

Data Intake Processing and Verification Report

[Draft - In Progress]

Background Information

- **Original Dataset Name:** EMIT L2B Estimated Methane Plume Complexes 60 m
- **GHG Center Dataset Title:** EMIT Methane Point Source Plume Complexes
- **Dataset Provider:** NASA/JPL
- **Date Obtained:** September 2023
- **Location Obtained From:** NASA LP DAAC
 - <https://search.earthdata.nasa.gov/search?q=C2748088093-LPCLOUD>
- **Data Location in GHG Center:** emit-ch4plume-v1
- **Data POC(s):** Dr. Robert Green, Dr. Andrew Thorpe, Dr. Dana Chadwick, Dr. Philip Brodrick
- **Dataset File Type(s):** Cloud Optimized GeoTIFF (COG)
- **Projection (if different from WGS84):** NA

Data Transfer Confirmation

An SHA-256 checksum is used to detect high-level errors within data transmissions.

- Results from individual checksum file comparisons of pre-transfer and post-transfer
 - All files were transferred successfully

Filename	SHA 256 Original file	

- Report any individual file issues: NA

Data Intake Process

- https://us-ghg-center.github.io/ghgc-docs/data_workflow/emit-ch4plume-v1_Data_Flow.html

Overall Dataset Statistics

- Data file reads confirmed:
- Mean, min, max across all files:
 - Original dataset:
 - COG transformed dataset:
- Distribution of values across all data (by variable)
 - Original dataset:

- COG transformed dataset:
 - File range (most cases will be all files)
 - Bounding Box of all data
 - Link to transformation record in Jupyter Notebook <>
 - All values are in expected range (catches out of range values)

Specific, Random Checks/Visual Confirmation

- Visual example and side by side comparison
- More detailed statistics for specific files (randomly chosen)
 - Statistics was performed for the following files:
 - TBD
- Data comparison at a few specific locations

Summary

- We are confident that the transformation and display of data in the GHG Center is correct
- There were no problems identified in the data
- Link to user notebook <>
- Link to GHG Center data catalog overview page <>

Report Completed on:

MSFC POC for questions: <>

