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COMMONWEALTH OF MASSACHUSETTS

SUFFOLK, SS.

COMMONWEALTH OF MASSACHUSETTS *

VS. *

JOHN DOE *

PRESENTED BY:

THOMAS CALDWELL, ESQUIRE
ENTERPRISE & MAJOR CRIMES DIVISION
CRIMINAL BUREAU, 19TH FLOOR
ONE ASHBURTON PLACE
BOSTON, MASSACHUSETTS 02108

THURSDAY, FEBRUARY 11, 2016

SUFFOLK SUPERIOR COURT

3 PEMBERTON SQUARE, FLOOR 6

BOSTON, MASSACHUSETTS

APPEARANCES

THE COMMONWEALTH OF MASSACHUSETTS
OFFICE OF THE ATTORNEY GENERAL
ENTERPRISE & MAJOR CRIMES DIVISION
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Thomas Caldwell, Esquire

Grand Jury - February 11, 2016 Page 3 of 55 I N D E X WITNESS: PAGE: Nancy Brooks 4 EXHIBITS NUMBER: PAGE: (No exhibits offered.)

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1 (Grand jury called to order)

MR. CALDWELL: Good afternoon, ladies and gentlemen. My name is Thomas Caldwell and I'm an Assistant Attorney General assigned to the Criminal Bureau. Today we're going to be continuing an investigation concerning the Amherst drug laboratory and the Department of Public Health, matters that occurred on diverse dates between January 2004 and January 2013. I have one witness for your consideration today.

Ma'am, could you please raise your right hand?

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13 NANCY BROOKS, SWORN.

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BY MS. CALDWELL:

- Q Ma'am, can you please state your name for the grand jurors, spelling your last name for the record?
- A Good afternoon. My name is Nancy Brooks and the last name is spelled B-R-O-O-K-S.
 - Q And where are you currently employed?
- 21 A I am employed with the Massachusetts State Police 22 Crime Laboratory.
 - Q And where is that located?
- 24 A I have an office in the Town of Sudbury and an office

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in the Town of Maynard.

- Q And can you briefly tell us your duties and responsibilities at the crime laboratory?
- A Certainly. I serve as the Forensic Chemistry Section

 Manager of the Forensic Chemistry Section. I oversee
 the following units: The Drug Identification Unit,
 the Office of Alcohol Testing, Toxicology and Post

 Mortem Toxicology.
- Q And prior to your current position, what did you do at the lab before that?
- A I was the supervisor of the Drug Identification Section in Sudbury.
- Q And can you just tell the grand jurors some of your duties and responsibilities in that -- in your role in that position?
- A Certainly. I oversaw the drug unit in which I supervise between six and eight chemists. I insured that the protocols that they were following were consistent with what the laboratory had approved in place. I also participated in the technical review of some of the case work, and in addition I also performed case analysis myself.
- Q And for approximately how long did you do that?
- A I was a supervisor in chemistry for approximately 12

Wisconsin in Madison?

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- Q Can you briefly, for the grand jurors, tell them any professional affiliations that you have concerning forensic chemistry?
 - A I am a member of the Clandestine Laboratory
 Investigating Chemists, that is an organization that
 basically -- it's made up of a group of chemists that
 respond and analyze evidence related to clandestine
 laboratories. I'm also a member of the New England
 Association of Forensic Scientists.
 - Q And have you ever had the opportunity to testify as an expert witness in any matters either in the Commonwealth or outside of the Commonwealth?
 - A Yes. I have testified as an expert in the State of Wisconsin, and I believe I've been qualified as an expert in New Hampshire and Vermont.
 - Q In your time as a forensic chemist, approximately how many samples have you tested?
 - A If I had to estimate in my nearly 20 years as a bench chemist, I've probably examined over 10,000 samples.

 Or actually, I'm sorry, I probably have examined over 30,000 samples and authored 10,000 reports.
 - Q Now you had indicated -- you tell us that you are currently the Forensic Chemist Section Manager for the Department of the State Police. Where is that

laboratory located?

- A I have a couple of different units in different locations. The Drug Unit is in Sudbury and the Office of Alcohol Testing, the Toxicology Unit and the Post Mortem Toxicology Unit are in the Maynard laboratory.
- Q Now specific to the drug laboratory, is that drug laboratory accredited?
- A Yes, it is.
- Q And can you please explain for the grand jurors ----
- 11 A Actually, may I also clarify a previous statement?
- 12 Q Please.

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- 13 A There is also another drug laboratory which I oversee in Springfield.
 - Q Thank you. Could you please walk through for the grand jurors the procedures to become an accredited laboratory, and specifically an accredited drug laboratory?
 - A Certainly. The process by which a lab becomes accredited, typically what happens is that an application is made to an organization. In this particular instance we submitted an application to the American Society of Crime Laboratory Directors Laboratory Accreditation Board, otherwise known as

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ASCLD Lab. An application is submitted, copies of our protocols are submitted to the laboratory for review. There are several meetings and several discussions that take place. This organization actually comes to -- members of this organization come to the crime laboratory and they actually review some of the materials that we have available such as protocols, case files, they look at the site, they look at the facility and they make their assessment.

- Q Now what are some of the things that -- what are some of the things that they look for in terms of in their site visits to give you your lab accreditation.
- A Some of the things they look for is, for example; is there adequate space to perform analytical examinations; is there a mechanism for tracking evidence throughout the laboratory; are analysts able to perform analysis in safe conditions. In addition, they'll review the protocols in place to insure that they're scientifically sound or that the case work that is performed is supported by the analysis that the analysts are scientifically supported.
- Q Do they do any review of the equipment at the lab?
- A They'll look at -- they will look at maintenance

significance of that?

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- A The International Supplements were far more comprehensive. For example, under the original Legacy Program there were 150 criteria that were reviewed for a lab. Under the International Program Supplemental, we are evaluated on 400, approximately 400 criteria, all of which must be -- all of which we must pass.
- Now can you please explain the licensing procedures that you have to go through in order to become a forensic drug laboratory.
- A Well, in order for -- and I'm going to refer to in terms of a drug laboratory. We have to have a Drug Enforcement Administration license in order to handle controlled substances or even to acquire controlled substances. In addition, there is also a Massachusetts Department of Public Health registration that we have.
- Q And who completes that application process for the lab?
- A Usually I'm renewing it. I did not initially apply for it but it's usually me or another supervisor or manager of the laboratory.
- Q And that's yearly, correct?
- 24 A Yes.

- Q Now does the Drug Enforcement Agency ever come out to inspect your lab?
 - A They have not inspected ours, or they may have initially when the lab was first established, but not during my tenure.
 - Q And that license is good for one year?
- 7 A Yes.

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- Q Now you had initially mentioned not only handling controlled substances but purchasing substances. Can you explain what type of substances you would purchase at the lab?
- A Certainly. On occasion when you're analyzing suspected controlled substances you may need reference materials on site to make your comparison. If you have -- if you have to order a controlled substance you need to have a copy of your DEA registration number in order to fill out a form that allows you to purchase the item from certain manufacturers.
- Q And who does this purchasing at your lab?
- A We have -- we have monitors in the unit that have the ability to fill out the form. However, the approval must be given by a supervisor or a manager.
 - O And where are these substances stored?

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- 1 A They are stored within the drug vault.
 - Q And can you just explain for the grand jurors, in terms of your drug -- forensic drug laboratory, where is the vault located?
 - A It is located in a secured area within our evidence control unit.
 - Q And who has access to this drug vault?
 - A It's actually a safe within the drug vault. So there are supervisors within the drug unit who have access to the safe.
- 11 Q And how many supervisors do you have at your 12 laboratory?
- 13 A In the Sudbury lab I have four supervisors and in the Springfield lab I have one supervisor.
 - Q How many chemists do you have working at the Sudbury lab?
- 17 A I believe I have approximately 10 to 12. I'm sorry,

 18 T ----
 - Q And how many at the Springfield?
 - A I have two chemists and one in training, in addition to supervisor. And I will state, the safe that is in the Springfield laboratory is actually secured within the drug laboratory.
 - Q Are the chemists allowed any type of access into this

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drug vault or drug safe?

- A They have access. However, for example, and I'll use Sudbury as an example. Since we have evidence control personnel on site, there is really no need for an analyst to actually enter the drug evidence unit. The evidence is retrieve by evidence room personnel.
- Q Now can you please explain the duties and responsibilities of the evidence room personnel?
- Certainly. They receive evidence from submitting Α agencies. What will happen, for example, is, if an agency brings in evidence related to an investigation, they'll bring it to the crime laboratory, they will fill out some documentation such as an inventory form, and they'll submit it to personnel in the crime lab. That person -- or personnel in the evidence unit. That person will log the evidence in what we refer to as a Laboratory Information Management System and that will include putting information such as any agency names, agency case numbers, date of offense, and any subject names. And as that evidence is logged into the system it will be assigned a unique laboratory case number, and then a bar code will be placed on the evidence.

sample is in fact a controlled substance?

Certainly. After the case is assigned to the

analyst, the analyst will -- the evidence is secured

in a locked storage bin and that bin is going to be

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and then the analyst will have access -- who has access to their own personal bin will remove that item from the bin and then conduct their analysis.

Initially what occurs is the analyst will weigh the gross packaging of the evidence and compare it to a weight that was originally obtained by the evidence room personnel. If there are any discrepancies they'll note this and then they'll investigate. If there are no discrepancies they'll open up the item, conduct an inventory, match it with the evidence control sheet that was submitted with the evidence to make sure that the contents correspond, and then they'll begin their analysis depending on what the nature of the item is.

Q So the contents are inventoried twice, correct?

They'll be -- the gross contents are usually inventoried at the evidence control unit. Generally they don't open up the evidence to do it, but if they have a general idea they can identify if what the officer is bringing in is pretty much consistent with what they see in a sealed plastic bag. The actual inventory is taken place -- conducted by the analyst when they get to their bench because at that point

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they're able to open up the evidence and then actually take all the contents out. So a cursory inventory is actually done at the window, however, a full inventory is done when the analyst actually opens up the case.

- And after the chemist weighs the particular item that was submitted to them, what are the next steps that they take in the testing process?
- A Then they would conduct their inventory, insure to see if it corresponds with the original documentation that was submitted, and then depending on the nature of the items, for example, if it was vegetable material, there's a specific protocol in place for that. If it were tablets they would follow the tablet protocol, and if it were powders they would use the powder protocol or what was a suitable powder protocol.
- Q Can you please explain to the grand jurors what a bag of powder protocol is?
- A For example, if it was a suspected cocaine or a heroin item, we have procedures in place for the analysis of those types of cases. So they would follow that protocol for the analysis.
- Q Is it fair to say that some samples are more

difficult to test than others?

A Yes.

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- Q And why is that?
 - A Depending on the complexity of the case, that is, if there are multiple items they might require a little bit more time and effort in isolating the compound or the fact that different items may need to be -- or multiple items may need to be examined.
 - Q Can you give any examples?
 - A For example, if there were -- if there's an indication when a case was submitted that multiple items were retrieved from different locations, the analyst may pursue to analyze those items separate.

 For example, one at a time and make their conclusion on each item. Whereas in some cases where if you had 10 plastic bags and they were all consistent and they were all submitted together, then you could potentially just take a random sampling of those 10 bags.
 - And when you say "more difficult to test" is that because some are more -- some samples that are submitted are more time consuming or are they more technical in nature or both?
 - A It could be both.

- Q Okay, can you please give an example to the grand juror?
- A For example, if you had multiple items -- I'm trying to find -- I'm sorry, I'm trying to find the appropriate example. Some of the examples -- some of the powders may be heavily adulterated, so in order to determine what might actually be present you might have to perform a series of extractions to isolate the compound of interest. So something like that might require some time and effort. In other instances if you just had a case where numerous items were seized from various locations, that itself could be very time consuming.
- Q In your lab do you assign any particular samples to any one chemist or is it done randomly?
- A It's done randomly and by need.
- Q As to a newer chemist in the lab, are there any particular samples that you would assign to them?
- A I haven't assigned cases in a long time so I can't speak to what the current practice is. But as a supervisor, essentially after someone has been proven to be competent to analyze case work. Rather than, for example, throwing them to -- all these cases, what you might do is just give them some smaller

Sudbury as an example.

Q Thank you.

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- A In the Sudbury laboratory we have a screening -screening instrumentation referred to as ultravioletvisible spectrophotometry and we have fourier
 transform infrared spectroscopy or otherwise known as
 FTIR, and we have a gas chromatograph-mass
 spectrometer, in short known as GC-MS.
- Q In terms of the ultraviolet test, can you just briefly explain what that is to the grand jurors?
- Essentially how the test is performed is you're taking a small portion of the powder or a tablet and dissolving it in an acidic solution and then you're placing it in a beam of ultraviolet radiation. Now depending upon what components are in the powder or sample, you might be able to identify what compound may be present. It's only used as a screening tool, it's not confirmatory by any nature, but it could tell you potentially if you have something that could be consistent with a stimulant.
- Q And do the chemists keep a record of that?
- A Yes. A hard copy -- when an analyst performs a test

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- they print out a graphical representation of their analysis and it is maintained in the case file.
- Q After that initial test what would the next step be in testing? What type of machinery would you use?
- A Depending upon the results of the ultraviolet-visible spectrophotometry they may go to fourier transform infrared spectroscopy or gas chromatography-mass spectrometry for their next step. If it is a substance which might be mixed with other substances then they most likely will use GC-MS for analysis.
- Q And in terms of the GC-MS machine, just very briefly if you could, just explain how that works.
 - Certainly. It is a two -- a two -- let me think of it, a two instrument technique coupled together. The first part is a gas chromatograph in which what you're doing is taking a small sample of your powder, dissolving it in a solvent and then injecting that onto a heated column. As it goes through the column the components separate and then they enter the mass spectrometer which is, for lack of a better term, more like a detector. And as it enters the detector electrons bombard the sample and they break apart into specific fragments. Those fragmentation patterns are what you evaluate in your determination

of what the substance may be. In our laboratory we use a reference material that is run on the same instrument and we compare that reference material to the sample to determine if it's the same substance or for confirmation purposes.

- Q Now you -- we previously talked about substances that would be ordered from laboratories pursuant to your DEA license, correct?
- A Yes.

- Q And how are those used in the testing process?
- When we make an identification in the laboratory we use reference materials for our identification -- for conclusive identification when using the gas chromatograph and mass spectrometer. In some instances we will also use the same reference material to run a sample on the FTIR. And then when you run a sample you can actually compare it to the reference material that you've previously run.
- Q Okay, and you say "reference material" it's fair to say that's the substance that you have ordered from the laboratories, correct?
- 22 A Yes.
 - Q And have you ever heard the term "standard" be used?
- 24 A Yes, I have.

- Q And what do you know a standard to be?
- A standard is something of known origin or identity that you're using for comparative purposes.
- Q So that standard obviously is the known substance and it's tested against the unknown substance, what the individual police departments are bringing in?
- A Yes.

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- Q After the GC-MS, what is the next step that the chemist takes in the testing process of a substance?
- A After they have run their sample on the GC-MS what they'll do is they'll evaluate their data, compare it with the standard. Things that they may look at are retention time, whether substances eluded at the same -- within the same time window as the reference standard. They'll look at the mass spec pattern to see if it's identical with the standard. After the results of all their testing they're going to review the results of their data and form an opinion as to what the substance may contain.
- Q Does any other chemist review that work?
- A Yes. All of our reports are reviewed by another person to insure that that the conclusion formed was scientifically supported.
 - O And after that review has been done what's the next

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- A Well, after the analysis the report is generated and then the report and the data file is reviewed for scientific accuracy. After that is completed then the evidence and the report will go back to the submitting agency.
- Q What happens to the substances at that point?
 - A The evidence is returned to the vault until the submitting agency is able to retrieve the evidence.
 - Q And that also is being kept -- there's a log also being kept of that, correct?
 - A Yes, it's tracked when the evidence is returned to the Evidence Control Unit, but also there is documentation that the officer must sign when retrieving the evidence from the lab.
 - Q And one chemist, aside from the review, one chemist does all of these steps, correct?
- 18 A Yes.
- 19 Q And why is that?
- 20 A We've always had one analyst follow through the
 21 entire analysis. We've never introduced another
 22 person into the analytical process.
 - Q And all of these steps are the policies and procedures that you follow in the lab?

- 1 A Yes.
- 2 Q And they directly relate to the ability to become an accredited laboratory?
- 4 A Yes.

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- Q I'm going to call your attention to a specific time, the beginning of 2013. You were employed by -- obviously employed by the State Police at that time?
- A Yes.
 - Q Okay. And fair to say at one point while you were at the lab you were asked to go to a laboratory at the University of Massachusetts at Amherst, correct?
- 12 A Yes.
- 13 Q At the time, was that a State Police lab?
- A The first time I went to the Amherst lab was, I
 believe, in October of 2012. And at the time it was
 under the State Police, yes.
 - Q And what was the purpose of you going to the lab in October of 2012?
- 19 A It was to conduct an audit of the laboratory. We
 20 were going to evaluate the Amherst lab and the
 21 protocols to see what would need to be obtained in
 22 order for them to become accredited.
 - Q Because they weren't accredited?
- 24 A They were not accredited at that time.

And when that audit was completed, do you recall what

Well, it wasn't an official audit in that we prepared

the final assessment was of the Amherst laboratory?

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be carried out. And so you could do an extraction

And what kind of extractions would you do, just for

kind of under protection of a safety glass.

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example, under a hood?

- A Typical extractions that I used to perform in a hood, if I wanted to extract a component out of a tablet I would want to do that in a hood. If I wanted to evaporate something using a heating element then I'd want to do that in a hood as well.
- Q And you said the laboratory was reminiscent of an academic laboratory. Can you please explain that?
- A As a former chemistry major, I didn't see too much difference between when I was in a chemistry lab 20 years ago and in the Amherst lab.
- Q And so the -- is it fair that the lab in Sudbury is dramatically different from the lab at Amherst as you observed it back in 2012?
- A It was -- dramatically is strong, but definitely different.
- Q Can you please just give us a couple of examples of the differences between the two?
- A We had -- in Sudbury before the recent renovations that we've just experienced we had several working hoods so that analysts had space to perform extractions. Each of our analysts had areas where they could secure evidence, and not in a public -- not in a public space. In addition, everybody had

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personnel?

- The analyst would put it in the bin and the analyst Α would submit or return the bin to the evidence control vault and then it would be secured in the vault by evidence room personnel.
- Q And upon the coming of the next working day, that again would have to be removed by the evidence personnel and scanned back out to that individual chemist, correct?
- Right. And in some instances if evidence personnel Α is not available then an analyst, in the presence of another analyst, would be removing that bin from the vault.
- Q And is there a record of that, if that is the case?
- Α Yes, every analyst has -- they would have a key fob associated, so in order to enter buildings, or enter the drug vault, you have to swipe in. However, what we have in Sudbury is, we have a dual entry, so two people with authorized access have to swipe in right after another in order to access the drug vault.
- Q And a record is kept of that, correct?
- Yes, an electronic record is kept.

A I can't say.

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- Q You don't know?
- A I don't know.
 - Q Now, I'm going to go back to the standards we were discussing earlier. Who is given access to the standards, for example, at the Sudbury laboratory?
 - A Who has access? The supervisors in the drug unit and we do have two personnel who are responsible for the reference standard inventory. So these individuals also have access. So it is their responsibility to monitor and track any new incoming standards that are received into the lab, but also to conduct the inventory to insure that the standards are maintained.
 - Q Now, are these standards given -- why are these standards -- strike that.

How are the standards used?

- A The standards are used for comparative purposes.

 They may be used for creating a spectrum in the fourier transform infrared spectroscopy library, or they may be used to create a sample for the gas chromatograph-mass spectrometer.
- Q And how is that done?
- 24 A For the gas chromatograph-mass spectrometer, you take

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- a small portion of the sample and you dissolve it in a solvent such as methanol and then you run that on the gc-mass spec.
- Q And what are the typical results when you run it on the GC-MS?
- A You will have a chromatograph indicating the retention time of which the component eluded from the column, but also a mass spectrum of the component.
- Q And what's the -- it's fair to say that these standards, these ordered materials from the various laboratories are pure samples, correct?
- A Yes.
 - Q And can you give us an example of something that you would order from the laboratory in order to use as a standard?
 - A Certainly. We would typically order, for example, heroin. Heroin hydrochloride from a reputable manufacturer and once we obtain it we would perform a performance check on it to insure that it is what it's reported to be, and then for the purposes of case -- well, and then it would be secured until needed for case work or it might be performance checked prior to use on case work.
 - Q And how does that standard get to the chemist or get

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to the machines?

- A We have samples that are prepared in solution and that they're secured in the drug lab, and if an analyst is running a series of samples on the gas chromatograph-mass spectrometer, they'll retrieve that small, out of the sample vial and then they'll place it on the instrument to run on the instrument.
- Q And how frequently on a day-to-day basis would a chemist need a new standard?
- A Well, it's really only needed to be run once a day because it's run at the beginning of the day; because a majority of the samples that we analyze are suspected to be cocaine or heroin, so also as a measure of a quality control check we do run the standard in the beginning, in the morning to ascertain if the instruments are working correctly.
- Now in terms of -- in terms of that standard, what would you do if you ran out of a certain standard? Say for example you ran out of heroin standard, what would your laboratory at Sudbury do at that point?
- A If we ran out of heroin in Sudbury, I would contact my Springfield laboratory to see if they had any at that site. If we were out completely between the both labs we'd make arrangements to actually order

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some more from the vendor.

- Q And do you have difficulty in terms of ordering standards from the various labs?
- A Sometimes we have difficultly with some of the new designer drugs because they're so new that some of these manufacturers have not manufactured them.
- Q And now have you ever at any point heard of individuals who are using secondary standards? And when I say "secondary" I mean not the pure ordered samples from different laboratories.
- A So is the question is it uncommon or -- samples not from authorized vendors?
- O Correct.
 - A Yes. Okay. Yes, I have occasionally heard of laboratories using samples from evidence to use as quality control samples or potential reference materials.
 - Q When was -- when was that done, in terms of the time period, was that acceptable?
 - A I would say probably going back 20 years ago that if labs weren't able to procure a traceable reference material, if they could authenticate a sample from evidence then it could be used as a reference material.

- Q And, if you know, how was that done?
- A In good science what would happen is, if you had a suspected sample, for example, cocaine, and you had a standard of cocaine, if you took a sample from your evidence and you compared it, if the composition was identical of that of the reference material and you ran tests to insure that it was and documented it, then it could potentially be used as a reference material itself.
 - Q And these -- these other substances used as reference materials, are they in fact pure substances?
 - A It would depend on where they originated out of.
- Q So it all depends on the police evidence that it was taken from, correct?
 - A That is correct.
 - Q What are the steps to make it in fact and into a -into that form that can then be inserted into the
 machinery?
 - A Well, depending on how adulterated a sample is. And when I say "adulterated" whether it's mixed with something else, an analyst might have to extract some of the impurities out to purify it.
 - Q And how is that done, if you know?
- 24 A There are some extraction procedures which will

known substances; that's also part of the accreditation of the lab and it's required to be accredited?

A I'm sorry?

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- Q I'm sorry, let me step back. When you purchase these standards or these known substances from the various laboratories, that's required of the accreditation, correct?
- Yes, that goes to the traceability of some of the reference materials that we use in the laboratory.

 Traceability refers to the ability to track and identify the origin of reference materials that might be used in an analysis, but also the -- from our perspective, in order to purchase a controlled substance, we need to be able to provide a copy -- or we need to prove that we have a DEA registration on file, and that's more of a Drug Enforcement Administration policy.
- Q Now in terms of the maintenance log, how is that kept and what would be contained within the log?
- A maintenance log would be kept within a binder that is located near the instrumentation or a specific instrument so that if you needed to document any type of work that you had it's easily accessible. What we

also maintain in there are any performance checks that are conducted on the instrument. So any printouts that are performed or obtained after any type of maintenance are printed and retained in the binder.

- Q A septum, what does that mean to you when I say that?
- A It is a rubber seal that is placed upon the injection port of a gas chromatograph.
- Q And what is the importance of a septum on the gas chromatograph?
- A It helps maintain the pressure within the gas chromatograph. It is what a needle or syringe in an auto sampler would puncture in order to introduce the sample onto a heated column.
- Now in your experience, how frequently does a septum need to be changed?
- A It can vary depending on the uses of an instrument.

 It could require -- if you're running a lot of samples or that is, if you're injecting a lot of samples, that septum is going to be pierced many times, so that might require replacement after a couple of days or a day. It varies.
- Q And a chemist would do that, replace a septum if necessary?

A Yes.

2.2

- Q How would a chemist know it was time to change a septum?
- A You might see a decrease in the quality of the data that you obtain. Like you might see a decrease in response, perhaps some -- instead of a nice sharp peak, you might see some tailing. That might be indications of some maintenance that might be required in the injection port.
- Q And when you say "peak," what do you mean by "peak"?
- A In the gas chromatograph-mass spectrometer, what you're looking at is you're going to be looking at a chromatogram which is a graphical representation of when the substance elutes from a column. And typically what it looks like is a sharp peak and it's going to be denoted by a retention time that it elutes from the column. Sometimes when -- if that peak's not very sharp and looks very broad, that might signify some maintenance might need to be done. That is something that you might look at.
- Now in your time as a chemist or in your time as a supervisor, do chemists employed at the lab, for example, Sudbury, put together discovery packets for district attorneys?

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- A We have a case management unit that does provide -puts together discovery packets.
 - Q And what is something that's typically in that discovery packet?
 - A typical discovery packet will include a copy of the case file, it would include a copy of the report, the notes the analyst generated, in addition to any data that was obtained as a result of their testing. They may also include copies of a lot number sheet for all the agents that are used, as well as any external documentation that was submitted with the evidence, any administrative paperwork that might have been submitted with the evidence at the time.
 - Q Are maintenance logs frequently requested in these discovery packets?
 - A Sometimes they are, yes. If I could qualify my statement?
- 18 Q Please.
- 19 A They are provided if they are requested.
- 20 Q Now you had indicated that an inventory is kept of the standards, correct?
- 22 A Yes.
- Q Has that, in your experience or if you know, has that ever been requested in a discovery packet?

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        Α
             Not to my knowledge.
             I want to talk a little bit about the classifications
 2
        Q
             of drugs now.
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 4
        Α
             Okay.
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             Drugs are classified under the general laws and I
        Q
 6
             believe it's five different categories?
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             Yes.
        Α
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             And that's A, B, C, D, and E, correct?
        Q
             That is correct.
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        Α
             And can you give this grand jury an example of Class
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        Q
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             A drug?
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        Α
             The most common one that comes to mind is heroin.
             Heroin is a Class A substance.
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14
        Q
             And a Class B drug?
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        Α
             Cocaine.
16
             A C drug?
        Q
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        Α
             Clonazepam.
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             And what is Clonazepam?
        Q
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             Clonazepam is otherwise known as Valium.
        Α
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        Q
             A Class D substance?
2.1
             Marijuana.
        Α
22
             And a Class E substance?
        Q
23
             Penicillin.
        Α
24
             Now, how is a Class E substance tested at the Sudbury
        Q
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lab?

2.2

- A Some of the Class E substances that we identify, for example, if it was a tablet that has specific markings and if those markings are consistent with a pharmaceutical identifier that we obtain in a database, then we refer -- we report out that the tablet was consistent in markings and appearance with containing such and such drug. There are instances where we have items that are submitted which may not have markings or they're unknown at the time; however, the results of our analysis leads us to conclude that it could be a Class E substance.
- Q Do you ever breakdown say a pill and place it into the gas chromatograph-mass spectrometer?
- A Yes.
 - Q And in what situations would you do that?
- A For example, oxycodone. Sometimes we see oxycodone or tablets that have markings consistent with that of oxycodone, but our policy is to analyze those tablets. So we'll conduct chemical analysis of those tablets and if the results are consistent with the reference material that we run, then we conclude the identity.
 - Q Have you ever heard of the drug BZP?

Yes, it was. Α

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Q And can you explain what was different about that policy?

Several years ago, it was our understanding that if Α something was federally scheduled, however not listed

know what the intent of this particular classification was. If I were to look at Mass.

General Laws and the federal statutes, it would appear that in some way there was some correlation.

Some of the items listed as schedule one drugs are listed as Class A substance; heroin is one example. Likewise, cocaine, which is a schedule two substance federally is a Class B substance.

- Q And this is a follow-up to that, sir. There are several classifications under the federal system, correct?
- 12 A Yes.

2.2

- Q And you had testified previously as to their medical use, correct?
- A Yes, and that is federally they usually define classifications based on the high potential for abuse or whether there's some accepted medical use for the substance. Cocaine, for example, does have some limited medical use.

MR. CALDWELL: Are there any other questions from the grand jurors? Sir?

JUROR: When you're receiving evidence from the various police departments at your labs, are they ever presented in open packages?

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- A Our policy at the evidence control window is the evidence must be in a sealed condition before we take custody of it.
- Q Just as a follow-up to that, if I may, sir. What would be the response from the laboratory, your laboratory, if something was coming in from the police department and the bags were open?
- A We actually provide them the tools and the mechanism for which they can seal the items before we will accept custody of it.

JUROR: What is a hood? Could you describe that for me?

A Think of it as a large square box which has ventilation to an external source. So typically, a lot of hoods actually have a shield that you can pull down so if you're performing some type of extraction or experiment you want to perform it there rather than in an open space because if something happens, at least there's some protection.

JUROR: Is only one chemist at a time in a hood?

A It depends. You could do -- you could have two chemists working in a hood if they're working together, but it depends on what you're actually doing in the hood.

2.2

MR. CALDWELL: Is there any further questions? Sir?

JUROR: Follow-up on his question about the sealed drugs coming to the lab. Are any drugs coming to the lab unsealed and when they get to the lab they're sealed and then they're considered, you know, I guess undisturbed or whatever?

A I'm not at the evidence control window, so I don't know what the percentage of cases that may come in unsealed; however, we make it available to the submitting agencies if they need to seal their evidence before arriving at the lab. We give them a -- we make accessible a heat sealer and any packaging material in order to do so.

JUROR: So they could be unsealed before they get to the lab itself?

A It's possible.

JUROR: And the people that were handling it while it was unsealed, are they scrutinized in any manner?

A That's not for me to say.

JUROR: Is there always a supervisor on duty, any other chemists there, or are there times when there's never a supervisor there? Can chemists just

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                                                         Page 54 of 55
              1
                    Thank you.
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                    (Whereupon, the hearing concluded.)
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CERTIFICATE

I, ELLEN K. CASSOLA, a Court Reporter and Notary Public in and for the Commonwealth of Massachusetts, do hereby certify that the foregoing Record, Pages 1 to 54, inclusive, is a true and accurate transcription of my voice recording to the best of my knowledge, skill and ability.

IN WITNESS WHEREOF, I have hereunto set my hand and Notarial Seal this 16th day of February, 2016.

ELLEN K. CASSOLA,
Notary Public

My Commission expires October 10, 2019

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