

File No. i24412.00

July 20, 2011

Via Email: (Andy Schonberger [aschonberger@earthrangers.com])

Earth Rangers.  
9520 Pine Valley Drive  
Woodbridge, Ont

**Attention:** Mr. Andy Schonberger

**Subject:** Cover Letter

Earth Rangers Carbon Footprint Assessment

As requested, we carried out a verification of the Carbon Footprint Reports for June 1, 2009 – May 31, 2010 and June 1, 2010 – May 31, 2011 for the above mentioned project for Earth Rangers. This verification was performed in accordance with ISO 14064 Part 3, Specifications and Management lines for Validation and Verification of the Reduction of Greenhouse-Gas Emissions (2006) and the requirements of the CSA GHG CleanStart™ Registry.

The verification was lead by John McKay, P.Eng. a professional CMVP engineer with the verification work carried out by Julia Beresford EPT, a certified GHG verifier through CSA America.

The lead Verifier for this project was John McKay, P.Eng., CMVP. John is a graduate engineer (1974) and a registered mechanical engineer in Alberta, BC, Manitoba, Saskatchewan, Ontario and NWT. John has been preparing GHG plans and reports for municipalities and school districts in BC since 2001. See CSA GHG registries Voluntary Challenge Registry.

John has completed the Environment Canada and NRCAN course on GHG Validations and Verifications conducted in 2005. John completed the Association of Energy Engineers course and examination on monitoring and verification in 2006. He has completed GHG Validations for 10 projects in Ontario and BC prior to this report. Areas of specialization include thermal, mechanical and renewable energy projects.

In John's portfolio, transportation and mobile emissions projects have been included. Extensive experience in the design installation and operation of heat-pumps and ground source heat-pumps is also included. Williams Engineering (WE) is one of two independent auditors for VanCity for its GHG Offset Program.

Julia Beresford, EPT is Williams Engineering's Sustainability Lead, leading the way for Williams to become more sustainable. She created and helps maintain the Williams GHG Inventory as well as the other internal environmental monitoring programs at Williams. Julia's strong commitment to making a positive environmental impact and her knowledge of the current environmental opportunities led her to her current position of Sustainability Lead. She is currently developing our external environmental services while helping the company become more sustainable.

She is a graduate of Acadia University. Julia began as an environmental consultant, working on environmental site assessments, hazardous material inspections, and remediation projects. She has training in greenhouse gas (GHG) inventories ISO 14064-1, GHG projects ISO 14064-2 and GHG verifications ISO 14064-3 and is a certified GHG verifier through CSA America.

Independence of the auditors is ensured by adherence to the Alberta mandated Permit to Practice regulations of the APEGGA, and the corporate Professional Practice Management Plan. In particular, this ensures internal peer review, and prohibits result based contingent fees. Williams Engineering staff assigned to carry out or assist in verification have no professional or personal stake in any of the proponents business or related projects. Conflict of Interest forms are routinely processed at the

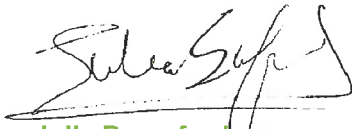
commencement of any employees' engagement at Williams Engineering Canada Inc supporting this claim of independence.

The Data Management of the verification project, such as benchmarks and records of analysis, referred to as "Verification Records", are kept on the Williams Engineering Canada Inc. central server in the Calgary office and backed up nightly in the Williams Engineering Canada Inc Edmonton IT system. Hard copies of projects and reports are maintained for seven years. This data is confidential to you, the proponent unless specifically released by you, the proponent with written permission.

We trust this meets your expectations. If you have any questions, please do not hesitate to contact our office at your convenience.

Yours truly,

Williams Engineering Canada Inc.



**Julia Beresford, EPT**  
Sustainability Lead

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**JOHN MCKAY, P.Eng., CMVP**  
Regional Director, Southern Alberta

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## **VERIFICATION REPORT**

### **PROJECT NAME**

Earth Rangers Carbon Footprint Assessment Verification

### **PROJECT LOCATION**

9520 Pine Valley Drive  
Woodbridge, Ontario

### **PREPARED FOR**

Earth Rangers

### **PREPARED BY**

Williams Engineering Canada inc.

### **DATE PREPARED**

July 19, 2011

WE File No.: 24412.00-F

## VERIFICATION REPORT

### PROJECT NAME

Earth Rangers Carbon Footprint Assessment Verification

### PROJECT ADDRESS

9520 Pine Valley Drive  
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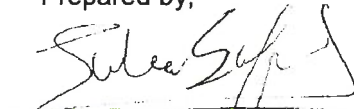
Williams Engineering Canada Inc.

### DATE PREPARED

July 19, 2011

WE File No. 24412.00-F

Prepared by,

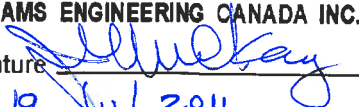
  
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<b>PERMIT TO PRACTICE</b> WILLIAMS ENGINEERING CANADA INC. Signature:  Date: 19 Jul 2011 <b>PERMIT NUMBER: P 10527</b> The Association of Professional Engineers, Geologists and Geophysicists of Alberta
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## 1.0 Summary

This report presents the verification for this engagement including the results of the verification. The Earth Rangers Carbon Footprint Assessments for June 1, 2009 – May 31, 2010 and June 1, 2010 to May 31, 2011 was reviewed as well as the CSA GHG CleanStart™ Registry application form and Carbon Neutral Report which asserts the Earth Rangers facility to be carbon neutral. The verification was performed to the CSA GHG CleanStart™ Registry requirements and ISO 14064-3.

The purpose of this verification is to verify the assertion to a reasonable level of assurance so that Earth Rangers can claim carbon neutrality and attain a credit under the Canada Green Building Council's LEED: Existing Buildings certification program. Andy Schonberger, Director, Earth Rangers Centre, and Chris Mueller, Chief Operating Officer of Jomini International, compiled the data being presented in this report.

A reasonable level of assurance was issued at the conclusion of this verification. The official verification result is contained within the Statement of Verification, which is appended to this report.

## 2.0 Level of Assurance

Based on the requirements of the CSA GHG CleanStart™ Registry this verification was performed to a reasonable level of assurance based on the verification procedures outlines in the clean start verification template and ISO 14064-3.

## 3.0 Objective

To verify the Earth Ranger's GHG inventory baseline and the consequent year's activity data to a reasonable level of assurance within the parameters of the CSA GHG CleanStart™ Registry and ISO 14064-3 so that they may claim carbon neutrality and attain a credit under the Canada Green Building Council's LEED: Existing Buildings certification program.

## 4.0 Criteria

The inventory will be verified using the following criteria:

- CSA GHG CleanStart™ Registry
- ISO 14064-1

## **5.0 Scope**

The scope of the verification will include the Carbon Footprint Reports for June 1, 2009 – May 31, 2010 and June 1, 2010 – May 31, 2011, the Carbon Neutral Report and the GHG Assertion, i.e. claim of carbon neutrality

## **6.0 Materiality**

The materiality threshold for this verification will be 5% at the gross organizational level. If a material discrepancy is found the verification activities will halt and Earth Rangers will be notified. When the material discrepancy has been addressed verification activities can resume. No material discrepancies have been found during the verification process.

## **7.0 Verification Plan**

### **7.1 Sampling Plan**

The following is a summary of the sampling verified against the above mentioned documents and criteria:

1. The Carbon Footprint Reports for June 1, 2009 – May 31, 2010 and June 1, 2010 – May 31, 2011, the Carbon Neutral Report and the GHG Assertion will be reviewed in detail
2. All utility information, Electricity and Natural Gas
3. A representative sample of 50% of the Petro-Canada & Shell Canada fleet bills for the fleet fuel consumption
4. Financial Summaries of the Employee Expensed km records
5. An assessment of the GHG Inventory information management practises
6. All aspects of the GHG inventory will be reviewed for completeness, relevance, consistency, accuracy and transparency
7. Receipts of the VERRs purchased to offset the emissions of the facility from June 1, 2010 – May 31, 2011
8. Photos of the site

The sample plan will follow the methodology in ISO 14064-3. The Sampling Plan is provided in Appendix A.

## 7.2 General

The following is a summary of the verification activities for this project.

1. Level of Assurance:

The verification will be carried out to a reasonable level of assurance

2. Verification objectives:

To verify the Earth Ranger's GHG inventory baseline and the consequent year's activity data to a reasonable level of assurance within the parameters of the CSA GHG CleanStart™ Registry and ISO 14064-3.

3. Criteria:

The inventory will be verified using the following criteria:

- CSA GHG CleanStart™ Registry
- ISO 14064-1

4. Scope:

The scope of the verification will include the Carbon Footprint Report, the Carbon Neutral Report and the GHG Assertion, i.e. claim of carbon neutrality

5. Materiality:

The materiality threshold for this verification will be 5% at the gross organizational level. If a material discrepancy is found the verification activities will halt and Earth Rangers will be notified. When the material discrepancy has been addressed verification activities can resume.

6. Schedule

Documents to be provided to Williams Engineering Canada Inc. June 17, 2011

Verification activities and sampling to take place June 20- July 8, 2011

Verification report issued to client July 12, 2011

## 8.0 Assessment of GHG Information System and its Controls

### 8.1 GHG Information System and its Controls

The records for the Carbon footprint and carbon neutral status are kept by the finance department. The Scope 1 emissions, natural gas consumption and gasoline combustion in company owned vehicles are tracked using the invoices from Enbridge, the natural gas provider, and the invoices from Petro Canada and Shell for gasoline consumed in company vehicles. The Scope two emissions of electricity consumption is tracked through finance's records of the invoices. The scope three emissions are also tracked by the finance department through expense reports. All flights and gasoline consumed during business trips in personal vehicles are expensed. Because all of the carbon footprint aspects go through finance, using the financial records to quantify the carbon footprint is deemed to be an acceptable approach.

## 8.2 GHG Data and Information Assessment

- The data was reviewed for completeness, relevance, consistency, accuracy and transparency against the CSA GHG CleanStart™ Registry and ISO 14064-1 criteria. The following is a list of the verification data and information assessment performed.
- The Carbon Footprint Reports for June 1, 2009 – May 31, 2010 and June 1, 2010 – May 31, 2011, the Carbon Neutral Report and the GHG Assertion were reviewed in detail
- All utility information including Electricity and Natural Gas invoices were reviewed to ensure the information in the invoices correlated directly with the data in the Carbon Footprint.
- A representative sample of 50% of the Petro-Canada & Shell Canada fleet bills was compared to the company owned vehicle information in the Carbon Footprint Reports Scope I
- Financial Summaries of the Employee Expensed km records were checked against the data in the Carbon Footprint reports Scope III emissions to ensure it is correct
- An assessment of the GHG Inventory information management practises was performed. Using financial records was deemed to be an acceptable way to track and acquire activity data for the Carbon Footprint,
- All aspects of the GHG inventory will be reviewed for completeness, relevance, consistency, accuracy and transparency
- Receipts of the VERRs purchased to offset the emissions of the facility from June 1, 2010 – May 31, 2011
- Photos of the site were reviewed to ensure the operational boundaries and technology explained to be on site were correct and accurate

## 8.3 Assessment against Verification Criteria

Earth Rangers Carbon footprint Reports for June 1, 2009 – May 31, 2010 and June 1, 2010 to May 31, 2011 and their Carbon neutral report adhere to the requirements of the CSA GHG CleanStart™ Registry and ISO 14064-1.

## 8.4 Material and immaterial issues

### 8.4.1 Material Issues

No material issues were revealed during the course of this verification. Therefore, there are also no outstanding material issues.

#### 8.4.2 Immaterial Issues

A data request was made for more information relating to the Scope III emissions. During the Earth Rangers document search they found more activity data for the Scope III emissions. That data was then included in the Carbon Footprints and Carbon neutral report. Once the updates were complete verification activities commenced again.

There was a very slight discrepancy for some of the emissions factors. The discrepancies were very small, three positions past the decimal point and were as follows:

Carbon Footprint Aspect	Emissions Factor used by Earth Rangers	Emissions Factor used in verification from the same source	References
Ontario Electricity Grid	0.201442 kg CO <sub>2</sub> e/KWH	0.200 kg CO <sub>2</sub> e/KWH	Environment Canada, Energy Intensity Tables, Ontario 2007
Gasoline Light Duty Vehicles	0.00234 t CO <sub>2</sub> e/L	0.00236 t CO <sub>2</sub> e/L	Environment Canada, Fuel Combustion, Mobile Combustion Table 12
Short Haul Flights	0.001750 t CO <sub>2</sub> e/pkm	0.001753 t CO <sub>2</sub> e/pkm	DEFRA 2008, Table 2:CO <sub>2</sub> emissions factors for alternative freight allocation options for passenger flights, pg 7
Medium Haul Flights	0.0000985 t CO <sub>2</sub> e/pkm	0.0000983 t CO <sub>2</sub> e/pkm	DEFRA 2008, Table 2:CO <sub>2</sub> emissions factors for alternative freight allocation options for passenger flights, pg 7

This slight discrepancy was less than 1% of the total emissions reported for that aspect and is therefore deemed immaterial.

## 9.0 Verification Statement

Based on the verification activities conducted and the above mentioned reports provided by Earth Rangers, the GHG assertion of 165 tonnes CO<sub>2</sub>e and the assertion of carbon neutrality, as Earth Rangers have purchased 165 tonnes of VERRs, is materially correct and is a fair representation of the GHG data and information and has been prepared in accordance with the CSA GHG CleanStart™ Registry requirements and ISO 14064-1. A Verification Statement is attached in Appendix B, Statement of Verification.

## 10.0 Verifier's Independence, Ethical Conduct and Fair Presentation

Verifiers' Independence, Ethical Conduct and Fair Presentation of the Verifiers is addressed in the Covering Letter to this Verification Report.

## 11.0 Verifiers and Due Professional Care

Williams Engineering Canada Inc. assigned verifiers John McKay and Julia Beresford to this verification activity. These professionals have the necessary skills, relevant experience and have demonstrated competencies through formal examination to perform this verification activity. These skills and competencies allow the Verifiers to exercise due professional care and judgement consistent with the needs of the Project Proponent and the intended users of this Verification Report.

## 12.0 Risk and Magnitude Assessment

This verification considered three types of risk as defined in ISO 14064-3:

- Inherent Risk
- Control Risk
- Detection Risk

The assessment of risk for this verification affects the level of scrutiny planned for the verification procedures including the sampling plan. The following risk assessment summarizes observations made following an initial review of the Project Plan and an interview of key individuals responsible for the project.

There is no substantial inherent risk associated with the verification of the project. The Carbon Footprint methodology and the emission calculations are well understood.

Control risk in this verification relates to the likelihood that a material misstatement related to the GHG assertion will not be prevented, or detected, by the owner's internal control system. The quantification of emission reductions relies on the financial records of the company and are deemed to be of low risk as they have internal quality management and have to maintain records for audits, as such financial records are correct and accurate.

The only material detection risk in this verification is potential material errors in the owner's data records. This risk will be mitigated by comparing the data, to the financial records.

### **13.0 Verification Records**

A review file will be developed for this verification. The file is composed of documents, records, working papers and other evidence collected and created by the Review Team during the course of the review. These documents serve to support review conclusions.

The review file serves to:

- Provide support for the contents of the verification statement;
- Provide evidence that the review was conducted in accordance with the criteria set forth in this document; and
- Aid the Review Team in conducting current and future reviews.

The review file includes:

- Decisions on the level of materiality and components of review risk;
- Documentation on the owner's internal controls;
- Descriptions of the controls assessment work and results;
- Descriptions of the substantive testing procedures that were carried out and the results;
- Copies of relevant records, spreadsheets and other data files; and
- Copies of any correspondence with the proponent, or other parties relevant to the verification.

The review file is the property of Williams Engineering Canada Inc. and access to it is normally restricted to the Review Team and the Proponent. Williams Engineering Canada Inc. will retain and safeguard the file for a minimum of seven (7) years.

# APPENDIX A

## SAMPLE PLAN

**APPENDIX A**

File No. 24412.00

July 19, 2011

**Attention:** Andy Schonberger  
Director, Earth Rangers CentreEarth Rangers Foundation  
9520 Pine Valley Drive  
Woodbridge, Ont L4L 1A6**Subject:** Verification plan  
Greenhouse Gas (GHG) Inventory Verification

The purpose of this document is to illustrate the verification and sampling plan to be carried out for the verification of the Earth Rangers Centre GHG Inventory.

**Verification Plan**

The following is a summary of the verification activities for this project.

## 1. Level of Assurance:

The verification will be carried out to a reasonable level of assurance

## 2. Verification objectives:

To verify the Earth Ranger's GHG inventory baseline and the consequent year's activity data to a reasonable level of assurance within the parameters of the CSA GHG CleanStart™ Registry and ISO 14064-3.

## 3. Criteria:

The inventory will be verified using the following criteria:

- CSA GHG CleanStart™ Registry
- ISO 14064-1

## 4. Scope:

The scope of the verification will include the Carbon Footprint Report, the Carbon Neutral Report and the GHG Assertion, i.e. claim of carbon neutrality

## 5. Materiality:

The materiality threshold for this verification will be 5% at the gross organizational level. If a material discrepancy is found the verification activities will halt and Earth Rangers will be notified. When the material discrepancy has been addressed verification activities can resume.

## Sample Plan

The following is a summary of the sampling to be verified against the above mentioned documents and criteria:

1. The Carbon Footprint Report, the Carbon Neutral Report and the GHG Assertion will be reviewed in detail
2. All utility information, Electricity and Natural Gas
3. Petro-Canada & Shell Canada fleet bills for the fleet fuel consumption
4. Employee Expensed km records
5. Receipts for efficiency measures implemented during the GHG inventory period
6. An assessment of the GHG Inventory information management practises
7. All aspects of the GHG inventory will be reviewed for completeness, relevance, consistency, accuracy and transparency
8. Receipts of the VERRs purchased to offset the emissions of the facility from June 1, 2010 – May 31, 2011
9. Photos of the site

The sample plan will follow the methodology in ISO 14064-3

## Schedule

Documents to be provided to Williams Engineering Canada Inc. June 17, 2011

Verification activities and sampling to take place June 20-26, 2011

Verification report issued to client June 29, 2011

U:\Projects\I24000\I24412.00\Files\F-Reports\24412 App A Ver Plan.docx

# APPENDIX B

## STATEMENT OF VERIFICATION

## STATEMENT OF VERIFICATION

One assertion was submitted for this project. The Statement of Verification is provided below:

### STATEMENT OF VERIFICATION

#### EARTH RANGERS

9520 Pine Valley Drive, Woodbridge Ont.

(Baseline June 1, 2009 – May 31, 2010, Subsequent footprint report: June 1, 2010 – May 31, 2011, Carbon Neutral Report)

#### Scope

The objective of this verification is to verify the Earth Ranger's GHG inventory baseline and the consequent year's activity data to a reasonable level of assurance within the parameters of the CSA GHG CleanStart™ Registry and ISO 14064-3 so that they may claim carbon neutrality and attain a credit under the Canada Green Building Council's LEED: Existing Buildings certification program.

We have reviewed the Earth Rangers Carbon Footprint Reports, carbon Neutral Report and the supporting evidence, covering a period of June 1, 2009 to May, 31 2011. The assertion claims carbon neutrality through the purchase of 165 tonnes of VERRs purchased from Jomini International. The reporting periods are as follows:

- 1) First reporting year (Baseline) June 1, 2009 – May 31, 2010
- 2) Second reporting Year June 1, 2010 – May 31, 2011
- 3) Carbon neutral report offsetting for June 1, 2010 – May 31, 2011

Andy Schonberger, Director, Earth Rangers Centre, and Chris Mueller, Chief Operating Officer of Jomini International, compiled the data being presented in this report.

#### Methodology

We completed our review in accordance with the ISO 14064 Part 3 – Greenhouse Gases: Specification with guidance for the validation and verification of greenhouse gas assertions and the requirements of the CSA GHG CleanStart™ Registry. As such, we planned and performed our work in order to provide a reasonable level of assurance, with respect to the Assertion. We believe our work provides a reasonable basis for our conclusion.

#### Immaterial Issues

A data request was made for more information relating to the Scope III emissions. During the Earth Rangers document search they found more activity data for the scope III emissions. That data was then

included in the Carbon Footprints and Carbon neutral report. Once the updates were complete verification activities commenced again.

There was a very slight discrepancy for some of the emissions factors. The discrepancies were very small, three positions past the decimal point and were as follows:

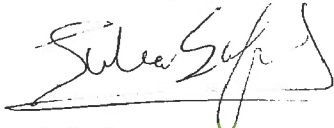
Carbon Footprint Aspect	Emissions Factor used by Earth Rangers	Emissions Factor used in verification from the same source	References
Ontario Electricity Grid	0.201442 kg CO <sub>2</sub> e/KWH	0.200 kg CO <sub>2</sub> e/KWH	Environment Canada, Energy Intensity Tables, Ontario 2007
Gasoline Light Duty Vehicles	0.00234 t CO <sub>2</sub> e/L	0.00236 t CO <sub>2</sub> e/L	Environment Canada, Fuel Combustion, Mobile Combustion Table 12
Short Haul Flights	0.001750 t CO <sub>2</sub> e/pkm	0.001753 t CO <sub>2</sub> e/pkm	DEFRA 2008, Table 2:CO <sub>2</sub> emissions factors for alternative freight allocation options for passenger flights, pg 7
Medium Haul Flights	0.0000985 t CO <sub>2</sub> e/pkm	0.0000983 t CO <sub>2</sub> e/pkm	DEFRA 2008, Table 2:CO <sub>2</sub> emissions factors for alternative freight allocation options for passenger flights, pg 7

This slight discrepancy was less than 1% of the total emissions reported for that aspect and is therefore deemed immaterial.

**Conclusion**

This statement confirms that Williams Engineering Canada Inc. has evaluated the GHG assertion of **Carbon Neutrality through purchasing 165 tonnes of VERRs** is a materially fair and accurate representation of the emissions over the period of the report and is supported by sufficient and appropriate evidence. The project adheres to the above referenced protocols, is complete, without material discrepancy and the verification activities provide a reasonable level of assurance.

Prepared by,



**Julia Beresford, B.Sc, EPT**  
Sustainability Lead

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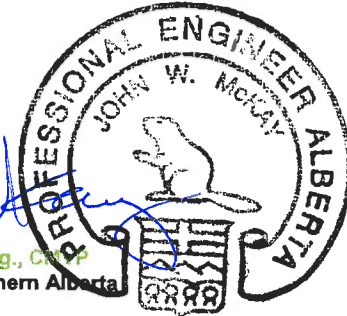
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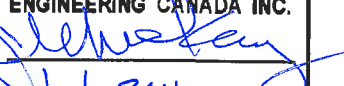
Reviewed by,



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<b>PERMIT TO PRACTICE</b> WILLIAMS ENGINEERING CANADA INC. Signature  Date <u>19 Jul 2011</u> <b>PERMIT NUMBER: P 10527</b> The Association of Professional Engineers, Geologists and Geophysicists of Alberta
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