Data Intake Processing and Verification Report

[Draft - In Progress]

Background Information

- **Original Dataset Name:** Gridded posterior methane emissions
- **GHG Center Dataset Title:** TM5-4DVar Isotopic CH_4 Inverse Fluxes
- **Dataset Provider:** NASA
- **Date Obtained:** August 2023
- **Location Obtained From:** https://gmao.gsfc.nasa.gov/gmaoftp/sourish/IDS/for_distribution/GHG-IAC/
- **Data Location in GHG Center:** tm54dvar-ch4flux-monthgrid-v1
- **Data POC(s):** Dr. Sourish Basu
- **Dataset File Type(s):** NetCDF
- **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

- Link the document with all steps identified

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: <>