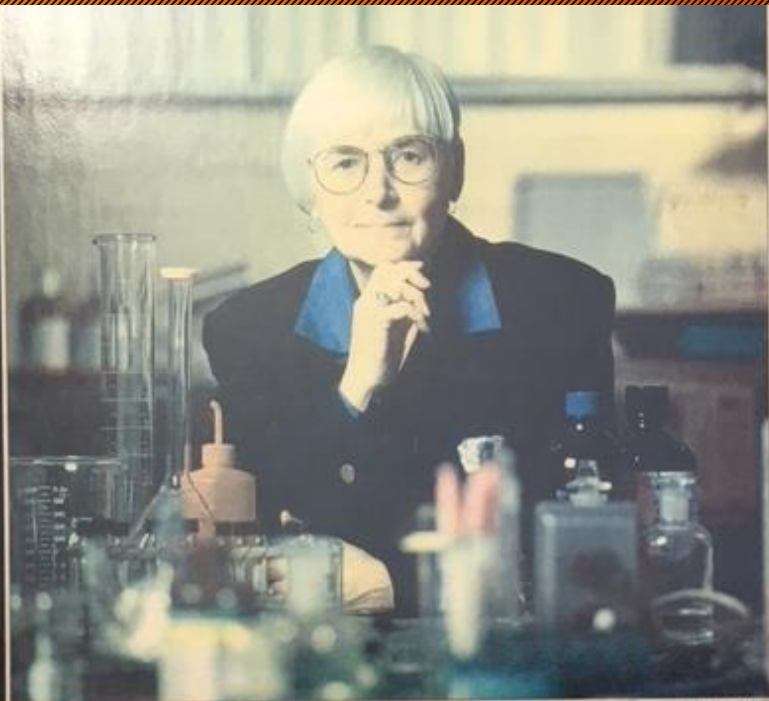


Katherine A. Kelley Public Health Laboratory

Susan Isch, Division Director Environmental Chemistry





Welcomes the attention: Catherine Kelley and her public health staff in Connecticut are not complaining about the long hours spent testing for anthrax.

Public health on front burner

After Sept. 11, system has been 'discovered'

By Anita Manning
USA TODAY

The doctors, nurses and lab scientists who labor, often underpaid, in underfunded public health departments suddenly find themselves in the limelight.

Once the poor relations of the medical field, now they're cast as a kind of medical Delta Force standing between unknown microbial threats and an anxious nation.

The deadly anthrax challenges that followed the Sept. 11 attacks on New York and Washington, D.C., put a bright spotlight on the importance of a strong public health system, health officials say, moving it close to the top of the national priority list.

They pray it will stay there. "Maybe, maybe it won't just be our 15 minutes of fame," says Mary Selenky, secretary of the Washington State Department of Health. "This country can't afford to walk away from public health. We must be prepared to identify new and emerging diseases, and if we can do that, we will be prepared for a bioterrorism event."

Public health is a network of government-funded and non-profit services that monitor the health of the population, watch for emerging diseases, establish medical policies and practices, and make sure all citizens, rich and poor, have access to medical care. Except when there's a shortage of flu vaccine or a new disease, such as West Nile Virus, public health rarely

Cover story

gets the national radar screen. Terrorists has changed that.

Now, "we've been discovered," says Scott Becken, executive director of the Association of Public Health Laboratories. Lab scientists have been "thrust onto the public stage. They're under the bright lights, and they've performed amazingly well. They are every bit the American heroes as the others heralded over the last months."

Those lights also have illuminated serious cracks in the system. Some health departments function in outmoded buildings with no computers or fax machines to speed communication of crucial information. They're plagued by high staff turnover and funding shortages. Many states had begun thinking about a response to bioterrorism, but in most cases, planning was incomplete.

For those in all facets of the public health system, a vast network of some 3,000 federal, state and local health departments and labs. He since Sept. 11 has meant long hours and a new sense of the urgency and importance of their work.

Stephen Morse of the Centers for Disease Control and Prevention's Laboratory Response Network says that since early October, nearly 70,000 samples sus-



By AP/WIDEWORLD

The new normalcy

How Sept. 11 is reshaping our world

Inside: New world for emergency personnel, 30

pected of anthrax contamination have been tested — including 40,000 in states that had no anthrax incidents.

"It has been very intense," says Katherine Kelley, director of the Connecticut Department of Public Health Laboratory in Hartford. Here is one of the few labs in the country that detected a positive case of anthrax. A 94-year-old woman in a rural Connecticut community died in November after being exposed to anthrax, possibly through contaminated mail.

The event brought together local doctors, public health and law enforcement, she says. Lab scientists "were seeing a lot more patient care. The FBI were here. There were new partners we didn't see on a regular basis."

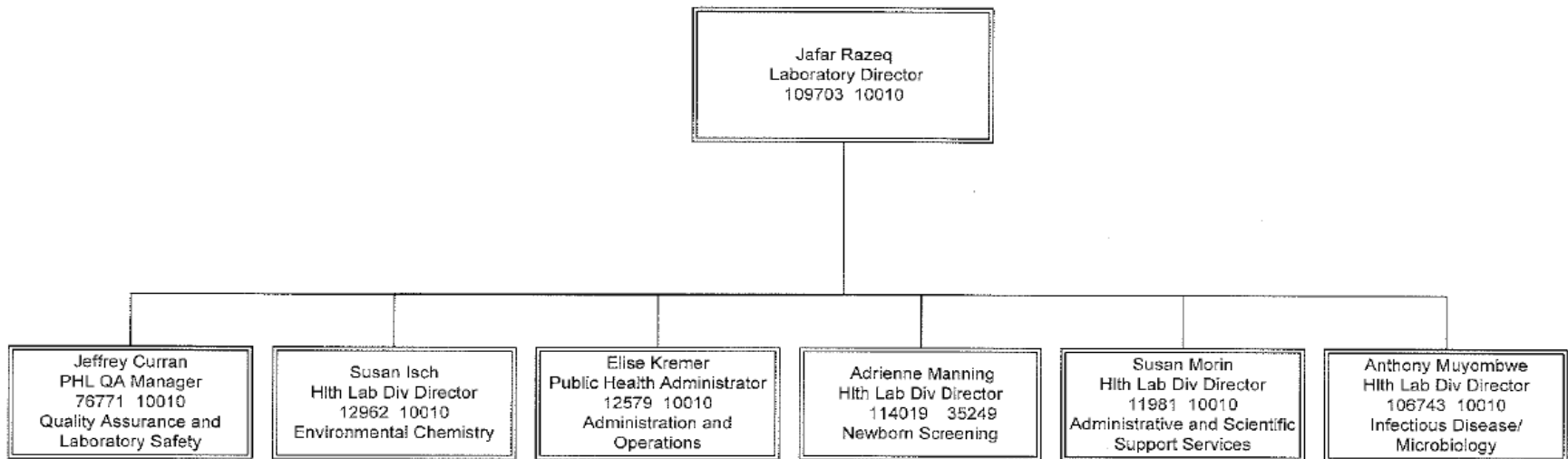
Kelley has been putting in 80-hour weeks, along with a dozen scientists in her lab assigned to test hundreds of samples as part of the investigation. All have been on 12-hour shifts, seven days a week, since early October, but nobody's complaining.

"I think they're very proud of the role they're playing," Kelley says. "We're the public health lab, and now we're the first response lab. This is a new role for us, but we've been training for this. We can do it, and

Please see COVER STORY next page »

Organizational Chart of Lab

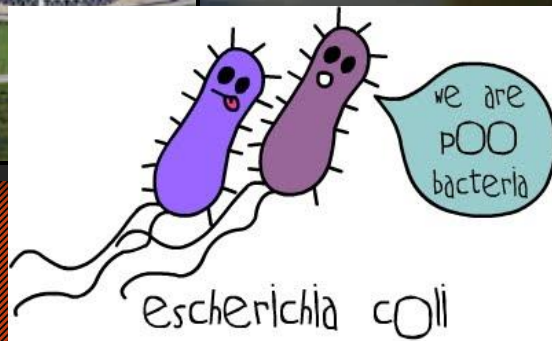
DR. KATHERINE A. KELLEY STATE PUBLIC HEALTH LABORATORY ADMINISTRATION



Division of Environmental Chemistry

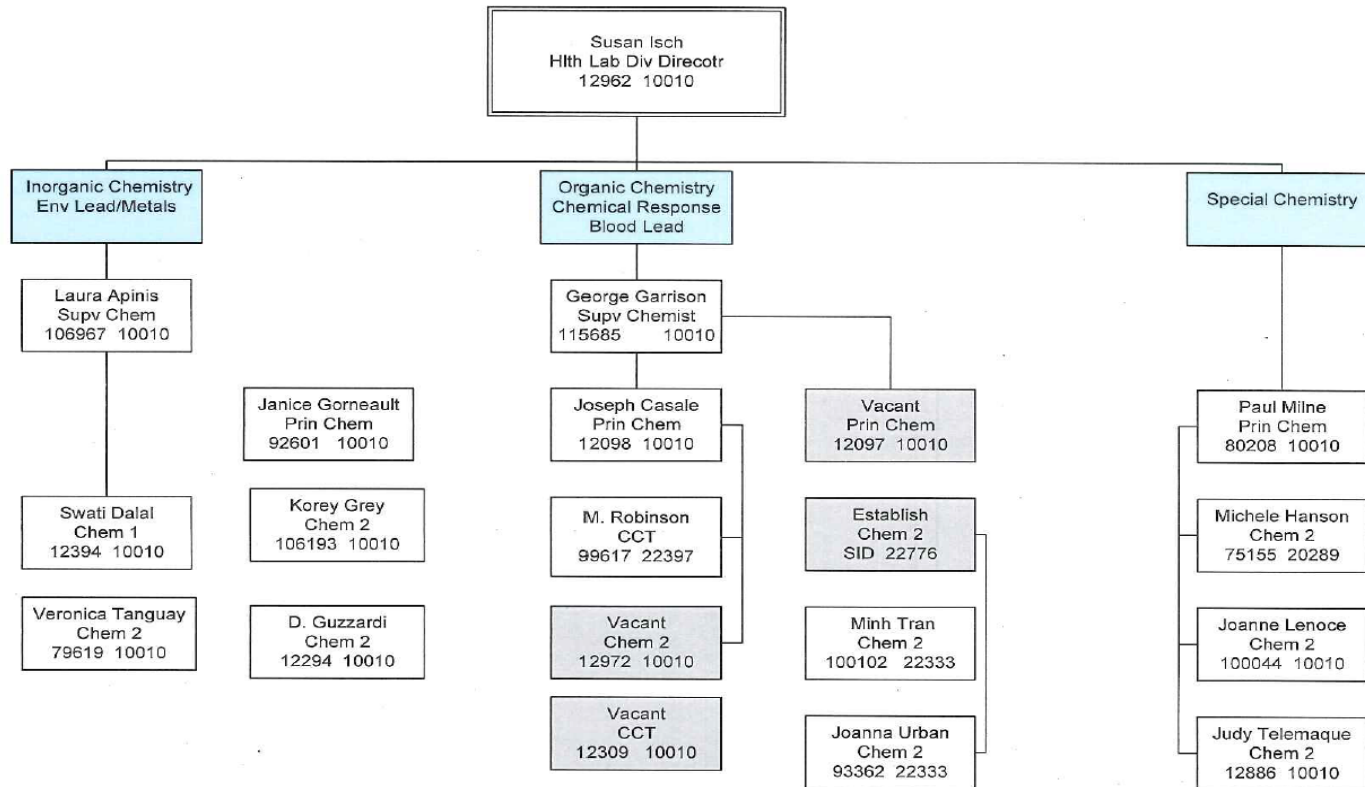
- Jafar H Razeq, Ph.D., HCLD (ABB), Laboratory Director
- Susan Isch, Division Director Environmental Chemistry
- Laura Apinis, Supervising Chemist, Inorganic Chemistry
- George Garrison, Supervising Chemist, Organic Chemistry
- Kim Holmes-Talbot, Supervising Micro, Env. Microbiology

Contact Information



Organizational Chart Environmental Chemistry

DR. KATHERINE A. KELLEY STATE PUBLIC HEALTH LABORATORY ENVIRONMENTAL CHEMISTRY



Certifications

- EPA-Safe Drinking Water Certification
- AIHA-Environmental Lead
- CLIA-Blood Lead and Chemical Preparedness
- Also FERN-FSIS and NRC unannounced visits/inspections

Customers-who do we serve?

- Citizens of CT to address any public health concerns.
- DPH-support a variety of PH programs
- LHD
- DEEP and other State Agencies

DPH Laboratory Web Page

ct.gov/dph - to order supplies

Collection supplies may be requested by calling Scientific Support Services at **860-920-6674** or by submitting an email request to dph.outfitroom@ct.gov

Most Popular

[Order a copy of a Birth, Marriage, or Death Vital Record](#)

[Practitioner Licensing](#)

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[Career Opportunities](#)

[Find Your Local Health Department](#)

[State Public Health Laboratory](#)

Laboratory Resources:

[Collection Supplies and Test Requisition Forms](#)

[Directory of Clinical Testing Services](#)

[Laboratory Contacts](#)

[Directions](#)

Supply Pick-Up - Pre-order vials or pick up necessary bottles as needed



Sample Collection-when in
doubt never hesitate to call

New England States'
Sample Collection
& Preservation Guidance Manual
For Drinking Water

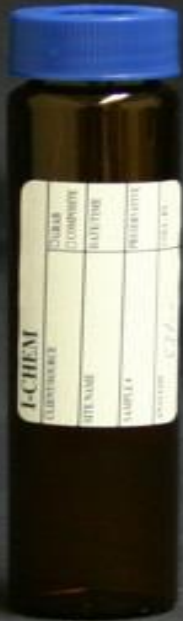
Revision 5.0
January 2015

Sample Collection-EC Client Services Manual (available soon)

INORGANIC ANIONS	
Test Description	Determination of inorganic ions in water.
Test Use	Useful for evaluating potable and non-potable waters.
Test Department	Inorganic Chemistry: Phone 860-920-6666/6667 Fax 860-920-6670
Methodology	EPA Method 300.0: Ion Chromatography
Availability	Year-round
Sample Requirements	One (1) sample collected in a pre-cleaned 250-mL plastic bottle.
Container type /Preservative	250-mL plastic bottle. No preservative required for individual anions.
Collection Instructions (Note 1)	For taps, remove aerators and let water run 4-5 minutes. For outdoor locations, sampling location should be in accordance with a preapproved quality assurance project plan. Fill bottle to shoulder.
Sample Holding Time & Transport	Samples are iced or refrigerated and kept at 4 ^o ±2 ^o C from time of collection until analysis. Samples must be analyzed within 48 hours of collection for Nitrate-N, Nitrite-N, and O-Phosphate-P. All other anions must be analyzed within 28 days of collection.
Unacceptable Conditions	Incomplete requisition form. Insufficient sample volume. Samples received beyond the 48-hour/28-day holding time (see above).
Requisition Form	Use the Inorganic Chemistry form (Drinking Water, Stream Survey, or Non-Potable Water) as appropriate to the type of water collected.
Required Information	Fill out entire requisition form.
Limitations	To ensure processing within the holding time, drinking water samples with a holding time ≤ 48 hours must be submitted by Noon Friday and the day before a Holiday.
Additional Comments	The CT PHL can use this method to determine the following anions: Fluoride Chloride Nitrate-Nitrogen Nitrite-Nitrogen Ortho-Phosphate as P Sulfate

Note 1: See *New England States Environmental Sampling Guide*, latest edition.
<https://www.epa.gov/sites/production/files/2015-06/documents/NE-States-Sample-Collection-Manual.pdf>

Which Bottle? Off the shelf or special?



Sampling Instructions and Preservation

EPA Method 524.3 – Uses three 40 ml amber vials with PTFE liners
Three Laboratory supplied 40 mL vials should be submitted for each independent sample for analysis by EPA Method 524.3.
Two field blanks should be included for each sampling site.
Vials contain 25 mg ascorbic acid



Sampling Instructions and Preservation

NEW ENGLAND STATES' DRINKING WATER SAMPLE COLLECTION AND PRESERVATION GUIDANCE MANUAL

TEST	CONTAINER TYPE	PRESERVATIVE IN BOTTLE	HOLD TIME
Volatile Organic Compounds (VOC)	 2 - 40 mL glass vials with Teflon septa. Need 3 vials to do MS/MSD.	0.25 mL 1:1 HCl If chlorinated first add 25 mg ascorbic acid to the vials, then add HCl to the sample.	14 days
Ethylene dibromide (by EPA 504.1) and Pesticides (by EPA 505)	 2- 40 mL glass vials with Teflon septa. Need 3 vials to do MS/MSD.	3 mg sodium thiosulfate	14 days (Heptachlor – 7 days)
Haloacetic acids (HAA5)	 2-60 mL amber glass vials with Teflon septa. Need 3 vials to do MS/MSD.	6 mg ammonium chloride	Method 552.1: 28 days Method 552.2: 14days
Total Trihalomethanes (TTHM)	 2 - 40 mL glass vials with Teflon septa. Need 3 vials to do MS/MSD.	3 mg sodium thiosulfate	14 days
Semi-Volatile Organics (including pesticides), and Dioxin	 2-1Liter amber glass bottles Need 3 vials to do MS/MSD.	2mLs HCl, pH2 If chlorinated first add 40mg sodium sulfite to bottle, then HCl to the sample.	14 days

Horizon Profiles....



Inorganic Chemistry Drinking Water Form

Katherine A. Kelley State Public Health Laboratory, 395 West Street, Rocky Hill, CT 06067
 Phone Number: (860) 920-6585

Select Water Source

- Public Water Supply
- Private Well

Submitter's Information: Name: Horizon Profile #:

Address:

(Street) (City) (State) (Zip Code)

Sample Information: Date: Site Name:

Site Address:

(Street) (City) (State) (Zip Code)

Collector's Information: Name: Title:

Collector's Phone Number:

Additional Information / PWSID:

Bottle Type

Lab ID	Column No.	Collector Number	Time Collected	Sample Description	SDWIS	Chem	Metals	Cyanide
	1	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="text"/>	<input type="text"/>	<input type="text"/>
	2	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="text"/>	<input type="text"/>	<input type="text"/>
	3	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="text"/>	<input type="text"/>	<input type="text"/>

Selecting the tests needed

Please check appropriate box(s) below for each requested sample test (1-3).

Group Tests		Acode	1	2	3	Individual Analytes		Acode	1	2	3
Physical Exam Group (1-5)		PHYSEXAM	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	19	Chromium	200.8-CR-P	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Complete Exam Group (1-14)		COMPEXAM	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	20	Lead	200.8-PB-P	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Drinking Water Metals Group (12-29)		METDW-P	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	21	Arsenic	200.8-AS-P	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Reservoir Metals Group (13-25)		RESMETL-P	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	22	Barium	200.8-BA-P	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Heavy Metals Group (15-20)		HEVYMET-P	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	23	Mercury	245-HG-W	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
RCRA Metals Group (18-25)		RCRAMET-P	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	24	Selenium	200.8-SE-P	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Individual Analytes		Acode	1	2	3	25	Silver	200.8-AG-P	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	Apparent Color	COLOR-APP	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	26	Thallium	200.8-TL-P	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	True Color	COLOR-TRUE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	27	Antimony	200.8-SB-P	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	Odor	ODOR	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	28	Beryllium	200.8-BE-P	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	Turbidity	TURB-W	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	29	Aluminum	200.8-AL-P	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	pH	PH-W	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30	Calcium	200.7-CA-P	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	Ammonia	N-NH3-P	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	31	Magnesium	200.7-MG-P	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	Nitrate	300-NO3-W	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	32	Potassium	200.7-K-P	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8	Nitrite	300-NO2-W	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	33	Tin	200.8-SN-P	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9	Alkalinity	ALKALINITY	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	34	Fluoride	300-FL-W	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10	Hardness	200.7-HARDG	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	35	Ortho-phosphate	300-OP-W	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11	Chloride	300-CL-W	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	36	Total phosphorus	PHOS-W	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12	Sodium	200.7-NA-P	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	37	Suspended Solids	SOLIDSUSP	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13	Iron	200.7-FE-P	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	38	Total Dissolved Solids	SOLIDDISS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14	Manganese	200.7-MN-P	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	39	Conductivity	120.1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15	Zinc	200.7-ZN-P	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	40	Sulfates	300-SO4-W	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16	Nickel	200.8-NI-P	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	41	Total Chlorine	CL2-T	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17	Copper	200.8-CU-P	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	42	Cyanide	CN_LACH_W	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18	Cadmium	200.8-CD-P	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	43	Uranium	200.8-U-P	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CHAIN OF CUSTODY IS NOT REQUIRED FOR ROUTINE SAMPLING EVENTS. PLEASE CONTACT LABORATORY TO DETERMINE IF NECESSARY.
PLEASE PRINT AND SIGN YOUR NAME IN THE APPROPRIATE CELL.

Collected by Name	Date/Time	Received by Name	Relinquished by Name	Date/Time	Received by Name
P: _____	_____	P: _____	P: _____	_____	P: _____
S: _____	_____	S: _____	S: _____	_____	S: _____
Relinquished by Name	Date/Time	Received by Name	Relinquished by Name	Date/Time	Received by Name
P: _____	_____	P: _____	P: _____	_____	P: _____
S: _____	_____	S: _____	S: _____	_____	S: _____

The importance of good penmanship 😊

PLEASE GROUP EACH SAMPLE TYPE ON A SEPARATE FORM

LABORATORY USE ONLY	Wipe Area	Sample ID	Location of Sample
1. 756659001	12x12	01	bed b - floor
2. 756659002	12x3	02	bed - sill
3. 756659003	12x12	03	kitchen - floor
4. 756659004	12x3	04	kitchen - sill
5. 756659005	12x12	05	bed A - floor
6. 756659006	12x3	06	bed A - sill
7. 756659007	12x12	07	bath - floor
8. 756659008	12x3	08	bath - sill
9. 756659009	12x3	09	living rm - sill
10. 756659010	12x3	10	living rm - sill
11. 756659011	12x12	11	3rd floor - floor
12. 756659012	12x3	12	3rd floor - sill
13. 756659013	12x12	13	4th floor - floor
14. 756659014	12x3	14	4th floor - sill
15. 756659015	12x12	15	hallway in unit - floor
16. 756659016		16	back in unit - floor
17. 756659017		17	

door according to table
3/16/12

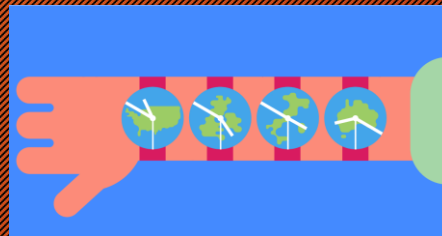
Delivering the samples to the lab

Temperature requirements?



Holding Time

How long is the sample viable for?



Lab Hours

Can it be dropped off after hours?



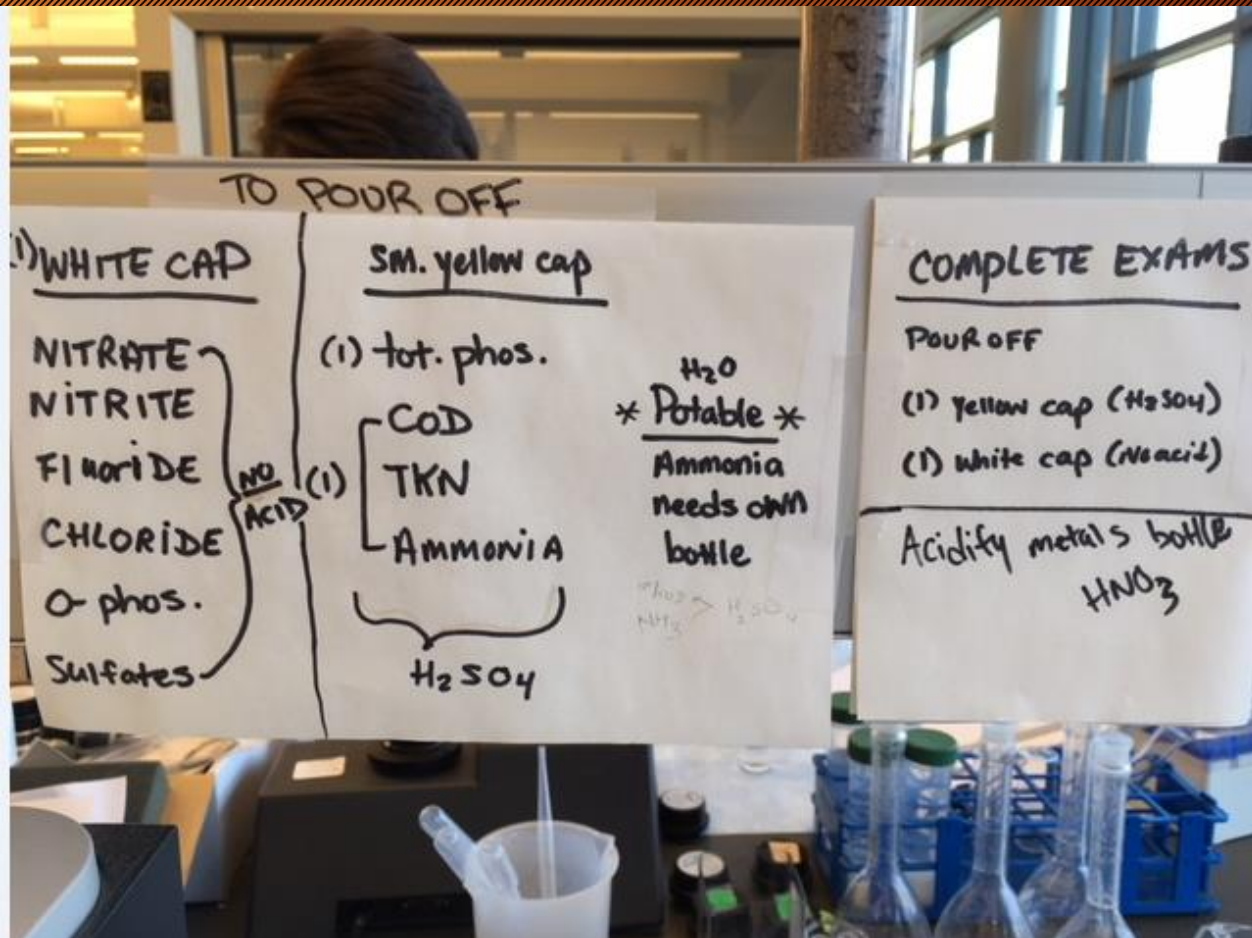
Sample Delivery - Receiving Room Open 7:30-4:00 Monday - Friday

AFTER HOURS
SPECIMEN DELIVERY
REFRIGERATED
TEMPERATURE
STORAGE ONLY

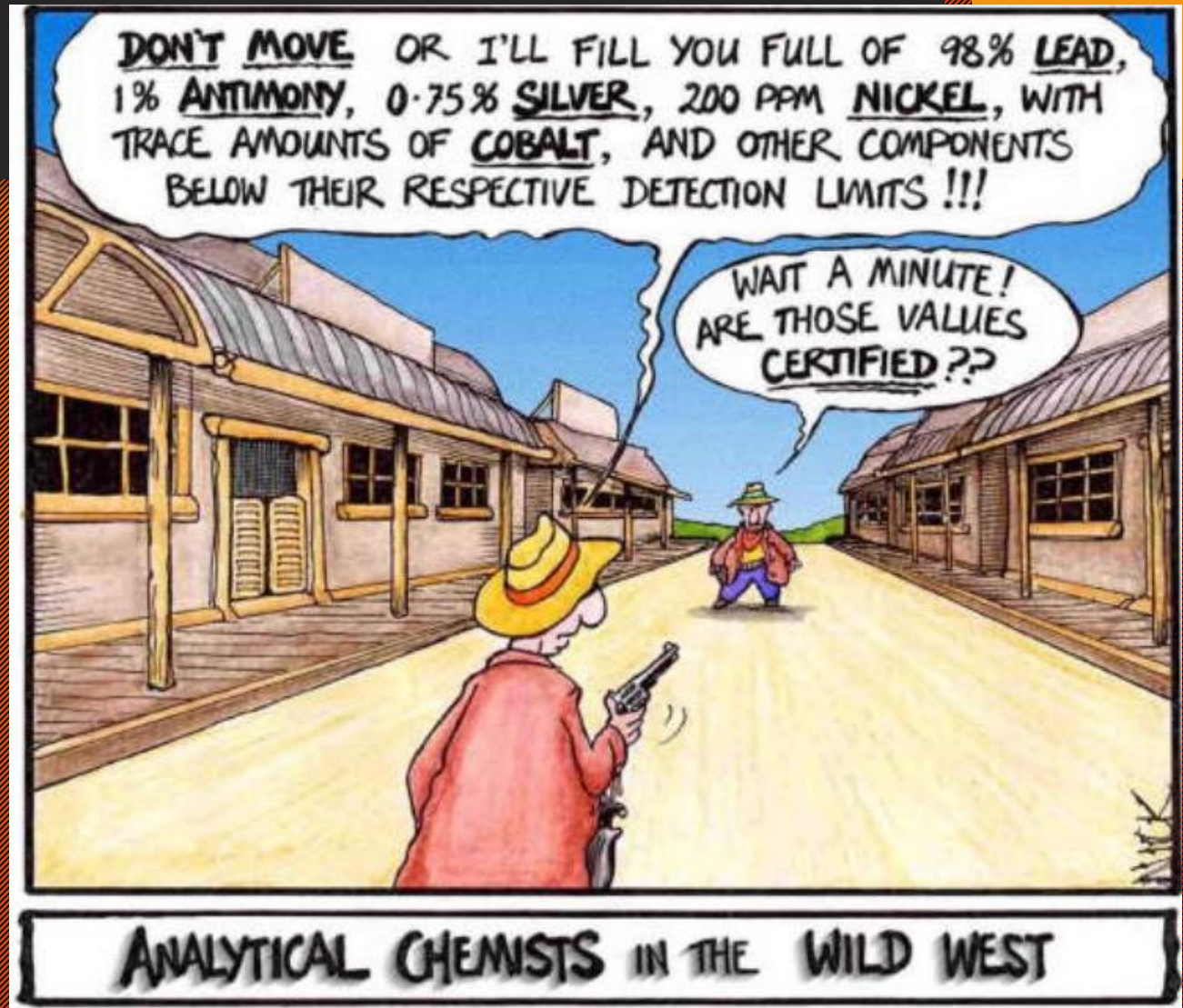
NOTE: SPECIMENS REQUIRING ROOM TEMPERATURE
STORAGE CONDITIONS MUST BE PLACED IN THE PLASTIC BIN
(LOCATED ON THE WIRE SHELF ACROSS FROM THE SAMPLE
SUBMISSION ROOM # 1516)



Lab Processing of the Samples- Fill the bottles and label clearly



And.....



And.....



Questions

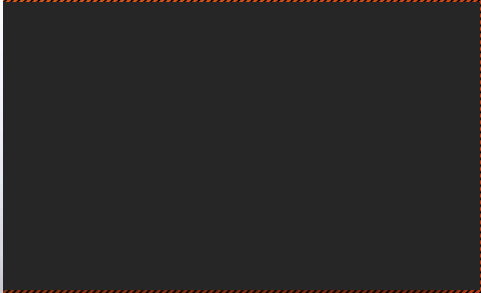


Virtual Tour



Building the new Lab - 2011





Delivering samples to the lab or just a visit



Delivering Samples-parking



Delivering Samples



Delivering Samples



Loading Dock



Receiving Room



3RD FLOOR

BioResponse Suite

Infectious Disease

Molecular Diagnostics

Mycobacteriology

Serology

Virology

2ND FLOOR

Administration

Biochemistry

Chemical Preparedness

Environmental Microbiology

Newborn Screening & Tracking

Organic Chemistry

Extractions & Instrumentation

Sexually Transmitted Diseases

Molecular Diagnostics

GROUND FLOOR

Emergency Response Suite

Inorganic Chemistry

Organic Chemistry/Volatiles

Rabies

Radiochemistry & Asbestos

Sample Receiving

Support Services

Training Facilities

LOWER LEVEL

Central Stores

Record & Sample Storage

2ND



Environmental Microbiology

Sexually Transmitted Diseases

Molecular Diagnostics

Organic Chemistry

Extractions & Instrumentation

Conference Room 2230



Newborn Screening Tracking

Biochemistry

Chemical Preparedness



Newborn Screening



Administration



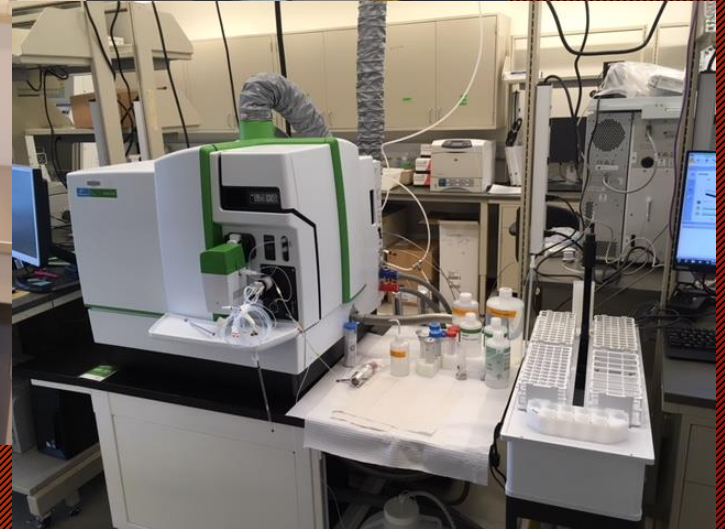
Newborn Screening Tracking

Biochemistry

Chemical Preparedness



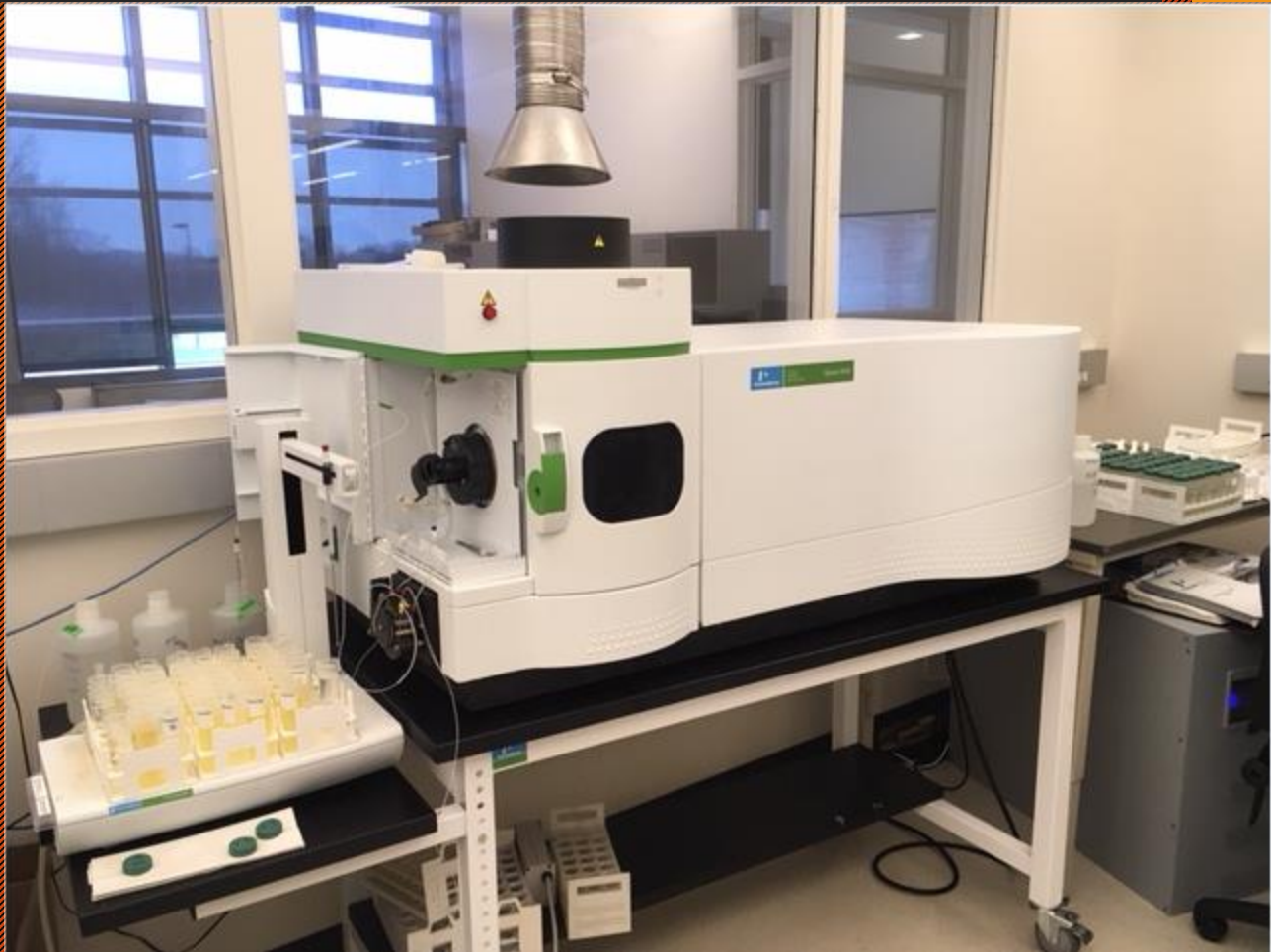
BT/CT Emergency Response



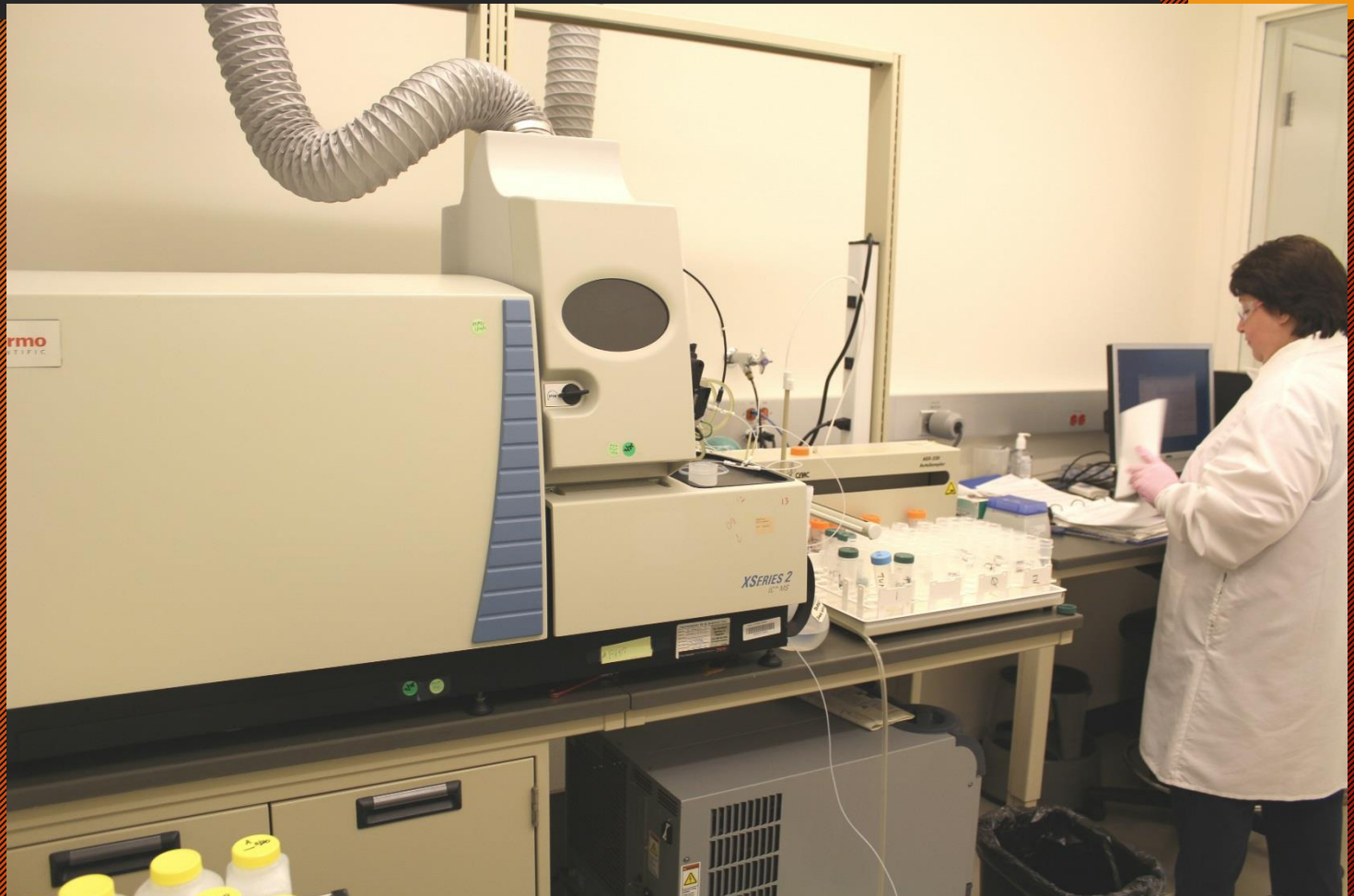
Lead



ICP replaced the old AA



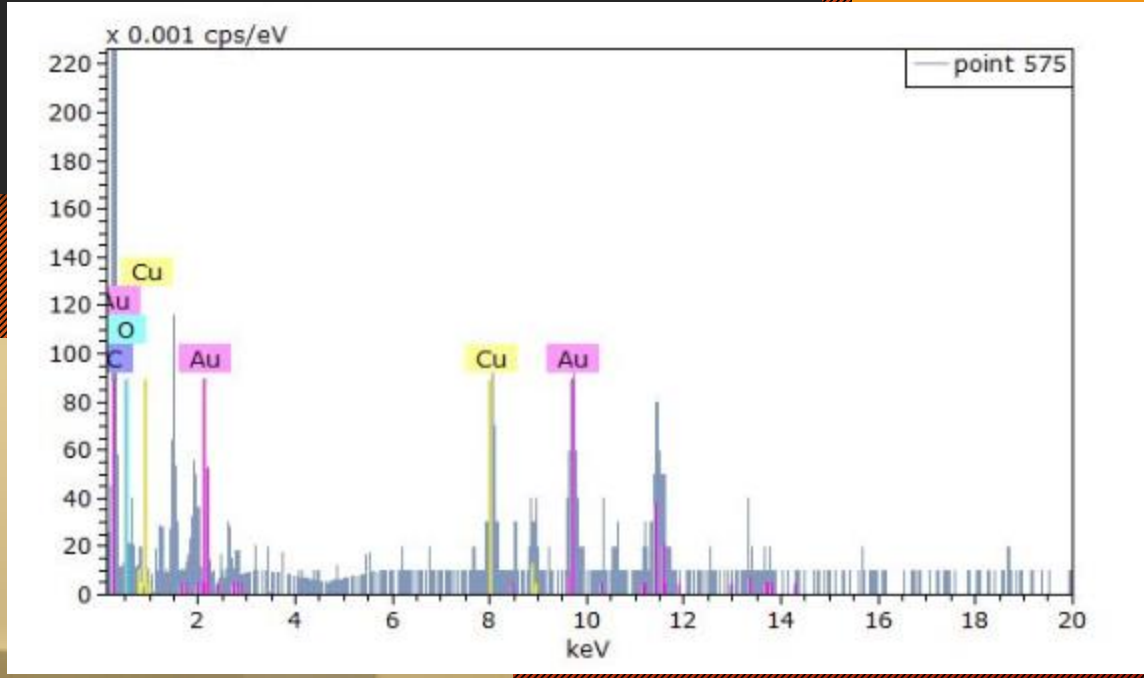
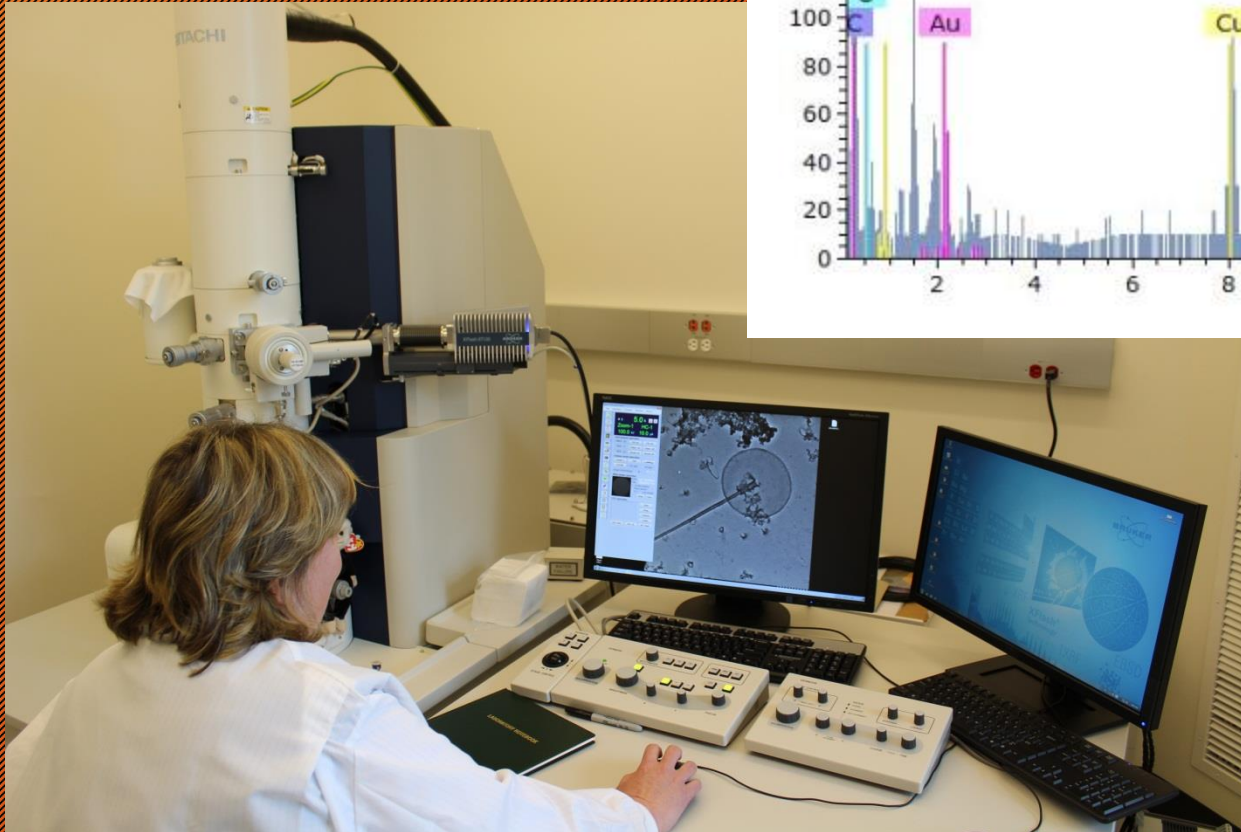
ICP-MS, low level metals in DW



Organic Chemistry



TEM



Personnel Corridor



Separation of lab space and office space...



Dora the Explorer...

