



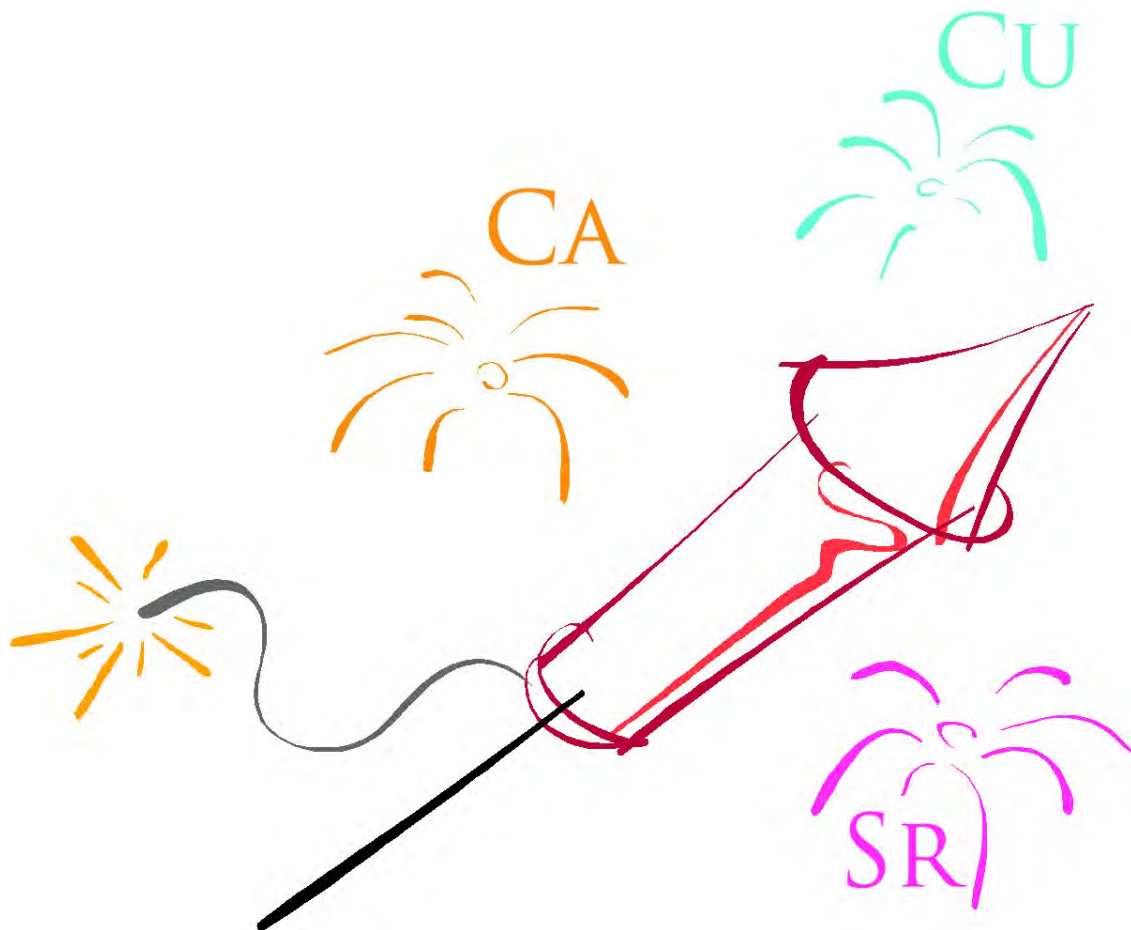
Crime Scene



Summer 2011

Volume 37, Issue 3

THE ESSENTIAL ELEMENTS OF A NORTHWEST SUMMER



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NWAFS OFFICERS for 2010 - 2011**Executive Committee**

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MNoedel@att.net

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Dan.Alessio@state.or.us

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Jeff Jagmin
Washington State Patrol
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PRESIDENT'S MESSAGE

By the time this message has been published, I will have completed and sent my application to take the IAI Crime Scene Reconstruction certification exam at the Fall NWAFS conference in Tacoma. The application materials do take some time to assemble and you'll need to include a couple of letters of reference with a detailed history of your training and experience. My advice to those who choose to participate in the opportunity to take a certification test is to get your paperwork in order now-both the IAI and ABC have a screening process that requires advance preparation!

With that I am glad to announce that the program for the fall conference at the Hotel Murano (www.hotelmuranotacoma.com) has been finalized and you can find the slate of workshops and schedule in this issue of "The Scene". We have an ambitious schedule planned so your participation is essential in having a successful meeting. We are introducing some unique opportunities at this conference like the variety of "research" workshops where the participants will actually produce a publishable product during the course of the workshop. What a great opportunity to conduct forensic research, enhance your resume and increase your expertise. Remember, the courts and jurors we provide information to expect an expert witness to be involved in the scientific community. Don't be left behind.

Content for our Journal - Crime Scene

As always, we need your content to keep our publication interesting, valuable and contemporary. Editor Jeff Jagmin has organized a committee of assistant editors to further develop the newsletter into a professional asset for our membership. They cannot do it alone so let me suggest this to you:

- You already take pictures of all of your cases
- You know that thing you just worked on would be interesting
- WRITE IT UP! While the pictures and case details are fresh in your mind and already on your desktop take a few minutes to organize into a quick 1 or 2 page case review and email it to the Editor. The Editor and his assistants will take care of the formatting and organization-what is important is to get the data submitted

Think-if just 5 people each quarter sent in an interesting review of something they saw or did during their routine exams, we would have ample content to keep the publication alive and viable for years to come. Three paragraphs of text and three photographs of –a rare brand of shoe, a home made firearm, an odd chemistry mixture, an old/cold DNA case, the unusual thing at a crime scene, a unique transfer-is all you'd need to assemble and email to the Editor (editor@nwafs.org) to have another line item on your CV!

Lastly I want to invite every member and your associated professionals to attend the Fall conference in Tacoma, WA. I challenge each of you to reach out to your local law enforcement detectives, crime scene personnel, medical examiners and attorneys to spread the word of our meeting. Beyond that, we need people to present their interesting research or case reviews during the conference. Out scientific presentations will be on Thursday and Friday, September 29th and 30th so be sure to submit your abstract early to get a good spot on the program.

Hope you all have a safe and productive summer.

Matthew Noedel, NWAFS President
mnoedel@att.net 253-227-5880



July 2011

N W A F S N E W S L E T T E R

Editor's Message

Well, I am writing this message on the first day of summer and am thinking about the last 3 months that have gone by. In my many communications with NWAFS members this quarter, be it the board, publication committee and others, I have encountered one general comment in almost every communication...everyone is very busy! I certainly can agree as once this newsletter is sent off to the membership, I will only have about 1 month left of taking care of my daughter before heading back to work, and I have a hard time thinking of what I did since February when this all began.

One thing that I am very grateful for is the newly formed Publications Committee assisting me...without them and their eagerness, this newsletter would be very minimal. You will meet them in this newsletter. Feel free to contact them with your suggestions, comments, and feedback.

This newsletter also brings sadness and happiness. The sadness is that a very good article, **Asked & Answered**, is taking this quarter off as Jeff Teitelbaum has also been feeling the pressure of commitments piling up on him. The happiness is that there are more adventurous members who are putting themselves out there and are giving the membership a look at what they are seeing in their labs. Take a look at the new features within "Crime Scene."

Thanks for reading and I look forward to seeing you all in Tacoma!

*Enjoy your summer,
Jeff Jagmin*

About the Newsletter...

Crime Scene is the official publication of the Northwest Association of Forensic Scientists. It is published 4 times a year in the months of January, April, July, and October. The Newsletter welcomes submissions from its membership such as technical tips, case studies, literature compilations, workshop or training notifications, reference citations, commentary, historical accounts, and other topics of interest to the membership. The views expressed in articles contained in this publication do not necessarily represent the views of the Northwest Association of Forensic Scientists. The Association neither guarantees, warrants, nor endorses these views or techniques but offers these articles as information to the membership.

Please submit material for publication in Microsoft Word for Windows format as an e-mail attachment or on compact disk (CD). All technical material will be subject to peer review by NWAFS members. Requests for permission of any material contained in this newsletter may be addressed to the editor. Requests, or questions, of technical submissions will be directed to the originating author. For more information regarding the Newsletter contact:

Jeff Jagmin (editor)
Washington State Patrol Crime Laboratory
Jeff.Jagmin@wsp.wa.gov or editor@nwafs.org

MEET THE PUBLICATIONS COMMITTEE!!

In the last issue of "Crime Scene," I put out a call for participants for the Publications Committee. Wow, what a response I got and I want to introduce you to these great contributors and where they reside:

Megan Ashton
Montana Forensic Science Division
Missoula, Montana

Amy Jagmin
Washington State Patrol Crime Laboratory
Seattle, Washington

Jennifer Malone
Wyoming State Crime Laboratory
Cheyenne, Wyoming

Susan Russell
Canyon County Sheriff's Office
Caldwell, Idaho

Steven Stone
Washington State Patrol Crime Laboratory
Seattle, Washington

In the next pages, you'll be learning even more about the members of the newly formed Publications Committee.

Just a note about the process that each went through. Each was interviewed by me. Following the interview, I made recommendations to the Board. The recommended members were then notified of their acceptance on the Committee. I have to say that each astounded me with their individual abilities (visionary, wordsmiths, grammatical prowess, eagerness, and above all, willingness to serve this fine organization). Each of these fine members has also contributed to this issue.

Jeff Jagmin

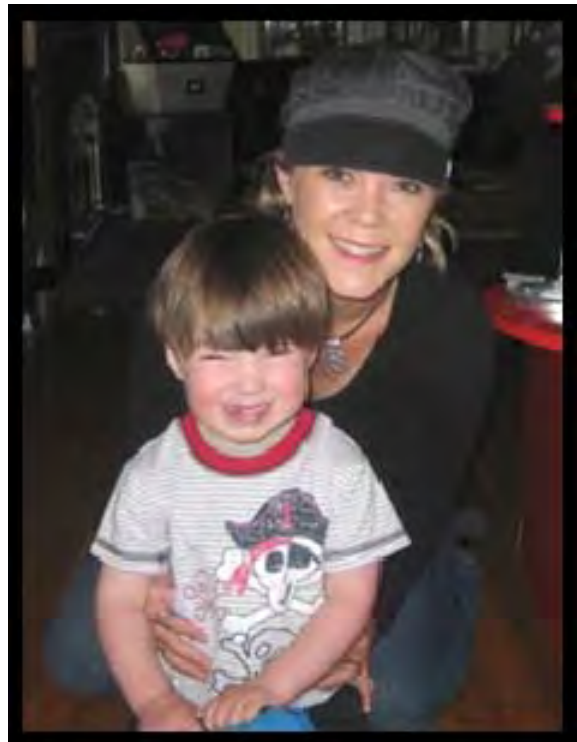
MEGAN ASHTON

I am the MT State CODIS Administrator and a Forensic Scientist in the Biology unit at the Montana Forensic Science Division in Missoula, MT. I have been with the lab in some capacity since 2000. I started as a work study/intern in the Biology unit until I completed both my M.A. in Physical Anthropology (I earned a B.A. in Anthropology in 1996) and my B.S. in Chemistry in 2003 – all from the Univ. of Montana. I began my forensic career at the lab in 2003 as a Forensic Technician doing serology, became a Forensic Scientist in DNA Analysis in 2004, and in 2005, I became the MT State CODIS Administrator, which is the position I have held since. Being the State CODIS Administrator has allowed me to participate in the legislative process, travel around the country and most important of all, be a part of solving unsolved crimes!

I have been married for 12 years and we have a very active and funny 2½ year old son (pictured here with me on his first day of preschool....CHEESE!). I feel very lucky to have been able to make Missoula my home - it is a wonderful city with many activities both in the summer and winter, not to mention the plethora of delightful local breweries. I enjoy biking, soccer, skiing, hiking, softball, and I hope to complete my first triathlon this summer!

I am excited to be on the publications committee and dust off those English class cobwebs.....

mashton@mt.gov



AMY JAGMIN

I graduated from Seattle Pacific University with a Bachelor of Arts in Biology. While pursuing my undergraduate degree, I worked at the Seattle Biomedical Research Institute working in labs that were classifying the DNA elements of *plasmodium falciparum* (the parasite that causes malaria) and maintaining blood stem cells in an undifferentiated state. Following graduation, I worked at Genelex Corporation, DNA typing convicted offender samples and working on no-suspect criminal cases through databasing contracts. In September of 2001, I was hired as a forensic scientist with the Washington State Patrol Seattle Crime Laboratory assigned to the DNA section. I currently hold a position as a Technical Lead/Forensic Scientist 4 in the DNA section. As a Forensic Scientist 4, I not only work on casework, but have responsibilities in training new scientists, validations of new technology and methods, just about all things QA/QC including compliance with accreditation and audit criteria, and investigation of casework errors. Within my career with the

WSP, I have also been a member of the Crime Scene Response Team, responding to scenes at the request of our state agencies as a primary responder.

I enjoy my profession and have affiliated myself with great professional organizations: ACSR (Association for Crime Scene Reconstruction), IABPA (International Association of Bloodstain Pattern Analysts), AAFS (American Academy of Forensic Sciences), and of course, NWAFFS.

I am married to Jeff Jagmin, and we have an amazing and joyful daughter - Samantha Paige. I grew up here on the western side of Washington State, so I have learned the value of appreciating and taking advantage of a beautiful day and the local spoils (particularly the seafood thanks to Jeff's fishing exploits!). My main joy in life is to be with my family whether it's one of our great adventures or making dinner on a Tuesday night.

I look forward to serving on the Publications Committee of the NWAFFS!

amy.jagmin@wsp.wa.gov



JENNIFER MALONE

Hi! My name is Jennifer Malone and I am a Senior Forensic Scientist within the Trace unit at the Wyoming State Crime Laboratory in Cheyenne, WY. I began my career in Forensic Science in January of 2009. Prior to that I focused on cancer research in the Department of Pathology and Medical Oncology at the University of Colorado Denver as a junior faculty member. As the economy turned south, so did the funding for my position, leading to my exciting new career! I am currently trained (or finishing up my training) in headlamp, trace evidence collection and processing, GSR, hairs and fibers. I look forward to being able to expand my disciplines to include paint, glass, physical match and soil. I received my Ph.D. in Cell & Molecular Biology from Colorado State University in 2004 and my Bachelors of Science degree in Genetics & Cell Biology from Washington State University in 1999 – GO COUGS!

My husband and I have been married for 11 years and have a 9 year old son and a 6 year old daughter. We live in beautiful Colorado and enjoy hiking, biking, rafting, camping, rollerblading—pretty much anything outdoor. If you have any questions don't hesitate to ask. I look forward to serving on the publication committee and getting to know more of you!

jmalon@dc1.wyo.gov



SUSAN RUSSELL

In May 2006, I graduated from Boise State University with a BS degree in Chemistry with Biochemistry and Forensic Biochemistry emphasis and began my forensics career that October! As a criminalist for the Canyon County Sheriff's Office Forensic Services, I have become a certified crime scene investigator and been trained in several disciplines such as drug analysis, latent fingerprint processing and comparisons, bloodstain pattern analysis, and forensic photography. I still return to BSU now & then to teach General Chemistry labs as well. All that grading has prepared me to work on the new NWAFS Publications Committee.

In a previous life, I earned a BA in Music from the University of North Texas (1991) and taught flute lessons while working for the US Postal Service. After 10 years of that, I decided to get re-gruntled and return to college to pursue a different path. Music remains a part of my life, though. I play flute and piccolo for the Meridian Symphony Orchestra and Music Theatre of Idaho. This artistic outlet and lots of yoga help keep me sane in this mad world!

I am also a single mother of two, 11-year-old Spencer and 8-year-old Erika. We enjoy the great outdoors of Idaho, weather permitting, and all sorts of activities around our beloved City of Boise!



srussell@canyonco.org

STEVEN STONE

I graduated from the University of Maryland Baltimore County (the fightin' Chesapeake Bay Retrievers!) in 2006 with a B.S. in Chemistry and picked up my M.S in Chemistry at the University of Washington in 2007. After working various jobs out of graduate school, I was able to gain employment with the Washington State Patrol in the Microanalysis unit in the fall of 2008 where I have remained these past two and a half years.

To this point I have been trained in Trace Evidence Recovery, Physical Match, Damage Assessment, Paint Analysis, and Shoe/Tire Impressions. When not attached to the microscope I can be found playing soccer, or out enjoying the nightlife in Seattle. Also, I try to make any attempt I can to bake for my coworkers or the lab whether it be a cake, brownies, or once even just a bowl of frosting.

I am excited to serve on the publications committee and to meet and interact with the other members of the NWAFS!



steven.stone@wsp.wa.gov

SEPTEMBER 25-30, 2011

Hotel Murano, Tacoma WA

NORTHWEST ASSOCIATION OF ZOMBIE FORENSIC SCIENTISTS

THE NWAFS ANNUAL FALL CONFERENCE IS ON THE BOOKS!

PLEASE READ THROUGH THE FOLLOWING PAGES TO GET THE LATEST AVAILABLE INFORMATION ON PARTICIPATION IN THE CONFERENCE AND I HOPE TO SEE YOU ALL HERE.

SPECIAL EVENTS INCLUDE:

- CERTIFICATION TESTS
- ZOMBIE THEMED BANQUET AT THE MUSEUM OF GLASS
- WORKSHOPS INCLUDING UNIQUE RESEARCH TOPICS
- VENDORS, GIVEAWAYS AND LOTS MORE



Hosted By:
Noedel Scientific



NWAFS Fall Seminar
 September 25-30, 2011
 Hotel Murano, Tacoma WA
www.hotelmuranotacoma.com



REGISTRATION FORM

Name _____ NWAFS Member: Yes No
 Agency _____
 Address _____

 Phone _____ Email _____

<u>Full Meeting Registration</u>	MEMBER	NON-MEMBER	TOTAL
Includes conference binder, admission to the general scientific sessions and breaks, Wednesday Vendor Reception, lunch T-Th, Thursday banquet at the Glass Museum.	\$275	\$375	

<u>Workshop Registration</u>		With Meeting Registration	Without Meeting Registration	TOTAL
<i>Workshop fees are offered at a reduced cost if the participant (Member or Non-member) registers for the full meeting. Price includes lunch and breaks.</i>				
IAI Certification Exam	Sunday, 9/25, 12:00 - 4:00	Free	\$75	
Life Technologies DNA Automation	Monday, 9/26, 8:00 - 5:00	\$35	\$125	
Foster & Freeman	Monday, 9/26, 8:00 - 5:00	\$35	\$85	
Special Topics—See following pages for detail	Monday, 9/26, 8:00 - 5:00	\$25	\$75	
ABC Certification Exam	<input type="checkbox"/> Session 1: Monday, 9/26, 8:00 - 11:00 <input type="checkbox"/> Session 2: Monday, 9/26, 1:00 - 4:00	Free	\$75	
Ammunition Reloading	Tuesday, 9/27, 8:00 - 5:00	\$50	\$145	
OMNI Car Crime Scene Exam*	<input type="checkbox"/> Session 1: Tuesday, 9/27, 8:00 - 12:00 <input type="checkbox"/> Session 2: Tuesday, 9/27, 1:00 - 4:00	\$40	\$85	
Qiagen and DNA Analysis	Tuesday, 9/27, 8:00 - 5:00	\$35	\$125	
Digital Photography* with Photoshop®	<input type="checkbox"/> Session 1: Tuesday, 9/27, 8:00 - 12:00 <input type="checkbox"/> Session 2: Tuesday, 9/27, 1:00 - 5:00	\$40	\$75	
Reproducing Bloodstain Patterns	Wednesday, 9/28, 8:00 - 5:00	\$50	\$125	
Tour Rainier Ballistics	Wednesday, 9/28, 1:00 - 3:00	\$30	\$100	
Examination of Clothing for Trace	Tue & Wed 9/27-28, 8:00 - 5:00	\$50	\$125	
Roundtable: Contemporary Issues with Synthetic/THC Products	Wednesday, 9/28, 8:00 - 5:00	\$50	\$125	
Digital Presentations* with PowerPoint™	<input type="checkbox"/> Session 1: Wednesday, 9/28, 8:00 - 12:00 <input type="checkbox"/> Session 2: Wednesday, 9/28, 1:00 - 5:00	\$40	\$75	
<input type="checkbox"/> Total Meeting and Workshop Registration – Paid Online <input type="checkbox"/> Total Meeting and Workshop Registration – Check Enclosed				



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Workshop Descriptions

Workshop #1: The Forensic Considerations of Ammunition Reloading

Instructor: James Krylo, Las Vegas Metro Police Crime Lab

This one-day course will include a brief lecture about reloading and dedicate the rest of the day to reloading and shooting reloaded cartridges. Students will each receive a single hand press reloading tool with one die to keep after the workshop. Cartridges reloaded during the course will be test fired for accuracy, chronographed for velocity and the data collected and compared to factory loaded cartridges. Participants in this course will take the free train to the indoor shooting range for the live test firing portion of the course.

Workshop #2: Qiagen and DNA Analysis

Instructor: TBD

Workshop #3: Reproducing Bloodstain Patterns

Instructor: Karen Green, Green Forensics

Using past CTS Proficiency and other known samples as a starting point, students in this one-day workshop will examine bloodstain patterns, assess how they thought they were made and attempt to reproduce the patterns in a controlled setting. Ultimately, students will make unknowns for their fellow students to evaluate and reproduce. Finally, lecture and group discussion will be developed to discuss the scientific method and validity of BPA in forensic examination and testimony.

Workshop #4: Tour Rainier Ballistics

Instructor: TBD

This part-day opportunity will provide an on-site tour of the bullet manufacturer "Rainier Ballistics". The entire process will be demonstrated from receiving billets of raw materials all the way through the completion of forming and marketing the various brands/designs of bullets they produce. This workshop is a must for anyone who needs to understand bullet performance and production. Travel to/from the facility will be arranged.

Workshop #5: The OMNI Car Crime Scene Processing Overview

Instructors: Amy Jagmin, WSP Crime Lab; Matthew Noedel, Noedel Scientific

This half-day, practical-based workshop gives the student the opportunity to process a vehicle in stages where each stage covers a different aspect of scene examination. Useful for anyone who examines crime scenes, an actual car (located on the property of the hotel garage) will be planted with a variety of different types of forensic evidence. Students will work through documentation, sequence of exam and recovery issues for each evidence type. Lecture and practical exams will provide the student with a solid basis for vehicle processing of many different types of physical evidence.



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Workshop Descriptions continued...

Workshop #6: Examination of Clothing for Trace Evidence

Instructor: Chesterene Cwiklik

This is a two-day lab and lecture workshop on scientific clothing examination, emphasizing preliminary examinations of deposits and damage, getting to the "story" that the clothing can tell, and having a basis for sampling decisions. There will be an emphasis on documenting the examinations to ensure that the work is objective, the record is understandable, the exam is defensible in court, and the work can be understood even years after the original exam. Ms. Cwiklik is a co-author of the recently published book "Scientific Protocols for Forensic Examination of Clothing" and has taught Forensic Clothing Examination at the California Criminalistics Institute for the Ca DOJ and at the Washington State Patrol Crime Laboratory.

Workshop #7: Roundtable-Synthetic THC: Recognition, Examination and Analysis— with—Roundtable-Contemporary Issues: Synthetic THC and Medical Marihuana

Instructor: TBD

This one-day workshop will provide a review and background data about the legal and illegal use of the recently popular "Spice" and other synthetic marihuana derivatives. Its origins, sources, analysis and legality will be discussed and the current literature will be examined to better define these products. Other contemporary issues such as medical marihuana and complex analysis will be discussed in a round table format.

Workshop #8: Techniques for Successful Presentations with PowerPoint™

Instructors: Matthew Noedel, Noedel Scientific; Steven Stone, WSP Crime Lab

This half-day workshop will use digital photographs (provided by the instructor or brought by the student) to demonstrate how to bring them into a presentation for court, lecture or other presentation. These photographs will be used to build a variety of presentations using PowerPoint. Hyper linking slides and materials, labeling slides, and other good presentation skills will be emphasized, and practiced (student should have access to a laptop with PowerPoint™).

Workshop #9: Using Digital Photography with PhotoShop®

Instructors: Brett Bishop, WSP Crime Lab; Jeff Jagmin, WSP Crime Lab

This half-day workshop will use digital photographs (provided by the instructor) to demonstrate basic features of how to use PhotoShop® to improve their appearance for demonstrative uses. Example photographs will then be processed and manipulated using Adobe Photoshop®. Building "to scale" images, preparing overlays, stitching multiple images and other useful techniques available in Photoshop® will be demonstrated and practiced.



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Workshop Descriptions continued...

Workshop #10: Life Technologies (Applied Biosystems) DNA Automation

Instructor: TBD

This full day workshop presented by Life Technologies (Applied Biosystems) will address their next generation of workflow solutions. Among the topics to be addressed includes "Enabling Extraction-free Processing of Reference Samples"; "a behind the scenes look at "the making of an HID kit"; "analysis settings" and relevant legislative updates.

Workshop #11: Special Applications and Alternate Light Sources-Foster & Freeman

Instructor: Owen Lang, Foster & Freeman

This workshop presented by Foster and Freeman will address a variety of the technologies currently being offered and developed by them. Uses and applications of alternate light sources will also be demonstrated and discussed.

NWAFS BANQUET Thursday September 29th, 2011 6PM-10PM



Dress as a zombie* or just act like one during our banquet held at the Tacoma Museum of Glass. Within walking distance from the hotel!

*(Zombie make-up will be available for registered participants)



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Special Research Workshop Topics

Research workshops are small, focused, one-day projects that conduct baseline research on a selected forensic question. The observations and data generated will then be presented during the general session at the end of the week and formally published (after peer review) in the NWAFS Crime Scene publication. Each member of the work group will be under the direction of the Mentor and will contribute to setting up, recording and preparing the research for presentation/publication.

The end product will list as co-authors the name of each participant.

Special Research Workshop #1: Temperature of Ejected Cartridge Cases

Mentor: TBD

The temperatures of fired cartridge cases just after ejection from a semiautomatic action will be studied and reported. Variables may include caliber and number of successive shots.

Special Research Workshop #2: Characterizing Bullet Damage in Clothing

Mentor: TBD

Techniques to differentiate the passage of a bullet from other damage such as cigarette burns, wear and other defects in fabric will be examined characterized and reported.

Special Research Workshop #3: Blood Drying Times

Mentor: TBD

This research group will evaluate various environmental factors that may influence drying time of blood deposits.

Special Research Workshop #4: Forensic Significance of Auto Paint Clear Coats

Mentor: Paul Martin, CRAIC Technologies

Sampling, characterization and analysis of clear coats will be examined and evaluated.

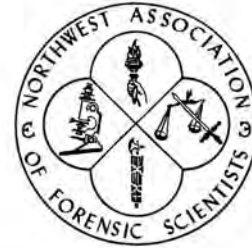
Special Research Workshop #5: Determining the Direction of Travel of Projectiles through Glass

Mentor: TBD

This research will study the appearance of damage to window glass to determine direction of travel of a projectile. Fast versus slow moving projectiles will be compared and documented.



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Request to Participate Special Research Topics

Name _____
 Agency _____
 Address _____

 Phone _____ Email _____

If you would like to be considered for selection to participate in a special research project, please complete this form and forward to Matthew Noedel via email at mnoedel@att.net.

If you have an idea for a Special Research Topic or want to Mentor a project, please prepare an outline of the research and methods and forward to Matthew Noedel via email at mnoedel@att.net.

Additional topics will be considered for approval upon submission.

<u>Special Research Workshop Topics</u>		<u>With Meeting Registration</u>	<u>Without Meeting Registration</u>	<u>TOTAL</u>
<i>Workshop fees are offered at a reduced cost if the participant (Member or Non-member) registers for the <u>full</u> meeting.</i>				
Special Research Workshop 1: Temperature of Ejected Cartridge Cases	Monday, 9/26, 8:00 - 5:00	\$25	\$75	
Special Research Workshop 2: Characterizing Bullet Damage in Clothing	Monday, 9/26, 8:00 - 5:00	\$25	\$75	
Special Research Workshop 3: Blood Drying Times	Monday, 9/26, 8:00 - 5:00	\$25	\$75	
Special Research Workshop 4: Auto Paint Clear Coats	Monday, 9/26, 8:00 - 5:00	\$25	\$75	
Special Research Workshop 5: Bullet Direction through Glass	Monday, 9/26, 8:00 - 5:00	\$25	\$75	
<input type="checkbox"/> Total Special Research Workshop Registration – Paid Online <input type="checkbox"/> Total Special Research Workshop Registration – Check Enclosed				



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CALL FOR PAPERS/PRESENTERS

The NWAFS 2011 general meeting technical session will be held on Thursday and Friday, September 29-30, 2011. The call for papers is now open. If you wish to submit a proposal for a presentation, please complete the form below. Submissions of proposed presentations must be received by August 15, 2011. Each presenter will be allotted 20 minutes; however, special arrangements can be made if additional time is requested in advance.

Presenting Author: _____

Agency/Affiliation _____

Address _____

Phone _____ Email _____

Title of Presentation: _____

Abstract:

Please return the completed form via email (preferred), fax or mail to:

Matthew Noedel
 13002 151st Street East
 Puyallup, WA 98374

mnoedel@att.net
 fax: 253-840-3889



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*Note: Session 1 and Session 2 are the same class offered two different times

NWAFS CONFERENCE PAYMENT OPTIONS

Pay by Check or Online (*No Purchase Orders Please*). Checks should be made out to "NWAFS":

NWAFS Fall 2011
c/o Matthew Noedel
13002 151st Street East
Puyallup, WA 98374

Additional Information/payment
available online SOON at:

www.nwafs.org

NWAFS Tax ID 94-2923358

COURSE DESCRIPTIONS

Full Meeting Registration: Full meeting registration entitles you to attend the scientific presentation session on Thursday and Friday, September 29th and 30th; provides a welcome registration bag with conference packet including a program, provides access to the NWAFS hospitality suite in the evening after the technical session, provides lunch on Tuesday, Wednesday and Thursday, provides admission to the Vendor Reception and door prizes on Wednesday evening; provides a ticket to the dinner banquet on Thursday night at the Museum of Glass.

*****Full meeting registration entitles you to use
the discounted rate for workshops*****

HOTEL DETAIL

The conference will be held at the Hotel Murano in downtown Tacoma, WA. You must contact the hotel directly for your room reservations **NO LATER THAN September 3, 2011**. Call their reservation line and specify the NWAFS rate of **\$109/night**. Internet is included with your room reservation!

Call: 888.862.3255

Online: www.hotelmuranotacoma.com

Fly into Sea-Tac Airport: Depending on the time of day, it will take from 25 to 50 minutes to get from the airport to the hotel. Car rental or shuttle options should be arranged!

For driving directions Google the location.

Hotel Murano
1320 Broadway Plaza
Tacoma, WA 98402

--or--

www.hotelmuranotacoma.com/hotel-murano-directions



NWAFS Fall Seminar
September 25th -30th, 2011
Hotel Murano, Tacoma WA
www.nwafs.org



CERTIFICATION ANNOUNCEMENT:

Northwest Association of Forensic Scientists to Offer Certification Tests

The fall meeting of the Northwest Association of Forensic Scientists (NWAFS) will be held the week of September 25, 2011 at the Hotel Murano in Tacoma, WA. Among the various forensic, crime scene and other related training courses offered that week, we will be providing the opportunity to take the International Association for Identification (IAI) Certification Tests for Bloodstain Pattern Examination, Crime Scene Reconstruction and possibly others as well as the American Board of Criminalistics (ABC) certification tests.

Certification is a mechanism by which you can demonstrate your qualifications and professionalism in the areas in which you work and testify. In the not to distant future, it is likely that certification will be required for every forensic discipline, crime scene or evidence evaluation conducted. Take this opportunity to become certified and recognized as being among the leading forensic practitioners in these fields.

NWAFS will simply be the venue for the exams (providing the work space and proctors). To qualify for these certifications you must apply through the certifying body and pass their requirements to be allowed to take their test(s). Additional information and fees associated with these tests can be reviewed at the following web sites:

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<http://www.theiai.org/certifications/bloodstain/requirements.php>

<http://www.criminalistics.com/about.cfm>

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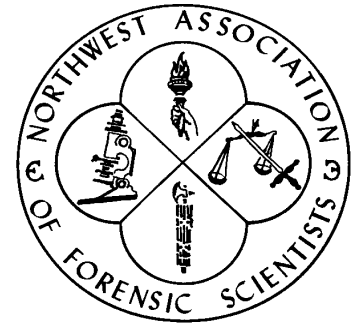
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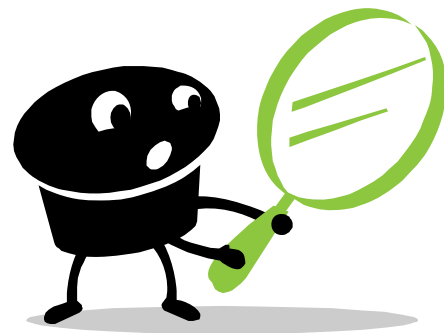
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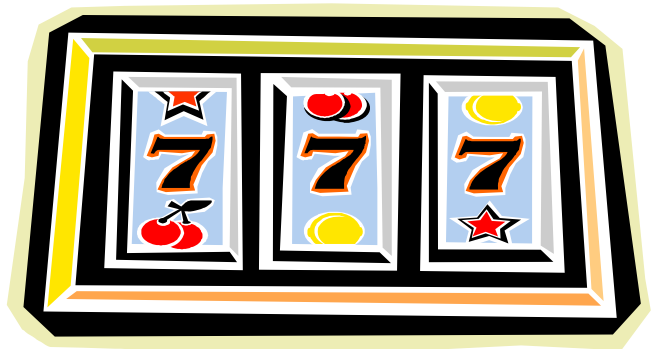
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Martin X. McDermot,¹ M.Sc. and Mark J. Strongman,¹ B.Sc.

¹ Washington State Patrol Crime Laboratory, 2203 Airport Way South, Suite 250, Seattle, WA 98134.

Case Report: Improvised Explosive Devices Utilizing a Reaction of 1-Bromo-3-chloro-5,5-dimethylhydantoin (BCDMH) with Isopropanol

Abstract

Three plastic drink bottles, suspected to be the remains of improvised explosive devices, were submitted to this laboratory for identification of any explosive materials. The items were submitted in vapor-tight metal cans. The bottles had burst open along their lengths and contained off-white crusty residue and droplets of orange liquid. The white residue consisted largely of 5,5-dimethylhydantoin and contained bromine and chlorine in an undetermined chemical form. The orange liquid droplets were strongly acidic. Headspace vapors in the evidence cans contained acetone, isopropyl alcohol, and a collection of various bromo- and chloro-substituted acetones. Examination of comparison materials indicated that this collection of chemicals and the damage to the plastic bottles could be the results of a reaction of isopropyl alcohol with 1-bromo-3-chloro-5,5-dimethylhydantoin (BCDMH), a material present in large percentages in some spa and hot tub water treatment products.

Keywords

1-bromo-3-chloro-5,5-dimethylhydantoin (BCDMH); 5,5-dimethylhydantoin; isopropyl alcohol; explosives; brominating sanitizer; bromine tablets

Case scenario

In April 2010, officers responded to a weapons complaint and encountered a group of neighborhood residents in the road outside their apartments. Several residents reported hearing a pair of explosions nearby and smelling a strong, irritating chemical odor when they went outside to investigate. Fire department personnel located three damaged plastic water bottles with residues left on the remnants. These were determined to be the likely sources of the reported explosions and were collected as evidence and sealed into vapor-tight cans.

Evidence Received

Three sealed, vapor-tight metal cans were received, each of which contained a torn plastic drink bottle. Each bottle was approximately one half liter in volume. White crusty residue adhered to the plastic of each bottle. Rusty-orange colored liquid droplets were present on the bottles and on the inside surfaces of the cans.

Analysis

Initial screening of each evidence can indicated that the headspace vapors had a neutral pH, while the orange liquid droplets were strongly acidic (pH 0 – 1). Infrared analysis of the headspace vapors suggested the presence of isopropanol in one can. At this point, the cans were re-sealed and submitted for analysis for residual volatile materials. Each can had been open for examination for no more than a few minutes.

The materials in the cans were sampled by an adsorption / elution (A/E) method as follows. Each evidence can was heated at approximately 76° C for 2 hours then cooled to room temperature, with an activated carbon strip suspended in the can. The carbon strips were extracted with carbon disulfide with a thiophene internal standard and examined by gas chromatography / mass spectrometry (GC/MS) [See Appendix for analytical conditions]. Acetone, isopropanol, and a variety of bromo- and chloro-substituted acetone derivatives were identified (**Figure 1**).

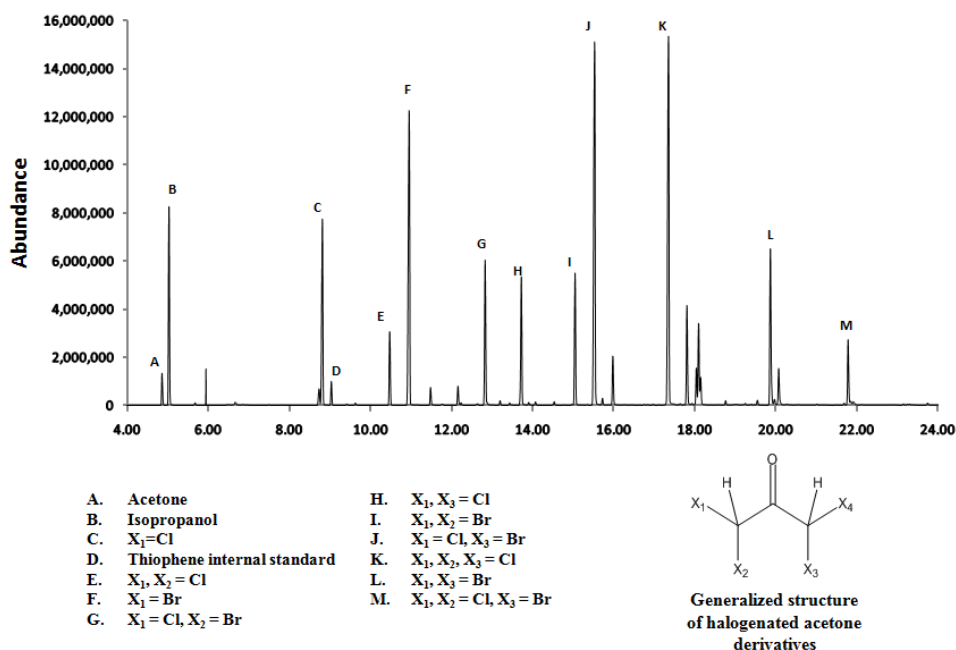


Figure 1 – GC/MS data for volatile components in headspace of one plastic bottle. Total ion chromatogram with peak assignments. Identifications made with the aid of NIST mass spectral library.

The solid white residues from each evidence item were determined to consist mainly of 5,5-dimethylhydantoin by infrared spectroscopy (**Figure 2**) and GC/MS (**Figure 3**).

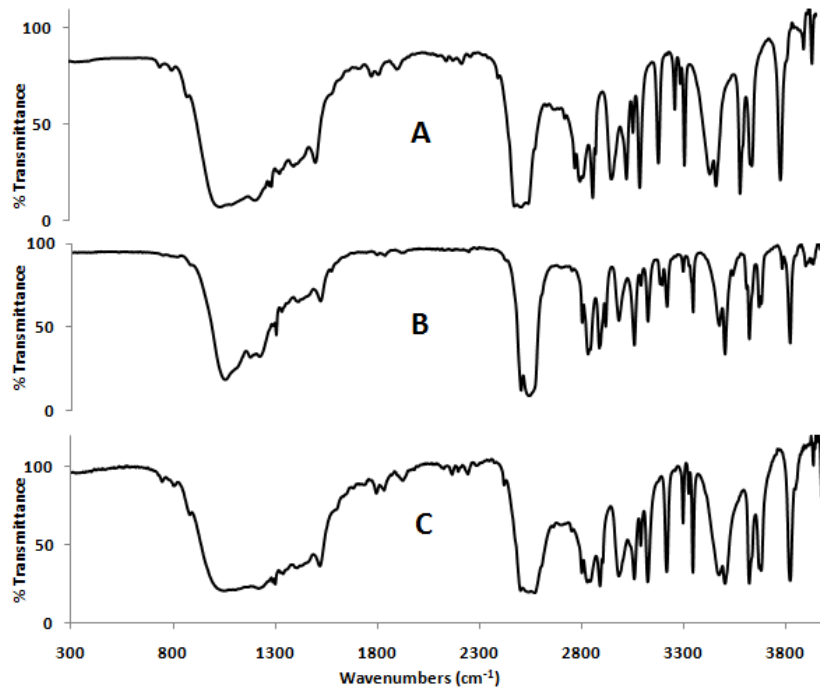


Figure 2 – Infrared spectra of: (A) 5,5-dimethylhydantoin; (B) white residue from one of three plastic bottles; (C) white residue from BCDMH / vodka reaction.

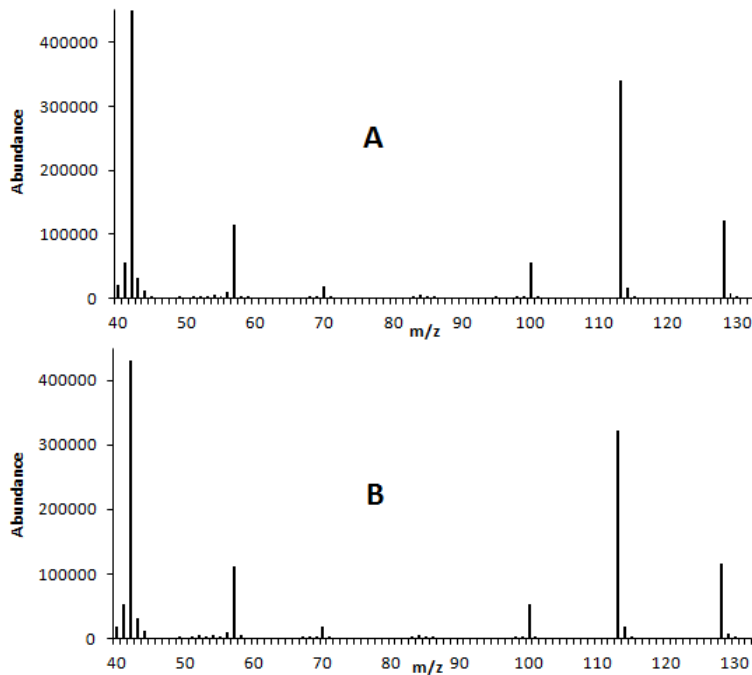


Figure 3 – Mass spectra of: (A) 5,5-dimethylhydantoin; (B) white residue from one of three plastic bottles

The residues contained bromine and chlorine as indicated by X-ray fluorescence spectroscopy. The halo-substituted acetone derivatives detected by the A/E sampling described above were not seen in subsequent solvent extracts of the white solid material; this may indicate a fairly complete recovery of these species by the prior A/E sampling.

The reaction of trichlorocyanuric acid with isopropanol has been shown to produce a set of compounds similar to those detected in the headspace of our evidence, including isopropanol, acetone, and chloro-substituted acetone derivatives.¹ Because trichlorocyanuric acid is associated with swimming pool chlorination, an internet search was conducted to see if there were other pool products that might be a source of bromine as well as chlorine. The internet search showed that some brominating sanitizer products contain 60-98% 1-bromo-3-chloro-5,5-dimethylhydantoin (BCDMH)² (**Figure 4**).

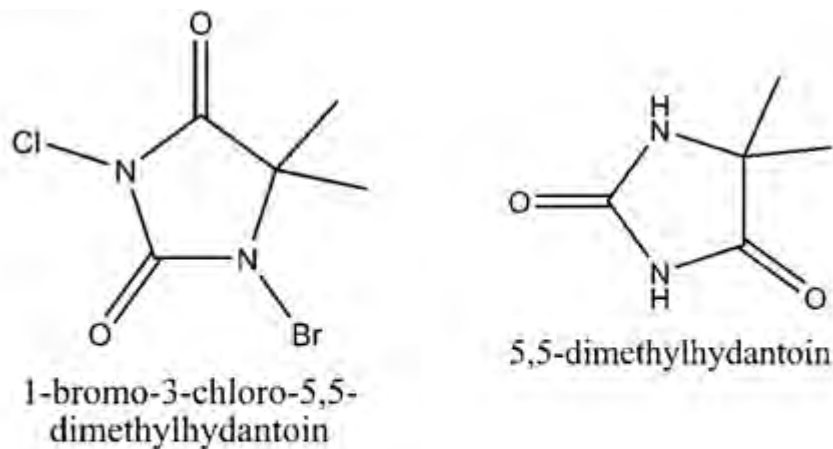


Figure 4 – Structures of 1-bromo-3-chloro-5,5-dimethylhydantoin (BCDMH) and 5,5-dimethylhydantoin

In water, BCDMH produces HOBr and HOCl, along with 5,5-dimethylhydantoin (**Figure 4**). HOBr is the primary sanitizing agent in this solution. Bromide, formed as HOBr is consumed, reacts further with HOCl to regenerate HOBr. Thus, over time, HOBr becomes the predominant oxidizing species in solution.^{3,4} It was speculated that a reaction of 1-bromo-3-chloro-5,5-dimethylhydantoin with isopropanol could produce acetone and bromo- and chloro-acetones as seen in the evidence items. This reaction also was presumed to produce 5,5-dimethylhydantoin with HOBr and (to some extent) HOCl.

To investigate this hypothesis, a sample of Spa Guard[®] Brominating Tablets was purchased at a local hot tub supply store. The packaging indicated that the tablets contained 96% 1-bromo-3-chloro-5,5-dimethylhydantoin. One Spa Guard[®] tablet (approximately 21 grams) was crushed and placed in an open glass jar. A solution of 70% isopropanol in water (the approximate concentration of common drugstore rubbing alcohol) was added to fully cover the tablet material. The slow development of a yellow color was observed, deepening to orange. After about 90 seconds the reaction appeared to accelerate, with a color change to deeper orange, emission of orange smoke (presumed to be bromine), and heat as the liquid boiled out the top of the uncovered jar. When the reaction appeared to cease and most residual liquid was allowed to evaporate, the remaining material consisted of a white semi-solid residue with strongly acidic orange liquid droplets.

The headspace vapor around the Spa Guard[®] reaction residue was analyzed for volatile compounds using the same procedures as the case exhibits. This vapor contained isopropanol, acetone, and a variety of bromo- and chloro-substituted acetone derivatives. The specific combination of halo-substitutions and their relative amounts varied from those found in the case submissions (Figure 5).

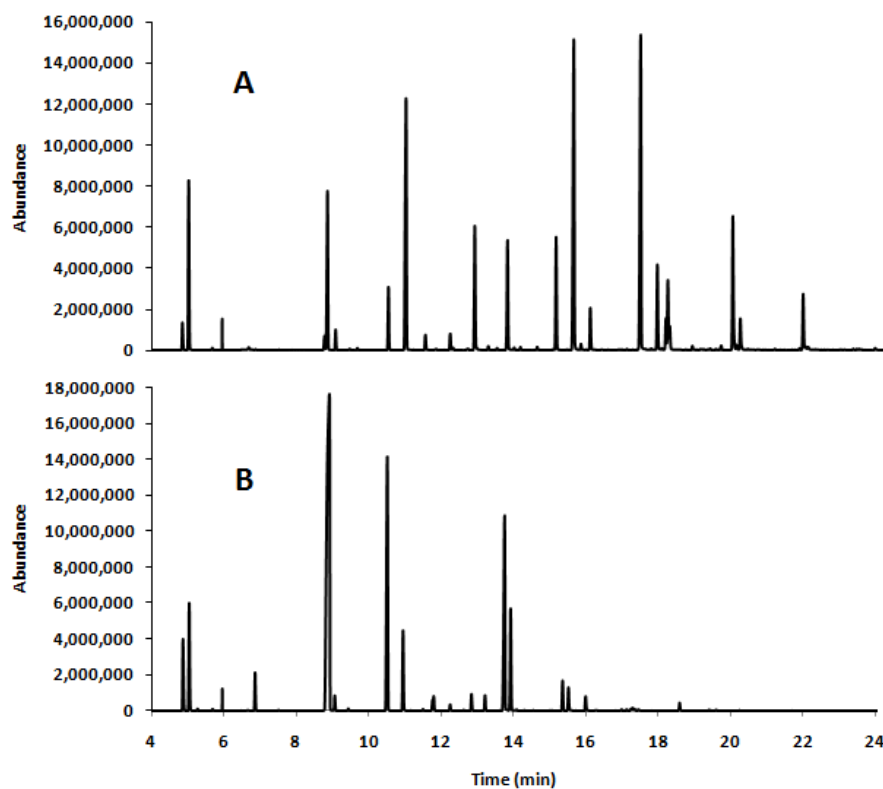


Figure 5 – GC/MS total ion chromatograms of A/E sampling from A) one of three evidence items and B) Spa Guard[®] tablet reacted with 70% isopropanol.

While the laboratory experiments were done in open containers, it is presumed that the reactions in the evidence items took place in a closed, pressurized environment, up to the point where the containers burst. This may have affected the distribution of halogenated reaction products.

The solid white residue from the Spa Guard[®] / isopropanol reaction was largely composed of 5,5-dimethylhydantoin and contained bromine and chlorine. XRF analysis showed that an unreacted Spa Guard[®] tablet contained a larger proportion of bromine and chlorine than the residues from the case submissions or the Spa Guard[®] / isopropanol reaction. This difference is likely due to the loss of chlorine and bromine in gaseous products of the reaction with isopropanol.

To determine if the significant percentage of water in a typical rubbing alcohol solution (typically 70% isopropanol and 30% water) is a necessary factor in the reaction, a trial was done with 100% isopropanol. A portion of a Spa Guard[®] tablet mixed with 100% isopropanol produced a reaction similar to that described above with 70% isopropanol.

An internet search for “bromine alcohol bomb” or similar combinations will direct one to several sites with video clips or discussion about this reaction and the uses of it in over-pressure explosive devices. Some of these sites describe it simply as a reaction of “alcohol” with bromine, without clearly specifying isopropyl alcohol. Since liquor and denatured ethanol are easily obtained, it was considered that individuals might attempt to construct similar devices substituting these products for isopropyl alcohol.

Trial reactions were done using ethanol in place of isopropanol to determine if this substitution would be effective. Spa Guard[®] material mixed with 80 proof vodka (40% ethanol) developed an orange color over about 90 minutes before undergoing a similar, although not as vigorous, reaction. White residue remained after evaporating the residual liquid at 130°C; the infrared spectrum of this material was similar to that resulting from isopropanol reactions (**Figure 2**). When Spa Guard[®] was mixed with 95% ethanol (denatured with methanol and isopropanol), the reaction progressed over about 15 minutes but was also less vigorous than the isopropanol reaction. Liquid remaining in this reaction vessel was analyzed by GC/MS (**Figure 6 on next page**); this indicated a mixture of bromo- and chloro-substituted acetones based on isotope ratios of ion groups in the mass spectra, but these compounds were not completely characterized. One large peak had a mass spectrum consistent with 5,5-dimethylhydantoin.

Conclusions

The vigorous gas- and heat-producing reaction that was observed in the laboratory between BCDMH and isopropanol suggests that this mixture could produce sufficient gas overpressure to

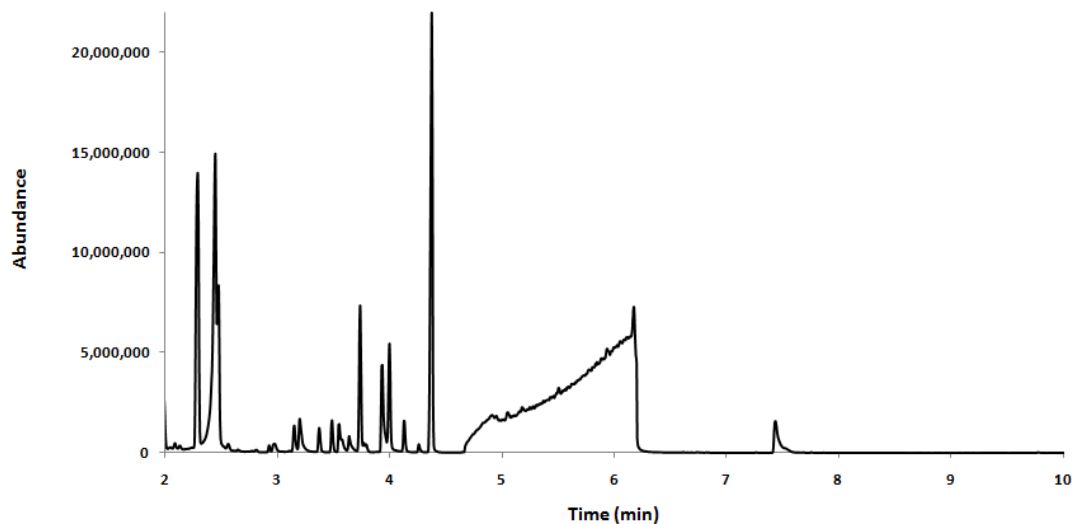


Figure 6 – GC/MS total ion chromatogram (TIC) of liquid remaining after reaction of SpaGuard® tablet with vodka. The large peak from 5 to 6 minutes is consistent with 5,5-dimethylhydantoin. (If comparing this data to the TICs in Figures 2 and 5, note that these data were collected using different analytical conditions – see Appendix.)

explosively rupture containers such as the plastic bottles submitted as evidence. Several internet discussions and videos were found that indicate that this use of the reaction is well known.

There is the potential that variations of this reaction could be encountered. Reactions of BCDMH with ethanol in the forms of liquor and denatured alcohol appeared to have explosive potential, and the long delay observed before significant reaction with ethanol would seem to be an attractive feature to individuals planning to use the reaction for mischief. A scan of internet sites did not suggest that ethanol or alcoholic beverages are currently a popular substitute for isopropanol, but the possibility exists.

Also some BCDMH products also contain lesser amounts of 3,3-dichloro-5,5-dimethylhydantoin and / or 3,3-dichloro-5-ethyl-5-methylhydantoin.² These products may react somewhat differently with isopropanol and would presumably produce a more heavily chlorinated set of reaction products. Solid residues remaining after this reaction could likely contain some proportion of 5-ethyl-5-methylhydantoin in addition to 5,5-dimethylhydantoin.

Future experimentation could include controlled trials of the reaction under pressure to better simulate the conditions of the case submissions. This could provide a better characterization of the volatile products likely to be encountered in casework. A more complete characterization of the products of reactions with ethanol is of interest to identify the halogenated products. Trials with BCDMH products with added ingredients could also be informative.

Appendix – Instrumentation and Reagents

GC/MS analysis was conducted with Agilent 6890 / 5973 GC/MSDs. Volatiles analysis used a 60m HP-1MS capillary column with 0.25mm ID and 1 μm film thickness. The injector temperature was 250°C; the oven temperature was held at 30°C for two minutes, ramped at 5 °C per minute to 280 °C, and held at 280 °C. Helium carrier gas was maintained at a constant flow of 1.9 mL/min. Solid and liquid samples were analyzed using a 30m HP-5MS capillary column with 0.25mm ID and 0.25 μm film thickness. The injector temperature was 280°C; the oven temperature was held at 100°C for one minute, ramped at 15 °C per minute to 280 °C, and held at 280 °C. Helium carrier gas was maintained at a constant flow of 1.0 mL/min.

Infrared spectroscopy was done using a Nicolet Nexus 670 spectrometer. Vapors were sampled in a 10 cm vapor cell (McCarthy) with KBr windows and scanned at $\frac{1}{2}$ cm^{-1} resolution. Solids were sampled in a low pressure diamond anvil cell (High Pressure Diamond Optics) at 4 cm^{-1} resolution using a 4x beam condenser.

X-ray fluorescence spectroscopy was done on a Jordan Valley EX-6600 energy dispersive spectrometer. Powdered samples were mounted on transparent tape and examined directly using 10 – 50 keV and 15 – 60 μA , and with a titanium secondary target at 20 keV and 4900 μA . Samples were analyzed under vacuum.

Spa Guard[®] tablets were purchased at a local hot tub supply store. Gordon's[®] Deluxe vodka was purchased at a state liquor store. Isopropanol was purchased from JT Baker. Carbon disulfide, thiophene, and 5,5-dimethylhydantoin were purchased from Aldrich. Dichloromethane was purchased from Fisher Scientific. Activated carbon strips were purchased from Albrayco Technologies.

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4. South Australian Health Commission. "Standard for the operation of swimming pools and spa pools in South Australia, Supplement C" www.health.sa.gov.au/pehs/publications/code-bromine.pdf Accessed 24 May, 2011.
5. Silverstein, R. M. and Webster, F. X. *Spectrometric Identification of Organic Compounds*, 6th ed. New York, John Wiley and Sons, 1998, p. 35.

(Slip Opinion)

OCTOBER TERM, 2010

Syllabus

NOTE: Where it is feasible, a syllabus (headnote) will be released, as is being done in connection with this case, at the time the opinion is issued. The syllabus constitutes no part of the opinion of the Court but has been prepared by the Reporter of Decisions for the convenience of the reader. See *United States v. Detroit Timber & Lumber Co.*, 200 U. S. 321, 337.

SUPREME COURT OF THE UNITED STATES

Syllabus

BULLCOMING *v.* NEW MEXICO

CERTIORARI TO THE SUPREME COURT OF NEW MEXICO

No. 09–10876. Argued March 2, 2011—Decided June 23, 2011

The Sixth Amendment’s Confrontation Clause gives the accused “[i]n all criminal prosecutions, . . . the right . . . to be confronted with the witnesses against him.” In *Crawford v. Washington*, 541 U. S. 36, 59, this Court held that the Clause permits admission of “[t]estimonial statements of witnesses absent from trial . . . only where the declarant is unavailable, and only where the defendant has had a prior opportunity to cross-examine.” Later, in *Melendez-Diaz v. Massachusetts*, 557 U. S. ___, the Court declined to create a “forensic evidence” exception to *Crawford*, holding that a forensic laboratory report, created specifically to serve as evidence in a criminal proceeding, ranked as “testimonial” for Confrontation Clause purposes. Absent stipulation, the Court ruled, the prosecution may not introduce such a report without offering a live witness competent to testify to the truth of the report’s statements. 557 U. S., at ___.

Petitioner Bullcoming’s jury trial on charges of driving while intoxicated (DWI) occurred after *Crawford*, but before *Melendez-Diaz*. Principal evidence against him was a forensic laboratory report certifying that his blood-alcohol concentration was well above the threshold for aggravated DWI. Bullcoming’s blood sample had been tested at the New Mexico Department of Health, Scientific Laboratory Division (SLD), by a forensic analyst named Caylor, who completed, signed, and certified the report. However, the prosecution neither called Caylor to testify nor asserted he was unavailable; the record showed only that Caylor was placed on unpaid leave for an undisclosed reason. In lieu of Caylor, the State called another analyst, Razatos, to validate the report. Razatos was familiar with the testing device used to analyze Bullcoming’s blood and with the laboratory’s testing procedures, but had neither participated in nor observed the test on Bullcoming’s blood sample. Bullcoming’s counsel objected, asserting that introduction of Caylor’s report without his testimony would violate the Confrontation Clause, but

BULLCOMING v. NEW MEXICO

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the trial court overruled the objection, admitted the SLD report as a business record, and permitted Razatos to testify. Bullcoming was convicted, and, while his appeal was pending before the New Mexico Supreme Court, this Court decided *Melendez-Diaz*. The state high court acknowledged that the SLD report qualified as testimonial evidence under *Melendez-Diaz*, but held that the report's admission did not violate the Confrontation Clause because: (1) certifying analyst Caylor was a mere scrivener who simply transcribed machine-generated test results, and (2) SLD analyst Razatos, although he did not participate in testing Bullcoming's blood, qualified as an expert witness with respect to the testing machine and SLD procedures. The court affirmed Bullcoming's conviction.

Held: The judgment is reversed, and the case is remanded.

147 N. M. 487, 226 P. 3d 1, reversed and remanded.

JUSTICE GINSBURG delivered the opinion of the Court with respect to all but Part IV and footnote 6. The Confrontation Clause, the opinion concludes, does not permit the prosecution to introduce a forensic laboratory report containing a testimonial certification, made in order to prove a fact at a criminal trial, through the in-court testimony of an analyst who did not sign the certification or personally perform or observe the performance of the test reported in the certification. The accused's right is to be confronted with the analyst who made the certification, unless that analyst is unavailable at trial, and the accused had an opportunity, pretrial, to cross-examine that particular scientist. Pp. 8–16.

(a) If an out-of-court statement is testimonial, it may not be introduced against the accused at trial unless the witness who made the statement is unavailable and the accused has had a prior opportunity to confront that witness. Pp. 8–14.

(i) Caylor's certification reported more than a machine-generated number: It represented that he received Bullcoming's blood sample intact with the seal unbroken; that he checked to make sure that the forensic report number and the sample number corresponded; that he performed a particular test on Bullcoming's sample, adhering to a precise protocol; and that he left the report's remarks section blank indicating that no circumstance or condition affected the sample's integrity or the analysis' validity. These representations, relating to past events and human actions not revealed in raw, machine produced data, are meet for cross-examination. The potential ramifications of the state court's reasoning, therefore, raise red flags. Most witnesses testify to their observations of factual conditions or events. Where, for example, a police officer's report recorded an objective fact such as the read-out of a radar gun, the state court's reasoning would permit another officer to introduce the information,

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so long as he or she was equipped to testify about the technology the observing officer deployed and the police department's standard operating procedures. As, e.g., *Davis v. Washington*, 547 U. S. 813, 826, makes plain, however, such testimony would violate the Confrontation Clause. The comparative reliability of an analyst's testimonial report does not dispense with the Clause. *Crawford*, 541 U. S., at 62. The analysts who write reports introduced as evidence must be made available for confrontation even if they have "the scientific acumen of Mme. Curie and the veracity of Mother Teresa." *Melendez-Diaz*, 557 U. S., at ___, n. 6. Pp. 10–11.

(ii) Nor was Razatos an adequate substitute witness simply because he qualified as an expert with respect to the testing machine and the SLD's laboratory procedures. Surrogate testimony of the kind Razatos was equipped to give could not convey what Caylor knew or observed about the events he certified, nor expose any lapses or lies on Caylor's part. Significantly, Razatos did not know why Caylor had been placed on unpaid leave. With Caylor on the stand, Bullcoming's counsel could have asked Caylor questions designed to reveal whether Caylor's incompetence, evasiveness, or dishonesty accounted for his removal from work. And the State did not assert that Razatos had any independent opinion concerning Bullcoming's blood alcohol content. More fundamentally, the Confrontation Clause does not tolerate dispensing with confrontation simply because the court believes that questioning one witness about another's testimonial statements provides a fair enough opportunity for cross-examination. Although the purpose of Sixth Amendment rights is to ensure a fair trial, it does not follow that such rights can be disregarded because on the whole, the trial is fair. *United States v. Gonzalez-Lopez*, 548 U. S. 140, 145. If a "particular guarantee" is violated, no substitute procedure can cure the violation. *Id.*, at 146. Pp. 11–14.

(b) *Melendez-Diaz* precluded the State's argument that introduction of the SLD report did not implicate the Confrontation Clause because the report is non testimonial. Like the certificates in *Melendez-Diaz*, the SLD report is undoubtedly an "affirmation made for the purpose of establishing or proving some fact" in a criminal proceeding. 557 U. S., at ___. Created solely for an "evidentiary purpose," *id.*, at ___, the report ranks as testimonial. In all material respects, the SLD report resembles the certificates in *Melendez-Diaz*. Here, as there, an officer provided seized evidence to a state laboratory required by law to assist in police investigations. Like the *Melendez-Diaz* analysts, Caylor tested the evidence and prepared a certificate concerning the result of his analysis. And like the *Melendez-Diaz* certificates, Caylor's report here is "formalized" in a signed document, *Davis*, 547 U. S., at 837, n. 2. Also noteworthy, the SLD report form contains a legend referring

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to municipal and magistrate courts' rules that provide for the admission of certified blood-alcohol analyses. Thus, although the SLD report was not notarized, the formalities attending the report were more than adequate to qualify Caylor's assertions as testimonial. Pp. 14–16.

GINSBURG, J., delivered the opinion of the Court, except as to Part IV and footnote 6. SCALIA, J., joined that opinion in full, SOTOMAYOR and KAGAN, JJ., joined as to all but Part IV, and THOMAS, J., joined as to all but Part IV and footnote 6. SOTOMAYOR, J., filed an opinion concurring in part. KENNEDY, J., filed a dissenting opinion, in which ROBERTS, C. J., and BREYER and ALITO, JJ., joined.

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**US CONSTITUTION:
SIXTH AMENDMENT**

In all criminal prosecutions, the accused shall enjoy the right to a speedy and public trial, by an impartial jury of the State and district wherein the crime shall have been committed, which district shall have been previously ascertained by law, and to be informed of the nature and cause of the accusation; to be confronted with the witnesses against him; to have compulsory process for obtaining witnesses in his favor, and to have the Assistance of Counsel for his defence.

SWGDM UPDATE

The Scientific Working Group on DNA Analysis Methods (SWGDM) has issued a new set of Quality Assurance Standards for Forensic DNA Testing Laboratories, effective September 1, 2011. These revised standards will apply to all laboratories who participate in the National DNA Index System (NDIS) and vendor laboratories that perform contract casework DNA analysis for NDIS participating laboratories. A corresponding audit document is being drafted as are updates to the Quality Assurance Standards for DNA Databasing Laboratories. The full QAS document can be found at: <http://www.fbi.gov/about-us/lab/codis/qas-standards-for-forensic-dna-testing-laboratories-effective-9-1-2011> . A summary of the changes from the previous Forensic QAS is presented; removed text indicated by (parenthetical green) font and new item/text indicated by *red italicized* font.

DEFINITIONS

Analyst (or equivalent role, position, or title as designated by the Laboratory Director) is an employee *or contract employee*, that has successfully completed the laboratory's training requirements for casework sample analysis, passed a competency test, and has entered into a proficiency testing program according to these Standards. This individual conducts and/or directs the analysis of forensic samples, interprets data and reaches conclusions.

Contract employee is an individual that provides DNA typing and/or analytical support services to the NDIS participating laboratory. The person performing these services must meet the relevant qualifications for the equivalent position in the NDIS participating laboratory. A contract employee cannot serve as a casework CODIS Administrator or technical leader and cannot be counted as a full-time qualified DNA analyst for purposes of satisfying the definition of a laboratory. Employment of a contract employee by

multiple NDIS participating and/or vendor laboratories shall be disclosed and shall only be permitted subject to approval by the technical

leader of the NDIS participating laboratory for which the contract employee is performing DNA typing and/or analytical services.

Laboratory support personnel (or equivalent role, position, or title as designated by the laboratory director) are employees *or contract employees* who perform laboratory duties exclusive of analytical techniques on forensic or database samples.

On-site visit is a scheduled or unscheduled visit *to the vendor laboratory work site* by one or more representatives of (the outsourcing laboratory) *an NDIS participating laboratory who is (are) qualified or previously qualified DNA analyst(s) in the technology, platform and typing amplification test kit used to generate the DNA data, or designated FBI employee(s)*, to assess and document the vendor laboratory's ability to perform analysis on outsourced casework.

Technical reviewer is an employee *or contract employee* who is a current or previously qualified analyst in the methodology being reviewed that performs a technical review of, and is not an author of, the applicable report or its contents.

Technician (or equivalent role, position, or title as designated by the laboratory director) is an employee *or contract employee* who performs analytical techniques on forensic samples under the supervision of a qualified analyst. Technicians do not interpret data, reach conclusions on typing results, or prepare final reports.



REVISED STANDARDS (some standards truncated for space). Where the meaning of the change is related to a parent standard, an explanation of the change is provided

Standard 5.4

The analyst shall be an employee *or contract employee* of the laboratory and meet the following qualifications...

Standard 9.5.2

Positive and negative amplification controls associated with samples being typed shall be amplified concurrently *in the same instrument* with the samples...

Standard 15.1

The laboratory shall be audited annually in accordance with these standards. The annual audits shall occur every calendar year and shall be at least 6 months and no more than 18 months apart. *Audits shall be conducted by an audit*

team comprised of qualified auditor(s) having at least one team member who is or has been an analyst previously qualified in the laboratory's current DNA technologies and platform.

Standard 15.2

At least once every two years, an external audit shall be conducted by an audit team comprised of qualified auditors from a second agency(ies) and having at least one team member who is or has been *an analyst* previously qualified in the laboratory's current DNA technologies and platform.

Standard 17.3

An NDIS participating laboratory shall not upload or accept DNA data for upload to (or search in) CODIS from any vendor laboratory or agency without the documented prior approval of the technical specifications of the outsourcing agreement and...

Standard 17.6 (previously Standard 17.5 – see below for new Standard 17.5)

Prior to the upload (or search) of DNA data to SDIS, the technical review of a vendor laboratory's DNA data shall be performed by an analyst or technical reviewer employed by (the) *an* NDIS participating laboratory...

Standard 17.7 (previously 17.6)

An NDIS participating laboratory or multi-laboratory system outsourcing DNA sample(s) to a vendor laboratory or accepting ownership of DNA data from a vendor laboratory shall have and follow a procedure to perform an on-site visit(s) of the vendor laboratory, *provided, however, that an on-site visit shall not be required when only technical review services are being provided. The (This)* procedure...

Standard 17.7.1.1 (previously 17.6.1.1)

The on-site visit shall be performed by the technical leader, or a designated employee of an NDIS participating laboratory, who is a qualified or previously qualified DNA analyst in the technology, platform and typing amplification test kit, used to generate the DNA data. *Alternatively, the technical leader of the NDIS Participating Laboratory may accept an on-site visit conducted by a designated FBI employee.*

As per parent standard: This change allows for the TL to accept an on-site visit of a vendor lab conducted by the FBI as the required initial on-site visit.

Standard 17.7.2.1 (previously 17.6.2.1)

An NDIS participating laboratory may accept an on-site visit conducted by *the FBI, or* another NDIS participating laboratory...

As per parent standard: This allows the NDIS laboratory to accept an on-site visit of a vendor lab by the FBI as their annual on site visit.



NEW STANDARDS

Standard 5.2.3.2.7

To review requests by contract employees for employment by multiple NDIS participating and/

or vendor laboratories and, if no potential conflict of interests exist, may approve such requests.

As per parent standard: With the new allowance for contract analysts, this was added as a technical leader responsibility.

Standard 5.5

The technical reviewer shall be an employee or contract employee of the laboratory and shall meet the following qualifications:

5.5.1 A current or previously qualified analyst in the methodologies being reviewed.

5.5.2 Successful completion of a competency test administered by the NDIS participating laboratory prior to participating in the technical review of DNA data.

5.5.3 Participation in an external proficiency testing program at an NDIS participating laboratory on the same technology, platform and typing amplification test kit used to generate the DNA data being reviewed.

Standard 17.5

Prior to the upload or search of DNA data in SDIS, an analyst, casework CODIS Administrator or technical reviewer employed by an NDIS participating laboratory shall review the DNA data to verify specimen eligibility and the correct specimen category for entry into CODIS.

*A special thanks to
Megan Ashton and Amy Jagmin
for compiling this information from the
FBI DNA website.*

MEETING ANNOUNCEMENTS

96th Annual IAI International Educational Conference

August 7 - 13, 2011

Milwaukee, WI

<http://www.theiai.org/conference/2011/index.php>



2011 Trace Evidence Symposium: Science, Significance and Impact

August 8 - 11, 2011

Kansas City, MO

<http://www.ojp.usdoj.gov/nij/events/trace-evidence-symposium/>

2011 Summer Continuing Education for Forensic Professional Program

August 22-27, 2011

Jackson Hole, Wyoming

<http://fsi.research.wvu.edu/training>

International Association of Bloodstain Pattern Analysts

October 3-7, 2011

Milwaukee, WI

www.iabpa.org



Southwestern Association of Forensic Scientists

October 3-7, 2011

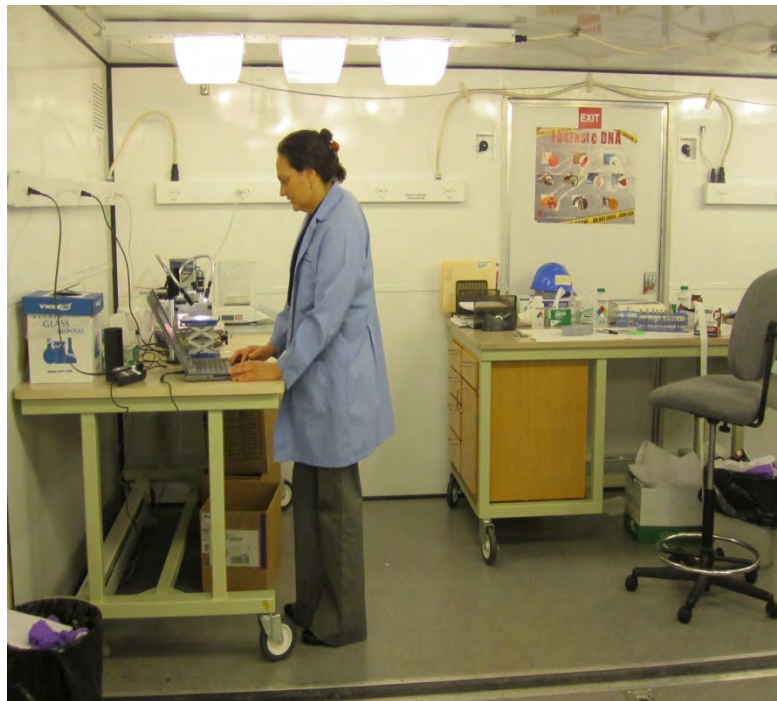
Houston, Texas

<http://www.swafs.us/>



NWAFS NOTES

The National Forensic Science Technology Center (NFSTC) recently delivered a deployable forensic laboratory to the Montana Department of Justice in Missoula. The unit will provide temporary housing for its public crime laboratory sections as each area of its laboratory undergoes renovations. The deployable laboratory will be on site through June 2011.



Chemist Annalivia Harris at work in the mobile laboratory

Due to the nature of crime laboratory work, any loss of operational time can create a significant backlog of casework affecting court schedules, local law enforcement processes and public safety. Deployable forensic laboratories are an innovative and efficient way to provide expansion in emergency or combat situations, or temporary replacement of capabilities after a natural disaster or other crisis. The mobile labs provide expandable facilities free of charge to the agency in need, support that comes through a grant from the National Institute of Justice (NIJ). The Defense Threat Reduction Agency (DTRA) previously funded the development, integration, testing and delivery of the mobile forensic laboratories, which are operated and maintained by NFSTC. The NIJ provides the funding required to maintain operations.

“When our laboratory was faced with a major HVAC renovation, we contacted the NFSTC staff, who helped us plan and implement the use of a NFSTC mobile laboratory on loan,” said Dave McAlpin, Montana State Crime Laboratory director. “Having that space available for our forensic scientists to continue their work in a controlled setting has allowed us to keep casework going and maintain quality standards.”



The DNA/serology section during HVAC renovations

Montana’s laboratory came up with a creative solution to the major project and is renovating one section at a time, displacing up to three analysts and their equipment at any one time. The mobile unit is small enough to be conveniently parked adjacent to the building, but big enough to hold all the necessary equipment during each rotation. This method has maintained maximum continuation of services and to date the firearms, DNA/serology, latent prints, and chemistry sections have been completed with the toxicology section currently occupying the mobile lab.

“The deployable lab was basically a blank canvas which allowed us to configure it as we desired,” said Travis Spinder, firearms section supervisor. “We were able to continue working without interruption during our section’s relocation.”

Each deployable unit measures 8' x 20' x 8.5' and is seated on a standard transport trailer for rapid deployment. Once folded out, a maximum of 400 square feet of usable laboratory space is available for customization and immediate use. Multiple units can be connected to expand space or isolate different forensic services such as DNA or trace evidence analysis.



An outside look at the deployable laboratory

“Helping public crime laboratory teams continue to provide quality services to their communities is a top priority,” said Dave Sylvester, project administration director for NFSTC. “Keeping operations up and running smoothly takes coordination and we are happy to be able to supply technology that supports local services.”

The organization’s mobile laboratories have been deployed across the country including two that recently returned from a stint in Marquette, MI, for the Michigan State Police, one in Cedar Rapids, Iowa, to assist after major flooding in 2008, and two currently onsite in Arizona.

***Thanks to the personnel at the
Montana Forensic Science Division for this contribution!***

NORTHWEST SUMMER AMUSEMENTS

California Extreme - Pinball Exposition

July 9-10

Santa Clara, California

www.caextreme.org



Gnarly Barley Brewfest

August 6, 2011

Loveland, Colorado

<http://www.gnarlybarleybrewfest.com/>

Bones & Brew

August 6-7, 2011

Portland, Oregon

<http://rogue.com/events/bones-and-brew.php>

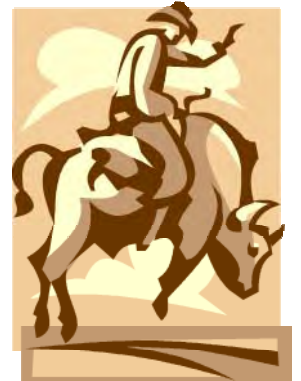


Omak Stampede

August 11-14, 2011

Omak, Washington

<http://www.omakstampede.org/>



River City Roots Fest

August 27-28, 2011

Missoula, Montana

<http://www.rivercityrootsfestival.com/>

The Gunfighter Rendevous -

Cowboy Fast Draw Championship

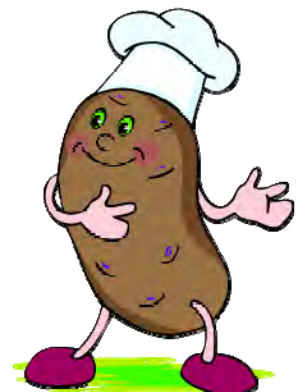
September 1-4, 2011

Pendleton, Oregon

Idaho Spud Days

September 14-17

Shelley, Idaho



CAPTION THIS!



The best caption submitted for this photo will win a \$20 gift card of your choice!

editor@nwafs.org

CAPTION THIS WINNER!

**Congratulations to our last
newsletter's winner:**

Barbara Andree
ATF Forensic Science Laboratory

.... and on CSI Hollywood, trajectories are determined using Miss July, Darth Vader's light sabre and Jimmy Choo shoes, not necessarily in that order.



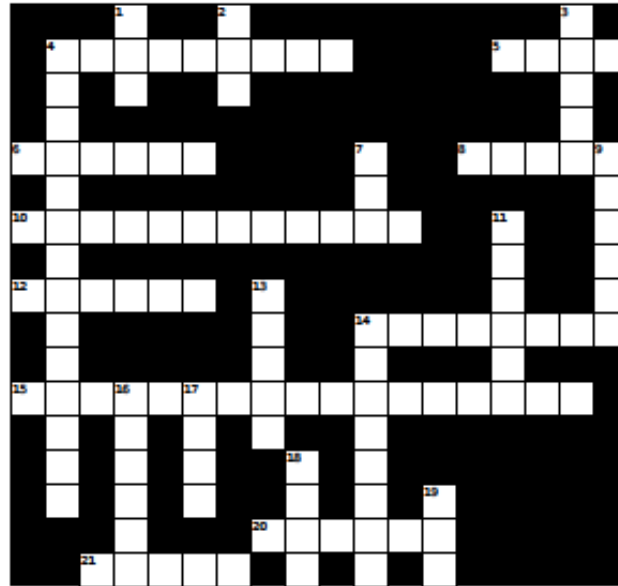
Runner up goes to:

Steven Stone
Washington State Patrol

Susie always got good reviews for her examples of how best to achieve Köhler illumination.

Forensic Science Puzzler

Jennifer Malone



- | Across | Down |
|--|--|
| 4 Discipline that identifies controlled substances | 1 Microscope used at very high magnifications |
| 5 Very common liquid that falls from the sky in Washington | 2 Particles that can be found following the discharge of a weapon |
| 6 Developed the "Exchange" principle where no two objects come into contact without leaving a trace | 3 Composes your clothes and can link an individual to a crime |
| 8 Where you testify to the facts in a case | 4 The separation chemicals based on the speed at which they move in liquid and gas. Used to test for drugs and alcohol in the lab. |
| 10 Television show featuring this year's theme and me without coffee! | 7 Can be found as touch |
| 12 Theme for this years NWAFS meeting | 9 Where this years NWAFS meeting will be held |
| 14 You dread receiving one of these pieces of paper | 11 It documents your findings following the completion of a case. |
| 15 An instrument that measures ions according to their mass-to-charge ratio and is used to identify unknown compounds. | 13 Nice white outfit you wear while processing evidence |
| 20 The borders in the skin of your finger which investigators compare to define fingerprints. | 14 Specializes in the identification and analysis of bloodstains and other bodily fluids |
| 21 A substance that can be differentiated by layers and may tell you make and model | 16 Cigarette butts provide samples of |
| | 17 Another term for dirt. Is sometimes used as trace evidence. |
| | 18 Grows from your head and useful in comparisons |
| | 19 Television show that solves cases in less than 60 minutes |

FREE REGISTRATION!

Got an interesting technical note, informative article
or research project?

Make a submission to the NWAFS newsletter, and you could win
FREE REGISTRATION to an upcoming NWAFS meeting!

The officers vote for the “Best Independent Newsletter Submission”
once per year and award a **FREE REGISTRATION** to the winner.



Help keep the NWAFS newsletter interesting and informative by
sending your submissions to:

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