

File Names

16:51 Thursday, December 9, 2004 1

| File # | Original File Name |
|--------|---|
| 1 | ENVCAN_SHEMP_VAN_JRB_METALS_PARTISOL_2000_2002_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 |
|--------------------------------|---|--|---|---|
| NARSTO 2002/05/28 (2.301) | Brook ; Jeffrey | Environment Canada, Meteorological Service of Canada | air-filter-meas ; Air filter measurements | 24 hour |

| Sampling Frequency Of Data in Main Table | Quality Control Level | Organization Acronym | Organization Name | Data Usage Acknowledgement | Study Or Network Acronym |
|--|-----------------------|----------------------|--|--|--------------------------|
| Every day | 1 | ENVCAN_MSC | Environment Canada--Meteorological Service of Canada | Environment Canada, Meteorological Service of Canada, 4905 Dufferin St., Toronto, Ont. M3H 5T4 | ENVCAN_SHEMP |

| Study Or Network Name | Country Code | State Or Province Code | Principal Investigator Contact Information | Co-investigator Name--last first | Co-investigator Affiliation |
|--|--------------|------------------------|--|----------------------------------|-----------------------------|
| Environment Canada--Study of the Health Effects of the Mix of Urban Air Pollutants | CA | BC | Environment Canada, Meteorological Service of Canada, 4905 Dufferin St., Toronto, Ont. M3H 5T4 | None ; None | None |

| 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 |
|--|---|---|
| Bill Sukloff, Environment Canada (MSC) | 2003/02/10 | MS Excel/2002 |

| Companion File Name format And Version | Date This File Generated archive Version Number | Table Explanation Of Zero Or Negative Values | Table Explanation Of Reported Detection Limit Values |
|--|---|---|---|
| None ; None | 2004/11/26 ; 1 | Zero and negative values are reported and reflect actual laboratory analysis results with blank correction, if required, and are flagged as BDL | Detection limits determined as 3SD of field blanks divided mean sample volume and are reported with each measurement. |

| Table Explanation Of Reported Uncertainty | Table User Note | Table User Note2 | Table User Note3 | Table User Note4 | Table Name | Table Focus |
|---|-----------------|------------------|------------------|------------------|-----------------|----------------|
| no uncertainty reported | None | None | | | air_filter_meas | 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 |
|--------------|-----------|------------------------|--------------------------|---------------------------|-------------------------------------|---|---------------|
| SHEMCABCVAN_ | Vancouver | BC | 49.21556 | -121.98250 | 10.7 | 145.0 | Residential |

| Site ID | Site location setting | Measurement start date | Measurement end date | Co-incident measurements | Study site ID | Lat lon accuracy |
|--------------|-----------------------|------------------------|----------------------|-----------------------------|---------------|---------------------|
| SHEMCABCVAN_ | Suburban | 2000/02/14 | 2002/06/28 | None | | . |

NARSTO Standard Flags

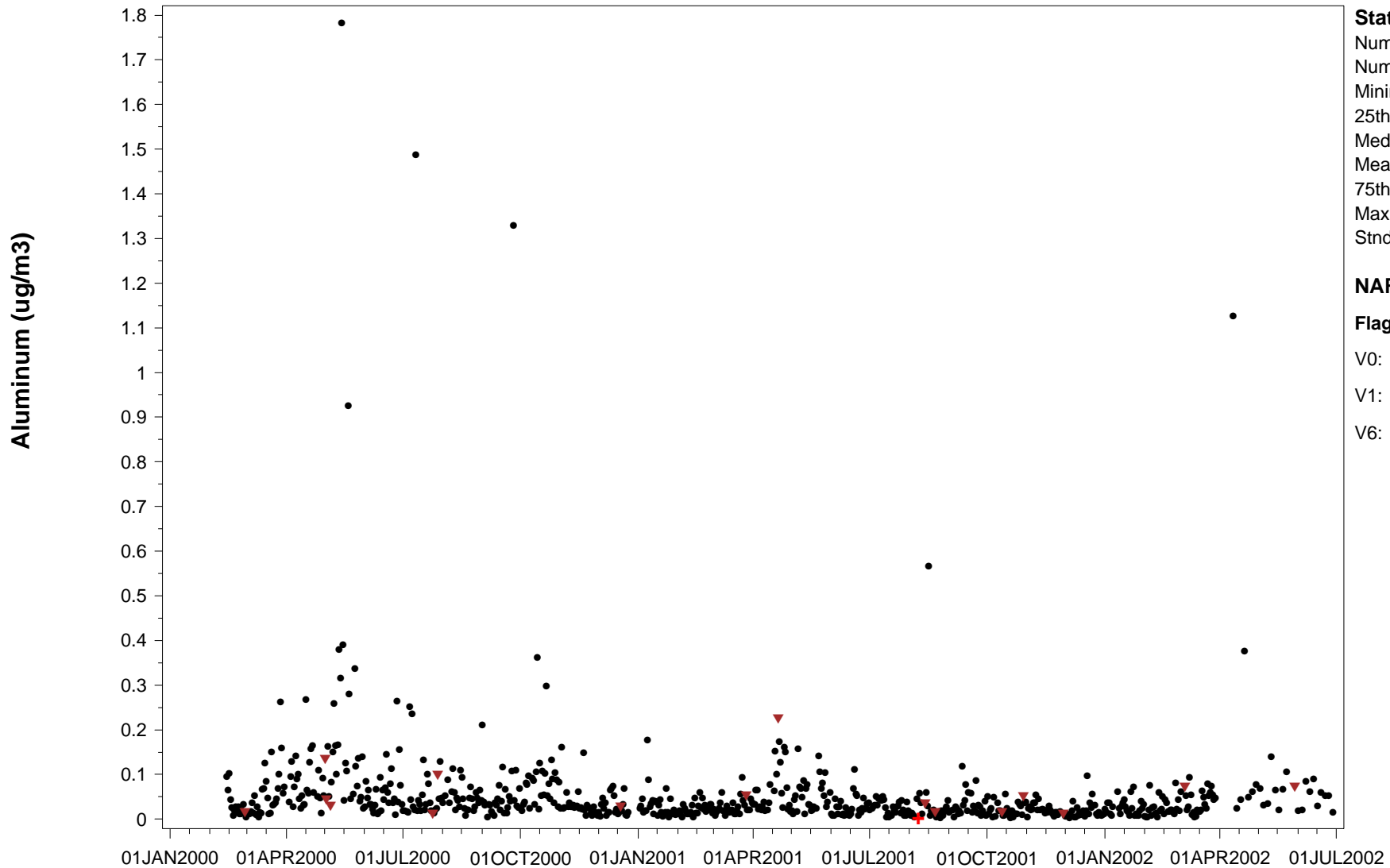
| Flag: NARSTO | Description |
|--------------|---|
| M1 | Missing value because no value is available |
| M2 | Missing value because invalidated by Data Originator |
| V0 | Valid value |
| V1 | Valid value but comprised wholly or partially of below detection limit data |
| V6 | Valid value but qualified due to non-standard sampling conditions |

NAtChem Time Series Plot

09DEC2004

Site ID: **SHEMCABCVAN_** Variable name: **Aluminum** Units: **ug/m3** Sampling interval: **24 hour** Sampling frequency: **Every day** CAS ID: **C7429-90-5**
 Observation type: **Particles** Particle diameter--lower bound (UM): **0** Particle diameter--upper bound (UM): **2.5**
 Field sampling or measurement principle: **Single filter** Medium: **Teflon** Inlet type: **Impactor--virtual/concentrator**
 Laboratory analytical method: **ICP/AES** Sample preparation: **Acid digestion** Blank Correction: **Not blank corrected**
 Volume standardization: **0 deg. C; 1 atmosphere** Sampling Height above ground (m): **2**
 Instrument name and model number: **University Research Glassware Versatile Air Pollutant Sampler**
 Measurement principal investigator: **Jeffrey Brook** Detection Limit: **Varies--see Detection lim**

Site Name: **Vancouver, British Columbia** Latitude: **49.21556 deg.** Longitude: **-121.9825 deg.** Start Date: **2000-02-14** End Date: **2002-06-28**



Statistics

Number of obs: **758**
 Number of missing: **0**
 Minimum: **0.0014**
 25th Percentile: **0.016**
 Median: **0.0286**
 Mean: **0.054**
 75th Percentile: **0.0541**
 Maximum: **1.7825**
 Std Dev.: **0.120**

NARSTO Flags

Flag Symbol Count

| | | |
|-----|---|-----|
| V0: | ● | 741 |
| V1: | + | 1 |
| V6: | ▼ | 16 |

Time Zone: PST

NAtChem Time Series Plot

09DEC2004

Site ID: **SHEMCABCVAN_** Variable name: **Arsenic** Units: **ug/m3** Sampling interval: **24 hour** Sampling frequency: **Every day** CAS ID: **C7440-38-2**

Observation type: **Particles** Particle diameter--lower bound (UM): **0** Particle diameter--upper bound (UM): **2.5**

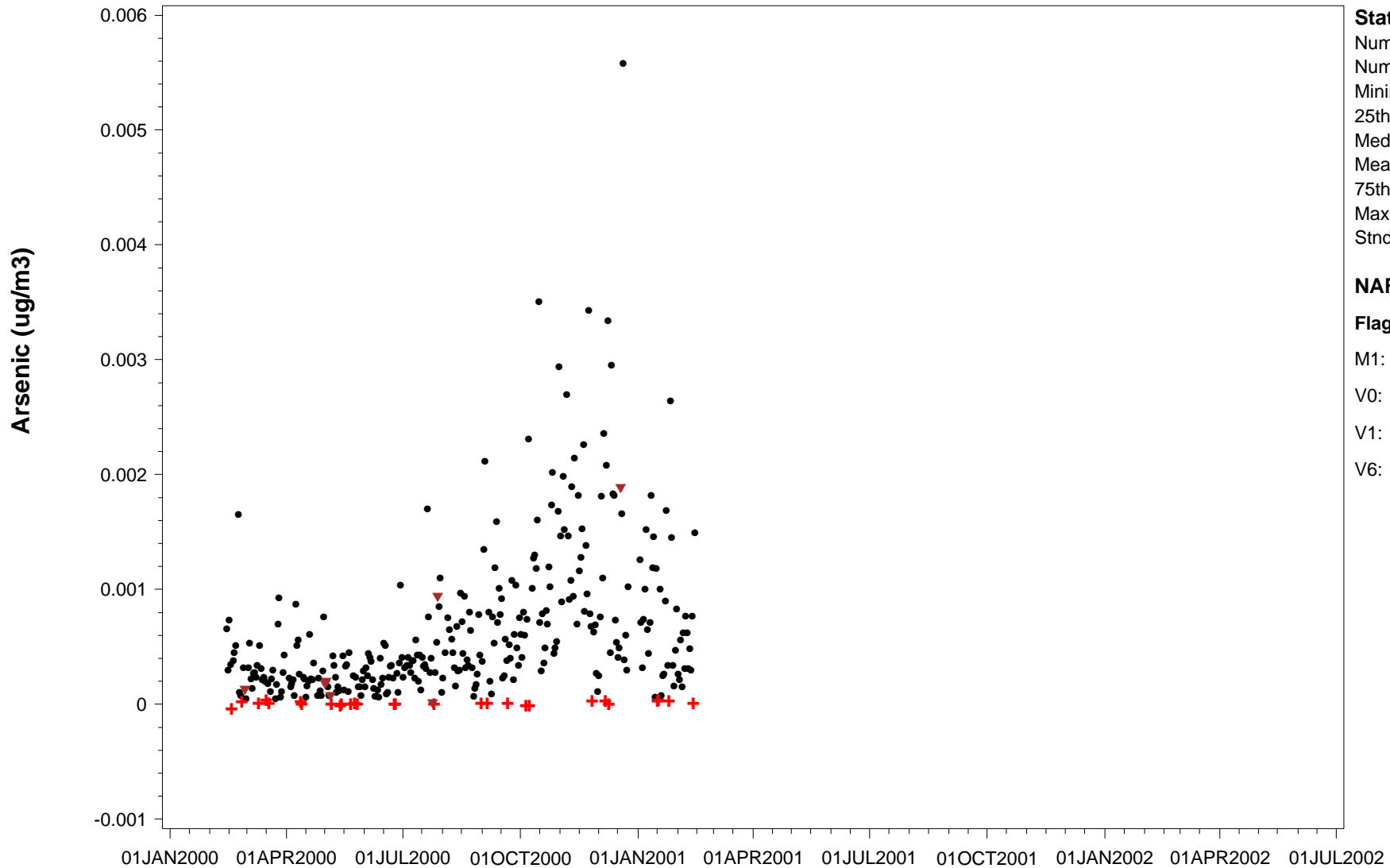
Field sampling or measurement principle: **Single filter** Medium: **Teflon** Inlet type: **Impactor--direct** Laboratory analytical method: **ICP/MS**

Sample preparation: **Acid digestion** Blank Correction: **Not blank corrected** Volume standardization: **0 deg. C; 1 atmosphere**

Sampling Height above ground (m): **2** Instrument name and model number: **R+P FRM Model 2000 Partisol**

Measurement principal investigator: **Jeffrey Brook** Detection Limit: **Varies--see Detection lim**

Site Name: **Vancouver, British Columbia** Latitude: **49.21556 deg.** Longitude: **-121.9825 deg.** Start Date: **2000-02-14** End Date: **2002-06-28**



Statistics

Number of obs: **758**
 Number of missing: **416**
 Minimum: **-0.00004**
 25th Percentile: **0.0002**
 Median: **0.00038**
 Mean: **0.001**
 75th Percentile: **0.00077**
 Maximum: **0.00558**
 Stnd Dev.: **0.001**

NARSTO Flags

Flag Symbol Count

| | | |
|-----|---|------------|
| M1: | | 416 |
| V0: | ● | 307 |
| V1: | + | 28 |
| V6: | ▼ | 7 |

Time Zone: PST

NAtChem Time Series Plot

09DEC2004

Site ID: **SHEMCABCVAN_** Variable name: **Arsenic** Units: **ug/m3** Sampling interval: **24 hour** Sampling frequency: **Every day** CAS ID: **C7440-38-2**
 Observation type: **Particles** Particle diameter--lower bound (UM): **0** Particle diameter--upper bound (UM): **2.5**
 Field sampling or measurement principle: **Single filter** Medium: **Teflon** Inlet type: **Impactor--virtual/concentrator**
 Laboratory analytical method: **ICP/AES** Sample preparation: **Acid digestion** Blank Correction: **Not blank corrected**
 Volume standardization: **0 deg. C; 1 atmosphere** Sampling Height above ground (m): **2**
 Instrument name and model number: **University Research Glassware Versatile Air Pollutant Sampler**
 Measurement principal investigator: **Jeffrey Brook** Detection Limit: **Varies--see Detection lim**

Site Name: **Vancouver, British Columbia** Latitude: **49.21556 deg.** Longitude: **-121.9825 deg.** Start Date: **2000-02-14** End Date: **2002-06-28**



Statistics
 Number of obs: **758**
 Number of missing: **731**
 Minimum: **0**
 25th Percentile: **0**
 Median: **0**
 Mean: **0.000**
 75th Percentile: **0**
 Maximum: **0**
 Stnd Dev.: **0.000**

NARSTO Flags
Flag Symbol Count
 M1: **731**
 V1: **+ 26**
 V6: **▼ 1**

Time Zone: PST

NAtChem Time Series Plot

09DEC2004

Site ID: **SHEMCABCVAN_** Variable name: **Barium** Units: **ug/m3** Sampling interval: **24 hour** Sampling frequency: **Every day** CAS ID: **C7440-39-3**

Observation type: **Particles** Particle diameter--lower bound (UM): **0** Particle diameter--upper bound (UM): **2.5**

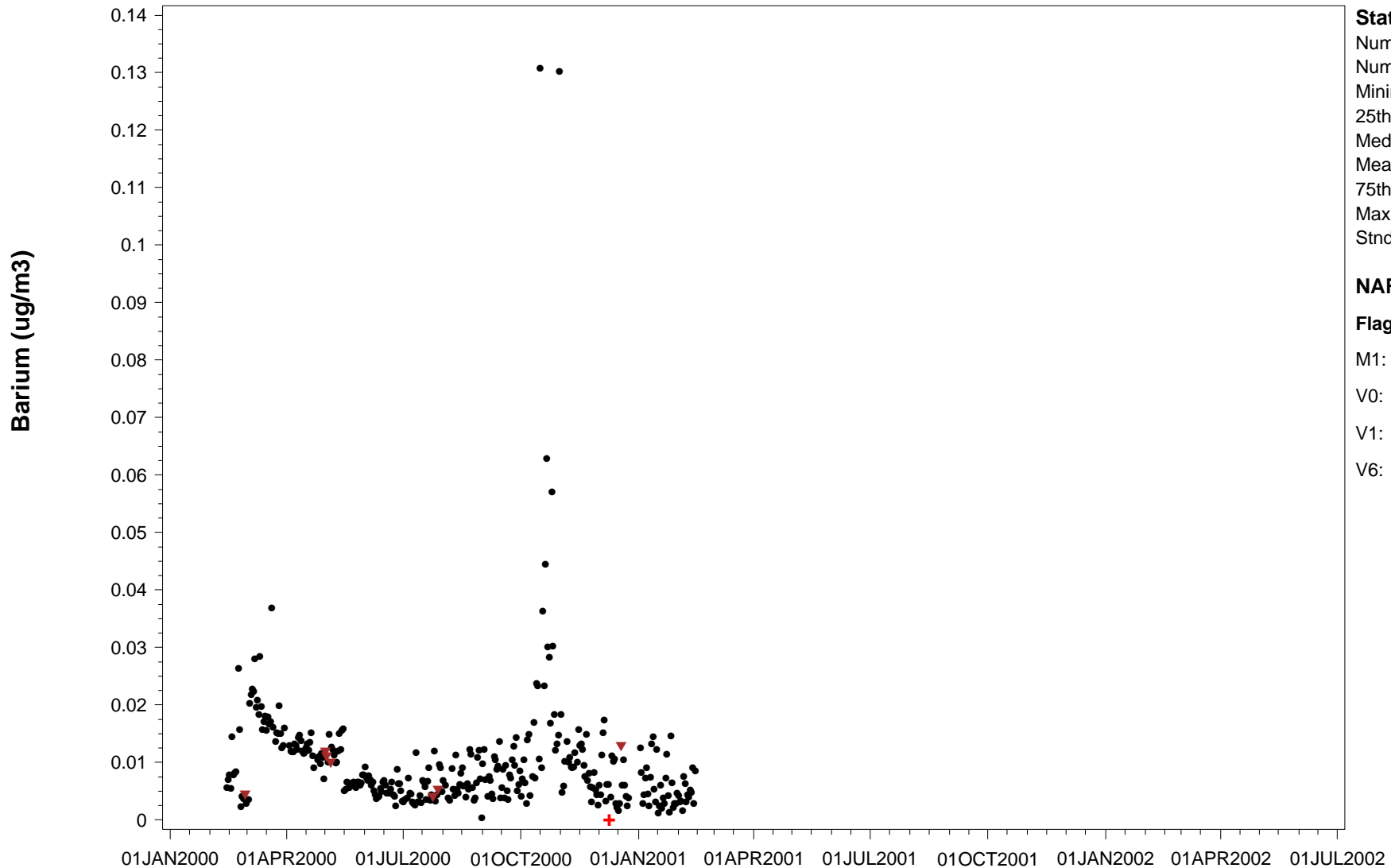
Field sampling or measurement principle: **Single filter** Medium: **Teflon** Inlet type: **Impactor--direct** Laboratory analytical method: **ICP/MS**

Sample preparation: **Acid digestion** Blank Correction: **Not blank corrected** Volume standardization: **0 deg. C; 1 atmosphere**

Sampling Height above ground (m): **2** Instrument name and model number: **R+P FRM Model 2000 Partisol**

Measurement principal investigator: **Jeffrey Brook** Detection Limit: **Varies--see Detection lim**

Site Name: **Vancouver, British Columbia** Latitude: **49.21556 deg.** Longitude: **-121.9825 deg.** Start Date: **2000-02-14** End Date: **2002-06-28**



Statistics

Number of obs: **758**
 Number of missing: **416**
 Minimum: **4E-6**
 25th Percentile: **0.00464**
 Median: **0.00745**
 Mean: **0.010**
 75th Percentile: **0.01221**
 Maximum: **0.13074**
 Stnd Dev.: **0.012**

NARSTO Flags

Flag Symbol Count

| | | |
|-----|---|------------|
| M1: | | 416 |
| V0: | ● | 334 |
| V1: | + | 1 |
| V6: | ▼ | 7 |

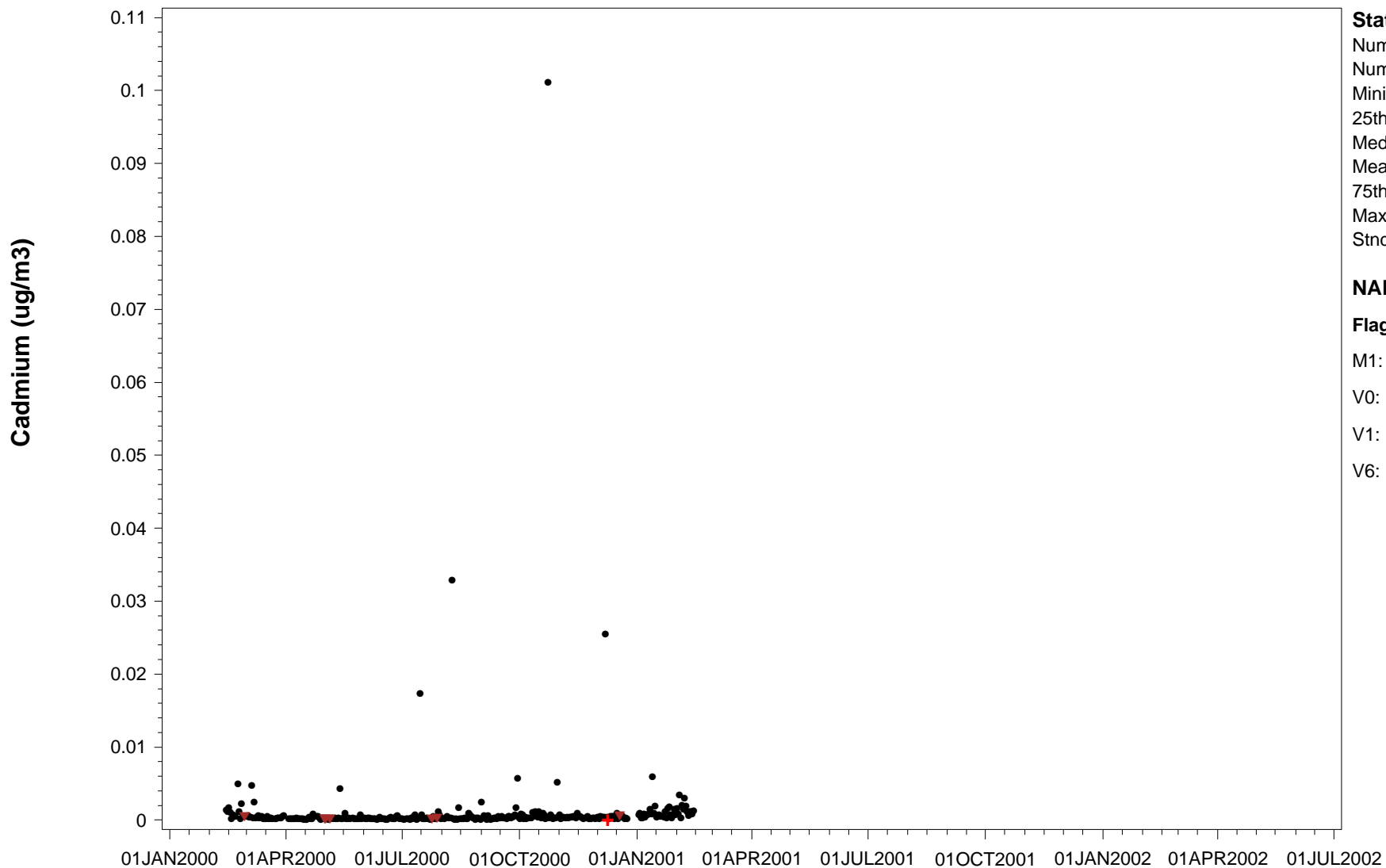
Time Zone: PST

NAtChem Time Series Plot

09DEC2004

Site ID: **SHEMCABCVAN_** Variable name: **Cadmium** Units: **ug/m3** Sampling interval: **24 hour** Sampling frequency: **Every day** CAS ID: **C7440-43-9**
 Observation type: **Particles** Particle diameter--lower bound (UM): **0** Particle diameter--upper bound (UM): **2.5**
 Field sampling or measurement principle: **Single filter** Medium: **Teflon** Inlet type: **Impactor--direct** Laboratory analytical method: **ICP/MS**
 Sample preparation: **Acid digestion** Blank Correction: **Not blank corrected** Volume standardization: **0 deg. C; 1 atmosphere**
 Sampling Height above ground (m): **2** Instrument name and model number: **R+P FRM Model 2000 Partisol**
 Measurement principal investigator: **Jeffrey Brook** Detection Limit: **Varies--see Detection lim**

Site Name: **Vancouver, British Columbia** Latitude: **49.21556 deg.** Longitude: **-121.9825 deg.** Start Date: **2000-02-14** End Date: **2002-06-28**



Statistics

Number of obs: **758**
 Number of missing: **416**
 Minimum: **0**
 25th Percentile: **0.00018**
 Median: **0.00031**
 Mean: **0.001**
 75th Percentile: **0.00057**
 Maximum: **0.10118**
 Std Dev.: **0.006**

NARSTO Flags

Flag Symbol Count

| | | |
|-----|---|------------|
| M1: | | 416 |
| V0: | ● | 334 |
| V1: | + | 1 |
| V6: | ▼ | 7 |

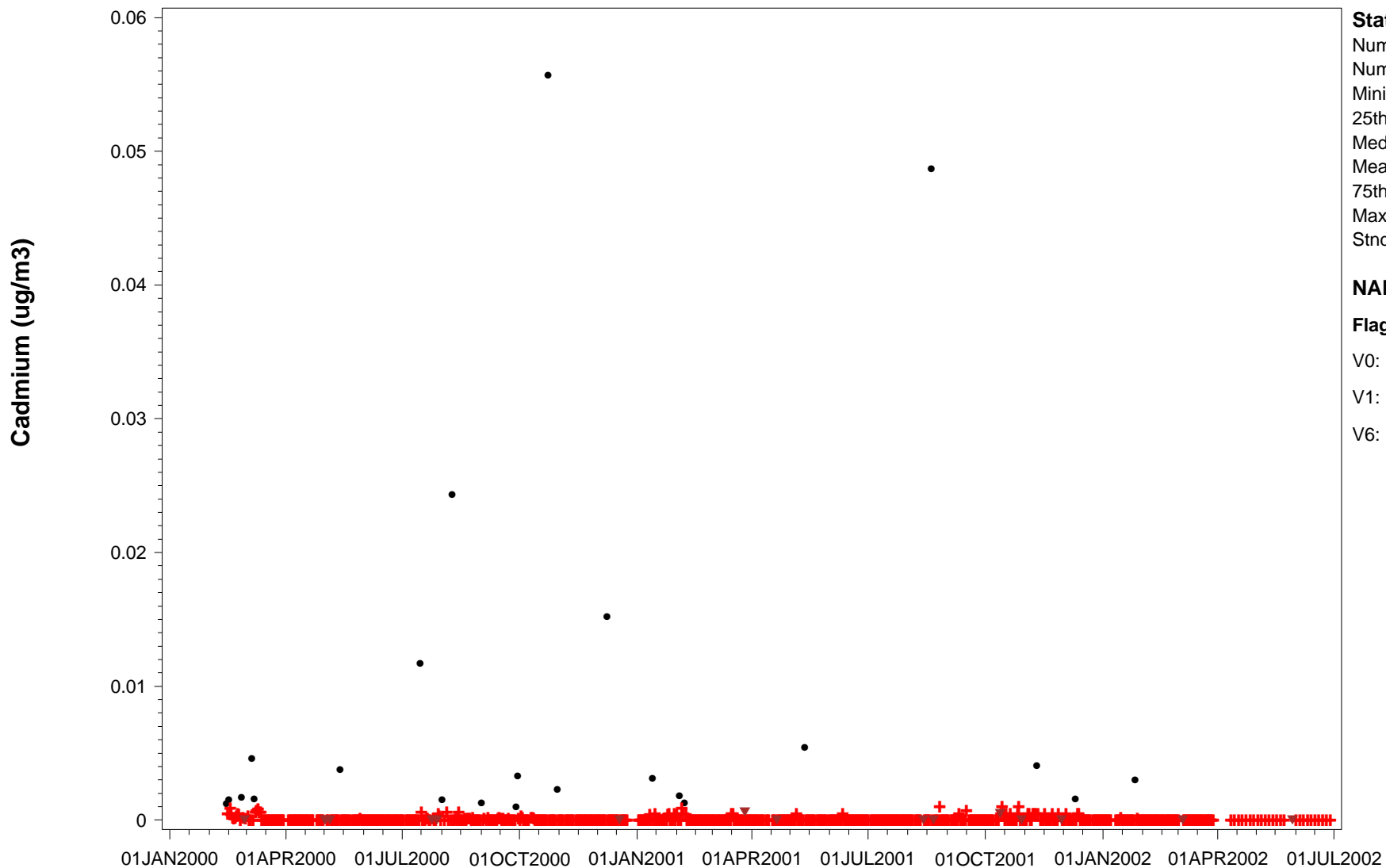
Time Zone: PST

NAtChem Time Series Plot

09DEC2004

Site ID: **SHEMCABCVAN_** Variable name: **Cadmium** Units: **ug/m3** Sampling interval: **24 hour** Sampling frequency: **Every day** CAS ID: **C7440-43-9**
 Observation type: **Particles** Particle diameter--lower bound (UM): **0** Particle diameter--upper bound (UM): **2.5**
 Field sampling or measurement principle: **Single filter** Medium: **Teflon** Inlet type: **Impactor--virtual/concentrator**
 Laboratory analytical method: **ICP/AES** Sample preparation: **Acid digestion** Blank Correction: **Not blank corrected**
 Volume standardization: **0 deg. C; 1 atmosphere** Sampling Height above ground (m): **2**
 Instrument name and model number: **University Research Glassware Versatile Air Pollutant Sampler**
 Measurement principal investigator: **Jeffrey Brook** Detection Limit: **Varies--see Detection lim**

Site Name: **Vancouver, British Columbia** Latitude: **49.21556 deg.** Longitude: **-121.9825 deg.** Start Date: **2000-02-14** End Date: **2002-06-28**



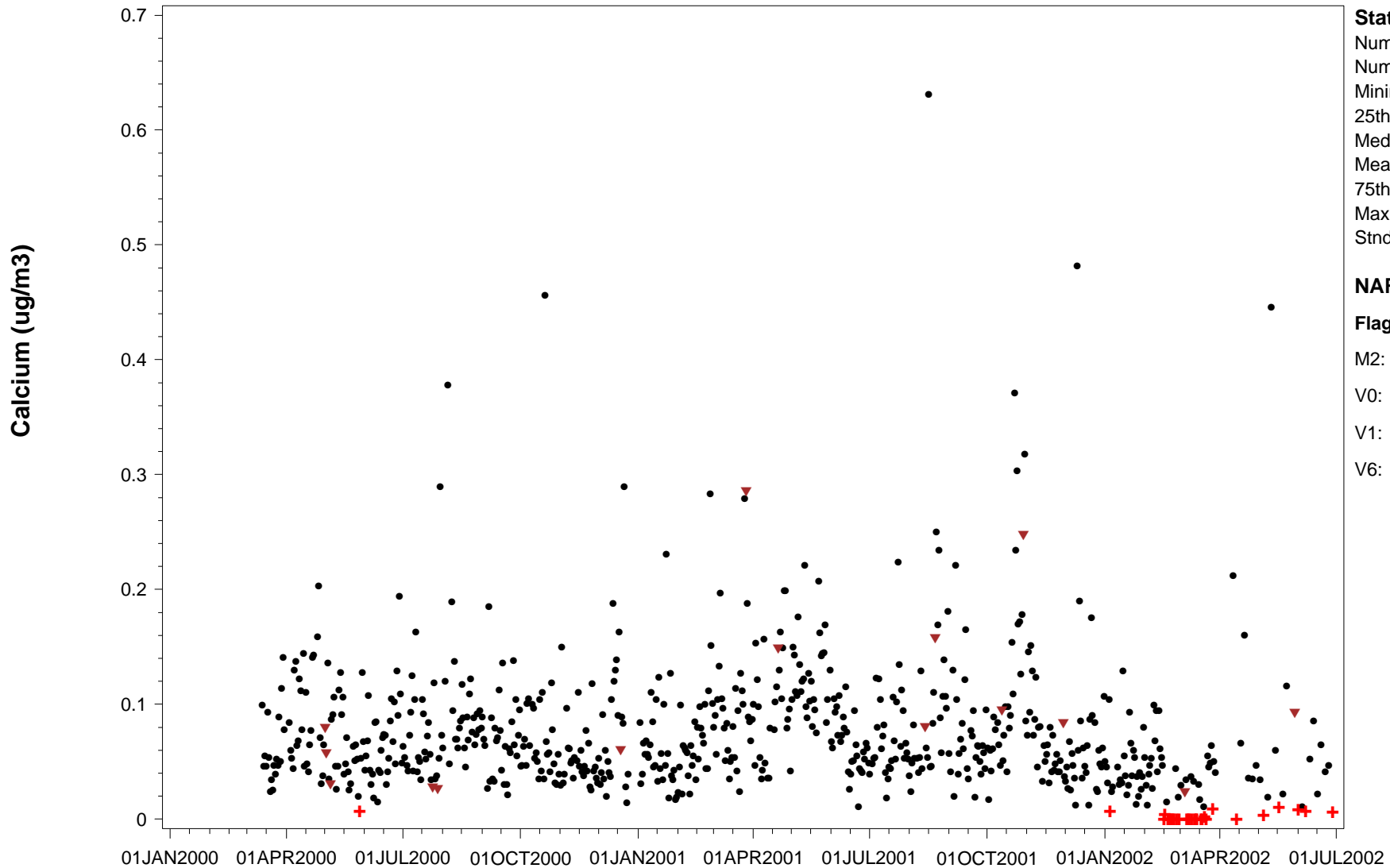
Time Zone: PST

NAtChem Time Series Plot

09DEC2004

Site ID: **SHEMCABCVAN_** Variable name: **Calcium** Units: **ug/m3** Sampling interval: **24 hour** Sampling frequency: **Every day** CAS ID: **C7440-70-2**
 Observation type: **Particles** Particle diameter--lower bound (UM): **0** Particle diameter--upper bound (UM): **2.5**
 Field sampling or measurement principle: **Single filter** Medium: **Teflon** Inlet type: **Impactor--virtual/concentrator**
 Laboratory analytical method: **ICP/AES** Sample preparation: **Acid digestion** Blank Correction: **Not blank corrected**
 Volume standardization: **0 deg. C; 1 atmosphere** Sampling Height above ground (m): **2**
 Instrument name and model number: **University Research Glassware Versatile Air Pollutant Sampler**
 Measurement principal investigator: **Jeffrey Brook** Detection Limit: **Varies--see Detection lim**

Site Name: **Vancouver, British Columbia** Latitude: **49.21556 deg.** Longitude: **-121.9825 deg.** Start Date: **2000-02-14** End Date: **2002-06-28**



Statistics

Number of obs: **758**
 Number of missing: **27**
 Minimum: **0**
 25th Percentile: **0.041**
 Median: **0.062**
 Mean: **0.076**
 75th Percentile: **0.096**
 Maximum: **0.631**
 Stnd Dev.: **0.060**

NARSTO Flags

Flag Symbol Count

| | | |
|-----|---|------------|
| M2: | | 27 |
| V0: | ● | 686 |
| V1: | + | 30 |
| V6: | ▼ | 15 |

Time Zone: PST

NAtChem Time Series Plot

09DEC2004

Site ID: **SHEMCABCVAN_** Variable name: **Chromium** Units: **ug/m3** Sampling interval: **24 hour** Sampling frequency: **Every day** CAS ID: **C7440-47-3**

Observation type: **Particles** Particle diameter--lower bound (UM): **0** Particle diameter--upper bound (UM): **2.5**

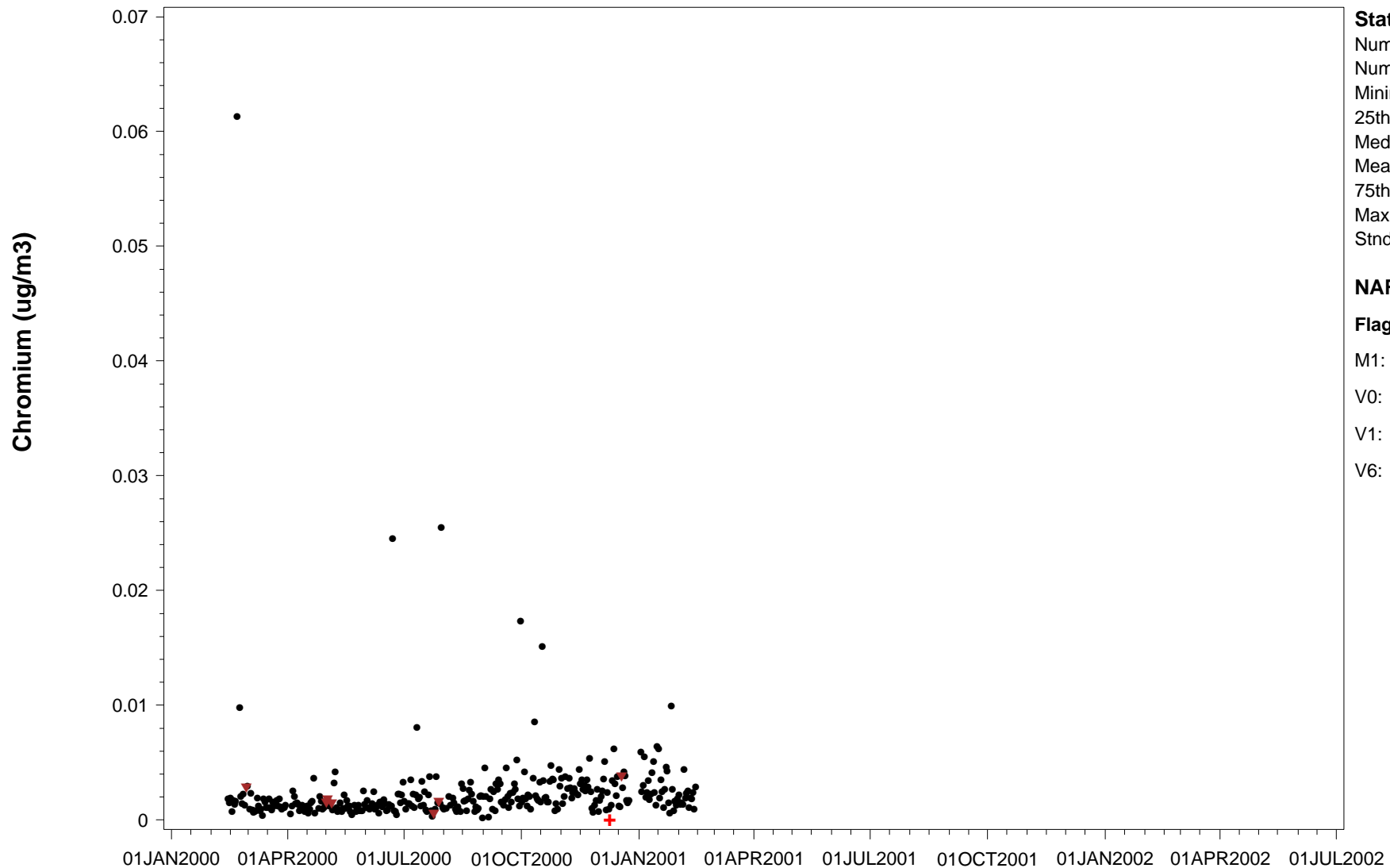
Field sampling or measurement principle: **Single filter** Medium: **Teflon** Inlet type: **Impactor--direct** Laboratory analytical method: **ICP/MS**

Sample preparation: **Acid digestion** Blank Correction: **Not blank corrected** Volume standardization: **0 deg. C; 1 atmosphere**

Sampling Height above ground (m): **2** Instrument name and model number: **R+P FRM Model 2000 Partisol**

Measurement principal investigator: **Jeffrey Brook** Detection Limit: **Varies--see Detection lim**

Site Name: **Vancouver, British Columbia** Latitude: **49.21556 deg.** Longitude: **-121.9825 deg.** Start Date: **2000-02-14** End Date: **2002-06-28**



Statistics

Number of obs: **758**
 Number of missing: **416**
 Minimum: **0**
 25th Percentile: **0.00109**
 Median: **0.00164**
 Mean: **0.002**
 75th Percentile: **0.00253**
 Maximum: **0.06133**
 Stnd Dev.: **0.004**

NARSTO Flags

Flag Symbol Count

| | | |
|-----|---|------------|
| M1: | | 416 |
| V0: | ● | 334 |
| V1: | + | 1 |
| V6: | ▼ | 7 |

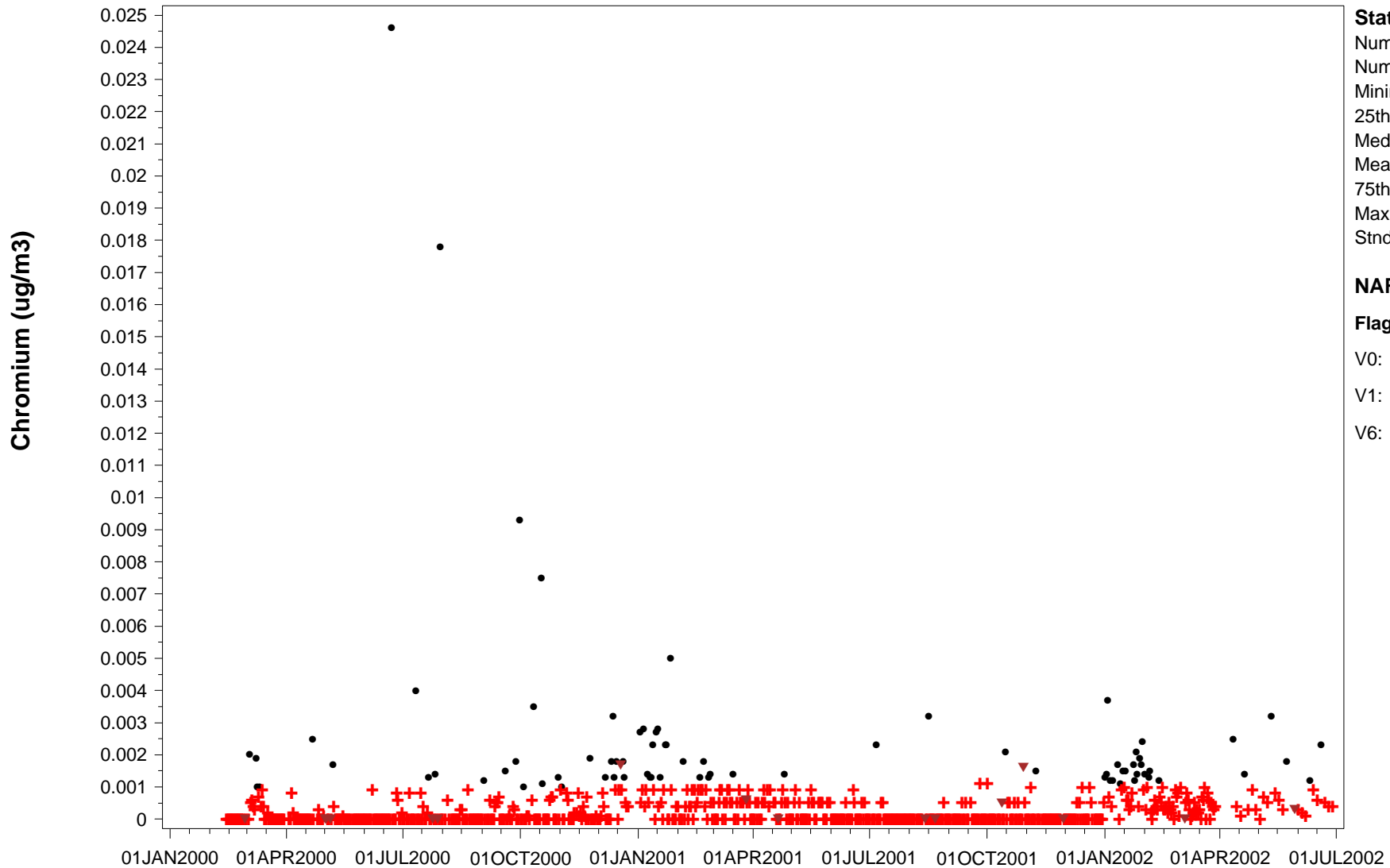
Time Zone: PST

NAtChem Time Series Plot

09DEC2004

Site ID: **SHEMCABCVAN_** Variable name: **Chromium** Units: **ug/m3** Sampling interval: **24 hour** Sampling frequency: **Every day** CAS ID: **C7440-47-3**
 Observation type: **Particles** Particle diameter--lower bound (UM): **0** Particle diameter--upper bound (UM): **2.5**
 Field sampling or measurement principle: **Single filter** Medium: **Teflon** Inlet type: **Impactor--virtual/concentrator**
 Laboratory analytical method: **ICP/AES** Sample preparation: **Acid digestion** Blank Correction: **Not blank corrected**
 Volume standardization: **0 deg. C; 1 atmosphere** Sampling Height above ground (m): **2**
 Instrument name and model number: **University Research Glassware Versatile Air Pollutant Sampler**
 Measurement principal investigator: **Jeffrey Brook** Detection Limit: **Varies--see Detection lim**

Site Name:**Vancouver, British Columbia** Latitude:**49.21556 deg.** Longitude:**-121.9825 deg.** Start Date:**2000-02-14** End Date:**2002-06-28**



Statistics
 Number of obs: **758**
 Number of missing: **0**
 Minimum: **0**
 25th Percentile: **0**
 Median: **0**
 Mean: **0.000**
 75th Percentile: **0.0005**
 Maximum: **0.0246**
 Std Dev.: **0.001**

NARSTO Flags
Flag Symbol Count
 V0: ● 78
 V1: + 664
 V6: ▼ 16

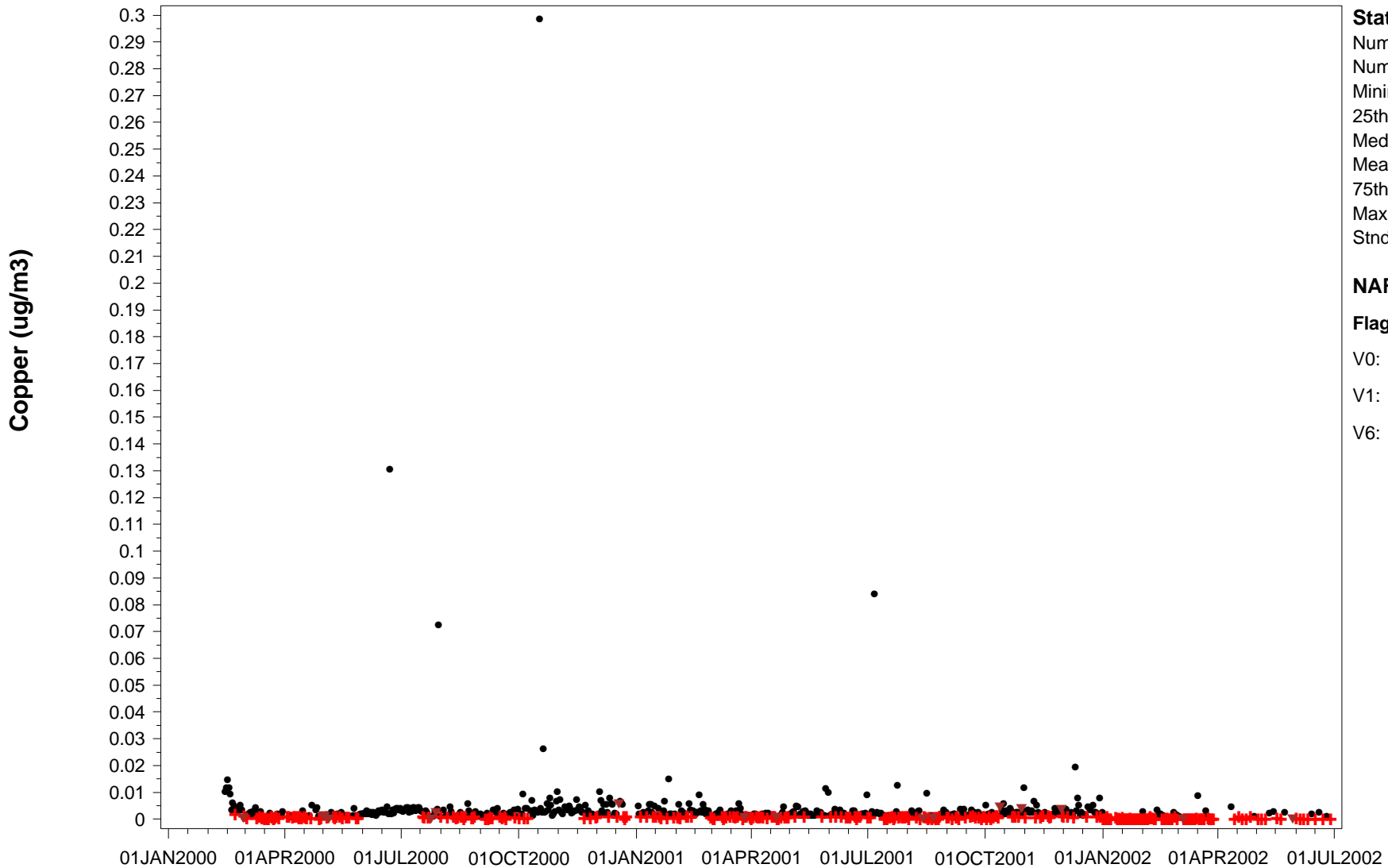
Time Zone: PST

NAtChem Time Series Plot

09DEC2004

Site ID: **SHEMCABCVAN_** Variable name: **Copper** Units: **ug/m3** Sampling interval: **24 hour** Sampling frequency: **Every day** CAS ID: **C7440-50-8**
 Observation type: **Particles** Particle diameter--lower bound (UM): **0** Particle diameter--upper bound (UM): **2.5**
 Field sampling or measurement principle: **Single filter** Medium: **Teflon** Inlet type: **Impactor--virtual/concentrator**
 Laboratory analytical method: **ICP/AES** Sample preparation: **Acid digestion** Blank Correction: **Not blank corrected**
 Volume standardization: **0 deg. C; 1 atmosphere** Sampling Height above ground (m): **2**
 Instrument name and model number: **University Research Glassware Versatile Air Pollutant Sampler**
 Measurement principal investigator: **Jeffrey Brook** Detection Limit: **Varies--see Detection lim**

Site Name:**Vancouver, British Columbia** Latitude:**49.21556 deg.** Longitude:**-121.9825 deg.** Start Date:**2000-02-14** End Date:**2002-06-28**



Statistics

Number of obs: **758**
 Number of missing: **0**
 Minimum: **0**
 25th Percentile: **0.0005**
 Median: **0.0014**
 Mean: **0.003**
 75th Percentile: **0.0028**
 Maximum: **0.2987**
 Std Dev.: **0.013**

NARSTO Flags

Flag Symbol Count

| | | |
|-----|---|------------|
| V0: | ● | 445 |
| V1: | + | 297 |
| V6: | ▼ | 16 |

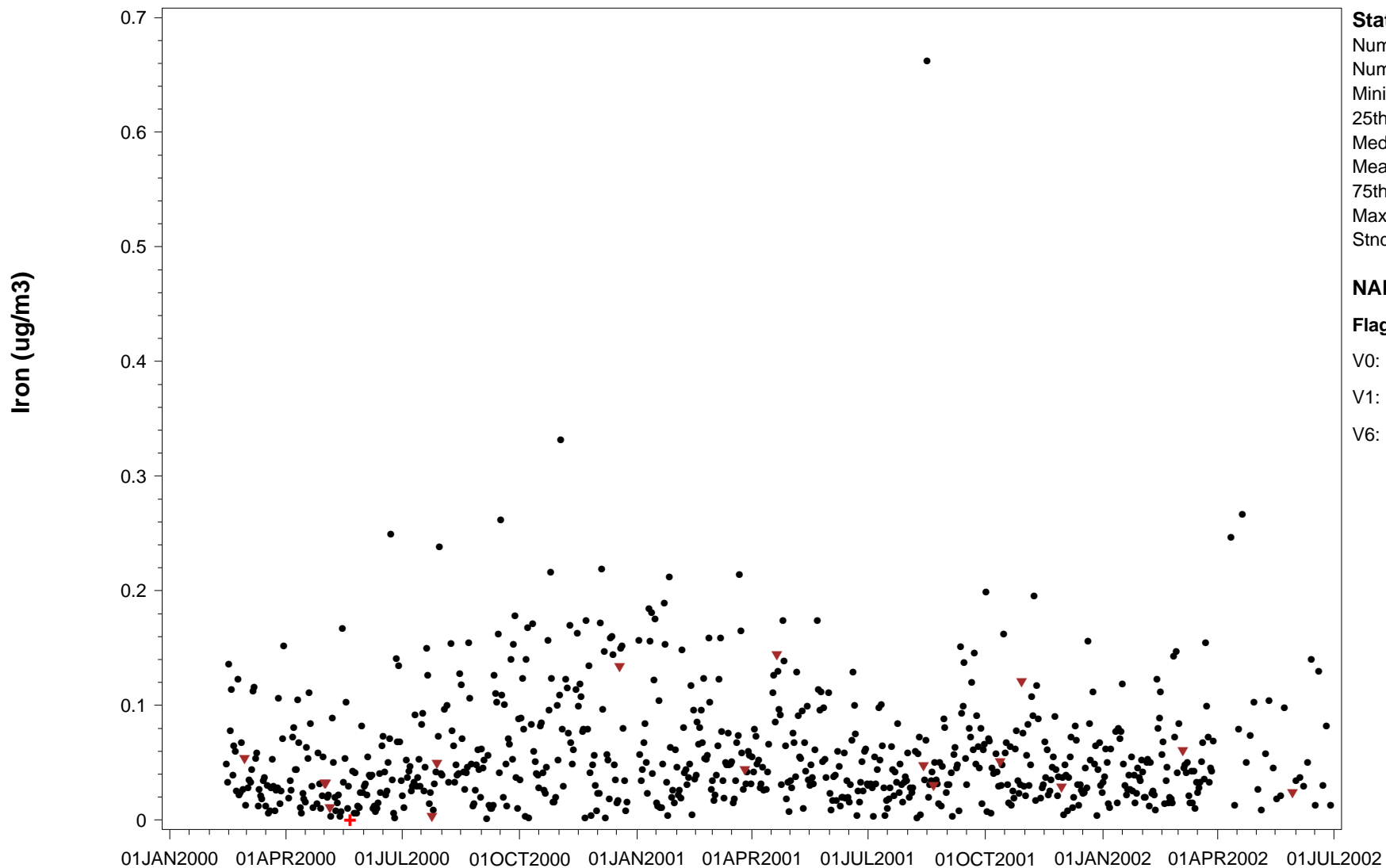
Time Zone: PST

NAtChem Time Series Plot

09DEC2004

Site ID: **SHEMCABCVAN_** Variable name: **Iron** Units: **ug/m3** Sampling interval: **24 hour** Sampling frequency: **Every day** CAS ID: **C7439-89-6**
 Observation type: **Particles** Particle diameter--lower bound (UM): **0** Particle diameter--upper bound (UM): **2.5**
 Field sampling or measurement principle: **Single filter** Medium: **Teflon** Inlet type: **Impactor--virtual/concentrator**
 Laboratory analytical method: **ICP/AES** Sample preparation: **Acid digestion** Blank Correction: **Not blank corrected**
 Volume standardization: **0 deg. C; 1 atmosphere** Sampling Height above ground (m): **2**
 Instrument name and model number: **University Research Glassware Versatile Air Pollutant Sampler**
 Measurement principal investigator: **Jeffrey Brook** Detection Limit: **Varies--see Detection lim**

Site Name: **Vancouver, British Columbia** Latitude: **49.21556 deg.** Longitude: **-121.9825 deg.** Start Date: **2000-02-14** End Date: **2002-06-28**



Statistics

Number of obs: **758**
 Number of missing: **0**
 Minimum: **0**
 25th Percentile: **0.025**
 Median: **0.044**
 Mean: **0.058**
 75th Percentile: **0.075**
 Maximum: **0.662**
 Stnd Dev.: **0.051**

NARSTO Flags

Flag Symbol Count

V0: ● 741
 V1: + 1
 V6: ▼ 16

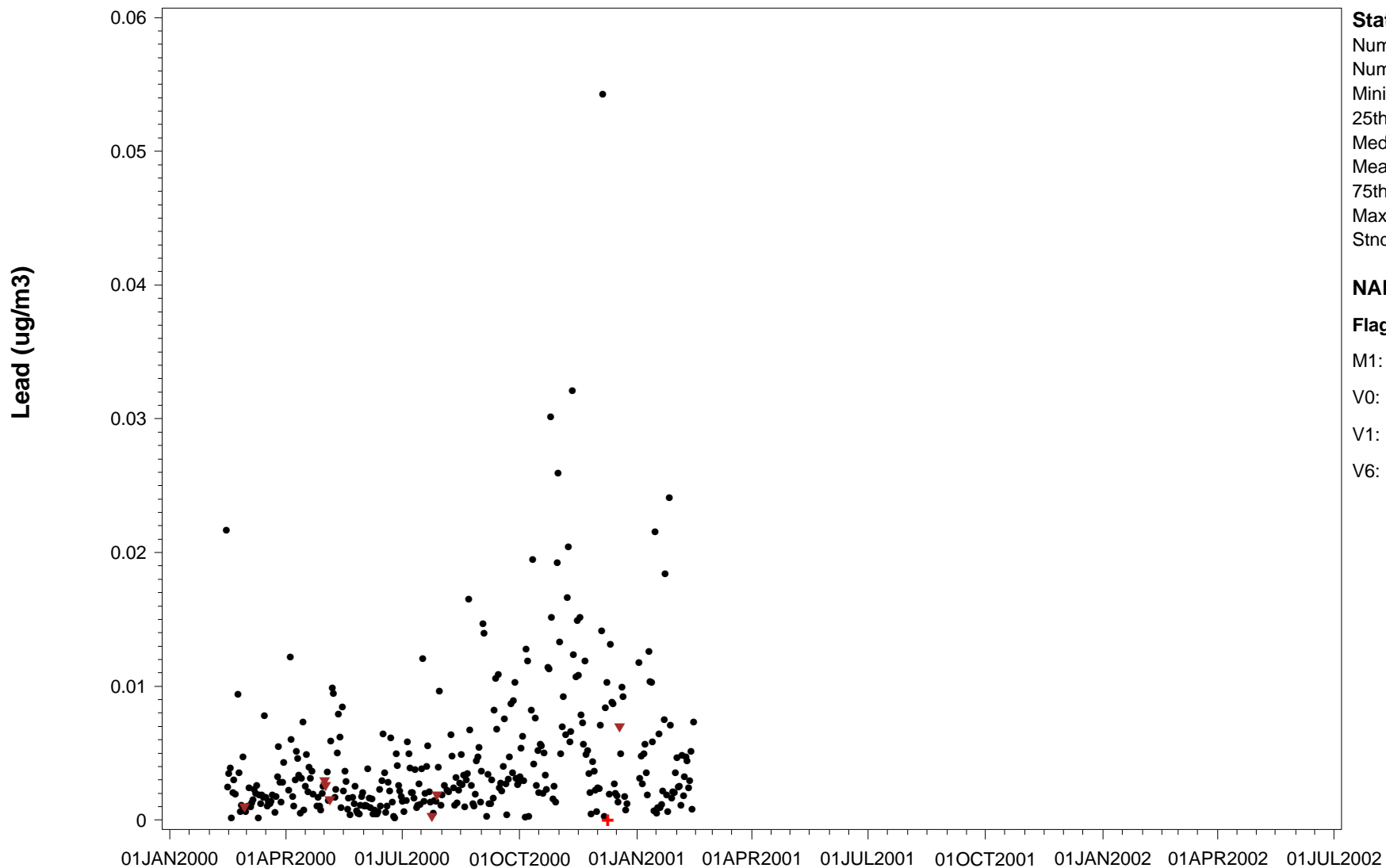
Time Zone: PST

NAtChem Time Series Plot

09DEC2004

Site ID: **SHEMCABCVAN_** Variable name: **Lead** Units: **ug/m3** Sampling interval: **24 hour** Sampling frequency: **Every day** CAS ID: **C7439-92-1**
 Observation type: **Particles** Particle diameter--lower bound (UM): **0** Particle diameter--upper bound (UM): **2.5**
 Field sampling or measurement principle: **Single filter** Medium: **Teflon** Inlet type: **Impactor--direct** Laboratory analytical method: **ICP/MS**
 Sample preparation: **Acid digestion** Blank Correction: **Not blank corrected** Volume standardization: **0 deg. C; 1 atmosphere**
 Sampling Height above ground (m): **2** Instrument name and model number: **R+P FRM Model 2000 Partisol**
 Measurement principal investigator: **Jeffrey Brook** Detection Limit: **Varies--see Detection lim**

Site Name: **Vancouver, British Columbia** Latitude: **49.21556 deg.** Longitude: **-121.9825 deg.** Start Date: **2000-02-14** End Date: **2002-06-28**



Statistics

Number of obs: **758**
 Number of missing: **416**
 Minimum: **0**
 25th Percentile: **0.00144**
 Median: **0.00273**
 Mean: **0.005**
 75th Percentile: **0.00558**
 Maximum: **0.05429**
 Stnd Dev.: **0.006**

NARSTO Flags

Flag Symbol Count

| | | |
|-----|---|------------|
| M1: | | 416 |
| V0: | ● | 334 |
| V1: | + | 1 |
| V6: | ▼ | 7 |

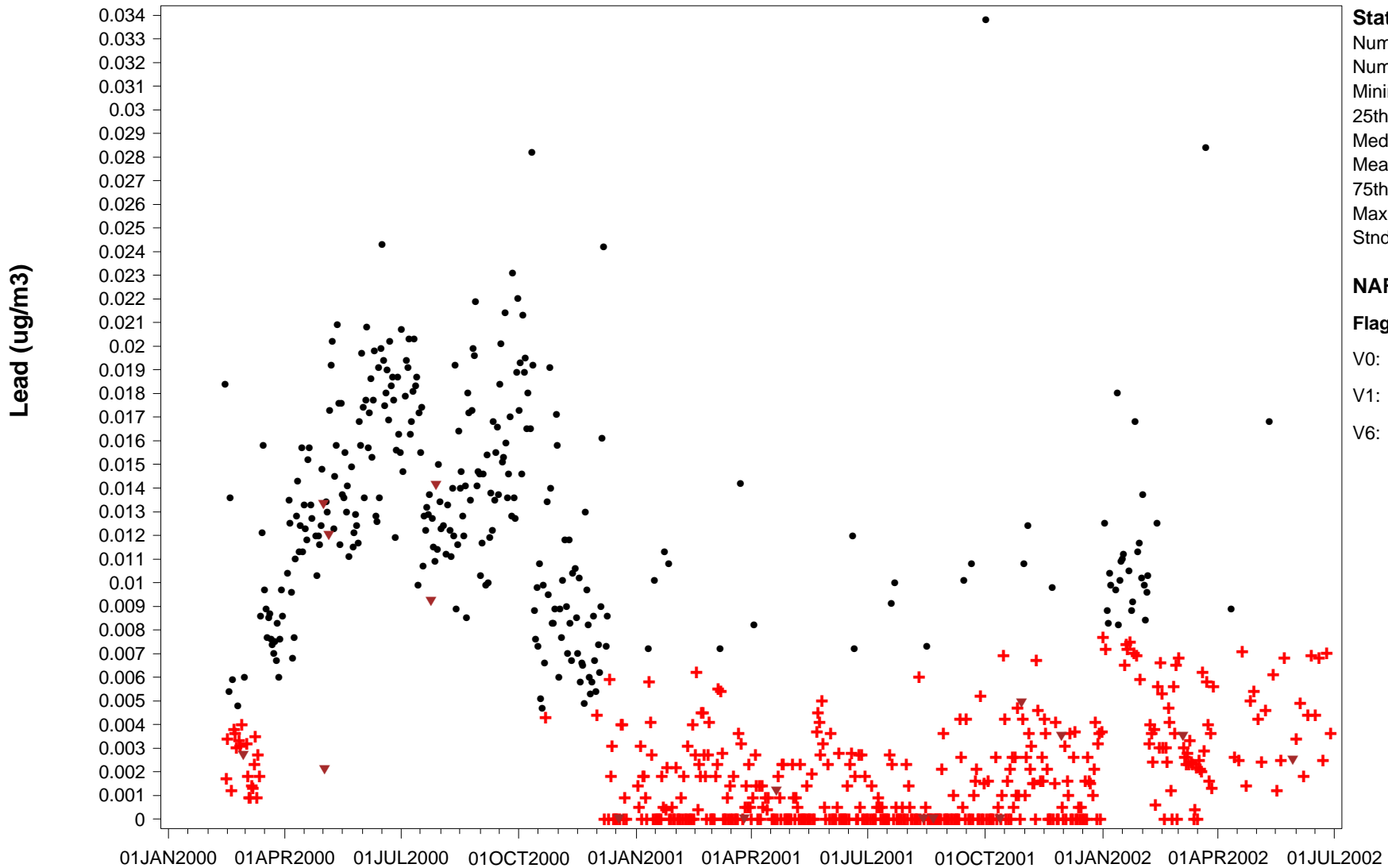
Time Zone: PST

NAtChem Time Series Plot

09DEC2004

Site ID: **SHEMCABCVAN_** Variable name: **Lead** Units: **ug/m3** Sampling interval: **24 hour** Sampling frequency: **Every day** CAS ID: **C7439-92-1**
 Observation type: **Particles** Particle diameter--lower bound (UM): **0** Particle diameter--upper bound (UM): **2.5**
 Field sampling or measurement principle: **Single filter** Medium: **Teflon** Inlet type: **Impactor--virtual/concentrator**
 Laboratory analytical method: **ICP/AES** Sample preparation: **Acid digestion** Blank Correction: **Not blank corrected**
 Volume standardization: **0 deg. C; 1 atmosphere** Sampling Height above ground (m): **2**
 Instrument name and model number: **University Research Glassware Versatile Air Pollutant Sampler**
 Measurement principal investigator: **Jeffrey Brook** Detection Limit: **Varies--see Detection lim**

Site Name: **Vancouver, British Columbia** Latitude: **49.21556 deg.** Longitude: **-121.9825 deg.** Start Date: **2000-02-14** End Date: **2002-06-28**



Statistics

Number of obs: **758**
 Number of missing: **0**
 Minimum: **0**
 25th Percentile: **0.0005**
 Median: **0.0036**
 Mean: **0.006**
 75th Percentile: **0.0113**
 Maximum: **0.0338**
 Stnd Dev.: **0.006**

NARSTO Flags

Flag Symbol Count

V0: ● 302
 V1: + 440
 V6: ▼ 16

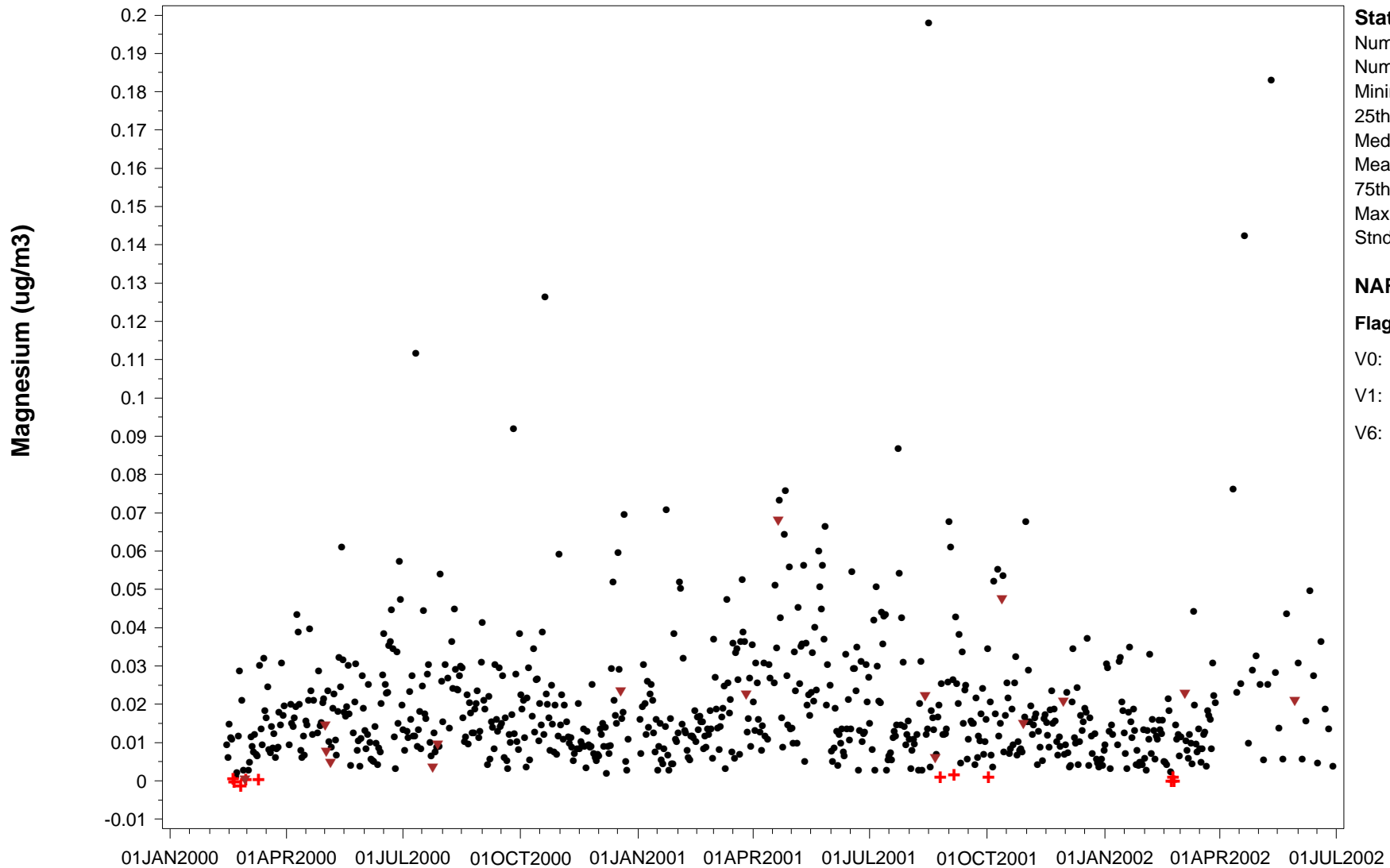
Time Zone: PST

NAtChem Time Series Plot

09DEC2004

Site ID: **SHEMCABCVAN_** Variable name: **Magnesium** Units: **ug/m3** Sampling interval: **24 hour** Sampling frequency: **Every day** CAS ID: **C7439-95-4**
 Observation type: **Particles** Particle diameter--lower bound (UM): **0** Particle diameter--upper bound (UM): **2.5**
 Field sampling or measurement principle: **Single filter** Medium: **Teflon** Inlet type: **Impactor--virtual/concentrator**
 Laboratory analytical method: **ICP/AES** Sample preparation: **Acid digestion** Blank Correction: **Not blank corrected**
 Volume standardization: **0 deg. C; 1 atmosphere** Sampling Height above ground (m): **2**
 Instrument name and model number: **University Research Glassware Versatile Air Pollutant Sampler**
 Measurement principal investigator: **Jeffrey Brook** Detection Limit: **Varies--see Detection lim**

Site Name: **Vancouver, British Columbia** Latitude: **49.21556 deg.** Longitude: **-121.9825 deg.** Start Date: **2000-02-14** End Date: **2002-06-28**



Statistics
 Number of obs: **758**
 Number of missing: **0**
 Minimum: **-0.0013**
 25th Percentile: **0.0089**
 Median: **0.01455**
 Mean: **0.019**
 75th Percentile: **0.0239**
 Maximum: **0.1979**
 Std Dev.: **0.018**

NARSTO Flags
Flag Symbol Count
 V0: ● 731
 V1: + 11
 V6: ▼ 16

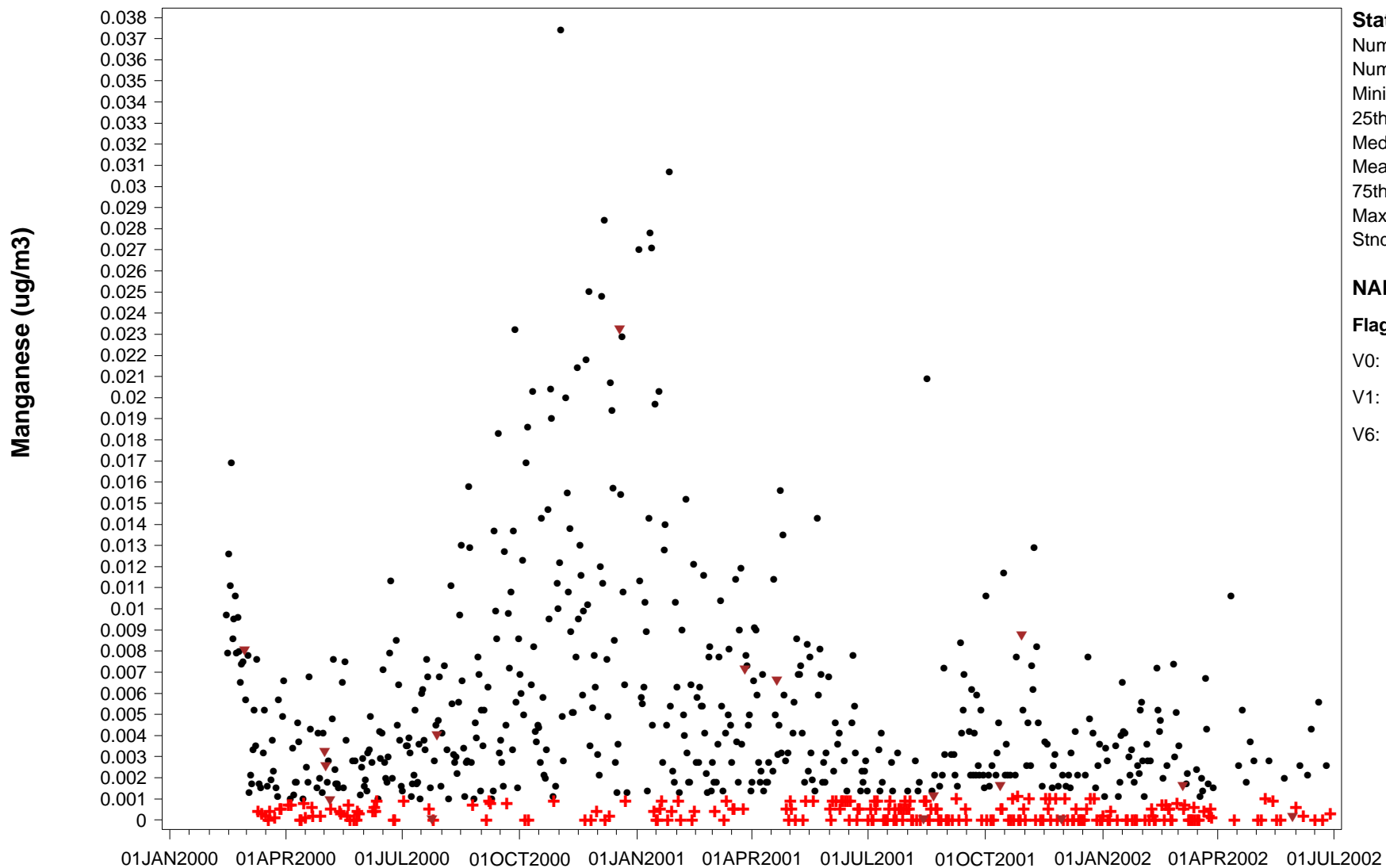
Time Zone: PST

NAtChem Time Series Plot

09DEC2004

Site ID: **SHEMCBCVAN_** Variable name: **Manganese** Units: **ug/m3** Sampling interval: **24 hour** Sampling frequency: **Every day** CAS ID: **C7439-96-5**
 Observation type: **Particles** Particle diameter--lower bound (UM): **0** Particle diameter--upper bound (UM): **2.5**
 Field sampling or measurement principle: **Single filter** Medium: **Teflon** Inlet type: **Impactor--virtual/concentrator**
 Laboratory analytical method: **ICP/AES** Sample preparation: **Acid digestion** Blank Correction: **Not blank corrected**
 Volume standardization: **0 deg. C; 1 atmosphere** Sampling Height above ground (m): **2**
 Instrument name and model number: **University Research Glassware Versatile Air Pollutant Sampler**
 Measurement principal investigator: **Jeffrey Brook** Detection Limit: **Varies--see Detection lim**

Site Name: **Vancouver, British Columbia** Latitude: **49.21556 deg.** Longitude: **-121.9825 deg.** Start Date: **2000-02-14** End Date: **2002-06-28**



Statistics

Number of obs: **758**
 Number of missing: **0**
 Minimum: **0**
 25th Percentile: **0.0007**
 Median: **0.0023**
 Mean: **0.004**
 75th Percentile: **0.0054**
 Maximum: **0.0374**
 Stnd Dev.: **0.005**

NARSTO Flags

Flag Symbol Count

V0: ● 515
 V1: + 227
 V6: ▼ 16

Time Zone: PST

NAtChem Time Series Plot

09DEC2004

Site ID: **SHEMCABCVAN_** Variable name: **Nickel** Units: **ug/m3** Sampling interval: **24 hour** Sampling frequency: **Every day** CAS ID: **C7440-02-0**

Observation type: **Particles** Particle diameter--lower bound (UM): **0** Particle diameter--upper bound (UM): **2.5**

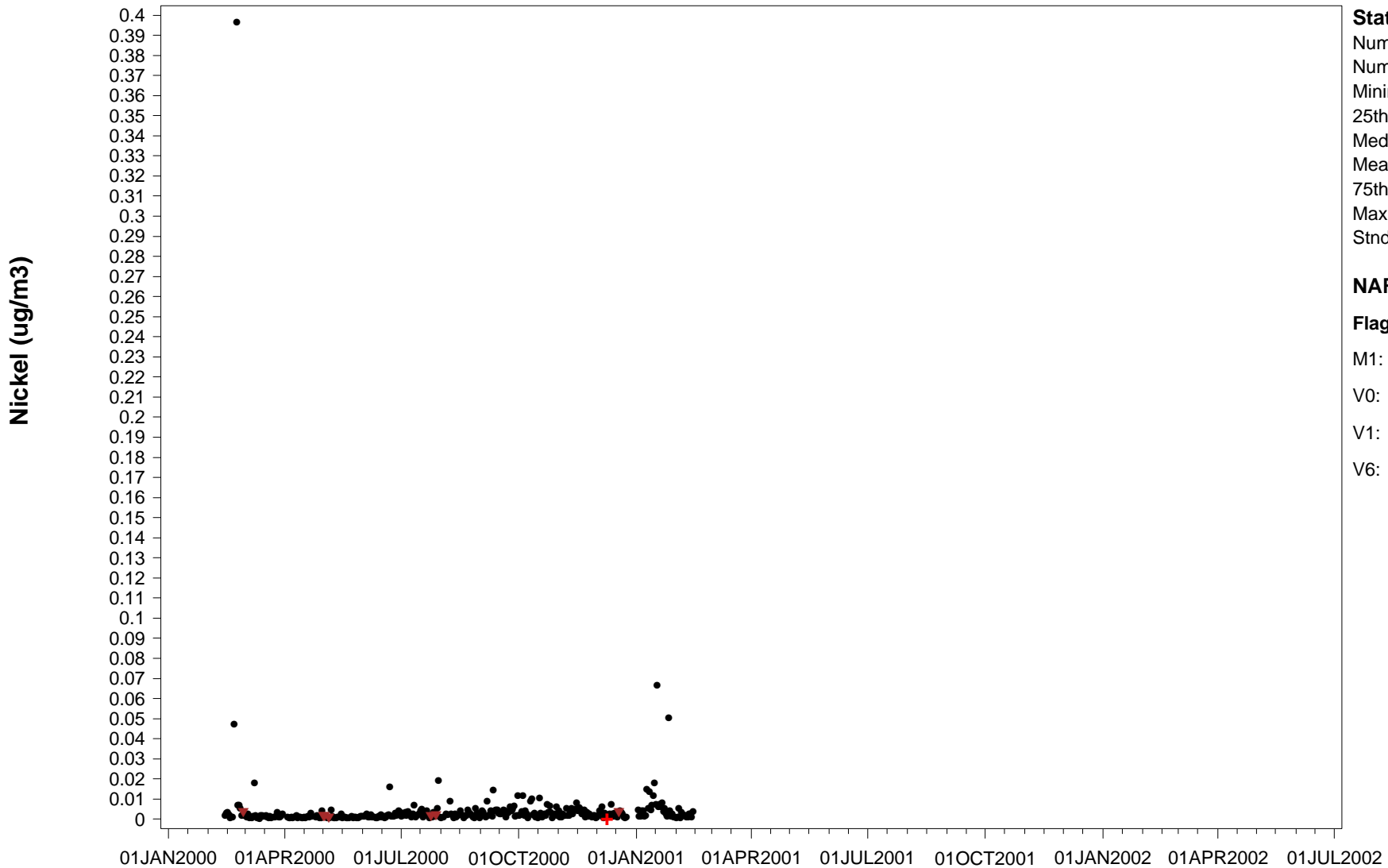
Field sampling or measurement principle: **Single filter** Medium: **Teflon** Inlet type: **Impactor--direct** Laboratory analytical method: **ICP/MS**

Sample preparation: **Acid digestion** Blank Correction: **Not blank corrected** Volume standardization: **0 deg. C; 1 atmosphere**

Sampling Height above ground (m): **2** Instrument name and model number: **R+P FRM Model 2000 Partisol**

Measurement principal investigator: **Jeffrey Brook** Detection Limit: **Varies--see Detection lim**

Site Name: **Vancouver, British Columbia** Latitude: **49.21556 deg.** Longitude: **-121.9825 deg.** Start Date: **2000-02-14** End Date: **2002-06-28**



Statistics

Number of obs: **758**
 Number of missing: **416**
 Minimum: **0**
 25th Percentile: **0.00114**
 Median: **0.00181**
 Mean: **0.004**
 75th Percentile: **0.00344**
 Maximum: **0.39667**
 Stnd Dev.: **0.022**

NARSTO Flags

Flag Symbol Count

| | | |
|-----|---|------------|
| M1: | | 416 |
| V0: | ● | 334 |
| V1: | + | 1 |
| V6: | ▼ | 7 |

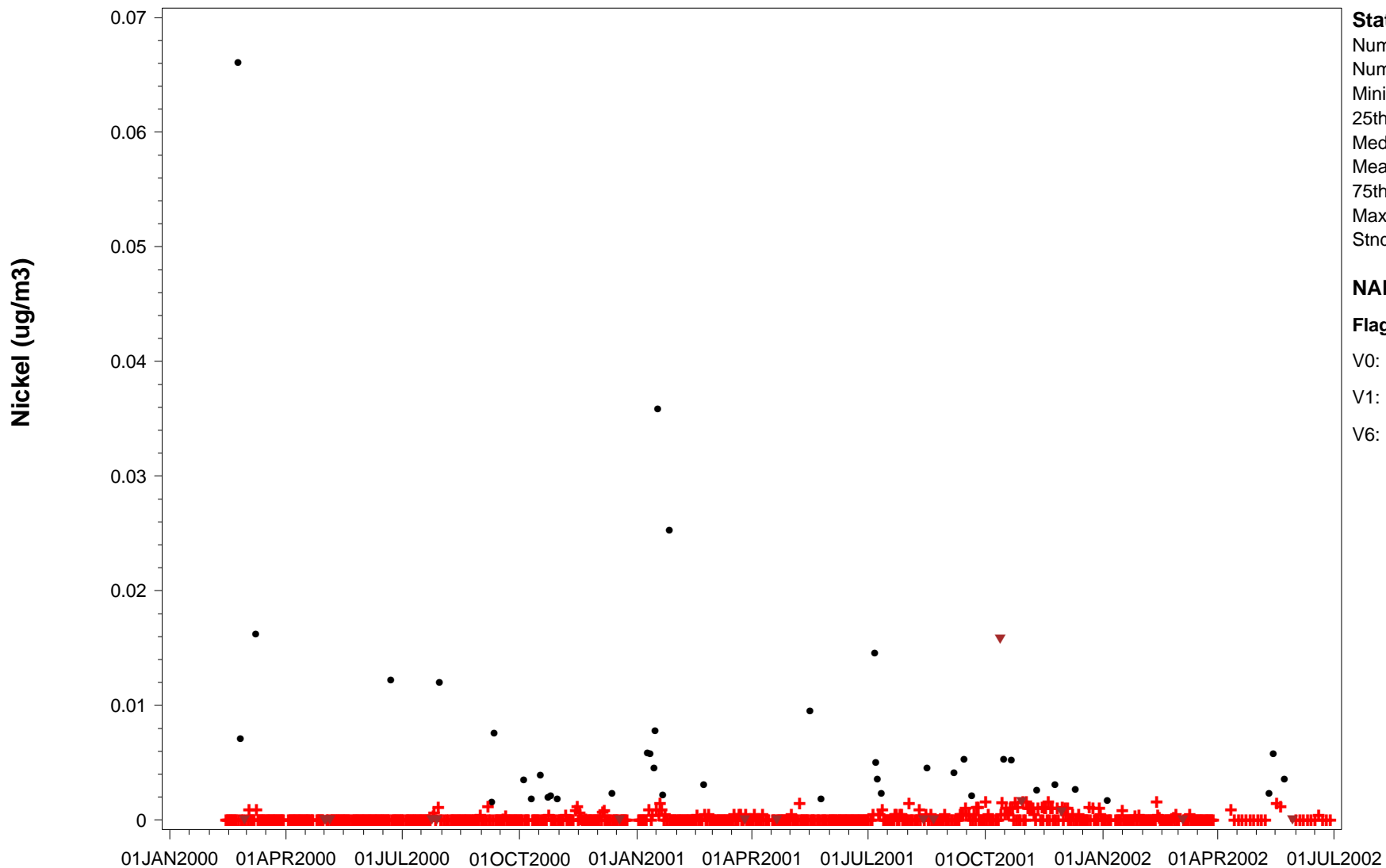
Time Zone: PST

NAtChem Time Series Plot

09DEC2004

Site ID: **SHEMCABCVAN_** Variable name: **Nickel** Units: **ug/m3** Sampling interval: **24 hour** Sampling frequency: **Every day** CAS ID: **C7440-02-0**
 Observation type: **Particles** Particle diameter--lower bound (UM): **0** Particle diameter--upper bound (UM): **2.5**
 Field sampling or measurement principle: **Single filter** Medium: **Teflon** Inlet type: **Impactor--virtual/concentrator**
 Laboratory analytical method: **ICP/AES** Sample preparation: **Acid digestion** Blank Correction: **Not blank corrected**
 Volume standardization: **0 deg. C; 1 atmosphere** Sampling Height above ground (m): **2**
 Instrument name and model number: **University Research Glassware Versatile Air Pollutant Sampler**
 Measurement principal investigator: **Jeffrey Brook** Detection Limit: **Varies--see Detection lim**

Site Name: **Vancouver, British Columbia** Latitude: **49.21556 deg.** Longitude: **-121.9825 deg.** Start Date: **2000-02-14** End Date: **2002-06-28**



Statistics

Number of obs: **758**
 Number of missing: **0**
 Minimum: **0**
 25th Percentile: **0**
 Median: **0**
 Mean: **0.001**
 75th Percentile: **0**
 Maximum: **0.0661**
 Stnd Dev.: **0.003**

NARSTO Flags

Flag Symbol Count

V0: ● 41
 V1: + 701
 V6: ▼ 16

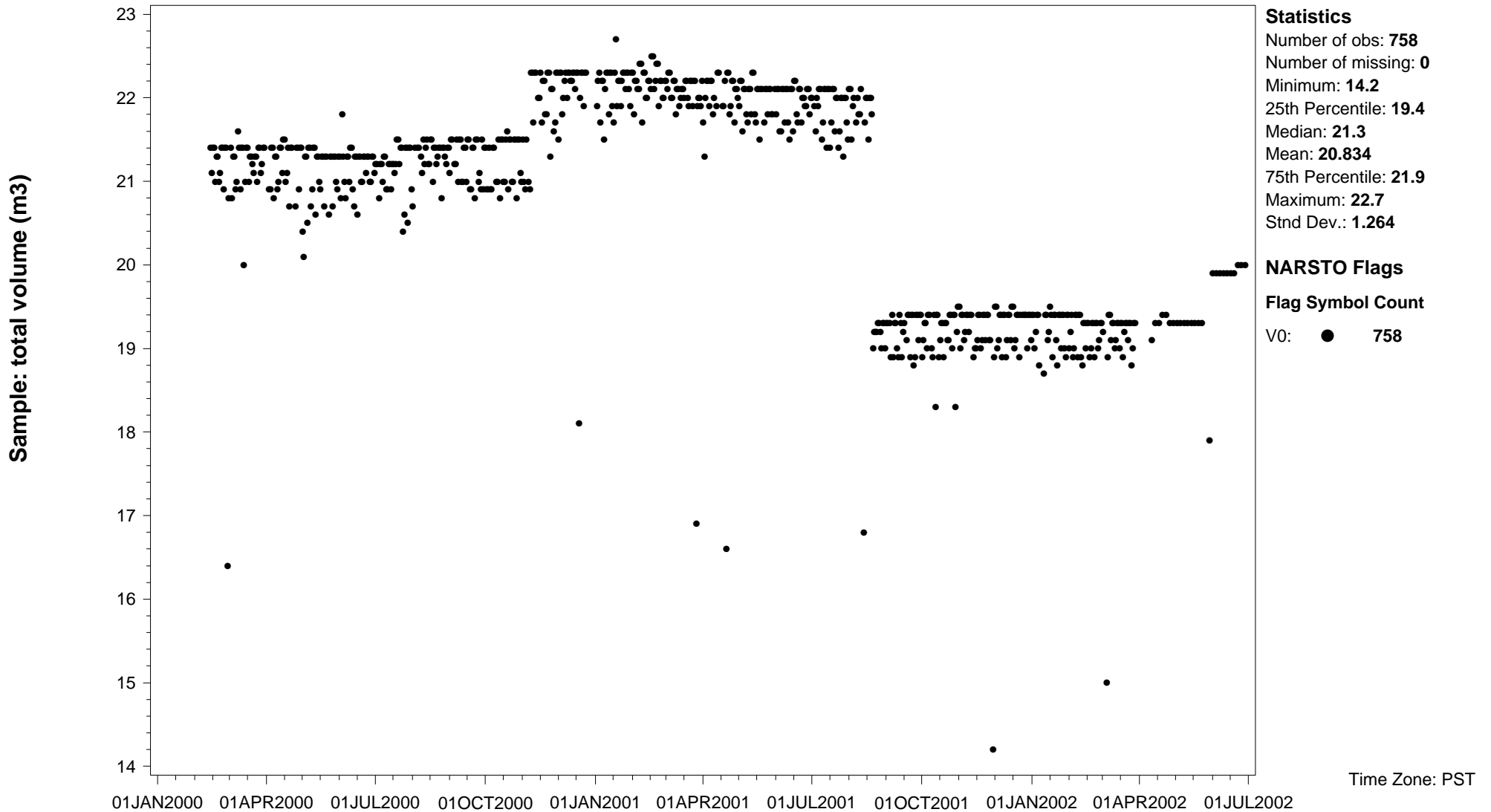
Time Zone: PST

NAtChem Time Series Plot

09DEC2004

Site ID: **SHEMCABCVAN_** Variable name: **Sample: total volume** Units: **m3** Sampling interval: **24 hour** Sampling frequency: **Every day**
Observation type: **Flow** Field sampling or measurement principle: **Mass flow controller** Inlet type: **Impactor--virtual/concentrator**
Volume standardization: **0 deg. C; 1 atmosphere** Sampling Height above ground (m): **2**
Instrument name and model number: **University Research Glassware Versatile Air Pollutant Sampler**
Measurement principal investigator: **Jeffrey Brook**

Site Name: **Vancouver, British Columbia** Latitude: **49.21556 deg.** Longitude: **-121.9825 deg.** Start Date: **2000-02-14** End Date: **2002-06-28**

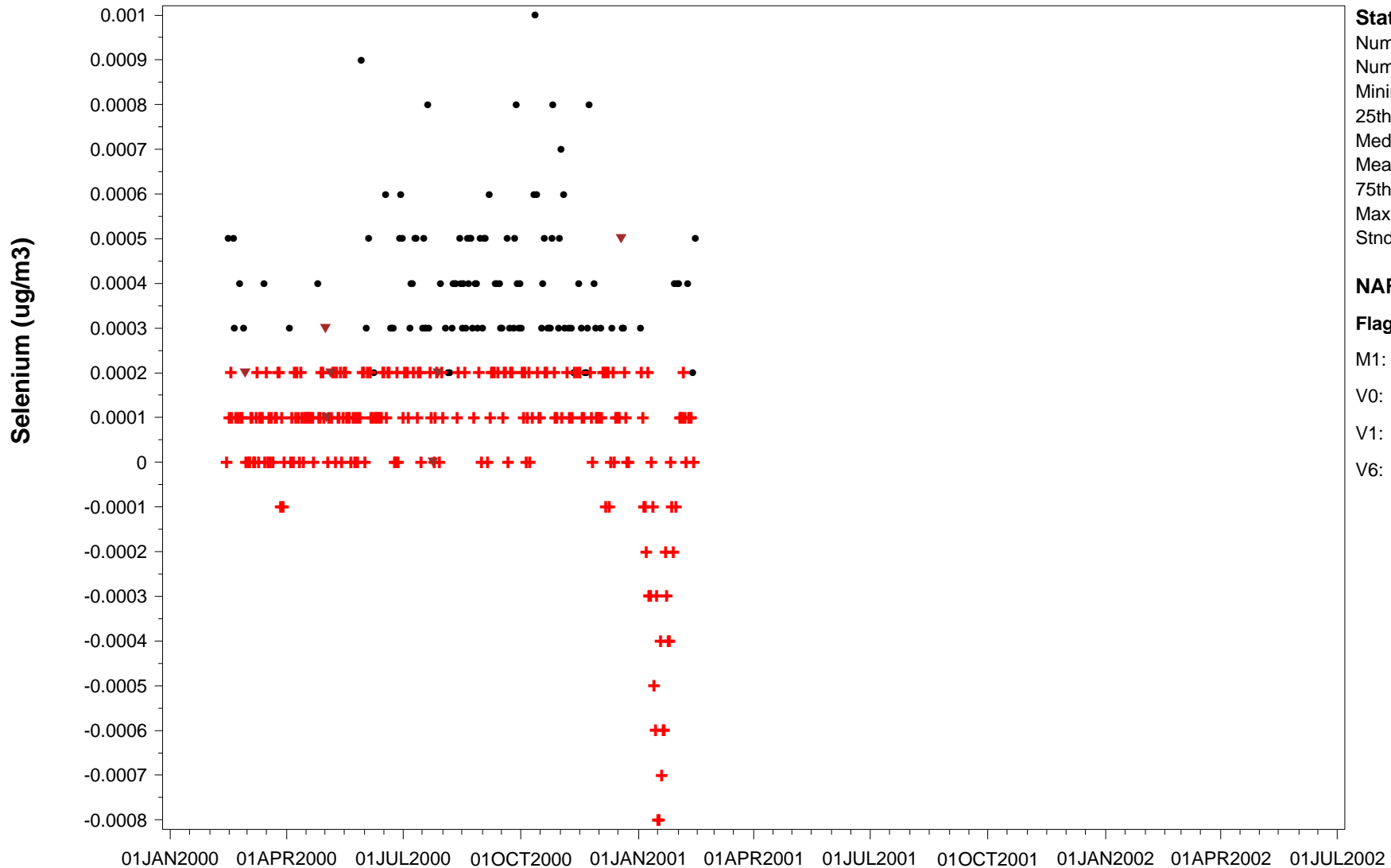


NAtChem Time Series Plot

09DEC2004

Site ID: **SHEMCABCVAN_** Variable name: **Selenium** Units: **ug/m3** Sampling interval: **24 hour** Sampling frequency: **Every day** CAS ID: **C7782-49-2**
 Observation type: **Particles** Particle diameter--lower bound (UM): **0** Particle diameter--upper bound (UM): **2.5**
 Field sampling or measurement principle: **Single filter** Medium: **Teflon** Inlet type: **Impactor--direct** Laboratory analytical method: **ICP/MS**
 Sample preparation: **Acid digestion** Blank Correction: **Not blank corrected** Volume standardization: **0 deg. C; 1 atmosphere**
 Sampling Height above ground (m): **2** Instrument name and model number: **R+P FRM Model 2000 Partisol**
 Measurement principal investigator: **Jeffrey Brook** Detection Limit: **Varies--see Detection lim**

Site Name: **Vancouver, British Columbia** Latitude: **49.21556 deg.** Longitude: **-121.9825 deg.** Start Date: **2000-02-14** End Date: **2002-06-28**



Statistics

Number of obs: **758**
 Number of missing: **416**
 Minimum: **-0.0008**
 25th Percentile: **0.0001**
 Median: **0.0002**
 Mean: **0.000**
 75th Percentile: **0.0003**
 Maximum: **0.001**
 Std Dev.: **0.000**

NARSTO Flags

Flag Symbol Count

M1: **416**
 V0: ● **108**
 V1: + **227**
 V6: ▼ **7**

Time Zone: PST

NAtChem Time Series Plot

09DEC2004

Site ID: **SHEMCABCVAN_** Variable name: **Selenium** Units: **ug/m3** Sampling interval: **24 hour** Sampling frequency: **Every day** CAS ID: **C7782-49-2**
 Observation type: **Particles** Particle diameter--lower bound (UM): **0** Particle diameter--upper bound (UM): **2.5**
 Field sampling or measurement principle: **Single filter** Medium: **Teflon** Inlet type: **Impactor--virtual/concentrator**
 Laboratory analytical method: **ICP/AES** Sample preparation: **Acid digestion** Blank Correction: **Not blank corrected**
 Volume standardization: **0 deg. C; 1 atmosphere** Sampling Height above ground (m): **2**
 Instrument name and model number: **University Research Glassware Versatile Air Pollutant Sampler**
 Measurement principal investigator: **Jeffrey Brook** Detection Limit: **Varies--see Detection lim**

Site Name: **Vancouver, British Columbia** Latitude: **49.21556 deg.** Longitude: **-121.9825 deg.** Start Date: **2000-02-14** End Date: **2002-06-28**



Statistics

Number of obs: **758**
 Number of missing: **731**
 Minimum: **0**
 25th Percentile: **0**
 Median: **0**
 Mean: **0.000**
 75th Percentile: **0**
 Maximum: **0**
 Std Dev.: **0.000**

NARSTO Flags

Flag Symbol Count

| | | |
|-----|----------|------------|
| M1: | | 731 |
| V1: | + | 26 |
| V6: | ▼ | 1 |

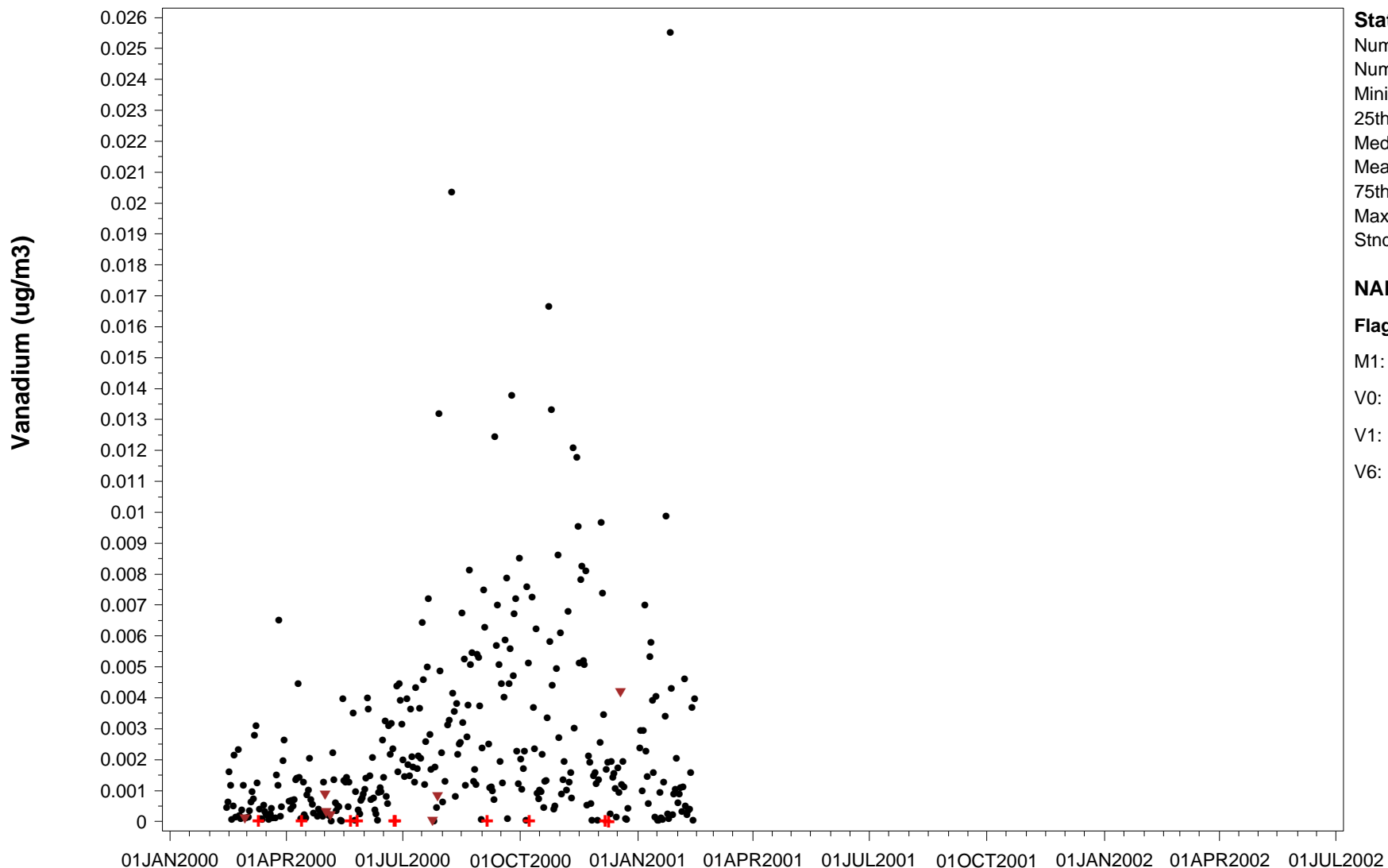
Time Zone: PST

NAtChem Time Series Plot

09DEC2004

Site ID: **SHEMCABCVAN_** Variable name: **Vanadium** Units: **ug/m3** Sampling interval: **24 hour** Sampling frequency: **Every day** CAS ID: **C7440-62-2**
 Observation type: **Particles** Particle diameter--lower bound (UM): **0** Particle diameter--upper bound (UM): **2.5**
 Field sampling or measurement principle: **Single filter** Medium: **Teflon** Inlet type: **Impactor--direct** Laboratory analytical method: **ICP/MS**
 Sample preparation: **Acid digestion** Blank Correction: **Not blank corrected** Volume standardization: **0 deg. C; 1 atmosphere**
 Sampling Height above ground (m): **2** Instrument name and model number: **R+P FRM Model 2000 Partisol**
 Measurement principal investigator: **Jeffrey Brook** Detection Limit: **Varies--see Detection lim**

Site Name: **Vancouver, British Columbia** Latitude: **49.21556 deg.** Longitude: **-121.9825 deg.** Start Date: **2000-02-14** End Date: **2002-06-28**



Statistics

Number of obs: **758**
 Number of missing: **416**
 Minimum: **0**
 25th Percentile: **0.00048**
 Median: **0.001355**
 Mean: **0.002**
 75th Percentile: **0.00345**
 Maximum: **0.02551**
 Std Dev.: **0.003**

NARSTO Flags

Flag Symbol Count

| | | |
|-----|---|------------|
| M1: | | 416 |
| V0: | ● | 325 |
| V1: | + | 10 |
| V6: | ▼ | 7 |

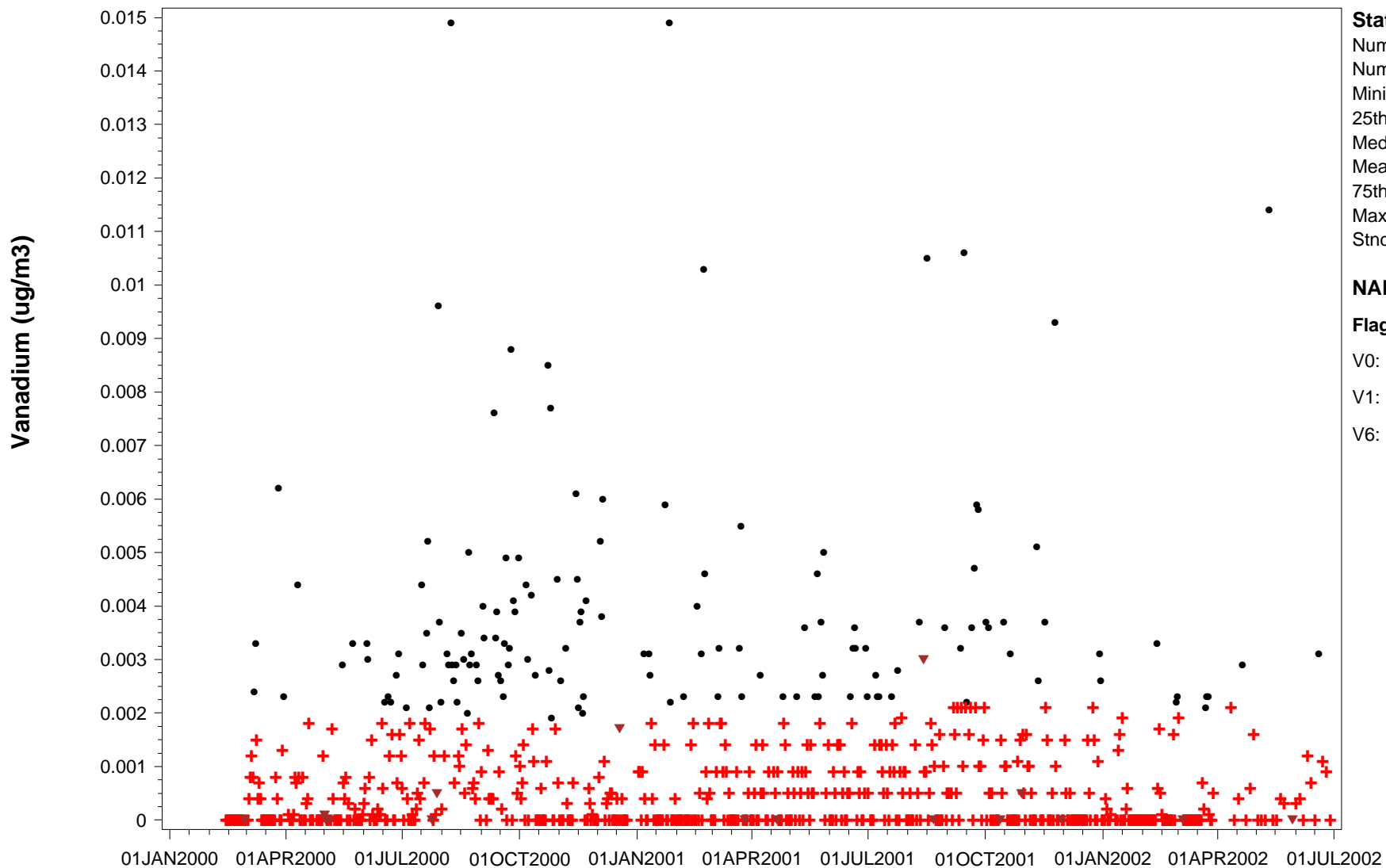
Time Zone: PST

NAtChem Time Series Plot

09DEC2004

Site ID: **SHEMCABCVAN_** Variable name: **Vanadium** Units: **ug/m3** Sampling interval: **24 hour** Sampling frequency: **Every day** CAS ID: **C7440-62-2**
 Observation type: **Particles** Particle diameter--lower bound (UM): **0** Particle diameter--upper bound (UM): **2.5**
 Field sampling or measurement principle: **Single filter** Medium: **Teflon** Inlet type: **Impactor--virtual/concentrator**
 Laboratory analytical method: **ICP/AES** Sample preparation: **Acid digestion** Blank Correction: **Not blank corrected**
 Volume standardization: **0 deg. C; 1 atmosphere** Sampling Height above ground (m): **2**
 Instrument name and model number: **University Research Glassware Versatile Air Pollutant Sampler**
 Measurement principal investigator: **Jeffrey Brook** Detection Limit: **Varies--see Detection lim**

Site Name:**Vancouver, British Columbia** Latitude:**49.21556 deg.** Longitude:**-121.9825 deg.** Start Date:**2000-02-14** End Date:**2002-06-28**



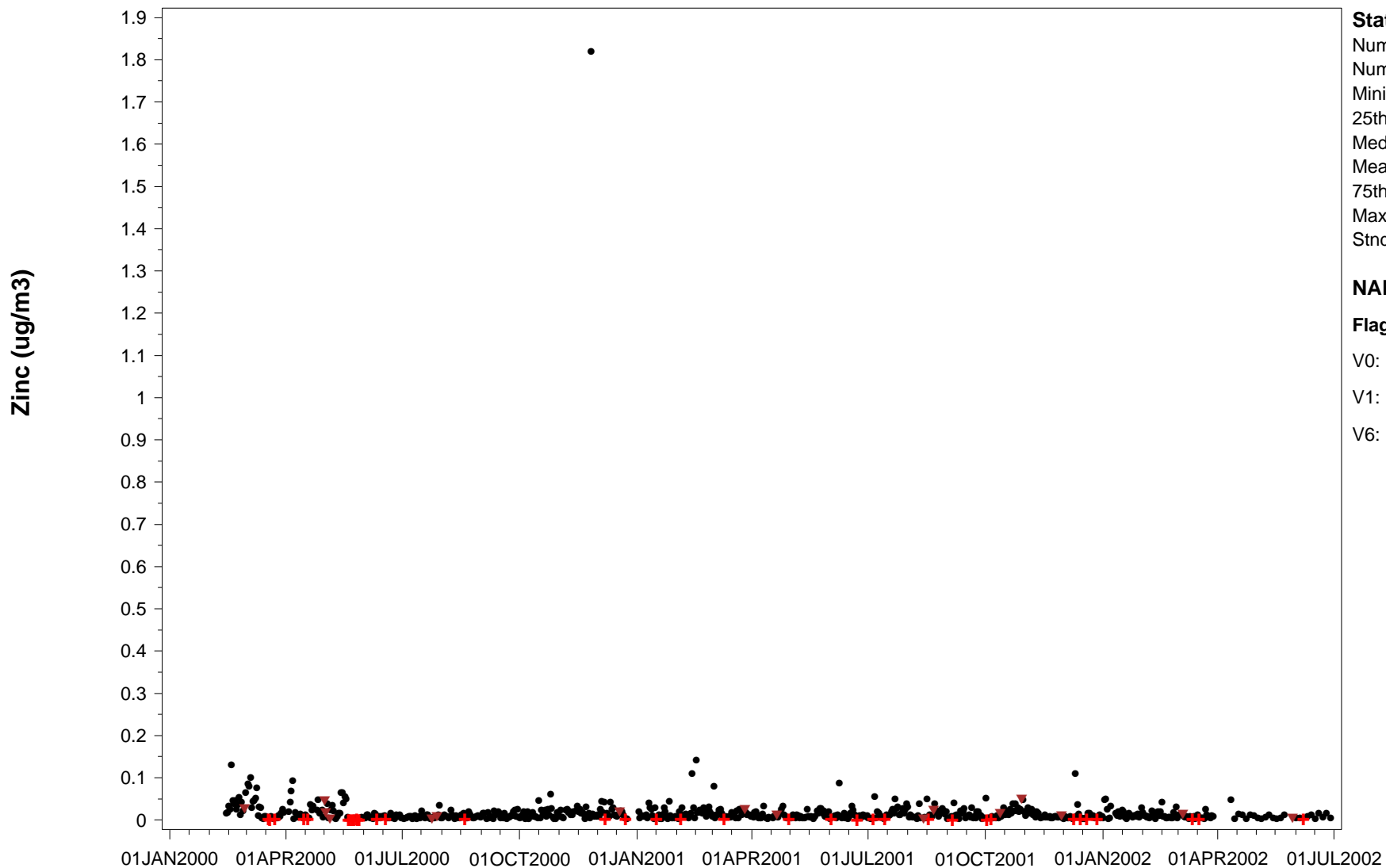
Time Zone: PST

NAtChem Time Series Plot

09DEC2004

Site ID: **SHEMCABCVAN_** Variable name: **Zinc** Units: **ug/m3** Sampling interval: **24 hour** Sampling frequency: **Every day** CAS ID: **C7440-66-6**
 Observation type: **Particles** Particle diameter--lower bound (UM): **0** Particle diameter--upper bound (UM): **2.5**
 Field sampling or measurement principle: **Single filter** Medium: **Teflon** Inlet type: **Impactor--virtual/concentrator**
 Laboratory analytical method: **ICP/AES** Sample preparation: **Acid digestion** Blank Correction: **Not blank corrected**
 Volume standardization: **0 deg. C; 1 atmosphere** Sampling Height above ground (m): **2**
 Instrument name and model number: **University Research Glassware Versatile Air Pollutant Sampler**
 Measurement principal investigator: **Jeffrey Brook** Detection Limit: **Varies--see Detection lim**

Site Name: **Vancouver, British Columbia** Latitude: **49.21556 deg.** Longitude: **-121.9825 deg.** Start Date: **2000-02-14** End Date: **2002-06-28**



Statistics

Number of obs: **758**
 Number of missing: **0**
 Minimum: **0**
 25th Percentile: **0.006**
 Median: **0.01005**
 Mean: **0.017**
 75th Percentile: **0.0183**
 Maximum: **1.8199**
 Std Dev.: **0.067**

NARSTO Flags

Flag Symbol Count

V0: ● **706**
 V1: + **36**
 V6: ▼ **16**

Time Zone: PST