

File Names

12:00 Monday, March 21, 2005 1

File #	Original File Name
1	PAC2001_SLPK_WOR_SULFATE-SIZE-DIST_AMS_20010811D13_V1.csv

Dataset Key Phrases

Data Exchange Standard Version	Principal Investigator Name--last first	Principal Investigator Affiliation	File Contents Description--short long	Sampling Interval As Reported in Main Table	Sampling Frequency Of Data in Main Table	Quality Control Level	Organization Acronym	Organization Name	Data Usage Acknowledgement	Study Or Network Acronym	Study Or Network Name
NARSTO 2001/10/31 (2.213)	Worsnop ; Douglas	Aerodyne Research Inc.	AMS_Siz_Sul ; Aerodyne aerosol mass spectrometer size-resolved sulphate data	15 minute	Same as sampling interval	1	ENVCAN	Environment Canada	Douglas R. Worsnop, Aerodyne Research Inc. 45 Manning Road, Billerica MA 01821-3978 USA worsnop@aerodyne.com	PAC2001	Pacific 2001

Country Code	State Or Province Code	Principal Investigator Contact Information	Co-investigator Name--last first	Co-investigator Affiliation	Name And Affiliation Of Person Who Generated This File	Date Of Last Modification To Data In Main Table	Name And Version Of Software Used To Create This File	Companion File Name format And Version	Date This File Generated archive Version Number
CA (CANADA)	BC	Douglas R. Worsnop, Aerodyne Research Inc. 45 Manning Road, Billerica MA 01821-3978 USA worsnop@aerodyne.com	Boudries ; Hacene	Aerodyne Research Inc.	James Allan, UMIST, UK	2002/02/26	MS Excel/2000	None ; Not applicable	2002/07/23 ; 1

Table Explanation Of Zero Or Negative Values	Table Explanation Of Reported Detection Limit Values	Table Explanation Of Reported Uncertainty	Table User Note	Table User Note2	Table User Note3	Table User Note4	Table Name	Table Focus
negative concentration measurements are due mostly to instrumental noise when the ambient concentration of the species was very low. They have not been removed from the dataset so as to not introduce a positive bias in averages of our data for longer time periods.	Not applicable						Sulphate_Size_Distribution	Surface--fixed

Site Information

Site ID	Name	State Province code	Latitude: decimal degree	Longitude: decimal degree	Sampling height above ground (m)	Ground elevation above sea level (m)	Site land use	Site location setting	Measurement start date	Measurement end date	Co-incident measurements	Study site ID	Lat lon accuracy
PC01CABCSLPK	Slocan Park, Vancouver	BC	49.24394	-123.04864	5	92	Urban park	Urban and center city	2001/08/12	2001/08/24		PC01CABCSLPK	.

NARSTO Standard Flags

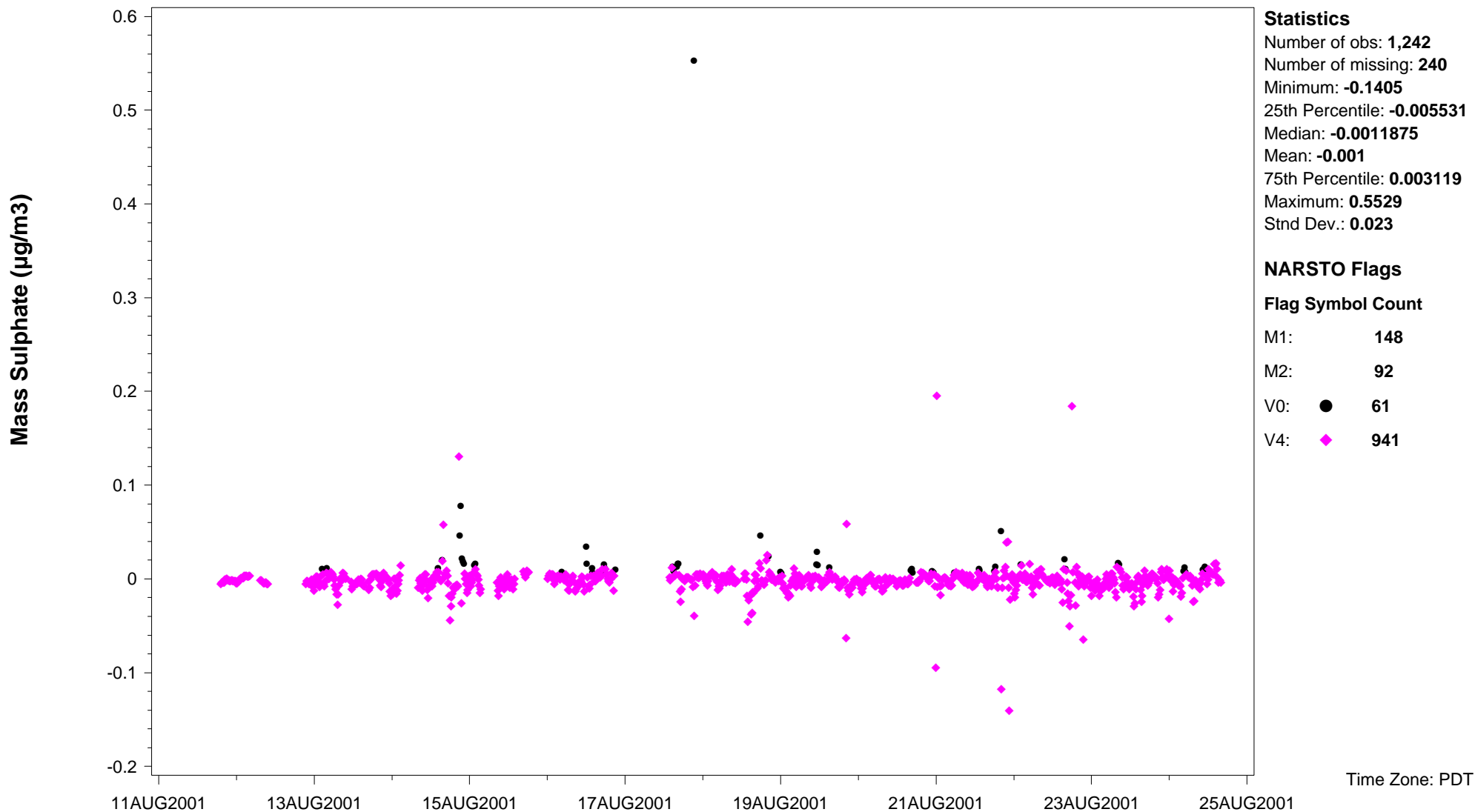
Flag: NARSTO	Description
H1	Historical data that have not been assessed or validated
M1	Missing value because no value is available
M2	Missing value because invalidated by data originator
V0	Valid value
V1	Valid value but comprised wholly or partially of below detection limit data
V2	Valid estimated value
V3	Valid interpolated value
V4	Valid value despite failing to meet some QC or statistical criteria
V5	Valid value but qualified because of possible contamination (e.g., pollution source, laboratory contamination source)
V6	Valid value but qualified due to non-standard sampling conditions (e.g., instrument malfunction, sample handling)
V7	Valid value but set equal to the detection limit (DL) because the measured value was below the DL

NAtChem Time Series Plot

21MAR2005

Site ID: **PC01CABCSLPK** Variable name: **Mass Sulphate** Common Name: **Sulphate** Units: **µg/m3** Sampling interval: **15 minute**
 Sampling frequency: **Same as sampling interval** CAS ID: **C14808-79-8** Observation type: **Particles** Particle diameter--lower bound (UM): **0.02**
 Particle diameter--upper bound (UM): **0.0211851** Particle diameter--median (UM): **0.0224404** Field sampling or measurement principle: **AMS**
 Inlet type: **Cyclone** Volume standardization: **Ambient temperature and pressure** Sampling Height above ground (m): **5**
 Instrument name and model number: **ARI AMS** Measurement principal investigator: **Douglas Worsnop**

Site Name: **Slocan Park, Vancouver, British Columbia** Latitude: **49.24394 deg.** Longitude: **-123.04864 deg.** Start Date: **2001-08-12** End Date: **2001-08-24**

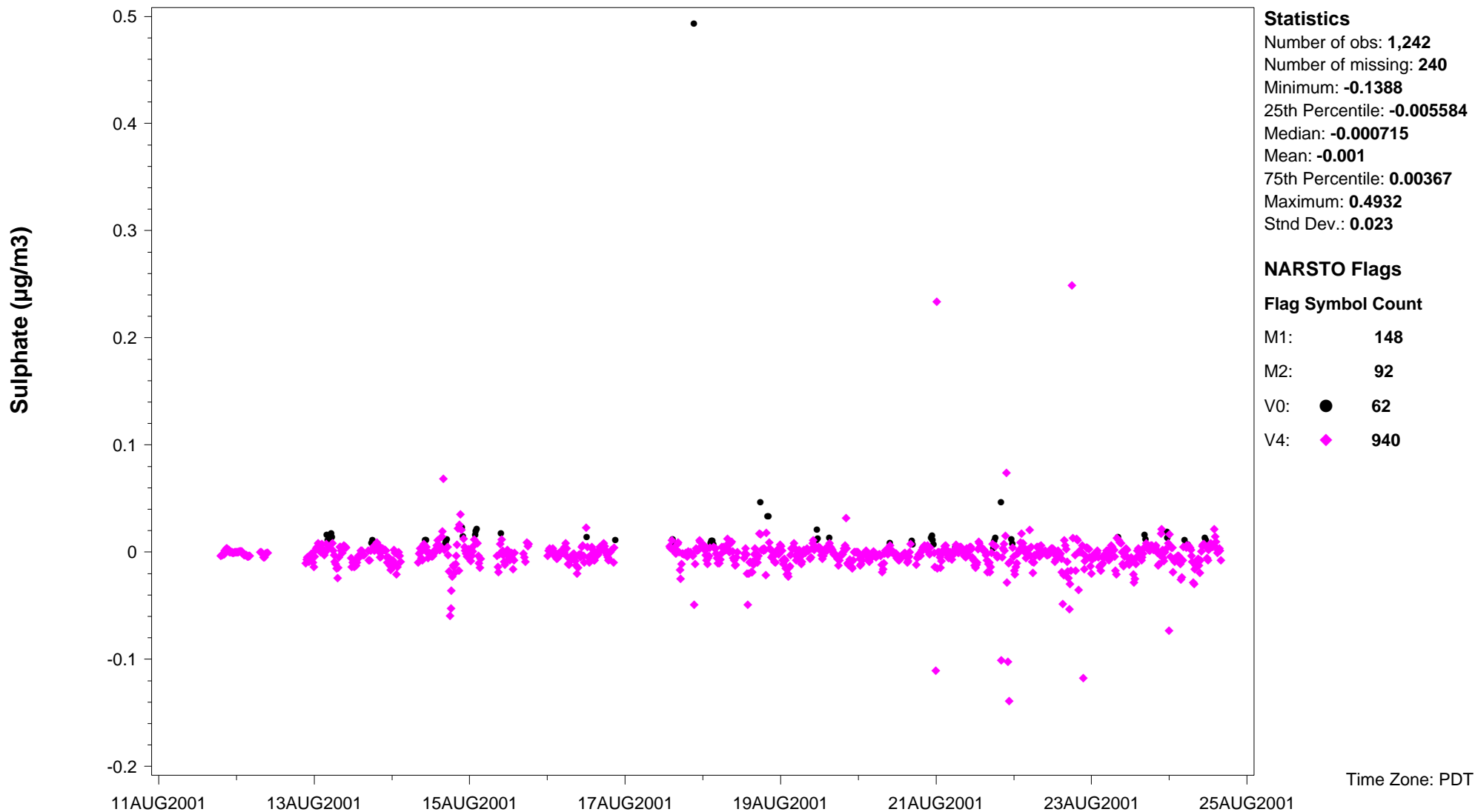


NAtChem Time Series Plot

21MAR2005

Site ID: **PC01CABCSLPK** Variable name: **Sulphate** Common Name: **Sulphate** Units: **µg/m3** Sampling interval: **15 minute**
 Sampling frequency: **Same as sampling interval** CAS ID: **C14808-79-8** Observation type: **Particles** Particle diameter--lower bound (UM): **0.0224404**
 Particle diameter--upper bound (UM): **0.02377** Particle diameter--median (UM): **0.0251785** Field sampling or measurement principle: **AMS**
 Inlet type: **Cyclone** Volume standardization: **Ambient temperature and pressure** Sampling Height above ground (m): **5**
 Instrument name and model number: **ARI AMS** Measurement principal investigator: **Douglas Worsnop**

Site Name: **Slocan Park, Vancouver, British Columbia** Latitude: **49.24394 deg.** Longitude: **-123.04864 deg.** Start Date: **2001-08-12** End Date: **2001-08-24**

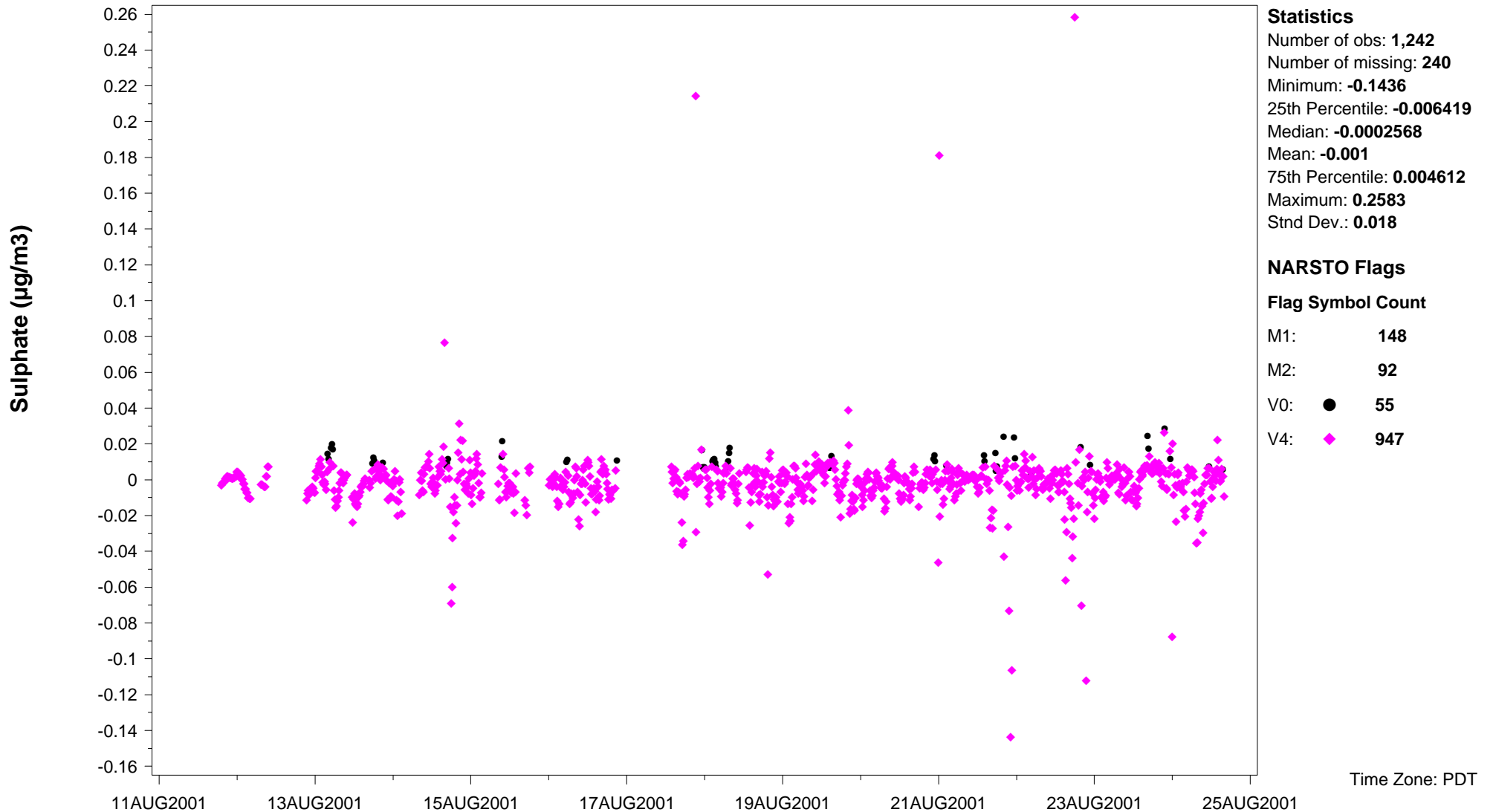


NAtChem Time Series Plot

21MAR2005

Site ID: **PC01CABCSPK** Variable name: **Sulphate** Common Name: **Sulphate** Units: **µg/m3** Sampling interval: **15 minute**
 Sampling frequency: **Same as sampling interval** CAS ID: **C14808-79-8** Observation type: **Particles** Particle diameter--lower bound (UM): **0.0251785**
 Particle diameter--upper bound (UM): **0.0266704** Particle diameter--median (UM): **0.0282508** Field sampling or measurement principle: **AMS**
 Inlet type: **Cyclone** Volume standardization: **Ambient temperature and pressure** Sampling Height above ground (m): **5**
 Instrument name and model number: **ARI AMS** Measurement principal investigator: **Douglas Worsnop**

Site Name: **Slocan Park, Vancouver, British Columbia** Latitude: **49.24394 deg.** Longitude: **-123.04864 deg.** Start Date: **2001-08-12** End Date: **2001-08-24**

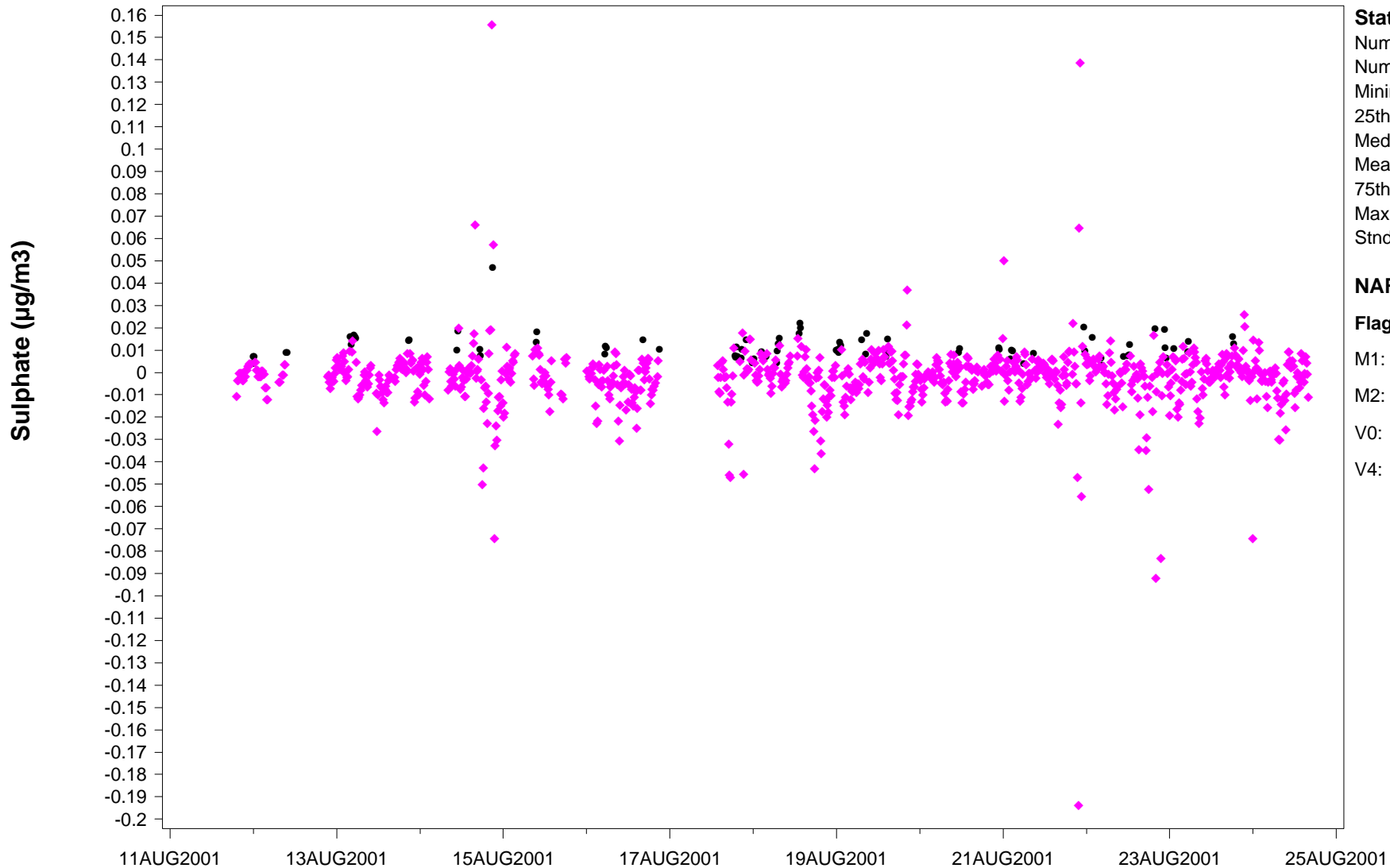


NAtChem Time Series Plot

21MAR2005

Site ID: **PC01CABCSLPK** Variable name: **Sulphate** Common Name: **Sulphate** Units: **µg/m3** Sampling interval: **15 minute**
 Sampling frequency: **Same as sampling interval** CAS ID: **C14808-79-8** Observation type: **Particles** Particle diameter--lower bound (UM): **0.0282508**
 Particle diameter--upper bound (UM): **0.0299247** Particle diameter--median (UM): **0.0316979** Field sampling or measurement principle: **AMS**
 Inlet type: **Cyclone** Volume standardization: **Ambient temperature and pressure** Sampling Height above ground (m): **5**
 Instrument name and model number: **ARI AMS** Measurement principal investigator: **Douglas Worsnop**

Site Name: **Slocan Park, Vancouver, British Columbia** Latitude: **49.24394 deg.** Longitude: **-123.04864 deg.** Start Date: **2001-08-12** End Date: **2001-08-24**



Statistics
 Number of obs: **1,242**
 Number of missing: **240**
 Minimum: **-0.194**
 25th Percentile: **-0.005621**
 Median: **-0.0003324**
 Mean: **-0.001**
 75th Percentile: **0.004647**
 Maximum: **0.1557**
 Stnd Dev.: **0.015**

NARSTO Flags
Flag Symbol Count
 M1: **148**
 M2: **92**
 V0: ● **85**
 V4: ◆ **917**

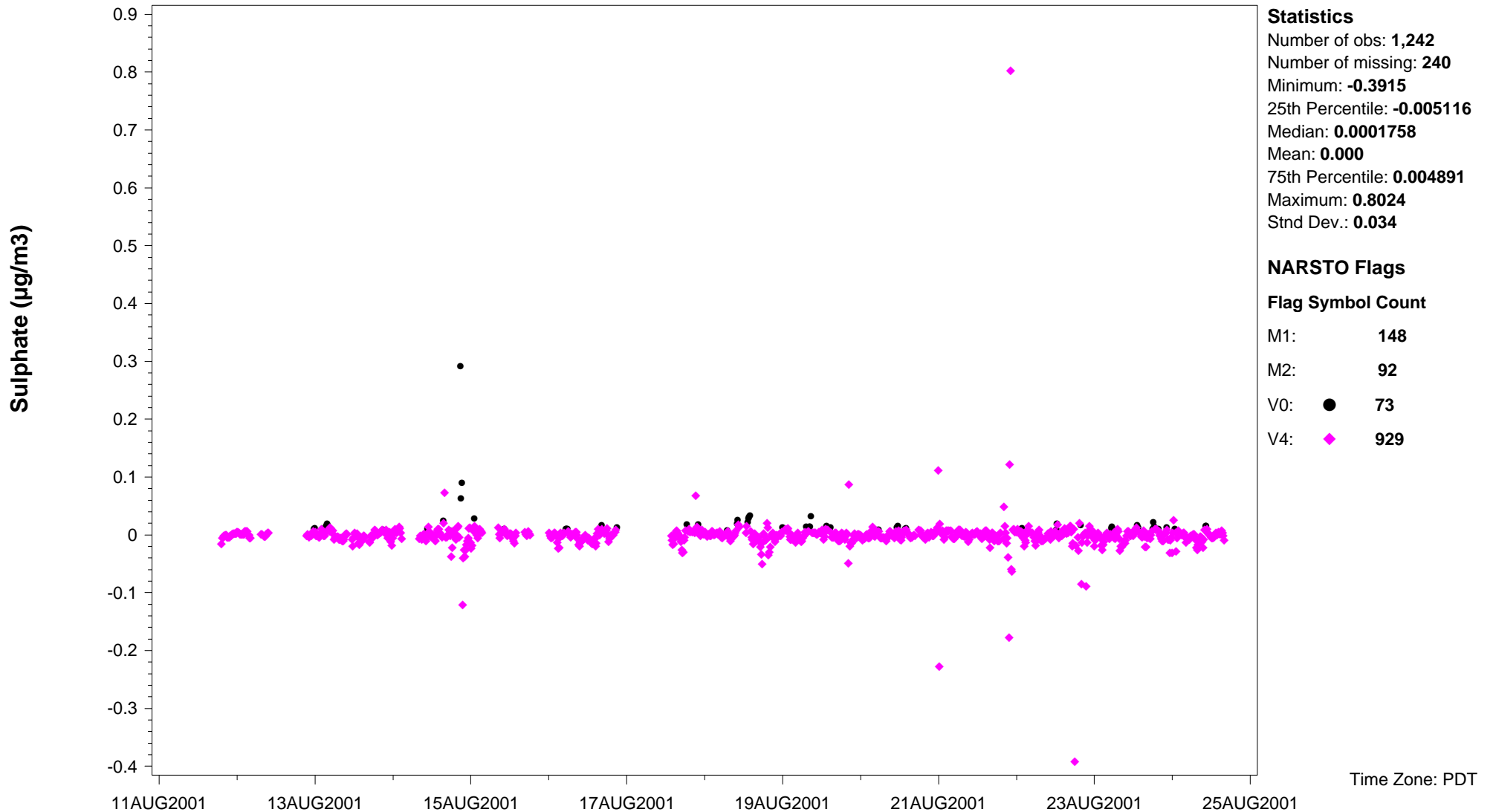
Time Zone: PDT

NAtChem Time Series Plot

21MAR2005

Site ID: **PC01CABCSLPK** Variable name: **Sulphate** Common Name: **Sulphate** Units: **µg/m3** Sampling interval: **15 minute**
 Sampling frequency: **Same as sampling interval** CAS ID: **C14808-79-8** Observation type: **Particles** Particle diameter--lower bound (UM): **0.0316979**
 Particle diameter--upper bound (UM): **0.0335761** Particle diameter--median (UM): **0.0355656** Field sampling or measurement principle: **AMS**
 Inlet type: **Cyclone** Volume standardization: **Ambient temperature and pressure** Sampling Height above ground (m): **5**
 Instrument name and model number: **ARI AMS** Measurement principal investigator: **Douglas Worsnop**

Site Name: **Slocan Park, Vancouver, British Columbia** Latitude: **49.24394 deg.** Longitude: **-123.04864 deg.** Start Date: **2001-08-12** End Date: **2001-08-24**

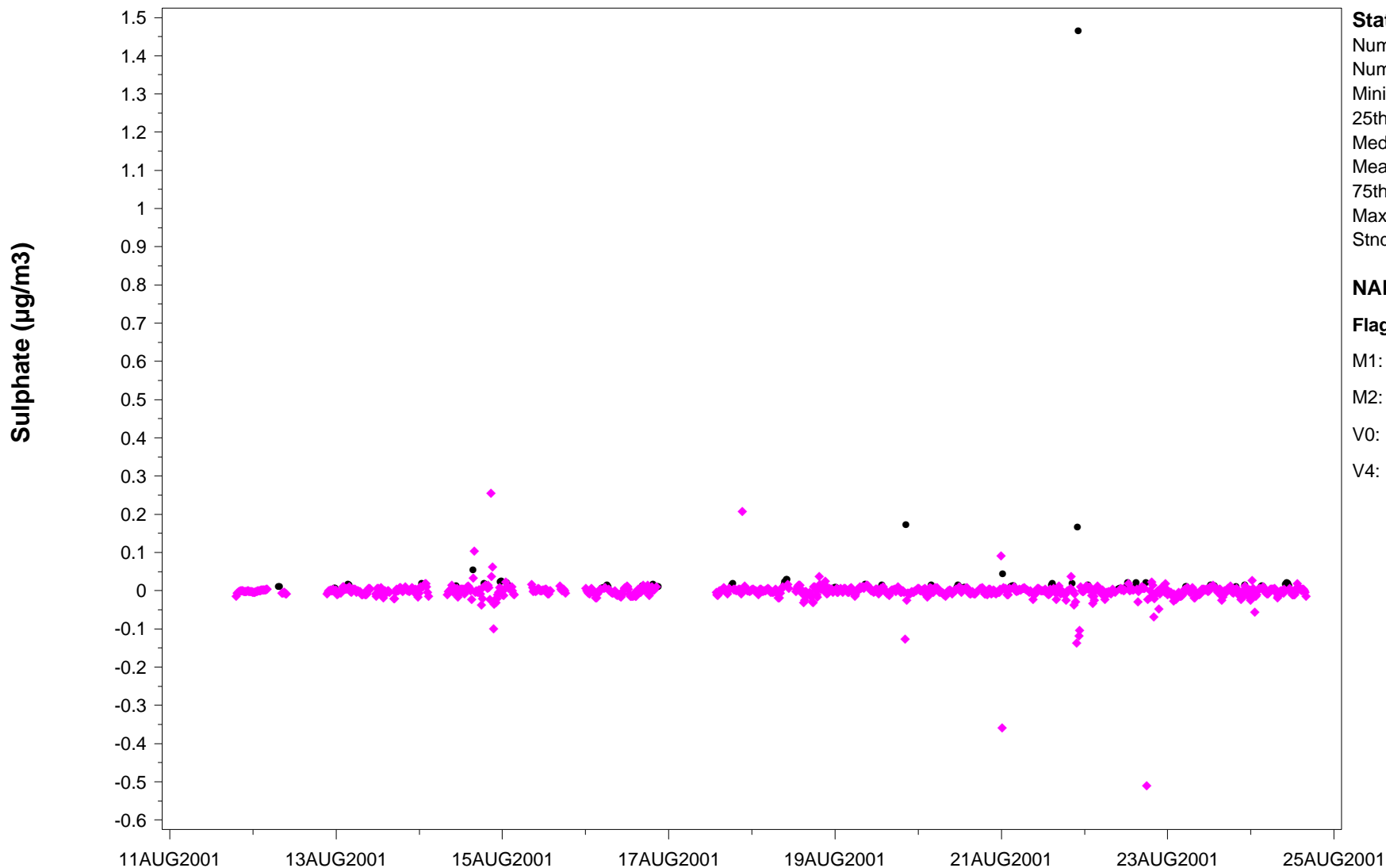


NAtChem Time Series Plot

21MAR2005

Site ID: **PC01CABCSLPK** Variable name: **Sulphate** Common Name: **Sulphate** Units: **µg/m3** Sampling interval: **15 minute**
 Sampling frequency: **Same as sampling interval** CAS ID: **C14808-79-8** Observation type: **Particles** Particle diameter--lower bound (UM): **0.0355656**
 Particle diameter--upper bound (UM): **0.037673** Particle diameter--median (UM): **0.0399052** Field sampling or measurement principle: **AMS**
 Inlet type: **Cyclone** Volume standardization: **Ambient temperature and pressure** Sampling Height above ground (m): **5**
 Instrument name and model number: **ARI AMS** Measurement principal investigator: **Douglas Worsnop**

Site Name: **Slocan Park, Vancouver, British Columbia** Latitude: **49.24394 deg.** Longitude: **-123.04864 deg.** Start Date: **2001-08-12** End Date: **2001-08-24**



Statistics

Number of obs: **1,242**
 Number of missing: **240**
 Minimum: **-0.5109**
 25th Percentile: **-0.005058**
 Median: **0.0006429**
 Mean: **0.001**
 75th Percentile: **0.005702**
 Maximum: **1.466**
 Stnd Dev.: **0.054**

NARSTO Flags

Flag Symbol Count

M1:		148
M2:		92
V0:	●	87
V4:	◆	915

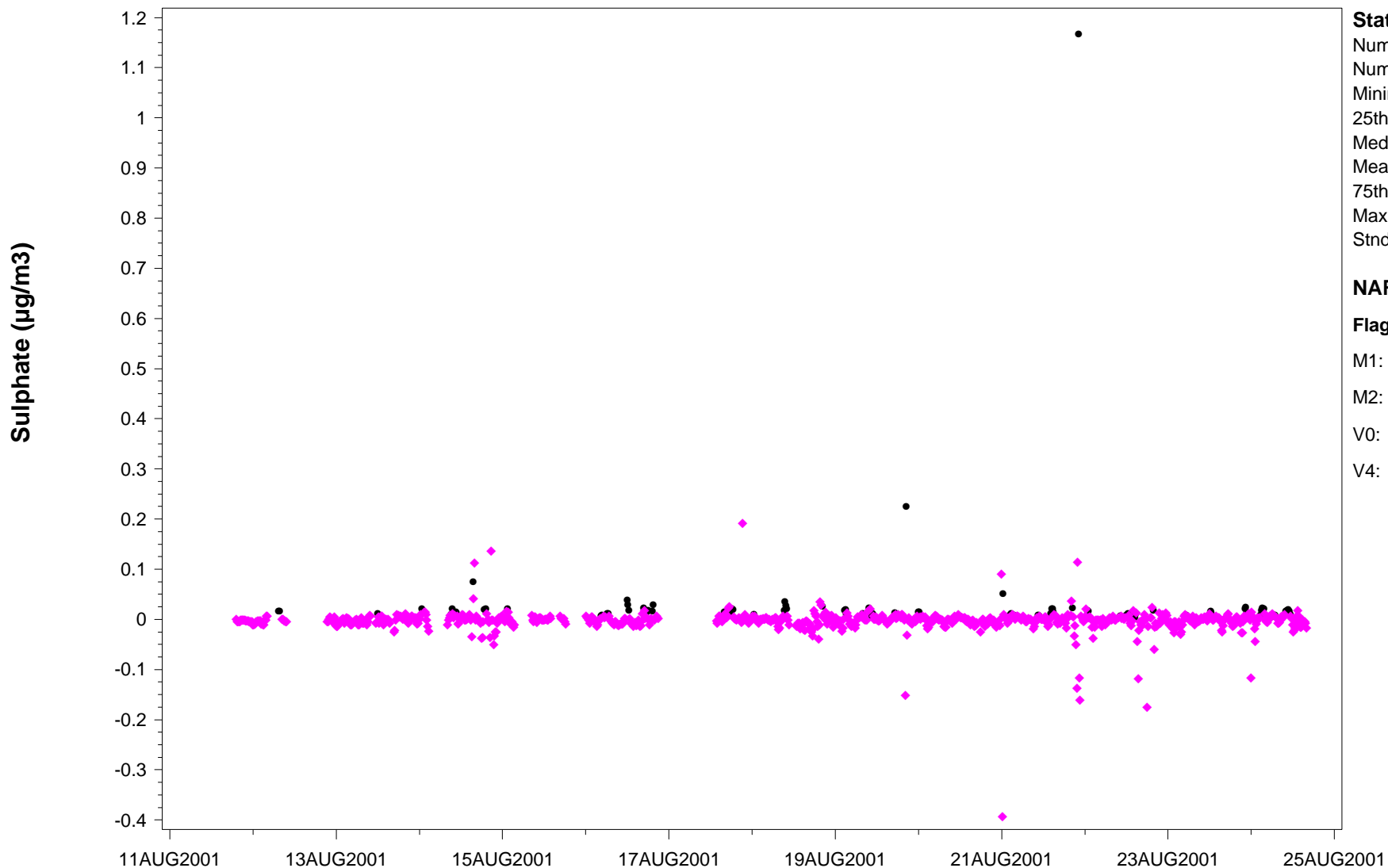
Time Zone: PDT

NAtChem Time Series Plot

21MAR2005

Site ID: **PC01CABCSLPK** Variable name: **Sulphate** Common Name: **Sulphate** Units: **µg/m3** Sampling interval: **15 minute**
 Sampling frequency: **Same as sampling interval** CAS ID: **C14808-79-8** Observation type: **Particles** Particle diameter--lower bound (UM): **0.0399052**
 Particle diameter--upper bound (UM): **0.0422698** Particle diameter--median (UM): **0.0447744** Field sampling or measurement principle: **AMS**
 Inlet type: **Cyclone** Volume standardization: **Ambient temperature and pressure** Sampling Height above ground (m): **5**
 Instrument name and model number: **ARI AMS** Measurement principal investigator: **Douglas Worsnop**

Site Name: **Slocan Park, Vancouver, British Columbia** Latitude: **49.24394 deg.** Longitude: **-123.04864 deg.** Start Date: **2001-08-12** End Date: **2001-08-24**



Statistics

Number of obs: **1,242**
 Number of missing: **240**
 Minimum: **-0.3937**
 25th Percentile: **-0.005759**
 Median: **-0.000241**
 Mean: **0.000**
 75th Percentile: **0.005391**
 Maximum: **1.167**
 Stnd Dev.: **0.044**

NARSTO Flags

Flag Symbol Count

M1:		148
M2:		92
V0:	●	98
V4:	◆	904

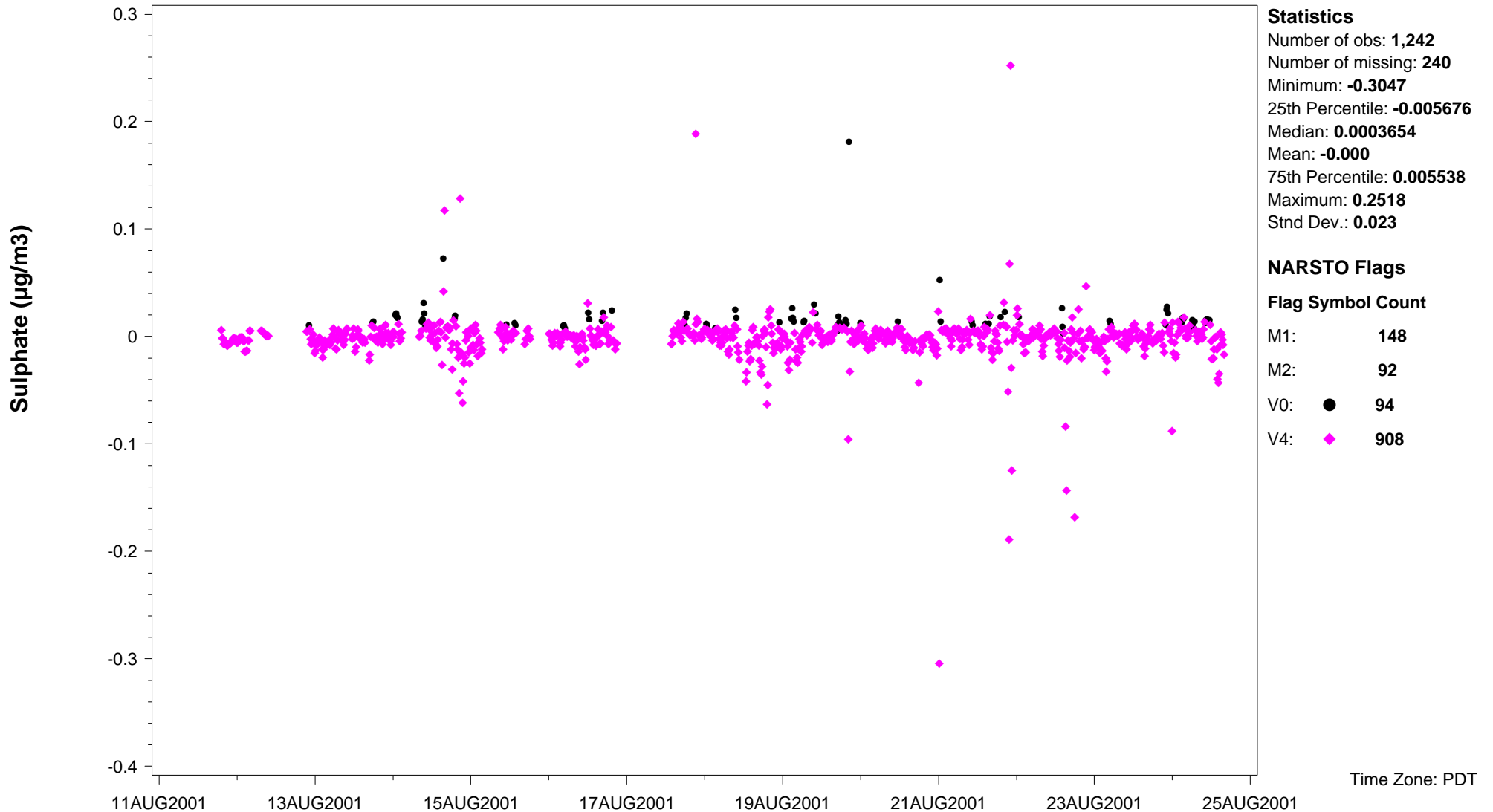
Time Zone: PDT

NAtChem Time Series Plot

21MAR2005

Site ID: **PC01CABCSLPK** Variable name: **Sulphate** Common Name: **Sulphate** Units: **µg/m3** Sampling interval: **15 minute**
 Sampling frequency: **Same as sampling interval** CAS ID: **C14808-79-8** Observation type: **Particles** Particle diameter--lower bound (UM): **0.0447744**
 Particle diameter--upper bound (UM): **0.0474275** Particle diameter--median (UM): **0.0502377** Field sampling or measurement principle: **AMS**
 Inlet type: **Cyclone** Volume standardization: **Ambient temperature and pressure** Sampling Height above ground (m): **5**
 Instrument name and model number: **ARI AMS** Measurement principal investigator: **Douglas Worsnop**

Site Name: **Slocan Park, Vancouver, British Columbia** Latitude: **49.24394 deg.** Longitude: **-123.04864 deg.** Start Date: **2001-08-12** End Date: **2001-08-24**

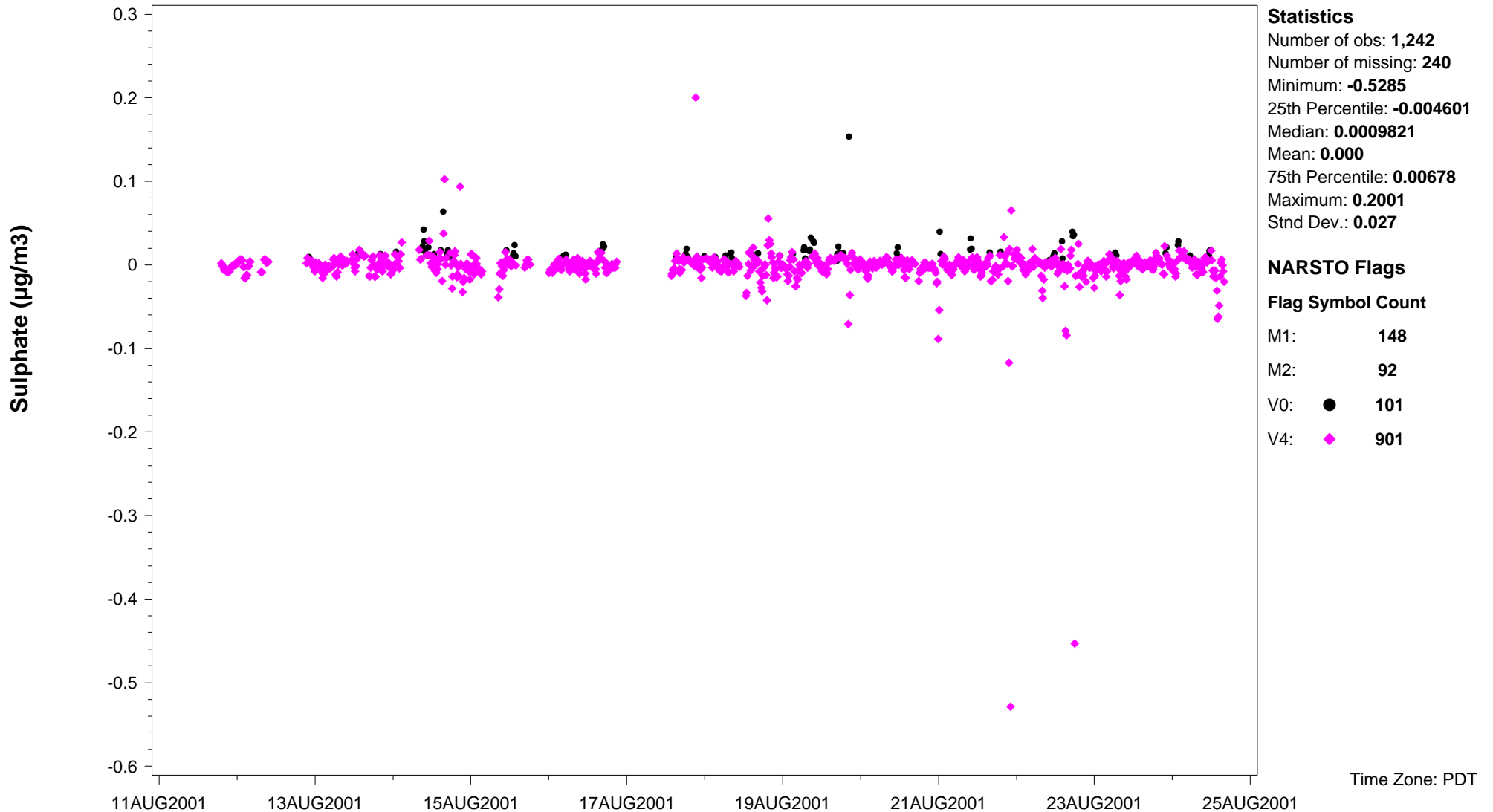


NAtChem Time Series Plot

21MAR2005

Site ID: **PC01CABCSLPK** Variable name: **Sulphate** Common Name: **Sulphate** Units: **µg/m3** Sampling interval: **15 minute**
 Sampling frequency: **Same as sampling interval** CAS ID: **C14808-79-8** Observation type: **Particles** Particle diameter--lower bound (UM): **0.0502377**
 Particle diameter--upper bound (UM): **0.0532145** Particle diameter--median (UM): **0.0563677** Field sampling or measurement principle: **AMS**
 Inlet type: **Cyclone** Volume standardization: **Ambient temperature and pressure** Sampling Height above ground (m): **5**
 Instrument name and model number: **ARI AMS** Measurement principal investigator: **Douglas Worsnop**

Site Name: **Slocan Park, Vancouver, British Columbia** Latitude: **49.24394 deg.** Longitude: **-123.04864 deg.** Start Date: **2001-08-12** End Date: **2001-08-24**

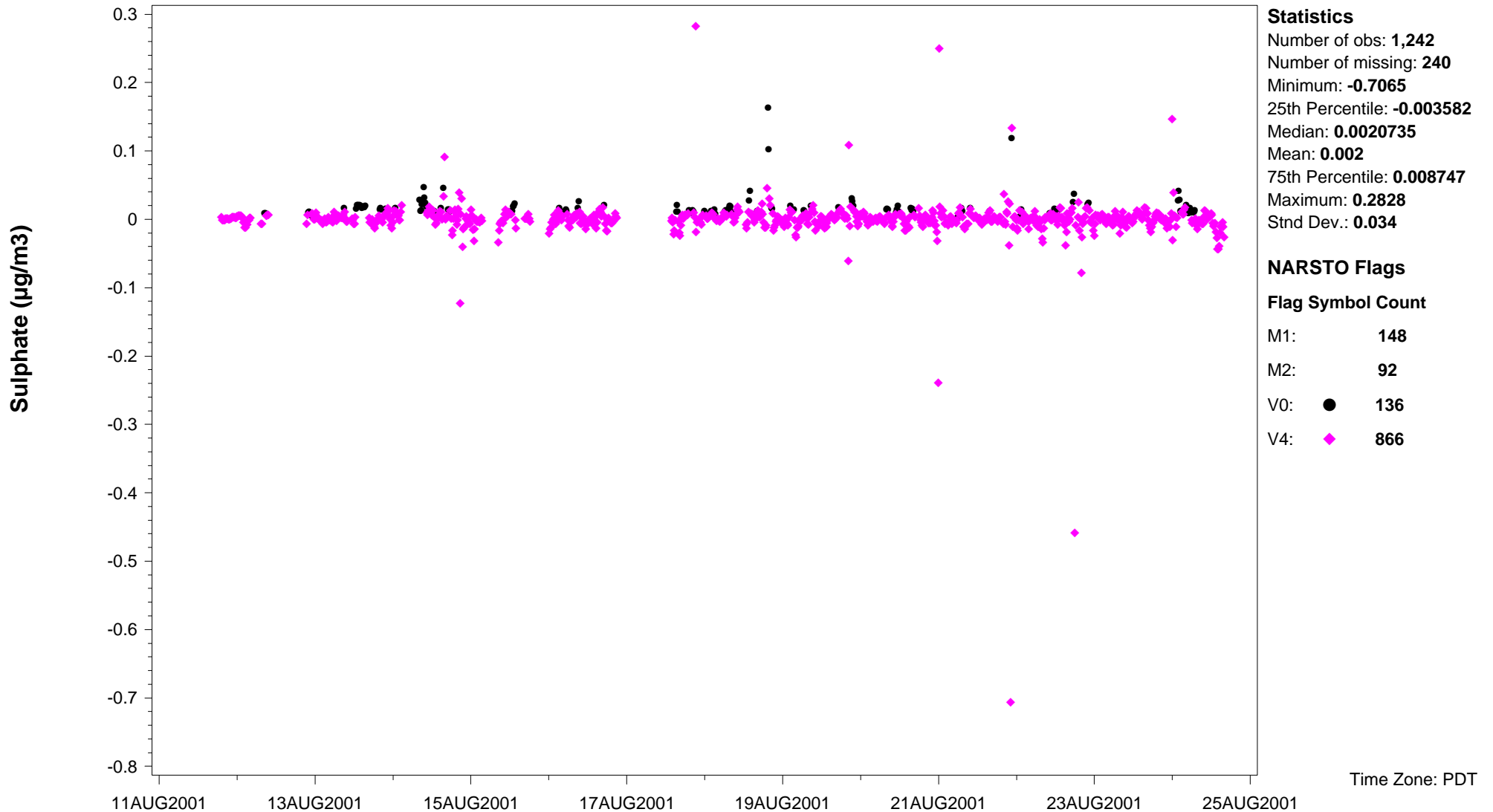


NAtChem Time Series Plot

21MAR2005

Site ID: **PC01CABCSLPK** Variable name: **Sulphate** Common Name: **Sulphate** Units: **µg/m3** Sampling interval: **15 minute**
 Sampling frequency: **Same as sampling interval** CAS ID: **C14808-79-8** Observation type: **Particles** Particle diameter--lower bound (UM): **0.0563677**
 Particle diameter--upper bound (UM): **0.0597077** Particle diameter--median (UM): **0.0632455** Field sampling or measurement principle: **AMS**
 Inlet type: **Cyclone** Volume standardization: **Ambient temperature and pressure** Sampling Height above ground (m): **5**
 Instrument name and model number: **ARI AMS** Measurement principal investigator: **Douglas Worsnop**

Site Name: **Slocan Park, Vancouver, British Columbia** Latitude: **49.24394 deg.** Longitude: **-123.04864 deg.** Start Date: **2001-08-12** End Date: **2001-08-24**

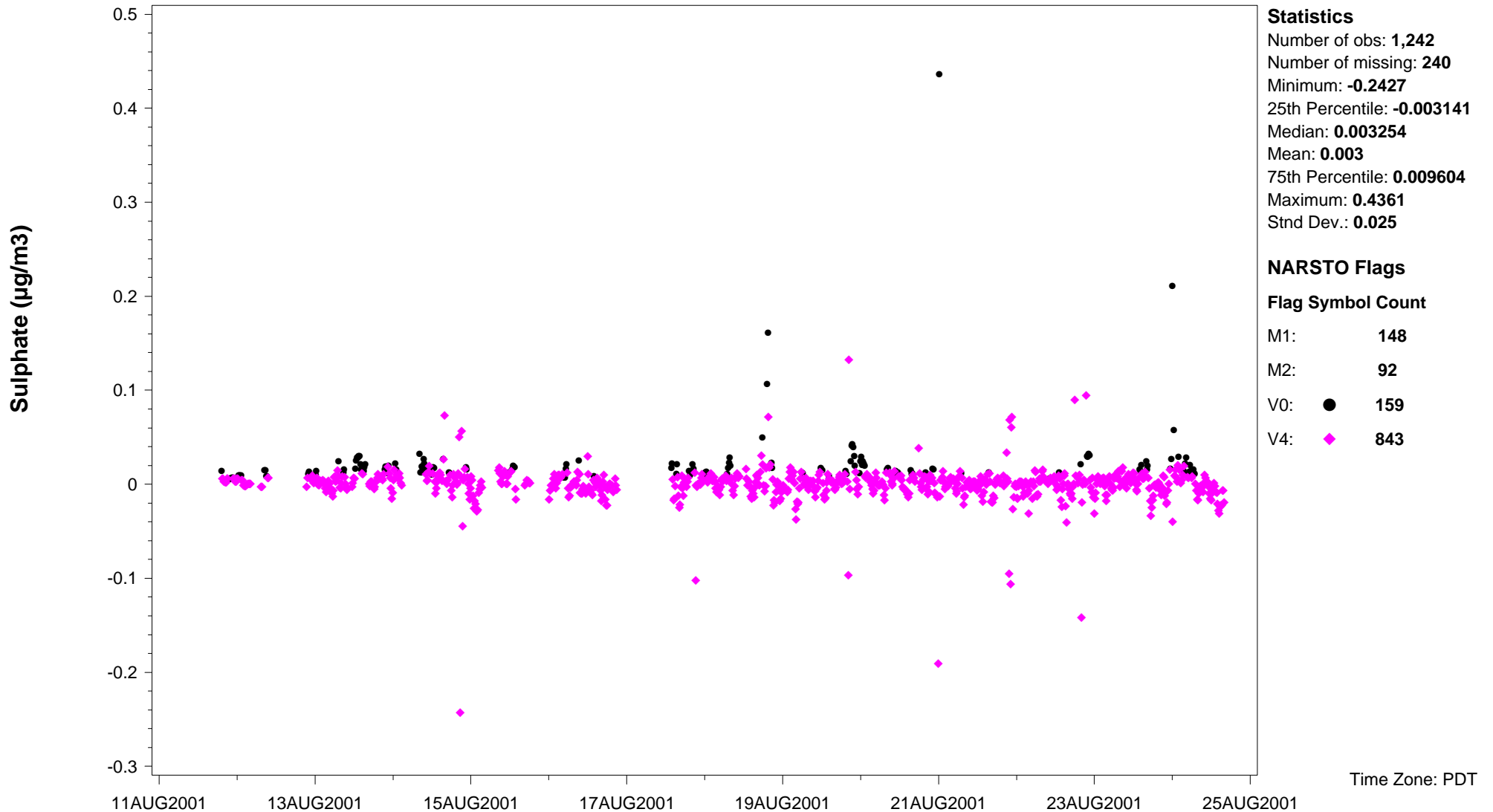


NAtChem Time Series Plot

21MAR2005

Site ID: **PC01CABCSLPK** Variable name: **Sulphate** Common Name: **Sulphate** Units: **µg/m3** Sampling interval: **15 minute**
 Sampling frequency: **Same as sampling interval** CAS ID: **C14808-79-8** Observation type: **Particles** Particle diameter--lower bound (UM): **0.0632455**
 Particle diameter--upper bound (UM): **0.0669931** Particle diameter--median (UM): **0.0709627** Field sampling or measurement principle: **AMS**
 Inlet type: **Cyclone** Volume standardization: **Ambient temperature and pressure** Sampling Height above ground (m): **5**
 Instrument name and model number: **ARI AMS** Measurement principal investigator: **Douglas Worsnop**

Site Name: **Slocan Park, Vancouver, British Columbia** Latitude: **49.24394 deg.** Longitude: **-123.04864 deg.** Start Date: **2001-08-12** End Date: **2001-08-24**

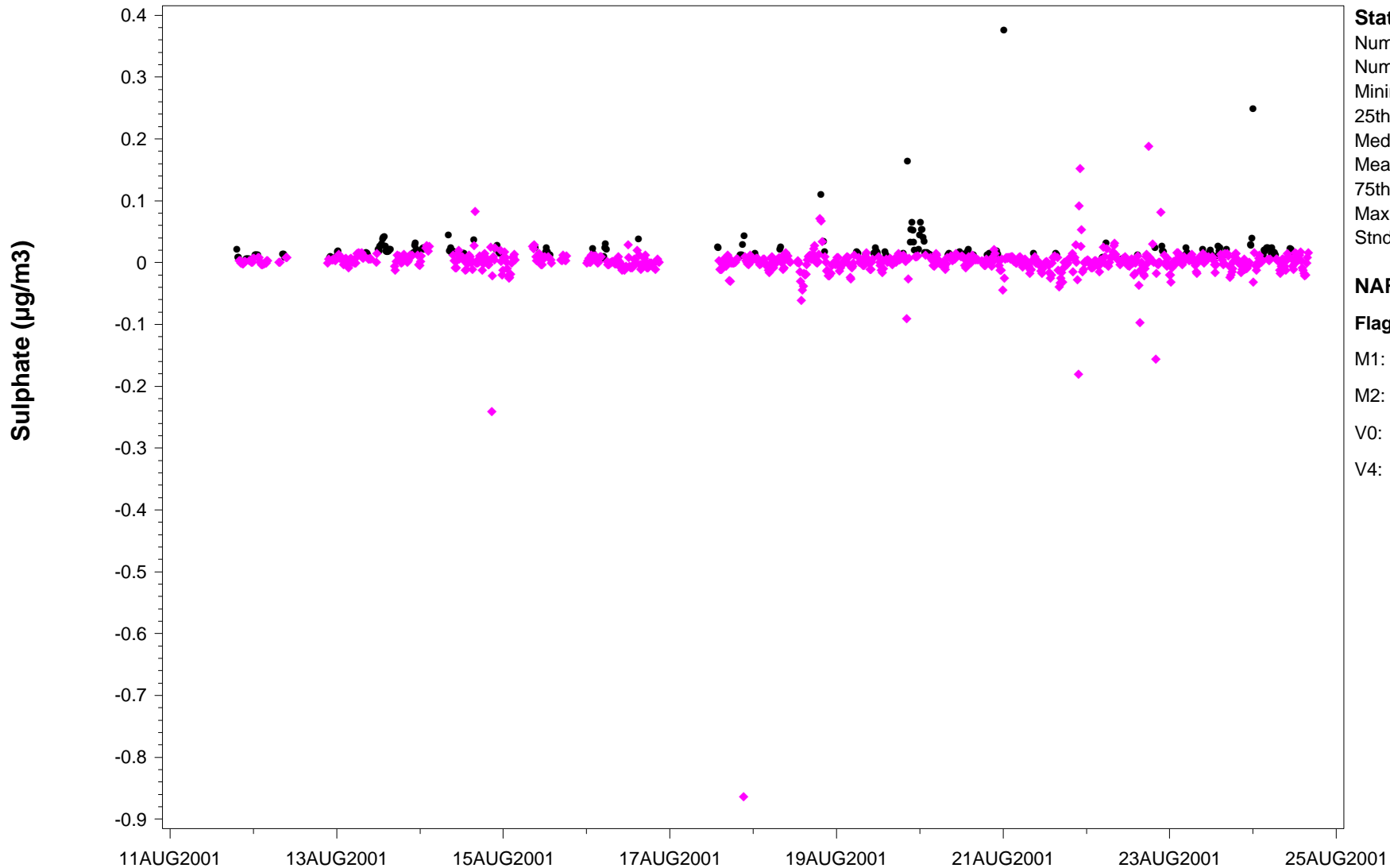


NAtChem Time Series Plot

21MAR2005

Site ID: **PC01CABCSLPK** Variable name: **Sulphate** Common Name: **Sulphate** Units: **µg/m3** Sampling interval: **15 minute**
 Sampling frequency: **Same as sampling interval** CAS ID: **C14808-79-8** Observation type: **Particles** Particle diameter--lower bound (UM): **0.0709627**
 Particle diameter--upper bound (UM): **0.0751675** Particle diameter--median (UM): **0.0796214** Field sampling or measurement principle: **AMS**
 Inlet type: **Cyclone** Volume standardization: **Ambient temperature and pressure** Sampling Height above ground (m): **5**
 Instrument name and model number: **ARI AMS** Measurement principal investigator: **Douglas Worsnop**

Site Name: **Slocan Park, Vancouver, British Columbia** Latitude: **49.24394 deg.** Longitude: **-123.04864 deg.** Start Date: **2001-08-12** End Date: **2001-08-24**

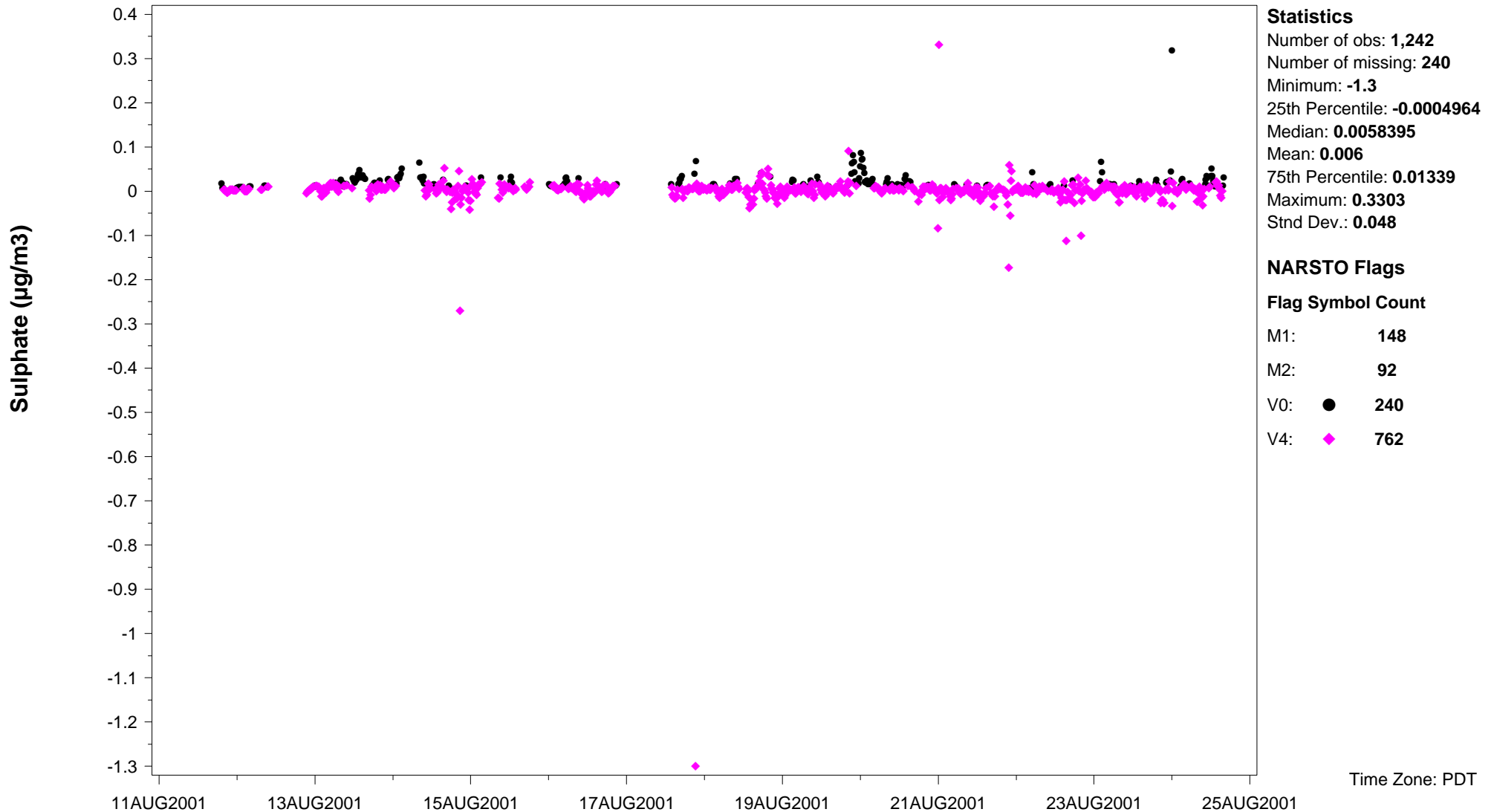


NAtChem Time Series Plot

21MAR2005

Site ID: **PC01CABCSLPK** Variable name: **Sulphate** Common Name: **Sulphate** Units: **µg/m3** Sampling interval: **15 minute**
 Sampling frequency: **Same as sampling interval** CAS ID: **C14808-79-8** Observation type: **Particles** Particle diameter--lower bound (UM): **0.0796214**
 Particle diameter--upper bound (UM): **0.0843393** Particle diameter--median (UM): **0.0893367** Field sampling or measurement principle: **AMS**
 Inlet type: **Cyclone** Volume standardization: **Ambient temperature and pressure** Sampling Height above ground (m): **5**
 Instrument name and model number: **ARI AMS** Measurement principal investigator: **Douglas Worsnop**

Site Name: **Slocan Park, Vancouver, British Columbia** Latitude: **49.24394 deg.** Longitude: **-123.04864 deg.** Start Date: **2001-08-12** End Date: **2001-08-24**

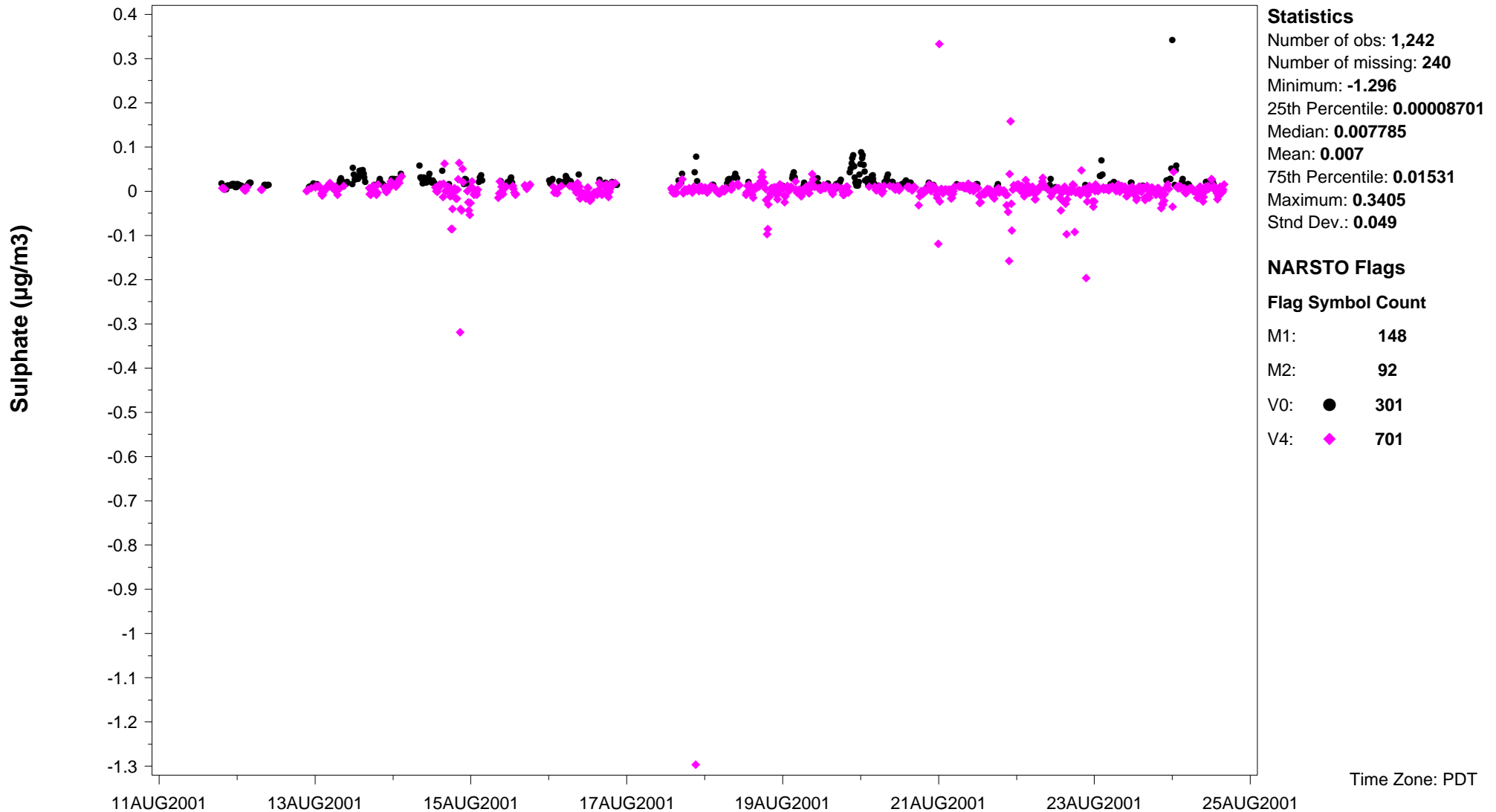


NAtChem Time Series Plot

21MAR2005

Site ID: **PC01CABCSLPK** Variable name: **Sulphate** Common Name: **Sulphate** Units: **µg/m3** Sampling interval: **15 minute**
 Sampling frequency: **Same as sampling interval** CAS ID: **C14808-79-8** Observation type: **Particles** Particle diameter--lower bound (UM): **0.0893367**
 Particle diameter--upper bound (UM): **0.0946302** Particle diameter--median (UM): **0.100237** Field sampling or measurement principle: **AMS**
 Inlet type: **Cyclone** Volume standardization: **Ambient temperature and pressure** Sampling Height above ground (m): **5**
 Instrument name and model number: **ARI AMS** Measurement principal investigator: **Douglas Worsnop**

Site Name: **Slocan Park, Vancouver, British Columbia** Latitude: **49.24394 deg.** Longitude: **-123.04864 deg.** Start Date: **2001-08-12** End Date: **2001-08-24**

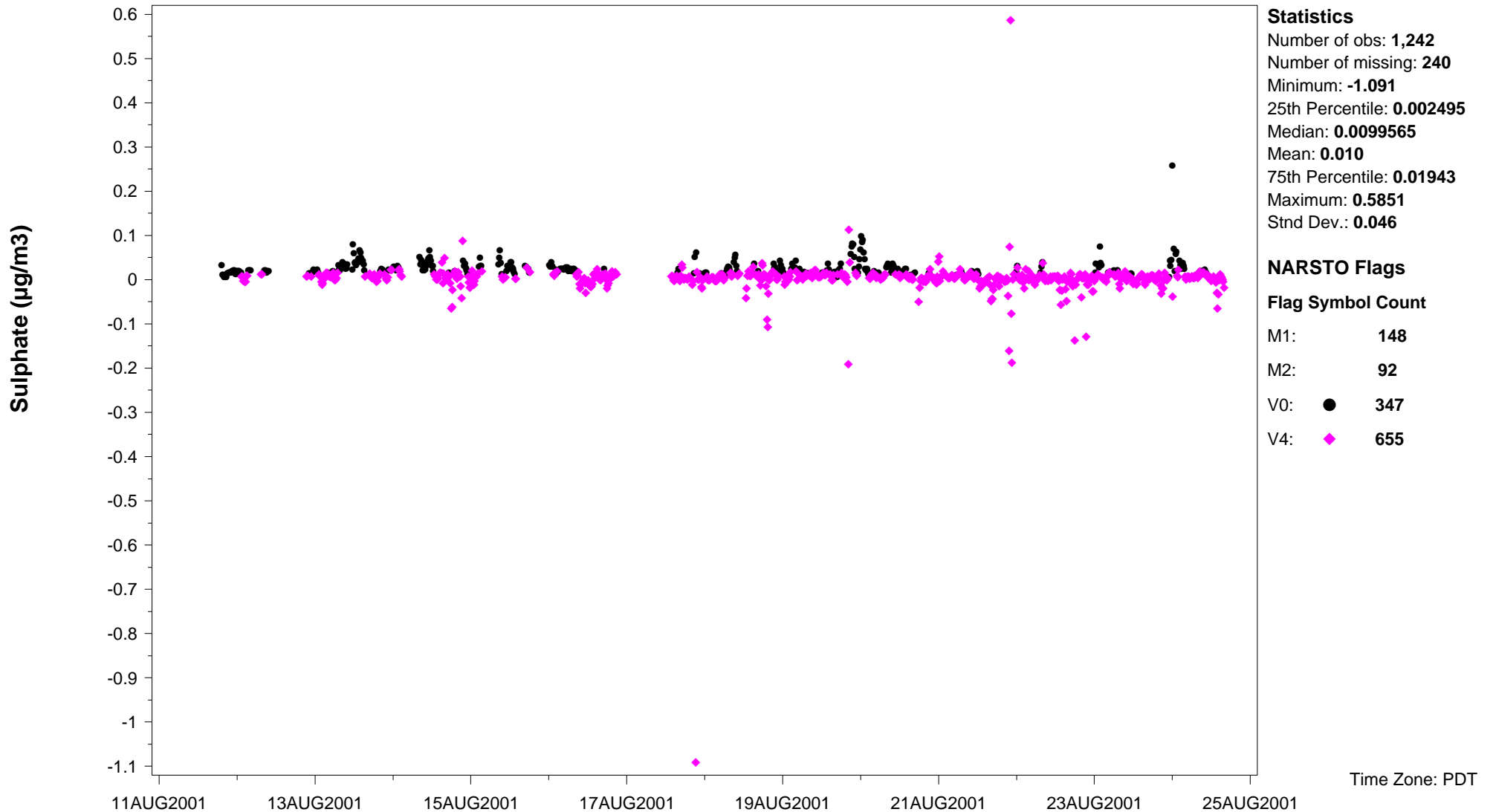


NAtChem Time Series Plot

21MAR2005

Site ID: **PC01CABCSLPK** Variable name: **Sulphate** Common Name: **Sulphate** Units: **µg/m3** Sampling interval: **15 minute**
 Sampling frequency: **Same as sampling interval** CAS ID: **C14808-79-8** Observation type: **Particles** Particle diameter--lower bound (UM): **0.100237**
 Particle diameter--upper bound (UM): **0.106177** Particle diameter--median (UM): **0.112468** Field sampling or measurement principle: **AMS**
 Inlet type: **Cyclone** Volume standardization: **Ambient temperature and pressure** Sampling Height above ground (m): **5**
 Instrument name and model number: **ARI AMS** Measurement principal investigator: **Douglas Worsnop**

Site Name: **Slocan Park, Vancouver, British Columbia** Latitude: **49.24394 deg.** Longitude: **-123.04864 deg.** Start Date: **2001-08-12** End Date: **2001-08-24**

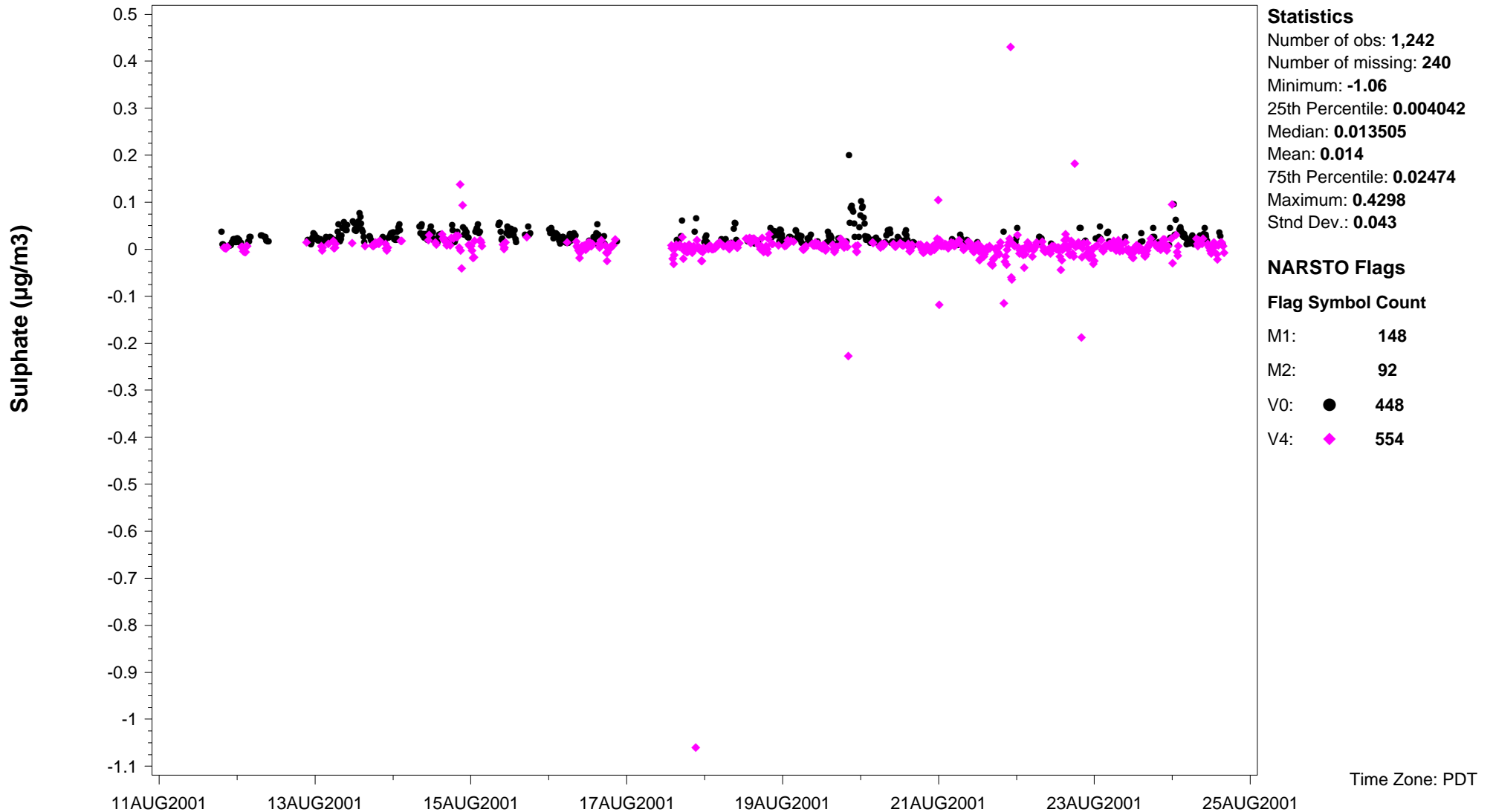


NAtChem Time Series Plot

21MAR2005

Site ID: **PC01CABC SLPK** Variable name: **Sulphate** Common Name: **Sulphate** Units: **µg/m3** Sampling interval: **15 minute**
 Sampling frequency: **Same as sampling interval** CAS ID: **C14808-79-8** Observation type: **Particles** Particle diameter--lower bound (UM): **0.112468**
 Particle diameter--upper bound (UM): **0.119132** Particle diameter--median (UM): **0.126191** Field sampling or measurement principle: **AMS**
 Inlet type: **Cyclone** Volume standardization: **Ambient temperature and pressure** Sampling Height above ground (m): **5**
 Instrument name and model number: **ARI AMS** Measurement principal investigator: **Douglas Worsnop**

Site Name: **Slocan Park, Vancouver, British Columbia** Latitude: **49.24394 deg.** Longitude: **-123.04864 deg.** Start Date: **2001-08-12** End Date: **2001-08-24**

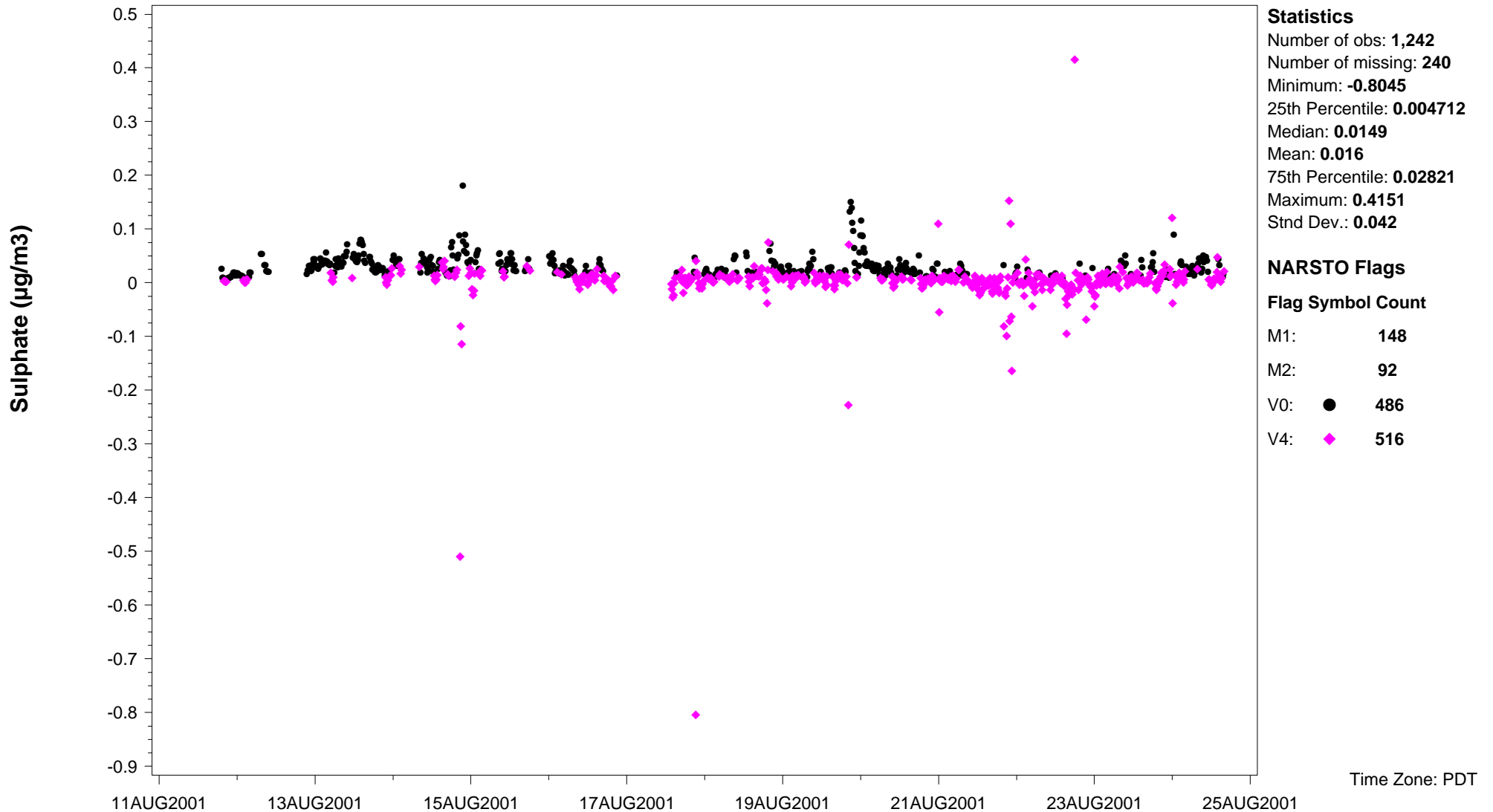


NAtChem Time Series Plot

21MAR2005

Site ID: **PC01CABCSLPK** Variable name: **Sulphate** Common Name: **Sulphate** Units: **µg/m3** Sampling interval: **15 minute**
 Sampling frequency: **Same as sampling interval** CAS ID: **C14808-79-8** Observation type: **Particles** Particle diameter--lower bound (UM): **0.126191**
 Particle diameter--upper bound (UM): **0.133669** Particle diameter--median (UM): **0.141589** Field sampling or measurement principle: **AMS**
 Inlet type: **Cyclone** Volume standardization: **Ambient temperature and pressure** Sampling Height above ground (m): **5**
 Instrument name and model number: **ARI AMS** Measurement principal investigator: **Douglas Worsnop**

Site Name: **Slocan Park, Vancouver, British Columbia** Latitude: **49.24394 deg.** Longitude: **-123.04864 deg.** Start Date: **2001-08-12** End Date: **2001-08-24**

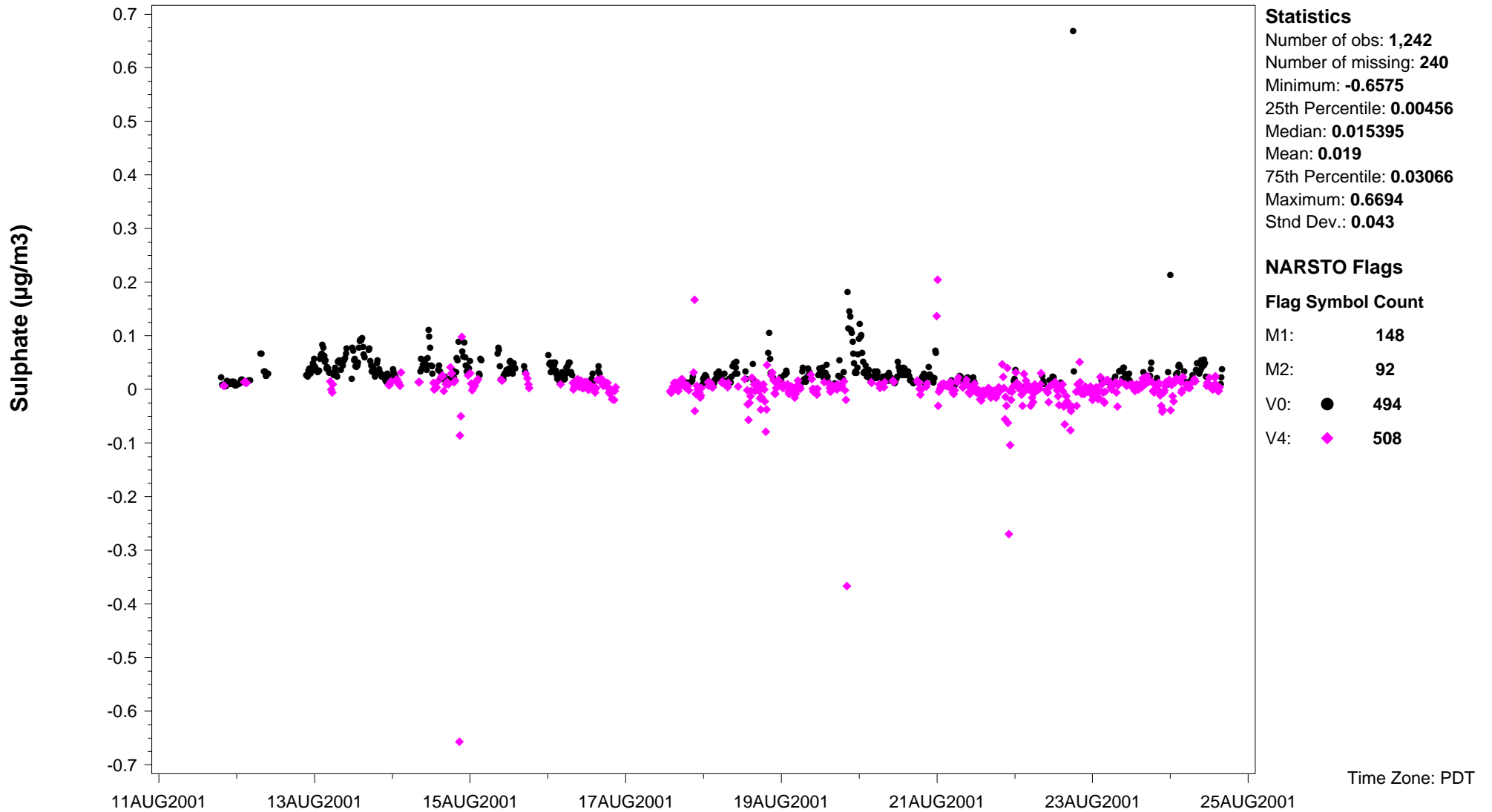


NAtChem Time Series Plot

21MAR2005

Site ID: **PC01CABCSLPK** Variable name: **Sulphate** Common Name: **Sulphate** Units: **µg/m3** Sampling interval: **15 minute**
 Sampling frequency: **Same as sampling interval** CAS ID: **C14808-79-8** Observation type: **Particles** Particle diameter--lower bound (UM): **0.141589**
 Particle diameter--upper bound (UM): **0.149979** Particle diameter--median (UM): **0.158866** Field sampling or measurement principle: **AMS**
 Inlet type: **Cyclone** Volume standardization: **Ambient temperature and pressure** Sampling Height above ground (m): **5**
 Instrument name and model number: **ARI AMS** Measurement principal investigator: **Douglas Worsnop**

Site Name: **Slocan Park, Vancouver, British Columbia** Latitude: **49.24394 deg.** Longitude: **-123.04864 deg.** Start Date: **2001-08-12** End Date: **2001-08-24**

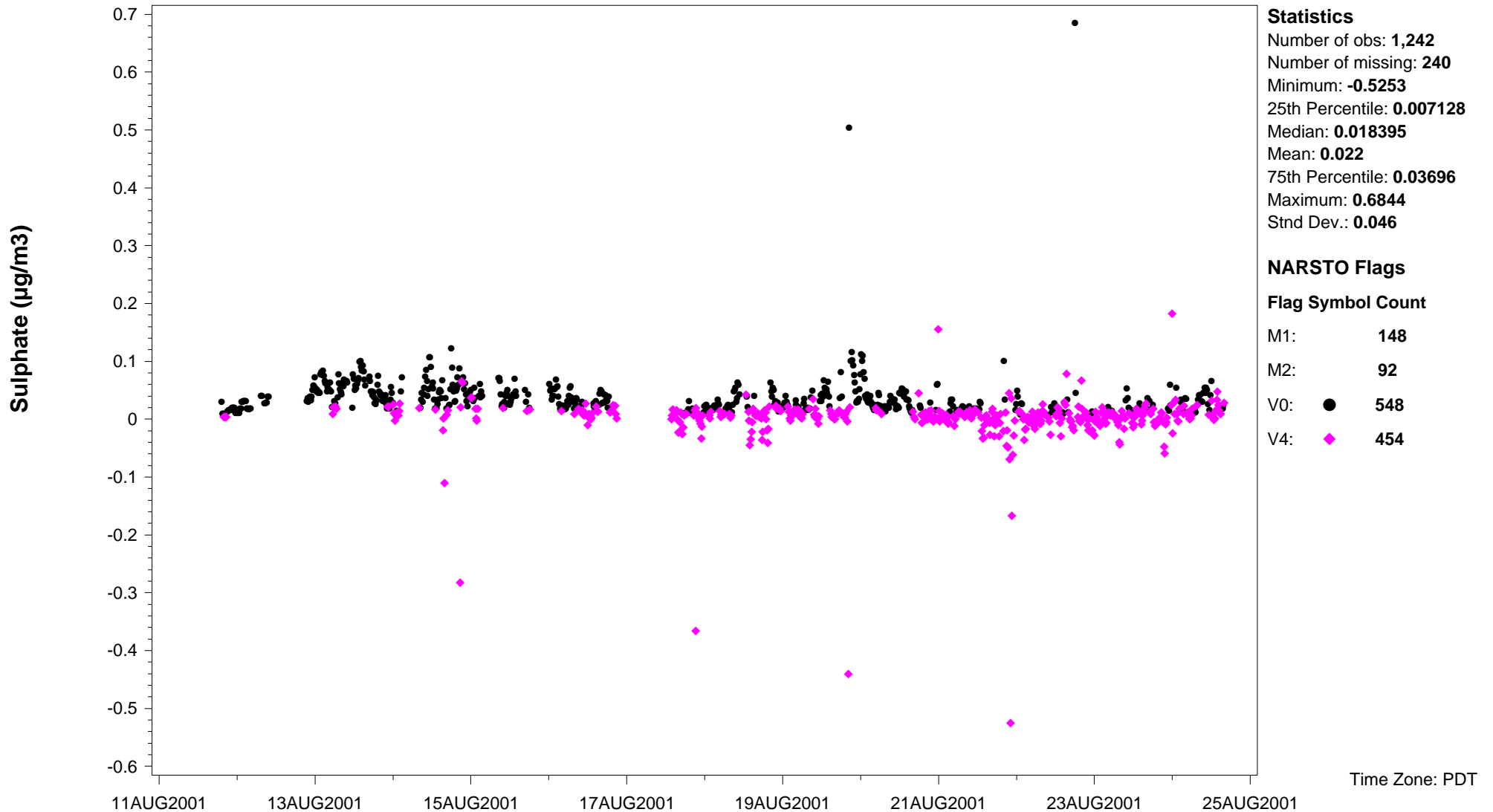


NAtChem Time Series Plot

21MAR2005

Site ID: **PC01CABCSLPK** Variable name: **Sulphate** Common Name: **Sulphate** Units: **µg/m3** Sampling interval: **15 minute**
 Sampling frequency: **Same as sampling interval** CAS ID: **C14808-79-8** Observation type: **Particles** Particle diameter--lower bound (UM): **0.158866**
 Particle diameter--upper bound (UM): **0.168279** Particle diameter--median (UM): **0.17825** Field sampling or measurement principle: **AMS**
 Inlet type: **Cyclone** Volume standardization: **Ambient temperature and pressure** Sampling Height above ground (m): **5**
 Instrument name and model number: **ARI AMS** Measurement principal investigator: **Douglas Worsnop**

Site Name: **Slocan Park, Vancouver, British Columbia** Latitude: **49.24394 deg.** Longitude: **-123.04864 deg.** Start Date: **2001-08-12** End Date: **2001-08-24**

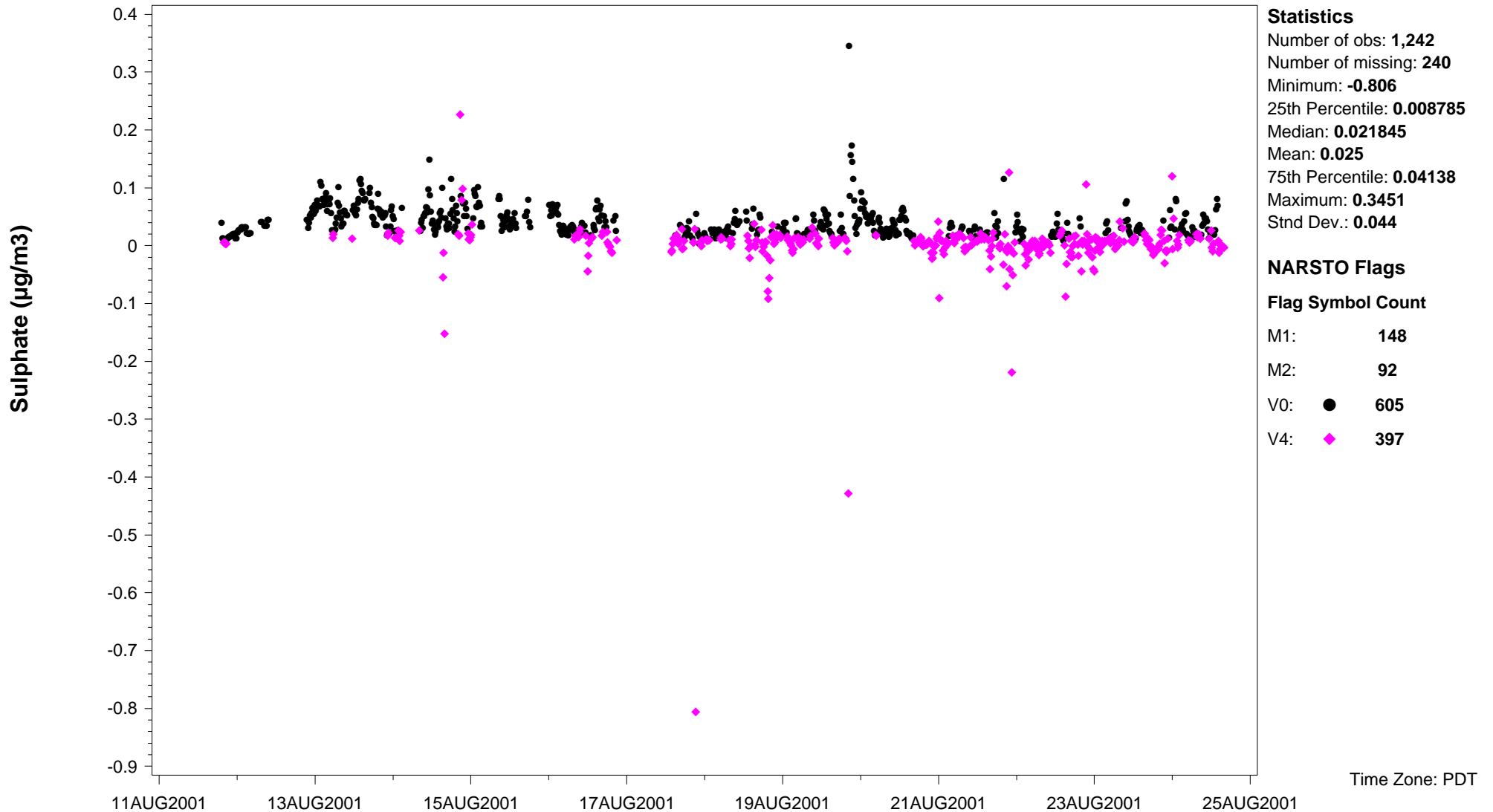


NAtChem Time Series Plot

21MAR2005

Site ID: **PC01CABCSLPK** Variable name: **Sulphate** Common Name: **Sulphate** Units: **µg/m3** Sampling interval: **15 minute**
 Sampling frequency: **Same as sampling interval** CAS ID: **C14808-79-8** Observation type: **Particles** Particle diameter--lower bound (UM): **0.17825**
 Particle diameter--upper bound (UM): **0.188812** Particle diameter--median (UM): **0.2** Field sampling or measurement principle: **AMS** Inlet type: **Cyclone**
 Volume standardization: **Ambient temperature and pressure** Sampling Height above ground (m): **5** Instrument name and model number: **ARI AMS**
 Measurement principal investigator: **Douglas Worsnop**

Site Name: **Slocan Park, Vancouver, British Columbia** Latitude: **49.24394 deg.** Longitude: **-123.04864 deg.** Start Date: **2001-08-12** End Date: **2001-08-24**

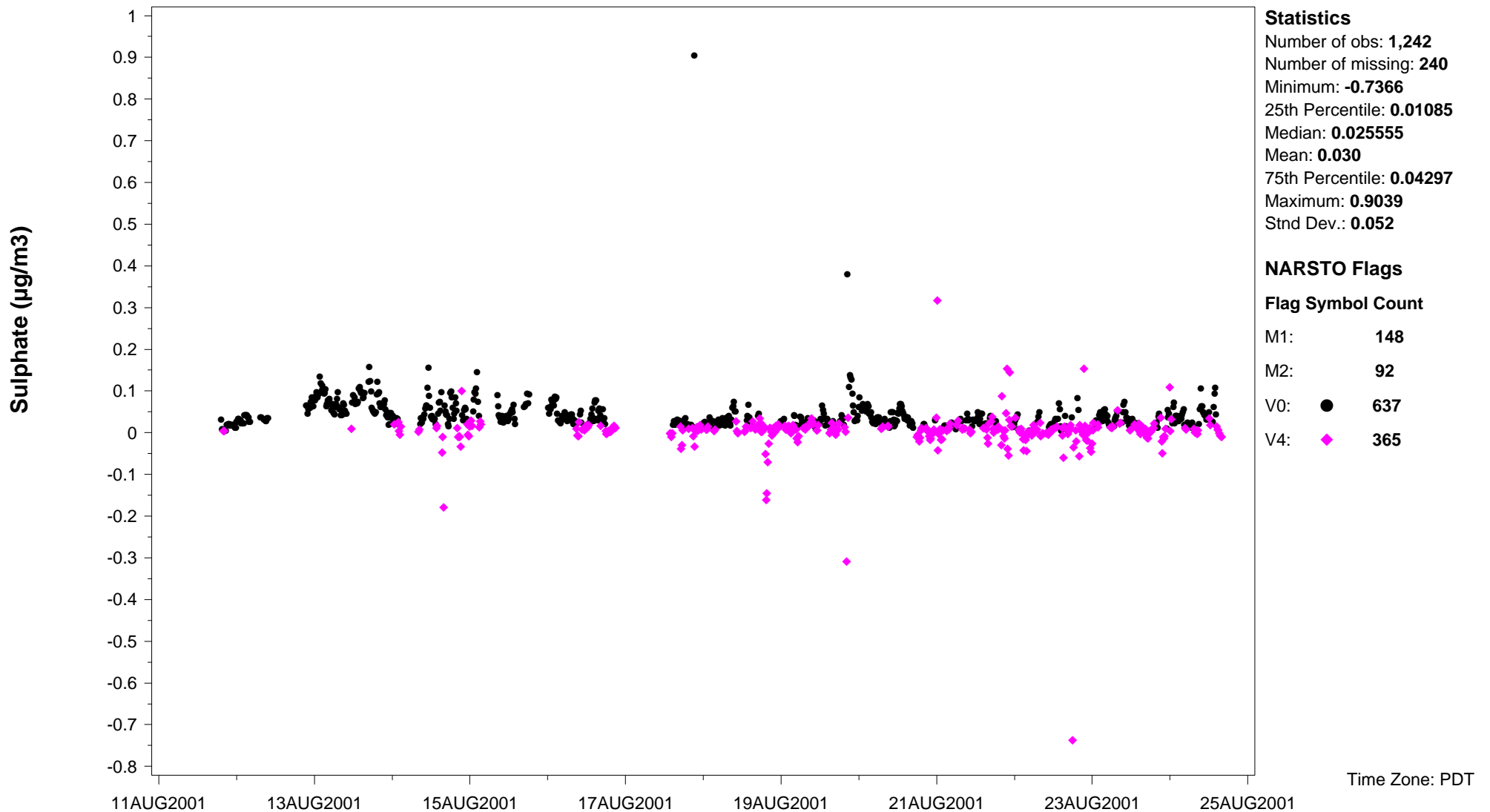


NAtChem Time Series Plot

21MAR2005

Site ID: **PC01CABCSLPK** Variable name: **Sulphate** Common Name: **Sulphate** Units: **µg/m3** Sampling interval: **15 minute**
 Sampling frequency: **Same as sampling interval** CAS ID: **C14808-79-8** Observation type: **Particles** Particle diameter--lower bound (UM): **0.2**
 Particle diameter--upper bound (UM): **0.211851** Particle diameter--median (UM): **0.224404** Field sampling or measurement principle: **AMS**
 Inlet type: **Cyclone** Volume standardization: **Ambient temperature and pressure** Sampling Height above ground (m): **5**
 Instrument name and model number: **ARI AMS** Measurement principal investigator: **Douglas Worsnop**

Site Name: **Slocan Park, Vancouver, British Columbia** Latitude: **49.24394 deg.** Longitude: **-123.04864 deg.** Start Date: **2001-08-12** End Date: **2001-08-24**

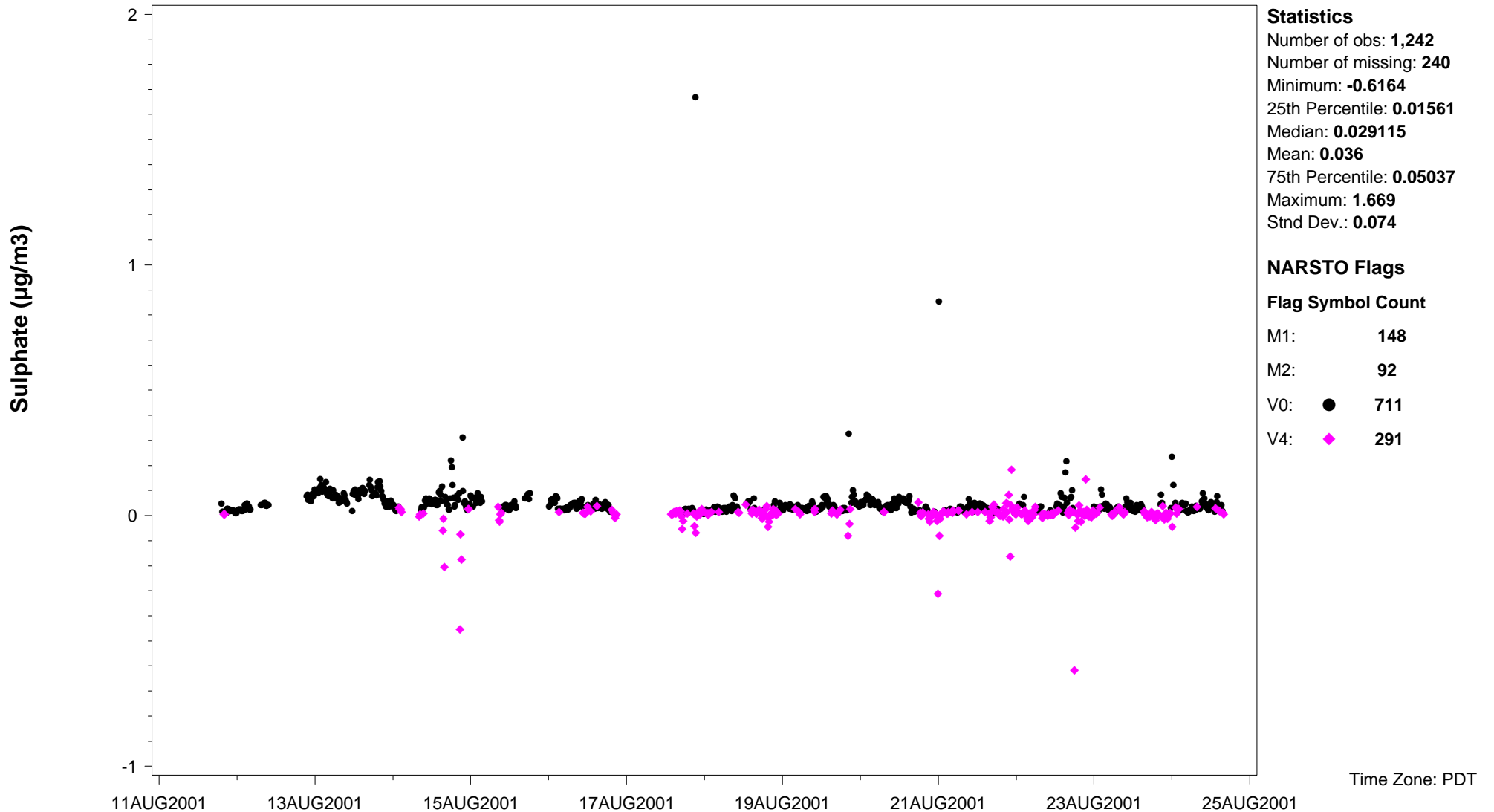


NAtChem Time Series Plot

21MAR2005

Site ID: **PC01CABCSLPK** Variable name: **Sulphate** Common Name: **Sulphate** Units: **µg/m3** Sampling interval: **15 minute**
 Sampling frequency: **Same as sampling interval** CAS ID: **C14808-79-8** Observation type: **Particles** Particle diameter--lower bound (UM): **0.224404**
 Particle diameter--upper bound (UM): **0.2377** Particle diameter--median (UM): **0.251785** Field sampling or measurement principle: **AMS**
 Inlet type: **Cyclone** Volume standardization: **Ambient temperature and pressure** Sampling Height above ground (m): **5**
 Instrument name and model number: **ARI AMS** Measurement principal investigator: **Douglas Worsnop**

Site Name: **Slocan Park, Vancouver, British Columbia** Latitude: **49.24394 deg.** Longitude: **-123.04864 deg.** Start Date: **2001-08-12** End Date: **2001-08-24**

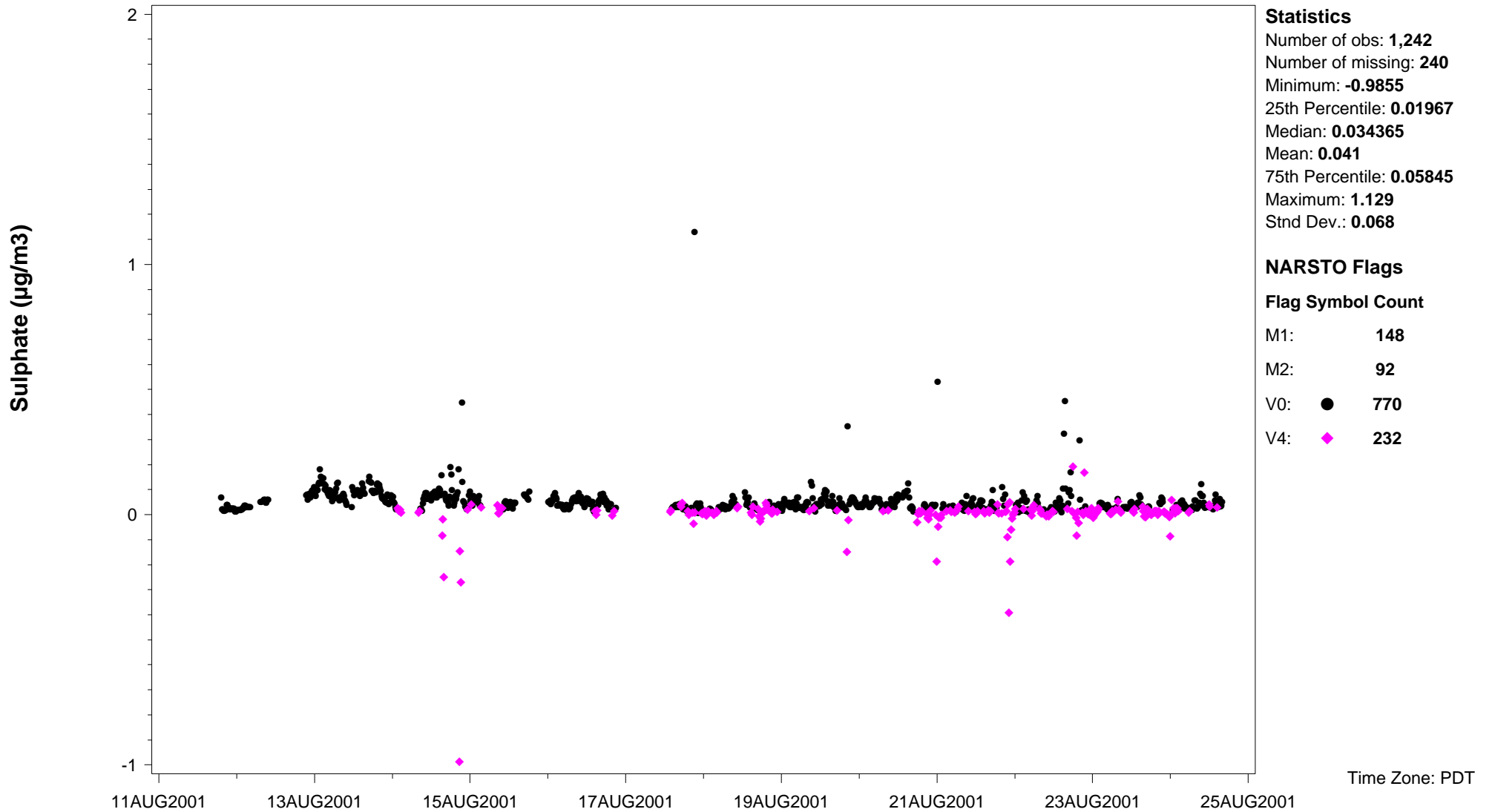


NAtChem Time Series Plot

21MAR2005

Site ID: **PC01CABCSLPK** Variable name: **Sulphate** Common Name: **Sulphate** Units: **µg/m3** Sampling interval: **15 minute**
 Sampling frequency: **Same as sampling interval** CAS ID: **C14808-79-8** Observation type: **Particles** Particle diameter--lower bound (UM): **0.251785**
 Particle diameter--upper bound (UM): **0.266704** Particle diameter--median (UM): **0.282508** Field sampling or measurement principle: **AMS**
 Inlet type: **Cyclone** Volume standardization: **Ambient temperature and pressure** Sampling Height above ground (m): **5**
 Instrument name and model number: **ARI AMS** Measurement principal investigator: **Douglas Worsnop**

Site Name: **Slocan Park, Vancouver, British Columbia** Latitude: **49.24394 deg.** Longitude: **-123.04864 deg.** Start Date: **2001-08-12** End Date: **2001-08-24**

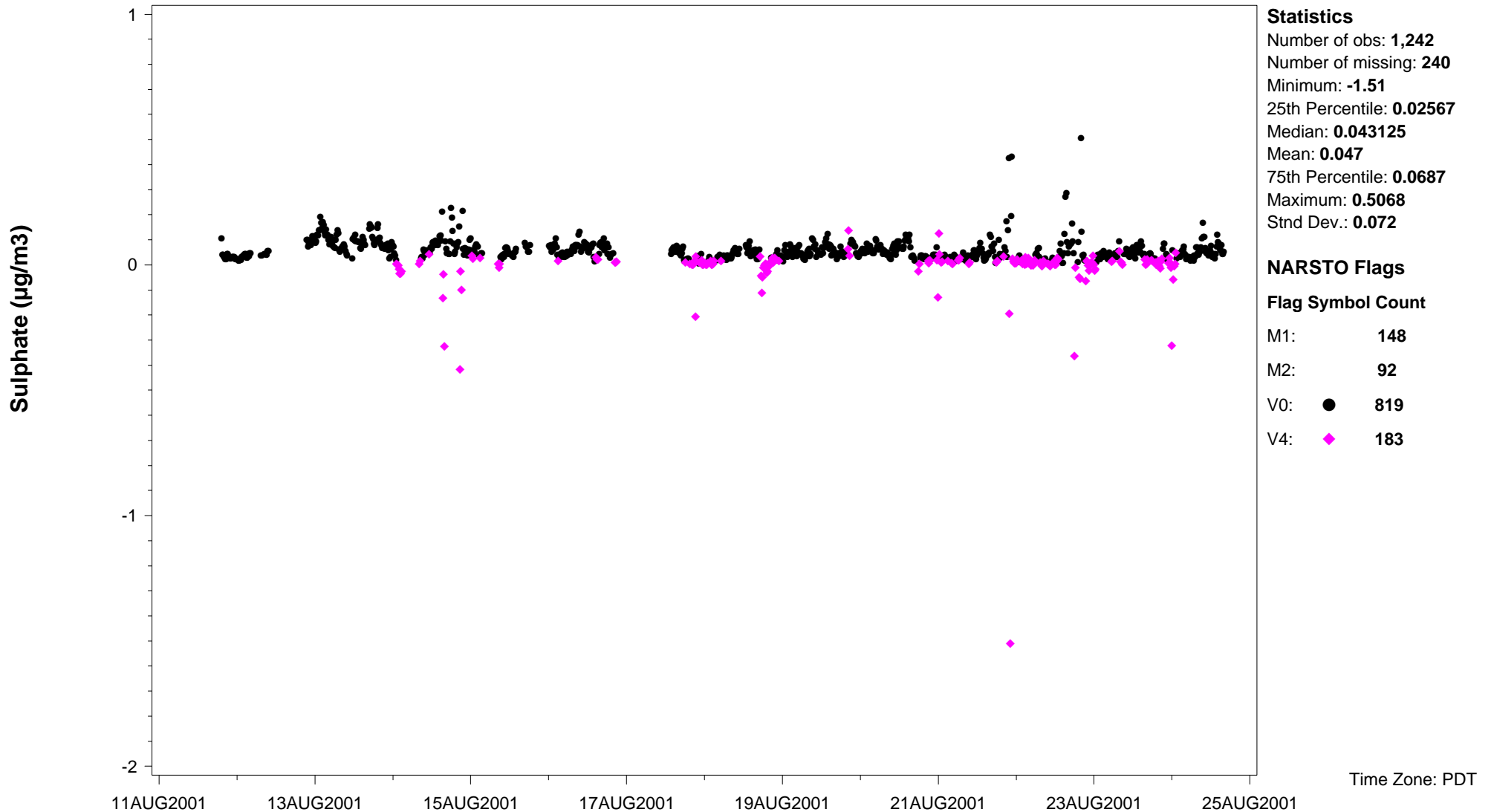


NAtChem Time Series Plot

21MAR2005

Site ID: **PC01CABCSPK** Variable name: **Sulphate** Common Name: **Sulphate** Units: **µg/m3** Sampling interval: **15 minute**
 Sampling frequency: **Same as sampling interval** CAS ID: **C14808-79-8** Observation type: **Particles** Particle diameter--lower bound (UM): **0.282508**
 Particle diameter--upper bound (UM): **0.299247** Particle diameter--median (UM): **0.316979** Field sampling or measurement principle: **AMS**
 Inlet type: **Cyclone** Volume standardization: **Ambient temperature and pressure** Sampling Height above ground (m): **5**
 Instrument name and model number: **ARI AMS** Measurement principal investigator: **Douglas Worsnop**

Site Name: **Slocan Park, Vancouver, British Columbia** Latitude: **49.24394 deg.** Longitude: **-123.04864 deg.** Start Date: **2001-08-12** End Date: **2001-08-24**

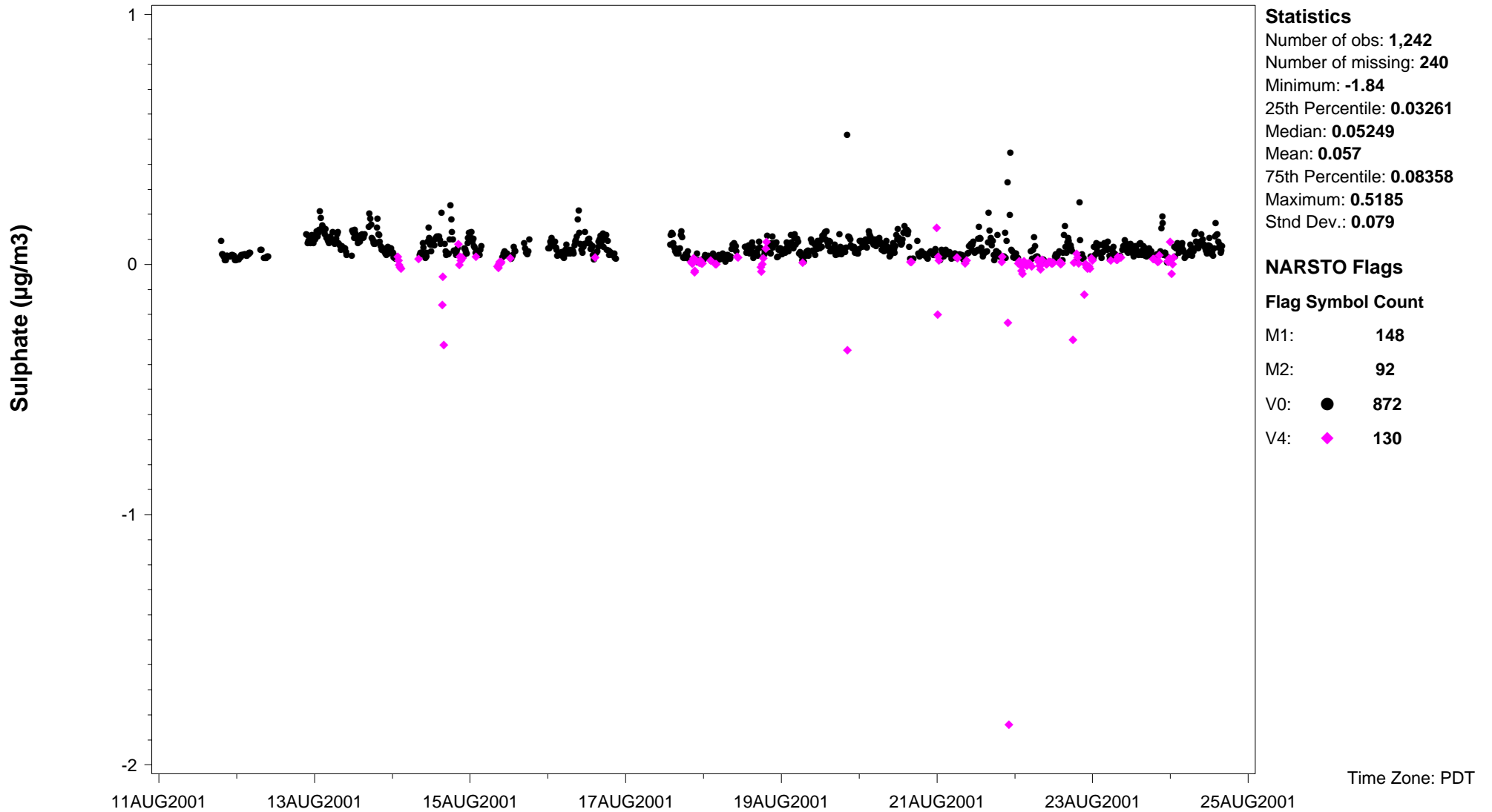


NAtChem Time Series Plot

21MAR2005

Site ID: **PC01CABCSPK** Variable name: **Sulphate** Common Name: **Sulphate** Units: **µg/m3** Sampling interval: **15 minute**
 Sampling frequency: **Same as sampling interval** CAS ID: **C14808-79-8** Observation type: **Particles** Particle diameter--lower bound (UM): **0.316979**
 Particle diameter--upper bound (UM): **0.335761** Particle diameter--median (UM): **0.355656** Field sampling or measurement principle: **AMS**
 Inlet type: **Cyclone** Volume standardization: **Ambient temperature and pressure** Sampling Height above ground (m): **5**
 Instrument name and model number: **ARI AMS** Measurement principal investigator: **Douglas Worsnop**

Site Name: **Slocan Park, Vancouver, British Columbia** Latitude: **49.24394 deg.** Longitude: **-123.04864 deg.** Start Date: **2001-08-12** End Date: **2001-08-24**

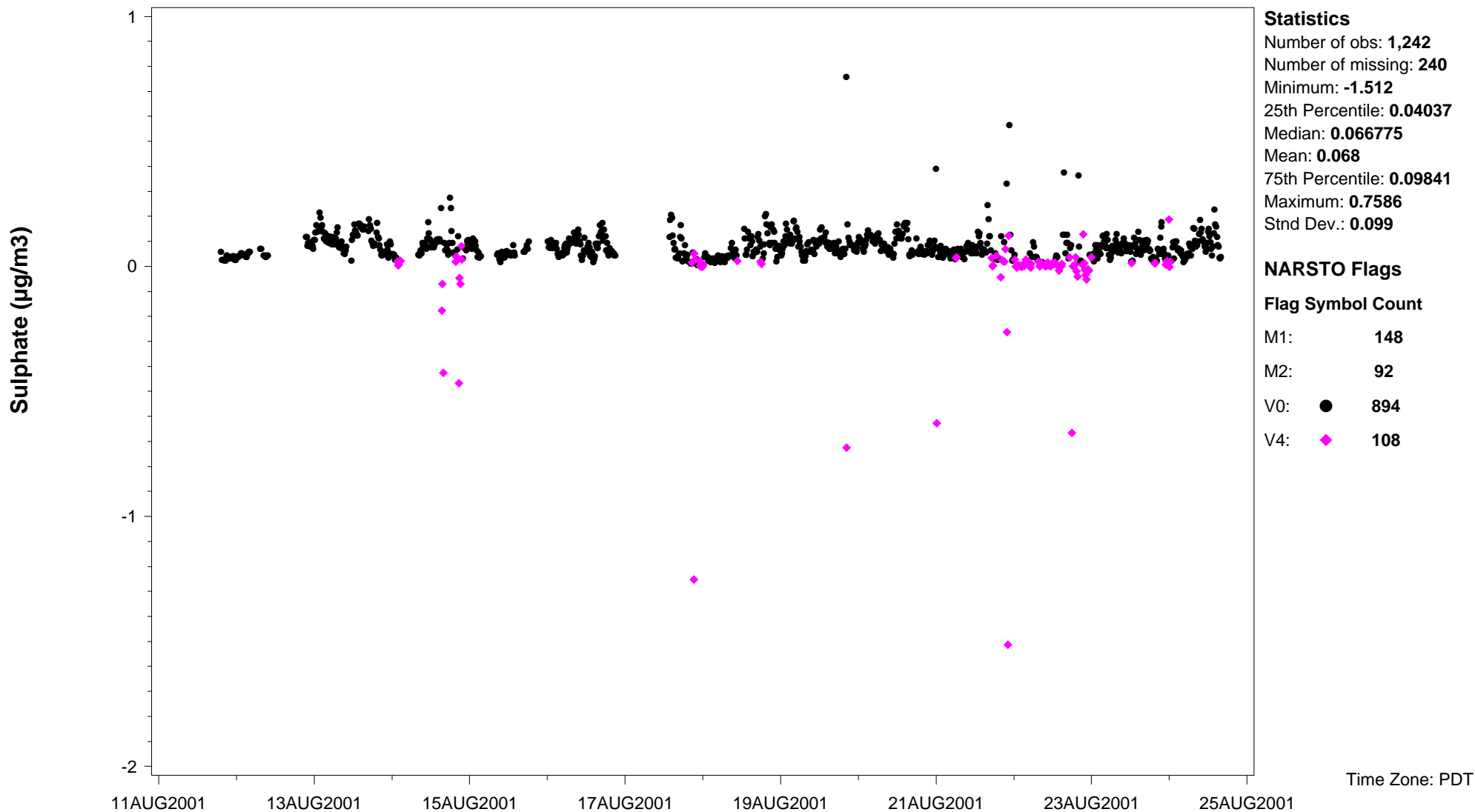


NAtChem Time Series Plot

21MAR2005

Site ID: **PC01CABCSPK** Variable name: **Sulphate** Common Name: **Sulphate** Units: **µg/m3** Sampling interval: **15 minute**
 Sampling frequency: **Same as sampling interval** CAS ID: **C14808-79-8** Observation type: **Particles** Particle diameter--lower bound (UM): **0.355656**
 Particle diameter--upper bound (UM): **0.37673** Particle diameter--median (UM): **0.399052** Field sampling or measurement principle: **AMS**
 Inlet type: **Cyclone** Volume standardization: **Ambient temperature and pressure** Sampling Height above ground (m): **5**
 Instrument name and model number: **ARI AMS** Measurement principal investigator: **Douglas Worsnop**

Site Name: **Slocan Park, Vancouver, British Columbia** Latitude: **49.24394 deg.** Longitude: **-123.04864 deg.** Start Date: **2001-08-12** End Date: **2001-08-24**

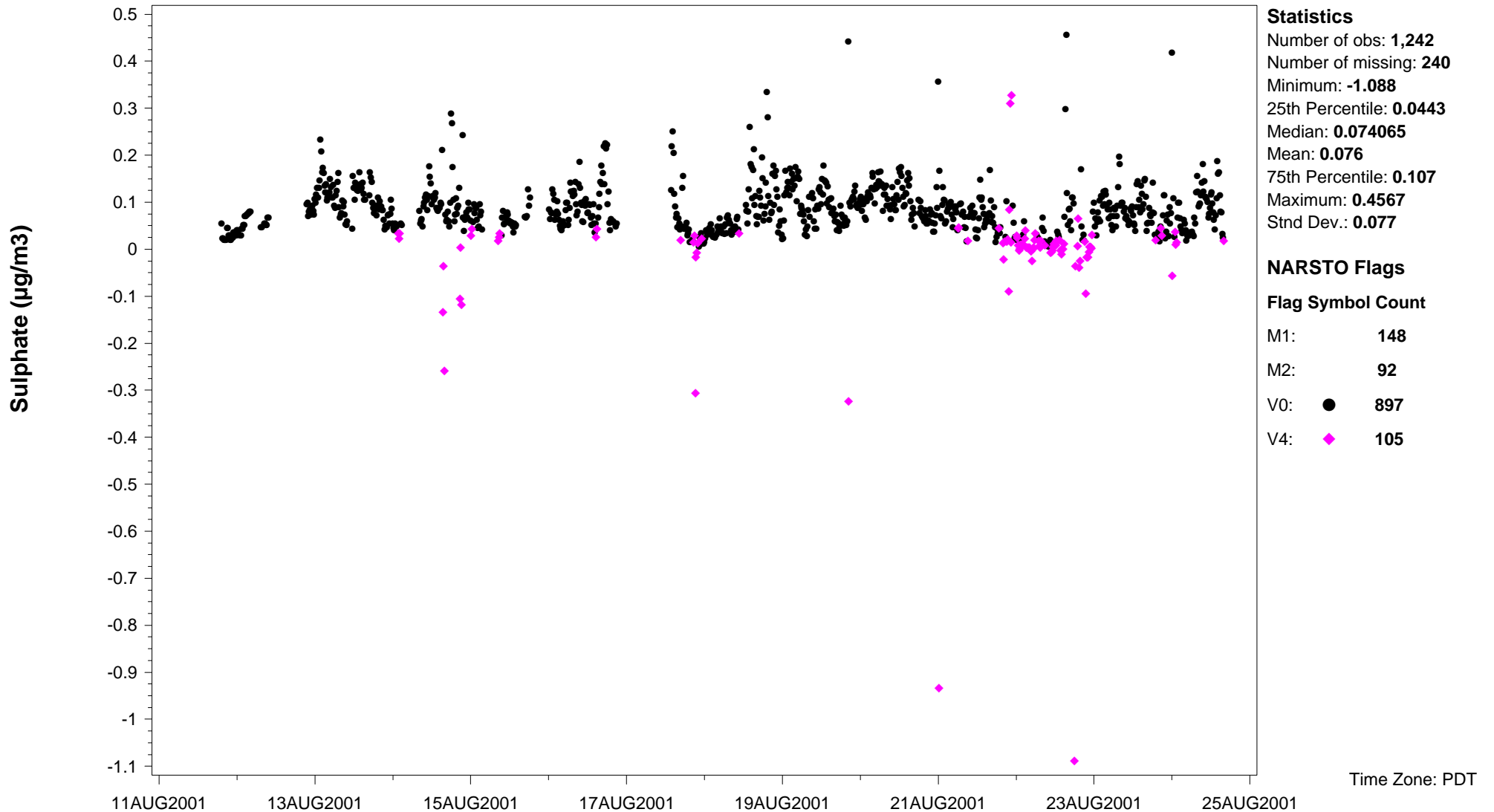


NAtChem Time Series Plot

21MAR2005

Site ID: **PC01CABCSLPK** Variable name: **Sulphate** Common Name: **Sulphate** Units: **µg/m3** Sampling interval: **15 minute**
 Sampling frequency: **Same as sampling interval** CAS ID: **C14808-79-8** Observation type: **Particles** Particle diameter--lower bound (UM): **0.399052**
 Particle diameter--upper bound (UM): **0.422698** Particle diameter--median (UM): **0.447744** Field sampling or measurement principle: **AMS**
 Inlet type: **Cyclone** Volume standardization: **Ambient temperature and pressure** Sampling Height above ground (m): **5**
 Instrument name and model number: **ARI AMS** Measurement principal investigator: **Douglas Worsnop**

Site Name: **Slocan Park, Vancouver, British Columbia** Latitude: **49.24394 deg.** Longitude: **-123.04864 deg.** Start Date: **2001-08-12** End Date: **2001-08-24**

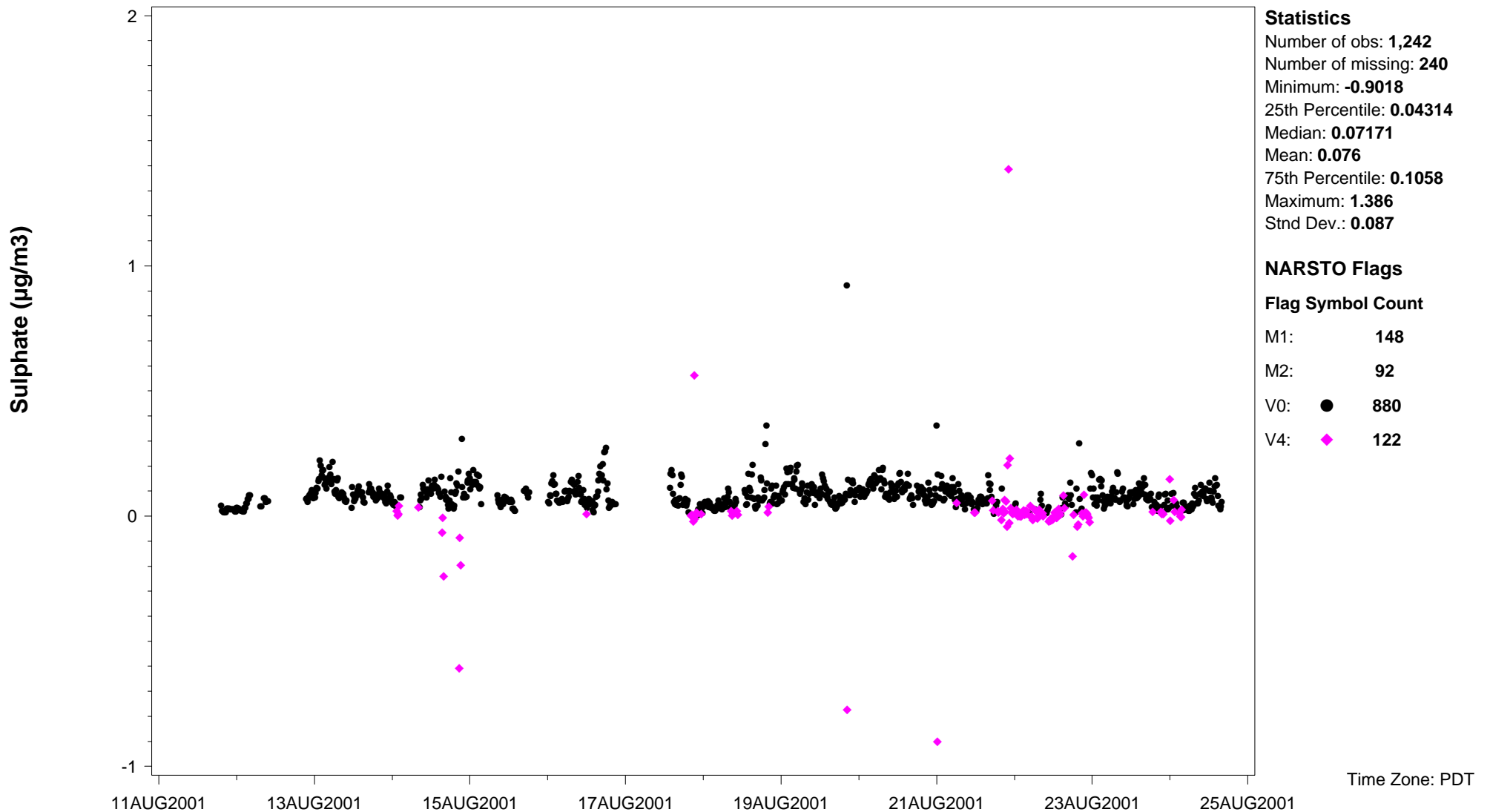


NAtChem Time Series Plot

21MAR2005

Site ID: **PC01CABCSLPK** Variable name: **Sulphate** Common Name: **Sulphate** Units: **µg/m3** Sampling interval: **15 minute**
 Sampling frequency: **Same as sampling interval** CAS ID: **C14808-79-8** Observation type: **Particles** Particle diameter--lower bound (UM): **0.447744**
 Particle diameter--upper bound (UM): **0.474275** Particle diameter--median (UM): **0.502377** Field sampling or measurement principle: **AMS**
 Inlet type: **Cyclone** Volume standardization: **Ambient temperature and pressure** Sampling Height above ground (m): **5**
 Instrument name and model number: **ARI AMS** Measurement principal investigator: **Douglas Worsnop**

Site Name: **Slocan Park, Vancouver, British Columbia** Latitude: **49.24394 deg.** Longitude: **-123.04864 deg.** Start Date: **2001-08-12** End Date: **2001-08-24**

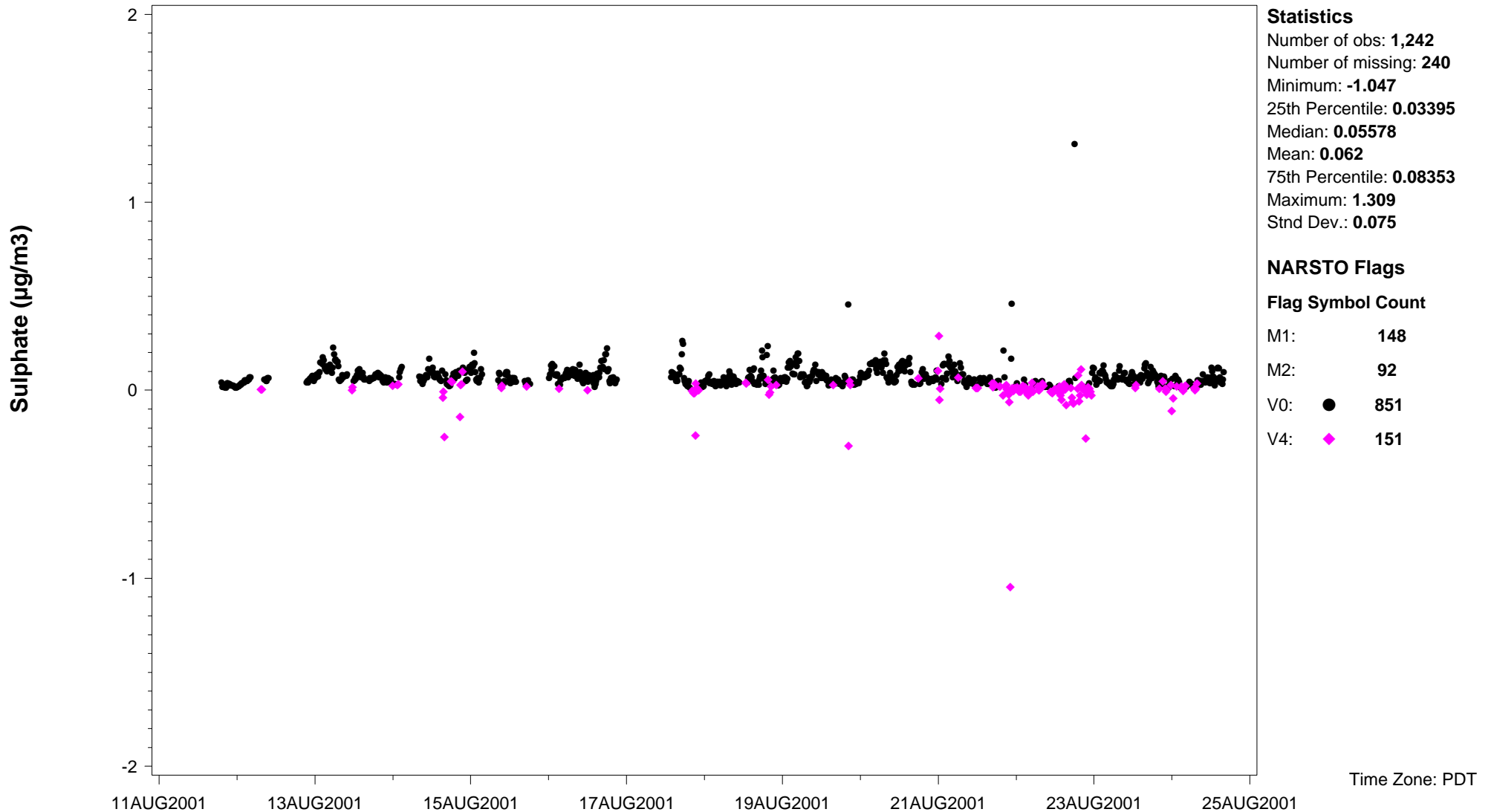


NAtChem Time Series Plot

21MAR2005

Site ID: **PC01CABCSLPK** Variable name: **Sulphate** Common Name: **Sulphate** Units: **µg/m3** Sampling interval: **15 minute**
 Sampling frequency: **Same as sampling interval** CAS ID: **C14808-79-8** Observation type: **Particles** Particle diameter--lower bound (UM): **0.502377**
 Particle diameter--upper bound (UM): **0.532145** Particle diameter--median (UM): **0.563677** Field sampling or measurement principle: **AMS**
 Inlet type: **Cyclone** Volume standardization: **Ambient temperature and pressure** Sampling Height above ground (m): **5**
 Instrument name and model number: **ARI AMS** Measurement principal investigator: **Douglas Worsnop**

Site Name: **Slocan Park, Vancouver, British Columbia** Latitude: **49.24394 deg.** Longitude: **-123.04864 deg.** Start Date: **2001-08-12** End Date: **2001-08-24**

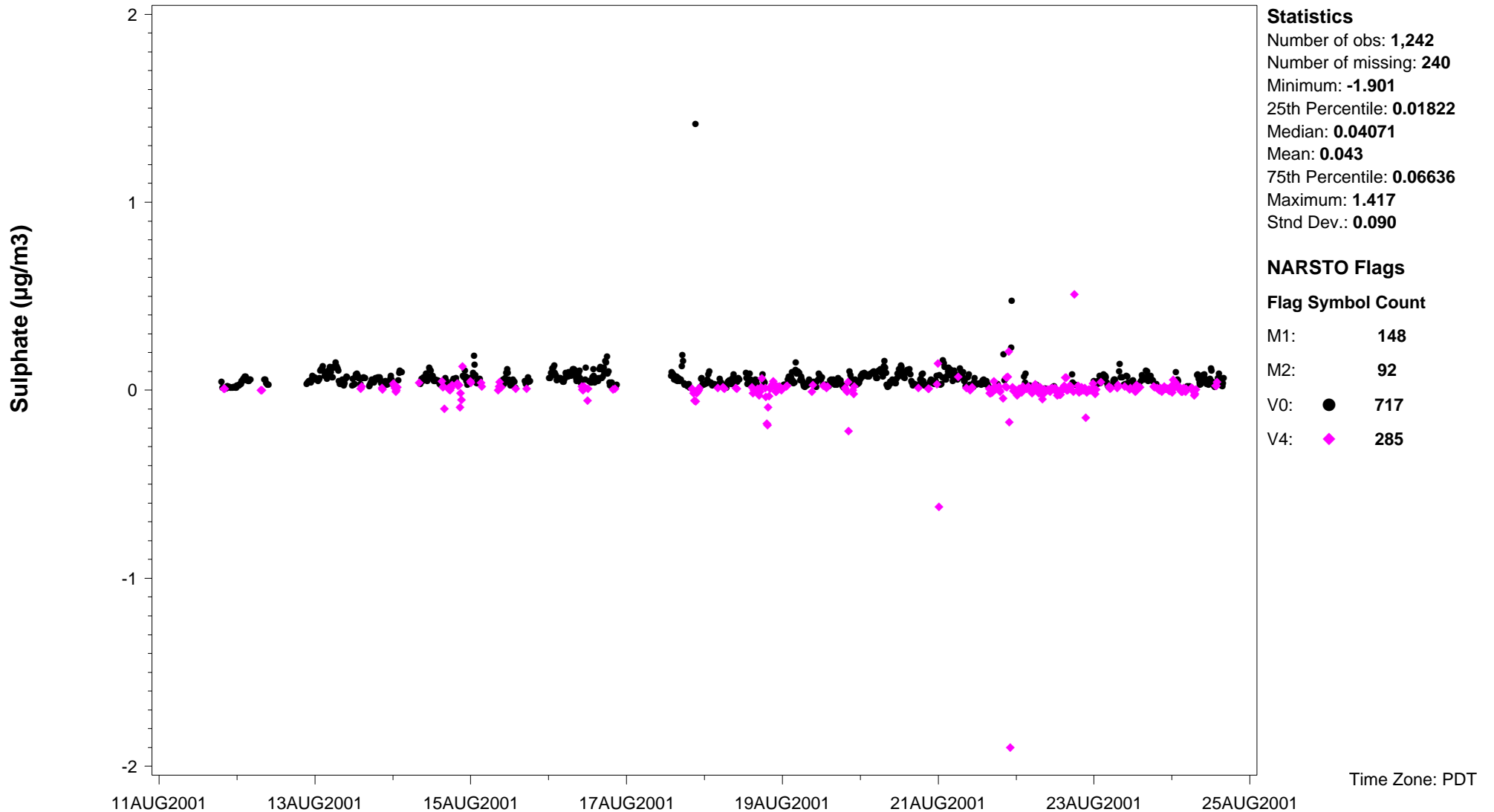


NAtChem Time Series Plot

21MAR2005

Site ID: **PC01CABCSLPK** Variable name: **Sulphate** Common Name: **Sulphate** Units: **µg/m3** Sampling interval: **15 minute**
 Sampling frequency: **Same as sampling interval** CAS ID: **C14808-79-8** Observation type: **Particles** Particle diameter--lower bound (UM): **0.563677**
 Particle diameter--upper bound (UM): **0.597077** Particle diameter--median (UM): **0.632456** Field sampling or measurement principle: **AMS**
 Inlet type: **Cyclone** Volume standardization: **Ambient temperature and pressure** Sampling Height above ground (m): **5**
 Instrument name and model number: **ARI AMS** Measurement principal investigator: **Douglas Worsnop**

Site Name: **Slocan Park, Vancouver, British Columbia** Latitude: **49.24394 deg.** Longitude: **-123.04864 deg.** Start Date: **2001-08-12** End Date: **2001-08-24**

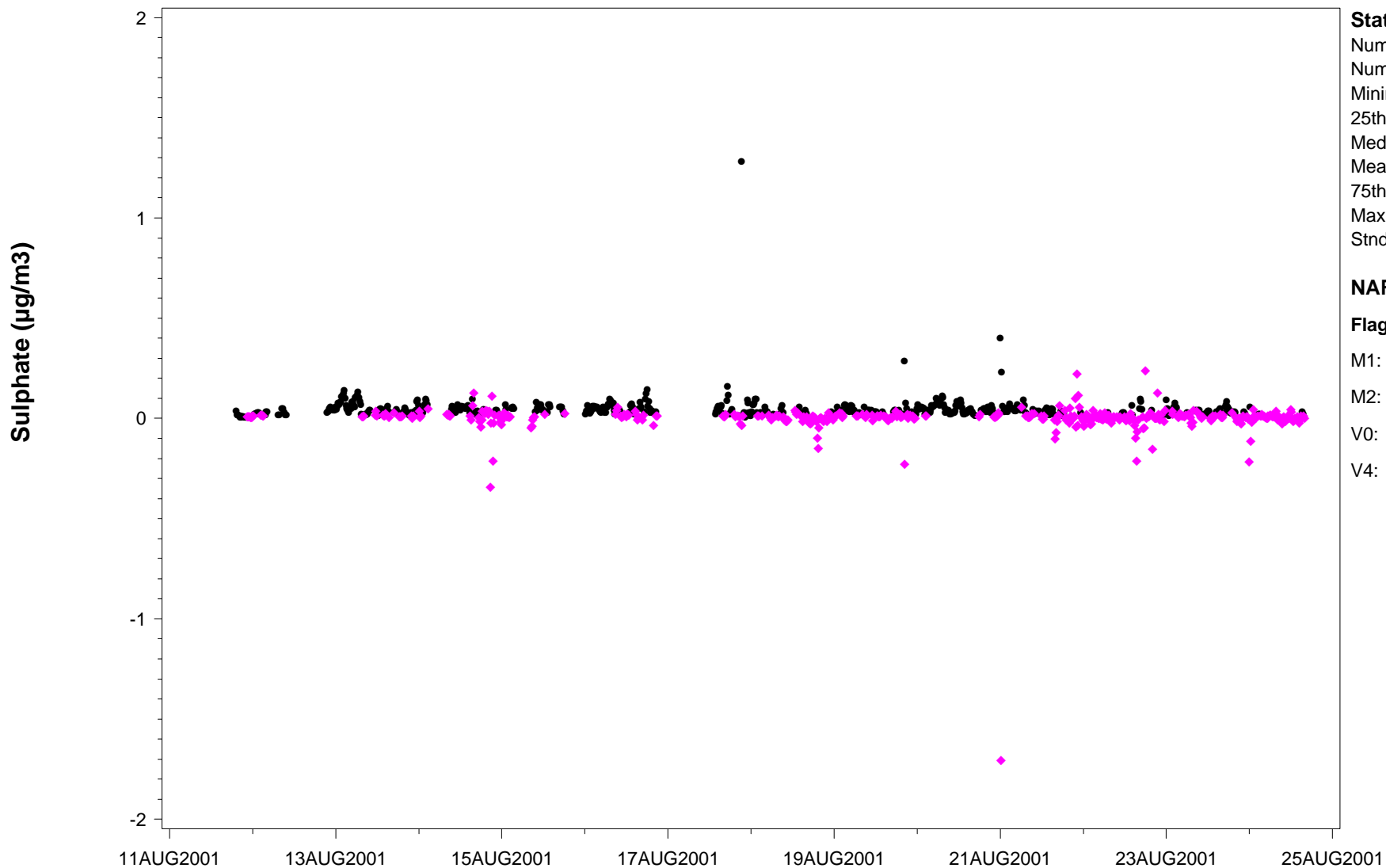


NAtChem Time Series Plot

21MAR2005

Site ID: **PC01CABCSLPK** Variable name: **Sulphate** Common Name: **Sulphate** Units: **µg/m3** Sampling interval: **15 minute**
 Sampling frequency: **Same as sampling interval** CAS ID: **C14808-79-8** Observation type: **Particles** Particle diameter--lower bound (UM): **0.632456**
 Particle diameter--upper bound (UM): **0.669931** Particle diameter--median (UM): **0.709627** Field sampling or measurement principle: **AMS**
 Inlet type: **Cyclone** Volume standardization: **Ambient temperature and pressure** Sampling Height above ground (m): **5**
 Instrument name and model number: **ARI AMS** Measurement principal investigator: **Douglas Worsnop**

Site Name: **Slocan Park, Vancouver, British Columbia** Latitude: **49.24394 deg.** Longitude: **-123.04864 deg.** Start Date: **2001-08-12** End Date: **2001-08-24**



Statistics

Number of obs: **1,242**
 Number of missing: **240**
 Minimum: **-1.707**
 25th Percentile: **0.008096**
 Median: **0.024005**
 Mean: **0.026**
 75th Percentile: **0.04444**
 Maximum: **1.282**
 Stnd Dev.: **0.079**

NARSTO Flags

Flag Symbol Count

M1:	148
M2:	92
V0: ●	555
V4: ◆	447

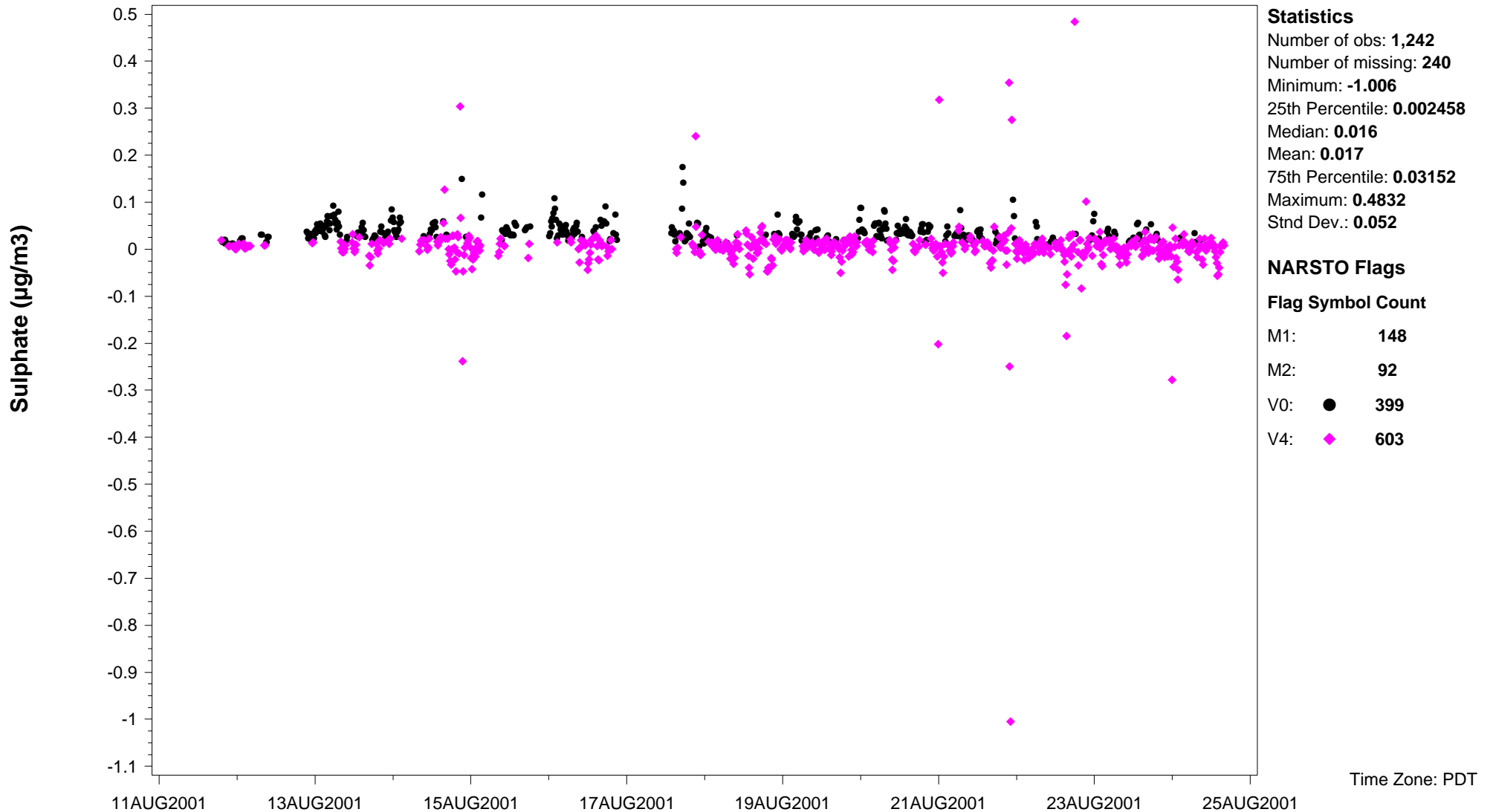
Time Zone: PDT

NAtChem Time Series Plot

21MAR2005

Site ID: **PC01CABCSLPK** Variable name: **Sulphate** Common Name: **Sulphate** Units: **µg/m3** Sampling interval: **15 minute**
 Sampling frequency: **Same as sampling interval** CAS ID: **C14808-79-8** Observation type: **Particles** Particle diameter--lower bound (UM): **0.709627**
 Particle diameter--upper bound (UM): **0.751675** Particle diameter--median (UM): **0.796214** Field sampling or measurement principle: **AMS**
 Inlet type: **Cyclone** Volume standardization: **Ambient temperature and pressure** Sampling Height above ground (m): **5**
 Instrument name and model number: **ARI AMS** Measurement principal investigator: **Douglas Worsnop**

Site Name: **Slocan Park, Vancouver, British Columbia** Latitude: **49.24394 deg.** Longitude: **-123.04864 deg.** Start Date: **2001-08-12** End Date: **2001-08-24**

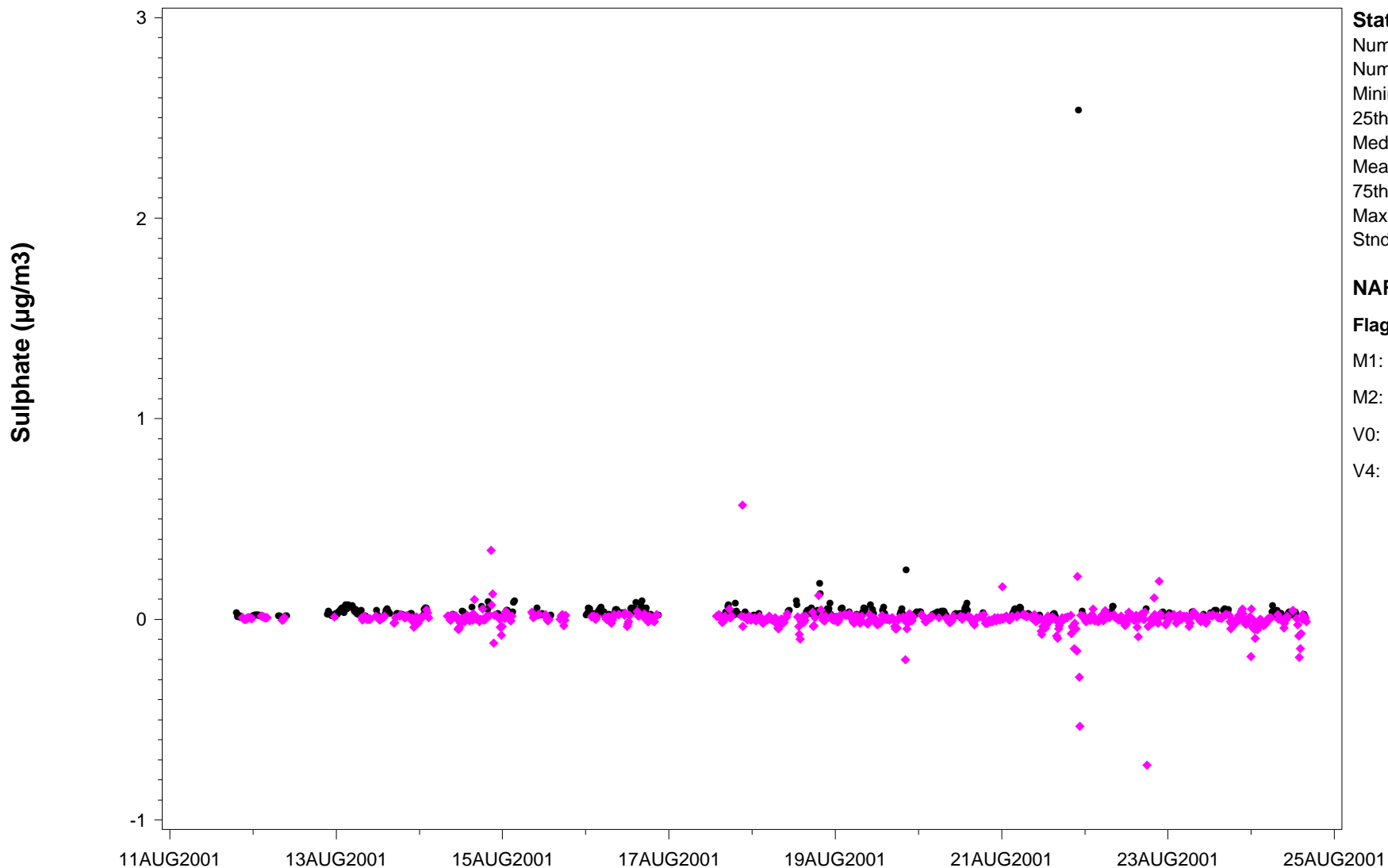


NAtChem Time Series Plot

21MAR2005

Site ID: **PC01CABCSLPK** Variable name: **Sulphate** Common Name: **Sulphate** Units: **µg/m3** Sampling interval: **15 minute**
 Sampling frequency: **Same as sampling interval** CAS ID: **C14808-79-8** Observation type: **Particles** Particle diameter--lower bound (UM): **0.796214**
 Particle diameter--upper bound (UM): **0.843393** Particle diameter--median (UM): **0.893367** Field sampling or measurement principle: **AMS**
 Inlet type: **Cyclone** Volume standardization: **Ambient temperature and pressure** Sampling Height above ground (m): **5**
 Instrument name and model number: **ARI AMS** Measurement principal investigator: **Douglas Worsnop**

Site Name: **Slocan Park, Vancouver, British Columbia** Latitude: **49.24394 deg.** Longitude: **-123.04864 deg.** Start Date: **2001-08-12** End Date: **2001-08-24**



Statistics

Number of obs: **1,242**
 Number of missing: **240**
 Minimum: **-0.727**
 25th Percentile: **-0.001415**
 Median: **0.01309**
 Mean: **0.015**
 75th Percentile: **0.02825**
 Maximum: **2.538**
 Stnd Dev.: **0.094**

NARSTO Flags

Flag Symbol Count

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M2:		92
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V4:	◆	674

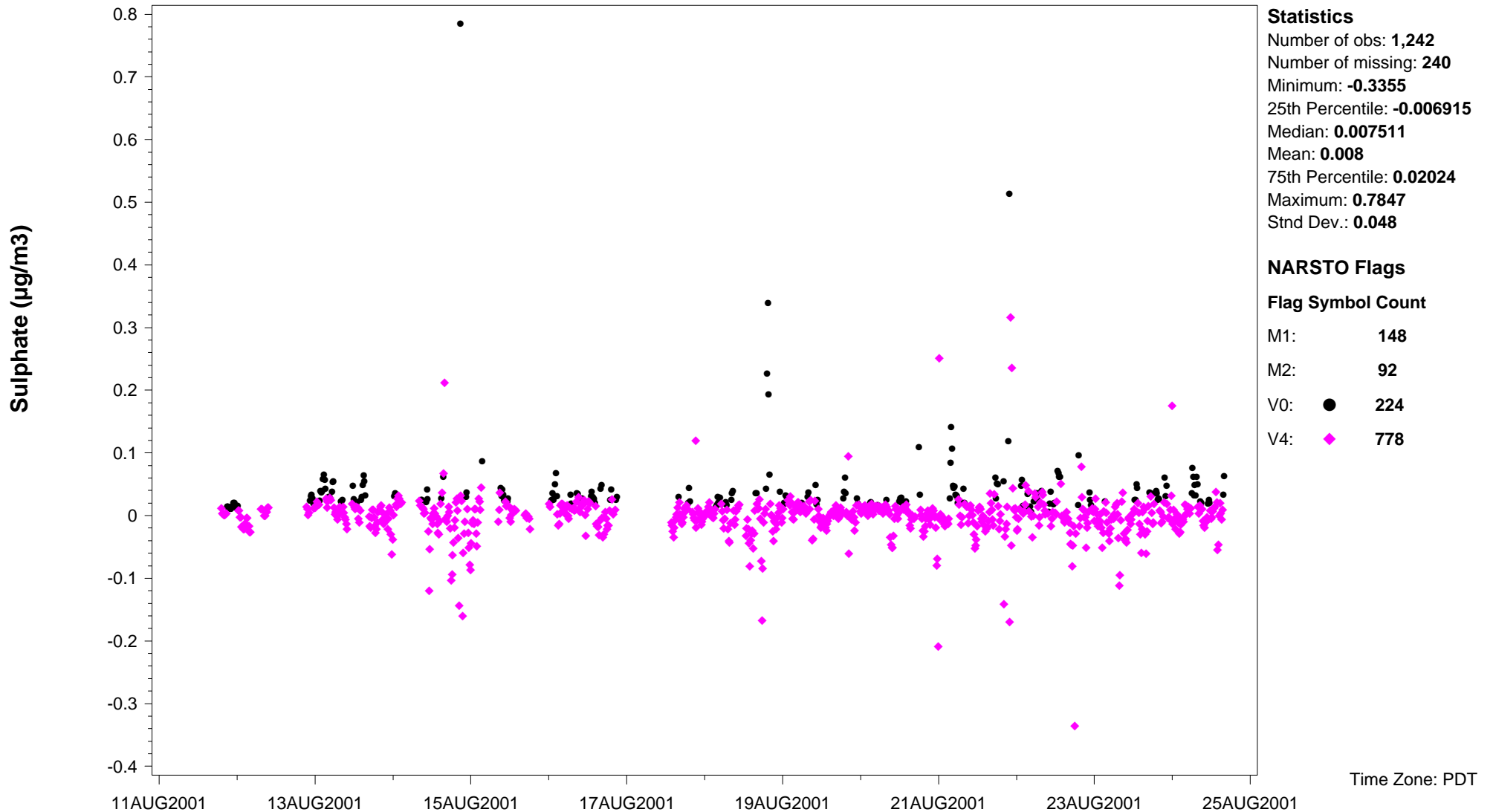
Time Zone: PDT

NAtChem Time Series Plot

21MAR2005

Site ID: **PC01CABCSLPK** Variable name: **Sulphate** Common Name: **Sulphate** Units: **µg/m3** Sampling interval: **15 minute**
 Sampling frequency: **Same as sampling interval** CAS ID: **C14808-79-8** Observation type: **Particles** Particle diameter--lower bound (UM): **0.893367**
 Particle diameter--upper bound (UM): **0.946302** Particle diameter--median (UM): **1.00237** Field sampling or measurement principle: **AMS**
 Inlet type: **Cyclone** Volume standardization: **Ambient temperature and pressure** Sampling Height above ground (m): **5**
 Instrument name and model number: **ARI AMS** Measurement principal investigator: **Douglas Worsnop**

Site Name: **Slocan Park, Vancouver, British Columbia** Latitude: **49.24394 deg.** Longitude: **-123.04864 deg.** Start Date: **2001-08-12** End Date: **2001-08-24**

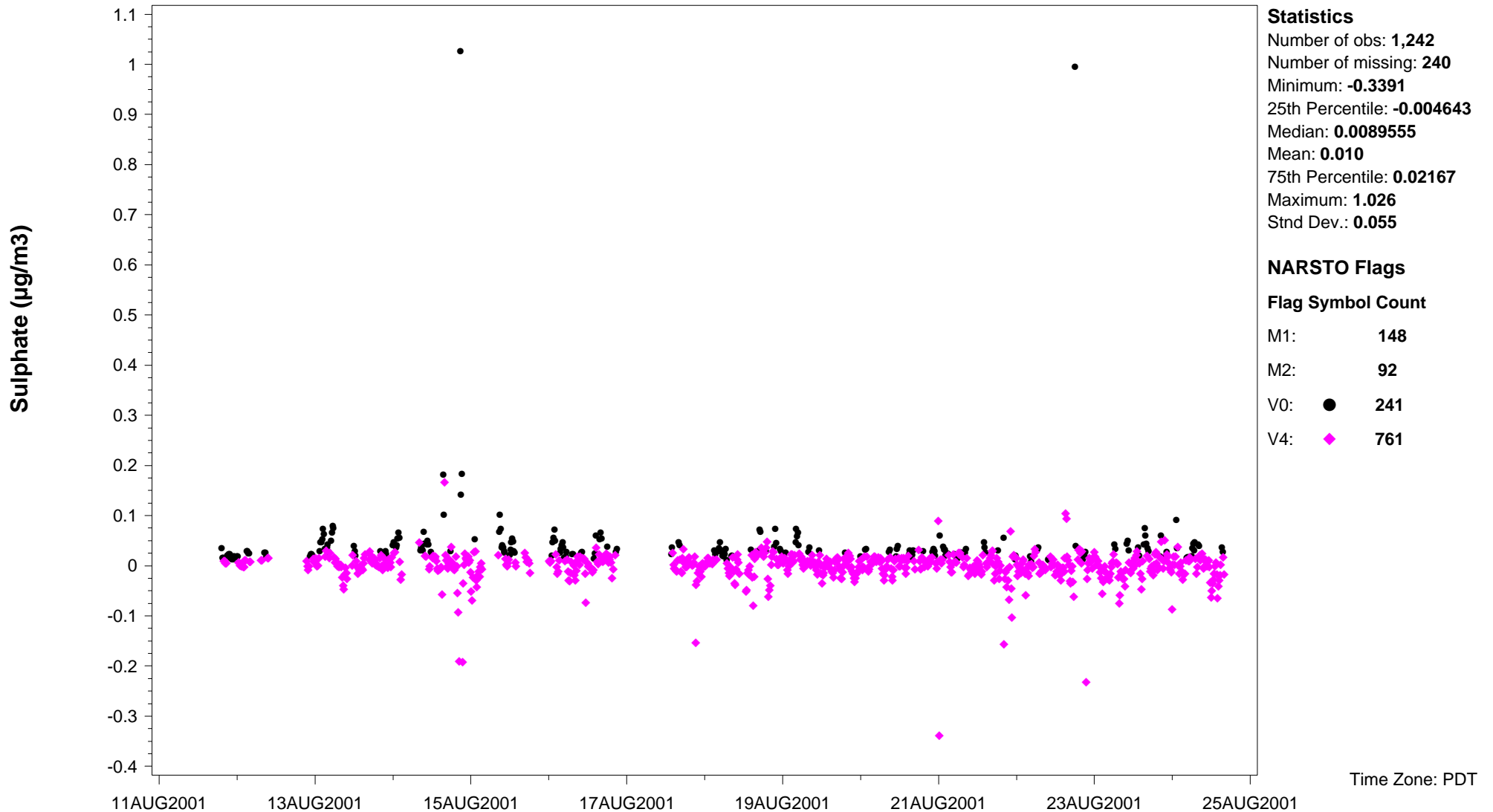


NAtChem Time Series Plot

21MAR2005

Site ID: **PC01CABCSLPK** Variable name: **Sulphate** Common Name: **Sulphate** Units: **µg/m3** Sampling interval: **15 minute**
 Sampling frequency: **Same as sampling interval** CAS ID: **C14808-79-8** Observation type: **Particles** Particle diameter--lower bound (UM): **1.00237**
 Particle diameter--upper bound (UM): **1.06177** Particle diameter--median (UM): **1.12468** Field sampling or measurement principle: **AMS**
 Inlet type: **Cyclone** Volume standardization: **Ambient temperature and pressure** Sampling Height above ground (m): **5**
 Instrument name and model number: **ARI AMS** Measurement principal investigator: **Douglas Worsnop**

Site Name: **Slocan Park, Vancouver, British Columbia** Latitude: **49.24394 deg.** Longitude: **-123.04864 deg.** Start Date: **2001-08-12** End Date: **2001-08-24**

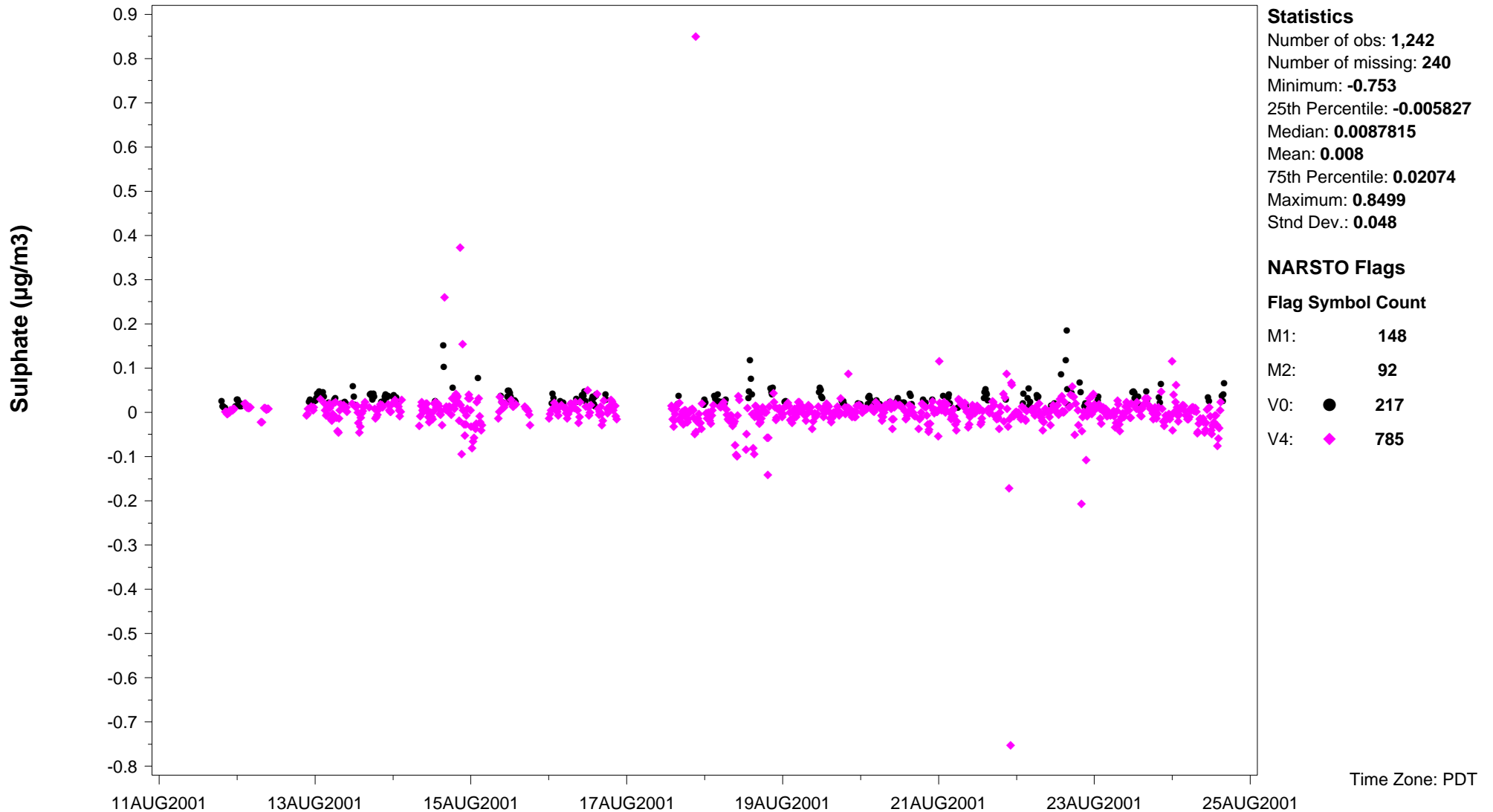


NAtChem Time Series Plot

21MAR2005

Site ID: **PC01CABCSLPK** Variable name: **Sulphate** Common Name: **Sulphate** Units: **µg/m3** Sampling interval: **15 minute**
 Sampling frequency: **Same as sampling interval** CAS ID: **C14808-79-8** Observation type: **Particles** Particle diameter--lower bound (UM): **1.12468**
 Particle diameter--upper bound (UM): **1.19132** Particle diameter--median (UM): **1.26191** Field sampling or measurement principle: **AMS**
 Inlet type: **Cyclone** Volume standardization: **Ambient temperature and pressure** Sampling Height above ground (m): **5**
 Instrument name and model number: **ARI AMS** Measurement principal investigator: **Douglas Worsnop**

Site Name: **Slocan Park, Vancouver, British Columbia** Latitude: **49.24394 deg.** Longitude: **-123.04864 deg.** Start Date: **2001-08-12** End Date: **2001-08-24**

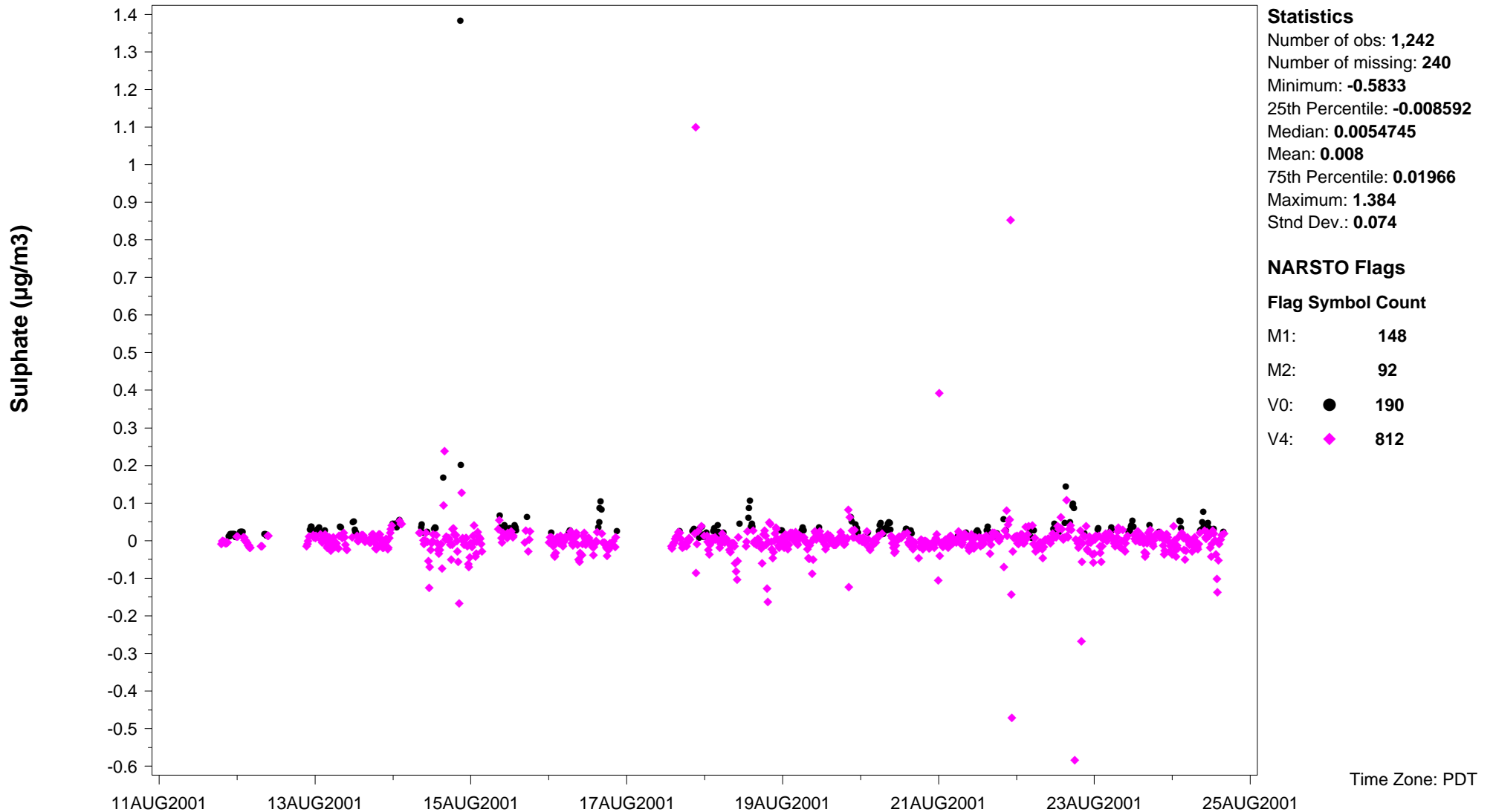


NAtChem Time Series Plot

21MAR2005

Site ID: **PC01CABCSLPK** Variable name: **Sulphate** Common Name: **Sulphate** Units: **µg/m3** Sampling interval: **15 minute**
 Sampling frequency: **Same as sampling interval** CAS ID: **C14808-79-8** Observation type: **Particles** Particle diameter--lower bound (UM): **1.26191**
 Particle diameter--upper bound (UM): **1.33669** Particle diameter--median (UM): **1.41589** Field sampling or measurement principle: **AMS**
 Inlet type: **Cyclone** Volume standardization: **Ambient temperature and pressure** Sampling Height above ground (m): **5**
 Instrument name and model number: **ARI AMS** Measurement principal investigator: **Douglas Worsnop**

Site Name: **Slocan Park, Vancouver, British Columbia** Latitude: **49.24394 deg.** Longitude: **-123.04864 deg.** Start Date: **2001-08-12** End Date: **2001-08-24**

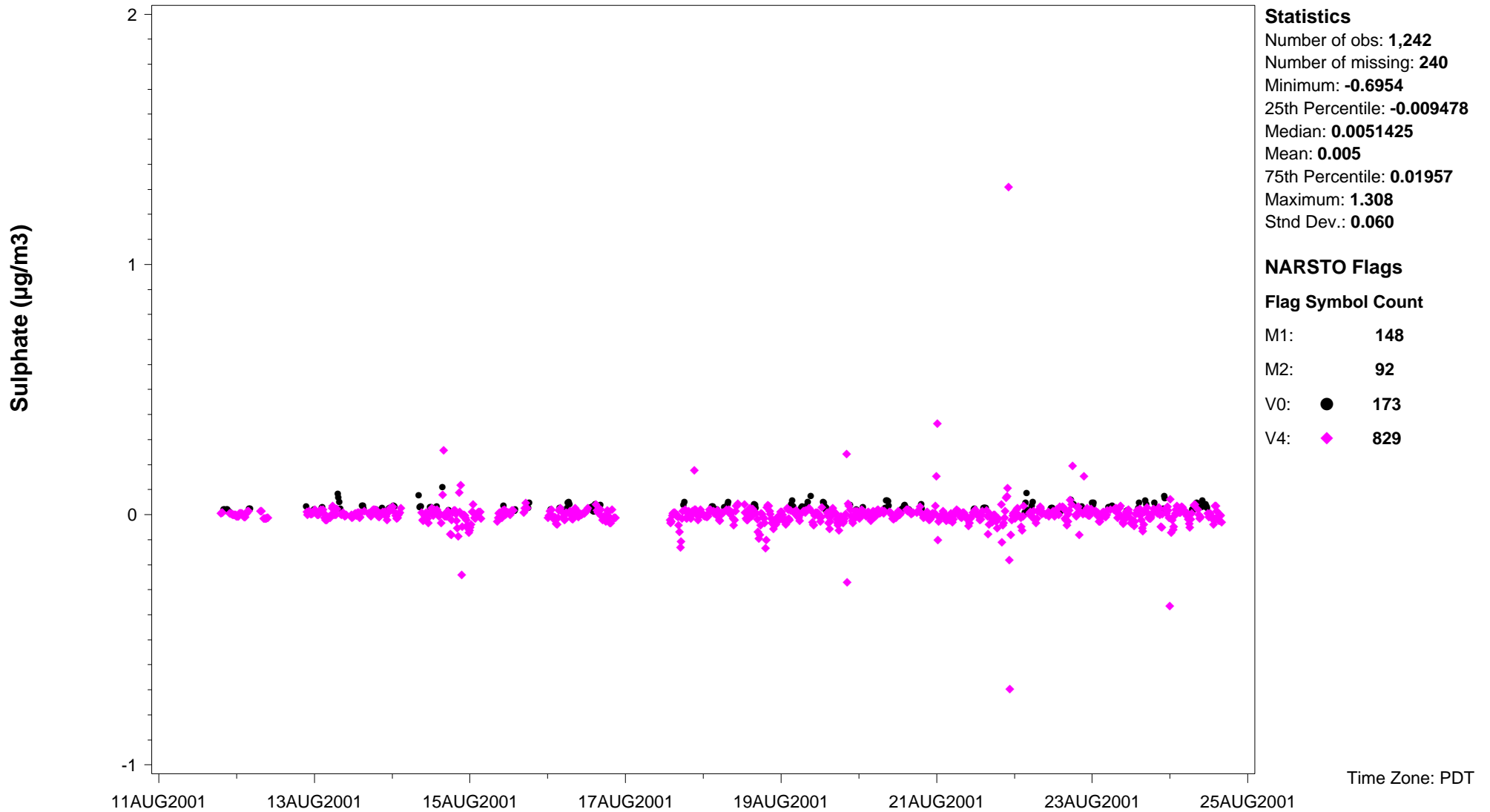


NAtChem Time Series Plot

21MAR2005

Site ID: **PC01CABCSLPK** Variable name: **Sulphate** Common Name: **Sulphate** Units: **µg/m3** Sampling interval: **15 minute**
 Sampling frequency: **Same as sampling interval** CAS ID: **C14808-79-8** Observation type: **Particles** Particle diameter--lower bound (UM): **1.41589**
 Particle diameter--upper bound (UM): **1.49979** Particle diameter--median (UM): **1.58866** Field sampling or measurement principle: **AMS**
 Inlet type: **Cyclone** Volume standardization: **Ambient temperature and pressure** Sampling Height above ground (m): **5**
 Instrument name and model number: **ARI AMS** Measurement principal investigator: **Douglas Worsnop**

Site Name: **Slocan Park, Vancouver, British Columbia** Latitude: **49.24394 deg.** Longitude: **-123.04864 deg.** Start Date: **2001-08-12** End Date: **2001-08-24**

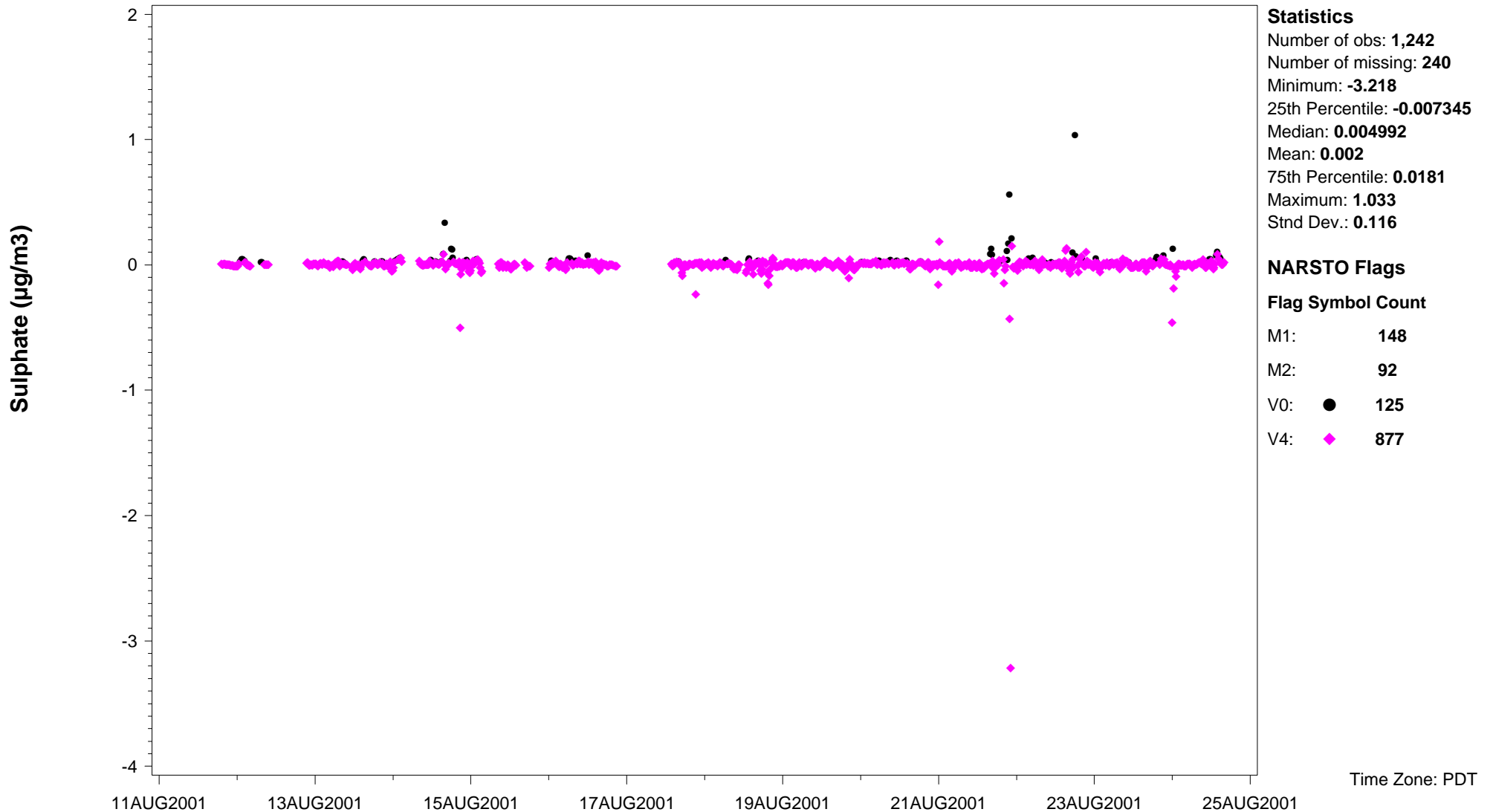


NAtChem Time Series Plot

21MAR2005

Site ID: **PC01CABCSPK** Variable name: **Sulphate** Common Name: **Sulphate** Units: **µg/m3** Sampling interval: **15 minute**
 Sampling frequency: **Same as sampling interval** CAS ID: **C14808-79-8** Observation type: **Particles** Particle diameter--lower bound (UM): **1.58866**
 Particle diameter--upper bound (UM): **1.68279** Particle diameter--median (UM): **1.7825** Field sampling or measurement principle: **AMS** Inlet type: **Cyclone**
 Volume standardization: **Ambient temperature and pressure** Sampling Height above ground (m): **5** Instrument name and model number: **ARI AMS**
 Measurement principal investigator: **Douglas Worsnop**

Site Name: **Slocan Park, Vancouver, British Columbia** Latitude: **49.24394 deg.** Longitude: **-123.04864 deg.** Start Date: **2001-08-12** End Date: **2001-08-24**



NAtChem Time Series Plot

21MAR2005

Site ID: **PC01CABCSLPK** Variable name: **Sulphate** Common Name: **Sulphate** Units: **µg/m3** Sampling interval: **15 minute**
 Sampling frequency: **Same as sampling interval** CAS ID: **C14808-79-8** Observation type: **Particles** Particle diameter--lower bound (UM): **1.7825**
 Particle diameter--upper bound (UM): **1.88812** Particle diameter--median (UM): **2** Field sampling or measurement principle: **AMS** Inlet type: **Cyclone**
 Volume standardization: **Ambient temperature and pressure** Sampling Height above ground (m): **5** Instrument name and model number: **ARI AMS**
 Measurement principal investigator: **Douglas Worsnop**

Site Name: **Slocan Park, Vancouver, British Columbia** Latitude: **49.24394 deg.** Longitude: **-123.04864 deg.** Start Date: **2001-08-12** End Date: **2001-08-24**

