File: 20260419_162255 Collected: Sun Apr 19 16:22:55 2026

L1AQC : Process L1A to L1AQC

Low level QC (pitch, roll, yaw, and azimuth) and deglitching.

Processing Parameters:
Rotator Home Angle: 0.0
Rotator Delay: 2.0
Pitch/Roll Filter: 5.0

Process log:

Process Single Level
Found data: lat
Found data: lon
No deglitching will be performed.
ProcessL1aqc.processL1aqc: 12-May-2026 10:11:27
Sorting all datasets chronologically
Screening ES for clean timestamps.
Filtering file for high pitch and roll or pre/post-tilt
Percentage of data out of pre/post-tilt bounds: 0 %
Process Single Level: /Users/nils/Data/VDIUP/ESS/hcp/006/L1AQC/20260419_162255_L1AQC.hdf - SUCCESSFUL

Example Deglitching

Randomized. Complete plots of hyperspectral
deglitching from anomaly analysis can be found in [output_directory]/Plots/L1AQC_Anoms.

None found.

None found.

None found.

None found.

None found.

None found.

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L1B : Process L1AQC to L1B

Dark correction. Calibration and/or full characterization. Match timestamps & wavebands.

Processing Parameters: None
Cal. Type: FRM-Full
Wavelength Interp Int: 3.3 nm

Process log:

Process Single Level
ProcessL1b: /Users/nils/Data/VDIUP/ESS/hcp/006/L1AQC/20260419_162255_L1AQC.hdf
ProcessL1bTriOS.processL1b: 12-May-2026 10:11:28
Interpolate Data LATITUDE
Interpolate Data LONGITUDE
Interpolate Data SOLAR_AZ
Interpolate Data SZA
Interpolate Data LATITUDE
Interpolate Data LONGITUDE
Interpolate Data TILT
MERRA2 data for Wind and AOD may be used to replace blank values. Reading in model data...
Retrieving anchillary file from server: GMAO_MERRA2.20260419T160000.MET.nc
Retrieving anchillary file from server: GMAO_MERRA2.20260419T160000.AER.nc
Request error: 404
Filling in ancillary data with default values where still needed.
ES: Using internal thermistor for sensor working temperature
Dark Correction: SAM_8834 - ES
ProcessL1b_Interp.processL1b_Interp: 12-May-2026 10:13:25
Interpolate Data sixS_irradiance
Interpolate Data direct_ratio
Interpolate Data diffuse_ratio
Interpolate Data solar_zenith
Process Single Level: /Users/nils/Data/VDIUP/ESS/hcp/006/L1B/20260419_162255_L1B.hdf - SUCCESSFUL

Example Temporal Interpolations

Randomized. Complete plots of hyperspectral
interpolations can be found in [output_directory]/Plots/L1B_Interp.

None found.

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L1BQC : Process L1B to L1BQC

Apply more quality control filters.

Processing Parameters:
Max Wind: 50.0
Min SZA: 0.0
Max SZA: 90.0
Filter Sigma Es: 5.0

Process log:

Process Single Level
Percentage of data out of Wind limits: 0 %
Percentage of data out of SZA limits: 0 %
Applying spectral filtering to eliminate noisy spectra.
0.0% of Es data flagged
Process Single Level: /Users/nils/Data/VDIUP/ESS/hcp/006/L1BQC/20260419_162255_L1BQC.hdf - SUCCESSFUL

Spectral Filters

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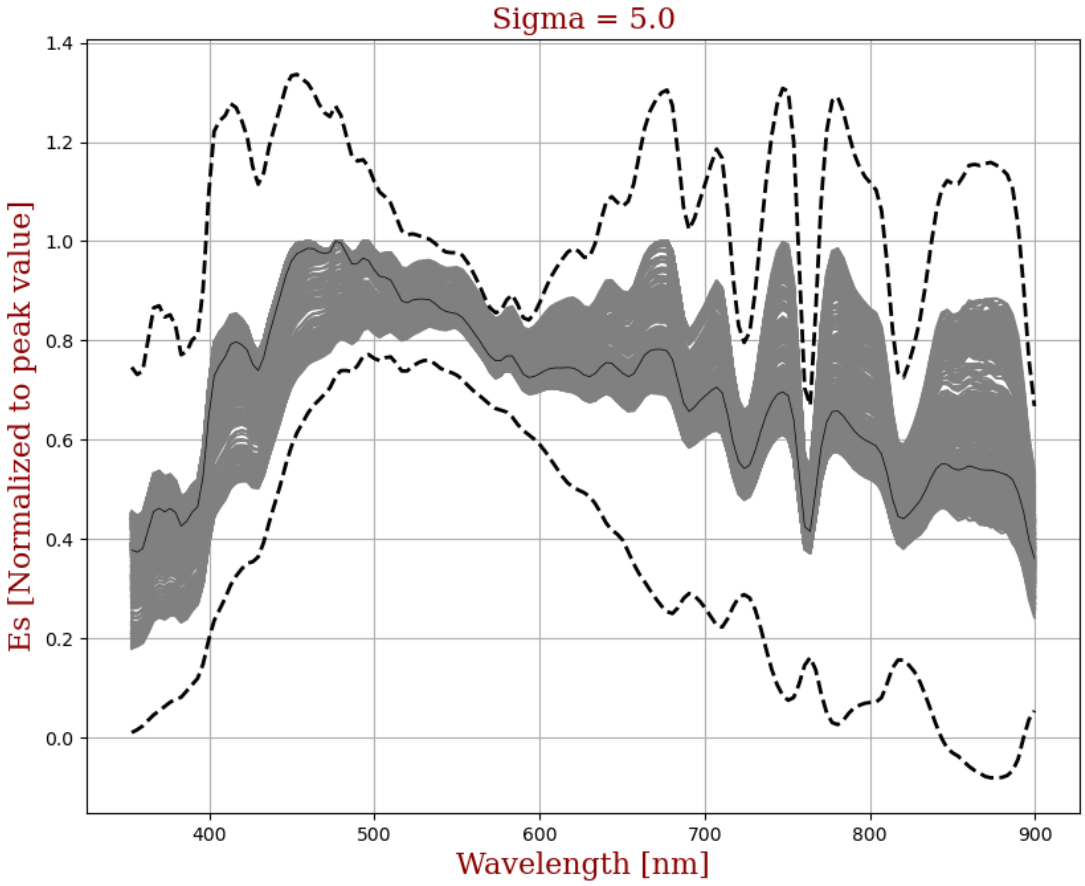

File: 20260419_162255 Collected: Sun Apr 19 16:22:55 2026

L2 : Process L1BQC to L2

Apply temporal binning,station selection, glint correction,
NIR corrections, reflectance calculation, and OC product calculation.

Processing Parameters:
Ensemble Duration: 300 sec

Process log:

Process Single Level
ProcessL2: /Users/nils/Data/VDIUP/ESS/hcp/006/L1BQC/20260419_162255_L1BQC.hdf
Binning datasets to ensemble time interval.
Percent LT is not supported for Trios ES only. Disabled feature.
Interpolating raw data to common timestamps for uncertainty propagation.
ProcessL2.ensemblesReflectance: Uncertainty Update Elapsed Time: 1.5 s
Percent LT is not supported for Trios ES only. Disabled feature.
Interpolating raw data to common timestamps for uncertainty propagation.
ProcessL2.ensemblesReflectance: Uncertainty Update Elapsed Time: 1.6 s
Percent LT is not supported for Trios ES only. Disabled feature.
Interpolating raw data to common timestamps for uncertainty propagation.
ProcessL2.ensemblesReflectance: Uncertainty Update Elapsed Time: 1.5 s
Percent LT is not supported for Trios ES only. Disabled feature.
Interpolating raw data to common timestamps for uncertainty propagation.
ProcessL2.ensemblesReflectance: Uncertainty Update Elapsed Time: 1.4 s
Percent LT is not supported for Trios ES only. Disabled feature.
Interpolating raw data to common timestamps for uncertainty propagation.
ProcessL2.ensemblesReflectance: Uncertainty Update Elapsed Time: 1.5 s
Percent LT is not supported for Trios ES only. Disabled feature.
Interpolating raw data to common timestamps for uncertainty propagation.
ProcessL2.ensemblesReflectance: Uncertainty Update Elapsed Time: 1.6 s
Percent LT is not supported for Trios ES only. Disabled feature.
Interpolating raw data to common timestamps for uncertainty propagation.
ProcessL2.ensemblesReflectance: Uncertainty Update Elapsed Time: 1.4 s
Percent LT is not supported for Trios ES only. Disabled feature.
Interpolating raw data to common timestamps for uncertainty propagation.
ProcessL2.ensemblesReflectance: Uncertainty Update Elapsed Time: 1.4 s
Percent LT is not supported for Trios ES only. Disabled feature.
Interpolating raw data to common timestamps for uncertainty propagation.
ProcessL2.ensemblesReflectance: Uncertainty Update Elapsed Time: 1.5 s
Percent LT is not supported for Trios ES only. Disabled feature.
Interpolating raw data to common timestamps for uncertainty propagation.
ProcessL2.ensemblesReflectance: Uncertainty Update Elapsed Time: 1.6 s
Percent LT is not supported for Trios ES only. Disabled feature.
Interpolating raw data to common timestamps for uncertainty propagation.
ProcessL2.ensemblesReflectance: Uncertainty Update Elapsed Time: 1.4 s
Filtering reflectance spectra for negative values is not supported for Trios ES only. Disabled feature.

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Process Single Level: /Users/nils/Data/VDIUP/ESS/hcp/006/L2/20260419_162255_L2.hdf - SUCCESSFUL
L2 file produced:
/Users/nils/Data/VDIUP/ESS/hcp/006/L2/20260419_162255_L2.hdf
Output SeaBASS for HDF:
/Users/nils/Data/VDIUP/ESS/hcp/006/L2/20260419_162255_L2.hdf

Radiometry