Metadata for Tidal Data Exchange

Station Name Broome Wharf

Date of Supply Tuesday, 12 August 2025

Identification		
Station Number	BoM=003102 ANTT=62650 GLOSS=040 UHSLC=166	
Name	Broome Wharf	
Latitude and Estimated Positional Uncertainty	-18.0019	+/- 3m
Longitude and Estimated Positional Uncertainty	122.2162	+/- 3m
Map Name	Broome	
Map Number	3362	
Map Grid Northing	N/A	
Map Grid Easting	N/A	
Type of Readings		
Heights	Observations	
Progress *	See comments section.	
Update Frequency *	Real Time	
Available Format Type *	DIGITAL, text	
Measurement Units		
Tidal Heights	metres	
Reference Frame		
Time Zone	UTC	
Vertical Reference Frame	Tide Gauge Zero (m)	
TGBM Name/Number	Broome 184 (Coastal array Primary BM)	
TGBM Elevation relative to the vertical reference	12.796 m AHD or 18.118 m TGZ (2021)	
Estimated Positional Uncertainty	+/- 2mm	
Horizontal Reference Frame Direction of Stream Readings Depth of Stream Readings (relative to Vertical Reference Frame) Estimated Positional Uncertainty	Geodetic Datum of Aust (GDA94)	
Search Words *	Marine, Oceanography, Water, Broome Wharf	
Data Owner Details		
Name	Bureau of Meteorology	
Postal Address	GPO Box 1289, Melbourne VIC 3001	
Street Address	700 Collins Street, Docklands, VIC 3008	
Telephone		
Facsimile		
Email	tides@bom.gov.au	
Internet	www.bom.gov.au	
Contact Officer Details		
Name	Marine and Antarctic, Environmental Prediction Services	
Position	Tidal Services	
Telephone		
Email	tides@bom.gov.au	
Data Custodian Details		
Name	Bureau of Meteorology	
Postal Address	GPO Box 1289, Melbourne VIC 3001	
Street Address	700 Collins Street, Docklands, VIC 3008	
Telephone		
Facsimile		
Email	tides@bom.gov.au	

Metadata for Tidal Data Exchange

Station Name Broome Wharf

Date of Supply Tuesday, 12 August 2025

Internet	www.bom.gov.au
Contact Officer Details	
Name	Marine and Antarctic, Environmental Prediction Services
Position	Tidal Services
Telephone	
Email	tides@bom.gov.au
Details of the Readings Provided Herewith	
Date of readings supplied	
From	11/26/1991
To	Current
The time interval between readings (If the readings are for high & low water then enter "Zero")	1-minute (average of 60, 1-second samples) 6-minutes (weighted average of 4, 1-minute readings) Hourly (filtered with a cut-off of 2 hours)
Are the readings averaged or filtered	See above. 1-minute samples are logged at the end of each minute, 6-minute centred on 0.1-hour increments
Are there any access constraints (such as commercial-in-confidence or constraint on the use or distribution to third parties).	No
Objective Quality Assessment of Tidal Observations (Height or Stream)	
Instrument	
Type Model	Digital data logger Sutron 9000 (1991-2009)/Telmet 320 RTU (2009-current)
Sensor	
Type Model	Radar Vega
Frequency of System Calibrations Field calibration and Laboratory calibration	 every 1-2 years every 1-2 years
Frequency of Water Level Checks	Daily
Estimate of the Precision of the Water Level Checks Time (Std Dev in Minutes) Height (Std Dev in metres)	 GPS Satellite Clock 1mm +/-
System Resolution	1mm +/-
Estimated Local Uncertainty	
Status of the Readings	Statistical analysis
Description of the validation process including a statement detailing how: 1. The instrumental biases were treated 2. Outliers were selected and dealt with 3. Breaks in the record were dealt with	 Standard deviations Reported Recovered where possible
Date of Validation	Checked each month, for previous month
Name of Person certifying the validation	Tidal Services
Details required with the supply of tidal constituent constants	
All of the details required above	
The name and version of the software used to calculate the constants	Tans

Metadata for Tidal Data Exchange

Station Name Broome Wharf

Date of Supply Tuesday, 12 August 2025

The tidal constituent model used (particularly noting the treatment of the constituents Sa and Ssa) and specifying any related (inferred) constituent constants	Doodson's method
The date span used to prepare the constituent constants	1991-2023 (for 2026)
The reference time zone for the constituents	WAST (-1000)
The vertical datum to which the constituents apply	LAT, which is TGZ and 5.322m below AHD
A precision estimate of predictions based on the constituent constants (for example, standard deviation of the analysis residuals)	Standard Deviation is 0.1138
Additional details required with the supply of tidal predictions	
All of the details required above	
A statement describing the tidal prediction process used	Doodson's method
The name and version of the software used to calculate the predictions	Tipp5
A list of the constituent constants used or if the list is not provided, the donor agency's identifier of the list	Standard 112 Constituent list

Comments on data by Port Authority

- Australian Baseline Sea Level Monitoring Array (ABSLMA)
- Datum changed to LAT 04:00 UTC 9-Sep-2010.
- Data has been re-processed by adding 860mm to previous data (old TGZ was 0.86m above LAT).
- Before 22-Sep-2009, Sutron Logger used. 6-minute samples average of 181, 1-second samples
- Before 28-Jan-2023 Aquatrak acoustic sensor used for primary water level
- Earlier data read from analog tide gauge traces on the hour
- Tide gauge relocated twice on 15/04/2020 and 24/02/2025
- Previous coordinates: lat -18.0008, lon 122.2183 (Nov1991-Apr2020) and lat -18.0015, lon 122.2176 (Apr2020-Feb2025)