lower Bound PCDD/F TEQ (WHO 2005)	0.0762
Mid Point PCDD/F TEQ (WHO 2005)	1.84
Upper Bound PCDD/F TEQ (WHO 2005)	3.60

EDL	Indicates the Estimated Detection Limit, based on the measured background noise for this target in this sample.
TEF	Indicates the Toxic Equivalency Factor
M	Indicates that a peak has been manually integrated.
U	Indicates that this compound was not detected above the MDL.
J	Indicates that a target analyte was detected below the calibrated range.
R	Indicates that the ion abundance ratio for this compound did not meet the acceptance criterion.

ALS Life sciences

Laboratory Method Blank Analysis Report

Sample Name	Method Blank	Sampling Date	n/a		
ALS Sample ID	WG2185811-2	Extraction Date	5-Oct-15		
Analysis Method	EPA 1613B	Sample Size	0.98	L	
Analysis Type	Blank	Percent Moisture	n/a		
Sample Matrix	QC	Split Ratio	1		

Approved:
T.Patterson
--e-signature--
00-Jan-1900

Run Information	Run 1	Run 2
Filename	7-151007A07	7-151008A22
Run Date	07-Oct-15 20:34	09-Oct-15 01:00
Final Volume	20 uL	20 uL
Dilution Factor	1	1
Analysis Units	pg/L	pg/L
Instrument - Column	HRMS-7 DB5MSUSE700122H	HRMS-7 DB5MSUSE700122H

Target Analytes	TEF (WHO 2005)	Ret. Time	Conc. pg/L	EDL pg/L	Flags	EMPC pg/L	LQL	Ret. Time	Conc. pg/L	EDL pg/L	Flags	EMPC pg/L	LQL
2,3,7,8-TCDD	1	NotFnd	<7.6	7.6	U		10	NotFnd	<8.4	8.4	U		10
1,2,3,7,8-PeCDD	1	NotFnd	<1.5	1.5	U		51	NotFnd	<1.6	1.6	U		51
1,2,3,4,7,8-HxCDD	0.1	NotFnd	<0.66	0.66	U		51	NotFnd	<0.99	0.99	U		51
1,2,3,6,7,8-HxCDD	0.1	NotFnd	<0.58	0.58	U		51	NotFnd	<0.90	0.90	U		51
1,2,3,7,8,9-HxCDD	0.1	NotFnd	<0.61	0.61	U		51	NotFnd	<0.94	0.94	U		51
1,2,3,4,6,7,8-HpCDD	0.01	NotFnd	<0.48	0.48	U		51	NotFnd	<0.72	0.72	U		51
OCDD	0.0003	Fnd	37.03	1.11	0.44	M,J	100	NotFnd	<0.61	0.61	U		100
2,3,7,8-TCDF	0.1	NotFnd	<16	16	U		10	NotFnd	<18	18	U		10
1,2,3,7,8-PeCDF	0.03	NotFnd	<1.3	1.3	U		51	NotFnd	<1.4	1.4	U		51
2,3,4,7,8-PeCDF	0.3	NotFnd	<1.2	1.2	U		51	NotFnd	<1.4	1.4	U		51
1,2,3,4,7,8-HxCDF	0.1	NotFnd	<0.32	0.32	U		51	NotFnd	<0.65	0.65	U		51
1,2,3,6,7,8-HxCDF	0.1	NotFnd	<0.22	0.22	U		51	NotFnd	<0.49	0.49	U		51
2,3,4,6,7,8-HxCDF	0.1	NotFnd	<0.24	0.24	U		51	NotFnd	<0.52	0.52	U		51
1,2,3,7,8,9-HxCDF	0.1	Fnd	34.24	<0.50	0.29	M,J,R	0.50	51	NotFnd	<0.65	0.65	U	51
1,2,3,4,6,7,8-HpCDF	0.01	NotFnd	<0.35	0.35	U		51	NotFnd	<0.54	0.54	U		51
1,2,3,4,7,8,9-HpCDF	0.01	NotFnd	<0.46	0.46	U		51	NotFnd	<0.75	0.75	U		51
OCDF	0.0003	NotFnd	<0.73	0.73	U		100	NotFnd	<0.90	0.90	U		100

Extraction Standards	pg	% Rec	Limits	% Rec
13C12-2,3,7,8-TCDD	2000	27.48	15 25-164	27.55 15
13C12-1,2,3,7,8-PeCDD	2000	31.83	49 25-181	31.85 47
13C12-1,2,3,4,7,8-HxCDD	2000	33.91	63 32-141	33.93 71
13C12-1,2,3,6,7,8-HxCDD	2000	33.96	79 28-130	33.98 78
13C12-1,2,3,4,6,7,8-HpCDD	2000	35.55	92 23-140	35.57 89
13C12-OCDD	4000	37.02	103 17-157	37.04 89
13C12-2,3,7,8-TCDF	2000	26.56	5 24-169	26.64 5
13C12-1,2,3,7,8-PeCDF	2000	30.86	34 24-185	30.89 35
13C12-2,3,4,7,8-PeCDF	2000	31.61	30 21-178	31.64 31
13C12-1,2,3,4,7,8-HxCDF	2000	33.41	62 26-152	33.44 67
13C12-1,2,3,6,7,8-HxCDF	2000	33.48	82 26-123	33.50 80
13C12-2,3,4,6,7,8-HxCDF	2000	33.81	87 29-147	33.83 86
13C12-1,2,3,7,8,9-HxCDF	2000	34.24	80 28-136	34.26 80
13C12-1,2,3,4,6,7,8-HpCDF	2000	35.00	98 28-143	35.03 92
13C12-1,2,3,4,7,8,9-HpCDF	2000	35.80	99 26-138	35.82 90

Cleanup Standard	pg	% Rec	Limits	% Rec
7Cl4-2,3,7,8-TCDD (Cleanup)	40	27.50	15 35-197	27.57 16

Homologue Group Totals	# peaks	Conc. pg/L	EDL pg/L	# peaks	Conc. pg/L	EDL pg/L
Total-TCDD	0.00	<7.6	7.6	U	10	0.00 <8.4 8.4 U
Total-PeCDD	0.00	<1.5	1.5	U	51	0.00 <1.6 1.6 U
Total-HxCDD	0.00	<0.66	0.66	U	51	0.00 <0.99 0.99 U
Total-HpCDD	0.00	<0.48	0.48	U	51	0.00 <0.72 0.72 U
Total-TCDF	0.00	<16	16	U	10	0.00 <18 18 U
Total-PeCDF	0.00	<1.3	1.3	U	51	0.00 <1.4 1.4 U
Total-HxCDF	0.00	<0.32	0.32	U	51	0.00 <0.65 0.65 U
Total-HpCDF	0.00	<0.46	0.46	U	51	0.00 <0.75 0.75 U

Toxic Equivalency - (WHO 2005)	pg/L
Lower Bound PCDD/F TEQ (WHO 2005)	0.000333
Mid Point PCDD/F TEQ (WHO 2005)	5.74
Upper Bound PCDD/F TEQ (WHO 2005)	11.4

EDL Indicates the Estimated Detection Limit, based on the measured background noise for this target in this sample.
 TEF Indicates the Toxic Equivalency Factor
 M Indicates that a peak has been manually integrated.
 U Indicates that this compound was not detected above the MDL.
 J indicates that a target analyte was detected below the calibrated range.
 R Indicates that the ion abundance ratio for this compound did not meet the acceptance criterion.

ALS Life sciences

Laboratory Method Blank Analysis Report

Sample Name	Method Blank	Sampling Date	n/a		
ALS Sample ID	WG2185811-3	Extraction Date	5-Oct-15		
Analysis Method	EPA 1613B	Sample Size	0.91	L	
Analysis Type	Blank	Percent Moisture	n/a		
Sample Matrix	QC	Split Ratio	1		

Approved:
T. Patterson
--e-signature--
00-Jan-1900

Run Information	Run 1	Run 2
Filename	7-151007A08	7-151008A23
Run Date	07-Oct-15 21:16	09-Oct-15 01:42
Final Volume	20 uL	20 uL
Dilution Factor	1	1
Analysis Units	pg/L	pg/L
Instrument - Column	HRMS-7 DB5MSUSE700122H	HRMS-7 DB5MSUSE700122H

Target Analytes	TEF (WHO 2005)	Ret. Time	Conc. pg/L	EDL pg/L	Flags	EMPC pg/L	LQL	Ret. Time	Conc. pg/L	EDL pg/L	Flags	EMPC pg/L	LQL
2,3,7,8-TCDD	1	NotFnd	<3.0	3.0	U	11		NotFnd	<2.6	2.6	U	11	
1,2,3,7,8-PeCDD	1	NotFnd	<1.0	1.0	U	55		NotFnd	<0.91	0.91	U	55	
1,2,3,4,7,8-HxCDD	0.1	NotFnd	<0.54	0.54	U	55		NotFnd	<0.59	0.59	U	55	
1,2,3,6,7,8-HxCDD	0.1	NotFnd	<0.49	0.49	U	55		NotFnd	<0.51	0.51	U	55	
1,2,3,7,8,9-HxCDD	0.1	NotFnd	<0.51	0.51	U	55		NotFnd	<0.55	0.55	U	55	
1,2,3,4,6,7,8-HpCDD	0.01	NotFnd	<0.76	0.76	U	55		NotFnd	<0.67	0.67	U	55	
OCDD	0.0003	37.01	<5.5	5.5	J,R	5.5	110	37.04	<4.8	4.8	J,R	4.8	110
2,3,7,8-TCDF	0.1	NotFnd	<6.2	6.2	U	11		NotFnd	<5.0	5.0	U	11	
1,2,3,7,8-PeCDF	0.03	NotFnd	<0.85	0.85	U	55		NotFnd	<0.67	0.67	U	55	
2,3,4,7,8-PeCDF	0.3	NotFnd	<0.73	0.73	U	55		NotFnd	<0.60	0.60	U	55	
1,2,3,4,7,8-HxCDF	0.1	NotFnd	<0.40	0.40	U	55		NotFnd	<0.50	0.50	U	55	
1,2,3,6,7,8-HxCDF	0.1	NotFnd	<0.30	0.30	U	55		NotFnd	<0.38	0.38	U	55	
2,3,4,6,7,8-HxCDF	0.1	NotFnd	<0.34	0.34	U	55		NotFnd	<0.41	0.41	U	55	
1,2,3,7,8,9-HxCDF	0.1	34.24	<0.40	0.40	M,U	0.35	55	NotFnd	<0.54	0.54	U	55	
1,2,3,4,6,7,8-HpCDF	0.01	NotFnd	<0.50	0.50	U	55		NotFnd	<0.46	0.46	U	55	
1,2,3,4,7,8,9-HpCDF	0.01	NotFnd	<0.68	0.68	U	55		NotFnd	<0.61	0.61	U	55	
OCDF	0.0003	NotFnd	<0.72	0.72	U	110		NotFnd	<0.79	0.79	U	110	

Extraction Standards	pg	% Rec	Limits	% Rec
13C12-2,3,7,8-TCDD	2000	27.47	36 25-164	27.54 42
13C12-1,2,3,7,8-PeCDD	2000	31.82	63 25-181	31.85 65
13C12-1,2,3,4,7,8-HxCDD	2000	33.91	66 32-141	33.93 71
13C12-1,2,3,6,7,8-HxCDD	2000	33.96	86 28-130	33.98 83
13C12-1,2,3,4,6,7,8-HpCDD	2000	35.54	86 23-140	35.57 86
13C12-OCDD	4000	37.01	91 17-157	37.04 84
13C12-2,3,7,8-TCDF	2000	26.55	15 24-169	26.62 15
13C12-1,2,3,7,8-PeCDF	2000	30.86	53 24-185	30.89 53
13C12-2,3,4,7,8-PeCDF	2000	31.60	50 21-178	31.64 53
13C12-1,2,3,4,7,8-HxCDF	2000	33.41	67 26-152	33.43 71
13C12-1,2,3,6,7,8-HxCDF	2000	33.47	87 26-123	33.50 80
13C12-2,3,4,6,7,8-HxCDF	2000	33.81	87 29-147	33.83 83
13C12-1,2,3,7,8,9-HxCDF	2000	34.22	81 28-136	34.26 76
13C12-1,2,3,4,6,7,8-HpCDF	2000	34.99	92 28-143	35.03 86
13C12-1,2,3,4,7,8,9-HpCDF	2000	35.79	90 26-138	35.82 85

Cleanup Standard	pg	% Rec	Limits	% Rec
7C14-2,3,7,8-TCDD (Cleanup)	40	27.50	42 35-197	27.55 45

Homologue Group Totals	# peaks	Conc. pg/L	EDL pg/L	# peaks	Conc. pg/L	EDL pg/L
Total-TCDD	0.00	<3.0	3.0	U	11	0.00 <2.6 2.6 U
Total-PeCDD	0.00	<1.0	1.0	U	55	0.00 <0.91 0.91 U
Total-HxCDD	0.00	<0.54	0.54	U	55	0.00 <0.59 0.59 U
Total-HpCDD	0.00	<0.76	0.76	U	55	0.00 <0.67 0.67 U
Total-TCDF	0.00	<6.2	6.2	U	11	0.00 <5.0 5.0 U
Total-PeCDF	0.00	<0.85	0.85	U	55	0.00 <0.67 0.67 U
Total-HxCDF	0.00	<0.40	0.40	U	55	0.00 <0.54 0.54 U
Total-HpCDF	0.00	<0.68	0.68	U	55	0.00 <0.61 0.61 U

Toxic Equivalency - (WHO 2005)	pg/L
Lower Bound PCDD/F TEQ (WHO 2005)	0.00
Mid Point PCDD/F TEQ (WHO 2005)	2.33
Upper Bound PCDD/F TEQ (WHO 2005)	4.66

EDL Indicates the Estimated Detection Limit, based on the measured background noise for this target in this sample.
 TEF Indicates the Toxic Equivalency Factor
 M Indicates that a peak has been manually integrated.
 U Indicates that this compound was not detected above the MDL.
 J indicates that a target analyte was detected below the calibrated range.
 R Indicates that the ion abundance ratio for this compound did not meet the acceptance criterion.

ALS Life sciences

Laboratory Control Sample Analysis Report

Sample Name	Laboratory Control Sample	Sampling Date	n/a		
ALS Sample ID	WG2185811-4	Extraction Date	5-Oct-15		
Analysis Method	EPA 1613B	Sample Size	1	n/a	
Analysis Type	LCS	Percent Moisture	n/a		
Sample Matrix	QC	Split Ratio	1		

Approved:
T. Patterson
--e-signature--
00-Jan-1900

Run Information	Run 1	Run 2
Filename	7-151007A02	7-151008A18
Run Date	07-Oct-15 17:46	08-Oct-15 22:14
Final Volume	20 uL	20 uL
Dilution Factor	1	1
Analysis Units	%	%
Instrument - Column	HRMS-7 DB5MSUSE700122H	HRMS-7 DB5MSUSE700122H

Target Analytes	pg	Ret. Time	% Rec	Limits	Flags	Ret. Time	% Rec	Flags
2,3,7,8-TCDD	200	27.48	104	67-158		27.58	107	
1,2,3,7,8-PeCDD	1000	31.83	106	70-142		31.88	103	
1,2,3,4,7,8-HxCDD	1000	33.91	104	70-164		33.95	102	
1,2,3,6,7,8-HxCDD	1000	33.96	99	76-134		34.00	96	
1,2,3,7,8,9-HxCDD	1000	34.09	132	64-162		34.12	129	
1,2,3,4,6,7,8-HpCDD	1000	35.55	104	70-140		35.58	109	
OCDD	2000	37.02	103	78-144		37.05	99	
2,3,7,8-TCDF	200	26.59	113	75-158		26.67	106	
1,2,3,7,8-PeCDF	1000	30.87	99	80-134		30.91	106	
2,3,4,7,8-PeCDF	1000	31.61	97	68-160		31.66	99	
1,2,3,4,7,8-HxCDF	1000	33.42	106	72-134		33.45	103	
1,2,3,6,7,8-HxCDF	1000	33.48	95	84-130		33.52	94	
2,3,4,6,7,8-HxCDF	1000	33.82	111	78-130		33.85	108	
1,2,3,7,8,9-HxCDF	1000	34.24	109	70-156		34.27	107	
1,2,3,4,6,7,8-HpCDF	1000	35.00	98	82-122		35.04	97	
1,2,3,4,7,8,9-HpCDF	1000	35.80	98	78-138		35.83	98	
OCDF	2000	37.11	104	63-170		37.14	101	
Extraction Standards								
	pg		% Rec	Limits			% Rec	
13C12-2,3,7,8-TCDD	2000	27.47	20	20-175		27.55	21	
13C12-1,2,3,7,8-PeCDD	2000	31.82	52	21-227		31.87	51	
13C12-1,2,3,4,7,8-HxCDD	2000	33.91	61	21-193		33.94	63	
13C12-1,2,3,6,7,8-HxCDD	2000	33.96	83	25-163		33.99	81	
13C12-1,2,3,4,6,7,8-HpCDD	2000	35.55	96	26-166		35.58	85	
13C12-OCDD	4000	37.01	99	13-138		37.04	85	
13C12-2,3,7,8-TCDF	2000	26.56	6	22-152		26.65	6	
13C12-1,2,3,7,8-PeCDF	2000	30.86	38	21-192		30.90	37	
13C12-2,3,4,7,8-PeCDF	2000	31.60	34	13-328		31.65	34	
13C12-1,2,3,4,7,8-HxCDF	2000	33.41	61	19-202		33.44	63	
13C12-1,2,3,6,7,8-HxCDF	2000	33.47	79	21-159		33.51	77	
13C12-2,3,4,6,7,8-HxCDF	2000	33.81	87	17-205		33.84	83	
13C12-1,2,3,7,8,9-HxCDF	2000	34.22	81	22-176		34.26	76	
13C12-1,2,3,4,6,7,8-HpCDF	2000	34.99	97	21-158		35.03	88	
13C12-1,2,3,4,7,8,9-HpCDF	2000	35.79	97	20-186		35.82	85	
Cleanup Standard								
	pg							
7Cl4-2,3,7,8-TCDD (Cleanup)	40	27.50	22	31-191		27.58	22	


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Company:			Email 1 or Fax lbrasowski@covanta.com																																																																																																																			
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LSD:			Location:																																																																																																																			
ALS Lab Work Order # (lab use only) 1682286			ALS Contact: Wayne Smith		Sampler: Amanda Huxter																																																																																																																	
ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)		Date (dd-mmm-yy)	Time (hh:mm)	Sample Type																																																																																																																	
1	DYEC/FA/151001/1		2-Oct-15	8:00	Soil	E			R													3																																																																																																
2	DYEC/FA/151001/2		2-Oct-15	8:00	Soil	E			R													3																																																																																																
3	DYEC/FA/151001/3		2-Oct-15	8:00	Soil	E			R													3																																																																																																
4	DYEC/FA/151001/4		2-Oct-15	8:00	Soil	E			R													3																																																																																																
Drinking Water (DW) Samples¹ (client use)			Special Instructions / Specify Criteria to add on report (client Use)			SAMPLE CONDITION AS RECEIVED (lab use only)																																																																																																																
Are samples taken from a Regulated DW System? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			Regulation 347 Criteria Report			Frozen <input type="checkbox"/> SIF Observations Yes <input type="checkbox"/> No <input type="checkbox"/> Ice packs Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Custody seal intact Yes <input type="checkbox"/> No <input type="checkbox"/> Cooling Initiated <input type="checkbox"/>																																																																																																																
Are samples for human drinking water use? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No						INITIAL COOLER TEMPERATURES °C: _____ FINAL COOLER TEMPERATURES °C: 8.9																																																																																																																
SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)																																																																																																																
Released by: Amanda Huxter		Date: 2-Oct-15	Time: 9am	Received by:		Date:	Time:	Received by: <i>aj</i>		Date: 2/10/15	Time: 12:00																																																																																																											

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

NA-FM-0328-v01-Form04 January 2014

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a Regulated Drinking Water (DW) System, please submit using an Authorized DW COC form.



Covanta - Durham York Renewable Energy
LP
ATTN: Leon Brasowski
1835 Energy Drive
Courtice ON L1E 2R2

Date Received: 01-OCT-15
Report Date: 07-OCT-15 11:20 (MT)
Version: FINAL

Client Phone: 905-404-4041

Certificate of Analysis

Lab Work Order #: L1681590
Project P.O. #: NOT SUBMITTED
Job Reference: DYEC - FLY ASH PROJECT
C of C Numbers:
Legal Site Desc:

Mary-Lynn Pires
Account Manager

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ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte									
L1681590-1	DYEC/FA/150930/1									
Sampled By: A. HUXTER on 01-OCT-15 @ 08:0										
Matrix: SOIL										
Sample Preparation										
Initial pH		12.34		0.10	pH units	01-OCT-15				
Final pH		10.52		0.10	pH units	01-OCT-15				
TCLP Extractables										
Alachlor		<0.0010		0.0010	mg/L	05-OCT-15				
Aldicarb		<0.010		0.010	mg/L	02-OCT-15	0.9			
Aldrin		<0.00020		0.00020	mg/L	05-OCT-15				
Aldrin + Dieldrin		<0.00040		0.00040	mg/L	05-OCT-15	0.07			
alpha-Chlordane		<0.0010		0.0010	mg/L	05-OCT-15				
Aroclor 1242		<0.00020		0.00020	mg/L	05-OCT-15				
Aroclor 1248		<0.00020		0.00020	mg/L	05-OCT-15				
Aroclor 1254		<0.00020		0.00020	mg/L	05-OCT-15				
Aroclor 1260		<0.00020		0.00020	mg/L	05-OCT-15				
Atrazine		<0.0010		0.0010	mg/L	05-OCT-15				
Atrazine Desethyl		<0.0010		0.0010	mg/L	05-OCT-15				
Atrazine & Metabolites		<0.0020		0.0020	mg/L	05-OCT-15	0.5			
Azinphos methyl		<0.0010		0.0010	mg/L	05-OCT-15	2			
Bendiocarb		<0.0050		0.0050	mg/L	05-OCT-15	4			
Benzo(a)pyrene		<0.0010		0.0010	mg/L	05-OCT-15	0.001			
Bromoxynil		<0.0020		0.0020	mg/L	05-OCT-15	0.5			
Carbaryl		<0.0020		0.0020	mg/L	05-OCT-15	9			
Carbofuran		<0.0020		0.0020	mg/L	05-OCT-15	9			
Chlordane (Total)		<0.0030		0.0030	mg/L	05-OCT-15	0.7			
Chlorpyrifos		<0.0010		0.0010	mg/L	05-OCT-15	9			
3&4-Methylphenol		<0.010		0.010	mg/L	05-OCT-15				
Cresols (total)		<0.015		0.015	mg/L	05-OCT-15	200			
Cyanazine		<0.0010		0.0010	mg/L	05-OCT-15	1.0			
Cyanide, Weak Acid Diss		<0.10		0.10	mg/L	02-OCT-15	20			
2,4-D		<0.0020		0.0020	mg/L	05-OCT-15	10			
p,p-DDD		<0.0010		0.0010	mg/L	05-OCT-15				
p,p-DDE		<0.0010		0.0010	mg/L	05-OCT-15				
o,p-DDT		<0.0010		0.0010	mg/L	05-OCT-15				
p,p-DDT		<0.0010		0.0010	mg/L	05-OCT-15				
DDT + metabolites		<0.0040		0.0040	mg/L	05-OCT-15	3			
Diazinon		<0.0010		0.0010	mg/L	05-OCT-15	2			
Dicamba		<0.0050		0.0050	mg/L	05-OCT-15	12			
2,4-Dichlorophenol		<0.0050		0.0050	mg/L	05-OCT-15	90			
Diclofop methyl		<0.0020		0.0020	mg/L	05-OCT-15	0.9			
Dieldrin		<0.00020		0.00020	mg/L	05-OCT-15				
Dimethoate		<0.0010		0.0010	mg/L	05-OCT-15	2			
2,4-Dinitrotoluene		<0.0040		0.0040	mg/L	05-OCT-15	0.13			
Dinoseb		<0.0020		0.0020	mg/L	05-OCT-15	1			
Diquat		<0.1	DLM	0.10	mg/L	03-OCT-15	7			
Diuron		<0.010		0.010	mg/L	02-OCT-15	15			
Endrin		<0.0010		0.0010	mg/L	05-OCT-15	0.02			
Parathion		<0.0010		0.0010	mg/L	05-OCT-15	5			
Fluoride (F)		<10		10	mg/L	02-OCT-15	150.0			

** Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.

* Analytical result for this parameter exceeds Guideline Limit listed on this report. Guideline Limits applied:

Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte									
L1681590-1	DYEC/FA/150930/1									
Sampled By: A. HUXTER on 01-OCT-15 @ 08:00										
Matrix: SOIL										#1
TCLP Extractables										
	gamma-BHC	<0.0010		0.0010	mg/L	05-OCT-15	0.4			
	gamma-Chlordane	<0.0010		0.0010	mg/L	05-OCT-15				
	Glyphosate	<0.050		0.050	mg/L	03-OCT-15	28			
	Heptachlor	<0.0010		0.0010	mg/L	05-OCT-15				
	Heptachlor + Heptachlor Epoxide	<0.0020		0.0020	mg/L	05-OCT-15	0.3			
	Heptachlor epoxide	<0.0010		0.0010	mg/L	05-OCT-15				
	Hexachlorobenzene	<0.0040		0.0040	mg/L	05-OCT-15	0.13			
	Hexachlorobutadiene	<0.0040		0.0040	mg/L	05-OCT-15	0.5			
	Hexachloroethane	<0.0040		0.0040	mg/L	05-OCT-15	3.0			
	Malathion	<0.0010		0.0010	mg/L	05-OCT-15	19			
	MCPA	<0.0020		0.0020	mg/L	05-OCT-15				
	Methoxychlor	<0.0010		0.0010	mg/L	05-OCT-15	90			
	Methyl Parathion	<0.0010		0.0010	mg/L	05-OCT-15	0.7			
	2-Methylphenol	<0.0050		0.0050	mg/L	05-OCT-15				
	Metolachlor	<0.0010		0.0010	mg/L	05-OCT-15	5			
	Metribuzin	<0.0010		0.0010	mg/L	05-OCT-15	8			
	Nitrate and Nitrite as N	<4.0		4.0	mg/L	02-OCT-15	1000			
	Nitrate-N	<2.0		2.0	mg/L	02-OCT-15				
	Nitrotriacetic Acid (NTA)	<40		40	mg/L	02-OCT-15	40			
	Nitrite-N	<2.0		2.0	mg/L	02-OCT-15				
	Nitrobenzene	<0.0040		0.0040	mg/L	05-OCT-15	2.0			
	N-Nitrosodimethylamine	<0.00020		0.00020	mg/L	05-OCT-15	0.0009			
	Oxychlordane	<0.0010		0.0010	mg/L	05-OCT-15				
	Paraquat	<0.1	DLM	0.10	mg/L	03-OCT-15	1			
	Total PCBs	<0.00040		0.00040	mg/L	05-OCT-15	0.3			
	Pentachlorophenol	<0.0050		0.0050	mg/L	05-OCT-15	6			
	Phorate	<0.0010		0.0010	mg/L	05-OCT-15	0.2			
	Picloram	<0.0050		0.0050	mg/L	05-OCT-15	19			
	Prometryne	<0.0010		0.0010	mg/L	05-OCT-15				
	Pyridine	<5.0		5.0	mg/L	02-OCT-15	5.0			
	Simazine	<0.0010		0.0010	mg/L	05-OCT-15	1			
	2,4,5-T	<0.0020		0.0020	mg/L	05-OCT-15	28			
	Temephos	<0.0010		0.0010	mg/L	05-OCT-15	28			
	Terbufos	<0.0020		0.0020	mg/L	05-OCT-15	0.1			
	2,3,4,6-Tetrachlorophenol	<0.0050		0.0050	mg/L	05-OCT-15	10.0			
	Toxaphene	<0.0035		0.0035	mg/L	05-OCT-15	0.5			
	2,4,5-TP	<0.0020		0.0020	mg/L	05-OCT-15	1			
	Triallate	<0.0010		0.0010	mg/L	05-OCT-15	23			
	2,4,5-Trichlorophenol	<0.0050		0.0050	mg/L	05-OCT-15	400			
	2,4,6-Trichlorophenol	<0.0050		0.0050	mg/L	05-OCT-15	0.5			
	Trifluralin	<0.0050		0.0050	mg/L	05-OCT-15	4.5			
	Surrogate: 2,4,6-Tribromophenol	109.5		50-150	%	05-OCT-15				
	Surrogate: 2,4-Dichlorophenylacetic Acid	115.6		50-150	%	05-OCT-15				
	Surrogate: 2-Fluorobiphenyl	102.9		40-160	%	05-OCT-15				
	Surrogate: 2-Fluorobiphenyl	56.2		40-160	%	05-OCT-15				

** Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.

* Analytical result for this parameter exceeds Guideline Limit listed on this report. Guideline Limits applied:

Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits	
Grouping	Analyte							
L1681590-1	DYEC/FA/150930/1							
Sampled By: A. HUXTER on 01-OCT-15 @ 08:0							#1	
Matrix: SOIL								
TCLP Extractables								
	Surrogate: 2-Fluorobiphenyl	84.1		40-160	%	05-OCT-15		
	Surrogate: Nitrobenzene d5	112.4		50-150	%	05-OCT-15		
	Surrogate: d14-Terphenyl	119.1		60-140	%	05-OCT-15		
	Surrogate: d14-Terphenyl	127.5		60-140	%	05-OCT-15		
	Surrogate: p-Terphenyl d14	122.0		60-140	%	05-OCT-15		
TCLP Metals								
	Arsenic (As)	<0.050		0.050	mg/L	02-OCT-15	2.5	
	Barium (Ba)	1.19		0.50	mg/L	02-OCT-15	100	
	Boron (B)	<2.5		2.5	mg/L	02-OCT-15	500	
	Cadmium (Cd)	<0.0050		0.0050	mg/L	02-OCT-15	0.5	
	Chromium (Cr)	<0.050		0.050	mg/L	02-OCT-15	5.0	
	Lead (Pb)	<0.050		0.050	mg/L	02-OCT-15	5.0	
	Mercury (Hg)	0.00014		0.00010	mg/L	02-OCT-15	0.1	
	Selenium (Se)	<0.25		0.25	mg/L	02-OCT-15	1.0	
	Silver (Ag)	<0.0050		0.0050	mg/L	02-OCT-15	5.0	
	Uranium (U)	<0.25		0.25	mg/L	02-OCT-15	10	
TCLP VOCs								
	1,1-Dichloroethylene	<0.025		0.025	mg/L	05-OCT-15	1.4	
	1,2-Dichlorobenzene	<0.025		0.025	mg/L	05-OCT-15	20.0	
	1,2-Dichloroethane	<0.025		0.025	mg/L	05-OCT-15	0.5	
	1,4-Dichlorobenzene	<0.025		0.025	mg/L	05-OCT-15	0.5	
	Benzene	<0.025		0.025	mg/L	05-OCT-15	0.5	
	Carbon tetrachloride	<0.025		0.025	mg/L	05-OCT-15	0.5	
	Chlorobenzene	<0.025		0.025	mg/L	05-OCT-15	8	
	Chloroform	<0.10		0.10	mg/L	05-OCT-15	10	
	Dichloromethane	<0.50		0.50	mg/L	05-OCT-15	5.0	
	Methyl Ethyl Ketone	<1.0		1.0	mg/L	05-OCT-15	200.0	
	Tetrachloroethylene	<0.025		0.025	mg/L	05-OCT-15	3	
	Trichloroethylene	<0.025		0.025	mg/L	05-OCT-15	5	
	Vinyl chloride	<0.050		0.050	mg/L	05-OCT-15	0.2	
	Surrogate: 4-Bromofluorobenzene	96.4		70-130	%	05-OCT-15		
Volatile Organic Compounds								
	Surrogate: 1,4-Difluorobenzene	98.8		50-150	%	05-OCT-15		
Polychlorinated Biphenyls								
	Surrogate: Decachlorobiphenyl	104.0		50-150	%	05-OCT-15		
	Surrogate: Tetrachloro-m-xylene	92.7		50-150	%	05-OCT-15		
Dioxins and Furans								
	2,3,7,8-TCDD	<1.6	[U]	1.6	pg/L	07-OCT-15		

** Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.

* Analytical result for this parameter exceeds Guideline Limit listed on this report. Guideline Limits applied:

Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte						#1			
L1681590-1	DYEC/FA/150930/1									
Sampled By: A. HUXTER on 01-OCT-15 @ 08:00										
Matrix: SOIL										
Dioxins and Furans										
	1,2,3,7,8-PeCDD	<0.68	[U]	0.68	pg/L	07-OCT-15				
	1,2,3,4,7,8-HxCDD	<0.50	[U]	0.50	pg/L	07-OCT-15				
	1,2,3,6,7,8-HxCDD	<0.48	[U]	0.48	pg/L	07-OCT-15				
	1,2,3,7,8,9-HxCDD	<0.49	[U]	0.49	pg/L	07-OCT-15				
	1,2,3,4,6,7,8-HpCDD	<0.51	[U]	0.51	pg/L	07-OCT-15				
	OCDD	<0.50	[U]	0.50	pg/L	07-OCT-15				
	Total-TCDD	<1.6	[U]	1.6	pg/L	07-OCT-15				
	Total TCDD # Homologues	0			No Unit	07-OCT-15				
	Total-PeCDD	0.76		0.68	pg/L	07-OCT-15				
	Total PeCDD # Homologues	1			No Unit	07-OCT-15				
	Total-HxCDD	<0.50	[U]	0.50	pg/L	07-OCT-15				
	Total HxCDD # Homologues	0			No Unit	07-OCT-15				
	Total-HpCDD	<0.51	[U]	0.51	pg/L	07-OCT-15				
	Total HpCDD # Homologues	0			No Unit	07-OCT-15				
	2,3,7,8-TCDF	<1.2	[U]	1.2	pg/L	07-OCT-15				
	1,2,3,7,8-PeCDF	<0.47	[U]	0.47	pg/L	07-OCT-15				
	2,3,4,7,8-PeCDF	<0.40	[U]	0.40	pg/L	07-OCT-15				
	1,2,3,4,7,8-HxCDF	<0.33	[U]	0.33	pg/L	07-OCT-15				
	1,2,3,6,7,8-HxCDF	<0.29	[U]	0.29	pg/L	07-OCT-15				
	1,2,3,7,8,9-HxCDF	0.40	M,J,R	0.38	pg/L	07-OCT-15				
	2,3,4,6,7,8-HxCDF	<0.32	[U]	0.32	pg/L	07-OCT-15				
	1,2,3,4,6,7,8-HpCDF	<0.39	[U]	0.39	pg/L	07-OCT-15				
	1,2,3,4,7,8,9-HpCDF	<0.48	[U]	0.48	pg/L	07-OCT-15				
	OCDF	<0.63	[U]	0.63	pg/L	07-OCT-15				
	Total-TCDF	<1.2	[U]	1.2	pg/L	07-OCT-15				
	Total TCDF # Homologues	0			No Unit	07-OCT-15				
	Total-PeCDF	<0.47	[U]	0.47	pg/L	07-OCT-15				
	Total PeCDF # Homologues	0			No Unit	07-OCT-15				
	Total-HxCDF	<0.38	[U]	0.38	pg/L	07-OCT-15				
	Total HxCDF # Homologues	0			No Unit	07-OCT-15				
	Total-HpCDF	<0.48	[U]	0.48	pg/L	07-OCT-15				
	Total HpCDF # Homologues	0			No Unit	07-OCT-15				
	Surrogate: 13C12-2,3,7,8-TCDD	79.0		20-175	%	07-OCT-15				
	Surrogate: 13C12-1,2,3,7,8-PeCDD	99.0		21-227	%	07-OCT-15				
	Surrogate: 13C12-1,2,3,4,7,8-HxCDD	81.0		21-193	%	07-OCT-15				
	Surrogate: 13C12-1,2,3,6,7,8-HxCDD	95.0		25-163	%	07-OCT-15				
	Surrogate: 13C12-1,2,3,4,6,7,8-HpCDD	98.0		23-166	%	07-OCT-15				
	Surrogate: 13C12-OCDD	88.0		13-138	%	07-OCT-15				
	Surrogate: 13C12-2,3,7,8-TCDF	92.0		22-152	%	07-OCT-15				
	Surrogate: 13C12-1,2,3,7,8-PeCDF	102.0		24-185	%	07-OCT-15				
	Surrogate: 13C12-2,3,4,7,8-PeCDF	101.0		21-178	%	07-OCT-15				
	Surrogate: 13C12-1,2,3,4,7,8-HxCDF	90.0		26-152	%	07-OCT-15				
	Surrogate: 13C12-1,2,3,6,7,8-HxCDF	97.0		21-159	%	07-OCT-15				
	Surrogate: 13C12-2,3,4,6,7,8-HxCDF	98.0		17-205	%	07-OCT-15				
	Surrogate: 13C12-1,2,3,7,8,9-HxCDF	90.0		28-136	%	07-OCT-15				
	Surrogate: 13C12-1,2,3,4,6,7,8-HpCDF	106.0		21-158	%	07-OCT-15				
	Surrogate: 13C12-1,2,3,4,7,8,9-HpCDF	109.0		20-186	%	07-OCT-15				
	Surrogate: 37Cl4-2,3,7,8-TCDD (Cleanup)	90.0		31-191	%	07-OCT-15				

** Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.

* Analytical result for this parameter exceeds Guideline Limit listed on this report. Guideline Limits applied:

Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte									
L1681590-1	DYEC/FA/150930/1									
Sampled By: A. HUXTER on 01-OCT-15 @ 08:0										
Matrix: SOIL										
Toxic Equivalency										
Lower Bound PCDD/F TEQ (WHO 2005)		0.00			pg/L	07-OCT-15				
Mid Point PCDD/F TEQ (WHO 2005)		1.43			pg/L	07-OCT-15				
Upper Bound PCDD/F TEQ (WHO 2005)		2.83			pg/L	07-OCT-15	1500			
L1681590-2	DYEC/FA/150930/2									
Sampled By: A. HUXTER on 01-OCT-15 @ 08:0										
Matrix: SOIL										
Sample Preparation										
Initial pH		12.34		0.10	pH units	01-OCT-15				
Final pH		10.54		0.10	pH units	01-OCT-15				
TCLP Extractables										
Alachlor		<0.0010		0.0010	mg/L	05-OCT-15				
Aldicarb		<0.010		0.010	mg/L	02-OCT-15	0.9			
Aldrin		<0.00020		0.00020	mg/L	05-OCT-15				
Aldrin + Dieldrin		<0.00040		0.00040	mg/L	05-OCT-15	0.07			
alpha-Chlordane		<0.0010		0.0010	mg/L	05-OCT-15				
Aroclor 1242		<0.00020		0.00020	mg/L	05-OCT-15				
Aroclor 1248		<0.00020		0.00020	mg/L	05-OCT-15				
Aroclor 1254		<0.00020		0.00020	mg/L	05-OCT-15				
Aroclor 1260		<0.00020		0.00020	mg/L	05-OCT-15				
Atrazine		<0.0010		0.0010	mg/L	05-OCT-15				
Atrazine Desethyl		<0.0010		0.0010	mg/L	05-OCT-15				
Atrazine & Metabolites		<0.0020		0.0020	mg/L	05-OCT-15	0.5			
Azinphos methyl		<0.0010		0.0010	mg/L	05-OCT-15	2			
Bendiocarb		<0.0050		0.0050	mg/L	05-OCT-15	4			
Benzo(a)pyrene		<0.0010		0.0010	mg/L	05-OCT-15	0.001			
Bromoxynil		<0.0020		0.0020	mg/L	05-OCT-15	0.5			
Carbaryl		<0.0020		0.0020	mg/L	05-OCT-15	9			
Carbofuran		<0.0020		0.0020	mg/L	05-OCT-15	9			
Chlordane (Total)		<0.0030		0.0030	mg/L	05-OCT-15	0.7			
Chlorpyrifos		<0.0010		0.0010	mg/L	05-OCT-15	9			
3&4-Methylphenol		<0.010		0.010	mg/L	05-OCT-15				
Cresols (total)		<0.015		0.015	mg/L	05-OCT-15	200			
Cyanazine		<0.0010		0.0010	mg/L	05-OCT-15	1.0			
Cyanide, Weak Acid Diss		<0.10		0.10	mg/L	02-OCT-15	20			
2,4-D		<0.0020		0.0020	mg/L	05-OCT-15	10			
p,p-DDD		<0.0010		0.0010	mg/L	05-OCT-15				
p,p-DDE		<0.0010		0.0010	mg/L	05-OCT-15				
o,p-DDT		<0.0010		0.0010	mg/L	05-OCT-15				
p,p-DDT		<0.0010		0.0010	mg/L	05-OCT-15				
DDT + metabolites		<0.0040		0.0040	mg/L	05-OCT-15	3			
Diazinon		<0.0010		0.0010	mg/L	05-OCT-15	2			
Dicamba		<0.0050		0.0050	mg/L	05-OCT-15	12			
2,4-Dichlorophenol		<0.0050		0.0050	mg/L	05-OCT-15	90			
Diclofop methyl		<0.0020		0.0020	mg/L	05-OCT-15	0.9			
Dieldrin		<0.00020		0.00020	mg/L	05-OCT-15				

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Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits				
Grouping	Analyte										
L1681590-2	DYEC/FA/150930/2										
Sampled By: A. HUXTER on 01-OCT-15 @ 08:0											
Matrix: SOIL											
TCLP Extractables											
	Dimethoate	<0.0010		0.0010	mg/L	05-OCT-15	2				
	2,4-Dinitrotoluene	<0.0040		0.0040	mg/L	05-OCT-15	0.13				
	Dinoseb	<0.0020		0.0020	mg/L	05-OCT-15	1				
	Diquat	<0.1	DLM	0.10	mg/L	03-OCT-15	7				
	Diuron	<0.010		0.010	mg/L	02-OCT-15	15				
	Endrin	<0.0010		0.0010	mg/L	05-OCT-15	0.02				
	Parathion	<0.0010		0.0010	mg/L	05-OCT-15	5				
	Fluoride (F)	<10		10	mg/L	02-OCT-15	150.0				
	gamma-BHC	<0.0010		0.0010	mg/L	05-OCT-15	0.4				
	gamma-Chlordane	<0.0010		0.0010	mg/L	05-OCT-15					
	Glyphosate	<0.050		0.050	mg/L	03-OCT-15	28				
	Heptachlor	<0.0010		0.0010	mg/L	05-OCT-15					
	Heptachlor + Heptachlor Epoxide	<0.0020		0.0020	mg/L	05-OCT-15	0.3				
	Heptachlor epoxide	<0.0010		0.0010	mg/L	05-OCT-15					
	Hexachlorobenzene	<0.0040		0.0040	mg/L	05-OCT-15	0.13				
	Hexachlorobutadiene	<0.0040		0.0040	mg/L	05-OCT-15	0.5				
	Hexachloroethane	<0.0040		0.0040	mg/L	05-OCT-15	3.0				
	Malathion	<0.0010		0.0010	mg/L	05-OCT-15	19				
	MCPA	<0.0020		0.0020	mg/L	05-OCT-15					
	Methoxychlor	<0.0010		0.0010	mg/L	05-OCT-15	90				
	Methyl Parathion	<0.0010		0.0010	mg/L	05-OCT-15	0.7				
	2-Methylphenol	<0.0050		0.0050	mg/L	05-OCT-15					
	Metolachlor	<0.0010		0.0010	mg/L	05-OCT-15	5				
	Metribuzin	<0.0010		0.0010	mg/L	05-OCT-15	8				
	Nitrate and Nitrite as N	<4.0		4.0	mg/L	02-OCT-15	1000				
	Nitrate-N	<2.0		2.0	mg/L	02-OCT-15					
	Nitrioltriacetic Acid (NTA)	<40		40	mg/L	02-OCT-15	40				
	Nitrite-N	<2.0		2.0	mg/L	02-OCT-15					
	Nitrobenzene	<0.0040		0.0040	mg/L	05-OCT-15	2.0				
	N-Nitrosodimethylamine	<0.00020		0.00020	mg/L	05-OCT-15	0.0009				
	Oxychlordane	<0.0010		0.0010	mg/L	05-OCT-15					
	Paraquat	<0.1	DLM	0.10	mg/L	03-OCT-15	1				
	Total PCBs	<0.00040		0.00040	mg/L	05-OCT-15	0.3				
	Pentachlorophenol	<0.0050		0.0050	mg/L	05-OCT-15	6				
	Phorate	<0.0010		0.0010	mg/L	05-OCT-15	0.2				
	Picloram	<0.0050		0.0050	mg/L	05-OCT-15	19				
	Prometryne	<0.0010		0.0010	mg/L	05-OCT-15					
	Pyridine	<5.0		5.0	mg/L	02-OCT-15	5.0				
	Simazine	<0.0010		0.0010	mg/L	05-OCT-15	1				
	2,4,5-T	<0.0020		0.0020	mg/L	05-OCT-15	28				
	Temephos	<0.0010		0.0010	mg/L	05-OCT-15	28				
	Terbufos	<0.0020		0.0020	mg/L	05-OCT-15	0.1				
	2,3,4,6-Tetrachlorophenol	<0.0050		0.0050	mg/L	05-OCT-15	10.0				
	Toxaphene	<0.0035		0.0035	mg/L	05-OCT-15	0.5				
	2,4,5-TP	<0.0020		0.0020	mg/L	05-OCT-15	1				
	Triallate	<0.0010		0.0010	mg/L	05-OCT-15	23				

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Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte									
L1681590-2	DYEC/FA/150930/2									
Sampled By: A. HUXTER on 01-OCT-15 @ 08:0										
Matrix: SOIL										#1
TCLP Extractables										
	2,4,5-Trichlorophenol	<0.0050		0.0050	mg/L	05-OCT-15	400			
	2,4,6-Trichlorophenol	<0.0050		0.0050	mg/L	05-OCT-15	0.5			
	Trifluralin	<0.0050		0.0050	mg/L	05-OCT-15	4.5			
	Surrogate: 2,4,6-Tribromophenol	104.6		50-150	%	05-OCT-15				
	Surrogate: 2,4-Dichlorophenylacetic Acid	115.5		50-150	%	05-OCT-15				
	Surrogate: 2-Fluorobiphenyl	73.0		40-160	%	05-OCT-15				
	Surrogate: 2-Fluorobiphenyl	83.1		40-160	%	05-OCT-15				
	Surrogate: 2-Fluorobiphenyl	94.2		40-160	%	05-OCT-15				
	Surrogate: Nitrobenzene d5	101.8		50-150	%	05-OCT-15				
	Surrogate: d14-Terphenyl	120.3		60-140	%	05-OCT-15				
	Surrogate: d14-Terphenyl	93.5		60-140	%	05-OCT-15				
	Surrogate: p-Terphenyl d14	136.5		60-140	%	05-OCT-15				
TCLP Metals										
	Arsenic (As)	<0.050		0.050	mg/L	02-OCT-15	2.5			
	Barium (Ba)	1.16		0.50	mg/L	02-OCT-15	100			
	Boron (B)	<2.5		2.5	mg/L	02-OCT-15	500			
	Cadmium (Cd)	<0.0050		0.0050	mg/L	02-OCT-15	0.5			
	Chromium (Cr)	<0.050		0.050	mg/L	02-OCT-15	5.0			
	Lead (Pb)	<0.050		0.050	mg/L	02-OCT-15	5.0			
	Mercury (Hg)	0.00011		0.00010	mg/L	02-OCT-15	0.1			
	Selenium (Se)	<0.25		0.25	mg/L	02-OCT-15	1.0			
	Silver (Ag)	<0.0050		0.0050	mg/L	02-OCT-15	5.0			
	Uranium (U)	<0.25		0.25	mg/L	02-OCT-15	10			
TCLP VOCs										
	1,1-Dichloroethylene	<0.025		0.025	mg/L	05-OCT-15	1.4			
	1,2-Dichlorobenzene	<0.025		0.025	mg/L	05-OCT-15	20.0			
	1,2-Dichloroethane	<0.025		0.025	mg/L	05-OCT-15	0.5			
	1,4-Dichlorobenzene	<0.025		0.025	mg/L	05-OCT-15	0.5			
	Benzene	<0.025		0.025	mg/L	05-OCT-15	0.5			
	Carbon tetrachloride	<0.025		0.025	mg/L	05-OCT-15	0.5			
	Chlorobenzene	<0.025		0.025	mg/L	05-OCT-15	8			
	Chloroform	<0.10		0.10	mg/L	05-OCT-15	10			
	Dichloromethane	<0.50		0.50	mg/L	05-OCT-15	5.0			
	Methyl Ethyl Ketone	<1.0		1.0	mg/L	05-OCT-15	200.0			
	Tetrachloroethylene	<0.025		0.025	mg/L	05-OCT-15	3			
	Trichloroethylene	<0.025		0.025	mg/L	05-OCT-15	5			
	Vinyl chloride	<0.050		0.050	mg/L	05-OCT-15	0.2			

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Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte						#1			
L1681590-2	DYEC/FA/150930/2									
Sampled By: A. HUXTER on 01-OCT-15 @ 08:0										
Matrix: SOIL										
TCLP VOCs										
Surrogate: 4-Bromofluorobenzene		95.5		70-130	%	05-OCT-15				
Volatile Organic Compounds										
Surrogate: 1,4-Difluorobenzene		98.1		50-150	%	05-OCT-15				
Polychlorinated Biphenyls										
Surrogate: Decachlorobiphenyl		107.0		50-150	%	05-OCT-15				
Surrogate: Tetrachloro-m-xylene		95.8		50-150	%	05-OCT-15				
Dioxins and Furans										
2,3,7,8-TCDD		<1.6	[U]	1.6	pg/L	07-OCT-15				
1,2,3,7,8-PeCDD		<0.89	[U]	0.89	pg/L	07-OCT-15				
1,2,3,4,7,8-HxCDD		<0.54	[U]	0.54	pg/L	07-OCT-15				
1,2,3,6,7,8-HxCDD		<0.52	[U]	0.52	pg/L	07-OCT-15				
1,2,3,7,8,9-HxCDD		<0.53	[U]	0.53	pg/L	07-OCT-15				
1,2,3,4,6,7,8-HpCDD		<0.66	[U]	0.66	pg/L	07-OCT-15				
OCDD		<0.46	[U]	0.46	pg/L	07-OCT-15				
Total-TCDD		<1.6	[U]	1.6	pg/L	07-OCT-15				
Total TCDD # Homologues		0			No Unit	07-OCT-15				
Total-PeCDD		<0.89	[U]	0.89	pg/L	07-OCT-15				
Total PeCDD # Homologues		0			No Unit	07-OCT-15				
Total-HxCDD		<0.54	[U]	0.54	pg/L	07-OCT-15				
Total HxCDD # Homologues		0			No Unit	07-OCT-15				
Total-HpCDD		<0.66	[U]	0.66	pg/L	07-OCT-15				
Total HpCDD # Homologues		0			No Unit	07-OCT-15				
2,3,7,8-TCDF		<1.1	[U]	1.1	pg/L	07-OCT-15				
1,2,3,7,8-PeCDF		<0.51	[U]	0.51	pg/L	07-OCT-15				
2,3,4,7,8-PeCDF		<0.45	[U]	0.45	pg/L	07-OCT-15				
1,2,3,4,7,8-HxCDF		<0.36	[U]	0.36	pg/L	07-OCT-15				
1,2,3,6,7,8-HxCDF		<0.30	[U]	0.30	pg/L	07-OCT-15				
1,2,3,7,8,9-HxCDF		<0.42	[U]	0.42	pg/L	07-OCT-15				
2,3,4,6,7,8-HxCDF		<0.35	[U]	0.35	pg/L	07-OCT-15				
1,2,3,4,6,7,8-HpCDF		<0.30	[U]	0.30	pg/L	07-OCT-15				
1,2,3,4,7,8,9-HpCDF		<0.38	[U]	0.38	pg/L	07-OCT-15				
OCDF		<0.69	[U]	0.69	pg/L	07-OCT-15				
Total-TCDF		<1.1	[U]	1.1	pg/L	07-OCT-15				
Total TCDF # Homologues		0			No Unit	07-OCT-15				
Total-PeCDF		<0.51	[U]	0.51	pg/L	07-OCT-15				
Total PeCDF # Homologues		0			No Unit	07-OCT-15				
Total-HxCDF		<0.42	[U]	0.42	pg/L	07-OCT-15				
Total HxCDF # Homologues		0			No Unit	07-OCT-15				
Total-HpCDF		<0.38	[U]	0.38	pg/L	07-OCT-15				
Total HpCDF # Homologues		0			No Unit	07-OCT-15				
Surrogate: 13C12-2,3,7,8-TCDD		80.0		20-175	%	07-OCT-15				
Surrogate: 13C12-1,2,3,7,8-PeCDD		98.0		21-227	%	07-OCT-15				
Surrogate: 13C12-1,2,3,4,7,8-HxCDD		86.0		21-193	%	07-OCT-15				
Surrogate: 13C12-1,2,3,6,7,8-HxCDD		86.0		25-163	%	07-OCT-15				
Surrogate: 13C12-1,2,3,4,6,7,8-HpCDD		95.0		23-166	%	07-OCT-15				
Surrogate: 13C12-OCDD		88.0		13-138	%	07-OCT-15				
Surrogate: 13C12-2,3,7,8-TCDF		94.0		22-152	%	07-OCT-15				

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Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits		
Grouping	Analyte								
L1681590-2	DYEC/FA/150930/2								
Sampled By: A. HUXTER on 01-OCT-15 @ 08:0							#1		
Matrix: SOIL									
Dioxins and Furans									
Surrogate: 13C12-1,2,3,7,8-PeCDF		102.0		24-185	%	07-OCT-15			
Surrogate: 13C12-2,3,4,7,8-PeCDF		102.0		21-178	%	07-OCT-15			
Surrogate: 13C12-1,2,3,4,7,8-HxCDF		86.0		26-152	%	07-OCT-15			
Surrogate: 13C12-1,2,3,6,7,8-HxCDF		100.0		21-159	%	07-OCT-15			
Surrogate: 13C12-2,3,4,6,7,8-HxCDF		96.0		17-205	%	07-OCT-15			
Surrogate: 13C12-1,2,3,7,8,9-HxCDF		89.0		28-136	%	07-OCT-15			
Surrogate: 13C12-1,2,3,4,6,7,8-HpCDF		105.0		21-158	%	07-OCT-15			
Surrogate: 13C12-1,2,3,4,7,8,9-HpCDF		106.0		20-186	%	07-OCT-15			
Surrogate: 37Cl4-2,3,7,8-TCDD (Cleanup)		96.0		31-191	%	07-OCT-15			
Toxic Equivalency									
Lower Bound PCDD/F TEQ (WHO 2005)		0.00			pg/L	07-OCT-15			
Mid Point PCDD/F TEQ (WHO 2005)		1.53			pg/L	07-OCT-15			
Upper Bound PCDD/F TEQ (WHO 2005)		3.07			pg/L	07-OCT-15	1500		
L1681590-3	DYEC/FA/150930/3								
Sampled By: A. HUXTER on 01-OCT-15 @ 08:0							#1		
Matrix: SOIL									
Sample Preparation									
Initial pH		12.35		0.10	pH units	01-OCT-15			
Final pH		10.52		0.10	pH units	01-OCT-15			
TCLP Extractables									
Alachlor		<0.0010		0.0010	mg/L	05-OCT-15			
Aldicarb		<0.010		0.010	mg/L	02-OCT-15	0.9		
Aldrin		<0.00020		0.00020	mg/L	05-OCT-15			
Aldrin + Dieldrin		<0.00040		0.00040	mg/L	05-OCT-15	0.07		
alpha-Chlordane		<0.0010		0.0010	mg/L	05-OCT-15			
Aroclor 1242		<0.00020		0.00020	mg/L	05-OCT-15			
Aroclor 1248		<0.00020		0.00020	mg/L	05-OCT-15			
Aroclor 1254		<0.00020		0.00020	mg/L	05-OCT-15			
Aroclor 1260		<0.00020		0.00020	mg/L	05-OCT-15			
Atrazine		<0.0010		0.0010	mg/L	05-OCT-15			
Atrazine Desethyl		<0.0010		0.0010	mg/L	05-OCT-15			
Atrazine & Metabolites		<0.0020		0.0020	mg/L	05-OCT-15	0.5		
Azinphos methyl		<0.0010		0.0010	mg/L	05-OCT-15	2		
Bendiocarb		<0.0050		0.0050	mg/L	05-OCT-15	4		
Benzo(a)pyrene		<0.0010		0.0010	mg/L	05-OCT-15	0.001		
Bromoxynil		<0.0020		0.0020	mg/L	05-OCT-15	0.5		
Carbaryl		<0.0020		0.0020	mg/L	05-OCT-15	9		
Carbofuran		<0.0020		0.0020	mg/L	05-OCT-15	9		
Chlordane (Total)		<0.0030		0.0030	mg/L	05-OCT-15	0.7		
Chlorpyrifos		<0.0010		0.0010	mg/L	05-OCT-15	9		
3&4-Methylphenol		<0.010		0.010	mg/L	05-OCT-15			
Cresols (total)		<0.015		0.015	mg/L	05-OCT-15	200		
Cyanazine		<0.0010		0.0010	mg/L	05-OCT-15	1.0		
Cyanide, Weak Acid Diss		<0.10		0.10	mg/L	02-OCT-15	20		
2,4-D		<0.0020		0.0020	mg/L	05-OCT-15	10		

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Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

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ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte									
L1681590-3	DYEC/FA/150930/3									
Sampled By: A. HUXTER on 01-OCT-15 @ 08:0										
Matrix: SOIL										#1
TCLP Extractables										
	p,p-DDD	<0.0010		0.0010	mg/L	05-OCT-15				
	p,p-DDE	<0.0010		0.0010	mg/L	05-OCT-15				
	o,p-DDT	<0.0010		0.0010	mg/L	05-OCT-15				
	p,p-DDT	<0.0010		0.0010	mg/L	05-OCT-15				
	DDT + metabolites	<0.0040		0.0040	mg/L	05-OCT-15	3			
	Diazinon	<0.0010		0.0010	mg/L	05-OCT-15	2			
	Dicamba	<0.0050		0.0050	mg/L	05-OCT-15	12			
	2,4-Dichlorophenol	<0.0050		0.0050	mg/L	05-OCT-15	90			
	Diclofop methyl	<0.0020		0.0020	mg/L	05-OCT-15	0.9			
	Dieldrin	<0.00020		0.00020	mg/L	05-OCT-15				
	Dimethoate	<0.0010		0.0010	mg/L	05-OCT-15	2			
	2,4-Dinitrotoluene	<0.0040		0.0040	mg/L	05-OCT-15	0.13			
	Dinoseb	<0.0020		0.0020	mg/L	05-OCT-15	1			
	Diquat	<0.1	DLM	0.10	mg/L	03-OCT-15	7			
	Diuron	<0.010		0.010	mg/L	02-OCT-15	15			
	Endrin	<0.0010		0.0010	mg/L	05-OCT-15	0.02			
	Parathion	<0.0010		0.0010	mg/L	05-OCT-15	5			
	Fluoride (F)	<10		10	mg/L	02-OCT-15	150.0			
	gamma-BHC	<0.0010		0.0010	mg/L	05-OCT-15	0.4			
	gamma-Chlordane	<0.0010		0.0010	mg/L	05-OCT-15				
	Glyphosate	<0.050		0.050	mg/L	03-OCT-15	28			
	Heptachlor	<0.0010		0.0010	mg/L	05-OCT-15				
	Heptachlor + Heptachlor Epoxide	<0.0020		0.0020	mg/L	05-OCT-15	0.3			
	Heptachlor epoxide	<0.0010		0.0010	mg/L	05-OCT-15				
	Hexachlorobenzene	<0.0040		0.0040	mg/L	05-OCT-15	0.13			
	Hexachlorobutadiene	<0.0040		0.0040	mg/L	05-OCT-15	0.5			
	Hexachloroethane	<0.0040		0.0040	mg/L	05-OCT-15	3.0			
	Malathion	<0.0010		0.0010	mg/L	05-OCT-15	19			
	MCPA	<0.0020		0.0020	mg/L	05-OCT-15				
	Methoxychlor	<0.0010		0.0010	mg/L	05-OCT-15	90			
	Methyl Parathion	<0.0010		0.0010	mg/L	05-OCT-15	0.7			
	2-Methylphenol	<0.0050		0.0050	mg/L	05-OCT-15				
	Metolachlor	<0.0010		0.0010	mg/L	05-OCT-15	5			
	Metribuzin	<0.0010		0.0010	mg/L	05-OCT-15	8			
	Nitrate and Nitrite as N	<4.0		4.0	mg/L	02-OCT-15	1000			
	Nitrate-N	<2.0		2.0	mg/L	02-OCT-15				
	Nitrotriacetic Acid (NTA)	<40		40	mg/L	02-OCT-15	40			
	Nitrite-N	<2.0		2.0	mg/L	02-OCT-15				
	Nitrobenzene	<0.0040		0.0040	mg/L	05-OCT-15	2.0			
	N-Nitrosodimethylamine	<0.00020		0.00020	mg/L	05-OCT-15	0.0009			
	Oxychlordane	<0.0010		0.0010	mg/L	05-OCT-15				
	Paraquat	<0.1	DLM	0.10	mg/L	03-OCT-15	1			
	Total PCBs	<0.00040		0.00040	mg/L	05-OCT-15	0.3			
	Pentachlorophenol	<0.0050		0.0050	mg/L	05-OCT-15	6			
	Phorate	<0.0010		0.0010	mg/L	05-OCT-15	0.2			
	Picloram	<0.0050		0.0050	mg/L	05-OCT-15	19			

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Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte						#1			
L1681590-3	DYEC/FA/150930/3									
Sampled By: A. HUXTER on 01-OCT-15 @ 08:0										
Matrix: SOIL										
TCLP Extractables										
	Prometryne	<0.0010		0.0010	mg/L	05-OCT-15				
	Pyridine	<5.0		5.0	mg/L	02-OCT-15	5.0			
	Simazine	<0.0010		0.0010	mg/L	05-OCT-15	1			
	2,4,5-T	<0.0020		0.0020	mg/L	05-OCT-15	28			
	Temephos	<0.0010		0.0010	mg/L	05-OCT-15	28			
	Terbufos	<0.0020		0.0020	mg/L	05-OCT-15	0.1			
	2,3,4,6-Tetrachlorophenol	<0.0050		0.0050	mg/L	05-OCT-15	10.0			
	Toxaphene	<0.0035		0.0035	mg/L	05-OCT-15	0.5			
	2,4,5-TP	<0.0020		0.0020	mg/L	05-OCT-15	1			
	Triallate	<0.0010		0.0010	mg/L	05-OCT-15	23			
	2,4,5-Trichlorophenol	<0.0050		0.0050	mg/L	05-OCT-15	400			
	2,4,6-Trichlorophenol	<0.0050		0.0050	mg/L	05-OCT-15	0.5			
	Trifluralin	<0.0050		0.0050	mg/L	05-OCT-15	4.5			
	Surrogate: 2,4,6-Tribromophenol	111.0		50-150	%	05-OCT-15				
	Surrogate: 2,4-Dichlorophenylacetic Acid	112.3		50-150	%	05-OCT-15				
	Surrogate: 2-Fluorobiphenyl	101.5		40-160	%	05-OCT-15				
	Surrogate: 2-Fluorobiphenyl	81.3		40-160	%	05-OCT-15				
	Surrogate: 2-Fluorobiphenyl	82.8		40-160	%	05-OCT-15				
	Surrogate: Nitrobenzene d5	112.6		50-150	%	05-OCT-15				
	Surrogate: d14-Terphenyl	115.2		60-140	%	05-OCT-15				
	Surrogate: d14-Terphenyl	124.6		60-140	%	05-OCT-15				
	Surrogate: p-Terphenyl d14	120.9		60-140	%	05-OCT-15				
TCLP Metals										
	Arsenic (As)	<0.050		0.050	mg/L	02-OCT-15	2.5			
	Barium (Ba)	1.13		0.50	mg/L	02-OCT-15	100			
	Boron (B)	<2.5		2.5	mg/L	02-OCT-15	500			
	Cadmium (Cd)	<0.0050		0.0050	mg/L	02-OCT-15	0.5			
	Chromium (Cr)	<0.050		0.050	mg/L	02-OCT-15	5.0			
	Lead (Pb)	<0.050		0.050	mg/L	02-OCT-15	5.0			
	Mercury (Hg)	0.00016		0.00010	mg/L	02-OCT-15	0.1			
	Selenium (Se)	<0.25		0.25	mg/L	02-OCT-15	1.0			
	Silver (Ag)	<0.0050		0.0050	mg/L	02-OCT-15	5.0			
	Uranium (U)	<0.25		0.25	mg/L	02-OCT-15	10			
TCLP VOCs										
	1,1-Dichloroethylene	<0.025		0.025	mg/L	05-OCT-15	1.4			
	1,2-Dichlorobenzene	<0.025		0.025	mg/L	05-OCT-15	20.0			
	1,2-Dichloroethane	<0.025		0.025	mg/L	05-OCT-15	0.5			

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ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte						#1			
L1681590-3	DYEC/FA/150930/3									
Sampled By: A. HUXTER on 01-OCT-15 @ 08:0										
Matrix: SOIL										
TCLP VOCs										
	1,4-Dichlorobenzene	<0.025		0.025	mg/L	05-OCT-15	0.5			
	Benzene	<0.025		0.025	mg/L	05-OCT-15	0.5			
	Carbon tetrachloride	<0.025		0.025	mg/L	05-OCT-15	0.5			
	Chlorobenzene	<0.025		0.025	mg/L	05-OCT-15	8			
	Chloroform	<0.10		0.10	mg/L	05-OCT-15	10			
	Dichloromethane	<0.50		0.50	mg/L	05-OCT-15	5.0			
	Methyl Ethyl Ketone	<1.0		1.0	mg/L	05-OCT-15	200.0			
	Tetrachloroethylene	<0.025		0.025	mg/L	05-OCT-15	3			
	Trichloroethylene	<0.025		0.025	mg/L	05-OCT-15	5			
	Vinyl chloride	<0.050		0.050	mg/L	05-OCT-15	0.2			
	Surrogate: 4-Bromofluorobenzene	94.8		70-130	%	05-OCT-15				
Volatile Organic Compounds										
	Surrogate: 1,4-Difluorobenzene	99.0		50-150	%	05-OCT-15				
Polychlorinated Biphenyls										
	Surrogate: Decachlorobiphenyl	102.0		50-150	%	05-OCT-15				
	Surrogate: Tetrachloro-m-xylene	90.2		50-150	%	05-OCT-15				
Dioxins and Furans										
	2,3,7,8-TCDD	<1.3	[U]	1.3	pg/L	07-OCT-15				
	1,2,3,7,8-PeCDD	<0.59	[U]	0.59	pg/L	07-OCT-15				
	1,2,3,4,7,8-HxCDD	<0.69	[U]	0.69	pg/L	07-OCT-15				
	1,2,3,6,7,8-HxCDD	<0.81	[U]	0.81	pg/L	07-OCT-15				
	1,2,3,7,8,9-HxCDD	<0.74	[U]	0.74	pg/L	07-OCT-15				
	1,2,3,4,6,7,8-HpCDD	<0.42	[U]	0.42	pg/L	07-OCT-15				
	OCDD	<0.31	[U]	0.31	pg/L	07-OCT-15				
	Total-TCDD	<1.3	[U]	1.3	pg/L	07-OCT-15				
	Total TCDD # Homologues	0			No Unit	07-OCT-15				
	Total-PeCDD	<0.59	[U]	0.59	pg/L	07-OCT-15				
	Total PeCDD # Homologues	0			No Unit	07-OCT-15				
	Total-HxCDD	<0.81	[U]	0.81	pg/L	07-OCT-15				
	Total HxCDD # Homologues	0			No Unit	07-OCT-15				
	Total-HpCDD	<0.42	[U]	0.42	pg/L	07-OCT-15				
	Total HpCDD # Homologues	0			No Unit	07-OCT-15				
	2,3,7,8-TCDF	<1.0	[U]	1.0	pg/L	07-OCT-15				
	1,2,3,7,8-PeCDF	<0.62	[U]	0.62	pg/L	07-OCT-15				
	2,3,4,7,8-PeCDF	<0.55	[U]	0.55	pg/L	07-OCT-15				
	1,2,3,4,7,8-HxCDF	<0.26	[U]	0.26	pg/L	07-OCT-15				
	1,2,3,6,7,8-HxCDF	<0.22	[U]	0.22	pg/L	07-OCT-15				
	1,2,3,7,8,9-HxCDF	0.45	M,J,R	0.27	pg/L	07-OCT-15				
	2,3,4,6,7,8-HxCDF	<0.25	[U]	0.25	pg/L	07-OCT-15				
	1,2,3,4,6,7,8-HpCDF	<0.25	[U]	0.25	pg/L	07-OCT-15				
	1,2,3,4,7,8,9-HpCDF	<0.30	[U]	0.30	pg/L	07-OCT-15				
	OCDF	<0.42	[U]	0.42	pg/L	07-OCT-15				
	Total-TCDF	<1.0	[U]	1.0	pg/L	07-OCT-15				
	Total TCDF # Homologues	0			No Unit	07-OCT-15				
	Total-PeCDF	<0.62	[U]	0.62	pg/L	07-OCT-15				
	Total PeCDF # Homologues	0			No Unit	07-OCT-15				
	Total-HxCDF	<0.27	[U]	0.27	pg/L	07-OCT-15				

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Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits		
Grouping	Analyte								
L1681590-3	DYEC/FA/150930/3								
Sampled By: A. HUXTER on 01-OCT-15 @ 08:0									
Matrix: SOIL									
Dioxins and Furans									
Total HxCDF # Homologues		0			No Unit	07-OCT-15			
Total HpCDF		<0.30	[U]	0.30	pg/L	07-OCT-15			
Total HpCDF # Homologues		0			No Unit	07-OCT-15			
Surrogate: 13C12-2,3,7,8-TCDD		70.0		20-175	%	07-OCT-15			
Surrogate: 13C12-1,2,3,7,8-PeCDD		86.0		21-227	%	07-OCT-15			
Surrogate: 13C12-1,2,3,4,7,8-HxCDD		96.0		21-193	%	07-OCT-15			
Surrogate: 13C12-1,2,3,6,7,8-HxCDD		62.0		25-163	%	07-OCT-15			
Surrogate: 13C12-1,2,3,4,6,7,8-HpCDD		85.0		23-166	%	07-OCT-15			
Surrogate: 13C12-OCDD		83.0		13-138	%	07-OCT-15			
Surrogate: 13C12-2,3,7,8-TCDF		81.0		22-152	%	07-OCT-15			
Surrogate: 13C12-1,2,3,7,8-PeCDF		92.0		24-185	%	07-OCT-15			
Surrogate: 13C12-2,3,4,7,8-PeCDF		94.0		21-178	%	07-OCT-15			
Surrogate: 13C12-1,2,3,4,7,8-HxCDF		78.0		26-152	%	07-OCT-15			
Surrogate: 13C12-1,2,3,6,7,8-HxCDF		91.0		21-159	%	07-OCT-15			
Surrogate: 13C12-2,3,4,6,7,8-HxCDF		89.0		17-205	%	07-OCT-15			
Surrogate: 13C12-1,2,3,7,8,9-HxCDF		82.0		28-136	%	07-OCT-15			
Surrogate: 13C12-1,2,3,4,6,7,8-HpCDF		95.0		21-158	%	07-OCT-15			
Surrogate: 13C12-1,2,3,4,7,8,9-HpCDF		96.0		20-186	%	07-OCT-15			
Surrogate: 37Cl4-2,3,7,8-TCDD (Cleanup)		75.0		31-191	%	07-OCT-15			
Toxic Equivalency									
Lower Bound PCDD/F TEQ (WHO 2005)		0.00			pg/L	07-OCT-15			
Mid Point PCDD/F TEQ (WHO 2005)		1.29			pg/L	07-OCT-15			
Upper Bound PCDD/F TEQ (WHO 2005)		2.53			pg/L	07-OCT-15	1500		
L1681590-4	DYEC/FA/150930/4								
Sampled By: A. HUXTER on 01-OCT-15 @ 08:0									
Matrix: SOIL									
Sample Preparation									
Initial pH		12.34		0.10	pH units	01-OCT-15			
Final pH		10.51		0.10	pH units	01-OCT-15			
TCLP Extractables									
Alachlor		<0.0010		0.0010	mg/L	05-OCT-15			
Aldicarb		<0.010		0.010	mg/L	02-OCT-15	0.9		
Aldrin		<0.00020		0.00020	mg/L	05-OCT-15			
Aldrin + Dieldrin		<0.00040		0.00040	mg/L	05-OCT-15	0.07		
alpha-Chlordane		<0.0010		0.0010	mg/L	05-OCT-15			
Aroclor 1242		<0.00020		0.00020	mg/L	05-OCT-15			
Aroclor 1248		<0.00020		0.00020	mg/L	05-OCT-15			
Aroclor 1254		<0.00020		0.00020	mg/L	05-OCT-15			
Aroclor 1260		<0.00020		0.00020	mg/L	05-OCT-15			
Atrazine		<0.0010		0.0010	mg/L	05-OCT-15			
Atrazine Desethyl		<0.0010		0.0010	mg/L	05-OCT-15			
Atrazine & Metabolites		<0.0020		0.0020	mg/L	05-OCT-15	0.5		
Azinphos methyl		<0.0010		0.0010	mg/L	05-OCT-15	2		
Bendiocarb		<0.0050		0.0050	mg/L	05-OCT-15	4		
Benzo(a)pyrene		<0.0010		0.0010	mg/L	05-OCT-15	0.001		
Bromoxynil		<0.0020		0.0020	mg/L	05-OCT-15	0.5		

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ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte									
L1681590-4	DYEC/FA/150930/4									
Sampled By: A. HUXTER on 01-OCT-15 @ 08:0										
Matrix: SOIL										#1
TCLP Extractables										
	Carbaryl	<0.0020		0.0020	mg/L	05-OCT-15				9
	Carbofuran	<0.0020		0.0020	mg/L	05-OCT-15				9
	Chlordane (Total)	<0.0030		0.0030	mg/L	05-OCT-15				0.7
	Chlorpyrifos	<0.0010		0.0010	mg/L	05-OCT-15				9
	3&4-Methylphenol	<0.010		0.010	mg/L	05-OCT-15				
	Cresols (total)	<0.015		0.015	mg/L	05-OCT-15				200
	Cyanazine	<0.0010		0.0010	mg/L	05-OCT-15				1.0
	Cyanide, Weak Acid Diss	<0.10		0.10	mg/L	02-OCT-15				20
	2,4-D	<0.0020		0.0020	mg/L	05-OCT-15				10
	p,p-DDD	<0.0010		0.0010	mg/L	05-OCT-15				
	p,p-DDE	<0.0010		0.0010	mg/L	05-OCT-15				
	o,p-DDT	<0.0010		0.0010	mg/L	05-OCT-15				
	p,p-DDT	<0.0010		0.0010	mg/L	05-OCT-15				
	DDT + metabolites	<0.0040		0.0040	mg/L	05-OCT-15				3
	Diazinon	<0.0010		0.0010	mg/L	05-OCT-15				2
	Dicamba	<0.0050		0.0050	mg/L	05-OCT-15				12
	2,4-Dichlorophenol	<0.0050		0.0050	mg/L	05-OCT-15				90
	Diclofop methyl	<0.0020		0.0020	mg/L	05-OCT-15				0.9
	Dieldrin	<0.00020		0.00020	mg/L	05-OCT-15				
	Dimethoate	<0.0010		0.0010	mg/L	05-OCT-15				2
	2,4-Dinitrotoluene	<0.0040		0.0040	mg/L	05-OCT-15				0.13
	Dinoseb	<0.0020		0.0020	mg/L	05-OCT-15				1
	Diquat	<0.1	DLM	0.10	mg/L	03-OCT-15				7
	Diuron	<0.010		0.010	mg/L	02-OCT-15				15
	Endrin	<0.0010		0.0010	mg/L	05-OCT-15				0.02
	Parathion	<0.0010		0.0010	mg/L	05-OCT-15				5
	Fluoride (F)	<10		10	mg/L	02-OCT-15				150.0
	gamma-BHC	<0.0010		0.0010	mg/L	05-OCT-15				0.4
	gamma-Chlordane	<0.0010		0.0010	mg/L	05-OCT-15				
	Glyphosate	<0.050		0.050	mg/L	03-OCT-15				28
	Heptachlor	<0.0010		0.0010	mg/L	05-OCT-15				
	Heptachlor + Heptachlor Epoxide	<0.0020		0.0020	mg/L	05-OCT-15				0.3
	Heptachlor epoxide	<0.0010		0.0010	mg/L	05-OCT-15				
	Hexachlorobenzene	<0.0040		0.0040	mg/L	05-OCT-15				0.13
	Hexachlorobutadiene	<0.0040		0.0040	mg/L	05-OCT-15				0.5
	Hexachloroethane	<0.0040		0.0040	mg/L	05-OCT-15				3.0
	Malathion	<0.0010		0.0010	mg/L	05-OCT-15				19
	MCPA	<0.0020		0.0020	mg/L	05-OCT-15				
	Methoxychlor	<0.0010		0.0010	mg/L	05-OCT-15				90
	Methyl Parathion	<0.0010		0.0010	mg/L	05-OCT-15				0.7
	2-Methylphenol	<0.0050		0.0050	mg/L	05-OCT-15				
	Metolachlor	<0.0010		0.0010	mg/L	05-OCT-15				5
	Metribuzin	<0.0010		0.0010	mg/L	05-OCT-15				8
	Nitrate and Nitrite as N	<4.0		4.0	mg/L	02-OCT-15				1000
	Nitrate-N	<2.0		2.0	mg/L	02-OCT-15				
	Nitrilotriacetic Acid (NTA)	<40		40	mg/L	02-OCT-15				40

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Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte									
L1681590-4	DYEC/FA/150930/4									
Sampled By: A. HUXTER on 01-OCT-15 @ 08:0										
Matrix: SOIL										#1
TCLP Extractables										
	Nitrite-N	<2.0		2.0	mg/L	02-OCT-15				
	Nitrobenzene	<0.0040		0.0040	mg/L	05-OCT-15	2.0			
	N-Nitrosodimethylamine	<0.00020		0.00020	mg/L	05-OCT-15	0.0009			
	Oxychlorodane	<0.0010		0.0010	mg/L	05-OCT-15				
	Paraquat	<0.1	DLM	0.10	mg/L	03-OCT-15	1			
	Total PCBs	<0.00040		0.00040	mg/L	05-OCT-15	0.3			
	Pentachlorophenol	<0.0050		0.0050	mg/L	05-OCT-15	6			
	Phorate	<0.0010		0.0010	mg/L	05-OCT-15	0.2			
	Picloram	<0.0050		0.0050	mg/L	05-OCT-15	19			
	Prometryne	<0.0010		0.0010	mg/L	05-OCT-15				
	Pyridine	<5.0		5.0	mg/L	02-OCT-15	5.0			
	Simazine	<0.0010		0.0010	mg/L	05-OCT-15	1			
	2,4,5-T	<0.0020		0.0020	mg/L	05-OCT-15	28			
	Temephos	<0.0010		0.0010	mg/L	05-OCT-15	28			
	Terbufos	<0.0020		0.0020	mg/L	05-OCT-15	0.1			
	2,3,4,6-Tetrachlorophenol	<0.0050		0.0050	mg/L	05-OCT-15	10.0			
	Toxaphene	<0.0035		0.0035	mg/L	05-OCT-15	0.5			
	2,4,5-TP	<0.0020		0.0020	mg/L	05-OCT-15	1			
	Triallate	<0.0010		0.0010	mg/L	05-OCT-15	23			
	2,4,5-Trichlorophenol	<0.0050		0.0050	mg/L	05-OCT-15	400			
	2,4,6-Trichlorophenol	<0.0050		0.0050	mg/L	05-OCT-15	0.5			
	Trifluralin	<0.0050		0.0050	mg/L	05-OCT-15	4.5			
	Surrogate: 2,4,6-Tribromophenol	100.3		50-150	%	05-OCT-15				
	Surrogate: 2,4-Dichlorophenylacetic Acid	124.1		50-150	%	05-OCT-15				
	Surrogate: 2-Fluorobiphenyl	72.7		40-160	%	05-OCT-15				
	Surrogate: 2-Fluorobiphenyl	75.3		40-160	%	05-OCT-15				
	Surrogate: 2-Fluorobiphenyl	90.4		40-160	%	05-OCT-15				
	Surrogate: Nitrobenzene d5	100.1		50-150	%	05-OCT-15				
	Surrogate: d14-Terphenyl	89.3		60-140	%	05-OCT-15				
	Surrogate: d14-Terphenyl	89.9		60-140	%	05-OCT-15				
	Surrogate: p-Terphenyl d14	123.6		60-140	%	05-OCT-15				
TCLP Metals										
	Arsenic (As)	<0.050		0.050	mg/L	02-OCT-15	2.5			
	Barium (Ba)	1.14		0.50	mg/L	02-OCT-15	100			
	Boron (B)	<2.5		2.5	mg/L	02-OCT-15	500			
	Cadmium (Cd)	<0.0050		0.0050	mg/L	02-OCT-15	0.5			
	Chromium (Cr)	<0.050		0.050	mg/L	02-OCT-15	5.0			

** Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.

* Analytical result for this parameter exceeds Guideline Limit listed on this report. Guideline Limits applied:

Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte						#1			
L1681590-4	DYEC/FA/150930/4									
Sampled By: A. HUXTER on 01-OCT-15 @ 08:0										
Matrix: SOIL										
TCLP Metals										
	Lead (Pb)	<0.050		0.050	mg/L	02-OCT-15	5.0			
	Mercury (Hg)	<0.00010		0.00010	mg/L	02-OCT-15	0.1			
	Selenium (Se)	<0.25		0.25	mg/L	02-OCT-15	1.0			
	Silver (Ag)	<0.0050		0.0050	mg/L	02-OCT-15	5.0			
	Uranium (U)	<0.25		0.25	mg/L	02-OCT-15	10			
TCLP VOCs										
	1,1-Dichloroethylene	<0.025		0.025	mg/L	05-OCT-15	1.4			
	1,2-Dichlorobenzene	<0.025		0.025	mg/L	05-OCT-15	20.0			
	1,2-Dichloroethane	<0.025		0.025	mg/L	05-OCT-15	0.5			
	1,4-Dichlorobenzene	<0.025		0.025	mg/L	05-OCT-15	0.5			
	Benzene	<0.025		0.025	mg/L	05-OCT-15	0.5			
	Carbon tetrachloride	<0.025		0.025	mg/L	05-OCT-15	0.5			
	Chlorobenzene	<0.025		0.025	mg/L	05-OCT-15	8			
	Chloroform	<0.10		0.10	mg/L	05-OCT-15	10			
	Dichloromethane	<0.50		0.50	mg/L	05-OCT-15	5.0			
	Methyl Ethyl Ketone	<1.0		1.0	mg/L	05-OCT-15	200.0			
	Tetrachloroethylene	<0.025		0.025	mg/L	05-OCT-15	3			
	Trichloroethylene	<0.025		0.025	mg/L	05-OCT-15	5			
	Vinyl chloride	<0.050		0.050	mg/L	05-OCT-15	0.2			
	Surrogate: 4-Bromofluorobenzene	95.0		70-130	%	05-OCT-15				
Volatile Organic Compounds										
	Surrogate: 1,4-Difluorobenzene	98.3		50-150	%	05-OCT-15				
Polychlorinated Biphenyls										
	Surrogate: Decachlorobiphenyl	104.0		50-150	%	05-OCT-15				
	Surrogate: Tetrachloro-m-xylene	94.2		50-150	%	05-OCT-15				
Dioxins and Furans										
	2,3,7,8-TCDD	<1.6	[U]	1.6	pg/L	07-OCT-15				
	1,2,3,7,8-PeCDD	<0.69	[U]	0.69	pg/L	07-OCT-15				
	1,2,3,4,7,8-HxCDD	<0.61	[U]	0.61	pg/L	07-OCT-15				
	1,2,3,6,7,8-HxCDD	<0.53	[U]	0.53	pg/L	07-OCT-15				
	1,2,3,7,8,9-HxCDD	<0.57	[U]	0.57	pg/L	07-OCT-15				
	1,2,3,4,6,7,8-HpCDD	<0.39	[U]	0.39	pg/L	07-OCT-15				
	OCDD	<0.51	[U]	0.51	pg/L	07-OCT-15				
	Total-TCDD	<1.6	[U]	1.6	pg/L	07-OCT-15				
	Total TCDD # Homologues	0			No Unit	07-OCT-15				
	Total-PeCDD	<0.69	[U]	0.69	pg/L	07-OCT-15				
	Total PeCDD # Homologues	0			No Unit	07-OCT-15				
	Total-HxCDD	<0.61	[U]	0.61	pg/L	07-OCT-15				
	Total HxCDD # Homologues	0			No Unit	07-OCT-15				
	Total-HpCDD	<0.39	[U]	0.39	pg/L	07-OCT-15				
	Total HpCDD # Homologues	0			No Unit	07-OCT-15				
	2,3,7,8-TCDF	<0.98	[U]	0.98	pg/L	07-OCT-15				
	1,2,3,7,8-PeCDF	<0.49	[U]	0.49	pg/L	07-OCT-15				
	2,3,4,7,8-PeCDF	<0.45	[U]	0.45	pg/L	07-OCT-15				
	1,2,3,4,7,8-HxCDF	<0.34	[U]	0.34	pg/L	07-OCT-15				
	1,2,3,6,7,8-HxCDF	<0.31	[U]	0.31	pg/L	07-OCT-15				

** Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.

* Analytical result for this parameter exceeds Guideline Limit listed on this report. Guideline Limits applied:

Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits		
Grouping	Analyte								
L1681590-4	DYEC/FA/150930/4								
Sampled By: A. HUXTER on 01-OCT-15 @ 08:00									
Matrix: SOIL									
Dioxins and Furans									
	1,2,3,7,8,9-HxCDF	<0.40	[U]	0.40	pg/L	07-OCT-15			
	2,3,4,6,7,8-HxCDF	<0.34	[U]	0.34	pg/L	07-OCT-15			
	1,2,3,4,6,7,8-HpCDF	<0.34	[U]	0.34	pg/L	07-OCT-15			
	1,2,3,4,7,8,9-HpCDF	<0.44	[U]	0.44	pg/L	07-OCT-15			
	OCDF	<0.79	[U]	0.79	pg/L	07-OCT-15			
	Total-TCDF	<0.98	[U]	0.98	pg/L	07-OCT-15			
	Total TCDF # Homologues	0			No Unit	07-OCT-15			
	Total-PeCDF	<0.49	[U]	0.49	pg/L	07-OCT-15			
	Total PeCDF # Homologues	0			No Unit	07-OCT-15			
	Total-HxCDF	<0.40	[U]	0.40	pg/L	07-OCT-15			
	Total HxCDF # Homologues	0			No Unit	07-OCT-15			
	Total-HpCDF	<0.44	[U]	0.44	pg/L	07-OCT-15			
	Total HpCDF # Homologues	0			No Unit	07-OCT-15			
	Surrogate: 13C12-2,3,7,8-TCDD	79.0		20-175	%	07-OCT-15			
	Surrogate: 13C12-1,2,3,7,8-PeCDD	97.0		21-227	%	07-OCT-15			
	Surrogate: 13C12-1,2,3,4,7,8-HxCDD	83.0		21-193	%	07-OCT-15			
	Surrogate: 13C12-1,2,3,6,7,8-HxCDD	91.0		25-163	%	07-OCT-15			
	Surrogate: 13C12-1,2,3,4,6,7,8-HpCDD	95.0		23-166	%	07-OCT-15			
	Surrogate: 13C12-OCDD	89.0		13-138	%	07-OCT-15			
	Surrogate: 13C12-2,3,7,8-TCDF	92.0		22-152	%	07-OCT-15			
	Surrogate: 13C12-1,2,3,7,8-PeCDF	102.0		24-185	%	07-OCT-15			
	Surrogate: 13C12-2,3,4,7,8-PeCDF	102.0		21-178	%	07-OCT-15			
	Surrogate: 13C12-1,2,3,4,7,8-HxCDF	89.0		26-152	%	07-OCT-15			
	Surrogate: 13C12-1,2,3,6,7,8-HxCDF	98.0		21-159	%	07-OCT-15			
	Surrogate: 13C12-2,3,4,6,7,8-HxCDF	98.0		17-205	%	07-OCT-15			
	Surrogate: 13C12-1,2,3,7,8,9-HxCDF	93.0		28-136	%	07-OCT-15			
	Surrogate: 13C12-1,2,3,4,6,7,8-HpCDF	105.0		21-158	%	07-OCT-15			
	Surrogate: 13C12-1,2,3,4,7,8,9-HpCDF	106.0		20-186	%	07-OCT-15			
	Surrogate: 37Cl4-2,3,7,8-TCDD (Cleanup)	84.0		31-191	%	07-OCT-15			
Toxic Equivalency									
	Lower Bound PCDD/F TEQ (WHO 2005)	0.00			pg/L	07-OCT-15			
	Mid Point PCDD/F TEQ (WHO 2005)	1.43			pg/L	07-OCT-15			
	Upper Bound PCDD/F TEQ (WHO 2005)	2.86			pg/L	07-OCT-15	1500		

** Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.

* Analytical result for this parameter exceeds Guideline Limit listed on this report. Guideline Limits applied:

Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

Reference Information

Sample Parameter Qualifier key listed:

Qualifier	Description
[U]	The analyte was not detected above the EDL.
DLM	Detection Limit Adjusted due to sample matrix effects.
M,J,R	A peak has been manually integrated, the analyte was detected below the calibrated range but above the EDL, and the ion abundance ratio(s) did not meet the acceptance criteria. Value is an estimated maximum.

Methods Listed (if applicable):

ALS Test Code	Matrix	Test Description	Method Reference***
ALDICARB-TCLP-WT	Waste	O. Reg 347 Aldicarb	LC/MS-MS
BNA-TCLP-WT	Waste	BNAs for O. Reg 347	SW846 8270

Samples are leached according to TCLP protocol and then the aqueous leachate is extracted and the resulting extracts are analyzed on GC/MSD

CN-TCLP-WT	Waste	Cyanide for O. Reg 347	APHA 4500CN C E
DIQUAT-TCLP-WT	Waste	Diquat for O. Reg 347	LC/MS/MS
DIURON-TCLP-WT	Waste	Diuron for O. Reg 347	MOE PWAUH-E3436 (MOD)
DX-1613B-HRMS-BU	Waste	Dioxins and Furans by method 1613B	USEPA 1613B

Samples filtered if required. The solid portion is extracted by Soxhlet, the liquid portion is liquid/liquid extracted with dichloromethane. The extracts are prepared using column chromatography, reduced in volume and analyzed by isotope-dilution GC/HRMS.

F-TCLP-WT	Waste	Fluoride (F) for O. Reg 347	APHA 4110 B-Ion Chromatography
GLYPHOSATE-TCLP-WT	Waste	Glyphosate for O. Reg 347	LC/MS/MS
HG-TCLP-WT	Waste	Mercury (CVAA) for O.Reg 347	SW846 7470A
LEACH-TCLP-WT	Waste	Leachate Procedure for Reg 347	EPA 1311

Inorganic and Semi-Volatile Organic contaminants are leached from waste samples in strict accordance with US EPA Method 1311, "Toxicity Characteristic Leaching Procedure" (TCLP). Test results are reported in leachate concentration units (normally mg/L).

MET-TCLP-WT	Waste	O.Reg 347 TCLP Leachable Metals	EPA 200.8
N2N3-TCLP-WT	Waste	Nitrate/Nitrite-N for O. Reg 347	APHA 4110 B-Ion Chromatography
NDMA-TCLP-WT	Waste	NDMA for O. Reg 347	In House/GC/MS
NTA-TCLP-WT	Waste	NTA for O. Reg 347	EPA 430.2
PARAQUAT-TCLP-WT	Waste	Paraquat for O. Reg 347	LC/MS-MS
PCB-TCLP-WT	Waste	PCBs for O. Reg 347	SW846 8270
PEST-MISC-TCLP-WT	Waste	O. Reg 347 TCLP Miscellaneous Pesticides	SW846 8270
PEST-OC-TCLP-WT	Waste	O. Reg 347TCLP Organochlorine Pesticides	SW846 8270

Samples are leached according to TCLP protocol and then the aqueous leachate is extracted and the resulting extracts are analyzed on GC/MSD

PEST-PAHERB-TCLP-WT	Waste	Phenoxyacid Herbicides for O. Reg 347	SW846 8270
PYR-TCLP-WT	Waste	Pyridine for O. Reg 347	SW846 8260D

Samples are leached according to TCLP protocol and then analyzed on GC/MSD

TOXAPHENE-TCLP-WT	Waste	Toxaphene by GC/ECD for O. Reg 347	SW846 8270
VOC-TCLP-WT	Waste	VOC for O. Reg 347	SW846 8260

A sample of waste is leached in a zero headspace extractor at 30–2 rpm for 18–2.0 hours with the appropriate leaching solution. After tumbling the leachate is analyzed directly by headspace technology, followed by GC/MS using internal standard quantitation.

*** ALS test methods may incorporate modifications from specified reference methods to improve performance.

Chain of Custody numbers:

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location	Laboratory Definition Code	Laboratory Location
WT	ALS ENVIRONMENTAL - WATERLOO, ONTARIO, CANADA	BU	ALS ENVIRONMENTAL - BURLINGTON, ONTARIO, CANADA

Reference Information

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.

mg/kg - milligrams per kilogram based on dry weight of sample

mg/kg wwt - milligrams per kilogram based on wet weight of sample

mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight

mg/L - unit of concentration based on volume, parts per million.

< - Less than.

D.L. - The reporting limit.

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.

Application of guidelines is provided "as is" without warranty of any kind, either expressed or implied, including, but not limited to fitness for a particular purpose, or non-infringement. ALS assumes no responsibility for errors or omissions in the information.



Quality Control Report

Workorder: L1681590

Report Date: 07-OCT-15

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Client: Covanta - Durham York Renewable Energy LP
 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
ALDICARB-TCLP-WT								
	Waste							
Batch	R3281287							
WG2184094-3	DUP	L1681590-1						
Aldicarb		<0.010	<0.010	RPD-NA	mg/L	N/A	30	02-OCT-15
WG2184094-2	LCS							
Aldicarb			97.4		%		70-130	02-OCT-15
WG2184094-1	MB							
Aldicarb			<0.010		mg/L		0.01	02-OCT-15
BNA-TCLP-WT								
	Waste							
Batch	R3282347							
WG2184505-2	LCS							
2,3,4,6-Tetrachlorophenol			119.9		%		60-140	05-OCT-15
2,4,5-Trichlorophenol			113.5		%		60-140	05-OCT-15
2,4,6-Trichlorophenol			105.4		%		60-140	05-OCT-15
2,4-Dichlorophenol			98.8		%		60-140	05-OCT-15
2,4-Dinitrotoluene			126.0		%		50-150	05-OCT-15
2-Methylphenol			98.0		%		60-140	05-OCT-15
3&4-Methylphenol			98.0		%		60-140	05-OCT-15
Hexachlorobenzene			106.4		%		60-140	05-OCT-15
Hexachlorobutadiene			93.9		%		40-130	05-OCT-15
Hexachloroethane			94.4		%		40-130	05-OCT-15
Nitrobenzene			99.5		%		60-140	05-OCT-15
Pentachlorophenol			140.9		%		50-160	05-OCT-15
WG2184505-1	MB							
2,3,4,6-Tetrachlorophenol			<0.0050		mg/L		0.005	05-OCT-15
2,4,5-Trichlorophenol			<0.0050		mg/L		0.005	05-OCT-15
2,4,6-Trichlorophenol			<0.0050		mg/L		0.005	05-OCT-15
2,4-Dichlorophenol			<0.0050		mg/L		0.005	05-OCT-15
2,4-Dinitrotoluene			<0.0040		mg/L		0.004	05-OCT-15
2-Methylphenol			<0.0050		mg/L		0.005	05-OCT-15
3&4-Methylphenol			<0.010		mg/L		0.01	05-OCT-15
Hexachlorobenzene			<0.0040		mg/L		0.004	05-OCT-15
Hexachlorobutadiene			<0.0040		mg/L		0.004	05-OCT-15
Hexachloroethane			<0.0040		mg/L		0.004	05-OCT-15
Nitrobenzene			<0.0040		mg/L		0.004	05-OCT-15
Pentachlorophenol			<0.0050		mg/L		0.005	05-OCT-15
Surrogate: Nitrobenzene d5			108.6		%		50-150	05-OCT-15



Quality Control Report

Workorder: L1681590

Report Date: 07-OCT-15

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Client: Covanta - Durham York Renewable Energy LP
1835 Energy Drive
Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
BNA-TCLP-WT		Waste						
Batch	R3282347							
WG2184505-1	MB							
Surrogate: 2-Fluorobiphenyl			101.6		%		40-160	05-OCT-15
Surrogate: p-Terphenyl d14			122.8		%		60-140	05-OCT-15
Surrogate: 2,4,6-Tribromophenol			103.5		%		50-150	05-OCT-15
CN-TCLP-WT		Waste						
Batch	R3281191							
WG2184282-3	DUP	L1681590-1						
Cyanide, Weak Acid Diss		<0.10	<0.10	RPD-NA	mg/L	N/A	20	02-OCT-15
WG2184282-2	LCS							
Cyanide, Weak Acid Diss			96.5		%		70-130	02-OCT-15
WG2184282-1	MB							
Cyanide, Weak Acid Diss			<0.10		mg/L		0.1	02-OCT-15
WG2184282-4	MS	L1681590-1						
Cyanide, Weak Acid Diss			96.8		%		50-150	02-OCT-15
DIQUAT-TCLP-WT		Waste						
Batch	R3282410							
WG2184321-3	DUP	L1681590-1						
Diquat		<0.1	<0.1		mg/L	N/A	30	03-OCT-15
WG2184321-2	LCS							
Diquat			100.0		%		70-130	03-OCT-15
WG2184321-1	MB							
Diquat			<0.010		mg/L		0.01	03-OCT-15
DIURON-TCLP-WT		Waste						
Batch	R3281290							
WG2184114-3	DUP	L1681590-1						
Diuron		<0.010	<0.010	RPD-NA	mg/L	N/A	30	02-OCT-15
WG2184114-2	LCS							
Diuron			108.0		%		70-130	02-OCT-15
WG2184114-1	MB							
Diuron			<0.010		mg/L		0.01	02-OCT-15
DX-1613B-HRMS-BU		Waste						
Batch	R3284728							
WG2183713-5	DUP	L1680825-1						
2,3,7,8-TCDD		<1.5	<1.7	RPD-NA	pg/L	N/A	50	06-OCT-15
1,2,3,7,8-PeCDD		<0.68	<0.86	RPD-NA	pg/L	N/A	50	06-OCT-15
1,2,3,4,7,8-HxCDD		<0.55	<0.65	RPD-NA	pg/L	N/A	50	06-OCT-15



Quality Control Report

Workorder: L1681590

Report Date: 07-OCT-15

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Client: Covanta - Durham York Renewable Energy LP
 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
DX-1613B-HRMS-BU		Waste						
Batch	R3284728							
WG2183713-5	DUP	L1680825-1						
1,2,3,6,7,8-HxCDD		<0.55	<0.68	RPD-NA	pg/L	N/A	50	06-OCT-15
1,2,3,7,8,9-HxCDD		<0.55	<0.66	RPD-NA	pg/L	N/A	50	06-OCT-15
1,2,3,4,6,7,8-HpCDD		<0.73	<0.53	RPD-NA	pg/L	N/A	50	06-OCT-15
OCDD		0.70	<0.50	RPD-NA	pg/L	N/A	50	06-OCT-15
2,3,7,8-TCDF		<1.2	<1.1	RPD-NA	pg/L	N/A	50	06-OCT-15
1,2,3,7,8-PeCDF		<0.63	<0.56	RPD-NA	pg/L	N/A	50	06-OCT-15
2,3,4,7,8-PeCDF		<0.55	<0.51	RPD-NA	pg/L	N/A	50	06-OCT-15
1,2,3,4,7,8-HxCDF		<0.36	<0.43	RPD-NA	pg/L	N/A	50	06-OCT-15
1,2,3,6,7,8-HxCDF		<0.28	<0.36	RPD-NA	pg/L	N/A	50	06-OCT-15
2,3,4,6,7,8-HxCDF		<0.35	<0.42	RPD-NA	pg/L	N/A	50	06-OCT-15
1,2,3,7,8,9-HxCDF		0.96	<0.48	RPD-NA	pg/L	N/A	50	06-OCT-15
1,2,3,4,6,7,8-HpCDF		<0.47	<0.41	RPD-NA	pg/L	N/A	50	06-OCT-15
1,2,3,4,7,8,9-HpCDF		<0.64	<0.53	RPD-NA	pg/L	N/A	50	06-OCT-15
OCDF		<0.81	<0.99	RPD-NA	pg/L	N/A	50	06-OCT-15
Total-TCDD		<1.5	<1.7	RPD-NA	pg/L	N/A	50	06-OCT-15
Total-PeCDD		<0.68	<0.86	RPD-NA	pg/L	N/A	50	06-OCT-15
Total-HxCDD		<0.55	<0.68	RPD-NA	pg/L	N/A	50	06-OCT-15
Total-HpCDD		<0.73	<0.53	RPD-NA	pg/L	N/A	50	06-OCT-15
Total-TCDF		<1.2	<1.1	RPD-NA	pg/L	N/A	50	06-OCT-15
Total-PeCDF		<0.63	<0.56	RPD-NA	pg/L	N/A	50	06-OCT-15
Total-HxCDF		<0.37	<0.48	RPD-NA	pg/L	N/A	50	06-OCT-15
Total-HpCDF		<0.64	<0.53	RPD-NA	pg/L	N/A	50	06-OCT-15
WG2183713-3	LCS							
2,3,7,8-TCDD			107.0		%		67-158	06-OCT-15
1,2,3,7,8-PeCDD			114.0		%		70-142	06-OCT-15
1,2,3,4,7,8-HxCDD			94.0		%		70-164	06-OCT-15
1,2,3,6,7,8-HxCDD			108.0		%		76-134	06-OCT-15
1,2,3,7,8,9-HxCDD			117.0		%		64-162	06-OCT-15
1,2,3,4,6,7,8-HpCDD			114.0		%		70-140	06-OCT-15
OCDD			106.0		%		78-144	06-OCT-15
2,3,7,8-TCDF			111.0		%		75-158	06-OCT-15
1,2,3,7,8-PeCDF			112.0		%		80-134	06-OCT-15
2,3,4,7,8-PeCDF			104.0		%		68-160	06-OCT-15



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Client: Covanta - Durham York Renewable Energy LP
 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
DX-1613B-HRMS-BU	Waste							
Batch	R3284728							
WG2183713-3	LCS							
1,2,3,4,7,8-HxCDF			105.0		%		72-134	06-OCT-15
1,2,3,6,7,8-HxCDF			99.0		%		84-130	06-OCT-15
2,3,4,6,7,8-HxCDF			114.0		%		78-130	06-OCT-15
1,2,3,7,8,9-HxCDF			114.0		%		70-156	06-OCT-15
1,2,3,4,6,7,8-HpCDF			103.0		%		82-122	06-OCT-15
1,2,3,4,7,8,9-HpCDF			106.0		%		78-138	06-OCT-15
OCDF			110.0		%		63-170	06-OCT-15
WG2183713-1	MB							
2,3,7,8-TCDD			<1.3	[U]	pg/L		1.3	06-OCT-15
1,2,3,7,8-PeCDD			<0.89	[U]	pg/L		0.89	06-OCT-15
1,2,3,4,7,8-HxCDD			<0.47	[U]	pg/L		0.47	06-OCT-15
1,2,3,6,7,8-HxCDD			<0.46	[U]	pg/L		0.46	06-OCT-15
1,2,3,7,8,9-HxCDD			<0.46	[U]	pg/L		0.46	06-OCT-15
1,2,3,4,6,7,8-HpCDD			<0.45	[U]	pg/L		0.45	06-OCT-15
OCDD			<0.47	[U]	pg/L		0.47	06-OCT-15
2,3,7,8-TCDF			<0.95	[U]	pg/L		0.95	06-OCT-15
1,2,3,7,8-PeCDF			<0.44	[U]	pg/L		0.44	06-OCT-15
2,3,4,7,8-PeCDF			<0.40	[U]	pg/L		0.4	06-OCT-15
1,2,3,4,7,8-HxCDF			<0.35	[U]	pg/L		0.35	06-OCT-15
1,2,3,6,7,8-HxCDF			<0.29	[U]	pg/L		0.29	06-OCT-15
2,3,4,6,7,8-HxCDF			<0.33	[U]	pg/L		0.33	06-OCT-15
1,2,3,7,8,9-HxCDF			0.50	M,J	pg/L		0.36	06-OCT-15
1,2,3,4,6,7,8-HpCDF			<0.29	[U]	pg/L		0.29	06-OCT-15
1,2,3,4,7,8,9-HpCDF			<0.37	[U]	pg/L		0.37	06-OCT-15
OCDF			<0.72	[U]	pg/L		0.72	06-OCT-15
Total-TCDD			<1.3	[U]	pg/L		1.3	06-OCT-15
Total-PeCDD			<0.89	[U]	pg/L		0.89	06-OCT-15
Total-HxCDD			<0.47	[U]	pg/L		0.47	06-OCT-15
Total-HpCDD			<0.45	[U]	pg/L		0.45	06-OCT-15
Total-TCDF			<0.95	[U]	pg/L		0.95	06-OCT-15
Total-PeCDF			<0.44	[U]	pg/L		0.44	06-OCT-15
Total-HxCDF			0.50	A	pg/L		0.36	06-OCT-15
Total-HpCDF			<0.37	[U]	pg/L		0.37	06-OCT-15
Surrogate: 13C12-2,3,7,8-TCDD			81.0		%		20-175	06-OCT-15



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Client: Covanta - Durham York Renewable Energy LP
1835 Energy Drive
Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
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DX-1613B-HRMS-BU Waste

Batch R3284728

WG2183713-1 MB

Surrogate: 13C12-1,2,3,7,8-PeCDD			103.0		%		21-227	06-OCT-15
Surrogate: 13C12-1,2,3,4,7,8-HxCDD			84.0		%		21-193	06-OCT-15
Surrogate: 13C12-1,2,3,6,7,8-HxCDD			93.0		%		25-163	06-OCT-15
Surrogate: 13C12-1,2,3,4,6,7,8-HpCDD			100.0		%		23-166	06-OCT-15
Surrogate: 13C12-OCDD			90.0		%		13-138	06-OCT-15
Surrogate: 13C12-2,3,7,8-TCDF			91.0		%		22-152	06-OCT-15
Surrogate: 13C12-1,2,3,7,8-PeCDF			101.0		%		24-185	06-OCT-15
Surrogate: 13C12-2,3,4,7,8-PeCDF			101.0		%		21-178	06-OCT-15
Surrogate: 13C12-1,2,3,4,7,8-HxCDF			90.0		%		26-152	06-OCT-15
Surrogate: 13C12-1,2,3,6,7,8-HxCDF			95.0		%		21-159	06-OCT-15
Surrogate: 13C12-2,3,4,6,7,8-HxCDF			98.0		%		17-205	06-OCT-15
Surrogate: 13C12-1,2,3,7,8,9-HxCDF			93.0		%		28-136	06-OCT-15
Surrogate: 13C12-1,2,3,4,6,7,8-HpCDF			107.0		%		21-158	06-OCT-15
Surrogate: 13C12-1,2,3,4,7,8,9-HpCDF			108.0		%		20-186	06-OCT-15
Surrogate: 37Cl4-2,3,7,8-TCDD (Cleanup)			86.0		%		31-191	06-OCT-15

COMMENTS: There are low level 2,3,7,8 hits in the method blank. Samples with these targets are flagged if the blank concentration is >10% of the sample concentration. All blank responses are well within the acceptance limits of the reference method 1613B.

WG2183713-2 MB

2,3,7,8-TCDD			<1.6	[U]	pg/L		1.6	06-OCT-15
1,2,3,7,8-PeCDD			<0.54	[U]	pg/L		0.54	06-OCT-15
1,2,3,4,7,8-HxCDD			<0.30	[U]	pg/L		0.3	06-OCT-15
1,2,3,6,7,8-HxCDD			<0.30	[U]	pg/L		0.3	06-OCT-15
1,2,3,7,8,9-HxCDD			<0.30	[U]	pg/L		0.3	06-OCT-15
1,2,3,4,6,7,8-HpCDD			<0.56	[U]	pg/L		0.56	06-OCT-15
OCDD			1.11	M,J	pg/L		0.41	06-OCT-15
2,3,7,8-TCDF			<1.1	[U]	pg/L		1.1	06-OCT-15
1,2,3,7,8-PeCDF			0.45	M,J	pg/L		0.42	06-OCT-15
2,3,4,7,8-PeCDF			<0.37	[U]	pg/L		0.37	06-OCT-15
1,2,3,4,7,8-HxCDF			<0.38	[U]	pg/L		0.38	06-OCT-15
1,2,3,6,7,8-HxCDF			<0.32	[U]	pg/L		0.32	06-OCT-15
2,3,4,6,7,8-HxCDF			<0.36	[U]	pg/L		0.36	06-OCT-15
1,2,3,7,8,9-HxCDF			<0.41	[U]	pg/L		0.41	06-OCT-15
1,2,3,4,6,7,8-HpCDF			0.60	M,J	pg/L		0.32	06-OCT-15
1,2,3,4,7,8,9-HpCDF			<0.42	[U]	pg/L		0.42	06-OCT-15



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Client: Covanta - Durham York Renewable Energy LP
 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
DX-1613B-HRMS-BU		Waste						
Batch R3284728								
WG2183713-2 MB								
OCDF			1.60	M,J,R	pg/L		0.69	06-OCT-15
Total-TCDD			<1.6	[U]	pg/L		1.6	06-OCT-15
Total-PeCDD			<0.54	[U]	pg/L		0.54	06-OCT-15
Total-HxCDD			<0.30	[U]	pg/L		0.3	06-OCT-15
Total-HpCDD			<0.56	[U]	pg/L		0.56	06-OCT-15
Total-TCDF			<1.1	[U]	pg/L		1.1	06-OCT-15
Total-PeCDF			0.45	A	pg/L		0.42	06-OCT-15
Total-HxCDF			<0.41	[U]	pg/L		0.41	06-OCT-15
Total-HpCDF			0.60	A	pg/L		0.42	06-OCT-15
Surrogate: 13C12-2,3,7,8-TCDD			77.0		%		20-175	06-OCT-15
Surrogate: 13C12-1,2,3,7,8-PeCDD			95.0		%		21-227	06-OCT-15
Surrogate: 13C12-1,2,3,4,7,8-HxCDD			81.0		%		21-193	06-OCT-15
Surrogate: 13C12-1,2,3,6,7,8-HxCDD			90.0		%		25-163	06-OCT-15
Surrogate: 13C12-1,2,3,4,6,7,8-HpCDD			96.0		%		23-166	06-OCT-15
Surrogate: 13C12-OCDD			89.0		%		13-138	06-OCT-15
Surrogate: 13C12-2,3,7,8-TCDF			88.0		%		22-152	06-OCT-15
Surrogate: 13C12-1,2,3,7,8-PeCDF			96.0		%		24-185	06-OCT-15
Surrogate: 13C12-2,3,4,7,8-PeCDF			95.0		%		21-178	06-OCT-15
Surrogate: 13C12-1,2,3,4,7,8-HxCDF			89.0		%		26-152	06-OCT-15
Surrogate: 13C12-1,2,3,6,7,8-HxCDF			97.0		%		21-159	06-OCT-15
Surrogate: 13C12-2,3,4,6,7,8-HxCDF			96.0		%		17-205	06-OCT-15
Surrogate: 13C12-1,2,3,7,8,9-HxCDF			90.0		%		28-136	06-OCT-15
Surrogate: 13C12-1,2,3,4,6,7,8-HpCDF			103.0		%		21-158	06-OCT-15
Surrogate: 13C12-1,2,3,4,7,8,9-HpCDF			104.0		%		20-186	06-OCT-15
Surrogate: 37Cl4-2,3,7,8-TCDD (Cleanup)			87.0		%		31-191	06-OCT-15

COMMENTS: There are low level 2,3,7,8 hits in the method blank. Samples with these targets are flagged if the blank concentration is >10% of the sample concentration. All blank responses are well within the acceptance limits of the reference method 1613B.

F-TCLP-WT		Waste						
Batch R3283047								
WG2184696-3 DUP		L1681590-4						
Fluoride (F)		<10	<10	RPD-NA	mg/L	N/A	30	02-OCT-15
WG2184696-2 LCS								
Fluoride (F)			92.4		%		70-130	02-OCT-15
WG2184696-1 MB								
Fluoride (F)			<10		mg/L		10	02-OCT-15



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Client: Covanta - Durham York Renewable Energy LP
1835 Energy Drive
Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
F-TCLP-WT		Waste						
Batch	R3283047							
WG2184696-4	MS	L1681590-4						
Fluoride (F)			93.7		%		50-150	02-OCT-15
GLYPHOSATE-TCLP-WT		Waste						
Batch	R3282412							
WG2184355-3	DUP	L1681590-1						
Glyphosate		<0.050	<0.050	RPD-NA	mg/L	N/A	30	03-OCT-15
WG2184355-2	LCS							
Glyphosate			98.0		%		70-130	03-OCT-15
WG2184355-1	MB							
Glyphosate			<0.050		mg/L		0.05	03-OCT-15
HG-TCLP-WT		Waste						
Batch	R3281085							
WG2184160-3	DUP	L1681590-1						
Mercury (Hg)		0.00014	0.00017		mg/L	20	50	02-OCT-15
WG2184160-2	LCS							
Mercury (Hg)			99.1		%		70-130	02-OCT-15
WG2184160-1	MB							
Mercury (Hg)			<0.00010		mg/L		0.0001	02-OCT-15
WG2184160-4	MS	L1681590-1						
Mercury (Hg)			100.3		%		50-140	02-OCT-15
MET-TCLP-WT		Waste						
Batch	R3281222							
WG2184133-4	DUP	WG2184133-3						
Silver (Ag)		<0.0050	<0.0050	RPD-NA	mg/L	N/A	40	02-OCT-15
Arsenic (As)		<0.050	<0.050	RPD-NA	mg/L	N/A	40	02-OCT-15
Boron (B)		<2.5	<2.5	RPD-NA	mg/L	N/A	40	02-OCT-15
Barium (Ba)		1.19	1.21		mg/L	1.6	40	02-OCT-15
Cadmium (Cd)		<0.0050	<0.0050	RPD-NA	mg/L	N/A	40	02-OCT-15
Chromium (Cr)		<0.050	<0.050	RPD-NA	mg/L	N/A	40	02-OCT-15
Lead (Pb)		<0.050	<0.050	RPD-NA	mg/L	N/A	40	02-OCT-15
Selenium (Se)		<0.25	<0.25	RPD-NA	mg/L	N/A	40	02-OCT-15
Uranium (U)		<0.25	<0.25	RPD-NA	mg/L	N/A	40	02-OCT-15
WG2184133-2	LCS							
Silver (Ag)			96.9		%		70-130	02-OCT-15
Arsenic (As)			92.7		%		70-130	02-OCT-15



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Client: Covanta - Durham York Renewable Energy LP
1835 Energy Drive
Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed	
MET-TCLP-WT		Waste							
Batch	R3281222								
WG2184133-2	LCS								
Boron (B)			86.2		%		70-130	02-OCT-15	
Barium (Ba)			96.8		%		70-130	02-OCT-15	
Cadmium (Cd)			95.2		%		70-130	02-OCT-15	
Chromium (Cr)			95.2		%		70-130	02-OCT-15	
Lead (Pb)			97.7		%		70-130	02-OCT-15	
Selenium (Se)			95.5		%		70-130	02-OCT-15	
Uranium (U)			98.2		%		70-130	02-OCT-15	
WG2184133-1	MB								
Silver (Ag)			<0.0050		mg/L		0.005	02-OCT-15	
Arsenic (As)			<0.050		mg/L		0.05	02-OCT-15	
Boron (B)			<2.5		mg/L		2.5	02-OCT-15	
Barium (Ba)			<0.50		mg/L		0.5	02-OCT-15	
Cadmium (Cd)			<0.0050		mg/L		0.005	02-OCT-15	
Chromium (Cr)			<0.050		mg/L		0.05	02-OCT-15	
Lead (Pb)			<0.050		mg/L		0.05	02-OCT-15	
Selenium (Se)			<0.25		mg/L		0.25	02-OCT-15	
Uranium (U)			<0.25		mg/L		0.25	02-OCT-15	
WG2184133-5	MS	WG2184133-3							
Silver (Ag)			92.8		%		50-150	02-OCT-15	
Arsenic (As)			97.6		%		50-150	02-OCT-15	
Boron (B)			103.0		%		50-150	02-OCT-15	
Barium (Ba)			98.0		%		50-150	02-OCT-15	
Cadmium (Cd)			95.8		%		50-150	02-OCT-15	
Chromium (Cr)			100.2		%		50-150	02-OCT-15	
Lead (Pb)			95.2		%		50-150	02-OCT-15	
Selenium (Se)			100.9		%		50-150	02-OCT-15	
Uranium (U)			96.7		%		50-150	02-OCT-15	
N2N3-TCLP-WT		Waste							
Batch	R3283047								
WG2184696-3	DUP	L1681590-4							
Nitrate-N			<2.0		RPD-NA	mg/L	N/A	30	02-OCT-15
Nitrite-N			<2.0		RPD-NA	mg/L	N/A	30	02-OCT-15
WG2184696-2	LCS								
Nitrate-N			98.9		%		70-130	02-OCT-15	



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Client: Covanta - Durham York Renewable Energy LP
 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
N2N3-TCLP-WT		Waste						
Batch	R3283047							
WG2184696-2	LCS							
Nitrite-N			99.6		%		70-130	02-OCT-15
WG2184696-1	MB							
Nitrate-N			<2.0		mg/L		2	02-OCT-15
Nitrite-N			<2.0		mg/L		2	02-OCT-15
WG2184696-4	MS	L1681590-4						
Nitrate-N			112.9		%		50-150	02-OCT-15
Nitrite-N			127.0		%		50-150	02-OCT-15
NDMA-TCLP-WT		Waste						
Batch	R3283230							
WG2185567-4	DUP	L1682286-2						
N-Nitrosodimethylamine		<0.00020	<0.00020	RPD-NA	mg/L	N/A	50	05-OCT-15
WG2185567-2	LCS							
N-Nitrosodimethylamine			108.2		%		50-150	05-OCT-15
WG2185567-1	MB							
N-Nitrosodimethylamine			<0.00020		mg/L		0.0002	05-OCT-15
WG2185567-3	MS	L1682286-2						
N-Nitrosodimethylamine			109.3		%		50-150	05-OCT-15
NTA-TCLP-WT		Waste						
Batch	R3281517							
WG2184655-2	LCS							
Nitrotriacetic Acid (NTA)			95.0		%		75-125	02-OCT-15
WG2184655-1	MB							
Nitrotriacetic Acid (NTA)			<0.20		mg/L		0.2	02-OCT-15
PARAQUAT-TCLP-WT		Waste						
Batch	R3282410							
WG2184321-3	DUP	L1681590-1						
Paraquat		<0.1	<0.10	RPD-NA	mg/L	N/A	50	03-OCT-15
WG2184321-2	LCS							
Paraquat			83.6		%		50-150	03-OCT-15
WG2184321-1	MB							
Paraquat			<0.010		mg/L		0.01	03-OCT-15
PCB-TCLP-WT		Waste						
Batch	R3282288							
WG2184365-4	DUP	L1681590-1						
Aroclor 1242		<0.00020	<0.00020	RPD-NA	mg/L	N/A	50	05-OCT-15
Aroclor 1248		<0.00020	<0.00020	RPD-NA	mg/L	N/A	50	05-OCT-15



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Client: Covanta - Durham York Renewable Energy LP
 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PCB-TCLP-WT		Waste						
Batch	R3282288							
WG2184365-4	DUP	L1681590-1						
Aroclor 1254		<0.00020	<0.00020	RPD-NA	mg/L	N/A	50	05-OCT-15
Aroclor 1260		<0.00020	<0.00020	RPD-NA	mg/L	N/A	50	05-OCT-15
WG2184365-2	LCS							
Aroclor 1242			90.0		%		65-130	05-OCT-15
Aroclor 1248			92.8		%		65-130	05-OCT-15
Aroclor 1254			104.0		%		65-130	05-OCT-15
Aroclor 1260			115.0		%		65-130	05-OCT-15
WG2184365-1	MB							
Aroclor 1242			<0.00020		mg/L		0.0002	05-OCT-15
Aroclor 1248			<0.00020		mg/L		0.0002	05-OCT-15
Aroclor 1254			<0.00020		mg/L		0.0002	05-OCT-15
Aroclor 1260			<0.00020		mg/L		0.0002	05-OCT-15
Surrogate: 2-Fluorobiphenyl			71.9		%		40-160	05-OCT-15
WG2184365-3	MS	L1681590-1						
Aroclor 1242			107.9		%		50-150	05-OCT-15
Aroclor 1254			98.1		%		50-150	05-OCT-15
Aroclor 1260			108.1		%		50-150	05-OCT-15
PEST-MISC-TCLP-WT		Waste						
Batch	R3283337							
WG2184501-4	DUP	L1681590-2						
Atrazine Desethyl		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	05-OCT-15
Atrazine		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	05-OCT-15
Bendiocarb		<0.0050	<0.0050	RPD-NA	mg/L	N/A	50	05-OCT-15
Trifluralin		<0.0050	<0.0050	RPD-NA	mg/L	N/A	50	05-OCT-15
Phorate		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	05-OCT-15
Dimethoate		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	05-OCT-15
Simazine		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	05-OCT-15
Carbofuran		<0.0020	<0.0020	RPD-NA	mg/L	N/A	50	05-OCT-15
Terbufos		<0.0020	<0.0020	RPD-NA	mg/L	N/A	50	05-OCT-15
Diazinon		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	05-OCT-15
Triallate		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	05-OCT-15
Metribuzin		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	05-OCT-15
Carbaryl		<0.0020	<0.0020	RPD-NA	mg/L	N/A	50	05-OCT-15
Alachlor		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	05-OCT-15



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 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PEST-MISC-TCLP-WT		Waste						
Batch	R3283337							
WG2184501-4	DUP	L1681590-2						
Prometryne		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	05-OCT-15
Malathion		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	05-OCT-15
Metolachlor		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	05-OCT-15
Methyl Parathion		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	05-OCT-15
Parathion		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	05-OCT-15
Cyanazine		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	05-OCT-15
Chlorpyrifos		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	05-OCT-15
Diclofop methyl		<0.0020	<0.0020	RPD-NA	mg/L	N/A	50	05-OCT-15
Azinphos methyl		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	05-OCT-15
Benzo(a)pyrene		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	05-OCT-15
Temephos		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	05-OCT-15
WG2184501-2	LCS							
Atrazine Desethyl			62.8		%		50-140	05-OCT-15
Atrazine			112.3		%		60-140	05-OCT-15
Bendiocarb			112.3		%		50-140	05-OCT-15
Trifluralin			98.8		%		60-140	05-OCT-15
Phorate			98.3		%		60-140	05-OCT-15
Dimethoate			100.3		%		60-140	05-OCT-15
Simazine			108.1		%		60-140	05-OCT-15
Carbofuran			111.0		%		60-140	05-OCT-15
Terbufos			106.4		%		60-140	05-OCT-15
Diazinon			99.8		%		60-140	05-OCT-15
Triallate			111.3		%		60-140	05-OCT-15
Metribuzin			117.6		%		60-140	05-OCT-15
Carbaryl			117.5		%		50-175	05-OCT-15
Alachlor			118.9		%		60-140	05-OCT-15
Prometryne			117.6		%		60-140	05-OCT-15
Malathion			106.6		%		60-130	05-OCT-15
Metolachlor			112.5		%		60-140	05-OCT-15
Methyl Parathion			100.6		%		60-140	05-OCT-15
Parathion			119.8		%		60-140	05-OCT-15
Cyanazine			131.4		%		60-140	05-OCT-15
Chlorpyrifos			108.0		%		60-140	05-OCT-15



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Client: Covanta - Durham York Renewable Energy LP
 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PEST-MISC-TCLP-WT								
	Waste							
Batch	R3283337							
WG2184501-2	LCS							
Diclofop methyl			107.8		%		60-140	05-OCT-15
Azinphos methyl			123.9		%		60-140	05-OCT-15
Benzo(a)pyrene			109.5		%		60-140	05-OCT-15
Temephos			139.2		%		60-140	05-OCT-15
WG2184501-1	MB							
Atrazine Desethyl			<0.0010		mg/L		0.001	05-OCT-15
Atrazine			<0.0010		mg/L		0.001	05-OCT-15
Bendiocarb			<0.0050		mg/L		0.005	05-OCT-15
Trifluralin			<0.0050		mg/L		0.005	05-OCT-15
Phorate			<0.0010		mg/L		0.001	05-OCT-15
Dimethoate			<0.0010		mg/L		0.001	05-OCT-15
Simazine			<0.0010		mg/L		0.001	05-OCT-15
Carbofuran			<0.0020		mg/L		0.002	05-OCT-15
Terbufos			<0.0020		mg/L		0.002	05-OCT-15
Diazinon			<0.0010		mg/L		0.001	05-OCT-15
Triallate			<0.0010		mg/L		0.001	05-OCT-15
Metribuzin			<0.0010		mg/L		0.001	05-OCT-15
Carbaryl			<0.0020		mg/L		0.002	05-OCT-15
Alachlor			<0.0010		mg/L		0.001	05-OCT-15
Prometryne			<0.0010		mg/L		0.001	05-OCT-15
Malathion			<0.0010		mg/L		0.001	05-OCT-15
Metolachlor			<0.0010		mg/L		0.001	05-OCT-15
Methyl Parathion			<0.0010		mg/L		0.001	05-OCT-15
Parathion			<0.0010		mg/L		0.001	05-OCT-15
Cyanazine			<0.0010		mg/L		0.001	05-OCT-15
Chlorpyrifos			<0.0010		mg/L		0.001	05-OCT-15
Diclofop methyl			<0.0020		mg/L		0.002	05-OCT-15
Azinphos methyl			<0.0010		mg/L		0.001	05-OCT-15
Benzo(a)pyrene			<0.0010		mg/L		0.001	05-OCT-15
Temephos			<0.0010		mg/L		0.001	05-OCT-15
Surrogate: 2-Fluorobiphenyl			91.1		%		40-160	05-OCT-15
Surrogate: d14-Terphenyl			130.6		%		60-140	05-OCT-15
WG2184501-3	MS	L1681590-2						
Atrazine Desethyl			51.4		%		50-150	05-OCT-15



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Client: Covanta - Durham York Renewable Energy LP
1835 Energy Drive
Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PEST-MISC-TCLP-WT								
	Waste							
Batch	R3283337							
WG2184501-3	MS	L1681590-2						
Atrazine			100.4		%		50-150	05-OCT-15
Bendiocarb			95.5		%		50-150	05-OCT-15
Trifluralin			89.0		%		50-150	05-OCT-15
Phorate			88.9		%		50-150	05-OCT-15
Dimethoate			75.2		%		50-150	05-OCT-15
Simazine			87.6		%		50-150	05-OCT-15
Carbofuran			90.5		%		50-150	05-OCT-15
Terbufos			94.2		%		50-150	05-OCT-15
Diazinon			98.9		%		50-150	05-OCT-15
Triallate			100.9		%		50-150	05-OCT-15
Metribuzin			104.3		%		50-150	05-OCT-15
Carbaryl			79.2		%		50-150	05-OCT-15
Alachlor			109.5		%		50-150	05-OCT-15
Prometryne			106.7		%		50-150	05-OCT-15
Malathion			94.8		%		50-150	05-OCT-15
Metolachlor			100.2		%		50-150	05-OCT-15
Methyl Parathion			82.6		%		50-150	05-OCT-15
Parathion			98.8		%		50-150	05-OCT-15
Cyanazine			103.6		%		50-150	05-OCT-15
Chlorpyrifos			97.7		%		50-150	05-OCT-15
Diclofop methyl			130.0		%		50-150	05-OCT-15
Azinphos methyl			100.6		%		50-150	05-OCT-15
Benzo(a)pyrene			95.9		%		50-150	05-OCT-15
Temephos			90.5		%		50-150	05-OCT-15
PEST-OC-TCLP-WT								
	Waste							
Batch	R3282662							
WG2184501-4	DUP	L1681590-2						
gamma-BHC		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	05-OCT-15
Heptachlor		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	05-OCT-15
Heptachlor epoxide		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	05-OCT-15
Oxychlordan		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	05-OCT-15
gamma-Chlordane		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	05-OCT-15
alpha-Chlordane		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	05-OCT-15



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 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PEST-OC-TCLP-WT		Waste						
Batch	R3282662							
WG2184501-4	DUP	L1681590-2						
Aldrin		<0.00020	<0.00020	RPD-NA	mg/L	N/A	50	05-OCT-15
Dieldrin		<0.00020	<0.00020	RPD-NA	mg/L	N/A	50	05-OCT-15
Endrin		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	05-OCT-15
p,p-DDE		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	05-OCT-15
p,p-DDD		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	05-OCT-15
p,p-DDT		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	05-OCT-15
o,p-DDT		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	05-OCT-15
Methoxychlor		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	05-OCT-15
WG2184501-2	LCS							
gamma-BHC			103.0		%		50-150	05-OCT-15
Heptachlor			102.3		%		25-175	05-OCT-15
Heptachlor epoxide			109.7		%		25-175	05-OCT-15
Oxychlordane			120.2		%		25-175	05-OCT-15
gamma-Chlordane			116.7		%		25-175	05-OCT-15
alpha-Chlordane			110.7		%		25-175	05-OCT-15
Aldrin			120.3		%		25-175	05-OCT-15
Dieldrin			117.9		%		25-175	05-OCT-15
Endrin			152.4	MES	%		50-150	05-OCT-15
p,p-DDE			109.9		%		25-175	05-OCT-15
p,p-DDD			115.9		%		25-175	05-OCT-15
p,p-DDT			110.6		%		25-175	05-OCT-15
o,p-DDT			111.2		%		50-130	05-OCT-15
Methoxychlor			128.9		%		25-175	05-OCT-15
WG2184501-1	MB							
gamma-BHC			<0.0010		mg/L		0.001	05-OCT-15
Heptachlor			<0.0010		mg/L		0.001	05-OCT-15
Heptachlor epoxide			<0.0010		mg/L		0.001	05-OCT-15
Oxychlordane			<0.0010		mg/L		0.001	05-OCT-15
gamma-Chlordane			<0.0010		mg/L		0.001	05-OCT-15
alpha-Chlordane			<0.0010		mg/L		0.001	05-OCT-15
Aldrin			<0.00020		mg/L		0.0002	05-OCT-15
Dieldrin			<0.00020		mg/L		0.0002	05-OCT-15
Endrin			<0.0010		mg/L		0.001	05-OCT-15
p,p-DDE			<0.0010		mg/L		0.001	05-OCT-15



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Client: Covanta - Durham York Renewable Energy LP
 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed	
PEST-OC-TCLP-WT		Waste							
Batch	R3282662								
WG2184501-1	MB								
p,p-DDD			<0.0010		mg/L		0.001	05-OCT-15	
p,p-DDT			<0.0010		mg/L		0.001	05-OCT-15	
o,p-DDT			<0.0010		mg/L		0.001	05-OCT-15	
Methoxychlor			<0.0010		mg/L		0.001	05-OCT-15	
Surrogate: d14-Terphenyl			128.6		%		60-140	05-OCT-15	
WG2184501-3	MS	L1681590-2							
gamma-BHC			97.6		%		50-150	05-OCT-15	
Heptachlor			100.9		%		50-150	05-OCT-15	
Heptachlor epoxide			109.2		%		50-150	05-OCT-15	
Oxychlordane			120.2		%		50-150	05-OCT-15	
gamma-Chlordane			114.5		%		50-150	05-OCT-15	
alpha-Chlordane			111.5		%		50-150	05-OCT-15	
Aldrin			119.9		%		50-150	05-OCT-15	
Dieldrin			107.7		%		50-150	05-OCT-15	
Endrin			144.1		%		50-150	05-OCT-15	
p,p-DDE			109.1		%		50-150	05-OCT-15	
p,p-DDD			111.7		%		50-150	05-OCT-15	
p,p-DDT			105.5		%		50-150	05-OCT-15	
o,p-DDT			106.8		%		50-150	05-OCT-15	
Methoxychlor			121.4		%		50-150	05-OCT-15	
PEST-PAHERB-TCLP-WT		Waste							
Batch	R3282739								
WG2184510-4	DUP	L1681590-4							
2,4,5-TP			<0.0020	<0.0020	RPD-NA	mg/L	N/A	50	05-OCT-15
MCPA			<0.0020	<0.0020	RPD-NA	mg/L	N/A	50	05-OCT-15
2,4,5-T			<0.0020	<0.0020	RPD-NA	mg/L	N/A	50	05-OCT-15
2,4-D			<0.0020	<0.0020	RPD-NA	mg/L	N/A	50	05-OCT-15
Bromoxynil			<0.0020	<0.0020	RPD-NA	mg/L	N/A	50	05-OCT-15
Dicamba			<0.0050	<0.0050	RPD-NA	mg/L	N/A	50	05-OCT-15
Dinoseb			<0.0020	<0.0020	RPD-NA	mg/L	N/A	50	05-OCT-15
Picloram			<0.0050	<0.0050	RPD-NA	mg/L	N/A	50	05-OCT-15
WG2184510-2	LCS								
2,4,5-TP			124.0		%		65-135	05-OCT-15	
MCPA			133.8		%		65-135	05-OCT-15	



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 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PEST-PAHERB-TCLP-WT Waste								
Batch	R3282739							
WG2184510-2	LCS							
2,4,5-T			126.1		%		65-135	05-OCT-15
2,4-D			127.4		%		25-175	05-OCT-15
Bromoxynil			126.8		%		65-135	05-OCT-15
Dicamba			105.5		%		30-150	05-OCT-15
Dinoseb			125.6		%		30-150	05-OCT-15
Picloram			56.8		%		25-120	05-OCT-15
WG2184510-1	MB							
2,4,5-TP			<0.0020		mg/L		0.002	05-OCT-15
MCPA			<0.0020		mg/L		0.002	05-OCT-15
2,4,5-T			<0.0020		mg/L		0.002	05-OCT-15
2,4-D			<0.0020		mg/L		0.002	05-OCT-15
Bromoxynil			<0.0020		mg/L		0.002	05-OCT-15
Dicamba			<0.0050		mg/L		0.005	05-OCT-15
Dinoseb			<0.0020		mg/L		0.002	05-OCT-15
Picloram			<0.0050		mg/L		0.005	05-OCT-15
Surrogate: 2,4-Dichlorophenylacetic Acid			120.8		%		50-150	05-OCT-15
WG2184510-3	MS	L1681590-4						
2,4,5-TP			125.4		%		50-150	05-OCT-15
MCPA			132.1		%		50-150	05-OCT-15
2,4,5-T			123.9		%		50-150	05-OCT-15
2,4-D			124.8		%		50-150	05-OCT-15
Bromoxynil			116.8		%		50-150	05-OCT-15
Dicamba			110.5		%		50-150	05-OCT-15
Dinoseb			112.5		%		30-150	05-OCT-15
Picloram			53.0		%		25-150	05-OCT-15
PYR-TCLP-WT Waste								
Batch	R3281336							
WG2184411-4	DUP	L1681590-1						
Pyridine		<5.0	<5.0	RPD-NA	mg/L	N/A	30	02-OCT-15
WG2184411-2	LCS							
Pyridine			100.0		%		70-130	02-OCT-15
WG2184411-3	MB							
Pyridine			<5.0		mg/L		5	02-OCT-15
WG2184411-5	MS	L1681590-4						
Pyridine			100.0		%		50-150	02-OCT-15



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 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
TOXAPHENE-TCLP-WT Waste								
Batch	R3283443							
WG2184516-4 DUP		L1681590-1						
Toxaphene		<0.0035	<0.0035	RPD-NA	mg/L	N/A	50	05-OCT-15
WG2184516-2 LCS								
Toxaphene			105.8		%		50-150	05-OCT-15
WG2184516-1 MB								
Toxaphene			<0.0035		mg/L		0.0035	05-OCT-15
Surrogate: Decachlorobiphenyl			117.0		%		50-150	05-OCT-15
Surrogate: Tetrachloro-m-xylene			99.5		%		50-150	05-OCT-15
WG2184516-3 MS		L1681590-1						
Toxaphene			128.8		%		50-150	05-OCT-15
VOC-TCLP-WT Waste								
Batch	R3282407							
WG2181278-4 DUP		WG2181278-3						
1,1-Dichloroethylene		<0.025	<0.025	RPD-NA	mg/L	N/A	50	05-OCT-15
1,2-Dichlorobenzene		<0.025	<0.025	RPD-NA	mg/L	N/A	50	05-OCT-15
1,2-Dichloroethane		<0.025	<0.025	RPD-NA	mg/L	N/A	50	05-OCT-15
1,4-Dichlorobenzene		<0.025	<0.025	RPD-NA	mg/L	N/A	50	05-OCT-15
Benzene		<0.025	<0.025	RPD-NA	mg/L	N/A	50	05-OCT-15
Carbon tetrachloride		<0.025	<0.025	RPD-NA	mg/L	N/A	50	05-OCT-15
Chlorobenzene		<0.025	<0.025	RPD-NA	mg/L	N/A	50	05-OCT-15
Chloroform		<0.10	<0.10	RPD-NA	mg/L	N/A	50	05-OCT-15
Dichloromethane		<0.50	<0.50	RPD-NA	mg/L	N/A	50	05-OCT-15
Methyl Ethyl Ketone		<1.0	<1.0	RPD-NA	mg/L	N/A	50	05-OCT-15
Tetrachloroethylene		<0.025	<0.025	RPD-NA	mg/L	N/A	50	05-OCT-15
Trichloroethylene		<0.025	<0.025	RPD-NA	mg/L	N/A	50	05-OCT-15
Vinyl chloride		<0.050	<0.050	RPD-NA	mg/L	N/A	50	05-OCT-15
WG2181278-1 LCS								
1,1-Dichloroethylene			77.3		%		70-130	05-OCT-15
1,2-Dichlorobenzene			96.2		%		70-130	05-OCT-15
1,2-Dichloroethane			129.0		%		70-130	05-OCT-15
1,4-Dichlorobenzene			88.1		%		70-130	05-OCT-15
Benzene			98.6		%		70-130	05-OCT-15
Carbon tetrachloride			79.8		%		60-140	05-OCT-15
Chlorobenzene			97.0		%		70-130	05-OCT-15
Chloroform			104.5		%		70-130	05-OCT-15



Quality Control Report

Workorder: L1681590

Report Date: 07-OCT-15

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Client: Covanta - Durham York Renewable Energy LP
1835 Energy Drive
Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-TCLP-WT		Waste						
Batch	R3282407							
WG2181278-1	LCS							
Dichloromethane			114.3		%		70-130	05-OCT-15
Methyl Ethyl Ketone			167.6	LCS-H	%		50-150	05-OCT-15
Tetrachloroethylene			79.1		%		70-130	05-OCT-15
Trichloroethylene			91.7		%		70-130	05-OCT-15
Vinyl chloride			74.9		%		60-130	05-OCT-15
WG2181278-2	MB							
1,1-Dichloroethylene			<0.025		mg/L		0.025	05-OCT-15
1,2-Dichlorobenzene			<0.025		mg/L		0.025	05-OCT-15
1,2-Dichloroethane			<0.025		mg/L		0.025	05-OCT-15
1,4-Dichlorobenzene			<0.025		mg/L		0.025	05-OCT-15
Benzene			<0.025		mg/L		0.025	05-OCT-15
Carbon tetrachloride			<0.025		mg/L		0.025	05-OCT-15
Chlorobenzene			<0.025		mg/L		0.025	05-OCT-15
Chloroform			<0.10		mg/L		0.1	05-OCT-15
Dichloromethane			<0.50		mg/L		0.5	05-OCT-15
Methyl Ethyl Ketone			<1.0		mg/L		1	05-OCT-15
Tetrachloroethylene			<0.025		mg/L		0.025	05-OCT-15
Trichloroethylene			<0.025		mg/L		0.025	05-OCT-15
Vinyl chloride			<0.050		mg/L		0.05	05-OCT-15
Surrogate: 1,4-Difluorobenzene			99.1		%		50-150	05-OCT-15
Surrogate: 4-Bromofluorobenzene			96.3		%		70-130	05-OCT-15
WG2181278-5	MS		WG2181278-3					
1,1-Dichloroethylene			88.0		%		50-140	05-OCT-15
1,2-Dichlorobenzene			95.8		%		50-140	05-OCT-15
1,2-Dichloroethane			104.7		%		50-140	05-OCT-15
1,4-Dichlorobenzene			92.5		%		50-140	05-OCT-15
Benzene			98.0		%		50-140	05-OCT-15
Carbon tetrachloride			91.5		%		50-140	05-OCT-15
Chlorobenzene			96.7		%		50-140	05-OCT-15
Chloroform			99.0		%		50-140	05-OCT-15
Dichloromethane			98.8		%		50-140	05-OCT-15
Methyl Ethyl Ketone			107.5		%		50-140	05-OCT-15
Tetrachloroethylene			91.4		%		50-140	05-OCT-15
Trichloroethylene			97.3		%		50-140	05-OCT-15

Quality Control Report

Workorder: L1681590

Report Date: 07-OCT-15

Client: Covanta - Durham York Renewable Energy LP
1835 Energy Drive
Courtice ON L1E 2R2
Contact: Leon Brasowski

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Legend:

Limit	ALS Control Limit (Data Quality Objectives)
DUP	Duplicate
RPD	Relative Percent Difference
N/A	Not Available
LCS	Laboratory Control Sample
SRM	Standard Reference Material
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ADE	Average Desorption Efficiency
MB	Method Blank
IRM	Internal Reference Material
CRM	Certified Reference Material
CCV	Continuing Calibration Verification
CVS	Calibration Verification Standard
LCSD	Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
A	Method Blank exceeds ALS DQO. Refer to narrative comments for further information.
DLM	Detection Limit Adjusted due to sample matrix effects.
LCS-H	Lab Control Sample recovery was above ALS DQO. Non-detected sample results are considered reliable. Other results, if reported, have been qualified.
M,J	A peak has been manually integrated, and the analyte was detected below the calibrated range but above the EDL.
M,J,R	A peak has been manually integrated, the analyte was detected below the calibrated range but above the EDL, and the ion abundance ratio(s) did not meet the acceptance criteria. Value is an estimated maximum.
M,U	A peak has been manually integrated, and the analyte was not detected above the EDL.
MES	Data Quality Objective was marginally exceeded (by < 10% absolute) for < 10% of analytes in a Multi-Element Scan / Multi-Parameter Scan (considered acceptable as per OMOE & CCME).
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.
[U]	The analyte was not detected above the EDL.

Hold Time Exceedances:

All test results reported with this submission were conducted within ALS recommended hold times.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.



Report To		Report Format / Distribution			Select Service Level Below (Rush Turnaround Time (TAT) is not available for all tests)									
Company:	COVANTA - Account Number 24244	Select Report Format:	<input checked="" type="checkbox"/> PDF	<input checked="" type="checkbox"/> EXCEL	<input type="checkbox"/> EDD (DIGITAL)	R		<input type="checkbox"/> Regular (Standard TAT if received by 3 pm - business days)						
Contact:	Amanda Huxter BSc ASCT	Quality Control (QC) Report with Report	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			P		<input type="checkbox"/> Priority (2-4 bus. days if received by 3pm) 50% surcharge - contact ALS to confirm TAT						
Address:	1835 Energy Drive Courtice, Ontario, L1E 2R2	<input checked="" type="checkbox"/> Criteria on Report - provide details below if box checked				E		<input checked="" type="checkbox"/> Emergency (1-2 bus. days if received by 3pm) 100% surcharge - contact ALS to confirm TAT						
Phone:	905-404-4041 Cell: 289-685-5291	Select Distribution:	<input checked="" type="checkbox"/> EMAIL	<input type="checkbox"/> MAIL	<input type="checkbox"/> FAX	E2		<input type="checkbox"/> Same day or weekend emergency - contact ALS to confirm TAT and surcharge						
		Email 1 or Fax	lbrasowski@covanta.com			Specify Date Required for E2,E or P:		Regular TAT 10-15 Business Days						
		Email 2	ahuxter@covanta.com			Analysis Request								
Invoice To	Same as Report To <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Invoice Distribution			Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below									
Copy of Invoice with Report <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Select Invoice Distribution:	<input checked="" type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX			TCLP - COMPLETE SCHEDULE 4 (TCLP-COMP-GP-WT)	ALS ON-SITE PICK-UP (SHIPPING-WT)							Number of Containers
Company:		Email 1 or Fax	lbrasowski@covanta.com											
Contact:		Email 2	ahuxter@covanta.com; jneal@covanta.com											
Project Information		Oil and Gas Required Fields (client use)												
ALS Quote #:	Q47832	Approver ID:												
Job #:	DYEC - FLY ASH PROJECT	GL Account:												
PO / AFE:		Routing Code:												
LSD:		Activity Code:												
ALS Lab Work Order # (lab use only)		Location:												
1681590 IA		ALS Contact:	Wayne Smith	Sampler:	Amanda Huxter									
ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type										
1	DYEC/FA/150930/1	1-Oct-15	8:00	Soil	E		R					3		
2	DYEC/FA/150930/2	1-Oct-15	8:00	Soil	E		R					3		
3	DYEC/FA/150930/3	1-Oct-15	8:00	Soil	E		R					3		
4	DYEC/FA/150930/4	1-Oct-15	8:00	Soil	E		R					3		
Drinking Water (DW) Samples ¹ (client use)				Special Instructions / Specify Criteria to add on report (client Use)				SAMPLE CONDITION AS RECEIVED (lab use only)						
Are samples taken from a Regulated DW System? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Regulation 347 Criteria Report		Frozen <input type="checkbox"/>		SIF Observations Yes <input type="checkbox"/> No <input type="checkbox"/>		Ice packs Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Custody seal intact Yes <input type="checkbox"/> No <input type="checkbox"/>				
Are samples for human drinking water use? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				Cooling Initiated <input checked="" type="checkbox"/>		INITIAL COOLER TEMPERATURES °C		FINAL COOLER TEMPERATURES °C		M2				
SHIPMENT RELEASE (client use)				INITIAL SHIPMENT RECEPTION (lab use only)				FINAL SHIPMENT RECEPTION (lab use only)						
Released by: Amanda Huxter		Date: 1-Oct-15		Time: 9am		Received by: [Signature]		Date: 10/15/15		Time: 12:00				

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

NA FIA-0326 v08 Form 01 July 2014

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a Regulated Drinking Water (DW) System, please submit using an Authorized DW COC form.



Covanta - Durham York Renewable Energy
LP
ATTN: Leon Brasowski
1835 Energy Drive
Courtice ON L1E 2R2

Date Received: 30-SEP-15
Report Date: 07-OCT-15 11:17 (MT)
Version: FINAL

Client Phone: 905-404-4041

Certificate of Analysis

Lab Work Order #: L1680825
Project P.O. #: NOT SUBMITTED
Job Reference: DYEC - FLY ASH PROJECT
C of C Numbers:
Legal Site Desc:

Mary-Lynn Pires
Account Manager

[This report shall not be reproduced except in full without the written authority of the Laboratory.]

ADDRESS: 60 Northland Road, Unit 1, Waterloo, ON N2V 2B8 Canada | Phone: +1 519 886 6910 | Fax: +1 519 886 9047
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ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte									
L1680825-1	DYEC/FA/150929/1									
Sampled By: A. HUXTER on 30-SEP-15 @ 08:01										
Matrix: SOIL										#1
Sample Preparation										
Initial pH		12.23		0.10	pH units	30-SEP-15				
Final pH		11.38		0.10	pH units	30-SEP-15				
TCLP Extractables										
Alachlor		<0.0010		0.0010	mg/L	02-OCT-15				
Aldicarb		<0.010		0.010	mg/L	01-OCT-15	0.9			
Aldrin		<0.00020		0.00020	mg/L	02-OCT-15				
Aldrin + Dieldrin		<0.00040		0.00040	mg/L	02-OCT-15	0.07			
alpha-Chlordane		<0.0010		0.0010	mg/L	02-OCT-15				
Aroclor 1242		<0.00020		0.00020	mg/L	02-OCT-15				
Aroclor 1248		<0.00020		0.00020	mg/L	02-OCT-15				
Aroclor 1254		<0.00020		0.00020	mg/L	02-OCT-15				
Aroclor 1260		<0.00020		0.00020	mg/L	02-OCT-15				
Atrazine		<0.0010		0.0010	mg/L	02-OCT-15				
Atrazine Desethyl		<0.0010		0.0010	mg/L	02-OCT-15				
Atrazine & Metabolites		<0.0020		0.0020	mg/L	02-OCT-15	0.5			
Azinphos methyl		<0.0010		0.0010	mg/L	02-OCT-15	2			
Bendiocarb		<0.0050		0.0050	mg/L	02-OCT-15	4			
Benzo(a)pyrene		<0.0010		0.0010	mg/L	02-OCT-15	0.001			
Bromoxynil		<0.0020		0.0020	mg/L	02-OCT-15	0.5			
Carbaryl		<0.0020		0.0020	mg/L	02-OCT-15	9			
Carbofuran		<0.0020		0.0020	mg/L	02-OCT-15	9			
Chlordane (Total)		<0.0030		0.0030	mg/L	02-OCT-15	0.7			
Chlorpyrifos		<0.0010		0.0010	mg/L	02-OCT-15	9			
3&4-Methylphenol		<0.010		0.010	mg/L	02-OCT-15				
Cresols (total)		<0.015		0.015	mg/L	02-OCT-15	200			
Cyanazine		<0.0010		0.0010	mg/L	02-OCT-15	1.0			
Cyanide, Weak Acid Diss		<0.10		0.10	mg/L	01-OCT-15	20			
2,4-D		<0.0020		0.0020	mg/L	02-OCT-15	10			
p,p-DDD		<0.0010		0.0010	mg/L	02-OCT-15				
p,p-DDE		<0.0010		0.0010	mg/L	02-OCT-15				
o,p-DDT		<0.0010		0.0010	mg/L	02-OCT-15				
p,p-DDT		<0.0010		0.0010	mg/L	02-OCT-15				
DDT + metabolites		<0.0040		0.0040	mg/L	02-OCT-15	3			
Diazinon		<0.0010		0.0010	mg/L	02-OCT-15	2			
Dicamba		<0.0050		0.0050	mg/L	02-OCT-15	12			
2,4-Dichlorophenol		<0.0050		0.0050	mg/L	02-OCT-15	90			
Diclofop methyl		<0.0020		0.0020	mg/L	02-OCT-15	0.9			
Dieldrin		<0.00020		0.00020	mg/L	02-OCT-15				
Dimethoate		<0.0010		0.0010	mg/L	02-OCT-15	2			
2,4-Dinitrotoluene		<0.0040		0.0040	mg/L	02-OCT-15	0.13			
Dinoseb		<0.0020		0.0020	mg/L	02-OCT-15	1			
Diquat		<0.10	DLM	0.10	mg/L	01-OCT-15	7			
Diuron		<0.010		0.010	mg/L	01-OCT-15	15			
Endrin		<0.0010		0.0010	mg/L	02-OCT-15	0.02			
Parathion		<0.0010		0.0010	mg/L	02-OCT-15	5			
Fluoride (F)		<10		10	mg/L	01-OCT-15	150.0			

** Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.

* Analytical result for this parameter exceeds Guideline Limit listed on this report. Guideline Limits applied:

Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte									
L1680825-1	DYEC/FA/150929/1									
Sampled By: A. HUXTER on 30-SEP-15 @ 08:01										
Matrix: SOIL										
TCLP Extractables										
	gamma-BHC	<0.0010		0.0010	mg/L	02-OCT-15	0.4			
	gamma-Chlordane	<0.0010		0.0010	mg/L	02-OCT-15				
	Glyphosate	<0.050		0.050	mg/L	02-OCT-15	28			
	Heptachlor	<0.0010		0.0010	mg/L	02-OCT-15				
	Heptachlor + Heptachlor Epoxide	<0.0020		0.0020	mg/L	02-OCT-15	0.3			
	Heptachlor epoxide	<0.0010		0.0010	mg/L	02-OCT-15				
	Hexachlorobenzene	<0.0040		0.0040	mg/L	02-OCT-15	0.13			
	Hexachlorobutadiene	<0.0040		0.0040	mg/L	02-OCT-15	0.5			
	Hexachloroethane	<0.0040		0.0040	mg/L	02-OCT-15	3.0			
	Malathion	<0.0010		0.0010	mg/L	02-OCT-15	19			
	MCPA	<0.0020		0.0020	mg/L	02-OCT-15				
	Methoxychlor	<0.0010		0.0010	mg/L	02-OCT-15	90			
	Methyl Parathion	<0.0010		0.0010	mg/L	02-OCT-15	0.7			
	2-Methylphenol	<0.0050		0.0050	mg/L	02-OCT-15				
	Metolachlor	<0.0010		0.0010	mg/L	02-OCT-15	5			
	Metribuzin	<0.0010		0.0010	mg/L	02-OCT-15	8			
	Nitrate and Nitrite as N	<4.0		4.0	mg/L	01-OCT-15	1000			
	Nitrate-N	<2.0		2.0	mg/L	01-OCT-15				
	Nitrotriacetic Acid (NTA)	<40		40	mg/L	02-OCT-15	40			
	Nitrite-N	<2.0		2.0	mg/L	01-OCT-15				
	Nitrobenzene	<0.0040		0.0040	mg/L	02-OCT-15	2.0			
	N-Nitrosodimethylamine	<0.00020		0.00020	mg/L	02-OCT-15	0.0009			
	Oxychlordane	<0.0010		0.0010	mg/L	02-OCT-15				
	Paraquat	<0.10	DLM	0.10	mg/L	01-OCT-15	1			
	Total PCBs	<0.00040		0.00040	mg/L	02-OCT-15	0.3			
	Pentachlorophenol	<0.0050		0.0050	mg/L	02-OCT-15	6			
	Phorate	<0.0010		0.0010	mg/L	02-OCT-15	0.2			
	Picloram	<0.0050		0.0050	mg/L	02-OCT-15	19			
	Prometryne	<0.0010		0.0010	mg/L	02-OCT-15				
	Pyridine	<5.0		5.0	mg/L	01-OCT-15	5.0			
	Simazine	<0.0010		0.0010	mg/L	02-OCT-15	1			
	2,4,5-T	<0.0020		0.0020	mg/L	02-OCT-15	28			
	Temephos	<0.0010	RRR	0.0010	mg/L	02-OCT-15	28			
	Terbufos	<0.0020		0.0020	mg/L	02-OCT-15	0.1			
	2,3,4,6-Tetrachlorophenol	<0.0050		0.0050	mg/L	02-OCT-15	10.0			
	Toxaphene	<0.0038	DLM	0.0038	mg/L	02-OCT-15	0.5			
	2,4,5-TP	<0.0020		0.0020	mg/L	02-OCT-15	1			
	Triallate	<0.0010		0.0010	mg/L	02-OCT-15	23			
	2,4,5-Trichlorophenol	<0.0050		0.0050	mg/L	02-OCT-15	400			
	2,4,6-Trichlorophenol	<0.0050		0.0050	mg/L	02-OCT-15	0.5			
	Trifluralin	<0.0050		0.0050	mg/L	02-OCT-15	4.5			
	Surrogate: 2,4,6-Tribromophenol	81.4		50-150	%	02-OCT-15				
	Surrogate: 2,4-Dichlorophenylacetic Acid	114.0		50-150	%	02-OCT-15				
	Surrogate: 2-Fluorobiphenyl	82.4		40-160	%	02-OCT-15				
	Surrogate: 2-Fluorobiphenyl	87.9		40-160	%	02-OCT-15				

** Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.

* Analytical result for this parameter exceeds Guideline Limit listed on this report. Guideline Limits applied:

Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits	
Grouping	Analyte							
L1680825-1	DYEC/FA/150929/1							
Sampled By: A. HUXTER on 30-SEP-15 @ 08:01							#1	
Matrix: SOIL								
TCLP Extractables								
	Surrogate: 2-Fluorobiphenyl	90.9		40-160	%	02-OCT-15		
	Surrogate: Nitrobenzene d5	95.4		50-150	%	02-OCT-15		
	Surrogate: d14-Terphenyl	113.9		60-140	%	02-OCT-15		
	Surrogate: d14-Terphenyl	76.5		60-140	%	02-OCT-15		
	Surrogate: p-Terphenyl d14	126.1		60-140	%	02-OCT-15		
TCLP Metals								
	Arsenic (As)	<0.050		0.050	mg/L	01-OCT-15	2.5	
	Barium (Ba)	1.28		0.50	mg/L	01-OCT-15	100	
	Boron (B)	<2.5		2.5	mg/L	01-OCT-15	500	
	Cadmium (Cd)	<0.0050		0.0050	mg/L	01-OCT-15	0.5	
	Chromium (Cr)	<0.050		0.050	mg/L	01-OCT-15	5.0	
	Lead (Pb)	<0.050		0.050	mg/L	01-OCT-15	5.0	
	Mercury (Hg)	<0.00010		0.00010	mg/L	01-OCT-15	0.1	
	Selenium (Se)	<0.25		0.25	mg/L	01-OCT-15	1.0	
	Silver (Ag)	<0.0050		0.0050	mg/L	01-OCT-15	5.0	
	Uranium (U)	<0.25		0.25	mg/L	01-OCT-15	10	
TCLP VOCs								
	1,1-Dichloroethylene	<0.025		0.025	mg/L	02-OCT-15	1.4	
	1,2-Dichlorobenzene	<0.025		0.025	mg/L	02-OCT-15	20.0	
	1,2-Dichloroethane	<0.025		0.025	mg/L	02-OCT-15	0.5	
	1,4-Dichlorobenzene	<0.025		0.025	mg/L	02-OCT-15	0.5	
	Benzene	<0.025		0.025	mg/L	02-OCT-15	0.5	
	Carbon tetrachloride	<0.025		0.025	mg/L	02-OCT-15	0.5	
	Chlorobenzene	<0.025		0.025	mg/L	02-OCT-15	8	
	Chloroform	<0.10		0.10	mg/L	02-OCT-15	10	
	Dichloromethane	<0.50		0.50	mg/L	02-OCT-15	5.0	
	Methyl Ethyl Ketone	<1.0		1.0	mg/L	02-OCT-15	200.0	
	Tetrachloroethylene	<0.025		0.025	mg/L	02-OCT-15	3	
	Trichloroethylene	<0.025		0.025	mg/L	02-OCT-15	5	
	Vinyl chloride	<0.050		0.050	mg/L	02-OCT-15	0.2	
	Surrogate: 4-Bromofluorobenzene	93.7		70-130	%	02-OCT-15		
Volatile Organic Compounds								
	Surrogate: 1,4-Difluorobenzene	97.6		50-150	%	02-OCT-15		
Polychlorinated Biphenyls								
	Surrogate: Decachlorobiphenyl	119.0		50-150	%	02-OCT-15		
	Surrogate: Tetrachloro-m-xylene	98.8		50-150	%	02-OCT-15		
Dioxins and Furans								
	2,3,7,8-TCDD	<1.5	[U]	1.5	pg/L	06-OCT-15		

** Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.

* Analytical result for this parameter exceeds Guideline Limit listed on this report. Guideline Limits applied:

Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte						#1			
L1680825-1	DYEC/FA/150929/1									
Sampled By: A. HUXTER on 30-SEP-15 @ 08:01										
Matrix: SOIL										
Dioxins and Furans										
	1,2,3,7,8-PeCDD	<0.68	[U]	0.68	pg/L	06-OCT-15				
	1,2,3,4,7,8-HxCDD	<0.55	[U]	0.55	pg/L	06-OCT-15				
	1,2,3,6,7,8-HxCDD	<0.55	[U]	0.55	pg/L	06-OCT-15				
	1,2,3,7,8,9-HxCDD	<0.55	[U]	0.55	pg/L	06-OCT-15				
	1,2,3,4,6,7,8-HpCDD	<0.73	[U]	0.73	pg/L	06-OCT-15				
	OCDD	0.70	M,J	0.45	pg/L	06-OCT-15				
	Total-TCDD	<1.5	[U]	1.5	pg/L	06-OCT-15				
	Total TCDD # Homologues	0			No Unit	06-OCT-15				
	Total-PeCDD	<0.68	[U]	0.68	pg/L	06-OCT-15				
	Total PeCDD # Homologues	0			No Unit	06-OCT-15				
	Total-HxCDD	<0.55	[U]	0.55	pg/L	06-OCT-15				
	Total HxCDD # Homologues	0			No Unit	06-OCT-15				
	Total-HpCDD	<0.73	[U]	0.73	pg/L	06-OCT-15				
	Total HpCDD # Homologues	0			No Unit	06-OCT-15				
	2,3,7,8-TCDF	<1.2	[U]	1.2	pg/L	06-OCT-15				
	1,2,3,7,8-PeCDF	<0.63	[U]	0.63	pg/L	06-OCT-15				
	2,3,4,7,8-PeCDF	<0.55	[U]	0.55	pg/L	06-OCT-15				
	1,2,3,4,7,8-HxCDF	<0.36	[U]	0.36	pg/L	06-OCT-15				
	1,2,3,6,7,8-HxCDF	<0.28	[U]	0.28	pg/L	06-OCT-15				
	1,2,3,7,8,9-HxCDF	0.96	M,J,R	0.37	pg/L	06-OCT-15				
	2,3,4,6,7,8-HxCDF	<0.35	M,U	0.35	pg/L	06-OCT-15				
	1,2,3,4,6,7,8-HpCDF	<0.47	[U]	0.47	pg/L	06-OCT-15				
	1,2,3,4,7,8,9-HpCDF	<0.64	[U]	0.64	pg/L	06-OCT-15				
	OCDF	<0.81	[U]	0.81	pg/L	06-OCT-15				
	Total-TCDF	<1.2	[U]	1.2	pg/L	06-OCT-15				
	Total TCDF # Homologues	0			No Unit	06-OCT-15				
	Total-PeCDF	<0.63	[U]	0.63	pg/L	06-OCT-15				
	Total PeCDF # Homologues	0			No Unit	06-OCT-15				
	Total-HxCDF	<0.37	[U]	0.37	pg/L	06-OCT-15				
	Total HxCDF # Homologues	0			No Unit	06-OCT-15				
	Total-HpCDF	<0.64	[U]	0.64	pg/L	06-OCT-15				
	Total HpCDF # Homologues	0			No Unit	06-OCT-15				
	Surrogate: 13C12-2,3,7,8-TCDD	75.0		20-175	%	06-OCT-15				
	Surrogate: 13C12-1,2,3,7,8-PeCDD	96.0		21-227	%	06-OCT-15				
	Surrogate: 13C12-1,2,3,4,7,8-HxCDD	86.0		21-193	%	06-OCT-15				
	Surrogate: 13C12-1,2,3,6,7,8-HxCDD	93.0		25-163	%	06-OCT-15				
	Surrogate: 13C12-1,2,3,4,6,7,8-HpCDD	100.0		23-166	%	06-OCT-15				
	Surrogate: 13C12-OCDD	92.0		13-138	%	06-OCT-15				
	Surrogate: 13C12-2,3,7,8-TCDF	88.0		22-152	%	06-OCT-15				
	Surrogate: 13C12-1,2,3,7,8-PeCDF	97.0		24-185	%	06-OCT-15				
	Surrogate: 13C12-2,3,4,7,8-PeCDF	98.0		21-178	%	06-OCT-15				
	Surrogate: 13C12-1,2,3,4,7,8-HxCDF	92.0		26-152	%	06-OCT-15				
	Surrogate: 13C12-1,2,3,6,7,8-HxCDF	102.0		21-159	%	06-OCT-15				
	Surrogate: 13C12-2,3,4,6,7,8-HxCDF	101.0		17-205	%	06-OCT-15				
	Surrogate: 13C12-1,2,3,7,8,9-HxCDF	95.0		28-136	%	06-OCT-15				
	Surrogate: 13C12-1,2,3,4,6,7,8-HpCDF	109.0		21-158	%	06-OCT-15				
	Surrogate: 13C12-1,2,3,4,7,8,9-HpCDF	106.0		20-186	%	06-OCT-15				
	Surrogate: 37Cl4-2,3,7,8-TCDD (Cleanup)	79.0		31-191	%	06-OCT-15				

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Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte									
L1680825-1	DYEC/FA/150929/1									
Sampled By: A. HUXTER on 30-SEP-15 @ 08:01										
Matrix: SOIL										
Toxic Equivalency										
Lower Bound PCDD/F TEQ (WHO 2005)		0.000210			pg/L	06-OCT-15				
Mid Point PCDD/F TEQ (WHO 2005)		1.48			pg/L	06-OCT-15				
Upper Bound PCDD/F TEQ (WHO 2005)		2.86			pg/L	06-OCT-15	1500			
L1680825-2	DYEC/FA/150929/2									
Sampled By: A. HUXTER on 30-SEP-15 @ 08:01										
Matrix: SOIL										
Sample Preparation										
Initial pH		12.19		0.10	pH units	30-SEP-15				
Final pH		11.41		0.10	pH units	30-SEP-15				
TCLP Extractables										
Alachlor		<0.0010		0.0010	mg/L	02-OCT-15				
Aldicarb		<0.010		0.010	mg/L	01-OCT-15	0.9			
Aldrin		<0.00020		0.00020	mg/L	02-OCT-15				
Aldrin + Dieldrin		<0.00040		0.00040	mg/L	02-OCT-15	0.07			
alpha-Chlordane		<0.0010		0.0010	mg/L	02-OCT-15				
Aroclor 1242		<0.00020		0.00020	mg/L	02-OCT-15				
Aroclor 1248		<0.00020		0.00020	mg/L	02-OCT-15				
Aroclor 1254		<0.00020		0.00020	mg/L	02-OCT-15				
Aroclor 1260		<0.00020		0.00020	mg/L	02-OCT-15				
Atrazine		<0.0010		0.0010	mg/L	02-OCT-15				
Atrazine Desethyl		<0.0010		0.0010	mg/L	02-OCT-15				
Atrazine & Metabolites		<0.0020		0.0020	mg/L	02-OCT-15	0.5			
Azinphos methyl		<0.0010		0.0010	mg/L	02-OCT-15	2			
Bendiocarb		<0.0050		0.0050	mg/L	02-OCT-15	4			
Benzo(a)pyrene		<0.0010		0.0010	mg/L	02-OCT-15	0.001			
Bromoxynil		<0.0020		0.0020	mg/L	02-OCT-15	0.5			
Carbaryl		<0.0020		0.0020	mg/L	02-OCT-15	9			
Carbofuran		<0.0020		0.0020	mg/L	02-OCT-15	9			
Chlordane (Total)		<0.0030		0.0030	mg/L	02-OCT-15	0.7			
Chlorpyrifos		<0.0010		0.0010	mg/L	02-OCT-15	9			
3&4-Methylphenol		<0.010		0.010	mg/L	02-OCT-15				
Cresols (total)		<0.015		0.015	mg/L	02-OCT-15	200			
Cyanazine		<0.0010		0.0010	mg/L	02-OCT-15	1.0			
Cyanide, Weak Acid Diss		<0.10		0.10	mg/L	01-OCT-15	20			
2,4-D		<0.0020		0.0020	mg/L	02-OCT-15	10			
p,p-DDD		<0.0010		0.0010	mg/L	02-OCT-15				
p,p-DDE		<0.0010		0.0010	mg/L	02-OCT-15				
o,p-DDT		<0.0010		0.0010	mg/L	02-OCT-15				
p,p-DDT		<0.0010		0.0010	mg/L	02-OCT-15				
DDT + metabolites		<0.0040		0.0040	mg/L	02-OCT-15	3			
Diazinon		<0.0010		0.0010	mg/L	02-OCT-15	2			
Dicamba		<0.0050		0.0050	mg/L	02-OCT-15	12			
2,4-Dichlorophenol		<0.0050		0.0050	mg/L	02-OCT-15	90			
Diclofop methyl		<0.0020		0.0020	mg/L	02-OCT-15	0.9			
Dieldrin		<0.00020		0.00020	mg/L	02-OCT-15				

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ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte									
L1680825-2	DYEC/FA/150929/2									
Sampled By: A. HUXTER on 30-SEP-15 @ 08:01										
Matrix: SOIL										#1
TCLP Extractables										
	Dimethoate	<0.0010		0.0010	mg/L	02-OCT-15				2
	2,4-Dinitrotoluene	<0.0040		0.0040	mg/L	02-OCT-15				0.13
	Dinoseb	<0.0020		0.0020	mg/L	02-OCT-15				1
	Diquat	<0.10	DLM	0.10	mg/L	01-OCT-15				7
	Diuron	<0.010		0.010	mg/L	01-OCT-15				15
	Endrin	<0.0010		0.0010	mg/L	02-OCT-15				0.02
	Parathion	<0.0010		0.0010	mg/L	02-OCT-15				5
	Fluoride (F)	<10		10	mg/L	01-OCT-15				150.0
	gamma-BHC	<0.0010		0.0010	mg/L	02-OCT-15				0.4
	gamma-Chlordane	<0.0010		0.0010	mg/L	02-OCT-15				
	Glyphosate	<0.050		0.050	mg/L	02-OCT-15				28
	Heptachlor	<0.0010		0.0010	mg/L	02-OCT-15				
	Heptachlor + Heptachlor Epoxide	<0.0020		0.0020	mg/L	02-OCT-15				0.3
	Heptachlor epoxide	<0.0010		0.0010	mg/L	02-OCT-15				
	Hexachlorobenzene	<0.0040		0.0040	mg/L	02-OCT-15				0.13
	Hexachlorobutadiene	<0.0040		0.0040	mg/L	02-OCT-15				0.5
	Hexachloroethane	<0.0040		0.0040	mg/L	02-OCT-15				3.0
	Malathion	<0.0010		0.0010	mg/L	02-OCT-15				19
	MCPA	<0.0020		0.0020	mg/L	02-OCT-15				
	Methoxychlor	<0.0010		0.0010	mg/L	02-OCT-15				90
	Methyl Parathion	<0.0010		0.0010	mg/L	02-OCT-15				0.7
	2-Methylphenol	<0.0050		0.0050	mg/L	02-OCT-15				
	Metolachlor	<0.0010		0.0010	mg/L	02-OCT-15				5
	Metribuzin	<0.0010		0.0010	mg/L	02-OCT-15				8
	Nitrate and Nitrite as N	<4.0		4.0	mg/L	01-OCT-15				1000
	Nitrate-N	<2.0		2.0	mg/L	01-OCT-15				
	Nitritotriacetic Acid (NTA)	<40		40	mg/L	02-OCT-15				40
	Nitrite-N	<2.0		2.0	mg/L	01-OCT-15				
	Nitrobenzene	<0.0040		0.0040	mg/L	02-OCT-15				2.0
	N-Nitrosodimethylamine	<0.00020		0.00020	mg/L	02-OCT-15				0.0009
	Oxychlordane	<0.0010		0.0010	mg/L	02-OCT-15				
	Paraquat	<0.10	DLM	0.10	mg/L	01-OCT-15				1
	Total PCBs	<0.00040		0.00040	mg/L	02-OCT-15				0.3
	Pentachlorophenol	<0.0050		0.0050	mg/L	02-OCT-15				6
	Phorate	<0.0010		0.0010	mg/L	02-OCT-15				0.2
	Picloram	<0.0050		0.0050	mg/L	02-OCT-15				19
	Prometryne	<0.0010		0.0010	mg/L	02-OCT-15				
	Pyridine	<5.0		5.0	mg/L	01-OCT-15				5.0
	Simazine	<0.0010		0.0010	mg/L	02-OCT-15				1
	2,4,5-T	<0.0020		0.0020	mg/L	02-OCT-15				28
	Temephos	<0.0010	RRR	0.0010	mg/L	02-OCT-15				28
	Terbufos	<0.0020		0.0020	mg/L	02-OCT-15				0.1
	2,3,4,6-Tetrachlorophenol	<0.0050		0.0050	mg/L	02-OCT-15				10.0
	Toxaphene	<0.0035		0.0035	mg/L	02-OCT-15				0.5
	2,4,5-TP	<0.0020		0.0020	mg/L	02-OCT-15				1
	Triallate	<0.0010		0.0010	mg/L	02-OCT-15				23

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Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte						#1			
L1680825-2	DYEC/FA/150929/2									
Sampled By: A. HUXTER on 30-SEP-15 @ 08:01										
Matrix: SOIL										
TCLP Extractables										
	2,4,5-Trichlorophenol	<0.0050		0.0050	mg/L	02-OCT-15	400			
	2,4,6-Trichlorophenol	<0.0050		0.0050	mg/L	02-OCT-15	0.5			
	Trifluralin	<0.0050		0.0050	mg/L	02-OCT-15	4.5			
	Surrogate: 2,4,6-Tribromophenol	82.0		50-150	%	02-OCT-15				
	Surrogate: 2,4-Dichlorophenylacetic Acid	89.5		50-150	%	02-OCT-15				
	Surrogate: 2-Fluorobiphenyl	60.7		40-160	%	02-OCT-15				
	Surrogate: 2-Fluorobiphenyl	91.2		40-160	%	02-OCT-15				
	Surrogate: 2-Fluorobiphenyl	93.2		40-160	%	02-OCT-15				
	Surrogate: Nitrobenzene d5	99.8		50-150	%	02-OCT-15				
	Surrogate: d14-Terphenyl	120.8		60-140	%	02-OCT-15				
	Surrogate: d14-Terphenyl	82.9		60-140	%	02-OCT-15				
	Surrogate: p-Terphenyl d14	122.8		60-140	%	02-OCT-15				
TCLP Metals										
	Arsenic (As)	<0.050		0.050	mg/L	01-OCT-15	2.5			
	Barium (Ba)	1.25		0.50	mg/L	01-OCT-15	100			
	Boron (B)	<2.5		2.5	mg/L	01-OCT-15	500			
	Cadmium (Cd)	<0.0050		0.0050	mg/L	01-OCT-15	0.5			
	Chromium (Cr)	<0.050		0.050	mg/L	01-OCT-15	5.0			
	Lead (Pb)	<0.050		0.050	mg/L	01-OCT-15	5.0			
	Mercury (Hg)	<0.00010		0.00010	mg/L	01-OCT-15	0.1			
	Selenium (Se)	<0.25		0.25	mg/L	01-OCT-15	1.0			
	Silver (Ag)	<0.0050		0.0050	mg/L	01-OCT-15	5.0			
	Uranium (U)	<0.25		0.25	mg/L	01-OCT-15	10			
TCLP VOCs										
	1,1-Dichloroethylene	<0.025		0.025	mg/L	02-OCT-15	1.4			
	1,2-Dichlorobenzene	<0.025		0.025	mg/L	02-OCT-15	20.0			
	1,2-Dichloroethane	<0.025		0.025	mg/L	02-OCT-15	0.5			
	1,4-Dichlorobenzene	<0.025		0.025	mg/L	02-OCT-15	0.5			
	Benzene	<0.025		0.025	mg/L	02-OCT-15	0.5			
	Carbon tetrachloride	<0.025		0.025	mg/L	02-OCT-15	0.5			
	Chlorobenzene	<0.025		0.025	mg/L	02-OCT-15	8			
	Chloroform	<0.10		0.10	mg/L	02-OCT-15	10			
	Dichloromethane	<0.50		0.50	mg/L	02-OCT-15	5.0			
	Methyl Ethyl Ketone	<1.0		1.0	mg/L	02-OCT-15	200.0			
	Tetrachloroethylene	<0.025		0.025	mg/L	02-OCT-15	3			
	Trichloroethylene	<0.025		0.025	mg/L	02-OCT-15	5			
	Vinyl chloride	<0.050		0.050	mg/L	02-OCT-15	0.2			

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ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte						#1			
L1680825-2	DYEC/FA/150929/2									
Sampled By: A. HUXTER on 30-SEP-15 @ 08:00										
Matrix: SOIL										
TCLP VOCs										
	Surrogate: 4-Bromofluorobenzene	93.5		70-130	%	02-OCT-15				
Volatile Organic Compounds										
	Surrogate: 1,4-Difluorobenzene	97.2		50-150	%	02-OCT-15				
Polychlorinated Biphenyls										
	Surrogate: Decachlorobiphenyl	120.0		50-150	%	02-OCT-15				
	Surrogate: Tetrachloro-m-xylene	101.0		50-150	%	02-OCT-15				
Dioxins and Furans										
	2,3,7,8-TCDD	<1.9	[U]	1.9	pg/L	06-OCT-15				
	1,2,3,7,8-PeCDD	<0.78	[U]	0.78	pg/L	06-OCT-15				
	1,2,3,4,7,8-HxCDD	<0.61	[U]	0.61	pg/L	06-OCT-15				
	1,2,3,6,7,8-HxCDD	<0.59	[U]	0.59	pg/L	06-OCT-15				
	1,2,3,7,8,9-HxCDD	<0.60	[U]	0.60	pg/L	06-OCT-15				
	1,2,3,4,6,7,8-HpCDD	<0.61	[U]	0.61	pg/L	06-OCT-15				
	OCDD	<0.65	[U]	0.65	pg/L	06-OCT-15				
	Total-TCDD	<1.9	[U]	1.9	pg/L	06-OCT-15				
	Total TCDD # Homologues	0			No Unit	06-OCT-15				
	Total-PeCDD	<0.78	[U]	0.78	pg/L	06-OCT-15				
	Total PeCDD # Homologues	0			No Unit	06-OCT-15				
	Total-HxCDD	<0.61	[U]	0.61	pg/L	06-OCT-15				
	Total HxCDD # Homologues	0			No Unit	06-OCT-15				
	Total-HpCDD	<0.61	[U]	0.61	pg/L	06-OCT-15				
	Total HpCDD # Homologues	0			No Unit	06-OCT-15				
	2,3,7,8-TCDF	<1.3	[U]	1.3	pg/L	06-OCT-15				
	1,2,3,7,8-PeCDF	<0.56	[U]	0.56	pg/L	06-OCT-15				
	2,3,4,7,8-PeCDF	<0.50	[U]	0.50	pg/L	06-OCT-15				
	1,2,3,4,7,8-HxCDF	<0.44	[U]	0.44	pg/L	06-OCT-15				
	1,2,3,6,7,8-HxCDF	<0.38	[U]	0.38	pg/L	06-OCT-15				
	1,2,3,7,8,9-HxCDF	<0.53	[U]	0.53	pg/L	06-OCT-15				
	2,3,4,6,7,8-HxCDF	<0.46	[U]	0.46	pg/L	06-OCT-15				
	1,2,3,4,6,7,8-HpCDF	<0.51	[U]	0.51	pg/L	06-OCT-15				
	1,2,3,4,7,8,9-HpCDF	<0.71	[U]	0.71	pg/L	06-OCT-15				
	OCDF	<1.1	[U]	1.1	pg/L	06-OCT-15				
	Total-TCDF	<1.3	[U]	1.3	pg/L	06-OCT-15				
	Total TCDF # Homologues	0			No Unit	06-OCT-15				
	Total-PeCDF	<0.56	[U]	0.56	pg/L	06-OCT-15				
	Total PeCDF # Homologues	0			No Unit	06-OCT-15				
	Total-HxCDF	<0.53	[U]	0.53	pg/L	06-OCT-15				
	Total HxCDF # Homologues	0			No Unit	06-OCT-15				
	Total-HpCDF	<0.71	[U]	0.71	pg/L	06-OCT-15				
	Total HpCDF # Homologues	0			No Unit	06-OCT-15				
	Surrogate: 13C12-2,3,7,8-TCDD	71.0		20-175	%	06-OCT-15				
	Surrogate: 13C12-1,2,3,7,8-PeCDD	97.0		21-227	%	06-OCT-15				
	Surrogate: 13C12-1,2,3,4,7,8-HxCDD	84.0		21-193	%	06-OCT-15				
	Surrogate: 13C12-1,2,3,6,7,8-HxCDD	97.0		25-163	%	06-OCT-15				
	Surrogate: 13C12-1,2,3,4,6,7,8-HpCDD	94.0		23-166	%	06-OCT-15				
	Surrogate: 13C12-OCDD	82.0		13-138	%	06-OCT-15				
	Surrogate: 13C12-2,3,7,8-TCDF	90.0		22-152	%	06-OCT-15				

** Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.

* Analytical result for this parameter exceeds Guideline Limit listed on this report. Guideline Limits applied:

Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits		
Grouping	Analyte								
L1680825-2	DYEC/FA/150929/2								
Sampled By: A. HUXTER on 30-SEP-15 @ 08:00							#1		
Matrix: SOIL									
Dioxins and Furans									
Surrogate: 13C12-1,2,3,7,8-PeCDF		99.0		24-185	%	06-OCT-15			
Surrogate: 13C12-2,3,4,7,8-PeCDF		100.0		21-178	%	06-OCT-15			
Surrogate: 13C12-1,2,3,4,7,8-HxCDF		94.0		26-152	%	06-OCT-15			
Surrogate: 13C12-1,2,3,6,7,8-HxCDF		104.0		21-159	%	06-OCT-15			
Surrogate: 13C12-2,3,4,6,7,8-HxCDF		100.0		17-205	%	06-OCT-15			
Surrogate: 13C12-1,2,3,7,8,9-HxCDF		90.0		28-136	%	06-OCT-15			
Surrogate: 13C12-1,2,3,4,6,7,8-HpCDF		105.0		21-158	%	06-OCT-15			
Surrogate: 13C12-1,2,3,4,7,8,9-HpCDF		100.0		20-186	%	06-OCT-15			
Surrogate: 37Cl4-2,3,7,8-TCDD (Cleanup)		79.0		31-191	%	06-OCT-15			
Toxic Equivalency									
Lower Bound PCDD/F TEQ (WHO 2005)		0.00			pg/L	06-OCT-15			
Mid Point PCDD/F TEQ (WHO 2005)		1.68			pg/L	06-OCT-15			
Upper Bound PCDD/F TEQ (WHO 2005)		3.36			pg/L	06-OCT-15	1500		
L1680825-3	DYEC/FA/150929/3								
Sampled By: A. HUXTER on 30-SEP-15 @ 08:00							#1		
Matrix: SOIL									
Sample Preparation									
Initial pH		12.11		0.10	pH units	30-SEP-15			
Final pH		11.40		0.10	pH units	30-SEP-15			
TCLP Extractables									
Alachlor		<0.0010		0.0010	mg/L	02-OCT-15			
Aldicarb		<0.010		0.010	mg/L	01-OCT-15	0.9		
Aldrin		<0.00020		0.00020	mg/L	02-OCT-15			
Aldrin + Dieldrin		<0.00040		0.00040	mg/L	02-OCT-15	0.07		
alpha-Chlordane		<0.0010		0.0010	mg/L	02-OCT-15			
Aroclor 1242		<0.00020		0.00020	mg/L	02-OCT-15			
Aroclor 1248		<0.00020		0.00020	mg/L	02-OCT-15			
Aroclor 1254		<0.00020		0.00020	mg/L	02-OCT-15			
Aroclor 1260		<0.00020		0.00020	mg/L	02-OCT-15			
Atrazine		<0.0010		0.0010	mg/L	02-OCT-15			
Atrazine Desethyl		<0.0010		0.0010	mg/L	02-OCT-15			
Atrazine & Metabolites		<0.0020		0.0020	mg/L	02-OCT-15	0.5		
Azinphos methyl		<0.0010		0.0010	mg/L	02-OCT-15	2		
Bendiocarb		<0.0050		0.0050	mg/L	02-OCT-15	4		
Benzo(a)pyrene		<0.0010		0.0010	mg/L	02-OCT-15	0.001		
Bromoxynil		<0.0020		0.0020	mg/L	02-OCT-15	0.5		
Carbaryl		<0.0020		0.0020	mg/L	02-OCT-15	9		
Carbofuran		<0.0020		0.0020	mg/L	02-OCT-15	9		
Chlordane (Total)		<0.0030		0.0030	mg/L	02-OCT-15	0.7		
Chlorpyrifos		<0.0010		0.0010	mg/L	02-OCT-15	9		
3&4-Methylphenol		<0.010		0.010	mg/L	02-OCT-15			
Cresols (total)		<0.015		0.015	mg/L	02-OCT-15	200		
Cyanazine		<0.0010		0.0010	mg/L	02-OCT-15	1.0		
Cyanide, Weak Acid Diss		<0.10		0.10	mg/L	01-OCT-15	20		
2,4-D		<0.0020		0.0020	mg/L	02-OCT-15	10		

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Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte									
L1680825-3	DYEC/FA/150929/3									
Sampled By: A. HUXTER on 30-SEP-15 @ 08:01										
Matrix: SOIL										#1
TCLP Extractables										
	p,p-DDD	<0.0010		0.0010	mg/L	02-OCT-15				
	p,p-DDE	<0.0010		0.0010	mg/L	02-OCT-15				
	o,p-DDT	<0.0010		0.0010	mg/L	02-OCT-15				
	p,p-DDT	<0.0010		0.0010	mg/L	02-OCT-15				
	DDT + metabolites	<0.0040		0.0040	mg/L	02-OCT-15	3			
	Diazinon	<0.0010		0.0010	mg/L	02-OCT-15	2			
	Dicamba	<0.0050		0.0050	mg/L	02-OCT-15	12			
	2,4-Dichlorophenol	<0.0050		0.0050	mg/L	02-OCT-15	90			
	Diclofop methyl	<0.0020		0.0020	mg/L	02-OCT-15	0.9			
	Dieldrin	<0.00020		0.00020	mg/L	02-OCT-15				
	Dimethoate	<0.0010		0.0010	mg/L	02-OCT-15	2			
	2,4-Dinitrotoluene	<0.0040		0.0040	mg/L	02-OCT-15	0.13			
	Dinoseb	<0.0020		0.0020	mg/L	02-OCT-15	1			
	Diquat	<0.10	DLM	0.10	mg/L	01-OCT-15	7			
	Diuron	<0.010		0.010	mg/L	01-OCT-15	15			
	Endrin	<0.0010		0.0010	mg/L	02-OCT-15	0.02			
	Parathion	<0.0010		0.0010	mg/L	02-OCT-15	5			
	Fluoride (F)	<10		10	mg/L	01-OCT-15	150.0			
	gamma-BHC	<0.0010		0.0010	mg/L	02-OCT-15	0.4			
	gamma-Chlordane	<0.0010		0.0010	mg/L	02-OCT-15				
	Glyphosate	<0.050		0.050	mg/L	02-OCT-15	28			
	Heptachlor	<0.0010		0.0010	mg/L	02-OCT-15				
	Heptachlor + Heptachlor Epoxide	<0.0020		0.0020	mg/L	02-OCT-15	0.3			
	Heptachlor epoxide	<0.0010		0.0010	mg/L	02-OCT-15				
	Hexachlorobenzene	<0.0040		0.0040	mg/L	02-OCT-15	0.13			
	Hexachlorobutadiene	<0.0040		0.0040	mg/L	02-OCT-15	0.5			
	Hexachloroethane	<0.0040		0.0040	mg/L	02-OCT-15	3.0			
	Malathion	<0.0010		0.0010	mg/L	02-OCT-15	19			
	MCPA	<0.0020		0.0020	mg/L	02-OCT-15				
	Methoxychlor	<0.0010		0.0010	mg/L	02-OCT-15	90			
	Methyl Parathion	<0.0010		0.0010	mg/L	02-OCT-15	0.7			
	2-Methylphenol	<0.0050		0.0050	mg/L	02-OCT-15				
	Metolachlor	<0.0010		0.0010	mg/L	02-OCT-15	5			
	Metribuzin	<0.0010		0.0010	mg/L	02-OCT-15	8			
	Nitrate and Nitrite as N	<4.0		4.0	mg/L	01-OCT-15	1000			
	Nitrate-N	<2.0		2.0	mg/L	01-OCT-15				
	Nitrotriacetic Acid (NTA)	<40		40	mg/L	02-OCT-15	40			
	Nitrite-N	<2.0		2.0	mg/L	01-OCT-15				
	Nitrobenzene	<0.0040		0.0040	mg/L	02-OCT-15	2.0			
	N-Nitrosodimethylamine	<0.00020		0.00020	mg/L	02-OCT-15	0.0009			
	Oxychlordane	<0.0010		0.0010	mg/L	02-OCT-15				
	Paraquat	<0.10	DLM	0.10	mg/L	01-OCT-15	1			
	Total PCBs	<0.00040		0.00040	mg/L	02-OCT-15	0.3			
	Pentachlorophenol	<0.0050		0.0050	mg/L	02-OCT-15	6			
	Phorate	<0.0010		0.0010	mg/L	02-OCT-15	0.2			
	Picloram	<0.0050		0.0050	mg/L	02-OCT-15	19			

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Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte						#1			
L1680825-3	DYEC/FA/150929/3									
Sampled By: A. HUXTER on 30-SEP-15 @ 08:01										
Matrix: SOIL										
TCLP Extractables										
Prometryne		<0.0010		0.0010	mg/L	02-OCT-15				
Pyridine		<5.0		5.0	mg/L	01-OCT-15	5.0			
Simazine		<0.0010		0.0010	mg/L	02-OCT-15	1			
2,4,5-T		<0.0020		0.0020	mg/L	02-OCT-15	28			
Temephos		<0.0010	RRR	0.0010	mg/L	02-OCT-15	28			
Terbufos		<0.0020		0.0020	mg/L	02-OCT-15	0.1			
2,3,4,6-Tetrachlorophenol		<0.0050		0.0050	mg/L	02-OCT-15	10.0			
Toxaphene		<0.0035		0.0035	mg/L	02-OCT-15	0.5			
2,4,5-TP		<0.0020		0.0020	mg/L	02-OCT-15	1			
Triallate		<0.0010		0.0010	mg/L	02-OCT-15	23			
2,4,5-Trichlorophenol		<0.0050		0.0050	mg/L	02-OCT-15	400			
2,4,6-Trichlorophenol		<0.0050		0.0050	mg/L	02-OCT-15	0.5			
Trifluralin		<0.0050		0.0050	mg/L	02-OCT-15	4.5			
Surrogate: 2,4,6-Tribromophenol		83.1		50-150	%	02-OCT-15				
Surrogate: 2,4-Dichlorophenylacetic Acid		93.3		50-150	%	02-OCT-15				
Surrogate: 2-Fluorobiphenyl		65.6		40-160	%	02-OCT-15				
Surrogate: 2-Fluorobiphenyl		78.1		40-160	%	02-OCT-15				
Surrogate: 2-Fluorobiphenyl		95.9		40-160	%	02-OCT-15				
Surrogate: Nitrobenzene d5		99.8		50-150	%	02-OCT-15				
Surrogate: d14-Terphenyl		73.0		60-140	%	02-OCT-15				
Surrogate: d14-Terphenyl		97.7		60-140	%	02-OCT-15				
Surrogate: p-Terphenyl d14		127.4		60-140	%	02-OCT-15				
TCLP Metals										
Arsenic (As)		<0.050		0.050	mg/L	01-OCT-15	2.5			
Barium (Ba)		1.25		0.50	mg/L	01-OCT-15	100			
Boron (B)		<2.5		2.5	mg/L	01-OCT-15	500			
Cadmium (Cd)		<0.0050		0.0050	mg/L	01-OCT-15	0.5			
Chromium (Cr)		<0.050		0.050	mg/L	01-OCT-15	5.0			
Lead (Pb)		<0.050		0.050	mg/L	01-OCT-15	5.0			
Mercury (Hg)		<0.00010		0.00010	mg/L	01-OCT-15	0.1			
Selenium (Se)		<0.25		0.25	mg/L	01-OCT-15	1.0			
Silver (Ag)		<0.0050		0.0050	mg/L	01-OCT-15	5.0			
Uranium (U)		<0.25		0.25	mg/L	01-OCT-15	10			
TCLP VOCs										
1,1-Dichloroethylene		<0.025		0.025	mg/L	02-OCT-15	1.4			
1,2-Dichlorobenzene		<0.025		0.025	mg/L	02-OCT-15	20.0			
1,2-Dichloroethane		<0.025		0.025	mg/L	02-OCT-15	0.5			

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Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte									
L1680825-3	DYEC/FA/150929/3									
Sampled By: A. HUXTER on 30-SEP-15 @ 08:01							#1			
Matrix: SOIL										
TCLP VOCs										
	1,4-Dichlorobenzene	<0.025		0.025	mg/L	02-OCT-15	0.5			
	Benzene	<0.025		0.025	mg/L	02-OCT-15	0.5			
	Carbon tetrachloride	<0.025		0.025	mg/L	02-OCT-15	0.5			
	Chlorobenzene	<0.025		0.025	mg/L	02-OCT-15	8			
	Chloroform	<0.10		0.10	mg/L	02-OCT-15	10			
	Dichloromethane	<0.50		0.50	mg/L	02-OCT-15	5.0			
	Methyl Ethyl Ketone	<1.0		1.0	mg/L	02-OCT-15	200.0			
	Tetrachloroethylene	<0.025		0.025	mg/L	02-OCT-15	3			
	Trichloroethylene	<0.025		0.025	mg/L	02-OCT-15	5			
	Vinyl chloride	<0.050		0.050	mg/L	02-OCT-15	0.2			
	Surrogate: 4-Bromofluorobenzene	94.9		70-130	%	02-OCT-15				
Volatile Organic Compounds										
	Surrogate: 1,4-Difluorobenzene	97.4		50-150	%	02-OCT-15				
Polychlorinated Biphenyls										
	Surrogate: Decachlorobiphenyl	113.0		50-150	%	02-OCT-15				
	Surrogate: Tetrachloro-m-xylene	98.9		50-150	%	02-OCT-15				
Dioxins and Furans										
	2,3,7,8-TCDD	<1.5	[U]	1.5	pg/L	07-OCT-15				
	1,2,3,7,8-PeCDD	<0.74	[U]	0.74	pg/L	07-OCT-15				
	1,2,3,4,7,8-HxCDD	<0.42	[U]	0.42	pg/L	07-OCT-15				
	1,2,3,6,7,8-HxCDD	<0.42	[U]	0.42	pg/L	07-OCT-15				
	1,2,3,7,8,9-HxCDD	<0.42	[U]	0.42	pg/L	07-OCT-15				
	1,2,3,4,6,7,8-HpCDD	<0.54	[U]	0.54	pg/L	07-OCT-15				
	OCDD	<0.58	M,U	0.58	pg/L	07-OCT-15				
	Total-TCDD	<1.5	[U]	1.5	pg/L	07-OCT-15				
	Total TCDD # Homologues	0			No Unit	07-OCT-15				
	Total-PeCDD	<0.74	[U]	0.74	pg/L	07-OCT-15				
	Total PeCDD # Homologues	0			No Unit	07-OCT-15				
	Total-HxCDD	<0.42	[U]	0.42	pg/L	07-OCT-15				
	Total HxCDD # Homologues	0			No Unit	07-OCT-15				
	Total-HpCDD	<0.54	[U]	0.54	pg/L	07-OCT-15				
	Total HpCDD # Homologues	0			No Unit	07-OCT-15				
	2,3,7,8-TCDF	<1.2	[U]	1.2	pg/L	07-OCT-15				
	1,2,3,7,8-PeCDF	<0.52	[U]	0.52	pg/L	07-OCT-15				
	2,3,4,7,8-PeCDF	<0.45	[U]	0.45	pg/L	07-OCT-15				
	1,2,3,4,7,8-HxCDF	<0.34	[U]	0.34	pg/L	07-OCT-15				
	1,2,3,6,7,8-HxCDF	<0.29	[U]	0.29	pg/L	07-OCT-15				
	1,2,3,7,8,9-HxCDF	<0.40	[U]	0.40	pg/L	07-OCT-15				
	2,3,4,6,7,8-HxCDF	<0.33	[U]	0.33	pg/L	07-OCT-15				
	1,2,3,4,6,7,8-HpCDF	<0.36	[U]	0.36	pg/L	07-OCT-15				
	1,2,3,4,7,8,9-HpCDF	<0.48	[U]	0.48	pg/L	07-OCT-15				
	OCDF	<0.73	[U]	0.73	pg/L	07-OCT-15				
	Total-TCDF	<1.2	[U]	1.2	pg/L	07-OCT-15				
	Total TCDF # Homologues	0			No Unit	07-OCT-15				
	Total-PeCDF	<0.52	[U]	0.52	pg/L	07-OCT-15				
	Total PeCDF # Homologues	0			No Unit	07-OCT-15				
	Total-HxCDF	<0.40	[U]	0.40	pg/L	07-OCT-15				

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Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte									
L1680825-3	DYEC/FA/150929/3									
Sampled By: A. HUXTER on 30-SEP-15 @ 08:01										
Matrix: SOIL										
Dioxins and Furans										
Total HxCDF # Homologues		0			No Unit	07-OCT-15				
Total HpCDF		<0.48	[U]	0.48	pg/L	07-OCT-15				
Total HpCDF # Homologues		0			No Unit	07-OCT-15				
Surrogate: 13C12-2,3,7,8-TCDD		76.0		20-175	%	07-OCT-15				
Surrogate: 13C12-1,2,3,7,8-PeCDD		91.0		21-227	%	07-OCT-15				
Surrogate: 13C12-1,2,3,4,7,8-HxCDD		76.0		21-193	%	07-OCT-15				
Surrogate: 13C12-1,2,3,6,7,8-HxCDD		95.0		25-163	%	07-OCT-15				
Surrogate: 13C12-1,2,3,4,6,7,8-HpCDD		95.0		23-166	%	07-OCT-15				
Surrogate: 13C12-OCDD		90.0		13-138	%	07-OCT-15				
Surrogate: 13C12-2,3,7,8-TCDF		89.0		22-152	%	07-OCT-15				
Surrogate: 13C12-1,2,3,7,8-PeCDF		100.0		24-185	%	07-OCT-15				
Surrogate: 13C12-2,3,4,7,8-PeCDF		101.0		21-178	%	07-OCT-15				
Surrogate: 13C12-1,2,3,4,7,8-HxCDF		88.0		26-152	%	07-OCT-15				
Surrogate: 13C12-1,2,3,6,7,8-HxCDF		102.0		21-159	%	07-OCT-15				
Surrogate: 13C12-2,3,4,6,7,8-HxCDF		97.0		17-205	%	07-OCT-15				
Surrogate: 13C12-1,2,3,7,8,9-HxCDF		90.0		28-136	%	07-OCT-15				
Surrogate: 13C12-1,2,3,4,6,7,8-HpCDF		103.0		21-158	%	07-OCT-15				
Surrogate: 13C12-1,2,3,4,7,8,9-HpCDF		104.0		20-186	%	07-OCT-15				
Surrogate: 37Cl4-2,3,7,8-TCDD (Cleanup)		85.0		31-191	%	07-OCT-15				
Toxic Equivalency										
Lower Bound PCDD/F TEQ (WHO 2005)		0.00			pg/L	07-OCT-15				
Mid Point PCDD/F TEQ (WHO 2005)		1.39			pg/L	07-OCT-15				
Upper Bound PCDD/F TEQ (WHO 2005)		2.79			pg/L	07-OCT-15	1500			
L1680825-4	DYEC/FA/150929/4									
Sampled By: A. HUXTER on 30-SEP-15 @ 08:01										
Matrix: SOIL										
Sample Preparation										
Initial pH		12.17		0.10	pH units	30-SEP-15				
Final pH		11.49		0.10	pH units	30-SEP-15				
TCLP Extractables										
Alachlor		<0.0010		0.0010	mg/L	02-OCT-15				
Aldicarb		<0.010		0.010	mg/L	01-OCT-15	0.9			
Aldrin		<0.00020		0.00020	mg/L	02-OCT-15				
Aldrin + Dieldrin		<0.00040		0.00040	mg/L	02-OCT-15	0.07			
alpha-Chlordane		<0.0010		0.0010	mg/L	02-OCT-15				
Aroclor 1242		<0.00020		0.00020	mg/L	02-OCT-15				
Aroclor 1248		<0.00020		0.00020	mg/L	02-OCT-15				
Aroclor 1254		<0.00020		0.00020	mg/L	02-OCT-15				
Aroclor 1260		<0.00020		0.00020	mg/L	02-OCT-15				
Atrazine		<0.0010		0.0010	mg/L	02-OCT-15				
Atrazine Desethyl		<0.0010		0.0010	mg/L	02-OCT-15				
Atrazine & Metabolites		<0.0020		0.0020	mg/L	02-OCT-15	0.5			
Azinphos methyl		<0.0010		0.0010	mg/L	02-OCT-15	2			
Bendiocarb		<0.0050		0.0050	mg/L	02-OCT-15	4			
Benzo(a)pyrene		<0.0010		0.0010	mg/L	02-OCT-15	0.001			
Bromoxynil		<0.0020		0.0020	mg/L	02-OCT-15	0.5			

** Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.

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Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte									
L1680825-4	DYEC/FA/150929/4									
Sampled By: A. HUXTER on 30-SEP-15 @ 08:01										
Matrix: SOIL										#1
TCLP Extractables										
	Carbaryl	<0.0020		0.0020	mg/L	02-OCT-15				9
	Carbofuran	<0.0020		0.0020	mg/L	02-OCT-15				9
	Chlordane (Total)	<0.0030		0.0030	mg/L	02-OCT-15				0.7
	Chlorpyrifos	<0.0010		0.0010	mg/L	02-OCT-15				9
	3&4-Methylphenol	<0.010		0.010	mg/L	02-OCT-15				
	Cresols (total)	<0.015		0.015	mg/L	02-OCT-15				200
	Cyanazine	<0.0010		0.0010	mg/L	02-OCT-15				1.0
	Cyanide, Weak Acid Diss	<0.10		0.10	mg/L	01-OCT-15				20
	2,4-D	<0.0020		0.0020	mg/L	02-OCT-15				10
	p,p-DDD	<0.0010		0.0010	mg/L	02-OCT-15				
	p,p-DDE	<0.0010		0.0010	mg/L	02-OCT-15				
	o,p-DDT	<0.0010		0.0010	mg/L	02-OCT-15				
	p,p-DDT	<0.0010		0.0010	mg/L	02-OCT-15				
	DDT + metabolites	<0.0040		0.0040	mg/L	02-OCT-15				3
	Diazinon	<0.0010		0.0010	mg/L	02-OCT-15				2
	Dicamba	<0.0050		0.0050	mg/L	02-OCT-15				12
	2,4-Dichlorophenol	<0.0050		0.0050	mg/L	02-OCT-15				90
	Diclofop methyl	<0.0020		0.0020	mg/L	02-OCT-15				0.9
	Dieldrin	<0.00020		0.00020	mg/L	02-OCT-15				
	Dimethoate	<0.0010		0.0010	mg/L	02-OCT-15				2
	2,4-Dinitrotoluene	<0.0040		0.0040	mg/L	02-OCT-15				0.13
	Dinoseb	<0.0020		0.0020	mg/L	02-OCT-15				1
	Diquat	<0.10	DLM	0.10	mg/L	01-OCT-15				7
	Diuron	<0.010		0.010	mg/L	01-OCT-15				15
	Endrin	<0.0010		0.0010	mg/L	02-OCT-15				0.02
	Parathion	<0.0010		0.0010	mg/L	02-OCT-15				5
	Fluoride (F)	<10		10	mg/L	01-OCT-15				150.0
	gamma-BHC	<0.0010		0.0010	mg/L	02-OCT-15				0.4
	gamma-Chlordane	<0.0010		0.0010	mg/L	02-OCT-15				
	Glyphosate	<0.050		0.050	mg/L	02-OCT-15				28
	Heptachlor	<0.0010		0.0010	mg/L	02-OCT-15				
	Heptachlor + Heptachlor Epoxide	<0.0020		0.0020	mg/L	02-OCT-15				0.3
	Heptachlor epoxide	<0.0010		0.0010	mg/L	02-OCT-15				
	Hexachlorobenzene	<0.0040		0.0040	mg/L	02-OCT-15				0.13
	Hexachlorobutadiene	<0.0040		0.0040	mg/L	02-OCT-15				0.5
	Hexachloroethane	<0.0040		0.0040	mg/L	02-OCT-15				3.0
	Malathion	<0.0010		0.0010	mg/L	02-OCT-15				19
	MCPA	<0.0020		0.0020	mg/L	02-OCT-15				
	Methoxychlor	<0.0010		0.0010	mg/L	02-OCT-15				90
	Methyl Parathion	<0.0010		0.0010	mg/L	02-OCT-15				0.7
	2-Methylphenol	<0.0050		0.0050	mg/L	02-OCT-15				
	Metolachlor	<0.0010		0.0010	mg/L	02-OCT-15				5
	Metribuzin	<0.0010		0.0010	mg/L	02-OCT-15				8
	Nitrate and Nitrite as N	<4.0		4.0	mg/L	01-OCT-15				1000
	Nitrate-N	<2.0		2.0	mg/L	01-OCT-15				
	Nitrilotriacetic Acid (NTA)	<40		40	mg/L	02-OCT-15				40

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Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte									
L1680825-4	DYEC/FA/150929/4									
Sampled By: A. HUXTER on 30-SEP-15 @ 08:01										
Matrix: SOIL										#1
TCLP Extractables										
	Nitrite-N	<2.0		2.0	mg/L	01-OCT-15				
	Nitrobenzene	<0.0040		0.0040	mg/L	02-OCT-15	2.0			
	N-Nitrosodimethylamine	<0.00020		0.00020	mg/L	02-OCT-15	0.0009			
	Oxychlorthane	<0.0010		0.0010	mg/L	02-OCT-15				
	Paraquat	<0.10	DLM	0.10	mg/L	01-OCT-15	1			
	Total PCBs	<0.00040		0.00040	mg/L	02-OCT-15	0.3			
	Pentachlorophenol	<0.0050		0.0050	mg/L	02-OCT-15	6			
	Phorate	<0.0010		0.0010	mg/L	02-OCT-15	0.2			
	Picloram	<0.0050		0.0050	mg/L	02-OCT-15	19			
	Prometryne	<0.0010		0.0010	mg/L	02-OCT-15				
	Pyridine	<5.0		5.0	mg/L	01-OCT-15	5.0			
	Simazine	<0.0010		0.0010	mg/L	02-OCT-15	1			
	2,4,5-T	<0.0020		0.0020	mg/L	02-OCT-15	28			
	Temephos	<0.0010	RRR	0.0010	mg/L	02-OCT-15	28			
	Terbufos	<0.0020		0.0020	mg/L	02-OCT-15	0.1			
	2,3,4,6-Tetrachlorophenol	<0.0050		0.0050	mg/L	02-OCT-15	10.0			
	Toxaphene	<0.0035		0.0035	mg/L	02-OCT-15	0.5			
	2,4,5-TP	<0.0020		0.0020	mg/L	02-OCT-15	1			
	Triallate	<0.0010		0.0010	mg/L	02-OCT-15	23			
	2,4,5-Trichlorophenol	<0.0050		0.0050	mg/L	02-OCT-15	400			
	2,4,6-Trichlorophenol	<0.0050		0.0050	mg/L	02-OCT-15	0.5			
	Trifluralin	<0.0050		0.0050	mg/L	02-OCT-15	4.5			
	Surrogate: 2,4,6-Tribromophenol	81.7		50-150	%	02-OCT-15				
	Surrogate: 2,4-Dichlorophenylacetic Acid	91.7		50-150	%	02-OCT-15				
	Surrogate: 2-Fluorobiphenyl	77.4		40-160	%	02-OCT-15				
	Surrogate: 2-Fluorobiphenyl	80.0		40-160	%	02-OCT-15				
	Surrogate: 2-Fluorobiphenyl	93.5		40-160	%	02-OCT-15				
	Surrogate: Nitrobenzene d5	98.9		50-150	%	02-OCT-15				
	Surrogate: d14-Terphenyl	106.3		60-140	%	02-OCT-15				
	Surrogate: d14-Terphenyl	75.1		60-140	%	02-OCT-15				
	Surrogate: p-Terphenyl d14	122.0		60-140	%	02-OCT-15				
TCLP Metals										
	Arsenic (As)	<0.050		0.050	mg/L	01-OCT-15	2.5			
	Barium (Ba)	1.33		0.50	mg/L	01-OCT-15	100			
	Boron (B)	<2.5		2.5	mg/L	01-OCT-15	500			
	Cadmium (Cd)	<0.0050		0.0050	mg/L	01-OCT-15	0.5			
	Chromium (Cr)	<0.050		0.050	mg/L	01-OCT-15	5.0			

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Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte						#1			
L1680825-4	DYEC/FA/150929/4									
Sampled By: A. HUXTER on 30-SEP-15 @ 08:01										
Matrix: SOIL										
TCLP Metals										
	Lead (Pb)	<0.050		0.050	mg/L	01-OCT-15	5.0			
	Mercury (Hg)	<0.00010		0.00010	mg/L	01-OCT-15	0.1			
	Selenium (Se)	<0.25		0.25	mg/L	01-OCT-15	1.0			
	Silver (Ag)	<0.0050		0.0050	mg/L	01-OCT-15	5.0			
	Uranium (U)	<0.25		0.25	mg/L	01-OCT-15	10			
TCLP VOCs										
	1,1-Dichloroethylene	<0.025		0.025	mg/L	02-OCT-15	1.4			
	1,2-Dichlorobenzene	<0.025		0.025	mg/L	02-OCT-15	20.0			
	1,2-Dichloroethane	<0.025		0.025	mg/L	02-OCT-15	0.5			
	1,4-Dichlorobenzene	<0.025		0.025	mg/L	02-OCT-15	0.5			
	Benzene	<0.025		0.025	mg/L	02-OCT-15	0.5			
	Carbon tetrachloride	<0.025		0.025	mg/L	02-OCT-15	0.5			
	Chlorobenzene	<0.025		0.025	mg/L	02-OCT-15	8			
	Chloroform	<0.10		0.10	mg/L	02-OCT-15	10			
	Dichloromethane	<0.50		0.50	mg/L	02-OCT-15	5.0			
	Methyl Ethyl Ketone	<1.0		1.0	mg/L	02-OCT-15	200.0			
	Tetrachloroethylene	<0.025		0.025	mg/L	02-OCT-15	3			
	Trichloroethylene	<0.025		0.025	mg/L	02-OCT-15	5			
	Vinyl chloride	<0.050		0.050	mg/L	02-OCT-15	0.2			
	Surrogate: 4-Bromofluorobenzene	93.5		70-130	%	02-OCT-15				
Volatile Organic Compounds										
	Surrogate: 1,4-Difluorobenzene	97.4		50-150	%	02-OCT-15				
Polychlorinated Biphenyls										
	Surrogate: Decachlorobiphenyl	112.0		50-150	%	02-OCT-15				
	Surrogate: Tetrachloro-m-xylene	92.4		50-150	%	02-OCT-15				
Dioxins and Furans										
	2,3,7,8-TCDD	<1.4	[U]	1.4	pg/L	07-OCT-15				
	1,2,3,7,8-PeCDD	<0.61	[U]	0.61	pg/L	07-OCT-15				
	1,2,3,4,7,8-HxCDD	<0.40	[U]	0.40	pg/L	07-OCT-15				
	1,2,3,6,7,8-HxCDD	<0.40	[U]	0.40	pg/L	07-OCT-15				
	1,2,3,7,8,9-HxCDD	<0.40	[U]	0.40	pg/L	07-OCT-15				
	1,2,3,4,6,7,8-HpCDD	<0.54	[U]	0.54	pg/L	07-OCT-15				
	OCDD	<0.54	[U]	0.54	pg/L	07-OCT-15				
	Total-TCDD	<1.4	[U]	1.4	pg/L	07-OCT-15				
	Total TCDD # Homologues	0			No Unit	07-OCT-15				
	Total-PeCDD	<0.61	[U]	0.61	pg/L	07-OCT-15				
	Total PeCDD # Homologues	0			No Unit	07-OCT-15				
	Total-HxCDD	<0.40	[U]	0.40	pg/L	07-OCT-15				
	Total HxCDD # Homologues	0			No Unit	07-OCT-15				
	Total-HpCDD	<0.54	[U]	0.54	pg/L	07-OCT-15				
	Total HpCDD # Homologues	0			No Unit	07-OCT-15				
	2,3,7,8-TCDF	<1.1	[U]	1.1	pg/L	07-OCT-15				
	1,2,3,7,8-PeCDF	<0.53	[U]	0.53	pg/L	07-OCT-15				
	2,3,4,7,8-PeCDF	<0.47	[U]	0.47	pg/L	07-OCT-15				
	1,2,3,4,7,8-HxCDF	<0.48	[U]	0.48	pg/L	07-OCT-15				
	1,2,3,6,7,8-HxCDF	<0.39	[U]	0.39	pg/L	07-OCT-15				

** Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.

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ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits		
Grouping	Analyte								
L1680825-4	DYEC/FA/150929/4								
Sampled By: A. HUXTER on 30-SEP-15 @ 08:01									
Matrix: SOIL									
Dioxins and Furans									
	1,2,3,7,8,9-HxCDF	<0.53	[U]	0.53	pg/L	07-OCT-15			
	2,3,4,6,7,8-HxCDF	<0.46	[U]	0.46	pg/L	07-OCT-15			
	1,2,3,4,6,7,8-HpCDF	0.66	M,J,R	0.40	pg/L	07-OCT-15			
	1,2,3,4,7,8,9-HpCDF	<0.50	[U]	0.50	pg/L	07-OCT-15			
	OCDF	11.0	[J]	0.78	pg/L	07-OCT-15			
	Total-TCDF	<1.1	[U]	1.1	pg/L	07-OCT-15			
	Total TCDF # Homologues	0			No Unit	07-OCT-15			
	Total-PeCDF	<0.53	[U]	0.53	pg/L	07-OCT-15			
	Total PeCDF # Homologues	0			No Unit	07-OCT-15			
	Total-HxCDF	<0.53	[U]	0.53	pg/L	07-OCT-15			
	Total HxCDF # Homologues	0			No Unit	07-OCT-15			
	Total-HpCDF	<0.50	[U]	0.50	pg/L	07-OCT-15			
	Total HpCDF # Homologues	0			No Unit	07-OCT-15			
	Surrogate: 13C12-2,3,7,8-TCDD	76.0		20-175	%	07-OCT-15			
	Surrogate: 13C12-1,2,3,7,8-PeCDD	92.0		21-227	%	07-OCT-15			
	Surrogate: 13C12-1,2,3,4,7,8-HxCDD	80.0		21-193	%	07-OCT-15			
	Surrogate: 13C12-1,2,3,6,7,8-HxCDD	91.0		25-163	%	07-OCT-15			
	Surrogate: 13C12-1,2,3,4,6,7,8-HpCDD	95.0		23-166	%	07-OCT-15			
	Surrogate: 13C12-OCDD	89.0		13-138	%	07-OCT-15			
	Surrogate: 13C12-2,3,7,8-TCDF	89.0		22-152	%	07-OCT-15			
	Surrogate: 13C12-1,2,3,7,8-PeCDF	96.0		24-185	%	07-OCT-15			
	Surrogate: 13C12-2,3,4,7,8-PeCDF	97.0		21-178	%	07-OCT-15			
	Surrogate: 13C12-1,2,3,4,7,8-HxCDF	88.0		26-152	%	07-OCT-15			
	Surrogate: 13C12-1,2,3,6,7,8-HxCDF	98.0		21-159	%	07-OCT-15			
	Surrogate: 13C12-2,3,4,6,7,8-HxCDF	98.0		17-205	%	07-OCT-15			
	Surrogate: 13C12-1,2,3,7,8,9-HxCDF	89.0		28-136	%	07-OCT-15			
	Surrogate: 13C12-1,2,3,4,6,7,8-HpCDF	105.0		21-158	%	07-OCT-15			
	Surrogate: 13C12-1,2,3,4,7,8,9-HpCDF	107.0		20-186	%	07-OCT-15			
	Surrogate: 37Cl4-2,3,7,8-TCDD (Cleanup)	86.0		31-191	%	07-OCT-15			
Toxic Equivalency									
	Lower Bound PCDD/F TEQ (WHO 2005)	0.00330			pg/L	07-OCT-15			
	Mid Point PCDD/F TEQ (WHO 2005)	1.31			pg/L	07-OCT-15			
	Upper Bound PCDD/F TEQ (WHO 2005)	2.60			pg/L	07-OCT-15	1500		

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Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

Reference Information

Qualifiers for Sample Submission Listed:

Qualifier	Description
CINT	Cooling initiated. Samples were received packed with ice or ice packs and were sampled the same day as received.

Sample Parameter Qualifier key listed:

Qualifier	Description
[U]	The analyte was not detected above the EDL.
DLM	Detection Limit Adjusted due to sample matrix effects.
M,U	A peak has been manually integrated, and the analyte was not detected above the EDL.
[J]	The analyte was detected below the calibrated range but above the EDL.
M,J,R	A peak has been manually integrated, the analyte was detected below the calibrated range but above the EDL, and the ion abundance ratio(s) did not meet the acceptance criteria. Value is an estimated maximum.
M,J	A peak has been manually integrated, and the analyte was detected below the calibrated range but above the EDL.
RRR	Refer to Report Remarks for issues regarding this analysis

Methods Listed (if applicable):

ALS Test Code	Matrix	Test Description	Method Reference***
ALDICARB-TCLP-WT	Waste	O. Reg 347 Aldicarb	LC/MS-MS
BNA-TCLP-WT	Waste	BNAs for O. Reg 347	SW846 8270
Samples are leached according to TCLP protocol and then the aqueous leachate is extracted and the resulting extracts are analyzed on GC/MSD			
CN-TCLP-WT	Waste	Cyanide for O. Reg 347	APHA 4500CN C E
DIQUAT-TCLP-WT	Waste	Diquat for O. Reg 347	LC/MS/MS
DIURON-TCLP-WT	Waste	Diuron for O. Reg 347	MOE PWAUH-E3436 (MOD)
DX-1613B-HRMS-BU	Waste	Dioxins and Furans by method 1613B	USEPA 1613B
Samples filtered if required. The solid portion is extracted by Soxhlet, the liquid portion is liquid/liquid extracted with dichloromethane. The extracts are prepared using column chromatography, reduced in volume and analyzed by isotope-dilution GC/HRMS.			
F-TCLP-WT	Waste	Fluoride (F) for O. Reg 347	APHA 4110 B-Ion Chromatography
GLYPHOSATE-TCLP-WT	Waste	Glyphosate for O. Reg 347	LC/MS/MS
HG-TCLP-WT	Waste	Mercury (CVAA) for O.Reg 347	SW846 7470A
LEACH-TCLP-WT	Waste	Leachate Procedure for Reg 347	EPA 1311
Inorganic and Semi-Volatile Organic contaminants are leached from waste samples in strict accordance with US EPA Method 1311, "Toxicity Characteristic Leaching Procedure" (TCLP). Test results are reported in leachate concentration units (normally mg/L).			
MET-TCLP-WT	Waste	O.Reg 347 TCLP Leachable Metals	EPA 200.8
N2N3-TCLP-WT	Waste	Nitrate/Nitrite-N for O. Reg 347	APHA 4110 B-Ion Chromatography
NDMA-TCLP-WT	Waste	NDMA for O. Reg 347	In House/GC/MS
NTA-TCLP-WT	Waste	NTA for O. Reg 347	EPA 430.2
PARAQUAT-TCLP-WT	Waste	Paraquat for O. Reg 347	LC/MS-MS
PCB-TCLP-WT	Waste	PCBs for O. Reg 347	SW846 8270
PEST-MISC-TCLP-WT	Waste	O. Reg 347 TCLP Miscellaneous Pesticides	SW846 8270
PEST-OC-TCLP-WT	Waste	O. Reg 347TCLP Organochlorine Pesticides	SW846 8270
Samples are leached according to TCLP protocol and then the aqueous leachate is extracted and the resulting extracts are analyzed on GC/MSD			
PEST-PAHERB-TCLP-WT	Waste	Phenoxyacid Herbicides for O. Reg 347	SW846 8270
PYR-TCLP-WT	Waste	Pyridine for O. Reg 347	SW846 8260D
Samples are leached according to TCLP protocol and then analyzed on GC/MSD			
TOXAPHENE-TCLP-WT	Waste	Toxaphene by GC/ECD for O. Reg 347	SW846 8270
VOC-TCLP-WT	Waste	VOC for O. Reg 347	SW846 8260

A sample of waste is leached in a zero headspace extractor at 30–2 rpm for 18–2.0 hours with the appropriate leaching solution. After tumbling the leachate is analyzed directly by headspace technology, followed by GC/MS using internal standard quantitation.

*** ALS test methods may incorporate modifications from specified reference methods to improve performance.

Chain of Custody numbers:

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Reference Information

Laboratory Definition Code	Laboratory Location	Laboratory Definition Code	Laboratory Location
WT	ALS ENVIRONMENTAL - WATERLOO, ONTARIO, CANADA	BU	ALS ENVIRONMENTAL - BURLINGTON, ONTARIO, CANADA

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.

mg/kg - milligrams per kilogram based on dry weight of sample

mg/kg wwt - milligrams per kilogram based on wet weight of sample

mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight

mg/L - unit of concentration based on volume, parts per million.

< - Less than.

D.L. - The reporting limit.

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.

Application of guidelines is provided "as is" without warranty of any kind, either expressed or implied, including, but not limited to fitness for a particular purpose, or non-infringement. ALS assumes no responsibility for errors or omissions in the information.



Quality Control Report

Workorder: L1680825

Report Date: 07-OCT-15

Page 1 of 22

Client: Covanta - Durham York Renewable Energy LP
1835 Energy Drive
Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
ALDICARB-TCLP-WT		Waste						
Batch	R3280218							
WG2183054-2	LCS							
Aldicarb			107.0		%		70-130	01-OCT-15
WG2183054-1	MB							
Aldicarb			<0.010		mg/L		0.01	01-OCT-15
BNA-TCLP-WT		Waste						
Batch	R3280524							
WG2182970-4	DUP	L1680197-1						
2,3,4,6-Tetrachlorophenol		<0.0050	<0.0050	RPD-NA	mg/L	N/A	50	01-OCT-15
2,4,5-Trichlorophenol		<0.0050	<0.0050	RPD-NA	mg/L	N/A	50	01-OCT-15
2,4,6-Trichlorophenol		<0.0050	<0.0050	RPD-NA	mg/L	N/A	50	01-OCT-15
2,4-Dichlorophenol		<0.0050	<0.0050	RPD-NA	mg/L	N/A	50	01-OCT-15
2,4-Dinitrotoluene		<0.0040	<0.0040	RPD-NA	mg/L	N/A	50	01-OCT-15
2-Methylphenol		<0.0050	<0.0050	RPD-NA	mg/L	N/A	50	01-OCT-15
3&4-Methylphenol		<0.010	<0.010	RPD-NA	mg/L	N/A	50	01-OCT-15
Hexachlorobenzene		<0.0040	<0.0040	RPD-NA	mg/L	N/A	50	01-OCT-15
Hexachlorobutadiene		<0.0040	<0.0040	RPD-NA	mg/L	N/A	50	01-OCT-15
Hexachloroethane		<0.0040	<0.0040	RPD-NA	mg/L	N/A	50	01-OCT-15
Nitrobenzene		<0.0040	<0.0040	RPD-NA	mg/L	N/A	50	01-OCT-15
Pentachlorophenol		<0.0050	<0.0050	RPD-NA	mg/L	N/A	50	01-OCT-15
WG2182970-2	LCS							
2,3,4,6-Tetrachlorophenol			99.7		%		60-140	01-OCT-15
2,4,5-Trichlorophenol			94.2		%		60-140	01-OCT-15
2,4,6-Trichlorophenol			87.2		%		60-140	01-OCT-15
2,4-Dichlorophenol			82.7		%		60-140	01-OCT-15
2,4-Dinitrotoluene			105.2		%		50-150	01-OCT-15
2-Methylphenol			78.9		%		60-140	01-OCT-15
3&4-Methylphenol			79.2		%		60-140	01-OCT-15
Hexachlorobenzene			91.8		%		60-140	01-OCT-15
Hexachlorobutadiene			70.6		%		40-130	01-OCT-15
Hexachloroethane			67.3		%		40-130	01-OCT-15
Nitrobenzene			85.8		%		60-140	01-OCT-15
Pentachlorophenol			79.9		%		50-160	01-OCT-15
WG2182970-1	MB							
2,3,4,6-Tetrachlorophenol			<0.0050		mg/L		0.005	01-OCT-15
2,4,5-Trichlorophenol			<0.0050		mg/L		0.005	01-OCT-15



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Client: Covanta - Durham York Renewable Energy LP
 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
BNA-TCLP-WT		Waste						
Batch	R3280524							
WG2182970-1	MB							
2,4,6-Trichlorophenol			<0.0050		mg/L		0.005	01-OCT-15
2,4-Dichlorophenol			<0.0050		mg/L		0.005	01-OCT-15
2,4-Dinitrotoluene			<0.0040		mg/L		0.004	01-OCT-15
2-Methylphenol			<0.0050		mg/L		0.005	01-OCT-15
3&4-Methylphenol			<0.010		mg/L		0.01	01-OCT-15
Hexachlorobenzene			<0.0040		mg/L		0.004	01-OCT-15
Hexachlorobutadiene			<0.0040		mg/L		0.004	01-OCT-15
Hexachloroethane			<0.0040		mg/L		0.004	01-OCT-15
Nitrobenzene			<0.0040		mg/L		0.004	01-OCT-15
Pentachlorophenol			<0.0050		mg/L		0.005	01-OCT-15
Surrogate: Nitrobenzene d5			66.4		%		50-150	01-OCT-15
Surrogate: 2-Fluorobiphenyl			55.2		%		40-160	01-OCT-15
Surrogate: p-Terphenyl d14			107.0		%		60-140	01-OCT-15
Surrogate: 2,4,6-Tribromophenol			75.1		%		50-150	01-OCT-15
WG2182970-3	MS	L1680197-1						
2,3,4,6-Tetrachlorophenol			79.6		%		50-150	01-OCT-15
2,4,5-Trichlorophenol			79.9		%		50-150	01-OCT-15
2,4,6-Trichlorophenol			71.6		%		50-150	01-OCT-15
2,4-Dichlorophenol			69.2		%		50-150	01-OCT-15
2,4-Dinitrotoluene			88.3		%		50-150	01-OCT-15
2-Methylphenol			65.2		%		50-150	01-OCT-15
3&4-Methylphenol			67.1		%		50-150	01-OCT-15
Hexachlorobenzene			74.8		%		40-150	01-OCT-15
Hexachlorobutadiene			58.7		%		40-150	01-OCT-15
Hexachloroethane			53.0		%		40-150	01-OCT-15
Nitrobenzene			72.1		%		50-150	01-OCT-15
Pentachlorophenol			73.5		%		50-150	01-OCT-15
CN-TCLP-WT		Waste						
Batch	R3280387							
WG2183393-3	DUP	L1680825-1						
Cyanide, Weak Acid Diss		<0.10	<0.10	RPD-NA	mg/L	N/A	20	01-OCT-15
WG2183393-2	LCS							
Cyanide, Weak Acid Diss			91.0		%		70-130	01-OCT-15
WG2183393-1	MB							



Environmental

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Client: Covanta - Durham York Renewable Energy LP
 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-TCLP-WT Waste								
Batch R3280387								
WG2183393-1 MB								
	Cyanide, Weak Acid Diss		<0.10		mg/L		0.1	01-OCT-15
WG2183393-4 MS L1680825-1								
	Cyanide, Weak Acid Diss		91.3		%		50-150	01-OCT-15
DIQUAT-TCLP-WT Waste								
Batch R3281302								
WG2183175-2 LCS								
	Diquat		106.8		%		70-130	01-OCT-15
WG2183175-1 MB								
	Diquat		<0.010		mg/L		0.01	01-OCT-15
DIURON-TCLP-WT Waste								
Batch R3280221								
WG2183163-2 LCS								
	Diuron		96.5		%		70-130	01-OCT-15
WG2183163-1 MB								
	Diuron		<0.010		mg/L		0.01	01-OCT-15
DX-1613B-HRMS-BU Waste								
Batch R3284728								
WG2183713-5 DUP L1680825-1								
	2,3,7,8-TCDD	<1.5	<1.7	RPD-NA	pg/L	N/A	50	06-OCT-15
	1,2,3,7,8-PeCDD	<0.68	<0.86	RPD-NA	pg/L	N/A	50	06-OCT-15
	1,2,3,4,7,8-HxCDD	<0.55	<0.65	RPD-NA	pg/L	N/A	50	06-OCT-15
	1,2,3,6,7,8-HxCDD	<0.55	<0.68	RPD-NA	pg/L	N/A	50	06-OCT-15
	1,2,3,7,8,9-HxCDD	<0.55	<0.66	RPD-NA	pg/L	N/A	50	06-OCT-15
	1,2,3,4,6,7,8-HpCDD	<0.73	<0.53	RPD-NA	pg/L	N/A	50	06-OCT-15
	OCDD	0.70	<0.50	RPD-NA	pg/L	N/A	50	06-OCT-15
	2,3,7,8-TCDF	<1.2	<1.1	RPD-NA	pg/L	N/A	50	06-OCT-15
	1,2,3,7,8-PeCDF	<0.63	<0.56	RPD-NA	pg/L	N/A	50	06-OCT-15
	2,3,4,7,8-PeCDF	<0.55	<0.51	RPD-NA	pg/L	N/A	50	06-OCT-15
	1,2,3,4,7,8-HxCDF	<0.36	<0.43	RPD-NA	pg/L	N/A	50	06-OCT-15
	1,2,3,6,7,8-HxCDF	<0.28	<0.36	RPD-NA	pg/L	N/A	50	06-OCT-15
	2,3,4,6,7,8-HxCDF	<0.35	<0.42	RPD-NA	pg/L	N/A	50	06-OCT-15
	1,2,3,7,8,9-HxCDF	0.96	<0.48	RPD-NA	pg/L	N/A	50	06-OCT-15
	1,2,3,4,6,7,8-HpCDF	<0.47	<0.41	RPD-NA	pg/L	N/A	50	06-OCT-15
	1,2,3,4,7,8,9-HpCDF	<0.64	<0.53	RPD-NA	pg/L	N/A	50	06-OCT-15



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Client: Covanta - Durham York Renewable Energy LP
 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
DX-1613B-HRMS-BU		Waste						
Batch	R3284728							
WG2183713-5	DUP	L1680825-1						
OCDF		<0.81	<0.99	RPD-NA	pg/L	N/A	50	06-OCT-15
Total-TCDD		<1.5	<1.7	RPD-NA	pg/L	N/A	50	06-OCT-15
Total-PeCDD		<0.68	<0.86	RPD-NA	pg/L	N/A	50	06-OCT-15
Total-HxCDD		<0.55	<0.68	RPD-NA	pg/L	N/A	50	06-OCT-15
Total-HpCDD		<0.73	<0.53	RPD-NA	pg/L	N/A	50	06-OCT-15
Total-TCDF		<1.2	<1.1	RPD-NA	pg/L	N/A	50	06-OCT-15
Total-PeCDF		<0.63	<0.56	RPD-NA	pg/L	N/A	50	06-OCT-15
Total-HxCDF		<0.37	<0.48	RPD-NA	pg/L	N/A	50	06-OCT-15
Total-HpCDF		<0.64	<0.53	RPD-NA	pg/L	N/A	50	06-OCT-15
WG2183713-3	LCS							
2,3,7,8-TCDD			107.0		%		67-158	06-OCT-15
1,2,3,7,8-PeCDD			114.0		%		70-142	06-OCT-15
1,2,3,4,7,8-HxCDD			94.0		%		70-164	06-OCT-15
1,2,3,6,7,8-HxCDD			108.0		%		76-134	06-OCT-15
1,2,3,7,8,9-HxCDD			117.0		%		64-162	06-OCT-15
1,2,3,4,6,7,8-HpCDD			114.0		%		70-140	06-OCT-15
OCDD			106.0		%		78-144	06-OCT-15
2,3,7,8-TCDF			111.0		%		75-158	06-OCT-15
1,2,3,7,8-PeCDF			112.0		%		80-134	06-OCT-15
2,3,4,7,8-PeCDF			104.0		%		68-160	06-OCT-15
1,2,3,4,7,8-HxCDF			105.0		%		72-134	06-OCT-15
1,2,3,6,7,8-HxCDF			99.0		%		84-130	06-OCT-15
2,3,4,6,7,8-HxCDF			114.0		%		78-130	06-OCT-15
1,2,3,7,8,9-HxCDF			114.0		%		70-156	06-OCT-15
1,2,3,4,6,7,8-HpCDF			103.0		%		82-122	06-OCT-15
1,2,3,4,7,8,9-HpCDF			106.0		%		78-138	06-OCT-15
OCDF			110.0		%		63-170	06-OCT-15
WG2183713-1	MB							
2,3,7,8-TCDD			<1.3	[U]	pg/L		1.3	06-OCT-15
1,2,3,7,8-PeCDD			<0.89	[U]	pg/L		0.89	06-OCT-15
1,2,3,4,7,8-HxCDD			<0.47	[U]	pg/L		0.47	06-OCT-15
1,2,3,6,7,8-HxCDD			<0.46	[U]	pg/L		0.46	06-OCT-15
1,2,3,7,8,9-HxCDD			<0.46	[U]	pg/L		0.46	06-OCT-15
1,2,3,4,6,7,8-HpCDD			<0.45	[U]	pg/L		0.45	06-OCT-15



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Client: Covanta - Durham York Renewable Energy LP
1835 Energy Drive
Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
DX-1613B-HRMS-BU		Waste						
Batch R3284728								
WG2183713-1 MB								
OCDD			<0.47	[U]	pg/L		0.47	06-OCT-15
2,3,7,8-TCDF			<0.95	[U]	pg/L		0.95	06-OCT-15
1,2,3,7,8-PeCDF			<0.44	[U]	pg/L		0.44	06-OCT-15
2,3,4,7,8-PeCDF			<0.40	[U]	pg/L		0.4	06-OCT-15
1,2,3,4,7,8-HxCDF			<0.35	[U]	pg/L		0.35	06-OCT-15
1,2,3,6,7,8-HxCDF			<0.29	[U]	pg/L		0.29	06-OCT-15
2,3,4,6,7,8-HxCDF			<0.33	[U]	pg/L		0.33	06-OCT-15
1,2,3,7,8,9-HxCDF			0.50	M,J	pg/L		0.36	06-OCT-15
1,2,3,4,6,7,8-HpCDF			<0.29	[U]	pg/L		0.29	06-OCT-15
1,2,3,4,7,8,9-HpCDF			<0.37	[U]	pg/L		0.37	06-OCT-15
OCDF			<0.72	[U]	pg/L		0.72	06-OCT-15
Total-TCDD			<1.3	[U]	pg/L		1.3	06-OCT-15
Total-PeCDD			<0.89	[U]	pg/L		0.89	06-OCT-15
Total-HxCDD			<0.47	[U]	pg/L		0.47	06-OCT-15
Total-HpCDD			<0.45	[U]	pg/L		0.45	06-OCT-15
Total-TCDF			<0.95	[U]	pg/L		0.95	06-OCT-15
Total-PeCDF			<0.44	[U]	pg/L		0.44	06-OCT-15
Total-HxCDF			0.50	A	pg/L		0.36	06-OCT-15
Total-HpCDF			<0.37	[U]	pg/L		0.37	06-OCT-15
Surrogate: 13C12-2,3,7,8-TCDD			81.0		%		20-175	06-OCT-15
Surrogate: 13C12-1,2,3,7,8-PeCDD			103.0		%		21-227	06-OCT-15
Surrogate: 13C12-1,2,3,4,7,8-HxCDD			84.0		%		21-193	06-OCT-15
Surrogate: 13C12-1,2,3,6,7,8-HxCDD			93.0		%		25-163	06-OCT-15
Surrogate: 13C12-1,2,3,4,6,7,8-HpCDD			100.0		%		23-166	06-OCT-15
Surrogate: 13C12-OCDD			90.0		%		13-138	06-OCT-15
Surrogate: 13C12-2,3,7,8-TCDF			91.0		%		22-152	06-OCT-15
Surrogate: 13C12-1,2,3,7,8-PeCDF			101.0		%		24-185	06-OCT-15
Surrogate: 13C12-2,3,4,7,8-PeCDF			101.0		%		21-178	06-OCT-15
Surrogate: 13C12-1,2,3,4,7,8-HxCDF			90.0		%		26-152	06-OCT-15
Surrogate: 13C12-1,2,3,6,7,8-HxCDF			95.0		%		21-159	06-OCT-15
Surrogate: 13C12-2,3,4,6,7,8-HxCDF			98.0		%		17-205	06-OCT-15
Surrogate: 13C12-1,2,3,7,8,9-HxCDF			93.0		%		28-136	06-OCT-15
Surrogate: 13C12-1,2,3,4,6,7,8-HpCDF			107.0		%		21-158	06-OCT-15

COMMENTS: There are low level 2,3,7,8 hits in the method blank. Samples with these targets are flagged if the blank concentration is >10%



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Client: Covanta - Durham York Renewable Energy LP
1835 Energy Drive
Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
DX-1613B-HRMS-BU		Waste						
Batch	R3284728							
WG2183713-1 MB								
Surrogate: 13C12-1,2,3,4,7,8,9-HpCDF			108.0		%		20-186	06-OCT-15
Surrogate: 37Cl4-2,3,7,8-TCDD (Cleanup)			86.0		%		31-191	06-OCT-15
COMMENTS: There are low level 2,3,7,8 hits in the method blank. Samples with these targets are flagged if the blank concentration is >10% of the sample concentration. All blank responses are well within the acceptance limits of the reference method 1613B.								
WG2183713-2 MB								
2,3,7,8-TCDD			<1.6	[U]	pg/L		1.6	06-OCT-15
1,2,3,7,8-PeCDD			<0.54	[U]	pg/L		0.54	06-OCT-15
1,2,3,4,7,8-HxCDD			<0.30	[U]	pg/L		0.3	06-OCT-15
1,2,3,6,7,8-HxCDD			<0.30	[U]	pg/L		0.3	06-OCT-15
1,2,3,7,8,9-HxCDD			<0.30	[U]	pg/L		0.3	06-OCT-15
1,2,3,4,6,7,8-HpCDD			<0.56	[U]	pg/L		0.56	06-OCT-15
OCDD			1.11	M,J	pg/L		0.41	06-OCT-15
2,3,7,8-TCDF			<1.1	[U]	pg/L		1.1	06-OCT-15
1,2,3,7,8-PeCDF			0.45	M,J	pg/L		0.42	06-OCT-15
2,3,4,7,8-PeCDF			<0.37	[U]	pg/L		0.37	06-OCT-15
1,2,3,4,7,8-HxCDF			<0.38	[U]	pg/L		0.38	06-OCT-15
1,2,3,6,7,8-HxCDF			<0.32	[U]	pg/L		0.32	06-OCT-15
2,3,4,6,7,8-HxCDF			<0.36	[U]	pg/L		0.36	06-OCT-15
1,2,3,7,8,9-HxCDF			<0.41	[U]	pg/L		0.41	06-OCT-15
1,2,3,4,6,7,8-HpCDF			0.60	M,J	pg/L		0.32	06-OCT-15
1,2,3,4,7,8,9-HpCDF			<0.42	[U]	pg/L		0.42	06-OCT-15
OCDF			1.60	M,J,R	pg/L		0.69	06-OCT-15
Total-TCDD			<1.6	[U]	pg/L		1.6	06-OCT-15
Total-PeCDD			<0.54	[U]	pg/L		0.54	06-OCT-15
Total-HxCDD			<0.30	[U]	pg/L		0.3	06-OCT-15
Total-HpCDD			<0.56	[U]	pg/L		0.56	06-OCT-15
Total-TCDF			<1.1	[U]	pg/L		1.1	06-OCT-15
Total-PeCDF			0.45	A	pg/L		0.42	06-OCT-15
Total-HxCDF			<0.41	[U]	pg/L		0.41	06-OCT-15
Total-HpCDF			0.60	A	pg/L		0.42	06-OCT-15
Surrogate: 13C12-2,3,7,8-TCDD			77.0		%		20-175	06-OCT-15
Surrogate: 13C12-1,2,3,7,8-PeCDD			95.0		%		21-227	06-OCT-15
Surrogate: 13C12-1,2,3,4,7,8-HxCDD			81.0		%		21-193	06-OCT-15
Surrogate: 13C12-1,2,3,6,7,8-HxCDD			90.0		%		25-163	06-OCT-15



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Client: Covanta - Durham York Renewable Energy LP
1835 Energy Drive
Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
DX-1613B-HRMS-BU		Waste						
Batch R3284728								
WG2183713-2 MB								
Surrogate: 13C12-1,2,3,4,6,7,8-HpCDD			96.0		%		23-166	06-OCT-15
Surrogate: 13C12-OCDD			89.0		%		13-138	06-OCT-15
Surrogate: 13C12-2,3,7,8-TCDF			88.0		%		22-152	06-OCT-15
Surrogate: 13C12-1,2,3,7,8-PeCDF			96.0		%		24-185	06-OCT-15
Surrogate: 13C12-2,3,4,7,8-PeCDF			95.0		%		21-178	06-OCT-15
Surrogate: 13C12-1,2,3,4,7,8-HxCDF			89.0		%		26-152	06-OCT-15
Surrogate: 13C12-1,2,3,6,7,8-HxCDF			97.0		%		21-159	06-OCT-15
Surrogate: 13C12-2,3,4,6,7,8-HxCDF			96.0		%		17-205	06-OCT-15
Surrogate: 13C12-1,2,3,7,8,9-HxCDF			90.0		%		28-136	06-OCT-15
Surrogate: 13C12-1,2,3,4,6,7,8-HpCDF			103.0		%		21-158	06-OCT-15
Surrogate: 13C12-1,2,3,4,7,8,9-HpCDF			104.0		%		20-186	06-OCT-15
Surrogate: 37Cl4-2,3,7,8-TCDD (Cleanup)			87.0		%		31-191	06-OCT-15

COMMENTS: There are low level 2,3,7,8 hits in the method blank. Samples with these targets are flagged if the blank concentration is >10% of the sample concentration. All blank responses are well within the acceptance limits of the reference method 1613B.

F-TCLP-WT		Waste							
Batch R3281216									
WG2183733-3 DUP		L1679773-1							
Fluoride (F)			<10		RPD-NA	mg/L	N/A	30	01-OCT-15
WG2183733-2 LCS									
Fluoride (F)			90.0		%		70-130	01-OCT-15	
WG2183733-1 MB									
Fluoride (F)			<10		mg/L		10	01-OCT-15	
WG2183733-4 MS		L1679773-1							
Fluoride (F)			86.7		%		50-150	01-OCT-15	

GLYPHOSATE-TCLP-WT		Waste						
Batch R3281384								
WG2183171-2 LCS								
Glyphosate			102.6		%		70-130	02-OCT-15
WG2183171-1 MB								
Glyphosate			<0.050		mg/L		0.05	02-OCT-15

HG-TCLP-WT		Waste							
Batch R3280212									
WG2183127-3 DUP		L1680825-1							
Mercury (Hg)			<0.00010		RPD-NA	mg/L	N/A	50	01-OCT-15
WG2183127-2 LCS									
Mercury (Hg)			98.6				70-130		



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 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
HG-TCLP-WT		Waste						
Batch	R3280212							
WG2183127-2	LCS							
Mercury (Hg)			98.6		%		70-130	01-OCT-15
WG2183127-1	MB							
Mercury (Hg)			<0.00010		mg/L		0.0001	01-OCT-15
WG2183127-4	MS	L1680825-1						
Mercury (Hg)			92.7		%		50-140	01-OCT-15
MET-TCLP-WT		Waste						
Batch	R3280296							
WG2183091-4	DUP	WG2183091-3						
Silver (Ag)		<0.0050	<0.0050	RPD-NA	mg/L	N/A	40	01-OCT-15
Arsenic (As)		<0.050	<0.050	RPD-NA	mg/L	N/A	40	01-OCT-15
Boron (B)		<2.5	<2.5	RPD-NA	mg/L	N/A	40	01-OCT-15
Barium (Ba)		1.28	1.24		mg/L	3.4	40	01-OCT-15
Cadmium (Cd)		<0.0050	<0.0050	RPD-NA	mg/L	N/A	40	01-OCT-15
Chromium (Cr)		<0.050	<0.050	RPD-NA	mg/L	N/A	40	01-OCT-15
Lead (Pb)		<0.050	<0.050	RPD-NA	mg/L	N/A	40	01-OCT-15
Selenium (Se)		<0.25	<0.25	RPD-NA	mg/L	N/A	40	01-OCT-15
Uranium (U)		<0.25	<0.25	RPD-NA	mg/L	N/A	40	01-OCT-15
WG2183091-2	LCS							
Silver (Ag)			102.1		%		70-130	01-OCT-15
Arsenic (As)			98.5		%		70-130	01-OCT-15
Boron (B)			93.4		%		70-130	01-OCT-15
Barium (Ba)			96.9		%		70-130	01-OCT-15
Cadmium (Cd)			98.6		%		70-130	01-OCT-15
Chromium (Cr)			103.4		%		70-130	01-OCT-15
Lead (Pb)			93.1		%		70-130	01-OCT-15
Selenium (Se)			97.3		%		70-130	01-OCT-15
Uranium (U)			94.3		%		70-130	01-OCT-15
WG2183091-1	MB							
Silver (Ag)			<0.0050		mg/L		0.005	01-OCT-15
Arsenic (As)			<0.050		mg/L		0.05	01-OCT-15
Boron (B)			<2.5		mg/L		2.5	01-OCT-15
Barium (Ba)			<0.50		mg/L		0.5	01-OCT-15
Cadmium (Cd)			<0.0050		mg/L		0.005	01-OCT-15
Chromium (Cr)			<0.050		mg/L		0.05	01-OCT-15



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 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-TCLP-WT		Waste						
Batch	R3280296							
WG2183091-1	MB							
Lead (Pb)			<0.050		mg/L		0.05	01-OCT-15
Selenium (Se)			<0.25		mg/L		0.25	01-OCT-15
Uranium (U)			<0.25		mg/L		0.25	01-OCT-15
WG2183091-5	MS	WG2183091-3						
Silver (Ag)			93.6		%		50-150	01-OCT-15
Arsenic (As)			103.2		%		50-150	01-OCT-15
Boron (B)			94.2		%		50-150	01-OCT-15
Barium (Ba)			103.5		%		50-150	01-OCT-15
Cadmium (Cd)			101.3		%		50-150	01-OCT-15
Chromium (Cr)			103.6		%		50-150	01-OCT-15
Lead (Pb)			96.4		%		50-150	01-OCT-15
Selenium (Se)			104.3		%		50-150	01-OCT-15
Uranium (U)			97.9		%		50-150	01-OCT-15
N2N3-TCLP-WT		Waste						
Batch	R3281216							
WG2183733-3	DUP	L1679773-1						
Nitrate-N		<2.0	<2.0	RPD-NA	mg/L	N/A	30	01-OCT-15
Nitrite-N		<2.0	<2.0	RPD-NA	mg/L	N/A	30	01-OCT-15
WG2183733-2	LCS							
Nitrate-N			95.6		%		70-130	01-OCT-15
Nitrite-N			96.6		%		70-130	01-OCT-15
WG2183733-1	MB							
Nitrate-N			<2.0		mg/L		2	01-OCT-15
Nitrite-N			<2.0		mg/L		2	01-OCT-15
WG2183733-4	MS	L1679773-1						
Nitrate-N			85.7		%		50-150	01-OCT-15
Nitrite-N			81.8		%		50-150	01-OCT-15
NDMA-TCLP-WT		Waste						
Batch	R3281013							
WG2183990-5	DUP	L1680825-4						
N-Nitrosodimethylamine		<0.00020	<0.00020	RPD-NA	mg/L	N/A	50	02-OCT-15
WG2183990-2	LCS							
N-Nitrosodimethylamine			92.5		%		50-150	02-OCT-15
WG2183990-1	MB							
N-Nitrosodimethylamine			<0.00020		mg/L		0.0002	02-OCT-15



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 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
NDMA-TCLP-WT Waste								
Batch	R3281013							
WG2183990-4	MS	L1680825-4						
N-Nitrosodimethylamine			94.4		%		50-150	02-OCT-15
NTA-TCLP-WT Waste								
Batch	R3281517							
WG2184655-2	LCS							
Nitrotriacetic Acid (NTA)			95.0		%		75-125	02-OCT-15
WG2184655-1	MB							
Nitrotriacetic Acid (NTA)			<0.20		mg/L		0.2	02-OCT-15
PARAQUAT-TCLP-WT Waste								
Batch	R3281302							
WG2183175-2	LCS							
Paraquat			102.4		%		50-150	01-OCT-15
WG2183175-1	MB							
Paraquat			<0.010		mg/L		0.01	01-OCT-15
PCB-TCLP-WT Waste								
Batch	R3280887							
WG2182965-4	DUP	L1679773-1						
Aroclor 1242			<0.00020	RPD-NA	mg/L	N/A	50	02-OCT-15
Aroclor 1248			<0.00020	RPD-NA	mg/L	N/A	50	02-OCT-15
Aroclor 1254			<0.00020	RPD-NA	mg/L	N/A	50	02-OCT-15
Aroclor 1260			<0.00020	RPD-NA	mg/L	N/A	50	02-OCT-15
WG2182965-2	LCS							
Aroclor 1242			91.5		%		65-130	02-OCT-15
Aroclor 1248			67.4		%		65-130	02-OCT-15
Aroclor 1254			87.5		%		65-130	02-OCT-15
Aroclor 1260			95.8		%		65-130	02-OCT-15
WG2182965-1	MB							
Aroclor 1242			<0.00020		mg/L		0.0002	02-OCT-15
Aroclor 1248			<0.00020		mg/L		0.0002	02-OCT-15
Aroclor 1254			<0.00020		mg/L		0.0002	02-OCT-15
Aroclor 1260			<0.00020		mg/L		0.0002	02-OCT-15
Surrogate: 2-Fluorobiphenyl			75.4		%		40-160	02-OCT-15
WG2182965-3	MS	L1679773-1						
Aroclor 1242			81.7		%		50-150	02-OCT-15
Aroclor 1254			83.1		%		50-150	02-OCT-15



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 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PCB-TCLP-WT		Waste						
Batch	R3280887							
WG2182965-3	MS	L1679773-1						
Aroclor 1260			92.7		%		50-150	02-OCT-15
PEST-MISC-TCLP-WT		Waste						
Batch	R3280896							
WG2182969-4	DUP	WG2182969-6						
Atrazine Desethyl		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	02-OCT-15
Atrazine		0.59	0.80		mg/L	31	50	02-OCT-15
Bendiocarb		<0.0050	<0.0050	RPD-NA	mg/L	N/A	50	02-OCT-15
Trifluralin		<0.0050	<0.0050	RPD-NA	mg/L	N/A	50	02-OCT-15
Phorate		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	02-OCT-15
Dimethoate		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	02-OCT-15
Simazine		0.0096	0.0094		mg/L	2.9	50	02-OCT-15
Carbofuran		<0.0020	<0.0020	RPD-NA	mg/L	N/A	50	02-OCT-15
Terbufos		<0.0020	<0.0020	RPD-NA	mg/L	N/A	50	02-OCT-15
Diazinon		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	02-OCT-15
Triallate		<0.0045	<0.0045	RPD-NA	mg/L	N/A	50	02-OCT-15
Metribuzin		0.017	0.017		mg/L	3.9	50	02-OCT-15
Carbaryl		0.39	0.31		mg/L	26	50	02-OCT-15
Alachlor		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	02-OCT-15
Prometryne		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	02-OCT-15
Malathion		0.015	0.012		mg/L	23	50	02-OCT-15
Metolachlor		0.017	0.016		mg/L	2.2	50	02-OCT-15
Methyl Parathion		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	02-OCT-15
Parathion		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	02-OCT-15
Cyanazine		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	02-OCT-15
Chlorpyrifos		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	02-OCT-15
Diclofop methyl		<0.0020	<0.0020	RPD-NA	mg/L	N/A	50	02-OCT-15
Azinphos methyl		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	02-OCT-15
Benzo(a)pyrene		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	02-OCT-15
Temephos		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	02-OCT-15
WG2182969-2	LCS							
Atrazine Desethyl			47.3	LCS-ND	%		50-140	02-OCT-15
Atrazine			97.2		%		60-140	02-OCT-15



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1835 Energy Drive
Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PEST-MISC-TCLP-WT		Waste						
Batch	R3280896							
WG2182969-2	LCS							
Bendiocarb			100.5		%		50-140	02-OCT-15
Trifluralin			80.0		%		60-140	02-OCT-15
Phorate			81.3		%		60-140	02-OCT-15
Dimethoate			82.9		%		60-140	02-OCT-15
Simazine			93.0		%		60-140	02-OCT-15
Carbofuran			100.8		%		60-140	02-OCT-15
Terbufos			88.0		%		60-140	02-OCT-15
Diazinon			81.7		%		60-140	02-OCT-15
Triallate			94.8		%		60-140	02-OCT-15
Metribuzin			98.0		%		60-140	02-OCT-15
Carbaryl			114.3		%		50-175	02-OCT-15
Alachlor			98.5		%		60-140	02-OCT-15
Prometryne			102.0		%		60-140	02-OCT-15
Malathion			92.0		%		60-130	02-OCT-15
Metolachlor			92.9		%		60-140	02-OCT-15
Methyl Parathion			92.0		%		60-140	02-OCT-15
Parathion			97.8		%		60-140	02-OCT-15
Cyanazine			114.8		%		60-140	02-OCT-15
Chlorpyrifos			96.3		%		60-140	02-OCT-15
Diclofop methyl			92.3		%		60-140	02-OCT-15
Azinphos methyl			107.9		%		60-140	02-OCT-15
Benzo(a)pyrene			104.4		%		60-140	02-OCT-15
Temephos			125.0		%		60-140	02-OCT-15
WG2182969-1	MB							
Atrazine Desethyl			<0.0010		mg/L		0.001	02-OCT-15
Atrazine			<0.0010		mg/L		0.001	02-OCT-15
Bendiocarb			<0.0050		mg/L		0.005	02-OCT-15
Trifluralin			<0.0050		mg/L		0.005	02-OCT-15
Phorate			<0.0010		mg/L		0.001	02-OCT-15
Dimethoate			<0.0010		mg/L		0.001	02-OCT-15
Simazine			<0.0010		mg/L		0.001	02-OCT-15
Carbofuran			<0.0020		mg/L		0.002	02-OCT-15
Terbufos			<0.0020		mg/L		0.002	02-OCT-15
Diazinon			<0.0010		mg/L		0.001	02-OCT-15



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1835 Energy Drive
Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PEST-MISC-TCLP-WT		Waste						
Batch	R3280896							
WG2182969-1	MB							
Triallate			<0.0010		mg/L		0.001	02-OCT-15
Metribuzin			<0.0010		mg/L		0.001	02-OCT-15
Carbaryl			<0.0020		mg/L		0.002	02-OCT-15
Alachlor			<0.0010		mg/L		0.001	02-OCT-15
Prometryne			<0.0010		mg/L		0.001	02-OCT-15
Malathion			<0.0010		mg/L		0.001	02-OCT-15
Metolachlor			<0.0010		mg/L		0.001	02-OCT-15
Methyl Parathion			<0.0010		mg/L		0.001	02-OCT-15
Parathion			<0.0010		mg/L		0.001	02-OCT-15
Cyanazine			<0.0010		mg/L		0.001	02-OCT-15
Chlorpyrifos			<0.0010		mg/L		0.001	02-OCT-15
Diclofop methyl			<0.0020		mg/L		0.002	02-OCT-15
Azinphos methyl			<0.0010		mg/L		0.001	02-OCT-15
Benzo(a)pyrene			<0.0010		mg/L		0.001	02-OCT-15
Temephos			<0.0010		mg/L		0.001	02-OCT-15
Surrogate: 2-Fluorobiphenyl			62.2		%		40-160	02-OCT-15
Surrogate: d14-Terphenyl			74.8		%		60-140	02-OCT-15
WG2182969-5	MB							
Atrazine Desethyl			<0.0010		mg/L		0.001	02-OCT-15
Atrazine			<0.0010		mg/L		0.001	02-OCT-15
Bendiocarb			<0.0050		mg/L		0.005	02-OCT-15
Trifluralin			<0.0050		mg/L		0.005	02-OCT-15
Phorate			<0.0010		mg/L		0.001	02-OCT-15
Dimethoate			<0.0010		mg/L		0.001	02-OCT-15
Simazine			<0.0010		mg/L		0.001	02-OCT-15
Carbofuran			<0.0020		mg/L		0.002	02-OCT-15
Terbufos			<0.0020		mg/L		0.002	02-OCT-15
Diazinon			<0.0010		mg/L		0.001	02-OCT-15
Triallate			<0.0010		mg/L		0.001	02-OCT-15
Metribuzin			<0.0010		mg/L		0.001	02-OCT-15
Carbaryl			<0.0020		mg/L		0.002	02-OCT-15
Alachlor			<0.0010		mg/L		0.001	02-OCT-15
Prometryne			<0.0010		mg/L		0.001	02-OCT-15
Malathion			<0.0010		mg/L		0.001	02-OCT-15



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 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PEST-MISC-TCLP-WT		Waste						
Batch	R3280896							
WG2182969-5	MB							
Metolachlor			<0.0010		mg/L		0.001	02-OCT-15
Methyl Parathion			<0.0010		mg/L		0.001	02-OCT-15
Parathion			<0.0010		mg/L		0.001	02-OCT-15
Cyanazine			<0.0010		mg/L		0.001	02-OCT-15
Chlorpyrifos			<0.0010		mg/L		0.001	02-OCT-15
Diclofop methyl			<0.0020		mg/L		0.002	02-OCT-15
Azinphos methyl			<0.0010		mg/L		0.001	02-OCT-15
Benzo(a)pyrene			<0.0010		mg/L		0.001	02-OCT-15
Temephos			<0.0010		mg/L		0.001	02-OCT-15
Surrogate: 2-Fluorobiphenyl			75.5		%		40-160	02-OCT-15
Surrogate: d14-Terphenyl			71.9		%		60-140	02-OCT-15
WG2182969-3	MS	WG2182969-6						
Atrazine Desethyl			58.0		%		50-150	02-OCT-15
Bendiocarb			126.6		%		50-150	02-OCT-15
Trifluralin			99.8		%		50-150	02-OCT-15
Phorate			102.9		%		50-150	02-OCT-15
Dimethoate			90.8		%		50-150	02-OCT-15
Simazine			N/A	MS-B	%		-	02-OCT-15
Carbofuran			153.0	K	%		50-150	02-OCT-15
Terbufos			105.4		%		50-150	02-OCT-15
Diazinon			102.0		%		50-150	02-OCT-15
Triallate			215.9	K	%		50-150	02-OCT-15
Metribuzin			N/A	MS-B	%		-	02-OCT-15
Carbaryl			N/A	MS-B	%		-	02-OCT-15
Alachlor			111.7		%		50-150	02-OCT-15
Prometryne			106.7		%		50-150	02-OCT-15
Malathion			N/A	MS-B	%		-	02-OCT-15
Metolachlor			N/A	MS-B	%		-	02-OCT-15
Methyl Parathion			97.2		%		50-150	02-OCT-15
Parathion			115.8		%		50-150	02-OCT-15
Cyanazine			126.5		%		50-150	02-OCT-15
Chlorpyrifos			119.9		%		50-150	02-OCT-15
Diclofop methyl			98.9		%		50-150	02-OCT-15
Azinphos methyl			100.9		%		50-150	02-OCT-15



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 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PEST-MISC-TCLP-WT		Waste						
Batch	R3280896							
WG2182969-3	MS	WG2182969-6						
Benzo(a)pyrene			103.5		%		50-150	02-OCT-15
PEST-OC-TCLP-WT		Waste						
Batch	R3281020							
WG2182969-4	DUP	WG2182969-6						
gamma-BHC		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	02-OCT-15
Heptachlor		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	02-OCT-15
Heptachlor epoxide		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	02-OCT-15
Oxychlordane		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	02-OCT-15
gamma-Chlordane		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	02-OCT-15
alpha-Chlordane		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	02-OCT-15
Aldrin		<0.00020	<0.00020	RPD-NA	mg/L	N/A	50	02-OCT-15
Dieldrin		<0.00065	<0.00065	RPD-NA	mg/L	N/A	50	02-OCT-15
Endrin		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	02-OCT-15
p,p-DDE		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	02-OCT-15
p,p-DDD		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	02-OCT-15
p,p-DDT		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	02-OCT-15
o,p-DDT		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	02-OCT-15
Methoxychlor		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	02-OCT-15
WG2182969-2	LCS							
gamma-BHC			89.1		%		50-150	02-OCT-15
Heptachlor			85.9		%		25-175	02-OCT-15
Heptachlor epoxide			92.1		%		25-175	02-OCT-15
Oxychlordane			99.0		%		25-175	02-OCT-15
gamma-Chlordane			100.8		%		25-175	02-OCT-15
alpha-Chlordane			97.2		%		25-175	02-OCT-15
Aldrin			110.1		%		25-175	02-OCT-15
Dieldrin			91.8		%		25-175	02-OCT-15
Endrin			116.1		%		50-150	02-OCT-15
p,p-DDE			97.3		%		25-175	02-OCT-15
p,p-DDD			99.1		%		25-175	02-OCT-15
p,p-DDT			86.8		%		25-175	02-OCT-15
o,p-DDT			90.0		%		50-130	02-OCT-15
Methoxychlor			94.5		%		25-175	02-OCT-15



Quality Control Report

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Client: Covanta - Durham York Renewable Energy LP
1835 Energy Drive
Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PEST-OC-TCLP-WT		Waste						
Batch	R3281020							
WG2182969-1	MB							
gamma-BHC			<0.0010		mg/L		0.001	02-OCT-15
Heptachlor			<0.0010		mg/L		0.001	02-OCT-15
Heptachlor epoxide			<0.0010		mg/L		0.001	02-OCT-15
Oxychlordane			<0.0010		mg/L		0.001	02-OCT-15
gamma-Chlordane			<0.0010		mg/L		0.001	02-OCT-15
alpha-Chlordane			<0.0010		mg/L		0.001	02-OCT-15
Aldrin			<0.00020		mg/L		0.0002	02-OCT-15
Dieldrin			<0.00020		mg/L		0.0002	02-OCT-15
Endrin			<0.0010		mg/L		0.001	02-OCT-15
p,p-DDE			<0.0010		mg/L		0.001	02-OCT-15
p,p-DDD			<0.0010		mg/L		0.001	02-OCT-15
p,p-DDT			<0.0010		mg/L		0.001	02-OCT-15
o,p-DDT			<0.0010		mg/L		0.001	02-OCT-15
Methoxychlor			<0.0010		mg/L		0.001	02-OCT-15
Surrogate: d14-Terphenyl			101.6		%		60-140	02-OCT-15
WG2182969-5	MB							
gamma-BHC			<0.0010		mg/L		0.001	02-OCT-15
Heptachlor			<0.0010		mg/L		0.001	02-OCT-15
Heptachlor epoxide			<0.0010		mg/L		0.001	02-OCT-15
Oxychlordane			<0.0010		mg/L		0.001	02-OCT-15
gamma-Chlordane			<0.0010		mg/L		0.001	02-OCT-15
alpha-Chlordane			<0.0010		mg/L		0.001	02-OCT-15
Aldrin			<0.00020		mg/L		0.0002	02-OCT-15
Dieldrin			<0.00020		mg/L		0.0002	02-OCT-15
Endrin			<0.0010		mg/L		0.001	02-OCT-15
p,p-DDE			<0.0010		mg/L		0.001	02-OCT-15
p,p-DDD			<0.0010		mg/L		0.001	02-OCT-15
p,p-DDT			<0.0010		mg/L		0.001	02-OCT-15
o,p-DDT			<0.0010		mg/L		0.001	02-OCT-15
Methoxychlor			<0.0010		mg/L		0.001	02-OCT-15
Surrogate: d14-Terphenyl			101.2		%		60-140	02-OCT-15
WG2182969-3	MS	WG2182969-6						
gamma-BHC			106.6		%		50-150	02-OCT-15
Heptachlor			98.7		%		50-150	02-OCT-15



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Client: Covanta - Durham York Renewable Energy LP
1835 Energy Drive
Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PEST-OC-TCLP-WT		Waste						
Batch	R3281020							
WG2182969-3 MS		WG2182969-6						
Heptachlor epoxide			98.7		%		50-150	02-OCT-15
Oxychlordane			119.5		%		50-150	02-OCT-15
gamma-Chlordane			101.4		%		50-150	02-OCT-15
alpha-Chlordane			102.7		%		50-150	02-OCT-15
Aldrin			129.1		%		50-150	02-OCT-15
Dieldrin			74.2		%		50-150	02-OCT-15
Endrin			141.4		%		50-150	02-OCT-15
p,p-DDE			88.4		%		50-150	02-OCT-15
p,p-DDD			99.1		%		50-150	02-OCT-15
p,p-DDT			81.1		%		50-150	02-OCT-15
o,p-DDT			80.7		%		50-150	02-OCT-15
Methoxychlor			94.6		%		50-150	02-OCT-15
PEST-PAHERB-TCLP-WT		Waste						
Batch	R3280851							
WG2182967-5 DUP		L1679773-1						
2,4,5-TP		<0.0020	<0.0020	RPD-NA	mg/L	N/A	50	02-OCT-15
MCPA		<0.0020	<0.0020	RPD-NA	mg/L	N/A	50	02-OCT-15
2,4,5-T		<0.0020	<0.0020	RPD-NA	mg/L	N/A	50	02-OCT-15
2,4-D		<0.0020	<0.0020	RPD-NA	mg/L	N/A	50	02-OCT-15
Bromoxynil		<0.0020	<0.0020	RPD-NA	mg/L	N/A	50	02-OCT-15
Dicamba		<0.0050	<0.0050	RPD-NA	mg/L	N/A	50	02-OCT-15
Dinoseb		<0.0020	<0.0020	RPD-NA	mg/L	N/A	50	02-OCT-15
Picloram		<0.0050	<0.0050	RPD-NA	mg/L	N/A	50	02-OCT-15
WG2182967-2 LCS								
2,4,5-TP			116.9		%		65-135	02-OCT-15
MCPA			103.9		%		65-135	02-OCT-15
2,4,5-T			104.6		%		65-135	02-OCT-15
2,4-D			114.8		%		25-175	02-OCT-15
Bromoxynil			109.1		%		65-135	02-OCT-15
Dicamba			86.6		%		30-150	02-OCT-15
Dinoseb			114.0		%		30-150	02-OCT-15
Picloram			42.6		%		25-120	02-OCT-15
WG2182967-1 MB								
2,4,5-TP			<0.0020		mg/L		0.002	02-OCT-15



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Client: Covanta - Durham York Renewable Energy LP
1835 Energy Drive
Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PEST-PAHERB-TCLP-WT Waste								
Batch R3280851								
WG2182967-1 MB								
MCPA			<0.0020		mg/L		0.002	02-OCT-15
2,4,5-T			<0.0020		mg/L		0.002	02-OCT-15
2,4-D			<0.0020		mg/L		0.002	02-OCT-15
Bromoxynil			<0.0020		mg/L		0.002	02-OCT-15
Dicamba			<0.0050		mg/L		0.005	02-OCT-15
Dinoseb			<0.0020		mg/L		0.002	02-OCT-15
Picloram			<0.0050		mg/L		0.005	02-OCT-15
Surrogate: 2,4-Dichlorophenylacetic Acid			135.7		%		50-150	02-OCT-15
WG2182967-3 MB								
2,4,5-TP			<0.0020		mg/L		0.002	02-OCT-15
MCPA			<0.0020		mg/L		0.002	02-OCT-15
2,4,5-T			<0.0020		mg/L		0.002	02-OCT-15
2,4-D			<0.0020		mg/L		0.002	02-OCT-15
Bromoxynil			<0.0020		mg/L		0.002	02-OCT-15
Dicamba			<0.0050		mg/L		0.005	02-OCT-15
Dinoseb			<0.0020		mg/L		0.002	02-OCT-15
Picloram			<0.0050		mg/L		0.005	02-OCT-15
Surrogate: 2,4-Dichlorophenylacetic Acid			137.6		%		50-150	02-OCT-15
WG2182967-4 MS L1679773-1								
2,4,5-TP			114.6		%		50-150	02-OCT-15
MCPA			105.8		%		50-150	02-OCT-15
2,4,5-T			102.7		%		50-150	02-OCT-15
2,4-D			105.1		%		50-150	02-OCT-15
Bromoxynil			106.8		%		50-150	02-OCT-15
Dicamba			90.3		%		50-150	02-OCT-15
Dinoseb			106.5		%		30-150	02-OCT-15
Picloram			46.3		%		25-150	02-OCT-15
PYR-TCLP-WT Waste								
Batch R3281050								
WG2183591-4 DUP L1680825-1								
Pyridine		<5.0	<5.0	RPD-NA	mg/L	N/A	30	01-OCT-15
WG2183591-2 LCS								
Pyridine			102.0		%		70-130	01-OCT-15
WG2183591-3 MB								



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Client: Covanta - Durham York Renewable Energy LP
 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PYR-TCLP-WT								
	Waste							
Batch	R3281050							
WG2183591-3	MB							
Pyridine			<5.0		mg/L		5	01-OCT-15
WG2183591-5	MS	L1680825-4						
Pyridine			100.0		%		50-150	01-OCT-15
TOXAPHENE-TCLP-WT								
	Waste							
Batch	R3281326							
WG2183709-3	DUP	L1680825-1						
Toxaphene		<0.0038	<0.0035	RPD-NA	mg/L	N/A	50	02-OCT-15
WG2183709-2	LCS							
Toxaphene			121.0		%		50-150	02-OCT-15
WG2183709-1	MB							
Toxaphene			<0.0035		mg/L		0.0035	02-OCT-15
Surrogate: Decachlorobiphenyl			118.0		%		50-150	02-OCT-15
Surrogate: Tetrachloro-m-xylene			103.0		%		50-150	02-OCT-15
WG2183709-4	MS	L1680825-1						
Toxaphene			114.8		%		50-150	02-OCT-15
VOC-TCLP-WT								
	Waste							
Batch	R3280888							
WG2181276-4	DUP	L1680825-4						
1,1-Dichloroethylene		<0.025	<0.025	RPD-NA	mg/L	N/A	50	02-OCT-15
1,2-Dichlorobenzene		<0.025	<0.025	RPD-NA	mg/L	N/A	50	02-OCT-15
1,2-Dichloroethane		<0.025	<0.025	RPD-NA	mg/L	N/A	50	02-OCT-15
1,4-Dichlorobenzene		<0.025	<0.025	RPD-NA	mg/L	N/A	50	02-OCT-15
Benzene		<0.025	<0.025	RPD-NA	mg/L	N/A	50	02-OCT-15
Carbon tetrachloride		<0.025	<0.025	RPD-NA	mg/L	N/A	50	02-OCT-15
Chlorobenzene		<0.025	<0.025	RPD-NA	mg/L	N/A	50	02-OCT-15
Chloroform		<0.10	<0.10	RPD-NA	mg/L	N/A	50	02-OCT-15
Dichloromethane		<0.50	<0.50	RPD-NA	mg/L	N/A	50	02-OCT-15
Methyl Ethyl Ketone		<1.0	<1.0	RPD-NA	mg/L	N/A	50	02-OCT-15
Tetrachloroethylene		<0.025	<0.025	RPD-NA	mg/L	N/A	50	02-OCT-15
Trichloroethylene		<0.025	<0.025	RPD-NA	mg/L	N/A	50	02-OCT-15
Vinyl chloride		<0.050	<0.050	RPD-NA	mg/L	N/A	50	02-OCT-15
WG2181276-1	LCS							
1,1-Dichloroethylene			93.2		%		70-130	02-OCT-15
1,2-Dichlorobenzene			96.9		%		70-130	02-OCT-15



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Client: Covanta - Durham York Renewable Energy LP
 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-TCLP-WT								
	Waste							
Batch	R3280888							
WG2181276-1	LCS							
1,2-Dichloroethane			100.6		%		70-130	02-OCT-15
1,4-Dichlorobenzene			94.7		%		70-130	02-OCT-15
Benzene			98.9		%		70-130	02-OCT-15
Carbon tetrachloride			95.9		%		60-140	02-OCT-15
Chlorobenzene			98.3		%		70-130	02-OCT-15
Chloroform			100.3		%		70-130	02-OCT-15
Dichloromethane			99.8		%		70-130	02-OCT-15
Methyl Ethyl Ketone			99.9		%		50-150	02-OCT-15
Tetrachloroethylene			98.1		%		70-130	02-OCT-15
Trichloroethylene			98.3		%		70-130	02-OCT-15
Vinyl chloride			91.2		%		60-130	02-OCT-15
WG2181276-2	MB							
1,1-Dichloroethylene			<0.025		mg/L		0.025	02-OCT-15
1,2-Dichlorobenzene			<0.025		mg/L		0.025	02-OCT-15
1,2-Dichloroethane			<0.025		mg/L		0.025	02-OCT-15
1,4-Dichlorobenzene			<0.025		mg/L		0.025	02-OCT-15
Benzene			<0.025		mg/L		0.025	02-OCT-15
Carbon tetrachloride			<0.025		mg/L		0.025	02-OCT-15
Chlorobenzene			<0.025		mg/L		0.025	02-OCT-15
Chloroform			<0.10		mg/L		0.1	02-OCT-15
Dichloromethane			<0.50		mg/L		0.5	02-OCT-15
Methyl Ethyl Ketone			<1.0		mg/L		1	02-OCT-15
Tetrachloroethylene			<0.025		mg/L		0.025	02-OCT-15
Trichloroethylene			<0.025		mg/L		0.025	02-OCT-15
Vinyl chloride			<0.050		mg/L		0.05	02-OCT-15
Surrogate: 1,4-Difluorobenzene			97.8		%		50-150	02-OCT-15
Surrogate: 4-Bromofluorobenzene			95.5		%		70-130	02-OCT-15
WG2181276-5	MS	L1680825-4						
1,1-Dichloroethylene			90.9		%		50-140	02-OCT-15
1,2-Dichlorobenzene			98.1		%		50-140	02-OCT-15
1,2-Dichloroethane			104.7		%		50-140	02-OCT-15
1,4-Dichlorobenzene			92.7		%		50-140	02-OCT-15
Benzene			99.2		%		50-140	02-OCT-15
Carbon tetrachloride			93.6		%		50-140	02-OCT-15



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Workorder: L1680825

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Client: Covanta - Durham York Renewable Energy LP
1835 Energy Drive
Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-TCLP-WT								
	Waste							
Batch	R3280888							
WG2181276-5 MS		L1680825-4						
Chlorobenzene			97.2		%		50-140	02-OCT-15
Chloroform			100.8		%		50-140	02-OCT-15
Dichloromethane			101.5		%		50-140	02-OCT-15
Methyl Ethyl Ketone			110.4		%		50-140	02-OCT-15
Tetrachloroethylene			92.8		%		50-140	02-OCT-15
Trichloroethylene			96.1		%		50-140	02-OCT-15
Vinyl chloride			88.8		%		50-140	02-OCT-15

Quality Control Report

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Client: Covanta - Durham York Renewable Energy LP
1835 Energy Drive
Courtice ON L1E 2R2
Contact: Leon Brasowski

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Legend:

Limit ALS Control Limit (Data Quality Objectives)
DUP Duplicate
RPD Relative Percent Difference
N/A Not Available
LCS Laboratory Control Sample
SRM Standard Reference Material
MS Matrix Spike
MSD Matrix Spike Duplicate
ADE Average Desorption Efficiency
MB Method Blank
IRM Internal Reference Material
CRM Certified Reference Material
CCV Continuing Calibration Verification
CVS Calibration Verification Standard
LCSD Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
A	Method Blank exceeds ALS DQO. Refer to narrative comments for further information.
K	Matrix Spike recovery outside ALS DQO due to sample matrix effects.
LCS-ND	Lab Control Sample recovery was slightly outside ALS DQO. Reported non-detect results for associated samples were unaffected.
M,J	A peak has been manually integrated, and the analyte was detected below the calibrated range but above the EDL.
M,J,R	A peak has been manually integrated, the analyte was detected below the calibrated range but above the EDL, and the ion abundance ratio(s) did not meet the acceptance criteria. Value is an estimated maximum.
M,U	A peak has been manually integrated, and the analyte was not detected above the EDL.
MS-B	Matrix Spike recovery could not be accurately calculated due to high analyte background in sample.
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.
[U]	The analyte was not detected above the EDL.

Hold Time Exceedances:

All test results reported with this submission were conducted within ALS recommended hold times.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.


www.alsglobal.com

Report To			Report Format / Distribution			Select Service Level Below (Rush Turnaround Time (TAT) is not available for all tests)											
Company: COVANTA - Account Number 24244			Select Report Format: <input checked="" type="checkbox"/> PDF <input checked="" type="checkbox"/> EXCEL <input type="checkbox"/> EDD (DIGITAL)			R <input type="checkbox"/> Regular (Standard TAT if received by 3 pm - business days) P <input type="checkbox"/> Priority (2-4 bus. days if received by 3pm) 50% surcharge - contact ALS to confirm TAT E <input checked="" type="checkbox"/> Emergency (1-2 bus. days if received by 3pm) 100% surcharge - contact ALS to confirm TAT E2 <input type="checkbox"/> Same day or weekend emergency - contact ALS to confirm TAT and surcharge											
Contact: Amanda Huxter BSc ASCT			Quality Control (QC) Report with Report <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No														
Address: 1835 Energy Drive Courtice, Ontario, L1E 2R2			<input checked="" type="checkbox"/> Criteria on Report - provide details below if box checked														
Phone: 905-404-4041 Cell: 289-685-5291			Select Distribution: <input checked="" type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX			Specify Date Required for E2,E or P:						Regular TAT 10-15 Business Days					
Email 1 or Fax: lbrasowski@covanta.com			Email 1 or Fax: lbrasowski@covanta.com			Analysis Request											
Email 2: ahuxter@covanta.com			Email 2: ahuxter@covanta.com														
Invoice To			Invoice Distribution			Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below											
Same as Report To <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			Select Invoice Distribution: <input checked="" type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX														
Copy of Invoice with Report <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			Email 1 or Fax: lbrasowski@covanta.com														
Company:			Email 2: ahuxter@covanta.com; jneal@covanta.com														
Contact:			Email 2: ahuxter@covanta.com; jneal@covanta.com														
Project Information			Oil and Gas Required Fields (client use)														
ALS Quote #: Q47832			Approver ID:			Cost Center:			TCLP - COMPLETE SCHEDULE 4 (TCLP-COMP-GP-WT)			ALS ON-SITE PICK-UP (SHIPPING-WT)			Number of Containers		
Job #: DYEC - FLY ASH PROJECT			GL Account:			Routing Code:											
PO / AFE:			Activity Code:														
LSD:			Location:														
ALS Lab Work Order # (lab use only) <i>U68025 303</i>			ALS Contact: Wayne Smith			Sampler: Amanda Huxter											
ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)		Date (dd-mmm-yy)	Time (hh:mm)	Sample Type												
	DYEC/FA/150929/1		30-Sep-15	8:00	Soil	E				R						3	
	DYEC/FA/150929/2		30-Sep-15	8:00	Soil	E				R						3	
	DYEC/FA/150929/3		30-Sep-15	8:00	Soil	E				R						3	
	DYEC/FA/150929/4		30-Sep-15	8:00	Soil	E				R						3	
Drinking Water (DW) Samples¹ (client use)			Special Instructions / Specify Criteria to add on report (client Use)									SAMPLE CONDITION AS RECEIVED (lab use only)					
Are samples taken from a Regulated DW System? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			Regulation 347 Criteria Report									Frozen <input type="checkbox"/> SIF Observations Yes <input type="checkbox"/> No <input type="checkbox"/> Ice packs Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Custody seal intact Yes <input type="checkbox"/> No <input type="checkbox"/> Cooling Initiated <input checked="" type="checkbox"/>					
Are samples for human drinking water use? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No												INITIAL COOLER TEMPERATURES °C: _____ FINAL COOLER TEMPERATURES °C: <i>14.2°</i>					
SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)						FINAL SHIPMENT RECEPTION (lab use only)								
Released by: <i>Amanda Huxter</i> Date: <i>30-Sep-15</i> Time: <i>7:30</i>			Received by: _____ Date: _____ Time: _____						Received by: <i>AH</i> Date: <i>30 Sep 15</i> Time: <i>12:00</i>								

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

NA-FM-0226a v02 Form 04 January 2014

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a Regulated Drinking Water (DW) System, please submit using an Authorized DW COC form.

APPENDIX B

LABORATORY AND QA/QC RESULTS OCT 22-26, 2015



Covanta - Durham York Renewable Energy
LP
ATTN: Leon Brasowski
1835 Energy Drive
Courtice ON L1E 2R2

Date Received: 27-OCT-15
Report Date: 02-NOV-15 09:03 (MT)
Version: FINAL

Client Phone: 905-404-4041

Certificate of Analysis

Lab Work Order #: L1693697
Project P.O. #: NOT SUBMITTED
Job Reference: DYEC - FLY ASH PROJECT
C of C Numbers:
Legal Site Desc:

Mary-Lynn Pires
Account Manager

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ADDRESS: 60 Northland Road, Unit 1, Waterloo, ON N2V 2B8 Canada | Phone: +1 519 886 6910 | Fax: +1 519 886 9047
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ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte									
L1693697-1	DYEC/FA/151026/1									
Sampled By: A. HUXTER on 27-OCT-15 @ 08:0										
Matrix: SOIL										#1
Sample Preparation										
	Initial pH	12.31		0.10	pH units	27-OCT-15				
	Final pH	11.58		0.10	pH units	27-OCT-15				
TCLP Extractables										
	Alachlor	<0.0010		0.0010	mg/L	29-OCT-15				
	Aldicarb	<0.010		0.010	mg/L	28-OCT-15	0.9			
	Aldrin	<0.00020		0.00020	mg/L	29-OCT-15				
	Aldrin + Dieldrin	<0.00040		0.00040	mg/L	29-OCT-15	0.07			
	alpha-Chlordane	<0.0010		0.0010	mg/L	29-OCT-15				
	Aroclor 1242	<0.00060		0.00060	mg/L	29-OCT-15				
	Aroclor 1248	<0.00060		0.00060	mg/L	29-OCT-15				
	Aroclor 1254	<0.00060		0.00060	mg/L	29-OCT-15				
	Aroclor 1260	<0.00060		0.00060	mg/L	29-OCT-15				
	Atrazine	<0.0010		0.0010	mg/L	29-OCT-15				
	Atrazine Desethyl	<0.0010		0.0010	mg/L	29-OCT-15				
	Atrazine & Metabolites	<0.0020		0.0020	mg/L	29-OCT-15	0.5			
	Azinphos methyl	<0.0010		0.0010	mg/L	29-OCT-15	2			
	Bendiocarb	<0.0050		0.0050	mg/L	29-OCT-15	4			
	Benzo(a)pyrene	<0.0010		0.0010	mg/L	29-OCT-15	0.001			
	Bromoxynil	<0.0020		0.0020	mg/L	29-OCT-15	0.5			
	Carbaryl	<0.0020		0.0020	mg/L	29-OCT-15	9			
	Carbofuran	<0.0020		0.0020	mg/L	29-OCT-15	9			
	Chlordane (Total)	<0.0030		0.0030	mg/L	29-OCT-15	0.7			
	Chlorpyrifos	<0.0010		0.0010	mg/L	29-OCT-15	9			
	3&4-Methylphenol	<0.010		0.010	mg/L	29-OCT-15				
	Cresols (total)	<0.015		0.015	mg/L	29-OCT-15	200			
	Cyanazine	<0.0010		0.0010	mg/L	29-OCT-15	1.0			
	Cyanide, Weak Acid Diss	<0.10		0.10	mg/L	29-OCT-15	20			
	2,4-D	<0.0020		0.0020	mg/L	29-OCT-15	10			
	p,p-DDD	<0.0010		0.0010	mg/L	29-OCT-15				
	p,p-DDE	<0.0010		0.0010	mg/L	29-OCT-15				
	o,p-DDT	<0.0010		0.0010	mg/L	29-OCT-15				
	p,p-DDT	<0.0010		0.0010	mg/L	29-OCT-15				
	DDT + metabolites	<0.0040		0.0040	mg/L	29-OCT-15	3			
	Diazinon	<0.0010		0.0010	mg/L	29-OCT-15	2			
	Dicamba	<0.0050		0.0050	mg/L	29-OCT-15	12			
	2,4-Dichlorophenol	<0.0050		0.0050	mg/L	29-OCT-15	90			
	Diclofop methyl	<0.0020		0.0020	mg/L	29-OCT-15	0.9			
	Dieldrin	<0.00020		0.00020	mg/L	29-OCT-15				
	Dimethoate	<0.0010		0.0010	mg/L	29-OCT-15	2			
	2,4-Dinitrotoluene	<0.0040		0.0040	mg/L	29-OCT-15	0.13			
	Dinoseb	<0.0020		0.0020	mg/L	29-OCT-15	1			
	Diquat	<0.10	DLI	0.10	mg/L	28-OCT-15	7			
	Diuron	<0.010		0.010	mg/L	28-OCT-15	15			
	Endrin	<0.0010		0.0010	mg/L	29-OCT-15	0.02			
	Parathion	<0.0010		0.0010	mg/L	29-OCT-15	5			
	Fluoride (F)	<10		10	mg/L	28-OCT-15	150.0			

** Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.

* Analytical result for this parameter exceeds Guideline Limit listed on this report. Guideline Limits applied:

Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte									
L1693697-1	DYEC/FA/151026/1									
Sampled By: A. HUXTER on 27-OCT-15 @ 08:0										
Matrix: SOIL										#1
TCLP Extractables										
	gamma-BHC	<0.0010		0.0010	mg/L	29-OCT-15	0.4			
	gamma-Chlordane	<0.0010		0.0010	mg/L	29-OCT-15				
	Glyphosate	<0.050		0.050	mg/L	29-OCT-15	28			
	Heptachlor	<0.0010		0.0010	mg/L	29-OCT-15				
	Heptachlor + Heptachlor Epoxide	<0.0020		0.0020	mg/L	29-OCT-15	0.3			
	Heptachlor epoxide	<0.0010		0.0010	mg/L	29-OCT-15				
	Hexachlorobenzene	<0.0040		0.0040	mg/L	29-OCT-15	0.13			
	Hexachlorobutadiene	<0.0040		0.0040	mg/L	29-OCT-15	0.5			
	Hexachloroethane	<0.0040		0.0040	mg/L	29-OCT-15	3.0			
	Malathion	<0.0010		0.0010	mg/L	29-OCT-15	19			
	MCPA	<0.0020		0.0020	mg/L	29-OCT-15				
	Methoxychlor	<0.0010		0.0010	mg/L	29-OCT-15	90			
	Methyl Parathion	<0.0010		0.0010	mg/L	29-OCT-15	0.7			
	2-Methylphenol	<0.0050		0.0050	mg/L	29-OCT-15				
	Metolachlor	<0.0010		0.0010	mg/L	29-OCT-15	5			
	Metribuzin	<0.0010		0.0010	mg/L	29-OCT-15	8			
	Nitrate and Nitrite as N	<4.0		4.0	mg/L	28-OCT-15	1000			
	Nitrate-N	<2.0		2.0	mg/L	28-OCT-15				
	Nitrotriacetic Acid (NTA)	<40		0.20	mg/L	28-OCT-15	40			
	Nitrite-N	<2.0		2.0	mg/L	28-OCT-15				
	Nitrobenzene	<0.0040		0.0040	mg/L	29-OCT-15	2.0			
	N-Nitrosodimethylamine	<0.00020		0.00020	mg/L	29-OCT-15	0.0009			
	Oxychlordane	<0.0010		0.0010	mg/L	29-OCT-15				
	Paraquat	<0.10	DLI	0.10	mg/L	28-OCT-15	1			
	Total PCBs	<0.0012		0.0012	mg/L	29-OCT-15	0.3			
	Pentachlorophenol	<0.0050		0.0050	mg/L	29-OCT-15	6			
	Phorate	<0.0010		0.0010	mg/L	29-OCT-15	0.2			
	Picloram	<0.0050		0.0050	mg/L	29-OCT-15	19			
	Prometryne	<0.0010		0.0010	mg/L	29-OCT-15				
	Pyridine	<5.0		5.0	mg/L	27-OCT-15	5.0			
	Simazine	<0.0010		0.0010	mg/L	29-OCT-15	1			
	2,4,5-T	<0.0020		0.0020	mg/L	29-OCT-15	28			
	Temephos	<0.0010		0.0010	mg/L	29-OCT-15	28			
	Terbufos	<0.0020		0.0020	mg/L	29-OCT-15	0.1			
	2,3,4,6-Tetrachlorophenol	<0.0050		0.0050	mg/L	29-OCT-15	10.0			
	Toxaphene	<0.0035		0.0035	mg/L	29-OCT-15	0.5			
	2,4,5-TP	<0.0020		0.0020	mg/L	29-OCT-15	1			
	Triallate	<0.0010		0.0010	mg/L	29-OCT-15	23			
	2,4,5-Trichlorophenol	<0.0050		0.0050	mg/L	29-OCT-15	400			
	2,4,6-Trichlorophenol	<0.0050		0.0050	mg/L	29-OCT-15	0.5			
	Trifluralin	<0.0050		0.0050	mg/L	29-OCT-15	4.5			
	Surrogate: 2,4,6-Tribromophenol	95.7		50-150	%	29-OCT-15				
	Surrogate: 2,4-Dichlorophenylacetic Acid	107.7		50-150	%	29-OCT-15				
	Surrogate: 2-Fluorobiphenyl	31.8	RRR	40-160	%	29-OCT-15				
	Surrogate: 2-Fluorobiphenyl	77.8		40-160	%	29-OCT-15				

** Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.

* Analytical result for this parameter exceeds Guideline Limit listed on this report. Guideline Limits applied:

Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits		
Grouping	Analyte								
L1693697-1	DYEC/FA/151026/1								
Sampled By: A. HUXTER on 27-OCT-15 @ 08:0									
Matrix: SOIL									#1
TCLP Extractables									
	Surrogate: 2-Fluorobiphenyl	87.5		40-160	%	29-OCT-15			
	Surrogate: Nitrobenzene d5	86.9		50-150	%	29-OCT-15			
	Surrogate: d14-Terphenyl	85.4		60-140	%	29-OCT-15			
	Surrogate: d14-Terphenyl	85.5		60-140	%	29-OCT-15			
	Surrogate: p-Terphenyl d14	107.6		60-140	%	29-OCT-15			
TCLP Metals									
	Arsenic (As)	<0.050		0.050	mg/L	28-OCT-15			2.5
	Barium (Ba)	1.83		0.50	mg/L	28-OCT-15			100
	Boron (B)	<2.5		2.5	mg/L	28-OCT-15			500
	Cadmium (Cd)	<0.0050		0.0050	mg/L	28-OCT-15			0.5
	Chromium (Cr)	<0.050		0.050	mg/L	28-OCT-15			5.0
	Lead (Pb)	<0.050		0.050	mg/L	28-OCT-15			5.0
	Mercury (Hg)	<0.00010		0.00010	mg/L	28-OCT-15			0.1
	Selenium (Se)	<0.25		0.25	mg/L	28-OCT-15			1.0
	Silver (Ag)	<0.0050		0.0050	mg/L	28-OCT-15			5.0
	Uranium (U)	<0.25		0.25	mg/L	28-OCT-15			10
TCLP VOCs									
	1,1-Dichloroethylene	<0.025		0.025	mg/L	29-OCT-15			1.4
	1,2-Dichlorobenzene	<0.025		0.025	mg/L	29-OCT-15			20.0
	1,2-Dichloroethane	<0.025		0.025	mg/L	29-OCT-15			0.5
	1,4-Dichlorobenzene	<0.025		0.025	mg/L	29-OCT-15			0.5
	Benzene	<0.025		0.025	mg/L	29-OCT-15			0.5
	Carbon tetrachloride	<0.025		0.025	mg/L	29-OCT-15			0.5
	Chlorobenzene	<0.025		0.025	mg/L	29-OCT-15			8
	Chloroform	<0.10		0.10	mg/L	29-OCT-15			10
	Dichloromethane	<0.50		0.50	mg/L	29-OCT-15			5.0
	Methyl Ethyl Ketone	<1.0		1.0	mg/L	29-OCT-15			200.0
	Tetrachloroethylene	<0.025		0.025	mg/L	29-OCT-15			3
	Trichloroethylene	<0.025		0.025	mg/L	29-OCT-15			5
	Vinyl chloride	<0.050		0.050	mg/L	29-OCT-15			0.2
	Surrogate: 4-Bromofluorobenzene	87.2		70-130	%	29-OCT-15			
Volatile Organic Compounds									
	Surrogate: 1,4-Difluorobenzene	99.1		50-150	%	29-OCT-15			
Polychlorinated Biphenyls									
	Surrogate: Decachlorobiphenyl	105.0		50-150	%	29-OCT-15			
	Surrogate: Tetrachloro-m-xylene	89.7		50-150	%	29-OCT-15			
Dioxins and Furans									
	2,3,7,8-TCDD	<0.77	[U]	0.77	pg/L	31-OCT-15			

** Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.

* Analytical result for this parameter exceeds Guideline Limit listed on this report. Guideline Limits applied:

Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte						#1			
L1693697-1	DYEC/FA/151026/1									
Sampled By: A. HUXTER on 27-OCT-15 @ 08:0										
Matrix: SOIL										
Dioxins and Furans										
	1,2,3,7,8-PeCDD	<0.29	[U]	0.29	pg/L	31-OCT-15				
	1,2,3,4,7,8-HxCDD	<0.29	[U]	0.29	pg/L	31-OCT-15				
	1,2,3,6,7,8-HxCDD	<0.29	[U]	0.29	pg/L	31-OCT-15				
	1,2,3,7,8,9-HxCDD	<0.29	[U]	0.29	pg/L	31-OCT-15				
	1,2,3,4,6,7,8-HpCDD	<0.30	[U]	0.30	pg/L	31-OCT-15				
	OCDD	<0.32	M,U	0.32	pg/L	31-OCT-15				
	Total-TCDD	<0.77	[U]	0.77	pg/L	31-OCT-15				
	Total TCDD # Homologues	0			No Unit	31-OCT-15				
	Total-PeCDD	<0.29	[U]	0.29	pg/L	31-OCT-15				
	Total PeCDD # Homologues	0			No Unit	31-OCT-15				
	Total-HxCDD	<0.29	[U]	0.29	pg/L	31-OCT-15				
	Total HxCDD # Homologues	0			No Unit	31-OCT-15				
	Total-HpCDD	<0.30	[U]	0.30	pg/L	31-OCT-15				
	Total HpCDD # Homologues	0			No Unit	31-OCT-15				
	2,3,7,8-TCDF	<0.57	[U]	0.57	pg/L	31-OCT-15				
	1,2,3,7,8-PeCDF	<0.31	[U]	0.31	pg/L	31-OCT-15				
	2,3,4,7,8-PeCDF	<0.27	[U]	0.27	pg/L	31-OCT-15				
	1,2,3,4,7,8-HxCDF	<0.20	[U]	0.20	pg/L	31-OCT-15				
	1,2,3,6,7,8-HxCDF	<0.17	[U]	0.17	pg/L	31-OCT-15				
	1,2,3,7,8,9-HxCDF	0.50	M,J	0.23	pg/L	31-OCT-15				
	2,3,4,6,7,8-HxCDF	<0.20	[U]	0.20	pg/L	31-OCT-15				
	1,2,3,4,6,7,8-HpCDF	<0.20	[U]	0.20	pg/L	31-OCT-15				
	1,2,3,4,7,8,9-HpCDF	<0.28	[U]	0.28	pg/L	31-OCT-15				
	OCDF	<0.31	[U]	0.31	pg/L	31-OCT-15				
	Total-TCDF	<0.57	[U]	0.57	pg/L	31-OCT-15				
	Total TCDF # Homologues	0			No Unit	31-OCT-15				
	Total-PeCDF	<0.31	[U]	0.31	pg/L	31-OCT-15				
	Total PeCDF # Homologues	0			No Unit	31-OCT-15				
	Total-HxCDF	0.50		0.23	pg/L	31-OCT-15				
	Total HxCDF # Homologues	1			No Unit	31-OCT-15				
	Total-HpCDF	<0.28	[U]	0.28	pg/L	31-OCT-15				
	Total HpCDF # Homologues	0			No Unit	31-OCT-15				
	Surrogate: 13C12-2,3,7,8-TCDD	75.0		20-175	%	31-OCT-15				
	Surrogate: 13C12-1,2,3,7,8-PeCDD	74.0		21-227	%	31-OCT-15				
	Surrogate: 13C12-1,2,3,4,7,8-HxCDD	90.0		21-193	%	31-OCT-15				
	Surrogate: 13C12-1,2,3,6,7,8-HxCDD	92.0		25-163	%	31-OCT-15				
	Surrogate: 13C12-1,2,3,4,6,7,8-HpCDD	100.0		23-166	%	31-OCT-15				
	Surrogate: 13C12-OCDD	93.0		13-138	%	31-OCT-15				
	Surrogate: 13C12-2,3,7,8-TCDF	75.0		22-152	%	31-OCT-15				
	Surrogate: 13C12-1,2,3,7,8-PeCDF	74.0		24-185	%	31-OCT-15				
	Surrogate: 13C12-2,3,4,7,8-PeCDF	73.0		21-178	%	31-OCT-15				
	Surrogate: 13C12-1,2,3,4,7,8-HxCDF	87.0		26-152	%	31-OCT-15				
	Surrogate: 13C12-1,2,3,6,7,8-HxCDF	98.0		21-159	%	31-OCT-15				
	Surrogate: 13C12-2,3,4,6,7,8-HxCDF	96.0		17-205	%	31-OCT-15				
	Surrogate: 13C12-1,2,3,7,8,9-HxCDF	91.0		28-136	%	31-OCT-15				
	Surrogate: 13C12-1,2,3,4,6,7,8-HpCDF	96.0		21-158	%	31-OCT-15				
	Surrogate: 13C12-1,2,3,4,7,8,9-HpCDF	99.0		20-186	%	31-OCT-15				
	Surrogate: 37Cl4-2,3,7,8-TCDD (Cleanup)	78.0		31-191	%	31-OCT-15				

** Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.

* Analytical result for this parameter exceeds Guideline Limit listed on this report. Guideline Limits applied:

Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits		
Grouping	Analyte								
L1693697-1	DYEC/FA/151026/1								
Sampled By: A. HUXTER on 27-OCT-15 @ 08:0							#1		
Matrix: SOIL									
Toxic Equivalency									
Lower Bound PCDD/F TEQ (WHO 2005)		0.0497			pg/L	31-OCT-15			
Mid Point PCDD/F TEQ (WHO 2005)		0.729			pg/L	31-OCT-15			
Upper Bound PCDD/F TEQ (WHO 2005)		1.41			pg/L	31-OCT-15	1500		
L1693697-2	DYEC/FA/151026/2								
Sampled By: A. HUXTER on 27-OCT-15 @ 08:0							#1		
Matrix: SOIL									
Sample Preparation									
Initial pH		12.32		0.10	pH units	27-OCT-15			
Final pH		11.60		0.10	pH units	27-OCT-15			
TCLP Extractables									
Alachlor		<0.0010		0.0010	mg/L	29-OCT-15			
Aldicarb		<0.010		0.010	mg/L	28-OCT-15	0.9		
Aldrin		<0.00020		0.00020	mg/L	29-OCT-15			
Aldrin + Dieldrin		<0.00040		0.00040	mg/L	29-OCT-15	0.07		
alpha-Chlordane		<0.0010		0.0010	mg/L	29-OCT-15			
Aroclor 1242		<0.00020		0.00020	mg/L	29-OCT-15			
Aroclor 1248		<0.00020		0.00020	mg/L	29-OCT-15			
Aroclor 1254		<0.00020		0.00020	mg/L	29-OCT-15			
Aroclor 1260		<0.00020		0.00020	mg/L	29-OCT-15			
Atrazine		<0.0010		0.0010	mg/L	29-OCT-15			
Atrazine Desethyl		<0.0010		0.0010	mg/L	29-OCT-15			
Atrazine & Metabolites		<0.0020		0.0020	mg/L	29-OCT-15	0.5		
Azinphos methyl		<0.0010		0.0010	mg/L	29-OCT-15	2		
Bendiocarb		<0.0050		0.0050	mg/L	29-OCT-15	4		
Benzo(a)pyrene		<0.0010		0.0010	mg/L	29-OCT-15	0.001		
Bromoxynil		<0.0020		0.0020	mg/L	29-OCT-15	0.5		
Carbaryl		<0.0020		0.0020	mg/L	29-OCT-15	9		
Carbofuran		<0.0020		0.0020	mg/L	29-OCT-15	9		
Chlordane (Total)		<0.0030		0.0030	mg/L	29-OCT-15	0.7		
Chlorpyrifos		<0.0010		0.0010	mg/L	29-OCT-15	9		
3&4-Methylphenol		<0.010		0.010	mg/L	29-OCT-15			
Cresols (total)		<0.015		0.015	mg/L	29-OCT-15	200		
Cyanazine		<0.0010		0.0010	mg/L	29-OCT-15	1.0		
Cyanide, Weak Acid Diss		<0.10		0.10	mg/L	29-OCT-15	20		
2,4-D		<0.0020		0.0020	mg/L	29-OCT-15	10		
p,p-DDD		<0.0010		0.0010	mg/L	29-OCT-15			
p,p-DDE		<0.0010		0.0010	mg/L	29-OCT-15			
o,p-DDT		<0.0010		0.0010	mg/L	29-OCT-15			
p,p-DDT		<0.0010		0.0010	mg/L	29-OCT-15			
DDT + metabolites		<0.0040		0.0040	mg/L	29-OCT-15	3		
Diazinon		<0.0010		0.0010	mg/L	29-OCT-15	2		
Dicamba		<0.0050		0.0050	mg/L	29-OCT-15	12		
2,4-Dichlorophenol		<0.0050		0.0050	mg/L	29-OCT-15	90		
Diclofop methyl		<0.0020		0.0020	mg/L	29-OCT-15	0.9		
Dieldrin		<0.00020		0.00020	mg/L	29-OCT-15			

** Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.

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Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits				
Grouping	Analyte										
L1693697-2	DYEC/FA/151026/2										
Sampled By: A. HUXTER on 27-OCT-15 @ 08:0											
Matrix: SOIL											
TCLP Extractables											
	Dimethoate	<0.0010		0.0010	mg/L	29-OCT-15	2				
	2,4-Dinitrotoluene	<0.0040		0.0040	mg/L	29-OCT-15	0.13				
	Dinoseb	<0.0020		0.0020	mg/L	29-OCT-15	1				
	Diquat	<0.10	DLI	0.10	mg/L	28-OCT-15	7				
	Diuron	<0.010		0.010	mg/L	28-OCT-15	15				
	Endrin	<0.0010		0.0010	mg/L	29-OCT-15	0.02				
	Parathion	<0.0010		0.0010	mg/L	29-OCT-15	5				
	Fluoride (F)	<10		10	mg/L	28-OCT-15	150.0				
	gamma-BHC	<0.0010		0.0010	mg/L	29-OCT-15	0.4				
	gamma-Chlordane	<0.0010		0.0010	mg/L	29-OCT-15					
	Glyphosate	<0.050		0.050	mg/L	29-OCT-15	28				
	Heptachlor	<0.0010		0.0010	mg/L	29-OCT-15					
	Heptachlor + Heptachlor Epoxide	<0.0020		0.0020	mg/L	29-OCT-15	0.3				
	Heptachlor epoxide	<0.0010		0.0010	mg/L	29-OCT-15					
	Hexachlorobenzene	<0.0040		0.0040	mg/L	29-OCT-15	0.13				
	Hexachlorobutadiene	<0.0040		0.0040	mg/L	29-OCT-15	0.5				
	Hexachloroethane	<0.0040		0.0040	mg/L	29-OCT-15	3.0				
	Malathion	<0.0010		0.0010	mg/L	29-OCT-15	19				
	MCPA	<0.0020		0.0020	mg/L	29-OCT-15					
	Methoxychlor	<0.0010		0.0010	mg/L	29-OCT-15	90				
	Methyl Parathion	<0.0010		0.0010	mg/L	29-OCT-15	0.7				
	2-Methylphenol	<0.0050		0.0050	mg/L	29-OCT-15					
	Metolachlor	<0.0010		0.0010	mg/L	29-OCT-15	5				
	Metribuzin	<0.0010		0.0010	mg/L	29-OCT-15	8				
	Nitrate and Nitrite as N	<4.0		4.0	mg/L	28-OCT-15	1000				
	Nitrate-N	<2.0		2.0	mg/L	28-OCT-15					
	Nitritotriacetic Acid (NTA)	<40		0.20	mg/L	28-OCT-15	40				
	Nitrite-N	<2.0		2.0	mg/L	28-OCT-15					
	Nitrobenzene	<0.0040		0.0040	mg/L	29-OCT-15	2.0				
	N-Nitrosodimethylamine	<0.00020		0.00020	mg/L	29-OCT-15	0.0009				
	Oxychlordane	<0.0010		0.0010	mg/L	29-OCT-15					
	Paraquat	<0.10	DLI	0.10	mg/L	28-OCT-15	1				
	Total PCBs	<0.00040		0.00040	mg/L	29-OCT-15	0.3				
	Pentachlorophenol	<0.0050		0.0050	mg/L	29-OCT-15	6				
	Phorate	<0.0010		0.0010	mg/L	29-OCT-15	0.2				
	Picloram	<0.0050		0.0050	mg/L	29-OCT-15	19				
	Prometryne	<0.0010		0.0010	mg/L	29-OCT-15					
	Pyridine	<5.0		5.0	mg/L	27-OCT-15	5.0				
	Simazine	<0.0010		0.0010	mg/L	29-OCT-15	1				
	2,4,5-T	<0.0020		0.0020	mg/L	29-OCT-15	28				
	Temephos	<0.0010		0.0010	mg/L	29-OCT-15	28				
	Terbufos	<0.0020		0.0020	mg/L	29-OCT-15	0.1				
	2,3,4,6-Tetrachlorophenol	<0.0050		0.0050	mg/L	29-OCT-15	10.0				
	Toxaphene	<0.0035		0.0035	mg/L	29-OCT-15	0.5				
	2,4,5-TP	<0.0020		0.0020	mg/L	29-OCT-15	1				
	Triallate	<0.0010		0.0010	mg/L	29-OCT-15	23				

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Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte						#1			
L1693697-2	DYEC/FA/151026/2									
Sampled By: A. HUXTER on 27-OCT-15 @ 08:0										
Matrix: SOIL										
TCLP Extractables										
	2,4,5-Trichlorophenol	<0.0050		0.0050	mg/L	29-OCT-15	400			
	2,4,6-Trichlorophenol	<0.0050		0.0050	mg/L	29-OCT-15	0.5			
	Trifluralin	<0.0050		0.0050	mg/L	29-OCT-15	4.5			
	Surrogate: 2,4,6-Tribromophenol	90.2		50-150	%	29-OCT-15				
	Surrogate: 2,4-Dichlorophenylacetic Acid	111.6		50-150	%	29-OCT-15				
	Surrogate: 2-Fluorobiphenyl	65.3		40-160	%	29-OCT-15				
	Surrogate: 2-Fluorobiphenyl	74.5		40-160	%	29-OCT-15				
	Surrogate: 2-Fluorobiphenyl	78.2		40-160	%	29-OCT-15				
	Surrogate: Nitrobenzene d5	81.8		50-150	%	29-OCT-15				
	Surrogate: d14-Terphenyl	74.7		60-140	%	29-OCT-15				
	Surrogate: d14-Terphenyl	80.3		60-140	%	29-OCT-15				
	Surrogate: p-Terphenyl d14	126.4		60-140	%	29-OCT-15				
TCLP Metals										
	Arsenic (As)	<0.050		0.050	mg/L	28-OCT-15	2.5			
	Barium (Ba)	1.74		0.50	mg/L	28-OCT-15	100			
	Boron (B)	<2.5		2.5	mg/L	28-OCT-15	500			
	Cadmium (Cd)	<0.0050		0.0050	mg/L	28-OCT-15	0.5			
	Chromium (Cr)	<0.050		0.050	mg/L	28-OCT-15	5.0			
	Lead (Pb)	<0.050		0.050	mg/L	28-OCT-15	5.0			
	Mercury (Hg)	<0.00010		0.00010	mg/L	28-OCT-15	0.1			
	Selenium (Se)	<0.25		0.25	mg/L	28-OCT-15	1.0			
	Silver (Ag)	<0.0050		0.0050	mg/L	28-OCT-15	5.0			
	Uranium (U)	<0.25		0.25	mg/L	28-OCT-15	10			
TCLP VOCs										
	1,1-Dichloroethylene	<0.025		0.025	mg/L	29-OCT-15	1.4			
	1,2-Dichlorobenzene	<0.025		0.025	mg/L	29-OCT-15	20.0			
	1,2-Dichloroethane	<0.025		0.025	mg/L	29-OCT-15	0.5			
	1,4-Dichlorobenzene	<0.025		0.025	mg/L	29-OCT-15	0.5			
	Benzene	<0.025		0.025	mg/L	29-OCT-15	0.5			
	Carbon tetrachloride	<0.025		0.025	mg/L	29-OCT-15	0.5			
	Chlorobenzene	<0.025		0.025	mg/L	29-OCT-15	8			
	Chloroform	<0.10		0.10	mg/L	29-OCT-15	10			
	Dichloromethane	<0.50		0.50	mg/L	29-OCT-15	5.0			
	Methyl Ethyl Ketone	<1.0		1.0	mg/L	29-OCT-15	200.0			
	Tetrachloroethylene	<0.025		0.025	mg/L	29-OCT-15	3			
	Trichloroethylene	<0.025		0.025	mg/L	29-OCT-15	5			
	Vinyl chloride	<0.050		0.050	mg/L	29-OCT-15	0.2			

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Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte						#1			
L1693697-2	DYEC/FA/151026/2									
Sampled By: A. HUXTER on 27-OCT-15 @ 08:0										
Matrix: SOIL										
TCLP VOCs										
	Surrogate: 4-Bromofluorobenzene	88.4		70-130	%	29-OCT-15				
Volatile Organic Compounds										
	Surrogate: 1,4-Difluorobenzene	99.5		50-150	%	29-OCT-15				
Polychlorinated Biphenyls										
	Surrogate: Decachlorobiphenyl	106.0		50-150	%	29-OCT-15				
	Surrogate: Tetrachloro-m-xylene	89.3		50-150	%	29-OCT-15				
Dioxins and Furans										
	2,3,7,8-TCDD	<0.90	[U]	0.90	pg/L	31-OCT-15				
	1,2,3,7,8-PeCDD	<0.45	[U]	0.45	pg/L	31-OCT-15				
	1,2,3,4,7,8-HxCDD	<0.51	[U]	0.51	pg/L	31-OCT-15				
	1,2,3,6,7,8-HxCDD	<0.51	[U]	0.51	pg/L	31-OCT-15				
	1,2,3,7,8,9-HxCDD	<0.51	[U]	0.51	pg/L	31-OCT-15				
	1,2,3,4,6,7,8-HpCDD	0.88	M,J,R	0.44	pg/L	31-OCT-15				
	OCDD	15.4	[J]	0.54	pg/L	31-OCT-15				
	Total-TCDD	<0.90	[U]	0.90	pg/L	31-OCT-15				
	Total TCDD # Homologues	0			No Unit	31-OCT-15				
	Total-PeCDD	<0.45	[U]	0.45	pg/L	31-OCT-15				
	Total PeCDD # Homologues	0			No Unit	31-OCT-15				
	Total-HxCDD	<0.51	[U]	0.51	pg/L	31-OCT-15				
	Total HxCDD # Homologues	0			No Unit	31-OCT-15				
	Total-HpCDD	<0.44	[U]	0.44	pg/L	31-OCT-15				
	Total HpCDD # Homologues	0			No Unit	31-OCT-15				
	2,3,7,8-TCDF	<0.81	[U]	0.81	pg/L	31-OCT-15				
	1,2,3,7,8-PeCDF	<0.47	[U]	0.47	pg/L	31-OCT-15				
	2,3,4,7,8-PeCDF	<0.41	[U]	0.41	pg/L	31-OCT-15				
	1,2,3,4,7,8-HxCDF	<0.28	[U]	0.28	pg/L	31-OCT-15				
	1,2,3,6,7,8-HxCDF	<0.24	[U]	0.24	pg/L	31-OCT-15				
	1,2,3,7,8,9-HxCDF	0.63	M,J,R	0.33	pg/L	31-OCT-15				
	2,3,4,6,7,8-HxCDF	<0.28	[U]	0.28	pg/L	31-OCT-15				
	1,2,3,4,6,7,8-HpCDF	0.88	M,J	0.38	pg/L	31-OCT-15				
	1,2,3,4,7,8,9-HpCDF	<0.50	[U]	0.50	pg/L	31-OCT-15				
	OCDF	<0.45	M,U	0.45	pg/L	31-OCT-15				
	Total-TCDF	<0.81	[U]	0.81	pg/L	31-OCT-15				
	Total TCDF # Homologues	0			No Unit	31-OCT-15				
	Total-PeCDF	<0.47	[U]	0.47	pg/L	31-OCT-15				
	Total PeCDF # Homologues	0			No Unit	31-OCT-15				
	Total-HxCDF	<0.33	[U]	0.33	pg/L	31-OCT-15				
	Total HxCDF # Homologues	0			No Unit	31-OCT-15				
	Total-HpCDF	0.88		0.50	pg/L	31-OCT-15				
	Total HpCDF # Homologues	1			No Unit	31-OCT-15				
	Surrogate: 13C12-2,3,7,8-TCDD	56.0		20-175	%	31-OCT-15				
	Surrogate: 13C12-1,2,3,7,8-PeCDD	55.0		21-227	%	31-OCT-15				
	Surrogate: 13C12-1,2,3,4,7,8-HxCDD	63.0		21-193	%	31-OCT-15				
	Surrogate: 13C12-1,2,3,6,7,8-HxCDD	66.0		25-163	%	31-OCT-15				
	Surrogate: 13C12-1,2,3,4,6,7,8-HpCDD	67.0		23-166	%	31-OCT-15				
	Surrogate: 13C12-OCDD	64.0		13-138	%	31-OCT-15				
	Surrogate: 13C12-2,3,7,8-TCDF	56.0		22-152	%	31-OCT-15				

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Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte									
L1693697-2	DYEC/FA/151026/2									
Sampled By: A. HUXTER on 27-OCT-15 @ 08:00										
Matrix: SOIL										
Dioxins and Furans										
Surrogate: 13C12-1,2,3,7,8-PeCDF		55.0		24-185	%	31-OCT-15				
Surrogate: 13C12-2,3,4,7,8-PeCDF		55.0		21-178	%	31-OCT-15				
Surrogate: 13C12-1,2,3,4,7,8-HxCDF		60.0		26-152	%	31-OCT-15				
Surrogate: 13C12-1,2,3,6,7,8-HxCDF		70.0		21-159	%	31-OCT-15				
Surrogate: 13C12-2,3,4,6,7,8-HxCDF		68.0		17-205	%	31-OCT-15				
Surrogate: 13C12-1,2,3,7,8,9-HxCDF		63.0		28-136	%	31-OCT-15				
Surrogate: 13C12-1,2,3,4,6,7,8-HpCDF		67.0		21-158	%	31-OCT-15				
Surrogate: 13C12-1,2,3,4,7,8,9-HpCDF		67.0		20-186	%	31-OCT-15				
Surrogate: 37Cl4-2,3,7,8-TCDD (Cleanup)		53.0		31-191	%	31-OCT-15				
Toxic Equivalency										
Lower Bound PCDD/F TEQ (WHO 2005)		0.0134			pg/L	31-OCT-15				
Mid Point PCDD/F TEQ (WHO 2005)		0.988			pg/L	31-OCT-15				
Upper Bound PCDD/F TEQ (WHO 2005)		1.89			pg/L	31-OCT-15	1500			
L1693697-3	DYEC/FA/151026/3									
Sampled By: A. HUXTER on 27-OCT-15 @ 08:00										
Matrix: SOIL										
Sample Preparation										
Initial pH		12.32		0.10	pH units	27-OCT-15				
Final pH		11.70		0.10	pH units	27-OCT-15				
TCLP Extractables										
Alachlor		<0.0010		0.0010	mg/L	29-OCT-15				
Aldicarb		<0.010		0.010	mg/L	28-OCT-15	0.9			
Aldrin		<0.00020		0.00020	mg/L	29-OCT-15				
Aldrin + Dieldrin		<0.00040		0.00040	mg/L	29-OCT-15	0.07			
alpha-Chlordane		<0.0010		0.0010	mg/L	29-OCT-15				
Aroclor 1242		<0.00020		0.00020	mg/L	29-OCT-15				
Aroclor 1248		<0.00020		0.00020	mg/L	29-OCT-15				
Aroclor 1254		<0.00020		0.00020	mg/L	29-OCT-15				
Aroclor 1260		<0.00020		0.00020	mg/L	29-OCT-15				
Atrazine		<0.0010		0.0010	mg/L	29-OCT-15				
Atrazine Desethyl		<0.0010		0.0010	mg/L	29-OCT-15				
Atrazine & Metabolites		<0.0020		0.0020	mg/L	29-OCT-15	0.5			
Azinphos methyl		<0.0010		0.0010	mg/L	29-OCT-15	2			
Bendiocarb		<0.0050		0.0050	mg/L	29-OCT-15	4			
Benzo(a)pyrene		<0.0010		0.0010	mg/L	29-OCT-15	0.001			
Bromoxynil		<0.0020		0.0020	mg/L	29-OCT-15	0.5			
Carbaryl		<0.0020		0.0020	mg/L	29-OCT-15	9			
Carbofuran		<0.0020		0.0020	mg/L	29-OCT-15	9			
Chlordane (Total)		<0.0030		0.0030	mg/L	29-OCT-15	0.7			
Chlorpyrifos		<0.0010		0.0010	mg/L	29-OCT-15	9			
3&4-Methylphenol		<0.010		0.010	mg/L	29-OCT-15				
Cresols (total)		<0.015		0.015	mg/L	29-OCT-15	200			
Cyanazine		<0.0010		0.0010	mg/L	29-OCT-15	1.0			
Cyanide, Weak Acid Diss		<0.10		0.10	mg/L	29-OCT-15	20			
2,4-D		<0.0020		0.0020	mg/L	29-OCT-15	10			

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ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte									
L1693697-3	DYEC/FA/151026/3									
Sampled By: A. HUXTER on 27-OCT-15 @ 08:0										
Matrix: SOIL										#1
TCLP Extractables										
	p,p-DDD	<0.0010		0.0010	mg/L	29-OCT-15				
	p,p-DDE	<0.0010		0.0010	mg/L	29-OCT-15				
	o,p-DDT	<0.0010		0.0010	mg/L	29-OCT-15				
	p,p-DDT	<0.0010		0.0010	mg/L	29-OCT-15				
	DDT + metabolites	<0.0040		0.0040	mg/L	29-OCT-15	3			
	Diazinon	<0.0010		0.0010	mg/L	29-OCT-15	2			
	Dicamba	<0.0050		0.0050	mg/L	29-OCT-15	12			
	2,4-Dichlorophenol	<0.0050		0.0050	mg/L	29-OCT-15	90			
	Diclofop methyl	<0.0020		0.0020	mg/L	29-OCT-15	0.9			
	Dieldrin	<0.00020		0.00020	mg/L	29-OCT-15				
	Dimethoate	<0.0010		0.0010	mg/L	29-OCT-15	2			
	2,4-Dinitrotoluene	<0.0040		0.0040	mg/L	29-OCT-15	0.13			
	Dinoseb	<0.0020		0.0020	mg/L	29-OCT-15	1			
	Diquat	<0.10	DLI	0.10	mg/L	28-OCT-15	7			
	Diuron	<0.010		0.010	mg/L	28-OCT-15	15			
	Endrin	<0.0010		0.0010	mg/L	29-OCT-15	0.02			
	Parathion	<0.0010		0.0010	mg/L	29-OCT-15	5			
	Fluoride (F)	<10		10	mg/L	28-OCT-15	150.0			
	gamma-BHC	<0.0010		0.0010	mg/L	29-OCT-15	0.4			
	gamma-Chlordane	<0.0010		0.0010	mg/L	29-OCT-15				
	Glyphosate	<0.050		0.050	mg/L	29-OCT-15	28			
	Heptachlor	<0.0010		0.0010	mg/L	29-OCT-15				
	Heptachlor + Heptachlor Epoxide	<0.0020		0.0020	mg/L	29-OCT-15	0.3			
	Heptachlor epoxide	<0.0010		0.0010	mg/L	29-OCT-15				
	Hexachlorobenzene	<0.0040		0.0040	mg/L	29-OCT-15	0.13			
	Hexachlorobutadiene	<0.0040		0.0040	mg/L	29-OCT-15	0.5			
	Hexachloroethane	<0.0040		0.0040	mg/L	29-OCT-15	3.0			
	Malathion	<0.0010		0.0010	mg/L	29-OCT-15	19			
	MCPA	<0.0020		0.0020	mg/L	29-OCT-15				
	Methoxychlor	<0.0010		0.0010	mg/L	29-OCT-15	90			
	Methyl Parathion	<0.0010		0.0010	mg/L	29-OCT-15	0.7			
	2-Methylphenol	<0.0050		0.0050	mg/L	29-OCT-15				
	Metolachlor	<0.0010		0.0010	mg/L	29-OCT-15	5			
	Metribuzin	<0.0010		0.0010	mg/L	29-OCT-15	8			
	Nitrate and Nitrite as N	<4.0		4.0	mg/L	28-OCT-15	1000			
	Nitrate-N	<2.0		2.0	mg/L	28-OCT-15				
	Nitrotriacetic Acid (NTA)	<40		0.20	mg/L	28-OCT-15	40			
	Nitrite-N	<2.0		2.0	mg/L	28-OCT-15				
	Nitrobenzene	<0.0040		0.0040	mg/L	29-OCT-15	2.0			
	N-Nitrosodimethylamine	<0.00020		0.00020	mg/L	29-OCT-15	0.0009			
	Oxychlordane	<0.0010		0.0010	mg/L	29-OCT-15				
	Paraquat	<0.10	DLI	0.10	mg/L	28-OCT-15	1			
	Total PCBs	<0.00040		0.00040	mg/L	29-OCT-15	0.3			
	Pentachlorophenol	<0.0050		0.0050	mg/L	29-OCT-15	6			
	Phorate	<0.0010		0.0010	mg/L	29-OCT-15	0.2			
	Picloram	<0.0050		0.0050	mg/L	29-OCT-15	19			

** Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.

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Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte									
L1693697-3	DYEC/FA/151026/3									
Sampled By: A. HUXTER on 27-OCT-15 @ 08:0										
Matrix: SOIL										
TCLP Extractables										
Prometryne		<0.0010		0.0010	mg/L	29-OCT-15				
Pyridine		<5.0		5.0	mg/L	27-OCT-15	5.0			
Simazine		<0.0010		0.0010	mg/L	29-OCT-15	1			
2,4,5-T		<0.0020		0.0020	mg/L	29-OCT-15	28			
Temephos		<0.0010		0.0010	mg/L	29-OCT-15	28			
Terbufos		<0.0020		0.0020	mg/L	29-OCT-15	0.1			
2,3,4,6-Tetrachlorophenol		<0.0050		0.0050	mg/L	29-OCT-15	10.0			
Toxaphene		<0.0035		0.0035	mg/L	29-OCT-15	0.5			
2,4,5-TP		<0.0020		0.0020	mg/L	29-OCT-15	1			
Triallate		<0.0010		0.0010	mg/L	29-OCT-15	23			
2,4,5-Trichlorophenol		<0.0050		0.0050	mg/L	29-OCT-15	400			
2,4,6-Trichlorophenol		<0.0050		0.0050	mg/L	29-OCT-15	0.5			
Trifluralin		<0.0050		0.0050	mg/L	29-OCT-15	4.5			
Surrogate: 2,4,6-Tribromophenol		89.9		50-150	%	29-OCT-15				
Surrogate: 2,4-Dichlorophenylacetic Acid		108.3		50-150	%	29-OCT-15				
Surrogate: 2-Fluorobiphenyl		66.8		40-160	%	29-OCT-15				
Surrogate: 2-Fluorobiphenyl		70.6		40-160	%	29-OCT-15				
Surrogate: 2-Fluorobiphenyl		76.6		40-160	%	29-OCT-15				
Surrogate: Nitrobenzene d5		69.4		50-150	%	29-OCT-15				
Surrogate: d14-Terphenyl		93.4		60-140	%	29-OCT-15				
Surrogate: d14-Terphenyl		95.4		60-140	%	29-OCT-15				
Surrogate: p-Terphenyl d14		99.3		60-140	%	29-OCT-15				
TCLP Metals										
Arsenic (As)		<0.050		0.050	mg/L	28-OCT-15	2.5			
Barium (Ba)		2.03		0.50	mg/L	28-OCT-15	100			
Boron (B)		<2.5		2.5	mg/L	28-OCT-15	500			
Cadmium (Cd)		<0.0050		0.0050	mg/L	28-OCT-15	0.5			
Chromium (Cr)		<0.050		0.050	mg/L	28-OCT-15	5.0			
Lead (Pb)		<0.050		0.050	mg/L	28-OCT-15	5.0			
Mercury (Hg)		<0.00010		0.00010	mg/L	28-OCT-15	0.1			
Selenium (Se)		<0.25		0.25	mg/L	28-OCT-15	1.0			
Silver (Ag)		<0.0050		0.0050	mg/L	28-OCT-15	5.0			
Uranium (U)		<0.25		0.25	mg/L	28-OCT-15	10			
TCLP VOCs										
1,1-Dichloroethylene		<0.025		0.025	mg/L	29-OCT-15	1.4			
1,2-Dichlorobenzene		<0.025		0.025	mg/L	29-OCT-15	20.0			
1,2-Dichloroethane		<0.025		0.025	mg/L	29-OCT-15	0.5			

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Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte						#1			
L1693697-3	DYEC/FA/151026/3									
Sampled By: A. HUXTER on 27-OCT-15 @ 08:0										
Matrix: SOIL										
TCLP VOCs										
	1,4-Dichlorobenzene	<0.025		0.025	mg/L	29-OCT-15	0.5			
	Benzene	<0.025		0.025	mg/L	29-OCT-15	0.5			
	Carbon tetrachloride	<0.025		0.025	mg/L	29-OCT-15	0.5			
	Chlorobenzene	<0.025		0.025	mg/L	29-OCT-15	8			
	Chloroform	<0.10		0.10	mg/L	29-OCT-15	10			
	Dichloromethane	<0.50		0.50	mg/L	29-OCT-15	5.0			
	Methyl Ethyl Ketone	<1.0		1.0	mg/L	29-OCT-15	200.0			
	Tetrachloroethylene	<0.025		0.025	mg/L	29-OCT-15	3			
	Trichloroethylene	<0.025		0.025	mg/L	29-OCT-15	5			
	Vinyl chloride	<0.050		0.050	mg/L	29-OCT-15	0.2			
	Surrogate: 4-Bromofluorobenzene	86.8		70-130	%	29-OCT-15				
Volatile Organic Compounds										
	Surrogate: 1,4-Difluorobenzene	98.3		50-150	%	29-OCT-15				
Polychlorinated Biphenyls										
	Surrogate: Decachlorobiphenyl	104.0		50-150	%	29-OCT-15				
	Surrogate: Tetrachloro-m-xylene	86.8		50-150	%	29-OCT-15				
Dioxins and Furans										
	2,3,7,8-TCDD	<0.78	[U]	0.78	pg/L	31-OCT-15				
	1,2,3,7,8-PeCDD	<0.47	[U]	0.47	pg/L	31-OCT-15				
	1,2,3,4,7,8-HxCDD	<0.37	[U]	0.37	pg/L	31-OCT-15				
	1,2,3,6,7,8-HxCDD	<0.39	[U]	0.39	pg/L	31-OCT-15				
	1,2,3,7,8,9-HxCDD	<0.38	[U]	0.38	pg/L	31-OCT-15				
	1,2,3,4,6,7,8-HpCDD	<0.42	[U]	0.42	pg/L	31-OCT-15				
	OCDD	0.49	M,J,R	0.34	pg/L	31-OCT-15				
	Total-TCDD	<0.78	[U]	0.78	pg/L	31-OCT-15				
	Total TCDD # Homologues	0			No Unit	31-OCT-15				
	Total-PeCDD	<0.47	[U]	0.47	pg/L	31-OCT-15				
	Total PeCDD # Homologues	0			No Unit	31-OCT-15				
	Total-HxCDD	<0.39	[U]	0.39	pg/L	31-OCT-15				
	Total HxCDD # Homologues	0			No Unit	31-OCT-15				
	Total-HpCDD	<0.42	[U]	0.42	pg/L	31-OCT-15				
	Total HpCDD # Homologues	0			No Unit	31-OCT-15				
	2,3,7,8-TCDF	<0.67	[U]	0.67	pg/L	31-OCT-15				
	1,2,3,7,8-PeCDF	<0.41	[U]	0.41	pg/L	31-OCT-15				
	2,3,4,7,8-PeCDF	<0.37	[U]	0.37	pg/L	31-OCT-15				
	1,2,3,4,7,8-HxCDF	<0.29	[U]	0.29	pg/L	31-OCT-15				
	1,2,3,6,7,8-HxCDF	<0.26	[U]	0.26	pg/L	31-OCT-15				
	1,2,3,7,8,9-HxCDF	<0.34	[U]	0.34	pg/L	31-OCT-15				
	2,3,4,6,7,8-HxCDF	<0.29	[U]	0.29	pg/L	31-OCT-15				
	1,2,3,4,6,7,8-HpCDF	<0.28	[U]	0.28	pg/L	31-OCT-15				
	1,2,3,4,7,8,9-HpCDF	<0.35	[U]	0.35	pg/L	31-OCT-15				
	OCDF	<0.38	[U]	0.38	pg/L	31-OCT-15				
	Total-TCDF	<0.67	[U]	0.67	pg/L	31-OCT-15				
	Total TCDF # Homologues	0			No Unit	31-OCT-15				
	Total-PeCDF	<0.41	[U]	0.41	pg/L	31-OCT-15				
	Total PeCDF # Homologues	0			No Unit	31-OCT-15				
	Total-HxCDF	<0.34	[U]	0.34	pg/L	31-OCT-15				

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Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte									
L1693697-3	DYEC/FA/151026/3									
Sampled By: A. HUXTER on 27-OCT-15 @ 08:0										
Matrix: SOIL										
Dioxins and Furans										
Total HxCDF # Homologues		0			No Unit	31-OCT-15				
Total HpCDF		<0.35	[U]	0.35	pg/L	31-OCT-15				
Total HpCDF # Homologues		0			No Unit	31-OCT-15				
Surrogate: 13C12-2,3,7,8-TCDD		59.0		20-175	%	31-OCT-15				
Surrogate: 13C12-1,2,3,7,8-PeCDD		59.0		21-227	%	31-OCT-15				
Surrogate: 13C12-1,2,3,4,7,8-HxCDD		63.0		21-193	%	31-OCT-15				
Surrogate: 13C12-1,2,3,6,7,8-HxCDD		74.0		25-163	%	31-OCT-15				
Surrogate: 13C12-1,2,3,4,6,7,8-HpCDD		69.0		23-166	%	31-OCT-15				
Surrogate: 13C12-OCDD		65.0		13-138	%	31-OCT-15				
Surrogate: 13C12-2,3,7,8-TCDF		59.0		22-152	%	31-OCT-15				
Surrogate: 13C12-1,2,3,7,8-PeCDF		58.0		24-185	%	31-OCT-15				
Surrogate: 13C12-2,3,4,7,8-PeCDF		59.0		21-178	%	31-OCT-15				
Surrogate: 13C12-1,2,3,4,7,8-HxCDF		65.0		26-152	%	31-OCT-15				
Surrogate: 13C12-1,2,3,6,7,8-HxCDF		68.0		21-159	%	31-OCT-15				
Surrogate: 13C12-2,3,4,6,7,8-HxCDF		70.0		17-205	%	31-OCT-15				
Surrogate: 13C12-1,2,3,7,8,9-HxCDF		66.0		28-136	%	31-OCT-15				
Surrogate: 13C12-1,2,3,4,6,7,8-HpCDF		69.0		21-158	%	31-OCT-15				
Surrogate: 13C12-1,2,3,4,7,8,9-HpCDF		69.0		20-186	%	31-OCT-15				
Surrogate: 37Cl4-2,3,7,8-TCDD (Cleanup)		56.0		31-191	%	31-OCT-15				
Toxic Equivalency										
Lower Bound PCDD/F TEQ (WHO 2005)		0.00			pg/L	31-OCT-15				
Mid Point PCDD/F TEQ (WHO 2005)		0.842			pg/L	31-OCT-15				
Upper Bound PCDD/F TEQ (WHO 2005)		1.68			pg/L	31-OCT-15	1500			
L1693697-4	DYEC/FA/151026/4									
Sampled By: A. HUXTER on 27-OCT-15 @ 08:0										
Matrix: SOIL										
Sample Preparation										
Initial pH		12.31		0.10	pH units	27-OCT-15				
Final pH		11.58		0.10	pH units	27-OCT-15				
TCLP Extractables										
Alachlor		<0.0010		0.0010	mg/L	29-OCT-15				
Aldicarb		<0.010		0.010	mg/L	28-OCT-15	0.9			
Aldrin		<0.00020		0.00020	mg/L	29-OCT-15				
Aldrin + Dieldrin		<0.00040		0.00040	mg/L	29-OCT-15	0.07			
alpha-Chlordane		<0.0010		0.0010	mg/L	29-OCT-15				
Aroclor 1242		<0.00020		0.00020	mg/L	29-OCT-15				
Aroclor 1248		<0.00020		0.00020	mg/L	29-OCT-15				
Aroclor 1254		<0.00020		0.00020	mg/L	29-OCT-15				
Aroclor 1260		<0.00020		0.00020	mg/L	29-OCT-15				
Atrazine		<0.0010		0.0010	mg/L	29-OCT-15				
Atrazine Desethyl		<0.0010		0.0010	mg/L	29-OCT-15				
Atrazine & Metabolites		<0.0020		0.0020	mg/L	29-OCT-15	0.5			
Azinphos methyl		<0.0010		0.0010	mg/L	29-OCT-15	2			
Bendiocarb		<0.0050		0.0050	mg/L	29-OCT-15	4			
Benzo(a)pyrene		<0.0010		0.0010	mg/L	29-OCT-15	0.001			
Bromoxynil		<0.0020		0.0020	mg/L	29-OCT-15	0.5			

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Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

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ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte									
L1693697-4	DYEC/FA/151026/4									
Sampled By: A. HUXTER on 27-OCT-15 @ 08:0										
Matrix: SOIL										#1
TCLP Extractables										
	Carbaryl	<0.0020		0.0020	mg/L	29-OCT-15				9
	Carbofuran	<0.0020		0.0020	mg/L	29-OCT-15				9
	Chlordane (Total)	<0.0030		0.0030	mg/L	29-OCT-15				0.7
	Chlorpyrifos	<0.0010		0.0010	mg/L	29-OCT-15				9
	3&4-Methylphenol	<0.010		0.010	mg/L	29-OCT-15				
	Cresols (total)	<0.015		0.015	mg/L	29-OCT-15				200
	Cyanazine	<0.0010		0.0010	mg/L	29-OCT-15				1.0
	Cyanide, Weak Acid Diss	<0.10		0.10	mg/L	29-OCT-15				20
	2,4-D	<0.0020		0.0020	mg/L	29-OCT-15				10
	p,p-DDD	<0.0010		0.0010	mg/L	29-OCT-15				
	p,p-DDE	<0.0010		0.0010	mg/L	29-OCT-15				
	o,p-DDT	<0.0010		0.0010	mg/L	29-OCT-15				
	p,p-DDT	<0.0010		0.0010	mg/L	29-OCT-15				
	DDT + metabolites	<0.0040		0.0040	mg/L	29-OCT-15				3
	Diazinon	<0.0010		0.0010	mg/L	29-OCT-15				2
	Dicamba	<0.0050		0.0050	mg/L	29-OCT-15				12
	2,4-Dichlorophenol	<0.0050		0.0050	mg/L	29-OCT-15				90
	Diclofop methyl	<0.0020		0.0020	mg/L	29-OCT-15				0.9
	Dieldrin	<0.00020		0.00020	mg/L	29-OCT-15				
	Dimethoate	<0.0010		0.0010	mg/L	29-OCT-15				2
	2,4-Dinitrotoluene	<0.0040		0.0040	mg/L	29-OCT-15				0.13
	Dinoseb	<0.0020		0.0020	mg/L	29-OCT-15				1
	Diquat	<0.10	DLI	0.10	mg/L	28-OCT-15				7
	Diuron	<0.010		0.010	mg/L	28-OCT-15				15
	Endrin	<0.0010		0.0010	mg/L	29-OCT-15				0.02
	Parathion	<0.0010		0.0010	mg/L	29-OCT-15				5
	Fluoride (F)	<10		10	mg/L	28-OCT-15				150.0
	gamma-BHC	<0.0010		0.0010	mg/L	29-OCT-15				0.4
	gamma-Chlordane	<0.0010		0.0010	mg/L	29-OCT-15				
	Glyphosate	<0.050		0.050	mg/L	29-OCT-15				28
	Heptachlor	<0.0010		0.0010	mg/L	29-OCT-15				
	Heptachlor + Heptachlor Epoxide	<0.0020		0.0020	mg/L	29-OCT-15				0.3
	Heptachlor epoxide	<0.0010		0.0010	mg/L	29-OCT-15				
	Hexachlorobenzene	<0.0040		0.0040	mg/L	29-OCT-15				0.13
	Hexachlorobutadiene	<0.0040		0.0040	mg/L	29-OCT-15				0.5
	Hexachloroethane	<0.0040		0.0040	mg/L	29-OCT-15				3.0
	Malathion	<0.0010		0.0010	mg/L	29-OCT-15				19
	MCPA	<0.0020		0.0020	mg/L	29-OCT-15				
	Methoxychlor	<0.0010		0.0010	mg/L	29-OCT-15				90
	Methyl Parathion	<0.0010		0.0010	mg/L	29-OCT-15				0.7
	2-Methylphenol	<0.0050		0.0050	mg/L	29-OCT-15				
	Metolachlor	<0.0010		0.0010	mg/L	29-OCT-15				5
	Metribuzin	<0.0010		0.0010	mg/L	29-OCT-15				8
	Nitrate and Nitrite as N	<4.0		4.0	mg/L	28-OCT-15				1000
	Nitrate-N	<2.0		2.0	mg/L	28-OCT-15				
	Nitrilotriacetic Acid (NTA)	<40		0.20	mg/L	28-OCT-15				40

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Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte									
L1693697-4	DYEC/FA/151026/4									
Sampled By: A. HUXTER on 27-OCT-15 @ 08:0										
Matrix: SOIL										#1
TCLP Extractables										
	Nitrite-N	<2.0		2.0	mg/L	28-OCT-15				
	Nitrobenzene	<0.0040		0.0040	mg/L	29-OCT-15	2.0			
	N-Nitrosodimethylamine	<0.00020		0.00020	mg/L	29-OCT-15	0.0009			
	Oxychlorthane	<0.0010		0.0010	mg/L	29-OCT-15				
	Paraquat	<0.10	DLI	0.10	mg/L	28-OCT-15	1			
	Total PCBs	<0.00040		0.00040	mg/L	29-OCT-15	0.3			
	Pentachlorophenol	<0.0050		0.0050	mg/L	29-OCT-15	6			
	Phorate	<0.0010		0.0010	mg/L	29-OCT-15	0.2			
	Picloram	<0.0050		0.0050	mg/L	29-OCT-15	19			
	Prometryne	<0.0010		0.0010	mg/L	29-OCT-15				
	Pyridine	<5.0		5.0	mg/L	27-OCT-15	5.0			
	Simazine	<0.0010		0.0010	mg/L	29-OCT-15	1			
	2,4,5-T	<0.0020		0.0020	mg/L	29-OCT-15	28			
	Temephos	<0.0010		0.0010	mg/L	29-OCT-15	28			
	Terbufos	<0.0020		0.0020	mg/L	29-OCT-15	0.1			
	2,3,4,6-Tetrachlorophenol	<0.0050		0.0050	mg/L	29-OCT-15	10.0			
	Toxaphene	<0.0035		0.0035	mg/L	29-OCT-15	0.5			
	2,4,5-TP	<0.0020		0.0020	mg/L	29-OCT-15	1			
	Triallate	<0.0010		0.0010	mg/L	29-OCT-15	23			
	2,4,5-Trichlorophenol	<0.0050		0.0050	mg/L	29-OCT-15	400			
	2,4,6-Trichlorophenol	<0.0050		0.0050	mg/L	29-OCT-15	0.5			
	Trifluralin	<0.0050		0.0050	mg/L	29-OCT-15	4.5			
	Surrogate: 2,4,6-Tribromophenol	95.2		50-150	%	29-OCT-15				
	Surrogate: 2,4-Dichlorophenylacetic Acid	109.6		50-150	%	29-OCT-15				
	Surrogate: 2-Fluorobiphenyl	41.6		40-160	%	29-OCT-15				
	Surrogate: 2-Fluorobiphenyl	79.4		40-160	%	29-OCT-15				
	Surrogate: 2-Fluorobiphenyl	80.2		40-160	%	29-OCT-15				
	Surrogate: Nitrobenzene d5	79.7		50-150	%	29-OCT-15				
	Surrogate: d14-Terphenyl	79.4		60-140	%	29-OCT-15				
	Surrogate: d14-Terphenyl	82.7		60-140	%	29-OCT-15				
	Surrogate: p-Terphenyl d14	95.8		60-140	%	29-OCT-15				
TCLP Metals										
	Arsenic (As)	<0.050		0.050	mg/L	28-OCT-15	2.5			
	Barium (Ba)	1.75		0.50	mg/L	28-OCT-15	100			
	Boron (B)	<2.5		2.5	mg/L	28-OCT-15	500			
	Cadmium (Cd)	<0.0050		0.0050	mg/L	28-OCT-15	0.5			
	Chromium (Cr)	<0.050		0.050	mg/L	28-OCT-15	5.0			

** Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.

* Analytical result for this parameter exceeds Guideline Limit listed on this report. Guideline Limits applied:

Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte						#1			
L1693697-4	DYEC/FA/151026/4									
Sampled By: A. HUXTER on 27-OCT-15 @ 08:0										
Matrix: SOIL										
TCLP Metals										
	Lead (Pb)	<0.050		0.050	mg/L	28-OCT-15	5.0			
	Mercury (Hg)	<0.00010		0.00010	mg/L	28-OCT-15	0.1			
	Selenium (Se)	<0.25		0.25	mg/L	28-OCT-15	1.0			
	Silver (Ag)	<0.0050		0.0050	mg/L	28-OCT-15	5.0			
	Uranium (U)	<0.25		0.25	mg/L	28-OCT-15	10			
TCLP VOCs										
	1,1-Dichloroethylene	<0.025		0.025	mg/L	29-OCT-15	1.4			
	1,2-Dichlorobenzene	<0.025		0.025	mg/L	29-OCT-15	20.0			
	1,2-Dichloroethane	<0.025		0.025	mg/L	29-OCT-15	0.5			
	1,4-Dichlorobenzene	<0.025		0.025	mg/L	29-OCT-15	0.5			
	Benzene	<0.025		0.025	mg/L	29-OCT-15	0.5			
	Carbon tetrachloride	<0.025		0.025	mg/L	29-OCT-15	0.5			
	Chlorobenzene	<0.025		0.025	mg/L	29-OCT-15	8			
	Chloroform	<0.10		0.10	mg/L	29-OCT-15	10			
	Dichloromethane	<0.50		0.50	mg/L	29-OCT-15	5.0			
	Methyl Ethyl Ketone	<1.0		1.0	mg/L	29-OCT-15	200.0			
	Tetrachloroethylene	<0.025		0.025	mg/L	29-OCT-15	3			
	Trichloroethylene	<0.025		0.025	mg/L	29-OCT-15	5			
	Vinyl chloride	<0.050		0.050	mg/L	29-OCT-15	0.2			
	Surrogate: 4-Bromofluorobenzene	86.1		70-130	%	29-OCT-15				
Volatile Organic Compounds										
	Surrogate: 1,4-Difluorobenzene	98.5		50-150	%	29-OCT-15				
Polychlorinated Biphenyls										
	Surrogate: Decachlorobiphenyl	103.0		50-150	%	29-OCT-15				
	Surrogate: Tetrachloro-m-xylene	84.2		50-150	%	29-OCT-15				
Dioxins and Furans										
	2,3,7,8-TCDD	<2.1	[U]	2.1	pg/L	31-OCT-15				
	1,2,3,7,8-PeCDD	<1.4	[U]	1.4	pg/L	31-OCT-15				
	1,2,3,4,7,8-HxCDD	<1.2	[U]	1.2	pg/L	31-OCT-15				
	1,2,3,6,7,8-HxCDD	<1.1	[U]	1.1	pg/L	31-OCT-15				
	1,2,3,7,8,9-HxCDD	<1.1	[U]	1.1	pg/L	31-OCT-15				
	1,2,3,4,6,7,8-HpCDD	<1.3	[U]	1.3	pg/L	31-OCT-15				
	OCDD	<1.4	[U]	1.4	pg/L	31-OCT-15				
	Total-TCDD	<2.1	[U]	2.1	pg/L	31-OCT-15				
	Total TCDD # Homologues	0			No Unit	31-OCT-15				
	Total-PeCDD	<1.4	[U]	1.4	pg/L	31-OCT-15				
	Total PeCDD # Homologues	0			No Unit	31-OCT-15				
	Total-HxCDD	<1.2	[U]	1.2	pg/L	31-OCT-15				
	Total HxCDD # Homologues	0			No Unit	31-OCT-15				
	Total-HpCDD	<1.3	[U]	1.3	pg/L	31-OCT-15				
	Total HpCDD # Homologues	0			No Unit	31-OCT-15				
	2,3,7,8-TCDF	<1.7	[U]	1.7	pg/L	31-OCT-15				
	1,2,3,7,8-PeCDF	<1.1	[U]	1.1	pg/L	31-OCT-15				
	2,3,4,7,8-PeCDF	<0.97	[U]	0.97	pg/L	31-OCT-15				
	1,2,3,4,7,8-HxCDF	<0.65	[U]	0.65	pg/L	31-OCT-15				
	1,2,3,6,7,8-HxCDF	<0.61	[U]	0.61	pg/L	31-OCT-15				

** Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.

* Analytical result for this parameter exceeds Guideline Limit listed on this report. Guideline Limits applied:

Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits		
Grouping	Analyte								
L1693697-4	DYEC/FA/151026/4								
Sampled By: A. HUXTER on 27-OCT-15 @ 08:00									
Matrix: SOIL									
Dioxins and Furans									
	1,2,3,7,8,9-HxCDF	<0.83	[U]	0.83	pg/L	31-OCT-15			
	2,3,4,6,7,8-HxCDF	<0.67	[U]	0.67	pg/L	31-OCT-15			
	1,2,3,4,6,7,8-HpCDF	<0.66	[U]	0.66	pg/L	31-OCT-15			
	1,2,3,4,7,8,9-HpCDF	<0.85	[U]	0.85	pg/L	31-OCT-15			
	OCDF	<1.5	[U]	1.5	pg/L	31-OCT-15			
	Total-TCDF	<1.7	[U]	1.7	pg/L	31-OCT-15			
	Total TCDF # Homologues	0			No Unit	31-OCT-15			
	Total-PeCDF	<1.1	[U]	1.1	pg/L	31-OCT-15			
	Total PeCDF # Homologues	0			No Unit	31-OCT-15			
	Total-HxCDF	<0.83	[U]	0.83	pg/L	31-OCT-15			
	Total HxCDF # Homologues	0			No Unit	31-OCT-15			
	Total-HpCDF	<0.85	[U]	0.85	pg/L	31-OCT-15			
	Total HpCDF # Homologues	0			No Unit	31-OCT-15			
	Surrogate: 13C12-2,3,7,8-TCDD	35.0		20-175	%	31-OCT-15			
	Surrogate: 13C12-1,2,3,7,8-PeCDD	35.0		21-227	%	31-OCT-15			
	Surrogate: 13C12-1,2,3,4,7,8-HxCDD	39.0		21-193	%	31-OCT-15			
	Surrogate: 13C12-1,2,3,6,7,8-HxCDD	43.0		25-163	%	31-OCT-15			
	Surrogate: 13C12-1,2,3,4,6,7,8-HpCDD	41.0		23-166	%	31-OCT-15			
	Surrogate: 13C12-OCDD	34.0		13-138	%	31-OCT-15			
	Surrogate: 13C12-2,3,7,8-TCDF	35.0		22-152	%	31-OCT-15			
	Surrogate: 13C12-1,2,3,7,8-PeCDF	36.0		24-185	%	31-OCT-15			
	Surrogate: 13C12-2,3,4,7,8-PeCDF	36.0		21-178	%	31-OCT-15			
	Surrogate: 13C12-1,2,3,4,7,8-HxCDF	39.0		26-152	%	31-OCT-15			
	Surrogate: 13C12-1,2,3,6,7,8-HxCDF	43.0		21-159	%	31-OCT-15			
	Surrogate: 13C12-2,3,4,6,7,8-HxCDF	42.0		17-205	%	31-OCT-15			
	Surrogate: 13C12-1,2,3,7,8,9-HxCDF	39.0		28-136	%	31-OCT-15			
	Surrogate: 13C12-1,2,3,4,6,7,8-HpCDF	41.0		21-158	%	31-OCT-15			
	Surrogate: 13C12-1,2,3,4,7,8,9-HpCDF	40.0		20-186	%	31-OCT-15			
	Surrogate: 37Cl4-2,3,7,8-TCDD (Cleanup)	34.0		31-191	%	31-OCT-15			
Toxic Equivalency									
	Lower Bound PCDD/F TEQ (WHO 2005)	0.00			pg/L	31-OCT-15			
	Mid Point PCDD/F TEQ (WHO 2005)	2.32			pg/L	31-OCT-15			
	Upper Bound PCDD/F TEQ (WHO 2005)	4.64			pg/L	31-OCT-15	1500		

** Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.

* Analytical result for this parameter exceeds Guideline Limit listed on this report. Guideline Limits applied:

Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

Reference Information

Qualifiers for Sample Submission Listed:

Qualifier	Description
CINT	Cooling initiated. Samples were received packed with ice or ice packs and were sampled the same day as received.

Sample Parameter Qualifier key listed:

Qualifier	Description
[U]	The analyte was not detected above the EDL.
DLI	Detection Limit Raised: Dilution required to address Internal Standard response problems caused by matrix interference.
M,U	A peak has been manually integrated, and the analyte was not detected above the EDL.
[J]	The analyte was detected below the calibrated range but above the EDL.
M,J,R	A peak has been manually integrated, the analyte was detected below the calibrated range but above the EDL, and the ion abundance ratio(s) did not meet the acceptance criteria. Value is an estimated maximum.
M,J	A peak has been manually integrated, and the analyte was detected below the calibrated range but above the EDL.
RRR	Refer to Report Remarks for issues regarding this analysis

Methods Listed (if applicable):

ALS Test Code	Matrix	Test Description	Method Reference***
ALDICARB-TCLP-WT	Waste	O. Reg 347 Aldicarb	LC/MS-MS
BNA-TCLP-WT	Waste	BNAs for O. Reg 347	SW846 8270
Samples are leached according to TCLP protocol and then the aqueous leachate is extracted and the resulting extracts are analyzed on GC/MSD			
CN-TCLP-WT	Waste	Cyanide for O. Reg 347	APHA 4500CN C E
DIQUAT-TCLP-WT	Waste	Diquat for O. Reg 347	LC/MS/MS
DIURON-TCLP-WT	Waste	Diuron for O. Reg 347	MOE PWAUH-E3436 (MOD)
DX-1613B-HRMS-BU	Waste	Dioxins and Furans by method 1613B	USEPA 1613B
Samples filtered if required. The solid portion is extracted by Soxhlet, the liquid portion is liquid/liquid extracted with dichloromethane. The extracts are prepared using column chromatography, reduced in volume and analyzed by isotope-dilution GC/HRMS.			
F-TCLP-WT	Waste	Fluoride (F) for O. Reg 347	APHA 4110 B-Ion Chromatography
GLYPHOSATE-TCLP-WT	Waste	Glyphosate for O. Reg 347	LC/MS/MS
HG-TCLP-WT	Waste	Mercury (CVAA) for O.Reg 347	SW846 7470A
LEACH-TCLP-WT	Waste	Leachate Procedure for Reg 347	EPA 1311
Inorganic and Semi-Volatile Organic contaminants are leached from waste samples in strict accordance with US EPA Method 1311, "Toxicity Characteristic Leaching Procedure" (TCLP). Test results are reported in leachate concentration units (normally mg/L).			
MET-TCLP-WT	Waste	O.Reg 347 TCLP Leachable Metals	EPA 200.8
N2N3-TCLP-WT	Waste	Nitrate/Nitrite-N for O. Reg 347	APHA 4110 B-Ion Chromatography
NDMA-TCLP-WT	Waste	NDMA for O. Reg 347	In House/GC/MS
NTA-TCLP-WT	Waste	NTA for O. Reg 347	EPA 430.2
PARAQUAT-TCLP-WT	Waste	Paraquat for O. Reg 347	LC/MS-MS
PCB-TCLP-WT	Waste	PCBs for O. Reg 347	SW846 8270
PEST-MISC-TCLP-WT	Waste	O. Reg 347 TCLP Miscellaneous Pesticides	SW846 8270
PEST-OC-TCLP-WT	Waste	O. Reg 347TCLP Organochlorine Pesticides	SW846 8270
Samples are leached according to TCLP protocol and then the aqueous leachate is extracted and the resulting extracts are analyzed on GC/MSD			
PEST-PAHERB-TCLP-WT	Waste	Phenoxyacid Herbicides for O. Reg 347	SW846 8270
PYR-TCLP-WT	Waste	Pyridine for O. Reg 347	SW846 8260D
Samples are leached according to TCLP protocol and then analyzed on GC/MSD			
TOXAPHENE-TCLP-WT	Waste	Toxaphene by GC/ECD for O. Reg 347	SW846 8270
VOC-TCLP-WT	Waste	VOC for O. Reg 347	SW846 8260

A sample of waste is leached in a zero headspace extractor at 30–2 rpm for 18–2.0 hours with the appropriate leaching solution. After tumbling the leachate is analyzed directly by headspace technology, followed by GC/MS using internal standard quantitation.

*** ALS test methods may incorporate modifications from specified reference methods to improve performance.

Chain of Custody numbers:

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Reference Information

Laboratory Definition Code	Laboratory Location	Laboratory Definition Code	Laboratory Location
WT	ALS ENVIRONMENTAL - WATERLOO, ONTARIO, CANADA	BU	ALS ENVIRONMENTAL - BURLINGTON, ONTARIO, CANADA

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.

mg/kg - milligrams per kilogram based on dry weight of sample

mg/kg wwt - milligrams per kilogram based on wet weight of sample

mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight

mg/L - unit of concentration based on volume, parts per million.

< - Less than.

D.L. - The reporting limit.

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.

Application of guidelines is provided "as is" without warranty of any kind, either expressed or implied, including, but not limited to fitness for a particular purpose, or non-infringement. ALS assumes no responsibility for errors or omissions in the information.



Environmental

Quality Control Report

Workorder: L1693697

Report Date: 02-NOV-15

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Client: Covanta - Durham York Renewable Energy LP
 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
ALDICARB-TCLP-WT		Waste						
Batch	R3298826							
WG2202592-3	DUP	L1693697-1						
Aldicarb		<0.010	<0.010	RPD-NA	mg/L	N/A	30	28-OCT-15
WG2202592-2	LCS							
Aldicarb			115.0		%		70-130	28-OCT-15
WG2202592-1	MB							
Aldicarb			<0.010		mg/L		0.01	28-OCT-15
BNA-TCLP-WT		Waste						
Batch	R3297996							
WG2201531-5	DUP	WG2201531-3						
2,3,4,6-Tetrachlorophenol		<0.0050	<0.0050	RPD-NA	mg/L	N/A	50	28-OCT-15
2,4,5-Trichlorophenol		<0.0050	<0.0050	RPD-NA	mg/L	N/A	50	28-OCT-15
2,4,6-Trichlorophenol		<0.0050	<0.0050	RPD-NA	mg/L	N/A	50	28-OCT-15
2,4-Dichlorophenol		<0.0050	<0.0050	RPD-NA	mg/L	N/A	50	28-OCT-15
2,4-Dinitrotoluene		<0.0040	<0.0040	RPD-NA	mg/L	N/A	50	28-OCT-15
2-Methylphenol		<0.0050	<0.0050	RPD-NA	mg/L	N/A	50	28-OCT-15
3&4-Methylphenol		<0.010	<0.010	RPD-NA	mg/L	N/A	50	28-OCT-15
Hexachlorobenzene		<0.0040	<0.0040	RPD-NA	mg/L	N/A	50	28-OCT-15
Hexachlorobutadiene		<0.0040	<0.0040	RPD-NA	mg/L	N/A	50	28-OCT-15
Hexachloroethane		<0.0040	<0.0040	RPD-NA	mg/L	N/A	50	28-OCT-15
Nitrobenzene		<0.0040	<0.0040	RPD-NA	mg/L	N/A	50	28-OCT-15
Pentachlorophenol		<0.0050	<0.0050	RPD-NA	mg/L	N/A	50	28-OCT-15
WG2201531-2	LCS							
2,3,4,6-Tetrachlorophenol			90.0		%		60-140	28-OCT-15
2,4,5-Trichlorophenol			84.7		%		60-140	28-OCT-15
2,4,6-Trichlorophenol			77.9		%		60-140	28-OCT-15
2,4-Dichlorophenol			76.9		%		60-140	28-OCT-15
2,4-Dinitrotoluene			82.6		%		50-150	28-OCT-15
2-Methylphenol			69.4		%		60-140	28-OCT-15
3&4-Methylphenol			71.0		%		60-140	28-OCT-15
Hexachlorobenzene			85.7		%		60-140	28-OCT-15
Hexachlorobutadiene			69.5		%		40-130	28-OCT-15
Hexachloroethane			67.2		%		40-130	28-OCT-15
Nitrobenzene			78.4		%		60-140	28-OCT-15
Pentachlorophenol			98.2		%		50-160	28-OCT-15
WG2201531-1	MB							



Quality Control Report

Workorder: L1693697

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Client: Covanta - Durham York Renewable Energy LP
 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
BNA-TCLP-WT		Waste						
Batch	R3297996							
WG2201531-1 MB								
2,3,4,6-Tetrachlorophenol			<0.0050		mg/L		0.005	28-OCT-15
2,4,5-Trichlorophenol			<0.0050		mg/L		0.005	28-OCT-15
2,4,6-Trichlorophenol			<0.0050		mg/L		0.005	28-OCT-15
2,4-Dichlorophenol			<0.0050		mg/L		0.005	28-OCT-15
2,4-Dinitrotoluene			<0.0040		mg/L		0.004	28-OCT-15
2-Methylphenol			<0.0050		mg/L		0.005	28-OCT-15
3&4-Methylphenol			<0.010		mg/L		0.01	28-OCT-15
Hexachlorobenzene			<0.0040		mg/L		0.004	28-OCT-15
Hexachlorobutadiene			<0.0040		mg/L		0.004	28-OCT-15
Hexachloroethane			<0.0040		mg/L		0.004	28-OCT-15
Nitrobenzene			<0.0040		mg/L		0.004	28-OCT-15
Pentachlorophenol			<0.0050		mg/L		0.005	28-OCT-15
Surrogate: Nitrobenzene d5			89.9		%		50-150	28-OCT-15
Surrogate: 2-Fluorobiphenyl			91.6		%		40-160	28-OCT-15
Surrogate: p-Terphenyl d14			130.3		%		60-140	28-OCT-15
Surrogate: 2,4,6-Tribromophenol			91.3		%		50-150	28-OCT-15
WG2201531-4 MS		WG2201531-3						
2,3,4,6-Tetrachlorophenol			94.5		%		50-150	28-OCT-15
2,4,5-Trichlorophenol			91.3		%		50-150	28-OCT-15
2,4,6-Trichlorophenol			83.4		%		50-150	28-OCT-15
2,4-Dichlorophenol			81.7		%		50-150	28-OCT-15
2,4-Dinitrotoluene			84.2		%		50-150	28-OCT-15
2-Methylphenol			74.3		%		50-150	28-OCT-15
3&4-Methylphenol			74.7		%		50-150	28-OCT-15
Hexachlorobenzene			85.1		%		40-150	28-OCT-15
Hexachlorobutadiene			71.8		%		40-150	28-OCT-15
Hexachloroethane			67.5		%		40-150	28-OCT-15
Nitrobenzene			78.2		%		50-150	28-OCT-15
Pentachlorophenol			100.6		%		50-150	28-OCT-15
CN-TCLP-WT		Waste						
Batch	R3299224							
WG2203664-3 DUP		L1693697-1						
Cyanide, Weak Acid Diss		<0.10	<0.10	RPD-NA	mg/L	N/A	20	29-OCT-15
WG2203664-2 LCS								



Quality Control Report

Workorder: L1693697

Report Date: 02-NOV-15

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Client: Covanta - Durham York Renewable Energy LP
1835 Energy Drive
Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-TCLP-WT		Waste						
Batch	R3299224							
WG2203664-2	LCS							
Cyanide, Weak Acid Diss			98.9		%		70-130	29-OCT-15
WG2203664-1	MB							
Cyanide, Weak Acid Diss			<0.10		mg/L		0.1	29-OCT-15
WG2203664-4	MS	L1693697-1						
Cyanide, Weak Acid Diss			97.4		%		50-150	29-OCT-15
DIQUAT-TCLP-WT		Waste						
Batch	R3298253							
WG2202384-3	DUP	L1693697-1						
Diquat		<0.10	<0.10		mg/L	N/A	30	28-OCT-15
WG2202384-2	LCS							
Diquat			98.8		%		70-130	28-OCT-15
WG2202384-1	MB							
Diquat			<0.010		mg/L		0.01	28-OCT-15
DIURON-TCLP-WT		Waste						
Batch	R3298822							
WG2202595-3	DUP	L1693697-1						
Diuron		<0.010	<0.010	RPD-NA	mg/L	N/A	30	28-OCT-15
WG2202595-2	LCS							
Diuron			110.0		%		70-130	28-OCT-15
WG2202595-1	MB							
Diuron			<0.010		mg/L		0.01	28-OCT-15
DX-1613B-HRMS-BU		Waste						
Batch	R3300808							
WG2203549-2	LCS							
2,3,7,8-TCDD			105.0		%		67-158	31-OCT-15
1,2,3,7,8-PeCDD			107.0		%		70-142	31-OCT-15
1,2,3,4,7,8-HxCDD			94.0		%		70-164	31-OCT-15
1,2,3,6,7,8-HxCDD			104.0		%		76-134	31-OCT-15
1,2,3,7,8,9-HxCDD			111.0		%		64-162	31-OCT-15
1,2,3,4,6,7,8-HpCDD			106.0		%		70-140	31-OCT-15
OCDD			100.0		%		78-144	31-OCT-15
2,3,7,8-TCDF			98.0		%		75-158	31-OCT-15
1,2,3,7,8-PeCDF			103.0		%		80-134	31-OCT-15
2,3,4,7,8-PeCDF			97.0		%		68-160	31-OCT-15
1,2,3,4,7,8-HxCDF			101.0		%		72-134	31-OCT-15



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Client: Covanta - Durham York Renewable Energy LP
1835 Energy Drive
Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
DX-1613B-HRMS-BU	Waste							
Batch	R3300808							
WG2203549-2 LCS								
1,2,3,6,7,8-HxCDF			90.0		%		84-130	31-OCT-15
2,3,4,6,7,8-HxCDF			102.0		%		78-130	31-OCT-15
1,2,3,7,8,9-HxCDF			104.0		%		70-156	31-OCT-15
1,2,3,4,6,7,8-HpCDF			100.0		%		82-122	31-OCT-15
1,2,3,4,7,8,9-HpCDF			101.0		%		78-138	31-OCT-15
OCDF			100.0		%		63-170	31-OCT-15
WG2203549-1 MB								
2,3,7,8-TCDD			<0.73	[U]	pg/L		0.73	31-OCT-15
1,2,3,7,8-PeCDD			<0.62	[U]	pg/L		0.62	31-OCT-15
1,2,3,4,7,8-HxCDD			<0.41	[U]	pg/L		0.41	31-OCT-15
1,2,3,6,7,8-HxCDD			<0.42	[U]	pg/L		0.42	31-OCT-15
1,2,3,7,8,9-HxCDD			<0.41	[U]	pg/L		0.41	31-OCT-15
1,2,3,4,6,7,8-HpCDD			<0.48	[U]	pg/L		0.48	31-OCT-15
OCDD			0.90	M,J,R	pg/L		0.56	31-OCT-15
2,3,7,8-TCDF			<0.67	[U]	pg/L		0.67	31-OCT-15
1,2,3,7,8-PeCDF			<0.42	[U]	pg/L		0.42	31-OCT-15
2,3,4,7,8-PeCDF			<0.36	[U]	pg/L		0.36	31-OCT-15
1,2,3,4,7,8-HxCDF			<0.22	[U]	pg/L		0.22	31-OCT-15
1,2,3,6,7,8-HxCDF			0.20	M,J,R	pg/L		0.18	31-OCT-15
2,3,4,6,7,8-HxCDF			<0.21	[U]	pg/L		0.21	31-OCT-15
1,2,3,7,8,9-HxCDF			0.76	J,R	pg/L		0.24	31-OCT-15
1,2,3,4,6,7,8-HpCDF			0.50	M,J,R	pg/L		0.22	31-OCT-15
1,2,3,4,7,8,9-HpCDF			<0.29	[U]	pg/L		0.29	31-OCT-15
OCDF			<0.38	[U]	pg/L		0.38	31-OCT-15
Total-TCDD			<0.73	[U]	pg/L		0.73	31-OCT-15
Total-PeCDD			<0.62	[U]	pg/L		0.62	31-OCT-15
Total-HxCDD			<0.42	[U]	pg/L		0.42	31-OCT-15
Total-HpCDD			<0.48	[U]	pg/L		0.48	31-OCT-15
Total-TCDF			<0.67	[U]	pg/L		0.67	31-OCT-15
Total-PeCDF			<0.42	[U]	pg/L		0.42	31-OCT-15
Total-HxCDF			<0.24	[U]	pg/L		0.24	31-OCT-15
Total-HpCDF			<0.29	[U]	pg/L		0.29	31-OCT-15
Surrogate: 13C12-2,3,7,8-TCDD			64.0		%		20-175	31-OCT-15
Surrogate: 13C12-1,2,3,7,8-PeCDD			64.0		%		21-227	31-OCT-15



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Client: Covanta - Durham York Renewable Energy LP
1835 Energy Drive
Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
DX-1613B-HRMS-BU		Waste						
Batch	R3300808							
WG2203549-1 MB								
Surrogate: 13C12-1,2,3,4,7,8-HxCDD			70.0		%		21-193	31-OCT-15
Surrogate: 13C12-1,2,3,6,7,8-HxCDD			78.0		%		25-163	31-OCT-15
Surrogate: 13C12-1,2,3,4,6,7,8-HpCDD			79.0		%		23-166	31-OCT-15
Surrogate: 13C12-OCDD			75.0		%		13-138	31-OCT-15
Surrogate: 13C12-2,3,7,8-TCDF			63.0		%		22-152	31-OCT-15
Surrogate: 13C12-1,2,3,7,8-PeCDF			64.0		%		24-185	31-OCT-15
Surrogate: 13C12-2,3,4,7,8-PeCDF			63.0		%		21-178	31-OCT-15
Surrogate: 13C12-1,2,3,4,7,8-HxCDF			72.0		%		26-152	31-OCT-15
Surrogate: 13C12-1,2,3,6,7,8-HxCDF			75.0		%		21-159	31-OCT-15
Surrogate: 13C12-2,3,4,6,7,8-HxCDF			75.0		%		17-205	31-OCT-15
Surrogate: 13C12-1,2,3,7,8,9-HxCDF			74.0		%		28-136	31-OCT-15
Surrogate: 13C12-1,2,3,4,6,7,8-HpCDF			77.0		%		21-158	31-OCT-15
Surrogate: 13C12-1,2,3,4,7,8,9-HpCDF			78.0		%		20-186	31-OCT-15
Surrogate: 37Cl4-2,3,7,8-TCDD (Cleanup)			63.0		%		31-191	31-OCT-15
WG2203549-4 MB								
2,3,7,8-TCDD			<0.89	[U]	pg/L		0.89	31-OCT-15
1,2,3,7,8-PeCDD			<0.47	[U]	pg/L		0.47	31-OCT-15
1,2,3,4,7,8-HxCDD			<0.32	[U]	pg/L		0.32	31-OCT-15
1,2,3,6,7,8-HxCDD			<0.32	[U]	pg/L		0.32	31-OCT-15
1,2,3,7,8,9-HxCDD			<0.32	[U]	pg/L		0.32	31-OCT-15
1,2,3,4,6,7,8-HpCDD			<0.47	[U]	pg/L		0.47	31-OCT-15
OCDD			<0.29	[U]	pg/L		0.29	31-OCT-15
2,3,7,8-TCDF			<0.79	[U]	pg/L		0.79	31-OCT-15
1,2,3,7,8-PeCDF			<0.32	[U]	pg/L		0.32	31-OCT-15
2,3,4,7,8-PeCDF			<0.28	[U]	pg/L		0.28	31-OCT-15
1,2,3,4,7,8-HxCDF			<0.24	[U]	pg/L		0.24	31-OCT-15
1,2,3,6,7,8-HxCDF			<0.20	[U]	pg/L		0.2	31-OCT-15
2,3,4,6,7,8-HxCDF			<0.23	[U]	pg/L		0.23	31-OCT-15
1,2,3,7,8,9-HxCDF			0.56	M,J,R	pg/L		0.27	31-OCT-15
1,2,3,4,6,7,8-HpCDF			<0.29	[U]	pg/L		0.29	31-OCT-15
1,2,3,4,7,8,9-HpCDF			<0.36	[U]	pg/L		0.36	31-OCT-15
OCDF			<0.40	[U]	pg/L		0.4	31-OCT-15
Total-TCDD			<0.89	[U]	pg/L		0.89	31-OCT-15
Total-PeCDD			<0.47	[U]	pg/L		0.47	31-OCT-15



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Client: Covanta - Durham York Renewable Energy LP
 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
DX-1613B-HRMS-BU		Waste						
Batch	R3300808							
WG2203549-4	MB							
Total-HxCDD			<0.32	[U]	pg/L		0.32	31-OCT-15
Total-HpCDD			<0.47	[U]	pg/L		0.47	31-OCT-15
Total-TCDF			<0.79	[U]	pg/L		0.79	31-OCT-15
Total-PeCDF			<0.32	[U]	pg/L		0.32	31-OCT-15
Total-HxCDF			<0.27	[U]	pg/L		0.27	31-OCT-15
Total-HpCDF			<0.36	[U]	pg/L		0.36	31-OCT-15
Surrogate: 13C12-2,3,7,8-TCDD			60.0		%		20-175	31-OCT-15
Surrogate: 13C12-1,2,3,7,8-PeCDD			64.0		%		21-227	31-OCT-15
Surrogate: 13C12-1,2,3,4,7,8-HxCDD			70.0		%		21-193	31-OCT-15
Surrogate: 13C12-1,2,3,6,7,8-HxCDD			83.0		%		25-163	31-OCT-15
Surrogate: 13C12-1,2,3,4,6,7,8-HpCDD			78.0		%		23-166	31-OCT-15
Surrogate: 13C12-OCDD			73.0		%		13-138	31-OCT-15
Surrogate: 13C12-2,3,7,8-TCDF			59.0		%		22-152	31-OCT-15
Surrogate: 13C12-1,2,3,7,8-PeCDF			62.0		%		24-185	31-OCT-15
Surrogate: 13C12-2,3,4,7,8-PeCDF			63.0		%		21-178	31-OCT-15
Surrogate: 13C12-1,2,3,4,7,8-HxCDF			72.0		%		26-152	31-OCT-15
Surrogate: 13C12-1,2,3,6,7,8-HxCDF			78.0		%		21-159	31-OCT-15
Surrogate: 13C12-2,3,4,6,7,8-HxCDF			78.0		%		17-205	31-OCT-15
Surrogate: 13C12-1,2,3,7,8,9-HxCDF			73.0		%		28-136	31-OCT-15
Surrogate: 13C12-1,2,3,4,6,7,8-HpCDF			78.0		%		21-158	31-OCT-15
Surrogate: 13C12-1,2,3,4,7,8,9-HpCDF			76.0		%		20-186	31-OCT-15
Surrogate: 37Cl4-2,3,7,8-TCDD (Cleanup)			57.0		%		31-191	31-OCT-15
F-TCLP-WT		Waste						
Batch	R3298514							
WG2202400-3	DUP	L1693697-1						
Fluoride (F)		<10	<10	RPD-NA	mg/L	N/A	30	28-OCT-15
WG2202400-2	LCS							
Fluoride (F)			95.9		%		70-130	28-OCT-15
WG2202400-1	MB							
Fluoride (F)			<10		mg/L		10	28-OCT-15
WG2202400-4	MS	L1693697-1						
Fluoride (F)			90.2		%		50-150	28-OCT-15
GLYPHOSATE-TCLP-WT		Waste						



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Client: Covanta - Durham York Renewable Energy LP
1835 Energy Drive
Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
GLYPHOSATE-TCLP-WT		Waste						
Batch	R3298961							
WG2202510-3	DUP	L1693697-1						
Glyphosate		<0.050	<0.050	RPD-NA	mg/L	N/A	30	29-OCT-15
WG2202510-2	LCS							
Glyphosate			96.6		%		70-130	29-OCT-15
WG2202510-1	MB							
Glyphosate			<0.050		mg/L		0.05	29-OCT-15
HG-TCLP-WT		Waste						
Batch	R3298185							
WG2202468-3	DUP	L1693697-1						
Mercury (Hg)		<0.00010	<0.00010	RPD-NA	mg/L	N/A	50	28-OCT-15
WG2202468-2	LCS							
Mercury (Hg)			97.2		%		70-130	28-OCT-15
WG2202468-1	MB							
Mercury (Hg)			<0.00010		mg/L		0.0001	28-OCT-15
WG2202468-4	MS	L1693697-1						
Mercury (Hg)			90.3		%		50-140	28-OCT-15
MET-TCLP-WT		Waste						
Batch	R3298718							
WG2202395-4	DUP	WG2202395-3						
Silver (Ag)		<0.0050	<0.0050	RPD-NA	mg/L	N/A	40	28-OCT-15
Arsenic (As)		<0.050	<0.050	RPD-NA	mg/L	N/A	40	28-OCT-15
Boron (B)		<2.5	<2.5	RPD-NA	mg/L	N/A	40	28-OCT-15
Barium (Ba)		1.83	1.73		mg/L	5.3	40	28-OCT-15
Cadmium (Cd)		<0.0050	<0.0050	RPD-NA	mg/L	N/A	40	28-OCT-15
Chromium (Cr)		<0.050	<0.050	RPD-NA	mg/L	N/A	40	28-OCT-15
Lead (Pb)		<0.050	<0.050	RPD-NA	mg/L	N/A	40	28-OCT-15
Selenium (Se)		<0.25	<0.25	RPD-NA	mg/L	N/A	40	28-OCT-15
Uranium (U)		<0.25	<0.25	RPD-NA	mg/L	N/A	40	28-OCT-15
WG2202395-2	LCS							
Silver (Ag)			103.3		%		70-130	28-OCT-15
Arsenic (As)			99.7		%		70-130	28-OCT-15
Boron (B)			107.4		%		70-130	28-OCT-15
Barium (Ba)			104.0		%		70-130	28-OCT-15
Cadmium (Cd)			99.5		%		70-130	28-OCT-15
Chromium (Cr)			99.7		%		70-130	28-OCT-15
Lead (Pb)			100.4		%		70-130	28-OCT-15



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Client: Covanta - Durham York Renewable Energy LP
 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-TCLP-WT		Waste						
Batch	R3298718							
WG2202395-2	LCS							
Selenium (Se)			96.7		%		70-130	28-OCT-15
Uranium (U)			98.4		%		70-130	28-OCT-15
WG2202395-1	MB							
Silver (Ag)			<0.0050		mg/L		0.005	28-OCT-15
Arsenic (As)			<0.050		mg/L		0.05	28-OCT-15
Boron (B)			<2.5		mg/L		2.5	28-OCT-15
Barium (Ba)			<0.50		mg/L		0.5	28-OCT-15
Cadmium (Cd)			<0.0050		mg/L		0.005	28-OCT-15
Chromium (Cr)			<0.050		mg/L		0.05	28-OCT-15
Lead (Pb)			<0.050		mg/L		0.05	28-OCT-15
Selenium (Se)			<0.25		mg/L		0.25	28-OCT-15
Uranium (U)			<0.25		mg/L		0.25	28-OCT-15
WG2202395-5	MS	WG2202395-3						
Silver (Ag)			116.7		%		50-150	28-OCT-15
Arsenic (As)			97.1		%		50-150	28-OCT-15
Boron (B)			109.7		%		50-150	28-OCT-15
Barium (Ba)			100.6		%		50-150	28-OCT-15
Cadmium (Cd)			94.4		%		50-150	28-OCT-15
Chromium (Cr)			100.0		%		50-150	28-OCT-15
Lead (Pb)			94.1		%		50-150	28-OCT-15
Selenium (Se)			93.9		%		50-150	28-OCT-15
Uranium (U)			94.6		%		50-150	28-OCT-15
N2N3-TCLP-WT		Waste						
Batch	R3298514							
WG2202400-3	DUP	L1693697-1						
Nitrate-N			<2.0		mg/L	RPD-NA	N/A	30
Nitrite-N			<2.0		mg/L	RPD-NA	N/A	30
WG2202400-2	LCS							
Nitrate-N			103.6		%		70-130	28-OCT-15
Nitrite-N			105.6		%		70-130	28-OCT-15
WG2202400-1	MB							
Nitrate-N			<2.0		mg/L		2	28-OCT-15
Nitrite-N			<2.0		mg/L		2	28-OCT-15
WG2202400-4	MS	L1693697-1						
Nitrate-N			95.3		%		50-150	28-OCT-15



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Client: Covanta - Durham York Renewable Energy LP
 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
N2N3-TCLP-WT								
	Waste							
Batch	R3298514							
WG2202400-4	MS	L1693697-1						
Nitrite-N			96.1		%		50-150	28-OCT-15
NDMA-TCLP-WT								
	Waste							
Batch	R3298808							
WG2201932-3	DUP	WG2201932-5						
N-Nitrosodimethylamine		<0.00020	<0.00020	RPD-NA	mg/L	N/A	50	28-OCT-15
WG2201932-2	LCS		108.8		%		50-150	28-OCT-15
N-Nitrosodimethylamine								
WG2201932-1	MB		<0.00020		mg/L		0.0002	28-OCT-15
N-Nitrosodimethylamine								
WG2201932-4	MS	WG2201932-5						
N-Nitrosodimethylamine			109.0		%		50-150	29-OCT-15
NTA-TCLP-WT								
	Waste							
Batch	R3298898							
WG2203430-2	LCS							
Nitriiotriacetic Acid (NTA)			98.0		%		75-125	28-OCT-15
WG2203430-1	MB		<0.20		mg/L		0.2	28-OCT-15
Nitriiotriacetic Acid (NTA)								
PARAQUAT-TCLP-WT								
	Waste							
Batch	R3298253							
WG2202384-3	DUP	L1693697-1						
Paraquat		<0.10	<0.10	RPD-NA	mg/L	N/A	50	28-OCT-15
WG2202384-2	LCS		93.2		%		50-150	28-OCT-15
Paraquat								
WG2202384-1	MB		<0.010		mg/L		0.01	28-OCT-15
Paraquat								
PCB-TCLP-WT								
	Waste							
Batch	R3297975							
WG2201918-3	DUP	WG2201918-5						
Aroclor 1242		<0.00020	<0.00020	RPD-NA	mg/L	N/A	50	28-OCT-15
Aroclor 1248		<0.00020	<0.00020	RPD-NA	mg/L	N/A	50	28-OCT-15
Aroclor 1254		<0.00020	<0.00020	RPD-NA	mg/L	N/A	50	28-OCT-15
Aroclor 1260		<0.00020	<0.00020	RPD-NA	mg/L	N/A	50	28-OCT-15
WG2201918-2	LCS		95.7		%		65-130	28-OCT-15
Aroclor 1242								
Aroclor 1248			80.4		%		65-130	28-OCT-15



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Client: Covanta - Durham York Renewable Energy LP
1835 Energy Drive
Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PCB-TCLP-WT		Waste						
Batch	R3297975							
WG2201918-2	LCS							
Aroclor 1254			87.1		%		65-130	28-OCT-15
Aroclor 1260			89.1		%		65-130	28-OCT-15
WG2201918-1	MB							
Aroclor 1242			<0.00020		mg/L		0.0002	28-OCT-15
Aroclor 1248			<0.00020		mg/L		0.0002	28-OCT-15
Aroclor 1254			<0.00020		mg/L		0.0002	28-OCT-15
Aroclor 1260			<0.00020		mg/L		0.0002	28-OCT-15
Surrogate: 2-Fluorobiphenyl			77.5		%		40-160	28-OCT-15
WG2201918-4	MS	WG2201918-5						
Aroclor 1242			95.4		%		50-150	28-OCT-15
Aroclor 1254			77.3		%		50-150	28-OCT-15
Aroclor 1260			63.0		%		50-150	28-OCT-15
PEST-MISC-TCLP-WT		Waste						
Batch	R3298162							
WG2201536-5	DUP	WG2201536-3						
Atrazine Desethyl		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
Atrazine		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
Bendiocarb		<0.0050	<0.0050	RPD-NA	mg/L	N/A	50	28-OCT-15
Trifluralin		<0.0050	<0.0050	RPD-NA	mg/L	N/A	50	28-OCT-15
Phorate		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
Dimethoate		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
Simazine		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
Carbofuran		<0.0020	<0.0020	RPD-NA	mg/L	N/A	50	28-OCT-15
Terbufos		<0.0020	<0.0020	RPD-NA	mg/L	N/A	50	28-OCT-15
Diazinon		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
Triallate		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
Metribuzin		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
Carbaryl		<0.0020	<0.0020	RPD-NA	mg/L	N/A	50	28-OCT-15
Alachlor		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
Prometryne		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
Malathion		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
Metolachlor		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
Methyl Parathion		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
Parathion		<0.0010	<0.0010					



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Client: Covanta - Durham York Renewable Energy LP
 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PEST-MISC-TCLP-WT		Waste						
Batch	R3298162							
WG2201536-5	DUP	WG2201536-3						
Parathion		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
Cyanazine		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
Chlorpyrifos		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
Diclofop methyl		<0.0020	<0.0020	RPD-NA	mg/L	N/A	50	28-OCT-15
Azinphos methyl		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
Benzo(a)pyrene		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
Temephos		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
WG2201536-2	LCS							
Atrazine Desethyl			60.1		%		50-140	28-OCT-15
Atrazine			113.7		%		60-140	28-OCT-15
Bendiocarb			97.0		%		50-140	28-OCT-15
Trifluralin			88.9		%		60-140	28-OCT-15
Phorate			90.5		%		60-140	28-OCT-15
Dimethoate			91.3		%		60-140	28-OCT-15
Simazine			102.1		%		60-140	28-OCT-15
Carbofuran			96.3		%		60-140	28-OCT-15
Terbufos			92.1		%		60-140	28-OCT-15
Diazinon			91.4		%		60-140	28-OCT-15
Triallate			106.0		%		60-140	28-OCT-15
Metribuzin			102.1		%		60-140	28-OCT-15
Carbaryl			95.5		%		50-175	28-OCT-15
Alachlor			113.9		%		60-140	28-OCT-15
Prometryne			114.3		%		60-140	28-OCT-15
Malathion			106.2		%		60-130	28-OCT-15
Metolachlor			110.5		%		60-140	28-OCT-15
Methyl Parathion			99.9		%		60-140	28-OCT-15
Parathion			116.6		%		60-140	28-OCT-15
Cyanazine			106.4		%		60-140	28-OCT-15
Chlorpyrifos			107.8		%		60-140	28-OCT-15
Diclofop methyl			116.6		%		60-140	28-OCT-15
Azinphos methyl			122.7		%		60-140	28-OCT-15
Benzo(a)pyrene			107.6		%		60-140	28-OCT-15
Temephos			118.5		%		60-140	28-OCT-15
WG2201536-1	MB							



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Client: Covanta - Durham York Renewable Energy LP
 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PEST-MISC-TCLP-WT								
	Waste							
Batch	R3298162							
WG2201536-1	MB							
Atrazine Desethyl			<0.0010		mg/L		0.001	28-OCT-15
Atrazine			<0.0010		mg/L		0.001	28-OCT-15
Bendiocarb			<0.0050		mg/L		0.005	28-OCT-15
Trifluralin			<0.0050		mg/L		0.005	28-OCT-15
Phorate			<0.0010		mg/L		0.001	28-OCT-15
Dimethoate			<0.0010		mg/L		0.001	28-OCT-15
Simazine			<0.0010		mg/L		0.001	28-OCT-15
Carbofuran			<0.0020		mg/L		0.002	28-OCT-15
Terbufos			<0.0020		mg/L		0.002	28-OCT-15
Diazinon			<0.0010		mg/L		0.001	28-OCT-15
Triallate			<0.0010		mg/L		0.001	28-OCT-15
Metribuzin			<0.0010		mg/L		0.001	28-OCT-15
Carbaryl			<0.0020		mg/L		0.002	28-OCT-15
Alachlor			<0.0010		mg/L		0.001	28-OCT-15
Prometryne			<0.0010		mg/L		0.001	28-OCT-15
Malathion			<0.0010		mg/L		0.001	28-OCT-15
Metolachlor			<0.0010		mg/L		0.001	28-OCT-15
Methyl Parathion			<0.0010		mg/L		0.001	28-OCT-15
Parathion			<0.0010		mg/L		0.001	28-OCT-15
Cyanazine			<0.0010		mg/L		0.001	28-OCT-15
Chlorpyrifos			<0.0010		mg/L		0.001	28-OCT-15
Diclofop methyl			<0.0020		mg/L		0.002	28-OCT-15
Azinphos methyl			<0.0010		mg/L		0.001	28-OCT-15
Benzo(a)pyrene			<0.0010		mg/L		0.001	28-OCT-15
Temephos			<0.0010		mg/L		0.001	28-OCT-15
Surrogate: 2-Fluorobiphenyl			74.8		%		40-160	28-OCT-15
Surrogate: d14-Terphenyl			75.4		%		60-140	28-OCT-15
WG2201536-4	MS	WG2201536-3						
Atrazine Desethyl			61.6		%		50-150	28-OCT-15
Atrazine			117.0		%		50-150	28-OCT-15
Bendiocarb			94.4		%		50-150	28-OCT-15
Trifluralin			82.2		%		50-150	28-OCT-15
Phorate			82.7		%		50-150	28-OCT-15
Dimethoate			87.9		%		50-150	28-OCT-15



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Client: Covanta - Durham York Renewable Energy LP
 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PEST-MISC-TCLP-WT		Waste						
Batch	R3298162							
WG2201536-4	MS	WG2201536-3						
Simazine			102.0		%		50-150	28-OCT-15
Carbofuran			94.7		%		50-150	28-OCT-15
Terbufos			88.3		%		50-150	28-OCT-15
Diazinon			85.7		%		50-150	28-OCT-15
Triallate			96.3		%		50-150	28-OCT-15
Metribuzin			100.3		%		50-150	28-OCT-15
Carbaryl			87.8		%		50-150	28-OCT-15
Alachlor			112.4		%		50-150	28-OCT-15
Prometryne			115.4		%		50-150	28-OCT-15
Malathion			105.4		%		50-150	28-OCT-15
Metolachlor			108.0		%		50-150	28-OCT-15
Methyl Parathion			94.0		%		50-150	28-OCT-15
Parathion			113.0		%		50-150	28-OCT-15
Cyanazine			92.7		%		50-150	28-OCT-15
Chlorpyrifos			102.7		%		50-150	28-OCT-15
Diclofop methyl			147.6		%		50-150	28-OCT-15
Azinphos methyl			118.1		%		50-150	28-OCT-15
Benzo(a)pyrene			101.4		%		50-150	28-OCT-15
Temephos			125.0		%		50-150	28-OCT-15
PEST-OC-TCLP-WT		Waste						
Batch	R3298054							
WG2201536-5	DUP	WG2201536-3						
gamma-BHC		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
Heptachlor		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
Heptachlor epoxide		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
Oxychlordane		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
gamma-Chlordane		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
alpha-Chlordane		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
Aldrin		<0.00020	<0.00020	RPD-NA	mg/L	N/A	50	28-OCT-15
Dieldrin		<0.00020	<0.00020	RPD-NA	mg/L	N/A	50	28-OCT-15
Endrin		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
p,p-DDE		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
p,p-DDD		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15



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 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PEST-OC-TCLP-WT		Waste						
Batch	R3298054							
WG2201536-5	DUP	WG2201536-3						
p,p-DDT		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
o,p-DDT		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
Methoxychlor		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
WG2201536-2	LCS							
gamma-BHC			94.8		%		50-150	28-OCT-15
Heptachlor			94.1		%		25-175	28-OCT-15
Heptachlor epoxide			81.9		%		25-175	28-OCT-15
Oxychlordane			78.6		%		25-175	28-OCT-15
gamma-Chlordane			83.9		%		25-175	28-OCT-15
alpha-Chlordane			84.5		%		25-175	28-OCT-15
Aldrin			107.5		%		25-175	28-OCT-15
Dieldrin			82.9		%		25-175	28-OCT-15
Endrin			104.6		%		50-150	28-OCT-15
p,p-DDE			72.2		%		25-175	28-OCT-15
p,p-DDD			76.7		%		25-175	28-OCT-15
p,p-DDT			91.0		%		25-175	28-OCT-15
o,p-DDT			83.4		%		50-130	28-OCT-15
Methoxychlor			108.5		%		25-175	28-OCT-15
WG2201536-1	MB							
gamma-BHC			<0.0010		mg/L		0.001	28-OCT-15
Heptachlor			<0.0010		mg/L		0.001	28-OCT-15
Heptachlor epoxide			<0.0010		mg/L		0.001	28-OCT-15
Oxychlordane			<0.0010		mg/L		0.001	28-OCT-15
gamma-Chlordane			<0.0010		mg/L		0.001	28-OCT-15
alpha-Chlordane			<0.0010		mg/L		0.001	28-OCT-15
Aldrin			<0.00020		mg/L		0.0002	28-OCT-15
Dieldrin			<0.00020		mg/L		0.0002	28-OCT-15
Endrin			<0.0010		mg/L		0.001	28-OCT-15
p,p-DDE			<0.0010		mg/L		0.001	28-OCT-15
p,p-DDD			<0.0010		mg/L		0.001	28-OCT-15
p,p-DDT			<0.0010		mg/L		0.001	28-OCT-15
o,p-DDT			<0.0010		mg/L		0.001	28-OCT-15
Methoxychlor			<0.0010		mg/L		0.001	28-OCT-15
Surrogate: d14-Terphenyl			113.1		%		60-140	28-OCT-15



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1835 Energy Drive
Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PEST-OC-TCLP-WT		Waste						
Batch	R3298054							
WG2201536-4	MS	WG2201536-3						
gamma-BHC			82.5		%		50-150	28-OCT-15
Heptachlor			84.4		%		50-150	28-OCT-15
Heptachlor epoxide			68.7		%		50-150	28-OCT-15
Oxychlordane			74.2		%		50-150	28-OCT-15
gamma-Chlordane			71.7		%		50-150	28-OCT-15
alpha-Chlordane			73.4		%		50-150	28-OCT-15
Aldrin			99.6		%		50-150	28-OCT-15
Dieldrin			69.8		%		50-150	28-OCT-15
Endrin			97.6		%		50-150	28-OCT-15
p,p-DDE			71.2		%		50-150	28-OCT-15
p,p-DDD			76.6		%		50-150	28-OCT-15
p,p-DDT			89.4		%		50-150	28-OCT-15
o,p-DDT			79.4		%		50-150	28-OCT-15
Methoxychlor			108.1		%		50-150	28-OCT-15
PEST-PAHERB-TCLP-WT		Waste						
Batch	R3298128							
WG2201534-5	DUP	WG2201534-3						
2,4,5-TP		<0.0020	<0.0020	RPD-NA	mg/L	N/A	50	28-OCT-15
MCPA		<0.0020	<0.0020	RPD-NA	mg/L	N/A	50	28-OCT-15
2,4,5-T		<0.0020	<0.0020	RPD-NA	mg/L	N/A	50	28-OCT-15
2,4-D		<0.0020	<0.0020	RPD-NA	mg/L	N/A	50	28-OCT-15
Bromoxynil		<0.0020	<0.0020	RPD-NA	mg/L	N/A	50	28-OCT-15
Dicamba		<0.0050	<0.0050	RPD-NA	mg/L	N/A	50	28-OCT-15
Dinoseb		<0.0020	<0.0020	RPD-NA	mg/L	N/A	50	28-OCT-15
Picloram		<0.0050	<0.0050	RPD-NA	mg/L	N/A	50	28-OCT-15
WG2201534-2	LCS							
2,4,5-TP			134.8		%		65-135	28-OCT-15
MCPA			132.9		%		65-135	28-OCT-15
2,4,5-T			133.8		%		65-135	28-OCT-15
2,4-D			140.1		%		25-175	28-OCT-15
Bromoxynil			128.4		%		65-135	28-OCT-15
Dicamba			75.5		%		30-150	28-OCT-15
Dinoseb			144.0		%		30-150	28-OCT-15
Picloram			35.7		%		25-120	28-OCT-15



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 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PEST-PAHERB-TCLP-WT Waste								
Batch R3298128								
WG2201534-1	MB							
2,4,5-TP			<0.0020		mg/L		0.002	28-OCT-15
MCPA			<0.0020		mg/L		0.002	28-OCT-15
2,4,5-T			<0.0020		mg/L		0.002	28-OCT-15
2,4-D			<0.0020		mg/L		0.002	28-OCT-15
Bromoxynil			<0.0020		mg/L		0.002	28-OCT-15
Dicamba			<0.0050		mg/L		0.005	28-OCT-15
Dinoseb			<0.0020		mg/L		0.002	28-OCT-15
Picloram			<0.0050		mg/L		0.005	28-OCT-15
Surrogate: 2,4-Dichlorophenylacetic Acid			136.3		%		50-150	28-OCT-15
WG2201534-4	MS	WG2201534-3						
2,4,5-TP			128.2		%		50-150	28-OCT-15
MCPA			126.6		%		50-150	28-OCT-15
2,4,5-T			126.7		%		50-150	28-OCT-15
2,4-D			137.3		%		50-150	28-OCT-15
Bromoxynil			120.6		%		50-150	28-OCT-15
Dicamba			56.0		%		50-150	28-OCT-15
Dinoseb			143.8		%		30-150	28-OCT-15
Picloram			32.1		%		25-150	28-OCT-15
PYR-TCLP-WT Waste								
Batch R3298293								
WG2201455-3	DUP	L1693219-1						
Pyridine		<5.0	<5.0	RPD-NA	mg/L	N/A	30	27-OCT-15
WG2201455-5	LCS							
Pyridine			102.0		%		70-130	27-OCT-15
WG2201455-2	MB							
Pyridine			<5.0		mg/L		5	27-OCT-15
WG2201455-4	MS	L1693219-2						
Pyridine			102.0		%		50-150	27-OCT-15
TOXAPHENE-TCLP-WT Waste								
Batch R3298297								
WG2201537-5	DUP	WG2201537-3						
Toxaphene		<0.0035	<0.0035	RPD-NA	mg/L	N/A	50	28-OCT-15
WG2201537-2	LCS							
Toxaphene			109.6		%		50-150	28-OCT-15
WG2201537-1	MB							



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1835 Energy Drive
Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
TOXAPHENE-TCLP-WT		Waste						
Batch	R3298297							
WG2201537-1	MB							
Toxaphene			<0.0035		mg/L		0.0035	28-OCT-15
Surrogate: Decachlorobiphenyl			106.0		%		50-150	28-OCT-15
Surrogate: Tetrachloro-m-xylene			95.4		%		50-150	28-OCT-15
WG2201537-4	MS	WG2201537-3						
Toxaphene			121.6		%		50-150	28-OCT-15
VOC-TCLP-WT		Waste						
Batch	R3298919							
WG2203210-4	DUP	WG2203210-3						
1,1-Dichloroethylene		<0.025	<0.025	RPD-NA	mg/L	N/A	50	29-OCT-15
1,2-Dichlorobenzene		<0.025	<0.025	RPD-NA	mg/L	N/A	50	29-OCT-15
1,2-Dichloroethane		<0.025	<0.025	RPD-NA	mg/L	N/A	50	29-OCT-15
1,4-Dichlorobenzene		<0.025	<0.025	RPD-NA	mg/L	N/A	50	29-OCT-15
Benzene		<0.025	<0.025	RPD-NA	mg/L	N/A	50	29-OCT-15
Carbon tetrachloride		<0.025	<0.025	RPD-NA	mg/L	N/A	50	29-OCT-15
Chlorobenzene		<0.025	<0.025	RPD-NA	mg/L	N/A	50	29-OCT-15
Chloroform		<0.10	<0.10	RPD-NA	mg/L	N/A	50	29-OCT-15
Dichloromethane		<0.50	<0.50	RPD-NA	mg/L	N/A	50	29-OCT-15
Methyl Ethyl Ketone		<1.0	<1.0	RPD-NA	mg/L	N/A	50	29-OCT-15
Tetrachloroethylene		<0.025	<0.025	RPD-NA	mg/L	N/A	50	29-OCT-15
Trichloroethylene		<0.025	<0.025	RPD-NA	mg/L	N/A	50	29-OCT-15
Vinyl chloride		<0.050	<0.050	RPD-NA	mg/L	N/A	50	29-OCT-15
WG2203210-1	LCS							
1,1-Dichloroethylene			105.2		%		70-130	29-OCT-15
1,2-Dichlorobenzene			108.4		%		70-130	29-OCT-15
1,2-Dichloroethane			112.1		%		70-130	29-OCT-15
1,4-Dichlorobenzene			104.5		%		70-130	29-OCT-15
Benzene			111.2		%		70-130	29-OCT-15
Carbon tetrachloride			107.3		%		60-140	29-OCT-15
Chlorobenzene			105.7		%		70-130	29-OCT-15
Chloroform			111.8		%		70-130	29-OCT-15
Dichloromethane			111.8		%		70-130	29-OCT-15
Methyl Ethyl Ketone			110.1		%		50-150	29-OCT-15
Tetrachloroethylene			99.3		%		70-130	29-OCT-15
Trichloroethylene			105.4		%		70-130	29-OCT-15



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Client: Covanta - Durham York Renewable Energy LP
 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-TCLP-WT		Waste						
Batch	R3298919							
WG2203210-1	LCS							
Vinyl chloride			109.1		%		60-130	29-OCT-15
WG2203210-2	MB							
1,1-Dichloroethylene			<0.025		mg/L		0.025	29-OCT-15
1,2-Dichlorobenzene			<0.025		mg/L		0.025	29-OCT-15
1,2-Dichloroethane			<0.025		mg/L		0.025	29-OCT-15
1,4-Dichlorobenzene			<0.025		mg/L		0.025	29-OCT-15
Benzene			<0.025		mg/L		0.025	29-OCT-15
Carbon tetrachloride			<0.025		mg/L		0.025	29-OCT-15
Chlorobenzene			<0.025		mg/L		0.025	29-OCT-15
Chloroform			<0.10		mg/L		0.1	29-OCT-15
Dichloromethane			<0.50		mg/L		0.5	29-OCT-15
Methyl Ethyl Ketone			<1.0		mg/L		1	29-OCT-15
Tetrachloroethylene			<0.025		mg/L		0.025	29-OCT-15
Trichloroethylene			<0.025		mg/L		0.025	29-OCT-15
Vinyl chloride			<0.050		mg/L		0.05	29-OCT-15
Surrogate: 1,4-Difluorobenzene			99.8		%		50-150	29-OCT-15
Surrogate: 4-Bromofluorobenzene			87.5		%		70-130	29-OCT-15
WG2203210-5	MS	WG2203210-3						
1,1-Dichloroethylene			105.1		%		50-140	29-OCT-15
1,2-Dichlorobenzene			109.9		%		50-140	29-OCT-15
1,2-Dichloroethane			114.8		%		50-140	29-OCT-15
1,4-Dichlorobenzene			104.8		%		50-140	29-OCT-15
Benzene			111.5		%		50-140	29-OCT-15
Carbon tetrachloride			106.9		%		50-140	29-OCT-15
Chlorobenzene			106.4		%		50-140	29-OCT-15
Chloroform			112.6		%		50-140	29-OCT-15
Dichloromethane			114.0		%		50-140	29-OCT-15
Methyl Ethyl Ketone			117.4		%		50-140	29-OCT-15
Tetrachloroethylene			95.9		%		50-140	29-OCT-15
Trichloroethylene			103.3		%		50-140	29-OCT-15
Vinyl chloride			109.1		%		50-140	29-OCT-15

Quality Control Report

Workorder: L1693697

Report Date: 02-NOV-15

Client: Covanta - Durham York Renewable Energy LP
1835 Energy Drive
Courtice ON L1E 2R2
Contact: Leon Brasowski

Page 19 of 19

Legend:

Limit	ALS Control Limit (Data Quality Objectives)
DUP	Duplicate
RPD	Relative Percent Difference
N/A	Not Available
LCS	Laboratory Control Sample
SRM	Standard Reference Material
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ADE	Average Desorption Efficiency
MB	Method Blank
IRM	Internal Reference Material
CRM	Certified Reference Material
CCV	Continuing Calibration Verification
CVS	Calibration Verification Standard
LCSD	Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
DLI	Detection Limit Raised: Dilution required to address Internal Standard response problems caused by matrix interference.
J,R	The analyte was detected below the calibrated range but above the EDL, and the ion abundance ratio(s) did not meet the acceptance criteria. Value is an estimated maximum.
M,J,R	A peak has been manually integrated, the analyte was detected below the calibrated range but above the EDL, and the ion abundance ratio(s) did not meet the acceptance criteria. Value is an estimated maximum.
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.
[U]	The analyte was not detected above the EDL.

Hold Time Exceedances:

All test results reported with this submission were conducted within ALS recommended hold times.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.



Chain of Custody (COC) / Analytical Request Form

Canada Toll Free: 1 800 668 9878



COC Number: 14 -

Page 1 of 1

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Report To			Report Format / Distribution			Select Service Level Below (Rush Turnaround Time (TAT) is not available for all tests)																																																																
Company: COVANTA - Account Number 24244			Select Report Format: <input checked="" type="checkbox"/> PDF <input checked="" type="checkbox"/> EXCEL <input type="checkbox"/> EDD (DIGITAL)			R <input type="checkbox"/> Regular (Standard TAT if received by 3 pm - business days)																																																																
Contact: Amanda Huxter BSc ASCT			Quality Control (QC) Report with Report <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			P <input type="checkbox"/> Priority (2-4 bus. days if received by 3pm) 50% surcharge - contact ALS to confirm TAT																																																																
Address: 1835 Energy Drive Courtice, Ontario, L1E 2R2			<input checked="" type="checkbox"/> Criteria on Report - provide details below if box checked			E <input checked="" type="checkbox"/> Emergency (1-2 bus. days if received by 3pm) 100% surcharge - contact ALS to confirm TAT																																																																
Phone: 905-404-4041 Cell: 289-685-5291			Select Distribution: <input checked="" type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX			E2 <input type="checkbox"/> Same day or weekend emergency - contact ALS to confirm TAT and surcharge						Specify Date Required for E2,E or P: Regular TAT 10-15 Business Days																																																										
Invoice To			Invoice Distribution			Analysis Request																																																																
Same as Report To <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			Select Invoice Distribution: <input checked="" type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX			Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below																																																																
Copy of Invoice with Report <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			Email 1 or Fax lbrasowski@covanta.com			<table border="1"> <tr> <td rowspan="5" style="writing-mode: vertical-rl; transform: rotate(180deg);">TCLP - COMPLETE SCHEDULE 4 (TCLP-COMP-GP-WT)</td> <td rowspan="5" style="writing-mode: vertical-rl; transform: rotate(180deg);">ALS ON-SITE PICK-UP (SHIPPING-WT)</td> <td colspan="10"></td> <td rowspan="5" style="writing-mode: vertical-rl; transform: rotate(180deg);">Number of Containers</td> </tr> <tr><td colspan="10"></td></tr> <tr><td colspan="10"></td></tr> <tr><td colspan="10"></td></tr> <tr><td colspan="10"></td></tr> </table>												TCLP - COMPLETE SCHEDULE 4 (TCLP-COMP-GP-WT)	ALS ON-SITE PICK-UP (SHIPPING-WT)											Number of Containers																																								
TCLP - COMPLETE SCHEDULE 4 (TCLP-COMP-GP-WT)	ALS ON-SITE PICK-UP (SHIPPING-WT)																			Number of Containers																																																		
Company:			Email 1 or Fax lbrasowski@covanta.com																																																																			
Contact:			Email 2 ahuxter@covanta.com																																																																			
Project Information			Oil and Gas Required Fields (client use)																																																																			
ALS Quote #: Q47832			Approver ID:			Cost Center:																																																																
Job #: DYEC - FLY ASH PROJECT			GL Account:			Routing Code:																																																																
PO / AFE:			Activity Code:																																																																			
LSD:			Location:																																																																			
ALS Lab Work Order # (lab use only) <u>L1693697</u>			ALS Contact: Wayne Smith		Sampler: Amanda Huxter																																																																	
ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)		Date (dd-mmm-yy)	Time (hh:mm)	Sample Type																																																																	
1	DYEC/FA/151026/1		27-Oct-15	08:00	Soil	E	R											2																																																				
2	DYEC/FA/151026/2		27-Oct-15	08:00	Soil	E	R											2																																																				
3	DYEC/FA/151026/3		27-Oct-15	08:00	Soil	E	R											2																																																				
4	DYEC/FA/151026/4		10/27/2015	08:00	Soil	E	R											2																																																				
5	DYEC/FA/151026/SPARE		10/27/2015	08:00	Soil	E	R											2																																																				
Drinking Water (DW) Samples¹ (client use)			Special Instructions / Specify Criteria to add on report (client Use)									SAMPLE CONDITION AS RECEIVED (lab use only)																																																										
Are samples taken from a Regulated DW System? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			Regulation 347 Criteria Report, utilize spare only if required.									Frozen <input type="checkbox"/> SIF Observations Yes <input type="checkbox"/> No <input type="checkbox"/>																																																										
Are samples for human drinking water use? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No												Ice packs Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Custody seal intact Yes <input type="checkbox"/> No <input type="checkbox"/>																																																										
												Cooling Initiated <input checked="" type="checkbox"/>																																																										
												INITIAL COOLER TEMPERATURES °C: FINAL COOLER TEMPERATURES °C																																																										
												18.7																																																										
SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)						FINAL SHIPMENT RECEPTION (lab use only)																																																													
Released by: Leon Brasowski		Date: October 27, 2015	Time: 9 am	Received by:		Date:	Time:	Received by:		Date:	Time:	11/30																																																										

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

NA-FRM-022014-09 FRO/LS/LS January 2014

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a Regulated Drinking Water (DW) System, please submit using an Authorized DW COC form.



Covanta - Durham York Renewable Energy
LP
ATTN: Leon Brasowski
1835 Energy Drive
Courtice ON L1E 2R2

Date Received: 26-OCT-15
Report Date: 02-NOV-15 09:04 (MT)
Version: FINAL

Client Phone: 905-404-4041

Certificate of Analysis

Lab Work Order #: L1693219
Project P.O. #: NOT SUBMITTED
Job Reference: DYEC - FLY ASH PROJECT
C of C Numbers:
Legal Site Desc:

Mary-Lynn Pires
Account Manager

[This report shall not be reproduced except in full without the written authority of the Laboratory.]

ADDRESS: 60 Northland Road, Unit 1, Waterloo, ON N2V 2B8 Canada | Phone: +1 519 886 6910 | Fax: +1 519 886 9047
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ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte									
L1693219-1	DYEC/FA/151025/1									
Sampled By: A. HUXTER on 26-OCT-15 @ 08:0										
Matrix: SOIL										
Sample Preparation										
Initial pH		12.36		0.10	pH units	26-OCT-15				
Final pH		11.51		0.10	pH units	26-OCT-15				
TCLP Extractables										
Alachlor		<0.0010		0.0010	mg/L	28-OCT-15				
Aldicarb		<0.010		0.010	mg/L	27-OCT-15	0.9			
Aldrin		<0.00020		0.00020	mg/L	28-OCT-15				
Aldrin + Dieldrin		<0.00040		0.00040	mg/L	28-OCT-15	0.07			
alpha-Chlordane		<0.0010		0.0010	mg/L	28-OCT-15				
Aroclor 1242		<0.00020		0.00020	mg/L	28-OCT-15				
Aroclor 1248		<0.00020		0.00020	mg/L	28-OCT-15				
Aroclor 1254		<0.00020		0.00020	mg/L	28-OCT-15				
Aroclor 1260		<0.00020		0.00020	mg/L	28-OCT-15				
Atrazine		<0.0010		0.0010	mg/L	28-OCT-15				
Atrazine Desethyl		<0.0010		0.0010	mg/L	28-OCT-15				
Atrazine & Metabolites		<0.0020		0.0020	mg/L	28-OCT-15	0.5			
Azinphos methyl		<0.0010		0.0010	mg/L	28-OCT-15	2			
Bendiocarb		<0.0050		0.0050	mg/L	28-OCT-15	4			
Benzo(a)pyrene		<0.0010		0.0010	mg/L	28-OCT-15	0.001			
Bromoxynil		<0.0020		0.0020	mg/L	28-OCT-15	0.5			
Carbaryl		<0.0020		0.0020	mg/L	28-OCT-15	9			
Carbofuran		<0.0020		0.0020	mg/L	28-OCT-15	9			
Chlordane (Total)		<0.0030		0.0030	mg/L	28-OCT-15	0.7			
Chlorpyrifos		<0.0010		0.0010	mg/L	28-OCT-15	9			
3&4-Methylphenol		<0.010		0.010	mg/L	28-OCT-15				
Cresols (total)		<0.015		0.015	mg/L	28-OCT-15	200			
Cyanazine		<0.0010		0.0010	mg/L	28-OCT-15	1.0			
Cyanide, Weak Acid Diss		<0.10		0.10	mg/L	27-OCT-15	20			
2,4-D		<0.0020		0.0020	mg/L	28-OCT-15	10			
p,p-DDD		<0.0010		0.0010	mg/L	28-OCT-15				
p,p-DDE		<0.0010		0.0010	mg/L	28-OCT-15				
o,p-DDT		<0.0010		0.0010	mg/L	28-OCT-15				
p,p-DDT		<0.0010		0.0010	mg/L	28-OCT-15				
DDT + metabolites		<0.0040		0.0040	mg/L	28-OCT-15	3			
Diazinon		<0.0010		0.0010	mg/L	28-OCT-15	2			
Dicamba		<0.0050		0.0050	mg/L	28-OCT-15	12			
2,4-Dichlorophenol		<0.0050		0.0050	mg/L	28-OCT-15	90			
Diclofop methyl		<0.0020		0.0020	mg/L	28-OCT-15	0.9			
Dieldrin		<0.00020		0.00020	mg/L	28-OCT-15				
Dimethoate		<0.0010		0.0010	mg/L	28-OCT-15	2			
2,4-Dinitrotoluene		<0.0040		0.0040	mg/L	28-OCT-15	0.13			
Dinoseb		<0.0020		0.0020	mg/L	28-OCT-15	1			
Diquat		<0.10	DLI	0.10	mg/L	27-OCT-15	7			
Diuron		<0.010		0.010	mg/L	27-OCT-15	15			
Endrin		<0.0010		0.0010	mg/L	28-OCT-15	0.02			
Parathion		<0.0010		0.0010	mg/L	28-OCT-15	5			
Fluoride (F)		<10		10	mg/L	27-OCT-15	150.0			

** Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.

* Analytical result for this parameter exceeds Guideline Limit listed on this report. Guideline Limits applied:

Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte									
L1693219-1	DYEC/FA/151025/1									
Sampled By: A. HUXTER on 26-OCT-15 @ 08:0										
Matrix: SOIL										#1
TCLP Extractables										
	gamma-BHC	<0.0010		0.0010	mg/L	28-OCT-15	0.4			
	gamma-Chlordane	<0.0010		0.0010	mg/L	28-OCT-15				
	Glyphosate	<0.050		0.050	mg/L	28-OCT-15	28			
	Heptachlor	<0.0010		0.0010	mg/L	28-OCT-15				
	Heptachlor + Heptachlor Epoxide	<0.0020		0.0020	mg/L	28-OCT-15	0.3			
	Heptachlor epoxide	<0.0010		0.0010	mg/L	28-OCT-15				
	Hexachlorobenzene	<0.0040		0.0040	mg/L	28-OCT-15	0.13			
	Hexachlorobutadiene	<0.0040		0.0040	mg/L	28-OCT-15	0.5			
	Hexachloroethane	<0.0040		0.0040	mg/L	28-OCT-15	3.0			
	Malathion	<0.0010		0.0010	mg/L	28-OCT-15	19			
	MCPA	<0.0020		0.0020	mg/L	28-OCT-15				
	Methoxychlor	<0.0010		0.0010	mg/L	28-OCT-15	90			
	Methyl Parathion	<0.0010		0.0010	mg/L	28-OCT-15	0.7			
	2-Methylphenol	<0.0050		0.0050	mg/L	28-OCT-15				
	Metolachlor	<0.0010		0.0010	mg/L	28-OCT-15	5			
	Metribuzin	<0.0010		0.0010	mg/L	28-OCT-15	8			
	Nitrate and Nitrite as N	<4.0		4.0	mg/L	27-OCT-15	1000			
	Nitrate-N	<2.0		2.0	mg/L	27-OCT-15				
	Nitrioltriacetic Acid (NTA)	<40		0.20	mg/L	27-OCT-15	40			
	Nitrite-N	<2.0		2.0	mg/L	27-OCT-15				
	Nitrobenzene	<0.0040		0.0040	mg/L	28-OCT-15	2.0			
	N-Nitrosodimethylamine	<0.00020		0.00020	mg/L	28-OCT-15	0.0009			
	Oxychlordane	<0.0010		0.0010	mg/L	28-OCT-15				
	Paraquat	<0.10	DLI	0.10	mg/L	27-OCT-15	1			
	Total PCBs	<0.00040		0.00040	mg/L	28-OCT-15	0.3			
	Pentachlorophenol	<0.0050		0.0050	mg/L	28-OCT-15	6			
	Phorate	<0.0010		0.0010	mg/L	28-OCT-15	0.2			
	Picloram	<0.0050		0.0050	mg/L	28-OCT-15	19			
	Prometryne	<0.0010		0.0010	mg/L	28-OCT-15				
	Pyridine	<5.0		5.0	mg/L	27-OCT-15	5.0			
	Simazine	<0.0010		0.0010	mg/L	28-OCT-15	1			
	2,4,5-T	<0.0020		0.0020	mg/L	28-OCT-15	28			
	Temephos	<0.0010		0.0010	mg/L	28-OCT-15	28			
	Terbufos	<0.0020		0.0020	mg/L	28-OCT-15	0.1			
	2,3,4,6-Tetrachlorophenol	<0.0050		0.0050	mg/L	28-OCT-15	10.0			
	Toxaphene	<0.0035		0.0035	mg/L	28-OCT-15	0.5			
	2,4,5-TP	<0.0020		0.0020	mg/L	28-OCT-15	1			
	Triallate	<0.0010		0.0010	mg/L	28-OCT-15	23			
	2,4,5-Trichlorophenol	<0.0050		0.0050	mg/L	28-OCT-15	400			
	2,4,6-Trichlorophenol	<0.0050		0.0050	mg/L	28-OCT-15	0.5			
	Trifluralin	<0.0050		0.0050	mg/L	28-OCT-15	4.5			
	Surrogate: 2,4,6-Tribromophenol	103.9		50-150	%	28-OCT-15				
	Surrogate: 2,4-Dichlorophenylacetic Acid	134.4		50-150	%	28-OCT-15				
	Surrogate: 2-Fluorobiphenyl	71.2		40-160	%	28-OCT-15				
	Surrogate: 2-Fluorobiphenyl	80.5		40-160	%	28-OCT-15				

** Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.

* Analytical result for this parameter exceeds Guideline Limit listed on this report. Guideline Limits applied:

Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte						#1			
L1693219-1	DYEC/FA/151025/1									
Sampled By: A. HUXTER on 26-OCT-15 @ 08:0										
Matrix: SOIL										
TCLP Extractables										
	Surrogate: 2-Fluorobiphenyl	99.1		40-160	%	28-OCT-15				
	Surrogate: Nitrobenzene d5	101.5		50-150	%	28-OCT-15				
	Surrogate: d14-Terphenyl	78.0		60-140	%	28-OCT-15				
	Surrogate: d14-Terphenyl	86.2		60-140	%	28-OCT-15				
	Surrogate: p-Terphenyl d14	98.9		60-140	%	28-OCT-15				
TCLP Metals										
	Arsenic (As)	<0.050		0.050	mg/L	27-OCT-15	2.5			
	Barium (Ba)	1.89		0.50	mg/L	27-OCT-15	100			
	Boron (B)	<2.5		2.5	mg/L	27-OCT-15	500			
	Cadmium (Cd)	<0.0050		0.0050	mg/L	27-OCT-15	0.5			
	Chromium (Cr)	<0.050		0.050	mg/L	27-OCT-15	5.0			
	Lead (Pb)	<0.050		0.050	mg/L	27-OCT-15	5.0			
	Mercury (Hg)	<0.00010		0.00010	mg/L	27-OCT-15	0.1			
	Selenium (Se)	<0.25		0.25	mg/L	27-OCT-15	1.0			
	Silver (Ag)	<0.0050		0.0050	mg/L	27-OCT-15	5.0			
	Uranium (U)	<0.25		0.25	mg/L	27-OCT-15	10			
TCLP VOCs										
	1,1-Dichloroethylene	<0.025		0.025	mg/L	28-OCT-15	1.4			
	1,2-Dichlorobenzene	<0.025		0.025	mg/L	28-OCT-15	20.0			
	1,2-Dichloroethane	<0.025		0.025	mg/L	28-OCT-15	0.5			
	1,4-Dichlorobenzene	<0.025		0.025	mg/L	28-OCT-15	0.5			
	Benzene	<0.025		0.025	mg/L	28-OCT-15	0.5			
	Carbon tetrachloride	<0.025		0.025	mg/L	28-OCT-15	0.5			
	Chlorobenzene	<0.025		0.025	mg/L	28-OCT-15	8			
	Chloroform	<0.10		0.10	mg/L	28-OCT-15	10			
	Dichloromethane	<0.50		0.50	mg/L	28-OCT-15	5.0			
	Methyl Ethyl Ketone	<1.0		1.0	mg/L	28-OCT-15	200.0			
	Tetrachloroethylene	<0.025		0.025	mg/L	28-OCT-15	3			
	Trichloroethylene	<0.025		0.025	mg/L	28-OCT-15	5			
	Vinyl chloride	<0.050		0.050	mg/L	28-OCT-15	0.2			
	Surrogate: 4-Bromofluorobenzene	94.7		70-130	%	28-OCT-15				
Volatile Organic Compounds										
	Surrogate: 1,4-Difluorobenzene	100.1		50-150	%	28-OCT-15				
Polychlorinated Biphenyls										
	Surrogate: Decachlorobiphenyl	105.0		50-150	%	28-OCT-15				
	Surrogate: Tetrachloro-m-xylene	87.7		50-150	%	28-OCT-15				
Dioxins and Furans										
	2,3,7,8-TCDD	<1.1	[U]	1.1	pg/L	31-OCT-15				

** Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.

* Analytical result for this parameter exceeds Guideline Limit listed on this report. Guideline Limits applied:

Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte									
L1693219-1	DYEC/FA/151025/1						#1			
Sampled By: A. HUXTER on 26-OCT-15 @ 08:0										
Matrix: SOIL										
Dioxins and Furans										
	1,2,3,7,8-PeCDD	<0.61	[U]	0.61	pg/L	31-OCT-15				
	1,2,3,4,7,8-HxCDD	<0.68	[U]	0.68	pg/L	31-OCT-15				
	1,2,3,6,7,8-HxCDD	<0.67	[U]	0.67	pg/L	31-OCT-15				
	1,2,3,7,8,9-HxCDD	<0.67	[U]	0.67	pg/L	31-OCT-15				
	1,2,3,4,6,7,8-HpCDD	<0.73	[U]	0.73	pg/L	31-OCT-15				
	OCDD	<0.54	[U]	0.54	pg/L	31-OCT-15				
	Total-TCDD	<1.1	[U]	1.1	pg/L	31-OCT-15				
	Total TCDD # Homologues	0			No Unit	31-OCT-15				
	Total-PeCDD	<0.61	[U]	0.61	pg/L	31-OCT-15				
	Total PeCDD # Homologues	0			No Unit	31-OCT-15				
	Total-HxCDD	<0.68	[U]	0.68	pg/L	31-OCT-15				
	Total HxCDD # Homologues	0			No Unit	31-OCT-15				
	Total-HpCDD	<0.73	[U]	0.73	pg/L	31-OCT-15				
	Total HpCDD # Homologues	0			No Unit	31-OCT-15				
	2,3,7,8-TCDF	<1.6	[U]	1.6	pg/L	31-OCT-15				
	1,2,3,7,8-PeCDF	<0.49	[U]	0.49	pg/L	31-OCT-15				
	2,3,4,7,8-PeCDF	<0.91	[U]	0.91	pg/L	31-OCT-15				
	1,2,3,4,7,8-HxCDF	<0.44	[U]	0.44	pg/L	31-OCT-15				
	1,2,3,6,7,8-HxCDF	<0.40	M,U	0.40	pg/L	31-OCT-15				
	1,2,3,7,8,9-HxCDF	0.93	M,J	0.58	pg/L	31-OCT-15				
	2,3,4,6,7,8-HxCDF	<0.78	[U]	0.78	pg/L	31-OCT-15				
	1,2,3,4,6,7,8-HpCDF	<0.38	[U]	0.38	pg/L	31-OCT-15				
	1,2,3,4,7,8,9-HpCDF	<0.53	[U]	0.53	pg/L	31-OCT-15				
	OCDF	<0.68	[U]	0.68	pg/L	31-OCT-15				
	Total-TCDF	<1.6	[U]	1.6	pg/L	31-OCT-15				
	Total TCDF # Homologues	0			No Unit	31-OCT-15				
	Total-PeCDF	<0.91	[U]	0.91	pg/L	31-OCT-15				
	Total PeCDF # Homologues	0			No Unit	31-OCT-15				
	Total-HxCDF	0.93		0.78	pg/L	31-OCT-15				
	Total HxCDF # Homologues	1			No Unit	31-OCT-15				
	Total-HpCDF	<0.53	[U]	0.53	pg/L	31-OCT-15				
	Total HpCDF # Homologues	0			No Unit	31-OCT-15				
	Surrogate: 13C12-2,3,7,8-TCDD	56.0		20-175	%	31-OCT-15				
	Surrogate: 13C12-1,2,3,7,8-PeCDD	48.0		21-227	%	31-OCT-15				
	Surrogate: 13C12-1,2,3,4,7,8-HxCDD	64.0		21-193	%	31-OCT-15				
	Surrogate: 13C12-1,2,3,6,7,8-HxCDD	65.0		25-163	%	31-OCT-15				
	Surrogate: 13C12-1,2,3,4,6,7,8-HpCDD	71.0		23-166	%	31-OCT-15				
	Surrogate: 13C12-OCDD	60.0		13-138	%	31-OCT-15				
	Surrogate: 13C12-2,3,7,8-TCDF	37.0		22-152	%	31-OCT-15				
	Surrogate: 13C12-1,2,3,7,8-PeCDF	63.0		24-185	%	31-OCT-15				
	Surrogate: 13C12-2,3,4,7,8-PeCDF	31.0		21-178	%	31-OCT-15				
	Surrogate: 13C12-1,2,3,4,7,8-HxCDF	72.0		26-152	%	31-OCT-15				
	Surrogate: 13C12-1,2,3,6,7,8-HxCDF	78.0		21-159	%	31-OCT-15				
	Surrogate: 13C12-2,3,4,6,7,8-HxCDF	45.0		17-205	%	31-OCT-15				
	Surrogate: 13C12-1,2,3,7,8,9-HxCDF	66.0		28-136	%	31-OCT-15				
	Surrogate: 13C12-1,2,3,4,6,7,8-HpCDF	72.0		21-158	%	31-OCT-15				
	Surrogate: 13C12-1,2,3,4,7,8,9-HpCDF	68.0		20-186	%	31-OCT-15				
	Surrogate: 37Cl4-2,3,7,8-TCDD (Cleanup)	57.0		31-191	%	31-OCT-15				

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Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits		
Grouping	Analyte								
L1693219-1	DYEC/FA/151025/1								
Sampled By: A. HUXTER on 26-OCT-15 @ 08:00							#1		
Matrix: SOIL									
Toxic Equivalency									
Lower Bound PCDD/F TEQ (WHO 2005)		0.0927			pg/L	31-OCT-15			
Mid Point PCDD/F TEQ (WHO 2005)		1.36			pg/L	31-OCT-15			
Upper Bound PCDD/F TEQ (WHO 2005)		2.63			pg/L	31-OCT-15	1500		
L1693219-2	DYEC/FA/151025/2								
Sampled By: A. HUXTER on 26-OCT-15 @ 08:00							#1		
Matrix: SOIL									
Sample Preparation									
Initial pH		12.37		0.10	pH units	26-OCT-15			
Final pH		11.50		0.10	pH units	26-OCT-15			
TCLP Extractables									
Alachlor		<0.0010		0.0010	mg/L	28-OCT-15			
Aldicarb		<0.010		0.010	mg/L	27-OCT-15	0.9		
Aldrin		<0.00020		0.00020	mg/L	28-OCT-15			
Aldrin + Dieldrin		<0.00040		0.00040	mg/L	28-OCT-15	0.07		
alpha-Chlordane		<0.0010		0.0010	mg/L	28-OCT-15			
Aroclor 1242		<0.00020		0.00020	mg/L	28-OCT-15			
Aroclor 1248		<0.00020		0.00020	mg/L	28-OCT-15			
Aroclor 1254		<0.00020		0.00020	mg/L	28-OCT-15			
Aroclor 1260		<0.00020		0.00020	mg/L	28-OCT-15			
Atrazine		<0.0010		0.0010	mg/L	28-OCT-15			
Atrazine Desethyl		<0.0010		0.0010	mg/L	28-OCT-15			
Atrazine & Metabolites		<0.0020		0.0020	mg/L	28-OCT-15	0.5		
Azinphos methyl		<0.0010		0.0010	mg/L	28-OCT-15	2		
Bendiocarb		<0.0050		0.0050	mg/L	28-OCT-15	4		
Benzo(a)pyrene		<0.0010		0.0010	mg/L	28-OCT-15	0.001		
Bromoxynil		<0.0020		0.0020	mg/L	28-OCT-15	0.5		
Carbaryl		<0.0020		0.0020	mg/L	28-OCT-15	9		
Carbofuran		<0.0020		0.0020	mg/L	28-OCT-15	9		
Chlordane (Total)		<0.0030		0.0030	mg/L	28-OCT-15	0.7		
Chlorpyrifos		<0.0010		0.0010	mg/L	28-OCT-15	9		
3&4-Methylphenol		<0.010		0.010	mg/L	28-OCT-15			
Cresols (total)		<0.015		0.015	mg/L	28-OCT-15	200		
Cyanazine		<0.0010		0.0010	mg/L	28-OCT-15	1.0		
Cyanide, Weak Acid Diss		<0.10		0.10	mg/L	27-OCT-15	20		
2,4-D		<0.0020		0.0020	mg/L	28-OCT-15	10		
p,p-DDD		<0.0010		0.0010	mg/L	28-OCT-15			
p,p-DDE		<0.0010		0.0010	mg/L	28-OCT-15			
o,p-DDT		<0.0010		0.0010	mg/L	28-OCT-15			
p,p-DDT		<0.0010		0.0010	mg/L	28-OCT-15			
DDT + metabolites		<0.0040		0.0040	mg/L	28-OCT-15	3		
Diazinon		<0.0010		0.0010	mg/L	28-OCT-15	2		
Dicamba		<0.0050		0.0050	mg/L	28-OCT-15	12		
2,4-Dichlorophenol		<0.0050		0.0050	mg/L	28-OCT-15	90		
Diclofop methyl		<0.0020		0.0020	mg/L	28-OCT-15	0.9		
Dieldrin		<0.00020		0.00020	mg/L	28-OCT-15			

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Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits				
Grouping	Analyte										
L1693219-2	DYEC/FA/151025/2										
Sampled By: A. HUXTER on 26-OCT-15 @ 08:0											
Matrix: SOIL											
TCLP Extractables											
	Dimethoate	<0.0010		0.0010	mg/L	28-OCT-15	2				
	2,4-Dinitrotoluene	<0.0040		0.0040	mg/L	28-OCT-15	0.13				
	Dinoseb	<0.0020		0.0020	mg/L	28-OCT-15	1				
	Diquat	<0.10	DLI	0.10	mg/L	27-OCT-15	7				
	Diuron	<0.010		0.010	mg/L	27-OCT-15	15				
	Endrin	<0.0010		0.0010	mg/L	28-OCT-15	0.02				
	Parathion	<0.0010		0.0010	mg/L	28-OCT-15	5				
	Fluoride (F)	<10		10	mg/L	27-OCT-15	150.0				
	gamma-BHC	<0.0010		0.0010	mg/L	28-OCT-15	0.4				
	gamma-Chlordane	<0.0010		0.0010	mg/L	28-OCT-15					
	Glyphosate	<0.050		0.050	mg/L	28-OCT-15	28				
	Heptachlor	<0.0010		0.0010	mg/L	28-OCT-15					
	Heptachlor + Heptachlor Epoxide	<0.0020		0.0020	mg/L	28-OCT-15	0.3				
	Heptachlor epoxide	<0.0010		0.0010	mg/L	28-OCT-15					
	Hexachlorobenzene	<0.0040		0.0040	mg/L	28-OCT-15	0.13				
	Hexachlorobutadiene	<0.0040		0.0040	mg/L	28-OCT-15	0.5				
	Hexachloroethane	<0.0040		0.0040	mg/L	28-OCT-15	3.0				
	Malathion	<0.0010		0.0010	mg/L	28-OCT-15	19				
	MCPA	<0.0020		0.0020	mg/L	28-OCT-15					
	Methoxychlor	<0.0010		0.0010	mg/L	28-OCT-15	90				
	Methyl Parathion	<0.0010		0.0010	mg/L	28-OCT-15	0.7				
	2-Methylphenol	<0.0050		0.0050	mg/L	28-OCT-15					
	Metolachlor	<0.0010		0.0010	mg/L	28-OCT-15	5				
	Metribuzin	<0.0010		0.0010	mg/L	28-OCT-15	8				
	Nitrate and Nitrite as N	<4.0		4.0	mg/L	27-OCT-15	1000				
	Nitrate-N	<2.0		2.0	mg/L	27-OCT-15					
	Nitrilotriacetic Acid (NTA)	<40		0.20	mg/L	27-OCT-15	40				
	Nitrite-N	<2.0		2.0	mg/L	27-OCT-15					
	Nitrobenzene	<0.0040		0.0040	mg/L	28-OCT-15	2.0				
	N-Nitrosodimethylamine	<0.00020		0.00020	mg/L	28-OCT-15	0.0009				
	Oxychlordane	<0.0010		0.0010	mg/L	28-OCT-15					
	Paraquat	<0.10	DLI	0.10	mg/L	27-OCT-15	1				
	Total PCBs	<0.00040		0.00040	mg/L	28-OCT-15	0.3				
	Pentachlorophenol	<0.0050		0.0050	mg/L	28-OCT-15	6				
	Phorate	<0.0010		0.0010	mg/L	28-OCT-15	0.2				
	Picloram	<0.0050		0.0050	mg/L	28-OCT-15	19				
	Prometryne	<0.0010		0.0010	mg/L	28-OCT-15					
	Pyridine	<5.0		5.0	mg/L	27-OCT-15	5.0				
	Simazine	<0.0010		0.0010	mg/L	28-OCT-15	1				
	2,4,5-T	<0.0020		0.0020	mg/L	28-OCT-15	28				
	Temephos	<0.0010		0.0010	mg/L	28-OCT-15	28				
	Terbufos	<0.0020		0.0020	mg/L	28-OCT-15	0.1				
	2,3,4,6-Tetrachlorophenol	<0.0050		0.0050	mg/L	28-OCT-15	10.0				
	Toxaphene	<0.0035		0.0035	mg/L	28-OCT-15	0.5				
	2,4,5-TP	<0.0020		0.0020	mg/L	28-OCT-15	1				
	Triallate	<0.0010		0.0010	mg/L	28-OCT-15	23				

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Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte									
L1693219-2	DYEC/FA/151025/2									
Sampled By: A. HUXTER on 26-OCT-15 @ 08:0										
Matrix: SOIL										#1
TCLP Extractables										
	2,4,5-Trichlorophenol	<0.0050		0.0050	mg/L	28-OCT-15	400			
	2,4,6-Trichlorophenol	<0.0050		0.0050	mg/L	28-OCT-15	0.5			
	Trifluralin	<0.0050		0.0050	mg/L	28-OCT-15	4.5			
	Surrogate: 2,4,6-Tribromophenol	79.6		50-150	%	28-OCT-15				
	Surrogate: 2,4-Dichlorophenylacetic Acid	142.8		50-150	%	28-OCT-15				
	Surrogate: 2-Fluorobiphenyl	68.7		40-160	%	28-OCT-15				
	Surrogate: 2-Fluorobiphenyl	74.4		40-160	%	28-OCT-15				
	Surrogate: 2-Fluorobiphenyl	75.4		40-160	%	28-OCT-15				
	Surrogate: Nitrobenzene d5	79.7		50-150	%	28-OCT-15				
	Surrogate: d14-Terphenyl	127.6		60-140	%	28-OCT-15				
	Surrogate: d14-Terphenyl	75.5		60-140	%	28-OCT-15				
	Surrogate: p-Terphenyl d14	125.0		60-140	%	28-OCT-15				
TCLP Metals										
	Arsenic (As)	<0.050		0.050	mg/L	27-OCT-15	2.5			
	Barium (Ba)	2.08		0.50	mg/L	27-OCT-15	100			
	Boron (B)	<2.5		2.5	mg/L	27-OCT-15	500			
	Cadmium (Cd)	<0.0050		0.0050	mg/L	27-OCT-15	0.5			
	Chromium (Cr)	<0.050		0.050	mg/L	27-OCT-15	5.0			
	Lead (Pb)	<0.050		0.050	mg/L	27-OCT-15	5.0			
	Mercury (Hg)	<0.00010		0.00010	mg/L	27-OCT-15	0.1			
	Selenium (Se)	<0.25		0.25	mg/L	27-OCT-15	1.0			
	Silver (Ag)	<0.0050		0.0050	mg/L	27-OCT-15	5.0			
	Uranium (U)	<0.25		0.25	mg/L	27-OCT-15	10			
TCLP VOCs										
	1,1-Dichloroethylene	<0.025		0.025	mg/L	28-OCT-15	1.4			
	1,2-Dichlorobenzene	<0.025		0.025	mg/L	28-OCT-15	20.0			
	1,2-Dichloroethane	<0.025		0.025	mg/L	28-OCT-15	0.5			
	1,4-Dichlorobenzene	<0.025		0.025	mg/L	28-OCT-15	0.5			
	Benzene	<0.025		0.025	mg/L	28-OCT-15	0.5			
	Carbon tetrachloride	<0.025		0.025	mg/L	28-OCT-15	0.5			
	Chlorobenzene	<0.025		0.025	mg/L	28-OCT-15	8			
	Chloroform	<0.10		0.10	mg/L	28-OCT-15	10			
	Dichloromethane	<0.50		0.50	mg/L	28-OCT-15	5.0			
	Methyl Ethyl Ketone	<1.0		1.0	mg/L	28-OCT-15	200.0			
	Tetrachloroethylene	<0.025		0.025	mg/L	28-OCT-15	3			
	Trichloroethylene	<0.025		0.025	mg/L	28-OCT-15	5			
	Vinyl chloride	<0.050		0.050	mg/L	28-OCT-15	0.2			

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ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte						#1			
L1693219-2	DYEC/FA/151025/2									
Sampled By: A. HUXTER on 26-OCT-15 @ 08:0										
Matrix: SOIL										
TCLP VOCs										
	Surrogate: 4-Bromofluorobenzene	94.8		70-130	%	28-OCT-15				
Volatile Organic Compounds										
	Surrogate: 1,4-Difluorobenzene	99.5		50-150	%	28-OCT-15				
Polychlorinated Biphenyls										
	Surrogate: Decachlorobiphenyl	103.0		50-150	%	28-OCT-15				
	Surrogate: Tetrachloro-m-xylene	88.4		50-150	%	28-OCT-15				
Dioxins and Furans										
	2,3,7,8-TCDD	<0.82	[U]	0.82	pg/L	31-OCT-15				
	1,2,3,7,8-PeCDD	<0.42	[U]	0.42	pg/L	31-OCT-15				
	1,2,3,4,7,8-HxCDD	<0.36	[U]	0.36	pg/L	31-OCT-15				
	1,2,3,6,7,8-HxCDD	<0.37	[U]	0.37	pg/L	31-OCT-15				
	1,2,3,7,8,9-HxCDD	<0.36	[U]	0.36	pg/L	31-OCT-15				
	1,2,3,4,6,7,8-HpCDD	<0.34	[U]	0.34	pg/L	31-OCT-15				
	OCDD	<0.33	M,U	0.33	pg/L	31-OCT-15				
	Total-TCDD	<0.82	[U]	0.82	pg/L	31-OCT-15				
	Total TCDD # Homologues	0			No Unit	31-OCT-15				
	Total-PeCDD	<0.42	[U]	0.42	pg/L	31-OCT-15				
	Total PeCDD # Homologues	0			No Unit	31-OCT-15				
	Total-HxCDD	<0.37	[U]	0.37	pg/L	31-OCT-15				
	Total HxCDD # Homologues	0			No Unit	31-OCT-15				
	Total-HpCDD	<0.34	[U]	0.34	pg/L	31-OCT-15				
	Total HpCDD # Homologues	0			No Unit	31-OCT-15				
	2,3,7,8-TCDF	<0.97	[U]	0.97	pg/L	31-OCT-15				
	1,2,3,7,8-PeCDF	<0.38	[U]	0.38	pg/L	31-OCT-15				
	2,3,4,7,8-PeCDF	<0.43	[U]	0.43	pg/L	31-OCT-15				
	1,2,3,4,7,8-HxCDF	<0.22	[U]	0.22	pg/L	31-OCT-15				
	1,2,3,6,7,8-HxCDF	<0.20	[U]	0.20	pg/L	31-OCT-15				
	1,2,3,7,8,9-HxCDF	0.60	J,R	0.29	pg/L	31-OCT-15				
	2,3,4,6,7,8-HxCDF	<0.28	[U]	0.28	pg/L	31-OCT-15				
	1,2,3,4,6,7,8-HpCDF	<0.23	[U]	0.23	pg/L	31-OCT-15				
	1,2,3,4,7,8,9-HpCDF	<0.31	[U]	0.31	pg/L	31-OCT-15				
	OCDF	<0.40	[U]	0.40	pg/L	31-OCT-15				
	Total-TCDF	<0.97	[U]	0.97	pg/L	31-OCT-15				
	Total TCDF # Homologues	0			No Unit	31-OCT-15				
	Total-PeCDF	<0.43	[U]	0.43	pg/L	31-OCT-15				
	Total PeCDF # Homologues	0			No Unit	31-OCT-15				
	Total-HxCDF	<0.29	[U]	0.29	pg/L	31-OCT-15				
	Total HxCDF # Homologues	0			No Unit	31-OCT-15				
	Total-HpCDF	<0.31	[U]	0.31	pg/L	31-OCT-15				
	Total HpCDF # Homologues	0			No Unit	31-OCT-15				
	Surrogate: 13C12-2,3,7,8-TCDD	62.0		20-175	%	31-OCT-15				
	Surrogate: 13C12-1,2,3,7,8-PeCDD	62.0		21-227	%	31-OCT-15				
	Surrogate: 13C12-1,2,3,4,7,8-HxCDD	70.0		21-193	%	31-OCT-15				
	Surrogate: 13C12-1,2,3,6,7,8-HxCDD	70.0		25-163	%	31-OCT-15				
	Surrogate: 13C12-1,2,3,4,6,7,8-HpCDD	77.0		23-166	%	31-OCT-15				
	Surrogate: 13C12-OCDD	66.0		13-138	%	31-OCT-15				
	Surrogate: 13C12-2,3,7,8-TCDF	53.0		22-152	%	31-OCT-15				

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Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits		
Grouping	Analyte								
L1693219-2	DYEC/FA/151025/2								
Sampled By: A. HUXTER on 26-OCT-15 @ 08:00							#1		
Matrix: SOIL									
Dioxins and Furans									
	Surrogate: 13C12-1,2,3,7,8-PeCDF	65.0		24-185	%	31-OCT-15			
	Surrogate: 13C12-2,3,4,7,8-PeCDF	52.0		21-178	%	31-OCT-15			
	Surrogate: 13C12-1,2,3,4,7,8-HxCDF	70.0		26-152	%	31-OCT-15			
	Surrogate: 13C12-1,2,3,6,7,8-HxCDF	79.0		21-159	%	31-OCT-15			
	Surrogate: 13C12-2,3,4,6,7,8-HxCDF	63.0		17-205	%	31-OCT-15			
	Surrogate: 13C12-1,2,3,7,8,9-HxCDF	70.0		28-136	%	31-OCT-15			
	Surrogate: 13C12-1,2,3,4,6,7,8-HpCDF	78.0		21-158	%	31-OCT-15			
	Surrogate: 13C12-1,2,3,4,7,8,9-HpCDF	75.0		20-186	%	31-OCT-15			
	Surrogate: 37Cl4-2,3,7,8-TCDD (Cleanup)	63.0		31-191	%	31-OCT-15			
Toxic Equivalency									
	Lower Bound PCDD/F TEQ (WHO 2005)	0.00			pg/L	31-OCT-15			
	Mid Point PCDD/F TEQ (WHO 2005)	0.893			pg/L	31-OCT-15			
	Upper Bound PCDD/F TEQ (WHO 2005)	1.73			pg/L	31-OCT-15	1500		
L1693219-3	DYEC/FA/151025/3								
Sampled By: A. HUXTER on 26-OCT-15 @ 08:00							#1		
Matrix: SOIL									
Sample Preparation									
	Initial pH	12.35		0.10	pH units	26-OCT-15			
	Final pH	11.51		0.10	pH units	26-OCT-15			
TCLP Extractables									
	Alachlor	<0.0010		0.0010	mg/L	28-OCT-15			
	Aldicarb	<0.010		0.010	mg/L	27-OCT-15	0.9		
	Aldrin	<0.00020		0.00020	mg/L	28-OCT-15			
	Aldrin + Dieldrin	<0.00040		0.00040	mg/L	28-OCT-15	0.07		
	alpha-Chlordane	<0.0010		0.0010	mg/L	28-OCT-15			
	Aroclor 1242	<0.00020		0.00020	mg/L	28-OCT-15			
	Aroclor 1248	<0.00020		0.00020	mg/L	28-OCT-15			
	Aroclor 1254	<0.00020		0.00020	mg/L	28-OCT-15			
	Aroclor 1260	<0.00020		0.00020	mg/L	28-OCT-15			
	Atrazine	<0.0010		0.0010	mg/L	28-OCT-15			
	Atrazine Desethyl	<0.0010		0.0010	mg/L	28-OCT-15			
	Atrazine & Metabolites	<0.0020		0.0020	mg/L	28-OCT-15	0.5		
	Azinphos methyl	<0.0010		0.0010	mg/L	28-OCT-15	2		
	Bendiocarb	<0.0050		0.0050	mg/L	28-OCT-15	4		
	Benzo(a)pyrene	<0.0010		0.0010	mg/L	28-OCT-15	0.001		
	Bromoxynil	<0.0020		0.0020	mg/L	28-OCT-15	0.5		
	Carbaryl	<0.0020		0.0020	mg/L	28-OCT-15	9		
	Carbofuran	<0.0020		0.0020	mg/L	28-OCT-15	9		
	Chlordane (Total)	<0.0030		0.0030	mg/L	28-OCT-15	0.7		
	Chlorpyrifos	<0.0010		0.0010	mg/L	28-OCT-15	9		
	3&4-Methylphenol	<0.010		0.010	mg/L	28-OCT-15			
	Cresols (total)	<0.015		0.015	mg/L	28-OCT-15	200		
	Cyanazine	<0.0010		0.0010	mg/L	28-OCT-15	1.0		
	Cyanide, Weak Acid Diss	<0.10		0.10	mg/L	27-OCT-15	20		
	2,4-D	<0.0020		0.0020	mg/L	28-OCT-15	10		

** Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.

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Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte									
L1693219-3	DYEC/FA/151025/3									
Sampled By: A. HUXTER on 26-OCT-15 @ 08:0							#1			
Matrix: SOIL										
TCLP Extractables										
	p,p-DDD	<0.0010		0.0010	mg/L	28-OCT-15				
	p,p-DDE	<0.0010		0.0010	mg/L	28-OCT-15				
	o,p-DDT	<0.0010		0.0010	mg/L	28-OCT-15				
	p,p-DDT	<0.0010		0.0010	mg/L	28-OCT-15				
	DDT + metabolites	<0.0040		0.0040	mg/L	28-OCT-15	3			
	Diazinon	<0.0010		0.0010	mg/L	28-OCT-15	2			
	Dicamba	<0.0050		0.0050	mg/L	28-OCT-15	12			
	2,4-Dichlorophenol	<0.0050		0.0050	mg/L	28-OCT-15	90			
	Diclofop methyl	<0.0020		0.0020	mg/L	28-OCT-15	0.9			
	Dieldrin	<0.00020		0.00020	mg/L	28-OCT-15				
	Dimethoate	<0.0010		0.0010	mg/L	28-OCT-15	2			
	2,4-Dinitrotoluene	<0.0040		0.0040	mg/L	28-OCT-15	0.13			
	Dinoseb	<0.0020		0.0020	mg/L	28-OCT-15	1			
	Diquat	<0.10	DLI	0.10	mg/L	27-OCT-15	7			
	Diuron	<0.010		0.010	mg/L	27-OCT-15	15			
	Endrin	<0.0010		0.0010	mg/L	28-OCT-15	0.02			
	Parathion	<0.0010		0.0010	mg/L	28-OCT-15	5			
	Fluoride (F)	<10		10	mg/L	27-OCT-15	150.0			
	gamma-BHC	<0.0010		0.0010	mg/L	28-OCT-15	0.4			
	gamma-Chlordane	<0.0010		0.0010	mg/L	28-OCT-15				
	Glyphosate	<0.050		0.050	mg/L	28-OCT-15	28			
	Heptachlor	<0.0010		0.0010	mg/L	28-OCT-15				
	Heptachlor + Heptachlor Epoxide	<0.0020		0.0020	mg/L	28-OCT-15	0.3			
	Heptachlor epoxide	<0.0010		0.0010	mg/L	28-OCT-15				
	Hexachlorobenzene	<0.0040		0.0040	mg/L	28-OCT-15	0.13			
	Hexachlorobutadiene	<0.0040		0.0040	mg/L	28-OCT-15	0.5			
	Hexachloroethane	<0.0040		0.0040	mg/L	28-OCT-15	3.0			
	Malathion	<0.0010		0.0010	mg/L	28-OCT-15	19			
	MCPA	<0.0020		0.0020	mg/L	28-OCT-15				
	Methoxychlor	<0.0010		0.0010	mg/L	28-OCT-15	90			
	Methyl Parathion	<0.0010		0.0010	mg/L	28-OCT-15	0.7			
	2-Methylphenol	<0.0050		0.0050	mg/L	28-OCT-15				
	Metolachlor	<0.0010		0.0010	mg/L	28-OCT-15	5			
	Metribuzin	<0.0010		0.0010	mg/L	28-OCT-15	8			
	Nitrate and Nitrite as N	<4.0		4.0	mg/L	27-OCT-15	1000			
	Nitrate-N	<2.0		2.0	mg/L	27-OCT-15				
	Nitrotriacetic Acid (NTA)	<40		0.20	mg/L	27-OCT-15	40			
	Nitrite-N	<2.0		2.0	mg/L	27-OCT-15				
	Nitrobenzene	<0.0040		0.0040	mg/L	28-OCT-15	2.0			
	N-Nitrosodimethylamine	<0.00020		0.00020	mg/L	28-OCT-15	0.0009			
	Oxychlordane	<0.0010		0.0010	mg/L	28-OCT-15				
	Paraquat	<0.10	DLI	0.10	mg/L	27-OCT-15	1			
	Total PCBs	<0.00040		0.00040	mg/L	28-OCT-15	0.3			
	Pentachlorophenol	<0.0050		0.0050	mg/L	28-OCT-15	6			
	Phorate	<0.0010		0.0010	mg/L	28-OCT-15	0.2			
	Picloram	<0.0050		0.0050	mg/L	28-OCT-15	19			

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ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte						#1			
L1693219-3	DYEC/FA/151025/3									
Sampled By: A. HUXTER on 26-OCT-15 @ 08:0										
Matrix: SOIL										
TCLP Extractables										
	Prometryne	<0.0010		0.0010	mg/L	28-OCT-15				
	Pyridine	<5.0		5.0	mg/L	27-OCT-15	5.0			
	Simazine	<0.0010		0.0010	mg/L	28-OCT-15	1			
	2,4,5-T	<0.0020		0.0020	mg/L	28-OCT-15	28			
	Temephos	<0.0010		0.0010	mg/L	28-OCT-15	28			
	Terbufos	<0.0020		0.0020	mg/L	28-OCT-15	0.1			
	2,3,4,6-Tetrachlorophenol	<0.0050		0.0050	mg/L	28-OCT-15	10.0			
	Toxaphene	<0.0035		0.0035	mg/L	28-OCT-15	0.5			
	2,4,5-TP	<0.0020		0.0020	mg/L	28-OCT-15	1			
	Triallate	<0.0010		0.0010	mg/L	28-OCT-15	23			
	2,4,5-Trichlorophenol	<0.0050		0.0050	mg/L	28-OCT-15	400			
	2,4,6-Trichlorophenol	<0.0050		0.0050	mg/L	28-OCT-15	0.5			
	Trifluralin	<0.0050		0.0050	mg/L	28-OCT-15	4.5			
	Surrogate: 2,4,6-Tribromophenol	102.6		50-150	%	28-OCT-15				
	Surrogate: 2,4-Dichlorophenylacetic Acid	145.9		50-150	%	28-OCT-15				
	Surrogate: 2-Fluorobiphenyl	103.5		40-160	%	28-OCT-15				
	Surrogate: 2-Fluorobiphenyl	75.2		40-160	%	28-OCT-15				
	Surrogate: 2-Fluorobiphenyl	84.2		40-160	%	28-OCT-15				
	Surrogate: Nitrobenzene d5	101.7		50-150	%	28-OCT-15				
	Surrogate: d14-Terphenyl	83.0		60-140	%	28-OCT-15				
	Surrogate: d14-Terphenyl	89.8		60-140	%	28-OCT-15				
	Surrogate: p-Terphenyl d14	99.6		60-140	%	28-OCT-15				
TCLP Metals										
	Arsenic (As)	<0.050		0.050	mg/L	27-OCT-15	2.5			
	Barium (Ba)	1.72		0.50	mg/L	27-OCT-15	100			
	Boron (B)	<2.5		2.5	mg/L	27-OCT-15	500			
	Cadmium (Cd)	<0.0050		0.0050	mg/L	27-OCT-15	0.5			
	Chromium (Cr)	<0.050		0.050	mg/L	27-OCT-15	5.0			
	Lead (Pb)	<0.050		0.050	mg/L	27-OCT-15	5.0			
	Mercury (Hg)	<0.00010		0.00010	mg/L	27-OCT-15	0.1			
	Selenium (Se)	<0.25		0.25	mg/L	27-OCT-15	1.0			
	Silver (Ag)	<0.0050		0.0050	mg/L	27-OCT-15	5.0			
	Uranium (U)	<0.25		0.25	mg/L	27-OCT-15	10			
TCLP VOCs										
	1,1-Dichloroethylene	<0.025		0.025	mg/L	28-OCT-15	1.4			
	1,2-Dichlorobenzene	<0.025		0.025	mg/L	28-OCT-15	20.0			
	1,2-Dichloroethane	<0.025		0.025	mg/L	28-OCT-15	0.5			

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ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte						#1			
L1693219-3	DYEC/FA/151025/3									
Sampled By: A. HUXTER on 26-OCT-15 @ 08:0										
Matrix: SOIL										
TCLP VOCs										
	1,4-Dichlorobenzene	<0.025		0.025	mg/L	28-OCT-15	0.5			
	Benzene	<0.025		0.025	mg/L	28-OCT-15	0.5			
	Carbon tetrachloride	<0.025		0.025	mg/L	28-OCT-15	0.5			
	Chlorobenzene	<0.025		0.025	mg/L	28-OCT-15	8			
	Chloroform	<0.10		0.10	mg/L	28-OCT-15	10			
	Dichloromethane	<0.50		0.50	mg/L	28-OCT-15	5.0			
	Methyl Ethyl Ketone	<1.0		1.0	mg/L	28-OCT-15	200.0			
	Tetrachloroethylene	<0.025		0.025	mg/L	28-OCT-15	3			
	Trichloroethylene	<0.025		0.025	mg/L	28-OCT-15	5			
	Vinyl chloride	<0.050		0.050	mg/L	28-OCT-15	0.2			
	Surrogate: 4-Bromofluorobenzene	93.4		70-130	%	28-OCT-15				
Volatile Organic Compounds										
	Surrogate: 1,4-Difluorobenzene	99.6		50-150	%	28-OCT-15				
Polychlorinated Biphenyls										
	Surrogate: Decachlorobiphenyl	102.0		50-150	%	28-OCT-15				
	Surrogate: Tetrachloro-m-xylene	93.3		50-150	%	28-OCT-15				
Dioxins and Furans										
	2,3,7,8-TCDD	<0.65	[U]	0.65	pg/L	31-OCT-15				
	1,2,3,7,8-PeCDD	<0.32	[U]	0.32	pg/L	31-OCT-15				
	1,2,3,4,7,8-HxCDD	<0.29	[U]	0.29	pg/L	31-OCT-15				
	1,2,3,6,7,8-HxCDD	<0.30	[U]	0.30	pg/L	31-OCT-15				
	1,2,3,7,8,9-HxCDD	<0.30	[U]	0.30	pg/L	31-OCT-15				
	1,2,3,4,6,7,8-HpCDD	<0.35	[U]	0.35	pg/L	31-OCT-15				
	OCDD	<0.35	[U]	0.35	pg/L	31-OCT-15				
	Total-TCDD	<0.65	[U]	0.65	pg/L	31-OCT-15				
	Total TCDD # Homologues	0			No Unit	31-OCT-15				
	Total-PeCDD	<0.32	[U]	0.32	pg/L	31-OCT-15				
	Total PeCDD # Homologues	0			No Unit	31-OCT-15				
	Total-HxCDD	<0.30	[U]	0.30	pg/L	31-OCT-15				
	Total HxCDD # Homologues	0			No Unit	31-OCT-15				
	Total-HpCDD	<0.35	[U]	0.35	pg/L	31-OCT-15				
	Total HpCDD # Homologues	0			No Unit	31-OCT-15				
	2,3,7,8-TCDF	<0.66	[U]	0.66	pg/L	31-OCT-15				
	1,2,3,7,8-PeCDF	0.47	J,R	0.27	pg/L	31-OCT-15				
	2,3,4,7,8-PeCDF	<0.27	[U]	0.27	pg/L	31-OCT-15				
	1,2,3,4,7,8-HxCDF	<0.17	[U]	0.17	pg/L	31-OCT-15				
	1,2,3,6,7,8-HxCDF	<0.16	[U]	0.16	pg/L	31-OCT-15				
	1,2,3,7,8,9-HxCDF	0.51	M,J,R	0.21	pg/L	31-OCT-15				
	2,3,4,6,7,8-HxCDF	<0.19	[U]	0.19	pg/L	31-OCT-15				
	1,2,3,4,6,7,8-HpCDF	<0.19	[U]	0.19	pg/L	31-OCT-15				
	1,2,3,4,7,8,9-HpCDF	<0.25	[U]	0.25	pg/L	31-OCT-15				
	OCDF	<0.41	[U]	0.41	pg/L	31-OCT-15				
	Total-TCDF	<0.66	[U]	0.66	pg/L	31-OCT-15				
	Total TCDF # Homologues	0			No Unit	31-OCT-15				
	Total-PeCDF	<0.27	[U]	0.27	pg/L	31-OCT-15				
	Total PeCDF # Homologues	0			No Unit	31-OCT-15				
	Total-HxCDF	<0.21	[U]	0.21	pg/L	31-OCT-15				

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DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte									
L1693219-3	DYEC/FA/151025/3									
Sampled By: A. HUXTER on 26-OCT-15 @ 08:0										
Matrix: SOIL										
Dioxins and Furans										
Total HxCDF # Homologues		0			No Unit	31-OCT-15				
Total-HpCDF		<0.25	[U]	0.25	pg/L	31-OCT-15				
Total HpCDF # Homologues		0			No Unit	31-OCT-15				
Surrogate: 13C12-2,3,7,8-TCDD		75.0		20-175	%	31-OCT-15				
Surrogate: 13C12-1,2,3,7,8-PeCDD		78.0		21-227	%	31-OCT-15				
Surrogate: 13C12-1,2,3,4,7,8-HxCDD		84.0		21-193	%	31-OCT-15				
Surrogate: 13C12-1,2,3,6,7,8-HxCDD		81.0		25-163	%	31-OCT-15				
Surrogate: 13C12-1,2,3,4,6,7,8-HpCDD		83.0		23-166	%	31-OCT-15				
Surrogate: 13C12-OCDD		73.0		13-138	%	31-OCT-15				
Surrogate: 13C12-2,3,7,8-TCDF		71.0		22-152	%	31-OCT-15				
Surrogate: 13C12-1,2,3,7,8-PeCDF		77.0		24-185	%	31-OCT-15				
Surrogate: 13C12-2,3,4,7,8-PeCDF		69.0		21-178	%	31-OCT-15				
Surrogate: 13C12-1,2,3,4,7,8-HxCDF		80.0		26-152	%	31-OCT-15				
Surrogate: 13C12-1,2,3,6,7,8-HxCDF		88.0		21-159	%	31-OCT-15				
Surrogate: 13C12-2,3,4,6,7,8-HxCDF		79.0		17-205	%	31-OCT-15				
Surrogate: 13C12-1,2,3,7,8,9-HxCDF		81.0		28-136	%	31-OCT-15				
Surrogate: 13C12-1,2,3,4,6,7,8-HpCDF		84.0		21-158	%	31-OCT-15				
Surrogate: 13C12-1,2,3,4,7,8,9-HpCDF		83.0		20-186	%	31-OCT-15				
Surrogate: 37Cl4-2,3,7,8-TCDD (Cleanup)		79.0		31-191	%	31-OCT-15				
Toxic Equivalency										
Lower Bound PCDD/F TEQ (WHO 2005)		0.00			pg/L	31-OCT-15				
Mid Point PCDD/F TEQ (WHO 2005)		0.698			pg/L	31-OCT-15				
Upper Bound PCDD/F TEQ (WHO 2005)		1.33			pg/L	31-OCT-15	1500			
L1693219-4	DYEC/FA/151025/4									
Sampled By: A. HUXTER on 26-OCT-15 @ 08:0										
Matrix: SOIL										
Sample Preparation										
Initial pH		12.37		0.10	pH units	26-OCT-15				
Final pH		11.50		0.10	pH units	26-OCT-15				
TCLP Extractables										
Alachlor		<0.0010		0.0010	mg/L	28-OCT-15				
Aldicarb		<0.010		0.010	mg/L	27-OCT-15	0.9			
Aldrin		<0.00020		0.00020	mg/L	28-OCT-15				
Aldrin + Dieldrin		<0.00040		0.00040	mg/L	28-OCT-15	0.07			
alpha-Chlordane		<0.0010		0.0010	mg/L	28-OCT-15				
Aroclor 1242		<0.00020		0.00020	mg/L	28-OCT-15				
Aroclor 1248		<0.00020		0.00020	mg/L	28-OCT-15				
Aroclor 1254		<0.00020		0.00020	mg/L	28-OCT-15				
Aroclor 1260		<0.00020		0.00020	mg/L	28-OCT-15				
Atrazine		<0.0010		0.0010	mg/L	28-OCT-15				
Atrazine Desethyl		<0.0010		0.0010	mg/L	28-OCT-15				
Atrazine & Metabolites		<0.0020		0.0020	mg/L	28-OCT-15	0.5			
Azinphos methyl		<0.0010		0.0010	mg/L	28-OCT-15	2			
Bendiocarb		<0.0050		0.0050	mg/L	28-OCT-15	4			
Benzo(a)pyrene		<0.0010		0.0010	mg/L	28-OCT-15	0.001			
Bromoxynil		<0.0020		0.0020	mg/L	28-OCT-15	0.5			

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ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte									
L1693219-4	DYEC/FA/151025/4									
Sampled By: A. HUXTER on 26-OCT-15 @ 08:0										
Matrix: SOIL										#1
TCLP Extractables										
	Carbaryl	<0.0020		0.0020	mg/L	28-OCT-15				9
	Carbofuran	<0.0020		0.0020	mg/L	28-OCT-15				9
	Chlordane (Total)	<0.0030		0.0030	mg/L	28-OCT-15				0.7
	Chlorpyrifos	<0.0010		0.0010	mg/L	28-OCT-15				9
	3&4-Methylphenol	<0.010		0.010	mg/L	28-OCT-15				
	Cresols (total)	<0.015		0.015	mg/L	28-OCT-15				200
	Cyanazine	<0.0010		0.0010	mg/L	28-OCT-15				1.0
	Cyanide, Weak Acid Diss	<0.10		0.10	mg/L	27-OCT-15				20
	2,4-D	<0.0020		0.0020	mg/L	28-OCT-15				10
	p,p-DDD	<0.0010		0.0010	mg/L	28-OCT-15				
	p,p-DDE	<0.0010		0.0010	mg/L	28-OCT-15				
	o,p-DDT	<0.0010		0.0010	mg/L	28-OCT-15				
	p,p-DDT	<0.0010		0.0010	mg/L	28-OCT-15				
	DDT + metabolites	<0.0040		0.0040	mg/L	28-OCT-15				3
	Diazinon	<0.0010		0.0010	mg/L	28-OCT-15				2
	Dicamba	<0.0050		0.0050	mg/L	28-OCT-15				12
	2,4-Dichlorophenol	<0.0050		0.0050	mg/L	28-OCT-15				90
	Diclofop methyl	<0.0020		0.0020	mg/L	28-OCT-15				0.9
	Dieldrin	<0.00020		0.00020	mg/L	28-OCT-15				
	Dimethoate	<0.0010		0.0010	mg/L	28-OCT-15				2
	2,4-Dinitrotoluene	<0.0040		0.0040	mg/L	28-OCT-15				0.13
	Dinoseb	<0.0020		0.0020	mg/L	28-OCT-15				1
	Diquat	<0.10	DLI	0.10	mg/L	27-OCT-15				7
	Diuron	<0.010		0.010	mg/L	27-OCT-15				15
	Endrin	<0.0010		0.0010	mg/L	28-OCT-15				0.02
	Parathion	<0.0010		0.0010	mg/L	28-OCT-15				5
	Fluoride (F)	<10		10	mg/L	27-OCT-15				150.0
	gamma-BHC	<0.0010		0.0010	mg/L	28-OCT-15				0.4
	gamma-Chlordane	<0.0010		0.0010	mg/L	28-OCT-15				
	Glyphosate	<0.050		0.050	mg/L	28-OCT-15				28
	Heptachlor	<0.0010		0.0010	mg/L	28-OCT-15				
	Heptachlor + Heptachlor Epoxide	<0.0020		0.0020	mg/L	28-OCT-15				0.3
	Heptachlor epoxide	<0.0010		0.0010	mg/L	28-OCT-15				
	Hexachlorobenzene	<0.0040		0.0040	mg/L	28-OCT-15				0.13
	Hexachlorobutadiene	<0.0040		0.0040	mg/L	28-OCT-15				0.5
	Hexachloroethane	<0.0040		0.0040	mg/L	28-OCT-15				3.0
	Malathion	<0.0010		0.0010	mg/L	28-OCT-15				19
	MCPA	<0.0020		0.0020	mg/L	28-OCT-15				
	Methoxychlor	<0.0010		0.0010	mg/L	28-OCT-15				90
	Methyl Parathion	<0.0010		0.0010	mg/L	28-OCT-15				0.7
	2-Methylphenol	<0.0050		0.0050	mg/L	28-OCT-15				
	Metolachlor	<0.0010		0.0010	mg/L	28-OCT-15				5
	Metribuzin	<0.0010		0.0010	mg/L	28-OCT-15				8
	Nitrate and Nitrite as N	<4.0		4.0	mg/L	27-OCT-15				1000
	Nitrate-N	<2.0		2.0	mg/L	27-OCT-15				
	Nitrilotriacetic Acid (NTA)	<40		0.20	mg/L	27-OCT-15				40

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Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte									
L1693219-4	DYEC/FA/151025/4									
Sampled By: A. HUXTER on 26-OCT-15 @ 08:0						#1				
Matrix: SOIL										
TCLP Extractables										
	Nitrite-N	<2.0		2.0	mg/L	27-OCT-15				
	Nitrobenzene	<0.0040		0.0040	mg/L	28-OCT-15	2.0			
	N-Nitrosodimethylamine	<0.00020		0.00020	mg/L	28-OCT-15	0.0009			
	Oxychlorodane	<0.0010		0.0010	mg/L	28-OCT-15				
	Paraquat	<0.10	DLI	0.10	mg/L	27-OCT-15	1			
	Total PCBs	<0.00040		0.00040	mg/L	28-OCT-15	0.3			
	Pentachlorophenol	<0.0050		0.0050	mg/L	28-OCT-15	6			
	Phorate	<0.0010		0.0010	mg/L	28-OCT-15	0.2			
	Picloram	<0.0050		0.0050	mg/L	28-OCT-15	19			
	Prometryne	<0.0010		0.0010	mg/L	28-OCT-15				
	Pyridine	<5.0		5.0	mg/L	27-OCT-15	5.0			
	Simazine	<0.0010		0.0010	mg/L	28-OCT-15	1			
	2,4,5-T	<0.0020		0.0020	mg/L	28-OCT-15	28			
	Temephos	<0.0010		0.0010	mg/L	28-OCT-15	28			
	Terbufos	<0.0020		0.0020	mg/L	28-OCT-15	0.1			
	2,3,4,6-Tetrachlorophenol	<0.0050		0.0050	mg/L	28-OCT-15	10.0			
	Toxaphene	<0.0035		0.0035	mg/L	28-OCT-15	0.5			
	2,4,5-TP	<0.0020		0.0020	mg/L	28-OCT-15	1			
	Triallate	<0.0010		0.0010	mg/L	28-OCT-15	23			
	2,4,5-Trichlorophenol	<0.0050		0.0050	mg/L	28-OCT-15	400			
	2,4,6-Trichlorophenol	<0.0050		0.0050	mg/L	28-OCT-15	0.5			
	Trifluralin	<0.0050		0.0050	mg/L	28-OCT-15	4.5			
	Surrogate: 2,4,6-Tribromophenol	75.4		50-150	%	28-OCT-15				
	Surrogate: 2,4-Dichlorophenylacetic Acid	149.5		50-150	%	28-OCT-15				
	Surrogate: 2-Fluorobiphenyl	72.3		40-160	%	28-OCT-15				
	Surrogate: 2-Fluorobiphenyl	78.2		40-160	%	28-OCT-15				
	Surrogate: 2-Fluorobiphenyl	86.2		40-160	%	28-OCT-15				
	Surrogate: Nitrobenzene d5	85.0		50-150	%	28-OCT-15				
	Surrogate: d14-Terphenyl	135.3		60-140	%	28-OCT-15				
	Surrogate: d14-Terphenyl	78.4		60-140	%	28-OCT-15				
	Surrogate: p-Terphenyl d14	99.9		60-140	%	28-OCT-15				
TCLP Metals										
	Arsenic (As)	<0.050		0.050	mg/L	27-OCT-15	2.5			
	Barium (Ba)	1.77		0.50	mg/L	27-OCT-15	100			
	Boron (B)	<2.5		2.5	mg/L	27-OCT-15	500			
	Cadmium (Cd)	<0.0050		0.0050	mg/L	27-OCT-15	0.5			
	Chromium (Cr)	<0.050		0.050	mg/L	27-OCT-15	5.0			

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Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

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ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte						#1			
L1693219-4	DYEC/FA/151025/4									
Sampled By: A. HUXTER on 26-OCT-15 @ 08:0										
Matrix: SOIL										
TCLP Metals										
	Lead (Pb)	<0.050		0.050	mg/L	27-OCT-15	5.0			
	Mercury (Hg)	<0.00010		0.00010	mg/L	27-OCT-15	0.1			
	Selenium (Se)	<0.25		0.25	mg/L	27-OCT-15	1.0			
	Silver (Ag)	<0.0050		0.0050	mg/L	27-OCT-15	5.0			
	Uranium (U)	<0.25		0.25	mg/L	27-OCT-15	10			
TCLP VOCs										
	1,1-Dichloroethylene	<0.025		0.025	mg/L	28-OCT-15	1.4			
	1,2-Dichlorobenzene	<0.025		0.025	mg/L	28-OCT-15	20.0			
	1,2-Dichloroethane	<0.025		0.025	mg/L	28-OCT-15	0.5			
	1,4-Dichlorobenzene	<0.025		0.025	mg/L	28-OCT-15	0.5			
	Benzene	<0.025		0.025	mg/L	28-OCT-15	0.5			
	Carbon tetrachloride	<0.025		0.025	mg/L	28-OCT-15	0.5			
	Chlorobenzene	<0.025		0.025	mg/L	28-OCT-15	8			
	Chloroform	<0.10		0.10	mg/L	28-OCT-15	10			
	Dichloromethane	<0.50		0.50	mg/L	28-OCT-15	5.0			
	Methyl Ethyl Ketone	<1.0		1.0	mg/L	28-OCT-15	200.0			
	Tetrachloroethylene	<0.025		0.025	mg/L	28-OCT-15	3			
	Trichloroethylene	<0.025		0.025	mg/L	28-OCT-15	5			
	Vinyl chloride	<0.050		0.050	mg/L	28-OCT-15	0.2			
	Surrogate: 4-Bromofluorobenzene	93.3		70-130	%	28-OCT-15				
Volatile Organic Compounds										
	Surrogate: 1,4-Difluorobenzene	99.4		50-150	%	28-OCT-15				
Polychlorinated Biphenyls										
	Surrogate: Decachlorobiphenyl	98.7		50-150	%	28-OCT-15				
	Surrogate: Tetrachloro-m-xylene	28.5	SOL:PP	50-150	%	28-OCT-15				
Dioxins and Furans										
	2,3,7,8-TCDD	<0.79	[U]	0.79	pg/L	31-OCT-15				
	1,2,3,7,8-PeCDD	<0.29	[U]	0.29	pg/L	31-OCT-15				
	1,2,3,4,7,8-HxCDD	<0.30	[U]	0.30	pg/L	31-OCT-15				
	1,2,3,6,7,8-HxCDD	<0.31	[U]	0.31	pg/L	31-OCT-15				
	1,2,3,7,8,9-HxCDD	<0.30	[U]	0.30	pg/L	31-OCT-15				
	1,2,3,4,6,7,8-HpCDD	<0.32	[U]	0.32	pg/L	31-OCT-15				
	OCDD	<0.24	[U]	0.24	pg/L	31-OCT-15				
	Total-TCDD	<0.79	[U]	0.79	pg/L	31-OCT-15				
	Total TCDD # Homologues	0			No Unit	31-OCT-15				
	Total-PeCDD	<0.29	[U]	0.29	pg/L	31-OCT-15				
	Total PeCDD # Homologues	0			No Unit	31-OCT-15				
	Total-HxCDD	<0.31	[U]	0.31	pg/L	31-OCT-15				
	Total HxCDD # Homologues	0			No Unit	31-OCT-15				
	Total-HpCDD	<0.32	[U]	0.32	pg/L	31-OCT-15				
	Total HpCDD # Homologues	0			No Unit	31-OCT-15				
	2,3,7,8-TCDF	<0.61	[U]	0.61	pg/L	31-OCT-15				
	1,2,3,7,8-PeCDF	<0.33	[U]	0.33	pg/L	31-OCT-15				
	2,3,4,7,8-PeCDF	<0.31	[U]	0.31	pg/L	31-OCT-15				
	1,2,3,4,7,8-HxCDF	<0.19	[U]	0.19	pg/L	31-OCT-15				
	1,2,3,6,7,8-HxCDF	<0.15	[U]	0.15	pg/L	31-OCT-15				

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Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits		
Grouping	Analyte								
L1693219-4	DYEC/FA/151025/4								
Sampled By: A. HUXTER on 26-OCT-15 @ 08:0									
Matrix: SOIL									
Dioxins and Furans									
	1,2,3,7,8,9-HxCDF	0.38	M,J,R	0.21	pg/L	31-OCT-15			
	2,3,4,6,7,8-HxCDF	<0.19	[U]	0.19	pg/L	31-OCT-15			
	1,2,3,4,6,7,8-HpCDF	<0.20	[U]	0.20	pg/L	31-OCT-15			
	1,2,3,4,7,8,9-HpCDF	<0.28	[U]	0.28	pg/L	31-OCT-15			
	OCDF	<0.38	[U]	0.38	pg/L	31-OCT-15			
	Total-TCDF	<0.61	[U]	0.61	pg/L	31-OCT-15			
	Total TCDF # Homologues	0			No Unit	31-OCT-15			
	Total-PeCDF	<0.33	[U]	0.33	pg/L	31-OCT-15			
	Total PeCDF # Homologues	0			No Unit	31-OCT-15			
	Total-HxCDF	<0.21	[U]	0.21	pg/L	31-OCT-15			
	Total HxCDF # Homologues	0			No Unit	31-OCT-15			
	Total-HpCDF	<0.28	[U]	0.28	pg/L	31-OCT-15			
	Total HpCDF # Homologues	0			No Unit	31-OCT-15			
	Surrogate: 13C12-2,3,7,8-TCDD	76.0		20-175	%	31-OCT-15			
	Surrogate: 13C12-1,2,3,7,8-PeCDD	76.0		21-227	%	31-OCT-15			
	Surrogate: 13C12-1,2,3,4,7,8-HxCDD	81.0		21-193	%	31-OCT-15			
	Surrogate: 13C12-1,2,3,6,7,8-HxCDD	87.0		25-163	%	31-OCT-15			
	Surrogate: 13C12-1,2,3,4,6,7,8-HpCDD	86.0		23-166	%	31-OCT-15			
	Surrogate: 13C12-OCDD	71.0		13-138	%	31-OCT-15			
	Surrogate: 13C12-2,3,7,8-TCDF	72.0		22-152	%	31-OCT-15			
	Surrogate: 13C12-1,2,3,7,8-PeCDF	77.0		24-185	%	31-OCT-15			
	Surrogate: 13C12-2,3,4,7,8-PeCDF	71.0		21-178	%	31-OCT-15			
	Surrogate: 13C12-1,2,3,4,7,8-HxCDF	80.0		26-152	%	31-OCT-15			
	Surrogate: 13C12-1,2,3,6,7,8-HxCDF	89.0		21-159	%	31-OCT-15			
	Surrogate: 13C12-2,3,4,6,7,8-HxCDF	82.0		17-205	%	31-OCT-15			
	Surrogate: 13C12-1,2,3,7,8,9-HxCDF	80.0		28-136	%	31-OCT-15			
	Surrogate: 13C12-1,2,3,4,6,7,8-HpCDF	84.0		21-158	%	31-OCT-15			
	Surrogate: 13C12-1,2,3,4,7,8,9-HpCDF	82.0		20-186	%	31-OCT-15			
	Surrogate: 37Cl4-2,3,7,8-TCDD (Cleanup)	79.0		31-191	%	31-OCT-15			
Toxic Equivalency									
	Lower Bound PCDD/F TEQ (WHO 2005)	0.00			pg/L	31-OCT-15			
	Mid Point PCDD/F TEQ (WHO 2005)	0.736			pg/L	31-OCT-15			
	Upper Bound PCDD/F TEQ (WHO 2005)	1.43			pg/L	31-OCT-15	1500		

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Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

Reference Information

Sample Parameter Qualifier key listed:

Qualifier	Description
[U]	The analyte was not detected above the EDL.
DLI	Detection Limit Raised: Dilution required to address Internal Standard response problems caused by matrix interference.
M,U	A peak has been manually integrated, and the analyte was not detected above the EDL.
SOL:PP	Surrogate recovery outside acceptable limits due to prep process
G	QC result did not meet ALS DQO. Refer to narrative comments for further information.
J,R	The analyte was detected below the calibrated range but above the EDL, and the ion abundance ratio(s) did not meet the acceptance criteria. Value is an estimated maximum.
M,J,R	A peak has been manually integrated, the analyte was detected below the calibrated range but above the EDL, and the ion abundance ratio(s) did not meet the acceptance criteria. Value is an estimated maximum.
M,J	A peak has been manually integrated, and the analyte was detected below the calibrated range but above the EDL.

Methods Listed (if applicable):

ALS Test Code	Matrix	Test Description	Method Reference***
ALDICARB-TCLP-WT	Waste	O. Reg 347 Aldicarb	LC/MS-MS
BNA-TCLP-WT	Waste	BNAs for O. Reg 347	SW846 8270
Samples are leached according to TCLP protocol and then the aqueous leachate is extracted and the resulting extracts are analyzed on GC/MSD			
CN-TCLP-WT	Waste	Cyanide for O. Reg 347	APHA 4500CN C E
DIQUAT-TCLP-WT	Waste	Diquat for O. Reg 347	LC/MS/MS
DIURON-TCLP-WT	Waste	Diuron for O. Reg 347	MOE PWAUH-E3436 (MOD)
DX-1613B-HRMS-BU	Waste	Dioxins and Furans by method 1613B	USEPA 1613B
Samples filtered if required. The solid portion is extracted by Soxhlet, the liquid portion is liquid/liquid extracted with dichloromethane. The extracts are prepared using column chromatography, reduced in volume and analyzed by isotope-dilution GC/HRMS.			
F-TCLP-WT	Waste	Fluoride (F) for O. Reg 347	APHA 4110 B-Ion Chromatography
GLYPHOSATE-TCLP-WT	Waste	Glyphosate for O. Reg 347	LC/MS/MS
HG-TCLP-WT	Waste	Mercury (CVAA) for O.Reg 347	SW846 7470A
LEACH-TCLP-WT	Waste	Leachate Procedure for Reg 347	EPA 1311
Inorganic and Semi-Volatile Organic contaminants are leached from waste samples in strict accordance with US EPA Method 1311, "Toxicity Characteristic Leaching Procedure" (TCLP). Test results are reported in leachate concentration units (normally mg/L).			
MET-TCLP-WT	Waste	O.Reg 347 TCLP Leachable Metals	EPA 200.8
N2N3-TCLP-WT	Waste	Nitrate/Nitrite-N for O. Reg 347	APHA 4110 B-Ion Chromatography
NDMA-TCLP-WT	Waste	NDMA for O. Reg 347	In House/GC/MS
NTA-TCLP-WT	Waste	NTA for O. Reg 347	EPA 430.2
PARAQUAT-TCLP-WT	Waste	Paraquat for O. Reg 347	LC/MS-MS
PCB-TCLP-WT	Waste	PCBs for O. Reg 347	SW846 8270
PEST-MISC-TCLP-WT	Waste	O. Reg 347 TCLP Miscellaneous Pesticides	SW846 8270
PEST-OC-TCLP-WT	Waste	O. Reg 347TCLP Organochlorine Pesticides	SW846 8270
Samples are leached according to TCLP protocol and then the aqueous leachate is extracted and the resulting extracts are analyzed on GC/MSD			
PEST-PAHERB-TCLP-WT	Waste	Phenoxyacid Herbicides for O. Reg 347	SW846 8270
PYR-TCLP-WT	Waste	Pyridine for O. Reg 347	SW846 8260D
Samples are leached according to TCLP protocol and then analyzed on GC/MSD			
TOXAPHENE-TCLP-WT	Waste	Toxaphene by GC/ECD for O. Reg 347	SW846 8270
VOC-TCLP-WT	Waste	VOC for O. Reg 347	SW846 8260

A sample of waste is leached in a zero headspace extractor at 30–2 rpm for 18–2.0 hours with the appropriate leaching solution. After tumbling the leachate is analyzed directly by headspace technology, followed by GC/MS using internal standard quantitation.

*** ALS test methods may incorporate modifications from specified reference methods to improve performance.

Chain of Custody numbers:

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Reference Information

Laboratory Definition Code	Laboratory Location	Laboratory Definition Code	Laboratory Location
WT	ALS ENVIRONMENTAL - WATERLOO, ONTARIO, CANADA	BU	ALS ENVIRONMENTAL - BURLINGTON, ONTARIO, CANADA

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.

mg/kg - milligrams per kilogram based on dry weight of sample

mg/kg wwt - milligrams per kilogram based on wet weight of sample

mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight

mg/L - unit of concentration based on volume, parts per million.

< - Less than.

D.L. - The reporting limit.

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.

Application of guidelines is provided "as is" without warranty of any kind, either expressed or implied, including, but not limited to fitness for a particular purpose, or non-infringement. ALS assumes no responsibility for errors or omissions in the information.



Quality Control Report

Workorder: L1693219

Report Date: 02-NOV-15

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Client: Covanta - Durham York Renewable Energy LP
 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
ALDICARB-TCLP-WT		Waste						
Batch	R3298072							
WG2201576-3	DUP	L1693219-4						
Aldicarb		<0.010	<0.010	RPD-NA	mg/L	N/A	30	27-OCT-15
WG2201576-2	LCS							
Aldicarb			110.0		%		70-130	27-OCT-15
WG2201576-1	MB							
Aldicarb			<0.010		mg/L		0.01	27-OCT-15
BNA-TCLP-WT		Waste						
Batch	R3297996							
WG2201531-5	DUP	WG2201531-3						
2,3,4,6-Tetrachlorophenol		<0.0050	<0.0050	RPD-NA	mg/L	N/A	50	28-OCT-15
2,4,5-Trichlorophenol		<0.0050	<0.0050	RPD-NA	mg/L	N/A	50	28-OCT-15
2,4,6-Trichlorophenol		<0.0050	<0.0050	RPD-NA	mg/L	N/A	50	28-OCT-15
2,4-Dichlorophenol		<0.0050	<0.0050	RPD-NA	mg/L	N/A	50	28-OCT-15
2,4-Dinitrotoluene		<0.0040	<0.0040	RPD-NA	mg/L	N/A	50	28-OCT-15
2-Methylphenol		<0.0050	<0.0050	RPD-NA	mg/L	N/A	50	28-OCT-15
3&4-Methylphenol		<0.010	<0.010	RPD-NA	mg/L	N/A	50	28-OCT-15
Hexachlorobenzene		<0.0040	<0.0040	RPD-NA	mg/L	N/A	50	28-OCT-15
Hexachlorobutadiene		<0.0040	<0.0040	RPD-NA	mg/L	N/A	50	28-OCT-15
Hexachloroethane		<0.0040	<0.0040	RPD-NA	mg/L	N/A	50	28-OCT-15
Nitrobenzene		<0.0040	<0.0040	RPD-NA	mg/L	N/A	50	28-OCT-15
Pentachlorophenol		<0.0050	<0.0050	RPD-NA	mg/L	N/A	50	28-OCT-15
WG2201531-2	LCS							
2,3,4,6-Tetrachlorophenol			90.0		%		60-140	28-OCT-15
2,4,5-Trichlorophenol			84.7		%		60-140	28-OCT-15
2,4,6-Trichlorophenol			77.9		%		60-140	28-OCT-15
2,4-Dichlorophenol			76.9		%		60-140	28-OCT-15
2,4-Dinitrotoluene			82.6		%		50-150	28-OCT-15
2-Methylphenol			69.4		%		60-140	28-OCT-15
3&4-Methylphenol			71.0		%		60-140	28-OCT-15
Hexachlorobenzene			85.7		%		60-140	28-OCT-15
Hexachlorobutadiene			69.5		%		40-130	28-OCT-15
Hexachloroethane			67.2		%		40-130	28-OCT-15
Nitrobenzene			78.4		%		60-140	28-OCT-15
Pentachlorophenol			98.2		%		50-160	28-OCT-15
WG2201531-1	MB							



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 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
BNA-TCLP-WT		Waste						
Batch	R3297996							
WG2201531-1 MB								
2,3,4,6-Tetrachlorophenol			<0.0050		mg/L		0.005	28-OCT-15
2,4,5-Trichlorophenol			<0.0050		mg/L		0.005	28-OCT-15
2,4,6-Trichlorophenol			<0.0050		mg/L		0.005	28-OCT-15
2,4-Dichlorophenol			<0.0050		mg/L		0.005	28-OCT-15
2,4-Dinitrotoluene			<0.0040		mg/L		0.004	28-OCT-15
2-Methylphenol			<0.0050		mg/L		0.005	28-OCT-15
3&4-Methylphenol			<0.010		mg/L		0.01	28-OCT-15
Hexachlorobenzene			<0.0040		mg/L		0.004	28-OCT-15
Hexachlorobutadiene			<0.0040		mg/L		0.004	28-OCT-15
Hexachloroethane			<0.0040		mg/L		0.004	28-OCT-15
Nitrobenzene			<0.0040		mg/L		0.004	28-OCT-15
Pentachlorophenol			<0.0050		mg/L		0.005	28-OCT-15
Surrogate: Nitrobenzene d5			89.9		%		50-150	28-OCT-15
Surrogate: 2-Fluorobiphenyl			91.6		%		40-160	28-OCT-15
Surrogate: p-Terphenyl d14			130.3		%		60-140	28-OCT-15
Surrogate: 2,4,6-Tribromophenol			91.3		%		50-150	28-OCT-15
WG2201531-4 MS		WG2201531-3						
2,3,4,6-Tetrachlorophenol			94.5		%		50-150	28-OCT-15
2,4,5-Trichlorophenol			91.3		%		50-150	28-OCT-15
2,4,6-Trichlorophenol			83.4		%		50-150	28-OCT-15
2,4-Dichlorophenol			81.7		%		50-150	28-OCT-15
2,4-Dinitrotoluene			84.2		%		50-150	28-OCT-15
2-Methylphenol			74.3		%		50-150	28-OCT-15
3&4-Methylphenol			74.7		%		50-150	28-OCT-15
Hexachlorobenzene			85.1		%		40-150	28-OCT-15
Hexachlorobutadiene			71.8		%		40-150	28-OCT-15
Hexachloroethane			67.5		%		40-150	28-OCT-15
Nitrobenzene			78.2		%		50-150	28-OCT-15
Pentachlorophenol			100.6		%		50-150	28-OCT-15
CN-TCLP-WT		Waste						
Batch	R3298161							
WG2201645-3 DUP		L1693219-1						
Cyanide, Weak Acid Diss		<0.10	<0.10	RPD-NA	mg/L	N/A	20	27-OCT-15
WG2201645-2 LCS								



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Client: Covanta - Durham York Renewable Energy LP
 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-TCLP-WT		Waste						
Batch	R3298161							
WG2201645-2	LCS							
Cyanide, Weak Acid Diss			95.7		%		70-130	27-OCT-15
WG2201645-1	MB							
Cyanide, Weak Acid Diss			<0.10		mg/L		0.1	27-OCT-15
WG2201645-4	MS	L1693219-1						
Cyanide, Weak Acid Diss			106.0		%		50-150	27-OCT-15
DIQUAT-TCLP-WT		Waste						
Batch	R3297574							
WG2201532-3	DUP	L1693219-4						
Diquat		<0.10	<0.10	RPD-NA	mg/L	N/A	30	27-OCT-15
WG2201532-2	LCS							
Diquat			110.8		%		70-130	27-OCT-15
WG2201532-1	MB							
Diquat			<0.010		mg/L		0.01	27-OCT-15
DIURON-TCLP-WT		Waste						
Batch	R3298074							
WG2201577-3	DUP	L1693219-4						
Diuron		<0.010	<0.010	RPD-NA	mg/L	N/A	30	27-OCT-15
WG2201577-2	LCS							
Diuron			105.0		%		70-130	27-OCT-15
WG2201577-1	MB							
Diuron			<0.010		mg/L		0.01	27-OCT-15
DX-1613B-HRMS-BU		Waste						
Batch	R3300797							
WG2202507-6	DUP	L1693219-4						
2,3,7,8-TCDD		<0.79	<1.1	RPD-NA	pg/L	N/A	50	31-OCT-15
1,2,3,7,8-PeCDD		<0.29	<0.58	RPD-NA	pg/L	N/A	50	31-OCT-15
1,2,3,4,7,8-HxCDD		<0.30	<0.56	RPD-NA	pg/L	N/A	50	31-OCT-15
1,2,3,6,7,8-HxCDD		<0.31	<0.59	RPD-NA	pg/L	N/A	50	31-OCT-15
1,2,3,7,8,9-HxCDD		<0.30	<0.57	RPD-NA	pg/L	N/A	50	31-OCT-15
1,2,3,4,6,7,8-HpCDD		<0.32	<0.50	RPD-NA	pg/L	N/A	50	31-OCT-15
OCDD		<0.24	<0.45	RPD-NA	pg/L	N/A	50	31-OCT-15
2,3,7,8-TCDF		<0.61	<1.0	RPD-NA	pg/L	N/A	50	31-OCT-15
1,2,3,7,8-PeCDF		<0.33	<0.45	RPD-NA	pg/L	N/A	50	31-OCT-15
2,3,4,7,8-PeCDF		<0.31	<0.49	RPD-NA	pg/L	N/A	50	31-OCT-15
1,2,3,4,7,8-HxCDF		<0.19	<0.35	RPD-NA	pg/L	N/A	50	31-OCT-15



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Client: Covanta - Durham York Renewable Energy LP
 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed	
DX-1613B-HRMS-BU		Waste							
Batch	R3300797								
WG2202507-6	DUP	L1693219-4							
1,2,3,6,7,8-HxCDF		<0.15	<0.28	RPD-NA	pg/L	N/A	50	31-OCT-15	
2,3,4,6,7,8-HxCDF		<0.19	<0.38	RPD-NA	pg/L	N/A	50	31-OCT-15	
1,2,3,7,8,9-HxCDF		0.38	0.63	RPD-NA	pg/L	N/A	50	31-OCT-15	
1,2,3,4,6,7,8-HpCDF		<0.20	<0.33	RPD-NA	pg/L	N/A	50	31-OCT-15	
1,2,3,4,7,8,9-HpCDF		<0.28	<0.46	RPD-NA	pg/L	N/A	50	31-OCT-15	
OCDF		<0.38	<0.49	RPD-NA	pg/L	N/A	50	31-OCT-15	
Total-TCDD		<0.79	<1.1	RPD-NA	pg/L	N/A	50	31-OCT-15	
Total-PeCDD		<0.29	<0.58	RPD-NA	pg/L	N/A	50	31-OCT-15	
Total-HxCDD		<0.31	<0.59	RPD-NA	pg/L	N/A	50	31-OCT-15	
Total-HpCDD		<0.32	<0.50	RPD-NA	pg/L	N/A	50	31-OCT-15	
Total-TCDF		<0.61	<1.0	RPD-NA	pg/L	N/A	50	31-OCT-15	
Total-PeCDF		<0.33	<0.49	RPD-NA	pg/L	N/A	50	31-OCT-15	
Total-HxCDF		<0.21	<0.39	RPD-NA	pg/L	N/A	50	31-OCT-15	
Total-HpCDF		<0.28	<0.46	RPD-NA	pg/L	N/A	50	31-OCT-15	
WG2202507-2	LCS								
2,3,7,8-TCDD			100.0		%		67-158	30-OCT-15	
1,2,3,7,8-PeCDD			108.0		%		70-142	30-OCT-15	
1,2,3,4,7,8-HxCDD			102.0		%		70-164	30-OCT-15	
1,2,3,6,7,8-HxCDD			95.0		%		76-134	30-OCT-15	
1,2,3,7,8,9-HxCDD			98.0		%		64-162	30-OCT-15	
1,2,3,4,6,7,8-HpCDD			102.0		%		70-140	30-OCT-15	
OCDD			98.0		%		78-144	30-OCT-15	
2,3,7,8-TCDF			98.0		%		75-158	30-OCT-15	
1,2,3,7,8-PeCDF			100.0		%		80-134	30-OCT-15	
2,3,4,7,8-PeCDF			97.0		%		68-160	30-OCT-15	
1,2,3,4,7,8-HxCDF			103.0		%		72-134	30-OCT-15	
1,2,3,6,7,8-HxCDF			90.0		%		84-130	30-OCT-15	
2,3,4,6,7,8-HxCDF			104.0		%		78-130	30-OCT-15	
1,2,3,7,8,9-HxCDF			103.0		%		70-156	30-OCT-15	
1,2,3,4,6,7,8-HpCDF			101.0		%		82-122	30-OCT-15	
1,2,3,4,7,8,9-HpCDF			103.0		%		78-138	30-OCT-15	
OCDF			99.0		%		63-170	30-OCT-15	
WG2202507-1	MB							0.81	



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 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
DX-1613B-HRMS-BU		Waste						
Batch	R3300797							
WG2202507-1	MB							
2,3,7,8-TCDD			<0.81	[U]	pg/L		0.81	30-OCT-15
1,2,3,7,8-PeCDD			<0.38	M,U	pg/L		0.38	30-OCT-15
1,2,3,4,7,8-HxCDD			0.47	M,J,R	pg/L		0.28	30-OCT-15
1,2,3,6,7,8-HxCDD			0.30	M,J,R	pg/L		0.28	30-OCT-15
1,2,3,7,8,9-HxCDD			<0.28	[U]	pg/L		0.28	30-OCT-15
1,2,3,4,6,7,8-HpCDD			<0.32	[U]	pg/L		0.32	30-OCT-15
OCDD			1.41	M,J	pg/L		0.41	30-OCT-15
2,3,7,8-TCDF			<0.67	[U]	pg/L		0.67	30-OCT-15
1,2,3,7,8-PeCDF			0.56	J,R	pg/L		0.42	30-OCT-15
2,3,4,7,8-PeCDF			<0.38	[U]	pg/L		0.38	30-OCT-15
1,2,3,4,7,8-HxCDF			<0.24	[U]	pg/L		0.24	30-OCT-15
1,2,3,6,7,8-HxCDF			<0.20	[U]	pg/L		0.2	30-OCT-15
2,3,4,6,7,8-HxCDF			0.55	M,J,R	pg/L		0.23	30-OCT-15
1,2,3,7,8,9-HxCDF			0.75	J,R	pg/L		0.27	30-OCT-15
1,2,3,4,6,7,8-HpCDF			0.62	M,J,R	pg/L		0.26	30-OCT-15
1,2,3,4,7,8,9-HpCDF			<0.35	[U]	pg/L		0.35	30-OCT-15
OCDF			0.72	M,J,R	pg/L		0.66	30-OCT-15
Total-TCDD			<0.81	[U]	pg/L		0.81	30-OCT-15
Total-PeCDD			<0.38	[U]	pg/L		0.38	30-OCT-15
Total-HxCDD			<0.28	[U]	pg/L		0.28	30-OCT-15
Total-HpCDD			<0.32	[U]	pg/L		0.32	30-OCT-15
Total-TCDF			<0.67	[U]	pg/L		0.67	30-OCT-15
Total-PeCDF			<0.42	[U]	pg/L		0.42	30-OCT-15
Total-HxCDF			<0.27	[U]	pg/L		0.27	30-OCT-15
Total-HpCDF			<0.35	[U]	pg/L		0.35	30-OCT-15
Surrogate: 13C12-2,3,7,8-TCDD			67.0		%		20-175	30-OCT-15
Surrogate: 13C12-1,2,3,7,8-PeCDD			70.0		%		21-227	30-OCT-15
Surrogate: 13C12-1,2,3,4,7,8-HxCDD			69.0		%		21-193	30-OCT-15
Surrogate: 13C12-1,2,3,6,7,8-HxCDD			83.0		%		25-163	30-OCT-15
Surrogate: 13C12-1,2,3,4,6,7,8-HpCDD			80.0		%		23-166	30-OCT-15
Surrogate: 13C12-OCDD			63.0		%		13-138	30-OCT-15
Surrogate: 13C12-2,3,7,8-TCDF			68.0		%		22-152	30-OCT-15
Surrogate: 13C12-1,2,3,7,8-PeCDF			69.0		%		24-185	30-OCT-15



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Client: Covanta - Durham York Renewable Energy LP
1835 Energy Drive
Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
DX-1613B-HRMS-BU		Waste						
Batch	R3300797							
WG2202507-1 MB								
Surrogate: 13C12-2,3,4,7,8-PeCDF			68.0		%		21-178	30-OCT-15
Surrogate: 13C12-1,2,3,4,7,8-HxCDF			73.0		%		26-152	30-OCT-15
Surrogate: 13C12-1,2,3,6,7,8-HxCDF			79.0		%		21-159	30-OCT-15
Surrogate: 13C12-2,3,4,6,7,8-HxCDF			79.0		%		17-205	30-OCT-15
Surrogate: 13C12-1,2,3,7,8,9-HxCDF			74.0		%		28-136	30-OCT-15
Surrogate: 13C12-1,2,3,4,6,7,8-HpCDF			72.0		%		21-158	30-OCT-15
Surrogate: 13C12-1,2,3,4,7,8,9-HpCDF			69.0		%		20-186	30-OCT-15
Surrogate: 37Cl4-2,3,7,8-TCDD (Cleanup)			65.0		%		31-191	30-OCT-15
WG2202507-4 MB								
2,3,7,8-TCDD			<0.87	[U]	pg/L		0.87	30-OCT-15
1,2,3,7,8-PeCDD			0.46	M,J,R	pg/L		0.39	30-OCT-15
1,2,3,4,7,8-HxCDD			<0.34	[U]	pg/L		0.34	30-OCT-15
1,2,3,6,7,8-HxCDD			<0.35	[U]	pg/L		0.35	30-OCT-15
1,2,3,7,8,9-HxCDD			0.40	M,J,R	pg/L		0.34	30-OCT-15
1,2,3,4,6,7,8-HpCDD			0.77	M,J	pg/L		0.68	30-OCT-15
OCDD			0.83	M,J,R	pg/L		0.54	30-OCT-15
2,3,7,8-TCDF			<0.73	[U]	pg/L		0.73	30-OCT-15
1,2,3,7,8-PeCDF			<0.35	[U]	pg/L		0.35	30-OCT-15
2,3,4,7,8-PeCDF			<0.33	[U]	pg/L		0.33	30-OCT-15
1,2,3,4,7,8-HxCDF			<0.20	[U]	pg/L		0.2	30-OCT-15
1,2,3,6,7,8-HxCDF			<0.18	[U]	pg/L		0.18	30-OCT-15
2,3,4,6,7,8-HxCDF			0.44	M,J	pg/L		0.21	30-OCT-15
1,2,3,7,8,9-HxCDF			0.85	[J]	pg/L		0.27	30-OCT-15
1,2,3,4,6,7,8-HpCDF			0.61	M,J	pg/L		0.36	30-OCT-15
1,2,3,4,7,8,9-HpCDF			<0.47	[U]	pg/L		0.47	30-OCT-15
OCDF			0.57	M,J,R	pg/L		0.4	30-OCT-15
Total-TCDD			<0.87	[U]	pg/L		0.87	30-OCT-15
Total-PeCDD			<0.39	[U]	pg/L		0.39	30-OCT-15
Total-HxCDD			<0.35	[U]	pg/L		0.35	30-OCT-15
Total-HpCDD			0.77	A	pg/L		0.68	30-OCT-15
Total-TCDF			<0.73	[U]	pg/L		0.73	30-OCT-15
Total-PeCDF			<0.35	[U]	pg/L		0.35	30-OCT-15
Total-HxCDF			1.28	A	pg/L		0.27	30-OCT-15
Total-HpCDF			0.61	A	pg/L		0.47	30-OCT-15



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Client: Covanta - Durham York Renewable Energy LP
 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
DX-1613B-HRMS-BU		Waste						
Batch R3300797								
WG2202507-4 MB								
	Surrogate: 13C12-2,3,7,8-TCDD		70.0		%		20-175	30-OCT-15
	Surrogate: 13C12-1,2,3,7,8-PeCDD		75.0		%		21-227	30-OCT-15
	Surrogate: 13C12-1,2,3,4,7,8-HxCDD		81.0		%		21-193	30-OCT-15
	Surrogate: 13C12-1,2,3,6,7,8-HxCDD		83.0		%		25-163	30-OCT-15
	Surrogate: 13C12-1,2,3,4,6,7,8-HpCDD		81.0		%		23-166	30-OCT-15
	Surrogate: 13C12-OCDD		65.0		%		13-138	30-OCT-15
	Surrogate: 13C12-2,3,7,8-TCDF		73.0		%		22-152	30-OCT-15
	Surrogate: 13C12-1,2,3,7,8-PeCDF		74.0		%		24-185	30-OCT-15
	Surrogate: 13C12-2,3,4,7,8-PeCDF		73.0		%		21-178	30-OCT-15
	Surrogate: 13C12-1,2,3,4,7,8-HxCDF		75.0		%		26-152	30-OCT-15
	Surrogate: 13C12-1,2,3,6,7,8-HxCDF		85.0		%		21-159	30-OCT-15
	Surrogate: 13C12-2,3,4,6,7,8-HxCDF		84.0		%		17-205	30-OCT-15
	Surrogate: 13C12-1,2,3,7,8,9-HxCDF		76.0		%		28-136	30-OCT-15
	Surrogate: 13C12-1,2,3,4,6,7,8-HpCDF		77.0		%		21-158	30-OCT-15
	Surrogate: 13C12-1,2,3,4,7,8,9-HpCDF		76.0		%		20-186	30-OCT-15
	Surrogate: 37Cl4-2,3,7,8-TCDD (Cleanup)		73.0		%		31-191	30-OCT-15
<p>COMMENTS: There are low level 2,3,7,8 hits in the method blank. Samples with these targets are flagged if the blank concentration is >10% of the sample concentration.</p>								
WG2202507-5 MB								
	2,3,7,8-TCDD		<0.88	[U]	pg/L		0.88	30-OCT-15
	1,2,3,7,8-PeCDD		0.43	M,J	pg/L		0.36	30-OCT-15
	1,2,3,4,7,8-HxCDD		<0.36	[U]	pg/L		0.36	30-OCT-15
	1,2,3,6,7,8-HxCDD		<0.36	[U]	pg/L		0.36	30-OCT-15
	1,2,3,7,8,9-HxCDD		0.45	M,J,R	pg/L		0.35	30-OCT-15
	1,2,3,4,6,7,8-HpCDD		<0.61	[U]	pg/L		0.61	30-OCT-15
	OCDD		0.83	M,J,R	pg/L		0.53	30-OCT-15
	2,3,7,8-TCDF		<0.69	[U]	pg/L		0.69	30-OCT-15
	1,2,3,7,8-PeCDF		0.47	J,R	pg/L		0.42	30-OCT-15
	2,3,4,7,8-PeCDF		<0.39	[U]	pg/L		0.39	30-OCT-15
	1,2,3,4,7,8-HxCDF		<0.46	[U]	pg/L		0.46	30-OCT-15
	1,2,3,6,7,8-HxCDF		<0.40	[U]	pg/L		0.4	30-OCT-15
	2,3,4,6,7,8-HxCDF		<0.46	[U]	pg/L		0.46	30-OCT-15
	1,2,3,7,8,9-HxCDF		0.96	M,J,R	pg/L		0.53	30-OCT-15
	1,2,3,4,6,7,8-HpCDF		0.36	M,J,R	pg/L		0.24	30-OCT-15



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 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
DX-1613B-HRMS-BU		Waste						
Batch R3300797								
WG2202507-5 MB								
1,2,3,4,7,8,9-HpCDF			<0.32	[U]	pg/L		0.32	30-OCT-15
OCDF			<0.44	[U]	pg/L		0.44	30-OCT-15
Total-TCDD			<0.88	[U]	pg/L		0.88	30-OCT-15
Total-PeCDD			0.43	A	pg/L		0.36	30-OCT-15
Total-HxCDD			<0.36	[U]	pg/L		0.36	30-OCT-15
Total-HpCDD			<0.61	[U]	pg/L		0.61	30-OCT-15
Total-TCDF			<0.69	[U]	pg/L		0.69	30-OCT-15
Total-PeCDF			<0.42	[U]	pg/L		0.42	30-OCT-15
Total-HxCDF			<0.53	[U]	pg/L		0.53	30-OCT-15
Total-HpCDF			<0.32	[U]	pg/L		0.32	30-OCT-15
Surrogate: 13C12-2,3,7,8-TCDD			68.0		%		20-175	30-OCT-15
Surrogate: 13C12-1,2,3,7,8-PeCDD			72.0		%		21-227	30-OCT-15
Surrogate: 13C12-1,2,3,4,7,8-HxCDD			70.0		%		21-193	30-OCT-15
Surrogate: 13C12-1,2,3,6,7,8-HxCDD			87.0		%		25-163	30-OCT-15
Surrogate: 13C12-1,2,3,4,6,7,8-HpCDD			78.0		%		23-166	30-OCT-15
Surrogate: 13C12-OCDD			62.0		%		13-138	30-OCT-15
Surrogate: 13C12-2,3,7,8-TCDF			70.0		%		22-152	30-OCT-15
Surrogate: 13C12-1,2,3,7,8-PeCDF			70.0		%		24-185	30-OCT-15
Surrogate: 13C12-2,3,4,7,8-PeCDF			69.0		%		21-178	30-OCT-15
Surrogate: 13C12-1,2,3,4,7,8-HxCDF			75.0		%		26-152	30-OCT-15
Surrogate: 13C12-1,2,3,6,7,8-HxCDF			82.0		%		21-159	30-OCT-15
Surrogate: 13C12-2,3,4,6,7,8-HxCDF			81.0		%		17-205	30-OCT-15
Surrogate: 13C12-1,2,3,7,8,9-HxCDF			74.0		%		28-136	30-OCT-15
Surrogate: 13C12-1,2,3,4,6,7,8-HpCDF			74.0		%		21-158	30-OCT-15
Surrogate: 13C12-1,2,3,4,7,8,9-HpCDF			73.0		%		20-186	30-OCT-15
Surrogate: 37Cl4-2,3,7,8-TCDD (Cleanup)			69.0		%		31-191	30-OCT-15

COMMENTS: There are low level 2,3,7,8 hits in the method blank all well within the blank acceptance limits of the reference method. Samples with these targets are flagged if the blank concentration is >10% of the sample concentration.

F-TCLP-WT		Waste						
Batch R3298103								
WG2201781-3	DUP	L1693219-4						
Fluoride (F)		<10	<10	RPD-NA	mg/L	N/A	30	27-OCT-15
WG2201781-2	LCS							
Fluoride (F)			100.0		%		70-130	27-OCT-15
WG2201781-1	MB							



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 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
F-TCLP-WT		Waste						
Batch	R3298103							
WG2201781-1	MB							
Fluoride (F)			<0.50		mg/L		0.5	27-OCT-15
WG2201781-4	MS	L1693219-4						
Fluoride (F)			93.8		%		50-150	27-OCT-15
GLYPHOSATE-TCLP-WT		Waste						
Batch	R3298153							
WG2201579-3	DUP	L1693219-4						
Glyphosate		<0.050	<0.050	RPD-NA	mg/L	N/A	30	28-OCT-15
WG2201579-2	LCS							
Glyphosate			105.8		%		70-130	28-OCT-15
WG2201579-1	MB							
Glyphosate			<0.050		mg/L		0.05	28-OCT-15
HG-TCLP-WT		Waste						
Batch	R3297342							
WG2201635-3	DUP	L1693219-4						
Mercury (Hg)		<0.00010	<0.00010	RPD-NA	mg/L	N/A	50	27-OCT-15
WG2201635-2	LCS							
Mercury (Hg)			102.0		%		70-130	27-OCT-15
WG2201635-1	MB							
Mercury (Hg)			<0.00010		mg/L		0.0001	27-OCT-15
WG2201635-4	MS	L1693085-1						
Mercury (Hg)			90.7		%		50-140	27-OCT-15
MET-TCLP-WT		Waste						
Batch	R3297836							
WG2201847-4	DUP	WG2201847-3						
Silver (Ag)		<0.0050	<0.0050	RPD-NA	mg/L	N/A	40	27-OCT-15
Arsenic (As)		<0.050	<0.050	RPD-NA	mg/L	N/A	40	27-OCT-15
Boron (B)		<2.5	<2.5	RPD-NA	mg/L	N/A	40	27-OCT-15
Barium (Ba)		1.89	1.69		mg/L	11	40	27-OCT-15
Cadmium (Cd)		<0.0050	<0.0050	RPD-NA	mg/L	N/A	40	27-OCT-15
Chromium (Cr)		<0.050	<0.050	RPD-NA	mg/L	N/A	40	27-OCT-15
Lead (Pb)		<0.050	<0.050	RPD-NA	mg/L	N/A	40	27-OCT-15
Selenium (Se)		<0.25	<0.25	RPD-NA	mg/L	N/A	40	27-OCT-15
Uranium (U)		<0.25	<0.25	RPD-NA	mg/L	N/A	40	27-OCT-15
WG2201847-2	LCS							
Silver (Ag)			103.8		%		70-130	27-OCT-15



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1835 Energy Drive
Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-TCLP-WT		Waste						
Batch	R3297836							
WG2201847-2	LCS							
Arsenic (As)			96.4		%		70-130	27-OCT-15
Boron (B)			92.2		%		70-130	27-OCT-15
Barium (Ba)			100.1		%		70-130	27-OCT-15
Cadmium (Cd)			97.6		%		70-130	27-OCT-15
Chromium (Cr)			93.4		%		70-130	27-OCT-15
Lead (Pb)			96.9		%		70-130	27-OCT-15
Selenium (Se)			94.9		%		70-130	27-OCT-15
Uranium (U)			96.5		%		70-130	27-OCT-15
WG2201847-1	MB							
Silver (Ag)			<0.0050		mg/L		0.005	27-OCT-15
Arsenic (As)			<0.050		mg/L		0.05	27-OCT-15
Boron (B)			<2.5		mg/L		2.5	27-OCT-15
Barium (Ba)			<0.50		mg/L		0.5	27-OCT-15
Cadmium (Cd)			<0.0050		mg/L		0.005	27-OCT-15
Chromium (Cr)			<0.050		mg/L		0.05	27-OCT-15
Lead (Pb)			<0.050		mg/L		0.05	27-OCT-15
Selenium (Se)			<0.25		mg/L		0.25	27-OCT-15
Uranium (U)			<0.25		mg/L		0.25	27-OCT-15
WG2201847-5	MS	WG2201847-3						
Silver (Ag)			118.1		%		50-150	27-OCT-15
Arsenic (As)			93.9		%		50-150	27-OCT-15
Boron (B)			90.8		%		50-150	27-OCT-15
Barium (Ba)			94.6		%		50-150	27-OCT-15
Cadmium (Cd)			91.9		%		50-150	27-OCT-15
Chromium (Cr)			94.2		%		50-150	27-OCT-15
Lead (Pb)			91.5		%		50-150	27-OCT-15
Selenium (Se)			93.9		%		50-150	27-OCT-15
Uranium (U)			93.5		%		50-150	27-OCT-15
N2N3-TCLP-WT		Waste						
Batch	R3298103							
WG2201781-3	DUP	L1693219-4						
Nitrate-N		<2.0	<2.0	RPD-NA	mg/L	N/A	30	27-OCT-15
Nitrite-N		<2.0	<2.0	RPD-NA	mg/L	N/A	30	27-OCT-15
WG2201781-2	LCS							



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Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
N2N3-TCLP-WT		Waste						
Batch	R3298103							
WG2201781-2	LCS							
Nitrate-N			99.5		%		70-130	27-OCT-15
Nitrite-N			100.1		%		70-130	27-OCT-15
WG2201781-1	MB							
Nitrate-N			<0.10		mg/L		0.1	27-OCT-15
Nitrite-N			<0.10		mg/L		0.1	27-OCT-15
WG2201781-4	MS	L1693219-4						
Nitrate-N			98.9		%		50-150	27-OCT-15
Nitrite-N			99.7		%		50-150	27-OCT-15
NDMA-TCLP-WT		Waste						
Batch	R3298808							
WG2201932-3	DUP	WG2201932-5						
N-Nitrosodimethylamine		<0.00020	<0.00020	RPD-NA	mg/L	N/A	50	28-OCT-15
WG2201932-2	LCS							
N-Nitrosodimethylamine			108.8		%		50-150	28-OCT-15
WG2201932-1	MB							
N-Nitrosodimethylamine			<0.00020		mg/L		0.0002	28-OCT-15
WG2201932-4	MS	WG2201932-5						
N-Nitrosodimethylamine			109.0		%		50-150	29-OCT-15
NTA-TCLP-WT		Waste						
Batch	R3297403							
WG2201654-3	DUP	L1692474-1						
Nitrotriacetic Acid (NTA)		<40	<0.20	RPD-NA	mg/L	N/A	25	27-OCT-15
WG2201654-2	LCS							
Nitrotriacetic Acid (NTA)			97.0		%		75-125	27-OCT-15
WG2201654-1	MB							
Nitrotriacetic Acid (NTA)			<0.20		mg/L		0.2	27-OCT-15
PARAQUAT-TCLP-WT		Waste						
Batch	R3297574							
WG2201532-3	DUP	L1693219-4						
Paraquat		<0.10	<0.10	RPD-NA	mg/L	N/A	50	27-OCT-15
WG2201532-2	LCS							
Paraquat			82.0		%		50-150	27-OCT-15
WG2201532-1	MB							
Paraquat			<0.010		mg/L		0.01	27-OCT-15
PCB-TCLP-WT		Waste						



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1835 Energy Drive
Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PCB-TCLP-WT		Waste						
Batch	R3297975							
WG2201918-3	DUP	WG2201918-5						
Aroclor 1242		<0.00020	<0.00020	RPD-NA	mg/L	N/A	50	28-OCT-15
Aroclor 1248		<0.00020	<0.00020	RPD-NA	mg/L	N/A	50	28-OCT-15
Aroclor 1254		<0.00020	<0.00020	RPD-NA	mg/L	N/A	50	28-OCT-15
Aroclor 1260		<0.00020	<0.00020	RPD-NA	mg/L	N/A	50	28-OCT-15
WG2201918-2	LCS							
Aroclor 1242			95.7		%		65-130	28-OCT-15
Aroclor 1248			80.4		%		65-130	28-OCT-15
Aroclor 1254			87.1		%		65-130	28-OCT-15
Aroclor 1260			89.1		%		65-130	28-OCT-15
WG2201918-1	MB							
Aroclor 1242			<0.00020		mg/L		0.0002	28-OCT-15
Aroclor 1248			<0.00020		mg/L		0.0002	28-OCT-15
Aroclor 1254			<0.00020		mg/L		0.0002	28-OCT-15
Aroclor 1260			<0.00020		mg/L		0.0002	28-OCT-15
Surrogate: 2-Fluorobiphenyl			77.5		%		40-160	28-OCT-15
WG2201918-4	MS	WG2201918-5						
Aroclor 1242			95.4		%		50-150	28-OCT-15
Aroclor 1254			77.3		%		50-150	28-OCT-15
Aroclor 1260			63.0		%		50-150	28-OCT-15
PEST-MISC-TCLP-WT		Waste						
Batch	R3298162							
WG2201536-5	DUP	WG2201536-3						
Atrazine Desethyl		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
Atrazine		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
Bendiocarb		<0.0050	<0.0050	RPD-NA	mg/L	N/A	50	28-OCT-15
Trifluralin		<0.0050	<0.0050	RPD-NA	mg/L	N/A	50	28-OCT-15
Phorate		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
Dimethoate		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
Simazine		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
Carbofuran		<0.0020	<0.0020	RPD-NA	mg/L	N/A	50	28-OCT-15
Terbufos		<0.0020	<0.0020	RPD-NA	mg/L	N/A	50	28-OCT-15
Diazinon		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
Triallate		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
Metribuzin		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15



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Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PEST-MISC-TCLP-WT		Waste						
Batch	R3298162							
WG2201536-5	DUP	WG2201536-3						
Carbaryl		<0.0020	<0.0020	RPD-NA	mg/L	N/A	50	28-OCT-15
Alachlor		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
Prometryne		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
Malathion		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
Metolachlor		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
Methyl Parathion		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
Parathion		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
Cyanazine		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
Chlorpyrifos		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
Diclofop methyl		<0.0020	<0.0020	RPD-NA	mg/L	N/A	50	28-OCT-15
Azinphos methyl		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
Benzo(a)pyrene		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
Temephos		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
WG2201536-2	LCS							
Atrazine Desethyl			60.1		%		50-140	28-OCT-15
Atrazine			113.7		%		60-140	28-OCT-15
Bendiocarb			97.0		%		50-140	28-OCT-15
Trifluralin			88.9		%		60-140	28-OCT-15
Phorate			90.5		%		60-140	28-OCT-15
Dimethoate			91.3		%		60-140	28-OCT-15
Simazine			102.1		%		60-140	28-OCT-15
Carbofuran			96.3		%		60-140	28-OCT-15
Terbufos			92.1		%		60-140	28-OCT-15
Diazinon			91.4		%		60-140	28-OCT-15
Triallate			106.0		%		60-140	28-OCT-15
Metribuzin			102.1		%		60-140	28-OCT-15
Carbaryl			95.5		%		50-175	28-OCT-15
Alachlor			113.9		%		60-140	28-OCT-15
Prometryne			114.3		%		60-140	28-OCT-15
Malathion			106.2		%		60-130	28-OCT-15
Metolachlor			110.5		%		60-140	28-OCT-15
Methyl Parathion			99.9		%		60-140	28-OCT-15
Parathion			116.6		%		60-140	28-OCT-15



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 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PEST-MISC-TCLP-WT		Waste						
Batch	R3298162							
WG2201536-2	LCS							
Cyanazine			106.4		%		60-140	28-OCT-15
Chlorpyrifos			107.8		%		60-140	28-OCT-15
Diclofop methyl			116.6		%		60-140	28-OCT-15
Azinphos methyl			122.7		%		60-140	28-OCT-15
Benzo(a)pyrene			107.6		%		60-140	28-OCT-15
Temephos			118.5		%		60-140	28-OCT-15
WG2201536-1	MB							
Atrazine Desethyl			<0.0010		mg/L		0.001	28-OCT-15
Atrazine			<0.0010		mg/L		0.001	28-OCT-15
Bendiocarb			<0.0050		mg/L		0.005	28-OCT-15
Trifluralin			<0.0050		mg/L		0.005	28-OCT-15
Phorate			<0.0010		mg/L		0.001	28-OCT-15
Dimethoate			<0.0010		mg/L		0.001	28-OCT-15
Simazine			<0.0010		mg/L		0.001	28-OCT-15
Carbofuran			<0.0020		mg/L		0.002	28-OCT-15
Terbufos			<0.0020		mg/L		0.002	28-OCT-15
Diazinon			<0.0010		mg/L		0.001	28-OCT-15
Triallate			<0.0010		mg/L		0.001	28-OCT-15
Metribuzin			<0.0010		mg/L		0.001	28-OCT-15
Carbaryl			<0.0020		mg/L		0.002	28-OCT-15
Alachlor			<0.0010		mg/L		0.001	28-OCT-15
Prometryne			<0.0010		mg/L		0.001	28-OCT-15
Malathion			<0.0010		mg/L		0.001	28-OCT-15
Metolachlor			<0.0010		mg/L		0.001	28-OCT-15
Methyl Parathion			<0.0010		mg/L		0.001	28-OCT-15
Parathion			<0.0010		mg/L		0.001	28-OCT-15
Cyanazine			<0.0010		mg/L		0.001	28-OCT-15
Chlorpyrifos			<0.0010		mg/L		0.001	28-OCT-15
Diclofop methyl			<0.0020		mg/L		0.002	28-OCT-15
Azinphos methyl			<0.0010		mg/L		0.001	28-OCT-15
Benzo(a)pyrene			<0.0010		mg/L		0.001	28-OCT-15
Temephos			<0.0010		mg/L		0.001	28-OCT-15
Surrogate: 2-Fluorobiphenyl			74.8		%		40-160	28-OCT-15
Surrogate: d14-Terphenyl			75.4		%		60-140	28-OCT-15



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Client: Covanta - Durham York Renewable Energy LP
 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PEST-MISC-TCLP-WT		Waste						
Batch	R3298162							
WG2201536-4 MS	WG2201536-3							
Atrazine Desethyl			61.6		%		50-150	28-OCT-15
Atrazine			117.0		%		50-150	28-OCT-15
Bendiocarb			94.4		%		50-150	28-OCT-15
Trifluralin			82.2		%		50-150	28-OCT-15
Phorate			82.7		%		50-150	28-OCT-15
Dimethoate			87.9		%		50-150	28-OCT-15
Simazine			102.0		%		50-150	28-OCT-15
Carbofuran			94.7		%		50-150	28-OCT-15
Terbufos			88.3		%		50-150	28-OCT-15
Diazinon			85.7		%		50-150	28-OCT-15
Triallate			96.3		%		50-150	28-OCT-15
Metribuzin			100.3		%		50-150	28-OCT-15
Carbaryl			87.8		%		50-150	28-OCT-15
Alachlor			112.4		%		50-150	28-OCT-15
Prometryne			115.4		%		50-150	28-OCT-15
Malathion			105.4		%		50-150	28-OCT-15
Metolachlor			108.0		%		50-150	28-OCT-15
Methyl Parathion			94.0		%		50-150	28-OCT-15
Parathion			113.0		%		50-150	28-OCT-15
Cyanazine			92.7		%		50-150	28-OCT-15
Chlorpyrifos			102.7		%		50-150	28-OCT-15
Diclofop methyl			147.6		%		50-150	28-OCT-15
Azinphos methyl			118.1		%		50-150	28-OCT-15
Benzo(a)pyrene			101.4		%		50-150	28-OCT-15
Temephos			125.0		%		50-150	28-OCT-15

PEST-OC-TCLP-WT		Waste						
Batch	R3298054							
WG2201536-5 DUP	WG2201536-3							
gamma-BHC		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
Heptachlor		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
Heptachlor epoxide		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
Oxychlordan		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
gamma-Chlordane		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15



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Client: Covanta - Durham York Renewable Energy LP
 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PEST-OC-TCLP-WT		Waste						
Batch	R3298054							
WG2201536-5	DUP	WG2201536-3						
alpha-Chlordane		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
Aldrin		<0.00020	<0.00020	RPD-NA	mg/L	N/A	50	28-OCT-15
Dieldrin		<0.00020	<0.00020	RPD-NA	mg/L	N/A	50	28-OCT-15
Endrin		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
p,p-DDE		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
p,p-DDD		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
p,p-DDT		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
o,p-DDT		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
Methoxychlor		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
WG2201536-2	LCS							
gamma-BHC			94.8		%		50-150	28-OCT-15
Heptachlor			94.1		%		25-175	28-OCT-15
Heptachlor epoxide			81.9		%		25-175	28-OCT-15
Oxychlordane			78.6		%		25-175	28-OCT-15
gamma-Chlordane			83.9		%		25-175	28-OCT-15
alpha-Chlordane			84.5		%		25-175	28-OCT-15
Aldrin			107.5		%		25-175	28-OCT-15
Dieldrin			82.9		%		25-175	28-OCT-15
Endrin			104.6		%		50-150	28-OCT-15
p,p-DDE			72.2		%		25-175	28-OCT-15
p,p-DDD			76.7		%		25-175	28-OCT-15
p,p-DDT			91.0		%		25-175	28-OCT-15
o,p-DDT			83.4		%		50-130	28-OCT-15
Methoxychlor			108.5		%		25-175	28-OCT-15
WG2201536-1	MB							
gamma-BHC			<0.0010		mg/L		0.001	28-OCT-15
Heptachlor			<0.0010		mg/L		0.001	28-OCT-15
Heptachlor epoxide			<0.0010		mg/L		0.001	28-OCT-15
Oxychlordane			<0.0010		mg/L		0.001	28-OCT-15
gamma-Chlordane			<0.0010		mg/L		0.001	28-OCT-15
alpha-Chlordane			<0.0010		mg/L		0.001	28-OCT-15
Aldrin			<0.00020		mg/L		0.0002	28-OCT-15
Dieldrin			<0.00020		mg/L		0.0002	28-OCT-15
Endrin			<0.0010		mg/L		0.001	28-OCT-15



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Client: Covanta - Durham York Renewable Energy LP
 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed	
PEST-OC-TCLP-WT		Waste							
Batch	R3298054								
WG2201536-1	MB								
p,p-DDE			<0.0010		mg/L		0.001	28-OCT-15	
p,p-DDD			<0.0010		mg/L		0.001	28-OCT-15	
p,p-DDT			<0.0010		mg/L		0.001	28-OCT-15	
o,p-DDT			<0.0010		mg/L		0.001	28-OCT-15	
Methoxychlor			<0.0010		mg/L		0.001	28-OCT-15	
Surrogate: d14-Terphenyl			113.1		%		60-140	28-OCT-15	
WG2201536-4	MS	WG2201536-3							
gamma-BHC			82.5		%		50-150	28-OCT-15	
Heptachlor			84.4		%		50-150	28-OCT-15	
Heptachlor epoxide			68.7		%		50-150	28-OCT-15	
Oxychlorane			74.2		%		50-150	28-OCT-15	
gamma-Chlordane			71.7		%		50-150	28-OCT-15	
alpha-Chlordane			73.4		%		50-150	28-OCT-15	
Aldrin			99.6		%		50-150	28-OCT-15	
Dieldrin			69.8		%		50-150	28-OCT-15	
Endrin			97.6		%		50-150	28-OCT-15	
p,p-DDE			71.2		%		50-150	28-OCT-15	
p,p-DDD			76.6		%		50-150	28-OCT-15	
p,p-DDT			89.4		%		50-150	28-OCT-15	
o,p-DDT			79.4		%		50-150	28-OCT-15	
Methoxychlor			108.1		%		50-150	28-OCT-15	
PEST-PAHERB-TCLP-WT		Waste							
Batch	R3298128								
WG2201534-5	DUP	WG2201534-3							
2,4,5-TP			<0.0020	<0.0020	RPD-NA	mg/L	N/A	50	28-OCT-15
MCPA			<0.0020	<0.0020	RPD-NA	mg/L	N/A	50	28-OCT-15
2,4,5-T			<0.0020	<0.0020	RPD-NA	mg/L	N/A	50	28-OCT-15
2,4-D			<0.0020	<0.0020	RPD-NA	mg/L	N/A	50	28-OCT-15
Bromoxynil			<0.0020	<0.0020	RPD-NA	mg/L	N/A	50	28-OCT-15
Dicamba			<0.0050	<0.0050	RPD-NA	mg/L	N/A	50	28-OCT-15
Dinoseb			<0.0020	<0.0020	RPD-NA	mg/L	N/A	50	28-OCT-15
Picloram			<0.0050	<0.0050	RPD-NA	mg/L	N/A	50	28-OCT-15
WG2201534-2	LCS								
2,4,5-TP			134.8		%		65-135	28-OCT-15	



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Client: Covanta - Durham York Renewable Energy LP
 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PEST-PAHERB-TCLP-WT Waste								
Batch	R3298128							
WG2201534-2	LCS							
MCPA			132.9		%		65-135	28-OCT-15
2,4,5-T			133.8		%		65-135	28-OCT-15
2,4-D			140.1		%		25-175	28-OCT-15
Bromoxynil			128.4		%		65-135	28-OCT-15
Dicamba			75.5		%		30-150	28-OCT-15
Dinoseb			144.0		%		30-150	28-OCT-15
Picloram			35.7		%		25-120	28-OCT-15
WG2201534-1	MB							
2,4,5-TP			<0.0020		mg/L		0.002	28-OCT-15
MCPA			<0.0020		mg/L		0.002	28-OCT-15
2,4,5-T			<0.0020		mg/L		0.002	28-OCT-15
2,4-D			<0.0020		mg/L		0.002	28-OCT-15
Bromoxynil			<0.0020		mg/L		0.002	28-OCT-15
Dicamba			<0.0050		mg/L		0.005	28-OCT-15
Dinoseb			<0.0020		mg/L		0.002	28-OCT-15
Picloram			<0.0050		mg/L		0.005	28-OCT-15
Surrogate: 2,4-Dichlorophenylacetic Acid			136.3		%		50-150	28-OCT-15
WG2201534-4	MS	WG2201534-3						
2,4,5-TP			128.2		%		50-150	28-OCT-15
MCPA			126.6		%		50-150	28-OCT-15
2,4,5-T			126.7		%		50-150	28-OCT-15
2,4-D			137.3		%		50-150	28-OCT-15
Bromoxynil			120.6		%		50-150	28-OCT-15
Dicamba			56.0		%		50-150	28-OCT-15
Dinoseb			143.8		%		30-150	28-OCT-15
Picloram			32.1		%		25-150	28-OCT-15
PYR-TCLP-WT Waste								
Batch	R3298293							
WG2201455-3	DUP	L1693219-1						
Pyridine		<5.0	<5.0	RPD-NA	mg/L	N/A	30	27-OCT-15
WG2201455-5	LCS							
Pyridine			102.0		%		70-130	27-OCT-15
WG2201455-2	MB							
Pyridine			<5.0		mg/L		5	27-OCT-15
WG2201455-4	MS	L1693219-2						



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Client: Covanta - Durham York Renewable Energy LP
 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PYR-TCLP-WT								
	Waste							
Batch	R3298293							
WG2201455-4	MS	L1693219-2						
Pyridine			102.0		%		50-150	27-OCT-15
TOXAPHENE-TCLP-WT								
	Waste							
Batch	R3298297							
WG2201537-5	DUP	WG2201537-3						
Toxaphene		<0.0035	<0.0035	RPD-NA	mg/L	N/A	50	28-OCT-15
WG2201537-2	LCS							
Toxaphene			109.6		%		50-150	28-OCT-15
WG2201537-1	MB							
Toxaphene			<0.0035		mg/L		0.0035	28-OCT-15
Surrogate: Decachlorobiphenyl			106.0		%		50-150	28-OCT-15
Surrogate: Tetrachloro-m-xylene			95.4		%		50-150	28-OCT-15
WG2201537-4	MS	WG2201537-3						
Toxaphene			121.6		%		50-150	28-OCT-15
VOC-TCLP-WT								
	Waste							
Batch	R3298186							
WG2201425-4	DUP	L1693219-4						
1,1-Dichloroethylene		<0.025	<0.025	RPD-NA	mg/L	N/A	50	28-OCT-15
1,2-Dichlorobenzene		<0.025	<0.025	RPD-NA	mg/L	N/A	50	28-OCT-15
1,2-Dichloroethane		<0.025	<0.025	RPD-NA	mg/L	N/A	50	28-OCT-15
1,4-Dichlorobenzene		<0.025	<0.025	RPD-NA	mg/L	N/A	50	28-OCT-15
Benzene		<0.025	<0.025	RPD-NA	mg/L	N/A	50	28-OCT-15
Carbon tetrachloride		<0.025	<0.025	RPD-NA	mg/L	N/A	50	28-OCT-15
Chlorobenzene		<0.025	<0.025	RPD-NA	mg/L	N/A	50	28-OCT-15
Chloroform		<0.10	<0.10	RPD-NA	mg/L	N/A	50	28-OCT-15
Dichloromethane		<0.50	<0.50	RPD-NA	mg/L	N/A	50	28-OCT-15
Methyl Ethyl Ketone		<1.0	<1.0	RPD-NA	mg/L	N/A	50	28-OCT-15
Tetrachloroethylene		<0.025	<0.025	RPD-NA	mg/L	N/A	50	28-OCT-15
Trichloroethylene		<0.025	<0.025	RPD-NA	mg/L	N/A	50	28-OCT-15
Vinyl chloride		<0.050	<0.050	RPD-NA	mg/L	N/A	50	28-OCT-15
WG2201425-1	LCS							
1,1-Dichloroethylene			104.7		%		70-130	28-OCT-15
1,2-Dichlorobenzene			106.8		%		70-130	28-OCT-15
1,2-Dichloroethane			107.5		%		70-130	28-OCT-15



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Client: Covanta - Durham York Renewable Energy LP
 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-TCLP-WT								
	Waste							
Batch	R3298186							
WG2201425-1	LCS							
1,4-Dichlorobenzene			109.4		%		70-130	28-OCT-15
Benzene			107.3		%		70-130	28-OCT-15
Carbon tetrachloride			110.0		%		60-140	28-OCT-15
Chlorobenzene			106.6		%		70-130	28-OCT-15
Chloroform			107.2		%		70-130	28-OCT-15
Dichloromethane			107.8		%		70-130	28-OCT-15
Methyl Ethyl Ketone			101.7		%		50-150	28-OCT-15
Tetrachloroethylene			100.3		%		70-130	28-OCT-15
Trichloroethylene			103.6		%		70-130	28-OCT-15
Vinyl chloride			108.1		%		60-130	28-OCT-15
WG2201425-2	MB							
1,1-Dichloroethylene			<0.025		mg/L		0.025	28-OCT-15
1,2-Dichlorobenzene			<0.025		mg/L		0.025	28-OCT-15
1,2-Dichloroethane			<0.025		mg/L		0.025	28-OCT-15
1,4-Dichlorobenzene			<0.025		mg/L		0.025	28-OCT-15
Benzene			<0.025		mg/L		0.025	28-OCT-15
Carbon tetrachloride			<0.025		mg/L		0.025	28-OCT-15
Chlorobenzene			<0.025		mg/L		0.025	28-OCT-15
Chloroform			<0.10		mg/L		0.1	28-OCT-15
Dichloromethane			<0.50		mg/L		0.5	28-OCT-15
Methyl Ethyl Ketone			<1.0		mg/L		1	28-OCT-15
Tetrachloroethylene			<0.025		mg/L		0.025	28-OCT-15
Trichloroethylene			<0.025		mg/L		0.025	28-OCT-15
Vinyl chloride			<0.050		mg/L		0.05	28-OCT-15
Surrogate: 1,4-Difluorobenzene			99.8		%		50-150	28-OCT-15
Surrogate: 4-Bromofluorobenzene			96.0		%		70-130	28-OCT-15
WG2201425-5	MS	L1693219-4						
1,1-Dichloroethylene			98.6		%		50-140	28-OCT-15
1,2-Dichlorobenzene			107.6		%		50-140	28-OCT-15
1,2-Dichloroethane			121.1		%		50-140	28-OCT-15
1,4-Dichlorobenzene			105.3		%		50-140	28-OCT-15
Benzene			110.2		%		50-140	28-OCT-15
Carbon tetrachloride			108.2		%		50-140	28-OCT-15
Chlorobenzene			106.5		%		50-140	28-OCT-15



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Workorder: L1693219

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Client: Covanta - Durham York Renewable Energy LP
 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-TCLP-WT								
	Waste							
Batch	R3298186							
WG2201425-5 MS		L1693219-4						
Chloroform			112.0		%		50-140	28-OCT-15
Dichloromethane			115.3		%		50-140	28-OCT-15
Methyl Ethyl Ketone			128.3		%		50-140	28-OCT-15
Tetrachloroethylene			93.6		%		50-140	28-OCT-15
Trichloroethylene			101.9		%		50-140	28-OCT-15
Vinyl chloride			100.5		%		50-140	28-OCT-15

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Client: Covanta - Durham York Renewable Energy LP
1835 Energy Drive
Courtice ON L1E 2R2
Contact: Leon Brasowski

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Legend:

Limit	ALS Control Limit (Data Quality Objectives)
DUP	Duplicate
RPD	Relative Percent Difference
N/A	Not Available
LCS	Laboratory Control Sample
SRM	Standard Reference Material
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ADE	Average Desorption Efficiency
MB	Method Blank
IRM	Internal Reference Material
CRM	Certified Reference Material
CCV	Continuing Calibration Verification
CVS	Calibration Verification Standard
LCSD	Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
A	Method Blank exceeds ALS DQO. Refer to narrative comments for further information.
DLI	Detection Limit Raised: Dilution required to address Internal Standard response problems caused by matrix interference.
J,R	The analyte was detected below the calibrated range but above the EDL, and the ion abundance ratio(s) did not meet the acceptance criteria. Value is an estimated maximum.
M,J	A peak has been manually integrated, and the analyte was detected below the calibrated range but above the EDL.
M,J,R	A peak has been manually integrated, the analyte was detected below the calibrated range but above the EDL, and the ion abundance ratio(s) did not meet the acceptance criteria. Value is an estimated maximum.
M,U	A peak has been manually integrated, and the analyte was not detected above the EDL.
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.
[J]	The analyte was detected below the calibrated range but above the EDL.
[U]	The analyte was not detected above the EDL.

Hold Time Exceedances:

All test results reported with this submission were conducted within ALS recommended hold times.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.



L1693219-COFC

COC Number: 14 -

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Report To		Report Format / Distribution			Select Service Level Below (Rush Turnaround Time (TAT) is not available for all tests)																																																																																																																																																																																																																																																																
Company: COVANTA - Account Number 24244		Select Report Format: <input checked="" type="checkbox"/> PDF <input checked="" type="checkbox"/> EXCEL <input type="checkbox"/> EDD (DIGITAL)			R <input type="checkbox"/> Regular (Standard TAT if received by 3 pm - business days) P <input type="checkbox"/> Priority (2-4 bus. days if received by 3pm) 50% surcharge - contact ALS to confirm TAT E <input checked="" type="checkbox"/> Emergency (1-2 bus. days if received by 3pm) 100% surcharge - contact ALS to confirm TAT E2 <input type="checkbox"/> Same day or weekend emergency - contact ALS to confirm TAT and surcharge																																																																																																																																																																																																																																																																
Contact: Amanda Huxter BSc ASCT		Quality Control (QC) Report with Report <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			Specify Date Required for E2,E or P: <input type="checkbox"/> Regular TAT 10-15 Business Days																																																																																																																																																																																																																																																																
Address: 1835 Energy Drive Courtice, Ontario, L1E 2R2		<input checked="" type="checkbox"/> Criteria on Report - provide details below if box checked Select Distribution: <input checked="" type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX																																																																																																																																																																																																																																																																			
Phone: 905-404-4041 Cell: 289-685-5291		Email 1 or Fax lbrasowski@covanta.com			Analysis Request Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below																																																																																																																																																																																																																																																																
		Email 2 ahuxter@covanta.com																																																																																																																																																																																																																																																																			
Invoice To Same as Report To <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Invoice Distribution			<table border="1" style="width:100%; height:100%; border-collapse: collapse;"> <tr> <td colspan="10"></td> <td colspan="2" rowspan="10" style="writing-mode: vertical-rl; transform: rotate(180deg);">Number of Containers</td> </tr> <tr> <td colspan="10">Select Invoice Distribution: <input checked="" type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX</td> </tr> <tr> <td colspan="10">Email 1 or Fax lbrasowski@covanta.com</td> </tr> <tr> <td colspan="10">Email 2 ahuxter@covanta.com</td> </tr> <tr> <td colspan="10" style="text-align: center;">Oil and Gas Required Fields (client use)</td> </tr> <tr> <td colspan="5">Approver ID:</td> <td colspan="5">Cost Center:</td> </tr> <tr> <td colspan="5">GL Account:</td> <td colspan="5">Routing Code:</td> </tr> <tr> <td colspan="5">Activity Code:</td> <td colspan="5">Location:</td> </tr> <tr> <td colspan="5">ALS Lab Work Order # (lab use only) <i>1693219 20A</i></td> <td colspan="5">ALS Contact: Wayne Smith</td> <td colspan="5">Sampler: Amanda Huxter</td> </tr> <tr> <td colspan="5">ALS Sample # (lab use only)</td> <td colspan="5">Sample Identification and/or Coordinates (This description will appear on the report)</td> <td colspan="5">Date (dd-mmm-yy)</td> <td colspan="5">Time (hh:mm)</td> <td colspan="5">Sample Type</td> </tr> <tr> <td colspan="5">1</td> <td colspan="5">DYEC/FA/151025/1</td> <td colspan="5">26-Oct-15</td> <td colspan="5">08:00</td> <td colspan="5">Soil</td> </tr> <tr> <td colspan="5">2</td> <td colspan="5">DYEC/FA/151025/2</td> <td colspan="5">26-Oct-15</td> <td colspan="5">08:00</td> <td colspan="5">Soil</td> </tr> <tr> <td colspan="5">3</td> <td colspan="5">DYEC/FA/151025/3</td> <td colspan="5">26-Oct-15</td> <td colspan="5">08:00</td> <td colspan="5">Soil</td> </tr> <tr> <td colspan="5">4</td> <td colspan="5">DYEC/FA/151025/4</td> <td colspan="5">26-Oct-15</td> <td colspan="5">08:00</td> <td colspan="5">Soil</td> </tr> <tr> <td colspan="5">5</td> <td colspan="5">DYEC/FA/151025/SPARE</td> <td colspan="5">26-Oct-15</td> <td colspan="5">08:00</td> <td colspan="5">Soil</td> </tr> </table>																				Number of Containers		Select Invoice Distribution: <input checked="" type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX										Email 1 or Fax lbrasowski@covanta.com										Email 2 ahuxter@covanta.com										Oil and Gas Required Fields (client use)										Approver ID:					Cost Center:					GL Account:					Routing Code:					Activity Code:					Location:					ALS Lab Work Order # (lab use only) <i>1693219 20A</i>					ALS Contact: Wayne Smith					Sampler: Amanda Huxter					ALS Sample # (lab use only)					Sample Identification and/or Coordinates (This description will appear on the report)					Date (dd-mmm-yy)					Time (hh:mm)					Sample Type					1					DYEC/FA/151025/1					26-Oct-15					08:00					Soil					2					DYEC/FA/151025/2					26-Oct-15					08:00					Soil					3					DYEC/FA/151025/3					26-Oct-15					08:00					Soil					4					DYEC/FA/151025/4					26-Oct-15					08:00					Soil					5					DYEC/FA/151025/SPARE					26-Oct-15					08:00					Soil				
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Drinking Water (DW) Samples ¹ (client use)		Special Instructions / Specify Criteria to add on report (client Use)			SAMPLE CONDITION AS RECEIVED (lab use only)														
Are samples taken from a Regulated DW System? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Regulation 347 Criteria Report, utilize spare only if required.			Frozen <input type="checkbox"/> SIF Observations Yes <input type="checkbox"/> No <input type="checkbox"/> Ice packs Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Custody seal intact Yes <input type="checkbox"/> No <input type="checkbox"/> Cooling Initiated <input checked="" type="checkbox"/>														
Are samples for human drinking water use? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					INITIAL COOLER TEMPERATURES °C: <i>16.5</i> FINAL COOLER TEMPERATURES °C:														
SHIPMENT RELEASE (client use)		INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)														
Released by: Leon Brasowski		Date: October 26, 2015	Time: 9 am	Received by:	Date:	Time:	Received by:	Date:	Time:	<i>16.5</i> <i>20 OCT 2015 1:30</i>									



Covanta - Durham York Renewable Energy
LP
ATTN: Leon Brasowski
1835 Energy Drive
Courtice ON L1E 2R2

Date Received: 25-OCT-15
Report Date: 02-NOV-15 09:00 (MT)
Version: FINAL

Client Phone: 905-404-4041

Certificate of Analysis

Lab Work Order #: L1693085
Project P.O. #: NOT SUBMITTED
Job Reference: DYEC - FLY ASH PROJECT
C of C Numbers:
Legal Site Desc:

Mary-Lynn Pires
Account Manager

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ADDRESS: 60 Northland Road, Unit 1, Waterloo, ON N2V 2B8 Canada | Phone: +1 519 886 6910 | Fax: +1 519 886 9047
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ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte									
L1693085-1	DYEC/FA/151024/1									
Sampled By: A. HUXTER on 25-OCT-15 @ 08:0										
Matrix: SOIL										
Sample Preparation										
Initial pH		12.33		0.10	pH units	25-OCT-15				
Final pH		11.70		0.10	pH units	25-OCT-15				
TCLP Extractables										
Alachlor		<0.0010		0.0010	mg/L	28-OCT-15				
Aldicarb		<0.010		0.010	mg/L	26-OCT-15	0.9			
Aldrin		<0.00020		0.00020	mg/L	28-OCT-15				
Aldrin + Dieldrin		<0.00040		0.00040	mg/L	28-OCT-15	0.07			
alpha-Chlordane		<0.0010		0.0010	mg/L	28-OCT-15				
Aroclor 1242		<0.00020		0.00020	mg/L	27-OCT-15				
Aroclor 1248		<0.00020		0.00020	mg/L	27-OCT-15				
Aroclor 1254		<0.00020		0.00020	mg/L	27-OCT-15				
Aroclor 1260		<0.00020		0.00020	mg/L	27-OCT-15				
Atrazine		<0.0010		0.0010	mg/L	28-OCT-15				
Atrazine Desethyl		<0.0010		0.0010	mg/L	28-OCT-15				
Atrazine & Metabolites		<0.0020		0.0020	mg/L	28-OCT-15	0.5			
Azinphos methyl		<0.0010		0.0010	mg/L	28-OCT-15	2			
Bendiocarb		<0.0050		0.0050	mg/L	28-OCT-15	4			
Benzo(a)pyrene		<0.0010		0.0010	mg/L	28-OCT-15	0.001			
Bromoxynil		<0.0020		0.0020	mg/L	27-OCT-15	0.5			
Carbaryl		<0.0020		0.0020	mg/L	28-OCT-15	9			
Carbofuran		<0.0020		0.0020	mg/L	28-OCT-15	9			
Chlordane (Total)		<0.0030		0.0030	mg/L	28-OCT-15	0.7			
Chlorpyrifos		<0.0010		0.0010	mg/L	28-OCT-15	9			
3&4-Methylphenol		<0.010		0.010	mg/L	27-OCT-15				
Cresols (total)		<0.015		0.015	mg/L	27-OCT-15	200			
Cyanazine		<0.0010		0.0010	mg/L	28-OCT-15	1.0			
Cyanide, Weak Acid Diss		<0.10		0.10	mg/L	26-OCT-15	20			
2,4-D		<0.0020		0.0020	mg/L	27-OCT-15	10			
p,p-DDD		<0.0010		0.0010	mg/L	28-OCT-15				
p,p-DDE		<0.0010		0.0010	mg/L	28-OCT-15				
o,p-DDT		<0.0010		0.0010	mg/L	28-OCT-15				
p,p-DDT		<0.0010		0.0010	mg/L	28-OCT-15				
DDT + metabolites		<0.0040		0.0040	mg/L	28-OCT-15	3			
Diazinon		<0.0010		0.0010	mg/L	28-OCT-15	2			
Dicamba		<0.0050		0.0050	mg/L	27-OCT-15	12			
2,4-Dichlorophenol		<0.0050		0.0050	mg/L	27-OCT-15	90			
Diclofop methyl		<0.0020		0.0020	mg/L	28-OCT-15	0.9			
Dieldrin		<0.00020		0.00020	mg/L	28-OCT-15				
Dimethoate		<0.0010		0.0010	mg/L	28-OCT-15	2			
2,4-Dinitrotoluene		<0.0040		0.0040	mg/L	27-OCT-15	0.13			
Dinoseb		<0.0020		0.0020	mg/L	27-OCT-15	1			
Diquat		<0.10	DLI	0.10	mg/L	27-OCT-15	7			
Diuron		<0.010		0.010	mg/L	26-OCT-15	15			
Endrin		<0.0010		0.0010	mg/L	28-OCT-15	0.02			
Parathion		<0.0010		0.0010	mg/L	28-OCT-15	5			
Fluoride (F)		<10		10	mg/L	26-OCT-15	150.0			

** Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.

* Analytical result for this parameter exceeds Guideline Limit listed on this report. Guideline Limits applied:

Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte									
L1693085-1	DYEC/FA/151024/1									
Sampled By: A. HUXTER on 25-OCT-15 @ 08:00										
Matrix: SOIL										#1
TCLP Extractables										
	gamma-BHC	<0.0010		0.0010	mg/L	28-OCT-15	0.4			
	gamma-Chlordane	<0.0010		0.0010	mg/L	28-OCT-15				
	Glyphosate	<0.050		0.050	mg/L	27-OCT-15	28			
	Heptachlor	<0.0010		0.0010	mg/L	28-OCT-15				
	Heptachlor + Heptachlor Epoxide	<0.0020		0.0020	mg/L	28-OCT-15	0.3			
	Heptachlor epoxide	<0.0010		0.0010	mg/L	28-OCT-15				
	Hexachlorobenzene	<0.0040		0.0040	mg/L	27-OCT-15	0.13			
	Hexachlorobutadiene	<0.0040		0.0040	mg/L	27-OCT-15	0.5			
	Hexachloroethane	<0.0040		0.0040	mg/L	27-OCT-15	3.0			
	Malathion	<0.0010		0.0010	mg/L	28-OCT-15	19			
	MCPA	<0.0020		0.0020	mg/L	27-OCT-15				
	Methoxychlor	<0.0010		0.0010	mg/L	28-OCT-15	90			
	Methyl Parathion	<0.0010		0.0010	mg/L	28-OCT-15	0.7			
	2-Methylphenol	<0.0050		0.0050	mg/L	27-OCT-15				
	Metolachlor	<0.0010		0.0010	mg/L	28-OCT-15	5			
	Metribuzin	<0.0010		0.0010	mg/L	28-OCT-15	8			
	Nitrate and Nitrite as N	<4.0		4.0	mg/L	26-OCT-15	1000			
	Nitrate-N	<2.0		2.0	mg/L	26-OCT-15				
	Nitrioltriacetic Acid (NTA)	<40	DLM	0.20	mg/L	27-OCT-15	40			
	Nitrite-N	<2.0		2.0	mg/L	26-OCT-15				
	Nitrobenzene	<0.0040		0.0040	mg/L	27-OCT-15	2.0			
	N-Nitrosodimethylamine	<0.00020		0.00020	mg/L	27-OCT-15	0.0009			
	Oxychlordane	<0.0010		0.0010	mg/L	28-OCT-15				
	Paraquat	<0.10	DLI	0.10	mg/L	27-OCT-15	1			
	Total PCBs	<0.00040		0.00040	mg/L	27-OCT-15	0.3			
	Pentachlorophenol	<0.0050		0.0050	mg/L	27-OCT-15	6			
	Phorate	<0.0010		0.0010	mg/L	28-OCT-15	0.2			
	Picloram	<0.0050		0.0050	mg/L	27-OCT-15	19			
	Prometryne	<0.0010		0.0010	mg/L	28-OCT-15				
	Pyridine	<5.0		5.0	mg/L	26-OCT-15	5.0			
	Simazine	<0.0010		0.0010	mg/L	28-OCT-15	1			
	2,4,5-T	<0.0020		0.0020	mg/L	27-OCT-15	28			
	Temephos	<0.0010		0.0010	mg/L	28-OCT-15	28			
	Terbufos	<0.0020		0.0020	mg/L	28-OCT-15	0.1			
	2,3,4,6-Tetrachlorophenol	<0.0050		0.0050	mg/L	27-OCT-15	10.0			
	Toxaphene	<0.0035		0.0035	mg/L	27-OCT-15	0.5			
	2,4,5-TP	<0.0020		0.0020	mg/L	27-OCT-15	1			
	Triallate	<0.0010		0.0010	mg/L	28-OCT-15	23			
	2,4,5-Trichlorophenol	<0.0050		0.0050	mg/L	27-OCT-15	400			
	2,4,6-Trichlorophenol	<0.0050		0.0050	mg/L	27-OCT-15	0.5			
	Trifluralin	<0.0050		0.0050	mg/L	28-OCT-15	4.5			
	Surrogate: 2,4,6-Tribromophenol	100.9		50-150	%	27-OCT-15				
	Surrogate: 2,4-Dichlorophenylacetic Acid	103.1		50-150	%	27-OCT-15				
	Surrogate: 2-Fluorobiphenyl	101.4		40-160	%	27-OCT-15				
	Surrogate: 2-Fluorobiphenyl	81.6		40-160	%	27-OCT-15				

** Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.

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Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

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ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte						#1			
L1693085-1	DYEC/FA/151024/1									
Sampled By: A. HUXTER on 25-OCT-15 @ 08:0										
Matrix: SOIL										
TCLP Extractables										
	Surrogate: 2-Fluorobiphenyl	88.3		40-160	%	28-OCT-15				
	Surrogate: Nitrobenzene d5	112.0		50-150	%	27-OCT-15				
	Surrogate: d14-Terphenyl	107.8		60-140	%	28-OCT-15				
	Surrogate: d14-Terphenyl	99.2		60-140	%	28-OCT-15				
	Surrogate: p-Terphenyl d14	123.9		60-140	%	27-OCT-15				
TCLP Metals										
	Arsenic (As)	<0.050		0.050	mg/L	26-OCT-15	2.5			
	Barium (Ba)	1.79		0.50	mg/L	26-OCT-15	100			
	Boron (B)	<2.5		2.5	mg/L	26-OCT-15	500			
	Cadmium (Cd)	<0.0050		0.0050	mg/L	26-OCT-15	0.5			
	Chromium (Cr)	<0.050		0.050	mg/L	26-OCT-15	5.0			
	Lead (Pb)	0.088		0.050	mg/L	26-OCT-15	5.0			
	Mercury (Hg)	<0.00010		0.00010	mg/L	27-OCT-15	0.1			
	Selenium (Se)	<0.25		0.25	mg/L	26-OCT-15	1.0			
	Silver (Ag)	<0.0050		0.0050	mg/L	26-OCT-15	5.0			
	Uranium (U)	<0.25		0.25	mg/L	26-OCT-15	10			
TCLP VOCs										
	1,1-Dichloroethylene	<0.025		0.025	mg/L	27-OCT-15	1.4			
	1,2-Dichlorobenzene	<0.025		0.025	mg/L	27-OCT-15	20.0			
	1,2-Dichloroethane	<0.025		0.025	mg/L	27-OCT-15	0.5			
	1,4-Dichlorobenzene	<0.025		0.025	mg/L	27-OCT-15	0.5			
	Benzene	<0.025		0.025	mg/L	27-OCT-15	0.5			
	Carbon tetrachloride	<0.025		0.025	mg/L	27-OCT-15	0.5			
	Chlorobenzene	<0.025		0.025	mg/L	27-OCT-15	8			
	Chloroform	<0.10		0.10	mg/L	27-OCT-15	10			
	Dichloromethane	<0.50		0.50	mg/L	27-OCT-15	5.0			
	Methyl Ethyl Ketone	<1.0		1.0	mg/L	27-OCT-15	200.0			
	Tetrachloroethylene	<0.025		0.025	mg/L	27-OCT-15	3			
	Trichloroethylene	<0.025		0.025	mg/L	27-OCT-15	5			
	Vinyl chloride	<0.050		0.050	mg/L	27-OCT-15	0.2			
	Surrogate: 4-Bromofluorobenzene	85.7		70-130	%	27-OCT-15				
Volatile Organic Compounds										
	Surrogate: 1,4-Difluorobenzene	98.4		50-150	%	27-OCT-15				
Polychlorinated Biphenyls										
	Surrogate: Decachlorobiphenyl	117.0		50-150	%	27-OCT-15				
	Surrogate: Tetrachloro-m-xylene	106.0		50-150	%	27-OCT-15				
Dioxins and Furans										
	2,3,7,8-TCDD	<1.6	[U]	1.6	pg/L	30-OCT-15				

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Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte						#1			
L1693085-1	DYEC/FA/151024/1									
Sampled By: A. HUXTER on 25-OCT-15 @ 08:0										
Matrix: SOIL										
Dioxins and Furans										
	1,2,3,7,8-PeCDD	<0.90	[U]	0.90	pg/L	30-OCT-15				
	1,2,3,4,7,8-HxCDD	<0.81	[U]	0.81	pg/L	30-OCT-15				
	1,2,3,6,7,8-HxCDD	<0.74	[U]	0.74	pg/L	30-OCT-15				
	1,2,3,7,8,9-HxCDD	<0.77	[U]	0.77	pg/L	30-OCT-15				
	1,2,3,4,6,7,8-HpCDD	<0.67	[U]	0.67	pg/L	30-OCT-15				
	OCDD	<0.52	[U]	0.52	pg/L	30-OCT-15				
	Total-TCDD	<1.6	[U]	1.6	pg/L	30-OCT-15				
	Total TCDD # Homologues	0			No Unit	30-OCT-15				
	Total-PeCDD	<0.90	[U]	0.90	pg/L	30-OCT-15				
	Total PeCDD # Homologues	0			No Unit	30-OCT-15				
	Total-HxCDD	<0.81	[U]	0.81	pg/L	30-OCT-15				
	Total HxCDD # Homologues	0			No Unit	30-OCT-15				
	Total-HpCDD	<0.67	[U]	0.67	pg/L	30-OCT-15				
	Total HpCDD # Homologues	0			No Unit	30-OCT-15				
	2,3,7,8-TCDF	<1.5	[U]	1.5	pg/L	30-OCT-15				
	1,2,3,7,8-PeCDF	<0.70	[U]	0.70	pg/L	30-OCT-15				
	2,3,4,7,8-PeCDF	<0.58	[U]	0.58	pg/L	30-OCT-15				
	1,2,3,4,7,8-HxCDF	<0.35	[U]	0.35	pg/L	30-OCT-15				
	1,2,3,6,7,8-HxCDF	<0.32	[U]	0.32	pg/L	30-OCT-15				
	1,2,3,7,8,9-HxCDF	0.86	M,J,R	0.43	pg/L	30-OCT-15				
	2,3,4,6,7,8-HxCDF	<0.37	[U]	0.37	pg/L	30-OCT-15				
	1,2,3,4,6,7,8-HpCDF	<0.50	[U]	0.50	pg/L	30-OCT-15				
	1,2,3,4,7,8,9-HpCDF	<0.64	[U]	0.64	pg/L	30-OCT-15				
	OCDF	<0.70	[U]	0.70	pg/L	30-OCT-15				
	Total-TCDF	<1.5	[U]	1.5	pg/L	30-OCT-15				
	Total TCDF # Homologues	0			No Unit	30-OCT-15				
	Total-PeCDF	<0.70	[U]	0.70	pg/L	30-OCT-15				
	Total PeCDF # Homologues	0			No Unit	30-OCT-15				
	Total-HxCDF	<0.43	[U]	0.43	pg/L	30-OCT-15				
	Total HxCDF # Homologues	0			No Unit	30-OCT-15				
	Total-HpCDF	<0.64	[U]	0.64	pg/L	30-OCT-15				
	Total HpCDF # Homologues	0			No Unit	30-OCT-15				
	Surrogate: 13C12-2,3,7,8-TCDD	82.0		20-175	%	30-OCT-15				
	Surrogate: 13C12-1,2,3,7,8-PeCDD	86.0		21-227	%	30-OCT-15				
	Surrogate: 13C12-1,2,3,4,7,8-HxCDD	85.0		21-193	%	30-OCT-15				
	Surrogate: 13C12-1,2,3,6,7,8-HxCDD	96.0		25-163	%	30-OCT-15				
	Surrogate: 13C12-1,2,3,4,6,7,8-HpCDD	93.0		23-166	%	30-OCT-15				
	Surrogate: 13C12-OCDD	94.0		13-138	%	30-OCT-15				
	Surrogate: 13C12-2,3,7,8-TCDF	87.0		22-152	%	30-OCT-15				
	Surrogate: 13C12-1,2,3,7,8-PeCDF	87.0		24-185	%	30-OCT-15				
	Surrogate: 13C12-2,3,4,7,8-PeCDF	90.0		21-178	%	30-OCT-15				
	Surrogate: 13C12-1,2,3,4,7,8-HxCDF	83.0		26-152	%	30-OCT-15				
	Surrogate: 13C12-1,2,3,6,7,8-HxCDF	95.0		21-159	%	30-OCT-15				
	Surrogate: 13C12-2,3,4,6,7,8-HxCDF	93.0		17-205	%	30-OCT-15				
	Surrogate: 13C12-1,2,3,7,8,9-HxCDF	88.0		28-136	%	30-OCT-15				
	Surrogate: 13C12-1,2,3,4,6,7,8-HpCDF	96.0		21-158	%	30-OCT-15				
	Surrogate: 13C12-1,2,3,4,7,8,9-HpCDF	96.0		20-186	%	30-OCT-15				
	Surrogate: 37Cl4-2,3,7,8-TCDD (Cleanup)	76.0		31-191	%	30-OCT-15				

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ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte									
L1693085-1	DYEC/FA/151024/1									
Sampled By: A. HUXTER on 25-OCT-15 @ 08:0										
Matrix: SOIL										
Toxic Equivalency										
Lower Bound PCDD/F TEQ (WHO 2005)		0.00			pg/L	30-OCT-15				
Mid Point PCDD/F TEQ (WHO 2005)		1.69			pg/L	30-OCT-15				
Upper Bound PCDD/F TEQ (WHO 2005)		3.29			pg/L	30-OCT-15	1500			
L1693085-2	DYEC/FA/151024/2									
Sampled By: A. HUXTER on 25-OCT-15 @ 08:0										
Matrix: SOIL										
Sample Preparation										
Initial pH		12.32		0.10	pH units	25-OCT-15				
Final pH		11.69		0.10	pH units	25-OCT-15				
TCLP Extractables										
Alachlor		<0.0010		0.0010	mg/L	28-OCT-15				
Aldicarb		<0.010		0.010	mg/L	26-OCT-15	0.9			
Aldrin		<0.00020		0.00020	mg/L	28-OCT-15				
Aldrin + Dieldrin		<0.00040		0.00040	mg/L	28-OCT-15	0.07			
alpha-Chlordane		<0.0010		0.0010	mg/L	28-OCT-15				
Aroclor 1242		<0.00020		0.00020	mg/L	27-OCT-15				
Aroclor 1248		<0.00020		0.00020	mg/L	27-OCT-15				
Aroclor 1254		<0.00020		0.00020	mg/L	27-OCT-15				
Aroclor 1260		<0.00020		0.00020	mg/L	27-OCT-15				
Atrazine		<0.0010		0.0010	mg/L	28-OCT-15				
Atrazine Desethyl		<0.0010		0.0010	mg/L	28-OCT-15				
Atrazine & Metabolites		<0.0020		0.0020	mg/L	28-OCT-15	0.5			
Azinphos methyl		<0.0010		0.0010	mg/L	28-OCT-15	2			
Bendiocarb		<0.0050		0.0050	mg/L	28-OCT-15	4			
Benzo(a)pyrene		<0.0010		0.0010	mg/L	28-OCT-15	0.001			
Bromoxynil		<0.0020		0.0020	mg/L	27-OCT-15	0.5			
Carbaryl		<0.0020		0.0020	mg/L	28-OCT-15	9			
Carbofuran		<0.0020		0.0020	mg/L	28-OCT-15	9			
Chlordane (Total)		<0.0030		0.0030	mg/L	28-OCT-15	0.7			
Chlorpyrifos		<0.0010		0.0010	mg/L	28-OCT-15	9			
3&4-Methylphenol		<0.010		0.010	mg/L	27-OCT-15				
Cresols (total)		<0.015		0.015	mg/L	27-OCT-15	200			
Cyanazine		<0.0010		0.0010	mg/L	28-OCT-15	1.0			
Cyanide, Weak Acid Diss		<0.10		0.10	mg/L	26-OCT-15	20			
2,4-D		<0.0020		0.0020	mg/L	27-OCT-15	10			
p,p-DDD		<0.0010		0.0010	mg/L	28-OCT-15				
p,p-DDE		<0.0010		0.0010	mg/L	28-OCT-15				
o,p-DDT		<0.0010		0.0010	mg/L	28-OCT-15				
p,p-DDT		<0.0010		0.0010	mg/L	28-OCT-15				
DDT + metabolites		<0.0040		0.0040	mg/L	28-OCT-15	3			
Diazinon		<0.0010		0.0010	mg/L	28-OCT-15	2			
Dicamba		<0.0050		0.0050	mg/L	27-OCT-15	12			
2,4-Dichlorophenol		<0.0050		0.0050	mg/L	27-OCT-15	90			
Diclofop methyl		<0.0020		0.0020	mg/L	28-OCT-15	0.9			
Dieldrin		<0.00020		0.00020	mg/L	28-OCT-15				

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ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits				
Grouping	Analyte										
L1693085-2	DYEC/FA/151024/2										
Sampled By: A. HUXTER on 25-OCT-15 @ 08:0											
Matrix: SOIL											
TCLP Extractables											
	Dimethoate	<0.0010		0.0010	mg/L	28-OCT-15	2				
	2,4-Dinitrotoluene	<0.0040		0.0040	mg/L	27-OCT-15	0.13				
	Dinoseb	<0.0020		0.0020	mg/L	27-OCT-15	1				
	Diquat	<0.10	DLI	0.10	mg/L	27-OCT-15	7				
	Diuron	<0.010		0.010	mg/L	26-OCT-15	15				
	Endrin	<0.0010		0.0010	mg/L	28-OCT-15	0.02				
	Parathion	<0.0010		0.0010	mg/L	28-OCT-15	5				
	Fluoride (F)	<10		10	mg/L	26-OCT-15	150.0				
	gamma-BHC	<0.0010		0.0010	mg/L	28-OCT-15	0.4				
	gamma-Chlordane	<0.0010		0.0010	mg/L	28-OCT-15					
	Glyphosate	<0.050		0.050	mg/L	27-OCT-15	28				
	Heptachlor	<0.0010		0.0010	mg/L	28-OCT-15					
	Heptachlor + Heptachlor Epoxide	<0.0020		0.0020	mg/L	28-OCT-15	0.3				
	Heptachlor epoxide	<0.0010		0.0010	mg/L	28-OCT-15					
	Hexachlorobenzene	<0.0040		0.0040	mg/L	27-OCT-15	0.13				
	Hexachlorobutadiene	<0.0040		0.0040	mg/L	27-OCT-15	0.5				
	Hexachloroethane	<0.0040		0.0040	mg/L	27-OCT-15	3.0				
	Malathion	<0.0010		0.0010	mg/L	28-OCT-15	19				
	MCPA	<0.0020		0.0020	mg/L	27-OCT-15					
	Methoxychlor	<0.0010		0.0010	mg/L	28-OCT-15	90				
	Methyl Parathion	<0.0010		0.0010	mg/L	28-OCT-15	0.7				
	2-Methylphenol	<0.0050		0.0050	mg/L	27-OCT-15					
	Metolachlor	<0.0010		0.0010	mg/L	28-OCT-15	5				
	Metribuzin	<0.0010		0.0010	mg/L	28-OCT-15	8				
	Nitrate and Nitrite as N	<4.0		4.0	mg/L	26-OCT-15	1000				
	Nitrate-N	<2.0		2.0	mg/L	26-OCT-15					
	Nitritotriacetic Acid (NTA)	<40	DLM	0.20	mg/L	27-OCT-15	40				
	Nitrite-N	<2.0		2.0	mg/L	26-OCT-15					
	Nitrobenzene	<0.0040		0.0040	mg/L	27-OCT-15	2.0				
	N-Nitrosodimethylamine	<0.00020		0.00020	mg/L	27-OCT-15	0.0009				
	Oxychlordane	<0.0010		0.0010	mg/L	28-OCT-15					
	Paraquat	<0.10	DLI	0.10	mg/L	27-OCT-15	1				
	Total PCBs	<0.00040		0.00040	mg/L	27-OCT-15	0.3				
	Pentachlorophenol	<0.0050		0.0050	mg/L	27-OCT-15	6				
	Phorate	<0.0010		0.0010	mg/L	28-OCT-15	0.2				
	Picloram	<0.0050		0.0050	mg/L	27-OCT-15	19				
	Prometryne	<0.0010		0.0010	mg/L	28-OCT-15					
	Pyridine	<5.0		5.0	mg/L	26-OCT-15	5.0				
	Simazine	<0.0010		0.0010	mg/L	28-OCT-15	1				
	2,4,5-T	<0.0020		0.0020	mg/L	27-OCT-15	28				
	Temephos	<0.0010		0.0010	mg/L	28-OCT-15	28				
	Terbufos	<0.0020		0.0020	mg/L	28-OCT-15	0.1				
	2,3,4,6-Tetrachlorophenol	<0.0050		0.0050	mg/L	27-OCT-15	10.0				
	Toxaphene	<0.0035		0.0035	mg/L	27-OCT-15	0.5				
	2,4,5-TP	<0.0020		0.0020	mg/L	27-OCT-15	1				
	Triallate	<0.0010		0.0010	mg/L	28-OCT-15	23				

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ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte						#1			
L1693085-2	DYEC/FA/151024/2									
Sampled By: A. HUXTER on 25-OCT-15 @ 08:0										
Matrix: SOIL										
TCLP Extractables										
	2,4,5-Trichlorophenol	<0.0050		0.0050	mg/L	27-OCT-15	400			
	2,4,6-Trichlorophenol	<0.0050		0.0050	mg/L	27-OCT-15	0.5			
	Trifluralin	<0.0050		0.0050	mg/L	28-OCT-15	4.5			
	Surrogate: 2,4,6-Tribromophenol	95.4		50-150	%	27-OCT-15				
	Surrogate: 2,4-Dichlorophenylacetic Acid	91.4		50-150	%	27-OCT-15				
	Surrogate: 2-Fluorobiphenyl	75.6		40-160	%	27-OCT-15				
	Surrogate: 2-Fluorobiphenyl	92.8		40-160	%	28-OCT-15				
	Surrogate: 2-Fluorobiphenyl	98.3		40-160	%	27-OCT-15				
	Surrogate: Nitrobenzene d5	105.7		50-150	%	27-OCT-15				
	Surrogate: d14-Terphenyl	109.7		60-140	%	28-OCT-15				
	Surrogate: d14-Terphenyl	93.3		60-140	%	28-OCT-15				
	Surrogate: p-Terphenyl d14	121.1		60-140	%	27-OCT-15				
TCLP Metals										
	Arsenic (As)	<0.050		0.050	mg/L	26-OCT-15	2.5			
	Barium (Ba)	1.76		0.50	mg/L	26-OCT-15	100			
	Boron (B)	<2.5		2.5	mg/L	26-OCT-15	500			
	Cadmium (Cd)	<0.0050		0.0050	mg/L	26-OCT-15	0.5			
	Chromium (Cr)	<0.050		0.050	mg/L	26-OCT-15	5.0			
	Lead (Pb)	0.128		0.050	mg/L	26-OCT-15	5.0			
	Mercury (Hg)	<0.00010		0.00010	mg/L	27-OCT-15	0.1			
	Selenium (Se)	<0.25		0.25	mg/L	26-OCT-15	1.0			
	Silver (Ag)	<0.0050		0.0050	mg/L	26-OCT-15	5.0			
	Uranium (U)	<0.25		0.25	mg/L	26-OCT-15	10			
TCLP VOCs										
	1,1-Dichloroethylene	<0.025		0.025	mg/L	27-OCT-15	1.4			
	1,2-Dichlorobenzene	<0.025		0.025	mg/L	27-OCT-15	20.0			
	1,2-Dichloroethane	<0.025		0.025	mg/L	27-OCT-15	0.5			
	1,4-Dichlorobenzene	<0.025		0.025	mg/L	27-OCT-15	0.5			
	Benzene	<0.025		0.025	mg/L	27-OCT-15	0.5			
	Carbon tetrachloride	<0.025		0.025	mg/L	27-OCT-15	0.5			
	Chlorobenzene	<0.025		0.025	mg/L	27-OCT-15	8			
	Chloroform	<0.10		0.10	mg/L	27-OCT-15	10			
	Dichloromethane	<0.50		0.50	mg/L	27-OCT-15	5.0			
	Methyl Ethyl Ketone	<1.0		1.0	mg/L	27-OCT-15	200.0			
	Tetrachloroethylene	<0.025		0.025	mg/L	27-OCT-15	3			
	Trichloroethylene	<0.025		0.025	mg/L	27-OCT-15	5			
	Vinyl chloride	<0.050		0.050	mg/L	27-OCT-15	0.2			

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Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte						#1			
L1693085-2	DYEC/FA/151024/2									
Sampled By: A. HUXTER on 25-OCT-15 @ 08:0										
Matrix: SOIL										
TCLP VOCs										
	Surrogate: 4-Bromofluorobenzene	84.7		70-130	%	27-OCT-15				
Volatile Organic Compounds										
	Surrogate: 1,4-Difluorobenzene	98.2		50-150	%	27-OCT-15				
Polychlorinated Biphenyls										
	Surrogate: Decachlorobiphenyl	107.0		50-150	%	27-OCT-15				
	Surrogate: Tetrachloro-m-xylene	100.0		50-150	%	27-OCT-15				
Dioxins and Furans										
	2,3,7,8-TCDD	<0.71	[U]	0.71	pg/L	30-OCT-15				
	1,2,3,7,8-PeCDD	<0.38	[U]	0.38	pg/L	30-OCT-15				
	1,2,3,4,7,8-HxCDD	<0.38	[U]	0.38	pg/L	30-OCT-15				
	1,2,3,6,7,8-HxCDD	<0.39	[U]	0.39	pg/L	30-OCT-15				
	1,2,3,7,8,9-HxCDD	<0.38	[U]	0.38	pg/L	30-OCT-15				
	1,2,3,4,6,7,8-HpCDD	<0.50	M,U	0.50	pg/L	30-OCT-15				
	OCDD	<0.53	[U]	0.53	pg/L	30-OCT-15				
	Total-TCDD	<0.71	[U]	0.71	pg/L	30-OCT-15				
	Total TCDD # Homologues	0			No Unit	30-OCT-15				
	Total-PeCDD	<0.38	[U]	0.38	pg/L	30-OCT-15				
	Total PeCDD # Homologues	0			No Unit	30-OCT-15				
	Total-HxCDD	<0.39	[U]	0.39	pg/L	30-OCT-15				
	Total HxCDD # Homologues	0			No Unit	30-OCT-15				
	Total-HpCDD	<0.50	[U]	0.50	pg/L	30-OCT-15				
	Total HpCDD # Homologues	0			No Unit	30-OCT-15				
	2,3,7,8-TCDF	<0.66	[U]	0.66	pg/L	30-OCT-15				
	1,2,3,7,8-PeCDF	<0.33	[U]	0.33	pg/L	30-OCT-15				
	2,3,4,7,8-PeCDF	<0.30	[U]	0.30	pg/L	30-OCT-15				
	1,2,3,4,7,8-HxCDF	<0.28	[U]	0.28	pg/L	30-OCT-15				
	1,2,3,6,7,8-HxCDF	<0.25	[U]	0.25	pg/L	30-OCT-15				
	1,2,3,7,8,9-HxCDF	0.90	M,J	0.38	pg/L	30-OCT-15				
	2,3,4,6,7,8-HxCDF	<0.29	[U]	0.29	pg/L	30-OCT-15				
	1,2,3,4,6,7,8-HpCDF	<0.26	[U]	0.26	pg/L	30-OCT-15				
	1,2,3,4,7,8,9-HpCDF	<0.38	[U]	0.38	pg/L	30-OCT-15				
	OCDF	<0.55	[U]	0.55	pg/L	30-OCT-15				
	Total-TCDF	<0.66	[U]	0.66	pg/L	30-OCT-15				
	Total TCDF # Homologues	0			No Unit	30-OCT-15				
	Total-PeCDF	<0.33	[U]	0.33	pg/L	30-OCT-15				
	Total PeCDF # Homologues	0			No Unit	30-OCT-15				
	Total-HxCDF	0.90		0.38	pg/L	30-OCT-15				
	Total HxCDF # Homologues	1			No Unit	30-OCT-15				
	Total-HpCDF	<0.38	[U]	0.38	pg/L	30-OCT-15				
	Total HpCDF # Homologues	0			No Unit	30-OCT-15				
	Surrogate: 13C12-2,3,7,8-TCDD	70.0		20-175	%	30-OCT-15				
	Surrogate: 13C12-1,2,3,7,8-PeCDD	71.0		21-227	%	30-OCT-15				
	Surrogate: 13C12-1,2,3,4,7,8-HxCDD	79.0		21-193	%	30-OCT-15				
	Surrogate: 13C12-1,2,3,6,7,8-HxCDD	79.0		25-163	%	30-OCT-15				
	Surrogate: 13C12-1,2,3,4,6,7,8-HpCDD	77.0		23-166	%	30-OCT-15				
	Surrogate: 13C12-OCDD	51.0		13-138	%	30-OCT-15				
	Surrogate: 13C12-2,3,7,8-TCDF	72.0		22-152	%	30-OCT-15				

** Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.

* Analytical result for this parameter exceeds Guideline Limit listed on this report. Guideline Limits applied:

Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits		
Grouping	Analyte								
L1693085-2	DYEC/FA/151024/2								
Sampled By: A. HUXTER on 25-OCT-15 @ 08:00							#1		
Matrix: SOIL									
Dioxins and Furans									
	Surrogate: 13C12-1,2,3,7,8-PeCDF	71.0		24-185	%	30-OCT-15			
	Surrogate: 13C12-2,3,4,7,8-PeCDF	72.0		21-178	%	30-OCT-15			
	Surrogate: 13C12-1,2,3,4,7,8-HxCDF	72.0		26-152	%	30-OCT-15			
	Surrogate: 13C12-1,2,3,6,7,8-HxCDF	80.0		21-159	%	30-OCT-15			
	Surrogate: 13C12-2,3,4,6,7,8-HxCDF	79.0		17-205	%	30-OCT-15			
	Surrogate: 13C12-1,2,3,7,8,9-HxCDF	67.0		28-136	%	30-OCT-15			
	Surrogate: 13C12-1,2,3,4,6,7,8-HpCDF	78.0		21-158	%	30-OCT-15			
	Surrogate: 13C12-1,2,3,4,7,8,9-HpCDF	69.0		20-186	%	30-OCT-15			
	Surrogate: 37Cl4-2,3,7,8-TCDD (Cleanup)	72.0		31-191	%	30-OCT-15			
Toxic Equivalency									
	Lower Bound PCDD/F TEQ (WHO 2005)	0.0898			pg/L	30-OCT-15			
	Mid Point PCDD/F TEQ (WHO 2005)	0.822			pg/L	30-OCT-15			
	Upper Bound PCDD/F TEQ (WHO 2005)	1.55			pg/L	30-OCT-15	1500		
L1693085-3	DYEC/FA/151024/3								
Sampled By: A. HUXTER on 25-OCT-15 @ 08:00							#1		
Matrix: SOIL									
Sample Preparation									
	Initial pH	12.32		0.10	pH units	25-OCT-15			
	Final pH	11.70		0.10	pH units	25-OCT-15			
TCLP Extractables									
	Alachlor	<0.0010		0.0010	mg/L	28-OCT-15			
	Aldicarb	<0.010		0.010	mg/L	26-OCT-15	0.9		
	Aldrin	<0.00020		0.00020	mg/L	28-OCT-15			
	Aldrin + Dieldrin	<0.00040		0.00040	mg/L	28-OCT-15	0.07		
	alpha-Chlordane	<0.0010		0.0010	mg/L	28-OCT-15			
	Aroclor 1242	<0.00020		0.00020	mg/L	27-OCT-15			
	Aroclor 1248	<0.00020		0.00020	mg/L	27-OCT-15			
	Aroclor 1254	<0.00020		0.00020	mg/L	27-OCT-15			
	Aroclor 1260	<0.00020		0.00020	mg/L	27-OCT-15			
	Atrazine	<0.0010		0.0010	mg/L	28-OCT-15			
	Atrazine Desethyl	<0.0010		0.0010	mg/L	28-OCT-15			
	Atrazine & Metabolites	<0.0020		0.0020	mg/L	28-OCT-15	0.5		
	Azinphos methyl	<0.0010		0.0010	mg/L	28-OCT-15	2		
	Bendiocarb	<0.0050		0.0050	mg/L	28-OCT-15	4		
	Benzo(a)pyrene	<0.0010		0.0010	mg/L	28-OCT-15	0.001		
	Bromoxynil	<0.0020		0.0020	mg/L	27-OCT-15	0.5		
	Carbaryl	<0.0020		0.0020	mg/L	28-OCT-15	9		
	Carbofuran	<0.0020		0.0020	mg/L	28-OCT-15	9		
	Chlordane (Total)	<0.0030		0.0030	mg/L	28-OCT-15	0.7		
	Chlorpyrifos	<0.0010		0.0010	mg/L	28-OCT-15	9		
	3&4-Methylphenol	<0.010		0.010	mg/L	27-OCT-15			
	Cresols (total)	<0.015		0.015	mg/L	27-OCT-15	200		
	Cyanazine	<0.0010		0.0010	mg/L	28-OCT-15	1.0		
	Cyanide, Weak Acid Diss	<0.10		0.10	mg/L	26-OCT-15	20		
	2,4-D	<0.0020		0.0020	mg/L	27-OCT-15	10		

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Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte									
L1693085-3	DYEC/FA/151024/3									
Sampled By: A. HUXTER on 25-OCT-15 @ 08:0										
Matrix: SOIL										#1
TCLP Extractables										
	p,p-DDD	<0.0010		0.0010	mg/L	28-OCT-15				
	p,p-DDE	<0.0010		0.0010	mg/L	28-OCT-15				
	o,p-DDT	<0.0010		0.0010	mg/L	28-OCT-15				
	p,p-DDT	<0.0010		0.0010	mg/L	28-OCT-15				
	DDT + metabolites	<0.0040		0.0040	mg/L	28-OCT-15	3			
	Diazinon	<0.0010		0.0010	mg/L	28-OCT-15	2			
	Dicamba	<0.0050		0.0050	mg/L	27-OCT-15	12			
	2,4-Dichlorophenol	<0.0050		0.0050	mg/L	27-OCT-15	90			
	Diclofop methyl	<0.0020		0.0020	mg/L	28-OCT-15	0.9			
	Dieldrin	<0.00020		0.00020	mg/L	28-OCT-15				
	Dimethoate	<0.0010		0.0010	mg/L	28-OCT-15	2			
	2,4-Dinitrotoluene	<0.0040		0.0040	mg/L	27-OCT-15	0.13			
	Dinoseb	<0.0020		0.0020	mg/L	27-OCT-15	1			
	Diquat	<0.10	DLI	0.10	mg/L	27-OCT-15	7			
	Diuron	<0.010		0.010	mg/L	26-OCT-15	15			
	Endrin	<0.0010		0.0010	mg/L	28-OCT-15	0.02			
	Parathion	<0.0010		0.0010	mg/L	28-OCT-15	5			
	Fluoride (F)	<10		10	mg/L	26-OCT-15	150.0			
	gamma-BHC	<0.0010		0.0010	mg/L	28-OCT-15	0.4			
	gamma-Chlordane	<0.0010		0.0010	mg/L	28-OCT-15				
	Glyphosate	<0.050		0.050	mg/L	27-OCT-15	28			
	Heptachlor	<0.0010		0.0010	mg/L	28-OCT-15				
	Heptachlor + Heptachlor Epoxide	<0.0020		0.0020	mg/L	28-OCT-15	0.3			
	Heptachlor epoxide	<0.0010		0.0010	mg/L	28-OCT-15				
	Hexachlorobenzene	<0.0040		0.0040	mg/L	27-OCT-15	0.13			
	Hexachlorobutadiene	<0.0040		0.0040	mg/L	27-OCT-15	0.5			
	Hexachloroethane	<0.0040		0.0040	mg/L	27-OCT-15	3.0			
	Malathion	<0.0010		0.0010	mg/L	28-OCT-15	19			
	MCPA	<0.0020		0.0020	mg/L	27-OCT-15				
	Methoxychlor	<0.0010		0.0010	mg/L	28-OCT-15	90			
	Methyl Parathion	<0.0010		0.0010	mg/L	28-OCT-15	0.7			
	2-Methylphenol	<0.0050		0.0050	mg/L	27-OCT-15				
	Metolachlor	<0.0010		0.0010	mg/L	28-OCT-15	5			
	Metribuzin	<0.0010		0.0010	mg/L	28-OCT-15	8			
	Nitrate and Nitrite as N	<4.0		4.0	mg/L	26-OCT-15	1000			
	Nitrate-N	<2.0		2.0	mg/L	26-OCT-15				
	Nitritotriacetic Acid (NTA)	<40	DLM	0.20	mg/L	27-OCT-15	40			
	Nitrite-N	<2.0		2.0	mg/L	26-OCT-15				
	Nitrobenzene	<0.0040		0.0040	mg/L	27-OCT-15	2.0			
	N-Nitrosodimethylamine	<0.00020		0.00020	mg/L	27-OCT-15	0.0009			
	Oxychlordane	<0.0010		0.0010	mg/L	28-OCT-15				
	Paraquat	<0.10	DLI	0.10	mg/L	27-OCT-15	1			
	Total PCBs	<0.00040		0.00040	mg/L	27-OCT-15	0.3			
	Pentachlorophenol	<0.0050		0.0050	mg/L	27-OCT-15	6			
	Phorate	<0.0010		0.0010	mg/L	28-OCT-15	0.2			
	Picloram	<0.0050		0.0050	mg/L	27-OCT-15	19			

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Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte						#1			
L1693085-3	DYEC/FA/151024/3									
Sampled By: A. HUXTER on 25-OCT-15 @ 08:0										
Matrix: SOIL										
TCLP Extractables										
	Prometryne	<0.0010		0.0010	mg/L	28-OCT-15				
	Pyridine	<5.0		5.0	mg/L	26-OCT-15	5.0			
	Simazine	<0.0010		0.0010	mg/L	28-OCT-15	1			
	2,4,5-T	<0.0020		0.0020	mg/L	27-OCT-15	28			
	Temephos	<0.0010		0.0010	mg/L	28-OCT-15	28			
	Terbufos	<0.0020		0.0020	mg/L	28-OCT-15	0.1			
	2,3,4,6-Tetrachlorophenol	<0.0050		0.0050	mg/L	27-OCT-15	10.0			
	Toxaphene	<0.0035		0.0035	mg/L	27-OCT-15	0.5			
	2,4,5-TP	<0.0020		0.0020	mg/L	27-OCT-15	1			
	Triallate	<0.0010		0.0010	mg/L	28-OCT-15	23			
	2,4,5-Trichlorophenol	<0.0050		0.0050	mg/L	27-OCT-15	400			
	2,4,6-Trichlorophenol	<0.0050		0.0050	mg/L	27-OCT-15	0.5			
	Trifluralin	<0.0050		0.0050	mg/L	28-OCT-15	4.5			
	Surrogate: 2,4,6-Tribromophenol	102.8		50-150	%	27-OCT-15				
	Surrogate: 2,4-Dichlorophenylacetic Acid	103.8		50-150	%	27-OCT-15				
	Surrogate: 2-Fluorobiphenyl	107.3		40-160	%	27-OCT-15				
	Surrogate: 2-Fluorobiphenyl	84.7		40-160	%	28-OCT-15				
	Surrogate: 2-Fluorobiphenyl	91.1		40-160	%	27-OCT-15				
	Surrogate: Nitrobenzene d5	112.7		50-150	%	27-OCT-15				
	Surrogate: d14-Terphenyl	108.7		60-140	%	28-OCT-15				
	Surrogate: d14-Terphenyl	77.0		60-140	%	28-OCT-15				
	Surrogate: p-Terphenyl d14	124.2		60-140	%	27-OCT-15				
TCLP Metals										
	Arsenic (As)	<0.050		0.050	mg/L	26-OCT-15	2.5			
	Barium (Ba)	1.79		0.50	mg/L	26-OCT-15	100			
	Boron (B)	<2.5		2.5	mg/L	26-OCT-15	500			
	Cadmium (Cd)	<0.0050		0.0050	mg/L	26-OCT-15	0.5			
	Chromium (Cr)	<0.050		0.050	mg/L	26-OCT-15	5.0			
	Lead (Pb)	0.115		0.050	mg/L	26-OCT-15	5.0			
	Mercury (Hg)	<0.00010		0.00010	mg/L	27-OCT-15	0.1			
	Selenium (Se)	<0.25		0.25	mg/L	26-OCT-15	1.0			
	Silver (Ag)	<0.0050		0.0050	mg/L	26-OCT-15	5.0			
	Uranium (U)	<0.25		0.25	mg/L	26-OCT-15	10			
TCLP VOCs										
	1,1-Dichloroethylene	<0.025		0.025	mg/L	27-OCT-15	1.4			
	1,2-Dichlorobenzene	<0.025		0.025	mg/L	27-OCT-15	20.0			
	1,2-Dichloroethane	<0.025		0.025	mg/L	27-OCT-15	0.5			

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ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte						#1			
L1693085-3	DYEC/FA/151024/3									
Sampled By: A. HUXTER on 25-OCT-15 @ 08:0										
Matrix: SOIL										
TCLP VOCs										
	1,4-Dichlorobenzene	<0.025		0.025	mg/L	27-OCT-15	0.5			
	Benzene	<0.025		0.025	mg/L	27-OCT-15	0.5			
	Carbon tetrachloride	<0.025		0.025	mg/L	27-OCT-15	0.5			
	Chlorobenzene	<0.025		0.025	mg/L	27-OCT-15	8			
	Chloroform	<0.10		0.10	mg/L	27-OCT-15	10			
	Dichloromethane	<0.50		0.50	mg/L	27-OCT-15	5.0			
	Methyl Ethyl Ketone	<1.0		1.0	mg/L	27-OCT-15	200.0			
	Tetrachloroethylene	<0.025		0.025	mg/L	27-OCT-15	3			
	Trichloroethylene	<0.025		0.025	mg/L	27-OCT-15	5			
	Vinyl chloride	<0.050		0.050	mg/L	27-OCT-15	0.2			
	Surrogate: 4-Bromofluorobenzene	88.8		70-130	%	27-OCT-15				
Volatile Organic Compounds										
	Surrogate: 1,4-Difluorobenzene	97.7		50-150	%	27-OCT-15				
Polychlorinated Biphenyls										
	Surrogate: Decachlorobiphenyl	110.0		50-150	%	27-OCT-15				
	Surrogate: Tetrachloro-m-xylene	95.6		50-150	%	27-OCT-15				
Dioxins and Furans										
	2,3,7,8-TCDD	<1.2	[U]	1.2	pg/L	30-OCT-15				
	1,2,3,7,8-PeCDD	<0.56	[U]	0.56	pg/L	30-OCT-15				
	1,2,3,4,7,8-HxCDD	<0.72	[U]	0.72	pg/L	30-OCT-15				
	1,2,3,6,7,8-HxCDD	<0.73	[U]	0.73	pg/L	30-OCT-15				
	1,2,3,7,8,9-HxCDD	<0.72	[U]	0.72	pg/L	30-OCT-15				
	1,2,3,4,6,7,8-HpCDD	<0.52	[U]	0.52	pg/L	30-OCT-15				
	OCDD	<0.65	[U]	0.65	pg/L	30-OCT-15				
	Total-TCDD	<1.2	[U]	1.2	pg/L	30-OCT-15				
	Total TCDD # Homologues	0			No Unit	30-OCT-15				
	Total-PeCDD	<0.56	[U]	0.56	pg/L	30-OCT-15				
	Total PeCDD # Homologues	0			No Unit	30-OCT-15				
	Total-HxCDD	<0.73	[U]	0.73	pg/L	30-OCT-15				
	Total HxCDD # Homologues	0			No Unit	30-OCT-15				
	Total-HpCDD	<0.52	[U]	0.52	pg/L	30-OCT-15				
	Total HpCDD # Homologues	0			No Unit	30-OCT-15				
	2,3,7,8-TCDF	<1.1	[U]	1.1	pg/L	30-OCT-15				
	1,2,3,7,8-PeCDF	<0.58	[U]	0.58	pg/L	30-OCT-15				
	2,3,4,7,8-PeCDF	<0.56	[U]	0.56	pg/L	30-OCT-15				
	1,2,3,4,7,8-HxCDF	<0.61	[U]	0.61	pg/L	30-OCT-15				
	1,2,3,6,7,8-HxCDF	<0.51	[U]	0.51	pg/L	30-OCT-15				
	1,2,3,7,8,9-HxCDF	<0.73	[U]	0.73	pg/L	30-OCT-15				
	2,3,4,6,7,8-HxCDF	<0.59	[U]	0.59	pg/L	30-OCT-15				
	1,2,3,4,6,7,8-HpCDF	<0.52	[U]	0.52	pg/L	30-OCT-15				
	1,2,3,4,7,8,9-HpCDF	<0.76	[U]	0.76	pg/L	30-OCT-15				
	OCDF	<0.74	[U]	0.74	pg/L	30-OCT-15				
	Total-TCDF	<1.1	[U]	1.1	pg/L	30-OCT-15				
	Total TCDF # Homologues	0			No Unit	30-OCT-15				
	Total-PeCDF	<0.58	[U]	0.58	pg/L	30-OCT-15				
	Total PeCDF # Homologues	0			No Unit	30-OCT-15				
	Total-HxCDF	<0.73	[U]	0.73	pg/L	30-OCT-15				

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Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte									
L1693085-3	DYEC/FA/151024/3									
Sampled By: A. HUXTER on 25-OCT-15 @ 08:0										
Matrix: SOIL										
Dioxins and Furans										
Total HxCDF # Homologues		0			No Unit	30-OCT-15				
Total HpCDF		<0.76	[U]	0.76	pg/L	30-OCT-15				
Total HpCDF # Homologues		0			No Unit	30-OCT-15				
Surrogate: 13C12-2,3,7,8-TCDD		50.0		20-175	%	30-OCT-15				
Surrogate: 13C12-1,2,3,7,8-PeCDD		49.0		21-227	%	30-OCT-15				
Surrogate: 13C12-1,2,3,4,7,8-HxCDD		53.0		21-193	%	30-OCT-15				
Surrogate: 13C12-1,2,3,6,7,8-HxCDD		62.0		25-163	%	30-OCT-15				
Surrogate: 13C12-1,2,3,4,6,7,8-HpCDD		53.0		23-166	%	30-OCT-15				
Surrogate: 13C12-OCDD		46.0		13-138	%	30-OCT-15				
Surrogate: 13C12-2,3,7,8-TCDF		50.0		22-152	%	30-OCT-15				
Surrogate: 13C12-1,2,3,7,8-PeCDF		50.0		24-185	%	30-OCT-15				
Surrogate: 13C12-2,3,4,7,8-PeCDF		48.0		21-178	%	30-OCT-15				
Surrogate: 13C12-1,2,3,4,7,8-HxCDF		54.0		26-152	%	30-OCT-15				
Surrogate: 13C12-1,2,3,6,7,8-HxCDF		59.0		21-159	%	30-OCT-15				
Surrogate: 13C12-2,3,4,6,7,8-HxCDF		59.0		17-205	%	30-OCT-15				
Surrogate: 13C12-1,2,3,7,8,9-HxCDF		53.0		28-136	%	30-OCT-15				
Surrogate: 13C12-1,2,3,4,6,7,8-HpCDF		54.0		21-158	%	30-OCT-15				
Surrogate: 13C12-1,2,3,4,7,8,9-HpCDF		51.0		20-186	%	30-OCT-15				
Surrogate: 37Cl4-2,3,7,8-TCDD (Cleanup)		50.0		31-191	%	30-OCT-15				
Toxic Equivalency										
Lower Bound PCDD/F TEQ (WHO 2005)		0.00			pg/L	30-OCT-15				
Mid Point PCDD/F TEQ (WHO 2005)		1.27			pg/L	30-OCT-15				
Upper Bound PCDD/F TEQ (WHO 2005)		2.53			pg/L	30-OCT-15	1500			
L1693085-4	DYEC/FA/151024/4									
Sampled By: A. HUXTER on 25-OCT-15 @ 08:0										
Matrix: SOIL										
Sample Preparation										
Initial pH		12.33		0.10	pH units	25-OCT-15				
Final pH		11.68		0.10	pH units	25-OCT-15				
TCLP Extractables										
Alachlor		<0.0010		0.0010	mg/L	28-OCT-15				
Aldicarb		<0.010		0.010	mg/L	26-OCT-15	0.9			
Aldrin		<0.00020		0.00020	mg/L	28-OCT-15				
Aldrin + Dieldrin		<0.00040		0.00040	mg/L	28-OCT-15	0.07			
alpha-Chlordane		<0.0010		0.0010	mg/L	28-OCT-15				
Aroclor 1242		<0.00020		0.00020	mg/L	27-OCT-15				
Aroclor 1248		<0.00020		0.00020	mg/L	27-OCT-15				
Aroclor 1254		<0.00020		0.00020	mg/L	27-OCT-15				
Aroclor 1260		<0.00020		0.00020	mg/L	27-OCT-15				
Atrazine		<0.0010		0.0010	mg/L	28-OCT-15				
Atrazine Desethyl		<0.0010		0.0010	mg/L	28-OCT-15				
Atrazine & Metabolites		<0.0020		0.0020	mg/L	28-OCT-15	0.5			
Azinphos methyl		<0.0010		0.0010	mg/L	28-OCT-15	2			
Bendiocarb		<0.0050		0.0050	mg/L	28-OCT-15	4			
Benzo(a)pyrene		<0.0010		0.0010	mg/L	28-OCT-15	0.001			
Bromoxynil		<0.0020		0.0020	mg/L	27-OCT-15	0.5			

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Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte									
L1693085-4	DYEC/FA/151024/4									
Sampled By: A. HUXTER on 25-OCT-15 @ 08:0										
Matrix: SOIL										#1
TCLP Extractables										
	Carbaryl	<0.0020		0.0020	mg/L	28-OCT-15				9
	Carbofuran	<0.0020		0.0020	mg/L	28-OCT-15				9
	Chlordane (Total)	<0.0030		0.0030	mg/L	28-OCT-15				0.7
	Chlorpyrifos	<0.0010		0.0010	mg/L	28-OCT-15				9
	3&4-Methylphenol	<0.010		0.010	mg/L	27-OCT-15				
	Cresols (total)	<0.015		0.015	mg/L	27-OCT-15				200
	Cyanazine	<0.0010		0.0010	mg/L	28-OCT-15				1.0
	Cyanide, Weak Acid Diss	<0.10		0.10	mg/L	26-OCT-15				20
	2,4-D	<0.0020		0.0020	mg/L	27-OCT-15				10
	p,p-DDD	<0.0010		0.0010	mg/L	28-OCT-15				
	p,p-DDE	<0.0010		0.0010	mg/L	28-OCT-15				
	o,p-DDT	<0.0010		0.0010	mg/L	28-OCT-15				
	p,p-DDT	<0.0010		0.0010	mg/L	28-OCT-15				
	DDT + metabolites	<0.0040		0.0040	mg/L	28-OCT-15				3
	Diazinon	<0.0010		0.0010	mg/L	28-OCT-15				2
	Dicamba	<0.0050		0.0050	mg/L	27-OCT-15				12
	2,4-Dichlorophenol	<0.0050		0.0050	mg/L	27-OCT-15				90
	Diclofop methyl	<0.0020		0.0020	mg/L	28-OCT-15				0.9
	Dieldrin	<0.00020		0.00020	mg/L	28-OCT-15				
	Dimethoate	<0.0010		0.0010	mg/L	28-OCT-15				2
	2,4-Dinitrotoluene	<0.0040		0.0040	mg/L	27-OCT-15				0.13
	Dinoseb	<0.0020		0.0020	mg/L	27-OCT-15				1
	Diquat	<0.10	DLI	0.10	mg/L	27-OCT-15				7
	Diuron	<0.010		0.010	mg/L	26-OCT-15				15
	Endrin	<0.0010		0.0010	mg/L	28-OCT-15				0.02
	Parathion	<0.0010		0.0010	mg/L	28-OCT-15				5
	Fluoride (F)	<10		10	mg/L	26-OCT-15				150.0
	gamma-BHC	<0.0010		0.0010	mg/L	28-OCT-15				0.4
	gamma-Chlordane	<0.0010		0.0010	mg/L	28-OCT-15				
	Glyphosate	<0.050		0.050	mg/L	27-OCT-15				28
	Heptachlor	<0.0010		0.0010	mg/L	28-OCT-15				
	Heptachlor + Heptachlor Epoxide	<0.0020		0.0020	mg/L	28-OCT-15				0.3
	Heptachlor epoxide	<0.0010		0.0010	mg/L	28-OCT-15				
	Hexachlorobenzene	<0.0040		0.0040	mg/L	27-OCT-15				0.13
	Hexachlorobutadiene	<0.0040		0.0040	mg/L	27-OCT-15				0.5
	Hexachloroethane	<0.0040		0.0040	mg/L	27-OCT-15				3.0
	Malathion	<0.0010		0.0010	mg/L	28-OCT-15				19
	MCPA	<0.0020		0.0020	mg/L	27-OCT-15				
	Methoxychlor	<0.0010		0.0010	mg/L	28-OCT-15				90
	Methyl Parathion	<0.0010		0.0010	mg/L	28-OCT-15				0.7
	2-Methylphenol	<0.0050		0.0050	mg/L	27-OCT-15				
	Metolachlor	<0.0010		0.0010	mg/L	28-OCT-15				5
	Metribuzin	<0.0010		0.0010	mg/L	28-OCT-15				8
	Nitrate and Nitrite as N	<4.0		4.0	mg/L	26-OCT-15				1000
	Nitrate-N	<2.0		2.0	mg/L	26-OCT-15				
	Nitrilotriacetic Acid (NTA)	<40	DLM	0.20	mg/L	27-OCT-15				40

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Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte									
L1693085-4	DYEC/FA/151024/4									
Sampled By: A. HUXTER on 25-OCT-15 @ 08:0										
Matrix: SOIL										#1
TCLP Extractables										
	Nitrite-N	<2.0		2.0	mg/L	26-OCT-15				
	Nitrobenzene	<0.0040		0.0040	mg/L	27-OCT-15	2.0			
	N-Nitrosodimethylamine	<0.00020		0.00020	mg/L	27-OCT-15	0.0009			
	Oxychlorodane	<0.0010		0.0010	mg/L	28-OCT-15				
	Paraquat	<0.10	DLI	0.10	mg/L	27-OCT-15	1			
	Total PCBs	<0.00040		0.00040	mg/L	27-OCT-15	0.3			
	Pentachlorophenol	<0.0050		0.0050	mg/L	27-OCT-15	6			
	Phorate	<0.0010		0.0010	mg/L	28-OCT-15	0.2			
	Picloram	<0.0050		0.0050	mg/L	27-OCT-15	19			
	Prometryne	<0.0010		0.0010	mg/L	28-OCT-15				
	Pyridine	<5.0		5.0	mg/L	26-OCT-15	5.0			
	Simazine	<0.0010		0.0010	mg/L	28-OCT-15	1			
	2,4,5-T	<0.0020		0.0020	mg/L	27-OCT-15	28			
	Temephos	<0.0010		0.0010	mg/L	28-OCT-15	28			
	Terbufos	<0.0020		0.0020	mg/L	28-OCT-15	0.1			
	2,3,4,6-Tetrachlorophenol	<0.0050		0.0050	mg/L	27-OCT-15	10.0			
	Toxaphene	<0.0035		0.0035	mg/L	27-OCT-15	0.5			
	2,4,5-TP	<0.0020		0.0020	mg/L	27-OCT-15	1			
	Triallate	<0.0010		0.0010	mg/L	28-OCT-15	23			
	2,4,5-Trichlorophenol	<0.0050		0.0050	mg/L	27-OCT-15	400			
	2,4,6-Trichlorophenol	<0.0050		0.0050	mg/L	27-OCT-15	0.5			
	Trifluralin	<0.0050		0.0050	mg/L	28-OCT-15	4.5			
	Surrogate: 2,4,6-Tribromophenol	102.1		50-150	%	27-OCT-15				
	Surrogate: 2,4-Dichlorophenylacetic Acid	128.6		50-150	%	27-OCT-15				
	Surrogate: 2-Fluorobiphenyl	109.2		40-160	%	27-OCT-15				
	Surrogate: 2-Fluorobiphenyl	78.4		40-160	%	27-OCT-15				
	Surrogate: 2-Fluorobiphenyl	92.3		40-160	%	28-OCT-15				
	Surrogate: Nitrobenzene d5	114.4		50-150	%	27-OCT-15				
	Surrogate: d14-Terphenyl	108.7		60-140	%	28-OCT-15				
	Surrogate: d14-Terphenyl	91.9		60-140	%	28-OCT-15				
	Surrogate: p-Terphenyl d14	129.9		60-140	%	27-OCT-15				
TCLP Metals										
	Arsenic (As)	<0.050		0.050	mg/L	26-OCT-15	2.5			
	Barium (Ba)	1.63		0.50	mg/L	26-OCT-15	100			
	Boron (B)	<2.5		2.5	mg/L	26-OCT-15	500			
	Cadmium (Cd)	<0.0050		0.0050	mg/L	26-OCT-15	0.5			
	Chromium (Cr)	<0.050		0.050	mg/L	26-OCT-15	5.0			

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ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte						#1			
L1693085-4	DYEC/FA/151024/4									
Sampled By: A. HUXTER on 25-OCT-15 @ 08:0										
Matrix: SOIL										
TCLP Metals										
	Lead (Pb)	0.096		0.050	mg/L	26-OCT-15	5.0			
	Mercury (Hg)	<0.00010		0.00010	mg/L	27-OCT-15	0.1			
	Selenium (Se)	<0.25		0.25	mg/L	26-OCT-15	1.0			
	Silver (Ag)	<0.0050		0.0050	mg/L	26-OCT-15	5.0			
	Uranium (U)	<0.25		0.25	mg/L	26-OCT-15	10			
TCLP VOCs										
	1,1-Dichloroethylene	<0.025		0.025	mg/L	27-OCT-15	1.4			
	1,2-Dichlorobenzene	<0.025		0.025	mg/L	27-OCT-15	20.0			
	1,2-Dichloroethane	<0.025		0.025	mg/L	27-OCT-15	0.5			
	1,4-Dichlorobenzene	<0.025		0.025	mg/L	27-OCT-15	0.5			
	Benzene	<0.025		0.025	mg/L	27-OCT-15	0.5			
	Carbon tetrachloride	<0.025		0.025	mg/L	27-OCT-15	0.5			
	Chlorobenzene	<0.025		0.025	mg/L	27-OCT-15	8			
	Chloroform	<0.10		0.10	mg/L	27-OCT-15	10			
	Dichloromethane	<0.50		0.50	mg/L	27-OCT-15	5.0			
	Methyl Ethyl Ketone	<1.0		1.0	mg/L	27-OCT-15	200.0			
	Tetrachloroethylene	<0.025		0.025	mg/L	27-OCT-15	3			
	Trichloroethylene	<0.025		0.025	mg/L	27-OCT-15	5			
	Vinyl chloride	<0.050		0.050	mg/L	27-OCT-15	0.2			
	Surrogate: 4-Bromofluorobenzene	83.6		70-130	%	27-OCT-15				
Volatile Organic Compounds										
	Surrogate: 1,4-Difluorobenzene	98.5		50-150	%	27-OCT-15				
Polychlorinated Biphenyls										
	Surrogate: Decachlorobiphenyl	107.0		50-150	%	27-OCT-15				
	Surrogate: Tetrachloro-m-xylene	94.2		50-150	%	27-OCT-15				
Dioxins and Furans										
	2,3,7,8-TCDD	<0.74	[U]	0.74	pg/L	30-OCT-15				
	1,2,3,7,8-PeCDD	<0.38	[U]	0.38	pg/L	30-OCT-15				
	1,2,3,4,7,8-HxCDD	<0.37	[U]	0.37	pg/L	30-OCT-15				
	1,2,3,6,7,8-HxCDD	<0.39	[U]	0.39	pg/L	30-OCT-15				
	1,2,3,7,8,9-HxCDD	<0.38	[U]	0.38	pg/L	30-OCT-15				
	1,2,3,4,6,7,8-HpCDD	0.66	M,J	0.35	pg/L	30-OCT-15				
	OCDD	3.48	J,B	0.40	pg/L	30-OCT-15				
	Total-TCDD	<0.74	[U]	0.74	pg/L	30-OCT-15				
	Total TCDD # Homologues	0			No Unit	30-OCT-15				
	Total-PeCDD	<0.38	[U]	0.38	pg/L	30-OCT-15				
	Total PeCDD # Homologues	0			No Unit	30-OCT-15				
	Total-HxCDD	<0.39	[U]	0.39	pg/L	30-OCT-15				
	Total HxCDD # Homologues	0			No Unit	30-OCT-15				
	Total-HpCDD	0.66		0.35	pg/L	30-OCT-15				
	Total HpCDD # Homologues	1			No Unit	30-OCT-15				
	2,3,7,8-TCDF	<0.64	[U]	0.64	pg/L	30-OCT-15				
	1,2,3,7,8-PeCDF	<0.36	[U]	0.36	pg/L	30-OCT-15				
	2,3,4,7,8-PeCDF	<0.39	[U]	0.39	pg/L	30-OCT-15				
	1,2,3,4,7,8-HxCDF	<0.19	[U]	0.19	pg/L	30-OCT-15				
	1,2,3,6,7,8-HxCDF	<0.17	[U]	0.17	pg/L	30-OCT-15				

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Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits		
Grouping	Analyte								
L1693085-4	DYEC/FA/151024/4								
Sampled By: A. HUXTER on 25-OCT-15 @ 08:0									
Matrix: SOIL									
Dioxins and Furans									
	1,2,3,7,8,9-HxCDF	0.61	M,J,R	0.24	pg/L	30-OCT-15			
	2,3,4,6,7,8-HxCDF	<0.23	[U]	0.23	pg/L	30-OCT-15			
	1,2,3,4,6,7,8-HpCDF	<0.28	[U]	0.28	pg/L	30-OCT-15			
	1,2,3,4,7,8,9-HpCDF	<0.41	[U]	0.41	pg/L	30-OCT-15			
	OCDF	<0.42	[U]	0.42	pg/L	30-OCT-15			
	Total-TCDF	<0.64	[U]	0.64	pg/L	30-OCT-15			
	Total TCDF # Homologues	0			No Unit	30-OCT-15			
	Total-PeCDF	<0.39	[U]	0.39	pg/L	30-OCT-15			
	Total PeCDF # Homologues	0			No Unit	30-OCT-15			
	Total-HxCDF	<0.24	[U]	0.24	pg/L	30-OCT-15			
	Total HxCDF # Homologues	0			No Unit	30-OCT-15			
	Total-HpCDF	<0.41	[U]	0.41	pg/L	30-OCT-15			
	Total HpCDF # Homologues	0			No Unit	30-OCT-15			
	Surrogate: 13C12-2,3,7,8-TCDD	76.0		20-175	%	30-OCT-15			
	Surrogate: 13C12-1,2,3,7,8-PeCDD	73.0		21-227	%	30-OCT-15			
	Surrogate: 13C12-1,2,3,4,7,8-HxCDD	79.0		21-193	%	30-OCT-15			
	Surrogate: 13C12-1,2,3,6,7,8-HxCDD	80.0		25-163	%	30-OCT-15			
	Surrogate: 13C12-1,2,3,4,6,7,8-HpCDD	82.0		23-166	%	30-OCT-15			
	Surrogate: 13C12-OCDD	66.0		13-138	%	30-OCT-15			
	Surrogate: 13C12-2,3,7,8-TCDF	68.0		22-152	%	30-OCT-15			
	Surrogate: 13C12-1,2,3,7,8-PeCDF	76.0		24-185	%	30-OCT-15			
	Surrogate: 13C12-2,3,4,7,8-PeCDF	64.0		21-178	%	30-OCT-15			
	Surrogate: 13C12-1,2,3,4,7,8-HxCDF	78.0		26-152	%	30-OCT-15			
	Surrogate: 13C12-1,2,3,6,7,8-HxCDF	87.0		21-159	%	30-OCT-15			
	Surrogate: 13C12-2,3,4,6,7,8-HxCDF	74.0		17-205	%	30-OCT-15			
	Surrogate: 13C12-1,2,3,7,8,9-HxCDF	76.0		28-136	%	30-OCT-15			
	Surrogate: 13C12-1,2,3,4,6,7,8-HpCDF	79.0		21-158	%	30-OCT-15			
	Surrogate: 13C12-1,2,3,4,7,8,9-HpCDF	77.0		20-186	%	30-OCT-15			
	Surrogate: 37Cl4-2,3,7,8-TCDD (Cleanup)	75.0		31-191	%	30-OCT-15			
Toxic Equivalency									
	Lower Bound PCDD/F TEQ (WHO 2005)	0.00761			pg/L	30-OCT-15			
	Mid Point PCDD/F TEQ (WHO 2005)	0.815			pg/L	30-OCT-15			
	Upper Bound PCDD/F TEQ (WHO 2005)	1.56			pg/L	30-OCT-15	1500		

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Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

Reference Information

Sample Parameter Qualifier key listed:

Qualifier	Description
[U]	The analyte was not detected above the EDL.
DLM	Detection Limit Adjusted due to sample matrix effects.
DLI	Detection Limit Raised: Dilution required to address Internal Standard response problems caused by matrix interference.
M,U	A peak has been manually integrated, and the analyte was not detected above the EDL.
J,B	The analyte was detected below the calibrated range but above the EDL, and was detected in the Method Blank at >10% of the sample concentration.
M,J,R	A peak has been manually integrated, the analyte was detected below the calibrated range but above the EDL, and the ion abundance ratio(s) did not meet the acceptance criteria. Value is an estimated maximum.
M,J	A peak has been manually integrated, and the analyte was detected below the calibrated range but above the EDL.

Methods Listed (if applicable):

ALS Test Code	Matrix	Test Description	Method Reference***
ALDICARB-TCLP-WT	Waste	O. Reg 347 Aldicarb	LC/MS-MS
BNA-TCLP-WT	Waste	BNAs for O. Reg 347	SW846 8270
Samples are leached according to TCLP protocol and then the aqueous leachate is extracted and the resulting extracts are analyzed on GC/MSD			
CN-TCLP-WT	Waste	Cyanide for O. Reg 347	APHA 4500CN C E
DIQUAT-TCLP-WT	Waste	Diquat for O. Reg 347	LC/MS/MS
DIURON-TCLP-WT	Waste	Diuron for O. Reg 347	MOE PWAUH-E3436 (MOD)
DX-1613B-HRMS-BU	Waste	Dioxins and Furans by method 1613B	USEPA 1613B
Samples filtered if required. The solid portion is extracted by Soxhlet, the liquid portion is liquid/liquid extracted with dichloromethane. The extracts are prepared using column chromatography, reduced in volume and analyzed by isotope-dilution GC/HRMS.			
F-TCLP-WT	Waste	Fluoride (F) for O. Reg 347	APHA 4110 B-Ion Chromatography
GLYPHOSATE-TCLP-WT	Waste	Glyphosate for O. Reg 347	LC/MS/MS
HG-TCLP-WT	Waste	Mercury (CVAA) for O.Reg 347	SW846 7470A
LEACH-TCLP-WT	Waste	Leachate Procedure for Reg 347	EPA 1311
Inorganic and Semi-Volatile Organic contaminants are leached from waste samples in strict accordance with US EPA Method 1311, "Toxicity Characteristic Leaching Procedure" (TCLP). Test results are reported in leachate concentration units (normally mg/L).			
MET-TCLP-WT	Waste	O.Reg 347 TCLP Leachable Metals	EPA 200.8
N2N3-TCLP-WT	Waste	Nitrate/Nitrite-N for O. Reg 347	APHA 4110 B-Ion Chromatography
NDMA-TCLP-WT	Waste	NDMA for O. Reg 347	In House/GC/MS
NTA-TCLP-WT	Waste	NTA for O. Reg 347	EPA 430.2
PARAQUAT-TCLP-WT	Waste	Paraquat for O. Reg 347	LC/MS-MS
PCB-TCLP-WT	Waste	PCBs for O. Reg 347	SW846 8270
PEST-MISC-TCLP-WT	Waste	O. Reg 347 TCLP Miscellaneous Pesticides	SW846 8270
PEST-OC-TCLP-WT	Waste	O. Reg 347TCLP Organochlorine Pesticides	SW846 8270
Samples are leached according to TCLP protocol and then the aqueous leachate is extracted and the resulting extracts are analyzed on GC/MSD			
PEST-PAHERB-TCLP-WT	Waste	Phenoxyacid Herbicides for O. Reg 347	SW846 8270
PYR-TCLP-WT	Waste	Pyridine for O. Reg 347	SW846 8260D
Samples are leached according to TCLP protocol and then analyzed on GC/MSD			
TOXAPHENE-TCLP-WT	Waste	Toxaphene by GC/ECD for O. Reg 347	SW846 8270
VOC-TCLP-WT	Waste	VOC for O. Reg 347	SW846 8260

A sample of waste is leached in a zero headspace extractor at 30–2 rpm for 18–2.0 hours with the appropriate leaching solution. After tumbling the leachate is analyzed directly by headspace technology, followed by GC/MS using internal standard quantitation.

*** ALS test methods may incorporate modifications from specified reference methods to improve performance.

Chain of Custody numbers:

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location	Laboratory Definition Code	Laboratory Location
WT	ALS ENVIRONMENTAL - WATERLOO, ONTARIO, CANADA	BU	ALS ENVIRONMENTAL - BURLINGTON, ONTARIO, CANADA

Reference Information

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.

mg/kg - milligrams per kilogram based on dry weight of sample

mg/kg wwt - milligrams per kilogram based on wet weight of sample

mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight

mg/L - unit of concentration based on volume, parts per million.

< - Less than.

D.L. - The reporting limit.

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.

Application of guidelines is provided "as is" without warranty of any kind, either expressed or implied, including, but not limited to fitness for a particular purpose, or non-infringement. ALS assumes no responsibility for errors or omissions in the information.



Quality Control Report

Workorder: L1693085

Report Date: 02-NOV-15

Page 1 of 25

Client: Covanta - Durham York Renewable Energy LP
 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
ALDICARB-TCLP-WT		Waste						
Batch	R3296681							
WG2200627-3	DUP	L1692602-4						
Aldicarb		<0.010	<0.010	RPD-NA	mg/L	N/A	30	26-OCT-15
WG2200627-2	LCS							
Aldicarb			104.0		%		70-130	26-OCT-15
WG2200627-1	MB							
Aldicarb			<0.010		mg/L		0.01	26-OCT-15
BNA-TCLP-WT		Waste						
Batch	R3296622							
WG2200577-4	DUP	WG2200577-5						
2,3,4,6-Tetrachlorophenol		<0.0050	<0.0050	RPD-NA	mg/L	N/A	50	27-OCT-15
2,4,5-Trichlorophenol		<0.0050	<0.0050	RPD-NA	mg/L	N/A	50	27-OCT-15
2,4,6-Trichlorophenol		<0.0050	<0.0050	RPD-NA	mg/L	N/A	50	27-OCT-15
2,4-Dichlorophenol		<0.0050	<0.0050	RPD-NA	mg/L	N/A	50	27-OCT-15
2,4-Dinitrotoluene		<0.0040	<0.0040	RPD-NA	mg/L	N/A	50	27-OCT-15
2-Methylphenol		<0.0050	<0.0050	RPD-NA	mg/L	N/A	50	27-OCT-15
3&4-Methylphenol		<0.010	<0.010	RPD-NA	mg/L	N/A	50	27-OCT-15
Hexachlorobenzene		<0.0040	<0.0040	RPD-NA	mg/L	N/A	50	27-OCT-15
Hexachlorobutadiene		<0.0040	<0.0040	RPD-NA	mg/L	N/A	50	27-OCT-15
Hexachloroethane		<0.0040	<0.0040	RPD-NA	mg/L	N/A	50	27-OCT-15
Nitrobenzene		<0.0040	<0.0040	RPD-NA	mg/L	N/A	50	27-OCT-15
Pentachlorophenol		<0.0050	<0.0050	RPD-NA	mg/L	N/A	50	27-OCT-15
WG2200577-2	LCS							
2,3,4,6-Tetrachlorophenol			86.0		%		60-140	26-OCT-15
2,4,5-Trichlorophenol			91.6		%		60-140	26-OCT-15
2,4,6-Trichlorophenol			87.0		%		60-140	26-OCT-15
2,4-Dichlorophenol			79.7		%		60-140	26-OCT-15
2,4-Dinitrotoluene			91.1		%		50-150	26-OCT-15
2-Methylphenol			84.4		%		60-140	26-OCT-15
3&4-Methylphenol			84.3		%		60-140	26-OCT-15
Hexachlorobenzene			88.3		%		60-140	26-OCT-15
Hexachlorobutadiene			89.1		%		40-130	26-OCT-15
Hexachloroethane			90.3		%		40-130	26-OCT-15
Nitrobenzene			91.8		%		60-140	26-OCT-15
Pentachlorophenol			80.5		%		50-160	26-OCT-15
WG2200577-6	LCS							



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Client: Covanta - Durham York Renewable Energy LP
1835 Energy Drive
Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
BNA-TCLP-WT		Waste						
Batch	R3296622							
WG2200577-6	LCS							
2,3,4,6-Tetrachlorophenol			106.1		%		60-140	27-OCT-15
2,4,5-Trichlorophenol			102.8		%		60-140	27-OCT-15
2,4,6-Trichlorophenol			98.0		%		60-140	27-OCT-15
2,4-Dichlorophenol			93.4		%		60-140	27-OCT-15
2,4-Dinitrotoluene			101.3		%		50-150	27-OCT-15
2-Methylphenol			90.2		%		60-140	27-OCT-15
3&4-Methylphenol			89.8		%		60-140	27-OCT-15
Hexachlorobenzene			90.8		%		60-140	27-OCT-15
Hexachlorobutadiene			66.3		%		40-130	27-OCT-15
Hexachloroethane			73.1		%		40-130	27-OCT-15
Nitrobenzene			98.3		%		60-140	27-OCT-15
Pentachlorophenol			113.4		%		50-160	27-OCT-15
WG2200577-1	MB							
2,3,4,6-Tetrachlorophenol			<0.0050		mg/L		0.005	26-OCT-15
2,4,5-Trichlorophenol			<0.0050		mg/L		0.005	26-OCT-15
2,4,6-Trichlorophenol			<0.0050		mg/L		0.005	26-OCT-15
2,4-Dichlorophenol			<0.0050		mg/L		0.005	26-OCT-15
2,4-Dinitrotoluene			<0.0040		mg/L		0.004	26-OCT-15
2-Methylphenol			<0.0050		mg/L		0.005	26-OCT-15
3&4-Methylphenol			<0.010		mg/L		0.01	26-OCT-15
Hexachlorobenzene			<0.0040		mg/L		0.004	26-OCT-15
Hexachlorobutadiene			<0.0040		mg/L		0.004	26-OCT-15
Hexachloroethane			<0.0040		mg/L		0.004	26-OCT-15
Nitrobenzene			<0.0040		mg/L		0.004	26-OCT-15
Pentachlorophenol			<0.0050		mg/L		0.005	26-OCT-15
Surrogate: Nitrobenzene d5			93.9		%		50-150	26-OCT-15
Surrogate: 2-Fluorobiphenyl			94.3		%		40-160	26-OCT-15
Surrogate: p-Terphenyl d14			101.4		%		60-140	26-OCT-15
Surrogate: 2,4,6-Tribromophenol			82.0		%		50-150	26-OCT-15
WG2200577-3	MS		WG2200577-5					
2,3,4,6-Tetrachlorophenol			85.7		%		50-150	27-OCT-15
2,4,5-Trichlorophenol			90.3		%		50-150	27-OCT-15
2,4,6-Trichlorophenol			86.5		%		50-150	27-OCT-15
2,4-Dichlorophenol			79.7		%		50-150	27-OCT-15



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Client: Covanta - Durham York Renewable Energy LP
 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
BNA-TCLP-WT		Waste						
Batch	R3296622							
WG2200577-3	MS	WG2200577-5						
2,4-Dinitrotoluene			93.1		%		50-150	27-OCT-15
2-Methylphenol			85.2		%		50-150	27-OCT-15
3&4-Methylphenol			84.8		%		50-150	27-OCT-15
Hexachlorobenzene			89.1		%		40-150	27-OCT-15
Hexachlorobutadiene			89.3		%		40-150	27-OCT-15
Hexachloroethane			90.4		%		40-150	27-OCT-15
Nitrobenzene			92.0		%		50-150	27-OCT-15
Pentachlorophenol			79.4		%		50-150	27-OCT-15
CN-TCLP-WT		Waste						
Batch	R3296630							
WG2200789-3	DUP	L1692330-4						
Cyanide, Weak Acid Diss		<0.10	<0.10	RPD-NA	mg/L	N/A	20	26-OCT-15
WG2200789-2	LCS							
Cyanide, Weak Acid Diss			104.0		%		70-130	26-OCT-15
WG2200789-1	MB							
Cyanide, Weak Acid Diss			<0.10		mg/L		0.1	26-OCT-15
WG2200789-4	MS	L1692330-4						
Cyanide, Weak Acid Diss			101.5		%		50-150	26-OCT-15
DIQUAT-TCLP-WT		Waste						
Batch	R3297281							
WG2200908-3	DUP	L1692602-4						
Diquat		<0.10	<0.10		mg/L	N/A	0.02	27-OCT-15
WG2200908-2	LCS							
Diquat			113.2		%		70-130	27-OCT-15
WG2200908-1	MB							
Diquat			<0.010		mg/L		0.01	27-OCT-15
DIURON-TCLP-WT		Waste						
Batch	R3296682							
WG2200629-3	DUP	L1692602-4						
Diuron		<0.010	<0.010	RPD-NA	mg/L	N/A	30	26-OCT-15
WG2200629-2	LCS							
Diuron			90.9		%		70-130	26-OCT-15
WG2200629-1	MB							
Diuron			<0.010		mg/L		0.01	26-OCT-15
DX-1613B-HRMS-BU		Waste						



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Client: Covanta - Durham York Renewable Energy LP
 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
DX-1613B-HRMS-BU		Waste						
Batch	R3300797							
WG2202507-6	DUP	L1693219-4						
2,3,7,8-TCDD		<0.79	<1.1	RPD-NA	pg/L	N/A	50	31-OCT-15
1,2,3,7,8-PeCDD		<0.29	<0.58	RPD-NA	pg/L	N/A	50	31-OCT-15
1,2,3,4,7,8-HxCDD		<0.30	<0.56	RPD-NA	pg/L	N/A	50	31-OCT-15
1,2,3,6,7,8-HxCDD		<0.31	<0.59	RPD-NA	pg/L	N/A	50	31-OCT-15
1,2,3,7,8,9-HxCDD		<0.30	<0.57	RPD-NA	pg/L	N/A	50	31-OCT-15
1,2,3,4,6,7,8-HpCDD		<0.32	<0.50	RPD-NA	pg/L	N/A	50	31-OCT-15
OCDD		<0.24	<0.45	RPD-NA	pg/L	N/A	50	31-OCT-15
2,3,7,8-TCDF		<0.61	<1.0	RPD-NA	pg/L	N/A	50	31-OCT-15
1,2,3,7,8-PeCDF		<0.33	<0.45	RPD-NA	pg/L	N/A	50	31-OCT-15
2,3,4,7,8-PeCDF		<0.31	<0.49	RPD-NA	pg/L	N/A	50	31-OCT-15
1,2,3,4,7,8-HxCDF		<0.19	<0.35	RPD-NA	pg/L	N/A	50	31-OCT-15
1,2,3,6,7,8-HxCDF		<0.15	<0.28	RPD-NA	pg/L	N/A	50	31-OCT-15
2,3,4,6,7,8-HxCDF		<0.19	<0.38	RPD-NA	pg/L	N/A	50	31-OCT-15
1,2,3,7,8,9-HxCDF		0.38	0.63	RPD-NA	pg/L	N/A	50	31-OCT-15
1,2,3,4,6,7,8-HpCDF		<0.20	<0.33	RPD-NA	pg/L	N/A	50	31-OCT-15
1,2,3,4,7,8,9-HpCDF		<0.28	<0.46	RPD-NA	pg/L	N/A	50	31-OCT-15
OCDF		<0.38	<0.49	RPD-NA	pg/L	N/A	50	31-OCT-15
Total-TCDD		<0.79	<1.1	RPD-NA	pg/L	N/A	50	31-OCT-15
Total-PeCDD		<0.29	<0.58	RPD-NA	pg/L	N/A	50	31-OCT-15
Total-HxCDD		<0.31	<0.59	RPD-NA	pg/L	N/A	50	31-OCT-15
Total-HpCDD		<0.32	<0.50	RPD-NA	pg/L	N/A	50	31-OCT-15
Total-TCDF		<0.61	<1.0	RPD-NA	pg/L	N/A	50	31-OCT-15
Total-PeCDF		<0.33	<0.49	RPD-NA	pg/L	N/A	50	31-OCT-15
Total-HxCDF		<0.21	<0.39	RPD-NA	pg/L	N/A	50	31-OCT-15
Total-HpCDF		<0.28	<0.46	RPD-NA	pg/L	N/A	50	31-OCT-15
WG2202507-2	LCS							
2,3,7,8-TCDD			100.0		%		67-158	30-OCT-15
1,2,3,7,8-PeCDD			108.0		%		70-142	30-OCT-15
1,2,3,4,7,8-HxCDD			102.0		%		70-164	30-OCT-15
1,2,3,6,7,8-HxCDD			95.0		%		76-134	30-OCT-15
1,2,3,7,8,9-HxCDD			98.0		%		64-162	30-OCT-15
1,2,3,4,6,7,8-HpCDD			102.0		%		70-140	30-OCT-15
OCDD			98.0		%		78-144	30-OCT-15



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Client: Covanta - Durham York Renewable Energy LP
 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
DX-1613B-HRMS-BU		Waste						
Batch	R3300797							
WG2202507-2 LCS								
2,3,7,8-TCDF			98.0		%		75-158	30-OCT-15
1,2,3,7,8-PeCDF			100.0		%		80-134	30-OCT-15
2,3,4,7,8-PeCDF			97.0		%		68-160	30-OCT-15
1,2,3,4,7,8-HxCDF			103.0		%		72-134	30-OCT-15
1,2,3,6,7,8-HxCDF			90.0		%		84-130	30-OCT-15
2,3,4,6,7,8-HxCDF			104.0		%		78-130	30-OCT-15
1,2,3,7,8,9-HxCDF			103.0		%		70-156	30-OCT-15
1,2,3,4,6,7,8-HpCDF			101.0		%		82-122	30-OCT-15
1,2,3,4,7,8,9-HpCDF			103.0		%		78-138	30-OCT-15
OCDF			99.0		%		63-170	30-OCT-15
WG2202507-1 MB								
2,3,7,8-TCDD			<0.81	[U]	pg/L		0.81	30-OCT-15
1,2,3,7,8-PeCDD			<0.38	M,U	pg/L		0.38	30-OCT-15
1,2,3,4,7,8-HxCDD			0.47	M,J,R	pg/L		0.28	30-OCT-15
1,2,3,6,7,8-HxCDD			0.30	M,J,R	pg/L		0.28	30-OCT-15
1,2,3,7,8,9-HxCDD			<0.28	[U]	pg/L		0.28	30-OCT-15
1,2,3,4,6,7,8-HpCDD			<0.32	[U]	pg/L		0.32	30-OCT-15
OCDD			1.41	M,J	pg/L		0.41	30-OCT-15
2,3,7,8-TCDF			<0.67	[U]	pg/L		0.67	30-OCT-15
1,2,3,7,8-PeCDF			0.56	J,R	pg/L		0.42	30-OCT-15
2,3,4,7,8-PeCDF			<0.38	[U]	pg/L		0.38	30-OCT-15
1,2,3,4,7,8-HxCDF			<0.24	[U]	pg/L		0.24	30-OCT-15
1,2,3,6,7,8-HxCDF			<0.20	[U]	pg/L		0.2	30-OCT-15
2,3,4,6,7,8-HxCDF			0.55	M,J,R	pg/L		0.23	30-OCT-15
1,2,3,7,8,9-HxCDF			0.75	J,R	pg/L		0.27	30-OCT-15
1,2,3,4,6,7,8-HpCDF			0.62	M,J,R	pg/L		0.26	30-OCT-15
1,2,3,4,7,8,9-HpCDF			<0.35	[U]	pg/L		0.35	30-OCT-15
OCDF			0.72	M,J,R	pg/L		0.66	30-OCT-15
Total-TCDD			<0.81	[U]	pg/L		0.81	30-OCT-15
Total-PeCDD			<0.38	[U]	pg/L		0.38	30-OCT-15
Total-HxCDD			<0.28	[U]	pg/L		0.28	30-OCT-15
Total-HpCDD			<0.32	[U]	pg/L		0.32	30-OCT-15
Total-TCDF			<0.67	[U]	pg/L		0.67	30-OCT-15
Total-PeCDF			<0.42	[U]	pg/L		0.42	30-OCT-15



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Client: Covanta - Durham York Renewable Energy LP
1835 Energy Drive
Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
DX-1613B-HRMS-BU		Waste						
Batch R3300797								
WG2202507-1 MB								
Total-HxCDF			<0.27	[U]	pg/L		0.27	30-OCT-15
Total-HpCDF			<0.35	[U]	pg/L		0.35	30-OCT-15
Surrogate: 13C12-2,3,7,8-TCDD			67.0		%		20-175	30-OCT-15
Surrogate: 13C12-1,2,3,7,8-PeCDD			70.0		%		21-227	30-OCT-15
Surrogate: 13C12-1,2,3,4,7,8-HxCDD			69.0		%		21-193	30-OCT-15
Surrogate: 13C12-1,2,3,6,7,8-HxCDD			83.0		%		25-163	30-OCT-15
Surrogate: 13C12-1,2,3,4,6,7,8-HpCDD			80.0		%		23-166	30-OCT-15
Surrogate: 13C12-OCDD			63.0		%		13-138	30-OCT-15
Surrogate: 13C12-2,3,7,8-TCDF			68.0		%		22-152	30-OCT-15
Surrogate: 13C12-1,2,3,7,8-PeCDF			69.0		%		24-185	30-OCT-15
Surrogate: 13C12-2,3,4,7,8-PeCDF			68.0		%		21-178	30-OCT-15
Surrogate: 13C12-1,2,3,4,7,8-HxCDF			73.0		%		26-152	30-OCT-15
Surrogate: 13C12-1,2,3,6,7,8-HxCDF			79.0		%		21-159	30-OCT-15
Surrogate: 13C12-2,3,4,6,7,8-HxCDF			79.0		%		17-205	30-OCT-15
Surrogate: 13C12-1,2,3,7,8,9-HxCDF			74.0		%		28-136	30-OCT-15
Surrogate: 13C12-1,2,3,4,6,7,8-HpCDF			72.0		%		21-158	30-OCT-15
Surrogate: 13C12-1,2,3,4,7,8,9-HpCDF			69.0		%		20-186	30-OCT-15
Surrogate: 37Cl4-2,3,7,8-TCDD (Cleanup)			65.0		%		31-191	30-OCT-15
WG2202507-4 MB								
2,3,7,8-TCDD			<0.87	[U]	pg/L		0.87	30-OCT-15
1,2,3,7,8-PeCDD			0.46	M,J,R	pg/L		0.39	30-OCT-15
1,2,3,4,7,8-HxCDD			<0.34	[U]	pg/L		0.34	30-OCT-15
1,2,3,6,7,8-HxCDD			<0.35	[U]	pg/L		0.35	30-OCT-15
1,2,3,7,8,9-HxCDD			0.40	M,J,R	pg/L		0.34	30-OCT-15
1,2,3,4,6,7,8-HpCDD			0.77	M,J	pg/L		0.68	30-OCT-15
OCDD			0.83	M,J,R	pg/L		0.54	30-OCT-15
2,3,7,8-TCDF			<0.73	[U]	pg/L		0.73	30-OCT-15
1,2,3,7,8-PeCDF			<0.35	[U]	pg/L		0.35	30-OCT-15
2,3,4,7,8-PeCDF			<0.33	[U]	pg/L		0.33	30-OCT-15
1,2,3,4,7,8-HxCDF			<0.20	[U]	pg/L		0.2	30-OCT-15
1,2,3,6,7,8-HxCDF			<0.18	[U]	pg/L		0.18	30-OCT-15
2,3,4,6,7,8-HxCDF			0.44	M,J	pg/L		0.21	30-OCT-15
1,2,3,7,8,9-HxCDF			0.85	[J]	pg/L		0.27	30-OCT-15
1,2,3,4,6,7,8-HpCDF			0.61	M,J	pg/L		0.36	30-OCT-15



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Client: Covanta - Durham York Renewable Energy LP
1835 Energy Drive
Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
DX-1613B-HRMS-BU		Waste						
Batch R3300797								
WG2202507-4 MB								
1,2,3,4,7,8,9-HpCDF			<0.47	[U]	pg/L		0.47	30-OCT-15
OCDF			0.57	M,J,R	pg/L		0.4	30-OCT-15
Total-TCDD			<0.87	[U]	pg/L		0.87	30-OCT-15
Total-PeCDD			<0.39	[U]	pg/L		0.39	30-OCT-15
Total-HxCDD			<0.35	[U]	pg/L		0.35	30-OCT-15
Total-HpCDD			0.77	A	pg/L		0.68	30-OCT-15
Total-TCDF			<0.73	[U]	pg/L		0.73	30-OCT-15
Total-PeCDF			<0.35	[U]	pg/L		0.35	30-OCT-15
Total-HxCDF			1.28	A	pg/L		0.27	30-OCT-15
Total-HpCDF			0.61	A	pg/L		0.47	30-OCT-15
Surrogate: 13C12-2,3,7,8-TCDD			70.0		%		20-175	30-OCT-15
Surrogate: 13C12-1,2,3,7,8-PeCDD			75.0		%		21-227	30-OCT-15
Surrogate: 13C12-1,2,3,4,7,8-HxCDD			81.0		%		21-193	30-OCT-15
Surrogate: 13C12-1,2,3,6,7,8-HxCDD			83.0		%		25-163	30-OCT-15
Surrogate: 13C12-1,2,3,4,6,7,8-HpCDD			81.0		%		23-166	30-OCT-15
Surrogate: 13C12-OCDD			65.0		%		13-138	30-OCT-15
Surrogate: 13C12-2,3,7,8-TCDF			73.0		%		22-152	30-OCT-15
Surrogate: 13C12-1,2,3,7,8-PeCDF			74.0		%		24-185	30-OCT-15
Surrogate: 13C12-2,3,4,7,8-PeCDF			73.0		%		21-178	30-OCT-15
Surrogate: 13C12-1,2,3,4,7,8-HxCDF			75.0		%		26-152	30-OCT-15
Surrogate: 13C12-1,2,3,6,7,8-HxCDF			85.0		%		21-159	30-OCT-15
Surrogate: 13C12-2,3,4,6,7,8-HxCDF			84.0		%		17-205	30-OCT-15
Surrogate: 13C12-1,2,3,7,8,9-HxCDF			76.0		%		28-136	30-OCT-15
Surrogate: 13C12-1,2,3,4,6,7,8-HpCDF			77.0		%		21-158	30-OCT-15
Surrogate: 13C12-1,2,3,4,7,8,9-HpCDF			76.0		%		20-186	30-OCT-15
Surrogate: 37Cl4-2,3,7,8-TCDD (Cleanup)			73.0		%		31-191	30-OCT-15
COMMENTS: There are low level 2,3,7,8 hits in the method blank. Samples with these targets are flagged if the blank concentration is >10% of the sample concentration.								
WG2202507-5 MB								
2,3,7,8-TCDD			<0.88	[U]	pg/L		0.88	30-OCT-15
1,2,3,7,8-PeCDD			0.43	M,J	pg/L		0.36	30-OCT-15
1,2,3,4,7,8-HxCDD			<0.36	[U]	pg/L		0.36	30-OCT-15
1,2,3,6,7,8-HxCDD			<0.36	[U]	pg/L		0.36	30-OCT-15
1,2,3,7,8,9-HxCDD			0.45	M,J,R	pg/L		0.35	30-OCT-15



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 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
DX-1613B-HRMS-BU		Waste						
Batch	R3300797							
WG2202507-5 MB								
1,2,3,4,6,7,8-HpCDD			<0.61	[U]	pg/L		0.61	30-OCT-15
OCDD			0.83	M,J,R	pg/L		0.53	30-OCT-15
2,3,7,8-TCDF			<0.69	[U]	pg/L		0.69	30-OCT-15
1,2,3,7,8-PeCDF			0.47	J,R	pg/L		0.42	30-OCT-15
2,3,4,7,8-PeCDF			<0.39	[U]	pg/L		0.39	30-OCT-15
1,2,3,4,7,8-HxCDF			<0.46	[U]	pg/L		0.46	30-OCT-15
1,2,3,6,7,8-HxCDF			<0.40	[U]	pg/L		0.4	30-OCT-15
2,3,4,6,7,8-HxCDF			<0.46	[U]	pg/L		0.46	30-OCT-15
1,2,3,7,8,9-HxCDF			0.96	M,J,R	pg/L		0.53	30-OCT-15
1,2,3,4,6,7,8-HpCDF			0.36	M,J,R	pg/L		0.24	30-OCT-15
1,2,3,4,7,8,9-HpCDF			<0.32	[U]	pg/L		0.32	30-OCT-15
OCDF			<0.44	[U]	pg/L		0.44	30-OCT-15
Total-TCDD			<0.88	[U]	pg/L		0.88	30-OCT-15
Total-PeCDD			0.43	A	pg/L		0.36	30-OCT-15
Total-HxCDD			<0.36	[U]	pg/L		0.36	30-OCT-15
Total-HpCDD			<0.61	[U]	pg/L		0.61	30-OCT-15
Total-TCDF			<0.69	[U]	pg/L		0.69	30-OCT-15
Total-PeCDF			<0.42	[U]	pg/L		0.42	30-OCT-15
Total-HxCDF			<0.53	[U]	pg/L		0.53	30-OCT-15
Total-HpCDF			<0.32	[U]	pg/L		0.32	30-OCT-15
Surrogate: 13C12-2,3,7,8-TCDD			68.0		%		20-175	30-OCT-15
Surrogate: 13C12-1,2,3,7,8-PeCDD			72.0		%		21-227	30-OCT-15
Surrogate: 13C12-1,2,3,4,7,8-HxCDD			70.0		%		21-193	30-OCT-15
Surrogate: 13C12-1,2,3,6,7,8-HxCDD			87.0		%		25-163	30-OCT-15
Surrogate: 13C12-1,2,3,4,6,7,8-HpCDD			78.0		%		23-166	30-OCT-15
Surrogate: 13C12-OCDD			62.0		%		13-138	30-OCT-15
Surrogate: 13C12-2,3,7,8-TCDF			70.0		%		22-152	30-OCT-15
Surrogate: 13C12-1,2,3,7,8-PeCDF			70.0		%		24-185	30-OCT-15
Surrogate: 13C12-2,3,4,7,8-PeCDF			69.0		%		21-178	30-OCT-15
Surrogate: 13C12-1,2,3,4,7,8-HxCDF			75.0		%		26-152	30-OCT-15
Surrogate: 13C12-1,2,3,6,7,8-HxCDF			82.0		%		21-159	30-OCT-15
Surrogate: 13C12-2,3,4,6,7,8-HxCDF			81.0		%		17-205	30-OCT-15
Surrogate: 13C12-1,2,3,7,8,9-HxCDF			74.0		%		28-136	30-OCT-15

COMMENTS: There are low level 2,3,7,8 hits in the method blank all well within the blank acceptance limits of the reference method.



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1835 Energy Drive
Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
DX-1613B-HRMS-BU		Waste						
Batch	R3300797							
WG2202507-5	MB							
Surrogate: 13C12-1,2,3,4,6,7,8-HpCDF			74.0		%		21-158	30-OCT-15
Surrogate: 13C12-1,2,3,4,7,8,9-HpCDF			73.0		%		20-186	30-OCT-15
Surrogate: 37Cl4-2,3,7,8-TCDD (Cleanup)			69.0		%		31-191	30-OCT-15
COMMENTS: There are low level 2,3,7,8 hits in the method blank all well within the blank acceptance limits of the reference method. Samples with these targets are flagged if the blank concentration is >10% of the sample concentration.								
F-TCLP-WT		Waste						
Batch	R3297435							
WG2201205-3	DUP	L1693085-4						
Fluoride (F)		<10	<10	RPD-NA	mg/L	N/A	30	26-OCT-15
WG2201205-2	LCS							
Fluoride (F)			87.1		%		70-130	26-OCT-15
WG2201205-1	MB							
Fluoride (F)			<10		mg/L		10	26-OCT-15
WG2201205-4	MS	L1693085-4						
Fluoride (F)			92.2		%		50-150	26-OCT-15
GLYPHOSATE-TCLP-WT		Waste						
Batch	R3297314							
WG2201066-3	DUP	L1692602-4						
Glyphosate		<0.050	<0.050	RPD-NA	mg/L	N/A	30	27-OCT-15
WG2201066-2	LCS							
Glyphosate			94.8		%		70-130	27-OCT-15
WG2201066-1	MB							
Glyphosate			<0.050		mg/L		0.05	27-OCT-15
HG-TCLP-WT		Waste						
Batch	R3297342							
WG2201635-3	DUP	L1693219-4						
Mercury (Hg)		<0.00010	<0.00010	RPD-NA	mg/L	N/A	50	27-OCT-15
WG2201635-2	LCS							
Mercury (Hg)			102.0		%		70-130	27-OCT-15
WG2201635-1	MB							
Mercury (Hg)			<0.00010		mg/L		0.0001	27-OCT-15
WG2201635-4	MS	L1693085-1						
Mercury (Hg)			90.7		%		50-140	27-OCT-15
MET-TCLP-WT		Waste						



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Client: Covanta - Durham York Renewable Energy LP
 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-TCLP-WT		Waste						
Batch	R3296940							
WG2200983-4	DUP	WG2200983-3						
Silver (Ag)		<0.0050	<0.0050	RPD-NA	mg/L	N/A	40	26-OCT-15
Arsenic (As)		<0.050	<0.050	RPD-NA	mg/L	N/A	40	26-OCT-15
Boron (B)		<2.5	<2.5	RPD-NA	mg/L	N/A	40	26-OCT-15
Barium (Ba)		1.79	1.70		mg/L	4.7	40	26-OCT-15
Cadmium (Cd)		<0.0050	<0.0050	RPD-NA	mg/L	N/A	40	26-OCT-15
Chromium (Cr)		<0.050	<0.050	RPD-NA	mg/L	N/A	40	26-OCT-15
Lead (Pb)		0.088	0.085		mg/L	3.4	40	26-OCT-15
Selenium (Se)		<0.25	<0.25	RPD-NA	mg/L	N/A	40	26-OCT-15
Uranium (U)		<0.25	<0.25	RPD-NA	mg/L	N/A	40	26-OCT-15
WG2200983-2	LCS							
Silver (Ag)			102.1		%		70-130	26-OCT-15
Arsenic (As)			98.7		%		70-130	26-OCT-15
Boron (B)			88.7		%		70-130	26-OCT-15
Barium (Ba)			99.9		%		70-130	26-OCT-15
Cadmium (Cd)			95.5		%		70-130	26-OCT-15
Chromium (Cr)			98.9		%		70-130	26-OCT-15
Lead (Pb)			101.5		%		70-130	26-OCT-15
Selenium (Se)			99.4		%		70-130	26-OCT-15
Uranium (U)			99.8		%		70-130	26-OCT-15
WG2200983-1	MB							
Silver (Ag)			<0.0050		mg/L		0.005	26-OCT-15
Arsenic (As)			<0.050		mg/L		0.05	26-OCT-15
Boron (B)			<2.5		mg/L		2.5	26-OCT-15
Barium (Ba)			<0.50		mg/L		0.5	26-OCT-15
Cadmium (Cd)			<0.0050		mg/L		0.005	26-OCT-15
Chromium (Cr)			<0.050		mg/L		0.05	26-OCT-15
Lead (Pb)			<0.050		mg/L		0.05	26-OCT-15
Selenium (Se)			<0.25		mg/L		0.25	26-OCT-15
Uranium (U)			<0.25		mg/L		0.25	26-OCT-15
WG2200983-5	MS	WG2200983-3						
Silver (Ag)			119.4		%		50-150	26-OCT-15
Arsenic (As)			99.0		%		50-150	26-OCT-15
Boron (B)			96.0		%		50-150	26-OCT-15
Barium (Ba)			103.5		%		50-150	26-OCT-15



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 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-TCLP-WT		Waste						
Batch	R3296940							
WG2200983-5	MS	WG2200983-3						
Cadmium (Cd)			96.4		%		50-150	26-OCT-15
Chromium (Cr)			99.1		%		50-150	26-OCT-15
Lead (Pb)			96.3		%		50-150	26-OCT-15
Selenium (Se)			98.6		%		50-150	26-OCT-15
Uranium (U)			101.8		%		50-150	26-OCT-15
N2N3-TCLP-WT		Waste						
Batch	R3297435							
WG2201205-3	DUP	L1693085-4						
Nitrate-N		<2.0	<2.0	RPD-NA	mg/L	N/A	30	26-OCT-15
Nitrite-N		<2.0	<2.0	RPD-NA	mg/L	N/A	30	26-OCT-15
WG2201205-2	LCS							
Nitrate-N			93.8		%		70-130	26-OCT-15
Nitrite-N			95.9		%		70-130	26-OCT-15
WG2201205-1	MB							
Nitrate-N			<2.0		mg/L		2	26-OCT-15
Nitrite-N			<2.0		mg/L		2	26-OCT-15
WG2201205-4	MS	L1693085-4						
Nitrate-N			96.1		%		50-150	26-OCT-15
Nitrite-N			97.2		%		50-150	26-OCT-15
NDMA-TCLP-WT		Waste						
Batch	R3297310							
WG2200844-5	DUP	WG2200844-3						
N-Nitrosodimethylamine		<0.00020	<0.00020	RPD-NA	mg/L	N/A	50	27-OCT-15
WG2200844-2	LCS							
N-Nitrosodimethylamine			115.7		%		50-150	27-OCT-15
WG2200844-1	MB							
N-Nitrosodimethylamine			<0.00020		mg/L		0.0002	27-OCT-15
WG2200844-4	MS	WG2200844-3						
N-Nitrosodimethylamine			113.1		%		50-150	27-OCT-15
NTA-TCLP-WT		Waste						
Batch	R3297403							
WG2201654-3	DUP	L1692474-1						
Nitrotriacetic Acid (NTA)		<40	<0.20	RPD-NA	mg/L	N/A	25	27-OCT-15
WG2201654-2	LCS							
Nitrotriacetic Acid (NTA)			97.0		%		75-125	27-OCT-15



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 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed	
NTA-TCLP-WT		Waste							
Batch	R3297403								
WG2201654-1	MB								
Nitrilotriacetic Acid (NTA)			<0.20		mg/L		0.2	27-OCT-15	
PARAQUAT-TCLP-WT		Waste							
Batch	R3297281								
WG2200908-3	DUP	L1692602-4							
Paraquat			<0.10	<0.10	RPD-NA	mg/L	N/A	50	27-OCT-15
WG2200908-2	LCS								
Paraquat			92.4		%		50-150	27-OCT-15	
WG2200908-1	MB								
Paraquat			<0.010		mg/L		0.01	27-OCT-15	
PCB-TCLP-WT		Waste							
Batch	R3297151								
WG2200607-5	DUP	L1689999-1							
Aroclor 1242			<0.00020	<0.00020	RPD-NA	mg/L	N/A	50	27-OCT-15
Aroclor 1248			<0.00020	<0.00020	RPD-NA	mg/L	N/A	50	27-OCT-15
Aroclor 1254			<0.00020	<0.00020	RPD-NA	mg/L	N/A	50	27-OCT-15
Aroclor 1260			<0.00020	<0.00020	RPD-NA	mg/L	N/A	50	27-OCT-15
WG2200607-2	LCS								
Aroclor 1242			84.4		%		65-130	27-OCT-15	
Aroclor 1248			106.0		%		65-130	27-OCT-15	
Aroclor 1254			86.6		%		65-130	27-OCT-15	
Aroclor 1260			110.0		%		65-130	27-OCT-15	
WG2200607-1	MB								
Aroclor 1242			<0.00020		mg/L		0.0002	27-OCT-15	
Aroclor 1248			<0.00020		mg/L		0.0002	27-OCT-15	
Aroclor 1254			<0.00020		mg/L		0.0002	27-OCT-15	
Aroclor 1260			<0.00020		mg/L		0.0002	27-OCT-15	
Surrogate: 2-Fluorobiphenyl			66.8		%		40-160	27-OCT-15	
WG2200607-4	MS	L1689999-1							
Aroclor 1242			82.8		%		50-150	27-OCT-15	
Aroclor 1254			81.6		%		50-150	27-OCT-15	
Aroclor 1260			84.7		%		50-150	27-OCT-15	
PEST-MISC-TCLP-WT		Waste							



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 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PEST-MISC-TCLP-WT		Waste						
Batch	R3297984							
WG2200599-4	DUP	WG2200599-5						
Atrazine Desethyl		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
Atrazine		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
Bendiocarb		<0.0050	<0.0050	RPD-NA	mg/L	N/A	50	28-OCT-15
Trifluralin		<0.0050	<0.0050	RPD-NA	mg/L	N/A	50	28-OCT-15
Phorate		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
Dimethoate		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
Simazine		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
Carbofuran		<0.0020	<0.0020	RPD-NA	mg/L	N/A	50	28-OCT-15
Terbufos		<0.0020	<0.0020	RPD-NA	mg/L	N/A	50	28-OCT-15
Diazinon		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
Triallate		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
Metribuzin		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
Carbaryl		<0.0020	<0.0020	RPD-NA	mg/L	N/A	50	28-OCT-15
Alachlor		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
Prometryne		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
Malathion		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
Metolachlor		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
Methyl Parathion		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
Parathion		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
Cyanazine		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
Chlorpyrifos		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
Diclofop methyl		<0.0020	<0.0020	RPD-NA	mg/L	N/A	50	28-OCT-15
Azinphos methyl		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
Benzo(a)pyrene		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
Temephos		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
WG2200599-2	LCS							
Atrazine Desethyl			51.7		%		50-140	28-OCT-15
Atrazine			109.2		%		60-140	28-OCT-15
Bendiocarb			97.2		%		50-140	28-OCT-15
Trifluralin			93.7		%		60-140	28-OCT-15
Phorate			97.7		%		60-140	28-OCT-15
Dimethoate			84.0		%		60-140	28-OCT-15
Simazine			95.4		%		60-140	28-OCT-15



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Client: Covanta - Durham York Renewable Energy LP
 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PEST-MISC-TCLP-WT		Waste						
Batch	R3297984							
WG2200599-2	LCS							
Carbofuran			95.7		%		60-140	28-OCT-15
Terbufos			99.0		%		60-140	28-OCT-15
Diazinon			89.8		%		60-140	28-OCT-15
Triallate			108.6		%		60-140	28-OCT-15
Metribuzin			96.9		%		60-140	28-OCT-15
Carbaryl			81.8		%		50-175	28-OCT-15
Alachlor			108.9		%		60-140	28-OCT-15
Prometryne			105.5		%		60-140	28-OCT-15
Malathion			100.5		%		60-130	28-OCT-15
Metolachlor			102.6		%		60-140	28-OCT-15
Methyl Parathion			94.3		%		60-140	28-OCT-15
Parathion			109.7		%		60-140	28-OCT-15
Cyanazine			90.3		%		60-140	28-OCT-15
Chlorpyrifos			101.0		%		60-140	28-OCT-15
Diclofop methyl			134.6		%		60-140	28-OCT-15
Azinphos methyl			109.5		%		60-140	28-OCT-15
Benzo(a)pyrene			101.2		%		60-140	28-OCT-15
Temephos			115.8		%		60-140	28-OCT-15
WG2200599-1	MB							
Atrazine Desethyl			<0.0010		mg/L		0.001	28-OCT-15
Atrazine			<0.0010		mg/L		0.001	28-OCT-15
Bendiocarb			<0.0050		mg/L		0.005	28-OCT-15
Trifluralin			<0.0050		mg/L		0.005	28-OCT-15
Phorate			<0.0010		mg/L		0.001	28-OCT-15
Dimethoate			<0.0010		mg/L		0.001	28-OCT-15
Simazine			<0.0010		mg/L		0.001	28-OCT-15
Carbofuran			<0.0020		mg/L		0.002	28-OCT-15
Terbufos			<0.0020		mg/L		0.002	28-OCT-15
Diazinon			<0.0010		mg/L		0.001	28-OCT-15
Triallate			<0.0010		mg/L		0.001	28-OCT-15
Metribuzin			<0.0010		mg/L		0.001	28-OCT-15
Carbaryl			<0.0020		mg/L		0.002	28-OCT-15
Alachlor			<0.0010		mg/L		0.001	28-OCT-15
Prometryne			<0.0010		mg/L		0.001	28-OCT-15



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Client: Covanta - Durham York Renewable Energy LP
1835 Energy Drive
Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PEST-MISC-TCLP-WT		Waste						
Batch	R3297984							
WG2200599-1	MB							
Malathion			<0.0010		mg/L		0.001	28-OCT-15
Metolachlor			<0.0010		mg/L		0.001	28-OCT-15
Methyl Parathion			<0.0010		mg/L		0.001	28-OCT-15
Parathion			<0.0010		mg/L		0.001	28-OCT-15
Cyanazine			<0.0010		mg/L		0.001	28-OCT-15
Chlorpyrifos			<0.0010		mg/L		0.001	28-OCT-15
Diclofop methyl			<0.0020		mg/L		0.002	28-OCT-15
Azinphos methyl			<0.0010		mg/L		0.001	28-OCT-15
Benzo(a)pyrene			<0.0010		mg/L		0.001	28-OCT-15
Temephos			<0.0010		mg/L		0.001	28-OCT-15
Surrogate: 2-Fluorobiphenyl			83.7		%		40-160	28-OCT-15
Surrogate: d14-Terphenyl			74.9		%		60-140	28-OCT-15
WG2200599-6	MB							
Atrazine Desethyl			<0.0010		mg/L		0.001	29-OCT-15
Atrazine			<0.0010		mg/L		0.001	29-OCT-15
Bendiocarb			<0.0050		mg/L		0.005	29-OCT-15
Trifluralin			<0.0050		mg/L		0.005	29-OCT-15
Phorate			<0.0010		mg/L		0.001	29-OCT-15
Dimethoate			<0.0010		mg/L		0.001	29-OCT-15
Simazine			<0.0010		mg/L		0.001	29-OCT-15
Carbofuran			<0.0020		mg/L		0.002	29-OCT-15
Terbufos			<0.0020		mg/L		0.002	29-OCT-15
Diazinon			<0.0010		mg/L		0.001	29-OCT-15
Triallate			<0.0010		mg/L		0.001	29-OCT-15
Metribuzin			<0.0010		mg/L		0.001	29-OCT-15
Carbaryl			<0.0020		mg/L		0.002	29-OCT-15
Alachlor			<0.0010		mg/L		0.001	29-OCT-15
Prometryne			<0.0010		mg/L		0.001	29-OCT-15
Malathion			<0.0010		mg/L		0.001	29-OCT-15
Metolachlor			<0.0010		mg/L		0.001	29-OCT-15
Methyl Parathion			<0.0010		mg/L		0.001	29-OCT-15
Parathion			<0.0010		mg/L		0.001	29-OCT-15
Cyanazine			<0.0010		mg/L		0.001	29-OCT-15
Chlorpyrifos			<0.0010		mg/L		0.001	29-OCT-15



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Client: Covanta - Durham York Renewable Energy LP
 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PEST-MISC-TCLP-WT		Waste						
Batch	R3297984							
WG2200599-6	MB							
Diclofop methyl			<0.0020		mg/L		0.002	29-OCT-15
Azinphos methyl			<0.0010		mg/L		0.001	29-OCT-15
Benzo(a)pyrene			<0.0010		mg/L		0.001	29-OCT-15
Temephos			<0.0010		mg/L		0.001	29-OCT-15
Surrogate: 2-Fluorobiphenyl			75.4		%		40-160	29-OCT-15
Surrogate: d14-Terphenyl			79.3		%		60-140	29-OCT-15
WG2200599-3	MS	WG2200599-5						
Atrazine Desethyl			51.6		%		50-150	28-OCT-15
Atrazine			100.7		%		50-150	28-OCT-15
Bendiocarb			94.0		%		50-150	28-OCT-15
Trifluralin			83.0		%		50-150	28-OCT-15
Phorate			87.3		%		50-150	28-OCT-15
Dimethoate			86.9		%		50-150	28-OCT-15
Simazine			92.5		%		50-150	28-OCT-15
Carbofuran			93.6		%		50-150	28-OCT-15
Terbufos			88.9		%		50-150	28-OCT-15
Diazinon			82.9		%		50-150	28-OCT-15
Triallate			94.7		%		50-150	28-OCT-15
Metribuzin			96.5		%		50-150	28-OCT-15
Carbaryl			103.5		%		50-150	28-OCT-15
Alachlor			100.1		%		50-150	28-OCT-15
Prometryne			99.7		%		50-150	28-OCT-15
Malathion			93.2		%		50-150	28-OCT-15
Metolachlor			93.6		%		50-150	28-OCT-15
Methyl Parathion			92.5		%		50-150	28-OCT-15
Parathion			105.9		%		50-150	28-OCT-15
Cyanazine			103.1		%		50-150	28-OCT-15
Chlorpyrifos			94.2		%		50-150	28-OCT-15
Diclofop methyl			95.2		%		50-150	28-OCT-15
Azinphos methyl			116.4		%		50-150	28-OCT-15
Benzo(a)pyrene			95.5		%		50-150	28-OCT-15
Temephos			146.1		%		50-150	28-OCT-15

PEST-OC-TCLP-WT **Waste**



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Client: Covanta - Durham York Renewable Energy LP
1835 Energy Drive
Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PEST-OC-TCLP-WT		Waste						
Batch	R3297247							
WG2200599-4	DUP	WG2200599-5						
gamma-BHC		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	27-OCT-15
Heptachlor		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	27-OCT-15
Heptachlor epoxide		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	27-OCT-15
Oxychlordane		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	27-OCT-15
gamma-Chlordane		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	27-OCT-15
alpha-Chlordane		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	27-OCT-15
Aldrin		<0.00020	<0.00020	RPD-NA	mg/L	N/A	50	27-OCT-15
Dieldrin		<0.00020	<0.00020	RPD-NA	mg/L	N/A	50	27-OCT-15
Endrin		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	27-OCT-15
p,p-DDE		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	27-OCT-15
p,p-DDD		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	27-OCT-15
p,p-DDT		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	27-OCT-15
o,p-DDT		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	27-OCT-15
Methoxychlor		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	27-OCT-15
WG2200599-2	LCS							
gamma-BHC			100.4		%		50-150	27-OCT-15
Heptachlor			102.3		%		25-175	27-OCT-15
Heptachlor epoxide			84.0		%		25-175	27-OCT-15
Oxychlordane			82.6		%		25-175	27-OCT-15
gamma-Chlordane			87.1		%		25-175	27-OCT-15
alpha-Chlordane			87.4		%		25-175	27-OCT-15
Aldrin			121.1		%		25-175	27-OCT-15
Dieldrin			83.0		%		25-175	27-OCT-15
Endrin			106.2		%		50-150	27-OCT-15
p,p-DDE			79.8		%		25-175	27-OCT-15
p,p-DDD			84.3		%		25-175	27-OCT-15
p,p-DDT			97.5		%		25-175	27-OCT-15
o,p-DDT			87.5		%		50-130	27-OCT-15
Methoxychlor			111.4		%		25-175	27-OCT-15
WG2200599-1	MB							
gamma-BHC			<0.0010		mg/L		0.001	27-OCT-15
Heptachlor			<0.0010		mg/L		0.001	27-OCT-15
Heptachlor epoxide			<0.0010		mg/L		0.001	27-OCT-15
							0.001	



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Client: Covanta - Durham York Renewable Energy LP
1835 Energy Drive
Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PEST-OC-TCLP-WT		Waste						
Batch	R3297247							
WG2200599-1	MB							
Oxychlordane			<0.0010		mg/L		0.001	27-OCT-15
gamma-Chlordane			<0.0010		mg/L		0.001	27-OCT-15
alpha-Chlordane			<0.0010		mg/L		0.001	27-OCT-15
Aldrin			<0.00020		mg/L		0.0002	27-OCT-15
Dieldrin			<0.00020		mg/L		0.0002	27-OCT-15
Endrin			<0.0010		mg/L		0.001	27-OCT-15
p,p-DDE			<0.0010		mg/L		0.001	27-OCT-15
p,p-DDD			<0.0010		mg/L		0.001	27-OCT-15
p,p-DDT			<0.0010		mg/L		0.001	27-OCT-15
o,p-DDT			<0.0010		mg/L		0.001	27-OCT-15
Methoxychlor			<0.0010		mg/L		0.001	27-OCT-15
Surrogate: d14-Terphenyl			93.9		%		60-140	27-OCT-15
WG2200599-6	MB							
gamma-BHC			<0.0010		mg/L		0.001	29-OCT-15
Heptachlor			<0.0010		mg/L		0.001	29-OCT-15
Heptachlor epoxide			<0.0010		mg/L		0.001	29-OCT-15
Oxychlordane			<0.0010		mg/L		0.001	29-OCT-15
gamma-Chlordane			<0.0010		mg/L		0.001	29-OCT-15
alpha-Chlordane			<0.0010		mg/L		0.001	29-OCT-15
Aldrin			<0.00020		mg/L		0.0002	29-OCT-15
Dieldrin			<0.00020		mg/L		0.0002	29-OCT-15
Endrin			<0.0010		mg/L		0.001	29-OCT-15
p,p-DDE			<0.0010		mg/L		0.001	29-OCT-15
p,p-DDD			<0.0010		mg/L		0.001	29-OCT-15
p,p-DDT			<0.0010		mg/L		0.001	29-OCT-15
o,p-DDT			<0.0010		mg/L		0.001	29-OCT-15
Methoxychlor			<0.0010		mg/L		0.001	29-OCT-15
Surrogate: d14-Terphenyl			101.5		%		60-140	29-OCT-15
WG2200599-3	MS	WG2200599-5						
gamma-BHC			92.9		%		50-150	27-OCT-15
Heptachlor			92.7		%		50-150	27-OCT-15
Heptachlor epoxide			77.7		%		50-150	27-OCT-15
Oxychlordane			81.3		%		50-150	27-OCT-15
gamma-Chlordane			81.4		%		50-150	27-OCT-15



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Client: Covanta - Durham York Renewable Energy LP
 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PEST-OC-TCLP-WT		Waste						
Batch R3297247								
WG2200599-3 MS		WG2200599-5						
	alpha-Chlordane		82.8		%		50-150	27-OCT-15
	Aldrin		112.6		%		50-150	27-OCT-15
	Dieldrin		77.2		%		50-150	27-OCT-15
	Endrin		97.5		%		50-150	27-OCT-15
	p,p-DDE		74.0		%		50-150	27-OCT-15
	p,p-DDD		77.3		%		50-150	27-OCT-15
	p,p-DDT		92.3		%		50-150	27-OCT-15
	o,p-DDT		81.4		%		50-150	27-OCT-15
	Methoxychlor		107.6		%		50-150	27-OCT-15
PEST-PAHERB-TCLP-WT		Waste						
Batch R3297080								
WG2200573-4 DUP		WG2200573-5						
	2,4,5-TP	<0.0020	<0.0020	RPD-NA	mg/L	N/A	50	27-OCT-15
	MCPA	<0.0020	<0.0020	RPD-NA	mg/L	N/A	50	27-OCT-15
	2,4,5-T	<0.0020	<0.0020	RPD-NA	mg/L	N/A	50	27-OCT-15
	2,4-D	<0.0020	<0.0020	RPD-NA	mg/L	N/A	50	27-OCT-15
	Bromoxynil	<0.0020	<0.0020	RPD-NA	mg/L	N/A	50	27-OCT-15
	Dicamba	<0.0050	<0.0050	RPD-NA	mg/L	N/A	50	27-OCT-15
	Dinoseb	<0.0020	<0.0020	RPD-NA	mg/L	N/A	50	27-OCT-15
	Picloram	<0.0050	<0.0050	RPD-NA	mg/L	N/A	50	27-OCT-15
WG2200573-2 LCS								
	2,4,5-TP		122.6		%		65-135	27-OCT-15
	MCPA		127.6		%		65-135	27-OCT-15
	2,4,5-T		120.6		%		65-135	27-OCT-15
	2,4-D		126.5		%		25-175	27-OCT-15
	Bromoxynil		120.2		%		65-135	27-OCT-15
	Dicamba		121.9		%		30-150	27-OCT-15
	Dinoseb		134.1		%		30-150	27-OCT-15
	Picloram		58.6		%		25-120	27-OCT-15
WG2200573-1 MB								
	2,4,5-TP		<0.0020		mg/L		0.002	27-OCT-15
	MCPA		<0.0020		mg/L		0.002	27-OCT-15
	2,4,5-T		<0.0020		mg/L		0.002	27-OCT-15
	2,4-D		<0.0020		mg/L		0.002	27-OCT-15



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Client: Covanta - Durham York Renewable Energy LP
 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PEST-PAHERB-TCLP-WT Waste								
Batch R3297080								
WG2200573-1 MB								
	Bromoxynil		<0.0020		mg/L		0.002	27-OCT-15
	Dicamba		<0.0050		mg/L		0.005	27-OCT-15
	Dinoseb		<0.0020		mg/L		0.002	27-OCT-15
	Picloram		<0.0050		mg/L		0.005	27-OCT-15
	Surrogate: 2,4-Dichlorophenylacetic Acid		90.5		%		50-150	27-OCT-15
WG2200573-6 MB								
	2,4,5-TP		<0.0020		mg/L		0.002	27-OCT-15
	MCPA		<0.0020		mg/L		0.002	27-OCT-15
	2,4,5-T		<0.0020		mg/L		0.002	27-OCT-15
	2,4-D		<0.0020		mg/L		0.002	27-OCT-15
	Bromoxynil		<0.0020		mg/L		0.002	27-OCT-15
	Dicamba		<0.0050		mg/L		0.005	27-OCT-15
	Dinoseb		<0.0020		mg/L		0.002	27-OCT-15
	Picloram		<0.0050		mg/L		0.005	27-OCT-15
	Surrogate: 2,4-Dichlorophenylacetic Acid		109.3		%		50-150	27-OCT-15
WG2200573-3 MS WG2200573-5								
	2,4,5-TP		116.0		%		50-150	27-OCT-15
	MCPA		120.7		%		50-150	27-OCT-15
	2,4,5-T		121.3		%		50-150	27-OCT-15
	2,4-D		125.3		%		50-150	27-OCT-15
	Bromoxynil		125.2		%		50-150	27-OCT-15
	Dicamba		116.8		%		50-150	27-OCT-15
	Dinoseb		144.3		%		30-150	27-OCT-15
	Picloram		58.4		%		25-150	27-OCT-15
PYR-TCLP-WT Waste								
Batch R3296737								
WG2200611-6 DUP L1692474-1								
	Pyridine		<5.0	RPD-NA	mg/L	N/A	30	26-OCT-15
WG2200611-2 LCS								
	Pyridine		100.0		%		70-130	26-OCT-15
WG2200611-3 MB								
	Pyridine		<5.0		mg/L		5	26-OCT-15
WG2200611-5 MS L1692602-4								
	Pyridine		103.0		%		50-150	26-OCT-15
TOXAPHENE-TCLP-WT Waste								



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Client: Covanta - Durham York Renewable Energy LP
 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
TOXAPHENE-TCLP-WT		Waste						
Batch	R3297599							
WG2200600-5	DUP	WG2200600-3						
Toxaphene		<0.0035	<0.0035	RPD-NA	mg/L	N/A	50	27-OCT-15
WG2200600-2	LCS							
Toxaphene			133.0		%		50-150	27-OCT-15
WG2200600-1	MB							
Toxaphene			<0.0035		mg/L		0.0035	27-OCT-15
Surrogate: Decachlorobiphenyl			120.0		%		50-150	27-OCT-15
Surrogate: Tetrachloro-m-xylene			107.0		%		50-150	27-OCT-15
WG2200600-4	MS	WG2200600-3						
Toxaphene			109.4		%		50-150	27-OCT-15
VOC-TCLP-WT		Waste						
Batch	R3297063							
WG2197189-6	DUP	WG2197189-5						
1,1-Dichloroethylene		<0.025	<0.025	RPD-NA	mg/L	N/A	50	27-OCT-15
1,2-Dichlorobenzene		<0.025	<0.025	RPD-NA	mg/L	N/A	50	27-OCT-15
1,2-Dichloroethane		<0.025	<0.025	RPD-NA	mg/L	N/A	50	27-OCT-15
1,4-Dichlorobenzene		<0.025	<0.025	RPD-NA	mg/L	N/A	50	27-OCT-15
Benzene		<0.025	<0.025	RPD-NA	mg/L	N/A	50	27-OCT-15
Carbon tetrachloride		<0.025	<0.025	RPD-NA	mg/L	N/A	50	27-OCT-15
Chlorobenzene		<0.025	<0.025	RPD-NA	mg/L	N/A	50	27-OCT-15
Chloroform		<0.10	<0.10	RPD-NA	mg/L	N/A	50	27-OCT-15
Dichloromethane		<0.50	<0.50	RPD-NA	mg/L	N/A	50	27-OCT-15
Methyl Ethyl Ketone		<1.0	<1.0	RPD-NA	mg/L	N/A	50	27-OCT-15
Tetrachloroethylene		<0.025	<0.025	RPD-NA	mg/L	N/A	50	27-OCT-15
Trichloroethylene		<0.025	<0.025	RPD-NA	mg/L	N/A	50	27-OCT-15
Vinyl chloride		<0.050	<0.050	RPD-NA	mg/L	N/A	50	27-OCT-15
WG2197189-1	LCS							
1,1-Dichloroethylene			114.2		%		70-130	27-OCT-15
1,2-Dichlorobenzene			108.5		%		70-130	27-OCT-15
1,2-Dichloroethane			104.2		%		70-130	27-OCT-15
1,4-Dichlorobenzene			112.2		%		70-130	27-OCT-15
Benzene			113.7		%		70-130	27-OCT-15
Carbon tetrachloride			113.6		%		60-140	27-OCT-15
Chlorobenzene			104.4		%		70-130	27-OCT-15
Chloroform			113.4		%		70-130	27-OCT-15



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Client: Covanta - Durham York Renewable Energy LP
1835 Energy Drive
Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-TCLP-WT		Waste						
Batch	R3297063							
WG2197189-1	LCS							
Dichloromethane			115.4		%		70-130	27-OCT-15
Methyl Ethyl Ketone			100.4		%		50-150	27-OCT-15
Tetrachloroethylene			104.2		%		70-130	27-OCT-15
Trichloroethylene			108.1		%		70-130	27-OCT-15
Vinyl chloride			118.7		%		60-130	27-OCT-15
WG2197189-2	MB							
1,1-Dichloroethylene			<0.025		mg/L		0.025	27-OCT-15
1,2-Dichlorobenzene			<0.025		mg/L		0.025	27-OCT-15
1,2-Dichloroethane			<0.025		mg/L		0.025	27-OCT-15
1,4-Dichlorobenzene			<0.025		mg/L		0.025	27-OCT-15
Benzene			<0.025		mg/L		0.025	27-OCT-15
Carbon tetrachloride			<0.025		mg/L		0.025	27-OCT-15
Chlorobenzene			<0.025		mg/L		0.025	27-OCT-15
Chloroform			<0.10		mg/L		0.1	27-OCT-15
Dichloromethane			<0.50		mg/L		0.5	27-OCT-15
Methyl Ethyl Ketone			<1.0		mg/L		1	27-OCT-15
Tetrachloroethylene			<0.025		mg/L		0.025	27-OCT-15
Trichloroethylene			<0.025		mg/L		0.025	27-OCT-15
Vinyl chloride			<0.050		mg/L		0.05	27-OCT-15
Surrogate: 1,4-Difluorobenzene			100.9		%		50-150	27-OCT-15
Surrogate: 4-Bromofluorobenzene			98.2		%		70-130	27-OCT-15
COMMENTS: 24-OCT-15								
WG2197189-3	MB							
1,1-Dichloroethylene			<0.025		mg/L		0.025	27-OCT-15
1,2-Dichlorobenzene			<0.025		mg/L		0.025	27-OCT-15
1,2-Dichloroethane			<0.025		mg/L		0.025	27-OCT-15
1,4-Dichlorobenzene			<0.025		mg/L		0.025	27-OCT-15
Benzene			<0.025		mg/L		0.025	27-OCT-15
Carbon tetrachloride			<0.025		mg/L		0.025	27-OCT-15
Chlorobenzene			<0.025		mg/L		0.025	27-OCT-15
Chloroform			<0.10		mg/L		0.1	27-OCT-15
Dichloromethane			<0.50		mg/L		0.5	27-OCT-15
Methyl Ethyl Ketone			<1.0		mg/L		1	27-OCT-15
Tetrachloroethylene			<0.025		mg/L		0.025	27-OCT-15



Quality Control Report

Workorder: L1693085

Report Date: 02-NOV-15

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Client: Covanta - Durham York Renewable Energy LP
1835 Energy Drive
Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-TCLP-WT		Waste						
Batch	R3297063							
WG2197189-3	MB							
Trichloroethylene			<0.025		mg/L		0.025	27-OCT-15
Vinyl chloride			<0.050		mg/L		0.05	27-OCT-15
Surrogate: 1,4-Difluorobenzene			98.8		%		50-150	27-OCT-15
Surrogate: 4-Bromofluorobenzene			87.1		%		70-130	27-OCT-15
COMMENTS: 25-OCT-15								
WG2197189-4	MB							
1,1-Dichloroethylene			<0.025		mg/L		0.025	27-OCT-15
1,2-Dichlorobenzene			<0.025		mg/L		0.025	27-OCT-15
1,2-Dichloroethane			<0.025		mg/L		0.025	27-OCT-15
1,4-Dichlorobenzene			<0.025		mg/L		0.025	27-OCT-15
Benzene			<0.025		mg/L		0.025	27-OCT-15
Carbon tetrachloride			<0.025		mg/L		0.025	27-OCT-15
Chlorobenzene			<0.025		mg/L		0.025	27-OCT-15
Chloroform			<0.10		mg/L		0.1	27-OCT-15
Dichloromethane			<0.50		mg/L		0.5	27-OCT-15
Methyl Ethyl Ketone			<1.0		mg/L		1	27-OCT-15
Tetrachloroethylene			<0.025		mg/L		0.025	27-OCT-15
Trichloroethylene			<0.025		mg/L		0.025	27-OCT-15
Vinyl chloride			<0.050		mg/L		0.05	27-OCT-15
Surrogate: 1,4-Difluorobenzene			98.0		%		50-150	27-OCT-15
Surrogate: 4-Bromofluorobenzene			86.8		%		70-130	27-OCT-15
COMMENTS: 26-OCT-15								
WG2197189-7		WG2197189-5						
1,1-Dichloroethylene			113.9		%		50-140	27-OCT-15
1,2-Dichlorobenzene			107.8		%		50-140	27-OCT-15
1,2-Dichloroethane			110.2		%		50-140	27-OCT-15
1,4-Dichlorobenzene			109.9		%		50-140	27-OCT-15
Benzene			115.5		%		50-140	27-OCT-15
Carbon tetrachloride			113.0		%		50-140	27-OCT-15
Chlorobenzene			104.3		%		50-140	27-OCT-15
Chloroform			115.9		%		50-140	27-OCT-15
Dichloromethane			120.2		%		50-140	27-OCT-15
Methyl Ethyl Ketone			113.2		%		50-140	27-OCT-15
Tetrachloroethylene			99.7		%		50-140	27-OCT-15



Quality Control Report

Workorder: L1693085

Report Date: 02-NOV-15

Page 24 of 25

Client: Covanta - Durham York Renewable Energy LP
 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-TCLP-WT								
	Waste							
Batch	R3297063							
WG2197189-7 MS		WG2197189-5						
Trichloroethylene			107.8		%		50-140	27-OCT-15
Vinyl chloride			118.2		%		50-140	27-OCT-15

Quality Control Report

Workorder: L1693085

Report Date: 02-NOV-15

Client: Covanta - Durham York Renewable Energy LP
1835 Energy Drive
Courtice ON L1E 2R2
Contact: Leon Brasowski

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Legend:

Limit ALS Control Limit (Data Quality Objectives)
DUP Duplicate
RPD Relative Percent Difference
N/A Not Available
LCS Laboratory Control Sample
SRM Standard Reference Material
MS Matrix Spike
MSD Matrix Spike Duplicate
ADE Average Desorption Efficiency
MB Method Blank
IRM Internal Reference Material
CRM Certified Reference Material
CCV Continuing Calibration Verification
CVS Calibration Verification Standard
LCSD Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
A	Method Blank exceeds ALS DQO. Refer to narrative comments for further information.
DLM	Detection Limit Adjusted due to sample matrix effects.
J,R	The analyte was detected below the calibrated range but above the EDL, and the ion abundance ratio(s) did not meet the acceptance criteria. Value is an estimated maximum.
M,J	A peak has been manually integrated, and the analyte was detected below the calibrated range but above the EDL.
M,J,R	A peak has been manually integrated, the analyte was detected below the calibrated range but above the EDL, and the ion abundance ratio(s) did not meet the acceptance criteria. Value is an estimated maximum.
M,U	A peak has been manually integrated, and the analyte was not detected above the EDL.
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.
[J]	The analyte was detected below the calibrated range but above the EDL.
[U]	The analyte was not detected above the EDL.

Hold Time Exceedances:

All test results reported with this submission were conducted within ALS recommended hold times.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.



Covanta - Durham York Renewable Energy
LP
ATTN: Leon Brasowski
1835 Energy Drive
Courtice ON L1E 2R2

Date Received: 24-OCT-15
Report Date: 29-OCT-15 14:44 (MT)
Version: FINAL

Client Phone: 905-404-4041

Certificate of Analysis

Lab Work Order #: L1692602
Project P.O. #: DURYK-0000000069
Job Reference: DYEC - FLY ASH PROJECT
C of C Numbers:
Legal Site Desc:

Mary-Lynn Pires
Account Manager

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ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte									
L1692602-1	DYEC/FA/151023/1									
Sampled By: CLIENT on 24-OCT-15 @ 08:00										
Matrix: SOIL										
Sample Preparation										
Initial pH		12.38		0.10	pH units	24-OCT-15				
Final pH		12.17		0.10	pH units	24-OCT-15				
TCLP Extractables										
Alachlor		<0.0010		0.0010	mg/L	28-OCT-15				
Aldicarb		<0.010		0.010	mg/L	26-OCT-15	0.9			
Aldrin		<0.00020		0.00020	mg/L	27-OCT-15				
Aldrin + Dieldrin		<0.00040		0.00040	mg/L	27-OCT-15	0.07			
alpha-Chlordane		<0.0010		0.0010	mg/L	27-OCT-15				
Aroclor 1242		<0.00020		0.00020	mg/L	27-OCT-15				
Aroclor 1248		<0.00020		0.00020	mg/L	27-OCT-15				
Aroclor 1254		<0.00020		0.00020	mg/L	27-OCT-15				
Aroclor 1260		<0.00020		0.00020	mg/L	27-OCT-15				
Atrazine		<0.0010		0.0010	mg/L	28-OCT-15				
Atrazine Desethyl		<0.0010		0.0010	mg/L	28-OCT-15				
Atrazine & Metabolites		<0.0020		0.0020	mg/L	28-OCT-15	0.5			
Azinphos methyl		<0.0010		0.0010	mg/L	28-OCT-15	2			
Bendiocarb		<0.0050		0.0050	mg/L	28-OCT-15	4			
Benzo(a)pyrene		<0.0010		0.0010	mg/L	28-OCT-15	0.001			
Bromoxynil		<0.0020		0.0020	mg/L	27-OCT-15	0.5			
Carbaryl		<0.0020		0.0020	mg/L	28-OCT-15	9			
Carbofuran		<0.0020		0.0020	mg/L	28-OCT-15	9			
Chlordane (Total)		<0.0030		0.0030	mg/L	27-OCT-15	0.7			
Chlorpyrifos		<0.0010		0.0010	mg/L	28-OCT-15	9			
3&4-Methylphenol		<0.010		0.010	mg/L	27-OCT-15				
Cresols (total)		<0.015		0.015	mg/L	27-OCT-15	200			
Cyanazine		<0.0010		0.0010	mg/L	28-OCT-15	1.0			
Cyanide, Weak Acid Diss		<0.10		0.10	mg/L	26-OCT-15	20			
2,4-D		<0.0020		0.0020	mg/L	27-OCT-15	10			
p,p-DDD		<0.0010		0.0010	mg/L	27-OCT-15				
p,p-DDE		<0.0010		0.0010	mg/L	27-OCT-15				
o,p-DDT		<0.0010		0.0010	mg/L	27-OCT-15				
p,p-DDT		<0.0010		0.0010	mg/L	27-OCT-15				
DDT + metabolites		<0.0040		0.0040	mg/L	27-OCT-15	3			
Diazinon		<0.0010		0.0010	mg/L	28-OCT-15	2			
Dicamba		<0.0050		0.0050	mg/L	27-OCT-15	12			
2,4-Dichlorophenol		<0.0050		0.0050	mg/L	27-OCT-15	90			
Diclofop methyl		<0.0020		0.0020	mg/L	28-OCT-15	0.9			
Dieldrin		<0.00020		0.00020	mg/L	27-OCT-15				
Dimethoate		<0.0010		0.0010	mg/L	28-OCT-15	2			
2,4-Dinitrotoluene		<0.0040		0.0040	mg/L	27-OCT-15	0.13			
Dinoseb		<0.0020		0.0020	mg/L	27-OCT-15	1			
Diquat		<0.10	DLI	0.10	mg/L	27-OCT-15	7			
Diuron		<0.010		0.010	mg/L	26-OCT-15	15			
Endrin		<0.0010		0.0010	mg/L	27-OCT-15	0.02			
Parathion		<0.0010		0.0010	mg/L	28-OCT-15	5			
Fluoride (F)		<10		10	mg/L	26-OCT-15	150.0			

** Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.

* Analytical result for this parameter exceeds Guideline Limit listed on this report. Guideline Limits applied:

Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte									
L1692602-1	DYEC/FA/151023/1									
Sampled By: CLIENT on 24-OCT-15 @ 08:00										
Matrix: SOIL										#1
TCLP Extractables										
	gamma-BHC	<0.0010		0.0010	mg/L	27-OCT-15	0.4			
	gamma-Chlordane	<0.0010		0.0010	mg/L	27-OCT-15				
	Glyphosate	<0.050		0.050	mg/L	27-OCT-15	28			
	Heptachlor	<0.0010		0.0010	mg/L	27-OCT-15				
	Heptachlor + Heptachlor Epoxide	<0.0020		0.0020	mg/L	27-OCT-15	0.3			
	Heptachlor epoxide	<0.0010		0.0010	mg/L	27-OCT-15				
	Hexachlorobenzene	<0.0040		0.0040	mg/L	27-OCT-15	0.13			
	Hexachlorobutadiene	<0.0040		0.0040	mg/L	27-OCT-15	0.5			
	Hexachloroethane	<0.0040		0.0040	mg/L	27-OCT-15	3.0			
	Malathion	<0.0010		0.0010	mg/L	28-OCT-15	19			
	MCPA	<0.0020		0.0020	mg/L	27-OCT-15				
	Methoxychlor	<0.0010		0.0010	mg/L	27-OCT-15	90			
	Methyl Parathion	<0.0010		0.0010	mg/L	28-OCT-15	0.7			
	2-Methylphenol	<0.0050		0.0050	mg/L	27-OCT-15				
	Metolachlor	<0.0010		0.0010	mg/L	28-OCT-15	5			
	Metribuzin	<0.0010		0.0010	mg/L	28-OCT-15	8			
	Nitrate and Nitrite as N	<4.0		4.0	mg/L	26-OCT-15	1000			
	Nitrate-N	<2.0		2.0	mg/L	26-OCT-15				
	Nitrioltriacetic Acid (NTA)	<40	DLM	0.20	mg/L	27-OCT-15	40			
	Nitrite-N	<2.0		2.0	mg/L	26-OCT-15				
	Nitrobenzene	<0.0040		0.0040	mg/L	27-OCT-15	2.0			
	N-Nitrosodimethylamine	<0.00020		0.00020	mg/L	27-OCT-15	0.0009			
	Oxychlordane	<0.0010		0.0010	mg/L	27-OCT-15				
	Paraquat	<0.10	DLI	0.10	mg/L	27-OCT-15	1			
	Total PCBs	<0.00040		0.00040	mg/L	27-OCT-15	0.3			
	Pentachlorophenol	<0.0050		0.0050	mg/L	27-OCT-15	6			
	Phorate	<0.0010		0.0010	mg/L	28-OCT-15	0.2			
	Picloram	<0.0050		0.0050	mg/L	27-OCT-15	19			
	Prometryne	<0.0010		0.0010	mg/L	28-OCT-15				
	Pyridine	<5.0		5.0	mg/L	26-OCT-15	5.0			
	Simazine	<0.0010		0.0010	mg/L	28-OCT-15	1			
	2,4,5-T	<0.0020		0.0020	mg/L	27-OCT-15	28			
	Temephos	<0.0010		0.0010	mg/L	28-OCT-15	28			
	Terbufos	<0.0020		0.0020	mg/L	28-OCT-15	0.1			
	2,3,4,6-Tetrachlorophenol	<0.0050		0.0050	mg/L	27-OCT-15	10.0			
	Toxaphene	<0.0035		0.0035	mg/L	27-OCT-15	0.5			
	2,4,5-TP	<0.0020		0.0020	mg/L	27-OCT-15	1			
	Triallate	<0.0010		0.0010	mg/L	28-OCT-15	23			
	2,4,5-Trichlorophenol	<0.0050		0.0050	mg/L	27-OCT-15	400			
	2,4,6-Trichlorophenol	<0.0050		0.0050	mg/L	27-OCT-15	0.5			
	Trifluralin	<0.0050		0.0050	mg/L	28-OCT-15	4.5			
	Surrogate: 2,4,6-Tribromophenol	81.8		50-150	%	27-OCT-15				
	Surrogate: 2,4-Dichlorophenylacetic Acid	118.1		50-150	%	27-OCT-15				
	Surrogate: 2-Fluorobiphenyl	69.3		40-160	%	27-OCT-15				
	Surrogate: 2-Fluorobiphenyl	77.4		40-160	%	28-OCT-15				

** Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.

* Analytical result for this parameter exceeds Guideline Limit listed on this report. Guideline Limits applied:

Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits	
Grouping	Analyte							
L1692602-1	DYEC/FA/151023/1							
Sampled By: CLIENT on 24-OCT-15 @ 08:00								#1
Matrix: SOIL								
TCLP Extractables								
	Surrogate: 2-Fluorobiphenyl	95.5		40-160	%	27-OCT-15		
	Surrogate: Nitrobenzene d5	96.4		50-150	%	27-OCT-15		
	Surrogate: d14-Terphenyl	76.0		60-140	%	28-OCT-15		
	Surrogate: d14-Terphenyl	91.9		60-140	%	27-OCT-15		
	Surrogate: p-Terphenyl d14	97.2		60-140	%	27-OCT-15		
TCLP Metals								
	Arsenic (As)	<0.050		0.050	mg/L	26-OCT-15	2.5	
	Barium (Ba)	2.32		0.50	mg/L	26-OCT-15	100	
	Boron (B)	<2.5		2.5	mg/L	26-OCT-15	500	
	Cadmium (Cd)	<0.0050		0.0050	mg/L	26-OCT-15	0.5	
	Chromium (Cr)	<0.050		0.050	mg/L	26-OCT-15	5.0	
	Lead (Pb)	0.407		0.050	mg/L	26-OCT-15	5.0	
	Mercury (Hg)	<0.00010		0.00010	mg/L	26-OCT-15	0.1	
	Selenium (Se)	<0.25		0.25	mg/L	26-OCT-15	1.0	
	Silver (Ag)	<0.0050		0.0050	mg/L	26-OCT-15	5.0	
	Uranium (U)	<0.25		0.25	mg/L	26-OCT-15	10	
TCLP VOCs								
	1,1-Dichloroethylene	<0.025		0.025	mg/L	27-OCT-15	1.4	
	1,2-Dichlorobenzene	<0.025		0.025	mg/L	27-OCT-15	20.0	
	1,2-Dichloroethane	<0.025		0.025	mg/L	27-OCT-15	0.5	
	1,4-Dichlorobenzene	<0.025		0.025	mg/L	27-OCT-15	0.5	
	Benzene	<0.025		0.025	mg/L	27-OCT-15	0.5	
	Carbon tetrachloride	<0.025		0.025	mg/L	27-OCT-15	0.5	
	Chlorobenzene	<0.025		0.025	mg/L	27-OCT-15	8	
	Chloroform	<0.10		0.10	mg/L	27-OCT-15	10	
	Dichloromethane	<0.50		0.50	mg/L	27-OCT-15	5.0	
	Methyl Ethyl Ketone	<1.0		1.0	mg/L	27-OCT-15	200.0	
	Tetrachloroethylene	<0.025		0.025	mg/L	27-OCT-15	3	
	Trichloroethylene	<0.025		0.025	mg/L	27-OCT-15	5	
	Vinyl chloride	<0.050		0.050	mg/L	27-OCT-15	0.2	
	Surrogate: 4-Bromofluorobenzene	88.9		70-130	%	27-OCT-15		
Volatile Organic Compounds								
	Surrogate: 1,4-Difluorobenzene	99.1		50-150	%	27-OCT-15		
Polychlorinated Biphenyls								
	Surrogate: Decachlorobiphenyl	128.0		50-150	%	27-OCT-15		
	Surrogate: Tetrachloro-m-xylene	113.0		50-150	%	27-OCT-15		
Dioxins and Furans								
	2,3,7,8-TCDD	<1.6	[U]	1.6	pg/L	29-OCT-15		

** Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.

* Analytical result for this parameter exceeds Guideline Limit listed on this report. Guideline Limits applied:

Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte						#1			
L1692602-1	DYEC/FA/151023/1									
Sampled By: CLIENT on 24-OCT-15 @ 08:00										
Matrix: SOIL										
Dioxins and Furans										
	1,2,3,7,8-PeCDD	<0.76	[U]	0.76	pg/L	29-OCT-15				
	1,2,3,4,7,8-HxCDD	<0.93	[U]	0.93	pg/L	29-OCT-15				
	1,2,3,6,7,8-HxCDD	<0.87	[U]	0.87	pg/L	29-OCT-15				
	1,2,3,7,8,9-HxCDD	<0.89	[U]	0.89	pg/L	29-OCT-15				
	1,2,3,4,6,7,8-HpCDD	<1.0	[U]	1.0	pg/L	29-OCT-15				
	OCDD	<0.88	[U]	0.88	pg/L	29-OCT-15				
	Total-TCDD	<1.6	[U]	1.6	pg/L	29-OCT-15				
	Total TCDD # Homologues	0			No Unit	29-OCT-15				
	Total-PeCDD	<0.76	[U]	0.76	pg/L	29-OCT-15				
	Total PeCDD # Homologues	0			No Unit	29-OCT-15				
	Total-HxCDD	<0.93	[U]	0.93	pg/L	29-OCT-15				
	Total HxCDD # Homologues	0			No Unit	29-OCT-15				
	Total-HpCDD	<1.0	[U]	1.0	pg/L	29-OCT-15				
	Total HpCDD # Homologues	0			No Unit	29-OCT-15				
	2,3,7,8-TCDF	<1.8	[U]	1.8	pg/L	29-OCT-15				
	1,2,3,7,8-PeCDF	<0.73	[U]	0.73	pg/L	29-OCT-15				
	2,3,4,7,8-PeCDF	<0.64	[U]	0.64	pg/L	29-OCT-15				
	1,2,3,4,7,8-HxCDF	<0.62	[U]	0.62	pg/L	29-OCT-15				
	1,2,3,6,7,8-HxCDF	<0.50	[U]	0.50	pg/L	29-OCT-15				
	1,2,3,7,8,9-HxCDF	<0.88	[U]	0.88	pg/L	29-OCT-15				
	2,3,4,6,7,8-HxCDF	<0.65	[U]	0.65	pg/L	29-OCT-15				
	1,2,3,4,6,7,8-HpCDF	<0.61	[U]	0.61	pg/L	29-OCT-15				
	1,2,3,4,7,8,9-HpCDF	<0.94	[U]	0.94	pg/L	29-OCT-15				
	OCDF	<1.0	[U]	1.0	pg/L	29-OCT-15				
	Total-TCDF	<1.8	[U]	1.8	pg/L	29-OCT-15				
	Total TCDF # Homologues	0			No Unit	29-OCT-15				
	Total-PeCDF	<0.73	[U]	0.73	pg/L	29-OCT-15				
	Total PeCDF # Homologues	0			No Unit	29-OCT-15				
	Total-HxCDF	<0.88	[U]	0.88	pg/L	29-OCT-15				
	Total HxCDF # Homologues	0			No Unit	29-OCT-15				
	Total-HpCDF	<0.94	[U]	0.94	pg/L	29-OCT-15				
	Total HpCDF # Homologues	0			No Unit	29-OCT-15				
	Surrogate: 13C12-2,3,7,8-TCDD	73.0		20-175	%	29-OCT-15				
	Surrogate: 13C12-1,2,3,7,8-PeCDD	76.0		21-227	%	29-OCT-15				
	Surrogate: 13C12-1,2,3,4,7,8-HxCDD	65.0		21-193	%	29-OCT-15				
	Surrogate: 13C12-1,2,3,6,7,8-HxCDD	83.0		25-163	%	29-OCT-15				
	Surrogate: 13C12-1,2,3,4,6,7,8-HpCDD	73.0		23-166	%	29-OCT-15				
	Surrogate: 13C12-OCDD	70.0		13-138	%	29-OCT-15				
	Surrogate: 13C12-2,3,7,8-TCDF	77.0		22-152	%	29-OCT-15				
	Surrogate: 13C12-1,2,3,7,8-PeCDF	79.0		24-185	%	29-OCT-15				
	Surrogate: 13C12-2,3,4,7,8-PeCDF	78.0		21-178	%	29-OCT-15				
	Surrogate: 13C12-1,2,3,4,7,8-HxCDF	70.0		26-152	%	29-OCT-15				
	Surrogate: 13C12-1,2,3,6,7,8-HxCDF	90.0		21-159	%	29-OCT-15				
	Surrogate: 13C12-2,3,4,6,7,8-HxCDF	80.0		17-205	%	29-OCT-15				
	Surrogate: 13C12-1,2,3,7,8,9-HxCDF	70.0		28-136	%	29-OCT-15				
	Surrogate: 13C12-1,2,3,4,6,7,8-HpCDF	79.0		21-158	%	29-OCT-15				
	Surrogate: 13C12-1,2,3,4,7,8,9-HpCDF	75.0		20-186	%	29-OCT-15				
	Surrogate: 37Cl4-2,3,7,8-TCDD (Cleanup)	76.0		31-191	%	29-OCT-15				

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Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte									
L1692602-1	DYEC/FA/151023/1									
Sampled By: CLIENT on 24-OCT-15 @ 08:00							#1			
Matrix: SOIL										
Toxic Equivalency										
Lower Bound PCDD/F TEQ (WHO 2005)		0.00			pg/L	29-OCT-15				
Mid Point PCDD/F TEQ (WHO 2005)		1.66			pg/L	29-OCT-15				
Upper Bound PCDD/F TEQ (WHO 2005)		3.31			pg/L	29-OCT-15	1500			
L1692602-2	DYEC/FA/151023/2									
Sampled By: CLIENT on 24-OCT-15 @ 08:00							#1			
Matrix: SOIL										
Sample Preparation										
Initial pH		12.38		0.10	pH units	24-OCT-15				
Final pH		12.19		0.10	pH units	24-OCT-15				
TCLP Extractables										
Alachlor		<0.0010		0.0010	mg/L	28-OCT-15				
Aldicarb		<0.010		0.010	mg/L	26-OCT-15	0.9			
Aldrin		<0.00020		0.00020	mg/L	27-OCT-15				
Aldrin + Dieldrin		<0.00040		0.00040	mg/L	27-OCT-15	0.07			
alpha-Chlordane		<0.0010		0.0010	mg/L	27-OCT-15				
Aroclor 1242		<0.00020		0.00020	mg/L	27-OCT-15				
Aroclor 1248		<0.00020		0.00020	mg/L	27-OCT-15				
Aroclor 1254		<0.00020		0.00020	mg/L	27-OCT-15				
Aroclor 1260		<0.00020		0.00020	mg/L	27-OCT-15				
Atrazine		<0.0010		0.0010	mg/L	28-OCT-15				
Atrazine Desethyl		<0.0010		0.0010	mg/L	28-OCT-15				
Atrazine & Metabolites		<0.0020		0.0020	mg/L	28-OCT-15	0.5			
Azinphos methyl		<0.0010		0.0010	mg/L	28-OCT-15	2			
Bendiocarb		<0.0050		0.0050	mg/L	28-OCT-15	4			
Benzo(a)pyrene		<0.0010		0.0010	mg/L	28-OCT-15	0.001			
Bromoxynil		<0.0020		0.0020	mg/L	27-OCT-15	0.5			
Carbaryl		<0.0020		0.0020	mg/L	28-OCT-15	9			
Carbofuran		<0.0020		0.0020	mg/L	28-OCT-15	9			
Chlordane (Total)		<0.0030		0.0030	mg/L	27-OCT-15	0.7			
Chlorpyrifos		<0.0010		0.0010	mg/L	28-OCT-15	9			
3&4-Methylphenol		<0.010		0.010	mg/L	27-OCT-15				
Cresols (total)		<0.015		0.015	mg/L	27-OCT-15	200			
Cyanazine		<0.0010		0.0010	mg/L	28-OCT-15	1.0			
Cyanide, Weak Acid Diss		<0.10		0.10	mg/L	26-OCT-15	20			
2,4-D		<0.0020		0.0020	mg/L	27-OCT-15	10			
p,p-DDD		<0.0010		0.0010	mg/L	27-OCT-15				
p,p-DDE		<0.0010		0.0010	mg/L	27-OCT-15				
o,p-DDT		<0.0010		0.0010	mg/L	27-OCT-15				
p,p-DDT		<0.0010		0.0010	mg/L	27-OCT-15				
DDT + metabolites		<0.0040		0.0040	mg/L	27-OCT-15	3			
Diazinon		<0.0010		0.0010	mg/L	28-OCT-15	2			
Dicamba		<0.0050		0.0050	mg/L	27-OCT-15	12			
2,4-Dichlorophenol		<0.0050		0.0050	mg/L	27-OCT-15	90			
Diclofop methyl		<0.0020		0.0020	mg/L	28-OCT-15	0.9			
Dieldrin		<0.00020		0.00020	mg/L	27-OCT-15				

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Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits				
Grouping	Analyte										
L1692602-2	DYEC/FA/151023/2										
Sampled By: CLIENT on 24-OCT-15 @ 08:00											
Matrix: SOIL											
TCLP Extractables											
	Dimethoate	<0.0010		0.0010	mg/L	28-OCT-15	2				
	2,4-Dinitrotoluene	<0.0040		0.0040	mg/L	27-OCT-15	0.13				
	Dinoseb	<0.0020		0.0020	mg/L	27-OCT-15	1				
	Diquat	<0.10	DLI	0.10	mg/L	27-OCT-15	7				
	Diuron	<0.010		0.010	mg/L	26-OCT-15	15				
	Endrin	<0.0010		0.0010	mg/L	27-OCT-15	0.02				
	Parathion	<0.0010		0.0010	mg/L	28-OCT-15	5				
	Fluoride (F)	<10		10	mg/L	26-OCT-15	150.0				
	gamma-BHC	<0.0010		0.0010	mg/L	27-OCT-15	0.4				
	gamma-Chlordane	<0.0010		0.0010	mg/L	27-OCT-15					
	Glyphosate	<0.050		0.050	mg/L	27-OCT-15	28				
	Heptachlor	<0.0010		0.0010	mg/L	27-OCT-15					
	Heptachlor + Heptachlor Epoxide	<0.0020		0.0020	mg/L	27-OCT-15	0.3				
	Heptachlor epoxide	<0.0010		0.0010	mg/L	27-OCT-15					
	Hexachlorobenzene	<0.0040		0.0040	mg/L	27-OCT-15	0.13				
	Hexachlorobutadiene	<0.0040		0.0040	mg/L	27-OCT-15	0.5				
	Hexachloroethane	<0.0040		0.0040	mg/L	27-OCT-15	3.0				
	Malathion	<0.0010		0.0010	mg/L	28-OCT-15	19				
	MCPA	<0.0020		0.0020	mg/L	27-OCT-15					
	Methoxychlor	<0.0010		0.0010	mg/L	27-OCT-15	90				
	Methyl Parathion	<0.0010		0.0010	mg/L	28-OCT-15	0.7				
	2-Methylphenol	<0.0050		0.0050	mg/L	27-OCT-15					
	Metolachlor	<0.0010		0.0010	mg/L	28-OCT-15	5				
	Metribuzin	<0.0010		0.0010	mg/L	28-OCT-15	8				
	Nitrate and Nitrite as N	<4.0		4.0	mg/L	26-OCT-15	1000				
	Nitrate-N	<2.0		2.0	mg/L	26-OCT-15					
	Nitritotriacetic Acid (NTA)	<40	DLM	0.20	mg/L	27-OCT-15	40				
	Nitrite-N	<2.0		2.0	mg/L	26-OCT-15					
	Nitrobenzene	<0.0040		0.0040	mg/L	27-OCT-15	2.0				
	N-Nitrosodimethylamine	<0.00020		0.00020	mg/L	27-OCT-15	0.0009				
	Oxychlordane	<0.0010		0.0010	mg/L	27-OCT-15					
	Paraquat	<0.10	DLI	0.10	mg/L	27-OCT-15	1				
	Total PCBs	<0.00040		0.00040	mg/L	27-OCT-15	0.3				
	Pentachlorophenol	<0.0050		0.0050	mg/L	27-OCT-15	6				
	Phorate	<0.0010		0.0010	mg/L	28-OCT-15	0.2				
	Picloram	<0.0050		0.0050	mg/L	27-OCT-15	19				
	Prometryne	<0.0010		0.0010	mg/L	28-OCT-15					
	Pyridine	<5.0		5.0	mg/L	26-OCT-15	5.0				
	Simazine	<0.0010		0.0010	mg/L	28-OCT-15	1				
	2,4,5-T	<0.0020		0.0020	mg/L	27-OCT-15	28				
	Temephos	<0.0010		0.0010	mg/L	28-OCT-15	28				
	Terbufos	<0.0020		0.0020	mg/L	28-OCT-15	0.1				
	2,3,4,6-Tetrachlorophenol	<0.0050		0.0050	mg/L	27-OCT-15	10.0				
	Toxaphene	<0.0035		0.0035	mg/L	27-OCT-15	0.5				
	2,4,5-TP	<0.0020		0.0020	mg/L	27-OCT-15	1				
	Triallate	<0.0010		0.0010	mg/L	28-OCT-15	23				

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Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte						#1			
L1692602-2	DYEC/FA/151023/2									
Sampled By: CLIENT on 24-OCT-15 @ 08:00										
Matrix: SOIL										
TCLP Extractables										
	2,4,5-Trichlorophenol	<0.0050		0.0050	mg/L	27-OCT-15	400			
	2,4,6-Trichlorophenol	<0.0050		0.0050	mg/L	27-OCT-15	0.5			
	Trifluralin	<0.0050		0.0050	mg/L	28-OCT-15	4.5			
	Surrogate: 2,4,6-Tribromophenol	79.4		50-150	%	27-OCT-15				
	Surrogate: 2,4-Dichlorophenylacetic Acid	102.9		50-150	%	27-OCT-15				
	Surrogate: 2-Fluorobiphenyl	62.8		40-160	%	27-OCT-15				
	Surrogate: 2-Fluorobiphenyl	81.4		40-160	%	28-OCT-15				
	Surrogate: 2-Fluorobiphenyl	96.2		40-160	%	27-OCT-15				
	Surrogate: Nitrobenzene d5	96.7		50-150	%	27-OCT-15				
	Surrogate: d14-Terphenyl	79.0		60-140	%	28-OCT-15				
	Surrogate: d14-Terphenyl	99.8		60-140	%	27-OCT-15				
	Surrogate: p-Terphenyl d14	100.7		60-140	%	27-OCT-15				
TCLP Metals										
	Arsenic (As)	<0.050		0.050	mg/L	26-OCT-15	2.5			
	Barium (Ba)	2.37		0.50	mg/L	26-OCT-15	100			
	Boron (B)	<2.5		2.5	mg/L	26-OCT-15	500			
	Cadmium (Cd)	<0.0050		0.0050	mg/L	26-OCT-15	0.5			
	Chromium (Cr)	<0.050		0.050	mg/L	26-OCT-15	5.0			
	Lead (Pb)	0.344		0.050	mg/L	26-OCT-15	5.0			
	Mercury (Hg)	<0.00010		0.00010	mg/L	26-OCT-15	0.1			
	Selenium (Se)	<0.25		0.25	mg/L	26-OCT-15	1.0			
	Silver (Ag)	<0.0050		0.0050	mg/L	26-OCT-15	5.0			
	Uranium (U)	<0.25		0.25	mg/L	26-OCT-15	10			
TCLP VOCs										
	1,1-Dichloroethylene	<0.025		0.025	mg/L	27-OCT-15	1.4			
	1,2-Dichlorobenzene	<0.025		0.025	mg/L	27-OCT-15	20.0			
	1,2-Dichloroethane	<0.025		0.025	mg/L	27-OCT-15	0.5			
	1,4-Dichlorobenzene	<0.025		0.025	mg/L	27-OCT-15	0.5			
	Benzene	<0.025		0.025	mg/L	27-OCT-15	0.5			
	Carbon tetrachloride	<0.025		0.025	mg/L	27-OCT-15	0.5			
	Chlorobenzene	<0.025		0.025	mg/L	27-OCT-15	8			
	Chloroform	<0.10		0.10	mg/L	27-OCT-15	10			
	Dichloromethane	<0.50		0.50	mg/L	27-OCT-15	5.0			
	Methyl Ethyl Ketone	<1.0		1.0	mg/L	27-OCT-15	200.0			
	Tetrachloroethylene	<0.025		0.025	mg/L	27-OCT-15	3			
	Trichloroethylene	<0.025		0.025	mg/L	27-OCT-15	5			
	Vinyl chloride	<0.050		0.050	mg/L	27-OCT-15	0.2			

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Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

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ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte						#1			
L1692602-2	DYEC/FA/151023/2									
Sampled By:	CLIENT on 24-OCT-15 @ 08:00									
Matrix:	SOIL									
TCLP VOCs										
Surrogate:	4-Bromofluorobenzene	87.1		70-130	%	27-OCT-15				
Volatile Organic Compounds										
Surrogate:	1,4-Difluorobenzene	99.5		50-150	%	27-OCT-15				
Polychlorinated Biphenyls										
Surrogate:	Decachlorobiphenyl	106.0		50-150	%	27-OCT-15				
Surrogate:	Tetrachloro-m-xylene	91.4		50-150	%	27-OCT-15				
Dioxins and Furans										
	2,3,7,8-TCDD	<1.6	[U]	1.6	pg/L	29-OCT-15				
	1,2,3,7,8-PeCDD	<0.81	[U]	0.81	pg/L	29-OCT-15				
	1,2,3,4,7,8-HxCDD	<0.81	[U]	0.81	pg/L	29-OCT-15				
	1,2,3,6,7,8-HxCDD	<0.79	[U]	0.79	pg/L	29-OCT-15				
	1,2,3,7,8,9-HxCDD	<0.79	[U]	0.79	pg/L	29-OCT-15				
	1,2,3,4,6,7,8-HpCDD	<0.78	[U]	0.78	pg/L	29-OCT-15				
	OCDD	<0.80	[U]	0.80	pg/L	29-OCT-15				
	Total-TCDD	<1.6	[U]	1.6	pg/L	29-OCT-15				
	Total TCDD # Homologues	0			No Unit	29-OCT-15				
	Total-PeCDD	<0.81	[U]	0.81	pg/L	29-OCT-15				
	Total PeCDD # Homologues	0			No Unit	29-OCT-15				
	Total-HxCDD	<0.81	[U]	0.81	pg/L	29-OCT-15				
	Total HxCDD # Homologues	0			No Unit	29-OCT-15				
	Total-HpCDD	<0.78	[U]	0.78	pg/L	29-OCT-15				
	Total HpCDD # Homologues	0			No Unit	29-OCT-15				
	2,3,7,8-TCDF	<1.6	[U]	1.6	pg/L	29-OCT-15				
	1,2,3,7,8-PeCDF	<0.81	[U]	0.81	pg/L	29-OCT-15				
	2,3,4,7,8-PeCDF	<0.70	[U]	0.70	pg/L	29-OCT-15				
	1,2,3,4,7,8-HxCDF	<0.46	[U]	0.46	pg/L	29-OCT-15				
	1,2,3,6,7,8-HxCDF	<0.37	[U]	0.37	pg/L	29-OCT-15				
	1,2,3,7,8,9-HxCDF	<0.70	[U]	0.70	pg/L	29-OCT-15				
	2,3,4,6,7,8-HxCDF	<0.47	[U]	0.47	pg/L	29-OCT-15				
	1,2,3,4,6,7,8-HpCDF	<0.30	[U]	0.30	pg/L	29-OCT-15				
	1,2,3,4,7,8,9-HpCDF	<0.49	[U]	0.49	pg/L	29-OCT-15				
	OCDF	<0.94	[U]	0.94	pg/L	29-OCT-15				
	Total-TCDF	<1.6	[U]	1.6	pg/L	29-OCT-15				
	Total TCDF # Homologues	0			No Unit	29-OCT-15				
	Total-PeCDF	<0.81	[U]	0.81	pg/L	29-OCT-15				
	Total PeCDF # Homologues	0			No Unit	29-OCT-15				
	Total-HxCDF	<0.70	[U]	0.70	pg/L	29-OCT-15				
	Total HxCDF # Homologues	0			No Unit	29-OCT-15				
	Total-HpCDF	<0.49	[U]	0.49	pg/L	29-OCT-15				
	Total HpCDF # Homologues	0			No Unit	29-OCT-15				
	Surrogate: 13C12-2,3,7,8-TCDD	78.0		20-175	%	29-OCT-15				
	Surrogate: 13C12-1,2,3,7,8-PeCDD	79.0		21-227	%	29-OCT-15				
	Surrogate: 13C12-1,2,3,4,7,8-HxCDD	70.0		21-193	%	29-OCT-15				
	Surrogate: 13C12-1,2,3,6,7,8-HxCDD	92.0		25-163	%	29-OCT-15				
	Surrogate: 13C12-1,2,3,4,6,7,8-HpCDD	80.0		23-166	%	29-OCT-15				
	Surrogate: 13C12-OCDD	74.0		13-138	%	29-OCT-15				
	Surrogate: 13C12-2,3,7,8-TCDF	82.0		22-152	%	29-OCT-15				

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Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits		
Grouping	Analyte								
L1692602-2	DYEC/FA/151023/2								
Sampled By: CLIENT on 24-OCT-15 @ 08:00									
Matrix: SOIL									
Dioxins and Furans									
Surrogate: 13C12-1,2,3,7,8-PeCDF		86.0		24-185	%	29-OCT-15			
Surrogate: 13C12-2,3,4,7,8-PeCDF		82.0		21-178	%	29-OCT-15			
Surrogate: 13C12-1,2,3,4,7,8-HxCDF		76.0		26-152	%	29-OCT-15			
Surrogate: 13C12-1,2,3,6,7,8-HxCDF		105.0		21-159	%	29-OCT-15			
Surrogate: 13C12-2,3,4,6,7,8-HxCDF		94.0		17-205	%	29-OCT-15			
Surrogate: 13C12-1,2,3,7,8,9-HxCDF		77.0		28-136	%	29-OCT-15			
Surrogate: 13C12-1,2,3,4,6,7,8-HpCDF		90.0		21-158	%	29-OCT-15			
Surrogate: 13C12-1,2,3,4,7,8,9-HpCDF		79.0		20-186	%	29-OCT-15			
Surrogate: 37Cl4-2,3,7,8-TCDD (Cleanup)		72.0		31-191	%	29-OCT-15			
Toxic Equivalency									
Lower Bound PCDD/F TEQ (WHO 2005)		0.00			pg/L	29-OCT-15			
Mid Point PCDD/F TEQ (WHO 2005)		1.63			pg/L	29-OCT-15			
Upper Bound PCDD/F TEQ (WHO 2005)		3.26			pg/L	29-OCT-15	1500		
L1692602-3	DYEC/FA/151023/3								
Sampled By: CLIENT on 24-OCT-15 @ 08:00									
Matrix: SOIL									
Sample Preparation									
Initial pH		12.38		0.10	pH units	24-OCT-15			
Final pH		12.17		0.10	pH units	24-OCT-15			
TCLP Extractables									
Alachlor		<0.0010		0.0010	mg/L	28-OCT-15			
Aldicarb		<0.010		0.010	mg/L	26-OCT-15	0.9		
Aldrin		<0.00020		0.00020	mg/L	27-OCT-15			
Aldrin + Dieldrin		<0.00040		0.00040	mg/L	27-OCT-15	0.07		
alpha-Chlordane		<0.0010		0.0010	mg/L	27-OCT-15			
Aroclor 1242		<0.00020		0.00020	mg/L	27-OCT-15			
Aroclor 1248		<0.00020		0.00020	mg/L	27-OCT-15			
Aroclor 1254		<0.00020		0.00020	mg/L	27-OCT-15			
Aroclor 1260		<0.00020		0.00020	mg/L	27-OCT-15			
Atrazine		<0.0010		0.0010	mg/L	28-OCT-15			
Atrazine Desethyl		<0.0010		0.0010	mg/L	28-OCT-15			
Atrazine & Metabolites		<0.0020		0.0020	mg/L	28-OCT-15	0.5		
Azinphos methyl		<0.0010		0.0010	mg/L	28-OCT-15	2		
Bendiocarb		<0.0050		0.0050	mg/L	28-OCT-15	4		
Benzo(a)pyrene		<0.0010		0.0010	mg/L	28-OCT-15	0.001		
Bromoxynil		<0.0020		0.0020	mg/L	27-OCT-15	0.5		
Carbaryl		<0.0020		0.0020	mg/L	28-OCT-15	9		
Carbofuran		<0.0020		0.0020	mg/L	28-OCT-15	9		
Chlordane (Total)		<0.0030		0.0030	mg/L	27-OCT-15	0.7		
Chlorpyrifos		<0.0010		0.0010	mg/L	28-OCT-15	9		
3&4-Methylphenol		<0.010		0.010	mg/L	27-OCT-15			
Cresols (total)		<0.015		0.015	mg/L	27-OCT-15	200		
Cyanazine		<0.0010		0.0010	mg/L	28-OCT-15	1.0		
Cyanide, Weak Acid Diss		<0.10		0.10	mg/L	26-OCT-15	20		
2,4-D		<0.0020		0.0020	mg/L	27-OCT-15	10		

** Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.

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Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte									
L1692602-3	DYEC/FA/151023/3									
Sampled By: CLIENT on 24-OCT-15 @ 08:00										
Matrix: SOIL										
TCLP Extractables										
	p,p-DDD	<0.0010		0.0010	mg/L	27-OCT-15				
	p,p-DDE	<0.0010		0.0010	mg/L	27-OCT-15				
	o,p-DDT	<0.0010		0.0010	mg/L	27-OCT-15				
	p,p-DDT	<0.0010		0.0010	mg/L	27-OCT-15				
	DDT + metabolites	<0.0040		0.0040	mg/L	27-OCT-15	3			
	Diazinon	<0.0010		0.0010	mg/L	28-OCT-15	2			
	Dicamba	<0.0050		0.0050	mg/L	27-OCT-15	12			
	2,4-Dichlorophenol	<0.0050		0.0050	mg/L	27-OCT-15	90			
	Diclofop methyl	<0.0020		0.0020	mg/L	28-OCT-15	0.9			
	Dieldrin	<0.00020		0.00020	mg/L	27-OCT-15				
	Dimethoate	<0.0010		0.0010	mg/L	28-OCT-15	2			
	2,4-Dinitrotoluene	<0.0040		0.0040	mg/L	27-OCT-15	0.13			
	Dinoseb	<0.0020		0.0020	mg/L	27-OCT-15	1			
	Diquat	<0.10	DLI	0.10	mg/L	27-OCT-15	7			
	Diuron	<0.010		0.010	mg/L	26-OCT-15	15			
	Endrin	<0.0010		0.0010	mg/L	27-OCT-15	0.02			
	Parathion	<0.0010		0.0010	mg/L	28-OCT-15	5			
	Fluoride (F)	<10		10	mg/L	26-OCT-15	150.0			
	gamma-BHC	<0.0010		0.0010	mg/L	27-OCT-15	0.4			
	gamma-Chlordane	<0.0010		0.0010	mg/L	27-OCT-15				
	Glyphosate	<0.050		0.050	mg/L	27-OCT-15	28			
	Heptachlor	<0.0010		0.0010	mg/L	27-OCT-15				
	Heptachlor + Heptachlor Epoxide	<0.0020		0.0020	mg/L	27-OCT-15	0.3			
	Heptachlor epoxide	<0.0010		0.0010	mg/L	27-OCT-15				
	Hexachlorobenzene	<0.0040		0.0040	mg/L	27-OCT-15	0.13			
	Hexachlorobutadiene	<0.0040		0.0040	mg/L	27-OCT-15	0.5			
	Hexachloroethane	<0.0040		0.0040	mg/L	27-OCT-15	3.0			
	Malathion	<0.0010		0.0010	mg/L	28-OCT-15	19			
	MCPA	<0.0020		0.0020	mg/L	27-OCT-15				
	Methoxychlor	<0.0010		0.0010	mg/L	27-OCT-15	90			
	Methyl Parathion	<0.0010		0.0010	mg/L	28-OCT-15	0.7			
	2-Methylphenol	<0.0050		0.0050	mg/L	27-OCT-15				
	Metolachlor	<0.0010		0.0010	mg/L	28-OCT-15	5			
	Metribuzin	<0.0010		0.0010	mg/L	28-OCT-15	8			
	Nitrate and Nitrite as N	<4.0		4.0	mg/L	26-OCT-15	1000			
	Nitrate-N	<2.0		2.0	mg/L	26-OCT-15				
	Nitritotriacetic Acid (NTA)	<40	DLM	0.20	mg/L	27-OCT-15	40			
	Nitrite-N	<2.0		2.0	mg/L	26-OCT-15				
	Nitrobenzene	<0.0040		0.0040	mg/L	27-OCT-15	2.0			
	N-Nitrosodimethylamine	<0.00020		0.00020	mg/L	27-OCT-15	0.0009			
	Oxychlordane	<0.0010		0.0010	mg/L	27-OCT-15				
	Paraquat	<0.10	DLI	0.10	mg/L	27-OCT-15	1			
	Total PCBs	<0.00040		0.00040	mg/L	27-OCT-15	0.3			
	Pentachlorophenol	<0.0050		0.0050	mg/L	27-OCT-15	6			
	Phorate	<0.0010		0.0010	mg/L	28-OCT-15	0.2			
	Picloram	<0.0050		0.0050	mg/L	27-OCT-15	19			

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Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte						#1			
L1692602-3	DYEC/FA/151023/3									
Sampled By: CLIENT on 24-OCT-15 @ 08:00										
Matrix: SOIL										
TCLP Extractables										
Prometryne		<0.0010		0.0010	mg/L	28-OCT-15				
Pyridine		<5.0		5.0	mg/L	26-OCT-15	5.0			
Simazine		<0.0010		0.0010	mg/L	28-OCT-15	1			
2,4,5-T		<0.0020		0.0020	mg/L	27-OCT-15	28			
Temephos		<0.0010		0.0010	mg/L	28-OCT-15	28			
Terbufos		<0.0020		0.0020	mg/L	28-OCT-15	0.1			
2,3,4,6-Tetrachlorophenol		<0.0050		0.0050	mg/L	27-OCT-15	10.0			
Toxaphene		<0.0035		0.0035	mg/L	27-OCT-15	0.5			
2,4,5-TP		<0.0020		0.0020	mg/L	27-OCT-15	1			
Triallate		<0.0010		0.0010	mg/L	28-OCT-15	23			
2,4,5-Trichlorophenol		<0.0050		0.0050	mg/L	27-OCT-15	400			
2,4,6-Trichlorophenol		<0.0050		0.0050	mg/L	27-OCT-15	0.5			
Trifluralin		<0.0050		0.0050	mg/L	28-OCT-15	4.5			
Surrogate: 2,4,6-Tribromophenol		78.1		50-150	%	27-OCT-15				
Surrogate: 2,4-Dichlorophenylacetic Acid		99.4		50-150	%	27-OCT-15				
Surrogate: 2-Fluorobiphenyl		62.5		40-160	%	27-OCT-15				
Surrogate: 2-Fluorobiphenyl		87.7		40-160	%	28-OCT-15				
Surrogate: 2-Fluorobiphenyl		99.7		40-160	%	27-OCT-15				
Surrogate: Nitrobenzene d5		99.0		50-150	%	27-OCT-15				
Surrogate: d14-Terphenyl		78.7		60-140	%	28-OCT-15				
Surrogate: d14-Terphenyl		86.0		60-140	%	27-OCT-15				
Surrogate: p-Terphenyl d14		101.0		60-140	%	27-OCT-15				
TCLP Metals										
Arsenic (As)		<0.050		0.050	mg/L	26-OCT-15	2.5			
Barium (Ba)		2.37		0.50	mg/L	26-OCT-15	100			
Boron (B)		<2.5		2.5	mg/L	26-OCT-15	500			
Cadmium (Cd)		<0.0050		0.0050	mg/L	26-OCT-15	0.5			
Chromium (Cr)		<0.050		0.050	mg/L	26-OCT-15	5.0			
Lead (Pb)		0.333		0.050	mg/L	26-OCT-15	5.0			
Mercury (Hg)		<0.00010		0.00010	mg/L	26-OCT-15	0.1			
Selenium (Se)		<0.25		0.25	mg/L	26-OCT-15	1.0			
Silver (Ag)		<0.0050		0.0050	mg/L	26-OCT-15	5.0			
Uranium (U)		<0.25		0.25	mg/L	26-OCT-15	10			
TCLP VOCs										
1,1-Dichloroethylene		<0.025		0.025	mg/L	27-OCT-15	1.4			
1,2-Dichlorobenzene		<0.025		0.025	mg/L	27-OCT-15	20.0			
1,2-Dichloroethane		<0.025		0.025	mg/L	27-OCT-15	0.5			

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#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte						#1			
L1692602-3	DYEC/FA/151023/3									
Sampled By:	CLIENT on 24-OCT-15 @ 08:00									
Matrix:	SOIL									
TCLP VOCs										
	1,4-Dichlorobenzene	<0.025		0.025	mg/L	27-OCT-15	0.5			
	Benzene	<0.025		0.025	mg/L	27-OCT-15	0.5			
	Carbon tetrachloride	<0.025		0.025	mg/L	27-OCT-15	0.5			
	Chlorobenzene	<0.025		0.025	mg/L	27-OCT-15	8			
	Chloroform	<0.10		0.10	mg/L	27-OCT-15	10			
	Dichloromethane	<0.50		0.50	mg/L	27-OCT-15	5.0			
	Methyl Ethyl Ketone	<1.0		1.0	mg/L	27-OCT-15	200.0			
	Tetrachloroethylene	<0.025		0.025	mg/L	27-OCT-15	3			
	Trichloroethylene	<0.025		0.025	mg/L	27-OCT-15	5			
	Vinyl chloride	<0.050		0.050	mg/L	27-OCT-15	0.2			
	Surrogate: 4-Bromofluorobenzene	87.9		70-130	%	27-OCT-15				
Volatile Organic Compounds										
	Surrogate: 1,4-Difluorobenzene	98.0		50-150	%	27-OCT-15				
Polychlorinated Biphenyls										
	Surrogate: Decachlorobiphenyl	103.0		50-150	%	27-OCT-15				
	Surrogate: Tetrachloro-m-xylene	89.8		50-150	%	27-OCT-15				
Dioxins and Furans										
	2,3,7,8-TCDD	<2.1	[U]	2.1	pg/L	29-OCT-15				
	1,2,3,7,8-PeCDD	<0.98	[U]	0.98	pg/L	29-OCT-15				
	1,2,3,4,7,8-HxCDD	<0.95	[U]	0.95	pg/L	29-OCT-15				
	1,2,3,6,7,8-HxCDD	<0.89	[U]	0.89	pg/L	29-OCT-15				
	1,2,3,7,8,9-HxCDD	<0.91	[U]	0.91	pg/L	29-OCT-15				
	1,2,3,4,6,7,8-HpCDD	<1.5	[U]	1.5	pg/L	29-OCT-15				
	OCDD	<0.88	[U]	0.88	pg/L	29-OCT-15				
	Total-TCDD	<2.1	[U]	2.1	pg/L	29-OCT-15				
	Total TCDD # Homologues	0			No Unit	29-OCT-15				
	Total-PeCDD	<0.98	[U]	0.98	pg/L	29-OCT-15				
	Total PeCDD # Homologues	0			No Unit	29-OCT-15				
	Total-HxCDD	<0.95	[U]	0.95	pg/L	29-OCT-15				
	Total HxCDD # Homologues	0			No Unit	29-OCT-15				
	Total-HpCDD	<1.5	[U]	1.5	pg/L	29-OCT-15				
	Total HpCDD # Homologues	0			No Unit	29-OCT-15				
	2,3,7,8-TCDF	<2.2	[U]	2.2	pg/L	29-OCT-15				
	1,2,3,7,8-PeCDF	<1.1	[U]	1.1	pg/L	29-OCT-15				
	2,3,4,7,8-PeCDF	<0.89	[U]	0.89	pg/L	29-OCT-15				
	1,2,3,4,7,8-HxCDF	<0.55	[U]	0.55	pg/L	29-OCT-15				
	1,2,3,6,7,8-HxCDF	<0.43	[U]	0.43	pg/L	29-OCT-15				
	1,2,3,7,8,9-HxCDF	<0.78	[U]	0.78	pg/L	29-OCT-15				
	2,3,4,6,7,8-HxCDF	<0.57	[U]	0.57	pg/L	29-OCT-15				
	1,2,3,4,6,7,8-HpCDF	<0.82	[U]	0.82	pg/L	29-OCT-15				
	1,2,3,4,7,8,9-HpCDF	<1.3	[U]	1.3	pg/L	29-OCT-15				
	OCDF	<1.5	[U]	1.5	pg/L	29-OCT-15				
	Total-TCDF	<2.2	[U]	2.2	pg/L	29-OCT-15				
	Total TCDF # Homologues	0			No Unit	29-OCT-15				
	Total-PeCDF	<1.1	[U]	1.1	pg/L	29-OCT-15				
	Total PeCDF # Homologues	0			No Unit	29-OCT-15				
	Total-HxCDF	<0.78	[U]	0.78	pg/L	29-OCT-15				

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Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte									
L1692602-3	DYEC/FA/151023/3									
Sampled By: CLIENT on 24-OCT-15 @ 08:00										
Matrix: SOIL										
Dioxins and Furans										
Total HxCDF # Homologues		0			No Unit	29-OCT-15				
Total HpCDF		<1.3	[U]	1.3	pg/L	29-OCT-15				
Total HpCDF # Homologues		0			No Unit	29-OCT-15				
Surrogate: 13C12-2,3,7,8-TCDD		55.0		20-175	%	29-OCT-15				
Surrogate: 13C12-1,2,3,7,8-PeCDD		57.0		21-227	%	29-OCT-15				
Surrogate: 13C12-1,2,3,4,7,8-HxCDD		51.0		21-193	%	29-OCT-15				
Surrogate: 13C12-1,2,3,6,7,8-HxCDD		66.0		25-163	%	29-OCT-15				
Surrogate: 13C12-1,2,3,4,6,7,8-HpCDD		57.0		23-166	%	29-OCT-15				
Surrogate: 13C12-OCDD		54.0		13-138	%	29-OCT-15				
Surrogate: 13C12-2,3,7,8-TCDF		59.0		22-152	%	29-OCT-15				
Surrogate: 13C12-1,2,3,7,8-PeCDF		62.0		24-185	%	29-OCT-15				
Surrogate: 13C12-2,3,4,7,8-PeCDF		63.0		21-178	%	29-OCT-15				
Surrogate: 13C12-1,2,3,4,7,8-HxCDF		54.0		26-152	%	29-OCT-15				
Surrogate: 13C12-1,2,3,6,7,8-HxCDF		75.0		21-159	%	29-OCT-15				
Surrogate: 13C12-2,3,4,6,7,8-HxCDF		66.0		17-205	%	29-OCT-15				
Surrogate: 13C12-1,2,3,7,8,9-HxCDF		56.0		28-136	%	29-OCT-15				
Surrogate: 13C12-1,2,3,4,6,7,8-HpCDF		63.0		21-158	%	29-OCT-15				
Surrogate: 13C12-1,2,3,4,7,8,9-HpCDF		58.0		20-186	%	29-OCT-15				
Surrogate: 37Cl4-2,3,7,8-TCDD (Cleanup)		48.0		31-191	%	29-OCT-15				
Toxic Equivalency										
Lower Bound PCDD/F TEQ (WHO 2005)		0.00			pg/L	29-OCT-15				
Mid Point PCDD/F TEQ (WHO 2005)		2.07			pg/L	29-OCT-15				
Upper Bound PCDD/F TEQ (WHO 2005)		4.14			pg/L	29-OCT-15	1500			
L1692602-4	DYEC/FA/151023/4									
Sampled By: CLIENT on 24-OCT-15 @ 08:00										
Matrix: SOIL										
Sample Preparation										
Initial pH		12.38		0.10	pH units	24-OCT-15				
Final pH		12.20		0.10	pH units	24-OCT-15				
TCLP Extractables										
Alachlor		<0.0010		0.0010	mg/L	28-OCT-15				
Aldicarb		<0.010		0.010	mg/L	26-OCT-15	0.9			
Aldrin		<0.00020		0.00020	mg/L	27-OCT-15				
Aldrin + Dieldrin		<0.00040		0.00040	mg/L	27-OCT-15	0.07			
alpha-Chlordane		<0.0010		0.0010	mg/L	27-OCT-15				
Aroclor 1242		<0.00020		0.00020	mg/L	27-OCT-15				
Aroclor 1248		<0.00020		0.00020	mg/L	27-OCT-15				
Aroclor 1254		<0.00020		0.00020	mg/L	27-OCT-15				
Aroclor 1260		<0.00020		0.00020	mg/L	27-OCT-15				
Atrazine		<0.0010		0.0010	mg/L	28-OCT-15				
Atrazine Desethyl		<0.0010		0.0010	mg/L	28-OCT-15				
Atrazine & Metabolites		<0.0020		0.0020	mg/L	28-OCT-15	0.5			
Azinphos methyl		<0.0010		0.0010	mg/L	28-OCT-15	2			
Bendiocarb		<0.0050		0.0050	mg/L	28-OCT-15	4			
Benzo(a)pyrene		<0.0010		0.0010	mg/L	28-OCT-15	0.001			
Bromoxynil		<0.0020		0.0020	mg/L	27-OCT-15	0.5			

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Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

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ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte									
L1692602-4	DYEC/FA/151023/4									
Sampled By: CLIENT on 24-OCT-15 @ 08:00										
Matrix: SOIL										#1
TCLP Extractables										
	Carbaryl	<0.0020		0.0020	mg/L	28-OCT-15				9
	Carbofuran	<0.0020		0.0020	mg/L	28-OCT-15				9
	Chlordane (Total)	<0.0030		0.0030	mg/L	27-OCT-15				0.7
	Chlorpyrifos	<0.0010		0.0010	mg/L	28-OCT-15				9
	3&4-Methylphenol	<0.010		0.010	mg/L	27-OCT-15				
	Cresols (total)	<0.015		0.015	mg/L	27-OCT-15				200
	Cyanazine	<0.0010		0.0010	mg/L	28-OCT-15				1.0
	Cyanide, Weak Acid Diss	<0.10		0.10	mg/L	26-OCT-15				20
	2,4-D	<0.0020		0.0020	mg/L	27-OCT-15				10
	p,p-DDD	<0.0010		0.0010	mg/L	27-OCT-15				
	p,p-DDE	<0.0010		0.0010	mg/L	27-OCT-15				
	o,p-DDT	<0.0010		0.0010	mg/L	27-OCT-15				
	p,p-DDT	<0.0010		0.0010	mg/L	27-OCT-15				
	DDT + metabolites	<0.0040		0.0040	mg/L	27-OCT-15				3
	Diazinon	<0.0010		0.0010	mg/L	28-OCT-15				2
	Dicamba	<0.0050		0.0050	mg/L	27-OCT-15				12
	2,4-Dichlorophenol	<0.0050		0.0050	mg/L	27-OCT-15				90
	Diclofop methyl	<0.0020		0.0020	mg/L	28-OCT-15				0.9
	Dieldrin	<0.00020		0.00020	mg/L	27-OCT-15				
	Dimethoate	<0.0010		0.0010	mg/L	28-OCT-15				2
	2,4-Dinitrotoluene	<0.0040		0.0040	mg/L	27-OCT-15				0.13
	Dinoseb	<0.0020		0.0020	mg/L	27-OCT-15				1
	Diquat	<0.10	DLI	0.10	mg/L	27-OCT-15				7
	Diuron	<0.010		0.010	mg/L	26-OCT-15				15
	Endrin	<0.0010		0.0010	mg/L	27-OCT-15				0.02
	Parathion	<0.0010		0.0010	mg/L	28-OCT-15				5
	Fluoride (F)	<10		10	mg/L	26-OCT-15				150.0
	gamma-BHC	<0.0010		0.0010	mg/L	27-OCT-15				0.4
	gamma-Chlordane	<0.0010		0.0010	mg/L	27-OCT-15				
	Glyphosate	<0.050		0.050	mg/L	27-OCT-15				28
	Heptachlor	<0.0010		0.0010	mg/L	27-OCT-15				
	Heptachlor + Heptachlor Epoxide	<0.0020		0.0020	mg/L	27-OCT-15				0.3
	Heptachlor epoxide	<0.0010		0.0010	mg/L	27-OCT-15				
	Hexachlorobenzene	<0.0040		0.0040	mg/L	27-OCT-15				0.13
	Hexachlorobutadiene	<0.0040		0.0040	mg/L	27-OCT-15				0.5
	Hexachloroethane	<0.0040		0.0040	mg/L	27-OCT-15				3.0
	Malathion	<0.0010		0.0010	mg/L	28-OCT-15				19
	MCPA	<0.0020		0.0020	mg/L	27-OCT-15				
	Methoxychlor	<0.0010		0.0010	mg/L	27-OCT-15				90
	Methyl Parathion	<0.0010		0.0010	mg/L	28-OCT-15				0.7
	2-Methylphenol	<0.0050		0.0050	mg/L	27-OCT-15				
	Metolachlor	<0.0010		0.0010	mg/L	28-OCT-15				5
	Metribuzin	<0.0010		0.0010	mg/L	28-OCT-15				8
	Nitrate and Nitrite as N	<4.0		4.0	mg/L	26-OCT-15				1000
	Nitrate-N	<2.0		2.0	mg/L	26-OCT-15				
	Nitrioltriacetic Acid (NTA)	<40	DLM	0.20	mg/L	27-OCT-15				40

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Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte									
L1692602-4	DYEC/FA/151023/4									
Sampled By: CLIENT on 24-OCT-15 @ 08:00										
Matrix: SOIL										#1
TCLP Extractables										
	Nitrite-N	<2.0		2.0	mg/L	26-OCT-15				
	Nitrobenzene	<0.0040		0.0040	mg/L	27-OCT-15	2.0			
	N-Nitrosodimethylamine	<0.00020		0.00020	mg/L	27-OCT-15	0.0009			
	Oxychlorthane	<0.0010		0.0010	mg/L	27-OCT-15				
	Paraquat	<0.10	DLI	0.10	mg/L	27-OCT-15	1			
	Total PCBs	<0.00040		0.00040	mg/L	27-OCT-15	0.3			
	Pentachlorophenol	<0.0050		0.0050	mg/L	27-OCT-15	6			
	Phorate	<0.0010		0.0010	mg/L	28-OCT-15	0.2			
	Picloram	<0.0050		0.0050	mg/L	27-OCT-15	19			
	Prometryne	<0.0010		0.0010	mg/L	28-OCT-15				
	Pyridine	<5.0		5.0	mg/L	26-OCT-15	5.0			
	Simazine	<0.0010		0.0010	mg/L	28-OCT-15	1			
	2,4,5-T	<0.0020		0.0020	mg/L	27-OCT-15	28			
	Temephos	<0.0010		0.0010	mg/L	28-OCT-15	28			
	Terbufos	<0.0020		0.0020	mg/L	28-OCT-15	0.1			
	2,3,4,6-Tetrachlorophenol	<0.0050		0.0050	mg/L	27-OCT-15	10.0			
	Toxaphene	<0.0035		0.0035	mg/L	27-OCT-15	0.5			
	2,4,5-TP	<0.0020		0.0020	mg/L	27-OCT-15	1			
	Triallate	<0.0010		0.0010	mg/L	28-OCT-15	23			
	2,4,5-Trichlorophenol	<0.0050		0.0050	mg/L	27-OCT-15	400			
	2,4,6-Trichlorophenol	<0.0050		0.0050	mg/L	27-OCT-15	0.5			
	Trifluralin	<0.0050		0.0050	mg/L	28-OCT-15	4.5			
	Surrogate: 2,4,6-Tribromophenol	72.2		50-150	%	27-OCT-15				
	Surrogate: 2,4-Dichlorophenylacetic Acid	123.5		50-150	%	27-OCT-15				
	Surrogate: 2-Fluorobiphenyl	74.1		40-160	%	27-OCT-15				
	Surrogate: 2-Fluorobiphenyl	81.7		40-160	%	28-OCT-15				
	Surrogate: 2-Fluorobiphenyl	98.0		40-160	%	27-OCT-15				
	Surrogate: Nitrobenzene d5	97.7		50-150	%	27-OCT-15				
	Surrogate: d14-Terphenyl	74.8		60-140	%	28-OCT-15				
	Surrogate: d14-Terphenyl	83.0		60-140	%	27-OCT-15				
	Surrogate: p-Terphenyl d14	98.3		60-140	%	27-OCT-15				
TCLP Metals										
	Arsenic (As)	<0.050		0.050	mg/L	26-OCT-15	2.5			
	Barium (Ba)	2.24		0.50	mg/L	26-OCT-15	100			
	Boron (B)	<2.5		2.5	mg/L	26-OCT-15	500			
	Cadmium (Cd)	<0.0050		0.0050	mg/L	26-OCT-15	0.5			
	Chromium (Cr)	<0.050		0.050	mg/L	26-OCT-15	5.0			

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Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

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ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte						#1			
L1692602-4	DYEC/FA/151023/4									
Sampled By:	CLIENT on 24-OCT-15 @ 08:00									
Matrix:	SOIL									
TCLP Metals										
Lead (Pb)		0.346		0.050	mg/L	26-OCT-15	5.0			
Mercury (Hg)		<0.00010		0.00010	mg/L	26-OCT-15	0.1			
Selenium (Se)		<0.25		0.25	mg/L	26-OCT-15	1.0			
Silver (Ag)		<0.0050		0.0050	mg/L	26-OCT-15	5.0			
Uranium (U)		<0.25		0.25	mg/L	26-OCT-15	10			
TCLP VOCs										
1,1-Dichloroethylene		<0.025		0.025	mg/L	27-OCT-15	1.4			
1,2-Dichlorobenzene		<0.025		0.025	mg/L	27-OCT-15	20.0			
1,2-Dichloroethane		<0.025		0.025	mg/L	27-OCT-15	0.5			
1,4-Dichlorobenzene		<0.025		0.025	mg/L	27-OCT-15	0.5			
Benzene		<0.025		0.025	mg/L	27-OCT-15	0.5			
Carbon tetrachloride		<0.025		0.025	mg/L	27-OCT-15	0.5			
Chlorobenzene		<0.025		0.025	mg/L	27-OCT-15	8			
Chloroform		<0.10		0.10	mg/L	27-OCT-15	10			
Dichloromethane		<0.50		0.50	mg/L	27-OCT-15	5.0			
Methyl Ethyl Ketone		<1.0		1.0	mg/L	27-OCT-15	200.0			
Tetrachloroethylene		<0.025		0.025	mg/L	27-OCT-15	3			
Trichloroethylene		<0.025		0.025	mg/L	27-OCT-15	5			
Vinyl chloride		<0.050		0.050	mg/L	27-OCT-15	0.2			
Surrogate: 4-Bromofluorobenzene		87.0		70-130	%	27-OCT-15				
Volatile Organic Compounds										
Surrogate: 1,4-Difluorobenzene		98.6		50-150	%	27-OCT-15				
Polychlorinated Biphenyls										
Surrogate: Decachlorobiphenyl		129.0		50-150	%	27-OCT-15				
Surrogate: Tetrachloro-m-xylene		105.0		50-150	%	27-OCT-15				
Dioxins and Furans										
2,3,7,8-TCDD		<3.5	[U]	3.5	pg/L	29-OCT-15				
1,2,3,7,8-PeCDD		<1.5	[U]	1.5	pg/L	29-OCT-15				
1,2,3,4,7,8-HxCDD		<1.4	[U]	1.4	pg/L	29-OCT-15				
1,2,3,6,7,8-HxCDD		<1.3	[U]	1.3	pg/L	29-OCT-15				
1,2,3,7,8,9-HxCDD		<1.3	[U]	1.3	pg/L	29-OCT-15				
1,2,3,4,6,7,8-HpCDD		<2.3	[U]	2.3	pg/L	29-OCT-15				
OCDD		<1.7	[U]	1.7	pg/L	29-OCT-15				
Total-TCDD		<3.5	[U]	3.5	pg/L	29-OCT-15				
Total TCDD # Homologues		0			No Unit	29-OCT-15				
Total-PeCDD		<1.5	[U]	1.5	pg/L	29-OCT-15				
Total PeCDD # Homologues		0			No Unit	29-OCT-15				
Total-HxCDD		<1.4	[U]	1.4	pg/L	29-OCT-15				
Total HxCDD # Homologues		0			No Unit	29-OCT-15				
Total-HpCDD		<2.3	[U]	2.3	pg/L	29-OCT-15				
Total HpCDD # Homologues		0			No Unit	29-OCT-15				
2,3,7,8-TCDF		<3.4	[U]	3.4	pg/L	29-OCT-15				
1,2,3,7,8-PeCDF		<1.5	[U]	1.5	pg/L	29-OCT-15				
2,3,4,7,8-PeCDF		<1.3	[U]	1.3	pg/L	29-OCT-15				
1,2,3,4,7,8-HxCDF		<0.98	[U]	0.98	pg/L	29-OCT-15				
1,2,3,6,7,8-HxCDF		<0.83	[U]	0.83	pg/L	29-OCT-15				

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Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits		
Grouping	Analyte								
L1692602-4	DYEC/FA/151023/4								
Sampled By: CLIENT on 24-OCT-15 @ 08:00									
Matrix: SOIL									
Dioxins and Furans									
	1,2,3,7,8,9-HxCDF	<1.5	[U]	1.5	pg/L	29-OCT-15			
	2,3,4,6,7,8-HxCDF	<1.0	[U]	1.0	pg/L	29-OCT-15			
	1,2,3,4,6,7,8-HpCDF	<0.78	[U]	0.78	pg/L	29-OCT-15			
	1,2,3,4,7,8,9-HpCDF	<1.2	[U]	1.2	pg/L	29-OCT-15			
	OCDF	<2.4	[U]	2.4	pg/L	29-OCT-15			
	Total-TCDF	<3.4	[U]	3.4	pg/L	29-OCT-15			
	Total TCDF # Homologues	0			No Unit	29-OCT-15			
	Total-PeCDF	<1.5	[U]	1.5	pg/L	29-OCT-15			
	Total PeCDF # Homologues	0			No Unit	29-OCT-15			
	Total-HxCDF	<1.5	[U]	1.5	pg/L	29-OCT-15			
	Total HxCDF # Homologues	0			No Unit	29-OCT-15			
	Total-HpCDF	<1.2	[U]	1.2	pg/L	29-OCT-15			
	Total HpCDF # Homologues	0			No Unit	29-OCT-15			
	Surrogate: 13C12-2,3,7,8-TCDD	57.0		20-175	%	29-OCT-15			
	Surrogate: 13C12-1,2,3,7,8-PeCDD	62.0		21-227	%	29-OCT-15			
	Surrogate: 13C12-1,2,3,4,7,8-HxCDD	54.0		21-193	%	29-OCT-15			
	Surrogate: 13C12-1,2,3,6,7,8-HxCDD	76.0		25-163	%	29-OCT-15			
	Surrogate: 13C12-1,2,3,4,6,7,8-HpCDD	66.0		23-166	%	29-OCT-15			
	Surrogate: 13C12-OCDD	63.0		13-138	%	29-OCT-15			
	Surrogate: 13C12-2,3,7,8-TCDF	60.0		22-152	%	29-OCT-15			
	Surrogate: 13C12-1,2,3,7,8-PeCDF	66.0		24-185	%	29-OCT-15			
	Surrogate: 13C12-2,3,4,7,8-PeCDF	66.0		21-178	%	29-OCT-15			
	Surrogate: 13C12-1,2,3,4,7,8-HxCDF	59.0		26-152	%	29-OCT-15			
	Surrogate: 13C12-1,2,3,6,7,8-HxCDF	82.0		21-159	%	29-OCT-15			
	Surrogate: 13C12-2,3,4,6,7,8-HxCDF	68.0		17-205	%	29-OCT-15			
	Surrogate: 13C12-1,2,3,7,8,9-HxCDF	61.0		28-136	%	29-OCT-15			
	Surrogate: 13C12-1,2,3,4,6,7,8-HpCDF	74.0		21-158	%	29-OCT-15			
	Surrogate: 13C12-1,2,3,4,7,8,9-HpCDF	65.0		20-186	%	29-OCT-15			
	Surrogate: 37Cl4-2,3,7,8-TCDD (Cleanup)	60.0		31-191	%	29-OCT-15			
Toxic Equivalency									
	Lower Bound PCDD/F TEQ (WHO 2005)	0.00			pg/L	29-OCT-15			
	Mid Point PCDD/F TEQ (WHO 2005)	3.33			pg/L	29-OCT-15			
	Upper Bound PCDD/F TEQ (WHO 2005)	6.65			pg/L	29-OCT-15	1500		

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Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

Reference Information

Sample Parameter Qualifier key listed:

Qualifier	Description
[U]	The analyte was not detected above the EDL.
DLM	Detection Limit Adjusted due to sample matrix effects.
DLI	Detection Limit Raised: Dilution required to address Internal Standard response problems caused by matrix interference.

Methods Listed (if applicable):

ALS Test Code	Matrix	Test Description	Method Reference***
ALDICARB-TCLP-WT	Waste	O. Reg 347 Aldicarb	LC/MS-MS
BNA-TCLP-WT	Waste	BNAs for O. Reg 347	SW846 8270

Samples are leached according to TCLP protocol and then the aqueous leachate is extracted and the resulting extracts are analyzed on GC/MSD

CN-TCLP-WT	Waste	Cyanide for O. Reg 347	APHA 4500CN C E
DIQUAT-TCLP-WT	Waste	Diquat for O. Reg 347	LC/MS/MS
DIURON-TCLP-WT	Waste	Diuron for O. Reg 347	MOE PWAUH-E3436 (MOD)
DX-1613B-HRMS-BU	Waste	Dioxins and Furans by method 1613B	USEPA 1613B

Samples filtered if required. The solid portion is extracted by Soxhlet, the liquid portion is liquid/liquid extracted with dichloromethane. The extracts are prepared using column chromatography, reduced in volume and analyzed by isotope-dilution GC/HRMS.

F-TCLP-WT	Waste	Fluoride (F) for O. Reg 347	APHA 4110 B-Ion Chromatography
GLYPHOSATE-TCLP-WT	Waste	Glyphosate for O. Reg 347	LC/MS/MS
HG-TCLP-WT	Waste	Mercury (CVAA) for O.Reg 347	SW846 7470A
LEACH-TCLP-WT	Waste	Leachate Procedure for Reg 347	EPA 1311

Inorganic and Semi-Volatile Organic contaminants are leached from waste samples in strict accordance with US EPA Method 1311, "Toxicity Characteristic Leaching Procedure" (TCLP). Test results are reported in leachate concentration units (normally mg/L).

MET-TCLP-WT	Waste	O.Reg 347 TCLP Leachable Metals	EPA 200.8
N2N3-TCLP-WT	Waste	Nitrate/Nitrite-N for O. Reg 347	APHA 4110 B-Ion Chromatography
NDMA-TCLP-WT	Waste	NDMA for O. Reg 347	In House/GC/MS
NTA-TCLP-WT	Waste	NTA for O. Reg 347	EPA 430.2
PARAQUAT-TCLP-WT	Waste	Paraquat for O. Reg 347	LC/MS-MS
PCB-TCLP-WT	Waste	PCBs for O. Reg 347	SW846 8270
PEST-MISC-TCLP-WT	Waste	O. Reg 347 TCLP Miscellaneous Pesticides	SW846 8270
PEST-OC-TCLP-WT	Waste	O. Reg 347TCLP Organochlorine Pesticides	SW846 8270

Samples are leached according to TCLP protocol and then the aqueous leachate is extracted and the resulting extracts are analyzed on GC/MSD

PEST-PAHERB-TCLP-WT	Waste	Phenoxyacid Herbicides for O. Reg 347	SW846 8270
PYR-TCLP-WT	Waste	Pyridine for O. Reg 347	SW846 8260D

Samples are leached according to TCLP protocol and then analyzed on GC/MSD

TOXAPHENE-TCLP-WT	Waste	Toxaphene by GC/ECD for O. Reg 347	SW846 8270
VOC-TCLP-WT	Waste	VOC for O. Reg 347	SW846 8260

A sample of waste is leached in a zero headspace extractor at 30–2 rpm for 18–2.0 hours with the appropriate leaching solution. After tumbling the leachate is analyzed directly by headspace technology, followed by GC/MS using internal standard quantitation.

*** ALS test methods may incorporate modifications from specified reference methods to improve performance.

Chain of Custody numbers:

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location	Laboratory Definition Code	Laboratory Location
WT	ALS ENVIRONMENTAL - WATERLOO, ONTARIO, CANADA	BU	ALS ENVIRONMENTAL - BURLINGTON, ONTARIO, CANADA

Reference Information

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.

mg/kg - milligrams per kilogram based on dry weight of sample

mg/kg wwt - milligrams per kilogram based on wet weight of sample

mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight

mg/L - unit of concentration based on volume, parts per million.

< - Less than.

D.L. - The reporting limit.

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.

Application of guidelines is provided "as is" without warranty of any kind, either expressed or implied, including, but not limited to fitness for a particular purpose, or non-infringement. ALS assumes no responsibility for errors or omissions in the information.



Quality Control Report

Workorder: L1692602

Report Date: 29-OCT-15

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Client: Covanta - Durham York Renewable Energy LP
1835 Energy Drive
Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
ALDICARB-TCLP-WT		Waste						
Batch	R3296681							
WG2200627-3	DUP	L1692602-4						
Aldicarb		<0.010	<0.010	RPD-NA	mg/L	N/A	30	26-OCT-15
WG2200627-2	LCS							
Aldicarb			104.0		%		70-130	26-OCT-15
WG2200627-1	MB							
Aldicarb			<0.010		mg/L		0.01	26-OCT-15
BNA-TCLP-WT		Waste						
Batch	R3296622							
WG2200577-4	DUP	WG2200577-5						
2,3,4,6-Tetrachlorophenol		<0.0050	<0.0050	RPD-NA	mg/L	N/A	50	27-OCT-15
2,4,5-Trichlorophenol		<0.0050	<0.0050	RPD-NA	mg/L	N/A	50	27-OCT-15
2,4,6-Trichlorophenol		<0.0050	<0.0050	RPD-NA	mg/L	N/A	50	27-OCT-15
2,4-Dichlorophenol		<0.0050	<0.0050	RPD-NA	mg/L	N/A	50	27-OCT-15
2,4-Dinitrotoluene		<0.0040	<0.0040	RPD-NA	mg/L	N/A	50	27-OCT-15
2-Methylphenol		<0.0050	<0.0050	RPD-NA	mg/L	N/A	50	27-OCT-15
3&4-Methylphenol		<0.010	<0.010	RPD-NA	mg/L	N/A	50	27-OCT-15
Hexachlorobenzene		<0.0040	<0.0040	RPD-NA	mg/L	N/A	50	27-OCT-15
Hexachlorobutadiene		<0.0040	<0.0040	RPD-NA	mg/L	N/A	50	27-OCT-15
Hexachloroethane		<0.0040	<0.0040	RPD-NA	mg/L	N/A	50	27-OCT-15
Nitrobenzene		<0.0040	<0.0040	RPD-NA	mg/L	N/A	50	27-OCT-15
Pentachlorophenol		<0.0050	<0.0050	RPD-NA	mg/L	N/A	50	27-OCT-15
WG2200577-2	LCS							
2,3,4,6-Tetrachlorophenol			86.0		%		60-140	26-OCT-15
2,4,5-Trichlorophenol			91.6		%		60-140	26-OCT-15
2,4,6-Trichlorophenol			87.0		%		60-140	26-OCT-15
2,4-Dichlorophenol			79.7		%		60-140	26-OCT-15
2,4-Dinitrotoluene			91.1		%		50-150	26-OCT-15
2-Methylphenol			84.4		%		60-140	26-OCT-15
3&4-Methylphenol			84.3		%		60-140	26-OCT-15
Hexachlorobenzene			88.3		%		60-140	26-OCT-15
Hexachlorobutadiene			89.1		%		40-130	26-OCT-15
Hexachloroethane			90.3		%		40-130	26-OCT-15
Nitrobenzene			91.8		%		60-140	26-OCT-15
Pentachlorophenol			80.5		%		50-160	26-OCT-15
WG2200577-6	LCS							



Quality Control Report

Workorder: L1692602

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Client: Covanta - Durham York Renewable Energy LP
 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
BNA-TCLP-WT		Waste						
Batch	R3296622							
WG2200577-6	LCS							
2,3,4,6-Tetrachlorophenol			106.1		%		60-140	27-OCT-15
2,4,5-Trichlorophenol			102.8		%		60-140	27-OCT-15
2,4,6-Trichlorophenol			98.0		%		60-140	27-OCT-15
2,4-Dichlorophenol			93.4		%		60-140	27-OCT-15
2,4-Dinitrotoluene			101.3		%		50-150	27-OCT-15
2-Methylphenol			90.2		%		60-140	27-OCT-15
3&4-Methylphenol			89.8		%		60-140	27-OCT-15
Hexachlorobenzene			90.8		%		60-140	27-OCT-15
Hexachlorobutadiene			66.3		%		40-130	27-OCT-15
Hexachloroethane			73.1		%		40-130	27-OCT-15
Nitrobenzene			98.3		%		60-140	27-OCT-15
Pentachlorophenol			113.4		%		50-160	27-OCT-15
WG2200577-1	MB							
2,3,4,6-Tetrachlorophenol			<0.0050		mg/L		0.005	26-OCT-15
2,4,5-Trichlorophenol			<0.0050		mg/L		0.005	26-OCT-15
2,4,6-Trichlorophenol			<0.0050		mg/L		0.005	26-OCT-15
2,4-Dichlorophenol			<0.0050		mg/L		0.005	26-OCT-15
2,4-Dinitrotoluene			<0.0040		mg/L		0.004	26-OCT-15
2-Methylphenol			<0.0050		mg/L		0.005	26-OCT-15
3&4-Methylphenol			<0.010		mg/L		0.01	26-OCT-15
Hexachlorobenzene			<0.0040		mg/L		0.004	26-OCT-15
Hexachlorobutadiene			<0.0040		mg/L		0.004	26-OCT-15
Hexachloroethane			<0.0040		mg/L		0.004	26-OCT-15
Nitrobenzene			<0.0040		mg/L		0.004	26-OCT-15
Pentachlorophenol			<0.0050		mg/L		0.005	26-OCT-15
Surrogate: Nitrobenzene d5			93.9		%		50-150	26-OCT-15
Surrogate: 2-Fluorobiphenyl			94.3		%		40-160	26-OCT-15
Surrogate: p-Terphenyl d14			101.4		%		60-140	26-OCT-15
Surrogate: 2,4,6-Tribromophenol			82.0		%		50-150	26-OCT-15
WG2200577-3	MS		WG2200577-5					
2,3,4,6-Tetrachlorophenol			85.7		%		50-150	27-OCT-15
2,4,5-Trichlorophenol			90.3		%		50-150	27-OCT-15
2,4,6-Trichlorophenol			86.5		%		50-150	27-OCT-15
2,4-Dichlorophenol			79.7		%		50-150	27-OCT-15



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Client: Covanta - Durham York Renewable Energy LP
 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
BNA-TCLP-WT		Waste						
Batch	R3296622							
WG2200577-3	MS	WG2200577-5						
2,4-Dinitrotoluene			93.1		%		50-150	27-OCT-15
2-Methylphenol			85.2		%		50-150	27-OCT-15
3&4-Methylphenol			84.8		%		50-150	27-OCT-15
Hexachlorobenzene			89.1		%		40-150	27-OCT-15
Hexachlorobutadiene			89.3		%		40-150	27-OCT-15
Hexachloroethane			90.4		%		40-150	27-OCT-15
Nitrobenzene			92.0		%		50-150	27-OCT-15
Pentachlorophenol			79.4		%		50-150	27-OCT-15
CN-TCLP-WT		Waste						
Batch	R3296630							
WG2200789-3	DUP	L1692330-4						
Cyanide, Weak Acid Diss		<0.10	<0.10	RPD-NA	mg/L	N/A	20	26-OCT-15
WG2200789-2	LCS							
Cyanide, Weak Acid Diss			104.0		%		70-130	26-OCT-15
WG2200789-1	MB							
Cyanide, Weak Acid Diss			<0.10		mg/L		0.1	26-OCT-15
WG2200789-4	MS	L1692330-4						
Cyanide, Weak Acid Diss			101.5		%		50-150	26-OCT-15
DIQUAT-TCLP-WT		Waste						
Batch	R3297281							
WG2200908-3	DUP	L1692602-4						
Diquat		<0.10	<0.10		mg/L	N/A	0.02	27-OCT-15
WG2200908-2	LCS							
Diquat			113.2		%		70-130	27-OCT-15
WG2200908-1	MB							
Diquat			<0.010		mg/L		0.01	27-OCT-15
DIURON-TCLP-WT		Waste						
Batch	R3296682							
WG2200629-3	DUP	L1692602-4						
Diuron		<0.010	<0.010	RPD-NA	mg/L	N/A	30	26-OCT-15
WG2200629-2	LCS							
Diuron			90.9		%		70-130	26-OCT-15
WG2200629-1	MB							
Diuron			<0.010		mg/L		0.01	26-OCT-15
DX-1613B-HRMS-BU		Waste						



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Client: Covanta - Durham York Renewable Energy LP
 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
DX-1613B-HRMS-BU Waste								
Batch	R3299253							
WG2200764-6 DUP		L1692474-1						
2,3,7,8-TCDD		<2.6	<1.8	RPD-NA	pg/L	N/A	50	29-OCT-15
1,2,3,7,8-PeCDD		<1.3	<0.82	RPD-NA	pg/L	N/A	50	29-OCT-15
1,2,3,4,7,8-HxCDD		<0.97	<0.98	RPD-NA	pg/L	N/A	50	29-OCT-15
1,2,3,6,7,8-HxCDD		<0.92	<0.80	RPD-NA	pg/L	N/A	50	29-OCT-15
1,2,3,7,8,9-HxCDD		<0.93	<0.87	RPD-NA	pg/L	N/A	50	29-OCT-15
1,2,3,4,6,7,8-HpCDD		<1.1	<1.0	RPD-NA	pg/L	N/A	50	29-OCT-15
OCDD		<1.5	<0.78	RPD-NA	pg/L	N/A	50	29-OCT-15
2,3,7,8-TCDF		<2.5	<1.9	RPD-NA	pg/L	N/A	50	29-OCT-15
1,2,3,7,8-PeCDF		<1.3	<0.90	RPD-NA	pg/L	N/A	50	29-OCT-15
2,3,4,7,8-PeCDF		<1.1	<0.79	RPD-NA	pg/L	N/A	50	29-OCT-15
1,2,3,4,7,8-HxCDF		<0.54	<0.57	RPD-NA	pg/L	N/A	50	29-OCT-15
1,2,3,6,7,8-HxCDF		<0.45	<0.45	RPD-NA	pg/L	N/A	50	29-OCT-15
2,3,4,6,7,8-HxCDF		<0.53	<0.56	RPD-NA	pg/L	N/A	50	29-OCT-15
1,2,3,7,8,9-HxCDF		<0.78	<0.81	RPD-NA	pg/L	N/A	50	29-OCT-15
1,2,3,4,6,7,8-HpCDF		<0.73	<0.51	RPD-NA	pg/L	N/A	50	29-OCT-15
1,2,3,4,7,8,9-HpCDF		<1.1	<0.86	RPD-NA	pg/L	N/A	50	29-OCT-15
OCDF		<1.7	<1.1	RPD-NA	pg/L	N/A	50	29-OCT-15
Total-TCDD		<2.6	<1.8	RPD-NA	pg/L	N/A	50	29-OCT-15
Total-PeCDD		<1.3	<0.82	RPD-NA	pg/L	N/A	50	29-OCT-15
Total-HxCDD		<0.97	<0.98	RPD-NA	pg/L	N/A	50	29-OCT-15
Total-HpCDD		<1.1	<1.0	RPD-NA	pg/L	N/A	50	29-OCT-15
Total-TCDF		<2.5	<1.9	RPD-NA	pg/L	N/A	50	29-OCT-15
Total-PeCDF		<1.3	<0.90	RPD-NA	pg/L	N/A	50	29-OCT-15
Total-HxCDF		<0.78	<0.81	RPD-NA	pg/L	N/A	50	29-OCT-15
Total-HpCDF		<1.1	<0.86	RPD-NA	pg/L	N/A	50	29-OCT-15
WG2200764-2 LCS								
2,3,7,8-TCDD			101.0		%		67-158	29-OCT-15
1,2,3,7,8-PeCDD			108.0		%		70-142	29-OCT-15
1,2,3,4,7,8-HxCDD			106.0		%		70-164	29-OCT-15
1,2,3,6,7,8-HxCDD			98.0		%		76-134	29-OCT-15
1,2,3,7,8,9-HxCDD			118.0		%		64-162	29-OCT-15
1,2,3,4,6,7,8-HpCDD			104.0		%		70-140	29-OCT-15
OCDD			95.0		%		78-144	29-OCT-15



Environmental

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Client: Covanta - Durham York Renewable Energy LP
 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
DX-1613B-HRMS-BU		Waste						
Batch	R3299253							
WG2200764-2 LCS								
2,3,7,8-TCDF			96.0		%		75-158	29-OCT-15
1,2,3,7,8-PeCDF			103.0		%		80-134	29-OCT-15
2,3,4,7,8-PeCDF			96.0		%		68-160	29-OCT-15
1,2,3,4,7,8-HxCDF			101.0		%		72-134	29-OCT-15
1,2,3,6,7,8-HxCDF			88.0		%		84-130	29-OCT-15
2,3,4,6,7,8-HxCDF			100.0		%		78-130	29-OCT-15
1,2,3,7,8,9-HxCDF			101.0		%		70-156	29-OCT-15
1,2,3,4,6,7,8-HpCDF			97.0		%		82-122	29-OCT-15
1,2,3,4,7,8,9-HpCDF			97.0		%		78-138	29-OCT-15
OCDF			99.0		%		63-170	29-OCT-15
WG2200764-1 MB								
2,3,7,8-TCDD			<1.5	[U]	pg/L		1.5	29-OCT-15
1,2,3,7,8-PeCDD			<0.95	[U]	pg/L		0.95	29-OCT-15
1,2,3,4,7,8-HxCDD			<0.71	[U]	pg/L		0.71	29-OCT-15
1,2,3,6,7,8-HxCDD			<0.67	[U]	pg/L		0.67	29-OCT-15
1,2,3,7,8,9-HxCDD			<0.68	[U]	pg/L		0.68	29-OCT-15
1,2,3,4,6,7,8-HpCDD			<1.3	[U]	pg/L		1.3	29-OCT-15
OCDD			<1.3	[U]	pg/L		1.3	29-OCT-15
2,3,7,8-TCDF			<2.1	[U]	pg/L		2.1	29-OCT-15
1,2,3,7,8-PeCDF			<0.88	[U]	pg/L		0.88	29-OCT-15
2,3,4,7,8-PeCDF			<0.77	[U]	pg/L		0.77	29-OCT-15
1,2,3,4,7,8-HxCDF			<0.71	[U]	pg/L		0.71	29-OCT-15
1,2,3,6,7,8-HxCDF			<0.50	[U]	pg/L		0.5	29-OCT-15
2,3,4,6,7,8-HxCDF			<0.64	[U]	pg/L		0.64	29-OCT-15
1,2,3,7,8,9-HxCDF			<0.99	M,U	pg/L		0.99	29-OCT-15
1,2,3,4,6,7,8-HpCDF			<0.65	[U]	pg/L		0.65	29-OCT-15
1,2,3,4,7,8,9-HpCDF			<1.1	[U]	pg/L		1.1	29-OCT-15
OCDF			<1.4	[U]	pg/L		1.4	29-OCT-15
Total-TCDD			<1.5	[U]	pg/L		1.5	29-OCT-15
Total-PeCDD			<0.95	[U]	pg/L		0.95	29-OCT-15
Total-HxCDD			<0.71	[U]	pg/L		0.71	29-OCT-15
Total-HpCDD			<1.3	[U]	pg/L		1.3	29-OCT-15
Total-TCDF			<2.1	[U]	pg/L		2.1	29-OCT-15
Total-PeCDF			<0.88	[U]	pg/L		0.88	29-OCT-15



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Client: Covanta - Durham York Renewable Energy LP
1835 Energy Drive
Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
DX-1613B-HRMS-BU		Waste						
Batch R3299253								
WG2200764-1 MB								
Total-HxCDF			<0.99	[U]	pg/L		0.99	29-OCT-15
Total-HpCDF			<1.1	[U]	pg/L		1.1	29-OCT-15
Surrogate: 13C12-2,3,7,8-TCDD			72.0		%		20-175	29-OCT-15
Surrogate: 13C12-1,2,3,7,8-PeCDD			73.0		%		21-227	29-OCT-15
Surrogate: 13C12-1,2,3,4,7,8-HxCDD			54.0		%		21-193	29-OCT-15
Surrogate: 13C12-1,2,3,6,7,8-HxCDD			85.0		%		25-163	29-OCT-15
Surrogate: 13C12-1,2,3,4,6,7,8-HpCDD			68.0		%		23-166	29-OCT-15
Surrogate: 13C12-OCDD			58.0		%		13-138	29-OCT-15
Surrogate: 13C12-2,3,7,8-TCDF			75.0		%		22-152	29-OCT-15
Surrogate: 13C12-1,2,3,7,8-PeCDF			77.0		%		24-185	29-OCT-15
Surrogate: 13C12-2,3,4,7,8-PeCDF			78.0		%		21-178	29-OCT-15
Surrogate: 13C12-1,2,3,4,7,8-HxCDF			64.0		%		26-152	29-OCT-15
Surrogate: 13C12-1,2,3,6,7,8-HxCDF			92.0		%		21-159	29-OCT-15
Surrogate: 13C12-2,3,4,6,7,8-HxCDF			79.0		%		17-205	29-OCT-15
Surrogate: 13C12-1,2,3,7,8,9-HxCDF			65.0		%		28-136	29-OCT-15
Surrogate: 13C12-1,2,3,4,6,7,8-HpCDF			76.0		%		21-158	29-OCT-15
Surrogate: 13C12-1,2,3,4,7,8,9-HpCDF			64.0		%		20-186	29-OCT-15
Surrogate: 37Cl4-2,3,7,8-TCDD (Cleanup)			64.0		%		31-191	29-OCT-15
WG2200764-4 MB								
2,3,7,8-TCDD			<2.5	[U]	pg/L		2.5	29-OCT-15
1,2,3,7,8-PeCDD			<1.6	[U]	pg/L		1.6	29-OCT-15
1,2,3,4,7,8-HxCDD			<1.3	[U]	pg/L		1.3	29-OCT-15
1,2,3,6,7,8-HxCDD			<1.2	[U]	pg/L		1.2	29-OCT-15
1,2,3,7,8,9-HxCDD			<1.2	[U]	pg/L		1.2	29-OCT-15
1,2,3,4,6,7,8-HpCDD			<1.7	[U]	pg/L		1.7	29-OCT-15
OCDD			<1.4	[U]	pg/L		1.4	29-OCT-15
2,3,7,8-TCDF			<2.5	[U]	pg/L		2.5	29-OCT-15
1,2,3,7,8-PeCDF			<1.4	[U]	pg/L		1.4	29-OCT-15
2,3,4,7,8-PeCDF			<1.3	[U]	pg/L		1.3	29-OCT-15
1,2,3,4,7,8-HxCDF			<0.80	[U]	pg/L		0.8	29-OCT-15
1,2,3,6,7,8-HxCDF			<0.65	[U]	pg/L		0.65	29-OCT-15
2,3,4,6,7,8-HxCDF			<0.83	[U]	pg/L		0.83	29-OCT-15
1,2,3,7,8,9-HxCDF			<1.2	[U]	pg/L		1.2	29-OCT-15
1,2,3,4,6,7,8-HpCDF			<0.77	[U]	pg/L		0.77	29-OCT-15



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Client: Covanta - Durham York Renewable Energy LP
1835 Energy Drive
Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
DX-1613B-HRMS-BU		Waste						
Batch R3299253								
WG2200764-4 MB								
1,2,3,4,7,8,9-HpCDF			<1.4	[U]	pg/L		1.4	29-OCT-15
OCDF			<2.0	[U]	pg/L		2	29-OCT-15
Total-TCDD			<2.5	[U]	pg/L		2.5	29-OCT-15
Total-PeCDD			<1.6	[U]	pg/L		1.6	29-OCT-15
Total-HxCDD			<1.3	[U]	pg/L		1.3	29-OCT-15
Total-HpCDD			<1.7	[U]	pg/L		1.7	29-OCT-15
Total-TCDF			<2.5	[U]	pg/L		2.5	29-OCT-15
Total-PeCDF			<1.4	[U]	pg/L		1.4	29-OCT-15
Total-HxCDF			<1.2	[U]	pg/L		1.2	29-OCT-15
Total-HpCDF			<1.4	[U]	pg/L		1.4	29-OCT-15
Surrogate: 13C12-2,3,7,8-TCDD			60.0		%		20-175	29-OCT-15
Surrogate: 13C12-1,2,3,7,8-PeCDD			61.0		%		21-227	29-OCT-15
Surrogate: 13C12-1,2,3,4,7,8-HxCDD			59.0		%		21-193	29-OCT-15
Surrogate: 13C12-1,2,3,6,7,8-HxCDD			72.0		%		25-163	29-OCT-15
Surrogate: 13C12-1,2,3,4,6,7,8-HpCDD			64.0		%		23-166	29-OCT-15
Surrogate: 13C12-OCDD			59.0		%		13-138	29-OCT-15
Surrogate: 13C12-2,3,7,8-TCDF			64.0		%		22-152	29-OCT-15
Surrogate: 13C12-1,2,3,7,8-PeCDF			64.0		%		24-185	29-OCT-15
Surrogate: 13C12-2,3,4,7,8-PeCDF			63.0		%		21-178	29-OCT-15
Surrogate: 13C12-1,2,3,4,7,8-HxCDF			63.0		%		26-152	29-OCT-15
Surrogate: 13C12-1,2,3,6,7,8-HxCDF			83.0		%		21-159	29-OCT-15
Surrogate: 13C12-2,3,4,6,7,8-HxCDF			73.0		%		17-205	29-OCT-15
Surrogate: 13C12-1,2,3,7,8,9-HxCDF			57.0		%		28-136	29-OCT-15
Surrogate: 13C12-1,2,3,4,6,7,8-HpCDF			68.0		%		21-158	29-OCT-15
Surrogate: 13C12-1,2,3,4,7,8,9-HpCDF			59.0		%		20-186	29-OCT-15
Surrogate: 37Cl4-2,3,7,8-TCDD (Cleanup)			59.0		%		31-191	29-OCT-15
WG2200764-5 MB								
2,3,7,8-TCDD			<1.9	[U]	pg/L		1.9	29-OCT-15
1,2,3,7,8-PeCDD			<0.93	[U]	pg/L		0.93	29-OCT-15
1,2,3,4,7,8-HxCDD			<0.80	[U]	pg/L		0.8	29-OCT-15
1,2,3,6,7,8-HxCDD			<0.75	[U]	pg/L		0.75	29-OCT-15
1,2,3,7,8,9-HxCDD			<0.76	[U]	pg/L		0.76	29-OCT-15
1,2,3,4,6,7,8-HpCDD			<1.3	[U]	pg/L		1.3	29-OCT-15
OCDD			<1.1	[U]	pg/L		1.1	29-OCT-15



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Client: Covanta - Durham York Renewable Energy LP
1835 Energy Drive
Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
DX-1613B-HRMS-BU		Waste						
Batch	R3299253							
WG2200764-5	MB							
2,3,7,8-TCDF			<2.1	[U]	pg/L		2.1	29-OCT-15
1,2,3,7,8-PeCDF			<0.97	[U]	pg/L		0.97	29-OCT-15
2,3,4,7,8-PeCDF			<0.86	[U]	pg/L		0.86	29-OCT-15
1,2,3,4,7,8-HxCDF			<0.69	[U]	pg/L		0.69	29-OCT-15
1,2,3,6,7,8-HxCDF			<0.51	[U]	pg/L		0.51	29-OCT-15
2,3,4,6,7,8-HxCDF			<0.69	[U]	pg/L		0.69	29-OCT-15
1,2,3,7,8,9-HxCDF			<0.94	[U]	pg/L		0.94	29-OCT-15
1,2,3,4,6,7,8-HpCDF			<0.55	[U]	pg/L		0.55	29-OCT-15
1,2,3,4,7,8,9-HpCDF			<0.85	[U]	pg/L		0.85	29-OCT-15
OCDF			<1.4	[U]	pg/L		1.4	29-OCT-15
Total-TCDD			<1.9	[U]	pg/L		1.9	29-OCT-15
Total-PeCDD			<0.93	[U]	pg/L		0.93	29-OCT-15
Total-HxCDD			<0.80	[U]	pg/L		0.8	29-OCT-15
Total-HpCDD			<1.3	[U]	pg/L		1.3	29-OCT-15
Total-TCDF			<2.1	[U]	pg/L		2.1	29-OCT-15
Total-PeCDF			<0.97	[U]	pg/L		0.97	29-OCT-15
Total-HxCDF			<0.94	[U]	pg/L		0.94	29-OCT-15
Total-HpCDF			<0.85	[U]	pg/L		0.85	29-OCT-15
Surrogate: 13C12-2,3,7,8-TCDD			71.0		%		20-175	29-OCT-15
Surrogate: 13C12-1,2,3,7,8-PeCDD			71.0		%		21-227	29-OCT-15
Surrogate: 13C12-1,2,3,4,7,8-HxCDD			59.0		%		21-193	29-OCT-15
Surrogate: 13C12-1,2,3,6,7,8-HxCDD			91.0		%		25-163	29-OCT-15
Surrogate: 13C12-1,2,3,4,6,7,8-HpCDD			71.0		%		23-166	29-OCT-15
Surrogate: 13C12-OCDD			66.0		%		13-138	29-OCT-15
Surrogate: 13C12-2,3,7,8-TCDF			75.0		%		22-152	29-OCT-15
Surrogate: 13C12-1,2,3,7,8-PeCDF			76.0		%		24-185	29-OCT-15
Surrogate: 13C12-2,3,4,7,8-PeCDF			75.0		%		21-178	29-OCT-15
Surrogate: 13C12-1,2,3,4,7,8-HxCDF			71.0		%		26-152	29-OCT-15
Surrogate: 13C12-1,2,3,6,7,8-HxCDF			96.0		%		21-159	29-OCT-15
Surrogate: 13C12-2,3,4,6,7,8-HxCDF			82.0		%		17-205	29-OCT-15
Surrogate: 13C12-1,2,3,7,8,9-HxCDF			72.0		%		28-136	29-OCT-15
Surrogate: 13C12-1,2,3,4,6,7,8-HpCDF			79.0		%		21-158	29-OCT-15
Surrogate: 13C12-1,2,3,4,7,8,9-HpCDF			70.0		%		20-186	29-OCT-15



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Client: Covanta - Durham York Renewable Energy LP
 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
DX-1613B-HRMS-BU Waste								
Batch R3299253								
WG2200764-5 MB								
Surrogate: 37Cl4-2,3,7,8-TCDD (Cleanup)			67.0		%		31-191	29-OCT-15
F-TCLP-WT Waste								
Batch R3296586								
WG2200622-3 DUP								
Fluoride (F)		L1692602-1 <10	<10	RPD-NA	mg/L	N/A	30	26-OCT-15
WG2200622-2 LCS								
Fluoride (F)			92.4		%		70-130	26-OCT-15
WG2200622-1 MB								
Fluoride (F)			<10		mg/L		10	26-OCT-15
WG2200622-4 MS								
Fluoride (F)		L1692602-1	98.5		%		50-150	26-OCT-15
GLYPHOSATE-TCLP-WT Waste								
Batch R3297314								
WG2201066-3 DUP								
Glyphosate		L1692602-4 <0.050	<0.050	RPD-NA	mg/L	N/A	30	27-OCT-15
WG2201066-2 LCS								
Glyphosate			94.8		%		70-130	27-OCT-15
WG2201066-1 MB								
Glyphosate			<0.050		mg/L		0.05	27-OCT-15
HG-TCLP-WT Waste								
Batch R3296579								
WG2200631-3 DUP								
Mercury (Hg)		L1692474-1 <0.00010	<0.00010	RPD-NA	mg/L	N/A	50	26-OCT-15
WG2200631-2 LCS								
Mercury (Hg)			105.0		%		70-130	26-OCT-15
WG2200631-1 MB								
Mercury (Hg)			<0.00010		mg/L		0.0001	26-OCT-15
WG2200631-4 MS								
Mercury (Hg)		L1692474-1	95.3		%		50-140	26-OCT-15
MET-TCLP-WT Waste								
Batch R3296455								
WG2200572-4 DUP								
Silver (Ag)		WG2200572-3 <0.0050	<0.0050	RPD-NA	mg/L	N/A	40	26-OCT-15
Arsenic (As)		<0.050	<0.050	RPD-NA	mg/L	N/A	40	26-OCT-15
Boron (B)		<2.5	<2.5	RPD-NA	mg/L	N/A	40	26-OCT-15



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Client: Covanta - Durham York Renewable Energy LP
 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-TCLP-WT		Waste						
Batch	R3296455							
WG2200572-4	DUP	WG2200572-3						
Barium (Ba)		2.51	2.45		mg/L	2.4	40	26-OCT-15
Cadmium (Cd)		<0.0050	<0.0050	RPD-NA	mg/L	N/A	40	26-OCT-15
Chromium (Cr)		<0.050	<0.050	RPD-NA	mg/L	N/A	40	26-OCT-15
Lead (Pb)		0.402	0.393		mg/L	2.3	40	26-OCT-15
Selenium (Se)		<0.25	<0.25	RPD-NA	mg/L	N/A	40	26-OCT-15
Uranium (U)		<0.25	<0.25	RPD-NA	mg/L	N/A	40	26-OCT-15
WG2200572-2	LCS							
Silver (Ag)			95.9		%		70-130	26-OCT-15
Arsenic (As)			94.6		%		70-130	26-OCT-15
Boron (B)			98.4		%		70-130	26-OCT-15
Barium (Ba)			96.7		%		70-130	26-OCT-15
Cadmium (Cd)			96.0		%		70-130	26-OCT-15
Chromium (Cr)			95.7		%		70-130	26-OCT-15
Lead (Pb)			96.4		%		70-130	26-OCT-15
Selenium (Se)			97.0		%		70-130	26-OCT-15
Uranium (U)			98.5		%		70-130	26-OCT-15
WG2200572-1	MB							
Silver (Ag)			<0.0050		mg/L		0.005	26-OCT-15
Arsenic (As)			<0.050		mg/L		0.05	26-OCT-15
Boron (B)			<2.5		mg/L		2.5	26-OCT-15
Barium (Ba)			<0.50		mg/L		0.5	26-OCT-15
Cadmium (Cd)			<0.0050		mg/L		0.005	26-OCT-15
Chromium (Cr)			<0.050		mg/L		0.05	26-OCT-15
Lead (Pb)			<0.050		mg/L		0.05	26-OCT-15
Selenium (Se)			<0.25		mg/L		0.25	26-OCT-15
Uranium (U)			<0.25		mg/L		0.25	26-OCT-15
WG2200572-5	MS	WG2200572-3						
Silver (Ag)			116.9		%		50-150	26-OCT-15
Arsenic (As)			97.6		%		50-150	26-OCT-15
Boron (B)			109.0		%		50-150	26-OCT-15
Barium (Ba)			97.3		%		50-150	26-OCT-15
Cadmium (Cd)			97.7		%		50-150	26-OCT-15
Chromium (Cr)			97.0		%		50-150	26-OCT-15
Lead (Pb)			94.7		%		50-150	26-OCT-15



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 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-TCLP-WT		Waste						
Batch	R3296455							
WG2200572-5	MS	WG2200572-3						
Selenium (Se)			99.9		%		50-150	26-OCT-15
Uranium (U)			96.6		%		50-150	26-OCT-15
N2N3-TCLP-WT		Waste						
Batch	R3296586							
WG2200622-3	DUP	L1692602-1						
Nitrate-N		<2.0	<2.0	RPD-NA	mg/L	N/A	30	26-OCT-15
Nitrite-N		<2.0	<2.0	RPD-NA	mg/L	N/A	30	26-OCT-15
WG2200622-2	LCS							
Nitrate-N			99.3		%		70-130	26-OCT-15
Nitrite-N			99.6		%		70-130	26-OCT-15
WG2200622-1	MB							
Nitrate-N			<2.0		mg/L		2	26-OCT-15
Nitrite-N			<2.0		mg/L		2	26-OCT-15
WG2200622-4	MS	L1692602-1						
Nitrate-N			107.3		%		50-150	26-OCT-15
Nitrite-N			109.0		%		50-150	26-OCT-15
NDMA-TCLP-WT		Waste						
Batch	R3297310							
WG2200844-5	DUP	WG2200844-3						
N-Nitrosodimethylamine		<0.00020	<0.00020	RPD-NA	mg/L	N/A	50	27-OCT-15
WG2200844-2	LCS							
N-Nitrosodimethylamine			115.7		%		50-150	27-OCT-15
WG2200844-1	MB							
N-Nitrosodimethylamine			<0.00020		mg/L		0.0002	27-OCT-15
WG2200844-4	MS	WG2200844-3						
N-Nitrosodimethylamine			113.1		%		50-150	27-OCT-15
NTA-TCLP-WT		Waste						
Batch	R3297403							
WG2201654-3	DUP	L1692474-1						
Nitrotriacetic Acid (NTA)		<40	<0.20	RPD-NA	mg/L	N/A	25	27-OCT-15
WG2201654-2	LCS							
Nitrotriacetic Acid (NTA)			97.0		%		75-125	27-OCT-15
WG2201654-1	MB							
Nitrotriacetic Acid (NTA)			<0.20		mg/L		0.2	27-OCT-15
PARAQUAT-TCLP-WT		Waste						



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1835 Energy Drive
Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PARAQUAT-TCLP-WT								
	Waste							
Batch	R3297281							
WG2200908-3	DUP	L1692602-4						
Paraquat		<0.10	<0.10	RPD-NA	mg/L	N/A	50	27-OCT-15
WG2200908-2	LCS		92.4		%		50-150	27-OCT-15
Paraquat								
WG2200908-1	MB		<0.010		mg/L		0.01	27-OCT-15
Paraquat								
PCB-TCLP-WT								
	Waste							
Batch	R3297151							
WG2200607-5	DUP	L1689999-1						
Aroclor 1242		<0.00020	<0.00020	RPD-NA	mg/L	N/A	50	27-OCT-15
Aroclor 1248		<0.00020	<0.00020	RPD-NA	mg/L	N/A	50	27-OCT-15
Aroclor 1254		<0.00020	<0.00020	RPD-NA	mg/L	N/A	50	27-OCT-15
Aroclor 1260		<0.00020	<0.00020	RPD-NA	mg/L	N/A	50	27-OCT-15
WG2200607-2	LCS		84.4		%		65-130	27-OCT-15
Aroclor 1242								
Aroclor 1248			106.0		%		65-130	27-OCT-15
Aroclor 1254			86.6		%		65-130	27-OCT-15
Aroclor 1260			110.0		%		65-130	27-OCT-15
WG2200607-1	MB		<0.00020		mg/L		0.0002	27-OCT-15
Aroclor 1242								
Aroclor 1248			<0.00020		mg/L		0.0002	27-OCT-15
Aroclor 1254			<0.00020		mg/L		0.0002	27-OCT-15
Aroclor 1260			<0.00020		mg/L		0.0002	27-OCT-15
Surrogate: 2-Fluorobiphenyl			66.8		%		40-160	27-OCT-15
WG2200607-4	MS	L1689999-1	82.8		%		50-150	27-OCT-15
Aroclor 1242								
Aroclor 1254			81.6		%		50-150	27-OCT-15
Aroclor 1260			84.7		%		50-150	27-OCT-15
PEST-MISC-TCLP-WT								
	Waste							
Batch	R3297984							
WG2200599-4	DUP	WG2200599-5						
Atrazine Desethyl		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
Atrazine		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
Bendiocarb		<0.0050	<0.0050	RPD-NA	mg/L	N/A	50	28-OCT-15
Trifluralin		<0.0050	<0.0050	RPD-NA	mg/L	N/A	50	28-OCT-15
Phorate		<0.0010	<0.0010		mg/L			28-OCT-15



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 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PEST-MISC-TCLP-WT		Waste						
Batch	R3297984							
WG2200599-4	DUP	WG2200599-5						
Phorate		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
Dimethoate		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
Simazine		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
Carbofuran		<0.0020	<0.0020	RPD-NA	mg/L	N/A	50	28-OCT-15
Terbufos		<0.0020	<0.0020	RPD-NA	mg/L	N/A	50	28-OCT-15
Diazinon		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
Triallate		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
Metribuzin		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
Carbaryl		<0.0020	<0.0020	RPD-NA	mg/L	N/A	50	28-OCT-15
Alachlor		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
Prometryne		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
Malathion		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
Metolachlor		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
Methyl Parathion		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
Parathion		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
Cyanazine		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
Chlorpyrifos		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
Diclofop methyl		<0.0020	<0.0020	RPD-NA	mg/L	N/A	50	28-OCT-15
Azinphos methyl		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
Benzo(a)pyrene		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
Temephos		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
WG2200599-2	LCS							
Atrazine Desethyl			51.7		%		50-140	28-OCT-15
Atrazine			109.2		%		60-140	28-OCT-15
Bendiocarb			97.2		%		50-140	28-OCT-15
Trifluralin			93.7		%		60-140	28-OCT-15
Phorate			97.7		%		60-140	28-OCT-15
Dimethoate			84.0		%		60-140	28-OCT-15
Simazine			95.4		%		60-140	28-OCT-15
Carbofuran			95.7		%		60-140	28-OCT-15
Terbufos			99.0		%		60-140	28-OCT-15
Diazinon			89.8		%		60-140	28-OCT-15
Triallate			108.6		%		60-140	28-OCT-15



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Client: Covanta - Durham York Renewable Energy LP
1835 Energy Drive
Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PEST-MISC-TCLP-WT		Waste						
Batch	R3297984							
WG2200599-2	LCS							
Metribuzin			96.9		%		60-140	28-OCT-15
Carbaryl			81.8		%		50-175	28-OCT-15
Alachlor			108.9		%		60-140	28-OCT-15
Prometryne			105.5		%		60-140	28-OCT-15
Malathion			100.5		%		60-130	28-OCT-15
Metolachlor			102.6		%		60-140	28-OCT-15
Methyl Parathion			94.3		%		60-140	28-OCT-15
Parathion			109.7		%		60-140	28-OCT-15
Cyanazine			90.3		%		60-140	28-OCT-15
Chlorpyrifos			101.0		%		60-140	28-OCT-15
Diclofop methyl			134.6		%		60-140	28-OCT-15
Azinphos methyl			109.5		%		60-140	28-OCT-15
Benzo(a)pyrene			101.2		%		60-140	28-OCT-15
Temephos			115.8		%		60-140	28-OCT-15
WG2200599-1	MB							
Atrazine Desethyl			<0.0010		mg/L		0.001	28-OCT-15
Atrazine			<0.0010		mg/L		0.001	28-OCT-15
Bendiocarb			<0.0050		mg/L		0.005	28-OCT-15
Trifluralin			<0.0050		mg/L		0.005	28-OCT-15
Phorate			<0.0010		mg/L		0.001	28-OCT-15
Dimethoate			<0.0010		mg/L		0.001	28-OCT-15
Simazine			<0.0010		mg/L		0.001	28-OCT-15
Carbofuran			<0.0020		mg/L		0.002	28-OCT-15
Terbufos			<0.0020		mg/L		0.002	28-OCT-15
Diazinon			<0.0010		mg/L		0.001	28-OCT-15
Triallate			<0.0010		mg/L		0.001	28-OCT-15
Metribuzin			<0.0010		mg/L		0.001	28-OCT-15
Carbaryl			<0.0020		mg/L		0.002	28-OCT-15
Alachlor			<0.0010		mg/L		0.001	28-OCT-15
Prometryne			<0.0010		mg/L		0.001	28-OCT-15
Malathion			<0.0010		mg/L		0.001	28-OCT-15
Metolachlor			<0.0010		mg/L		0.001	28-OCT-15
Methyl Parathion			<0.0010		mg/L		0.001	28-OCT-15
Parathion			<0.0010		mg/L		0.001	28-OCT-15



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Client: Covanta - Durham York Renewable Energy LP
1835 Energy Drive
Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PEST-MISC-TCLP-WT		Waste						
Batch	R3297984							
WG2200599-1	MB							
Cyanazine			<0.0010		mg/L		0.001	28-OCT-15
Chlorpyrifos			<0.0010		mg/L		0.001	28-OCT-15
Diclofop methyl			<0.0020		mg/L		0.002	28-OCT-15
Azinphos methyl			<0.0010		mg/L		0.001	28-OCT-15
Benzo(a)pyrene			<0.0010		mg/L		0.001	28-OCT-15
Temephos			<0.0010		mg/L		0.001	28-OCT-15
Surrogate: 2-Fluorobiphenyl			83.7		%		40-160	28-OCT-15
Surrogate: d14-Terphenyl			74.9		%		60-140	28-OCT-15
WG2200599-6	MB							
Atrazine Desethyl			<0.0010		mg/L		0.001	29-OCT-15
Atrazine			<0.0010		mg/L		0.001	29-OCT-15
Bendiocarb			<0.0050		mg/L		0.005	29-OCT-15
Trifluralin			<0.0050		mg/L		0.005	29-OCT-15
Phorate			<0.0010		mg/L		0.001	29-OCT-15
Dimethoate			<0.0010		mg/L		0.001	29-OCT-15
Simazine			<0.0010		mg/L		0.001	29-OCT-15
Carbofuran			<0.0020		mg/L		0.002	29-OCT-15
Terbufos			<0.0020		mg/L		0.002	29-OCT-15
Diazinon			<0.0010		mg/L		0.001	29-OCT-15
Triallate			<0.0010		mg/L		0.001	29-OCT-15
Metribuzin			<0.0010		mg/L		0.001	29-OCT-15
Carbaryl			<0.0020		mg/L		0.002	29-OCT-15
Alachlor			<0.0010		mg/L		0.001	29-OCT-15
Prometryne			<0.0010		mg/L		0.001	29-OCT-15
Malathion			<0.0010		mg/L		0.001	29-OCT-15
Metolachlor			<0.0010		mg/L		0.001	29-OCT-15
Methyl Parathion			<0.0010		mg/L		0.001	29-OCT-15
Parathion			<0.0010		mg/L		0.001	29-OCT-15
Cyanazine			<0.0010		mg/L		0.001	29-OCT-15
Chlorpyrifos			<0.0010		mg/L		0.001	29-OCT-15
Diclofop methyl			<0.0020		mg/L		0.002	29-OCT-15
Azinphos methyl			<0.0010		mg/L		0.001	29-OCT-15
Benzo(a)pyrene			<0.0010		mg/L		0.001	29-OCT-15
Temephos			<0.0010		mg/L		0.001	29-OCT-15



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Client: Covanta - Durham York Renewable Energy LP
 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PEST-MISC-TCLP-WT		Waste						
Batch	R3297984							
WG2200599-6	MB							
Surrogate: 2-Fluorobiphenyl			75.4		%		40-160	29-OCT-15
Surrogate: d14-Terphenyl			79.3		%		60-140	29-OCT-15
WG2200599-3	MS	WG2200599-5						
Atrazine Desethyl			51.6		%		50-150	28-OCT-15
Atrazine			100.7		%		50-150	28-OCT-15
Bendiocarb			94.0		%		50-150	28-OCT-15
Trifluralin			83.0		%		50-150	28-OCT-15
Phorate			87.3		%		50-150	28-OCT-15
Dimethoate			86.9		%		50-150	28-OCT-15
Simazine			92.5		%		50-150	28-OCT-15
Carbofuran			93.6		%		50-150	28-OCT-15
Terbufos			88.9		%		50-150	28-OCT-15
Diazinon			82.9		%		50-150	28-OCT-15
Triallate			94.7		%		50-150	28-OCT-15
Metribuzin			96.5		%		50-150	28-OCT-15
Carbaryl			103.5		%		50-150	28-OCT-15
Alachlor			100.1		%		50-150	28-OCT-15
Prometryne			99.7		%		50-150	28-OCT-15
Malathion			93.2		%		50-150	28-OCT-15
Metolachlor			93.6		%		50-150	28-OCT-15
Methyl Parathion			92.5		%		50-150	28-OCT-15
Parathion			105.9		%		50-150	28-OCT-15
Cyanazine			103.1		%		50-150	28-OCT-15
Chlorpyrifos			94.2		%		50-150	28-OCT-15
Diclofop methyl			95.2		%		50-150	28-OCT-15
Azinphos methyl			116.4		%		50-150	28-OCT-15
Benzo(a)pyrene			95.5		%		50-150	28-OCT-15
Temephos			146.1		%		50-150	28-OCT-15
PEST-OC-TCLP-WT		Waste						
Batch	R3297247							
WG2200599-4	DUP	WG2200599-5						
gamma-BHC		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	27-OCT-15
Heptachlor		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	27-OCT-15
Heptachlor epoxide		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	27-OCT-15



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Client: Covanta - Durham York Renewable Energy LP
 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PEST-OC-TCLP-WT		Waste						
Batch	R3297247							
WG2200599-4	DUP	WG2200599-5						
Oxychlordane		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	27-OCT-15
gamma-Chlordane		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	27-OCT-15
alpha-Chlordane		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	27-OCT-15
Aldrin		<0.00020	<0.00020	RPD-NA	mg/L	N/A	50	27-OCT-15
Dieldrin		<0.00020	<0.00020	RPD-NA	mg/L	N/A	50	27-OCT-15
Endrin		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	27-OCT-15
p,p-DDE		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	27-OCT-15
p,p-DDD		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	27-OCT-15
p,p-DDT		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	27-OCT-15
o,p-DDT		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	27-OCT-15
Methoxychlor		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	27-OCT-15
WG2200599-2	LCS							
gamma-BHC			100.4		%		50-150	27-OCT-15
Heptachlor			102.3		%		25-175	27-OCT-15
Heptachlor epoxide			84.0		%		25-175	27-OCT-15
Oxychlordane			82.6		%		25-175	27-OCT-15
gamma-Chlordane			87.1		%		25-175	27-OCT-15
alpha-Chlordane			87.4		%		25-175	27-OCT-15
Aldrin			121.1		%		25-175	27-OCT-15
Dieldrin			83.0		%		25-175	27-OCT-15
Endrin			106.2		%		50-150	27-OCT-15
p,p-DDE			79.8		%		25-175	27-OCT-15
p,p-DDD			84.3		%		25-175	27-OCT-15
p,p-DDT			97.5		%		25-175	27-OCT-15
o,p-DDT			87.5		%		50-130	27-OCT-15
Methoxychlor			111.4		%		25-175	27-OCT-15
WG2200599-1	MB							
gamma-BHC			<0.0010		mg/L		0.001	27-OCT-15
Heptachlor			<0.0010		mg/L		0.001	27-OCT-15
Heptachlor epoxide			<0.0010		mg/L		0.001	27-OCT-15
Oxychlordane			<0.0010		mg/L		0.001	27-OCT-15
gamma-Chlordane			<0.0010		mg/L		0.001	27-OCT-15
alpha-Chlordane			<0.0010		mg/L		0.001	27-OCT-15
Aldrin			<0.00020		mg/L		0.0002	27-OCT-15



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Client: Covanta - Durham York Renewable Energy LP
 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PEST-OC-TCLP-WT		Waste						
Batch	R3297247							
WG2200599-1	MB							
Aldrin			<0.00020		mg/L		0.0002	27-OCT-15
Dieldrin			<0.00020		mg/L		0.0002	27-OCT-15
Endrin			<0.0010		mg/L		0.001	27-OCT-15
p,p-DDE			<0.0010		mg/L		0.001	27-OCT-15
p,p-DDD			<0.0010		mg/L		0.001	27-OCT-15
p,p-DDT			<0.0010		mg/L		0.001	27-OCT-15
o,p-DDT			<0.0010		mg/L		0.001	27-OCT-15
Methoxychlor			<0.0010		mg/L		0.001	27-OCT-15
Surrogate: d14-Terphenyl			93.9		%		60-140	27-OCT-15
WG2200599-6	MB							
gamma-BHC			<0.0010		mg/L		0.001	29-OCT-15
Heptachlor			<0.0010		mg/L		0.001	29-OCT-15
Heptachlor epoxide			<0.0010		mg/L		0.001	29-OCT-15
Oxychlordane			<0.0010		mg/L		0.001	29-OCT-15
gamma-Chlordane			<0.0010		mg/L		0.001	29-OCT-15
alpha-Chlordane			<0.0010		mg/L		0.001	29-OCT-15
Aldrin			<0.00020		mg/L		0.0002	29-OCT-15
Dieldrin			<0.00020		mg/L		0.0002	29-OCT-15
Endrin			<0.0010		mg/L		0.001	29-OCT-15
p,p-DDE			<0.0010		mg/L		0.001	29-OCT-15
p,p-DDD			<0.0010		mg/L		0.001	29-OCT-15
p,p-DDT			<0.0010		mg/L		0.001	29-OCT-15
o,p-DDT			<0.0010		mg/L		0.001	29-OCT-15
Methoxychlor			<0.0010		mg/L		0.001	29-OCT-15
Surrogate: d14-Terphenyl			101.5		%		60-140	29-OCT-15
WG2200599-3	MS	WG2200599-5						
gamma-BHC			92.9		%		50-150	27-OCT-15
Heptachlor			92.7		%		50-150	27-OCT-15
Heptachlor epoxide			77.7		%		50-150	27-OCT-15
Oxychlordane			81.3		%		50-150	27-OCT-15
gamma-Chlordane			81.4		%		50-150	27-OCT-15
alpha-Chlordane			82.8		%		50-150	27-OCT-15
Aldrin			112.6		%		50-150	27-OCT-15
Dieldrin			77.2		%		50-150	27-OCT-15



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Client: Covanta - Durham York Renewable Energy LP
 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PEST-OC-TCLP-WT		Waste						
Batch	R3297247							
WG2200599-3	MS	WG2200599-5						
Endrin			97.5		%		50-150	27-OCT-15
p,p-DDE			74.0		%		50-150	27-OCT-15
p,p-DDD			77.3		%		50-150	27-OCT-15
p,p-DDT			92.3		%		50-150	27-OCT-15
o,p-DDT			81.4		%		50-150	27-OCT-15
Methoxychlor			107.6		%		50-150	27-OCT-15
PEST-PAHERB-TCLP-WT		Waste						
Batch	R3297080							
WG2200573-4	DUP	WG2200573-5						
2,4,5-TP		<0.0020	<0.0020	RPD-NA	mg/L	N/A	50	27-OCT-15
MCPA		<0.0020	<0.0020	RPD-NA	mg/L	N/A	50	27-OCT-15
2,4,5-T		<0.0020	<0.0020	RPD-NA	mg/L	N/A	50	27-OCT-15
2,4-D		<0.0020	<0.0020	RPD-NA	mg/L	N/A	50	27-OCT-15
Bromoxynil		<0.0020	<0.0020	RPD-NA	mg/L	N/A	50	27-OCT-15
Dicamba		<0.0050	<0.0050	RPD-NA	mg/L	N/A	50	27-OCT-15
Dinoseb		<0.0020	<0.0020	RPD-NA	mg/L	N/A	50	27-OCT-15
Picloram		<0.0050	<0.0050	RPD-NA	mg/L	N/A	50	27-OCT-15
WG2200573-2	LCS							
2,4,5-TP			122.6		%		65-135	27-OCT-15
MCPA			127.6		%		65-135	27-OCT-15
2,4,5-T			120.6		%		65-135	27-OCT-15
2,4-D			126.5		%		25-175	27-OCT-15
Bromoxynil			120.2		%		65-135	27-OCT-15
Dicamba			121.9		%		30-150	27-OCT-15
Dinoseb			134.1		%		30-150	27-OCT-15
Picloram			58.6		%		25-120	27-OCT-15
WG2200573-1	MB							
2,4,5-TP			<0.0020		mg/L		0.002	27-OCT-15
MCPA			<0.0020		mg/L		0.002	27-OCT-15
2,4,5-T			<0.0020		mg/L		0.002	27-OCT-15
2,4-D			<0.0020		mg/L		0.002	27-OCT-15
Bromoxynil			<0.0020		mg/L		0.002	27-OCT-15
Dicamba			<0.0050		mg/L		0.005	27-OCT-15
Dinoseb			<0.0020		mg/L		0.002	27-OCT-15



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Client: Covanta - Durham York Renewable Energy LP
 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PEST-PAHERB-TCLP-WT Waste								
Batch R3297080								
WG2200573-1 MB								
Picloram			<0.0050		mg/L		0.005	27-OCT-15
Surrogate: 2,4-Dichlorophenylacetic Acid			90.5		%		50-150	27-OCT-15
WG2200573-6 MB								
2,4,5-TP			<0.0020		mg/L		0.002	27-OCT-15
MCPA			<0.0020		mg/L		0.002	27-OCT-15
2,4,5-T			<0.0020		mg/L		0.002	27-OCT-15
2,4-D			<0.0020		mg/L		0.002	27-OCT-15
Bromoxynil			<0.0020		mg/L		0.002	27-OCT-15
Dicamba			<0.0050		mg/L		0.005	27-OCT-15
Dinoseb			<0.0020		mg/L		0.002	27-OCT-15
Picloram			<0.0050		mg/L		0.005	27-OCT-15
Surrogate: 2,4-Dichlorophenylacetic Acid			109.3		%		50-150	27-OCT-15
WG2200573-3 MS WG2200573-5								
2,4,5-TP			116.0		%		50-150	27-OCT-15
MCPA			120.7		%		50-150	27-OCT-15
2,4,5-T			121.3		%		50-150	27-OCT-15
2,4-D			125.3		%		50-150	27-OCT-15
Bromoxynil			125.2		%		50-150	27-OCT-15
Dicamba			116.8		%		50-150	27-OCT-15
Dinoseb			144.3		%		30-150	27-OCT-15
Picloram			58.4		%		25-150	27-OCT-15
PYR-TCLP-WT Waste								
Batch R3296737								
WG2200611-6 DUP L1692474-1								
Pyridine		<5.0	<5.0	RPD-NA	mg/L	N/A	30	26-OCT-15
WG2200611-2 LCS								
Pyridine			100.0		%		70-130	26-OCT-15
WG2200611-3 MB								
Pyridine			<5.0		mg/L		5	26-OCT-15
WG2200611-5 MS L1692602-4								
Pyridine			103.0		%		50-150	26-OCT-15
TOXAPHENE-TCLP-WT Waste								



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Client: Covanta - Durham York Renewable Energy LP
 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
TOXAPHENE-TCLP-WT		Waste						
Batch	R3297599							
WG2200600-5	DUP	WG2200600-3						
Toxaphene		<0.0035	<0.0035	RPD-NA	mg/L	N/A	50	27-OCT-15
WG2200600-2	LCS							
Toxaphene			133.0		%		50-150	27-OCT-15
WG2200600-1	MB							
Toxaphene			<0.0035		mg/L		0.0035	27-OCT-15
Surrogate: Decachlorobiphenyl			120.0		%		50-150	27-OCT-15
Surrogate: Tetrachloro-m-xylene			107.0		%		50-150	27-OCT-15
WG2200600-4	MS	WG2200600-3						
Toxaphene			109.4		%		50-150	27-OCT-15
VOC-TCLP-WT		Waste						
Batch	R3297063							
WG2197189-6	DUP	WG2197189-5						
1,1-Dichloroethylene		<0.025	<0.025	RPD-NA	mg/L	N/A	50	27-OCT-15
1,2-Dichlorobenzene		<0.025	<0.025	RPD-NA	mg/L	N/A	50	27-OCT-15
1,2-Dichloroethane		<0.025	<0.025	RPD-NA	mg/L	N/A	50	27-OCT-15
1,4-Dichlorobenzene		<0.025	<0.025	RPD-NA	mg/L	N/A	50	27-OCT-15
Benzene		<0.025	<0.025	RPD-NA	mg/L	N/A	50	27-OCT-15
Carbon tetrachloride		<0.025	<0.025	RPD-NA	mg/L	N/A	50	27-OCT-15
Chlorobenzene		<0.025	<0.025	RPD-NA	mg/L	N/A	50	27-OCT-15
Chloroform		<0.10	<0.10	RPD-NA	mg/L	N/A	50	27-OCT-15
Dichloromethane		<0.50	<0.50	RPD-NA	mg/L	N/A	50	27-OCT-15
Methyl Ethyl Ketone		<1.0	<1.0	RPD-NA	mg/L	N/A	50	27-OCT-15
Tetrachloroethylene		<0.025	<0.025	RPD-NA	mg/L	N/A	50	27-OCT-15
Trichloroethylene		<0.025	<0.025	RPD-NA	mg/L	N/A	50	27-OCT-15
Vinyl chloride		<0.050	<0.050	RPD-NA	mg/L	N/A	50	27-OCT-15
WG2197189-1	LCS							
1,1-Dichloroethylene			114.2		%		70-130	27-OCT-15
1,2-Dichlorobenzene			108.5		%		70-130	27-OCT-15
1,2-Dichloroethane			104.2		%		70-130	27-OCT-15
1,4-Dichlorobenzene			112.2		%		70-130	27-OCT-15
Benzene			113.7		%		70-130	27-OCT-15
Carbon tetrachloride			113.6		%		60-140	27-OCT-15
Chlorobenzene			104.4		%		70-130	27-OCT-15
Chloroform			113.4		%		70-130	27-OCT-15



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Client: Covanta - Durham York Renewable Energy LP
 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-TCLP-WT		Waste						
Batch	R3297063							
WG2197189-1	LCS							
Dichloromethane			115.4		%		70-130	27-OCT-15
Methyl Ethyl Ketone			100.4		%		50-150	27-OCT-15
Tetrachloroethylene			104.2		%		70-130	27-OCT-15
Trichloroethylene			108.1		%		70-130	27-OCT-15
Vinyl chloride			118.7		%		60-130	27-OCT-15
WG2197189-2	MB							
1,1-Dichloroethylene			<0.025		mg/L		0.025	27-OCT-15
1,2-Dichlorobenzene			<0.025		mg/L		0.025	27-OCT-15
1,2-Dichloroethane			<0.025		mg/L		0.025	27-OCT-15
1,4-Dichlorobenzene			<0.025		mg/L		0.025	27-OCT-15
Benzene			<0.025		mg/L		0.025	27-OCT-15
Carbon tetrachloride			<0.025		mg/L		0.025	27-OCT-15
Chlorobenzene			<0.025		mg/L		0.025	27-OCT-15
Chloroform			<0.10		mg/L		0.1	27-OCT-15
Dichloromethane			<0.50		mg/L		0.5	27-OCT-15
Methyl Ethyl Ketone			<1.0		mg/L		1	27-OCT-15
Tetrachloroethylene			<0.025		mg/L		0.025	27-OCT-15
Trichloroethylene			<0.025		mg/L		0.025	27-OCT-15
Vinyl chloride			<0.050		mg/L		0.05	27-OCT-15
Surrogate: 1,4-Difluorobenzene			100.9		%		50-150	27-OCT-15
Surrogate: 4-Bromofluorobenzene			98.2		%		70-130	27-OCT-15
COMMENTS: 24-OCT-15								
WG2197189-3	MB							
1,1-Dichloroethylene			<0.025		mg/L		0.025	27-OCT-15
1,2-Dichlorobenzene			<0.025		mg/L		0.025	27-OCT-15
1,2-Dichloroethane			<0.025		mg/L		0.025	27-OCT-15
1,4-Dichlorobenzene			<0.025		mg/L		0.025	27-OCT-15
Benzene			<0.025		mg/L		0.025	27-OCT-15
Carbon tetrachloride			<0.025		mg/L		0.025	27-OCT-15
Chlorobenzene			<0.025		mg/L		0.025	27-OCT-15
Chloroform			<0.10		mg/L		0.1	27-OCT-15
Dichloromethane			<0.50		mg/L		0.5	27-OCT-15
Methyl Ethyl Ketone			<1.0		mg/L		1	27-OCT-15
Tetrachloroethylene			<0.025		mg/L		0.025	27-OCT-15



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Client: Covanta - Durham York Renewable Energy LP
 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-TCLP-WT		Waste						
Batch	R3297063							
WG2197189-3	MB							
Trichloroethylene			<0.025		mg/L		0.025	27-OCT-15
Vinyl chloride			<0.050		mg/L		0.05	27-OCT-15
Surrogate: 1,4-Difluorobenzene			98.8		%		50-150	27-OCT-15
Surrogate: 4-Bromofluorobenzene			87.1		%		70-130	27-OCT-15
COMMENTS: 25-OCT-15								
WG2197189-4	MB							
1,1-Dichloroethylene			<0.025		mg/L		0.025	27-OCT-15
1,2-Dichlorobenzene			<0.025		mg/L		0.025	27-OCT-15
1,2-Dichloroethane			<0.025		mg/L		0.025	27-OCT-15
1,4-Dichlorobenzene			<0.025		mg/L		0.025	27-OCT-15
Benzene			<0.025		mg/L		0.025	27-OCT-15
Carbon tetrachloride			<0.025		mg/L		0.025	27-OCT-15
Chlorobenzene			<0.025		mg/L		0.025	27-OCT-15
Chloroform			<0.10		mg/L		0.1	27-OCT-15
Dichloromethane			<0.50		mg/L		0.5	27-OCT-15
Methyl Ethyl Ketone			<1.0		mg/L		1	27-OCT-15
Tetrachloroethylene			<0.025		mg/L		0.025	27-OCT-15
Trichloroethylene			<0.025		mg/L		0.025	27-OCT-15
Vinyl chloride			<0.050		mg/L		0.05	27-OCT-15
Surrogate: 1,4-Difluorobenzene			98.0		%		50-150	27-OCT-15
Surrogate: 4-Bromofluorobenzene			86.8		%		70-130	27-OCT-15
COMMENTS: 26-OCT-15								
WG2197189-7		WG2197189-5						
1,1-Dichloroethylene			113.9		%		50-140	27-OCT-15
1,2-Dichlorobenzene			107.8		%		50-140	27-OCT-15
1,2-Dichloroethane			110.2		%		50-140	27-OCT-15
1,4-Dichlorobenzene			109.9		%		50-140	27-OCT-15
Benzene			115.5		%		50-140	27-OCT-15
Carbon tetrachloride			113.0		%		50-140	27-OCT-15
Chlorobenzene			104.3		%		50-140	27-OCT-15
Chloroform			115.9		%		50-140	27-OCT-15
Dichloromethane			120.2		%		50-140	27-OCT-15
Methyl Ethyl Ketone			113.2		%		50-140	27-OCT-15
Tetrachloroethylene			99.7		%		50-140	27-OCT-15



Quality Control Report

Workorder: L1692602

Report Date: 29-OCT-15

Page 24 of 25

Client: Covanta - Durham York Renewable Energy LP
1835 Energy Drive
Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-TCLP-WT								
	Waste							
Batch	R3297063							
WG2197189-7 MS		WG2197189-5						
Trichloroethylene			107.8		%		50-140	27-OCT-15
Vinyl chloride			118.2		%		50-140	27-OCT-15

Quality Control Report

Workorder: L1692602

Report Date: 29-OCT-15

Client: Covanta - Durham York Renewable Energy LP
1835 Energy Drive
Courtice ON L1E 2R2
Contact: Leon Brasowski

Page 25 of 25

Legend:

Limit	ALS Control Limit (Data Quality Objectives)
DUP	Duplicate
RPD	Relative Percent Difference
N/A	Not Available
LCS	Laboratory Control Sample
SRM	Standard Reference Material
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ADE	Average Desorption Efficiency
MB	Method Blank
IRM	Internal Reference Material
CRM	Certified Reference Material
CCV	Continuing Calibration Verification
CVS	Calibration Verification Standard
LCSD	Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
DLM	Detection Limit Adjusted due to sample matrix effects.
M,U	A peak has been manually integrated, and the analyte was not detected above the EDL.
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.
[U]	The analyte was not detected above the EDL.

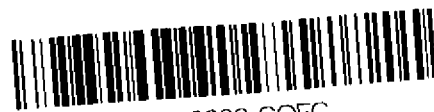
Hold Time Exceedances:

All test results reported with this submission were conducted within ALS recommended hold times.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.



L1692602-COFC

www.alsglobal.com

Report To			Report Format / Distribution			Select Service Level Below (Rush Turnaround Time (TAT) is not available for all tests)																																																																																																																		
Company: COVANTA - Account Number 24244			Select Report Format: <input checked="" type="checkbox"/> PDF <input checked="" type="checkbox"/> EXCEL <input type="checkbox"/> EDD (DIGITAL)			R <input type="checkbox"/> Regular (Standard TAT if received by 3 pm - business days) P <input type="checkbox"/> Priority (2-4 bus. days if received by 3pm) 50% surcharge - contact ALS to confirm TAT E <input checked="" type="checkbox"/> Emergency (1-2 bus. days if received by 3pm) 100% surcharge - contact ALS to confirm TAT E2 <input type="checkbox"/> Same day or weekend emergency - contact ALS to confirm TAT and surcharge																																																																																																																		
Contact: Amanda Huxter BSc ASCT			Quality Control (QC) Report with Report <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			Specify Date Required for E2,E or P:						Regular TAT 10-15 Business Days																																																																																																												
Address: 1835 Energy Drive Courtice, Ontario, L1E 2R2			<input checked="" type="checkbox"/> Criteria on Report - provide details below if box checked																																																																																																																					
Phone: 905-404-4041 Cell: 289-685-5291			Select Distribution: <input checked="" type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX																																																																																																																					
Email 1 or Fax: lbrasowski@covanta.com			Email 2: ahuxter@covanta.com																																																																																																																					
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Same as Report To <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			Select Invoice Distribution: <input checked="" type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX			Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below																																																																																																																		
Copy of Invoice with Report <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			Email 1 or Fax: lbrasowski@covanta.com			<table border="1" style="width:100%; height:100%; border-collapse: collapse;"> <tr> <td rowspan="10" style="writing-mode: vertical-rl; transform: rotate(180deg);">TCLP - COMPLETE SCHEDULE 4 (TCLP-COMP-GP-WT)</td> <td rowspan="10" style="writing-mode: vertical-rl; transform: rotate(180deg);">ALS ON-SITE PICK-UP (SHIPPING-WT)</td> <td colspan="10"></td> <td rowspan="10" style="writing-mode: vertical-rl; transform: rotate(180deg);">Number of Containers</td> </tr> <tr><td colspan="10"></td></tr> <tr><td colspan="10"></td></tr> <tr><td colspan="10"></td></tr> <tr><td colspan="10"></td></tr> <tr><td colspan="10"></td></tr> <tr><td colspan="10"></td></tr> <tr><td colspan="10"></td></tr> <tr><td colspan="10"></td></tr> <tr><td colspan="10"></td></tr> </table>												TCLP - COMPLETE SCHEDULE 4 (TCLP-COMP-GP-WT)	ALS ON-SITE PICK-UP (SHIPPING-WT)											Number of Containers																																																																																										
TCLP - COMPLETE SCHEDULE 4 (TCLP-COMP-GP-WT)	ALS ON-SITE PICK-UP (SHIPPING-WT)																			Number of Containers																																																																																																				
Company:			Email 2: ahuxter@covanta.com																																																																																																																					
Contact:			Email 2: ahuxter@covanta.com																																																																																																																					
Project Information			Oil and Gas Required Fields (client use)																																																																																																																					
ALS Quote #: Q47832			Approver ID:			Cost Center:																																																																																																																		
Job #: DYEC - FLY ASH PROJECT			GL Account:			Routing Code:																																																																																																																		
PO / AFE:			Activity Code:																																																																																																																					
LSD:			Location:																																																																																																																					
ALS Lab Work Order # (lab use only): L1692602			ALS Contact: Wayne Smith			Sampler: Amanda Huxter																																																																																																																		
ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)			Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	TCLP - COMPLETE SCHEDULE 4 (TCLP-COMP-GP-WT)	ALS ON-SITE PICK-UP (SHIPPING-WT)											Number of Containers																																																																																																					
1	DYEC/FA/151023/1			24-Oct-15	08:00	Soil	E	R											2																																																																																																					
2	DYEC/FA/151023/2			24-Oct-15	08:00	Soil	E	R											2																																																																																																					
3	DYEC/FA/151023/3			24-Oct-15	08:00	Soil	E	R											2																																																																																																					
4	DYEC/FA/151023/4			24-Oct-15	08:00	Soil	E	R											2																																																																																																					
5	DYEC/FA/151023/SPARE			24-Oct-15	08:00	Soil	E	R											2																																																																																																					
Drinking Water (DW) Samples¹ (client use)			Special Instructions / Specify Criteria to add on report (client Use)			SAMPLE CONDITION AS RECEIVED (lab use only)																																																																																																																		
Are samples taken from a Regulated DW System? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			Regulation 347 Criteria Report, utilize spare only if required. Repeat TCLP for metals (without Hg) 24 hours after receipt of the samples.			Frozen <input type="checkbox"/> SIF Observations Yes <input type="checkbox"/> No <input type="checkbox"/> Ice packs Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Custody seal intact Yes <input type="checkbox"/> No <input type="checkbox"/> Cooling Infiltrated <input type="checkbox"/>																																																																																																																		
Are samples for human drinking water use? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No						INITIAL COOLER TEMPERATURES °C: _____ FINAL COOLER TEMPERATURES °C: _____ _____ 15.0 _____																																																																																																																		
SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)																																																																																																																		
Released by: Leon Brasowski		Date: 23-Oct-15	Time: 10 am		Received by:		Date:	Time:	Received by: <i>M</i>		Date: <i>Oct 24/15</i>	Time: <i>11:45</i>																																																																																																												

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

N:\FM 02256 V01 From 04 January 2014

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a Regulated Drinking Water (DW) System, please submit using an Authorized DW COC form.



Covanta - Durham York Renewable Energy
LP
ATTN: Leon Brasowski
1835 Energy Drive
Courtice ON L1E 2R2

Date Received: 23-OCT-15
Report Date: 29-OCT-15 14:42 (MT)
Version: FINAL

Client Phone: 905-404-4041

Certificate of Analysis

Lab Work Order #: L1692474
Project P.O. #: DURYK-0000000069
Job Reference: DYEC - FLY ASH PROJECT
C of C Numbers:
Legal Site Desc:

Mary-Lynn Pires
Account Manager

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ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte									
L1692474-1	DYEC/FA/15022/1									
Sampled By: A. HUXTER on 23-OCT-15 @ 08:0										
Matrix: SOIL										
Sample Preparation										
Initial pH		12.37		0.10	pH units	23-OCT-15				
Final pH		12.17		0.10	pH units	23-OCT-15				
TCLP Extractables										
Alachlor		<0.0010		0.0010	mg/L	28-OCT-15				
Aldicarb		<0.010		0.010	mg/L	26-OCT-15	0.9			
Aldrin		<0.00020		0.00020	mg/L	27-OCT-15				
Aldrin + Dieldrin		<0.00040		0.00040	mg/L	27-OCT-15	0.07			
alpha-Chlordane		<0.0010		0.0010	mg/L	27-OCT-15				
Aroclor 1242		<0.00020		0.00020	mg/L	27-OCT-15				
Aroclor 1248		<0.00020		0.00020	mg/L	27-OCT-15				
Aroclor 1254		<0.00020		0.00020	mg/L	27-OCT-15				
Aroclor 1260		<0.00020		0.00020	mg/L	27-OCT-15				
Atrazine		<0.0010		0.0010	mg/L	28-OCT-15				
Atrazine Desethyl		<0.0010		0.0010	mg/L	28-OCT-15				
Atrazine & Metabolites		<0.0020		0.0020	mg/L	28-OCT-15	0.5			
Azinphos methyl		<0.0010		0.0010	mg/L	28-OCT-15	2			
Bendiocarb		<0.0050		0.0050	mg/L	28-OCT-15	4			
Benzo(a)pyrene		<0.0010		0.0010	mg/L	28-OCT-15	0.001			
Bromoxynil		<0.0020		0.0020	mg/L	27-OCT-15	0.5			
Carbaryl		<0.0020		0.0020	mg/L	28-OCT-15	9			
Carbofuran		<0.0020		0.0020	mg/L	28-OCT-15	9			
Chlordane (Total)		<0.0030		0.0030	mg/L	27-OCT-15	0.7			
Chlorpyrifos		<0.0010		0.0010	mg/L	28-OCT-15	9			
3&4-Methylphenol		<0.010		0.010	mg/L	27-OCT-15				
Cresols (total)		<0.015		0.015	mg/L	27-OCT-15	200			
Cyanazine		<0.0010		0.0010	mg/L	28-OCT-15	1.0			
Cyanide, Weak Acid Diss		<0.10		0.10	mg/L	26-OCT-15	20			
2,4-D		<0.0020		0.0020	mg/L	27-OCT-15	10			
p,p-DDD		<0.0010		0.0010	mg/L	27-OCT-15				
p,p-DDE		<0.0010		0.0010	mg/L	27-OCT-15				
o,p-DDT		<0.0010		0.0010	mg/L	27-OCT-15				
p,p-DDT		<0.0010		0.0010	mg/L	27-OCT-15				
DDT + metabolites		<0.0040		0.0040	mg/L	27-OCT-15	3			
Diazinon		<0.0010		0.0010	mg/L	28-OCT-15	2			
Dicamba		<0.0050		0.0050	mg/L	27-OCT-15	12			
2,4-Dichlorophenol		<0.0050		0.0050	mg/L	27-OCT-15	90			
Diclofop methyl		<0.0020		0.0020	mg/L	28-OCT-15	0.9			
Dieldrin		<0.00020		0.00020	mg/L	27-OCT-15				
Dimethoate		<0.0010		0.0010	mg/L	28-OCT-15	2			
2,4-Dinitrotoluene		<0.0040		0.0040	mg/L	27-OCT-15	0.13			
Dinoseb		<0.0020		0.0020	mg/L	27-OCT-15	1			
Diquat		<0.10	DLI	0.10	mg/L	27-OCT-15	7			
Diuron		<0.010		0.010	mg/L	26-OCT-15	15			
Endrin		<0.0010		0.0010	mg/L	27-OCT-15	0.02			
Parathion		<0.0010		0.0010	mg/L	28-OCT-15	5			
Fluoride (F)		<10		10	mg/L	24-OCT-15	150.0			

** Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.

* Analytical result for this parameter exceeds Guideline Limit listed on this report. Guideline Limits applied:

Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte									
L1692474-1	DYEC/FA/15022/1									
Sampled By: A. HUXTER on 23-OCT-15 @ 08:00										
Matrix: SOIL										#1
TCLP Extractables										
	gamma-BHC	<0.0010		0.0010	mg/L	27-OCT-15	0.4			
	gamma-Chlordane	<0.0010		0.0010	mg/L	27-OCT-15				
	Glyphosate	<0.050		0.050	mg/L	27-OCT-15	28			
	Heptachlor	<0.0010		0.0010	mg/L	27-OCT-15				
	Heptachlor + Heptachlor Epoxide	<0.0020		0.0020	mg/L	27-OCT-15	0.3			
	Heptachlor epoxide	<0.0010		0.0010	mg/L	27-OCT-15				
	Hexachlorobenzene	<0.0040		0.0040	mg/L	27-OCT-15	0.13			
	Hexachlorobutadiene	<0.0040		0.0040	mg/L	27-OCT-15	0.5			
	Hexachloroethane	<0.0040		0.0040	mg/L	27-OCT-15	3.0			
	Malathion	<0.0010		0.0010	mg/L	28-OCT-15	19			
	MCPA	<0.0020		0.0020	mg/L	27-OCT-15				
	Methoxychlor	<0.0010		0.0010	mg/L	27-OCT-15	90			
	Methyl Parathion	<0.0010		0.0010	mg/L	28-OCT-15	0.7			
	2-Methylphenol	<0.0050		0.0050	mg/L	27-OCT-15				
	Metolachlor	<0.0010		0.0010	mg/L	28-OCT-15	5			
	Metribuzin	<0.0010		0.0010	mg/L	28-OCT-15	8			
	Nitrate and Nitrite as N	<4.0		4.0	mg/L	24-OCT-15	1000			
	Nitrate-N	<2.0		2.0	mg/L	24-OCT-15				
	Nitrioltriacetic Acid (NTA)	<40	DLM	0.20	mg/L	27-OCT-15	40			
	Nitrite-N	<2.0		2.0	mg/L	24-OCT-15				
	Nitrobenzene	<0.0040		0.0040	mg/L	27-OCT-15	2.0			
	N-Nitrosodimethylamine	<0.00020		0.00020	mg/L	27-OCT-15	0.0009			
	Oxychlordane	<0.0010		0.0010	mg/L	27-OCT-15				
	Paraquat	<0.10	DLI	0.10	mg/L	27-OCT-15	1			
	Total PCBs	<0.00040		0.00040	mg/L	27-OCT-15	0.3			
	Pentachlorophenol	<0.0050		0.0050	mg/L	27-OCT-15	6			
	Phorate	<0.0010		0.0010	mg/L	28-OCT-15	0.2			
	Picloram	<0.0050		0.0050	mg/L	27-OCT-15	19			
	Prometryne	<0.0010		0.0010	mg/L	28-OCT-15				
	Pyridine	<5.0		5.0	mg/L	26-OCT-15	5.0			
	Simazine	<0.0010		0.0010	mg/L	28-OCT-15	1			
	2,4,5-T	<0.0020		0.0020	mg/L	27-OCT-15	28			
	Temephos	<0.0010		0.0010	mg/L	28-OCT-15	28			
	Terbufos	<0.0020		0.0020	mg/L	28-OCT-15	0.1			
	2,3,4,6-Tetrachlorophenol	<0.0050		0.0050	mg/L	27-OCT-15	10.0			
	Toxaphene	<0.0035		0.0035	mg/L	27-OCT-15	0.5			
	2,4,5-TP	<0.0020		0.0020	mg/L	27-OCT-15	1			
	Triallate	<0.0010		0.0010	mg/L	28-OCT-15	23			
	2,4,5-Trichlorophenol	<0.0050		0.0050	mg/L	27-OCT-15	400			
	2,4,6-Trichlorophenol	<0.0050		0.0050	mg/L	27-OCT-15	0.5			
	Trifluralin	<0.0050		0.0050	mg/L	28-OCT-15	4.5			
	Surrogate: 2,4,6-Tribromophenol	83.8		50-150	%	27-OCT-15				
	Surrogate: 2,4-Dichlorophenylacetic Acid	115.7		50-150	%	27-OCT-15				
	Surrogate: 2-Fluorobiphenyl	54.3		40-160	%	27-OCT-15				
	Surrogate: 2-Fluorobiphenyl	80.6		40-160	%	28-OCT-15				

** Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.

* Analytical result for this parameter exceeds Guideline Limit listed on this report. Guideline Limits applied:

Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits	
Grouping	Analyte							
L1692474-1	DYEC/FA/15022/1							
Sampled By: A. HUXTER on 23-OCT-15 @ 08:00							#1	
Matrix: SOIL								
TCLP Extractables								
	Surrogate: 2-Fluorobiphenyl	96.6		40-160	%	27-OCT-15		
	Surrogate: Nitrobenzene d5	97.3		50-150	%	27-OCT-15		
	Surrogate: d14-Terphenyl	90.7		60-140	%	28-OCT-15		
	Surrogate: d14-Terphenyl	93.9		60-140	%	27-OCT-15		
	Surrogate: p-Terphenyl d14	99.8		60-140	%	27-OCT-15		
TCLP Metals								
	Arsenic (As)	<0.050		0.050	mg/L	26-OCT-15	2.5	
	Barium (Ba)	2.51		0.50	mg/L	26-OCT-15	100	
	Boron (B)	<2.5		2.5	mg/L	26-OCT-15	500	
	Cadmium (Cd)	<0.0050		0.0050	mg/L	26-OCT-15	0.5	
	Chromium (Cr)	<0.050		0.050	mg/L	26-OCT-15	5.0	
	Lead (Pb)	0.402		0.050	mg/L	26-OCT-15	5.0	
	Mercury (Hg)	<0.00010		0.00010	mg/L	26-OCT-15	0.1	
	Selenium (Se)	<0.25		0.25	mg/L	26-OCT-15	1.0	
	Silver (Ag)	<0.0050		0.0050	mg/L	26-OCT-15	5.0	
	Uranium (U)	<0.25		0.25	mg/L	26-OCT-15	10	
TCLP VOCs								
	1,1-Dichloroethylene	<0.025		0.025	mg/L	27-OCT-15	1.4	
	1,2-Dichlorobenzene	<0.025		0.025	mg/L	27-OCT-15	20.0	
	1,2-Dichloroethane	<0.025		0.025	mg/L	27-OCT-15	0.5	
	1,4-Dichlorobenzene	<0.025		0.025	mg/L	27-OCT-15	0.5	
	Benzene	<0.025		0.025	mg/L	27-OCT-15	0.5	
	Carbon tetrachloride	<0.025		0.025	mg/L	27-OCT-15	0.5	
	Chlorobenzene	<0.025		0.025	mg/L	27-OCT-15	8	
	Chloroform	<0.10		0.10	mg/L	27-OCT-15	10	
	Dichloromethane	<0.50		0.50	mg/L	27-OCT-15	5.0	
	Methyl Ethyl Ketone	<1.0		1.0	mg/L	27-OCT-15	200.0	
	Tetrachloroethylene	<0.025		0.025	mg/L	27-OCT-15	3	
	Trichloroethylene	<0.025		0.025	mg/L	27-OCT-15	5	
	Vinyl chloride	<0.050		0.050	mg/L	27-OCT-15	0.2	
	Surrogate: 4-Bromofluorobenzene	92.2		70-130	%	27-OCT-15		
Volatile Organic Compounds								
	Surrogate: 1,4-Difluorobenzene	99.6		50-150	%	27-OCT-15		
Polychlorinated Biphenyls								
	Surrogate: Decachlorobiphenyl	99.3		50-150	%	27-OCT-15		
	Surrogate: Tetrachloro-m-xylene	84.5		50-150	%	27-OCT-15		
Dioxins and Furans								
	2,3,7,8-TCDD	<2.6	[U]	2.6	pg/L	29-OCT-15		

** Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.

* Analytical result for this parameter exceeds Guideline Limit listed on this report. Guideline Limits applied:

Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte						#1			
L1692474-1	DYEC/FA/15022/1									
Sampled By: A. HUXTER on 23-OCT-15 @ 08:00										
Matrix: SOIL										
Dioxins and Furans										
	1,2,3,7,8-PeCDD	<1.3	[U]	1.3	pg/L	29-OCT-15				
	1,2,3,4,7,8-HxCDD	<0.97	[U]	0.97	pg/L	29-OCT-15				
	1,2,3,6,7,8-HxCDD	<0.92	[U]	0.92	pg/L	29-OCT-15				
	1,2,3,7,8,9-HxCDD	<0.93	[U]	0.93	pg/L	29-OCT-15				
	1,2,3,4,6,7,8-HpCDD	<1.1	[U]	1.1	pg/L	29-OCT-15				
	OCDD	<1.5	[U]	1.5	pg/L	29-OCT-15				
	Total-TCDD	<2.6	[U]	2.6	pg/L	29-OCT-15				
	Total TCDD # Homologues	0			No Unit	29-OCT-15				
	Total-PeCDD	<1.3	[U]	1.3	pg/L	29-OCT-15				
	Total PeCDD # Homologues	0			No Unit	29-OCT-15				
	Total-HxCDD	<0.97	[U]	0.97	pg/L	29-OCT-15				
	Total HxCDD # Homologues	0			No Unit	29-OCT-15				
	Total-HpCDD	<1.1	[U]	1.1	pg/L	29-OCT-15				
	Total HpCDD # Homologues	0			No Unit	29-OCT-15				
	2,3,7,8-TCDF	<2.5	[U]	2.5	pg/L	29-OCT-15				
	1,2,3,7,8-PeCDF	<1.3	[U]	1.3	pg/L	29-OCT-15				
	2,3,4,7,8-PeCDF	<1.1	[U]	1.1	pg/L	29-OCT-15				
	1,2,3,4,7,8-HxCDF	<0.54	[U]	0.54	pg/L	29-OCT-15				
	1,2,3,6,7,8-HxCDF	<0.45	[U]	0.45	pg/L	29-OCT-15				
	1,2,3,7,8,9-HxCDF	<0.78	[U]	0.78	pg/L	29-OCT-15				
	2,3,4,6,7,8-HxCDF	<0.53	[U]	0.53	pg/L	29-OCT-15				
	1,2,3,4,6,7,8-HpCDF	<0.73	[U]	0.73	pg/L	29-OCT-15				
	1,2,3,4,7,8,9-HpCDF	<1.1	[U]	1.1	pg/L	29-OCT-15				
	OCDF	<1.7	[U]	1.7	pg/L	29-OCT-15				
	Total-TCDF	<2.5	[U]	2.5	pg/L	29-OCT-15				
	Total TCDF # Homologues	0			No Unit	29-OCT-15				
	Total-PeCDF	<1.3	[U]	1.3	pg/L	29-OCT-15				
	Total PeCDF # Homologues	0			No Unit	29-OCT-15				
	Total-HxCDF	<0.78	[U]	0.78	pg/L	29-OCT-15				
	Total HxCDF # Homologues	0			No Unit	29-OCT-15				
	Total-HpCDF	<1.1	[U]	1.1	pg/L	29-OCT-15				
	Total HpCDF # Homologues	0			No Unit	29-OCT-15				
	Surrogate: 13C12-2,3,7,8-TCDD	49.0		20-175	%	29-OCT-15				
	Surrogate: 13C12-1,2,3,7,8-PeCDD	55.0		21-227	%	29-OCT-15				
	Surrogate: 13C12-1,2,3,4,7,8-HxCDD	46.0		21-193	%	29-OCT-15				
	Surrogate: 13C12-1,2,3,6,7,8-HxCDD	65.0		25-163	%	29-OCT-15				
	Surrogate: 13C12-1,2,3,4,6,7,8-HpCDD	57.0		23-166	%	29-OCT-15				
	Surrogate: 13C12-OCDD	54.0		13-138	%	29-OCT-15				
	Surrogate: 13C12-2,3,7,8-TCDF	52.0		22-152	%	29-OCT-15				
	Surrogate: 13C12-1,2,3,7,8-PeCDF	56.0		24-185	%	29-OCT-15				
	Surrogate: 13C12-2,3,4,7,8-PeCDF	56.0		21-178	%	29-OCT-15				
	Surrogate: 13C12-1,2,3,4,7,8-HxCDF	50.0		26-152	%	29-OCT-15				
	Surrogate: 13C12-1,2,3,6,7,8-HxCDF	68.0		21-159	%	29-OCT-15				
	Surrogate: 13C12-2,3,4,6,7,8-HxCDF	61.0		17-205	%	29-OCT-15				
	Surrogate: 13C12-1,2,3,7,8,9-HxCDF	49.0		28-136	%	29-OCT-15				
	Surrogate: 13C12-1,2,3,4,6,7,8-HpCDF	62.0		21-158	%	29-OCT-15				
	Surrogate: 13C12-1,2,3,4,7,8,9-HpCDF	54.0		20-186	%	29-OCT-15				
	Surrogate: 37Cl4-2,3,7,8-TCDD (Cleanup)	50.0		31-191	%	29-OCT-15				

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Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits		
Grouping	Analyte								
L1692474-1	DYEC/FA/15022/1								
Sampled By: A. HUXTER on 23-OCT-15 @ 08:00							#1		
Matrix: SOIL									
Toxic Equivalency									
Lower Bound PCDD/F TEQ (WHO 2005)		0.00			pg/L	29-OCT-15			
Mid Point PCDD/F TEQ (WHO 2005)		2.53			pg/L	29-OCT-15			
Upper Bound PCDD/F TEQ (WHO 2005)		5.06			pg/L	29-OCT-15	1500		
L1692474-2	DYEC/FA/15022/2								
Sampled By: A. HUXTER on 23-OCT-15 @ 08:00							#1		
Matrix: SOIL									
Sample Preparation									
Initial pH		12.37		0.10	pH units	23-OCT-15			
Final pH		12.18		0.10	pH units	23-OCT-15			
TCLP Extractables									
Alachlor		<0.0010		0.0010	mg/L	28-OCT-15			
Aldicarb		<0.010		0.010	mg/L	26-OCT-15	0.9		
Aldrin		<0.00020		0.00020	mg/L	27-OCT-15			
Aldrin + Dieldrin		<0.00040		0.00040	mg/L	27-OCT-15	0.07		
alpha-Chlordane		<0.0010		0.0010	mg/L	27-OCT-15			
Aroclor 1242		<0.00020		0.00020	mg/L	27-OCT-15			
Aroclor 1248		<0.00020		0.00020	mg/L	27-OCT-15			
Aroclor 1254		<0.00020		0.00020	mg/L	27-OCT-15			
Aroclor 1260		<0.00020		0.00020	mg/L	27-OCT-15			
Atrazine		<0.0010		0.0010	mg/L	28-OCT-15			
Atrazine Desethyl		<0.0010		0.0010	mg/L	28-OCT-15			
Atrazine & Metabolites		<0.0020		0.0020	mg/L	28-OCT-15	0.5		
Azinphos methyl		<0.0010		0.0010	mg/L	28-OCT-15	2		
Bendiocarb		<0.0050		0.0050	mg/L	28-OCT-15	4		
Benzo(a)pyrene		<0.0010		0.0010	mg/L	28-OCT-15	0.001		
Bromoxynil		<0.0020		0.0020	mg/L	27-OCT-15	0.5		
Carbaryl		<0.0020		0.0020	mg/L	28-OCT-15	9		
Carbofuran		<0.0020		0.0020	mg/L	28-OCT-15	9		
Chlordane (Total)		<0.0030		0.0030	mg/L	27-OCT-15	0.7		
Chlorpyrifos		<0.0010		0.0010	mg/L	28-OCT-15	9		
3&4-Methylphenol		<0.010		0.010	mg/L	27-OCT-15			
Cresols (total)		<0.015		0.015	mg/L	27-OCT-15	200		
Cyanazine		<0.0010		0.0010	mg/L	28-OCT-15	1.0		
Cyanide, Weak Acid Diss		<0.10		0.10	mg/L	26-OCT-15	20		
2,4-D		<0.0020		0.0020	mg/L	27-OCT-15	10		
p,p-DDD		<0.0010		0.0010	mg/L	27-OCT-15			
p,p-DDE		<0.0010		0.0010	mg/L	27-OCT-15			
o,p-DDT		<0.0010		0.0010	mg/L	27-OCT-15			
p,p-DDT		<0.0010		0.0010	mg/L	27-OCT-15			
DDT + metabolites		<0.0040		0.0040	mg/L	27-OCT-15	3		
Diazinon		<0.0010		0.0010	mg/L	28-OCT-15	2		
Dicamba		<0.0050		0.0050	mg/L	27-OCT-15	12		
2,4-Dichlorophenol		<0.0050		0.0050	mg/L	27-OCT-15	90		
Diclofop methyl		<0.0020		0.0020	mg/L	28-OCT-15	0.9		
Dieldrin		<0.00020		0.00020	mg/L	27-OCT-15			

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Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

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ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte									
L1692474-2	DYEC/FA/15022/2									
Sampled By: A. HUXTER on 23-OCT-15 @ 08:0										
Matrix: SOIL										#1
TCLP Extractables										
	Dimethoate	<0.0010		0.0010	mg/L	28-OCT-15				2
	2,4-Dinitrotoluene	<0.0040		0.0040	mg/L	27-OCT-15				0.13
	Dinoseb	<0.0020		0.0020	mg/L	27-OCT-15				1
	Diquat	<0.10	DLI	0.10	mg/L	27-OCT-15				7
	Diuron	<0.010		0.010	mg/L	26-OCT-15				15
	Endrin	<0.0010		0.0010	mg/L	27-OCT-15				0.02
	Parathion	<0.0010		0.0010	mg/L	28-OCT-15				5
	Fluoride (F)	<10		10	mg/L	24-OCT-15				150.0
	gamma-BHC	<0.0010		0.0010	mg/L	27-OCT-15				0.4
	gamma-Chlordane	<0.0010		0.0010	mg/L	27-OCT-15				
	Glyphosate	<0.050		0.050	mg/L	27-OCT-15				28
	Heptachlor	<0.0010		0.0010	mg/L	27-OCT-15				
	Heptachlor + Heptachlor Epoxide	<0.0020		0.0020	mg/L	27-OCT-15				0.3
	Heptachlor epoxide	<0.0010		0.0010	mg/L	27-OCT-15				
	Hexachlorobenzene	<0.0040		0.0040	mg/L	27-OCT-15				0.13
	Hexachlorobutadiene	<0.0040		0.0040	mg/L	27-OCT-15				0.5
	Hexachloroethane	<0.0040		0.0040	mg/L	27-OCT-15				3.0
	Malathion	<0.0010		0.0010	mg/L	28-OCT-15				19
	MCPA	<0.0020		0.0020	mg/L	27-OCT-15				
	Methoxychlor	<0.0010		0.0010	mg/L	27-OCT-15				90
	Methyl Parathion	<0.0010		0.0010	mg/L	28-OCT-15				0.7
	2-Methylphenol	<0.0050		0.0050	mg/L	27-OCT-15				
	Metolachlor	<0.0010		0.0010	mg/L	28-OCT-15				5
	Metribuzin	<0.0010		0.0010	mg/L	28-OCT-15				8
	Nitrate and Nitrite as N	<4.0		4.0	mg/L	24-OCT-15				1000
	Nitrate-N	<2.0		2.0	mg/L	24-OCT-15				
	Nitritotriacetic Acid (NTA)	<40	DLM	0.20	mg/L	27-OCT-15				40
	Nitrite-N	<2.0		2.0	mg/L	24-OCT-15				
	Nitrobenzene	<0.0040		0.0040	mg/L	27-OCT-15				2.0
	N-Nitrosodimethylamine	<0.00020		0.00020	mg/L	27-OCT-15				0.0009
	Oxychlordane	<0.0010		0.0010	mg/L	27-OCT-15				
	Paraquat	<0.10	DLI	0.10	mg/L	27-OCT-15				1
	Total PCBs	<0.00040		0.00040	mg/L	27-OCT-15				0.3
	Pentachlorophenol	<0.0050		0.0050	mg/L	27-OCT-15				6
	Phorate	<0.0010		0.0010	mg/L	28-OCT-15				0.2
	Picloram	<0.0050		0.0050	mg/L	27-OCT-15				19
	Prometryne	<0.0010		0.0010	mg/L	28-OCT-15				
	Pyridine	<5.0		5.0	mg/L	26-OCT-15				5.0
	Simazine	<0.0010		0.0010	mg/L	28-OCT-15				1
	2,4,5-T	<0.0020		0.0020	mg/L	27-OCT-15				28
	Temephos	<0.0010		0.0010	mg/L	28-OCT-15				28
	Terbufos	<0.0020		0.0020	mg/L	28-OCT-15				0.1
	2,3,4,6-Tetrachlorophenol	<0.0050		0.0050	mg/L	27-OCT-15				10.0
	Toxaphene	<0.0035		0.0035	mg/L	27-OCT-15				0.5
	2,4,5-TP	<0.0020		0.0020	mg/L	27-OCT-15				1
	Triallate	<0.0010		0.0010	mg/L	28-OCT-15				23

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Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte									
L1692474-2	DYEC/FA/15022/2									
Sampled By: A. HUXTER on 23-OCT-15 @ 08:0										
Matrix: SOIL										#1
TCLP Extractables										
	2,4,5-Trichlorophenol	<0.0050		0.0050	mg/L	27-OCT-15	400			
	2,4,6-Trichlorophenol	<0.0050		0.0050	mg/L	27-OCT-15	0.5			
	Trifluralin	<0.0050		0.0050	mg/L	28-OCT-15	4.5			
	Surrogate: 2,4,6-Tribromophenol	74.5		50-150	%	27-OCT-15				
	Surrogate: 2,4-Dichlorophenylacetic Acid	95.3		50-150	%	27-OCT-15				
	Surrogate: 2-Fluorobiphenyl	52.5		40-160	%	27-OCT-15				
	Surrogate: 2-Fluorobiphenyl	81.3		40-160	%	28-OCT-15				
	Surrogate: 2-Fluorobiphenyl	87.6		40-160	%	27-OCT-15				
	Surrogate: Nitrobenzene d5	87.0		50-150	%	27-OCT-15				
	Surrogate: d14-Terphenyl	72.7		60-140	%	28-OCT-15				
	Surrogate: d14-Terphenyl	90.2		60-140	%	27-OCT-15				
	Surrogate: p-Terphenyl d14	99.7		60-140	%	27-OCT-15				
TCLP Metals										
	Arsenic (As)	<0.050		0.050	mg/L	26-OCT-15	2.5			
	Barium (Ba)	2.42		0.50	mg/L	26-OCT-15	100			
	Boron (B)	<2.5		2.5	mg/L	26-OCT-15	500			
	Cadmium (Cd)	<0.0050		0.0050	mg/L	26-OCT-15	0.5			
	Chromium (Cr)	<0.050		0.050	mg/L	26-OCT-15	5.0			
	Lead (Pb)	0.322		0.050	mg/L	26-OCT-15	5.0			
	Mercury (Hg)	<0.00010		0.00010	mg/L	26-OCT-15	0.1			
	Selenium (Se)	<0.25		0.25	mg/L	26-OCT-15	1.0			
	Silver (Ag)	<0.0050		0.0050	mg/L	26-OCT-15	5.0			
	Uranium (U)	<0.25		0.25	mg/L	26-OCT-15	10			
TCLP VOCs										
	1,1-Dichloroethylene	<0.025		0.025	mg/L	27-OCT-15	1.4			
	1,2-Dichlorobenzene	<0.025		0.025	mg/L	27-OCT-15	20.0			
	1,2-Dichloroethane	<0.025		0.025	mg/L	27-OCT-15	0.5			
	1,4-Dichlorobenzene	<0.025		0.025	mg/L	27-OCT-15	0.5			
	Benzene	<0.025		0.025	mg/L	27-OCT-15	0.5			
	Carbon tetrachloride	<0.025		0.025	mg/L	27-OCT-15	0.5			
	Chlorobenzene	<0.025		0.025	mg/L	27-OCT-15	8			
	Chloroform	<0.10		0.10	mg/L	27-OCT-15	10			
	Dichloromethane	<0.50		0.50	mg/L	27-OCT-15	5.0			
	Methyl Ethyl Ketone	<1.0		1.0	mg/L	27-OCT-15	200.0			
	Tetrachloroethylene	<0.025		0.025	mg/L	27-OCT-15	3			
	Trichloroethylene	<0.025		0.025	mg/L	27-OCT-15	5			
	Vinyl chloride	<0.050		0.050	mg/L	27-OCT-15	0.2			

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Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

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ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte						#1			
L1692474-2	DYEC/FA/15022/2									
Sampled By: A. HUXTER on 23-OCT-15 @ 08:0										
Matrix: SOIL										
TCLP VOCs										
Surrogate: 4-Bromofluorobenzene		90.8		70-130	%	27-OCT-15				
Volatile Organic Compounds										
Surrogate: 1,4-Difluorobenzene		99.3		50-150	%	27-OCT-15				
Polychlorinated Biphenyls										
Surrogate: Decachlorobiphenyl		105.0		50-150	%	27-OCT-15				
Surrogate: Tetrachloro-m-xylene		89.3		50-150	%	27-OCT-15				
Dioxins and Furans										
2,3,7,8-TCDD		<2.7	[U]	2.7	pg/L	29-OCT-15				
1,2,3,7,8-PeCDD		<1.2	[U]	1.2	pg/L	29-OCT-15				
1,2,3,4,7,8-HxCDD		<1.2	[U]	1.2	pg/L	29-OCT-15				
1,2,3,6,7,8-HxCDD		<1.1	[U]	1.1	pg/L	29-OCT-15				
1,2,3,7,8,9-HxCDD		<1.1	[U]	1.1	pg/L	29-OCT-15				
1,2,3,4,6,7,8-HpCDD		<1.6	[U]	1.6	pg/L	29-OCT-15				
OCDD		<1.3	[U]	1.3	pg/L	29-OCT-15				
Total-TCDD		<2.7	[U]	2.7	pg/L	29-OCT-15				
Total TCDD # Homologues		0			No Unit	29-OCT-15				
Total-PeCDD		<1.2	[U]	1.2	pg/L	29-OCT-15				
Total PeCDD # Homologues		0			No Unit	29-OCT-15				
Total-HxCDD		<1.2	[U]	1.2	pg/L	29-OCT-15				
Total HxCDD # Homologues		0			No Unit	29-OCT-15				
Total-HpCDD		<1.6	[U]	1.6	pg/L	29-OCT-15				
Total HpCDD # Homologues		0			No Unit	29-OCT-15				
2,3,7,8-TCDF		<2.7	[U]	2.7	pg/L	29-OCT-15				
1,2,3,7,8-PeCDF		<1.3	[U]	1.3	pg/L	29-OCT-15				
2,3,4,7,8-PeCDF		<1.1	[U]	1.1	pg/L	29-OCT-15				
1,2,3,4,7,8-HxCDF		<0.64	[U]	0.64	pg/L	29-OCT-15				
1,2,3,6,7,8-HxCDF		<0.54	[U]	0.54	pg/L	29-OCT-15				
1,2,3,7,8,9-HxCDF		<0.96	[U]	0.96	pg/L	29-OCT-15				
2,3,4,6,7,8-HxCDF		<0.66	[U]	0.66	pg/L	29-OCT-15				
1,2,3,4,6,7,8-HpCDF		<0.71	[U]	0.71	pg/L	29-OCT-15				
1,2,3,4,7,8,9-HpCDF		<1.1	[U]	1.1	pg/L	29-OCT-15				
OCDF		<1.7	[U]	1.7	pg/L	29-OCT-15				
Total-TCDF		<2.7	[U]	2.7	pg/L	29-OCT-15				
Total TCDF # Homologues		0			No Unit	29-OCT-15				
Total-PeCDF		<1.3	[U]	1.3	pg/L	29-OCT-15				
Total PeCDF # Homologues		0			No Unit	29-OCT-15				
Total-HxCDF		<0.96	[U]	0.96	pg/L	29-OCT-15				
Total HxCDF # Homologues		0			No Unit	29-OCT-15				
Total-HpCDF		<1.1	[U]	1.1	pg/L	29-OCT-15				
Total HpCDF # Homologues		0			No Unit	29-OCT-15				
Surrogate: 13C12-2,3,7,8-TCDD		59.0		20-175	%	29-OCT-15				
Surrogate: 13C12-1,2,3,7,8-PeCDD		62.0		21-227	%	29-OCT-15				
Surrogate: 13C12-1,2,3,4,7,8-HxCDD		51.0		21-193	%	29-OCT-15				
Surrogate: 13C12-1,2,3,6,7,8-HxCDD		74.0		25-163	%	29-OCT-15				
Surrogate: 13C12-1,2,3,4,6,7,8-HpCDD		63.0		23-166	%	29-OCT-15				
Surrogate: 13C12-OCDD		58.0		13-138	%	29-OCT-15				
Surrogate: 13C12-2,3,7,8-TCDF		61.0		22-152	%	29-OCT-15				

** Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.

* Analytical result for this parameter exceeds Guideline Limit listed on this report. Guideline Limits applied:

Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits		
Grouping	Analyte								
L1692474-2	DYEC/FA/15022/2								
Sampled By: A. HUXTER on 23-OCT-15 @ 08:00							#1		
Matrix: SOIL									
Dioxins and Furans									
Surrogate: 13C12-1,2,3,7,8-PeCDF		64.0		24-185	%	29-OCT-15			
Surrogate: 13C12-2,3,4,7,8-PeCDF		63.0		21-178	%	29-OCT-15			
Surrogate: 13C12-1,2,3,4,7,8-HxCDF		58.0		26-152	%	29-OCT-15			
Surrogate: 13C12-1,2,3,6,7,8-HxCDF		80.0		21-159	%	29-OCT-15			
Surrogate: 13C12-2,3,4,6,7,8-HxCDF		69.0		17-205	%	29-OCT-15			
Surrogate: 13C12-1,2,3,7,8,9-HxCDF		60.0		28-136	%	29-OCT-15			
Surrogate: 13C12-1,2,3,4,6,7,8-HpCDF		70.0		21-158	%	29-OCT-15			
Surrogate: 13C12-1,2,3,4,7,8,9-HpCDF		59.0		20-186	%	29-OCT-15			
Surrogate: 37Cl4-2,3,7,8-TCDD (Cleanup)		69.0		31-191	%	29-OCT-15			
Toxic Equivalency									
Lower Bound PCDD/F TEQ (WHO 2005)		0.00			pg/L	29-OCT-15			
Mid Point PCDD/F TEQ (WHO 2005)		2.60			pg/L	29-OCT-15			
Upper Bound PCDD/F TEQ (WHO 2005)		5.19			pg/L	29-OCT-15	1500		
L1692474-3	DYEC/FA/15022/3								
Sampled By: A. HUXTER on 23-OCT-15 @ 08:00							#1		
Matrix: SOIL									
Sample Preparation									
Initial pH		12.37		0.10	pH units	23-OCT-15			
Final pH		12.17		0.10	pH units	23-OCT-15			
TCLP Extractables									
Alachlor		<0.0010		0.0010	mg/L	28-OCT-15			
Aldicarb		<0.010		0.010	mg/L	26-OCT-15	0.9		
Aldrin		<0.00020		0.00020	mg/L	27-OCT-15			
Aldrin + Dieldrin		<0.00040		0.00040	mg/L	27-OCT-15	0.07		
alpha-Chlordane		<0.0010		0.0010	mg/L	27-OCT-15			
Aroclor 1242		<0.00020		0.00020	mg/L	27-OCT-15			
Aroclor 1248		<0.00020		0.00020	mg/L	27-OCT-15			
Aroclor 1254		<0.00020		0.00020	mg/L	27-OCT-15			
Aroclor 1260		<0.00020		0.00020	mg/L	27-OCT-15			
Atrazine		<0.0010		0.0010	mg/L	28-OCT-15			
Atrazine Desethyl		<0.0010		0.0010	mg/L	28-OCT-15			
Atrazine & Metabolites		<0.0020		0.0020	mg/L	28-OCT-15	0.5		
Azinphos methyl		<0.0010		0.0010	mg/L	28-OCT-15	2		
Bendiocarb		<0.0050		0.0050	mg/L	28-OCT-15	4		
Benzo(a)pyrene		<0.0010		0.0010	mg/L	28-OCT-15	0.001		
Bromoxynil		<0.0020		0.0020	mg/L	27-OCT-15	0.5		
Carbaryl		<0.0020		0.0020	mg/L	28-OCT-15	9		
Carbofuran		<0.0020		0.0020	mg/L	28-OCT-15	9		
Chlordane (Total)		<0.0030		0.0030	mg/L	27-OCT-15	0.7		
Chlorpyrifos		<0.0010		0.0010	mg/L	28-OCT-15	9		
3&4-Methylphenol		<0.010		0.010	mg/L	27-OCT-15			
Cresols (total)		<0.015		0.015	mg/L	27-OCT-15	200		
Cyanazine		<0.0010		0.0010	mg/L	28-OCT-15	1.0		
Cyanide, Weak Acid Diss		<0.10		0.10	mg/L	26-OCT-15	20		
2,4-D		<0.0020		0.0020	mg/L	27-OCT-15	10		

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Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte									
L1692474-3	DYEC/FA/15022/3									
Sampled By: A. HUXTER on 23-OCT-15 @ 08:0										
Matrix: SOIL										#1
TCLP Extractables										
	p,p-DDD	<0.0010		0.0010	mg/L	27-OCT-15				
	p,p-DDE	<0.0010		0.0010	mg/L	27-OCT-15				
	o,p-DDT	<0.0010		0.0010	mg/L	27-OCT-15				
	p,p-DDT	<0.0010		0.0010	mg/L	27-OCT-15				
	DDT + metabolites	<0.0040		0.0040	mg/L	27-OCT-15			3	
	Diazinon	<0.0010		0.0010	mg/L	28-OCT-15			2	
	Dicamba	<0.0050		0.0050	mg/L	27-OCT-15			12	
	2,4-Dichlorophenol	<0.0050		0.0050	mg/L	27-OCT-15			90	
	Diclofop methyl	<0.0020		0.0020	mg/L	28-OCT-15			0.9	
	Dieldrin	<0.00020		0.00020	mg/L	27-OCT-15				
	Dimethoate	<0.0010		0.0010	mg/L	28-OCT-15			2	
	2,4-Dinitrotoluene	<0.0040		0.0040	mg/L	27-OCT-15			0.13	
	Dinoseb	<0.0020		0.0020	mg/L	27-OCT-15			1	
	Diquat	<0.10	DLI	0.10	mg/L	27-OCT-15			7	
	Diuron	<0.010		0.010	mg/L	26-OCT-15			15	
	Endrin	<0.0010		0.0010	mg/L	27-OCT-15			0.02	
	Parathion	<0.0010		0.0010	mg/L	28-OCT-15			5	
	Fluoride (F)	<10		10	mg/L	24-OCT-15			150.0	
	gamma-BHC	<0.0010		0.0010	mg/L	27-OCT-15			0.4	
	gamma-Chlordane	<0.0010		0.0010	mg/L	27-OCT-15				
	Glyphosate	<0.050		0.050	mg/L	27-OCT-15			28	
	Heptachlor	<0.0010		0.0010	mg/L	27-OCT-15				
	Heptachlor + Heptachlor Epoxide	<0.0020		0.0020	mg/L	27-OCT-15			0.3	
	Heptachlor epoxide	<0.0010		0.0010	mg/L	27-OCT-15				
	Hexachlorobenzene	<0.0040		0.0040	mg/L	27-OCT-15			0.13	
	Hexachlorobutadiene	<0.0040		0.0040	mg/L	27-OCT-15			0.5	
	Hexachloroethane	<0.0040		0.0040	mg/L	27-OCT-15			3.0	
	Malathion	<0.0010		0.0010	mg/L	28-OCT-15			19	
	MCPA	<0.0020		0.0020	mg/L	27-OCT-15				
	Methoxychlor	<0.0010		0.0010	mg/L	27-OCT-15			90	
	Methyl Parathion	<0.0010		0.0010	mg/L	28-OCT-15			0.7	
	2-Methylphenol	<0.0050		0.0050	mg/L	27-OCT-15				
	Metolachlor	<0.0010		0.0010	mg/L	28-OCT-15			5	
	Metribuzin	<0.0010		0.0010	mg/L	28-OCT-15			8	
	Nitrate and Nitrite as N	<4.0		4.0	mg/L	24-OCT-15			1000	
	Nitrate-N	<2.0		2.0	mg/L	24-OCT-15				
	Nitrotriacetic Acid (NTA)	<40	DLM	0.20	mg/L	27-OCT-15			40	
	Nitrite-N	<2.0		2.0	mg/L	24-OCT-15				
	Nitrobenzene	<0.0040		0.0040	mg/L	27-OCT-15			2.0	
	N-Nitrosodimethylamine	<0.00020		0.00020	mg/L	27-OCT-15			0.0009	
	Oxychlordane	<0.0010		0.0010	mg/L	27-OCT-15				
	Paraquat	<0.10	DLI	0.10	mg/L	27-OCT-15			1	
	Total PCBs	<0.00040		0.00040	mg/L	27-OCT-15			0.3	
	Pentachlorophenol	<0.0050		0.0050	mg/L	27-OCT-15			6	
	Phorate	<0.0010		0.0010	mg/L	28-OCT-15			0.2	
	Picloram	<0.0050		0.0050	mg/L	27-OCT-15			19	

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Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte									
L1692474-3	DYEC/FA/15022/3									
Sampled By: A. HUXTER on 23-OCT-15 @ 08:0										
Matrix: SOIL										#1
TCLP Extractables										
	Prometryne	<0.0010		0.0010	mg/L	28-OCT-15				
	Pyridine	<5.0		5.0	mg/L	26-OCT-15				5.0
	Simazine	<0.0010		0.0010	mg/L	28-OCT-15				1
	2,4,5-T	<0.0020		0.0020	mg/L	27-OCT-15				28
	Temephos	<0.0010		0.0010	mg/L	28-OCT-15				28
	Terbufos	<0.0020		0.0020	mg/L	28-OCT-15				0.1
	2,3,4,6-Tetrachlorophenol	<0.0050		0.0050	mg/L	27-OCT-15				10.0
	Toxaphene	<0.0035		0.0035	mg/L	27-OCT-15				0.5
	2,4,5-TP	<0.0020		0.0020	mg/L	27-OCT-15				1
	Triallate	<0.0010		0.0010	mg/L	28-OCT-15				23
	2,4,5-Trichlorophenol	<0.0050		0.0050	mg/L	27-OCT-15				400
	2,4,6-Trichlorophenol	<0.0050		0.0050	mg/L	27-OCT-15				0.5
	Trifluralin	<0.0050		0.0050	mg/L	28-OCT-15				4.5
	Surrogate: 2,4,6-Tribromophenol	77.9		50-150	%	27-OCT-15				
	Surrogate: 2,4-Dichlorophenylacetic Acid	123.3		50-150	%	27-OCT-15				
	Surrogate: 2-Fluorobiphenyl	100.5		40-160	%	27-OCT-15				
	Surrogate: 2-Fluorobiphenyl	79.8		40-160	%	27-OCT-15				
	Surrogate: 2-Fluorobiphenyl	87.1		40-160	%	28-OCT-15				
	Surrogate: Nitrobenzene d5	99.6		50-150	%	27-OCT-15				
	Surrogate: d14-Terphenyl	78.3		60-140	%	28-OCT-15				
	Surrogate: d14-Terphenyl	91.0		60-140	%	27-OCT-15				
	Surrogate: p-Terphenyl d14	100.5		60-140	%	27-OCT-15				
TCLP Metals										
	Arsenic (As)	<0.050		0.050	mg/L	26-OCT-15				2.5
	Barium (Ba)	2.43		0.50	mg/L	26-OCT-15				100
	Boron (B)	<2.5		2.5	mg/L	26-OCT-15				500
	Cadmium (Cd)	<0.0050		0.0050	mg/L	26-OCT-15				0.5
	Chromium (Cr)	<0.050		0.050	mg/L	26-OCT-15				5.0
	Lead (Pb)	0.341		0.050	mg/L	26-OCT-15				5.0
	Mercury (Hg)	<0.00010		0.00010	mg/L	26-OCT-15				0.1
	Selenium (Se)	<0.25		0.25	mg/L	26-OCT-15				1.0
	Silver (Ag)	<0.0050		0.0050	mg/L	26-OCT-15				5.0
	Uranium (U)	<0.25		0.25	mg/L	26-OCT-15				10
TCLP VOCs										
	1,1-Dichloroethylene	<0.025		0.025	mg/L	27-OCT-15				1.4
	1,2-Dichlorobenzene	<0.025		0.025	mg/L	27-OCT-15				20.0
	1,2-Dichloroethane	<0.025		0.025	mg/L	27-OCT-15				0.5

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ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte						#1			
L1692474-3	DYEC/FA/15022/3									
Sampled By: A. HUXTER on 23-OCT-15 @ 08:0										
Matrix: SOIL										
TCLP VOCs										
	1,4-Dichlorobenzene	<0.025		0.025	mg/L	27-OCT-15	0.5			
	Benzene	<0.025		0.025	mg/L	27-OCT-15	0.5			
	Carbon tetrachloride	<0.025		0.025	mg/L	27-OCT-15	0.5			
	Chlorobenzene	<0.025		0.025	mg/L	27-OCT-15	8			
	Chloroform	<0.10		0.10	mg/L	27-OCT-15	10			
	Dichloromethane	<0.50		0.50	mg/L	27-OCT-15	5.0			
	Methyl Ethyl Ketone	<1.0		1.0	mg/L	27-OCT-15	200.0			
	Tetrachloroethylene	<0.025		0.025	mg/L	27-OCT-15	3			
	Trichloroethylene	<0.025		0.025	mg/L	27-OCT-15	5			
	Vinyl chloride	<0.050		0.050	mg/L	27-OCT-15	0.2			
	Surrogate: 4-Bromofluorobenzene	89.1		70-130	%	27-OCT-15				
Volatile Organic Compounds										
	Surrogate: 1,4-Difluorobenzene	99.3		50-150	%	27-OCT-15				
Polychlorinated Biphenyls										
	Surrogate: Decachlorobiphenyl	115.0		50-150	%	27-OCT-15				
	Surrogate: Tetrachloro-m-xylene	99.8		50-150	%	27-OCT-15				
Dioxins and Furans										
	2,3,7,8-TCDD	<1.6	[U]	1.6	pg/L	29-OCT-15				
	1,2,3,7,8-PeCDD	<0.69	[U]	0.69	pg/L	29-OCT-15				
	1,2,3,4,7,8-HxCDD	<0.91	[U]	0.91	pg/L	29-OCT-15				
	1,2,3,6,7,8-HxCDD	<0.86	[U]	0.86	pg/L	29-OCT-15				
	1,2,3,7,8,9-HxCDD	<0.87	[U]	0.87	pg/L	29-OCT-15				
	1,2,3,4,6,7,8-HpCDD	<0.94	[U]	0.94	pg/L	29-OCT-15				
	OCDD	<0.95	[U]	0.95	pg/L	29-OCT-15				
	Total-TCDD	<1.6	[U]	1.6	pg/L	29-OCT-15				
	Total TCDD # Homologues	0			No Unit	29-OCT-15				
	Total-PeCDD	<0.69	[U]	0.69	pg/L	29-OCT-15				
	Total PeCDD # Homologues	0			No Unit	29-OCT-15				
	Total-HxCDD	<0.91	[U]	0.91	pg/L	29-OCT-15				
	Total HxCDD # Homologues	0			No Unit	29-OCT-15				
	Total-HpCDD	<0.94	[U]	0.94	pg/L	29-OCT-15				
	Total HpCDD # Homologues	0			No Unit	29-OCT-15				
	2,3,7,8-TCDF	<1.9	[U]	1.9	pg/L	29-OCT-15				
	1,2,3,7,8-PeCDF	<0.83	[U]	0.83	pg/L	29-OCT-15				
	2,3,4,7,8-PeCDF	<0.74	[U]	0.74	pg/L	29-OCT-15				
	1,2,3,4,7,8-HxCDF	<0.54	[U]	0.54	pg/L	29-OCT-15				
	1,2,3,6,7,8-HxCDF	<0.46	[U]	0.46	pg/L	29-OCT-15				
	1,2,3,7,8,9-HxCDF	<0.78	[U]	0.78	pg/L	29-OCT-15				
	2,3,4,6,7,8-HxCDF	<0.57	[U]	0.57	pg/L	29-OCT-15				
	1,2,3,4,6,7,8-HpCDF	<0.47	[U]	0.47	pg/L	29-OCT-15				
	1,2,3,4,7,8,9-HpCDF	<0.77	[U]	0.77	pg/L	29-OCT-15				
	OCDF	<1.1	[U]	1.1	pg/L	29-OCT-15				
	Total-TCDF	<1.9	[U]	1.9	pg/L	29-OCT-15				
	Total TCDF # Homologues	0			No Unit	29-OCT-15				
	Total-PeCDF	<0.83	[U]	0.83	pg/L	29-OCT-15				
	Total PeCDF # Homologues	0			No Unit	29-OCT-15				
	Total-HxCDF	<0.78	[U]	0.78	pg/L	29-OCT-15				

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Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte									
L1692474-3	DYEC/FA/15022/3									
Sampled By: A. HUXTER on 23-OCT-15 @ 08:00										
Matrix: SOIL										
Dioxins and Furans										
Total HxCDF # Homologues		0			No Unit	29-OCT-15				
Total HpCDF		<0.77	[U]	0.77	pg/L	29-OCT-15				
Total HpCDF # Homologues		0			No Unit	29-OCT-15				
Surrogate: 13C12-2,3,7,8-TCDD		68.0		20-175	%	29-OCT-15				
Surrogate: 13C12-1,2,3,7,8-PeCDD		68.0		21-227	%	29-OCT-15				
Surrogate: 13C12-1,2,3,4,7,8-HxCDD		54.0		21-193	%	29-OCT-15				
Surrogate: 13C12-1,2,3,6,7,8-HxCDD		84.0		25-163	%	29-OCT-15				
Surrogate: 13C12-1,2,3,4,6,7,8-HpCDD		66.0		23-166	%	29-OCT-15				
Surrogate: 13C12-OCDD		60.0		13-138	%	29-OCT-15				
Surrogate: 13C12-2,3,7,8-TCDF		71.0		22-152	%	29-OCT-15				
Surrogate: 13C12-1,2,3,7,8-PeCDF		71.0		24-185	%	29-OCT-15				
Surrogate: 13C12-2,3,4,7,8-PeCDF		70.0		21-178	%	29-OCT-15				
Surrogate: 13C12-1,2,3,4,7,8-HxCDF		62.0		26-152	%	29-OCT-15				
Surrogate: 13C12-1,2,3,6,7,8-HxCDF		90.0		21-159	%	29-OCT-15				
Surrogate: 13C12-2,3,4,6,7,8-HxCDF		76.0		17-205	%	29-OCT-15				
Surrogate: 13C12-1,2,3,7,8,9-HxCDF		64.0		28-136	%	29-OCT-15				
Surrogate: 13C12-1,2,3,4,6,7,8-HpCDF		75.0		21-158	%	29-OCT-15				
Surrogate: 13C12-1,2,3,4,7,8,9-HpCDF		65.0		20-186	%	29-OCT-15				
Surrogate: 37Cl4-2,3,7,8-TCDD (Cleanup)		64.0		31-191	%	29-OCT-15				
Toxic Equivalency										
Lower Bound PCDD/F TEQ (WHO 2005)		0.00			pg/L	29-OCT-15				
Mid Point PCDD/F TEQ (WHO 2005)		1.62			pg/L	29-OCT-15				
Upper Bound PCDD/F TEQ (WHO 2005)		3.25			pg/L	29-OCT-15	1500			
L1692474-4	DYEC/FA/15022/4									
Sampled By: A. HUXTER on 23-OCT-15 @ 08:00										
Matrix: SOIL										
Sample Preparation										
Initial pH		12.37		0.10	pH units	23-OCT-15				
Final pH		12.16		0.10	pH units	23-OCT-15				
TCLP Extractables										
Alachlor		<0.0010		0.0010	mg/L	28-OCT-15				
Aldicarb		<0.010		0.010	mg/L	26-OCT-15	0.9			
Aldrin		<0.00020		0.00020	mg/L	27-OCT-15				
Aldrin + Dieldrin		<0.00040		0.00040	mg/L	27-OCT-15	0.07			
alpha-Chlordane		<0.0010		0.0010	mg/L	27-OCT-15				
Aroclor 1242		<0.00020		0.00020	mg/L	27-OCT-15				
Aroclor 1248		<0.00020		0.00020	mg/L	27-OCT-15				
Aroclor 1254		<0.00020		0.00020	mg/L	27-OCT-15				
Aroclor 1260		<0.00020		0.00020	mg/L	27-OCT-15				
Atrazine		<0.0010		0.0010	mg/L	28-OCT-15				
Atrazine Desethyl		<0.0010		0.0010	mg/L	28-OCT-15				
Atrazine & Metabolites		<0.0020		0.0020	mg/L	28-OCT-15	0.5			
Azinphos methyl		<0.0010		0.0010	mg/L	28-OCT-15	2			
Bendiocarb		<0.0050		0.0050	mg/L	28-OCT-15	4			
Benzo(a)pyrene		<0.0010		0.0010	mg/L	28-OCT-15	0.001			
Bromoxynil		<0.0020		0.0020	mg/L	27-OCT-15	0.5			

** Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.

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Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte									
L1692474-4	DYEC/FA/15022/4									
Sampled By: A. HUXTER on 23-OCT-15 @ 08:0										
Matrix: SOIL										#1
TCLP Extractables										
	Carbaryl	<0.0020		0.0020	mg/L	28-OCT-15				9
	Carbofuran	<0.0020		0.0020	mg/L	28-OCT-15				9
	Chlordane (Total)	<0.0030		0.0030	mg/L	27-OCT-15				0.7
	Chlorpyrifos	<0.0010		0.0010	mg/L	28-OCT-15				9
	3&4-Methylphenol	<0.010		0.010	mg/L	27-OCT-15				
	Cresols (total)	<0.015		0.015	mg/L	27-OCT-15				200
	Cyanazine	<0.0010		0.0010	mg/L	28-OCT-15				1.0
	Cyanide, Weak Acid Diss	<0.10		0.10	mg/L	26-OCT-15				20
	2,4-D	<0.0020		0.0020	mg/L	27-OCT-15				10
	p,p-DDD	<0.0010		0.0010	mg/L	27-OCT-15				
	p,p-DDE	<0.0010		0.0010	mg/L	27-OCT-15				
	o,p-DDT	<0.0010		0.0010	mg/L	27-OCT-15				
	p,p-DDT	<0.0010		0.0010	mg/L	27-OCT-15				
	DDT + metabolites	<0.0040		0.0040	mg/L	27-OCT-15				3
	Diazinon	<0.0010		0.0010	mg/L	28-OCT-15				2
	Dicamba	<0.0050		0.0050	mg/L	27-OCT-15				12
	2,4-Dichlorophenol	<0.0050		0.0050	mg/L	27-OCT-15				90
	Diclofop methyl	<0.0020		0.0020	mg/L	28-OCT-15				0.9
	Dieldrin	<0.00020		0.00020	mg/L	27-OCT-15				
	Dimethoate	<0.0010		0.0010	mg/L	28-OCT-15				2
	2,4-Dinitrotoluene	<0.0040		0.0040	mg/L	27-OCT-15				0.13
	Dinoseb	<0.0020		0.0020	mg/L	27-OCT-15				1
	Diquat	<0.1	DLI	0.10	mg/L	27-OCT-15				7
	Diuron	<0.010		0.010	mg/L	26-OCT-15				15
	Endrin	<0.0010		0.0010	mg/L	27-OCT-15				0.02
	Parathion	<0.0010		0.0010	mg/L	28-OCT-15				5
	Fluoride (F)	<10		10	mg/L	24-OCT-15				150.0
	gamma-BHC	<0.0010		0.0010	mg/L	27-OCT-15				0.4
	gamma-Chlordane	<0.0010		0.0010	mg/L	27-OCT-15				
	Glyphosate	<0.050		0.050	mg/L	27-OCT-15				28
	Heptachlor	<0.0010		0.0010	mg/L	27-OCT-15				
	Heptachlor + Heptachlor Epoxide	<0.0020		0.0020	mg/L	27-OCT-15				0.3
	Heptachlor epoxide	<0.0010		0.0010	mg/L	27-OCT-15				
	Hexachlorobenzene	<0.0040		0.0040	mg/L	27-OCT-15				0.13
	Hexachlorobutadiene	<0.0040		0.0040	mg/L	27-OCT-15				0.5
	Hexachloroethane	<0.0040		0.0040	mg/L	27-OCT-15				3.0
	Malathion	<0.0010		0.0010	mg/L	28-OCT-15				19
	MCPA	<0.0020		0.0020	mg/L	27-OCT-15				
	Methoxychlor	<0.0010		0.0010	mg/L	27-OCT-15				90
	Methyl Parathion	<0.0010		0.0010	mg/L	28-OCT-15				0.7
	2-Methylphenol	<0.0050		0.0050	mg/L	27-OCT-15				
	Metolachlor	<0.0010		0.0010	mg/L	28-OCT-15				5
	Metribuzin	<0.0010		0.0010	mg/L	28-OCT-15				8
	Nitrate and Nitrite as N	<4.0		4.0	mg/L	24-OCT-15				1000
	Nitrate-N	<2.0		2.0	mg/L	24-OCT-15				
	Nitrilotriacetic Acid (NTA)	<40	DLM	0.20	mg/L	27-OCT-15				40

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Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90



ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte									
L1692474-4	DYEC/FA/15022/4									
Sampled By: A. HUXTER on 23-OCT-15 @ 08:0										
Matrix: SOIL										#1
TCLP Extractables										
	Nitrite-N	<2.0		2.0	mg/L	24-OCT-15				
	Nitrobenzene	<0.0040		0.0040	mg/L	27-OCT-15			2.0	
	N-Nitrosodimethylamine	<0.00020		0.00020	mg/L	27-OCT-15			0.0009	
	Oxychlorthane	<0.0010		0.0010	mg/L	27-OCT-15				
	Paraquat	<0.10	DLI	0.10	mg/L	27-OCT-15			1	
	Total PCBs	<0.00040		0.00040	mg/L	27-OCT-15			0.3	
	Pentachlorophenol	<0.0050		0.0050	mg/L	27-OCT-15			6	
	Phorate	<0.0010		0.0010	mg/L	28-OCT-15			0.2	
	Picloram	<0.0050		0.0050	mg/L	27-OCT-15			19	
	Prometryne	<0.0010		0.0010	mg/L	28-OCT-15				
	Pyridine	<5.0		5.0	mg/L	26-OCT-15			5.0	
	Simazine	<0.0010		0.0010	mg/L	28-OCT-15			1	
	2,4,5-T	<0.0020		0.0020	mg/L	27-OCT-15			28	
	Temephos	<0.0010		0.0010	mg/L	28-OCT-15			28	
	Terbufos	<0.0020		0.0020	mg/L	28-OCT-15			0.1	
	2,3,4,6-Tetrachlorophenol	<0.0050		0.0050	mg/L	27-OCT-15			10.0	
	Toxaphene	<0.0035		0.0035	mg/L	27-OCT-15			0.5	
	2,4,5-TP	<0.0020		0.0020	mg/L	27-OCT-15			1	
	Triallate	<0.0010		0.0010	mg/L	28-OCT-15			23	
	2,4,5-Trichlorophenol	<0.0050		0.0050	mg/L	27-OCT-15			400	
	2,4,6-Trichlorophenol	<0.0050		0.0050	mg/L	27-OCT-15			0.5	
	Trifluralin	<0.0050		0.0050	mg/L	28-OCT-15			4.5	
	Surrogate: 2,4,6-Tribromophenol	82.3		50-150	%	27-OCT-15				
	Surrogate: 2,4-Dichlorophenylacetic Acid	125.9		50-150	%	27-OCT-15				
	Surrogate: 2-Fluorobiphenyl	76.4		40-160	%	27-OCT-15				
	Surrogate: 2-Fluorobiphenyl	83.8		40-160	%	28-OCT-15				
	Surrogate: 2-Fluorobiphenyl	84.0		40-160	%	27-OCT-15				
	Surrogate: Nitrobenzene d5	87.4		50-150	%	27-OCT-15				
	Surrogate: d14-Terphenyl	77.4		60-140	%	28-OCT-15				
	Surrogate: d14-Terphenyl	95.0		60-140	%	27-OCT-15				
	Surrogate: p-Terphenyl d14	101.8		60-140	%	27-OCT-15				
TCLP Metals										
	Arsenic (As)	<0.050		0.050	mg/L	26-OCT-15			2.5	
	Barium (Ba)	2.44		0.50	mg/L	26-OCT-15			100	
	Boron (B)	<2.5		2.5	mg/L	26-OCT-15			500	
	Cadmium (Cd)	<0.0050		0.0050	mg/L	26-OCT-15			0.5	
	Chromium (Cr)	<0.050		0.050	mg/L	26-OCT-15			5.0	

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ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte						#1			
L1692474-4	DYEC/FA/15022/4									
Sampled By: A. HUXTER on 23-OCT-15 @ 08:00										
Matrix: SOIL										
TCLP Metals										
	Lead (Pb)	0.318		0.050	mg/L	26-OCT-15	5.0			
	Mercury (Hg)	<0.00010		0.00010	mg/L	26-OCT-15	0.1			
	Selenium (Se)	<0.25		0.25	mg/L	26-OCT-15	1.0			
	Silver (Ag)	<0.0050		0.0050	mg/L	26-OCT-15	5.0			
	Uranium (U)	<0.25		0.25	mg/L	26-OCT-15	10			
TCLP VOCs										
	1,1-Dichloroethylene	<0.025		0.025	mg/L	27-OCT-15	1.4			
	1,2-Dichlorobenzene	<0.025		0.025	mg/L	27-OCT-15	20.0			
	1,2-Dichloroethane	<0.025		0.025	mg/L	27-OCT-15	0.5			
	1,4-Dichlorobenzene	<0.025		0.025	mg/L	27-OCT-15	0.5			
	Benzene	<0.025		0.025	mg/L	27-OCT-15	0.5			
	Carbon tetrachloride	<0.025		0.025	mg/L	27-OCT-15	0.5			
	Chlorobenzene	<0.025		0.025	mg/L	27-OCT-15	8			
	Chloroform	<0.10		0.10	mg/L	27-OCT-15	10			
	Dichloromethane	<0.50		0.50	mg/L	27-OCT-15	5.0			
	Methyl Ethyl Ketone	<1.0		1.0	mg/L	27-OCT-15	200.0			
	Tetrachloroethylene	<0.025		0.025	mg/L	27-OCT-15	3			
	Trichloroethylene	<0.025		0.025	mg/L	27-OCT-15	5			
	Vinyl chloride	<0.050		0.050	mg/L	27-OCT-15	0.2			
	Surrogate: 4-Bromofluorobenzene	89.7		70-130	%	27-OCT-15				
Volatile Organic Compounds										
	Surrogate: 1,4-Difluorobenzene	99.6		50-150	%	27-OCT-15				
Polychlorinated Biphenyls										
	Surrogate: Decachlorobiphenyl	101.0		50-150	%	27-OCT-15				
	Surrogate: Tetrachloro-m-xylene	87.8		50-150	%	27-OCT-15				
Dioxins and Furans										
	2,3,7,8-TCDD	<2.9	[U]	2.9	pg/L	29-OCT-15				
	1,2,3,7,8-PeCDD	<1.6	[U]	1.6	pg/L	29-OCT-15				
	1,2,3,4,7,8-HxCDD	<1.3	[U]	1.3	pg/L	29-OCT-15				
	1,2,3,6,7,8-HxCDD	<1.3	[U]	1.3	pg/L	29-OCT-15				
	1,2,3,7,8,9-HxCDD	<1.3	[U]	1.3	pg/L	29-OCT-15				
	1,2,3,4,6,7,8-HpCDD	<1.2	[U]	1.2	pg/L	29-OCT-15				
	OCDD	<1.4	[U]	1.4	pg/L	29-OCT-15				
	Total-TCDD	<2.9	[U]	2.9	pg/L	29-OCT-15				
	Total TCDD # Homologues	0			No Unit	29-OCT-15				
	Total-PeCDD	<1.6	[U]	1.6	pg/L	29-OCT-15				
	Total PeCDD # Homologues	0			No Unit	29-OCT-15				
	Total-HxCDD	<1.3	[U]	1.3	pg/L	29-OCT-15				
	Total HxCDD # Homologues	0			No Unit	29-OCT-15				
	Total-HpCDD	<1.2	[U]	1.2	pg/L	29-OCT-15				
	Total HpCDD # Homologues	0			No Unit	29-OCT-15				
	2,3,7,8-TCDF	<3.9	[U]	3.9	pg/L	29-OCT-15				
	1,2,3,7,8-PeCDF	<1.4	[U]	1.4	pg/L	29-OCT-15				
	2,3,4,7,8-PeCDF	<1.3	[U]	1.3	pg/L	29-OCT-15				
	1,2,3,4,7,8-HxCDF	<0.71	[U]	0.71	pg/L	29-OCT-15				
	1,2,3,6,7,8-HxCDF	<0.59	[U]	0.59	pg/L	29-OCT-15				

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ANALYTICAL GUIDELINE REPORT

DYEC - FLY ASH PROJECT

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits		
Grouping	Analyte								
L1692474-4	DYEC/FA/15022/4								
Sampled By: A. HUXTER on 23-OCT-15 @ 08:0									
Matrix: SOIL									
Dioxins and Furans									
	1,2,3,7,8,9-HxCDF	<1.1	[U]	1.1	pg/L	29-OCT-15			
	2,3,4,6,7,8-HxCDF	<0.74	[U]	0.74	pg/L	29-OCT-15			
	1,2,3,4,6,7,8-HpCDF	<1.0	[U]	1.0	pg/L	29-OCT-15			
	1,2,3,4,7,8,9-HpCDF	<1.7	[U]	1.7	pg/L	29-OCT-15			
	OCDF	<1.9	[U]	1.9	pg/L	29-OCT-15			
	Total-TCDF	<3.9	[U]	3.9	pg/L	29-OCT-15			
	Total TCDF # Homologues	0			No Unit	29-OCT-15			
	Total-PeCDF	<1.4	[U]	1.4	pg/L	29-OCT-15			
	Total PeCDF # Homologues	0			No Unit	29-OCT-15			
	Total-HxCDF	<1.1	[U]	1.1	pg/L	29-OCT-15			
	Total HxCDF # Homologues	0			No Unit	29-OCT-15			
	Total-HpCDF	<1.7	[U]	1.7	pg/L	29-OCT-15			
	Total HpCDF # Homologues	0			No Unit	29-OCT-15			
	Surrogate: 13C12-2,3,7,8-TCDD	69.0		20-175	%	29-OCT-15			
	Surrogate: 13C12-1,2,3,7,8-PeCDD	75.0		21-227	%	29-OCT-15			
	Surrogate: 13C12-1,2,3,4,7,8-HxCDD	62.0		21-193	%	29-OCT-15			
	Surrogate: 13C12-1,2,3,6,7,8-HxCDD	84.0		25-163	%	29-OCT-15			
	Surrogate: 13C12-1,2,3,4,6,7,8-HpCDD	73.0		23-166	%	29-OCT-15			
	Surrogate: 13C12-OCDD	70.0		13-138	%	29-OCT-15			
	Surrogate: 13C12-2,3,7,8-TCDF	72.0		22-152	%	29-OCT-15			
	Surrogate: 13C12-1,2,3,7,8-PeCDF	77.0		24-185	%	29-OCT-15			
	Surrogate: 13C12-2,3,4,7,8-PeCDF	76.0		21-178	%	29-OCT-15			
	Surrogate: 13C12-1,2,3,4,7,8-HxCDF	67.0		26-152	%	29-OCT-15			
	Surrogate: 13C12-1,2,3,6,7,8-HxCDF	94.0		21-159	%	29-OCT-15			
	Surrogate: 13C12-2,3,4,6,7,8-HxCDF	80.0		17-205	%	29-OCT-15			
	Surrogate: 13C12-1,2,3,7,8,9-HxCDF	67.0		28-136	%	29-OCT-15			
	Surrogate: 13C12-1,2,3,4,6,7,8-HpCDF	83.0		21-158	%	29-OCT-15			
	Surrogate: 13C12-1,2,3,4,7,8,9-HpCDF	70.0		20-186	%	29-OCT-15			
	Surrogate: 37Cl4-2,3,7,8-TCDD (Cleanup)	63.0		31-191	%	29-OCT-15			
Toxic Equivalency									
	Lower Bound PCDD/F TEQ (WHO 2005)	0.00			pg/L	29-OCT-15			
	Mid Point PCDD/F TEQ (WHO 2005)	3.03			pg/L	29-OCT-15			
	Upper Bound PCDD/F TEQ (WHO 2005)	6.07			pg/L	29-OCT-15	1500		

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Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

#1: Ontario Ministry of the Environment, General Waste Control Regulation No. 347/90

Reference Information

Qualifiers for Sample Submission Listed:

Qualifier	Description
CINT	Cooling initiated. Samples were received packed with ice or ice packs and were sampled the same day as received.

Sample Parameter Qualifier key listed:

Qualifier	Description
[U]	The analyte was not detected above the EDL.
DLM	Detection Limit Adjusted due to sample matrix effects.
DLI	Detection Limit Raised: Dilution required to address Internal Standard response problems caused by matrix interference.

Methods Listed (if applicable):

ALS Test Code	Matrix	Test Description	Method Reference***
ALDICARB-TCLP-WT	Waste	O. Reg 347 Aldicarb	LC/MS-MS
BNA-TCLP-WT	Waste	BNAs for O. Reg 347	SW846 8270

Samples are leached according to TCLP protocol and then the aqueous leachate is extracted and the resulting extracts are analyzed on GC/MSD

CN-TCLP-WT	Waste	Cyanide for O. Reg 347	APHA 4500CN C E
DIQUAT-TCLP-WT	Waste	Diquat for O. Reg 347	LC/MS/MS
DIURON-TCLP-WT	Waste	Diuron for O. Reg 347	MOE PWAUH-E3436 (MOD)
DX-1613B-HRMS-BU	Waste	Dioxins and Furans by method 1613B	USEPA 1613B

Samples filtered if required. The solid portion is extracted by Soxhlet, the liquid portion is liquid/liquid extracted with dichloromethane. The extracts are prepared using column chromatography, reduced in volume and analyzed by isotope-dilution GC/HRMS.

F-TCLP-WT	Waste	Fluoride (F) for O. Reg 347	APHA 4110 B-Ion Chromatography
GLYPHOSATE-TCLP-WT	Waste	Glyphosate for O. Reg 347	LC/MS/MS
HG-TCLP-WT	Waste	Mercury (CVAA) for O.Reg 347	SW846 7470A
LEACH-TCLP-WT	Waste	Leachate Procedure for Reg 347	EPA 1311

Inorganic and Semi-Volatile Organic contaminants are leached from waste samples in strict accordance with US EPA Method 1311, "Toxicity Characteristic Leaching Procedure" (TCLP). Test results are reported in leachate concentration units (normally mg/L).

MET-TCLP-WT	Waste	O.Reg 347 TCLP Leachable Metals	EPA 200.8
N2N3-TCLP-WT	Waste	Nitrate/Nitrite-N for O. Reg 347	APHA 4110 B-Ion Chromatography
NDMA-TCLP-WT	Waste	NDMA for O. Reg 347	In House/GC/MS
NTA-TCLP-WT	Waste	NTA for O. Reg 347	EPA 430.2
PARAQUAT-TCLP-WT	Waste	Paraquat for O. Reg 347	LC/MS-MS
PCB-TCLP-WT	Waste	PCBs for O. Reg 347	SW846 8270
PEST-MISC-TCLP-WT	Waste	O. Reg 347 TCLP Miscellaneous Pesticides	SW846 8270
PEST-OC-TCLP-WT	Waste	O. Reg 347TCLP Organochlorine Pesticides	SW846 8270

Samples are leached according to TCLP protocol and then the aqueous leachate is extracted and the resulting extracts are analyzed on GC/MSD

PEST-PAHERB-TCLP-WT	Waste	Phenoxyacid Herbicides for O. Reg 347	SW846 8270
PYR-TCLP-WT	Waste	Pyridine for O. Reg 347	SW846 8260D

Samples are leached according to TCLP protocol and then analyzed on GC/MSD

TOXAPHENE-TCLP-WT	Waste	Toxaphene by GC/ECD for O. Reg 347	SW846 8270
VOC-TCLP-WT	Waste	VOC for O. Reg 347	SW846 8260

A sample of waste is leached in a zero headspace extractor at 30–2 rpm for 18–2.0 hours with the appropriate leaching solution. After tumbling the leachate is analyzed directly by headspace technology, followed by GC/MS using internal standard quantitation.

*** ALS test methods may incorporate modifications from specified reference methods to improve performance.

Chain of Custody numbers:

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location	Laboratory Definition Code	Laboratory Location
WT	ALS ENVIRONMENTAL - WATERLOO, ONTARIO, CANADA	BU	ALS ENVIRONMENTAL - BURLINGTON, ONTARIO, CANADA

Reference Information

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.

mg/kg - milligrams per kilogram based on dry weight of sample

mg/kg wwt - milligrams per kilogram based on wet weight of sample

mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight

mg/L - unit of concentration based on volume, parts per million.

< - Less than.

D.L. - The reporting limit.

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.

Application of guidelines is provided "as is" without warranty of any kind, either expressed or implied, including, but not limited to fitness for a particular purpose, or non-infringement. ALS assumes no responsibility for errors or omissions in the information.



Environmental

Quality Control Report

Workorder: L1692474

Report Date: 29-OCT-15

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Client: Covanta - Durham York Renewable Energy LP
 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
ALDICARB-TCLP-WT		Waste						
Batch	R3296681							
WG2200627-3	DUP	L1692602-4						
Aldicarb		<0.010	<0.010	RPD-NA	mg/L	N/A	30	26-OCT-15
WG2200627-2	LCS							
Aldicarb			104.0		%		70-130	26-OCT-15
WG2200627-1	MB							
Aldicarb			<0.010		mg/L		0.01	26-OCT-15
BNA-TCLP-WT		Waste						
Batch	R3296622							
WG2200577-4	DUP	WG2200577-5						
2,3,4,6-Tetrachlorophenol		<0.0050	<0.0050	RPD-NA	mg/L	N/A	50	27-OCT-15
2,4,5-Trichlorophenol		<0.0050	<0.0050	RPD-NA	mg/L	N/A	50	27-OCT-15
2,4,6-Trichlorophenol		<0.0050	<0.0050	RPD-NA	mg/L	N/A	50	27-OCT-15
2,4-Dichlorophenol		<0.0050	<0.0050	RPD-NA	mg/L	N/A	50	27-OCT-15
2,4-Dinitrotoluene		<0.0040	<0.0040	RPD-NA	mg/L	N/A	50	27-OCT-15
2-Methylphenol		<0.0050	<0.0050	RPD-NA	mg/L	N/A	50	27-OCT-15
3&4-Methylphenol		<0.010	<0.010	RPD-NA	mg/L	N/A	50	27-OCT-15
Hexachlorobenzene		<0.0040	<0.0040	RPD-NA	mg/L	N/A	50	27-OCT-15
Hexachlorobutadiene		<0.0040	<0.0040	RPD-NA	mg/L	N/A	50	27-OCT-15
Hexachloroethane		<0.0040	<0.0040	RPD-NA	mg/L	N/A	50	27-OCT-15
Nitrobenzene		<0.0040	<0.0040	RPD-NA	mg/L	N/A	50	27-OCT-15
Pentachlorophenol		<0.0050	<0.0050	RPD-NA	mg/L	N/A	50	27-OCT-15
WG2200577-2	LCS							
2,3,4,6-Tetrachlorophenol			86.0		%		60-140	26-OCT-15
2,4,5-Trichlorophenol			91.6		%		60-140	26-OCT-15
2,4,6-Trichlorophenol			87.0		%		60-140	26-OCT-15
2,4-Dichlorophenol			79.7		%		60-140	26-OCT-15
2,4-Dinitrotoluene			91.1		%		50-150	26-OCT-15
2-Methylphenol			84.4		%		60-140	26-OCT-15
3&4-Methylphenol			84.3		%		60-140	26-OCT-15
Hexachlorobenzene			88.3		%		60-140	26-OCT-15
Hexachlorobutadiene			89.1		%		40-130	26-OCT-15
Hexachloroethane			90.3		%		40-130	26-OCT-15
Nitrobenzene			91.8		%		60-140	26-OCT-15
Pentachlorophenol			80.5		%		50-160	26-OCT-15
WG2200577-6	LCS							



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Client: Covanta - Durham York Renewable Energy LP
 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
BNA-TCLP-WT		Waste						
Batch	R3296622							
WG2200577-6	LCS							
2,3,4,6-Tetrachlorophenol			106.1		%		60-140	27-OCT-15
2,4,5-Trichlorophenol			102.8		%		60-140	27-OCT-15
2,4,6-Trichlorophenol			98.0		%		60-140	27-OCT-15
2,4-Dichlorophenol			93.4		%		60-140	27-OCT-15
2,4-Dinitrotoluene			101.3		%		50-150	27-OCT-15
2-Methylphenol			90.2		%		60-140	27-OCT-15
3&4-Methylphenol			89.8		%		60-140	27-OCT-15
Hexachlorobenzene			90.8		%		60-140	27-OCT-15
Hexachlorobutadiene			66.3		%		40-130	27-OCT-15
Hexachloroethane			73.1		%		40-130	27-OCT-15
Nitrobenzene			98.3		%		60-140	27-OCT-15
Pentachlorophenol			113.4		%		50-160	27-OCT-15
WG2200577-1	MB							
2,3,4,6-Tetrachlorophenol			<0.0050		mg/L		0.005	26-OCT-15
2,4,5-Trichlorophenol			<0.0050		mg/L		0.005	26-OCT-15
2,4,6-Trichlorophenol			<0.0050		mg/L		0.005	26-OCT-15
2,4-Dichlorophenol			<0.0050		mg/L		0.005	26-OCT-15
2,4-Dinitrotoluene			<0.0040		mg/L		0.004	26-OCT-15
2-Methylphenol			<0.0050		mg/L		0.005	26-OCT-15
3&4-Methylphenol			<0.010		mg/L		0.01	26-OCT-15
Hexachlorobenzene			<0.0040		mg/L		0.004	26-OCT-15
Hexachlorobutadiene			<0.0040		mg/L		0.004	26-OCT-15
Hexachloroethane			<0.0040		mg/L		0.004	26-OCT-15
Nitrobenzene			<0.0040		mg/L		0.004	26-OCT-15
Pentachlorophenol			<0.0050		mg/L		0.005	26-OCT-15
Surrogate: Nitrobenzene d5			93.9		%		50-150	26-OCT-15
Surrogate: 2-Fluorobiphenyl			94.3		%		40-160	26-OCT-15
Surrogate: p-Terphenyl d14			101.4		%		60-140	26-OCT-15
Surrogate: 2,4,6-Tribromophenol			82.0		%		50-150	26-OCT-15
WG2200577-3	MS		WG2200577-5					
2,3,4,6-Tetrachlorophenol			85.7		%		50-150	27-OCT-15
2,4,5-Trichlorophenol			90.3		%		50-150	27-OCT-15
2,4,6-Trichlorophenol			86.5		%		50-150	27-OCT-15
2,4-Dichlorophenol			79.7		%		50-150	27-OCT-15



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Client: Covanta - Durham York Renewable Energy LP
 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
BNA-TCLP-WT		Waste						
Batch	R3296622							
WG2200577-3	MS	WG2200577-5						
2,4-Dinitrotoluene			93.1		%		50-150	27-OCT-15
2-Methylphenol			85.2		%		50-150	27-OCT-15
3&4-Methylphenol			84.8		%		50-150	27-OCT-15
Hexachlorobenzene			89.1		%		40-150	27-OCT-15
Hexachlorobutadiene			89.3		%		40-150	27-OCT-15
Hexachloroethane			90.4		%		40-150	27-OCT-15
Nitrobenzene			92.0		%		50-150	27-OCT-15
Pentachlorophenol			79.4		%		50-150	27-OCT-15
CN-TCLP-WT		Waste						
Batch	R3296630							
WG2200789-3	DUP	L1692330-4						
Cyanide, Weak Acid Diss		<0.10	<0.10	RPD-NA	mg/L	N/A	20	26-OCT-15
WG2200789-2	LCS							
Cyanide, Weak Acid Diss			104.0		%		70-130	26-OCT-15
WG2200789-1	MB							
Cyanide, Weak Acid Diss			<0.10		mg/L		0.1	26-OCT-15
WG2200789-4	MS	L1692330-4						
Cyanide, Weak Acid Diss			101.5		%		50-150	26-OCT-15
DIQUAT-TCLP-WT		Waste						
Batch	R3297281							
WG2200908-3	DUP	L1692602-4						
Diquat		<0.10	<0.10		mg/L	N/A	0.02	27-OCT-15
WG2200908-2	LCS							
Diquat			113.2		%		70-130	27-OCT-15
WG2200908-1	MB							
Diquat			<0.010		mg/L		0.01	27-OCT-15
DIURON-TCLP-WT		Waste						
Batch	R3296682							
WG2200629-3	DUP	L1692602-4						
Diuron		<0.010	<0.010	RPD-NA	mg/L	N/A	30	26-OCT-15
WG2200629-2	LCS							
Diuron			90.9		%		70-130	26-OCT-15
WG2200629-1	MB							
Diuron			<0.010		mg/L		0.01	26-OCT-15
DX-1613B-HRMS-BU		Waste						



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Client: Covanta - Durham York Renewable Energy LP
 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
DX-1613B-HRMS-BU Waste								
Batch	R3299253							
WG2200764-6 DUP		L1692474-1						
2,3,7,8-TCDD		<2.6	<1.8	RPD-NA	pg/L	N/A	50	29-OCT-15
1,2,3,7,8-PeCDD		<1.3	<0.82	RPD-NA	pg/L	N/A	50	29-OCT-15
1,2,3,4,7,8-HxCDD		<0.97	<0.98	RPD-NA	pg/L	N/A	50	29-OCT-15
1,2,3,6,7,8-HxCDD		<0.92	<0.80	RPD-NA	pg/L	N/A	50	29-OCT-15
1,2,3,7,8,9-HxCDD		<0.93	<0.87	RPD-NA	pg/L	N/A	50	29-OCT-15
1,2,3,4,6,7,8-HpCDD		<1.1	<1.0	RPD-NA	pg/L	N/A	50	29-OCT-15
OCDD		<1.5	<0.78	RPD-NA	pg/L	N/A	50	29-OCT-15
2,3,7,8-TCDF		<2.5	<1.9	RPD-NA	pg/L	N/A	50	29-OCT-15
1,2,3,7,8-PeCDF		<1.3	<0.90	RPD-NA	pg/L	N/A	50	29-OCT-15
2,3,4,7,8-PeCDF		<1.1	<0.79	RPD-NA	pg/L	N/A	50	29-OCT-15
1,2,3,4,7,8-HxCDF		<0.54	<0.57	RPD-NA	pg/L	N/A	50	29-OCT-15
1,2,3,6,7,8-HxCDF		<0.45	<0.45	RPD-NA	pg/L	N/A	50	29-OCT-15
2,3,4,6,7,8-HxCDF		<0.53	<0.56	RPD-NA	pg/L	N/A	50	29-OCT-15
1,2,3,7,8,9-HxCDF		<0.78	<0.81	RPD-NA	pg/L	N/A	50	29-OCT-15
1,2,3,4,6,7,8-HpCDF		<0.73	<0.51	RPD-NA	pg/L	N/A	50	29-OCT-15
1,2,3,4,7,8,9-HpCDF		<1.1	<0.86	RPD-NA	pg/L	N/A	50	29-OCT-15
OCDF		<1.7	<1.1	RPD-NA	pg/L	N/A	50	29-OCT-15
Total-TCDD		<2.6	<1.8	RPD-NA	pg/L	N/A	50	29-OCT-15
Total-PeCDD		<1.3	<0.82	RPD-NA	pg/L	N/A	50	29-OCT-15
Total-HxCDD		<0.97	<0.98	RPD-NA	pg/L	N/A	50	29-OCT-15
Total-HpCDD		<1.1	<1.0	RPD-NA	pg/L	N/A	50	29-OCT-15
Total-TCDF		<2.5	<1.9	RPD-NA	pg/L	N/A	50	29-OCT-15
Total-PeCDF		<1.3	<0.90	RPD-NA	pg/L	N/A	50	29-OCT-15
Total-HxCDF		<0.78	<0.81	RPD-NA	pg/L	N/A	50	29-OCT-15
Total-HpCDF		<1.1	<0.86	RPD-NA	pg/L	N/A	50	29-OCT-15
WG2200764-2 LCS								
2,3,7,8-TCDD			101.0		%		67-158	29-OCT-15
1,2,3,7,8-PeCDD			108.0		%		70-142	29-OCT-15
1,2,3,4,7,8-HxCDD			106.0		%		70-164	29-OCT-15
1,2,3,6,7,8-HxCDD			98.0		%		76-134	29-OCT-15
1,2,3,7,8,9-HxCDD			118.0		%		64-162	29-OCT-15
1,2,3,4,6,7,8-HpCDD			104.0		%		70-140	29-OCT-15
OCDD			95.0		%		78-144	29-OCT-15



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Client: Covanta - Durham York Renewable Energy LP
1835 Energy Drive
Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
DX-1613B-HRMS-BU		Waste						
Batch	R3299253							
WG2200764-2 LCS								
2,3,7,8-TCDF			96.0		%		75-158	29-OCT-15
1,2,3,7,8-PeCDF			103.0		%		80-134	29-OCT-15
2,3,4,7,8-PeCDF			96.0		%		68-160	29-OCT-15
1,2,3,4,7,8-HxCDF			101.0		%		72-134	29-OCT-15
1,2,3,6,7,8-HxCDF			88.0		%		84-130	29-OCT-15
2,3,4,6,7,8-HxCDF			100.0		%		78-130	29-OCT-15
1,2,3,7,8,9-HxCDF			101.0		%		70-156	29-OCT-15
1,2,3,4,6,7,8-HpCDF			97.0		%		82-122	29-OCT-15
1,2,3,4,7,8,9-HpCDF			97.0		%		78-138	29-OCT-15
OCDF			99.0		%		63-170	29-OCT-15
WG2200764-1 MB								
2,3,7,8-TCDD			<1.5	[U]	pg/L		1.5	29-OCT-15
1,2,3,7,8-PeCDD			<0.95	[U]	pg/L		0.95	29-OCT-15
1,2,3,4,7,8-HxCDD			<0.71	[U]	pg/L		0.71	29-OCT-15
1,2,3,6,7,8-HxCDD			<0.67	[U]	pg/L		0.67	29-OCT-15
1,2,3,7,8,9-HxCDD			<0.68	[U]	pg/L		0.68	29-OCT-15
1,2,3,4,6,7,8-HpCDD			<1.3	[U]	pg/L		1.3	29-OCT-15
OCDD			<1.3	[U]	pg/L		1.3	29-OCT-15
2,3,7,8-TCDF			<2.1	[U]	pg/L		2.1	29-OCT-15
1,2,3,7,8-PeCDF			<0.88	[U]	pg/L		0.88	29-OCT-15
2,3,4,7,8-PeCDF			<0.77	[U]	pg/L		0.77	29-OCT-15
1,2,3,4,7,8-HxCDF			<0.71	[U]	pg/L		0.71	29-OCT-15
1,2,3,6,7,8-HxCDF			<0.50	[U]	pg/L		0.5	29-OCT-15
2,3,4,6,7,8-HxCDF			<0.64	[U]	pg/L		0.64	29-OCT-15
1,2,3,7,8,9-HxCDF			<0.99	M,U	pg/L		0.99	29-OCT-15
1,2,3,4,6,7,8-HpCDF			<0.65	[U]	pg/L		0.65	29-OCT-15
1,2,3,4,7,8,9-HpCDF			<1.1	[U]	pg/L		1.1	29-OCT-15
OCDF			<1.4	[U]	pg/L		1.4	29-OCT-15
Total-TCDD			<1.5	[U]	pg/L		1.5	29-OCT-15
Total-PeCDD			<0.95	[U]	pg/L		0.95	29-OCT-15
Total-HxCDD			<0.71	[U]	pg/L		0.71	29-OCT-15
Total-HpCDD			<1.3	[U]	pg/L		1.3	29-OCT-15
Total-TCDF			<2.1	[U]	pg/L		2.1	29-OCT-15
Total-PeCDF			<0.88	[U]	pg/L		0.88	29-OCT-15



Quality Control Report

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Client: Covanta - Durham York Renewable Energy LP
 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
DX-1613B-HRMS-BU		Waste						
Batch R3299253								
WG2200764-1 MB								
Total-HxCDF			<0.99	[U]	pg/L		0.99	29-OCT-15
Total-HpCDF			<1.1	[U]	pg/L		1.1	29-OCT-15
Surrogate: 13C12-2,3,7,8-TCDD			72.0		%		20-175	29-OCT-15
Surrogate: 13C12-1,2,3,7,8-PeCDD			73.0		%		21-227	29-OCT-15
Surrogate: 13C12-1,2,3,4,7,8-HxCDD			54.0		%		21-193	29-OCT-15
Surrogate: 13C12-1,2,3,6,7,8-HxCDD			85.0		%		25-163	29-OCT-15
Surrogate: 13C12-1,2,3,4,6,7,8-HpCDD			68.0		%		23-166	29-OCT-15
Surrogate: 13C12-OCDD			58.0		%		13-138	29-OCT-15
Surrogate: 13C12-2,3,7,8-TCDF			75.0		%		22-152	29-OCT-15
Surrogate: 13C12-1,2,3,7,8-PeCDF			77.0		%		24-185	29-OCT-15
Surrogate: 13C12-2,3,4,7,8-PeCDF			78.0		%		21-178	29-OCT-15
Surrogate: 13C12-1,2,3,4,7,8-HxCDF			64.0		%		26-152	29-OCT-15
Surrogate: 13C12-1,2,3,6,7,8-HxCDF			92.0		%		21-159	29-OCT-15
Surrogate: 13C12-2,3,4,6,7,8-HxCDF			79.0		%		17-205	29-OCT-15
Surrogate: 13C12-1,2,3,7,8,9-HxCDF			65.0		%		28-136	29-OCT-15
Surrogate: 13C12-1,2,3,4,6,7,8-HpCDF			76.0		%		21-158	29-OCT-15
Surrogate: 13C12-1,2,3,4,7,8,9-HpCDF			64.0		%		20-186	29-OCT-15
Surrogate: 37Cl4-2,3,7,8-TCDD (Cleanup)			64.0		%		31-191	29-OCT-15
WG2200764-4 MB								
2,3,7,8-TCDD			<2.5	[U]	pg/L		2.5	29-OCT-15
1,2,3,7,8-PeCDD			<1.6	[U]	pg/L		1.6	29-OCT-15
1,2,3,4,7,8-HxCDD			<1.3	[U]	pg/L		1.3	29-OCT-15
1,2,3,6,7,8-HxCDD			<1.2	[U]	pg/L		1.2	29-OCT-15
1,2,3,7,8,9-HxCDD			<1.2	[U]	pg/L		1.2	29-OCT-15
1,2,3,4,6,7,8-HpCDD			<1.7	[U]	pg/L		1.7	29-OCT-15
OCDD			<1.4	[U]	pg/L		1.4	29-OCT-15
2,3,7,8-TCDF			<2.5	[U]	pg/L		2.5	29-OCT-15
1,2,3,7,8-PeCDF			<1.4	[U]	pg/L		1.4	29-OCT-15
2,3,4,7,8-PeCDF			<1.3	[U]	pg/L		1.3	29-OCT-15
1,2,3,4,7,8-HxCDF			<0.80	[U]	pg/L		0.8	29-OCT-15
1,2,3,6,7,8-HxCDF			<0.65	[U]	pg/L		0.65	29-OCT-15
2,3,4,6,7,8-HxCDF			<0.83	[U]	pg/L		0.83	29-OCT-15
1,2,3,7,8,9-HxCDF			<1.2	[U]	pg/L		1.2	29-OCT-15
1,2,3,4,6,7,8-HpCDF			<0.77	[U]	pg/L		0.77	29-OCT-15



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1835 Energy Drive
Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
DX-1613B-HRMS-BU		Waste						
Batch R3299253								
WG2200764-4 MB								
1,2,3,4,7,8,9-HpCDF			<1.4	[U]	pg/L		1.4	29-OCT-15
OCDF			<2.0	[U]	pg/L		2	29-OCT-15
Total-TCDD			<2.5	[U]	pg/L		2.5	29-OCT-15
Total-PeCDD			<1.6	[U]	pg/L		1.6	29-OCT-15
Total-HxCDD			<1.3	[U]	pg/L		1.3	29-OCT-15
Total-HpCDD			<1.7	[U]	pg/L		1.7	29-OCT-15
Total-TCDF			<2.5	[U]	pg/L		2.5	29-OCT-15
Total-PeCDF			<1.4	[U]	pg/L		1.4	29-OCT-15
Total-HxCDF			<1.2	[U]	pg/L		1.2	29-OCT-15
Total-HpCDF			<1.4	[U]	pg/L		1.4	29-OCT-15
Surrogate: 13C12-2,3,7,8-TCDD			60.0		%		20-175	29-OCT-15
Surrogate: 13C12-1,2,3,7,8-PeCDD			61.0		%		21-227	29-OCT-15
Surrogate: 13C12-1,2,3,4,7,8-HxCDD			59.0		%		21-193	29-OCT-15
Surrogate: 13C12-1,2,3,6,7,8-HxCDD			72.0		%		25-163	29-OCT-15
Surrogate: 13C12-1,2,3,4,6,7,8-HpCDD			64.0		%		23-166	29-OCT-15
Surrogate: 13C12-OCDD			59.0		%		13-138	29-OCT-15
Surrogate: 13C12-2,3,7,8-TCDF			64.0		%		22-152	29-OCT-15
Surrogate: 13C12-1,2,3,7,8-PeCDF			64.0		%		24-185	29-OCT-15
Surrogate: 13C12-2,3,4,7,8-PeCDF			63.0		%		21-178	29-OCT-15
Surrogate: 13C12-1,2,3,4,7,8-HxCDF			63.0		%		26-152	29-OCT-15
Surrogate: 13C12-1,2,3,6,7,8-HxCDF			83.0		%		21-159	29-OCT-15
Surrogate: 13C12-2,3,4,6,7,8-HxCDF			73.0		%		17-205	29-OCT-15
Surrogate: 13C12-1,2,3,7,8,9-HxCDF			57.0		%		28-136	29-OCT-15
Surrogate: 13C12-1,2,3,4,6,7,8-HpCDF			68.0		%		21-158	29-OCT-15
Surrogate: 13C12-1,2,3,4,7,8,9-HpCDF			59.0		%		20-186	29-OCT-15
Surrogate: 37Cl4-2,3,7,8-TCDD (Cleanup)			59.0		%		31-191	29-OCT-15
WG2200764-5 MB								
2,3,7,8-TCDD			<1.9	[U]	pg/L		1.9	29-OCT-15
1,2,3,7,8-PeCDD			<0.93	[U]	pg/L		0.93	29-OCT-15
1,2,3,4,7,8-HxCDD			<0.80	[U]	pg/L		0.8	29-OCT-15
1,2,3,6,7,8-HxCDD			<0.75	[U]	pg/L		0.75	29-OCT-15
1,2,3,7,8,9-HxCDD			<0.76	[U]	pg/L		0.76	29-OCT-15
1,2,3,4,6,7,8-HpCDD			<1.3	[U]	pg/L		1.3	29-OCT-15
OCDD			<1.1	[U]	pg/L		1.1	29-OCT-15



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Client: Covanta - Durham York Renewable Energy LP
1835 Energy Drive
Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
DX-1613B-HRMS-BU		Waste						
Batch	R3299253							
WG2200764-5	MB							
2,3,7,8-TCDF			<2.1	[U]	pg/L		2.1	29-OCT-15
1,2,3,7,8-PeCDF			<0.97	[U]	pg/L		0.97	29-OCT-15
2,3,4,7,8-PeCDF			<0.86	[U]	pg/L		0.86	29-OCT-15
1,2,3,4,7,8-HxCDF			<0.69	[U]	pg/L		0.69	29-OCT-15
1,2,3,6,7,8-HxCDF			<0.51	[U]	pg/L		0.51	29-OCT-15
2,3,4,6,7,8-HxCDF			<0.69	[U]	pg/L		0.69	29-OCT-15
1,2,3,7,8,9-HxCDF			<0.94	[U]	pg/L		0.94	29-OCT-15
1,2,3,4,6,7,8-HpCDF			<0.55	[U]	pg/L		0.55	29-OCT-15
1,2,3,4,7,8,9-HpCDF			<0.85	[U]	pg/L		0.85	29-OCT-15
OCDF			<1.4	[U]	pg/L		1.4	29-OCT-15
Total-TCDD			<1.9	[U]	pg/L		1.9	29-OCT-15
Total-PeCDD			<0.93	[U]	pg/L		0.93	29-OCT-15
Total-HxCDD			<0.80	[U]	pg/L		0.8	29-OCT-15
Total-HpCDD			<1.3	[U]	pg/L		1.3	29-OCT-15
Total-TCDF			<2.1	[U]	pg/L		2.1	29-OCT-15
Total-PeCDF			<0.97	[U]	pg/L		0.97	29-OCT-15
Total-HxCDF			<0.94	[U]	pg/L		0.94	29-OCT-15
Total-HpCDF			<0.85	[U]	pg/L		0.85	29-OCT-15
Surrogate: 13C12-2,3,7,8-TCDD			71.0		%		20-175	29-OCT-15
Surrogate: 13C12-1,2,3,7,8-PeCDD			71.0		%		21-227	29-OCT-15
Surrogate: 13C12-1,2,3,4,7,8-HxCDD			59.0		%		21-193	29-OCT-15
Surrogate: 13C12-1,2,3,6,7,8-HxCDD			91.0		%		25-163	29-OCT-15
Surrogate: 13C12-1,2,3,4,6,7,8-HpCDD			71.0		%		23-166	29-OCT-15
Surrogate: 13C12-OCDD			66.0		%		13-138	29-OCT-15
Surrogate: 13C12-2,3,7,8-TCDF			75.0		%		22-152	29-OCT-15
Surrogate: 13C12-1,2,3,7,8-PeCDF			76.0		%		24-185	29-OCT-15
Surrogate: 13C12-2,3,4,7,8-PeCDF			75.0		%		21-178	29-OCT-15
Surrogate: 13C12-1,2,3,4,7,8-HxCDF			71.0		%		26-152	29-OCT-15
Surrogate: 13C12-1,2,3,6,7,8-HxCDF			96.0		%		21-159	29-OCT-15
Surrogate: 13C12-2,3,4,6,7,8-HxCDF			82.0		%		17-205	29-OCT-15
Surrogate: 13C12-1,2,3,7,8,9-HxCDF			72.0		%		28-136	29-OCT-15
Surrogate: 13C12-1,2,3,4,6,7,8-HpCDF			79.0		%		21-158	29-OCT-15
Surrogate: 13C12-1,2,3,4,7,8,9-HpCDF			70.0		%		20-186	29-OCT-15



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 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
DX-1613B-HRMS-BU Waste								
Batch R3299253								
WG2200764-5 MB								
Surrogate: 37Cl4-2,3,7,8-TCDD (Cleanup)			67.0		%		31-191	29-OCT-15
F-TCLP-WT Waste								
Batch R3296569								
WG2200199-3 DUP								
Fluoride (F)		L1692196-4 <10	<10	RPD-NA	mg/L	N/A	30	24-OCT-15
WG2200199-2 LCS								
Fluoride (F)			85.4		%		70-130	24-OCT-15
WG2200199-1 MB								
Fluoride (F)			<10		mg/L		10	24-OCT-15
WG2200199-4 MS								
Fluoride (F)		L1692196-4	87.3		%		50-150	24-OCT-15
GLYPHOSATE-TCLP-WT Waste								
Batch R3297314								
WG2201066-3 DUP								
Glyphosate		L1692602-4 <0.050	<0.050	RPD-NA	mg/L	N/A	30	27-OCT-15
WG2201066-2 LCS								
Glyphosate			94.8		%		70-130	27-OCT-15
WG2201066-1 MB								
Glyphosate			<0.050		mg/L		0.05	27-OCT-15
HG-TCLP-WT Waste								
Batch R3296579								
WG2200631-3 DUP								
Mercury (Hg)		L1692474-1 <0.00010	<0.00010	RPD-NA	mg/L	N/A	50	26-OCT-15
WG2200631-2 LCS								
Mercury (Hg)			105.0		%		70-130	26-OCT-15
WG2200631-1 MB								
Mercury (Hg)			<0.00010		mg/L		0.0001	26-OCT-15
WG2200631-4 MS								
Mercury (Hg)		L1692474-1	95.3		%		50-140	26-OCT-15
MET-TCLP-WT Waste								
Batch R3296455								
WG2200572-4 DUP								
Silver (Ag)		WG2200572-3 <0.0050	<0.0050	RPD-NA	mg/L	N/A	40	26-OCT-15
Arsenic (As)		<0.050	<0.050	RPD-NA	mg/L	N/A	40	26-OCT-15
Boron (B)		<2.5	<2.5	RPD-NA	mg/L	N/A	40	26-OCT-15



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Client: Covanta - Durham York Renewable Energy LP
 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-TCLP-WT		Waste						
Batch	R3296455							
WG2200572-4	DUP	WG2200572-3						
Barium (Ba)		2.51	2.45		mg/L	2.4	40	26-OCT-15
Cadmium (Cd)		<0.0050	<0.0050	RPD-NA	mg/L	N/A	40	26-OCT-15
Chromium (Cr)		<0.050	<0.050	RPD-NA	mg/L	N/A	40	26-OCT-15
Lead (Pb)		0.402	0.393		mg/L	2.3	40	26-OCT-15
Selenium (Se)		<0.25	<0.25	RPD-NA	mg/L	N/A	40	26-OCT-15
Uranium (U)		<0.25	<0.25	RPD-NA	mg/L	N/A	40	26-OCT-15
WG2200572-2	LCS							
Silver (Ag)			95.9		%		70-130	26-OCT-15
Arsenic (As)			94.6		%		70-130	26-OCT-15
Boron (B)			98.4		%		70-130	26-OCT-15
Barium (Ba)			96.7		%		70-130	26-OCT-15
Cadmium (Cd)			96.0		%		70-130	26-OCT-15
Chromium (Cr)			95.7		%		70-130	26-OCT-15
Lead (Pb)			96.4		%		70-130	26-OCT-15
Selenium (Se)			97.0		%		70-130	26-OCT-15
Uranium (U)			98.5		%		70-130	26-OCT-15
WG2200572-1	MB							
Silver (Ag)			<0.0050		mg/L		0.005	26-OCT-15
Arsenic (As)			<0.050		mg/L		0.05	26-OCT-15
Boron (B)			<2.5		mg/L		2.5	26-OCT-15
Barium (Ba)			<0.50		mg/L		0.5	26-OCT-15
Cadmium (Cd)			<0.0050		mg/L		0.005	26-OCT-15
Chromium (Cr)			<0.050		mg/L		0.05	26-OCT-15
Lead (Pb)			<0.050		mg/L		0.05	26-OCT-15
Selenium (Se)			<0.25		mg/L		0.25	26-OCT-15
Uranium (U)			<0.25		mg/L		0.25	26-OCT-15
WG2200572-5	MS	WG2200572-3						
Silver (Ag)			116.9		%		50-150	26-OCT-15
Arsenic (As)			97.6		%		50-150	26-OCT-15
Boron (B)			109.0		%		50-150	26-OCT-15
Barium (Ba)			97.3		%		50-150	26-OCT-15
Cadmium (Cd)			97.7		%		50-150	26-OCT-15
Chromium (Cr)			97.0		%		50-150	26-OCT-15
Lead (Pb)			94.7		%		50-150	26-OCT-15



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1835 Energy Drive
Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-TCLP-WT		Waste						
Batch	R3296455							
WG2200572-5	MS	WG2200572-3						
Selenium (Se)			99.9		%		50-150	26-OCT-15
Uranium (U)			96.6		%		50-150	26-OCT-15
N2N3-TCLP-WT		Waste						
Batch	R3296569							
WG2200199-3	DUP	L1692196-4						
Nitrate-N		<2.0	<2.0	RPD-NA	mg/L	N/A	30	24-OCT-15
Nitrite-N		<2.0	<2.0	RPD-NA	mg/L	N/A	30	24-OCT-15
WG2200199-2	LCS							
Nitrate-N			93.5		%		70-130	24-OCT-15
Nitrite-N			94.9		%		70-130	24-OCT-15
WG2200199-1	MB							
Nitrate-N			<2.0		mg/L		2	24-OCT-15
Nitrite-N			<2.0		mg/L		2	24-OCT-15
WG2200199-4	MS	L1692196-4						
Nitrate-N			95.1		%		50-150	24-OCT-15
Nitrite-N			96.4		%		50-150	24-OCT-15
NDMA-TCLP-WT		Waste						
Batch	R3297310							
WG2200844-5	DUP	WG2200844-3						
N-Nitrosodimethylamine		<0.00020	<0.00020	RPD-NA	mg/L	N/A	50	27-OCT-15
WG2200844-2	LCS							
N-Nitrosodimethylamine			115.7		%		50-150	27-OCT-15
WG2200844-1	MB							
N-Nitrosodimethylamine			<0.00020		mg/L		0.0002	27-OCT-15
WG2200844-4	MS	WG2200844-3						
N-Nitrosodimethylamine			113.1		%		50-150	27-OCT-15
NTA-TCLP-WT		Waste						
Batch	R3297403							
WG2201654-3	DUP	L1692474-1						
Nitrotriacetic Acid (NTA)		<40	<0.20	RPD-NA	mg/L	N/A	25	27-OCT-15
WG2201654-2	LCS							
Nitrotriacetic Acid (NTA)			97.0		%		75-125	27-OCT-15
WG2201654-1	MB							
Nitrotriacetic Acid (NTA)			<0.20		mg/L		0.2	27-OCT-15
PARAQUAT-TCLP-WT		Waste						



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 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PARAQUAT-TCLP-WT								
	Waste							
Batch	R3297281							
WG2200908-3	DUP	L1692602-4						
Paraquat		<0.10	<0.10	RPD-NA	mg/L	N/A	50	27-OCT-15
WG2200908-2	LCS							
Paraquat			92.4		%		50-150	27-OCT-15
WG2200908-1	MB							
Paraquat			<0.010		mg/L		0.01	27-OCT-15
PCB-TCLP-WT								
	Waste							
Batch	R3297151							
WG2200607-5	DUP	L1689999-1						
Aroclor 1242		<0.00020	<0.00020	RPD-NA	mg/L	N/A	50	27-OCT-15
Aroclor 1248		<0.00020	<0.00020	RPD-NA	mg/L	N/A	50	27-OCT-15
Aroclor 1254		<0.00020	<0.00020	RPD-NA	mg/L	N/A	50	27-OCT-15
Aroclor 1260		<0.00020	<0.00020	RPD-NA	mg/L	N/A	50	27-OCT-15
WG2200607-2	LCS							
Aroclor 1242			84.4		%		65-130	27-OCT-15
Aroclor 1248			106.0		%		65-130	27-OCT-15
Aroclor 1254			86.6		%		65-130	27-OCT-15
Aroclor 1260			110.0		%		65-130	27-OCT-15
WG2200607-1	MB							
Aroclor 1242			<0.00020		mg/L		0.0002	27-OCT-15
Aroclor 1248			<0.00020		mg/L		0.0002	27-OCT-15
Aroclor 1254			<0.00020		mg/L		0.0002	27-OCT-15
Aroclor 1260			<0.00020		mg/L		0.0002	27-OCT-15
Surrogate: 2-Fluorobiphenyl			66.8		%		40-160	27-OCT-15
WG2200607-4	MS	L1689999-1						
Aroclor 1242			82.8		%		50-150	27-OCT-15
Aroclor 1254			81.6		%		50-150	27-OCT-15
Aroclor 1260			84.7		%		50-150	27-OCT-15
PEST-MISC-TCLP-WT								
	Waste							
Batch	R3297984							
WG2200599-4	DUP	WG2200599-5						
Atrazine Desethyl		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
Atrazine		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
Bendiocarb		<0.0050	<0.0050	RPD-NA	mg/L	N/A	50	28-OCT-15
Trifluralin		<0.0050	<0.0050	RPD-NA	mg/L	N/A	50	28-OCT-15
Phorate		<0.0010	<0.0010		mg/L			28-OCT-15



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1835 Energy Drive
Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PEST-MISC-TCLP-WT		Waste						
Batch	R3297984							
WG2200599-4	DUP	WG2200599-5						
Phorate		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
Dimethoate		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
Simazine		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
Carbofuran		<0.0020	<0.0020	RPD-NA	mg/L	N/A	50	28-OCT-15
Terbufos		<0.0020	<0.0020	RPD-NA	mg/L	N/A	50	28-OCT-15
Diazinon		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
Triallate		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
Metribuzin		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
Carbaryl		<0.0020	<0.0020	RPD-NA	mg/L	N/A	50	28-OCT-15
Alachlor		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
Prometryne		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
Malathion		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
Metolachlor		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
Methyl Parathion		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
Parathion		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
Cyanazine		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
Chlorpyrifos		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
Diclofop methyl		<0.0020	<0.0020	RPD-NA	mg/L	N/A	50	28-OCT-15
Azinphos methyl		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
Benzo(a)pyrene		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
Temephos		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-OCT-15
WG2200599-2	LCS							
Atrazine Desethyl			51.7		%		50-140	28-OCT-15
Atrazine			109.2		%		60-140	28-OCT-15
Bendiocarb			97.2		%		50-140	28-OCT-15
Trifluralin			93.7		%		60-140	28-OCT-15
Phorate			97.7		%		60-140	28-OCT-15
Dimethoate			84.0		%		60-140	28-OCT-15
Simazine			95.4		%		60-140	28-OCT-15
Carbofuran			95.7		%		60-140	28-OCT-15
Terbufos			99.0		%		60-140	28-OCT-15
Diazinon			89.8		%		60-140	28-OCT-15
Triallate			108.6		%		60-140	28-OCT-15



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Client: Covanta - Durham York Renewable Energy LP
1835 Energy Drive
Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PEST-MISC-TCLP-WT		Waste						
Batch	R3297984							
WG2200599-2	LCS							
Metribuzin			96.9		%		60-140	28-OCT-15
Carbaryl			81.8		%		50-175	28-OCT-15
Alachlor			108.9		%		60-140	28-OCT-15
Prometryne			105.5		%		60-140	28-OCT-15
Malathion			100.5		%		60-130	28-OCT-15
Metolachlor			102.6		%		60-140	28-OCT-15
Methyl Parathion			94.3		%		60-140	28-OCT-15
Parathion			109.7		%		60-140	28-OCT-15
Cyanazine			90.3		%		60-140	28-OCT-15
Chlorpyrifos			101.0		%		60-140	28-OCT-15
Diclofop methyl			134.6		%		60-140	28-OCT-15
Azinphos methyl			109.5		%		60-140	28-OCT-15
Benzo(a)pyrene			101.2		%		60-140	28-OCT-15
Temephos			115.8		%		60-140	28-OCT-15
WG2200599-1	MB							
Atrazine Desethyl			<0.0010		mg/L		0.001	28-OCT-15
Atrazine			<0.0010		mg/L		0.001	28-OCT-15
Bendiocarb			<0.0050		mg/L		0.005	28-OCT-15
Trifluralin			<0.0050		mg/L		0.005	28-OCT-15
Phorate			<0.0010		mg/L		0.001	28-OCT-15
Dimethoate			<0.0010		mg/L		0.001	28-OCT-15
Simazine			<0.0010		mg/L		0.001	28-OCT-15
Carbofuran			<0.0020		mg/L		0.002	28-OCT-15
Terbufos			<0.0020		mg/L		0.002	28-OCT-15
Diazinon			<0.0010		mg/L		0.001	28-OCT-15
Triallate			<0.0010		mg/L		0.001	28-OCT-15
Metribuzin			<0.0010		mg/L		0.001	28-OCT-15
Carbaryl			<0.0020		mg/L		0.002	28-OCT-15
Alachlor			<0.0010		mg/L		0.001	28-OCT-15
Prometryne			<0.0010		mg/L		0.001	28-OCT-15
Malathion			<0.0010		mg/L		0.001	28-OCT-15
Metolachlor			<0.0010		mg/L		0.001	28-OCT-15
Methyl Parathion			<0.0010		mg/L		0.001	28-OCT-15
Parathion			<0.0010		mg/L		0.001	28-OCT-15



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Client: Covanta - Durham York Renewable Energy LP
1835 Energy Drive
Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PEST-MISC-TCLP-WT		Waste						
Batch	R3297984							
WG2200599-1	MB							
Cyanazine			<0.0010		mg/L		0.001	28-OCT-15
Chlorpyrifos			<0.0010		mg/L		0.001	28-OCT-15
Diclofop methyl			<0.0020		mg/L		0.002	28-OCT-15
Azinphos methyl			<0.0010		mg/L		0.001	28-OCT-15
Benzo(a)pyrene			<0.0010		mg/L		0.001	28-OCT-15
Temephos			<0.0010		mg/L		0.001	28-OCT-15
Surrogate: 2-Fluorobiphenyl			83.7		%		40-160	28-OCT-15
Surrogate: d14-Terphenyl			74.9		%		60-140	28-OCT-15
WG2200599-6	MB							
Atrazine Desethyl			<0.0010		mg/L		0.001	29-OCT-15
Atrazine			<0.0010		mg/L		0.001	29-OCT-15
Bendiocarb			<0.0050		mg/L		0.005	29-OCT-15
Trifluralin			<0.0050		mg/L		0.005	29-OCT-15
Phorate			<0.0010		mg/L		0.001	29-OCT-15
Dimethoate			<0.0010		mg/L		0.001	29-OCT-15
Simazine			<0.0010		mg/L		0.001	29-OCT-15
Carbofuran			<0.0020		mg/L		0.002	29-OCT-15
Terbufos			<0.0020		mg/L		0.002	29-OCT-15
Diazinon			<0.0010		mg/L		0.001	29-OCT-15
Triallate			<0.0010		mg/L		0.001	29-OCT-15
Metribuzin			<0.0010		mg/L		0.001	29-OCT-15
Carbaryl			<0.0020		mg/L		0.002	29-OCT-15
Alachlor			<0.0010		mg/L		0.001	29-OCT-15
Prometryne			<0.0010		mg/L		0.001	29-OCT-15
Malathion			<0.0010		mg/L		0.001	29-OCT-15
Metolachlor			<0.0010		mg/L		0.001	29-OCT-15
Methyl Parathion			<0.0010		mg/L		0.001	29-OCT-15
Parathion			<0.0010		mg/L		0.001	29-OCT-15
Cyanazine			<0.0010		mg/L		0.001	29-OCT-15
Chlorpyrifos			<0.0010		mg/L		0.001	29-OCT-15
Diclofop methyl			<0.0020		mg/L		0.002	29-OCT-15
Azinphos methyl			<0.0010		mg/L		0.001	29-OCT-15
Benzo(a)pyrene			<0.0010		mg/L		0.001	29-OCT-15
Temephos			<0.0010		mg/L		0.001	29-OCT-15



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Client: Covanta - Durham York Renewable Energy LP
 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PEST-MISC-TCLP-WT		Waste						
Batch	R3297984							
WG2200599-6	MB							
Surrogate: 2-Fluorobiphenyl			75.4		%		40-160	29-OCT-15
Surrogate: d14-Terphenyl			79.3		%		60-140	29-OCT-15
WG2200599-3	MS	WG2200599-5						
Atrazine Desethyl			51.6		%		50-150	28-OCT-15
Atrazine			100.7		%		50-150	28-OCT-15
Bendiocarb			94.0		%		50-150	28-OCT-15
Trifluralin			83.0		%		50-150	28-OCT-15
Phorate			87.3		%		50-150	28-OCT-15
Dimethoate			86.9		%		50-150	28-OCT-15
Simazine			92.5		%		50-150	28-OCT-15
Carbofuran			93.6		%		50-150	28-OCT-15
Terbufos			88.9		%		50-150	28-OCT-15
Diazinon			82.9		%		50-150	28-OCT-15
Triallate			94.7		%		50-150	28-OCT-15
Metribuzin			96.5		%		50-150	28-OCT-15
Carbaryl			103.5		%		50-150	28-OCT-15
Alachlor			100.1		%		50-150	28-OCT-15
Prometryne			99.7		%		50-150	28-OCT-15
Malathion			93.2		%		50-150	28-OCT-15
Metolachlor			93.6		%		50-150	28-OCT-15
Methyl Parathion			92.5		%		50-150	28-OCT-15
Parathion			105.9		%		50-150	28-OCT-15
Cyanazine			103.1		%		50-150	28-OCT-15
Chlorpyrifos			94.2		%		50-150	28-OCT-15
Diclofop methyl			95.2		%		50-150	28-OCT-15
Azinphos methyl			116.4		%		50-150	28-OCT-15
Benzo(a)pyrene			95.5		%		50-150	28-OCT-15
Temephos			146.1		%		50-150	28-OCT-15
PEST-OC-TCLP-WT		Waste						
Batch	R3297247							
WG2200599-4	DUP	WG2200599-5						
gamma-BHC		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	27-OCT-15
Heptachlor		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	27-OCT-15
Heptachlor epoxide		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	27-OCT-15



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Client: Covanta - Durham York Renewable Energy LP
1835 Energy Drive
Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PEST-OC-TCLP-WT		Waste						
Batch	R3297247							
WG2200599-4	DUP	WG2200599-5						
Oxychlordane		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	27-OCT-15
gamma-Chlordane		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	27-OCT-15
alpha-Chlordane		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	27-OCT-15
Aldrin		<0.00020	<0.00020	RPD-NA	mg/L	N/A	50	27-OCT-15
Dieldrin		<0.00020	<0.00020	RPD-NA	mg/L	N/A	50	27-OCT-15
Endrin		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	27-OCT-15
p,p-DDE		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	27-OCT-15
p,p-DDD		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	27-OCT-15
p,p-DDT		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	27-OCT-15
o,p-DDT		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	27-OCT-15
Methoxychlor		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	27-OCT-15
WG2200599-2	LCS							
gamma-BHC			100.4		%		50-150	27-OCT-15
Heptachlor			102.3		%		25-175	27-OCT-15
Heptachlor epoxide			84.0		%		25-175	27-OCT-15
Oxychlordane			82.6		%		25-175	27-OCT-15
gamma-Chlordane			87.1		%		25-175	27-OCT-15
alpha-Chlordane			87.4		%		25-175	27-OCT-15
Aldrin			121.1		%		25-175	27-OCT-15
Dieldrin			83.0		%		25-175	27-OCT-15
Endrin			106.2		%		50-150	27-OCT-15
p,p-DDE			79.8		%		25-175	27-OCT-15
p,p-DDD			84.3		%		25-175	27-OCT-15
p,p-DDT			97.5		%		25-175	27-OCT-15
o,p-DDT			87.5		%		50-130	27-OCT-15
Methoxychlor			111.4		%		25-175	27-OCT-15
WG2200599-1	MB							
gamma-BHC		<0.0010			mg/L		0.001	27-OCT-15
Heptachlor		<0.0010			mg/L		0.001	27-OCT-15
Heptachlor epoxide		<0.0010			mg/L		0.001	27-OCT-15
Oxychlordane		<0.0010			mg/L		0.001	27-OCT-15
gamma-Chlordane		<0.0010			mg/L		0.001	27-OCT-15
alpha-Chlordane		<0.0010			mg/L		0.001	27-OCT-15
Aldrin		<0.00020			mg/L		0.0002	



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Client: Covanta - Durham York Renewable Energy LP
 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PEST-OC-TCLP-WT		Waste						
Batch	R3297247							
WG2200599-1	MB							
Aldrin			<0.00020		mg/L		0.0002	27-OCT-15
Dieldrin			<0.00020		mg/L		0.0002	27-OCT-15
Endrin			<0.0010		mg/L		0.001	27-OCT-15
p,p-DDE			<0.0010		mg/L		0.001	27-OCT-15
p,p-DDD			<0.0010		mg/L		0.001	27-OCT-15
p,p-DDT			<0.0010		mg/L		0.001	27-OCT-15
o,p-DDT			<0.0010		mg/L		0.001	27-OCT-15
Methoxychlor			<0.0010		mg/L		0.001	27-OCT-15
Surrogate: d14-Terphenyl			93.9		%		60-140	27-OCT-15
WG2200599-6	MB							
gamma-BHC			<0.0010		mg/L		0.001	29-OCT-15
Heptachlor			<0.0010		mg/L		0.001	29-OCT-15
Heptachlor epoxide			<0.0010		mg/L		0.001	29-OCT-15
Oxychlordane			<0.0010		mg/L		0.001	29-OCT-15
gamma-Chlordane			<0.0010		mg/L		0.001	29-OCT-15
alpha-Chlordane			<0.0010		mg/L		0.001	29-OCT-15
Aldrin			<0.00020		mg/L		0.0002	29-OCT-15
Dieldrin			<0.00020		mg/L		0.0002	29-OCT-15
Endrin			<0.0010		mg/L		0.001	29-OCT-15
p,p-DDE			<0.0010		mg/L		0.001	29-OCT-15
p,p-DDD			<0.0010		mg/L		0.001	29-OCT-15
p,p-DDT			<0.0010		mg/L		0.001	29-OCT-15
o,p-DDT			<0.0010		mg/L		0.001	29-OCT-15
Methoxychlor			<0.0010		mg/L		0.001	29-OCT-15
Surrogate: d14-Terphenyl			101.5		%		60-140	29-OCT-15
WG2200599-3	MS	WG2200599-5						
gamma-BHC			92.9		%		50-150	27-OCT-15
Heptachlor			92.7		%		50-150	27-OCT-15
Heptachlor epoxide			77.7		%		50-150	27-OCT-15
Oxychlordane			81.3		%		50-150	27-OCT-15
gamma-Chlordane			81.4		%		50-150	27-OCT-15
alpha-Chlordane			82.8		%		50-150	27-OCT-15
Aldrin			112.6		%		50-150	27-OCT-15
Dieldrin			77.2		%		50-150	27-OCT-15



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Client: Covanta - Durham York Renewable Energy LP
1835 Energy Drive
Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PEST-OC-TCLP-WT		Waste						
Batch	R3297247							
WG2200599-3	MS	WG2200599-5						
Endrin			97.5		%		50-150	27-OCT-15
p,p-DDE			74.0		%		50-150	27-OCT-15
p,p-DDD			77.3		%		50-150	27-OCT-15
p,p-DDT			92.3		%		50-150	27-OCT-15
o,p-DDT			81.4		%		50-150	27-OCT-15
Methoxychlor			107.6		%		50-150	27-OCT-15
PEST-PAHERB-TCLP-WT		Waste						
Batch	R3297080							
WG2200573-4	DUP	WG2200573-5						
2,4,5-TP		<0.0020	<0.0020	RPD-NA	mg/L	N/A	50	27-OCT-15
MCPA		<0.0020	<0.0020	RPD-NA	mg/L	N/A	50	27-OCT-15
2,4,5-T		<0.0020	<0.0020	RPD-NA	mg/L	N/A	50	27-OCT-15
2,4-D		<0.0020	<0.0020	RPD-NA	mg/L	N/A	50	27-OCT-15
Bromoxynil		<0.0020	<0.0020	RPD-NA	mg/L	N/A	50	27-OCT-15
Dicamba		<0.0050	<0.0050	RPD-NA	mg/L	N/A	50	27-OCT-15
Dinoseb		<0.0020	<0.0020	RPD-NA	mg/L	N/A	50	27-OCT-15
Picloram		<0.0050	<0.0050	RPD-NA	mg/L	N/A	50	27-OCT-15
WG2200573-2	LCS							
2,4,5-TP			122.6		%		65-135	27-OCT-15
MCPA			127.6		%		65-135	27-OCT-15
2,4,5-T			120.6		%		65-135	27-OCT-15
2,4-D			126.5		%		25-175	27-OCT-15
Bromoxynil			120.2		%		65-135	27-OCT-15
Dicamba			121.9		%		30-150	27-OCT-15
Dinoseb			134.1		%		30-150	27-OCT-15
Picloram			58.6		%		25-120	27-OCT-15
WG2200573-1	MB							
2,4,5-TP			<0.0020		mg/L		0.002	27-OCT-15
MCPA			<0.0020		mg/L		0.002	27-OCT-15
2,4,5-T			<0.0020		mg/L		0.002	27-OCT-15
2,4-D			<0.0020		mg/L		0.002	27-OCT-15
Bromoxynil			<0.0020		mg/L		0.002	27-OCT-15
Dicamba			<0.0050		mg/L		0.005	27-OCT-15
Dinoseb			<0.0020		mg/L		0.002	27-OCT-15



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Client: Covanta - Durham York Renewable Energy LP
1835 Energy Drive
Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PEST-PAHERB-TCLP-WT Waste								
Batch R3297080								
WG2200573-1 MB								
Picloram			<0.0050		mg/L		0.005	27-OCT-15
Surrogate: 2,4-Dichlorophenylacetic Acid			90.5		%		50-150	27-OCT-15
WG2200573-6 MB								
2,4,5-TP			<0.0020		mg/L		0.002	27-OCT-15
MCPA			<0.0020		mg/L		0.002	27-OCT-15
2,4,5-T			<0.0020		mg/L		0.002	27-OCT-15
2,4-D			<0.0020		mg/L		0.002	27-OCT-15
Bromoxynil			<0.0020		mg/L		0.002	27-OCT-15
Dicamba			<0.0050		mg/L		0.005	27-OCT-15
Dinoseb			<0.0020		mg/L		0.002	27-OCT-15
Picloram			<0.0050		mg/L		0.005	27-OCT-15
Surrogate: 2,4-Dichlorophenylacetic Acid			109.3		%		50-150	27-OCT-15
WG2200573-3 MS WG2200573-5								
2,4,5-TP			116.0		%		50-150	27-OCT-15
MCPA			120.7		%		50-150	27-OCT-15
2,4,5-T			121.3		%		50-150	27-OCT-15
2,4-D			125.3		%		50-150	27-OCT-15
Bromoxynil			125.2		%		50-150	27-OCT-15
Dicamba			116.8		%		50-150	27-OCT-15
Dinoseb			144.3		%		30-150	27-OCT-15
Picloram			58.4		%		25-150	27-OCT-15
PYR-TCLP-WT Waste								
Batch R3296737								
WG2200611-6 DUP L1692474-1								
Pyridine		<5.0	<5.0	RPD-NA	mg/L	N/A	30	26-OCT-15
WG2200611-2 LCS								
Pyridine			100.0		%		70-130	26-OCT-15
WG2200611-3 MB								
Pyridine			<5.0		mg/L		5	26-OCT-15
WG2200611-5 MS L1692602-4								
Pyridine			103.0		%		50-150	26-OCT-15
TOXAPHENE-TCLP-WT Waste								



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Client: Covanta - Durham York Renewable Energy LP
 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
TOXAPHENE-TCLP-WT		Waste						
Batch	R3297599							
WG2200600-5	DUP	WG2200600-3						
Toxaphene		<0.0035	<0.0035	RPD-NA	mg/L	N/A	50	27-OCT-15
WG2200600-2	LCS							
Toxaphene			133.0		%		50-150	27-OCT-15
WG2200600-1	MB							
Toxaphene			<0.0035		mg/L		0.0035	27-OCT-15
Surrogate: Decachlorobiphenyl			120.0		%		50-150	27-OCT-15
Surrogate: Tetrachloro-m-xylene			107.0		%		50-150	27-OCT-15
WG2200600-4	MS	WG2200600-3						
Toxaphene			109.4		%		50-150	27-OCT-15
VOC-TCLP-WT		Waste						
Batch	R3297063							
WG2197189-6	DUP	WG2197189-5						
1,1-Dichloroethylene		<0.025	<0.025	RPD-NA	mg/L	N/A	50	27-OCT-15
1,2-Dichlorobenzene		<0.025	<0.025	RPD-NA	mg/L	N/A	50	27-OCT-15
1,2-Dichloroethane		<0.025	<0.025	RPD-NA	mg/L	N/A	50	27-OCT-15
1,4-Dichlorobenzene		<0.025	<0.025	RPD-NA	mg/L	N/A	50	27-OCT-15
Benzene		<0.025	<0.025	RPD-NA	mg/L	N/A	50	27-OCT-15
Carbon tetrachloride		<0.025	<0.025	RPD-NA	mg/L	N/A	50	27-OCT-15
Chlorobenzene		<0.025	<0.025	RPD-NA	mg/L	N/A	50	27-OCT-15
Chloroform		<0.10	<0.10	RPD-NA	mg/L	N/A	50	27-OCT-15
Dichloromethane		<0.50	<0.50	RPD-NA	mg/L	N/A	50	27-OCT-15
Methyl Ethyl Ketone		<1.0	<1.0	RPD-NA	mg/L	N/A	50	27-OCT-15
Tetrachloroethylene		<0.025	<0.025	RPD-NA	mg/L	N/A	50	27-OCT-15
Trichloroethylene		<0.025	<0.025	RPD-NA	mg/L	N/A	50	27-OCT-15
Vinyl chloride		<0.050	<0.050	RPD-NA	mg/L	N/A	50	27-OCT-15
WG2197189-1	LCS							
1,1-Dichloroethylene			114.2		%		70-130	27-OCT-15
1,2-Dichlorobenzene			108.5		%		70-130	27-OCT-15
1,2-Dichloroethane			104.2		%		70-130	27-OCT-15
1,4-Dichlorobenzene			112.2		%		70-130	27-OCT-15
Benzene			113.7		%		70-130	27-OCT-15
Carbon tetrachloride			113.6		%		60-140	27-OCT-15
Chlorobenzene			104.4		%		70-130	27-OCT-15
Chloroform			113.4		%		70-130	27-OCT-15



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Client: Covanta - Durham York Renewable Energy LP
1835 Energy Drive
Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-TCLP-WT		Waste						
Batch	R3297063							
WG2197189-1 LCS								
Dichloromethane			115.4		%		70-130	27-OCT-15
Methyl Ethyl Ketone			100.4		%		50-150	27-OCT-15
Tetrachloroethylene			104.2		%		70-130	27-OCT-15
Trichloroethylene			108.1		%		70-130	27-OCT-15
Vinyl chloride			118.7		%		60-130	27-OCT-15
WG2197189-2 MB								
1,1-Dichloroethylene			<0.025		mg/L		0.025	27-OCT-15
1,2-Dichlorobenzene			<0.025		mg/L		0.025	27-OCT-15
1,2-Dichloroethane			<0.025		mg/L		0.025	27-OCT-15
1,4-Dichlorobenzene			<0.025		mg/L		0.025	27-OCT-15
Benzene			<0.025		mg/L		0.025	27-OCT-15
Carbon tetrachloride			<0.025		mg/L		0.025	27-OCT-15
Chlorobenzene			<0.025		mg/L		0.025	27-OCT-15
Chloroform			<0.10		mg/L		0.1	27-OCT-15
Dichloromethane			<0.50		mg/L		0.5	27-OCT-15
Methyl Ethyl Ketone			<1.0		mg/L		1	27-OCT-15
Tetrachloroethylene			<0.025		mg/L		0.025	27-OCT-15
Trichloroethylene			<0.025		mg/L		0.025	27-OCT-15
Vinyl chloride			<0.050		mg/L		0.05	27-OCT-15
Surrogate: 1,4-Difluorobenzene			100.9		%		50-150	27-OCT-15
Surrogate: 4-Bromofluorobenzene			98.2		%		70-130	27-OCT-15
COMMENTS: 24-OCT-15								
WG2197189-3 MB								
1,1-Dichloroethylene			<0.025		mg/L		0.025	27-OCT-15
1,2-Dichlorobenzene			<0.025		mg/L		0.025	27-OCT-15
1,2-Dichloroethane			<0.025		mg/L		0.025	27-OCT-15
1,4-Dichlorobenzene			<0.025		mg/L		0.025	27-OCT-15
Benzene			<0.025		mg/L		0.025	27-OCT-15
Carbon tetrachloride			<0.025		mg/L		0.025	27-OCT-15
Chlorobenzene			<0.025		mg/L		0.025	27-OCT-15
Chloroform			<0.10		mg/L		0.1	27-OCT-15
Dichloromethane			<0.50		mg/L		0.5	27-OCT-15
Methyl Ethyl Ketone			<1.0		mg/L		1	27-OCT-15
Tetrachloroethylene			<0.025		mg/L		0.025	27-OCT-15



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Client: Covanta - Durham York Renewable Energy LP
 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-TCLP-WT		Waste						
Batch	R3297063							
WG2197189-3	MB							
Trichloroethylene			<0.025		mg/L		0.025	27-OCT-15
Vinyl chloride			<0.050		mg/L		0.05	27-OCT-15
Surrogate: 1,4-Difluorobenzene			98.8		%		50-150	27-OCT-15
Surrogate: 4-Bromofluorobenzene			87.1		%		70-130	27-OCT-15
COMMENTS: 25-OCT-15								
WG2197189-4	MB							
1,1-Dichloroethylene			<0.025		mg/L		0.025	27-OCT-15
1,2-Dichlorobenzene			<0.025		mg/L		0.025	27-OCT-15
1,2-Dichloroethane			<0.025		mg/L		0.025	27-OCT-15
1,4-Dichlorobenzene			<0.025		mg/L		0.025	27-OCT-15
Benzene			<0.025		mg/L		0.025	27-OCT-15
Carbon tetrachloride			<0.025		mg/L		0.025	27-OCT-15
Chlorobenzene			<0.025		mg/L		0.025	27-OCT-15
Chloroform			<0.10		mg/L		0.1	27-OCT-15
Dichloromethane			<0.50		mg/L		0.5	27-OCT-15
Methyl Ethyl Ketone			<1.0		mg/L		1	27-OCT-15
Tetrachloroethylene			<0.025		mg/L		0.025	27-OCT-15
Trichloroethylene			<0.025		mg/L		0.025	27-OCT-15
Vinyl chloride			<0.050		mg/L		0.05	27-OCT-15
Surrogate: 1,4-Difluorobenzene			98.0		%		50-150	27-OCT-15
Surrogate: 4-Bromofluorobenzene			86.8		%		70-130	27-OCT-15
COMMENTS: 26-OCT-15								
WG2197189-7	MS		WG2197189-5					
1,1-Dichloroethylene			113.9		%		50-140	27-OCT-15
1,2-Dichlorobenzene			107.8		%		50-140	27-OCT-15
1,2-Dichloroethane			110.2		%		50-140	27-OCT-15
1,4-Dichlorobenzene			109.9		%		50-140	27-OCT-15
Benzene			115.5		%		50-140	27-OCT-15
Carbon tetrachloride			113.0		%		50-140	27-OCT-15
Chlorobenzene			104.3		%		50-140	27-OCT-15
Chloroform			115.9		%		50-140	27-OCT-15
Dichloromethane			120.2		%		50-140	27-OCT-15
Methyl Ethyl Ketone			113.2		%		50-140	27-OCT-15
Tetrachloroethylene			99.7		%		50-140	27-OCT-15



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Client: Covanta - Durham York Renewable Energy LP
 1835 Energy Drive
 Courtice ON L1E 2R2

Contact: Leon Brasowski

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-TCLP-WT								
	Waste							
Batch	R3297063							
WG2197189-7 MS		WG2197189-5						
Trichloroethylene			107.8		%		50-140	27-OCT-15
Vinyl chloride			118.2		%		50-140	27-OCT-15

Quality Control Report

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Legend:

Limit	ALS Control Limit (Data Quality Objectives)
DUP	Duplicate
RPD	Relative Percent Difference
N/A	Not Available
LCS	Laboratory Control Sample
SRM	Standard Reference Material
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ADE	Average Desorption Efficiency
MB	Method Blank
IRM	Internal Reference Material
CRM	Certified Reference Material
CCV	Continuing Calibration Verification
CVS	Calibration Verification Standard
LCSD	Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
DLM	Detection Limit Adjusted due to sample matrix effects.
M,U	A peak has been manually integrated, and the analyte was not detected above the EDL.
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.
[U]	The analyte was not detected above the EDL.

Hold Time Exceedances:

All test results reported with this submission were conducted within ALS recommended hold times.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.

APPENDIX C

STATISTICAL EVALUATION SPREADSHEET SEPT 29-OCT 3, 2015

Summary of Laboratory Results: Conditioned Fly Ash for the Commissioning Period September 29-October 3, 2015

		TCLP Initial pH	TCLP Final pH	Aldicarb	Aldrin + Dieldrin	Atrazine & Metabolites	Azinphos methyl	Bendiocarb	Benzo(a)- pyrene
INDIVIDUAL RESULTS	Units	pH units	pH units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Sample ID	LOR(a)	0.1	0.1	0.01	0.0004	0.002	0.001	0.005	0.0002
	REG 347 Limit	-	-	0.9	0.07	0.5	2	4	0.001
	Composite Date								
DYEC/FA/150929/1	9/30/2015	12.23	11.38	< 0.01	< 0.0004	< 0.002	< 0.001	< 0.005	< 0.0002
DYEC/FA/150929/2	9/30/2015	12.19	11.41	< 0.01	< 0.0004	< 0.002	< 0.001	< 0.005	< 0.0002
DYEC/FA/150929/3	9/30/2015	12.11	11.4	< 0.01	< 0.0004	< 0.002	< 0.001	< 0.005	< 0.0002
DYEC/FA/150929/4	9/30/2015	12.17	11.49	< 0.01	< 0.0004	< 0.002	< 0.001	< 0.005	< 0.0002
DYEC/FA/150930/1	10/1/2015	12.34	10.52	< 0.01	< 0.0004	< 0.002	< 0.001	< 0.005	< 0.0002
DYEC/FA/150930/2	10/1/2015	12.34	10.54	< 0.01	< 0.0004	< 0.002	< 0.001	< 0.005	< 0.0002
DYEC/FA/150930/3	10/1/2015	12.35	10.52	< 0.01	< 0.0004	< 0.002	< 0.001	< 0.005	< 0.0002
DYEC/FA/150930/4	10/1/2015	12.34	10.51	< 0.01	< 0.0004	< 0.002	< 0.001	< 0.005	< 0.0002
DYEC/FA/151001/1	10/2/2015	12.29	11.57	< 0.01	< 0.0004	< 0.002	< 0.001	< 0.005	< 0.0002
DYEC/FA/151001/2	10/2/2015	12.29	11.57	< 0.01	< 0.0004	< 0.002	< 0.001	< 0.005	< 0.0002
DYEC/FA/151001/3	10/2/2015	12.32	11.6	< 0.01	< 0.0004	< 0.002	< 0.001	< 0.005	< 0.0002
DYEC/FA/151001/4	10/2/2015	12.31	11.56	< 0.01	< 0.0004	< 0.002	< 0.001	< 0.005	< 0.0002
DYEC/FA/151002/1	10/3/2015	12.32	11.52	< 0.01	< 0.0004	< 0.002	< 0.001	< 0.005	< 0.0002
DYEC/FA/151002/2	10/3/2015	12.34	11.53	< 0.01	< 0.0004	< 0.002	< 0.001	< 0.005	< 0.0002
DYEC/FA/151002/3	10/3/2015	12.32	11.5	< 0.01	< 0.0004	< 0.002	< 0.001	< 0.005	< 0.0002
DYEC/FA/151002/4	10/3/2015	12.33	11.5	< 0.01	< 0.0004	< 0.002	< 0.001	< 0.005	< 0.0002
DYEC/FA/151003/1	10/4/2015	12.44	11.61	< 0.01	< 0.0004	< 0.002	< 0.001	< 0.005	< 0.0002
DYEC/FA/151003/2	10/4/2015	12.43	11.6	< 0.01	< 0.0004	< 0.002	< 0.001	< 0.005	< 0.0002
DYEC/FA/151003/3	10/4/2015	12.42	11.61	< 0.01	< 0.0004	< 0.002	< 0.001	< 0.005	< 0.0002
DYEC/FA/151003/4	10/4/2015	12.43	11.59	< 0.01	< 0.0004	< 0.002	< 0.001	< 0.005	< 0.0002

CONSOLIDATED COMPOSITE SAMPLE STATISTICAL RESULTS

NUMBER OF SAMPLES	20	20	20	20	20	20
DEGREES OF FREEDOM	19	19	19	19	19	19
SAMPLE MEAN (XBAR)	0.01	0.0004	0.002	0.001	0.005	0.0002
SAMPLE VARIANCE (S^2)	0.00	0.0000	0.000	0.000	0.000	0.0000
STANDARD DEVIATION (S)	0.00	0.0000	0.000	0.000	0.000	0.0000
STD ERROR (S XBAR)	0.00	0.0000	0.000	0.000	0.000	0.0000
90% CI Upper Limit (actual)	< 0.01	< 0.0004	< 0.002	< 0.001	< 0.005	< 0.0002
MAXIMUM	0.01	0.0004	0.002	0.001	0.005	0.0002
MINIMUM	0.01	0.0004	0.002	0.001	0.005	0.0002
REGULATORY THRESHOLD	0.9	0.07	0.5	2	4	0.001

Summary of Laboratory Results: Conditioned Fly Ash for the Commissioning Period September 29-October 3, 2015

		Bromoxynil	Carbaryl	Carbofuran	Chlordane (Total)	Chlorpyrifos	Cresols (total)	Cyanazine	Cyanide, Weak Acid Diss TCLP
INDIVIDUAL RESULTS	Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Sample ID	LOR(a)	0.002	0.002	0.002	0.003	0.001	0.015	0.001	0.002
	REG 347 Limit	0.5	9	9	0.7	9	200	1	20
	Composite Date								
DYEC/FA/150929/1	9/30/2015	< 0.002	< 0.002	< 0.002	< 0.003	< 0.001	< 0.015	< 0.001	< 0.002
DYEC/FA/150929/2	9/30/2015	< 0.002	< 0.002	< 0.002	< 0.003	< 0.001	< 0.015	< 0.001	< 0.002
DYEC/FA/150929/3	9/30/2015	< 0.002	< 0.002	< 0.002	< 0.003	< 0.001	< 0.015	< 0.001	< 0.002
DYEC/FA/150929/4	9/30/2015	< 0.002	< 0.002	< 0.002	< 0.003	< 0.001	< 0.015	< 0.001	< 0.002
DYEC/FA/150930/1	10/1/2015	< 0.002	< 0.002	< 0.002	< 0.003	< 0.001	< 0.015	< 0.001	< 0.002
DYEC/FA/150930/2	10/1/2015	< 0.002	< 0.002	< 0.002	< 0.003	< 0.001	< 0.015	< 0.001	< 0.002
DYEC/FA/150930/3	10/1/2015	< 0.002	< 0.002	< 0.002	< 0.003	< 0.001	< 0.015	< 0.001	< 0.002
DYEC/FA/150930/4	10/1/2015	< 0.002	< 0.002	< 0.002	< 0.003	< 0.001	< 0.015	< 0.001	< 0.002
DYEC/FA/151001/1	10/2/2015	< 0.002	< 0.002	< 0.002	< 0.003	< 0.001	< 0.015	< 0.001	< 0.002
DYEC/FA/151001/2	10/2/2015	< 0.002	< 0.002	< 0.002	< 0.003	< 0.001	< 0.015	< 0.001	< 0.002
DYEC/FA/151001/3	10/2/2015	< 0.002	< 0.002	< 0.002	< 0.003	< 0.001	< 0.015	< 0.001	< 0.002
DYEC/FA/151001/4	10/2/2015	< 0.002	< 0.002	< 0.002	< 0.003	< 0.001	< 0.015	< 0.001	< 0.002
DYEC/FA/151002/1	10/3/2015	< 0.002	< 0.002	< 0.002	< 0.003	< 0.001	< 0.015	< 0.001	< 0.002
DYEC/FA/151002/2	10/3/2015	< 0.002	< 0.002	< 0.002	< 0.003	< 0.001	< 0.015	< 0.001	< 0.002
DYEC/FA/151002/3	10/3/2015	< 0.002	< 0.002	< 0.002	< 0.003	< 0.001	< 0.015	< 0.001	< 0.002
DYEC/FA/151002/4	10/3/2015	< 0.002	< 0.002	< 0.002	< 0.003	< 0.001	< 0.015	< 0.001	< 0.002
DYEC/FA/151003/1	10/4/2015	< 0.002	< 0.002	< 0.002	< 0.003	< 0.001	< 0.015	< 0.001	< 0.002
DYEC/FA/151003/2	10/4/2015	< 0.002	< 0.002	< 0.002	< 0.003	< 0.001	< 0.015	< 0.001	< 0.002
DYEC/FA/151003/3	10/4/2015	< 0.002	< 0.002	< 0.002	< 0.003	< 0.001	< 0.015	< 0.001	< 0.002
DYEC/FA/151003/4	10/4/2015	< 0.002	< 0.002	< 0.002	< 0.003	< 0.001	< 0.015	< 0.001	< 0.002

CONSOLIDATED COMPOSITE SAMPLE STATIST

NUMBER OF SAMPLES	20	20	20	20	20	20	20	20	20
DEGREES OF FREEDOM	19	19	19	19	19	19	19	19	19
SAMPLE MEAN (XBAR)	0.002	0.002	0.002	0.003	0.001	0.015	0.001	0.002	
SAMPLE VARIANCE (S^2)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
STANDARD DEVIATION (S)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
STD ERROR (S XBAR)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
90% CI Upper Limit (actual)	< 0.002	< 0.002	< 0.002	< 0.003	< 0.001	< 0.015	< 0.001	< 0.002	
MAXIMUM	0.002	0.002	0.002	0.003	0.001	0.015	0.001	0.002	
MINIMUM	0.002	0.002	0.002	0.003	0.001	0.015	0.001	0.002	
REGULATORY THRESHOLD	0.5	9	9	0.7	9	200	1	20	

Summary of Laboratory Results: Conditioned Fly Ash for the Commissioning Period September 29-October 3, 2015

		2,4-D	DDT + metabolites	Diazinon	Dicamba	2,4-Dichloro- phenol	Diclofop methyl	Dimethoate	2,4-Dinitro- toluene
INDIVIDUAL RESULTS	Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Sample ID	LOR(a)	0.002	0.004	0.001	0.005	0.005	0.002	0.001	0.004
	REG 347 Limit	10	3	2	12	90	0.9	2	0.13
	Composite Date								
DYEC/FA/150929/1	9/30/2015	< 0.002	< 0.004	< 0.001	< 0.005	< 0.005	< 0.002	< 0.001	< 0.004
DYEC/FA/150929/2	9/30/2015	< 0.002	< 0.004	< 0.001	< 0.005	< 0.005	< 0.002	< 0.001	< 0.004
DYEC/FA/150929/3	9/30/2015	< 0.002	< 0.004	< 0.001	< 0.005	< 0.005	< 0.002	< 0.001	< 0.004
DYEC/FA/150929/4	9/30/2015	< 0.002	< 0.004	< 0.001	< 0.005	< 0.005	< 0.002	< 0.001	< 0.004
DYEC/FA/150930/1	10/1/2015	< 0.002	< 0.004	< 0.001	< 0.005	< 0.005	< 0.002	< 0.001	< 0.004
DYEC/FA/150930/2	10/1/2015	< 0.002	< 0.004	< 0.001	< 0.005	< 0.005	< 0.002	< 0.001	< 0.004
DYEC/FA/150930/3	10/1/2015	< 0.002	< 0.004	< 0.001	< 0.005	< 0.005	< 0.002	< 0.001	< 0.004
DYEC/FA/150930/4	10/1/2015	< 0.002	< 0.004	< 0.001	< 0.005	< 0.005	< 0.002	< 0.001	< 0.004
DYEC/FA/151001/1	10/2/2015	< 0.002	< 0.004	< 0.001	< 0.005	< 0.005	< 0.002	< 0.001	< 0.004
DYEC/FA/151001/2	10/2/2015	< 0.002	< 0.004	< 0.001	< 0.005	< 0.005	< 0.002	< 0.001	< 0.004
DYEC/FA/151001/3	10/2/2015	< 0.002	< 0.004	< 0.001	< 0.005	< 0.005	< 0.002	< 0.001	< 0.004
DYEC/FA/151001/4	10/2/2015	< 0.002	< 0.004	< 0.001	< 0.005	< 0.005	< 0.002	< 0.001	< 0.004
DYEC/FA/151002/1	10/3/2015	< 0.002	< 0.004	< 0.001	< 0.005	< 0.005	< 0.002	< 0.001	< 0.004
DYEC/FA/151002/2	10/3/2015	< 0.002	< 0.004	< 0.001	< 0.005	< 0.005	< 0.002	< 0.001	< 0.004
DYEC/FA/151002/3	10/3/2015	< 0.002	< 0.004	< 0.001	< 0.005	< 0.005	< 0.002	< 0.001	< 0.004
DYEC/FA/151002/4	10/3/2015	< 0.002	< 0.004	< 0.001	< 0.005	< 0.005	< 0.002	< 0.001	< 0.004
DYEC/FA/151003/1	10/4/2015	< 0.002	< 0.004	< 0.001	< 0.005	< 0.005	< 0.002	< 0.001	< 0.004
DYEC/FA/151003/2	10/4/2015	< 0.002	< 0.004	< 0.001	< 0.005	< 0.005	< 0.002	< 0.001	< 0.004
DYEC/FA/151003/3	10/4/2015	< 0.002	< 0.004	< 0.001	< 0.005	< 0.005	< 0.002	< 0.001	< 0.004
DYEC/FA/151003/4	10/4/2015	< 0.002	< 0.004	< 0.001	< 0.005	< 0.005	< 0.002	< 0.001	< 0.004

CONSOLIDATED COMPOSITE SAMPLE STATIST

NUMBER OF SAMPLES	20	20	20	20	20	20	20	20	20
DEGREES OF FREEDOM	19	19	19	19	19	19	19	19	19
SAMPLE MEAN (XBAR)	0.002	0.004	0.001	0.005	0.005	0.002	0.001	0.004	
SAMPLE VARIANCE (S^2)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
STANDARD DEVIATION (S)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
STD ERROR (S XBAR)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
90% CI Upper Limit (actual)	< 0.002	< 0.004	< 0.001	< 0.005	< 0.005	< 0.002	< 0.001	< 0.004	
MAXIMUM	0.002	0.004	0.001	0.005	0.005	0.002	0.001	0.004	
MINIMUM	0.002	0.004	0.001	0.005	0.005	0.002	0.001	0.004	
REGULATORY THRESHOLD	10	3	2	12	90	0.9	2	0.13	

Summary of Laboratory Results: Conditioned Fly Ash for the Commissioning Period September 29-October 3, 2015

		Dinoseb	Diquat	Diuron	Endrin	Parathion	Fluoride (F) Leachable	gamma-BHC	Glyphosate
INDIVIDUAL RESULTS	Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Sample ID	LOR(a)	0.002	0.1	0.01	0.001	0.001	10	0.001	0.05
	REG 347 Limit	1	7	15	0.02	5	150	0.4	28
	Composite Date								
DYEC/FA/150929/1	9/30/2015	< 0.002	< 0.1	< 0.01	< 0.001	< 0.001	< 10	< 0.001	< 0.05
DYEC/FA/150929/2	9/30/2015	< 0.002	< 0.1	< 0.01	< 0.001	< 0.001	< 10	< 0.001	< 0.05
DYEC/FA/150929/3	9/30/2015	< 0.002	< 0.1	< 0.01	< 0.001	< 0.001	< 10	< 0.001	< 0.05
DYEC/FA/150929/4	9/30/2015	< 0.002	< 0.1	< 0.01	< 0.001	< 0.001	< 10	< 0.001	< 0.05
DYEC/FA/150930/1	10/1/2015	< 0.002	< 0.1	< 0.01	< 0.001	< 0.001	< 10	< 0.001	< 0.05
DYEC/FA/150930/2	10/1/2015	< 0.002	< 0.1	< 0.01	< 0.001	< 0.001	< 10	< 0.001	< 0.05
DYEC/FA/150930/3	10/1/2015	< 0.002	< 0.1	< 0.01	< 0.001	< 0.001	< 10	< 0.001	< 0.05
DYEC/FA/150930/4	10/1/2015	< 0.002	< 0.1	< 0.01	< 0.001	< 0.001	< 10	< 0.001	< 0.05
DYEC/FA/151001/1	10/2/2015	< 0.002	< 0.1	< 0.01	< 0.001	< 0.001	< 10	< 0.001	< 0.05
DYEC/FA/151001/2	10/2/2015	< 0.002	< 0.1	< 0.01	< 0.001	< 0.001	< 10	< 0.001	< 0.05
DYEC/FA/151001/3	10/2/2015	< 0.002	< 0.1	< 0.01	< 0.001	< 0.001	< 10	< 0.001	< 0.05
DYEC/FA/151001/4	10/2/2015	< 0.002	< 0.1	< 0.01	< 0.001	< 0.001	< 10	< 0.001	< 0.05
DYEC/FA/151002/1	10/3/2015	< 0.002	< 0.1	< 0.01	< 0.001	< 0.001	< 10	< 0.001	< 0.05
DYEC/FA/151002/2	10/3/2015	< 0.002	< 0.1	< 0.01	< 0.001	< 0.001	< 10	< 0.001	< 0.05
DYEC/FA/151002/3	10/3/2015	< 0.002	< 0.1	< 0.01	< 0.001	< 0.001	< 10	< 0.001	< 0.05
DYEC/FA/151002/4	10/3/2015	< 0.002	< 0.1	< 0.01	< 0.001	< 0.001	< 10	< 0.001	< 0.05
DYEC/FA/151003/1	10/4/2015	< 0.002	< 0.1	< 0.01	< 0.001	< 0.001	< 10	< 0.001	< 0.05
DYEC/FA/151003/2	10/4/2015	< 0.002	< 0.1	< 0.01	< 0.001	< 0.001	< 10	< 0.001	< 0.05
DYEC/FA/151003/3	10/4/2015	< 0.002	< 0.1	< 0.01	< 0.001	< 0.001	< 10	< 0.001	< 0.05
DYEC/FA/151003/4	10/4/2015	< 0.002	< 0.1	< 0.01	< 0.001	< 0.001	< 10	< 0.001	< 0.05

CONSOLIDATED COMPOSITE SAMPLE STATIST

NUMBER OF SAMPLES	20	20	# 20	20	20	20	20	20	20
DEGREES OF FREEDOM	19	19	# 19	19	19	19	19	19	19
SAMPLE MEAN (XBAR)	0.002	0.1	# 0.01	0.001	0.001	10	0.001	0.05	
SAMPLE VARIANCE (S^2)	0.000	0.0	# 0.00	0.000	0.000	0	0.000	0.00	
STANDARD DEVIATION (S)	0.000	0.0	# 0.00	0.000	0.000	0	0.000	0.00	
STD ERROR (S XBAR)	0.000	0.0	# 0.00	0.000	0.000	0	0.000	0.00	
90% CI Upper Limit (actual)	< 0.002	< 0.1	< 0.01	< 0.001	< 0.001	< 10	< 0.001	< 0.05	
MAXIMUM	0.002	0.1	# 0.01	0.001	0.001	10	0.001	0.05	
MINIMUM	0.002	0.1	# 0.01	0.001	0.001	10	0.001	0.05	
REGULATORY THRESHOLD	1	7	15	0.02	5	150	0.4	28	

Summary of Laboratory Results: Conditioned Fly Ash for the Commissioning Period September 29-October 3, 2015

		Heptachlor + Heptachlor Epoxide	Hexachloro- benzene	Hexachloro- butadiene	Hexachloro- ethane	Malathion	Methoxychlor	Methyl Parathion	Metolachlor
INDIVIDUAL RESULTS	Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Sample ID	LOR(a)	0.002	0.004	0.004	0.004	0.001	0.001	0.001	0.001
	REG 347 Limit	0.3	0.13	0.5	3	19	90	0.7	5
	Composite Date								
DYEC/FA/150929/1	9/30/2015	< 0.002	< 0.004	< 0.004	< 0.004	< 0.001	< 0.001	< 0.001	< 0.001
DYEC/FA/150929/2	9/30/2015	< 0.002	< 0.004	< 0.004	< 0.004	< 0.001	< 0.001	< 0.001	< 0.001
DYEC/FA/150929/3	9/30/2015	< 0.002	< 0.004	< 0.004	< 0.004	< 0.001	< 0.001	< 0.001	< 0.001
DYEC/FA/150929/4	9/30/2015	< 0.002	< 0.004	< 0.004	< 0.004	< 0.001	< 0.001	< 0.001	< 0.001
DYEC/FA/150930/1	10/1/2015	< 0.002	< 0.004	< 0.004	< 0.004	< 0.001	< 0.001	< 0.001	< 0.001
DYEC/FA/150930/2	10/1/2015	< 0.002	< 0.004	< 0.004	< 0.004	< 0.001	< 0.001	< 0.001	< 0.001
DYEC/FA/150930/3	10/1/2015	< 0.002	< 0.004	< 0.004	< 0.004	< 0.001	< 0.001	< 0.001	< 0.001
DYEC/FA/150930/4	10/1/2015	< 0.002	< 0.004	< 0.004	< 0.004	< 0.001	< 0.001	< 0.001	< 0.001
DYEC/FA/151001/1	10/2/2015	< 0.002	< 0.004	< 0.004	< 0.004	< 0.001	< 0.001	< 0.001	< 0.001
DYEC/FA/151001/2	10/2/2015	< 0.002	< 0.004	< 0.004	< 0.004	< 0.001	< 0.001	< 0.001	< 0.001
DYEC/FA/151001/3	10/2/2015	< 0.002	< 0.004	< 0.004	< 0.004	< 0.001	< 0.001	< 0.001	< 0.001
DYEC/FA/151001/4	10/2/2015	< 0.002	< 0.004	< 0.004	< 0.004	< 0.001	< 0.001	< 0.001	< 0.001
DYEC/FA/151002/1	10/3/2015	< 0.002	< 0.004	< 0.004	< 0.004	< 0.001	< 0.001	< 0.001	< 0.001
DYEC/FA/151002/2	10/3/2015	< 0.002	< 0.004	< 0.004	< 0.004	< 0.001	< 0.001	< 0.001	< 0.001
DYEC/FA/151002/3	10/3/2015	< 0.002	< 0.004	< 0.004	< 0.004	< 0.001	< 0.001	< 0.001	< 0.001
DYEC/FA/151002/4	10/3/2015	< 0.002	< 0.004	< 0.004	< 0.004	< 0.001	< 0.001	< 0.001	< 0.001
DYEC/FA/151003/1	10/4/2015	< 0.002	< 0.004	< 0.004	< 0.004	< 0.001	< 0.001	< 0.001	< 0.001
DYEC/FA/151003/2	10/4/2015	< 0.002	< 0.004	< 0.004	< 0.004	< 0.001	< 0.001	< 0.001	< 0.001
DYEC/FA/151003/3	10/4/2015	< 0.002	< 0.004	< 0.004	< 0.004	< 0.001	< 0.001	< 0.001	< 0.001
DYEC/FA/151003/4	10/4/2015	< 0.002	< 0.004	< 0.004	< 0.004	< 0.001	< 0.001	< 0.001	< 0.001

CONSOLIDATED COMPOSITE SAMPLE STATIST

NUMBER OF SAMPLES	20	20	20	20	20	20	20	20	20
DEGREES OF FREEDOM	19	19	19	19	19	19	19	19	19
SAMPLE MEAN (XBAR)	0.002	0.004	0.004	0.004	0.001	0.001	0.001	0.001	0.001
SAMPLE VARIANCE (S^2)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
STANDARD DEVIATION (S)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
STD ERROR (S XBAR)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
90% CI Upper Limit (actual)	< 0.002	< 0.004	< 0.004	< 0.004	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
MAXIMUM	0.002	0.004	0.004	0.004	0.001	0.001	0.001	0.001	0.001
MINIMUM	0.002	0.004	0.004	0.004	0.001	0.001	0.001	0.001	0.001
REGULATORY THRESHOLD	0.3	0.13	0.5	3	19	90	0.7	5	

Summary of Laboratory Results: Conditioned Fly Ash for the Commissioning Period September 29-October 3, 2015

		Metribuzin	Nitrate and Nitrite as N	Nitrilotriacetic Acid (NTA)	Nitrobenzene	N-Nitrosodimethylamine	Paraquat	Total PCBs	Pentachlorophenol
INDIVIDUAL RESULTS	Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Sample ID	LOR(a)	0.001	2.8	40	0.004	0.0002	0.1	0.0004	0.005
	REG 347 Limit	8	1000	40	2	0.0009	1	0.3	6
	Composite Date								
DYEC/FA/150929/1	9/30/2015	< 0.001	< 2.8	< 40	< 0.004	< 0.0002	< 0.1	< 0.0004	< 0.005
DYEC/FA/150929/2	9/30/2015	< 0.001	< 2.8	< 40	< 0.004	< 0.0002	< 0.1	< 0.0004	< 0.005
DYEC/FA/150929/3	9/30/2015	< 0.001	< 2.8	< 40	< 0.004	< 0.0002	< 0.1	< 0.0004	< 0.005
DYEC/FA/150929/4	9/30/2015	< 0.001	< 2.8	< 40	< 0.004	< 0.0002	< 0.1	< 0.0004	< 0.005
DYEC/FA/150930/1	10/1/2015	< 0.001	< 2.8	< 40	< 0.004	< 0.0002	< 0.1	< 0.0004	< 0.005
DYEC/FA/150930/2	10/1/2015	< 0.001	< 2.8	< 40	< 0.004	< 0.0002	< 0.1	< 0.0004	< 0.005
DYEC/FA/150930/3	10/1/2015	< 0.001	< 2.8	< 40	< 0.004	< 0.0002	< 0.1	< 0.0004	< 0.005
DYEC/FA/150930/4	10/1/2015	< 0.001	< 2.8	< 40	< 0.004	< 0.0002	< 0.1	< 0.0004	< 0.005
DYEC/FA/151001/1	10/2/2015	< 0.001	< 2.8	< 40	< 0.004	< 0.0002	< 0.1	< 0.0004	< 0.005
DYEC/FA/151001/2	10/2/2015	< 0.001	< 2.8	< 40	< 0.004	< 0.0002	< 0.1	< 0.0004	< 0.005
DYEC/FA/151001/3	10/2/2015	< 0.001	< 2.8	< 40	< 0.004	< 0.0002	< 0.1	< 0.0004	< 0.005
DYEC/FA/151001/4	10/2/2015	< 0.001	< 2.8	< 40	< 0.004	< 0.0002	< 0.1	< 0.0004	< 0.005
DYEC/FA/151002/1	10/3/2015	< 0.001	< 2.8	< 40	< 0.004	< 0.0002	< 0.1	< 0.0004	< 0.005
DYEC/FA/151002/2	10/3/2015	< 0.001	< 2.8	< 40	< 0.004	< 0.0002	< 0.1	< 0.0004	< 0.005
DYEC/FA/151002/3	10/3/2015	< 0.001	< 2.8	< 40	< 0.004	< 0.0002	< 0.1	< 0.0004	< 0.005
DYEC/FA/151002/4	10/3/2015	< 0.001	< 2.8	< 40	< 0.004	< 0.0002	< 0.1	< 0.0004	< 0.005
DYEC/FA/151003/1	10/4/2015	< 0.001	< 2.8	< 40	< 0.004	< 0.0002	< 0.1	< 0.0004	< 0.005
DYEC/FA/151003/2	10/4/2015	< 0.001	< 2.8	< 40	< 0.004	< 0.0002	< 0.1	< 0.0004	< 0.005
DYEC/FA/151003/3	10/4/2015	< 0.001	< 2.8	< 40	< 0.004	< 0.0002	< 0.1	< 0.0004	< 0.005
DYEC/FA/151003/4	10/4/2015	< 0.001	< 2.8	< 40	< 0.004	< 0.0002	< 0.1	< 0.0004	< 0.005

CONSOLIDATED COMPOSITE SAMPLE STATIST

NUMBER OF SAMPLES	20	20	20	20	20	20	20	20	20
DEGREES OF FREEDOM	19	19	19	19	19	19	19	19	19
SAMPLE MEAN (XBAR)	0.001	2.8	40	0.004	0.0002	0.1	0.0004	0.005	
SAMPLE VARIANCE (S^2)	0.000	0.0	0	0.000	0.0000	0.0	0.0000	0.000	
STANDARD DEVIATION (S)	0.000	0.0	0	0.000	0.0000	0.0	0.0000	0.000	
STD ERROR (S XBAR)	0.000	0.0	0	0.000	0.0000	0.0	0.0000	0.000	
90% CI Upper Limit (actual)	< 0.001	< 2.8	< 40	< 0.004	< 0.0002	< 0.1	< 0.0004	< 0.005	
MAXIMUM	0.001	2.8	40	0.004	0.0002	0.1	0.0004	0.005	
MINIMUM	0.001	2.8	20	0.004	0.0002	0.1	0.0004	0.005	
REGULATORY THRESHOLD	8	1000	40	2	0.0009	1	0.3	6	

Summary of Laboratory Results: Conditioned Fly Ash for the Commissioning Period September 29-October 3, 2015

		Phorate	Picloram	Pyridine	Simazine	2,4,5-T	Temephos	Terbufos	2,3,4,6-Tetrachlorophenol
INDIVIDUAL RESULTS	Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Sample ID	LOR(a)	0.001	0.005	5	0.001	0.002	0.001	0.002	0.005
	REG 347 Limit	0.2	19	5	1	28	28	0.1	10
	Composite Date								
DYEC/FA/150929/1	9/30/2015	< 0.001	< 0.005	< 5	< 0.001	< 0.002	< 0.001	< 0.002	< 0.005
DYEC/FA/150929/2	9/30/2015	< 0.001	< 0.005	< 5	< 0.001	< 0.002	< 0.001	< 0.002	< 0.005
DYEC/FA/150929/3	9/30/2015	< 0.001	< 0.005	< 5	< 0.001	< 0.002	< 0.001	< 0.002	< 0.005
DYEC/FA/150929/4	9/30/2015	< 0.001	< 0.005	< 5	< 0.001	< 0.002	< 0.001	< 0.002	< 0.005
DYEC/FA/150930/1	10/1/2015	< 0.001	< 0.005	< 5	< 0.001	< 0.002	< 0.001	< 0.002	< 0.005
DYEC/FA/150930/2	10/1/2015	< 0.001	< 0.005	< 5	< 0.001	< 0.002	< 0.001	< 0.002	< 0.005
DYEC/FA/150930/3	10/1/2015	< 0.001	< 0.005	< 5	< 0.001	< 0.002	< 0.001	< 0.002	< 0.005
DYEC/FA/150930/4	10/1/2015	< 0.001	< 0.005	< 5	< 0.001	< 0.002	< 0.001	< 0.002	< 0.005
DYEC/FA/151001/1	10/2/2015	< 0.001	< 0.005	< 5	< 0.001	< 0.002	< 0.001	< 0.002	< 0.005
DYEC/FA/151001/2	10/2/2015	< 0.001	< 0.005	< 5	< 0.001	< 0.002	< 0.001	< 0.002	< 0.005
DYEC/FA/151001/3	10/2/2015	< 0.001	< 0.005	< 5	< 0.001	< 0.002	< 0.001	< 0.002	< 0.005
DYEC/FA/151001/4	10/2/2015	< 0.001	< 0.005	< 5	< 0.001	< 0.002	< 0.001	< 0.002	< 0.005
DYEC/FA/151002/1	10/3/2015	< 0.001	< 0.005	< 5	< 0.001	< 0.002	< 0.001	< 0.002	< 0.005
DYEC/FA/151002/2	10/3/2015	< 0.001	< 0.005	< 5	< 0.001	< 0.002	< 0.001	< 0.002	< 0.005
DYEC/FA/151002/3	10/3/2015	< 0.001	< 0.005	< 5	< 0.001	< 0.002	< 0.001	< 0.002	< 0.005
DYEC/FA/151002/4	10/3/2015	< 0.001	< 0.005	< 5	< 0.001	< 0.002	< 0.001	< 0.002	< 0.005
DYEC/FA/151003/1	10/4/2015	< 0.001	< 0.005	< 5	< 0.001	< 0.002	< 0.001	< 0.002	< 0.005
DYEC/FA/151003/2	10/4/2015	< 0.001	< 0.005	< 5	< 0.001	< 0.002	< 0.001	< 0.002	< 0.005
DYEC/FA/151003/3	10/4/2015	< 0.001	< 0.005	< 5	< 0.001	< 0.002	< 0.001	< 0.002	< 0.005
DYEC/FA/151003/4	10/4/2015	< 0.001	< 0.005	< 5	< 0.001	< 0.002	< 0.001	< 0.002	< 0.005

CONSOLIDATED COMPOSITE SAMPLE STATIST

NUMBER OF SAMPLES	20	20	20	20	20	20	20	20	20
DEGREES OF FREEDOM	19	19	19	19	19	19	19	19	19
SAMPLE MEAN (XBAR)	0.001	0.005	5	0.001	0.002	0.001	0.002	0.005	0.005
SAMPLE VARIANCE (S^2)	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000
STANDARD DEVIATION (S)	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000
STD ERROR (S XBAR)	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000
90% CI Upper Limit (actual)	< 0.001	< 0.005	< 5	< 0.001	< 0.002	< 0.001	< 0.002	< 0.005	< 0.005
MAXIMUM	0.001	0.005	5	0.001	0.002	0.001	0.002	0.005	0.005
MINIMUM	0.001	0.005	5	0.001	0.002	0.001	0.002	0.005	0.005
REGULATORY THRESHOLD	0.2	19	5	1	28	28	0.1	10	10

Summary of Laboratory Results: Conditioned Fly Ash for the Commissioning Period September 29-October 3, 2015

		Toxaphene	2,4,5-TP	Triallate	2,4,5-Trichloro-phenol	2,4,6-Trichloro-phenol	Trifluralin	Arsenic (As) Leachable	Barium (Ba) Leachable
INDIVIDUAL RESULTS	Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Sample ID	LOR(a)	0.0035	0.002	0.001	0.005	0.005	0.005	0.05	0.5
	REG 347 Limit	0.5	1	23	400	0.5	4.5	2.5	100
	Composite Date								
DYEC/FA/150929/1	9/30/2015	< 0.0035	< 0.002	< 0.001	< 0.005	< 0.005	< 0.005	< 0.05	1.28
DYEC/FA/150929/2	9/30/2015	< 0.0035	< 0.002	< 0.001	< 0.005	< 0.005	< 0.005	< 0.05	1.25
DYEC/FA/150929/3	9/30/2015	< 0.0035	< 0.002	< 0.001	< 0.005	< 0.005	< 0.005	< 0.05	1.25
DYEC/FA/150929/4	9/30/2015	< 0.0035	< 0.002	< 0.001	< 0.005	< 0.005	< 0.005	< 0.05	1.33
DYEC/FA/150930/1	10/1/2015	< 0.0035	< 0.002	< 0.001	< 0.005	< 0.005	< 0.005	< 0.05	1.19
DYEC/FA/150930/2	10/1/2015	< 0.0035	< 0.002	< 0.001	< 0.005	< 0.005	< 0.005	< 0.05	1.16
DYEC/FA/150930/3	10/1/2015	< 0.0035	< 0.002	< 0.001	< 0.005	< 0.005	< 0.005	< 0.05	1.13
DYEC/FA/150930/4	10/1/2015	< 0.0035	< 0.002	< 0.001	< 0.005	< 0.005	< 0.005	< 0.05	1.14
DYEC/FA/151001/1	10/2/2015	< 0.0035	< 0.002	< 0.001	< 0.005	< 0.005	< 0.005	< 0.05	1.74
DYEC/FA/151001/2	10/2/2015	< 0.0035	< 0.002	< 0.001	< 0.005	< 0.005	< 0.005	< 0.05	1.92
DYEC/FA/151001/3	10/2/2015	< 0.0035	< 0.002	< 0.001	< 0.005	< 0.005	< 0.005	< 0.05	2.11
DYEC/FA/151001/4	10/2/2015	< 0.0035	< 0.002	< 0.001	< 0.005	< 0.005	< 0.005	< 0.05	2.08
DYEC/FA/151002/1	10/3/2015	< 0.0035	< 0.002	< 0.001	< 0.005	< 0.005	< 0.005	< 0.05	1.78
DYEC/FA/151002/2	10/3/2015	< 0.0035	< 0.002	< 0.001	< 0.005	< 0.005	< 0.005	< 0.05	1.68
DYEC/FA/151002/3	10/3/2015	< 0.0035	< 0.002	< 0.001	< 0.005	< 0.005	< 0.005	< 0.05	1.85
DYEC/FA/151002/4	10/3/2015	< 0.0035	< 0.002	< 0.001	< 0.005	< 0.005	< 0.005	< 0.05	1.95
DYEC/FA/151003/1	10/4/2015	< 0.0035	< 0.002	< 0.001	< 0.005	< 0.005	< 0.005	< 0.05	1.66
DYEC/FA/151003/2	10/4/2015	< 0.0035	< 0.002	< 0.001	< 0.005	< 0.005	< 0.005	< 0.05	1.62
DYEC/FA/151003/3	10/4/2015	< 0.0035	< 0.002	< 0.001	< 0.005	< 0.005	< 0.005	< 0.05	1.75
DYEC/FA/151003/4	10/4/2015	< 0.0035	< 0.002	< 0.001	< 0.005	< 0.005	< 0.005	< 0.05	1.7

CONSOLIDATED COMPOSITE SAMPLE STATIST

NUMBER OF SAMPLES	20	20	20	20	20	20	20	20	20
DEGREES OF FREEDOM	19	19	19	19	19	19	19	19	19
SAMPLE MEAN (XBAR)	0.0035	0.002	0.001	0.005	0.005	0.005	0.005	0.05	1.58
SAMPLE VARIANCE (S^2)	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.00	0.11
STANDARD DEVIATION (S)	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.00	0.33
STD ERROR (S XBAR)	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.00	0.07
90% CI Upper Limit (actual)	< 0.0035	< 0.002	< 0.001	< 0.005	< 0.005	< 0.005	< 0.005	< 0.05	1.68
MAXIMUM	0.0035	0.002	0.001	0.005	0.005	0.005	0.005	0.05	2.11
MINIMUM	0.0035	0.002	0.001	0.005	0.005	0.005	0.005	0.05	1.13
REGULATORY THRESHOLD	0.5	1	23	400	0.5	4.5	2.5	100	

Summary of Laboratory Results: Conditioned Fly Ash for the Commissioning Period September 29-October 3, 2015

		Boron (B) Leachable	Cadmium (Cd) Leachable	Chromium (Cr) Leachable	Lead (Pb) Leachable	Mercury (Hg) TCLP	Selenium (Se) Leachable	Silver (Ag) Leachable	Uranium (U) Leachable
INDIVIDUAL RESULTS	Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Sample ID	LOR(a)	2.5	0.005	0.05	0.05	0.0001	0.25	0.005	0.25
	REG 347 Limit	500	0.5	5	5	0.1	1	5	10
	Composite Date								
DYEC/FA/150929/1	9/30/2015	< 2.5	< 0.005	< 0.05	< 0.05	< 0.0001	< 0.25	< 0.005	< 0.25
DYEC/FA/150929/2	9/30/2015	< 2.5	< 0.005	< 0.05	< 0.05	< 0.0001	< 0.25	< 0.005	< 0.25
DYEC/FA/150929/3	9/30/2015	< 2.5	< 0.005	< 0.05	< 0.05	< 0.0001	< 0.25	< 0.005	< 0.25
DYEC/FA/150929/4	9/30/2015	< 2.5	< 0.005	< 0.05	< 0.05	< 0.0001	< 0.25	< 0.005	< 0.25
DYEC/FA/150930/1	10/1/2015	< 2.5	< 0.005	< 0.05	< 0.05	< 0.0001	< 0.25	< 0.005	< 0.25
DYEC/FA/150930/2	10/1/2015	< 2.5	< 0.005	< 0.05	< 0.05	< 0.0001	< 0.25	< 0.005	< 0.25
DYEC/FA/150930/3	10/1/2015	< 2.5	< 0.005	< 0.05	< 0.05	< 0.0001	< 0.25	< 0.005	< 0.25
DYEC/FA/150930/4	10/1/2015	< 2.5	< 0.005	< 0.05	< 0.05	< 0.0001	< 0.25	< 0.005	< 0.25
DYEC/FA/151001/1	10/2/2015	< 2.5	< 0.005	< 0.05	< 0.05	< 0.0001	< 0.25	< 0.005	< 0.25
DYEC/FA/151001/2	10/2/2015	< 2.5	< 0.005	< 0.05	< 0.05	< 0.0001	< 0.25	< 0.005	< 0.25
DYEC/FA/151001/3	10/2/2015	< 2.5	< 0.005	< 0.05	< 0.05	< 0.0001	< 0.25	< 0.005	< 0.25
DYEC/FA/151001/4	10/2/2015	< 2.5	< 0.005	< 0.05	< 0.05	< 0.0001	< 0.25	< 0.005	< 0.25
DYEC/FA/151002/1	10/3/2015	< 2.5	< 0.005	< 0.05	< 0.05	< 0.0001	< 0.25	< 0.005	< 0.25
DYEC/FA/151002/2	10/3/2015	< 2.5	< 0.005	< 0.05	< 0.05	< 0.0001	< 0.25	< 0.005	< 0.25
DYEC/FA/151002/3	10/3/2015	< 2.5	< 0.005	< 0.05	< 0.05	< 0.0001	< 0.25	< 0.005	< 0.25
DYEC/FA/151002/4	10/3/2015	< 2.5	< 0.005	< 0.05	< 0.05	< 0.0001	< 0.25	< 0.005	< 0.25
DYEC/FA/151003/1	10/4/2015	< 2.5	< 0.005	< 0.05	< 0.05	< 0.0001	< 0.25	< 0.005	< 0.25
DYEC/FA/151003/2	10/4/2015	< 2.5	< 0.005	< 0.05	< 0.05	< 0.0001	< 0.25	< 0.005	< 0.25
DYEC/FA/151003/3	10/4/2015	< 2.5	< 0.005	< 0.05	< 0.05	< 0.0001	< 0.25	< 0.005	< 0.25
DYEC/FA/151003/4	10/4/2015	< 2.5	< 0.005	< 0.05	< 0.05	< 0.0001	< 0.25	< 0.005	< 0.25

CONSOLIDATED COMPOSITE SAMPLE STATIST

NUMBER OF SAMPLES	20	20	20	20	20	20	20	20	20
DEGREES OF FREEDOM	19	19	19	19	19	19	19	19	19
SAMPLE MEAN (XBAR)	2.5	0.005	0.05	0.05	0.0001	0.25	0.005	0.25	
SAMPLE VARIANCE (S^2)	0.0	0.000	0.00	0.00	0.0000	0.00	0.000	0.00	
STANDARD DEVIATION (S)	0.0	0.000	0.00	0.00	0.0000	0.00	0.000	0.00	
STD ERROR (S XBAR)	0.0	0.000	0.00	0.00	0.0000	0.00	0.000	0.00	
90% CI Upper Limit (actual)	< 2.5	< 0.005	< 0.05	< 0.05	< 0.0001	< 0.25	< 0.005	< 0.25	
MAXIMUM	2.5	0.005	0.05	0.05	0.0001	0.25	0.005	0.25	
MINIMUM	2.5	0.005	0.05	0.05	0.0001	0.25	0.005	0.25	
REGULATORY THRESHOLD	500	0.5	5	5	0.1	1	5	10	

Summary of Laboratory Results: Conditioned Fly Ash for the Commissioning Period September 29-October 3, 2015

		1,1-Dichloro-ethylene	1,2-Dichloro-benzene	1,2-Dichloro-ethane	1,4-Dichloro-benzene	Benzene	Carbon tetrachloride	Chloro-benzene	Chloroform
INDIVIDUAL RESULTS	Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Sample ID	LOR(a)	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.1
	REG 347 Limit	1.4	20	0.5	0.5	0.5	0.5	8	10
	Composite Date								
DYEC/FA/150929/1	9/30/2015	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.1
DYEC/FA/150929/2	9/30/2015	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.1
DYEC/FA/150929/3	9/30/2015	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.1
DYEC/FA/150929/4	9/30/2015	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.1
DYEC/FA/150930/1	10/1/2015	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.1
DYEC/FA/150930/2	10/1/2015	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.1
DYEC/FA/150930/3	10/1/2015	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.1
DYEC/FA/150930/4	10/1/2015	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.1
DYEC/FA/151001/1	10/2/2015	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.1
DYEC/FA/151001/2	10/2/2015	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.1
DYEC/FA/151001/3	10/2/2015	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.1
DYEC/FA/151001/4	10/2/2015	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.1
DYEC/FA/151002/1	10/3/2015	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.1
DYEC/FA/151002/2	10/3/2015	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.1
DYEC/FA/151002/3	10/3/2015	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.1
DYEC/FA/151002/4	10/3/2015	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.1
DYEC/FA/151003/1	10/4/2015	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.1
DYEC/FA/151003/2	10/4/2015	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.1
DYEC/FA/151003/3	10/4/2015	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.1
DYEC/FA/151003/4	10/4/2015	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.1

CONSOLIDATED COMPOSITE SAMPLE STATIST

NUMBER OF SAMPLES	20	20	20	20	20	20	20	20	20
DEGREES OF FREEDOM	19	19	19	19	19	19	19	19	19
SAMPLE MEAN (XBAR)	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.1
SAMPLE VARIANCE (S^2)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.0
STANDARD DEVIATION (S)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.0
STD ERROR (S XBAR)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.0
90% CI Upper Limit (actual)	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.1
MAXIMUM	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.1
MINIMUM	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.1
REGULATORY THRESHOLD	1.4	20	0.5	0.5	0.5	0.5	0.5	8	10

Summary of Laboratory Results: Conditioned Fly Ash for the Commissioning Period September 29-October 3, 2015

		Dichloro- methane	Methyl Ethyl Ketone	Tetrachloro- ethylene	Trichloro- ethylene	Vinyl chloride	Lower Bound PCDD/F TEQ (WHO 2005)	Mid Point PCDD/F TEQ (WHO 2005)	Upper Bound PCDD/F TEQ (WHO 2005)
INDIVIDUAL RESULTS	Units	mg/L	mg/L	mg/L	mg/L	mg/L	pg/L	pg/L	pg/L
Sample ID	LOR(a)	0.5	1	0.025	0.025	0.05	n/a	n/a	n/a
	REG 347 Limit	5	200	3	5	0.2	-	-	1500
	Composite Date								
DYEC/FA/150929/1	9/30/2015	< 0.5	< 1	< 0.025	< 0.025	< 0.05	0.00021	1.48	2.86
DYEC/FA/150929/2	9/30/2015	< 0.5	< 1	< 0.025	< 0.025	< 0.05	0	1.68	3.36
DYEC/FA/150929/3	9/30/2015	< 0.5	< 1	< 0.025	< 0.025	< 0.05	0	1.39	2.79
DYEC/FA/150929/4	9/30/2015	< 0.5	< 1	< 0.025	< 0.025	< 0.05	0.0033	1.31	2.6
DYEC/FA/150930/1	10/1/2015	< 0.5	< 1	< 0.025	< 0.025	< 0.05	0	1.43	2.83
DYEC/FA/150930/2	10/1/2015	< 0.5	< 1	< 0.025	< 0.025	< 0.05	0	1.53	3.07
DYEC/FA/150930/3	10/1/2015	< 0.5	< 1	< 0.025	< 0.025	< 0.05	0	1.29	2.53
DYEC/FA/150930/4	10/1/2015	< 0.5	< 1	< 0.025	< 0.025	< 0.05	0	1.43	2.86
DYEC/FA/151001/1	10/2/2015	< 0.5	< 1	< 0.025	< 0.025	< 0.05	0	6.03	12.1
DYEC/FA/151001/2	10/2/2015	< 0.5	< 1	< 0.025	< 0.025	< 0.05	0	1.94	3.89
DYEC/FA/151001/3	10/2/2015	< 0.5	< 1	< 0.025	< 0.025	< 0.05	0	2.96	5.8
DYEC/FA/151001/4	10/2/2015	< 0.5	< 1	< 0.025	< 0.025	< 0.05	0	2.21	4.42
DYEC/FA/151002/1	10/3/2015	< 0.5	< 1	< 0.025	< 0.025	< 0.05	0	2.43	4.8
DYEC/FA/151002/2	10/3/2015	< 0.5	< 1	< 0.025	< 0.025	< 0.05	0	3	6
DYEC/FA/151002/3	10/3/2015	< 0.5	< 1	< 0.025	< 0.025	< 0.05	0	5.81	11.6
DYEC/FA/151002/4	10/3/2015	< 0.5	< 1	< 0.025	< 0.025	< 0.05	0	5.34	10.7
DYEC/FA/151003/1	10/4/2015	< 0.5	< 1	< 0.025	< 0.025	< 0.05	0	3.09	6.18
DYEC/FA/151003/2	10/4/2015	< 0.5	< 1	< 0.025	< 0.025	< 0.05	0	3.34	6.67
DYEC/FA/151003/3	10/4/2015	< 0.5	< 1	< 0.025	< 0.025	< 0.05	0	3.82	7.64
DYEC/FA/151003/4	10/4/2015	< 0.5	< 1	< 0.025	< 0.025	< 0.05	0	2.8	5.6

CONSOLIDATED COMPOSITE SAMPLE STATIST

NUMBER OF SAMPLES	20	20	20	20	20	20	20	20	20
DEGREES OF FREEDOM	19	19	19	19	19	19	19	19	19
SAMPLE MEAN (XBAR)	0.5	1	0.025	0.025	0.05	0.00	2.72	5.42	
SAMPLE VARIANCE (S^2)	0.0	0	0.000	0.000	0.00	0.00	2.28	9.20	
STANDARD DEVIATION (S)	0.0	0	0.000	0.000	0.00	0.00	1.51	3.03	
STD ERROR (S XBAR)	0.0	0	0.000	0.000	0.00	0.00	0.34	0.68	
90% CI Upper Limit (actual)	< 0.5	< 1	< 0.025	< 0.025	< 0.05	0.00	3.16	6.32	
MAXIMUM	0.5	1	0.025	0.025	0.05	0.00	6.03	12.10	
MINIMUM	0.5	1	0.025	0.025	0.05	0.00	1.29	2.53	
REGULATORY THRESHOLD	5	200	3	5	0.2	-	-	1500	

APPENDIX D

STATISTICAL EVALUATION SPREADSHEET OCT 22-26, 2015

Summary of Laboratory Results: Coditioned Fly Ash Summary for the Commissioning Period Ocober 22-26, 2015

		TCLP Initial pH	TCLP Final pH	Aldicarb	Aldrin + Dieldrin	Atrazine & Metabolites	Azinphos methyl	Bendiocarb	Benzo(a)- pyrene
INDIVIDUAL RESULTS	Units	pH units	pH units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Sample ID	LOR(a)	0.1	0.1	0.01	0.0004	0.002	0.001	0.005	0.0002
	REG 347 Limit	-	-	0.9	0.07	0.5	2	4	0.001
	Composite Date								
DYEC/FA/151022/1	10/23/2015	12.37	12.17	< 0.01	< 0.0004	< 0.002	< 0.001	< 0.005	< 0.0002
DYEC/FA/151022/2	10/23/2015	12.37	12.18	< 0.01	< 0.0004	< 0.002	< 0.001	< 0.005	< 0.0002
DYEC/FA/151022/3	10/23/2015	12.37	12.17	< 0.01	< 0.0004	< 0.002	< 0.001	< 0.005	< 0.0002
DYEC/FA/151022/4	10/23/2015	12.37	12.16	< 0.01	< 0.0004	< 0.002	< 0.001	< 0.005	< 0.0002
DYEC/FA/151023/1	10/24/2015	12.38	12.17	< 0.01	< 0.0004	< 0.002	< 0.001	< 0.005	< 0.0002
DYEC/FA/151023/2	10/24/2015	12.39	12.19	< 0.01	< 0.0004	< 0.002	< 0.001	< 0.005	< 0.0002
DYEC/FA/151023/3	10/24/2015	12.38	12.17	< 0.01	< 0.0004	< 0.002	< 0.001	< 0.005	< 0.0002
DYEC/FA/151023/4	10/24/2015	12.38	12.20	< 0.01	< 0.0004	< 0.002	< 0.001	< 0.005	< 0.0002
DYEC/FA/151024/1	10/25/2015	12.33	11.70	< 0.01	< 0.0004	< 0.002	< 0.001	< 0.005	< 0.0002
DYEC/FA/151024/2	10/25/2015	12.32	11.69	< 0.01	< 0.0004	< 0.002	< 0.001	< 0.005	< 0.0002
DYEC/FA/151024/3	10/25/2015	12.32	11.70	< 0.01	< 0.0004	< 0.002	< 0.001	< 0.005	< 0.0002
DYEC/FA/151024/4	10/25/2015	12.33	11.68	< 0.01	< 0.0004	< 0.002	< 0.001	< 0.005	< 0.0002
DYEC/FA/151025/1	10/26/2015	12.36	11.51	< 0.01	< 0.0004	< 0.002	< 0.001	< 0.005	< 0.0002
DYEC/FA/151025/2	10/26/2015	12.37	11.50	< 0.01	< 0.0004	< 0.002	< 0.001	< 0.005	< 0.0002
DYEC/FA/151025/3	10/26/2015	12.35	11.51	< 0.01	< 0.0004	< 0.002	< 0.001	< 0.005	< 0.0002
DYEC/FA/151025/4	10/26/2015	12.37	11.50	< 0.01	< 0.0004	< 0.002	< 0.001	< 0.005	< 0.0002
DYEC/FA/151026/1	10/27/2015	12.31	11.58	< 0.01	< 0.0004	< 0.002	< 0.001	< 0.005	< 0.0002
DYEC/FA/151026/2	10/27/2015	12.32	11.60	< 0.01	< 0.0004	< 0.002	< 0.001	< 0.005	< 0.0002
DYEC/FA/151026/3	10/27/2015	12.32	11.70	< 0.01	< 0.0004	< 0.002	< 0.001	< 0.005	< 0.0002
DYEC/FA/151026/4	10/27/2015	12.31	11.58	< 0.01	< 0.0004	< 0.002	< 0.001	< 0.005	< 0.0002

CONSOLIDATED COMPOSITE SAMPLE STATISTICAL RESULTS

NUMBER OF SAMPLES	20	20	20	20	20	20
DEGREES OF FREEDOM	19	19	19	19	19	19
SAMPLE MEAN (XBAR)	0.01	0.0004	0.002	0.001	0.005	0.0002
SAMPLE VARIANCE (S^2)	0.00	0.0000	0.000	0.000	0.000	0.0000
STANDARD DEVIATION (S)	0.00	0.0000	0.000	0.000	0.000	0.0000
STD ERROR (S XBAR)	0.00	0.0000	0.000	0.000	0.000	0.0000
90% CI Upper Limit (actual)	< 0.01	< 0.0004	< 0.002	< 0.001	< 0.005	< 0.0002
MAXIMUM	0.01	0.0004	0.002	0.001	0.005	0.0002
MINIMUM	0.01	0.0004	0.002	0.001	0.005	0.0002
REGULATORY THRESHOLD	0.9	0.07	0.5	2	4	0.001

Summary of Laboratory Results: Coditioned Fly Ash Summary for the Commissioning Period October 22-26, 2015

		Bromoxynil	Carbaryl	Carbofuran	Chlordane (Total)	Chlorpyrifos	Cresols (total)	Cyanazine	Cyanide, Weak Acid Diss TCLP
INDIVIDUAL RESULTS	Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Sample ID	LOR(a)	0.002	0.002	0.002	0.003	0.001	0.015	0.001	0.002
	REG 347 Limit	0.5	9	9	0.7	9	200	1	20
	Composite Date								
DYEC/FA/151022/1	10/23/2015	< 0.002	< 0.002	< 0.002	< 0.003	< 0.001	< 0.015	< 0.001	< 0.002
DYEC/FA/151022/2	10/23/2015	< 0.002	< 0.002	< 0.002	< 0.003	< 0.001	< 0.015	< 0.001	< 0.002
DYEC/FA/151022/3	10/23/2015	< 0.002	< 0.002	< 0.002	< 0.003	< 0.001	< 0.015	< 0.001	< 0.002
DYEC/FA/151022/4	10/23/2015	< 0.002	< 0.002	< 0.002	< 0.003	< 0.001	< 0.015	< 0.001	< 0.002
DYEC/FA/151023/1	10/24/2015	< 0.002	< 0.002	< 0.002	< 0.003	< 0.001	< 0.015	< 0.001	< 0.002
DYEC/FA/151023/2	10/24/2015	< 0.002	< 0.002	< 0.002	< 0.003	< 0.001	< 0.015	< 0.001	< 0.002
DYEC/FA/151023/3	10/24/2015	< 0.002	< 0.002	< 0.002	< 0.003	< 0.001	< 0.015	< 0.001	< 0.002
DYEC/FA/151023/4	10/24/2015	< 0.002	< 0.002	< 0.002	< 0.003	< 0.001	< 0.015	< 0.001	< 0.002
DYEC/FA/151024/1	10/25/2015	< 0.002	< 0.002	< 0.002	< 0.003	< 0.001	< 0.015	< 0.001	< 0.002
DYEC/FA/151024/2	10/25/2015	< 0.002	< 0.002	< 0.002	< 0.003	< 0.001	< 0.015	< 0.001	< 0.002
DYEC/FA/151024/3	10/25/2015	< 0.002	< 0.002	< 0.002	< 0.003	< 0.001	< 0.015	< 0.001	< 0.002
DYEC/FA/151024/4	10/25/2015	< 0.002	< 0.002	< 0.002	< 0.003	< 0.001	< 0.015	< 0.001	< 0.002
DYEC/FA/151025/1	10/26/2015	< 0.002	< 0.002	< 0.002	< 0.003	< 0.001	< 0.015	< 0.001	< 0.002
DYEC/FA/151025/2	10/26/2015	< 0.002	< 0.002	< 0.002	< 0.003	< 0.001	< 0.015	< 0.001	< 0.002
DYEC/FA/151025/3	10/26/2015	< 0.002	< 0.002	< 0.002	< 0.003	< 0.001	< 0.015	< 0.001	< 0.002
DYEC/FA/151025/4	10/26/2015	< 0.002	< 0.002	< 0.002	< 0.003	< 0.001	< 0.015	< 0.001	< 0.002
DYEC/FA/151026/1	10/27/2015	< 0.002	< 0.002	< 0.002	< 0.003	< 0.001	< 0.015	< 0.001	< 0.002
DYEC/FA/151026/2	10/27/2015	< 0.002	< 0.002	< 0.002	< 0.003	< 0.001	< 0.015	< 0.001	< 0.002
DYEC/FA/151026/3	10/27/2015	< 0.002	< 0.002	< 0.002	< 0.003	< 0.001	< 0.015	< 0.001	< 0.002
DYEC/FA/151026/4	10/27/2015	< 0.002	< 0.002	< 0.002	< 0.003	< 0.001	< 0.015	< 0.001	< 0.002

CONSOLIDATED COMPOSITE SAMPLE STATIST

NUMBER OF SAMPLES	20	20	20	20	20	20	20	20	20
DEGREES OF FREEDOM	19	19	19	19	19	19	19	19	19
SAMPLE MEAN (XBAR)	0.002	0.002	0.002	0.003	0.001	0.015	0.001	0.002	
SAMPLE VARIANCE (S^2)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
STANDARD DEVIATION (S)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
STD ERROR (S XBAR)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
90% CI Upper Limit (actual)	< 0.002	< 0.002	< 0.002	< 0.003	< 0.001	< 0.015	< 0.001	< 0.002	
MAXIMUM	0.002	0.002	0.002	0.003	0.001	0.015	0.001	0.002	
MINIMUM	0.002	0.002	0.002	0.003	0.001	0.015	0.001	0.002	
REGULATORY THRESHOLD	0.5	9	9	0.7	9	200	1	20	

Summary of Laboratory Results: Coditioned Fly Ash Summary for the Commissioning Period October 22-26, 2015

		2,4-D	DDT + metabolites	Diazinon	Dicamba	2,4-Dichloro- phenol	Diclofop methyl	Dimethoate	2,4-Dinitro- toluene
INDIVIDUAL RESULTS	Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Sample ID	LOR(a)	0.002	0.004	0.001	0.005	0.005	0.002	0.001	0.004
	REG 347 Limit	10	3	2	12	90	0.9	2	0.13
	Composite Date								
DYEC/FA/151022/1	10/23/2015	< 0.002	< 0.004	< 0.001	< 0.005	< 0.005	< 0.002	< 0.001	< 0.004
DYEC/FA/151022/2	10/23/2015	< 0.002	< 0.004	< 0.001	< 0.005	< 0.005	< 0.002	< 0.001	< 0.004
DYEC/FA/151022/3	10/23/2015	< 0.002	< 0.004	< 0.001	< 0.005	< 0.005	< 0.002	< 0.001	< 0.004
DYEC/FA/151022/4	10/23/2015	< 0.002	< 0.004	< 0.001	< 0.005	< 0.005	< 0.002	< 0.001	< 0.004
DYEC/FA/151023/1	10/24/2015	< 0.002	< 0.004	< 0.001	< 0.005	< 0.005	< 0.002	< 0.001	< 0.004
DYEC/FA/151023/2	10/24/2015	< 0.002	< 0.004	< 0.001	< 0.005	< 0.005	< 0.002	< 0.001	< 0.004
DYEC/FA/151023/3	10/24/2015	< 0.002	< 0.004	< 0.001	< 0.005	< 0.005	< 0.002	< 0.001	< 0.004
DYEC/FA/151023/4	10/24/2015	< 0.002	< 0.004	< 0.001	< 0.005	< 0.005	< 0.002	< 0.001	< 0.004
DYEC/FA/151024/1	10/25/2015	< 0.002	< 0.004	< 0.001	< 0.005	< 0.005	< 0.002	< 0.001	< 0.004
DYEC/FA/151024/2	10/25/2015	< 0.002	< 0.004	< 0.001	< 0.005	< 0.005	< 0.002	< 0.001	< 0.004
DYEC/FA/151024/3	10/25/2015	< 0.002	< 0.004	< 0.001	< 0.005	< 0.005	< 0.002	< 0.001	< 0.004
DYEC/FA/151024/4	10/25/2015	< 0.002	< 0.004	< 0.001	< 0.005	< 0.005	< 0.002	< 0.001	< 0.004
DYEC/FA/151025/1	10/26/2015	< 0.002	< 0.004	< 0.001	< 0.005	< 0.005	< 0.002	< 0.001	< 0.004
DYEC/FA/151025/2	10/26/2015	< 0.002	< 0.004	< 0.001	< 0.005	< 0.005	< 0.002	< 0.001	< 0.004
DYEC/FA/151025/3	10/26/2015	< 0.002	< 0.004	< 0.001	< 0.005	< 0.005	< 0.002	< 0.001	< 0.004
DYEC/FA/151025/4	10/26/2015	< 0.002	< 0.004	< 0.001	< 0.005	< 0.005	< 0.002	< 0.001	< 0.004
DYEC/FA/151026/1	10/27/2015	< 0.002	< 0.004	< 0.001	< 0.005	< 0.005	< 0.002	< 0.001	< 0.004
DYEC/FA/151026/2	10/27/2015	< 0.002	< 0.004	< 0.001	< 0.005	< 0.005	< 0.002	< 0.001	< 0.004
DYEC/FA/151026/3	10/27/2015	< 0.002	< 0.004	< 0.001	< 0.005	< 0.005	< 0.002	< 0.001	< 0.004
DYEC/FA/151026/4	10/27/2015	< 0.002	< 0.004	< 0.001	< 0.005	< 0.005	< 0.002	< 0.001	< 0.004

CONSOLIDATED COMPOSITE SAMPLE STATIST

NUMBER OF SAMPLES	20	20	20	20	20	20	20	20	20
DEGREES OF FREEDOM	19	19	19	19	19	19	19	19	19
SAMPLE MEAN (XBAR)	0.002	0.004	0.001	0.005	0.005	0.002	0.001	0.004	0.004
SAMPLE VARIANCE (S^2)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
STANDARD DEVIATION (S)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
STD ERROR (S XBAR)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
90% CI Upper Limit (actual)	< 0.002	< 0.004	< 0.001	< 0.005	< 0.005	< 0.002	< 0.001	< 0.004	< 0.004
MAXIMUM	0.002	0.004	0.001	0.005	0.005	0.002	0.001	0.004	0.004
MINIMUM	0.002	0.004	0.001	0.005	0.005	0.002	0.001	0.004	0.004
REGULATORY THRESHOLD	10	3	2	12	90	0.9	2	0.13	0.13

Summary of Laboratory Results: Coditioned Fly Ash Summary for the Commissioning Period October 22-26, 2015

		Dinoseb	Diquat	Diuron	Endrin	Parathion	Fluoride (F) Leachable	gamma-BHC	Glyphosate
INDIVIDUAL RESULTS	Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Sample ID	LOR(a)	0.002	0.1	0.01	0.001	0.001	10	0.001	0.05
	REG 347 Limit	1	7	15	0.02	5	150	0.4	28
	Composite Date								
DYEC/FA/151022/1	10/23/2015	< 0.002	< 0.1	< 0.01	< 0.001	< 0.001	< 10	< 0.001	< 0.05
DYEC/FA/151022/2	10/23/2015	< 0.002	< 0.1	< 0.01	< 0.001	< 0.001	< 10	< 0.001	< 0.05
DYEC/FA/151022/3	10/23/2015	< 0.002	< 0.1	< 0.01	< 0.001	< 0.001	< 10	< 0.001	< 0.05
DYEC/FA/151022/4	10/23/2015	< 0.002	< 0.1	< 0.01	< 0.001	< 0.001	< 10	< 0.001	< 0.05
DYEC/FA/151023/1	10/24/2015	< 0.002	< 0.1	< 0.01	< 0.001	< 0.001	< 10	< 0.001	< 0.05
DYEC/FA/151023/2	10/24/2015	< 0.002	< 0.1	< 0.01	< 0.001	< 0.001	< 10	< 0.001	< 0.05
DYEC/FA/151023/3	10/24/2015	< 0.002	< 0.1	< 0.01	< 0.001	< 0.001	< 10	< 0.001	< 0.05
DYEC/FA/151023/4	10/24/2015	< 0.002	< 0.1	< 0.01	< 0.001	< 0.001	< 10	< 0.001	< 0.05
DYEC/FA/151024/1	10/25/2015	< 0.002	< 0.1	< 0.01	< 0.001	< 0.001	< 10	< 0.001	< 0.05
DYEC/FA/151024/2	10/25/2015	< 0.002	< 0.1	< 0.01	< 0.001	< 0.001	< 10	< 0.001	< 0.05
DYEC/FA/151024/3	10/25/2015	< 0.002	< 0.1	< 0.01	< 0.001	< 0.001	< 10	< 0.001	< 0.05
DYEC/FA/151024/4	10/25/2015	< 0.002	< 0.1	< 0.01	< 0.001	< 0.001	< 10	< 0.001	< 0.05
DYEC/FA/151025/1	10/26/2015	< 0.002	< 0.1	< 0.01	< 0.001	< 0.001	< 10	< 0.001	< 0.05
DYEC/FA/151025/2	10/26/2015	< 0.002	< 0.1	< 0.01	< 0.001	< 0.001	< 10	< 0.001	< 0.05
DYEC/FA/151025/3	10/26/2015	< 0.002	< 0.1	< 0.01	< 0.001	< 0.001	< 10	< 0.001	< 0.05
DYEC/FA/151025/4	10/26/2015	< 0.002	< 0.1	< 0.01	< 0.001	< 0.001	< 10	< 0.001	< 0.05
DYEC/FA/151026/1	10/27/2015	< 0.002	< 0.1	< 0.01	< 0.001	< 0.001	< 10	< 0.001	< 0.05
DYEC/FA/151026/2	10/27/2015	< 0.002	< 0.1	< 0.01	< 0.001	< 0.001	< 10	< 0.001	< 0.05
DYEC/FA/151026/3	10/27/2015	< 0.002	< 0.1	< 0.01	< 0.001	< 0.001	< 10	< 0.001	< 0.05
DYEC/FA/151026/4	10/27/2015	< 0.002	< 0.1	< 0.01	< 0.001	< 0.001	< 10	< 0.001	< 0.05

CONSOLIDATED COMPOSITE SAMPLE STATIST

NUMBER OF SAMPLES	20	20	# 20	20	20	20	20	20	20
DEGREES OF FREEDOM	19	19	# 19	19	19	19	19	19	19
SAMPLE MEAN (XBAR)	0.002	0.1	# 0.01	0.001	0.001	10	0.001	0.05	
SAMPLE VARIANCE (S^2)	0.000	0.0	# 0.00	0.000	0.000	0	0.000	0.00	
STANDARD DEVIATION (S)	0.000	0.0	# 0.00	0.000	0.000	0	0.000	0.00	
STD ERROR (S XBAR)	0.000	0.0	# 0.00	0.000	0.000	0	0.000	0.00	
90% CI Upper Limit (actual)	< 0.002	< 0.1	< 0.01	< 0.001	< 0.001	< 10	< 0.001	< 0.05	
MAXIMUM	0.002	0.1	# 0.01	0.001	0.001	10	0.001	0.05	
MINIMUM	0.002	0.1	# 0.01	0.001	0.001	10	0.001	0.05	
REGULATORY THRESHOLD	1	7	15	0.02	5	150	0.4	28	

Summary of Laboratory Results: Coditioned Fly Ash Summary for the Commissioning Period October 22-26, 2015

		Heptachlor + Heptachlor Epoxide	Hexachloro- benzene	Hexachloro- butadiene	Hexachloro- ethane	Malathion	Methoxychlor	Methyl Parathion	Metolachlor
INDIVIDUAL RESULTS	Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Sample ID	LOR(a)	0.002	0.004	0.004	0.004	0.001	0.001	0.001	0.001
	REG 347 Limit	0.3	0.13	0.5	3	19	90	0.7	5
	Composite Date								
DYEC/FA/151022/1	10/23/2015	< 0.002	< 0.004	< 0.004	< 0.004	< 0.001	< 0.001	< 0.001	< 0.001
DYEC/FA/151022/2	10/23/2015	< 0.002	< 0.004	< 0.004	< 0.004	< 0.001	< 0.001	< 0.001	< 0.001
DYEC/FA/151022/3	10/23/2015	< 0.002	< 0.004	< 0.004	< 0.004	< 0.001	< 0.001	< 0.001	< 0.001
DYEC/FA/151022/4	10/23/2015	< 0.002	< 0.004	< 0.004	< 0.004	< 0.001	< 0.001	< 0.001	< 0.001
DYEC/FA/151023/1	10/24/2015	< 0.002	< 0.004	< 0.004	< 0.004	< 0.001	< 0.001	< 0.001	< 0.001
DYEC/FA/151023/2	10/24/2015	< 0.002	< 0.004	< 0.004	< 0.004	< 0.001	< 0.001	< 0.001	< 0.001
DYEC/FA/151023/3	10/24/2015	< 0.002	< 0.004	< 0.004	< 0.004	< 0.001	< 0.001	< 0.001	< 0.001
DYEC/FA/151023/4	10/24/2015	< 0.002	< 0.004	< 0.004	< 0.004	< 0.001	< 0.001	< 0.001	< 0.001
DYEC/FA/151024/1	10/25/2015	< 0.002	< 0.004	< 0.004	< 0.004	< 0.001	< 0.001	< 0.001	< 0.001
DYEC/FA/151024/2	10/25/2015	< 0.002	< 0.004	< 0.004	< 0.004	< 0.001	< 0.001	< 0.001	< 0.001
DYEC/FA/151024/3	10/25/2015	< 0.002	< 0.004	< 0.004	< 0.004	< 0.001	< 0.001	< 0.001	< 0.001
DYEC/FA/151024/4	10/25/2015	< 0.002	< 0.004	< 0.004	< 0.004	< 0.001	< 0.001	< 0.001	< 0.001
DYEC/FA/151025/1	10/26/2015	< 0.002	< 0.004	< 0.004	< 0.004	< 0.001	< 0.001	< 0.001	< 0.001
DYEC/FA/151025/2	10/26/2015	< 0.002	< 0.004	< 0.004	< 0.004	< 0.001	< 0.001	< 0.001	< 0.001
DYEC/FA/151025/3	10/26/2015	< 0.002	< 0.004	< 0.004	< 0.004	< 0.001	< 0.001	< 0.001	< 0.001
DYEC/FA/151025/4	10/26/2015	< 0.002	< 0.004	< 0.004	< 0.004	< 0.001	< 0.001	< 0.001	< 0.001
DYEC/FA/151026/1	10/27/2015	< 0.002	< 0.004	< 0.004	< 0.004	< 0.001	< 0.001	< 0.001	< 0.001
DYEC/FA/151026/2	10/27/2015	< 0.002	< 0.004	< 0.004	< 0.004	< 0.001	< 0.001	< 0.001	< 0.001
DYEC/FA/151026/3	10/27/2015	< 0.002	< 0.004	< 0.004	< 0.004	< 0.001	< 0.001	< 0.001	< 0.001
DYEC/FA/151026/4	10/27/2015	< 0.002	< 0.004	< 0.004	< 0.004	< 0.001	< 0.001	< 0.001	< 0.001

CONSOLIDATED COMPOSITE SAMPLE STATIST

NUMBER OF SAMPLES	20	20	20	20	20	20	20	20	20
DEGREES OF FREEDOM	19	19	19	19	19	19	19	19	19
SAMPLE MEAN (XBAR)	0.002	0.004	0.004	0.004	0.001	0.001	0.001	0.001	0.001
SAMPLE VARIANCE (S^2)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
STANDARD DEVIATION (S)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
STD ERROR (S XBAR)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
90% CI Upper Limit (actual)	< 0.002	< 0.004	< 0.004	< 0.004	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
MAXIMUM	0.002	0.004	0.004	0.004	0.001	0.001	0.001	0.001	0.001
MINIMUM	0.002	0.004	0.004	0.004	0.001	0.001	0.001	0.001	0.001
REGULATORY THRESHOLD	0.3	0.13	0.5	3	19	90	0.7	5	5

Summary of Laboratory Results: Coditioned Fly Ash Summary for the Commissioning Period October 22-26, 2015

		Metribuzin	Nitrate and Nitrite as N	Nitrilotriacetic Acid (NTA)	Nitrobenzene	N-Nitrosodi-methylamine	Paraquat	Total PCBs	Pentachloro-phenol
INDIVIDUAL RESULTS	Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Sample ID	LOR(a)	0.001	2.8	40	0.004	0.0002	0.1	0.0004	0.005
	REG 347 Limit	8	1000	40	2	0.0009	1	0.3	6
	Composite Date								
DYEC/FA/151022/1	10/23/2015	< 0.001	< 2.8	< 40	< 0.004	< 0.0002	< 0.1	< 0.0004	< 0.005
DYEC/FA/151022/2	10/23/2015	< 0.001	< 2.8	< 40	< 0.004	< 0.0002	< 0.1	< 0.0004	< 0.005
DYEC/FA/151022/3	10/23/2015	< 0.001	< 2.8	< 40	< 0.004	< 0.0002	< 0.1	< 0.0004	< 0.005
DYEC/FA/151022/4	10/23/2015	< 0.001	< 2.8	< 40	< 0.004	< 0.0002	< 0.1	< 0.0004	< 0.005
DYEC/FA/151023/1	10/24/2015	< 0.001	< 2.8	< 40	< 0.004	< 0.0002	< 0.1	< 0.0004	< 0.005
DYEC/FA/151023/2	10/24/2015	< 0.001	< 2.8	< 40	< 0.004	< 0.0002	< 0.1	< 0.0004	< 0.005
DYEC/FA/151023/3	10/24/2015	< 0.001	< 2.8	< 40	< 0.004	< 0.0002	< 0.1	< 0.0004	< 0.005
DYEC/FA/151023/4	10/24/2015	< 0.001	< 2.8	< 40	< 0.004	< 0.0002	< 0.1	< 0.0004	< 0.005
DYEC/FA/151024/1	10/25/2015	< 0.001	< 2.8	< 40	< 0.004	< 0.0002	< 0.1	< 0.0004	< 0.005
DYEC/FA/151024/2	10/25/2015	< 0.001	< 2.8	< 40	< 0.004	< 0.0002	< 0.1	< 0.0004	< 0.005
DYEC/FA/151024/3	10/25/2015	< 0.001	< 2.8	< 40	< 0.004	< 0.0002	< 0.1	< 0.0004	< 0.005
DYEC/FA/151024/4	10/25/2015	< 0.001	< 2.8	< 40	< 0.004	< 0.0002	< 0.1	< 0.0004	< 0.005
DYEC/FA/151025/1	10/26/2015	< 0.001	< 2.8	< 40	< 0.004	< 0.0002	< 0.1	< 0.0004	< 0.005
DYEC/FA/151025/2	10/26/2015	< 0.001	< 2.8	< 40	< 0.004	< 0.0002	< 0.1	< 0.0004	< 0.005
DYEC/FA/151025/3	10/26/2015	< 0.001	< 2.8	< 40	< 0.004	< 0.0002	< 0.1	< 0.0004	< 0.005
DYEC/FA/151025/4	10/26/2015	< 0.001	< 2.8	< 40	< 0.004	< 0.0002	< 0.1	< 0.0004	< 0.005
DYEC/FA/151026/1	10/27/2015	< 0.001	< 2.8	< 40	< 0.004	< 0.0002	< 0.1	< 0.0004	< 0.005
DYEC/FA/151026/2	10/27/2015	< 0.001	< 2.8	< 40	< 0.004	< 0.0002	< 0.1	< 0.0004	< 0.005
DYEC/FA/151026/3	10/27/2015	< 0.001	< 2.8	< 40	< 0.004	< 0.0002	< 0.1	< 0.0004	< 0.005
DYEC/FA/151026/4	10/27/2015	< 0.001	< 2.8	< 40	< 0.004	< 0.0002	< 0.1	< 0.0004	< 0.005

CONSOLIDATED COMPOSITE SAMPLE STATIST

NUMBER OF SAMPLES	20	20	20	20	20	20	20	20	20
DEGREES OF FREEDOM	19	19	19	19	19	19	19	19	19
SAMPLE MEAN (XBAR)	0.001	2.8	40	0.004	0.0002	0.1	0.0004	0.005	
SAMPLE VARIANCE (S^2)	0.000	0.0	0	0.000	0.0000	0.0	0.0000	0.000	
STANDARD DEVIATION (S)	0.000	0.0	0	0.000	0.0000	0.0	0.0000	0.000	
STD ERROR (S XBAR)	0.000	0.0	0	0.000	0.0000	0.0	0.0000	0.000	
90% CI Upper Limit (actual)	< 0.001	< 2.8	< 40	< 0.004	< 0.0002	< 0.1	< 0.0004	< 0.005	
MAXIMUM	0.001	2.8	40	0.004	0.0002	0.1	0.0004	0.005	
MINIMUM	0.001	2.8	20	0.004	0.0002	0.1	0.0004	0.005	
REGULATORY THRESHOLD	8	1000	40	2	0.0009	1	0.3	6	

Summary of Laboratory Results: Coditioned Fly Ash Summary for the Commissioning Period October 22-26, 2015

		Phorate	Picloram	Pyridine	Simazine	2,4,5-T	Temephos	Terbufos	2,3,4,6-Tetrachlorophenol
INDIVIDUAL RESULTS	Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Sample ID	LOR(a)	0.001	0.005	5	0.001	0.002	0.001	0.002	0.005
	REG 347 Limit	0.2	19	5	1	28	28	0.1	10
	Composite Date								
DYEC/FA/151022/1	10/23/2015	< 0.001	< 0.005	< 5	< 0.001	< 0.002	< 0.001	< 0.002	< 0.005
DYEC/FA/151022/2	10/23/2015	< 0.001	< 0.005	< 5	< 0.001	< 0.002	< 0.001	< 0.002	< 0.005
DYEC/FA/151022/3	10/23/2015	< 0.001	< 0.005	< 5	< 0.001	< 0.002	< 0.001	< 0.002	< 0.005
DYEC/FA/151022/4	10/23/2015	< 0.001	< 0.005	< 5	< 0.001	< 0.002	< 0.001	< 0.002	< 0.005
DYEC/FA/151023/1	10/24/2015	< 0.001	< 0.005	< 5	< 0.001	< 0.002	< 0.001	< 0.002	< 0.005
DYEC/FA/151023/2	10/24/2015	< 0.001	< 0.005	< 5	< 0.001	< 0.002	< 0.001	< 0.002	< 0.005
DYEC/FA/151023/3	10/24/2015	< 0.001	< 0.005	< 5	< 0.001	< 0.002	< 0.001	< 0.002	< 0.005
DYEC/FA/151023/4	10/24/2015	< 0.001	< 0.005	< 5	< 0.001	< 0.002	< 0.001	< 0.002	< 0.005
DYEC/FA/151024/1	10/25/2015	< 0.001	< 0.005	< 5	< 0.001	< 0.002	< 0.001	< 0.002	< 0.005
DYEC/FA/151024/2	10/25/2015	< 0.001	< 0.005	< 5	< 0.001	< 0.002	< 0.001	< 0.002	< 0.005
DYEC/FA/151024/3	10/25/2015	< 0.001	< 0.005	< 5	< 0.001	< 0.002	< 0.001	< 0.002	< 0.005
DYEC/FA/151024/4	10/25/2015	< 0.001	< 0.005	< 5	< 0.001	< 0.002	< 0.001	< 0.002	< 0.005
DYEC/FA/151025/1	10/26/2015	< 0.001	< 0.005	< 5	< 0.001	< 0.002	< 0.001	< 0.002	< 0.005
DYEC/FA/151025/2	10/26/2015	< 0.001	< 0.005	< 5	< 0.001	< 0.002	< 0.001	< 0.002	< 0.005
DYEC/FA/151025/3	10/26/2015	< 0.001	< 0.005	< 5	< 0.001	< 0.002	< 0.001	< 0.002	< 0.005
DYEC/FA/151025/4	10/26/2015	< 0.001	< 0.005	< 5	< 0.001	< 0.002	< 0.001	< 0.002	< 0.005
DYEC/FA/151026/1	10/27/2015	< 0.001	< 0.005	< 5	< 0.001	< 0.002	< 0.001	< 0.002	< 0.005
DYEC/FA/151026/2	10/27/2015	< 0.001	< 0.005	< 5	< 0.001	< 0.002	< 0.001	< 0.002	< 0.005
DYEC/FA/151026/3	10/27/2015	< 0.001	< 0.005	< 5	< 0.001	< 0.002	< 0.001	< 0.002	< 0.005
DYEC/FA/151026/4	10/27/2015	< 0.001	< 0.005	< 5	< 0.001	< 0.002	< 0.001	< 0.002	< 0.005

CONSOLIDATED COMPOSITE SAMPLE STATIST

NUMBER OF SAMPLES	20	20	20	20	20	20	20	20	20
DEGREES OF FREEDOM	19	19	19	19	19	19	19	19	19
SAMPLE MEAN (XBAR)	0.001	0.005	5	0.001	0.002	0.001	0.002	0.005	0.005
SAMPLE VARIANCE (S^2)	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000
STANDARD DEVIATION (S)	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000
STD ERROR (S XBAR)	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000
90% CI Upper Limit (actual)	< 0.001	< 0.005	< 5	< 0.001	< 0.002	< 0.001	< 0.002	< 0.005	< 0.005
MAXIMUM	0.001	0.005	5	0.001	0.002	0.001	0.002	0.005	0.005
MINIMUM	0.001	0.005	5	0.001	0.002	0.001	0.002	0.005	0.005
REGULATORY THRESHOLD	0.2	19	5	1	28	28	0.1	10	10

Summary of Laboratory Results: Coditioned Fly Ash Summary for the Commissioning Period October 22-26, 2015

		Toxaphene	2,4,5-TP	Triallate	2,4,5-Trichloro-phenol	2,4,6-Trichloro-phenol	Trifluralin	Arsenic (As) Leachable	Barium (Ba) Leachable
INDIVIDUAL RESULTS	Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Sample ID	LOR(a)	0.0035	0.002	0.001	0.005	0.005	0.005	0.05	0.5
	REG 347 Limit	0.5	1	23	400	0.5	4.5	2.5	100
	Composite Date								
DYEC/FA/151022/1	10/23/2015	< 0.0035	< 0.002	< 0.001	< 0.005	< 0.005	< 0.005	< 0.05	2.51
DYEC/FA/151022/2	10/23/2015	< 0.0035	< 0.002	< 0.001	< 0.005	< 0.005	< 0.005	< 0.05	2.42
DYEC/FA/151022/3	10/23/2015	< 0.0035	< 0.002	< 0.001	< 0.005	< 0.005	< 0.005	< 0.05	2.43
DYEC/FA/151022/4	10/23/2015	< 0.0035	< 0.002	< 0.001	< 0.005	< 0.005	< 0.005	< 0.05	2.44
DYEC/FA/151023/1	10/24/2015	< 0.0035	< 0.002	< 0.001	< 0.005	< 0.005	< 0.005	< 0.05	2.32
DYEC/FA/151023/2	10/24/2015	< 0.0035	< 0.002	< 0.001	< 0.005	< 0.005	< 0.005	< 0.05	2.37
DYEC/FA/151023/3	10/24/2015	< 0.0035	< 0.002	< 0.001	< 0.005	< 0.005	< 0.005	< 0.05	2.37
DYEC/FA/151023/4	10/24/2015	< 0.0035	< 0.002	< 0.001	< 0.005	< 0.005	< 0.005	< 0.05	2.24
DYEC/FA/151024/1	10/25/2015	< 0.0035	< 0.002	< 0.001	< 0.005	< 0.005	< 0.005	< 0.05	1.79
DYEC/FA/151024/2	10/25/2015	< 0.0035	< 0.002	< 0.001	< 0.005	< 0.005	< 0.005	< 0.05	1.76
DYEC/FA/151024/3	10/25/2015	< 0.0035	< 0.002	< 0.001	< 0.005	< 0.005	< 0.005	< 0.05	1.79
DYEC/FA/151024/4	10/25/2015	< 0.0035	< 0.002	< 0.001	< 0.005	< 0.005	< 0.005	< 0.05	1.63
DYEC/FA/151025/1	10/26/2015	< 0.0035	< 0.002	< 0.001	< 0.005	< 0.005	< 0.005	< 0.05	1.89
DYEC/FA/151025/2	10/26/2015	< 0.0035	< 0.002	< 0.001	< 0.005	< 0.005	< 0.005	< 0.05	2.08
DYEC/FA/151025/3	10/26/2015	< 0.0035	< 0.002	< 0.001	< 0.005	< 0.005	< 0.005	< 0.05	1.72
DYEC/FA/151025/4	10/26/2015	< 0.0035	< 0.002	< 0.001	< 0.005	< 0.005	< 0.005	< 0.05	1.77
DYEC/FA/151026/1	10/27/2015	< 0.0035	< 0.002	< 0.001	< 0.005	< 0.005	< 0.005	< 0.05	1.83
DYEC/FA/151026/2	10/27/2015	< 0.0035	< 0.002	< 0.001	< 0.005	< 0.005	< 0.005	< 0.05	1.74
DYEC/FA/151026/3	10/27/2015	< 0.0035	< 0.002	< 0.001	< 0.005	< 0.005	< 0.005	< 0.05	2.03
DYEC/FA/151026/4	10/27/2015	< 0.0035	< 0.002	< 0.001	< 0.005	< 0.005	< 0.005	< 0.05	1.75

CONSOLIDATED COMPOSITE SAMPLE STATIST

NUMBER OF SAMPLES	20	20	20	20	20	20	20	20	20
DEGREES OF FREEDOM	19	19	19	19	19	19	19	19	19
SAMPLE MEAN (XBAR)	0.0035	0.002	0.001	0.005	0.005	0.005	0.005	0.05	2.04
SAMPLE VARIANCE (S^2)	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.00	0.09
STANDARD DEVIATION (S)	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.00	0.31
STD ERROR (S XBAR)	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.00	0.07
90% CI Upper Limit (actual)	< 0.0035	< 0.002	< 0.001	< 0.005	< 0.005	< 0.005	< 0.005	< 0.05	2.14
MAXIMUM	0.0035	0.002	0.001	0.005	0.005	0.005	0.005	0.05	2.51
MINIMUM	0.0035	0.002	0.001	0.005	0.005	0.005	0.005	0.05	1.63
REGULATORY THRESHOLD	0.5	1	23	400	0.5	4.5	2.5	100	

Summary of Laboratory Results: Coditioned Fly Ash Summary for the Commissioning Period October 22-26, 2015

		Boron (B) Leachable	Cadmium (Cd) Leachable	Chromium (Cr) Leachable	Lead (Pb) Leachable	Mercury (Hg) TCLP	Selenium (Se) Leachable	Silver (Ag) Leachable	Uranium (U) Leachable
INDIVIDUAL RESULTS	Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Sample ID	LOR(a)	2.5	0.005	0.05	0.05	0.0001	0.25	0.005	0.25
	REG 347 Limit	500	0.5	5	5	0.1	1	5	10
	Composite Date								
DYEC/FA/151022/1	10/23/2015	< 2.5	< 0.005	< 0.05	0.402	< 0.0001	< 0.25	< 0.005	< 0.25
DYEC/FA/151022/2	10/23/2015	< 2.5	< 0.005	< 0.05	0.322	< 0.0001	< 0.25	< 0.005	< 0.25
DYEC/FA/151022/3	10/23/2015	< 2.5	< 0.005	< 0.05	0.341	< 0.0001	< 0.25	< 0.005	< 0.25
DYEC/FA/151022/4	10/23/2015	< 2.5	< 0.005	< 0.05	0.318	< 0.0001	< 0.25	< 0.005	< 0.25
DYEC/FA/151023/1	10/24/2015	< 2.5	< 0.005	< 0.05	0.407	< 0.0001	< 0.25	< 0.005	< 0.25
DYEC/FA/151023/2	10/24/2015	< 2.5	< 0.005	< 0.05	0.344	< 0.0001	< 0.25	< 0.005	< 0.25
DYEC/FA/151023/3	10/24/2015	< 2.5	< 0.005	< 0.05	0.333	< 0.0001	< 0.25	< 0.005	< 0.25
DYEC/FA/151023/4	10/24/2015	< 2.5	< 0.005	< 0.05	0.346	< 0.0001	< 0.25	< 0.005	< 0.25
DYEC/FA/151024/1	10/25/2015	< 2.5	< 0.005	< 0.05	0.088	< 0.0001	< 0.25	< 0.005	< 0.25
DYEC/FA/151024/2	10/25/2015	< 2.5	< 0.005	< 0.05	0.128	< 0.0001	< 0.25	< 0.005	< 0.25
DYEC/FA/151024/3	10/25/2015	< 2.5	< 0.005	< 0.05	0.115	< 0.0001	< 0.25	< 0.005	< 0.25
DYEC/FA/151024/4	10/25/2015	< 2.5	< 0.005	< 0.05	0.096	< 0.0001	< 0.25	< 0.005	< 0.25
DYEC/FA/151025/1	10/26/2015	< 2.5	< 0.005	< 0.05	< 0.050	< 0.0001	< 0.25	< 0.005	< 0.25
DYEC/FA/151025/2	10/26/2015	< 2.5	< 0.005	< 0.05	< 0.050	< 0.0001	< 0.25	< 0.005	< 0.25
DYEC/FA/151025/3	10/26/2015	< 2.5	< 0.005	< 0.05	< 0.050	< 0.0001	< 0.25	< 0.005	< 0.25
DYEC/FA/151025/4	10/26/2015	< 2.5	< 0.005	< 0.05	< 0.050	< 0.0001	< 0.25	< 0.005	< 0.25
DYEC/FA/151026/1	10/27/2015	< 2.5	< 0.005	< 0.05	< 0.050	< 0.0001	< 0.25	< 0.005	< 0.25
DYEC/FA/151026/2	10/27/2015	< 2.5	< 0.005	< 0.05	< 0.050	< 0.0001	< 0.25	< 0.005	< 0.25
DYEC/FA/151026/3	10/27/2015	< 2.5	< 0.005	< 0.05	< 0.050	< 0.0001	< 0.25	< 0.005	< 0.25
DYEC/FA/151026/4	10/27/2015	< 2.5	< 0.005	< 0.05	< 0.050	< 0.0001	< 0.25	< 0.005	< 0.25

CONSOLIDATED COMPOSITE SAMPLE STATIST

NUMBER OF SAMPLES	20	20	20	20	20	20	20	20	20
DEGREES OF FREEDOM	19	19	19	19	19	19	19	19	19
SAMPLE MEAN (XBAR)	2.5	0.005	0.05	0.182	0.0001	0.25	0.005	0.25	
SAMPLE VARIANCE (S^2)	0.0	0.000	0.00	0.021	0.0000	0.00	0.000	0.00	
STANDARD DEVIATION (S)	0.0	0.000	0.00	0.145	0.0000	0.00	0.000	0.00	
STD ERROR (S XBAR)	0.0	0.000	0.00	0.032	0.0000	0.00	0.000	0.00	
90% CI Upper Limit (actual)	< 2.5	< 0.005	< 0.05	< 0.225	< 0.0001	< 0.25	< 0.005	< 0.25	
MAXIMUM	2.5	0.005	0.05	0.407	0.0001	0.25	0.005	0.25	
MINIMUM	2.5	0.005	0.05	0.050	0.0001	0.25	0.005	0.25	
REGULATORY THRESHOLD	500	0.5	5	5	0.1	1	5	10	

Summary of Laboratory Results: Coditioned Fly Ash Summary for the Commissioning Period October 22-26, 2015

		1,1-Dichloro-ethylene	1,2-Dichloro-benzene	1,2-Dichloro-ethane	1,4-Dichloro-benzene	Benzene	Carbon tetrachloride	Chloro-benzene	Chloroform
INDIVIDUAL RESULTS	Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Sample ID	LOR(a)	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.1
	REG 347 Limit	1.4	20	0.5	0.5	0.5	0.5	8	10
	Composite Date								
DYEC/FA/151022/1	10/23/2015	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.1
DYEC/FA/151022/2	10/23/2015	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.1
DYEC/FA/151022/3	10/23/2015	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.1
DYEC/FA/151022/4	10/23/2015	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.1
DYEC/FA/151023/1	10/24/2015	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.1
DYEC/FA/151023/2	10/24/2015	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.1
DYEC/FA/151023/3	10/24/2015	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.1
DYEC/FA/151023/4	10/24/2015	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.1
DYEC/FA/151024/1	10/25/2015	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.1
DYEC/FA/151024/2	10/25/2015	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.1
DYEC/FA/151024/3	10/25/2015	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.1
DYEC/FA/151024/4	10/25/2015	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.1
DYEC/FA/151025/1	10/26/2015	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.1
DYEC/FA/151025/2	10/26/2015	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.1
DYEC/FA/151025/3	10/26/2015	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.1
DYEC/FA/151025/4	10/26/2015	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.1
DYEC/FA/151026/1	10/27/2015	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.1
DYEC/FA/151026/2	10/27/2015	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.1
DYEC/FA/151026/3	10/27/2015	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.1
DYEC/FA/151026/4	10/27/2015	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.1

CONSOLIDATED COMPOSITE SAMPLE STATIST

NUMBER OF SAMPLES	20	20	20	20	20	20	20	20	20
DEGREES OF FREEDOM	19	19	19	19	19	19	19	19	19
SAMPLE MEAN (XBAR)	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.1
SAMPLE VARIANCE (S^2)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.0
STANDARD DEVIATION (S)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.0
STD ERROR (S XBAR)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.0
90% CI Upper Limit (actual)	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.1
MAXIMUM	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.1
MINIMUM	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.1
REGULATORY THRESHOLD	1.4	20	0.5	0.5	0.5	0.5	0.5	8	10

Summary of Laboratory Results: Coditioned Fly Ash Summary for the Commissioning Period October 22-26, 2015

		Dichloro- methane	Methyl Ethyl Ketone	Tetrachloro- ethylene	Trichloro- ethylene	Vinyl chloride	Lower Bound PCDD/F TEQ (WHO 2005)	Mid Point PCDD/F TEQ (WHO 2005)	Upper Bound PCDD/F TEQ (WHO 2005)
INDIVIDUAL RESULTS	Units	mg/L	mg/L	mg/L	mg/L	mg/L	pg/L	pg/L	pg/L
Sample ID	LOR(a)	0.5	1	0.025	0.025	0.05	n/a	n/a	n/a
	REG 347 Limit	5	200	3	5	0.2	-	-	1500
	Composite Date								
DYEC/FA/151022/1	10/23/2015	<0.5	<1	<0.025	<0.025	<0.05	0	2.53	5.06
DYEC/FA/151022/2	10/23/2015	<0.5	<1	<0.025	<0.025	<0.05	0	2.60	5.19
DYEC/FA/151022/3	10/23/2015	<0.5	<1	<0.025	<0.025	<0.05	0	1.62	3.25
DYEC/FA/151022/4	10/23/2015	<0.5	<1	<0.025	<0.025	<0.05	0	3.03	6.07
DYEC/FA/151023/1	10/24/2015	<0.5	<1	<0.025	<0.025	<0.05	0	1.66	3.31
DYEC/FA/151023/2	10/24/2015	<0.5	<1	<0.025	<0.025	<0.05	0	1.63	3.26
DYEC/FA/151023/3	10/24/2015	<0.5	<1	<0.025	<0.025	<0.05	0	2.07	4.14
DYEC/FA/151023/4	10/24/2015	<0.5	<1	<0.025	<0.025	<0.05	0	3.33	6.65
DYEC/FA/151024/1	10/25/2015	<0.5	<1	<0.025	<0.025	<0.05	0	1.69	3.29
DYEC/FA/151024/2	10/25/2015	<0.5	<1	<0.025	<0.025	<0.05	0.0898	0.822	1.55
DYEC/FA/151024/3	10/25/2015	<0.5	<1	<0.025	<0.025	<0.05	0	1.27	2.53
DYEC/FA/151024/4	10/25/2015	<0.5	<1	<0.025	<0.025	<0.05	0.00761	0.815	1.56
DYEC/FA/151025/1	10/26/2015	<0.5	<1	<0.025	<0.025	<0.05	0.0927	1.36	2.63
DYEC/FA/151025/2	10/26/2015	<0.5	<1	<0.025	<0.025	<0.05	0	0.813	1.73
DYEC/FA/151025/3	10/26/2015	<0.5	<1	<0.025	<0.025	<0.05	0	0.698	1.33
DYEC/FA/151025/4	10/26/2015	<0.5	<1	<0.025	<0.025	<0.05	0	0.736	1.43
DYEC/FA/151026/1	10/27/2015	<0.5	<1	<0.025	<0.025	<0.05	0.0497	0.729	1.41
DYEC/FA/151026/2	10/27/2015	<0.5	<1	<0.025	<0.025	<0.05	0.0134	0.988	1.89
DYEC/FA/151026/3	10/27/2015	<0.5	<1	<0.025	<0.025	<0.05	0	0.842	1.68
DYEC/FA/151026/4	10/27/2015	<0.5	<1	<0.025	<0.025	<0.05	0	2.32	4.64

CONSOLIDATED COMPOSITE SAMPLE STATIST

NUMBER OF SAMPLES	20	20	20	20	20	20	20	20	20
DEGREES OF FREEDOM	19	19	19	19	19	19	19	19	19
SAMPLE MEAN (XBAR)	0.5	1	0.025	0.025	0.05	0.01	1.58	3.13	
SAMPLE VARIANCE (S^2)	0.0	0	0.000	0.000	0.00	0.00	0.68	2.77	
STANDARD DEVIATION (S)	0.0	0	0.000	0.000	0.00	0.03	0.82	1.66	
STD ERROR (S XBAR)	0.0	0	0.000	0.000	0.00	0.01	0.18	0.37	
90% CI Upper Limit (actual)	< 0.5	< 1	< 0.025	< 0.025	< 0.05	0.02	1.82	3.62	
MAXIMUM	0.5	1	0.025	0.025	0.05	0.09	3.33	6.65	
MINIMUM	0.5	1	0.025	0.025	0.05	0.00	0.70	1.33	
REGULATORY THRESHOLD	5	200	3	5	0.2	-	-	1500	

APPENDIX E

FLY ASH SAMPLING RECORD SEPT 29-OCT 3, 2015

Durham York Energy Centre

Commissioning Period Fly Ash Sampling Record

Date	Time	Pugmill Rotary Settings			Sampler Initials	Composite ID DYEC/FA/date/ identifier	Comments
		Fly Ash	Pozzolan	Cement			
9/29/2015	600	5	3.66	2.66	LB/DF	150929/1-4	Shift 1
9/29/2015	1100	5	3.66	2.66	DF		Shift 1
9/29/2015	1700	5	3.66	2.66	LB/DF		Shift 2
9/29/2015	2200	5	3.66	2.66	DF		Shift 2
9/30/2015	600	5	3.66	2.66	LB	150930/1-4	Shift 3
9/30/2015	1100	5	3.66	2.66	DF		Shift 3
9/30/2015	1700	5	3.66	2.66	DF		Shift 4
9/30/2015	2200	5	3.66	2.66	LB		Shift 4
10/1/2015	600	5	3.66	2.66	DF	151001/1-4	Shift 5
10/1/2015	1100	5	3.66	2.66	DF		Shift 5
10/1/2015	1700	5	3.66	2.66	JC		Shift 6
10/1/2015	2200	5	3.66	2.66	JC		Shift 6
10/2/2015	600	5	3.66	2.66	DF	151002/1-4	Shift 7
10/2/2015	1100	5	3.66	2.66	JC		Shift 7
10/2/2015	1700	5	3.66	2.66	JC		representative sample not available
10/2/2015	2200	5	3.66	2.66	JC		Shift 8
10/3/2015	600	5	3.66	2.66	JC	151003/1-4	Shift 9
10/3/2015	1100	5	3.66	2.66	JC		Shift 9
10/3/2015	1700	5	3.66	2.66	JC		Shift 10
10/3/2015	2200	5	3.66	2.66	JC		Shift 10

- Time Activity
- 0000 Clear Bay 1
 - 0600 Sample 1st Shift- 1
 - Clear Bay 1
 - 1100 Sample 1st Shift- 2
 - Clear Bay 1
 - 1700 Sample 2nd Shift- 3
 - Clear Bay 1
 - 2200 Sample 2nd Shift- 4
 - 0000 Clear Bay 1

Durham York Energy Centre

Commissioning Period Fly Ash Sampling Record (Lean Formulation)

Date	Scheduled Time	Pugmill Rotary Settings			Sampler Initials	Composite ID	Pozzolan Silo Level	Cement Silo Level	Comments
		Fly Ash	Pozzolan	Cement					
10/22/2015	600	5	2.0	1.5 LB	151022/1-3 plus 2 spares			Shift 1: Surge Bin plugage, delayed sampling to accumulate additional material	
10/22/2015	1100	5	2.0	1.5 LB				Shift 1	
10/22/2015	1700	5	2.0	1.5 LB				Shift 2	
10/22/2015	2200	5	2.0	1.5 JA				Shift 2	
10/23/2015	600	5	2.0	1.5 LB	151023/1-3 plus 2 spares			Shift 3	
10/23/2015	1100	5	2.0	1.5 LB				Shift 3	
10/23/2015	1700	5	2.0	1.5 LB				Shift 4	
10/23/2015	2200	5	2.0	1.5 JA				Shift 4	
10/24/2015	600	5	2.0	1.5 JC	151024/1-3 plus 2 spares			Shift 5	
10/24/2015	1100	5	2.0	1.5 JC				Shift 5	
10/24/2015	1700	5	2.0	1.5 LB				Shift 6	
10/24/2015	2200	5	2.0	1.5 LB				Shift 6	
10/25/2015	600	5	2.0	1.5 JC	151025/1-3 plus 2 spares			Shift 7	
10/25/2015	1100	5	2.0	1.5 JC				Shift 7	
10/25/2015	1700	5	2.0	1.5 LB				Shift 8	
10/25/2015	2200	5	2.0	1.5 LB				Shift 8	
10/26/2015	600	5	2.0	1.5 JC	151026/1-3 plus 2 spares			Shift 9	
10/26/2015	1100	5	2.0	1.5 JC				Shift 9	
10/26/2015	1700	5	2.0	1.5 LB				Shift 10	
10/26/2015	2200	5	2.0	1.5 LB				Shift 10	

NOTES:

1. Hard break for fly ash occurred at 00:00 on 10/22/2015

APPENDIX F

FLY ASH SAMPLING RECORD OCT 22-26, 2015