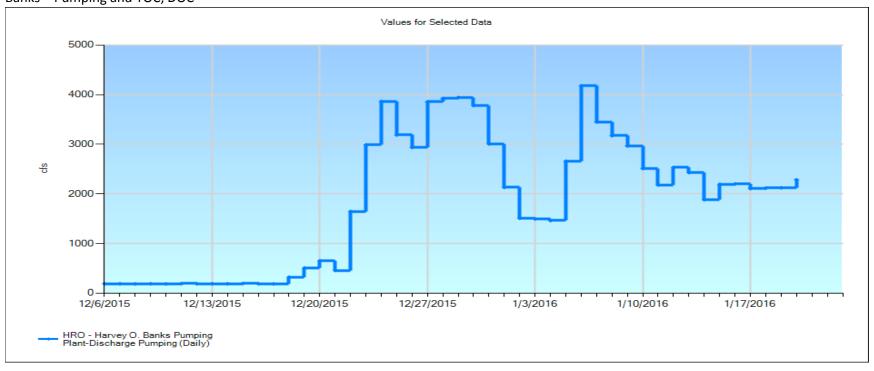
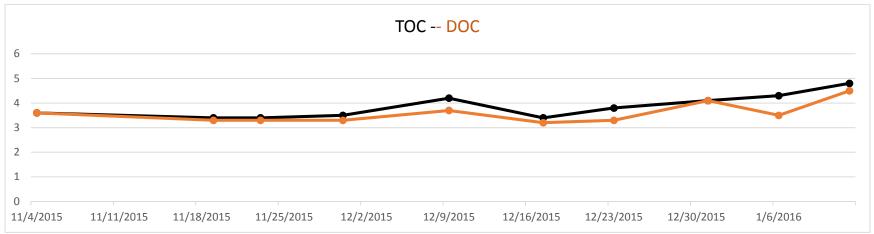
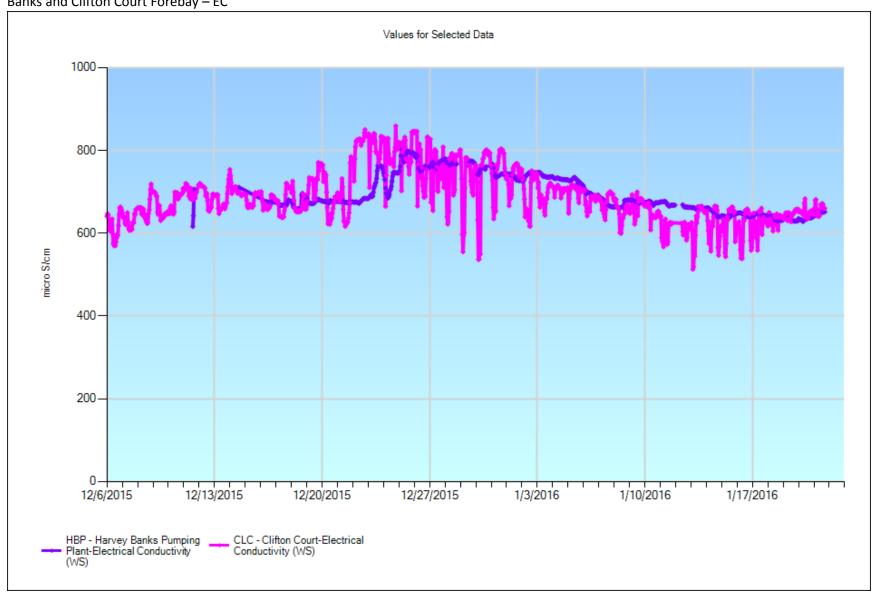
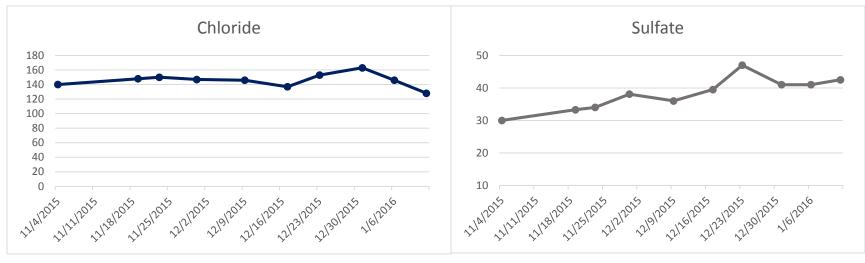
# Banks – Pumping and TOC, DOC



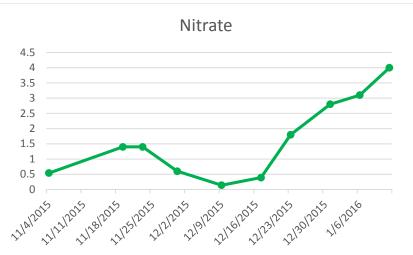




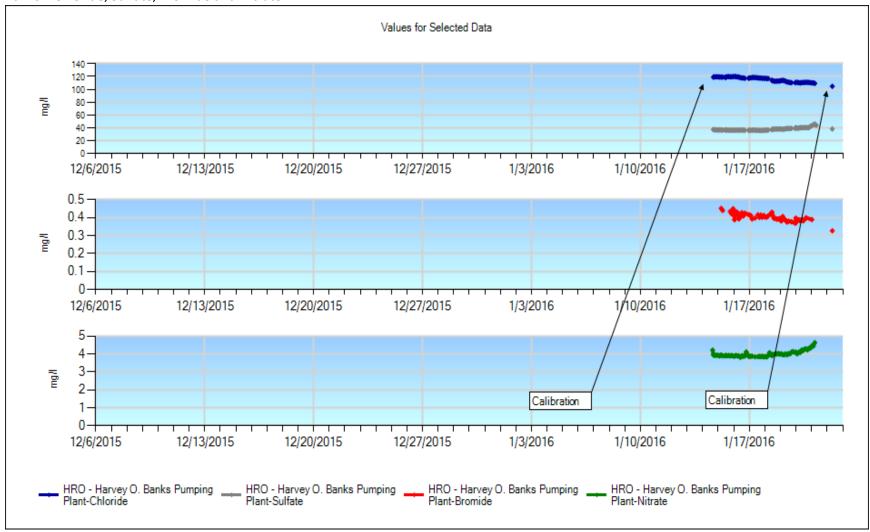
## Banks Grab Sample – Chloride, Sulfate, Bromide and Nitrate







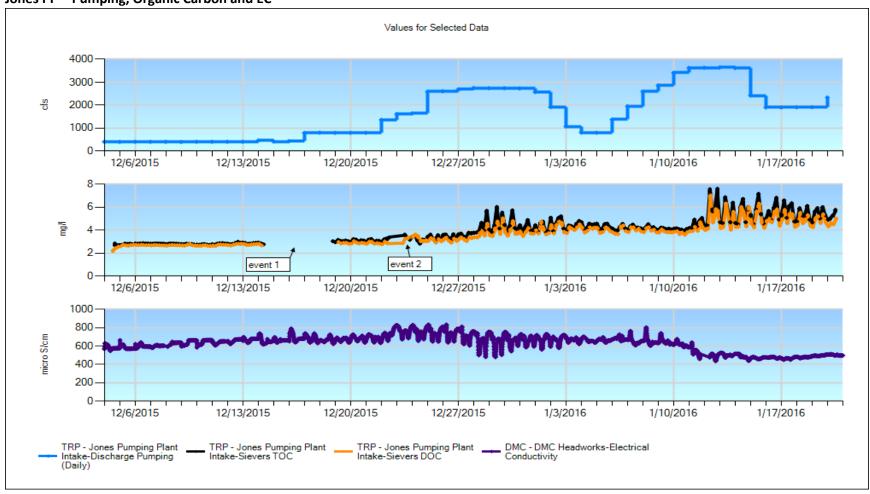
### Banks - Chloride, Sulfate, Bromide and Nitrate



1/14 – Calibration, bromide peak shape issue, decided to report based on mg/L values compared to grab sample data and check standard values, waiting for new analytical columns

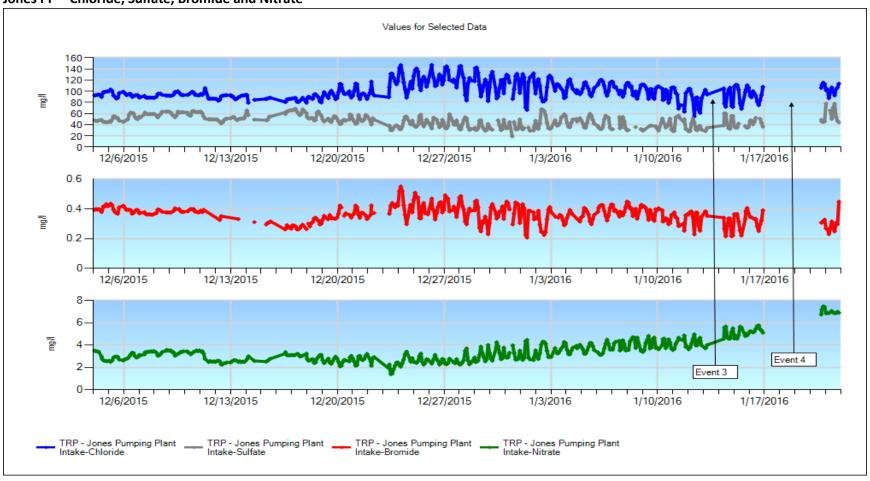
1/21 – Replaced columns, calibrated, currently reporting

Jones PP - Pumping, Organic Carbon and EC

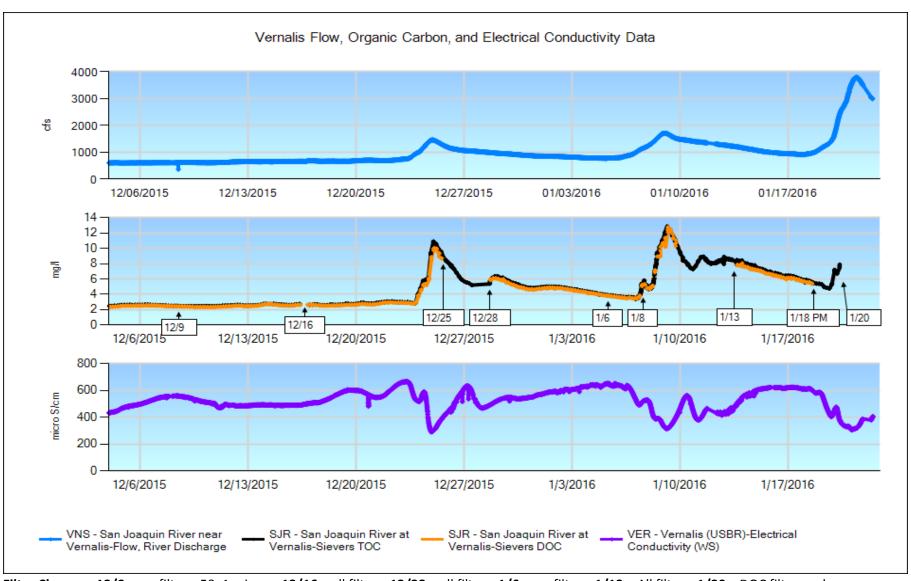


12/4/15 – filter change 12/9/15 – filter change 12/14 – 12/19 – event 1: data was omitted due to data logger malfunction 12/16/15 – filter change 12/23/15 event 2: filter clog/filter change 1/16/16 – filter change 1/13/16 – filter change 1/20/16 – filter change

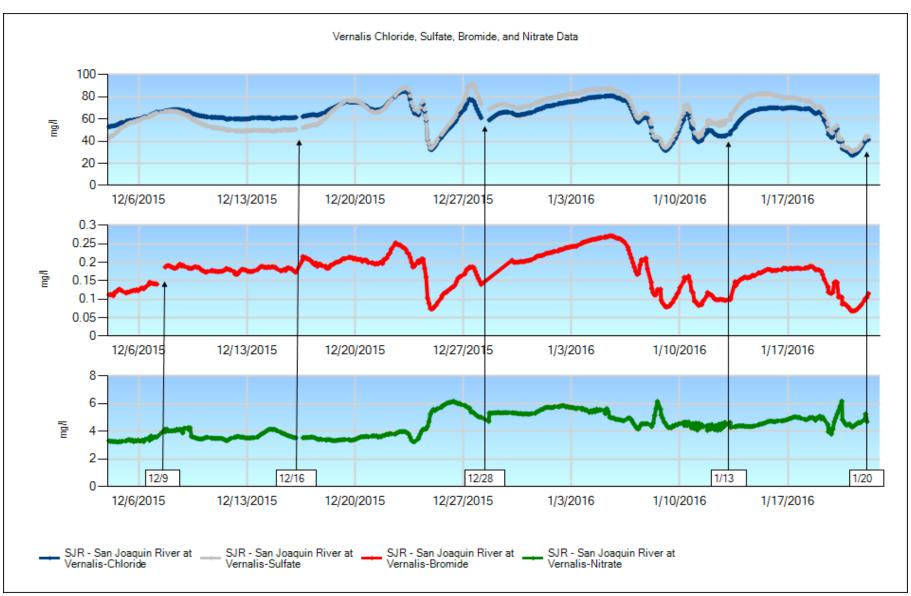
Jones PP - Chloride, Sulfate, Bromide and Nitrate



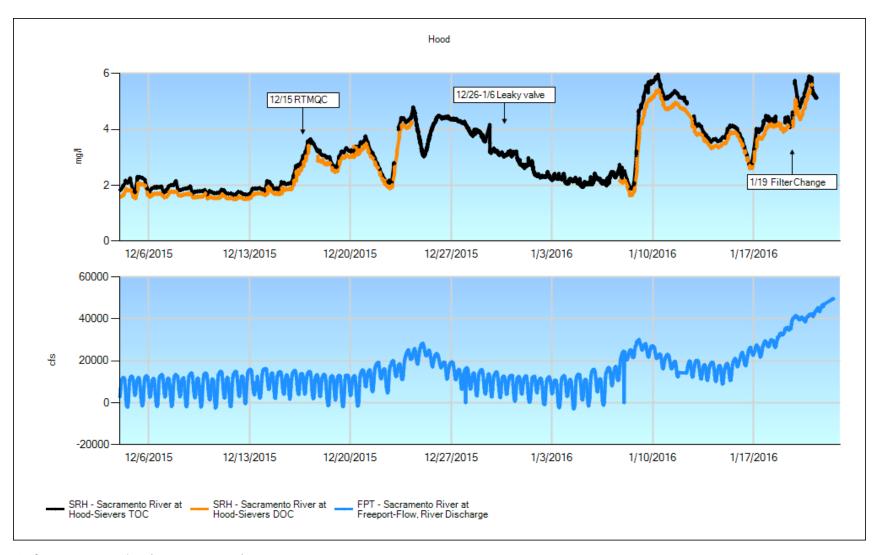
12/23/15 – power outage 1/13/16 – Event 3: Analytical and guard column replacement. Calibration. 1/17/16 – 1/20/16 - Event 4: depleted DI water vessel caused the instrument to fail. 1/20/16 – replaced DI water vessel. Made new check standard. Primed the pump and brought system back online.



Filter Changes: 12/9 = prefilters, 50, 1 micron. 12/16 = all filters. 12/28 = all filters. 1/6 = prefilters. 1/13 = All filters. 1/20 = DOC filters only. Events: 12/25 = DOC filter clog. 1/8 = New TOC/DOC valve system; filter clog shortly afterward. 1/18 PM= DOC filter clog. 1/20= Sievers removed for annual service and calibration by G.E. Analytical. Should be returned on 1/29 or first week of February.



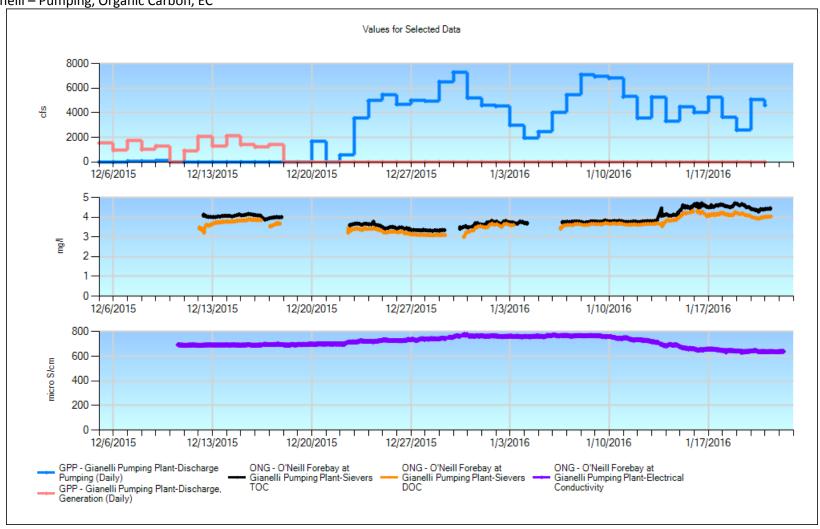
Events: 12/9 = Calibration, mainly for Bromide, applied back to 12/7. 12/16 = QC and filter change. 12/28 = QC and filter change. 1/13 = QC and filter change. 1/20 = Filter change for DOC side only. (TOC side shut off while Sievers is undergoing annual maintenance and calibration.)



**Significant Events:** December 4<sup>th</sup> 2015 to January 22<sup>th</sup> 2016

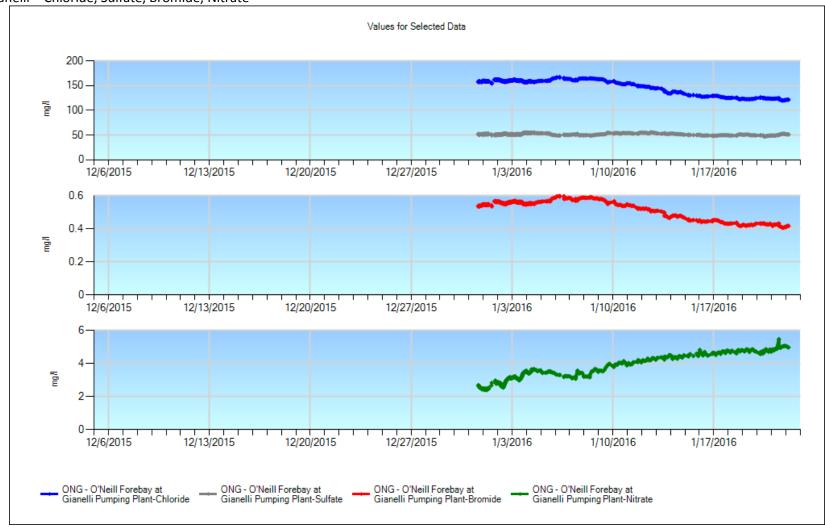
- 12/15 RTMQC: Changed 100μ (micron) pre-filter.
- 12/26-1/6 Leaky Valves: Solenoid Valve for DOC stream started to leak. DOC valve was replaced, but a few days later TOC stream valve started to leak as well. This caused a DOC reading much higher than usual. The data was taken out as "unacceptable". On 1/6 Solenoid valve for TOC was cleaned and works properly now.
- 1/19 Filter Change: filter change for 100μ was done. Also the sievers was removed on 1/21 for Maintenance.

Gianelli – Pumping, Organic Carbon, EC



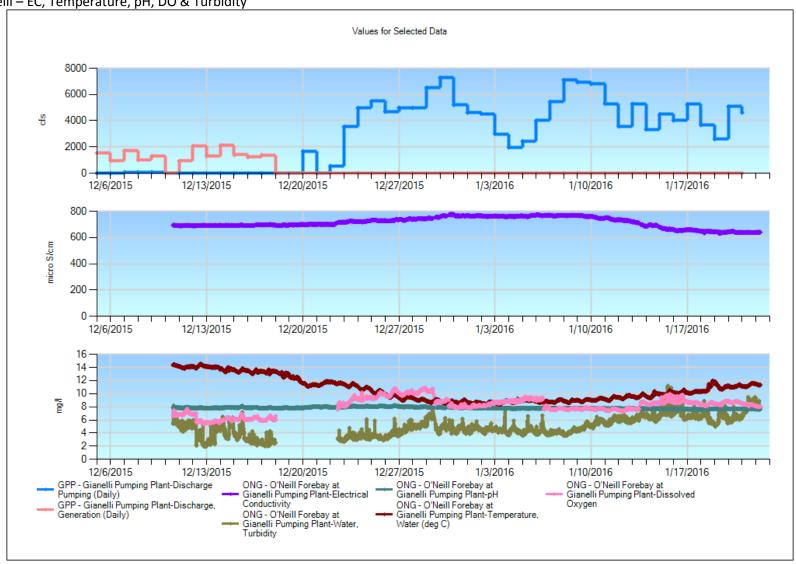
- ➤ All parameters (12/2 12/11) --- Station pump was leaking and had to be repaired.
- ➤ TOC & DOC (12/18 12/22) --- The solenoid valves were leaking causing overlapping readings.
- $\rightarrow$  TOC & DOC (1/3 1/6) --- Low flow caused bad readings.

### Gianelli – Chloride, Sulfate, Bromide, Nitrate



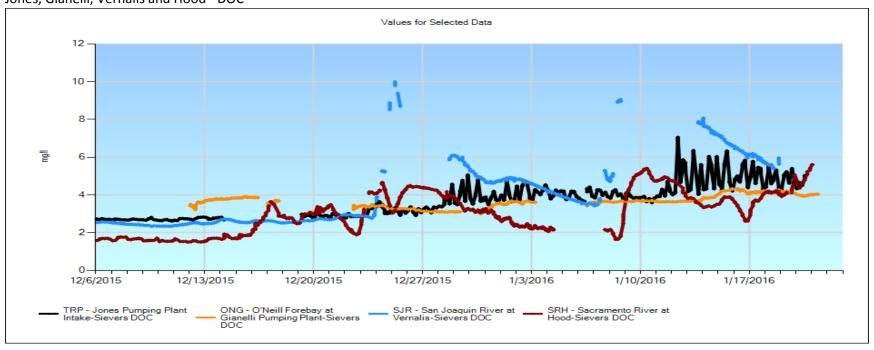
➤ All parameters (12/31) --- Dionex installed and running.

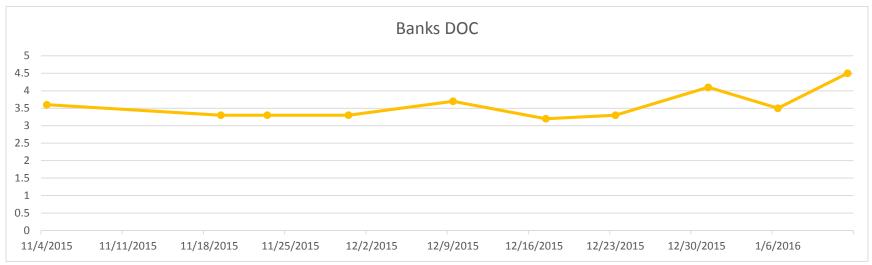
Gianelli – EC, Temperature, pH, DO & Turbidity

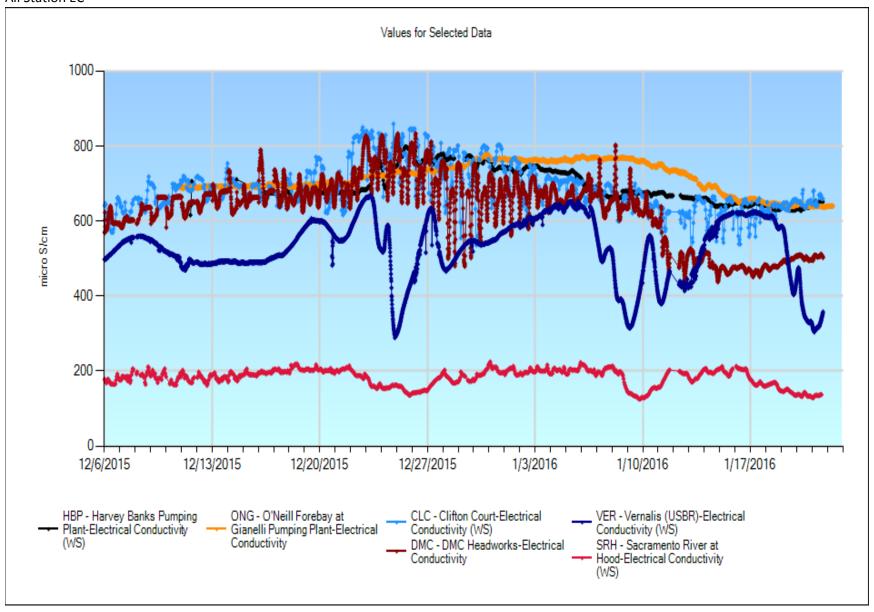


- $\triangleright$  All parameters (12/2 12/11) --- Station pump was leaking and had to be repaired.
- ➤ DO & Turbidity (12/18 12/22) --- Low flow caused bad readings in the sonde housing.

# Jones, Gianelli, Vernalis and Hood - DOC







### All Station Bromide

