



FORENSIC APPLICATIONS CONSULTING TECHNOLOGIES, INC.

**Preliminary Assessment
of an
Identified Illegal Drug Laboratory
at
2927 Main Street
Colorado Springs, CO, 80907-6013**

Prepared for:
Environmental Claims Office
Farmers Insurance
31051 Agoura Rd
Westlake Village, CA 91361
(Claim Number 1014677654-1-1)

Prepared by:

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October 13, 2009

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EXECUTIVE SUMMARY

On Thursday, August 20, 2009, personnel from Forensic Applications Consulting Technologies, Inc. (FACTs) were contracted to perform a standard cursory evaluation for the presence of methamphetamine at 2927 Main Street, Colorado Springs, CO 80907-6013 (the subject property).

Samples taken during the cursory evaluation and Preliminary Assessment conclusively demonstrated the presence of methamphetamine contamination, and pursuant to Colorado Revised Statutes, CRS §16-13-103, the structure, all out buildings, all vehicles and all personal items therein met the definition of an “illegal drug laboratory.”

On September 22, 2009 personnel from FACTs performed a State mandated Preliminary Assessment pursuant to Colorado Regulation 6 CCR 1014-43, Part 4. Based on the totality of the circumstances, FACTs makes the following observations:

- The property exhibits overt noncompliance with Colorado’s methamphetamine cleanup standards.
- “Discovery” and “Notification” existed by virtue of the FACTs August 25, 2009 report (report detailed August 20, 2009 findings).
- An illegal drug lab, as that term is defined in CRS §25-18.5-101, existed at the subject property from August 20 2009 forward, and continues to exist at the time of this report.
- Sampling performed by FACTs provided objective *prima facie* evidence that a methamphetamine *manufacturing* process occurred at the property.
 - Significantly elevated levels of iodine was identified.
 - Ephedrine was recovered from surfaces that would not otherwise be expected to have measurable concentrations.
- A Class 1 Public Nuisance, as defined in CRS §16-13-303(1) existed at the subject property from August 20 2009 forward, and continues to exist at the time of this report.
- In violation of CRS §25-18.5-104, Colorado Springs Police Department prevented the Property Owners from lawfully restricting access to the property (after “Discovery” and “Notification” via August 25, 2009 report), and repeated illegal entries were made into the property by the tenants.
- In violation of CRS §25-18.5-103(3) and 6 CCR 1014-3 5.8 *et seq*, the Colorado Springs Police Department permitted contaminated materials to be relocated to another unsecured area. The unknown location now is considered similarly contaminated and must be assessed pursuant to Colorado Regulations.



- In violation of CRS §25-18.5-103(b) and 6 CCR 1014-3 5.8 *et seq*, the Colorado Springs Police Department permitted the unlawful removal of vehicles associated with the subject property. The vehicles remain a part of the property address, and pursuant to state regulations 25-18.5-103(b), the ownership of the vehicles should have reverted to the registered owner of property.
- The personal property and vehicles unlawfully removed from the property must, by State statute and State regulation, be subjected to a Preliminary Assessment and decontamination, as needed.
- Following the decontamination activities, a qualified Industrial Hygienist must perform the post-decontamination process and issue a Decision Statement before reentry or occupancy of the subject property may occur.
- Initial (cursory) sampling was performed by Mr. Caoimhín P. Connell who was assisted by Ms. Christine Carty.¹ The Preliminary Assessment and Preliminary Assessment sampling was conducted by Mr. Connell who was assisted by Mr. Glenn Hardey.²

REGULATORY REQUIREMENTS

Federal Requirements

All work associated with this Preliminary Assessment was performed in a manner consistent with regulations promulgated by the Federal Occupational Safety and Health Administration (OSHA).

State Requirements

Preliminary Assessment

According to Colorado State Regulation 6-CCR 1014-3, following the discovery of an illegal drug lab, as that term is defined in CRS §25-18.5-101, and following “notification,” the property must either be demolished or a “Preliminary Assessment” must be conducted at that property to characterize extant contamination (if any), and to direct appropriate decontamination procedures (if any). Pursuant to these regulations,

¹ Ms. Carty has received a training certificate in Clandestine Drug Lab Safety through the Colorado Regional Community Policing Institute (CRCPI) sponsored by the US Dept. of Justice High Intensity Drug Trafficking Area fund.

² Mr. Hardey’s certified training has included the 40 Hour US Dept. of Justice – Drug Enforcement Agency Clandestine Drug Lab Safety Course and the Clandestine Drug Lab Safety Course for First Responders through the Colorado Regional Community Policing Institute (CRCPI) sponsored by the US Dept. of Justice High Intensity Drug Trafficking Area fund, and has extensive experience in law enforcement activities involving clandestine drug labs and controlled substances.



information obtained in the Preliminary Assessment, and those findings, enter the public domain and are not subject to confidentiality.³

The Preliminary Assessment must be conducted according to specified requirements⁴ by an authorized Industrial Hygienist as that term is defined in CRS §24-30-1402. This document, and all associated appendices and photographs, is the “Preliminary Assessment” pursuant to those regulations. Included with this discussion is a read-only digital disc (DVD). The disc contains mandatory information and photographs required by State regulation for a Preliminary Assessment. This Preliminary Assessment is not complete without the DVD and all associated support documents.

Pursuant to CRS §25-18.5-105, the subject property was deemed a “public health nuisance.” Pursuant to CRS §16-13-303, the subject property and all of its contents was deemed a Class 1 Public Nuisance. As such, the subject property must be remediated according to State Board of Health regulations 6-CCR-1014-3 or demolished (CRS §25-18.5-103).

Discovery and Notification

Discovery and Notification occurred at the subject property by virtue of the August 25, 2009 report of findings written by FACTs.

Preliminary Hypothesis

During the Preliminary Assessment, the initial hypothesis is made that the subject area is clean and data will be collected to find support for this hypothesis. Any reliable data that fails to support the hypothesis, including police records, visual clues of illegal production, storage, or use, or documentation of drug paraphernalia being present, is considered conclusive, and requires the Industrial Hygienist to accept the null hypothesis and declare the area non-compliant.⁵ The strength of evidence needed to reject the hypothesis is low, and is only that which would lead a reasonable person, trained in aspects of meth laboratories, to conclude the *presence* of methamphetamine, and/or its precursors or waste products as related to processing.

Contrary to common belief, sampling is **not** required during a Preliminary Assessment; however, if sampling is performed, it is conducted in the areas with the highest probability of containing the highest possible concentrations of contaminants. According to the State regulations:⁶

Identification and documentation of areas of contamination. This identification may be based on visual observation, law enforcement reports, proximity to chemical storage areas, waste disposal areas, or cooking areas, or based on professional judgment of the

³ Section 8.26 of 6 CCR 1014-3

⁴ Section 4 of 6 CCR 1014-3

⁵ This language and emphasis is verbatim from Appendix A (mandatory) of 6 CCR 1014-3

⁶ Section 4.6 of 6 CCR 1014-3



consultant; or the consultant may determine that assessment sampling is necessary to verify the presence or absence of contamination.

Initial Statement on Hypothesis Testing

Regarding this subject property, objective sampling performed by FACTs, confirmed overt methamphetamine contamination as well as iodine contamination and the presence of ephedrine in areas one would not normally find ephedrine. Each of the findings, in the totality of circumstances would challenge the Primary Hypothesis, and require FACTs, to accept the null hypothesis and declare the primary residence and all contents therein as non-compliant. Based on the totality of the circumstances, the attic space in the primary residence, the two garages and the one shed located on the subject property are determined to be compliant, and are excluded from further remediation activities provided the conditions of this Preliminary Assessment are met.

Elements of the Preliminary Assessment

Specific mandatory information must be presented as part of the PA. This discussion, in its totality, contains the mandatory information for a PA as follows:


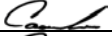
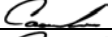

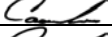

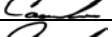
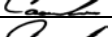


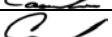





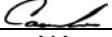


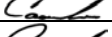

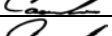
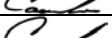
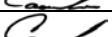
Mandatory Final Documents 6-CCR 1014-3	DOCUMENTATION	Included
§8.1	Property description field form	
§8.2	Description of manufacturing methods and chemicals	
§8.3	Law Enforcement documentation review discussion	
§8.4	Description and Drawing of Storage area(s)	
§8.5	Description and Drawing of Waste area(s)	
§8.6	Description and Drawing of Cook area(s)	
§8.7	Field Observations field form	
	FACTs Functional space inventory field form	
§8.8	Plumbing inspection field form	
	FACTs ISDS field form	
§8.9	Contamination migration field form	
§8.10	Identification of common ventilation systems	
§8.11	Description of the sampling procedures and QA/QC	
§8.12	Analytical Description and Laboratory QA/QC	
§8.13	Location and results of initial sampling with drawings	
§8.14	FACTs health and safety procedures in accordance with OSHA	
§8.15 -§8.19	These sections are not applicable to a Preliminary Assessment	NA
§8.20	FACTs Pre-remediation photographs and log	
	FACTs Post-remediation photographs and log	NA
§8.21	FACTs SOQ	
§8.22	Certification of procedures, results, and variations	
§8.23	Mandatory Certification Language	
§8.24	Signature Sheet	
NA	Analytical Laboratory Reports	
	FACTs final closeout inventory document	
	FACTs Field Sampling Forms	

Table 1
Inventory of Mandatory Elements and Documentation



Subject Structure

The primary residential structure was listed by the El Paso County Assessor's Office as a 1,352 square foot dwelling built *circa* 1938. For the purposes of regulatory compliance, traditionally non-taxable spaces (such as an attic, crawlspace and sheds) must be included in the assessment. Therefore, for the purposes of this Preliminary Assessment, the approximate total square feet of impacted floor space is listed as 3,421 square feet and sampling requirements must be based on this value.

Exterior Structures

Pursuant to State regulations, "Property" means anything that may be the subject of ownership or possession, including, but not limited to, land, buildings, structures, vehicles and personal belongings. Further, pursuant to Colorado Revised Statutes §25-18.5-101, the definition of a "drug laboratory" includes all proximate areas that are *likely* to be contaminated as a result of manufacturing, processing, cooking, disposing, or storing of methamphetamine, its precursors, waste products or equipment.

As such, we initially included the following structures in the Preliminary Assessment:

- 1) Structure 1: Primary Residential Structure
- 2) Structure 2: Exterior South Metal Shed
- 3) Structure 3: Exterior Central Garage
- 4) Structure 4: Exterior North Garage

A general layout of the structures is depicted in the drawing below. Figure 1, below is not to scale, however, the drawing is proportional.



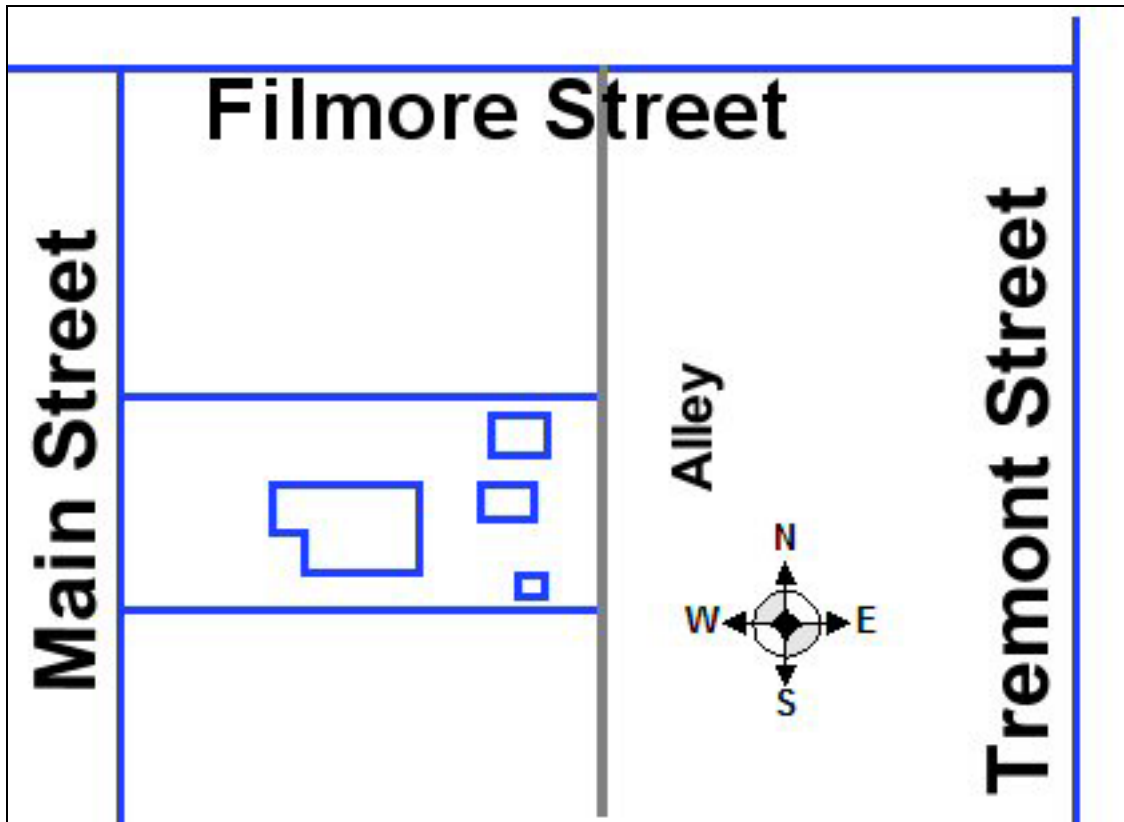


Figure 1
General Site Layout

Review of Law Enforcement Documentation

As part of the Preliminary Assessment, FACTs is required by regulation⁷ to review available law enforcement documents pertinent to a subject property. During this project, the El Paso County Sheriff's Office exhibited the highest level of professionalism and cooperated with the requirements of our Preliminary Assessment, and promptly responded to our request for information. El Paso County Sheriff's Office informed us they did not have any information on the property.

We made several attempts to contact members of the Colorado Springs Police Department. We issued a written request on September 15, 2009, but had no reply to our letter by the day of our site visit. On the day of our site visit, (September 22, 2009) we were contacted by the CSPD and we were informed that the contacts for the subject property were Detective Richards, and Lt. Harmon. We attempted to contact both individuals, however, as of the date of the preparation of this report, (October 13, 2009) we have not received a call back from either individual. In our experience, Colorado Springs Police Department is the only law enforcement agency in the State of Colorado that does not cooperate with the Preliminary Assessment process. FACTs is aware that a

⁷ 6 CCR 1014-3 (Section 4.2)



search warrant was executed at the property, however no information on the activity is available.

Furthermore, we are also aware of the fact that CSPD performed sampling at the subject property. Based on our observations, the sampling lacked an high degree of technical competency.

County

Governing Body

In the past, where FACTs has performed Preliminary Assessments in El Paso county, El Paso County Department of Health took the role of “Governing Body” although it rejected the title. The El Paso County Department of Health originally passed and enforced County-specific Methamphetamine Laboratory Cleanup Regulations.⁸ However, those regulations were contradictory with State regulations, and State statutes and unlawfully granted regulatory relief in contradiction to State Legislative actions. Based on information from the El Paso County web-site dated September 22, 2009, the County Regulation appears to have been recently withdrawn. We are not aware of other local regulations that may apply.

El Paso County has informed us that the “Governing Body” as defined in CRS §25-18.5-101 for this subject property is:

Colorado Springs Police Department
705 S Nevada Avenue
Colorado Springs, CO 80903

Visual Inspection of the Property

As part of the Preliminary Assessment, on Tuesday, September 22, 2009, Mr. Caoimhín P. Connell, Forensic Industrial Hygienist with FACTs performed a visual inspection of the subject property. Pursuant to regulatory requirements, the subject property was assigned into “functional spaces,” and an indicia inventory and assessment was performed for each functional space.

The property was essentially in an “unoccupied” condition but contained residual chattels, furniture, major appliances and widespread debris left behind by the previous occupants.

To protect the property owner against the introduction of contaminants into the subject property, the Industrial Hygienist and his Technician donned fresh Tyvek[®] suits and booties upon entering the property. All equipment brought into the subject property was

⁸ Attachment “A” Regulations Of The El Paso County Board Of Health El Paso County, Colorado Chapter 4 *Methamphetamine Laboratory Cleanup Regulations*, March 23, 2005



staged at or near the front door of each structure entered. The ladder FACTs used during this assessment had been cleaned at a car wash prior to use.

SAMPLE COLLECTION

Wipe Samples

The samples collected throughout the subject property comprised of “discreet” samples. Discreet samples are a single wipe, collected from a single area, and submitted for analysis as a unique location.

Methamphetamine

Wipe samples were collected in a manner consistent with State regulations. The wipe sample medium was individually wrapped commercially available Johnson & Johnson™ gauze pads. Each gauze material was assigned a lot number for quality assurance and quality control (QA/QC) purposes and recorded on a log of results. Each pad was moistened with reagent grade methyl alcohol. Each batch of alcohol was assigned a lot number for QA/QC purposes and recorded on a log of results. Each proposed sample area was delineated with a measured outline.

Each wipe sample was collected by methodically wiping the entire surface of the selected area with moderate pressure; first in one direction and then in the opposite direction, folding the gauze to reveal fresh material as necessary. Each sample was returned to its centrifuge tube and capped with a screw-cap. The wipe samples were submitted for analysis to Analytical Chemistry Inc. in Tukwila, Washington.

QA/QC Precautions

The sampling media were prepared in small batches in a clean environment (FACTs Corporate Offices). The sample media were inserted into individually identified disposable plastic centrifuge tubes with caps.

Field Blanks

Field blanks were submitted pursuant to regulation. The field blanks indicated that the sampling media were free from contamination.

Iodine

Wipe samples were collected in a manner consistent with State regulations. The wipe sample medium was individually wrapped commercially available Johnson & Johnson™ gauze pads. Each gauze material was assigned a lot number for quality assurance and quality control (QA/QC) purposes and recorded on a log of results. Each pad was moistened with 0.1 molar reagent grade potassium hydroxide. Each batch of KOH was assigned a lot number for QA/QC purposes and recorded on a log of results. Each proposed sample area was delineated with a measured outline.

Each wipe sample was collected by methodically wiping the entire surface of the selected area with moderate pressure; first in one direction and then in the opposite direction,



folding the gauze to reveal fresh material as necessary. Each sample was returned to its centrifuge tube and capped with a screw-cap. The wipe samples were submitted for analysis to Analytical Chemistry Inc. in Tukwila, Washington.

QA/QC Precautions

The sampling media were prepared in small batches in a clean environment (FACTs Corporate Offices). The sample media were inserted into individually identified disposable plastic centrifuge tubes with caps.

Field Blanks

A field blank was submitted pursuant to regulation. The blank was submitted “blind” meaning the analyzing laboratory had no indication that one or more of the samples may be QA/QC related. Initially the analyzing laboratory reported a problem with its internal quality assurance controls. The analyzing laboratory reported to FACTs that their internal spike recoveries were low and outside of internal tolerances. The analyzing laboratory reanalyzed the samples, and reported the values. However, the laboratory reported recovering 66 µg of iodine from the field blank. The implications of this are addressed below.

Cross Contamination

Prior to the collection of each specific sample area, the Industrial Hygienist or his technician donned fresh surgical gloves, to protect against the possibility of cross contamination.

Collection Rationale

Primary Objective

It is a common misconception that the Industrial Hygienist is required to collect samples during a Preliminary Assessment of an illegal drug lab. However, no such requirement exists in Colorado. Rather, regarding samples, the regulations state:

Pre-decontamination sampling

In pre-decontamination sampling, the question that is being asked is “Is there evidence of the presence of methamphetamine production in this area?” The assumption (hypothesis) is that the area is clean i.e. “compliant,” and data will be collected to find support for the hypothesis. Data (such as samples) are collected to “prove” the area is compliant. Sampling, if it is performed, is conducted in the areas potentially containing the highest possible concentrations of contaminants. Any data that disproves the hypothesis, including police records, visual clues of production, storage, or use or documentation of drug paraphernalia being present, is considered conclusive, and leads the consultant to accept the null hypothesis and declare the area non-compliant. The strength of evidence needed to reject the hypothesis is low, and is only that which would lead a reasonable person, trained in aspects of methamphetamine laboratories, to conclude the presence of methamphetamine, its precursors as related to processing, or waste products.

Similarly, there is a misconception that if samples are collected, and the laboratory results are below the value often misinterpreted as the State’s regulatory threshold value (0.5



µg/100 cm²), the samples necessarily indicate that the area is not contaminated and no action is required. However, the regulatory threshold values are exclusively to be used as *prima fascia* evidence during final verification activities in the absence of all other information. During a Preliminary Assessment, there is no *de minimis* concentration of methamphetamine below which a statement of compliance can be made in the absence of final verification sampling. Although State regulation does not require samples to be collected during a Preliminary Assessment, as part of this Preliminary Assessment, samples were collected.

The data quality objectives of the samples collected during the Preliminary Assessment were to determine, within the context of the regulation, whether or not specific areas such as the attic and the crawlspace could be excluded from the remediation process.

Secondary Objective

During this project, a secondary sampling objective was to resolve the question of whether or not a manufacturing process for methamphetamine occurred at the property.

In general, in El Paso county, there are two primary methods of methamphetamine production, the “Red P” method and the “Nazi” method. Although both methods are pseudoephedrine reduction methods, the two methods use very different reagents to achieve reduction.

The Red P method involves the production of hydroiodic acid (HI) that is released into the environment, and contacts available surfaces. There is no normal, reasonable, household process that releases iodine into the atmosphere. Therefore, the presence of iodine contamination in the presence of methamphetamine contamination is objective *prima fascia* evidence that at least one step of methamphetamine production took place in a particular property.

We hypothesized that surfaces and materials in this property were devoid of detectable concentrations of iodine and ephedrine. We made the a priori statement that the presence of ephedrine *at any detectable concentration above the method LOD*, would be interpreted as objective evidence of an ephedrine reduction method of methamphetamine production.

We further made the a priori statement that the presence of iodine *at any detectable concentration above the method LOD*, would be interpreted as objective evidence of a Red P (or other hypophosphoric acid) production method of methamphetamine.



Sample Results

Methamphetamine

The results of the methamphetamine samples are summarized in the table below.

Sample ID	Location	Surface Area (cm ²)	Result µg/100 cm ²
AM082009-01	Composite	32.30	3.90
AM082009-01A	Living room ceiling fan		
AM082009-01B	Master bedroom ceiling fan		
AM082009-01C	Master bedroom closet E wall		
AM082009-01D	Bathroom top of medicine chest		
AM082009-01E	Bathroom top of lighting fixture		
AM082009-02	Composite	32	3.63
AM082009-02A	NE BR Ceiling fan motor		
AM082009-02B	NE BR furnace supply duct		
AM082009-02C	Kitchen top of refrigerator		
AM082009-02D	Living room top of lighting fixture		
AM082009-02E	Top of hallway door jamb		
AM092209-2	Attic Galvanized exhaust stack	629	<0.005
AM092209-5	Furnace duct interior	523	0.293
AM092209-6	Crawlspace top of locker	523	1.227
AM092209-6	Crawlspace top of locker	523	0.325 µg*
AM092209-7	S Shed S wall (10% under sampled)	523	0.009
AM092209-8	Central garage top of door opener mechanism	523	0.138
AM092209-9	North garage top of door opener mechanism	523	0.032
AM092209-10	Living room ceiling fan	426	0.399
AM092209-11	Master BR Ceiling Fan	419	0.267
AM092209-12	Vacuum contents	NA	94.3 µg
AM092209-15	Field Blank	NA	<0.03
AM092209-16	White insulation from attic	NA	<0.03
AM092209-16	White insulation from attic	NA	0.096 µg*
AM092209-17	Brown insulation from attic	NA	<0.03
AM092209-21	Furnace filter	58	3.152

* Ephedrine

Table 2
Results of Preliminary Methamphetamine Wipe Samples

Wipe Sample Results

In the above table, the shaded samples (prefix AM082009) are the samples that were collected pursuant to Colorado's Real Estate methamphetamine disclosure and testing statute as described by CRS §38-35.7-103(2)(a). As such, these samples were not subject to the regulatory sampling requirements of 6 CCR 1014-3. Nevertheless, the Industrial Hygienist is required by regulation to incorporate those sample results into the Preliminary Assessment.



Statement of Uncertainty

For all sampling and analytical methods, there is a specific uncertainty associated with the analysis. Therefore, for any reported laboratory value, there is a *probability* that the true result is greater than the reported value (Upper Confidence Limit, UCL), or less than the reported value (Lower Confidence Limit, LCL). A laboratory result, therefore, represents a *probable* result in between two confidence limits and may be depicted thus:



Figure 2

Confidence intervals of Reported Values

The reported value (RV) lies somewhere in between two possible “true” values, the UCL and the LCL.

Compliance, and the decision to remediate or not remediate, is based not only on the reported value, but also on the statistical uncertainty of the results. So, in the drawing below, where the reported value (A) and the LCL are greater than the decision threshold (the horizontal line), we are *confident* the reported value indicates noncompliance. Where the reported value (D) and the UCL are less than the decision threshold, we are *confident* the reported value indicates compliance.

However, there is an ambiguous zone of reported values, such as (B), where although the reported value is greater than the decision threshold, there is a probability the true value is less than the decision threshold. Similarly, where the reported value is less than the decision threshold, there is a probability the true value is greater than the decision threshold (C).

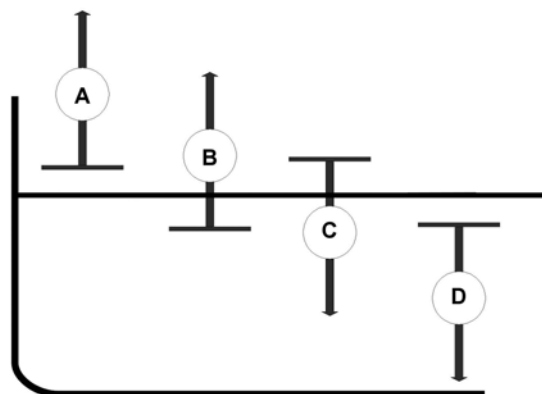


Figure 3

Uncertainty in Reported Values



Standard industrial hygiene sampling protocols require that the Industrial Hygienist consider this degree of uncertainty, known as the total coefficient of variation (Cv_T), for each method. The Cv_T includes the uncertainty associated with both the sampling and analytical processes. For many methods, such as this analysis method, the degree of analytical uncertainty is known and published, and is generally small. However, for field methamphetamine sampling, the statistical uncertainty is generally very large. When we analyze field data from fully characterized properties, we see that the variation of concentrations from the building as a whole usually exhibits a lognormal distribution. As such, geometric standard deviations can be as large as 3.0. This distribution is similar to that reported elsewhere.^{9, 10}

Standard Industrial Hygiene protocols typically use the 95% confidence intervals to determine the possible “spread” of the laboratory results about the true value. As such, where the Cv_T is known, the IH calculates the UCL and LCL and determines if the UCL is greater than or less than the Decision Threshold. In this case, the LCL is conclusively greater than the minimum decision threshold, and the UCL may be greater than the maximum decision threshold.

We did not see anything in this property that would indicate the data distribution would be any different. Therefore, although a sample such as the ceiling fan sample collected on September 22, 2009 has a value of $0.4 \mu\text{g}/100 \text{ cm}^2$, (apparently below the regulatory limit), the sample location similarly belonged to a sample suit whose concentration was approximately 40 greater than the regulatory limit for a composite sample ($3.9 \mu\text{g}/100 \text{ cm}^2$). As such, in the totality of the circumstances, even the value of $0.4 \mu\text{g}/100 \text{ cm}^2$ is interpreted as evidence to challenge the compliance status of the room, and require cleaning. This decision making process is used for each of the areas from whence a composite sample was collected.

Similarly, because of the distribution (sampling error), discrete samples such as AM092209-11, may be confidently interpreted as having a UCL in excess of the regulatory limit. However, samples such as AM092209-8, have a concentration that are sufficiently low, in the totality of circumstances, to apply professional discretion and state that the UCL is probably below the regulatory threshold.

The samples indicate widespread contamination in the primary structure, and compliant conditions in the attic, and each of the exterior buildings.

⁹ Washington State Department of Health: *Summary Results from a Pilot Study to Evaluate Variability and Distribution of Methamphetamine Residue in Remediated Residential Illegal Drug Labs*, as reported in NIOSH Method 9106 (DRAFT)

¹⁰ Martyny JW, Arbuckle SL, McCammon CS, Esswein EJ, Erb N, *Chemical Exposures Associated with Clandestine Methamphetamine Laboratories*, (http://www.njc.org/pdf/chemical_exposures.pdf, May 10, 2004).



Bulk Samples

Samples AM082009-12, AM082009-16, AM082009-17 and AM082009-21 are “bulk” samples and are expressed in various units depending on the specific Data Quality Objectives (DQOs) under which the samples were collected.

Vacuum Cleaner

Sample AM082009-12 was a nonhomogenized, stratified sample of the contents of the vacuum cleaner. The presumption was that the vacuum cleaner was used by the previous occupant, and that the contents of the cleaner came exclusively from the property, and exclusively during the time-frame the previous occupants occupied the property. The sample that was harvested represented the last time the cleaner was used (it was the newest accumulation of debris). The DQO was to address the question “Is methamphetamine present in the vacuum cleaner contents?” To which there was a “Yes” or “No” answer. If methamphetamine was present, then one can conclude that the methamphetamine was present exclusively during the time-frame the previous occupant was in the house (i.e., the measured contamination did not occur after the occupant vacated the property). In this case, the units of expression are total micrograms recovered from the sample: 6 micrograms (6 µg). The sample indicates that methamphetamine was present before the previous occupants vacated the property.

Attic Insulation

Samples AM082009-16 and AM082009-17 are nonhomogenized bulk samples of the two different layers of insulation in the attic. The samples were collected from the area around a hole the previous occupant had made in the ceiling. The speculation was that the hole was placed in the ceiling to vent off-gases from the meth production set up into the attic.

The upper white layer was applied after the previous occupants moved in; the lower brown layer was the original layer prior to the occupancy by the previous occupants. The DQO for the sample was: “On a mass per unit weight basis, is there a statistically significant difference between the white layer and the brown layer?” (Thus speaking to the time-frame of the presence of methamphetamine, if present). Each of the samples was below the analytical detection limit for methamphetamine of the method. The two sample results increase the confidence of Sample AM092209-2, the attic wipe sample, which similarly was below the detection limit for methamphetamine.

However, ephedrine was recovered from the upper white layer (0.096 µg) and not found in the lower brown layer.

The recovery of ephedrine from the attic is, in the totality of circumstances, viewed as further evidence of methamphetamine *production*. The fact the ephedrine was recovered in the (newer) white layer of insulation and not in the (older) brown insulation from the same location confidently places the deposition of contamination after the previous tenants occupied the house.



Furnace Filter

Finally, Sample AM092209-21 is a sample from the furnace filter in the crawlspace. The sample was collected to determine the need to remediate the furnace system. The sample was under sampled by 50% and, in accordance with standard practice, the value shown is a “corrected” value (the result has been doubled to account for the “missing” material).

Overall, the samples indicate widespread, significantly elevated methamphetamine contamination throughout the entire residential structure, and all items within the structure.

Quality Assurance/Quality Control

The following section is required by regulation and is not intended to be understood by the casual reader. All abbreviations are standard laboratory use.

Data Set

MDL was 0.004 µg; LOQ was 0.03 µg; MBX <MDL; LCS 100 µg (RPD 1%, recovery =101%); Matrix spike 0.020 µg (RPD 5%; recovery 95%); Matrix spike Dup 0.020 µg; (RPD 5%; recovery 105%); Surrogate recovery: High 113% (Sample 5), Low 83% (Sample 6); FACTs reagents: MeOH lot #A0801 <MDL for n=13; Gauze lot G0902 <MDL for n=3. The QA/QC indicate the data met the data quality objectives; and the results do not appear to exhibit significant bias.

Iodine

The results of the iodine samples are summarized in the table below.

Sample ID	Location	Surface Area (cm ²)	Result µg/100 cm ²
AM092209-1	Attic Galvanized exhaust stack	629	1.4
AM092209-3	NE BR Top of entrance door jamb	413	15.5
AM092209-4	NE BR closet floor	1,548	3.5
AM092209-13	Bathroom ceiling	8,400	1.7
AM092209-14	Field Blank	NA	66 µg

Table 3
Inventory of Preliminary Wipe Samples

As mentioned earlier in the report, the field blank for the sample suite (AM092209-14) indicated 66 µg of iodine, which initially would indicate that the sampling materials were contaminated, and that 66 µg should be subtracted from each of the samples. However, Sample AM092209-1 was below the detection limit for the method which clearly indicates that the sampling materials were not contaminated. Prior to the release of the sample results, the analyzing laboratory informed us they were having technical problems during the analysis of the sample suit. We conclude that the 66 µg identified in the field blank is an artifact.



The iodine wipe samples indicate that iodine is present at unusually elevated concentrations. Sample AM092209-3 is the highest and is from the doorway leading into the room suspected as housing a methamphetamine production set-up. The second highest concentration comes from the floor of the same room. These observations would be consistent with Red P production and consistent with the location suspected as housing the production set-up.

Sample Locations

In the figures that follow, the sample locations have been presented. The drawings are stylized and not to scale. In the diagrams, the sample locations indicated by triangles were collected on September 22, 2009; those indicated by call-out boxes were collected on August 20, 2009.

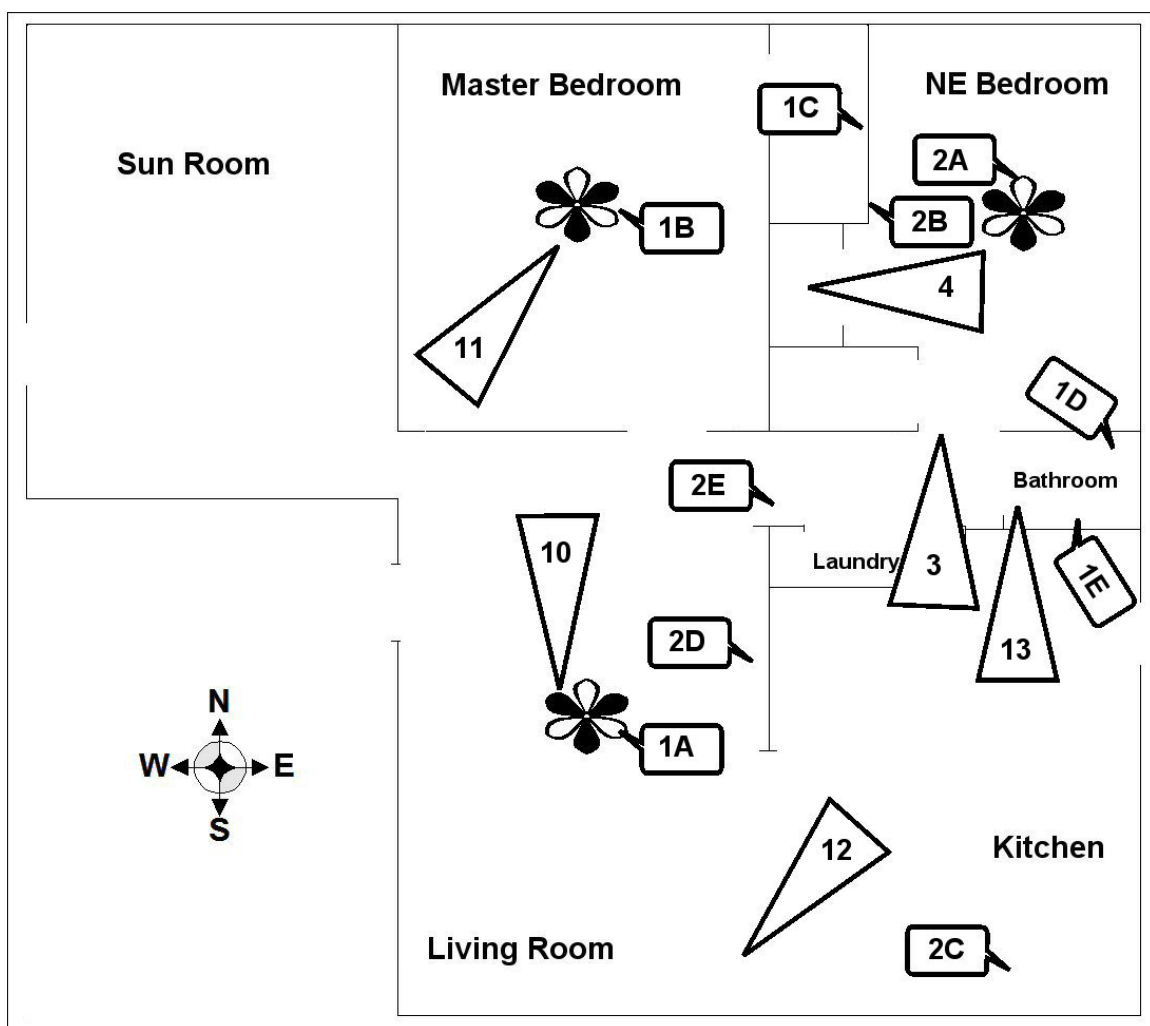


Figure 4
Sample Locations Main Floor- Not to Scale



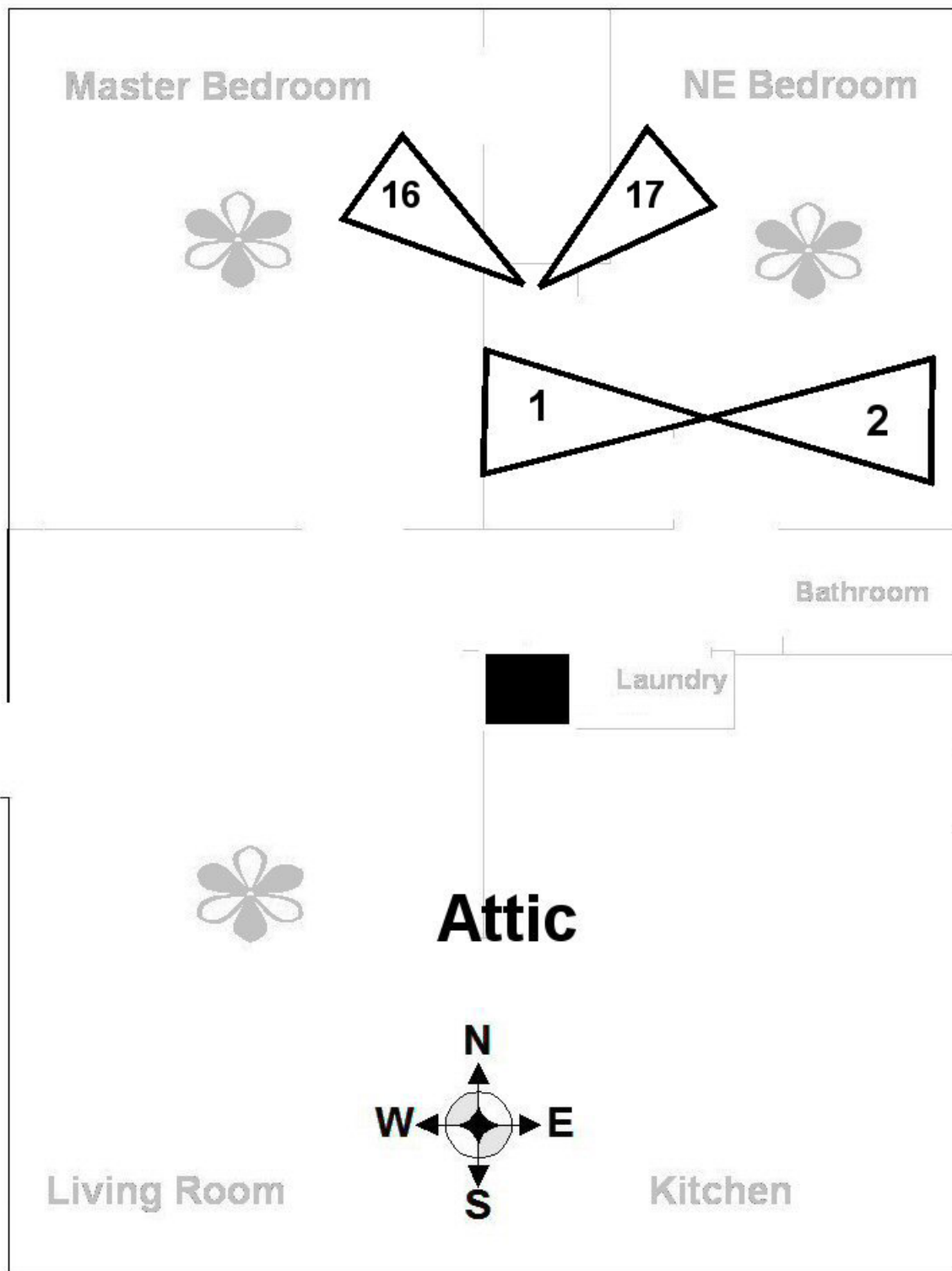


Figure 5
Sample Locations Attic - Not to Scale



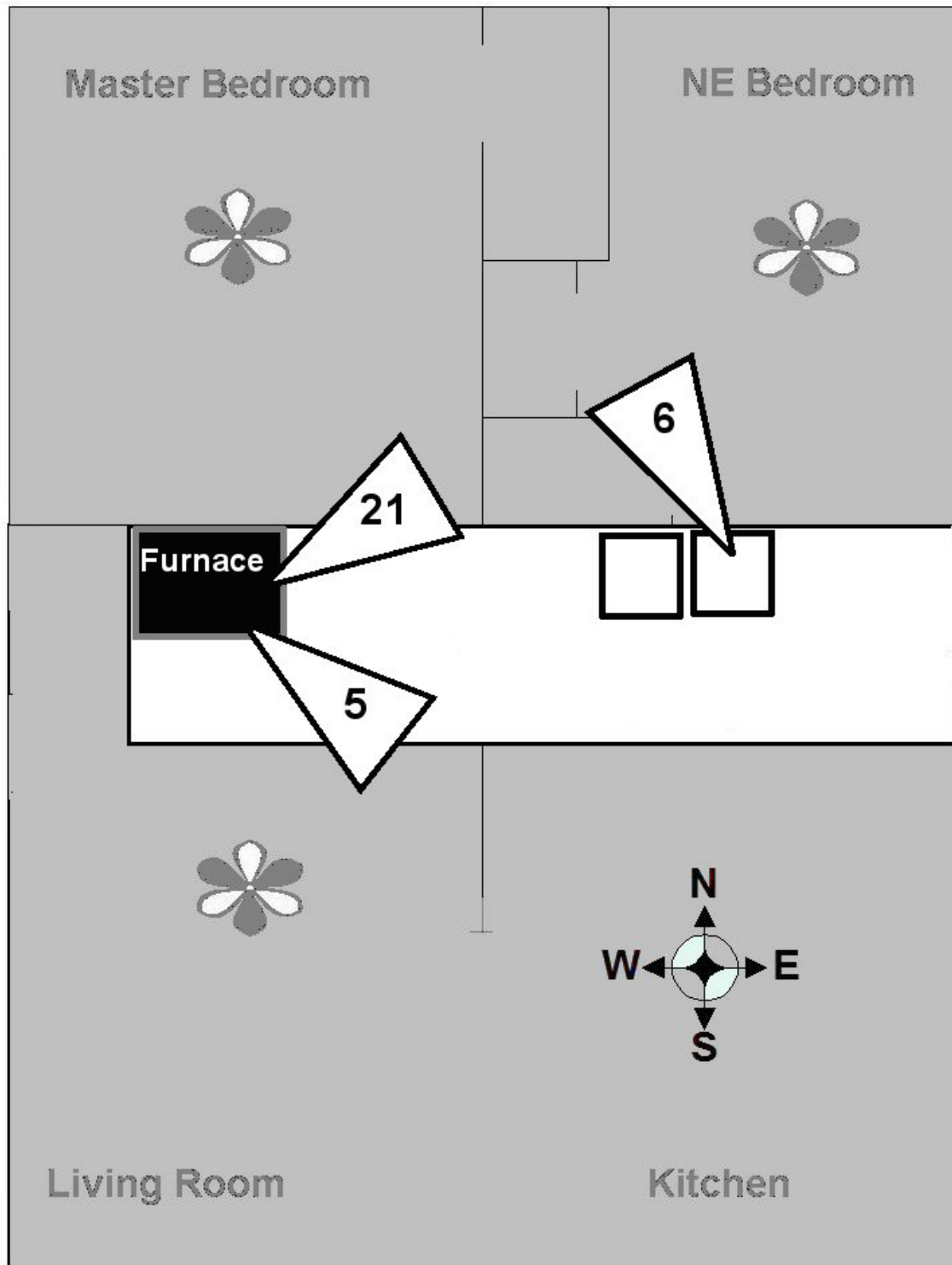


Figure 6
Sample Locations Crawlspace Level- Not to Scale



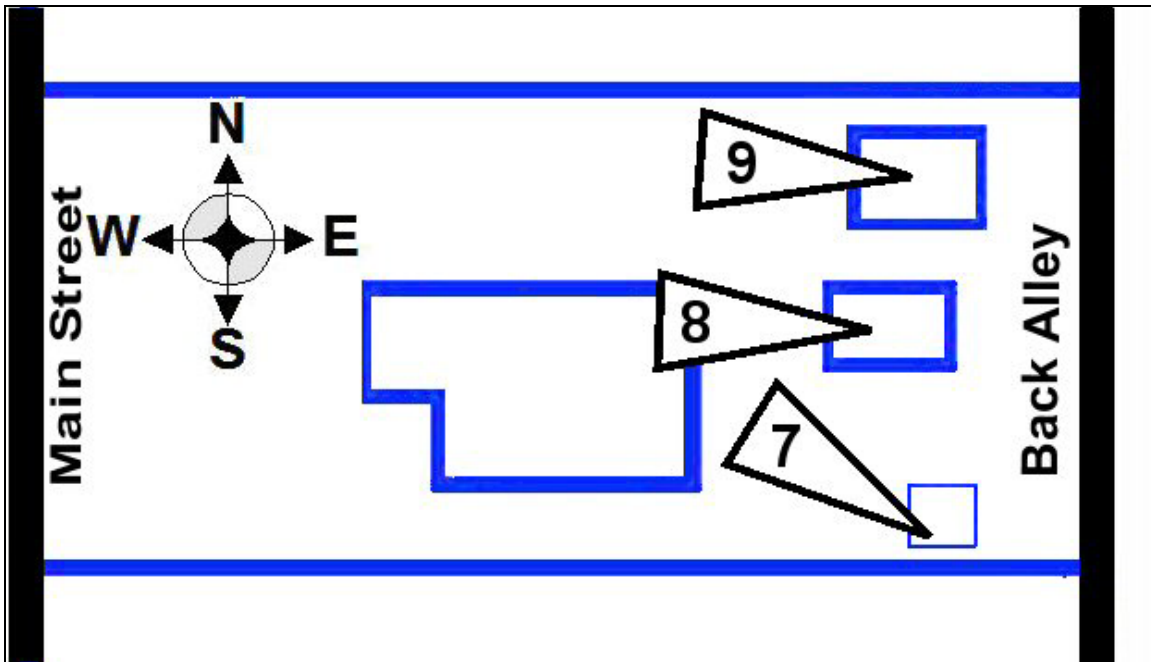


Figure 7
Sample Locations Exterior structures - Not to Scale

Identification of Cook/Storage Areas

Based on our sampling results, our observations, and the totality of circumstances, the sample results are consistent with a Red-Phosphorous production assembly located either in the Northeast Bedroom or the Crawlspace or both.

Identification of Contamination Migration

Based on our visual assessment, we do not believe there was an high probability that contamination migrated off-site (except through the public sewer system).

We did not observe any indications of contamination in the surrounding soils.

FUNCTIONAL SPACE SUMMARY

During a Preliminary Assessment, the Industrial Hygienist is required by regulation to divide the study area into “functional spaces,” and evaluate the potential for contamination in each area. The idea is to segment a property into specific areas which may present different potentials for contamination, based on the anticipated use, or function, conducted in that area. Thus, functions of bedrooms and bathrooms may be different, kitchens and living rooms, may be different, etc. Pursuant to regulations, a building is divided into such areas based solely on subjective professional judgment with foundational guidance in Federal Regulation.¹¹

¹¹ Asbestos Containing Materials in Schools; Final Rule and Notice, Title 40 CFR Part 763, Fed. Reg. Vol. 52, No. 210, Fri. Oct. 30, 1987



A general overview of each space is provided in the following discussion. Indicators are detailed in FACTs form ML5, included in the appendix of this report. For evaluation purposes, the following Functional Spaces have been identified and are addressed below:

Structure Number	Functional Space Number	Describe the functional space (See drawings for delineating structural features)
1	1	South metal shed and all contents
2	1	Central garage and associated belongings
3	1	North garage and associated belongings
4	1	Main residence – Sun room (northwest corner room)
4	2	Main residence – Living room
4	3	Main residence – Master bedroom and closet
4	4	Main residence – Hallway, laundry and linen area
4	5	Main residence – Bathroom
4	6	Main residence – Northeast bedroom and closet
4	7	Main residence – Kitchen
4	8	Main residence – Attic
4	9	Main residence – Crawlspace

Table 4
Functional Space Inventory

Prior to our September 22, 2009 site visit, much of the original chattels had been illegally removed from the property. FACTs is not aware of where the contaminated materials were relocated.

Structure Number 1- South Shed

The south shed is a common kit-built metal shed. The previous occupants had access to this area. The shed contained considerable boxes and debris. We did not dig through the various boxes of trash and other items, but rather inspected the materials as we found them. We did not observe any visual indicators consistent with controlled substances activities. A single discreet sample collected from this area indicated that the space is compliant and may be excluded from the remediation process.

Structure Number 2- Central Garage

The central garage is a permanent slab on grade construction that appears to have been constructed at approximately the same time as the main residence. The registered owner of the property informed us that the previous occupants did not have access to this area.

We did not observe any visual indicators consistent with controlled substances activities in this area. A single discreet sample collected from this area indicated that the space is compliant and may be excluded from the remediation process.



Structure Number 3- North Garage

The north garage is a permanent slab on grade construction that appears to have been constructed at approximately the same time as the main residence. The registered owner of the property informed us that the previous occupants did not have access to this area.

This area contained a large number of items and storage boxes. We did not disturb any of the boxes or items, but reviewed the contents as we found them. We did not observe any visual indicators consistent with controlled substances activities in this area. A single discreet sample collected from this area indicated that the space is compliant and may be excluded from the remediation process.

Structure Number 4- Main Residence

Functional Space 1: Sun Room and Entrance Areas

This space is the add-on room on the west side of the structure; entrance to which is from the deck through double glass doors. The room was essentially emptied of all items during both of our site assessments. This area is included in the remediation activities, by virtue of professional judgment in the totality of circumstances.

Functional Space 2: Living Room

This space is the room one enters directly from the original front door to the residence on the west side of the structure. The term describing the room, is used as is commonly understood. This room is contiguous with the kitchen area. This room was included in the composite sample collected during the cursory evaluation. The concentration of the composite samples were such that conclusive evidence existed to challenge the compliance of the room. Confirmatory sampling from the ceiling fan indicated elevated concentrations as well as a sample collected from the vacuum cleaner.

In addition to the wipe samples, we also collected a bulk sample of the vacuum cleaner contents in the living room. (Bulk sample interpretation is discussed later in the “Furnace” section). The bulk sample contained approximately 6 µg of methamphetamine. No prior data quality objectives were established for this sample.

Functional Space 3: Master Bedroom and Closet

The master bedroom is located between the sunroom and the northeast bedroom on the south side of the structure; there is a walk-in closet adjoining the room. We did not observe any visual signs consistent with controlled substance activity in this room. Sampling from this room included two samples from the ceiling fan and one sample from the closet wall; and each indicated widespread contamination.

Functional Space 4: Hallway, Linen Areas and Laundry

This space is the narrow hallway which adjoins the bathroom to the living room, and from which one accesses the northeast bedroom.



Linen closets are located in a small branch from the hallway to the northeast bedroom, and the laundry area is immediate inside the hallway itself.

This area was included in the composite sampling which indicated widespread contamination.

Functional Space 5: Bathroom

This space is delineated as that term is commonly used. Yellow staining, in a manner consistent with methamphetamine production was present in this space. An iodine sample collected from the ceiling of the Bathroom was significantly elevated.

Functional Space 6: Northeast Bedroom and Closet

Based on our interview with the registered owner of the property, equipment consistent with a production laboratory was present in this room. At the time of our initial cursory evaluation site visit, the room had been very heavily disturbed. All of the personal belongings were removed, and heavy coats of Kilz and fresh paint had been applied to the walls of the room. Nevertheless, yellow staining consistent with methamphetamine production was bleeding through the paint on the walls and was evidence on the wooden floor; the second highest iodine sample result came from the floor of the closet in this room.

Functional Space 7: Kitchen

This functional space did not contain any visual indicators of controlled substance production, but was part of the sample composite which confirmed widespread evidence of contamination.

Functional Space 8: Attic

Based on discreet sampling, we were able to confirm this space is compliant and we have therefore excluded this space from the remediation process. A single discreet sample was collected from the metal stand pipe located in the attic and two separate bulk samples were collected of the two types of insulation present in the attic.

During remediation, it is imperative that the attic be maintained under positive pressure with respect to the occupiable portion of the residence.

Functional Space 9: Crawlspace

This space is a small area under the residence and does not follow the floor plan of the house. Included in the crawlspace were two lockers, the furnace system and the hot water heater. A single discreet sample was collected from the top of one of the lockers located directly below the northeast bedroom. The sample contained an elevated concentration of methamphetamine and conclusively indicated that the crawlspace cannot be excluded from the remediation. Furthermore, since the furnace is located in the crawlspace, the furnace is included in the need for remediation (the result of the single discreet wipe sample from the furnace interior notwithstanding). The wipe sample collected from this space also contained ephedrine (0.325 µg), indicating either fugitive



emissions of materials from the room above, or storage and/or production occurred in this room.

Furnace

Although arguably not a functional space *per se*, the bulk sample collected from the interior furnace filter indicated that methamphetamine contamination in that system was significantly elevated.

Currently, in the State of Colorado, there are no regulatory limits by which one may compare bulk sample results and the interpretation of the results is left within the realm of professional judgment of the Industrial Hygienist. FACTs interprets bulk samples in the context of contaminant density.

In this case, the furnace filter was removed and a three inch by three inch section was removed by cutting the furnace material. During the cutting process, we estimated that 50% of the loose dust was lost. We also subjectively estimate that the furnace filter itself, comprised greater than 90% of the total weight of the sample (the recovered dust representing the remaining 10%). The sample indicates 1.8 µg of recoverable methamphetamine. On a corrected mass per unit area basis, the concentration would have been approximately 6 µg/100 cm².

The industrial hygiene and medical communities now know that the mere use of methamphetamine in a home results in elevated exposures to the occupants via airborne migration. When methamphetamine is smoked, between 80%¹² and half¹³ of the substance is released from the user's pipe. Of that material which is inhaled, between 33%¹⁴ and 10%¹⁵ of the nominal dose is not absorbed into the body (leaving the remainder airborne). Recent work conducted by Industrial Hygienists at the National

¹² Cook CE, *Pyrolytic Characteristics, Pharmacokinetics, and Bioavailability of Smoked Heroin, Cocaine, Phencyclidine, and Methamphetamine* (From: Methamphetamine Abuse: Epidemiologic Issues and Implications Research Monograph 115, 1991, U.S. Department Of Health And Human Services Public Health Service Alcohol, Drug Abuse, and Mental Health Administration National Institute on Drug Abuse)

¹³ Cook CE, Jeffcoat AR, Hill JM, et al. *Pharmacokinetics of Methamphetamine Self-Administered to Human Subjects by Smoking S-(+)-Methamphetamine Hydrochloride*. Drug Metabolism and Disposition Vol. 21 No 4, 1993 as referenced by Martyny JW, Arbuckle SL, McCammon CS, Erb N, Methamphetamine Contamination on Environmental Surfaces Caused by Simulated Smoking of Methamphetamine (The publication of this study is currently pending. Copies of the study are available from the Colorado Alliance for Drug Endangered Children.)

¹⁴ Harris DS, Boxenbaum H, Everhart ET, Sequeira G, et al, *The bioavailability of intranasal and smoked methamphetamine*, Pharmacokinetics and Drug Disposition, 2003;74:475-486.)

¹⁵ Cook CE, Jeffcoat AR, Hill JM, Pugh DE, et al *Pharmacokinetics of methamphetamine self-administered to human subjects by smoking S-(+)-methamphetamine hydrochloride* Drug Metabolism and Disposition, Vol 21, No. 4, pp. 717-723, 07/01/1993



Jewish Hospital¹⁶ in Denver, Colorado, indicates that a single use of methamphetamine, by smoking, would result in an average residential area ambient airborne concentration of methamphetamine ranging from 35 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) to over 130 $\mu\text{g}/\text{m}^3$. These authors found that smoking methamphetamine just once in the residence can result in surfaces being contaminated with methamphetamine. The authors concluded:

*"If methamphetamine has been smoked in a residence, it is likely that children present in that structure will be exposed to airborne methamphetamine during the "smoke" and to surface methamphetamine after the 'smoke.'"*¹⁷

Since it is the purpose of the ventilation system to move air throughout the structure, and the furnace (as evidenced by the ductwork sample) conclusively contained significantly elevated concentrations of methamphetamine, we conclude the furnace was an effective mechanism of dissemination and may be a continued source of contamination unless appropriately addressed.

The results of the furnace sample alone would lead a reasonable person, trained in aspects of meth laboratories, to conclude the *presence* of widespread elevated methamphetamine throughout the entire occupied space, all other sample results notwithstanding.

Therefore, it is for this reason that FACTs confidently concludes that, based on just this sample alone, an high probability of elevated concentrations of methamphetamine exists throughout the residence including all items of debris and personal belongings; even in areas that have not been confirmed as contaminated by sampling. Having said this, the remaining samples objectively confirm the existence of widespread contamination.

The sample collected from the duct interior in the furnace itself was 0.29 $\mu\text{g}/100\text{cm}^2$, which, in the absence of the above information, may have justified exclusion of the furnace from the remediation process.

EXTERIOR GROUNDS

Although not truly a functional space *per se*, the exterior grounds were assessed independently. Although we did observe some evidence of stressed vegetation, we did not observe any indicators that would suggest the exterior grounds were adversely affected by controlled substance activities.

¹⁶ Martyny JW, Arbuckle SL, McCammon CS, Erb N, *Methamphetamine Contamination on Environmental Surfaces Caused by Simulated Smoking of Methamphetamine* (The publication of this study is currently pending. Copies of the study are available from the Colorado Alliance for Drug Endangered Children.)

¹⁷ Martyny JW, Arbuckle SL, McCammon CS, Erb N, *Methamphetamine Contamination on Environmental Surfaces Caused by Simulated Smoking of Methamphetamine* (The publication of this study is currently pending. Copies of the study are available from the Colorado Alliance for Drug Endangered Children.)



SEWERAGE SYSTEM

The El Paso County Assessor's Office indicates the subject property is on city water and city sewer. Therefore, no inspection of an exterior sewer system, septic tank or leach field was made.

CONCLUSIONS

Based on the totality of the circumstances, including our subjective observations and objective data from sampling, we find that there is insufficient evidence to support the preliminary hypothesis and we accept the null hypothesis and conclude that widespread methamphetamine presence exists throughout the residential structure of the subject property.

Based on our sampling results, subjective observations, and interviews with the registered owner, we conclude that a pseudoephedrine reduction method of production occurred in the house. Based on the presence of iodine, we conclude the pseudoephedrine reduction most likely used was either a Red P method or other hypophosphous acid method.

Based on our observations, the entire residence, excluding the three exterior buildings, and the attic, but including all contents in the entire superstructure must be subjected to remediation consistent with the regulatory requirements.

Based on our experience, it may be impossible to economically decontaminate the furnace and associated ductwork, and the system may have to be removed and replaced. We have included alternative options in the accompanying scope of work.

RECOMMENDATIONS

Based on our observations, and laboratory results, we recommend standard industry practices for decontamination to be followed. The remediation contractor should be given full responsibility for their own standard operating procedures. The following are provided as guidance and reflect standard practices for the remediation of similar properties. The Governing Body has statutory authority to require a greater degree of decontamination of the subject property.

Universal Site Requirements

1. An on-site storage container should be established on the grounds (such as a poly lined and covered roll on-roll off container (ro-ro) or temporary trailer).
2. The on-site container shall be secured with a padlock at all times when not immediately manned by remediation personnel.
3. A licensed contractor, who is trained and experienced in methlab decontamination, as required by State regulations, should be contracted for the



decontamination work. All work performed at the residence should be conducted by an experienced contractor whose employees are documented to have been properly trained in accordance with 29 CFR §1910.120 and Colorado Revised Statute §25-18.5-104; *Entry into illegal drug laboratories*.

4. We recommend the decontamination process be conducted in Level C PPE ensembles with a minimum of half-face APRs or PAPRs.
5. We recommend that a decontamination corridor with showers be established at the back door.
6. All remediation work performed at the residence should be conducted under written contract with a reputable remediation company qualified to perform the work.
7. All work performed at the residence should be conducted with open communication and cooperation with the Colorado Springs Police Department.
8. Discovery of any child pornography shall be immediately reported to the Colorado Springs Police Department.
9. Discovery of any controlled substances shall be immediately reported to the Colorado Springs Police Department.
10. All remediation work should be presumed to be pursuant to Title 29 of the Code of Federal Regulations, §1910.120 until otherwise indicated.
11. The contractor *shall* be contractually obligated to perform personnel air monitoring for methamphetamine for at least one full shift employee per day to allow for support of proper PPE selection. If the air monitoring results in a concentration of greater than 120 µg methamphetamine per cubic meter, the contractor is required to upgrade respiratory protection to a minimum of either full face APR or PAPR.
12. The contractor *should* be contractually obligated to include the personnel air monitoring data in their final documentation.
13. Any contractors (and their subcontractors) should be contractually obligated, through a written contract, to decontaminate the subject property to below the statutory limits. Any recleaning required by a contractor (or their subcontractor) pursuant to a failed final assessment should be contractually obligated to be performed at the expense of the contractor.
14. Contractors should be contractually obligated to cover industrial hygiene costs of return visits and sample expenses as a result of a failed final clearance.



15. State regulations prohibit painting or otherwise encapsulating surfaces prior to final clearance sampling by the Industrial Hygienist.
16. State regulations prohibit the use of strong oxidizers to mask the presence of methamphetamine, no cleaning agents greater than 5% hydrogen peroxide (or other oxidizer) are permitted on site.
17. Following the decontamination process, and prior to the final clearance sampling by the Industrial Hygienist, the remediation contractor/subcontractor shall be contractually obligated to collect a minimum of three QA/QC wipe samples from the subject property, as part of their own QA program, and required to submit those samples for methamphetamine analysis. The contractor shall be contractually obligated to provide their wipe sampling data (including location of sample, area of sample, and analysis results), to the consulting Industrial Hygienist for review prior to final clearance sampling.
18. If the contractor's three QA/QC samples suggest that contamination in the subject property remains at a concentration in excess of $0.25 \mu\text{g}/100 \text{ cm}^2$, the contractor shall be contractually obligated to continue to clean, and sample, until the elevated concentrations are not observed.
19. Once the contractor's samples indicate the contamination has been sufficiently reduced, the Industrial Hygienist should perform final clearance sampling according to 6-CCR 1014-3.

Decontamination of The Residence

The contractor may propose removal of the furnace and associated ductwork, *in toto*, or may propose cleaning, and decontamination of the ventilation system.

The following decontamination process should take place in this order: (any asbestos abatement notwithstanding):

1. Establish negative pressure pursuant to State regulations. The negative pressure must be monitored at all times at the attic access, and must be maintained at a pressure differential of at least 0.02" WC. In the event that the pressure differential is not continuously monitored and/or the pressure differential drops to less than 0.02" WC, the contractor shall be contractually obligated to cover the costs of retesting the attic, and if the follow up samples indicate contamination, the contractor will be contractually obligated to perform the decontamination at their expense.
2. Exhaust from the negative enclosure may take place at any ground level location.
3. No work, except as needed to establish critical barriers, shall begin until negative pressure is established.



4. Negative pressure must be maintained at all times until final sampling has been completed, and the written intent to issue a Decision Statement has been issued to the contractor by the consulting Industrial Hygienist.
5. The contractor should establish a standard, two-chambered decon and/or bag-out/load-out at the back door.
6. Carefully bag and remove all clothing, debris and other items from the property. If the contractor discovers items of notable value that can be economically salvaged (such as coin collections, jewelry, statuary, high quality electronics), the contractor shall notify the registered property owner for guidance. Otherwise, all chattels in the residence are scheduled to be discarded without decontamination.
7. Window coverings (window blinds) should be discarded.
8. All large household appliances (dishwasher, etc) shall be wiped down and salvaged.
9. Once all items are bagged and/or wrapped, the items can be transported through the airlock and transloaded to the bag-out. At the bag-out, the exterior surfaces of the bags and wrapping should be wiped down, and the bags and items may be discarded.
10. Any carpeting and associated padding should be removed and discarded.
11. Kitchen cabinets shall be cleaned and not removed.
12. The refrigerator shall be emptied of all contents, and the interior shall be decontaminated in a normal fashion.
13. Following the removal of interior contents, all surfaces in the entire interior space (excluding the attic), including all ceilings, all hanging fixtures, all cabinets (interior and exterior surfaces), all shelving, all floors, doors, hinges, bathtubs, sinks, appliances (interior and exterior surfaces), exterior fireplaces, and every other interior surface whether specifically mentioned or not, shall be thoroughly wiped down to remove residual contamination.

Enclosures: One CD; Data package, and Appendices



APPENDIX A:

SUPPORTING DOCUMENTS



**FORENSIC APPLICATIONS CONSULTING TECHNOLOGIES, INC.
CLANDESTINE METHAMPHETAMINE LABORATORY
ASSESSMENT FIELD FORMS®**

FACTs project name: 2927 Main Street	Form # ML1
Date: October 13, 2009	
Reporting IH:	Caoimhin P. Connell, Forensic IH

PROPERTY DESCRIPTION:

Physical address	2927 Main Street, Colorado Springs CO, 80907-6013	
Legal description or VIN	Lot 3, N 37.0 ft of Lot 4, Block 10, Roswell Colo Springs, Plat 28	
Registered Property Owner	Cynthia S and Frederick H (III) Amsden 1010 Northgate Blvd Colorado Springs CO 80921-3053	
Number of structures	Four	
Type of Structures (Each affected structure will need a "Functional Space" inventory)	1: South Metal Shed	64 Square feet
	2: Central Garage	228 Square feet
	3: North Garage	345 Square feet
	4: Main Residence	2,784 Square feet
	Total Square Feet	3,421 Square feet
Adjacent and/or surrounding properties	1: North: Residential Single Family	
	2: South: Residential Single Family	
	3: East: Alley way and commercial property	
	4: West: Multifamily residential	
General Property Observations	Generally well-kept, well established and maintained structure	
Presumed Production Method	Red Phosphorous	

El Paso County Schedule Information**Schedule Number: 6331308016****Schedule Address: 2927 MAIN ST****Schedule Owner: AMSDEN CYNTHIA S & | AMSDEN FREDERICK H III****Zoned: (Not County Zoned)****Area: 13,050 Square Feet****Owner Mailing Address: 1010 NORTHGATE BLVD**

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PLUMBING INSPECTION AND INVENTORY

FACTs project name: 2927 Main Street	Form # ML2
Date: October 13, 2009	
Reporting IH:	Caoimhin P. Connell, Forensic IH

Functional Space	Room	Fixture	Indicia?	Comments
5	Bathroom # 1	Bath	Yes	Filth
5	Bathroom # 1	Shower	Yes	Filth
5	Bathroom # 1	Sink	No	
5	Bathroom # 1	Toilet	No	
7	Kitchen	Sink	No	
7	Kitchen	Dishwasher	NA	
4	Laundry and Hall	Washing machine	No	

VENTILATION INSPECTION AND INVENTORY

Item	Y/N	Indicia ?	Sampled ?	Comments
Isolated AHU?	Y	NA		See Body of Report
Common air intake?	N			
Common bathroom exhausts?	N			
Forced air system?	Y	Yes	Yes	
Steam heat?	N	NA		
Common ducts to other properties?	N			
Passive plena to other properties?	N			
Active returns to other properties?	N			
Passive wall grilles to other properties?	N			
Industrial ventilation?	N			
Residential ventilation?	Y	Yes		
Pressurized structure?	N	NA		



FUNCTIONAL SPACE INVENTORY

FACTs project name: 2927 Main Street	Form # ML3
Date: October 13, 2009	
Reporting IH:	Caoimhin P. Connell, Forensic IH

Structure Number	Functional Space Number	Indicia (Y/N)	Describe the functional space (See drawings for delineating structural features)
1	1	Yes	South metal shed and all contents
2	1	Yes	Central garage and associated belongings
3	1	Yes	North garage and associated belongings
4	1	Yes	Main residence – Sun room (northwest corner room)
4	2	Yes	Main residence – Living room
4	3	Yes	Main residence – Master bedroom and closet
4	4	Yes	Main residence – Hallway, laundry and linen area
4	5	Yes	Main residence – Bathroom
4	6	Yes	Main residence – Northeast bedroom and closet
4	7	Yes	Main residence – Kitchen
4	8	Yes	Main residence – Attic
4	9	Yes	Main residence – Crawlspace

**FORENSIC APPLICATIONS CONSULTING TECHNOLOGIES, INC.**

LAW ENFORCEMENT DOCUMENTATION

FACTs project name: 2927 Main Street	Form # ML4
Date: October 13, 2009	
Reporting IH:	Caoimhin P. Connell, Forensic IH

Inventory of Reviewed Documents	Colorado Springs Police Department declined to participate in the Preliminary Assessment and did not respond to our multiple requests.
Described method(s) of production	See Above
Chemicals identified by the LEA as being present	See Above
Cooking areas identified (by FACTs)	North East Bedroom and Crawlspace
Chemical storage areas identified	Northeast bedroom, bathroom, master bedroom, kitchen
LE Observation on areas of contamination or waste disposal	Colorado Springs Police Department declined to participate in the Preliminary Assessment and did not respond to our multiple requests.





FORENSIC APPLICATIONS CONSULTING TECHNOLOGIES, INC.

September 15, 2009

Colorado Springs Police Department
Investigations
Police Operations Center
705 S Nevada Avenue
Colorado Springs, CO 80903

Via Fax: 1-719-444-7380

To Whom It May Concern:

Forensic Applications, Inc. has been contracted to perform a "Preliminary Assessment" at an identified illegal drug lab pursuant to Colorado Board Of Health Regulations 6-CCR-1014-3, and CRS §25-18.5-101 *et seq.* The property is located in Colorado Springs at:

2927 Main Street, Colorado Springs

As you are aware, as part of that assessment, the Industrial Hygienist is required by regulation (6-CCR-1014-3 (§4.2)) to review available Law Enforcement documents associated with the property.

We would like to review any narratives, call histories or other documents pertinent to controlled substances or hazardous materials responses, or speak with any Law Enforcement personnel who may be familiar with the property. We are only interested in issues involving controlled substances or hazardous materials responses in the last four years.

In the past, we have conducted training for and we have worked very closely with members of your highly professional team, and the Drug Task Force, and we have taken extreme precautions to protect all Law Enforcement Sensitive information. When requested by the Law Enforcement Agency, we do NOT reveal names, document identities, or include any information considered sensitive by an investigating agency. We have developed a close working relationship with CSPD and Law Enforcement personnel across the State, and we value and respect that open line of communication. Generally, we do not require copies of any documents; and, if preferable, we can visit the records offices and review available information there. In this case, the client has requested copies of any documents your office is willing to release. No documents will be included in our report without permission from the CSPD.

We will be performing the on-site assessment on Tuesday, September 22, 2009, and will need to review documents on or before that time. We apologize for the short notice, however, we generally do not have any control over the timeframes involved. We recognize there may be fees associated with obtaining copies, and can make necessary payments on Tuesday morning.

Pursuant to CRS §24-72-305.5, I affirm that upon receipt of requested records of official actions and/or criminal justice records from the Colorado Springs Police Department, such records shall not be used for the direct solicitation of business for pecuniary gain.

Sincerely,

Caoimhín P. Connell
Forensic Industrial Hygienist



FORENSIC APPLICATIONS CONSULTING TECHNOLOGIES, INC.

September 15, 2009

Sheriff Terry Maketa
El Paso County Sheriff's Office
Law Enforcement Bureau
101 West Costilla Street
Colorado Springs, CO. 80903

Via Fax: 1-719-520-7255

Dear Sheriff Maketa:

Forensic Applications, Inc. has been contracted to perform a "Preliminary Assessment" at an identified illegal drug lab pursuant to Colorado Board Of Health Regulations 6-CCR-1014-3, and CRS §25-18.5-101 *et seq.* The property is located in El Paso County at:

2927 Main Street, Colorado Springs

As you are aware, as part of that assessment, the Industrial Hygienist is required by regulation (6-CCR-1014-3 (§4.2)) to review available Law Enforcement documents associated with the property.

We would like to review any narratives, call histories or other documents pertinent to controlled substances or hazardous materials responses, or speak with any Law Enforcement personnel who may be familiar with the property. We are only interested in issues involving controlled substances or hazardous materials responses in the last four years. If no such records are available please let us know and we will merely make that notation in our report.

In the past, we have conducted training for and we have worked very closely with members of your highly professional team, and Task Force, and we have taken extreme precautions to protect all Law Enforcement Sensitive information. When requested by the Law Enforcement Agency, we do NOT reveal names, document identities, or include any information considered sensitive by an investigating agency. We have developed a close working relationship with ECSO and Law Enforcement personnel across the State, and we value and respect that open line of communication. Generally, we do not require copies of any documents; and, if preferable, we can visit the records offices and review available information there. In this case, the client has requested copies of any documents your office is willing to release. No documents will be included in our report without permission from your office.

We will be performing the on-site assessment on Tuesday, September 22, 2009, and will need to review documents on or before that time. We apologize for the short notice, however, we generally do not have any control over the timeframes involved.

Pursuant to CRS §24-72-305.5, I affirm that upon receipt of requested records of official actions and/or criminal justice records from the El Paso County Sheriff's Office, such records shall not be used for the direct solicitation of business for pecuniary gain.

Sincerely,

Caoimhín P. Connell
Forensic Industrial Hygienist

FIELD OBSERVATIONS

FACTs project name: 2927 Main Street		Form # ML5
Date: October 13, 2009		
Reporting IH:	Caoimhin P. Connell, Forensic IH	

Structure: 1 South Shed

Indicator	Functional Space	Indicator	Functional Space
Acids	1 ①	Glassware	1 ①
Aerosol cans	1 ①	Heating mantle	No Comment
Alcohols (MeOH, EtOH)	1 ①	Heet or similar (MeOH)	
Ammonia	No Comment	Hydrogen peroxide	
Ammunition		Iodine	
Artistic expressions		Kitty litter	
Bags of salt		Lead	
Bases		Lithium	
Basters/Pipettes		Match components	
Batteries	1 ①	Mercury	
Bi-phasic wastes	No Comment	Methamphetamine	1
Booby traps (trips, triggers, etc)		Modified coolers	No Comment
Bullet holes		Needles/Syringes	
Burn marks		Other OTC	
Chemical storage	1 ①	pH papers/indicators	
Colored wastes	1 ①	Phenyl-2-propanone	
Corrosion on surfaces	1 ①	Pornography, Sex toys	
Drug paraphernalia	No Comment	Presence of cats	
Empty OTC Containers		Pseudoephedrine	
Ephedrine		Red P	
Faeces		Smoke detectors disabled	
Filters		Solvents - aliphatics	1 ①
Forced entry marks	1 ①	Solvents -aromatics	1 ①
Gas cylinders	No Comment	Squalor	1 ①
Gerry cans	1 ①	Staining on floors	No Comment
Structural damage/modifications	No Comment	Urine containers	
Weapons	No Comment	Yellow staining	

Notes

① Present but not as indicia

**FORENSIC APPLICATIONS CONSULTING TECHNOLOGIES, INC.**

FIELD OBSERVATIONS

FACTs project name: 2927 Main Street		Form # ML5
Date: October 13, 2009		
Reporting IH:	Caoimhin P. Connell, Forensic IH	

Structure: 2 Central Garage

Indicator	Functional Space	Indicator	Functional Space
Acids	1 ①	Glassware	1 ①
Aerosol cans	1 ①	Heating mantle	No Comment
Alcohols (MeOH, EtOH)	1 ①	Heet or similar (MeOH)	
Ammonia	No Comment	Hydrogen peroxide	
Ammunition		Iodine	
Artistic expressions	1 ①	Kitty litter	
Bags of salt	No Comment	Lead	
Bases		Lithium	
Basters/Pipettes		Match components	
Batteries	1 ①	Mercury	
Bi-phasic wastes	No Comment	Methamphetamine	1
Booby traps (trips, triggers, etc)		Modified coolers	No Comment
Bullet holes		Needles/Syringes	
Burn marks		Other OTC	
Chemical storage	1 ①	pH papers/indicators	
Colored wastes	1 ①	Phenyl-2-propanone	
Corrosion on surfaces	1 ①	Pornography, Sex toys	
Drug paraphernalia	No Comment	Presence of cats	
Empty OTC Containers		Pseudoephedrine	
Ephedrine		Red P	
Faeces		Smoke detectors disabled	
Filters		Solvents - aliphatics	1 ①
Forced entry marks	1 ①	Solvents -aromatics	1 ①
Gas cylinders	No Comment	Squalor	No Comment
Gerry cans	1 ①	Staining on floors	
Structural damage/modifications	No Comment	Urine containers	
Weapons	No Comment	Yellow staining	

Notes

① Present but not as indicia

**FORENSIC APPLICATIONS CONSULTING TECHNOLOGIES, INC.**

FIELD OBSERVATIONS

FACTs project name: 2927 Main Street		Form # ML5
Date: October 13, 2009		
Reporting IH:	Caoimhin P. Connell, Forensic IH	

Structure: 3 North Garage

Indicator	Functional Space	Indicator	Functional Space
Acids	1 ①	Glassware	1 ①
Aerosol cans	1 ①	Heating mantle	No Comment
Alcohols (MeOH, EtOH)	1 ①	Heet or similar (MeOH)	
Ammonia	No Comment	Hydrogen peroxide	
Ammunition		Iodine	
Artistic expressions		Kitty litter	
Bags of salt		Lead	
Bases		Lithium	
Basters/Pipettes		Match components	
Batteries	1 ①	Mercury	
Bi-phasic wastes	No Comment	Methamphetamine	1
Booby traps (trips, triggers, etc)		Modified coolers	No Comment
Bullet holes		Needles/Syringes	
Burn marks		Other OTC	
Chemical storage	1 ①	pH papers/indicators	
Colored wastes	No Comment	Phenyl-2-propanone	
Corrosion on surfaces		Pornography, Sex toys	
Drug paraphernalia		Presence of cats	
Empty OTC Containers		Pseudoephedrine	
Ephedrine		Red P	
Faeces		Smoke detectors disabled	
Filters		Solvents - aliphatics	1 ①
Forced entry marks		Solvents -aromatics	1 ①
Gas cylinders		Squalor	No Comment
Gerry cans		Staining on floors	
Structural damage/modifications		Urine containers	
Weapons		Yellow staining	

Notes

① Present but not as indicia

**FORENSIC APPLICATIONS CONSULTING TECHNOLOGIES, INC.**

FIELD OBSERVATIONS

FACTs project name: 2927 Main Street		Form # ML5
Date: October 13, 2009		
Reporting IH:	Caoimhin P. Connell, Forensic IH	

Structure: 4 Main Residence

Indicator	Functional Space	Indicator	Functional Space
Acids	7①	Glassware	1①
Aerosol cans	5①,7①	Heating mantle	No Comment
Alcohols (MeOH, EtOH)	7①	Heet or similar (MeOH)	
Ammonia	No Comment	Hydrogen peroxide	
Ammunition		Iodine	4,5,6
Artistic expressions		Kitty litter	No Comment
Bags of salt		Lead	
Bases		Lithium	
Basters/Pipettes		Match components	
Batteries	2①,3①,4①,7①	Mercury	1,2,3,4,5,6,7,9
Bi-phasic wastes	No Comment	Methamphetamine	
Booby traps (trips, triggers, etc)		Modified coolers	No Comment
Bullet holes		Needles/Syringes	
Burn marks		Other OTC	
Chemical storage	1,2,3,4,5,6,7,9	pH papers/indicators	
Colored wastes		Phenyl-2-propanone	
Corrosion on surfaces	6	Pornography, Sex toys	No Comment
Drug paraphernalia		Presence of cats	
Empty OTC Containers		Pseudoephedrine	
Ephedrine		Red P	
Faeces		Smoke detectors disabled	
Filters		Solvents - aliphatics	4① 7①
Forced entry marks		Solvents -aromatics	No Comment
Gas cylinders		Squalor	
Gerry cans		Staining on floors	
Structural damage/modifications	6	Urine containers	
Weapons		Yellow staining	

Notes

- ① Present but not as indicia



FORENSIC APPLICATIONS CONSULTING TECHNOLOGIES, INC.

INDIVIDUAL SEWAGE DISPOSAL SYSTEM FIELD FORM

FACTs project name: 2927 Main Street	Form # ML7
Date: October 13, 2009	
Reporting IH:	Caoimhin P. Connell, Forensic IH

	Yes	No	N/C
Does the property have an ISDS		X	
Is there unusual staining around internal drains		X	
Are solvent odors present from the internal drains		X	
Are solvent odors present from the external sewer drain stacks			X
Was the septic tank lid(s) accessible	NA		
Was the leach field line accessible			
Was the septic tank or leach field lines opened			
Are solvent odors present from the leach field lines (if "yes" see below)			
Are solvent odors present from the septic tank (if "yes" see below)			
Is "slick" present in the septic tank			
Are biphasic (aqueous-organic) layers present in the septic tank			
Was pH measured in the septic tank (pH =7 to 8)			
Were organic vapors measured in the septic tank (if "yes" see below)			
Is there evidence of wastes being disposed down internal drains		X	
Is sampling of the ISDS warranted	NA		
Were calawasi/drum thief samples collected from the septic tank			

*NC = Not checked

Qualitative Organic Vapor Monitoring

Hydrocarbon detector model	EnMet Target Series, MOS detector
NA	NA

Location	MOS*	PID*	FID*
NA	NA	NA	NA

*Units of measurement are in parts per million equivalents compared to the calibration vapor.



FORENSIC APPLICATIONS CONSULTING TECHNOLOGIES, INC.

PRE-REMEDIATION PHOTOGRAPH LOG SHEET

FACTs project name: 2927 Main Street		Form # ML8
Date: October 13, 2009		
Reporting IH:	Caoimhin P. Connell, Forensic IH	

Name ^	Date taken	Name ^	Date taken
Attic	9/22/2009 11:08	Crawlspace (7)	9/22/2009 11:48
Attic (2)	9/22/2009 11:15	Crawlspace (8)	9/22/2009 11:48
Attic (3)	9/22/2009 11:16	Crawlspace (9)	9/22/2009 11:48
Attic (4)	9/22/2009 11:16	Crawlspace (10)	9/22/2009 11:48
Attic (5)	9/22/2009 11:16	Crawlspace (12)	9/22/2009 11:49
Attic (6)	9/22/2009 11:16	Crawlspace (15)	9/22/2009 11:50
Attic (7)	9/22/2009 11:16	Crawlspace (16)	9/22/2009 11:51
Bathroom	9/22/2009 11:08	Exterior	9/22/2009 10:59
Bathroom (2)	9/22/2009 11:09	Exterior (2)	9/22/2009 11:42
Bathroom (3)	9/22/2009 11:09	Exterior (3)	9/22/2009 11:42
Bathroom (4)	9/22/2009 11:09	Exterior (4)	9/22/2009 11:42
Bathroom (5)	9/22/2009 11:09	Exterior (5)	9/22/2009 11:42
Bathroom (6)	9/22/2009 11:09	Exterior (6)	9/22/2009 11:42
Bathroom (7)	9/22/2009 11:09	Exterior (7)	9/22/2009 11:43
Bathroom (8)	9/22/2009 11:09	Exterior (8)	9/22/2009 11:43
Bathroom (9)	9/22/2009 11:09	Exterior (9)	9/22/2009 11:43
Bathroom (10)	9/22/2009 11:09	Exterior (10)	9/22/2009 11:43
Bathroom (11)	9/22/2009 11:10	Exterior (11)	9/22/2009 11:43
Crawlspace	9/22/2009 11:45	Exterior (12)	9/22/2009 11:44
Crawlspace (2)	9/22/2009 11:46	Exterior (13)	9/22/2009 11:44
Crawlspace (3)	9/22/2009 11:46	Exterior (14)	9/22/2009 11:44
Crawlspace (4)	9/22/2009 11:47	Exterior (15)	9/22/2009 11:45
Crawlspace (5)	9/22/2009 11:48	Exterior (16)	9/22/2009 11:45
Crawlspace (6)	9/22/2009 11:48	Kitchen	9/22/2009 10:59



FORENSIC APPLICATIONS CONSULTING TECHNOLOGIES, INC.

PRE-REMEDIATION PHOTOGRAPH LOG SHEET

FACTs project name: 2927 Main Street		Form # ML8
Date: October 13, 2009		
Reporting IH:	Caoimhin P. Connell, Forensic IH	

Name ^	Date taken	Name ^	Date taken
Kitchen (2)	9/22/2009 10:59	Living room (7)	9/22/2009 11:01
Kitchen (3)	9/22/2009 11:00	Living room (8)	9/22/2009 11:01
Kitchen (4)	9/22/2009 11:00	Living room (9)	9/22/2009 11:01
Laundry Hall	9/22/2009 11:08	Living room (10)	9/22/2009 11:01
Laundry Hall (2)	9/22/2009 11:07	Master BR	9/22/2009 11:06
Laundry Hall (3)	9/22/2009 11:08	Master BR (2)	9/22/2009 11:06
Laundry Hall (4)	9/22/2009 11:08	Master BR (3)	9/22/2009 11:06
Laundry Hall (5)	9/22/2009 11:08	Master BR (4)	9/22/2009 11:06
Laundry Hall (6)	9/22/2009 11:08	Master BR (5)	9/22/2009 11:06
Laundry Hall (7)	9/22/2009 11:08	Master BR (6)	9/22/2009 11:06
Laundry Hall (8)	9/22/2009 11:08	Master BR (7)	9/22/2009 11:07
Laundry Hall (9)	9/22/2009 11:17	Master BR (8)	9/22/2009 11:07
Laundry Hall (10)	9/22/2009 11:17	Master BR Closet	9/22/2009 11:07
Laundry Hall (11)	9/22/2009 11:17	Master BR Closet (2)	9/22/2009 11:07
Laundry Hall (12)	9/22/2009 11:17	Master BR Closet (3)	9/22/2009 11:07
Laundry Hall (13)	9/22/2009 11:17	Master BR Closet (4)	9/22/2009 11:07
Laundry Hall (14)	9/22/2009 11:18	Master BR Closet (5)	9/22/2009 11:07
Laundry Hall (15)	9/22/2009 11:18	NE Bedroom	9/22/2009 11:10
Living room	9/22/2009 10:59	NE Bedroom (2)	9/22/2009 11:10
Living room (2)	9/22/2009 11:00	NE Bedroom (3)	9/22/2009 11:10
Living room (3)	9/22/2009 11:00	NE Bedroom (4)	9/22/2009 11:10
Living room (4)	9/22/2009 11:00	NE Bedroom (5)	9/22/2009 11:10
Living room (5)	9/22/2009 11:00	NE Bedroom (6)	9/22/2009 11:10
Living room (6)	9/22/2009 11:01	NE Bedroom (7)	9/22/2009 11:10



FORENSIC APPLICATIONS CONSULTING TECHNOLOGIES, INC.

PRE-REMEDIATION PHOTOGRAPH LOG SHEET

FACTs project name: 2927 Main Street		Form # ML8
Date: October 13, 2009		
Reporting IH:	Caoimhin P. Connell, Forensic IH	

Name ^	Date taken	Name ^	Date taken
NE Bedroom (8)	9/22/2009 11:11	Sample 7 (2)	9/22/2009 12:22
NE Bedroom (9)	9/22/2009 11:11	Sample 7 (3)	9/22/2009 12:22
NE Bedroom (10)	9/22/2009 11:11	Sample 7	9/22/2009 12:21
NE Bedroom (11)	9/22/2009 11:12	Sample 8 (2)	9/22/2009 12:24
NE Bedroom (12)	9/22/2009 11:13	Sample 8 (3)	9/22/2009 12:28
NE Bedroom (13)	9/22/2009 11:13	Sample 8 (4)	9/22/2009 12:29
NE Bedroom (14)	9/22/2009 11:13	Sample 8 (5)	9/22/2009 12:29
NE Bedroom (15)	9/22/2009 11:13	Sample 8 (6)	9/22/2009 12:29
NE Bedroom (16)	9/22/2009 11:13	Sample 8	9/22/2009 12:24
NE Bedroom (17)	9/22/2009 11:13	Sample 10	9/22/2009 12:47
NE Bedroom (18)	9/22/2009 11:13	Sample 11	9/22/2009 12:47
NE Bedroom (19)	9/22/2009 11:13	Sample 12	9/22/2009 12:47
NE Bedroom (20)	9/22/2009 11:13	Sample 13	9/22/2009 12:48
NE Bedroom (21)	9/22/2009 11:13	Sample 21	9/22/2009 11:48
NE Bedroom (22)	9/22/2009 11:13	Shed Central	9/22/2009 12:03
NE Bedroom (23)	9/22/2009 11:14	Shed Central (2)	9/22/2009 12:04
NE Bedroom (24)	9/22/2009 11:14	Shed Central (3)	9/22/2009 12:04
NE Bedroom (25)	9/22/2009 11:14	Shed Central (4)	9/22/2009 12:04
NE Bedroom (26)	9/22/2009 11:14	Shed Central (5)	9/22/2009 12:04
NE Bedroom (27)	9/22/2009 11:14	Shed Central (6)	9/22/2009 12:04
Sample 5 (2)	9/22/2009 11:50	Shed Central (7)	9/22/2009 12:04
Sample 5	9/22/2009 11:50	Shed Central (8)	9/22/2009 12:04
Sample 6 (2)	9/22/2009 11:59	Shed North (3)	9/22/2009 12:05
Sample 6	9/22/2009 11:59	Shed North (4)	9/22/2009 12:05



FORENSIC APPLICATIONS CONSULTING TECHNOLOGIES, INC.

PRE-REMEDATION PHOTOGRAPH LOG SHEET

FACTs project name: 2927 Main Street		Form # ML8
Date: October 13, 2009		
Reporting IH:	Caoimhín P. Connell, Forensic IH	

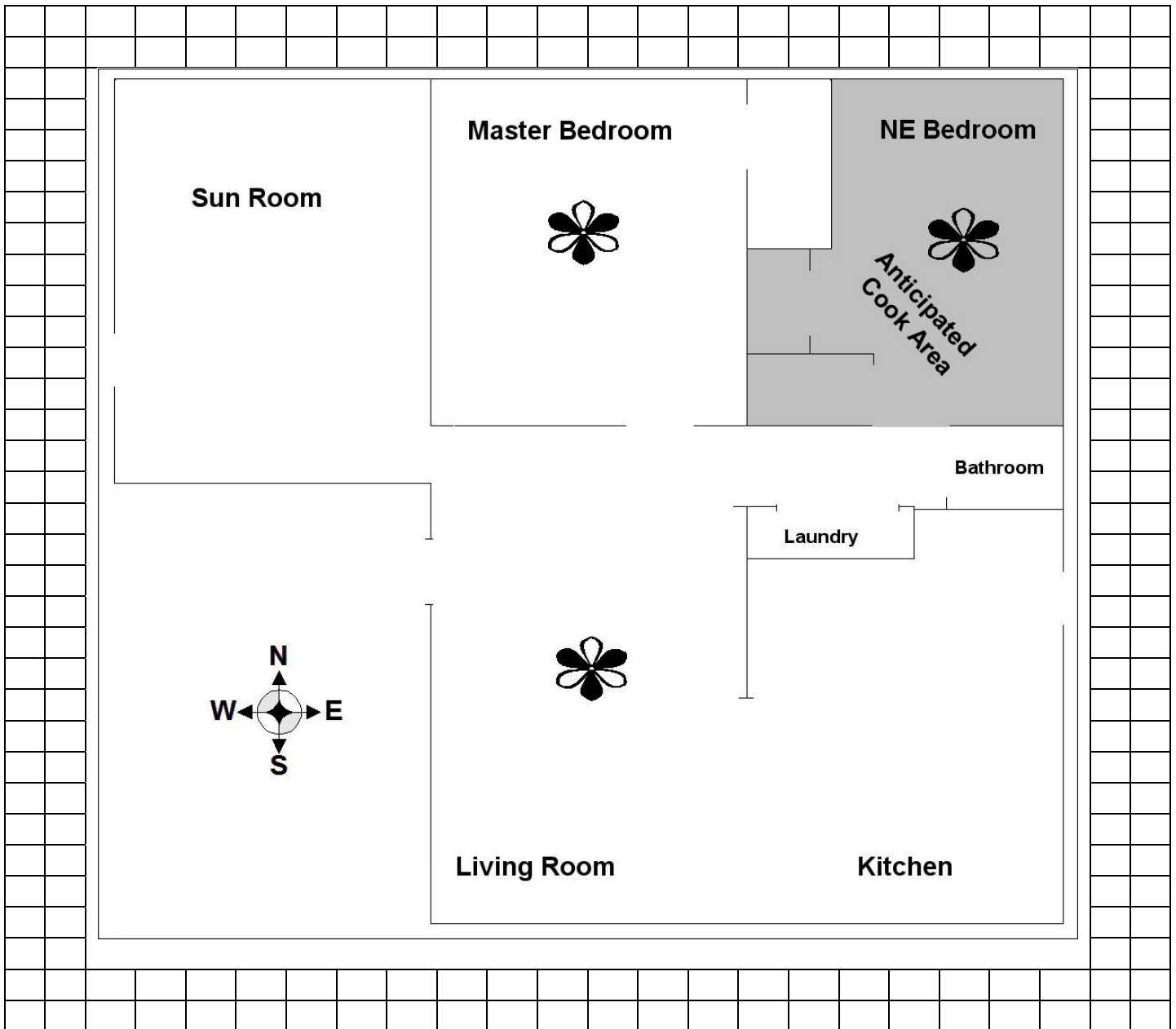
Name	Date taken
Shed North (5)	9/22/2009 12:05
Shed North (6)	9/22/2009 12:05
Shed North (7)	9/22/2009 12:05
Shed North (8)	9/22/2009 12:05
Shed North (9)	9/22/2009 12:05
Shed South	9/22/2009 12:06
Shed South (2)	9/22/2009 12:06
Shed South (3)	9/22/2009 12:06
Shed South (4)	9/22/2009 12:06
Shed South (5)	9/22/2009 12:06
Shed South (6)	9/22/2009 12:06
Shed South (7)	9/22/2009 12:06
Shed South (8)	9/22/2009 12:06
Shed South (9)	9/22/2009 12:07
Sheds	9/22/2009 12:07
Sheds (2)	9/22/2009 12:07
Sheds (3)	9/22/2009 12:07
Sheds (4)	9/22/2009 12:07
Sheds (5)	9/22/2009 12:08
Sun room	9/22/2009 11:01
Sun room (2)	9/22/2009 11:01
Sun room (3)	9/22/2009 11:01
Sun room (4)	9/22/2009 11:02
Sun room (5)	9/22/2009 11:02
Sun room (6)	9/22/2009 11:02
Sun room (7)	9/22/2009 11:02
Sun room (8)	9/22/2009 11:02



FORENSIC APPLICATIONS CONSULTING TECHNOLOGIES, INC.

DRAWING OF COOK AREA(S)

FACTs project name: 2927 Main Street		Form # ML10
Date: October 13, 2009		
Reporting IH:	Caoimhín P. Connell, Forensic IH	



Each grid equals approximately _____ (Approximate lay-out; Not to scale)

Describe the area: _____



FORENSIC APPLICATIONS CONSULTING TECHNOLOGIES, INC.

DRAWING OF STORAGE/DISPOSAL AREA(S)

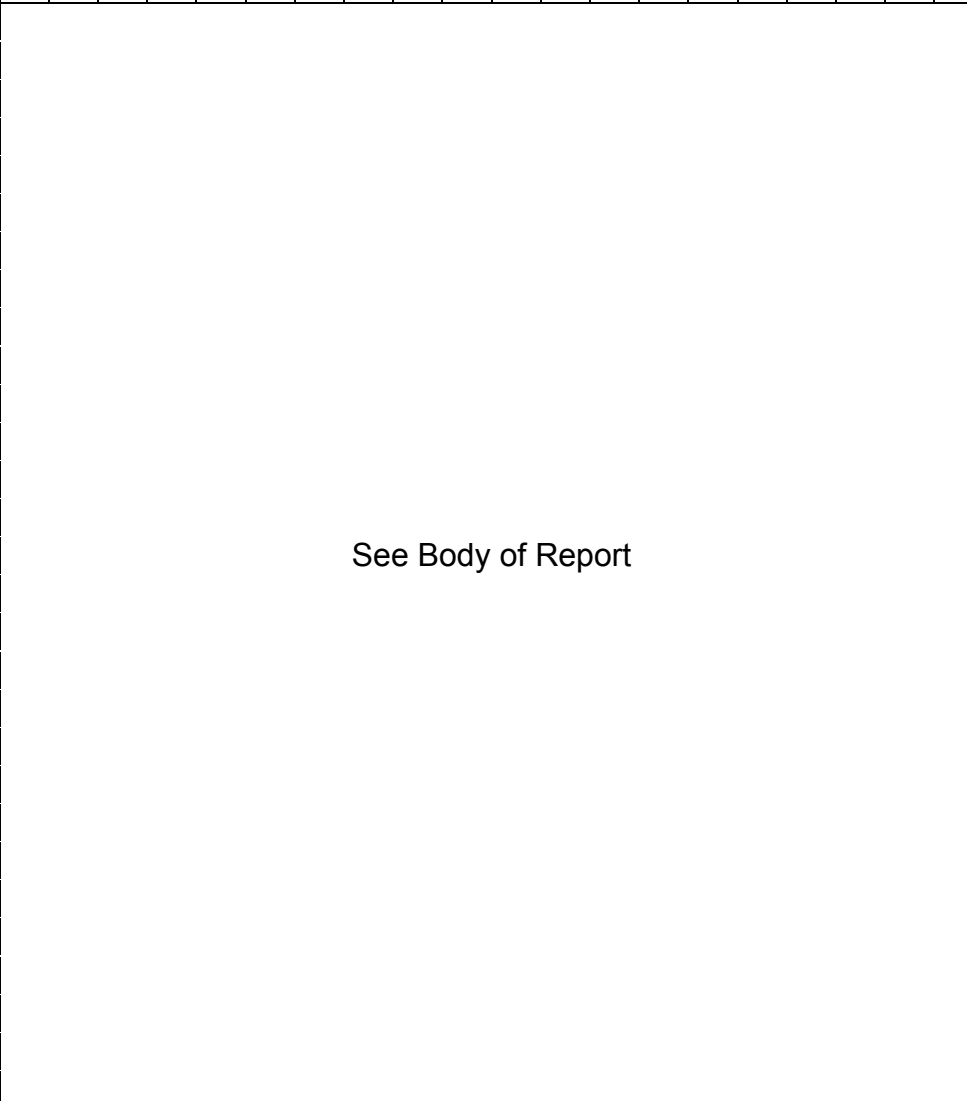
FACTs project name: 2927 Main Street

Form # ML11

Date: October 13, 2009

Reporting IH:

Caoimhín P. Connell, Forensic IH



See Body of Report

See Body of Report

Each grid equals approximately _____ (Approximate lay-out; Not to scale)

Describe the area: _____

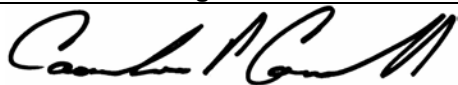
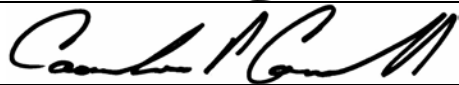


FORENSIC APPLICATIONS CONSULTING TECHNOLOGIES, INC.

CERTIFICATION, VARIATIONS AND SIGNATURE SHEET

FACTs project name: 2927 Main Street	Form # ML14
Date: October 13, 2009	
Reporting IH:	Caoimhín P. Connell, Forensic IH

Certification

Statement	Signature
I do hereby certify that I conducted a preliminary assessment of the subject property in accordance with 6 CCR 1014-3, § 4.	
I do hereby certify that the analytical results reported here are faithfully reproduced.	

In the section below, describe any variations from the standard.

Pursuant to the language required in 6 CCR 1014-3, § 8:

I do hereby certify that I conducted a preliminary assessment of the subject property in accordance with 6 CCR 1014-3, § 4. ~~I further certify that the cleanup standards established by 6 CCR 1014-3, § 7 have been met as evidenced by testing I conducted.~~

Signature



Date: October 13, 2009

**FORENSIC APPLICATIONS CONSULTING TECHNOLOGIES, INC.**



FORENSIC APPLICATIONS CONSULTING TECHNOLOGIES, INC.

CONSULTANT STATEMENT OF QUALIFICATIONS

(as required by State Board of Health Regulations 6 CCR 1014-3 Section 8.21)

FACTs project name:	2927 Main St.	Form # ML15
Date:	October 13, 2009	
Reporting IH:	Caoimhín P. Connell, Forensic IH	

Caoimhín P. Connell, is a private consulting forensic Industrial Hygienist meeting the definition of an "Industrial Hygienist" as that term is defined in the Colorado Revised Statutes §24-30-1402. Mr. Connell has been a practicing Industrial Hygienist in the State of Colorado since 1987 and has been involved in clandestine drug lab (including meth-lab) investigations since May of 2002.

Mr. Connell is a recognized authority in methlab operations and is a Certified Meth-Lab Safety Instructor through the Colorado Regional Community Policing Institute (Colorado Department of Public Safety, Division of Criminal Justice). Mr. Connell has provided over 200 hours of methlab training for officers of over 25 Colorado Police agencies, 20 Sheriff's Offices, federal agents, and probation and parole officers from the 2nd, 7th and 9th Colorado judicial districts. He has provided meth-lab lectures to prestigious organizations such as the County Sheriff's of Colorado, the American Industrial Hygiene Association, and the National Safety Council.

Mr. Connell is Colorado's only private consulting Industrial Hygienist certified by the Office of National Drug Control Policy High Intensity Drug Trafficking Area Clandestine Drug Lab Safety Program, and P.O.S.T. certified by the Colorado Department of Law (Certification Number B-10670); he is a member of the Colorado Drug Investigators Association, the American Industrial Hygiene Association, and the Occupational Hygiene Society of Ireland.

He has received over 120 hours of highly specialized law-enforcement sensitive training in meth-labs and clan-labs (including manufacturing and identification of booby-traps commonly found at meth-labs) through the Iowa National Guard/Midwest Counterdrug Training Center and the Florida National Guard/Multijurisdictional Counterdrug Task Force, St. Petersburg College as well as through the U.S. Bureau of Justice Assistance (US Dept. of Justice). Additionally, he received extensive training in the Colorado Revised Statutes, including Title 18, Article 18 "Uniform Controlled Substances Act of 1992."

Mr. Connell is also a current law enforcement officer in the State of Colorado, who has conducted clandestine laboratory investigations and performed risk, contamination, hazard and exposure assessments from both the law enforcement (criminal) perspective, and from the civil perspective in residences, apartments, motor vehicles, and condominiums. Mr. Connell has conducted over 148 assessments in illegal drug labs, and collected approximately 1,200 samples during assessments (a detailed list of experience is available on the web at: <http://forensic-applications.com/meth/DrugLabExperience2.pdf>)

He has extensive experience performing assessments pursuant to the Colorado meth-lab regulation, 6 CCR 1014-3, (State Board Of Health *Regulations Pertaining to the Cleanup of Methamphetamine Laboratories*) and was an original team member on two of the legislative working-groups which wrote the regulations for the State of Colorado. Mr. Connell was the primary contributing author of Appendix A (*Sampling Methods And Procedures*) and Attachment to Appendix A (*Sampling Methods And Procedures Sampling Theory*) of the Colorado regulations. He has provided expert witness testimony in civil cases and testified before the Colorado Board of Health and Colorado Legislature Judicial Committee regarding methlab issues. Mr. Connell has provided private consumers, state officials and Federal Government representatives with forensic arguments against fraudulent industrial hygienists and other unauthorized consultants performing invalid methlab assessments.

Mr. Connell, who is a committee member of the ASTM International Forensic Sciences Committee, was the sole sponsor of the draft ASTM E50 *Standard Practice for the Assessment of Contamination at Suspected Clandestine Drug Laboratories*, and he is an author of a recent (2007) AIHA Publication on methlab assessment and remediation.

FINAL DOCUMENTATION CHECKLIST

FACTs project name: 2927 Main Street	Form # ML16
Date: October 13, 2009	
Reporting IH:	Caoimhin P. Connell, Forensic IH

Mandatory Final Documents 6-CCR 1014-3	DOCUMENTATION	Included
§8.1	Property description field form	<i>Carl</i>
§8.2	Description of manufacturing methods and chemicals	<i>Carl</i>
§8.3	Law Enforcement documentation review discussion	<i>Carl</i>
§8.4	Description and Drawing of Storage area(s)	<i>Carl</i>
§8.5	Description and Drawing of Waste area(s)	<i>Carl</i>
§8.6	Description and Drawing of Cook area(s)	<i>Carl</i>
§8.7	Field observations field form	<i>Carl</i>
	FACTs Functional Space inventory field form	<i>Carl</i>
§8.8	Plumbing inspection field form	<i>Carl</i>
	FACTs ISDS field form	<i>Carl</i>
§8.9	Contamination migration field form	<i>Carl</i>
§8.10	Identification of common ventilation systems	<i>Carl</i>
§8.11	Description of the sampling procedures and QA/QC	<i>Carl</i>
§8.12	Analytical Description and Laboratory QA/QC	<i>Carl</i>
§8.13	Location and results of initial sampling with figure	<i>Carl</i>
§8.14	FACTs health and safety procedures in accordance with OSHA	<i>Carl</i>
§8.15	Contractor's description of decontamination procedures and each area that was decontaminated	NA
§8.16	Contractor's description of removal procedures each area where removal was conducted, and the materials removed	NA
§8.17	Contractor's description of encapsulation areas and materials	NA
§8.18	Contractor's description of waste management procedures	NA
§8.19	Drawing, location and results of final verification samples	NA
§8.20	FACTs Pre-remediation photographs and log	<i>Carl</i>
	FACTs Post-remediation photographs and log	NA
§8.21	FACTs SOQ	<i>Carl</i>
§8.22	Certification of procedures, results, and variations	<i>Carl</i>
§8.23	Mandatory Certification Language	<i>Carl</i>
§8.24	Signature Sheet	<i>Carl</i>
	Analytical Laboratory Reports	<i>Carl</i>
	FACTs Field Sampling Forms	<i>Carl</i>



FORENSIC APPLICATIONS CONSULTING TECHNOLOGIES, INC.

APPENDIX B

ANALYTICAL REPORTS FOR FACTS SAMPLES

SAMPLING FIELD FORM

FACTs project name: Amsden	Form # ML17
Date: September 22, 2009	Alcohol Lot#: A0801 Gauze Lot#: G0902
Reporting IH: Caoimhín P. Connell, Forensic IH	Preliminary X Intermediate _____ Final _____

Sample ID AM092209-	Type	Area/ Volume/ Weight	Location	Func. Space	Dimensions	Substrate	Result
-01	W		ATTIC - GALV PIPE (I)		65X1.5	M	
-02	W		" " " " (METH)		" " "	M	<0.03
-03	W		TOP OF CAB DOOR JAMB / TOP LAUNDRY DT (I)		33x14(34.3/9)	PW	
-04	W		FLOOR OF COOK CLOSET (I)		15x16	WOOD	
-05	W		FURNACE DUCT INTERIOR		9x9	M	1.53
-06	W		CRAWLSPACE TOP OF LOCKER		9x9	M	6.41
-07	W		South Shed South wall (10% under)		9x9	M	0.041
-08	W		Central Garage top Garage door opener		9x9	M	0.723
-09	W		NORTH Garage top Garage door opener (10% under)		9x9	M	0.152
-10	W		LIVING ROOM Ceiling Fan		11x6	LW	1.73
-11	W		BED ROOM Ceiling Fan		5x13	LW	1.12
-12	B		VACUUM CONTENT				6.09
-13	W		BATH ROOM Ceiling (I)		42x31	PD	
-14	W		BX (I)				
-15	BXW		BX METH				<0.3

Sample Types: W=Wipe; V=Microvacuum; A=Air; B=Bulk; L=liquid

Surfaces: DW= Drywall, PW= Painted wood, LW= Laminated wood, VW= Varnished wood, M= Metal, C=Ceramic

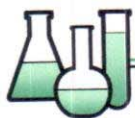
SAMPLING FIELD FORM

FACTs project name: Amsden	Form # ML17
Date: September 22, 2009	Alcohol Lot#: A0801 Gauze Lot#: G0902
Reporting IH: Caoimhin P. Connell, Forensic IH	Preliminary X Intermediate Final

Sample ID AM092209-	Type	Area/ Volume/ Weight	Location	Func. Space	Dimensions	Substrate	Result
-16	B		WHITE INSULATION				<0.03
-17	B		BROWN INSULATION				<0.03
-18	A		AIR sample 1110-1300 4 LPM				<0.03
-19							
-20							
21	B		FURACE FILTER 3X3 / CRAWL SPACE 50% under sampled				1.83

Sample Types: W=Wipe; V=Microvacuum; A=Air; B=Bulk; L=liquid

Surfaces: DW= Drywall, PW= Painted wood, LW= Laminated wood, VW= Varnished wood, M= Metal, C=Ceramic



ANALYTICAL CHEMISTRY INC.

Established in 1979

4611 S. 134th Place, Ste 200
Tukwila WA 98168-3240

Website: www.acilabs.com

Phone: 206-622-8353

E-mail: info@acilabs.com

Lab Reference:	09166-08
Date Received:	September 30, 2009
Date Completed:	October 2, 2009

October 2, 2009

CAOIMHIN P CONNELL
FORENSIC APPLICATIONS INC
185 BOUNTY HUNTER'S LN
BAILEY CO 80421

CLIENT REF: Amsden

SAMPLES: wipes/9, filter (vacuum)/1, bulks/4

ANALYSIS: Methamphetamine by Gas Chromatography-Mass Spectrometry.

RESULTS: in total micrograms (ug)

Sample	Methamphetamine, ug	% Surrogate Recovery
AM092209 - 02	< 0.030	94
AM092209 - 05	1.53	113
AM092209 - 06	6.41	83
AM092209 - 07	0.041	107
AM092209 - 08	0.723	105
AM092209 - 09	0.152	94
AM092209 - 10	1.73	100
AM092209 - 11	1.12	87
AM092209 - 12 (4.63 grams)	6.09	94
AM092209 - 15	< 0.030	78
AM092209 - 16 (2.01 grams)	< 0.030	94
AM092209 - 17 (4.41 grams)	< 0.030	90
AM092209 - 18 (< 1 milligrams)	< 0.030	98
AM092209 - 21 (1.94 grams)	1.83	96
QA/QC Method Blank	< 0.004	
QC 0.100 ug Standard	0.101	
QA 0.020 ug Matrix Spike	0.019	
QA 0.020 ug Matrix Spike Duplicate	0.021	
Method Detection Limit (MDL)	0.004	
Practical Quantitation Limit (PQL)	0.030	

'<': less than,
not detected
above the PQL

Robert M. Orheim
Director of Laboratories



ANALYTICAL CHEMISTRY INC.

CDL SAMPLING & CUSTODY FORM

4611 S 134th Pl, Ste 200 Tukwila WA 98168-3240
Website: www.acliabs.com

Phone: 206-622-8353
FAX: 206-622-4623

Page 1 of 2
Please do not write in shaded areas.

SAMPLING DATE: Sept 22, 2009		REPORT TO: Caoimhin P. Connell		ANALYSIS REQUESTED	
PROJECT Name/No: Amsden		COMPANY: Forensic Applications, Inc.		1 Methamphetamine	
eMail: Fiosrach@aol.com		ADDRESS: 185 Bounty Hunters Lane, Bailey, CO 80421		2 Use entire contents	
SAMPLER NAME: Caoimhin P. Connell		PHONE: 303-903-7494		3 Gravimetric (report weight mg)	
				4 Iodine	
				5	
				6 Not Submitted	
LAB Number		SAMPLE MATRIX		ANALYSIS REQUESTS	
Sample Number		Wipe	Vacuum	Other	1 2 3 4 5 6
AM092209-01		X			X
AM092209-02		X			X
AM092209-03		X			X
AM092209-04		X			X
AM092209-05		X			X
AM092209-06		X			X
AM092209-07		X			X
AM092209-08		X			X
AM092209-09		X			X
AM092209-10		X			X
CHAIN OF CUSTODY RECORD		Wipes Results in:		Total Number of Containers (verified by laboratory)	
PRINT NAME	Signature	COMPANY	DATE	TIME	Turnaround Time
Caoimhin P. Connell	<i>Caoimhin P. Connell</i>	FACTS, Inc.	9/25/09	12 Noon	<input type="checkbox"/> 24 Hours
MIA SAZEN	<i>edg</i>	ATI	9/30/09	1500	<input type="checkbox"/> 2 Days
					<input type="checkbox"/> 3 Days
					<input checked="" type="checkbox"/> Routine
Custody Seals:		Container:		Temperature:	
<input checked="" type="checkbox"/> Yes		<input checked="" type="checkbox"/> Intact		<input checked="" type="checkbox"/> Ambient	
<input type="checkbox"/> No		<input type="checkbox"/> Broken		<input type="checkbox"/> Cooled	
Inspected By:		MIA SAZEN		09166-08	
Lab File No.					



ANALYTICAL CHEMISTRY INC.

CDL SAMPLING & CUSTODY FORM

4611 S 134th Pl, Ste 200 Tukwila WA 98168-3240
Website: www.acliabs.com

Phone: 206-622-8353
FAX: 206-622-4623

Page 2 of 2
Please do not write in shaded areas.

SAMPLING DATE:		Sept 22, 2009		REPORT TO:		Caoimhin P. Connell		ANALYSIS REQUESTED									
PROJECT Name/No:		Amsden		COMPANY:		Forensic Applications, Inc.											
eMail:		Fiosrach@aol.com		ADDRESS:		185 Bounty Hunters Lane, Bailey, CO 80421											
SAMPLER NAME:		Caoimhin P. Connell		PHONE		303-903-7494											
LAB Number	Sample Number	SAMPLE MATRIX			ANALYSIS REQUESTS						SAMPLER COMMENTS	LAB COMMENTS	No of Containers				
		Wipe	Vacuum	Other	1	2	3	4	5	6							
	AM092209-11	X			X	X								1			
	AM092209-12	X		Bulk	X	X	X							1			
	AM092209-13	X			X	X		X						1			
	AM092209-14	X			X	X		X						1			
	AM092209-15	X			X	X								1			
	AM092209-16	X		Bulk	X	X	X							1			
	AM092209-17	X		Bulk	X	X	X							1			
	AM092209-18	X		Air	X	X								1			
	AM092209-19	X												0			
	AM092209-20	X		Bulk	X	X	X							1			
CHAIN OF CUSTODY RECORD		Wipes Results in:		<input type="checkbox"/> µg/100cm ²		<input checked="" type="checkbox"/> Total µg		Total Number of Containers (verified by laboratory)									
PRINT NAME		Signature		COMPANY		DATE		TIME		Turnaround Time		Custody Seals:		Yes		No	
Caoimhin P. Connell				FACTS, Inc.		9/25/09		12 Noon		<input type="checkbox"/> 24 Hours		Container:		Intact		Broken	
MIA SAZON				ACT		9/30/09		1500		<input type="checkbox"/> 2 Days		Temperature:		Ambient		Cooled	
CAUTION: EXTREME DANGER OF CONTAMINATION. LOOK FOR SQUEEZE PHEDRINE PEAK ON ALL METHAMPHETAMINE SAMPLES AND REPORT WHERE PRESENT		<input type="checkbox"/> 3 Days		<input checked="" type="checkbox"/> Routine		Inspected By:		MIA SAZON		Lab File No.		09166-08					



ANALYTICAL CHEMISTRY INC.

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Tukwila WA 98168-3240

Website: www.acilabs.com

Phone: 206-622-8353

E-mail: info@acilabs.com

Lab Reference:	09166-08I
Date Received:	September 30, 2009
Date Completed:	October 9, 2009

October 9, 2009

CAOIMHIN P CONNELL
FORENSIC APPLICATIONS INC
185 BOUNTY HUNTER'S LN
BAILEY CO 80421

CLIENT REF: Amsden

SAMPLES: wipes/4

ANALYSIS: Iodine by Iodometric Method (titration with sodium thiosulfate).

RESULTS: in total micrograms (ug)

Sample	Iodine, ug
AM092209 - 01	< 10
AM092209 - 03	130
AM092209 - 04	120
AM092209 - 13	210
AM092209 - 14	66
QA/QC Method Blank	< 10
QC Standard Recovery	106%
Practical Quantitation Limit (PQL)	10

<: less than, not detected above the PQL

Robert M. Orheim
Director of Laboratories

Subject: Re: Amsden-Iodine Results
Date: 10/13/2009 17:07:35 Mountain Daylight Time
From: aci@acilabs.com
To: Fiosrach@aol.com

Hi, Caoimhin:

We looked at all the samples and the QA/QC, and we could not find any inconsistencies with the reported values. In fact, we double checked our results on Sample 14 before reporting it as it looked like a blank. Since Sample 01 was non-detect, we can't attribute it to the matrix, but we can't rule the matrix out either, as we have not tested several gauze materials before to verify any background levels.

Other oxidizing agents (chlorates, perchlorates, peroxides..) are positive interferences for this method.

Also, we forgot to report the ephedrine.

Sample 06: 0.325 ug

Sample 16: 0.096 ug

Do you want us to revise the report to include these numbers? Since we forgot, we won't charge you extra for these two samples unless we have to revise the report to include the ephedrine results.

Thanks,
Mia

Mia Sazon
Projects Manager
Analytical Chemistry Inc.
4611 S. 134th Pl, Ste 200
Tukwila WA 98168
206-622-8353
aci@acilabs.com

APPENDIX C

COMPACT DIGITAL DISK
(PHOTOGRAPHS AND ADDITIONAL DOCUMENTATION)

