



24 July 2019

Mr. Lee Spivak  
Managing Principal  
Sustainability Services  
Waste Management National Services, Inc.  
1001 Fannin  
Houston, TX 77002

**RE: Waste Management – Assurance Letter (RY2018)**

To whom it may concern,

The purpose of this letter is to clarify matters set out in the assurance report. It is not an assurance report and is not a substitute for the assurance report.

This letter and the verifier's assurance report, including the opinion(s), are addressed to you and are solely for your benefit in accordance with the terms of the contract. We consent to the release of this letter by you to CDP to satisfy the terms of CDP disclosure requirements, but without accepting or assuming any responsibility or liability on our part to CDP or to any other party who may have access to this letter or our assurance report.

Aster Global Environmental Solutions (Aster Global) was commissioned by the management of Waste Management National Services, Inc. (WM) to complete an independent verification of its 2018 GHG inventory and assertions relating to GHG Scope 1, 2 and 3 emissions. Aster Global is accredited by the American National Standards Institute (ANSI) under ISO 14065:2013 - *Requirements for greenhouse gas validation and verification bodies for use in accreditation or other forms of recognition*; and ISO 14064-3:2006 - *Specification with guidance for the validation and verification of greenhouse gas assertions* for verification of assertions related to GHG emissions and removals at the organizational level, and validation/verification of assertions related to GHG emissions reductions and removals at the project level.

The independent verification included WM's GHG Scope 1, 2, and 3 emissions relevant to the 2018 calendar year.

WM has sole responsibility for preparation of the data and external report. Aster Global, in performing the assurance work, is responsible to the management of WM. The assurance statement, however, represents Aster Global's independent opinion and is intended to inform all stakeholders including WM.

In accordance with our engagement contract with WM of 20 April 2019, (the "contract") and for the avoidance of doubt, we confirm that our Waste Management GHG Inventory Verification Report RY2018 to you dated 23 July 2018 (the "assurance report") incorporated the following matters:

3800 Clermont Street NW | North Lawrence, Ohio 44666  
Phone 330-833-9941 | [www.AsterGlobalGlobal.com](http://www.AsterGlobalGlobal.com)



- The boundaries for the GHG data inventory are all sites operating under WM’s operational control in North America (U.S and Canada).
- The Inventory relates to direct (Scope 1) GHG emissions, energy indirect (Scope 2) GHG emissions, and other indirect (Scope 3) GHG emissions. Scope 3 GHG emissions include emissions from business travel, employee commuting, and downstream leased assets.
- The 2018 GHG assertions from WM are as follows:
  - Total emissions are 25,535,239 metric tonnes of CO<sub>2</sub>e from anthropogenic sources and 14,116,041 metric tonnes of CO<sub>2</sub>e from biogenic sources;
  - Scope 1 emissions include 16,272,144 metric tonnes of CO<sub>2</sub>e from anthropogenic sources and 11,957,838 metric tonnes CO<sub>2</sub>e from biogenic sources;
  - Scope 2 emissions are 246,091 metric tonnes of CO<sub>2</sub>e; and
  - Scope 3 emissions include 9,017,003 metric tons of CO<sub>2</sub>e from anthropogenic sources and 2,158,203 metric tonnes of CO<sub>2</sub>e from biogenic sources.
- The GHG inventory data were verified for the period January 1st to December 31st, 2018
- The inventory was verified in accordance with the ISO 14064–3:2006 *Specification with guidance for validation and verification of greenhouse gas assertions*. The inventory was verified using the WRI/WBCSD the WRI/WBCSD Greenhouse Gas (GHG) Protocol, WRI/WBCSD Scope 2 Guidance: A Corporate Accounting and Reporting Standard and The GHG Protocol for Project Accounting, and WM’s GHG Inventory Management Plan.

In that respect, the GHG inventory was evaluated against the following criteria:

- Adherence to the principles of materiality, completeness, neutrality, and reliability, as set out in the ISO 14064-3, and
- The World Business Council for Sustainable Development (WBCSD) / World Resources institute (WRI) Greenhouse Gas protocol

Aster Global used a risk-based approach throughout the verification, concentrating on the areas that we believe are most material for both WM and its stakeholders.

The following methods were applied during the verification of WM’s GHG inventory and management processes, the data that supports the company’s GHG inventory including assertions and claims presented by the company:

- Review of documentation, data records and sources relating to the corporate environmental footprint data claims and GHG emission assertions;
- Review of the processes and tools used to collect, aggregate and report on all environmental data and metrics;
- Interview of executives and managers and data users representing relevant functions for supporting the environmental inventory management process at both the corporate and site levels;
- Assessment of environmental information systems and controls, including:
  - Selection and management of all relevant environmental data and information;



- Processes for collecting, processing, consolidating, and reporting the environmental data and information;
- Systems and processes that ensure the accuracy of the environmental data and information;
- Design and maintenance of the environmental information system; and
- Systems and processes that support the environmental information system;
- Performed sample-based audits of the processes for generating, gathering and managing the quantitative and qualitative data;
- Examination of the environmental data and information to develop evidence for the assessment of the environmental claims and assertions made;
- Confirmation of WM's conformance to the verification criteria; and
- Evaluation of whether the evidence and data are sufficient and support WM's environmental claims.

The level of assurance is used to determine the depth of detail that the verifier places in the verification plan to determine if there are any errors, omissions, or misrepresentations (ISO 14064-3:2006). Aster Global selected samples of data and information to provide *limited assurance* that:

- the emissions report contains no material discrepancy; and the emissions report was prepared in accordance with WRI/WBCSD GHG Protocol including all current relevant standards.

Based on the processes and procedures conducted for a limited assurance, there is no evidence that the environmental claims and assertions listed above are not materially correct and are not a fair representation of environmental data and information and have not been prepared in accordance with the calculation method referenced.

Sincerely yours,  
ASTER GLOBAL ENVIRONMENTAL SOLUTIONS

A handwritten signature in black ink that reads 'Janice McMahon'.

Janice McMahon  
President