Trace Metals in Air and Tributaries

Enhanced Monitoring

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The Tributaries - Who & What

Focus	**Investigator**	**Analytes**
LHTM	WSLH	Mg, K, Na, Ca
WWTM	UW Chemistry Program	Zn, Cr, Pb, Cu, As, Cd, Ho, Y, Yb

LHTM Verification

- Laboratory had difficulties with data organization/tracking. First and second revisions, 1/3 of the data was missing
- QC limits changed frequently for most analytes, sometimes each day. Resulted in analysts not aware of QC failures when they occurred, no corrective actions taken by the laboratory

LHTM - Issues

- Potassium - 4 INV flags applied due to significant calibration check sample failures
- Calcium - HIB flags applied due to some borderline calibration check sample failures and contaminated blank samples

WWTM - Issues

- The actual field data for this focus was not reported with the laboratory data. The field data for USTN, LHTN, and LHTP was used
- Multiple results reported per sample per metal causing a formatting/linking nightmare

WWTM - More Issues

- Most of the 1994 chromium results are considered estimated by the PI due to the magnitude of the background correction. The pneumatic nebulized samples had significant interferences from water loading into the plasma
- The problem was corrected in 1995 by using ultrasonic nebulization

Air - Who & What

Focus	Investigator	Analytes
GRAM	Grace Analytical Lab	Cr, As, Cd, Pb
IIAM	IIT	Ba, Cd, Co, Al, V, Zn, Sr, Ni60, Mo, Mn, As, Cr, Cu, Mg, Sb, Pb, V
WSAM	ISWS	Al, As, Cd, Cr, Cu, Mn, Na, Ni, Pb, Se, Ti, V, Zn
RTAM	ISWS-RTP	Ag, Al, As, Au, Ba, Br, Ca, Cd, Co, Cr, Cs, Cu, Fe, Ga, Ge, Hg, K, La, Mg, Mn, Mo, Na, Ni, P, Pb, Pd, Rb, Rh, Sc, Se, Te, Ti, W, Zn, Zr