

# Final Verification Report

Suncor Energy Oil and Gas Partnership –  
Suncor South Rosevear Acid Gas Injection Project

under the Alberta Specified Gas *Emitters Regulation*.

May 17, 2010



Prepared for:

**Blue Source Canada ULC.**  
Calgary, Alberta

Prepared By:

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## 1. Verification Summary

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Lead Verifier:	Aaron Schroeder, P.Eng. (Alberta)
Lead Reviewer:	Duncan Rotherham
Associate Verifiers:	Chris Caners, P.Eng. (Ontario)

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Verification Timeframe:	March – May, 2010
Objective of the verification:	Limited level of assurance on GHG Assertion for Emission Reduction Credits
Assurance being provided to:	Alberta Environment
Standard being verified to:	ISO 14064-3 (ISO, 2006)
Verification criteria employed:	<i>Specified Gas Emitters Regulation</i> (Alta. Reg.139, 2007); <i>Offset Credit Verification Guidance Document v.1</i> (AENV, Sept. 2007); <i>Quantification Protocol for Acid Gas Injection v.1</i> (AENV, May 2008).
Verification scope – Gases:	Carbon Dioxide, Methane, Nitrous Oxide

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Project:	Suncor South Rosevear Acid Gas Injection Project
Location(s):	Near Edson, Alberta
Emission Reduction Temporal period:	March 5, 2007 – December 31, 2009 (2007, 2008 & 2009 Vintage Years)

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## 2. Verification Scope and Description

### 2.1. Background

Suncor Energy Oil and Gas Partnership, (“Suncor”) has worked to develop the necessary documentation detailing project activities to support their claim for emission reductions to be registered on the Alberta Offset Registry which supports and compliments Alberta’s Specified Gas Emitters Regulation. Blue Source Canada ULC., (“Blue Source”) has engaged ICF Consulting Canada Inc. (“ICF”) to provide a third party verification of the emission reduction asserted by Suncor related to project activities discussed herein.

The quantification of the emission reductions associated with Acid Gas Injection operations are defined by Alberta Environment’s (“AENV”) *Quantification Protocol for Acid Gas Injection, Version 1 (AENV May 2008)* (“the Protocol”). The emission reduction assertion made by Suncor related to this project and summarized in the *Notice of Creation*, dated May 14, 2010 (“GHG Assertion”) is directly related to the geological sequestration of acid gas containing carbon dioxide during the course of natural gas processing. The Protocol quantifies the emission reduction based on a difference calculation between the project condition (acid gas injection) and the baseline or pre-project condition (acid gas processing with a multi-stage Claus unit and incineration of the tail gas stream).

The project covered by this verification involves the creation of 2007, 2008 and 2009 calendar year vintage GHG Emission Reductions Credits created at the South Rosevear Gas Processing Facility.

This is the first GHG assertion made by this project and as such, the first verification ICF has been engaged by the proponent for verification services covering this project.

This document presents the verification methodology used to collect sufficient evidence to reach a conclusion as to the validity of the GHG assertion made by Suncor. The Verification Plan, which was developed during the verification planning stage, is attached as an Appendix to this report. It served to guide the verification team, communicate the parameters of the verification to the intended users and inform the development of the verification procedures described in the Sampling Plan. The Sampling Plan is also attached as an Appendix to this report. The procedures described in the Sampling Plan are numbered according to the categories used to group similar procedures. This numbering system is also used in the results section of this report.

### 2.2. Scope

#### Boundaries

During the initial verification planning, the organizational boundaries and the sources, sinks and reservoirs (“SSRs”) defined in the Offset Project Plan were reviewed for conformity with the approved Protocol. The procedures utilized to review the emission reductions reported in the GHG Assertion were designed to support a *limited level* of assurance. These procedures systematically review:

- the project activity covered by the quantification including the processing, transportation and injection of acid gas, the recycling of acid gas and the combustion of fossil fuels to support natural gas processing;
- the equipment covered by the quantification;
- the facility and the facility boundary defined by the quantification;
- the systems utilized for recording, tracking and safeguarding the data associated with the quantification including the summary calculations performed by the third-party consultant;

- the application of the Offset Project Plan;
- the supporting information defending the applicability criteria and the use of flexibility mechanisms and contingent data collection procedures;
- the Project Report; and
- the GHG Assertion.

### Verification Criteria

The verification criteria employed in the development of the review procedures documented in the verification plan include:

- *Climate Change and Emissions Management Act, S.A. 2003, c. C-16.7;*
- *Alberta Specified Gas Emitters Regulation (Alta. Reg. 139, 2007);*
- *Offset Credit Project Guidance Document v.1.2 (AENV, Feb. 2008);*
- *Offset Credit Verification Guidance Document v.1 (AENV, Sept. 2007);*
- *Quantification Protocol for Acid Gas Injection, Version 1 (AENV May 2008);*
- *Offset Project Plan: Suncor South Rosevear Acid Gas Injection Offset Project, Version 1.0 (Blue Source, April 2010).*

The verification was conducted in accordance with ISO 14064-3:2006.

### Gases

The emission reduction accounts for three greenhouse gases: Carbon Dioxide, Methane and Nitrous Oxide.

### Reporting Period

The GHG Assertion includes emission reductions during the March 5, 2007 through December 31, 2009 timeframe.

## **2.3. Materiality**

During the course of the verification procedures, individual errors, omissions or misrepresentations or the aggregate of these discrepancies will be evaluated qualitatively and quantitatively.

Materiality defines the level at which discrepancies in the GHG Assertion or any underlying supporting information precludes the issuance of a limited level of assurance.

The Lead Verifier, Lead Reviewer and Associate Verifiers (“**Verification Team**”) is responsible for determining if *qualitative* discrepancies could adversely affect the GHG Assertion and subsequently influence the decisions of the Intended User, in which case the discrepancy(ies) are deemed to be material.

*Quantitative* discrepancies will be calculated individually and in aggregate to determine the percentage of the GHG Assertion that is affected. Alberta Environment has defined quantitative discrepancies as material if they represent error of greater than or equal to 5% of the GHG Assertion.

All discrepancies that are outstanding at the conclusion of the verification are documented in the verification report and classified on an individual basis as either material or immaterial.

## Materiality Threshold

The materiality threshold is defined as the lesser of 5,000 tonnes CO<sub>2</sub>e, or 5% of the total reported reduction in the GHG Assertion. Note that the materiality threshold may be breached by individual errors, or the sum of multiple errors detected in the various project SSRs.

## 2.4. Principles

ISO 14064-3:2006 defines six principles that should be upheld in the development of the GHG Assertion. These principles “are intended to ensure a fair representation and a credible and balanced account of GHG emission reductions and removal enhancements from projects” (ISO 14064-3:2006). The verification procedures developed and executed during the course of this verification present evidence such that each of these principles is satisfied.

### a. Relevance

Appropriate data sources are used to quantify, monitor or estimate GHG sources, and SSRs. Appropriate minimum thresholds are used to justify the exclusion or the aggregation of minor GHG sources or the number of data points monitored.

### b. Completeness

All SSRs identified in the protocol are established in the Offset Project Plan and all emissions in the project are included within an identified SSR.

### c. Consistency

Uniform calculations are employed between the baseline and project condition and through the entire crediting period. Emission calculations for each SSR are calculated uniformly. If more accurate procedures and methodologies become available, documentation should be provided to justify the changes and show that all other principles are upheld.

### d. Accuracy

Measurements and estimates are presented, without bias as far as is practical. Where sufficient accuracy is not possible or practical, measurements and estimates should be used while maintaining the principle of conservativeness.

### e. Transparency

Information is presented in an open, clear, factual, neutral and coherent matter that facilitates independent review. All assumptions are stated clearly and explicitly and all calculation methodologies and background material are clearly referenced.

### f. Conservativeness

Appropriate parameters affecting the project’s SSRs are utilized in the calculation of the GHG Assertion. When parameters or data sources are highly uncertain, the choice of parameter or data source to be utilized results in an underestimation in the GHG Assertion (i.e. baseline emissions are under-estimated, project emissions are overestimated).

## 2.5. Disclaimer

Due to the complex nature of the emission reduction project and the inherent limitations of the verification procedures employed, it is possible that fraud, error, or non-compliance with laws, regulations, and relevant criteria may occur and not be detected.

### 3. Verification Approach

Significant planning was completed prior to the execution of the verification procedures used to review the GHG Assertion and supporting information. The planning tasks were divided into two main stages known as preplanning, and verification planning. A site visit was conducted to gather information during the planning stage. Planning was concluded with the development of a final draft Verification and Sampling Plan. Significant time was spent in the planning stages to ensure an efficient and effective verification and to facilitate communication between the verification team and the Project Proponent.

Upon completion of the development of the draft Verification and Sampling Plan, the plan was reviewed with the Project Proponent. The verification procedures established in the plan were executed through which verification evidence was collected. At the conclusion of the verification procedures, a verification conclusion was reached.

#### 3.1. Preplanning the Engagement

ICF submitted a proposal in response to a request from Blue Source. Prior to submitting this proposal, the following preplanning steps were taken:

- The results of any previous business engagements with the Client and Project Proponent were reviewed to determine if any previous unresolved conflicts may preclude ICF from engaging in the verification;
- The client's motivation for completing the verification was established as a requirement under the Alberta Offset System;
- A threat analysis to independence was conducted. No perceived or real conflicts were found when considering threats due to:
  - advocacy
  - intimidation
  - self-review
  - self-interest
  - familiarity
- An engagement letter was submitted with the proposal.

#### 3.2. Verification Planning

An extensive knowledge of the Project Proponent's business, the relevant industry and the details of the project itself are required to conduct a thorough verification that can lead to a conclusion. The initial information collected about the Project Proponent and the project formed the basis of the preliminary Verification Plan. The development of the Verification Plan was an iterative process; that is, the process was completed several times and the resulting plan was updated as new information became available. The final Verification Plan was not produced until after the completion of the initial site visit.

The process of designing the Verification Plan began with the development of a Project Proponent risk profile. The steps in this process included:

- reviewing the results of similar verifications that were completed for comparable organizations and projects;
- reviewing information on the industry and the specific project under review;

- assessing the Project Proponent's control environment and the corporate governance process;
- assessing the need for outside specialists. The verification team has specific experience working with acid gas injection projects and specifically projects under the Alberta Offset System therefore, no need for outside specialists was identified. Specialists within ICF were available to the verification team and were consulted on specific issues raised during the course of the verification;
- assessing the likelihood that a material misstatement might exist in the project, if no controls were used to prevent misstatements in the GHG Assertion (i.e. inherent risk). The highlights of this analysis are summarized in the verification plan;
- reviewing the contingent data collection procedures and flexibility mechanisms employed in the project, as outlined in the Offset Project Plan; and
- reviewing each SSR identified in the Offset Project Plan. The contribution of each SSR to the GHG Assertion and the potential material discrepancy for each was calculated.

### [Site Visit](#)

The site visit was a key step in planning the verification. This meeting presented the first opportunity to document the Project Proponent's internal controls and to inquire about data management and security. Project Proponent staff were interviewed regarding controls, data management and security.

Details of the site visit performed pursuant to the execution of this verification are provided in the Verification Schedule, Section 4, of this document.

### [Final Verification and Sampling Plan](#)

The final draft Verification Plan was developed based on the information collected during the planning stages. It documents the terms of the verification and includes the Sampling Plan, which describes the initial verification procedures. Amendments to the verification procedures were made during the course of the verification as new information became available and further understanding of the project and the data controls were achieved. The final Verification Plan is attached in Appendix A; the final Sampling Plan in Appendix B.

## 3.3. Executing the Verification

With a Verification Plan in place, the full verification was then completed. This process involved collecting evidence, testing internal controls, conducting substantive testing, and developing a review file.

### [Collecting Evidence](#)

Two concepts key to the collection of review evidence are sufficiency and appropriateness. These concepts are interrelated. The decision as to whether an adequate quantity (sufficiency) of evidence has been obtained is influenced by its quality (appropriateness).

The Verification Team reviewed the following sources of evidence:

- Management documentation: Policies, programs and procedures related to the collection, safeguarding and management of the GHG-related data including the information documented in the Offset Project Plan.
- Records: Records comprise time-sensitive data, correspondence, and files. The files reviewed include wellhead production records, Petroleum Registry production records, gas composition analysis lab results, meter validation and calibration records, ERCB correspondence, and joint-venture partnership attestations and contractual information.

- Interviews: Interviews were held with Suncor and Blue Source managers and employees who have a role in or responsibility for handling data and other information necessary for the calculation of GHG emissions. The interviews also provide information as to whether the management processes have been implemented as intended.
- Computer systems. Data systems and GHG calculation software used to capture and manage the GHG-related data.

### Testing Internal Controls

The Verification Team developed a sufficient understanding of the GHG information system and internal controls to determine whether the overall data management system is sound, examining it for sources of potential errors, omissions and misrepresentations. This assessment constitutes examining three aspects of the company's internal controls: (1) the control environment, (2) the data systems, and (3) the control and maintenance procedures.

The testing procedures documented in the sampling plan include some procedures to test the effectiveness of the internal controls in place. The results of these tests influence what activity data must be sampled and at what rate.

### Conducting Substantive Testing

Substantive testing procedures were used to provide evidence to the effectiveness of internal controls and evidence supporting the validity of the GHG Assertion. The specific procedures are summarised in the Sampling Plan as separate tables for each process or activity involved in the quantification and reporting of the GHG Assertion. Materiality is specified for each specific procedure and aggregate materiality is determined separately.

The details of the testing of internal controls and substantive testing undertaken are described in detail in the final Sampling Plan.

### Developing a Review File

A review file ("File") is developed for each verification. The File is comprised of documents, records, working papers and other evidence collected and created during the course of the review (by the Verification Team) that support the review conclusions. The review file serves to: provide support for the contents of the opinion statement; provide evidence that the review was conducted in accordance with the criteria set forth in this document; and aid the verifier in conducting current and future reviews.

The review file includes:

- the Offset Project Plan and GHG Assertion;
- decisions on the level of materiality and the components of review risk;
- documentation on the Project Proponent's internal controls;
- descriptions of the controls assessment work and results;
- documentation 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 Project Proponent or other parties relevant to the review.

The review file is the property of ICF and access to it is normally restricted to the Verifier and the Client. ICF will retain and safeguard the file for a minimum of 7 years.

### 3.4. Completing the Verification

The purpose of the Verification Report is to document the verification findings and process. All errors are described and compared to the materiality threshold individually and in aggregate. The final Verification Statement, which presents ICF's opinion on the GHG Assertion, is also included in this report.

#### Closing the Engagement

The review engagement will be closed out upon delivery of the final Verification Report and a meeting with the Client. The following internal tasks will be completed:

- Addition of the Verification Report to the review file; and
- Organization of the review file and sign-off by the Lead Verifier.

## 4. Verification Schedule

The verification was completed between the initial engagement in March, 2010 and the issuance of the Verification Report on May 17, 2010 and included the following activities:

### Preplanning the Engagement

- March 3, 2010: The Client requested a project specific proposal for the verification of a GHG Assertion made by the Project Proponent with emissions reductions generated from their offset project.
- March 3, 2010: ICF reviewed previous engagements and conducted an independence threat analysis.
- March 12, 2010: ICF provided a project specific proposal for verification services to the Client.

### Verification Planning

- March 17, 2010: ICF conducted a verification kickoff meeting with the Client and Project Proponent (conducted at Suncor Energy Offices, Calgary, Alberta).
- March 29, 2010: ICF conducted a Site visit to the project site near Edson, Alberta.
- April 12, 2010: ICF completed a draft Verification Plan.
- April 19, 2010: ICF completed the Verification and Sampling plan.

### Execution of the Verification

- March 29 – April 20, 2010: ICF executed the Verification and Sampling Plan.

### Completion of the Verification

- May 17, 2010: ICF issued the Verification Report to the Client.

## 5. Verification Procedures and Findings

The procedures employed in the verification of the GHG Assertion were initially documented in the Verification and Sampling Plan. These procedures are referenced here with the specific findings from each procedure listed.

The discrepancy details sections below include an approximated value of the asserted quantity affected by each discrepancy, described as a percentage of the total assertion. These values should be relied upon only for determining if discrepancies breach the materiality threshold and not for any other purpose.

### 5.1. Material Discrepancies

There were no material discrepancies detected in the GHG Assertion or supporting documentation.

### 5.2. Immaterial Discrepancies

Immaterial discrepancies were detected in the supporting documentation to the GHG Assertion as described below.

Procedure	Sample Size	Discrepancy Description	Status
B1: Documentation of Boundaries – Offset Project Plan (OPP)	N/A	None detected	No discrepancies in final assertion
B2: Demonstration of Applicability	N/A	None detected	No discrepancies in final assertion
B3: Application of Flexibility Mechanisms	N/A	None detected	No discrepancies in final assertion
O1: Confirmation of Contractual Relationship – Proponent and Project Partners	N/A	None detected	No discrepancies in final assertion
C1: Emission Reduction Calculation – Methodology Definition	N/A	Density of Carbon Dioxide differs from the default value listed in the Protocol.	Immaterial discrepancy in final assertion
C2: Emission Reduction Calculation – Calculation	N/A	None detected	No discrepancies in final assertion
D1: Data Sources and Quality Controls	4 months of records per vintage year	Transcription error in gas composition.	Immaterial discrepancy in final assertion
D2: Data Confirmation against Secondary External Sources	4 months of records per vintage year	Frequency of gas composition sampling less than specified in Protocol.	Immaterial discrepancy in final assertion
D3: Use of Contingent Data Collection Procedures	N/A	None detected	No discrepancies in final assertion

### Immaterial Discrepancy Details

C1: Emission Reduction Calculation – Methodology Definition	<i>Density of Carbon Dioxide differs from the default value listed in the Protocol.</i> The default density of CO <sub>2</sub> provided in the Protocol is based on standard temperature and pressure of 0°C and 1 atm. The ERCB requires meter compensation to standard temperature and pressure of 15°C and 1 atm. The density of CO <sub>2</sub> used in the project is 1.8612 kg/m <sup>3</sup> at 15°C and 1 atm. This is a discrepancy from the protocol, but it serves to improve accuracy of the assertion.
D1: Data Sources and Quality Controls	<i>Transcription error in gas composition:</i> a discrepancy between hard copy gas composition analysis and values in calculation spreadsheets was detected. This resulted in a very small discrepancy in the final asserted quantity (less than 0.1%).
D2: Data Confirmation against Secondary External Sources	<i>Frequency of gas composition sampling less than specified in Protocol:</i> The responsible party used an estimation methodology that is more conservative than the contingent approach. The methodology used the most conservative gas composition from the adjacent months to estimate the gas composition. The discrepancy results in a more conservative assertion.

### 5.3. Aggregate Materiality

The sum of the immaterial discrepancies in the population does not result in a breach of materiality.

### 5.4. Additional Findings

Four flexibility mechanisms were utilized in this project. A dedicated verification procedure was designed to determine if sufficient evidence was provided for each flexibility mechanism. The supporting evidence was found to be sufficient to support the use of the flexibility mechanisms, as described in the Offset Project Plan. The supporting evidence was detailed in the verification working papers.

Similarly, three contingent data collection methods were used to quantify the emission reduction associated with this project. The use and impact of these contingent methods were analyzed in a dedicated verification procedure. The supporting evidence and the results of the verification procedure found that the use of the contingent data collection methods was in conformance with the Protocol. The analysis and supporting evidence was detailed in the verification working papers.

## 6. Verification Statement

May 17, 2010

Alberta Environment  
12th Floor, Oxbridge Place  
9820 – 106 Street  
Edmonton A.B. T5K 2J6

**RE: Statement of Verification – Suncor Energy Oil and Gas Partnership,  
Suncor South Rosevear Acid Gas Injection Project  
(March 5, 2007 – December 31, 2009)**

### Scope

Blue Source Canada ULC (“Blue Source”) engaged ICF Consulting Canada Inc. (“ICF”) to review Suncor Energy Oil and Gas Partnership’s, (“Suncor”) *GHG Assertion – Notice of Creation of Emission Reduction Credits* and supporting evidence, covering the period March 5, 2007 – December 31, 2009 (“GHG Assertion”). The GHG Assertion, dated May 14, 2010, specifies a claim for 14,950 tonnes CO<sub>2</sub>e in 2007, 7,469 tonnes CO<sub>2</sub>e in 2008 and 3,145 tonnes CO<sub>2</sub>e in 2009. Suncor is responsible for the preparation and presentation of the information within the GHG Assertion. Our responsibility is to express a conclusion as to whether anything has come to our attention to suggest that the GHG Assertion is not presented fairly in accordance with Alberta Environment’s approved quantification methodology (*Quantification Protocol for Acid Gas Injection v.1, May 2008*) (“Protocol”) for this project; the *Specified Gas Emitters Regulation* (Alta. Reg.139, 2007) (“Regulation”), and the associated guidance documents.

### 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* (ISO, 2006). As such, we planned and performed our work in order to provide limited, rather than absolute assurance with respect to the GHG Assertion. Our review criteria were based on the Protocol; the Regulation, and the associated guidance documents. We reviewed Suncor’s *Offset Project Plan (Offset Project Plan: Suncor South Rosevear Acid Gas Injection Project, April 2010, Blue Source Canada ULC)*; GHG Assertion; and associated documentation. We believe our work provides a reasonable basis for our conclusion.

### Conclusion

Based on our review, nothing has come to our attention which causes us to believe that the GHG emission reduction contained in the GHG Assertion is not presented fairly in accordance with the relevant criteria.

*(original signed)*

**Aaron Schroeder, P.Eng.**  
Professional Engineer, Alberta (M75566)  
Lead Verifier  
Calgary, Alberta, Canada

**Duncan Rotherham**  
Vice President, ICF Consulting Canada, Inc.  
Lead Reviewer  
Toronto, Ontario, Canada

## 7. Appendices

7.1. Appendix A: Verification Plan

7.2. Appendix B: Sampling Plan

7.3. Appendix C: Statement of Verification

7.4. Appendix D: Statement of Qualifications

7.5. Appendix E: Conflict of Interest Statement



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## Verification Plan

### Suncor Energy Oil and Gas Partnership – Suncor South Rosevear Acid Gas Injection Project

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Lead Verifier: Aaron Schroeder, P.Eng. (Alberta)

Lead Reviewer: Duncan Rotherham

Associate Verifiers: Chris Caners, P.Eng. (Ontario)

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Verification Timeframe: March – May, 2010

Objective of the verification: Limited level of assurance on GHG Assertion for Emission Reduction Credits

Assurance being provided to: Alberta Environment

Standard being verified to: ISO 14064-3 (ISO, 2006)

Verification criteria employed: *Specified Gas Emitters Regulation (Alta. Reg.139, 2007);  
Offset Credit Verification Guidance Document v.1 (AENV, Sept. 2007);  
Quantification Protocol for Acid Gas Injection v.1 (AENV, May 2008).*

Verification scope – Gases: Carbon Dioxide, Methane, Nitrous Oxide

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Project: Suncor South Rosevear Acid Gas Injection Project

Location(s): Near Edson, Alberta

Emission Reduction

Temporal period: March 5, 2007 – December 31, 2009 (2007, 2008 & 2009 Vintage Years)

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## 1. Introduction

Suncor Energy Oil and Gas Partnership, ('Suncor') has worked to develop the necessary documentation detailing project activities to support their claim for emission reductions to be registered on the Alberta Offset Registry which supports and compliments Alberta's Specified Gas Emitters Regulation. Blue Source Canada ULC., ('Blue Source') has engaged ICF Consulting Canada Inc. ("ICF") to provide a third party verification of the emission reduction asserted by Suncor related to project activities discussed herein.

The quantification of the emission reductions associated with Acid Gas Injection operations are defined by Alberta Environment's ("AENV") *Quantification Protocol for Acid Gas Injection, Version 1 (AENV May 2008)* ("the Protocol"). The emission reduction assertion made by Suncor related to this project is directly related to the geological sequestration of acid gas containing carbon dioxide during the course of natural gas processing. The protocol quantifies the emission reduction based on a difference calculation between the project condition (acid gas injection) and the baseline or pre-project condition (acid gas processing with a multi-stage Claus unit and incineration of the tail gas stream).

The project covered by this verification involves the creation of 2007, 2008 and 2009 calendar year vintage GHG Emission Reductions Credits created at the South Rosevear Gas Processing Facility.

This is the first GHG assertion made by this project and as such, the first verification ICF has been engaged by the proponent for verification services covering this project.

This document describes the terms and scope of this verification. It serves to guide the verification team, communicate the parameters of the verification to the intended users and inform the development of the verification procedures described in the Sampling Plan (attached).

## 2. Objective

The primary objective of this verification is to determine if the project described in the Offset Project Plan ("OPP") resulted in the greenhouse gas ("GHG") emission reduction reported in the *Notice of Creation of Emission Reduction Credits* ("GHG Assertion"). This assessment will be based on the verification criteria defined by the scope of the project.

## 3. Parties and Users

As defined in Section 2.15 of ISO 14064-3:2006 the individual or organization that has overall control and responsibility for the GHG project is the "Project Proponent". For this verification, Suncor is the Project Proponent.

ICF the "Verifier," has been engaged by Blue Source the "Client", to provide a third party verification of the emission reduction on behalf of the Project Proponent.

The "Intended User," is defined in Section 2.26 of ISO 14064-3:2006 as the individual or organization identified by those reporting GHG-related information that relies on that information to make decisions. The client, buyers of serialized credits resulting from the GHG Assertion and Alberta Environment are intended users of the information contained in this verification.

## 4. Scope

### Boundaries

During the initial verification planning, the organizational boundaries and the sources, sinks and reservoirs ("SSRs") defined in the OPP were reviewed for conformity with the approved Protocol. The procedures utilized to review the emission reductions reported in the GHG Assertion were designed to support a *limited level* of assurance. These procedures systematically review:

- the project activity covered by the quantification including the processing, transportation and injection of acid gas, the recycling of acid gas and the combustion of fossil fuels to support natural gas processing;
- the equipment covered by the quantification;
- the facility and the facility boundary defined by the quantification;
- the systems utilized for recording, tracking and safeguarding the data associated with the quantification including the summary calculations performed by the third-party consultant;
- the application of the Offset Project Plan;
- the supporting information defending the applicability criteria and the use of flexibility mechanisms and contingent data collection procedures;
- the Project Report; and
- the GHG Assertion.

### Verification Criteria

The verification criteria employed in the development of the review procedures documented in the verification plan include:

- *Climate Change and Emissions Management Act, S.A. 2003, c. C-16.7;*
- *Alberta Specified Gas Emitters Regulation (Alta. Reg.139, 2007);*
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The Lead Verifier, Lead Reviewer and Associate Verifiers (“**Verification Team**”) is responsible for determining if *qualitative* discrepancies could adversely affect the GHG Assertion and subsequently influence the decisions of the Intended User, in which case the discrepancy(ies) are deemed to be material.

*Quantitative* discrepancies will be calculated individually and in aggregate to determine the percentage of the GHG Assertion that is affected. Alberta Environment has defined quantitative discrepancies as material if they represent error of greater than or equal to 5% of the GHG Assertion.

All discrepancies that are outstanding at the conclusion of the verification are documented in the verification report and classified on an individual basis as either material or immaterial.

## Materiality Threshold

The materiality threshold is defined as the lesser of 5,000 tonnes CO<sub>2</sub>e, or 5% of the total reported reduction in the “GHG Assertion”. Note that the materiality threshold may be breached by individual errors, or the sum of multiple errors detected in the various project “SSRs”.

## 6. Principles

ISO 14064-3:2006 defines six principles that should be upheld in the development of the GHG Assertion. These principles “are intended to ensure a fair representation and a credible and balanced account of GHG emission reductions and removal enhancements from projects” (ISO 14064-3:2006). The verification procedures developed and executed during the course of this verification present evidence such that each of these principles is satisfied.

### a. Relevance

Appropriate data sources are used to quantify, monitor or estimate GHG sources, and SSRs. Appropriate minimum thresholds are used to justify the exclusion or the aggregation of minor GHG sources or the number of data points monitored.

### b. Completeness

All SSRs identified in the protocol are established in the Offset Project Plan and all emissions in the project are included within an identified SSR.

### c. Consistency

Uniform calculations are employed between the baseline and project condition and through the entire crediting period. Emission calculations for each SSR are calculated uniformly. If more accurate procedures and methodologies become available, documentation should be provided to justify the changes and show that all other principles are upheld.

### d. Accuracy

Measurements and estimates are presented, without bias as far as is practical. Where sufficient accuracy is not possible or practical, measurements and estimates should be used while maintaining the principle of conservativeness.

### e. Transparency

Information is presented in an open, clear, factual, neutral and coherent manner that facilitates independent review. All assumptions are stated clearly and explicitly and all calculation methodologies and background material are clearly referenced.

### f. Conservativeness

Appropriate parameters affecting the project’s SSRs are utilized in the calculation of the GHG Assertion. When parameters or data sources are highly uncertain, the choice of parameter or data source to be utilized results in an underestimation in the GHG Assertion (i.e. baseline emissions are under-estimated, project emissions are overestimated).

## 7. Risk Assessment

There are three types of risk associated with the GHG Assertion defined in ISO 14064-3:

- Inherent Risk
- Control Risk
- Detection Risk

The assessed level of risk for this verification dictates the degree of rigour planned for the verification procedures described in the accompanying sampling plan. Subsequent to the completion of the verification risk assessment, a “**Verification Team**” having appropriate skills and experience to address the identified risks was selected. Additionally, the established verification procedures and documentation systems ensure a thorough treatment of risk identified during the assessment process. A risk assessment was completed based on observations made following an initial review of the Offset Project Plan and interviews with key individuals responsible for the project.

The *inherent risk* in Suncor’s emission reduction assertion emanates from the relative complexity of the industrial processes involved, the use of engineering design documents in the quantification, and the use of flexibility mechanisms and contingent data collection approaches. In order to address the inherent risk “ICF” has selected an appropriate “**Verification Team**” having appropriate skills and experience to address the *high* level of inherent risk identified in this project.

*Control risk* relates to the likelihood that a material misstatement in the GHG assertion will not be prevented or detected by Suncor’s internal control system. This risk was assessed through professional judgement after gaining an understanding of Suncor’s internal controls. The control risk was deemed to be *medium* for this project. Data underlying the quantification largely originates in automated data collection systems but relies heavily on manual calculations. Evidence of the effectiveness of automated systems will be sought through the verification procedures.

The *detection risk* is a measure of the risk that the verification evidence collected and reviewed will fail to detect material misstatements, should such misstatements exist. Unlike *inherent* and *control* risk, which are typically attributes of the project type and technologies employed therein, *detection* risk is variable and defined as being inversely proportional to the *inherent* and *control* risk. Therefore, the detection risk is maintained at a low level by designing an appropriate number of tests, and collecting an adequate sample size.

## 8. Verification Schedule

The verification activities for this GHG assertion will be carried out in March – May, 2010. A site visit to the project operations site located near Edson, Alberta was conducted on March 29, 2010. This visit included a tour of the facility operations, both operating and inoperative, interviews with key staff, a review of information management and security and a desktop review of key documentation required to complete this verification. Further data was provided following the site tour, which provided further evidence to complete the verification.

## 9. Verification Procedures

The specific procedures utilized to gather evidence supporting the principles underlying the GHG assertion are described in the Sampling Plan.



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## Sampling Plan

### Suncor Energy Oil and Gas Partnership – Suncor South Rosevear Acid Gas Injection Project

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Lead Verifier: Aaron Schroeder, P.Eng. (Alberta)

Lead Reviewer: Duncan Rotherham

Associate Verifiers: Chris Caners, P.Eng. (Ontario)

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Verification Timeframe: March – May, 2010

Objective of the verification: Limited level of assurance on GHG Assertion for Emission Reduction Credits

Assurance being provided to: Alberta Environment

Standard being verified to: ISO 14064-3 (ISO, 2006)

Verification criteria employed: *Specified Gas Emitters Regulation (Alta. Reg.139, 2007);  
Offset Credit Verification Guidance Document v.1 (AENV, Sept. 2007);  
Quantification Protocol for Acid Gas Injection v.1 (AENV, May 2008).*

Verification scope – Gases: Carbon Dioxide, Methane, Nitrous Oxide

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Project: Suncor South Rosevear Acid Gas Injection Project

Location(s): near Edson, Alberta

Emission Reduction

Temporal period: March 5, 2007 – December 31, 2009 (2007, 2008 & 2009 Vintage Years)

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Main Contact  
(Verifier): Aaron Schroeder, P.Eng.  
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Main Contact  
(Responsible Party): Richard Murray, B.Sc.  
Environmental Advisor, Suncor Energy Inc.  
Operations Support – Natural Gas  
P.O. Box 2844, 150 – 6<sup>th</sup> Avenue SW  
Calgary, Alberta T2P 3E3  
403.296.4527  
rmurray@suncor.com

## Objective:

The primary objective of completing verification procedures is to collect evidence in support of the principles and quantification methodology underlying the emission reduction assertion made by the Project Proponent and to reveal any material discrepancies in the GHG assertion, should they exist.

## Testing Procedures:

This plan describes the testing procedures that will be utilized to generate evidence supporting the verification conclusion. The specific procedures are summarised in separate tables for each process or activity involved in the quantification and reporting of the GHG emission reduction assertion. Materiality is specified for each specific procedure. Aggregate materiality is determined separately.

The table on the following page provides information on the details that are included for each verification procedure.

## Summary of Procedures:

### Project Boundaries

- B1: Documentation of Boundaries – Offset Project Plan (OPP)
- B2: Demonstration of Applicability
- B3: Application of Flexibility Mechanisms

### Ownership

- O1: Confirmation of Contractual Relationship – Proponent and Project Partners

### Calculation

- C1: Emission Reduction Calculation – Methodology Definition
- C2: Emission Reduction Calculation – Calculation

### Data Sources and Supporting Data

- D1: Data Sources and Quality Controls
- D2: Data Confirmation against Secondary External Sources
- D3: Use of Contingent Data Collection Procedures

### Assertion:

- A1: Greenhouse Gas Emission Reduction Assertion

## Procedure Definition Table Explained

Z1 – Procedure Title	
Introduction: This introduction serves to explain the reason the verification team has interest in the procedure described below. For instance the inclusion of all emission sources ensures that that quantification of the total direct emission satisfies the principle of completeness.	
Type of Evidence	The Type of Evidence can usually be grouped as: Physical Examination, Confirmation, Documentation, Observation, Inquiries of the Client, Reperformance, or Analytical Procedures.
Data Sources	The <i>Data Sources</i> describes the form in which the evidence is presumed to be available to the verification team. Specific Documents or Assigned Positions, for example.
Objective (specific principles)	The objective serves to focus the procedure as pursuant to one of the audit principles of: <i>Relevance, Completeness, Consistency, Accuracy, Transparency, or Conservativeness.</i>
Specific Activities	<ul style="list-style-type: none"> <li>• In bullet form;</li> <li>• The <i>Specific Activities</i> are outlined here.</li> </ul>
Potential Error Conditions	<ul style="list-style-type: none"> <li>• Again in bullet form;</li> <li>• The anticipated <i>Potential Error Conditions</i> are listed here to aid the verification team;</li> <li>• As the sampling plan is a living document until the end of the verification process additional error conditions may be identified during the execution of the procedures.</li> </ul>
Sample Unit	The <i>Sample Unit</i> describes the individual record unit required to define the <i>Sample Size</i> . ie. monthly natural gas consumption.
Sample Size	The <i>Sample Size</i> represents the original planned depth of the sampling, as a percent. ie. 15% of the monthly natural gas consumption records.
Materiality Threshold	<p>Two options exist for the definition of the <i>Materiality Threshold</i>;</p> <ul style="list-style-type: none"> <li>• A <u>Quantitative</u> description describing the threshold in tonnes, . eg. 5% (or 2% for facilities emitting greater than 500,000 tonnes annually) of the total direct annual emissions reported. (or)</li> <li>• A <u>Qualitative</u> statement where the nature of the error not a quantitative one. eg. Qualitative errors will be reviewed on a case by case basis for materiality.</li> </ul> <p>NB - Any persisting error which breaches the <i>Materiality Threshold</i> would preclude the issuance of an unqualified limited assurance statement by the Verification Team.</p>

## Project Boundaries

<b>B1: Documentation of Boundaries – Offset Project Plan (OPP)</b>	
Introduction: The Offset Project Plan must outline how the Project Proponent is implementing the quantification methodology described in the Protocol. Specifically, each SSR listed as relevant to be included in the emission reduction calculation must be considered in the project unless the use of a flexibility mechanism allows the exclusion of a specific SSR.	
Type of Evidence	Documentation
Data Sources	Offset Project Plan (OPP)
Objective (specific principles)	Completeness, Relevance
Specific Activities	.1 Compare each SSR listed in the OPP to those listed in the Protocol considering all equipment and activities within the SSR
Potential Error Conditions	<ul style="list-style-type: none"> <li>• SSR defined in protocol was wrongfully excluded in OPP</li> <li>• Use of a flexibility mechanism without justification</li> <li>• Divergence from the protocol that is not in conformance with ISO 14064 and associated guidance documents</li> </ul>
Sample Unit	NA
Sample Size	NA
Materiality	Qualitative errors will be reviewed on a case by case basis for materiality.

<b>B2: Documentation of Boundaries – Demonstration of Applicability</b>	
Introduction: The protocol describes the specific applicability criteria that must be satisfied to utilize the Quantification Protocol. The project developer must provide evidence that clearly demonstrates applicability as described.	
Type of Evidence	Documentation, Confirmation
Data Sources	Offset Project Plan (OPP), ERCB Documents, Suncor Environmental Advisor, Richard Murray; Suncor Operations Coordinator, Gordon Kiteley; and Project Consultant Jamie Callendar (Blue Source Canada)
Objective (specific principles)	Completeness, Relevance
Specific Activities	<ol style="list-style-type: none"> <li>.1 Review OPP for evidence of applicability for each requirement described by the Protocol</li> <li>.2 Review supporting documents from external sources including ERCB applications, relevant correspondence and approvals</li> <li>.3 Interview key project personnel regarding the application of applicability criteria</li> </ol>
Potential Error Conditions	<ul style="list-style-type: none"> <li>• Evidence does not clearly demonstrate Protocol Applicability as described</li> </ul>
Sample Unit	NA
Sample Size	NA
Materiality	Qualitative errors will be reviewed on a case by case basis for materiality.

<b>B3: Application of Flexibility Mechanisms</b>	
Introduction: Flexibility mechanisms facilitate the use of a Protocol when project and baseline conditions or other select components do not conform to the approved Protocol. This verification procedure specifically analyses the evidence presented to support the divergence from the protocol through the utilization of flexibility mechanisms.	
Type of Evidence	Documentation, Confirmation
Data Sources	Offset Project Plan (OPP), Project Data, Suncor Environmental Advisor, Richard Murray; Suncor Operations Coordinator, Gordon Kiteley; and Project Consultant Jamie Callendar (Blue Source Canada)
Objective (specific principles)	Relevance, Completeness, Consistency, Accuracy, Transparency, Conservativeness
Specific Activities	<ol style="list-style-type: none"> <li>.1 Review supporting evidence related to the application of each flexibility mechanism employed against requirements for employing the specific flexibility mechanism described by the Protocol</li> <li>.2 Evaluate the estimated quantitative impact on the emission reduction assertion resulting from employing each flexibility mechanism to ensure GHG Project principles are upheld</li> </ol>
Potential Error Conditions	<ul style="list-style-type: none"> <li>• Evidence does not clearly demonstrate flexibility mechanisms employed meet requirements defined by the Protocol</li> <li>• Utilizing a specific flexibility mechanism results in a non-conservative quantification of the emission reduction achieved by the project</li> <li>• Data is available to support a more accurate and Protocol conformant methodology but is not employed</li> </ul>
Sample Unit	NA
Sample Size	NA
Materiality	Qualitative errors will be reviewed on a case by case basis for materiality. Where a quantitative assessment is possible, materiality is defined as the lesser of 5,000 tonnes CO <sub>2</sub> e or 5% of the emission reduction assertion.

## Ownership

<b>O1: Confirmation of Contractual Relationship – Proponent and Project Partners</b>	
Introduction: The ownership of the emission reduction must be demonstrated. Evidence that all owners in a joint-venture project either empower one entity or consent to participating in the emission reduction project must be presented. The verifier will only determine if written agreements are in place; the verifier <i>will not</i> provide an opinion as to the validity, strength or clarity of contractual agreements.	
Type of Evidence	Documentation, Enquiries of the Client
Data Sources	Project documentation, specifically contracts binding project partners (Joint Venture Agreement)
Objective (specific principles)	Transparency
Specific Activities	<ol style="list-style-type: none"> <li>.1 Review of documents proving the ownership of the assets creating the emission reductions</li> <li>.2 Review of Joint Venture Agreements binding project proponent to other project partners</li> <li>.3 Ensure temporal coverage of current assertion in project contracts</li> </ol>
Potential Error Conditions	<ul style="list-style-type: none"> <li>• Missing documentation</li> <li>• Incorrect identification of legal entities covered by contract</li> <li>• Expired or incomplete terms in relevant contracts</li> </ul>
Sample Unit	N/A
Sample Size	N/A
Materiality	No discrepancies permitted in the final project documentation.

## Calculation

<b>C1: Emission Reduction Calculation – Appropriate Methodology</b>	
Introduction: The specific quantification methodology utilized in the project must be clearly defined in the Offset Project Plan. This procedure is executed simultaneously with other procedures analyzing the methodology employed against the Protocol requirements. It specifically examines the quantification formulae and any estimation methodologies employed.	
Type of Evidence	Documentation
Data Sources	Offset Project Plan (OPP), Project Data and Calculations
Objective (specific principles)	Completeness, Consistency
Specific Activities	<ol style="list-style-type: none"> <li>.1 Review of conformance quantification formulae and estimation calculations prescribed by the Protocol against those described in the OPP</li> <li>.2 Review the methodology actually employed by reviewing project calculations and supporting data</li> </ol>
Potential Error Conditions	<ul style="list-style-type: none"> <li>• Deviation from Quantification Protocol methodology that is not supported by the use of a flexibility mechanism</li> <li>•</li> </ul>
Sample Unit	N/A
Sample Size	N/A
Materiality	Any discrepancies in the application of the quantification methodology will be evaluated for qualitative materiality.

<b>C2: Emission Reduction Calculation – Calculation</b>	
Introduction: The calculation of the emission reduction assertion includes several intermediate calculations. The reperformance of all calculations is a key verification procedure.	
Type of Evidence	Re-performance, Analytical procedures
Data Sources	Project Report, Supporting Calculation Documents
Objective (specific principles)	Accuracy, Transparency, Conservativeness
Specific Activities	<ol style="list-style-type: none"> <li>.1 Review data supporting calculated emission reductions</li> <li>.2 Re-performance of emission reduction from original data</li> <li>.3 Re-performance of estimation calculations</li> </ol>
Potential Error Conditions	<ul style="list-style-type: none"> <li>• Calculation error including spreadsheet reference errors, and incorrect spreadsheet formula development</li> <li>• Inability to achieve same emission reduction assertion quantity due to insufficient detail in underlying data</li> <li>• Incorrect application of significant figures; non-conservative rounding</li> <li>• Inaccurate or non-conservative estimation results</li> </ul>
Sample Unit	N/A
Sample Size	N/A
Materiality	The lesser of 5% or 5,000 tonnes CO <sub>2</sub> e of total GHG assertion.

## Data Sources and Supporting Data

D1: Data Sources and Quality Controls	
Introduction: The systems for measuring and storing project data are tested in this procedure to determine if the data quality controls are effective.	
Type of Evidence	Documentation, Observation, Enquiries of the Client
Data Sources	Offset Project Plan (OPP), Suncor Rosevear DCS (including gas production and injection data, fuel consumption data), Third-Party Gas Composition Analysis Reports, Meter Verification (Calibration) Reports, Suncor Environmental Advisor, Richard Murray; Suncor Operations Coordinator, Gordon Kiteley; and Project Consultant Jamie Callendar (Blue Source Canada)
Objective (specific principles)	Accuracy, Transparency, Conservativeness
Specific Activities	<ol style="list-style-type: none"> <li>.1 Interview parties responsible for quantifying associated emission reductions regarding data sources, transcription and data security</li> <li>.2 Review OPP regarding data sources, transcription and data security</li> <li>.3 Compare hard copy data against data in electronic calculation spreadsheets for consistency</li> <li>.4 Observe meter verification (calibration) tags during site tour</li> <li>.5 Review meter verification (calibration) reports</li> </ol>
Potential Error Conditions	<ul style="list-style-type: none"> <li>• Transcription errors</li> <li>• Missing or incomplete data sets</li> <li>• Uncontrolled access to project data</li> <li>• Meter verification (calibration) not completed according to manufacturer/engineering specification</li> </ul>
Sample Unit	One month of production and injection data; one month of gas composition analysis reports
Sample Size	4 months of data transcription records per year in the assertion
Materiality	The lesser of 5% or 5,000 tonnes CO <sub>2</sub> e of total GHG assertion when sample is generalized to the population. Qualitative discrepancies will be evaluated for materiality.

D2: Data Confirmation against Secondary External Sources	
Introduction: External data sources may provide additional evidence supporting the emission reduction assertion. External data may be used by other organizations, which increases the reliability of the data. Where practical, this data is corroborated against project data.	
Type of Evidence	Confirmation
Data Sources	Alberta Petroleum Registry
Objective (specific principles)	Accuracy
Specific Activities	.1 Compare production data against data in Petroleum Registry
Potential Error Conditions	<ul style="list-style-type: none"> <li>Discrepancy between project data and Petroleum Registry data</li> </ul>
Sample Unit	One month of production and injection data
Sample Size	4 months of data per year in the assertion
Materiality	The lesser of 5% or 5,000 tonnes CO <sub>2</sub> e of total GHG assertion when sample is generalized to the population.

<b>D3: Use of Contingent Data Collection Procedures</b>	
Introduction: Contingent data collection procedures facilitate the use of a Protocol when the primary methodology described in the Protocol is impractical to implement or impossible due to insufficient data. Contingent data collection procedures are defined by the protocol.	
Type of Evidence	Documentation, Reperformance
Data Sources	Offset Project Plan (OPP), Project Data, Suncor Environmental Advisor, Richard Murray; Suncor Operations Coordinator, Gordon Kiteley; and Project Consultant Jamie Callendar (Blue Source Canada)
Objective (specific principles)	Relevance, Completeness, Consistency, Accuracy, Transparency, Conservativeness
Specific Activities	<ol style="list-style-type: none"> <li>.1 Review supporting evidence related to the use of each contingent data collection procedure against requirements for employing the procedure described by the Protocol</li> <li>.2 Confirm that more accurate and precise method described in the Protocol cannot be practically implemented</li> <li>.3 Evaluate the estimated quantitative impact on the emission reduction assertion resulting from employing each contingent data collection procedure to ensure GHG Project principles are upheld</li> </ol>
Potential Error Conditions	<ul style="list-style-type: none"> <li>• Evidence does not clearly demonstrate contingent data collection procedures employed meet requirements defined by the Protocol</li> <li>• Utilizing a specific contingent data collection procedure results in a non-conservative quantification of the emission reduction achieved by the project</li> <li>• Data is available to support a more accurate and Protocol conformant methodology, but is not employed</li> </ul>
Sample Unit	NA
Sample Size	NA
Materiality	Qualitative errors will be reviewed on a case by case basis for materiality. Where a quantitative assessment is possible, materiality is defined as the lesser of 5,000 tonnes CO <sub>2</sub> e or 5% of the emission reduction assertion.

## Assertion

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A1: Greenhouse Gas Emission Reduction Assertion	
Type of Evidence	Documentation
Data Sources	Project Report, Project GHG Emission Reduction Assertion
Objective (specific principles)	Accuracy, Conservativeness
Specific Activities	.1 Review asserted emission reduction as compared to quantified reduction in calculation spreadsheet .2 Review Project Report for completeness according to guidance documents
Potential Error Conditions	<ul style="list-style-type: none"> <li>• Disagreement with calculated and asserted values</li> <li>• Non-conservative rounding of final asserted quantity</li> <li>• Incomplete documentation</li> <li>• Unsigned final documents</li> </ul>
Sample Unit	N/A
Sample Size	N/A
Materiality	Any discrepancies will be evaluated for qualitative materiality.



May 17, 2010

Alberta Environment  
12th Floor, Oxbridge Place  
9820 – 106 Street  
Edmonton A.B. T5K 2J6

**RE: Statement of Verification – Suncor Energy Oil and Gas Partnership,  
Suncor South Rosevear Acid Gas Injection Project  
(March 5, 2007 – December 31, 2009)**

## Scope

Blue Source Canada ULC (“Blue Source”) engaged ICF Consulting Canada Inc. (“ICF”) to review Suncor Energy Oil and Gas Partnership’s, (“Suncor”) *GHG Assertion – Notice of Creation of Emission Reduction Credits* and supporting evidence, covering the period March 5, 2007 – December 31, 2009 (“GHG Assertion”). The GHG Assertion, dated May 14, 2010, specifies a claim for 14,950 tonnes CO<sub>2</sub>e in 2007, 7,469 tonnes CO<sub>2</sub>e in 2008 and 3,145 tonnes CO<sub>2</sub>e in 2009. Suncor is responsible for the preparation and presentation of the information within the GHG Assertion. Our responsibility is to express a conclusion as to whether anything has come to our attention to suggest that the GHG Assertion is not presented fairly in accordance with Alberta Environment’s approved quantification methodology (*Quantification Protocol for Acid Gas Injection v.1, May 2008*) (“Protocol”) for this project; the *Specified Gas Emitters Regulation* (Alta. Reg.139, 2007) (“Regulation”), and the associated guidance documents.

## 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* (ISO, 2006). As such, we planned and performed our work in order to provide limited, rather than absolute assurance with respect to the GHG Assertion. Our review criteria were based on the Protocol; the Regulation, and the associated guidance documents. We reviewed Suncor’s Offset Project Plan (*Offset Project Plan: Suncor South Rosevear Acid Gas Injection Project, April 2010, Blue Source Canada ULC*); GHG Assertion; and associated documentation. We believe our work provides a reasonable basis for our conclusion.

## Conclusion

Based on our review, nothing has come to our attention which causes us to believe that the GHG emission reduction contained in the GHG Assertion is not presented fairly in accordance with the relevant criteria.

A handwritten signature in blue ink, appearing to read "A. Schroeder".

**Aaron Schroeder, P.Eng.**  
Professional Engineer, Alberta (M75566)  
Lead Verifier  
Calgary, Alberta, Canada

A handwritten signature in blue ink, appearing to read "D. Rotherham".

**Duncan Rotherham**  
Vice President, ICF Consulting Canada, Inc.  
Lead Reviewer  
Toronto, Ontario, Canada



## Statement of Qualification

Founded in 1969, ICF International is a global company employing over 3,000 consultants in areas of energy, environment, transportation, economic and community development, and IT. With over 350 dedicated climate change specialists, ICF has carefully earned an international reputation in the field of climate change consulting for its analytical rigour, in-depth expertise, and technical integrity. ICF has undertaken scores of GHG emissions related assignments over the past two decades for international institutions such as the IPCC, OECD, IEA, Prototype Carbon Fund, International Finance Corporation, World Bank, and UNEP; national, state and local governments in more than 50 countries; and progressive companies including members of the international Fortune 500.

ICF Consulting Canada Inc. ("ICF"), a fully owned subsidiary of ICF International, has carried out hundreds of facility level GHG verifications and verification of emission reduction projects over the past 10 years. ICF has developed the necessary internal controls to ensure qualified and competent staffing uphold the principles of the relevant standard while quality control processes are utilized to assure data integrity is maintained and safeguarded. Working seamlessly with our offices in London, Washington D.C., New Delhi, Rio de Janeiro, and Moscow, ICF assignments in the private sector have involved the following activities of particular relevance:

- advising organizations as they quantify GHG emissions baselines and periodic inventories;
- developing project documentation with developers of emission reduction projects and technological innovations;
- undertaking GHG verifications of entity level emission inventories and emission reduction projects;
- developing protocols to monitor and quantify GHG emissions for companies and GHG reduction projects; and
- assessing the marginal cost of abatement through internal reduction initiatives and market based mechanisms.

Since the genesis of the *Specified Gas Emitters Regulation*, ICF has been working with large emitters to submit baseline emission applications and annual compliance report verifications. This verification work included a review of all information supporting the quantification of emissions from operations of pipelines, natural gas processing and oil sands facilities. Additionally, ICF has completed verification work for emission reduction projects under several protocols in the Alberta Offset System. To date, more than 30 baseline and compliance reports in addition to more than 15 emission reduction assertions have been submitted with a third-party verification completed by ICF.

ICF has established a verification team, qualified and competent in planning, execution, and completion of the verification process. The team employed for the review of this GHG assertion is supervised by Duncan Rotherham, Vice President, who has led the ICF verification practice for eight years and carried out over 50 GHG verifications. Aaron Schroeder, P.Eng. is a Manager with ICF and a licensed Professional Engineer in the Province of Alberta. Chris Caners, P.Eng. is a Senior Associate with ICF and is licensed as a Professional Engineer in the Province of Ontario. Both Aaron and Chris completed supplementary training in the audit process and specially, verifying under ISO 14064.

ICF's quality assurance and quality control approach for all projects includes assigning senior personnel with relevant technical experience to direct and review all project work. Project data is reviewed through a multi-stage process that begins with quality assurance planning (identifying data gaps, quantifying uncertainty and risk of data error), executing mitigation techniques and qualitative review including impact analysis.

Specifically related to the quantification of emissions from acid gas injection projects, the ICF team is uniquely qualified to complete the review of this project. Members of the verification team led the development of the acid gas injection quantification protocol and have completed verifications of similar natural gas processing facilities, acid gas injection and enhanced oil recovery facilities.

The information contained within this statement is complete and correctly represents the qualifications of ICF and the members of the verification team described herein in relation to the verification of the Suncor South Rosevear Acid Gas Injection Project. Dated this seventeenth day of May, 2010.

A handwritten signature in blue ink, appearing to read "A. Schroeder".

Aaron Schroeder, P.Eng., Lead Verifier

A handwritten signature in blue ink, appearing to read "D. Rotherham".

Duncan Rotherham, Lead Reviewer



## Conflict of Interest Checklist

Question	Yes	No
<b>1. Can the verifying organization or the verification team members directly benefit from a financial interest in the Project Developer or the Project Developer's Project?</b> <i>For example:</i> <ul style="list-style-type: none"> <li>• Owning shares of the Project Developer;</li> <li>• Having a close business relationship with the Project Developer;</li> <li>• Contingent fees relating to the results of the engagement;</li> <li>• Potential employment with the Project Developer; or</li> <li>• Undue concern about the possibility of losing the verification or other fees from the Project Developer.</li> </ul>		<b>X</b>
<b>2. Can the verifying organization or verification team members be in a position of assessing their own work?</b> <i>For example:</i> <ul style="list-style-type: none"> <li>• Involvement of the verification organization in the compilation of the data contained in the GHG assertion.</li> <li>• Involvement of the verification organization in the development of a quantification protocol other than protocol recognized or recommended by the regulatory authority.</li> <li>• A verification organization member performing non-verification services that directly impinge on the client's GHG assertion, such as implementing the GHG data management system, or having performed validation services on the project being reviewed;</li> <li>• A member of the verification engagement team having previously been a GHG data compiler of the Project Developer or who was employed by the Project Developer in a position to exert direct and significant influence over the Project Developer's GHG assertion being verified.</li> </ul>		<b>X</b>
<b>3. Does the verifying organization or a member of the verification team, or a person in the chain of command for the verification, promote or be perceived to promote, a Project Developer's position or opinion to the point that objectivity may, or may be perceived to be, compromised?</b> <i>For example:</i> <ul style="list-style-type: none"> <li>• Dealing in, or being a promoter of, GHG credits on behalf of a Project Developer; or</li> <li>• Acting as an advocate on behalf of the Project Developer in litigation or in resolving disputes with third parties.</li> </ul>		<b>X</b>
<b>4. Is one or more of the verification team too sympathetic to the Project Developer's interests by virtue of a close relationship with a Project Developer, its directors, officer or employees?</b> <i>For example:</i> <ul style="list-style-type: none"> <li>• A person on the verification team has a close personal relationship with a person who is in a senior GHG compilation role at the Project Developer; or</li> <li>• The verification team or a person of influence on the verification team has accepted significant gifts or hospitality from the Project Developer.</li> </ul>		<b>X</b>
<b>5. Is a member of the verification team or a person in the chain of command is deterred from acting objectively and exercising professional skepticism by threats, actual or perceived, from the directors, officers or employees of the Project Developer.</b> <i>For example:</i> <ul style="list-style-type: none"> <li>• The threat of being replaced as a third party verifier due to a disagreement with the application of a GHG quantification protocol;</li> <li>• Fees from the Project Developer represent a large percentage of the overall revenues of the verifying organization.</li> <li>• The application of pressure to inappropriately reduce the extent of work performed in order to reduce or limit fees; or</li> <li>• Threats of litigation from the Project Developer.</li> </ul>		<b>X</b>

The declaration made in this statement is correct and truly represents ICF Consulting Canada Inc. and the members of the verification team described herein in relation to the verification of the Suncor South Rosevear Acid Gas Injection Project. Dated this seventeenth day of May, 2010.

Aaron Schroeder, P.Eng., Lead Verifier

Duncan Rotherham, Lead Reviewer