

Forensic Services Newsletter

FALL 2009

Idaho State Police Forensic Services has been very active in training this quarter. Training was provided to county and city agencies in evidence collection, crime scene photography, crime scene panoramic 3-D



photography, breath alcohol testing, Lifeloc instrument calibration, and latent print processing. Many scientists from the lab assisted the Idaho Attorney General in teaching delegations of elected officials and investigators from Mexico about crime scene response, processing, and technology. Anne Nord, the Coeur d'Alene Lab Manager, made a presentation on the ISP policy regarding forensic scientist certifications at the American Society of Crime Laboratory Directors Annual Meeting. Cyndi Cunnington (formerly Hall), our DNA Technical Leader, made a presentation at the prestigious DNA conference sponsored by Promega Corporation. Cyndi is also participating in a national group that will revise the current CODIS software. In addition, ISP coordinated and facilitated a national DNA mixture interpretation conference for scientists this fall.

In the spring of 2008, the National Academy of Sciences (NAS) issued a report to the United States Congress regarding forensic science. Briefly, the report contained thirteen recommendations to improve the quality of forensic science. ISP forensic services agreed with (and had already implemented) most of the recommendations. The national forensic organizations have responded quickly and decisively. Many have issued statements and stances on the various issues. The first issues being dealt with are certification of forensic experts and accreditation of forensic laboratories (including police agencies performing any kind of crime scene response or evidence collection). The link to the executive summary of the report is on the back page of this newsletter. The FBI Laboratory issued several responses that ISP has found helpful at explaining these issues and these links are also found on the back page. Each law enforcement agency should review this report and stay current on the developments as it will have an impact on nearly every police agency in the country.

NAS REPORT

WHAT'S NEW



[ISP Forensics Website](#)

We have discontinued NIBIN database entry in the Coeur d'Alene Laboratory. The equipment was not moved to the new facility due to cost and low case submission. If your agency requires NIBIN entry, please contact your regional ISP Laboratory Manager. ISP will provide your agency with the necessary contacts to get your evidence entered into the database. The Coeur d'Alene and Meridian Laboratories will still test fire weapons, but the test fired bullets and cartridge cases will be returned to the submitting agency.

ISP Forensic Services Facts

The ISP Forensic Laboratories are accredited to the International ISO 17025:2005 standard. The ISP labs were among the first labs in the country to meet this stringent criteria (40, 41, and 42). ISP has been an accredited laboratory system since 1987. The accrediting body for the ISP labs is ASCLD/LAB. Each ISP laboratory has at least one external and one internal audit per year to keep their accreditation.

Did you Know?
ISP Forensic Services has recently started using video conferencing in forensic training. More information will be coming soon regarding training opportunities using this technology.

UPCOMING TRAINING

Course	Location	Dates	Contact
Latent Print Basics	Meridian POST	Nov	Register
Firearms Safety (Securing and Packaging)	ISP R1 Lab	Nov 10th	Register
Firearms Safety (Securing and Packaging)	Meridian POST	Dec	Register
Firearms Safety (Securing and Packaging)	ISP R5 Lab	Dec	Register
Breath Testing Specialist (BTS)	Meridian POST	12/3-12/4	Register
Evidence packaging, preservation, submission	ISP R1 Lab	12/2	Register
Breath Testing Specialist (BTS)	Chubbuck P.D.	12/7-12/8	Register
Evidence packaging, preservation, submission	ISP R1 Lab	12/18	Register

* The first day of all BTS classes is Alcosensor/ Lifeloc and the second is Intoxilyzer 5000/ EN .

Quick Facts

- Marijuana is the most commonly used illicit drug. An estimated 102 million Americans aged 12 or older have tried marijuana at least once in their lifetimes, representing 41% of the U.S. population in that age group.
- There were an estimated total of 1,841,182 state and local arrests for drug abuse violations in the United States during 2007. Of these drug abuse violation arrests, 5.3% were for the sale/manufacture of marijuana and 42.1% were for marijuana possession.
- In 2008, there were 2.2 million persons aged 12 or older who had used marijuana for the first time within the past 12 months; this averages to about 6,000 initiates per day.



Point of Fact:

In 2008, a total of 1,768,886 drug items were analyzed by state and local forensic labs in the United States. By comparison, Idaho State Police Forensic Labs processed 7,296 drug items in 2008.



For more information on national drug statistics



GOALS FOR 2009



- Completion of training for one controlled substance analyst
- Continue meeting turnaround time of less than 30 days
- Validate Hydrogen as a carrier gas to replace Helium

Predatory Drugs

A term used to identify drugs that can be used to facilitate sexual assault (Benzodiazepines, GHB, and Ketamine). Examples of Benzodiazepines are Alprazolam (Xanax®), Clonazepam (Klonopin®), Diazepam (Valium®), Chlordiazepoxide (Librium®), Flunitrazepam (Rohypnol®), Lorazepam (Ativan), Triazolam (Halcion®). All Benzodiazepines are able to produce the same effects, it is simply the dose that determines the effect. The effects of these drugs are profound sedation, dizziness, amnesia, and confusion.



Rohypnol

GHB is a colorless and odorless liquid or white powder that causes drowsiness, dizziness, or nausea in lower doses, and unconsciousness at higher doses.



GHB

Ketamine is a liquid or white powder that is most commonly used as an animal tranquilizer. The drug can produce delirium or amnesia and at higher doses it causes a near death experience.



Ketamine

Club Drugs

A term used for a number of illicit drugs that are most commonly encountered at nightclubs and all-night parties (MDMA/Ecstasy, GHB, and Ketamine).

Ecstasy produces feelings of euphoria, closeness, empathy, and reduced sexual inhibitions. The MDMA pills are often found to also contain methamphetamine, caffeine, ephedrine, or cocaine.



Ecstasy

Schedule Reporting Update

Have you noticed anything different about your controlled substances reports lately? Are you having trouble finding the listed drug in Idaho code? As of March 30th of this year we have been following the Federal list of controlled substances when we schedule a drug. The reason for this change was mainly due to the appearance of BZP (1-benzylpiperazine) and the confusion that resulted from having BZP on the Federal list but not on Idaho's. There are approximately 60 compounds that fall into this category, the majority of which are anabolic steroids and hallucinogens. The Board of Pharmacy is working on reconciling the two lists. We are always available to help decipher the code and to explain why we schedule controlled substances the way we do.

Scheduling of Hydrocodone

- CII Any quantity of hydrocodone without another therapeutic agent or (and this is an ISP-Forensic Laboratory interpretation) any quantity of a mixture of hydrocodone and another therapeutic agent that is NOT in its commercially available dosage unit, i.e. residues in bags or on spoons or powders (crushed pills).
- CIII Mixture of hydrocodone and another therapeutic agent in its commercially available dosage units of less than 15mg* of hydrocodone per solid unit (pills—Vicodin, Lortab etc.) or 300mg of hydrocodone per 100ml of liquid (various prescription cough suppressants).

*Currently there are not commercially available pills that exceed 15mg per unit legally sold in the United States.

Methamphetamine Quantitation

After a nearly three year hiatus, in November 2008 the ISP Forensic Laboratory system once again began offering methamphetamine quantitation analysis as a service. We have now successfully finished three rounds of analysis. Each round has shown an increase in the number of cases and samples. With further modifications to the system, the amount of work necessary to complete each run should be reduced, resulting in a more rapid delivery of results. As stated in the announcement letter last year, quantitative analysis is only performed on cases where a federal prosecutor has expressed an interest, either in writing, via letter or e-mail, or through a phone conversation. Currently we analyze the samples on roughly a quarterly basis. This may eventually change to a more frequent schedule if demand continues to increase.

CONTROLLED SUBSTANCES

ISP Sampling Policy

A **felony charge has priority over a misdemeanor**. Example: a gram of cocaine found in a suspect's pocket will be tested while a gram of marijuana found in the same pocket may not be.

A **misdemeanor is treated equally to a felony if it is closer to the suspect or was the probable cause for a subsequent search**. Example: A gram of marijuana found in a suspect's pocket would be analyzed in addition to a gram of cocaine found in the suspect's car (*make sure and note the location on the submittal form, if it is not noted, we will assume all of the items came from the same location*).

Based on the analysts training and experience, if it is suspected different types of felony drugs are submitted, then one of each type will be analyzed. The analyst may use resources such as: statements of fact, description of items as well as visual inspection of items in making this determination.

The analyst will always strive to provide evidence supporting the highest charge, i.e. trafficking, manufacturing, delivery vs. felony possession vs. misdemeanor possession.

When only a trace level of sample is present, every effort will be made to use less than one half of the sample. If it is necessary to use the entire sample, then any extracts, left over liquids, or residues will be returned to the evidence envelope.

For trafficking amounts. ALL samples will be analyzed until the appropriate trafficking weight is reached. Example: Forty balloons come in, each with about 0.1g of suspected heroin. The analyst will weigh out enough to get to the first trafficking level, 2.0 g, and analyze each.

2008 NFLIS Report

The most frequently identified drugs in the Western United States are Cannabis/THC (29%), Cocaine (19%), Methamphetamine (25%), and Heroin (4%). Compared to the other regions of the country, the West had fewer cases with Cocaine and significantly more with Methamphetamine. By comparison, forensic labs in the Northeastern United States reported that less than one-half of one percent (0.46%) of the total cases they analyzed were Methamphetamine.

According to the DEA, MDMA (also known as ecstasy) is the most prevalent club drug. A University of Michigan study found that 4% of 12th grade students, 3% of 10th grade students, and 2% of 8th grade students used MDMA during the past year. In the Western United States MDMA accounts for 81% of the club drugs reported (the highest percentage of any region in the country). BZP (8%), Ketamine (5%), and MDA (1.5%) made up the majority of the other club drugs seen in the West.



DESIGNER HALLUCINOGEN PILLS

BZP

1-Benzylpiperazine, also known as A2, legal X, Frenzy, and Nemesis, has been on the rise as a replacement for ecstasy in Idaho during the last two years. It is used for its euphoric stimulant properties similar to the effects of amphetamines and MDMA (ecstasy). Many times BZP is found paired with TFMPP (3-Trifluoromethylphenylpiperazine), another piperazine-based drug. TFMPP is rarely seen without BZP as its desired effects are very mild without the coupling. These pills are most often found in shapes; ex. Bart Simpson®, President Obama "faces", Smurfs®, and Transformers®. It has been claimed that BZP is a "natural product" giving an "herbal high," when in fact it is entirely synthetic. BZP does not occur naturally and is chemically manufactured. In 2004 BZP was federally classified as a schedule I controlled substance.

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Helpful Links

NAS Report:

Strengthening Forensic Science in the United States: A Path Forward (Free Executive Summary)
<http://www.nap.edu/catalog/12589.html>

FBI Papers:

<http://www.fbi.gov/hq/lab/fsc/backissu/april2009/index.htm>

[Forensic Glass Comparison: Background Information Used in Data Interpretation](#)
[Forensic Hair Comparison: Background Information for Interpretation](#)

<http://www.fbi.gov/hq/lab/fsc/current/index.htm>

[Statistical Weight of a DNA Match in Cold-Hit Cases](#)
[The Forensic Analysis of Footwear Impression Evidence](#)
[Is a Match Really a Match? Procedures and Validity of Firearm and Toolmark Identification](#)

FEEDBACK

ISP Forensic Services welcomes your feedback, questions, and kudos.

JoAnn and Lynn (Coeur d'Alene Forensic Evidence Specialists) have been very helpful, friendly and professional every time I have had contact with them. —*The FES staff does an amazing job handling the evidence, reports, and everything else they do. They have a big job and we appreciate them too!*

I am most impressed with the Forensic Scientists expert testimony. David Sincerbeaux (Coeur d'Alene Chemist) is an EXCEPTIONALLY good witness, and very good at what he does. —*We agree! David is our Chemistry Discipline Leader. He is an excellent scientist and program leader.*

My concern is always going to be the timeliness of the exam and return of the results. I also have a problem with the fact that ISP does not do exams for hair and fiber evidence. This is a huge burden to small departments that have tight budgets. —*These are areas of concern for us as well. The turnaround times are improving as we detailed in the last newsletter. We are currently securing funding and partnerships for a regional trace analysis laboratory to address the trace analysis issue. Many small western states have the same issue with trace analysis and we hope to help each other. More information will be coming soon.*

Full Crime Scene Photography training for law enforcement would be a wonderful addition. In fact, I think having the lab, or an adjunct to the lab, train rank-and-file law enforcement candidates would be a good way of competently delegating investigative responsibility. —*We offered a crime scene photography class last week here in Meridian. Keep watching the newsletter because we will be hosting this again within the next year. We are also working on delivering training to the rank and file via video conferencing. The Idaho Education Network (IEN) is hooking up every high school in Idaho and ISP purchased a video conference system last year to be able to offer any training to remote or rural areas.*

Submit your questions

If you have questions you would like answered in future editions of this newsletter, please [email](#) them to us. Please be concise and specific.