CERTIFICATE OF ANALYSIS

REPORTED TO	Balanced Ecological Management 5575 Kleanza Drive Terrace, BC V8G 0A7	**TEL** **FAX**	(250) 615-6501 -
ATTENTION	Amanita Coosemans	**WORK ORDER**	7101677
PO NUMBER		**RECEIVED / TEMP**	2017-10-19 13:30 / 19°C
PROJECT	2017012_TBSEF CN Herbicide	**REPORTED**	2017-11-06
PROJECT INFO	17 October 2017		

General Comments:

CARO Analytical Services employs methods which are conducted according to procedures accepted by appropriate regulatory agencies, and/or are conducted in accordance with recognized professional standards using accepted testing methodologies and quality control efforts, except where otherwise agreed to by the client.

The results in this report apply to the samples analyzed in accordance with the Chain of Custody or Sample Requisition document. This analytical report must be reproduced in its entirety. CARO is not responsible for any loss or damage resulting directly or indirectly from error or omission in the conduct of testing. Liability is limited to the cost of analysis. Samples will be disposed of 30 days after the test report has been issued unless otherwise agreed to in writing.

Authorized By: **Kristin McKeown**
Account Manager

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ANALYSIS INFORMATION

REPORTED TO	Balanced Ecological Management	**WORK ORDER**	7101677
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Analysis Description	Method Reference	Technique	Location
Glyphosate in Fresh	EURLRP	HPLC-MS/MS	Richmond

Method Reference Descriptions:

Glossary of Terms:

MRL	Method Reporting Limit
<	Less than the Reported Detection Limit (RDL) - the RDL may be higher than the MRL due to various factors such as dilutions, limited sample volume, high moisture, or interferences
µg/g wet	Micrograms per gram (as received basis)

SAMPLE ANALYTICAL DATA

REPORTED TO	Balanced Ecological Management	**WORK ORDER**	7101677
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Analyte	Result / *Recovery*	MRL / *Limits*	Units	Prepared	Analyzed	Notes
Sample ID: CN01 Chames Red Osier Leaves (7101677-01) [Fresh] Sampled: 2017-10-17						
Miscellaneous Herbicides						
Glyphosate	**2.66**	0.005	µg/g wet	2017-11-06	2017-11-06	
AMPA	< 0.100	0.005	µg/g wet	2017-11-06	2017-11-06	RS1
Glufosinate	< 0.005	0.005	µg/g wet	2017-11-06	2017-11-06	
Sample ID: CN03 Boat Launch 1 of 2 Deer Fern (7101677-02) [Fresh] Sampled: 2017-10-17						
Miscellaneous Herbicides						
Glyphosate	< 0.005	0.005	µg/g wet	2017-11-06	2017-11-06	
AMPA	< 0.100	0.005	µg/g wet	2017-11-06	2017-11-06	RS1
Glufosinate	< 0.005	0.005	µg/g wet	2017-11-06	2017-11-06	
Sample ID: CN05 Igneous Red Alder (7101677-03) [Fresh] Sampled: 2017-10-17						
Miscellaneous Herbicides						
Glyphosate	**0.021**	0.005	µg/g wet	2017-11-06	2017-11-06	
AMPA	< 0.100	0.005	µg/g wet	2017-11-06	2017-11-06	RS1
Glufosinate	< 0.005	0.005	µg/g wet	2017-11-06	2017-11-06	
Sample ID: CN06 Marigonish Salmon Berry (7101677-04) [Fresh] Sampled: 2017-10-17						
Miscellaneous Herbicides						
Glyphosate	< 0.005	0.005	µg/g wet	2017-11-06	2017-11-06	
AMPA	< 0.100	0.005	µg/g wet	2017-11-06	2017-11-06	RS1
Glufosinate	< 0.005	0.005	µg/g wet	2017-11-06	2017-11-06	

Sample / Analysis Qualifiers:

RS1 The Reporting Limits for this sample have been raised due to high analyte concentration and/or matrix interference.

APPENDIX 1: QUALITY CONTROL DATA

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The following section displays the quality control (QC) data that is associated with your sample data. Groups of samples are prepared in "batches" and analyzed in conjunction with QC samples that ensure your data is of the highest quality. Common QC types include:

- **Method Blank (Blk)**: Laboratory reagent water is carried through sample preparation and analysis steps. Method Blanks indicate that results are free from contamination, i.e. not biased high from sources such as the sample container or the laboratory environment
- **Duplicate (Dup)**: Preparation and analysis of a replicate aliquot of a sample. Duplicates provide a measure of the analytical method's precision, i.e. how reproducible a result is. Duplicates are only reported if they are associated with your sample data.
- **Blank Spike (BS)**: A known amount of standard is carried through sample preparation and analysis steps. Blank Spikes, also known as laboratory control samples (LCS), are prepared from a different source of standard than used for the calibration. They ensure that the calibration is acceptable (i.e. not biased high or low) and also provide a measure of the analytical method's accuracy (i.e. closeness of the result to a target value).
- **Standard Reference Material (SRM)**: A material of similar matrix to the samples, externally certified for the parameter(s) listed. Standard Reference Materials ensure that the preparation steps in the method are adequate to achieve acceptable recoveries of the parameter(s) tested.

Each QC type is analyzed at a 5-10% frequency, i.e. one blank/duplicate/spike for every 10 samples. For all types of QC, the specified recovery (% Rec) and relative percent difference (RPD) limits are derived from long-term method performance averages and/or prescribed by the reference method.

Analyte	Result	MRL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Notes
Miscellaneous Herbicides, Batch B7J2266										
Blank (B7J2266-BLK1)				Prepared: 2017-11-06, Analyzed: 2017-11-06						
Glyphosate	< 0.005	0.005	µg/g wet							
AMPA	< 0.100	0.005	µg/g wet							
Glufosinate	< 0.005	0.005	µg/g wet							
LCS (B7J2266-BS1)				Prepared: 2017-11-06, Analyzed: 2017-11-06						
Glyphosate	0.049	0.005	µg/g wet	0.0500		99	70-130			
AMPA	0.025	0.005	µg/g wet	0.0500		50	70-130			SPK1
Glufosinate	0.055	0.005	µg/g wet	0.0503		110	70-130			
LCS Dup (B7J2266-BSD1)				Prepared: 2017-11-06, Analyzed: 2017-11-06						
Glyphosate	0.053	0.005	µg/g wet	0.0500		106	70-130	7	30	
AMPA	0.022	0.005	µg/g wet	0.0500		44	70-130	13	30	SPK1
Glufosinate	0.071	0.005	µg/g wet	0.0503		141	70-130	25	30	SPK1

QC Qualifiers:

SPK1 The recovery of this analyte was outside of established control limits. The data was accepted based on performance of other batch QC.