



FORENSIC APPLICATIONS CONSULTING TECHNOLOGIES, INC.

**Preliminary Assessment
of an
Identified Illegal Drug Laboratory
at
3415 E 29 Ave.
Denver, CO 80205**

Prepared for:
Kristi Capps
1278 Aspen Drive
Evergreen, CO 80439

Prepared by:

FORENSIC APPLICATIONS CONSULTING TECHNOLOGIES, INC.
185 Bounty Hunter's Lane
Bailey, CO 80421



April 28, 2010

TABLE OF CONTENTS

| | |
|---|----|
| EXECUTIVE SUMMARY | 3 |
| REGULATORY REQUIREMENTS..... | 4 |
| Federal Requirements..... | 4 |
| State Requirements..... | 4 |
| Preliminary Assessment | 4 |
| Discovery and Notification | 4 |
| Preliminary Hypothesis | 4 |
| Initial Statement on Hypothesis Testing | 5 |
| Elements of the Preliminary Assessment..... | 5 |
| Subject Structure | 6 |
| Review of Law Enforcement Documentation..... | 7 |
| County | 7 |
| Governing Body | 7 |
| Visual Inspection of the Property | 7 |
| SAMPLE COLLECTION | 8 |
| Wipe Samples | 8 |
| Methamphetamine | 8 |
| QA/QC Precautions | 8 |
| Field Blanks | 8 |
| Cross Contamination | 8 |
| Collection Rationale | 8 |
| Primary Objective..... | 8 |
| Sample Results | 10 |
| Methamphetamine | 10 |
| Wipe Sample Results | 10 |
| Quality Assurance/Quality Control..... | 10 |
| Data Set..... | 10 |
| Sample Locations..... | 11 |
| Identification of Cook/Storage Areas | 13 |
| Identification of Contamination Migration..... | 13 |
| FUNCTIONAL SPACE SUMMARY | 13 |
| Structure Number 1- Main Residence..... | 14 |
| Functional Space 1: Living Room and Closet..... | 14 |
| Functional Space 2: Bedroom Hall and Linen Closet | 14 |
| Functional Space 3: Bathroom | 14 |
| Functional Space 4: Northwest Bedroom | 14 |
| Functional Space 5: Southwest Bedroom..... | 14 |
| Functional Space 6: Kitchen and Laundry..... | 14 |
| Functional Space 7: Attic | 14 |
| Functional Space 8: Garage | 14 |
| Functional Space 9: Crawlspace | 15 |
| Furnace | 15 |
| EXTERIOR GROUNDS | 16 |
| SEWERAGE SYSTEM | 17 |
| CONCLUSIONS | 17 |
| RECOMMENDATIONS | 17 |
| Universal Site Requirements..... | 17 |
| Decontamination of The Residence | 19 |
| Appendix A Supporting Documents:..... | 21 |
| Appendix B: Analytical Reports | 21 |
| Appendix C: DVD | |



EXECUTIVE SUMMARY

On Thursday, April 1, 2010, personnel from Forensic Applications Consulting Technologies, Inc. (FACTs) were contracted to perform a standard cursory evaluation for the presence of methamphetamine at 3415 E 29th Ave. Denver, CO 80205 (the subject property).

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

On April 14, 2010, personnel from FACTs performed a State mandated Preliminary Assessment pursuant to Colorado Regulation 6 CCR 1014-43, Part 4. Based on the results of these tests and 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 April 7, 2010 report detailing the findings of the April 1, 2010 cursory evaluation sampling.
- An illegal drug lab, as that term is defined in CRS §25-18.5-101, existed at the subject property from April 1, 2010 forward, and continues to exist at the time of this report.
- Subjective observations by FACTs provided *prima fascia* evidence that methamphetamine contamination occurred at the property as a result of heavy smoking of methamphetamine at the property.
- A Class 1 Public Nuisance, as defined in CRS §16-13-303(1) existed at the subject property from April 1, 2010 forward, and continues to exist at the time of this report.
- Following the decontamination activities, post-decontamination sampling must occur to confirm the efficacy of the decontamination and to issue a Decision Statement before reentry or occupancy of the subject property may occur.
- The Preliminary Assessment was conducted by Mr. Caoimhín P. Connell, Forensic Industrial Hygienist, and was assisted by Mr. Rob Seel, technician.¹

¹ Mr. Seel 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.



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, information obtained in the Preliminary Assessment, and those findings, enter the public domain and are not subject to confidentiality.²

The Preliminary Assessment must be conducted according to specified requirements³ 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. 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 April 7, 2010 report of findings written by FACTs and submitted to the client, Ms. Kristi Capps.

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 of methamphetamine, or documentation of drug paraphernalia

² Section 8.26 of 6 CCR 1014-3

³ Section 4 of 6 CCR 1014-3



being present, is considered conclusive, and requires the Industrial Hygienist to accept the null hypothesis and declare the area non-compliant.⁴ 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:⁵

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 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. In the totality of circumstances any one of the samples would have challenged the Primary Hypothesis, and require FACTs to accept the null hypothesis and declare the residence as non-compliant.

Elements of the Preliminary Assessment

Specific mandatory information must be presented as part of the Preliminary Assessment (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 | |

Table 1
Inventory of Mandatory Elements and Documentation

⁴ This language and emphasis is verbatim from Appendix A (mandatory) of 6 CCR 1014-3

⁵ Section 4.6 of 6 CCR 1014-3



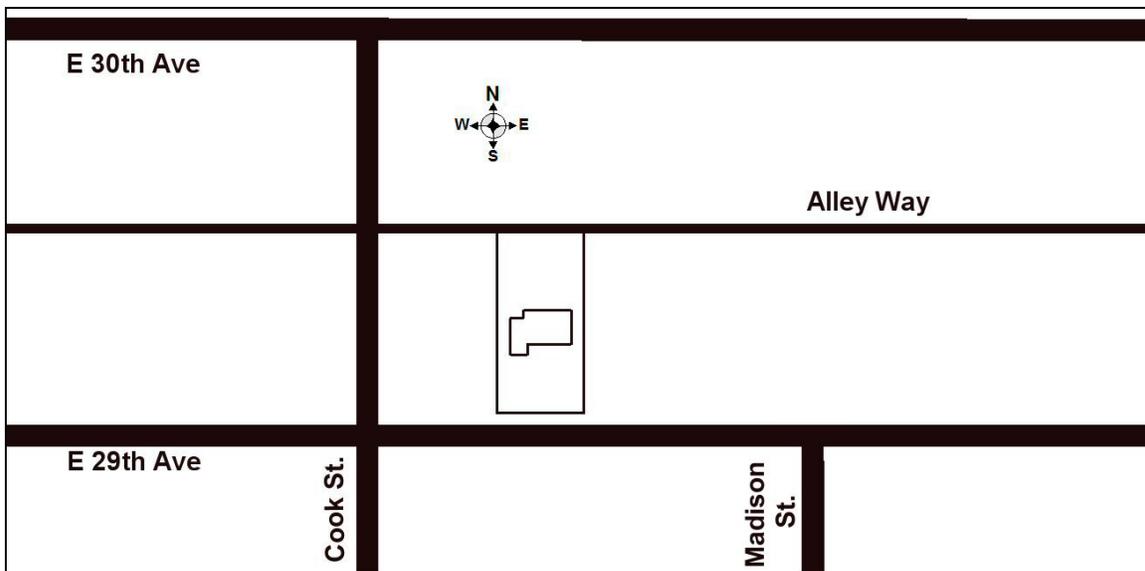
| | | |
|--------------|---|--------------------------|
| §8.10 | Identification of common ventilation systems | <i>C. J. [Signature]</i> |
| §8.11 | Description of the sampling procedures and QA/QC | <i>C. J. [Signature]</i> |
| §8.12 | Analytical Description and Laboratory QA/QC | <i>C. J. [Signature]</i> |
| §8.13 | Location and results of initial sampling with drawings | <i>C. J. [Signature]</i> |
| §8.14 | FACTs health and safety procedures in accordance with OSHA | <i>C. J. [Signature]</i> |
| §8.15 -§8.19 | These sections are not applicable to a Preliminary Assessment | |
| §8.20 | FACTs Pre-remediation photographs and log | <i>C. J. [Signature]</i> |
| | FACTs Post-remediation photographs and log | NA |
| §8.21 | FACTs SOQ | <i>C. J. [Signature]</i> |
| §8.22 | Certification of procedures, results, and variations | <i>C. J. [Signature]</i> |
| §8.23 | Mandatory Certification Language | <i>C. J. [Signature]</i> |
| §8.24 | Signature Sheet | <i>C. J. [Signature]</i> |
| NA | Analytical Laboratory Reports | <i>C. J. [Signature]</i> |
| | FACTs final closeout inventory document | <i>C. J. [Signature]</i> |
| | FACTs Field Sampling Forms | <i>C. J. [Signature]</i> |

**Table 1 (Continued)
Inventory of Mandatory Elements and Documentation**

Subject Structure

The primary residential structure, which is the subject of this report, was listed by the Denver County Assessor’s Office as a 816 square foot ranch house built *circa* 1949. For the purposes of regulatory compliance, traditionally non-taxable spaces (such as the garage) 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 1,250 square feet and sampling requirements must be based on this value.

A general aerial layout of the structure 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 regulation⁶ to review available law enforcement documents pertinent to a subject property. During this project, the Denver Police Department personnel exhibited the highest level of professionalism and cooperated with the requirements of our Preliminary Assessment. In addition to the information provided by a search of the call history, personnel from Denver Police Department informed FACTs that none of the information available indicated law enforcement action involving controlled substances at the subject property.

County

Governing Body

The City and County of Denver has informed us that the “Governing Body” as defined in CRS §25-18.5-101 for this subject property is:

Mr. Gene Hook
Environmental Protection Specialist
City and County of Denver
Department of Environmental Health
Environmental Protection Division
201 W. Colfax Ave., Dept. #1009
Denver, CO 80202

Visual Inspection of the Property

As part of the Preliminary Assessment, on Tuesday, April 14, 2010, 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, and major appliances.

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

⁶ 6 CCR 1014-3 (Section 4.2)



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

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.

Cross Contamination

Prior to the collection of each specific sample area, the Industrial Hygienist 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 facie* 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. Based on those sample results, we were unable to exclude any areas, and contamination was confirmed to be present throughout the entire structure.



Sample Results

Methamphetamine

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

| Sample ID | Sample Item and Location | Sample Type | Result $\mu\text{g}/100 \text{ cm}^2$ |
|--------------|--|-------------------|---------------------------------------|
| CM040110-01A | Top of blind in living room | Cursory Composite | 175.31 |
| CM040110-01B | Living room return grille | | |
| CM040110-01C | Kitchen top of door jamb | | |
| CM040110-01D | Bathroom top of medicine chest | | |
| CM040110-01E | NW Bed room N wall at ghosting | | |
| CM040110-01 | Composite | | |
| CM040110-02A | SW Bedroom top of closet door jamb | Cursory Composite | 35.00 |
| CM040110-02B | Garage top of door mechanism | | |
| CM040110-02C | Attic top of electrical junction | | |
| CM040110-02D | Crawl space top of supply duct | | |
| CM040110-02E | Crawlspace mason jar | | |
| CM040110-02 | Composite | | |
| CM041410-1 | Attic on metal pipe | Preliminary | 1.8 |
| CM041410-2 | Garage on door opening mechanism | Preliminary | 1.3 |
| CM041410-3 | Crawlspace on makeup air vent | Preliminary | 10.0 |
| CM041410-4 | Field Blank | Preliminary | BDL |
| CM041410-5 | Furnace interior from living room vent | Preliminary | 20.6 |

*BDL- Below Detection Limit

Table 2
Results of Preliminary Methamphetamine Wipe Samples

Wipe Sample Results

In the above table, the shaded samples (prefix CM040110) 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.

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 2%, recovery =102%); Matrix spike 0.020 μg (RPD <1%; recovery 100%); Matrix spike Dup 0.020 μg ; (RPD 5%; recovery 105%); Surrogate recovery: High 104% (Sample 4), Low 92%



(Sample 5); FACTs reagents: MeOH lot #A0901 <MDL for n=3; Gauze lot G1001 <MDL for n=1. The QA/QC indicate the data met the data quality objectives; and the results do not appear to exhibit significant bias.

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 during the Preliminary Assessment, and those indicated by arrows were collected during the cursory evaluation.

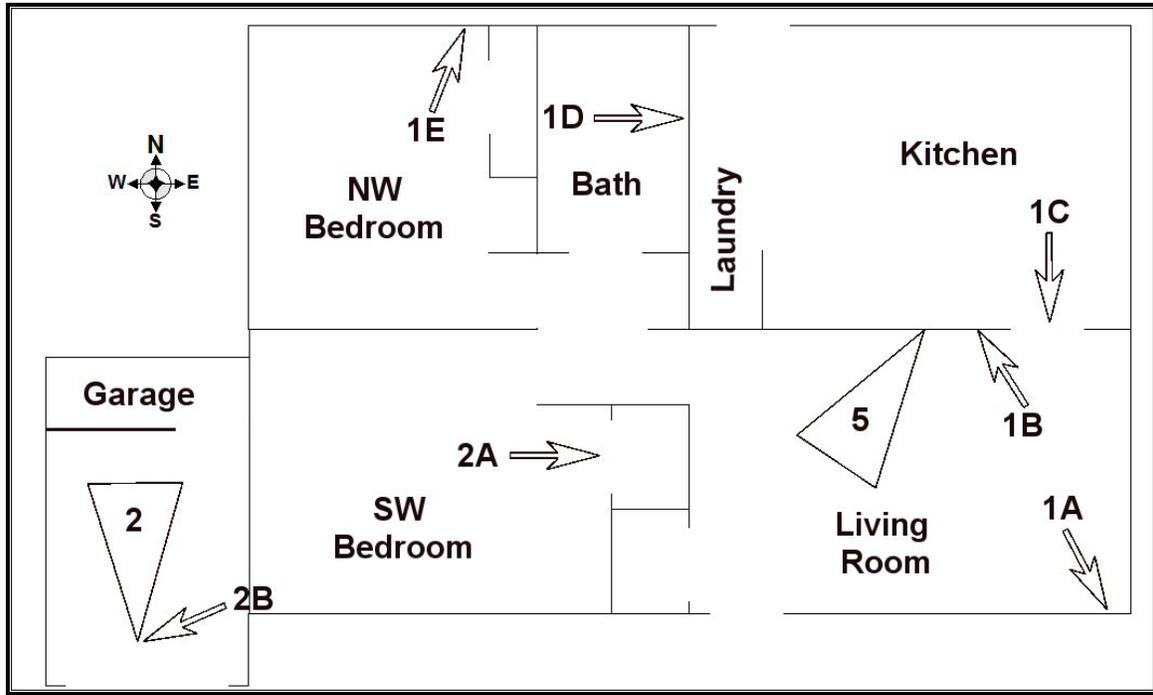


Figure 2
Sample Locations Main Floor- Not to Scale



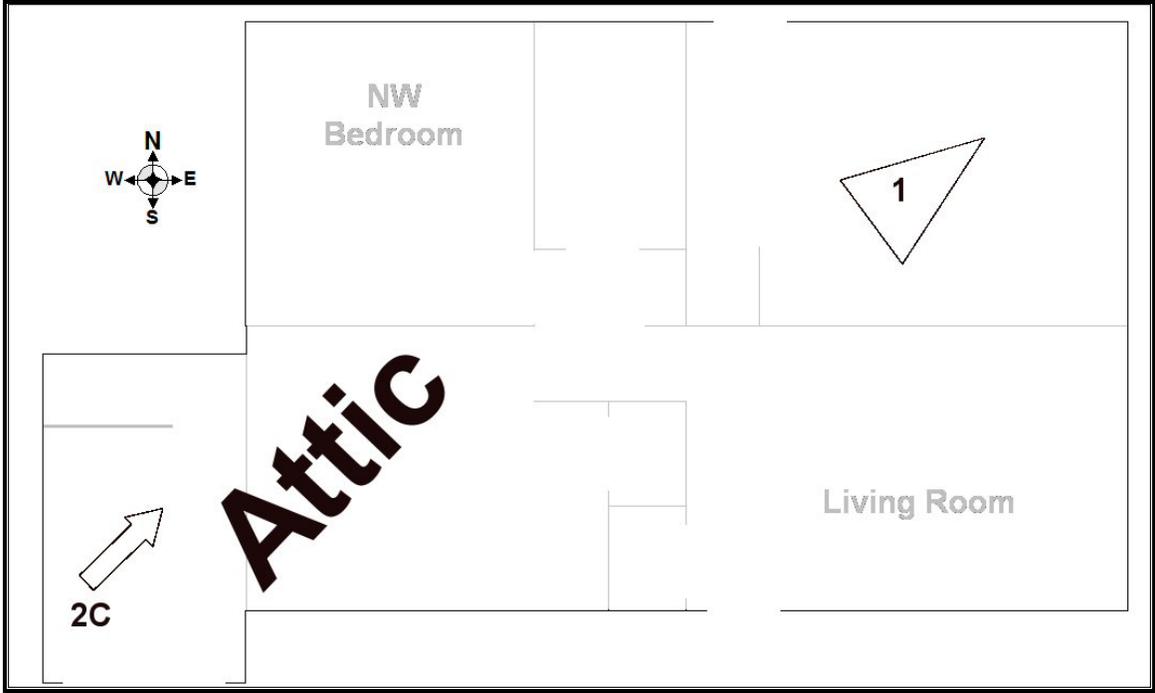


Figure 3
Sample Locations Attic- Not to Scale

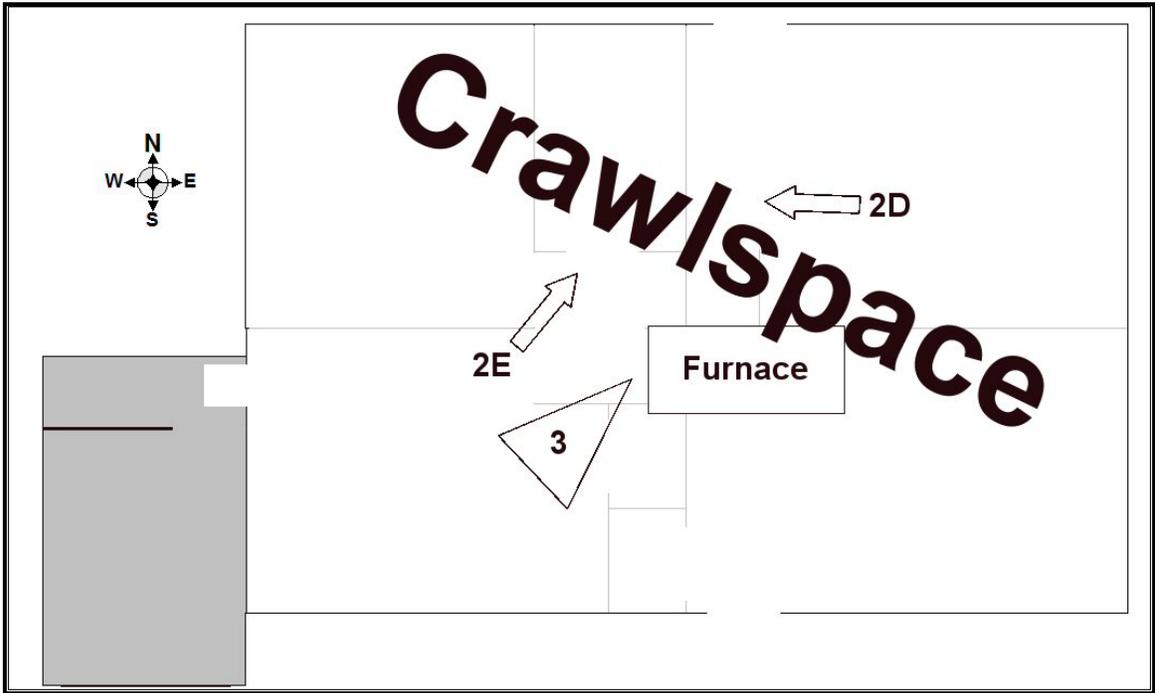


Figure 4
Sample Locations Crawlspace - Not to Scale



Identification of Cook/Storage Areas

Based on our sampling results, our observations and the totality of circumstances, we believe that the methamphetamine contamination is consistent with smoking methamphetamine in the residence. It is difficult to objectively determine which, if any, location may have been the primary location of use.

Identification of Contamination Migration

Based on our visual assessment, we do not believe there was an high probability that contamination migrated off-site (except, possibly, 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 a subject property 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.⁷

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 | Living Room and Closet |
| 1 | 2 | Bedroom Hallway and Linen Closet |
| 1 | 3 | Bathroom |
| 1 | 4 | Northwest Bedroom |
| 1 | 5 | Southwest Bedroom |
| 1 | 6 | Kitchen and Laundry |
| 1 | 7 | Attic |
| 1 | 8 | Garage |
| 1 | 9 | Crawlspace |
| 1 | 10 | Furnace System |
| 1 | 11 | Exterior Grounds |

Table 3
Functional Space Inventory

⁷ Asbestos Containing Materials in Schools; Final Rule and Notice, Title 40 CFR Part 763, Fed. Reg. Vol. 52, No. 210, Fri. Oct. 30, 1987



Structure Number 1- Main Residence

Functional Space 1: Living Room and Closet

This space is delineated as the term is commonly used, and includes the entrance closet. There were no visual indicators from this functional space. A Composite sample and a discrete sample from the duct work in this room both indicated noncompliant concentrations of contaminant.

Functional Space 2: Bedroom Hall and Linen Closet

This is the small central space that connects the four major rooms of the house. We did not observe any subjective visual indicators in this space.

Functional Space 3: Bathroom

This space is delineated as the term is commonly used. A composite sample collected in this area indicated noncompliant concentrations of contaminant

Functional Space 4: Northwest Bedroom

This space includes the closet in the room and is delineated by four walls and is deemed as the term is commonly used. A composite sample collected in this area indicated noncompliant concentrations of contaminant

Functional Space 5: Southwest Bedroom

This space includes the closet in the room and is delineated by four walls and is deemed as the term is commonly used. A composite sample collected in this area indicated noncompliant concentrations of contaminant. There were no visual indicators in this space.

Functional Space 6: Kitchen and Laundry

The kitchen is defined as the term is commonly used. The space includes the small area to the west which houses the hot water heater and laundry hook-ups. A composite sample collected in this area indicated noncompliant concentrations of contaminant. There were no visual indicators in this space.

Functional Space 7: Attic

The attic is defined as the term is commonly used. The attic includes a small area over the garage. A composite sample collected in this area indicated noncompliant concentrations of contaminant, and, a discreet sample collected from the metal pipe in the eastern end of the attic confirmed noncompliant concentrations (1.8 µg/100 cm²). Since the attic can be entered and is a potential storage use area, it must be included in the remediation plan.

Functional Space 8: Garage

Although attached to the main structure, the garage cannot be accessed from the residence. The garage is defined as the term is commonly used. Access to the crawlspace is found in the garage, as well as access to the attic. A composite sample



collected in this area indicated noncompliant concentrations of contaminant, and a discreet sample collected from the top of the garage door opening mechanism confirmed noncompliant concentrations (1.3 µg/100 cm²).

Functional Space 9: Crawlspace

This space is an area under the residence. The furnace and forced air system are located centrally in the crawlspace. The crawlspace contained inconclusive visual indicators of manufacturing. Two composite samples collected in this area indicated noncompliant concentrations of contaminants, and a discreet sample collected from the central makeup air stack confirmed noncompliant concentrations (10.0 µg/100 cm²).

Furnace

Although arguably not a functional space *per se*, the sample collected from the interior duct of a supply vent for the furnace indicated that methamphetamine contamination in that system was significantly elevated (20.6 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%⁸ and half⁹ of the substance is released from the user's pipe. Of that material which is inhaled, between 33%¹⁰ and 10%¹¹ of the nominal dose is not absorbed into the body, but rather exhaled back into the ambient air.

Recent work conducted by Industrial Hygienists at the National Jewish Hospital¹² in Denver, indicated that a single use of methamphetamine, by smoking, would result in an average residential area ambient airborne concentration of methamphetamine ranging

⁸ 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)

⁹ Cook CE, Jeffcoat AR, Hill JM, et al. *Pharmacokinetics of Methamphetamine Self-Administered to Human Subjects by Smoking S-(+)-Methamphetamine Hydrochloride*. Drug Metabolism and Deposition 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.)

¹⁰ 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.)

¹¹ 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

¹² 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.)



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.'¹³

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 contamination 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 areas that have not been confirmed as contaminated by sampling. Having said this, the remaining samples objectively confirm the existence of widespread contamination.

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.

Two notable areas of stressed vegetation were observed: 1) A small 18 inch by 18 inch section of grass at the far north end of the back yard. The location and size were consistent with an old domestic trash incinerator consistent with homes of this age. 2) Along the west side of the backyard was a well delineated section of stressed vegetation. The size, delineation and location of the section was consistent with a dog-run or a garden.

We did not observe any exterior conditions that would suggest illegal discharge of waste contaminants.

¹³ 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 Denver 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 observations, the entire residence, including the attic, garage, crawlspace, and furnace system 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 City and County of Denver.
8. Discovery of any child pornography and/or controlled substances shall be immediately reported to the Denver Police Department.
9. Discovery of any booby trap devices shall be immediately reported to the Denver Police Department and the contractor shall immediately evacuate until further notice.
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 shall be required to upgrade respiratory protection to a minimum of full face APR.
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 any failed final clearance(s).
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 shall 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 or lead abatement issues notwithstanding):

1. Establish negative pressure pursuant to State regulations.
2. Exhaust from the negative enclosure may take place at any ground level location.
3. The contractor should establish a standard, two-chambered decon and/or bag-out/load-out at the back door.
4. Carefully bag and remove all 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.
5. Window coverings (window blinds) should be discarded.



6. All large household appliances (dishwasher, etc) shall be wiped down and salvaged.
7. Plumbing shall be flushed pursuant to regulation.
8. 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.
9. Any carpeting and associated padding should be removed and discarded.
10. Kitchen cabinets shall be cleaned and not removed, unless agreed in writing by the property owner.
11. The refrigerator shall be emptied of all contents, and the interior shall be decontaminated in a normal fashion. The exterior shall be wiped down.
12. Insulation from the attic shall be removed.
13. All debris and contents from the crawlspace shall be removed.
14. The top one inch of dirt shall be excavated and removed from the crawlspace floor.
15. Following the removal of interior contents, all surfaces in the entire interior space including the attic and crawlspace, all ceilings, all hanging fixtures, all cabinets (interior and exterior surfaces), all shelving, all floors, doors, hinges, bathtubs, sinks, appliances (interior and exterior surfaces) 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 FIELD DOCUMENTS



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

| | |
|----------------------------------|---|
| FACTs project name: Capps | Form # ML1 |
| Date: April 14, 2010 | |
| Reporting IH: | Caoimhin P. Connell, Forensic IH |

PROPERTY DESCRIPTION:

| | | | | | | |
|--|---|--|-------------------|-----------------|-----------|-----------------|
| Physical address | 3415 E 29, Ave. Denver CO 80205 | | | | | |
| Legal description or VIN | Clayton Park Addition, Block 7, Lot 19, Parcel 0255418018000 | | | | | |
| Registered Property Owner | Kristi Carrico 1278 Aspen Drive Evergreen, CO 80439 | | | | | |
| Number of structures | One | | | | | |
| Type of Structures (Each affected structure will need a "Functional Space" inventory) | <table border="1"><tr><td>1: Main structure</td><td>816 Square feet</td></tr><tr><td>2: Garage</td><td>434 Square feet</td></tr></table> | | 1: Main structure | 816 Square feet | 2: Garage | 434 Square feet |
| 1: Main structure | 816 Square feet | | | | | |
| 2: Garage | 434 Square feet | | | | | |
| Adjacent and/or surrounding properties | 1: North: Alley and residence 2: South: Street front and residence 3: East: Residence 4: West Residence 5: General well established suburban neighborhood | | | | | |
| General Property Observations | Well kempt, good condition, shows pride of ownership | | | | | |
| Presumed Production Method | Smoking methamphetamine | | | | | |

PLUMBING INSPECTION AND INVENTORY

| | |
|----------------------------------|---|
| FACTs project name: Capps | Form # ML2 |
| Date: April 14, 2010 | |
| Reporting IH: | Caoimhin P. Connell, Forensic IH |

| Functional Space | Room | Fixture | Indicia? | Comments |
|------------------|--------------|-----------------|----------|----------|
| 3 | Bathroom # 1 | Bath | N | |
| 3 | Bathroom # 1 | Shower | N | |
| 3 | Bathroom # 1 | Sink | N | |
| 3 | Bathroom # 1 | Toilet | N | |
| 6 | Kitchen | Sink | N | |
| 6 | Kitchen | Slop sink | NA | |
| 6 | Kitchen | Dishwasher | NA | |
| 6 | Laundry | Washing machine | N | |
| | | | | |

VENTILATION INSPECTION AND INVENTORY

| Item | Y/N | Indicia ? | Sampled ? | Comments |
|---|-----|-----------|-----------|------------|
| Isolated AHU? | Y | N | Y | No Comment |
| Common air intake? | N | NA | NA | No Comment |
| Common bathroom exhausts? | N | NA | NA | No Comment |
| Forced air system? | Y | N | Y | No Comment |
| Steam heat? | N | NA | NA | No Comment |
| Common ducts to other properties? | N | NA | NA | No Comment |
| Passive plena to other properties? | N | NA | NA | No Comment |
| Active returns to other properties? | N | NA | NA | No Comment |
| Passive wall grilles to other properties? | N | NA | NA | No Comment |
| Industrial ventilation? | N | NA | NA | No Comment |
| Residential ventilation? | Y | N | Y | No Comment |
| Pressurized structure? | N | NA | NA | No Comment |



FUNCTIONAL SPACE INVENTORY

| | |
|---------------------------|----------------------------------|
| FACTs project name: Capps | Form # ML3 |
| Date: April 14, 2010 | |
| 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 | | Living room and entry closet |
| 1 | 2 | | Bedroom hallway and linen closet |
| 1 | 3 | | Bathroom |
| 1 | 4 | | Northwest Bedroom and Closet |
| 1 | 5 | | Southwest Bedroom and Closet |
| 1 | 6 | | Kitchen and Laundry |
| 1 | 7 | | Attic |
| 1 | 8 | | Garage |
| 1 | 9 | | Crawlspace |



LAW ENFORCEMENT DOCUMENTATION

| | |
|----------------------------------|---|
| FACTs project name: Capps | Form # ML4 |
| Date: April 14, 2010 | |
| Reporting IH: | Caoimhin P. Connell, Forensic IH |

| | |
|--|--|
| Inventory of Reviewed Documents | 1: Denver Police Department Call History Inv. # 6440 2: Interviewed "Bonnie" Denver Police Department Civil Liabilities |
| Described method(s) of production | Smoking only |
| Chemicals identified by the LEA as being present | None |
| Cooking areas identified | None |
| Chemical storage areas identified | None are determinable on the available information |
| LE Observation on areas of contamination or waste disposal | None |





FORENSIC APPLICATIONS CONSULTING TECHNOLOGIES, INC.

April 7, 2010

Detective Bowser
Denver Police Civil Liability Bureau
1331 Cherokee Street,
Room 504
Denver CO 80204

Via Fax: 720-913-7035

Dear Det. Bowser:

Forensic Applications, Inc. has been contracted to perform a "Preliminary Assessment" an illegal clandestine 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 the City of Denver at:

3415 E 29th Ave. Denver CO 80205

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. Generally, we initially do not require copies of any documents; and, if preferable, we can visit the records offices and review available information there.

We would like to review any narratives regarding 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 five years. If no such records are available please let us know and we will merely make that notation in our report to the City and County of Denver Department of Health.

We will be performing the on-site assessment on April 14, 2010, and will need to review any available documents before then. We apologize for the short notice, however, we generally do not have any control over the timeframes involved.

Forensic Applications takes extreme caution 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 Denver Law Enforcement, and we value and respect that open line of communication. I have included my SOQ. Please feel free to call me directly with any comments or questions.

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 Denver Police Department, such records shall not be used for the direct solicitation of business for pecuniary gain.

Sincerely,

Caoimhín P. Connell
Forensic Industrial Hygienist

Denver Police Department

Invoice

Civil Liability Bureau
 1331 Cherokee Street
 Room 504
 Denver, CO 80204

| | |
|----------|-----------|
| Date | Invoice # |
| 4/7/2010 | 6440 |

| |
|--|
| Bill To |
| Forensic Applications Consulting 185 Bounty Hunter's Lane Bailey, Colorado 80421 |

| |
|------------------|
| Ship To |
| Caoimhin Connell |

| | | | | | |
|--------|----------------|-----|------|-----|-------------|
| Case # | Terms | Rep | Ship | Via | Location |
| | Due on receipt | DSM | | Fax | 3415 E 29th |

| Quantity | Item Code | Description | Price Each | Amount |
|----------|-----------------|---------------------------|------------|--------|
| 1 | Premise History | Premise History Documents | 0.25 | 0.25 |
| 1 | Search Fee | Search Fee | 15.00 | 15.00 |

| | | |
|--------------------------------|--------------|---------|
| Please remit to above address. | Total | \$15.25 |
|--------------------------------|--------------|---------|

Premise_History

| <u>Address</u> | <u>3415 E 29th Ave</u> | <u>Bldg</u> | <u>Apt</u> | <u>Dist 2- Sector 1</u> | | | | | |
|-------------------|------------------------|---------------------------|-----------------|-------------------------|-----------------|----------------|---------------|----------------------|---------------------------|
| <u>Resp. Date</u> | <u>Incident #</u> | <u>Problem</u> | <u>Priority</u> | <u>Received</u> | <u>Dispatch</u> | <u>Arrived</u> | <u>Closed</u> | <u>Cancel Reason</u> | |
| 03/25/09 11:14 | DPD-09-0181646 | Threats | 3 | P3 Public Need | 11:15:56 | 11:17:10 | 11:25:27 | 13:04:19 | D Dispatcher Cancellation |
| 04/21/09 19:32 | DPD-09-0233515 | Suspicious Occurrence | 3 | P3 Public Need | 19:33:13 | 20:03:21 | 20:05:17 | 20:17:43 | |
| 10/28/09 21:20 | DPD-09-0623269 | Domestic Violence IP-JO | 1 | P1 Emergency | 21:34:38 | 21:20:38 | 21:28:39 | 0:39:24 | |
| 10/30/09 2:24 | DPD-09-0624883 | Attempt Contact or Pickup | 4 | P4 Routine | 2:24:44 | 2:24:44 | 2:24:44 | 3:30:26 | |
| 11/03/09 20:27 | DPD-09-0633614 | Domestic Violence IP-JO | 1 | P1 Emergency | 20:27:09 | 20:32:54 | 20:36:10 | 21:11:38 | |
| 11/03/09 20:29 | DPD-09-0633618 | Domestic Violence IP-JO | 1 | P1 Emergency | 20:32:05 | 20:32:12 | 20:36:10 | 21:11:38 | |
| 11/17/09 1:57 | DPD-09-0656508 | Knock and Talk | 2 | P2 Urgent | 1:57:57 | 1:57:57 | 1:57:57 | 2:31:50 | D Dispatcher Cancellation |
| 12/06/09 17:58 | DPD-09-0688674 | Domestic Violence IP-JO | 1 | P1 Emergency | 18:00:52 | 18:00:58 | 18:08:50 | 18:31:38 | |
| 12/18/09 11:33 | DPD-09-0707933 | Welfare Check | 2 | P2 Urgent | 11:35:44 | 11:34:49 | 11:35:13 | 12:04:35 | |

FIELD OBSERVATIONS

| | |
|----------------------------------|---|
| FACTs project name: Capps | Form # ML5 |
| Date: April 14, 2010 | |
| Reporting IH: | Caoimhin P. Connell, Forensic IH |

Structure: 1

| Indicator | Functional Space | Indicator | Functional Space |
|------------------------|------------------|------------------------------|-------------------|
| Acids | No comments | Hydrogen peroxide | No comments |
| Aerosol cans | No comments | Iodine | No comments |
| Alcohols (MeOH, EtOH) | No comments | Kitty litter | No comments |
| Ammonia | No comments | Lead | No comments |
| Ammunition | No comments | Lithium | No comments |
| Artistic expressions | No comments | Match components | No comments |
| Bags of salt | No comments | Mercury | No comments |
| Bases | No comments | Methamphetamine | 1,2,3,4,5,6,7,8,9 |
| Basters/Pipettes | No comments | Modified coolers | No comments |
| Batteries | 9 ① | Needles/Syringes | No comments |
| Bi-phasic wastes | No comments | Other OTC | No comments |
| Booby traps | No comments | pH papers/indicators | No comments |
| Bullet holes | No comments | Phenyl-2-propanone | No comments |
| Burn marks | No comments | Pornography, Sex toys | No comments |
| Chemical storage | 9 ① | Presence of cats | No comments |
| Colored wastes | No comments | Pseudoephedrine | No comments |
| Corrosion on surfaces | 9 ① | Red P | No comments |
| Delaminating paint | No comments | Red Staining | No comments |
| Drug paraphernalia | No comments | Smoke detectors disabled | No comments |
| Empty OTC Containers | No comments | Solvents - ketones, etc | No comments |
| Ephedrine | No comments | Solvents -aromatics | No comments |
| Faeces | No comments | Squalor | No comments |
| Filters | No comments | Staining on floors | No comments |
| Forced entry marks | No comments | Staining on walls or ceiling | No comments |
| Gas cylinders | No comments | Structural modifications | No comments |
| Gerry cans | No comments | Urine containers | No comments |
| Glassware | 9 ① | Weapons | No comments |
| Heating mantle | No comments | Window coverings | No comments |
| Heet or similar (MeOH) | No comments | Yellow staining | No comments |

Notes

- ① Present but not as indicia
- ② Copious or unusual quantities
- ③ Present in normal household expectations
- ④ Modified in manner consistent with clanlab use



INDIVIDUAL SEWAGE DISPOSAL SYSTEM FIELD FORM

| | |
|----------------------------------|---|
| FACTs project name: Capps | Form # ML7 |
| Date: April 14, 2010 | |
| 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 | | | |
| 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 vapours 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 | | | |
| 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 |
| XXXXXXXXXXXX | XXXXXXXXXXXX |

| Location | MOS* | PID* | FID* |
|--------------------------------|------|------|------|
| The Following Section is BLANK | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

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



PRE-REMEDATION PHOTOGRAPH LOG SHEET

| | | |
|----------------------------------|---|-------------------|
| FACTs project name: Capps | | Form # ML8 |
| Date: April 14, 2010 | | |
| Reporting IH: | Caoimhin P. Connell, Forensic IH | |

Cursory Photos:

| Name | Date t... | | |
|--|-----------|---|--|
|  Bathroom JPEG Image 2.33 MB | |  Bathroom (2) JPEG Image 1.99 MB |  Bathroom (3) JPEG Image 2.17 MB |
|  NW Bedroom JPEG Image 2.09 MB | |  Living room JPEG Image 2.24 MB |  Kitchen JPEG Image 2.35 MB |
|  SW Bedroom JPEG Image 2.47 MB | |  Living Room (2) JPEG Image 1.99 MB |  Garage JPEG Image 2.42 MB |
|  Attic JPEG Image 2.41 MB | |  Crawlspace JPEG Image 2.18 MB |  Crawlspace (2) JPEG Image 2.70 MB |
|  Crawlspace (3) JPEG Image 2.48 MB | |  Crawlspace (4) JPEG Image 2.57 MB |  Crawlspace (5) JPEG Image 2.51 MB |



PRE-REMEDATION PHOTOGRAPH LOG SHEET

| | |
|----------------------------------|---|
| FACTs project name: Capps | Form # ML8 |
| Date: April 14, 2010 | |
| Reporting IH: | Caoimhín P. Connell, Forensic IH |

Preliminary Assessment Photographs

| Name | Date taken | # | |
|---|--|--|---|
|  Attic JPEG Image 3.01 MB |  Attic (2) JPEG Image 2.53 MB |  Attic (3) JPEG Image 2.28 MB |  Attic (4) JPEG Image 2.92 MB |
|  Attic (5) JPEG Image 2.58 MB |  Attic (6) JPEG Image 2.54 MB |  Attic (7) JPEG Image 2.40 MB |  Attic (8) JPEG Image 2.80 MB |
|  Bathroom JPEG Image 1.72 MB |  Bathroom (2) JPEG Image 1.69 MB |  Bathroom (3) JPEG Image 1.55 MB |  Bathroom (4) JPEG Image 1.66 MB |
|  Bathroom (5) JPEG Image 1.69 MB |  Bathroom (6) JPEG Image 1.77 MB |  Bathroom (7) JPEG Image 1.73 MB |  Bathroom (8) JPEG Image 1.57 MB |
|  Conf Plumbing JPEG Image 1.92 MB |  Crawlspace JPEG Image 2.26 MB |  Crawlspace (2) JPEG Image 2.75 MB |  Crawlspace (3) JPEG Image 2.54 MB |
|  Crawlspace (4) JPEG Image 2.68 MB |  Crawlspace (5) JPEG Image 2.51 MB |  Crawlspace (6) JPEG Image 2.56 MB |  Crawlspace (7) JPEG Image 2.70 MB |
|  Crawlspace (8) JPEG Image 2.88 MB |  Crawlspace (9) JPEG Image 2.55 MB |  Crawlspace (10) JPEG Image 2.45 MB |  Crawlspace (11) JPEG Image 2.56 MB |
|  Crawlspace (12) JPEG Image 2.88 MB |  Exterior JPEG Image 3.01 MB |  Exterior (2) JPEG Image 2.93 MB |  Exterior (3) JPEG Image 3.67 MB |



PRE-REMEDATION PHOTOGRAPH LOG SHEET

| | | |
|----------------------------------|---|-------------------|
| FACTs project name: Capps | | Form # ML8 |
| Date: April 14, 2010 | | |
| Reporting IH: | Caoimhín P. Connell, Forensic IH | |

Preliminary Assessment Photographs

| Name | Date taken | # |
|--|--|--|
| Exterior (4) JPEG Image 4.58 MB | Exterior (5) JPEG Image 3.72 MB | Exterior (6) JPEG Image 4.54 MB |
| Exterior (8) JPEG Image 3.61 MB | Exterior (9) JPEG Image 3.11 MB | Exterior (10) JPEG Image 3.41 MB |
| Exterior (12) JPEG Image 3.91 MB | Exterior (13) JPEG Image 4.54 MB | Exterior (14) JPEG Image 2.78 MB |
| Garage (2) JPEG Image 2.01 MB | Garage (3) JPEG Image 1.82 MB | Garage (4) JPEG Image 2.15 MB |
| Hall (2) JPEG Image 1.45 MB | Hall (3) JPEG Image 1.42 MB | Hall (4) JPEG Image 1.68 MB |
| Hall (6) JPEG Image 1.69 MB | Hall (7) JPEG Image 1.87 MB | Hall (8) JPEG Image 1.72 MB |
| Hall (10) JPEG Image 1.96 MB | Hall (11) JPEG Image 1.75 MB | Hall (12) JPEG Image 1.63 MB |
| Kitchen (2) JPEG Image 1.75 MB | Kitchen (3) JPEG Image 1.74 MB | Kitchen (4) JPEG Image 1.71 MB |
| | | Exterior (7) JPEG Image 4.56 MB |
| | | Exterior (11) JPEG Image 4.28 MB |
| | | Garage JPEG Image 2.17 MB |
| | | Hall JPEG Image 1.49 MB |
| | | Hall (5) JPEG image 1.59 MB |
| | | Hall (9) JPEG image 1.68 MB |
| | | Kitchen JPEG Image 1.71 MB |
| | | Kitchen (5) JPEG Image 1.66 MB |



PRE-REMEDIATION PHOTOGRAPH LOG SHEET

| | | |
|----------------------------------|---|-------------------|
| FACTs project name: Capps | | Form # ML8 |
| Date: April 14, 2010 | | |
| Reporting IH: | Caoimhin P. Connell, Forensic IH | |

Preliminary Assessment Photographs

| Name | Date taken | # | |
|---|---|---|---|
| Kitchen (6) JPEG Image 1.77 MB | Kitchen (7) JPEG Image 1.60 MB | Kitchen (8) JPEG Image 1.72 MB | Kitchen (9) JPEG Image 1.86 MB |
| Kitchen (10) JPEG Image 1.72 MB | Kitchen (11) JPEG Image 1.69 MB | Kitchen (12) JPEG Image 1.84 MB | Kitchen (13) JPEG Image 1.83 MB |
| Kitchen (14) JPEG Image 2.29 MB | Kitchen (15) JPEG Image 2.01 MB | Kitchen (16) JPEG Image 1.99 MB | Kitchen (17) JPEG Image 1.73 MB |
| Kitchen (19) JPEG Image 1.90 MB | Kitchen (20) JPEG Image 1.97 MB | Kitchen (21) JPEG Image 2.04 MB | Living Room JPEG Image 1.59 MB |
| Living Room (2) JPEG Image 1.82 MB | Living Room (3) JPEG Image 1.85 MB | Living Room (4) JPEG Image 1.84 MB | Living Room (5) JPEG Image 1.70 MB |
| Living Room (6) JPEG Image 1.78 MB | Living Room (7) JPEG Image 1.74 MB | Living Room (8) JPEG Image 1.62 MB | Living Room (9) JPEG Image 1.73 MB |
| Living Room (10) JPEG Image 1.85 MB | Living Room (11) JPEG Image 1.94 MB | Living Room (12) JPEG Image 1.77 MB | Living Room (13) JPEG Image 1.73 MB |
| Livingroom JPEG Image 1.65 MB | Livingroom (2) JPEG Image 2.18 MB | Livingroom (3) JPEG Image 1.74 MB | Livingroom (4) JPEG Image 1.88 MB |
| Livingroom (5) JPEG Image 1.64 MB | Livingroom (6) JPEG Image 1.63 MB | Livingroom (7) JPEG Image 1.70 MB | Livingroom (8) JPEG Image 1.67 MB |
| Livingroom (9) JPEG Image 1.71 MB | NW Bedroom JPEG Image 1.66 MB | NW Bedroom (2) JPEG Image 1.64 MB | NW Bedroom (3) JPEG Image 1.73 MB |
| NW Bedroom (4) JPEG Image 1.74 MB | NW Bedroom (5) JPEG Image 1.66 MB | NW Bedroom (6) JPEG Image 1.72 MB | NW Bedroom (7) JPEG Image 1.96 MB |
| NW Bedroom (8) JPEG Image 1.71 MB | NW Bedroom (9) JPEG Image 1.80 MB | SW Bedroom JPEG Image 1.71 MB | SW Bedroom (2) JPEG Image 1.43 MB |
| SW Bedroom (3) JPEG Image 1.66 MB | Video Video Clip 147 MB | Video.THM THM File 10.8 KB | |



POST-REMEDATION PHOTOGRAPH LOG SHEET

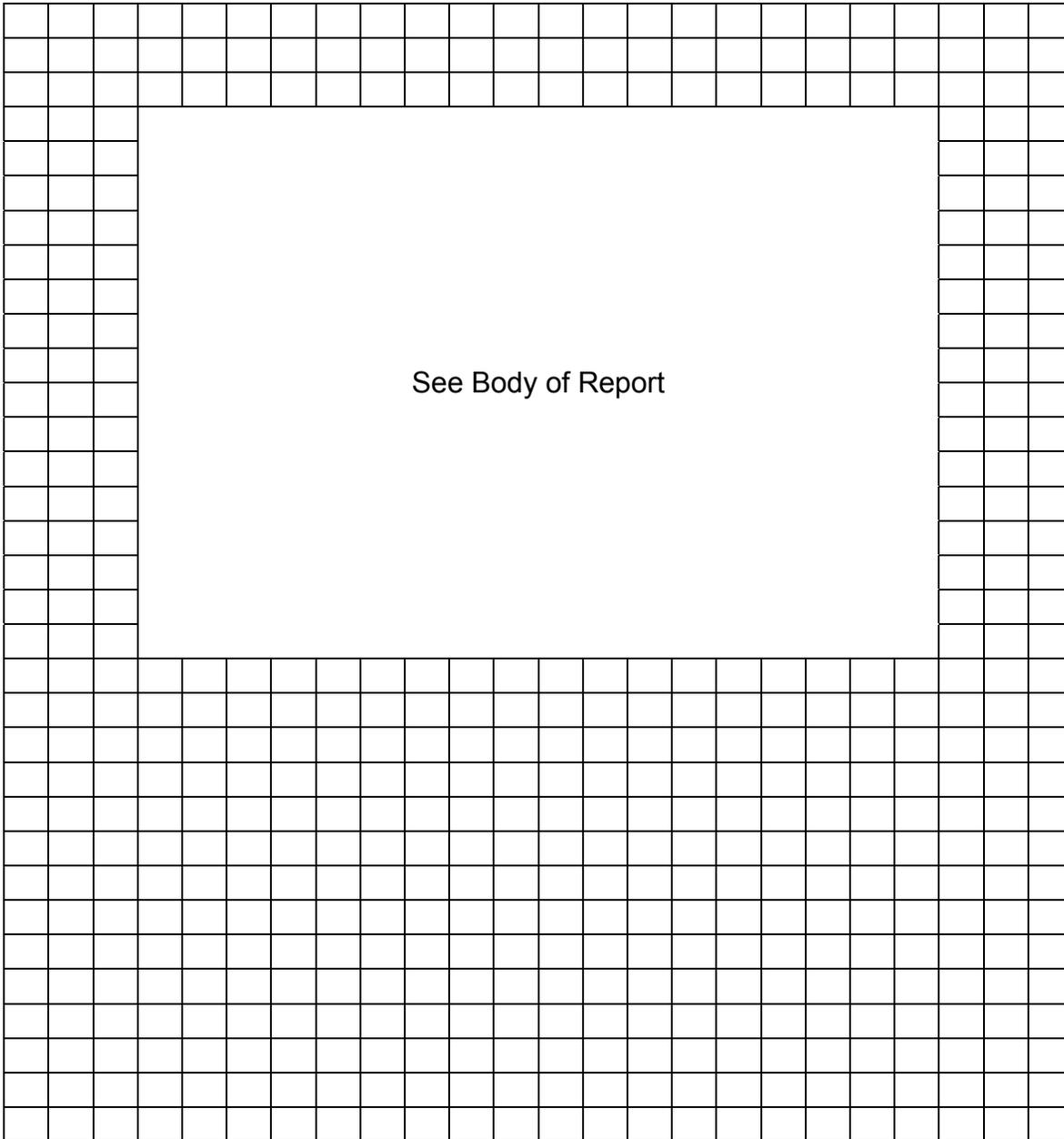
| | |
|----------------------------------|---|
| FACTs project name: Capps | Form # ML9 |
| Date: April 14, 2010 | |
| Reporting IH: | Caoimhin P. Connell, Forensic IH |

Not Applicable



DRAWING OF COOK AREA(S)

| | |
|----------------------------------|---|
| FACTs project name: Capps | Form # ML10 |
| Date: April 14, 2010 | |
| Reporting IH: | Caoimhin P. Connell, Forensic IH |



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

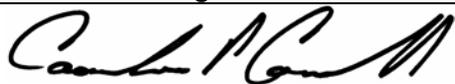
Describe the area: _____



CERTIFICATION, VARIATIONS AND SIGNATURE SHEET

| | |
|----------------------------------|---|
| FACTs project name: Capps | Form # ML14 |
| Date: April 14, 2010 | |
| 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 property has been decontaminated in accordance with the procedures set forth in 6 CCR 1014-3, § 5. | Not Applicable |
| I do hereby certify that I conducted post-decontamination clearance sampling in accordance with 6 CCR 1014-3, § 6. | Not Applicable |
| I do hereby certify that the cleanup standards established by 6 CCR 1014-3, § 7 have been met as evidenced by testing I conducted. | Not Applicable |
| 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: April 28, 2010





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: | Capps | Form # ML15 |
| Date: | April 27, 2010 | |
| 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. He has been a practicing Industrial Hygienist in the State of Colorado since 1987; is the contract Industrial Hygienist for the National Center for Atmospheric Research and has been involved in clandestine drug lab (including meth-lab) investigations since 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, Department of Defense/FBI InterAgency Board peer subject matter expert for the Health, Medical, and Responder Safety SubGroup, and the Occupational Hygiene Society of Ireland. Mr. Connell will be conducting the AIHA 2010 Clandestine Drug Lab Professional Development Course.

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 170 assessments in illegal drug labs, and collected over 1,400 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.

185 BOUNTY HUNTER'S LANE, BAILEY, COLORADO 80421
PHONE: 303-903-7494 www.forensic-applications.com

FINAL DOCUMENTATION CHECKLIST

| | |
|----------------------------------|---|
| FACTs project name: Capps | Form # ML16 |
| Date: April 14, 2010 | |
| Reporting IH: | Caoimhin P. Connell, Forensic IH |

| Mandatory Final Documents 6-CCR 1014-3 | DOCUMENTATION | Included |
|--|---|----------|
| §8.1 | Property description field form | <i>C</i> |
| §8.2 | Description of manufacturing methods and chemicals | <i>C</i> |
| §8.3 | Law Enforcement documentation review discussion | <i>C</i> |
| §8.4 | Description and Drawing of Storage area(s) | <i>C</i> |
| §8.5 | Description and Drawing of Waste area(s) | <i>C</i> |
| §8.6 | Description and Drawing of Cook area(s) | <i>C</i> |
| §8.7 | Field observations field form | <i>C</i> |
| | FACTs Functional Space inventory field form | <i>C</i> |
| §8.8 | Plumbing inspection field form | <i>C</i> |
| | FACTs ISDS field form | <i>C</i> |
| §8.9 | Contamination migration field form | <i>C</i> |
| §8.10 | Identification of common ventilation systems | <i>C</i> |
| §8.11 | Description of the sampling procedures and QA/QC | <i>C</i> |
| §8.12 | Analytical Description and Laboratory QA/QC | <i>C</i> |
| §8.13 | Location and results of initial sampling with figure | <i>C</i> |
| §8.14 | FACTs health and safety procedures in accordance with OSHA | <i>C</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 | <i>C</i> |
| §8.20 | FACTs Pre-remediation photographs and log | <i>C</i> |
| | FACTs Post-remediation photographs and log | NA |
| §8.21 | FACTs SOQ | <i>C</i> |
| §8.22 | Certification of procedures, results, and variations | <i>C</i> |
| §8.23 | Mandatory Certification Language | <i>C</i> |
| §8.24 | Signature Sheet | <i>C</i> |
| | Analytical Laboratory Reports | <i>C</i> |
| | FACTs Field Sampling Forms | <i>C</i> |



APPENDIX B

ANALYTICAL REPORTS FOR FACTS SAMPLES



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: | 10122-04 |
| Date Received: | April 20, 2010 |
| Date Completed: | April 21, 2010 |

April 22, 2010

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

CLIENT REF: Capps

SAMPLES: wipes/5

ANALYSIS: Methamphetamine by Gas Chromatography-Mass Spectrometry.

RESULTS: in total micrograms (ug)

| Sample | Methamphetamine, ug | % Surrogate Recovery |
|------------------------------------|----------------------------|-----------------------------|
| CM041410 - 01 | 9.49 | 99 |
| CM041410 - 02 | 6.78 | 98 |
| CM041410 - 03 | 52.1 | 97 |
| CM041410 - 04 | < 0.030 | 104 |
| CM041410 - 05 | 122 | 92 |
| QA/QC Method Blank | < 0.004 | |
| QC 0.100 ug Standard | 0.102 | |
| QA 0.020 ug Matrix Spike | 0.020 | |
| QA 0.020 ug Matrix Spike Duplicate | 0.019 | |
| 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 1
Please do not write in shaded areas.

SAMPLING DATE: April 14, 2010

REPORT TO: Caoimhin P. Connell

ANALYSIS REQUESTED

PROJECT Name/No: Capps

COMPANY: Forensic Applications, Inc.

1 Methamphetamine

eMail: Fiosrach@aol.com

ADDRESS: 185 Bounty Hunters Lane, Bailey, CO 80421

2 Use entire contents

3 Nicotine

SAMPLER NAME: Caoimhin P. Connell

PHONE: 303-903-7494

4 Amphetamines

5

6 Not Submitted

| LAB Number | Sample Number | SAMPLE MATRIX | | | ANALYSIS REQUESTS | | | | | | SAMPLER COMMENTS | LAB COMMENTS | No of Containers | |
|------------|---------------|---------------|--------|-------|-------------------|---|---|---|---|---|------------------|--------------|------------------|---|
| | | Wipe | Vacuum | Other | 1 | 2 | 3 | 4 | 5 | 6 | | | | |
| | CM041410-01 | X | | | X | X | | | | | | | | 1 |
| | CM041410-02 | X | | | X | X | | | | | | | | 1 |
| | CM041410-03 | X | | | X | X | | | | | | | | 1 |
| | CM041410-04 | X | | | X | X | | | | | | | | 1 |
| | CM041410-05 | X | | | X | X | | | | | | | | 1 |
| | CM041410-06 | X | | | X | X | | | | | | | | 6 |
| | CM041410-07 | X | | | X | X | | | | | | | | 0 |

CHAIN OF CUSTODY RECORD

Wipes Results in:

µg/100cm²

Total µg

Total Number of Containers (verified by laboratory)

5

PRINT NAME: Caoimhin P. Connell

SIGNATURE: [Signature]

COMPANY: FACTS, Inc.

DATE: 4/15/10

TIME: 14:10

Turnaround Time: 24 Hours (2X)

Custody Seals: Yes No

Signature: [Signature]

COMPANY: ACT

DATE: 4/26/10

TIME: 1500

Turnaround Time: 2 Days (1.75X) 3 Days (1.5X)

Container: Intact Broken

Temperature: Ambient Cooled

Signature: [Signature]

COMPANY: ACT

DATE: 4/26/10

TIME: 1500

Turnaround Time: 2 Days (1.75X) 3 Days (1.5X)

Container: Intact Broken

Temperature: Ambient Cooled

Lab File No. 10122-04

APPENDIX C

COMPACT DIGITAL DISK
(PHOTOGRAPHS AND ADDITIONAL DOCUMENTATION)

