

#### FORENSIC APPLICATIONS CONSULTING TECHNOLOGIES, INC.

# Preliminary Assessment of an Identified Illegal Drug Laboratory

812 Cow Bell Court Montrose, CO 81401

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#### **EXECUTIVE SUMMARY**

On September 12, 2008, the Seventh Judicial District Drug Task Force (SJDDTF) conducted a law enforcement action at 812 Cow Bell Court in Montrose, CO (the subject property). During that action, a specified quantity of methamphetamine was discovered in the residence. Also during that action, drug paraphernalia was also observed in the residence by law enforcement agents . Subsequent testimony by the property residents revealed that methamphetamine was smoked in the property.

#### Based on this information:

- An illegal drug lab, as that term is defined in CRS §25-18.5-101, existed at the subject property from September 12, 2008 forward, and continues to exist at the time of this report.
- A Class 1 Public Nuisance, as defined in CRS §16-13-303(1) existed at the subject property from September 12, 2008 forward, and continues to exist at the time of this report.
- "Discovery" and "Notification," as those terms are used in CRS §25-18.5-103(1)(a) were issued on September 12, 2008.

In November 2008, Forensic Applications Consulting Technologies, Inc. (FACTs) performed a State mandated Preliminary Assessment at the subject property. Based on that assessment, FACTs has made the following observations:

- The property exhibits overt noncompliance with Colorado's methamphetamine cleanup standards.
- Widespread methamphetamine contamination exists throughout the entire structure including the attic, and the exterior shed.
- Widespread methamphetamine contamination exists on the personal items remaining in the property.
- Repeated illegal entries were made into the property by the tenants of the residence, in violation of CRS §25-18.5-104 and CRS §16-13-308)(I).
- Personal items were illegally removed by the tenants from the subject property in violation of CRS §25-18.5-103(b).
- The vehicle(s) associated with the subject property were illegally removed by the tenants in violation of CRS §25-18.5-103(b).

- The (unknown) location where personal property was relocated is now contaminated with methamphetamine, and now poses a significant public health hazard and meets the definition of an illegal drug laboratory pursuant to CRS §25-18.5-101, and a Class 1 Public Nuisance as defined in CRS §16-13-303(1).
- The (unknown) vehicles used to transport the personal property are now contaminated with methamphetamine, and now pose a significant public health hazard and meets the definition of an illegal drug laboratory pursuant to CRS §25-18.5-101, and a Class 1 Public Nuisance as defined in CRS §16-13-303(1).
- Entry into the property where the personal items were relocated is therefore now prohibited pursuant to CRS §25-18.5-104.

#### 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.<sup>1</sup>

The Preliminary Assessment must be conducted according to specified requirements<sup>2</sup> 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 found in the appendices.

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



<sup>&</sup>lt;sup>1</sup> Section 8.26 of 6 CCR 1014-3

<sup>&</sup>lt;sup>2</sup> Section 4 of 6 CCR 1014-3

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 Law Enforcement Actions on September 12, 2008.

#### **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. <u>Any</u> 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 <u>compels</u> the Industrial Hygienist to accept the null hypothesis and declare the area non-compliant.<sup>3</sup> 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 <u>not</u> 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:<sup>4</sup>

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, independent of any testing performed by FACTs, overt information existed from available law enforcement agencies which confidently challenged the Primary Hypothesis.

The sampling and analysis performed by FACTs confidently confirmed the presence of overt methamphetamine contamination at the subject property.

The totality of the circumstances challenged the hypothesis that contamination was absent from all portions of the subject property. Based on the totality of circumstances, including objective sampling, we were not able to support the initial hypothesis and, therefore, we accept the null hypothesis and declare the primary residence, including the garage, the attic, the shed and all remaining contents therein as non-compliant.

<sup>&</sup>lt;sup>4</sup> Section 4.6 of 6 CCR 1014-3





<sup>&</sup>lt;sup>3</sup> This language and emphasis is verbatim from Appendix A (mandatory) of 6 CCR 1014-3

#### **Elements of the Preliminary Assessment**

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

Mandatory Final Documents 6-CCR 1014-3	DOCUMENTATION	Included
§8.1	Property description field form	Cando
§8.2	Description of manufacturing methods and chemicals	Cando
§8.3	Law Enforcement documentation review discussion	Cando
§8.4	Description and Drawing of Storage area(s)	Carl
§8.5	Description and Drawing of Waste area(s)	Can
§8.6	Description and Drawing of Cook area(s)	Can
§8.7	Field Observations field form	Carl
80.1	FACTs Functional space inventory field form	Ca./
§8.8	Plumbing inspection field form	0/
80.0	FACTs ISDS field form	NA
§8.9	Contamination migration field form	Report
§8.10	Identification of common ventilation systems	Carl
§8.11	Description of the sampling procedures and QA/QC	Cando
§8.12	Analytical Description and Laboratory QA/QC	Carl
§8.13	Location and results of initial sampling with drawings	Cando
§8.14	FACTs health and safety procedures in accordance with OSHA	Carl
§8.15 -§8.19	Not applicable	NA
§8.20	FACTs Pre-remediation photographs and log	Ca
30.20	FACTs Post-remediation photographs and log	NA
§8.21	FACTs SOQ	Carl
§8.22	Certification of procedures, results, and variations	Cando
§8.23	Mandatory Certification Language	Carl
§8.24	Signature Sheet	Carl
	Analytical Laboratory Reports	0/
	FACTs final closeout inventory document	NA
	Available Law Enforcement documents (confidential - by reference)	NA
	FACTs Field Sampling Forms	Canto

## Table 1 Inventory of Mandatory Elements and Documentation

#### **Subject Structure**

The primary residential structure was listed by the Montrose County Assessor's Office as a 1,421 square foot dwelling built *circa* 2004. For the purposes of regulatory compliance, traditionally non-taxable spaces (such as the attic and the exterior shed) must be included in the assessment. Therefore, for the purposes of this PA, the approximate total square feet of impacted floor space has been calculated by FACTs as 2,962 square feet and regulatory sampling requirements must be based on this value.

#### **Adjoining Properties and Land**

A general layout of the structures in relationship to the roads is depicted in the drawing below; the subject property is outlined in red. Figure 1, below is not to scale.



Figure 1
General Site Overview

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 have included the exterior shed in the Preliminary Assessment. A General layout of the property and shed is given in Figure 2, below.

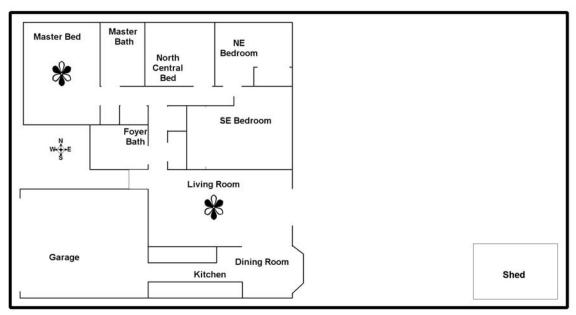


Figure 2
General Layout of Residence – Not to Scale

#### **Review of Law Enforcement Documentation**

As part of the Preliminary Assessment, FACTs is required by regulation<sup>5</sup> to review available law enforcement documents pertinent to a subject property. During this project, the Seventh Judicial District Drug Task Force, Montrose Police Department, and the Montrose County Sheriff's Office each exhibited the highest level of professionalism and cooperated with the requirements of our Preliminary Assessment. FACTs reviewed confidential law enforcement documentation, and interviewed law enforcement officers with firsthand knowledge of the property and law enforcement actions. Due to the sensitive nature of an on-going criminal investigation, the documents and content of the interviews are not publically available.

#### County

#### **Governing Body**

Based on information provided to FACTs, the "Governing Body" as defined in CRS §25-18.5-101 for this subject property is:

Sheriff Rick Dunlap Montrose County Sheriff's Office 1200 North Grand Avenue Montrose, CO 81401



<sup>&</sup>lt;sup>5</sup> 6 CCR 1014-3 (Section 4.2)

#### Visual Inspection of the Property

As part of our Preliminary Assessment, on Friday November 21, 2008, Mr. Caoimhín P. Connell, Forensic Industrial Hygienist 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 some residual chattels, furniture, and major appliances left behind by the previous occupant(s).

To protect the property owner against the introduction of contaminants into the subject property, the Industrial Hygienist and his Technician<sup>6</sup> donned fresh Tyvek<sup>®</sup> suits and booties upon entering the property. All equipment brought into the subject property was staged at or near the front door of the residence. 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.

Wipe samples were collected in a manner consistent with State regulations. The wipe sample medium was individually wrapped commercially available Johnson & Johnson<sup>TM</sup> 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.

#### **Collection Rationale**

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:

<sup>&</sup>lt;sup>6</sup> The technician for this project was certified in methlab entry, through courses through the CRCPI for methlab first responder, and has approximately two years experience with methlab recognition and assessment.



#### 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. <u>Any</u> 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  $\mu$ g/100 cm2), the samples necessarily indicate that the area is not contaminated and no action is required. However, the regulatory threshold values are <u>exclusively</u> to be used as *prima fascia* evidence during <u>final verification</u> 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 <u>not</u> require samples to be collected during a Preliminary Assessment, we collected surface wipe samples from the subject property under the presumed possibility that the property was compliant, and the samples could be used to issue a Decision Statement.

The data quality objectives of the samples collected during the Preliminary Assessment were to determine, within the context of the regulation, whether or not compliant conditions existed at the property.

During the interview with law enforcement personnel, FACTs was shown photographs and otherwise became aware of information that conclusively, and independently, demonstrated the presence of widespread methamphetamine contamination throughout the property. Therefore, in an effort to control costs, FACTs chose to analyze just four samples which would speak directly to the question of widespread distribution:

- 1) Attic
- 2) Living Room Ceiling Fan
- 3) Master Bathroom
- 4) Furnace Interior

Initially, FACTs had selected the sample from the Master Bedroom Ceiling Fan for analysis, but we erroneously submitted the Master *Bath*room sample instead. The error was actually fortuitous in light of the results, since the sample would have represented an area of low probability of contamination – yet the sample result indicated significant contamination, even in this location.



#### Sample Results

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

Sample ID	Location	Result µg/100cm2
CM112108-01	Attic – top of metallic duct	0.93
CM112108-03	Master Bath light fixture	18.40
CM112108-09	Living room ceiling fan	1.97
CM112108-12	Furnace interior	18.19

Table 2
Results of Preliminary Wipe Samples

Overall, the samples indicate widespread, significantly elevated methamphetamine contamination throughout the entire residential structure including the garage, and all items within the structure. Therefore, the remaining samples provide no utility and could only be used to confirm widespread contamination; therefore, these samples were archived.

Table 3, below, presents an inventory of the wipe samples which FACTs archived. FACTs has given the Property Owner an opportunity to claim the samples and will maintain the archived samples until January 31<sup>st</sup>, 2009, before discarding the samples.

Sample ID	Sample Location
CM112108-02	Master BR Ceiling Fan
CM112108-04	Hallway Air intake
CM112108-05	N Central Bedroom N Wall E End
CM112108-06	NE Bedroom N Wall E End
CM112108-07	SE Bedroom E Wall S End
CM112108-08	Main bath top of ceramic shower tile
CM112108-10	Kitchen top of cabinet right of sink
CM112108-11	Garage door opener mechanism
CM112108-13	Outside shed from top of coffee table

Table 3
Inventory of Preliminary Wipe Samples

#### **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

Due to the nature of the data quality objectives, in light of the totality of information available for this subject property, field blanks were not required, and none were reported. Nevertheless, FACTs maintains a log of blank samples and materials, to ensure that reported methamphetamine are not due to contamination. Furthermore, the laboratory reports instrument and reagent blanks to ensure that reported

methamphetamine is not due to reagent contamination. In this way, FACTs is confident that the reported methamphetamine is due exclusively to analyte recovered from the subject property.

#### **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.

#### **Laboratory 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 4.0 μg (RPD 2.5%, recovery =97.5%); Matrix spike 0.020 μg (RPD 10%; recovery 90%); Matrix spike Dup 0.020 μg; (RPD 16%; recovery 85%); Surrogate recovery: High 110% (Sample 9), Low 106% (Samples 3); FACTs reagents: MeOH lot #A0802 <MDL for n=1; Gauze lot G0805 <MDL for n=1. The QA/QC indicate the data met the data quality objectives; and the results appear to exhibit positive 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 are indicated by triangles.

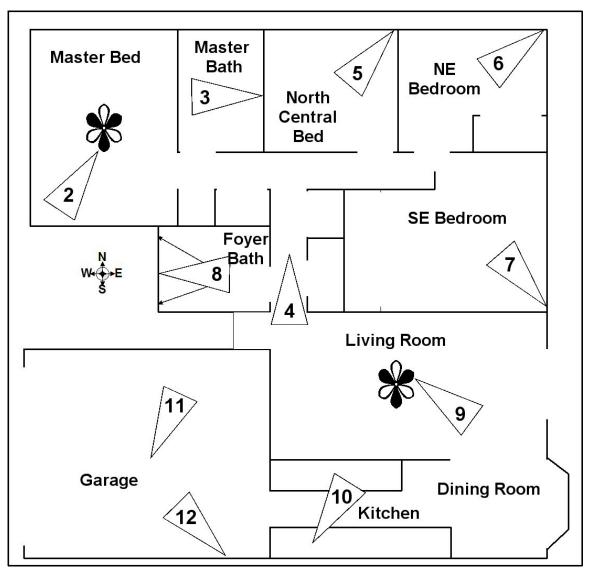


Figure 3 Sample Locations Main Floor

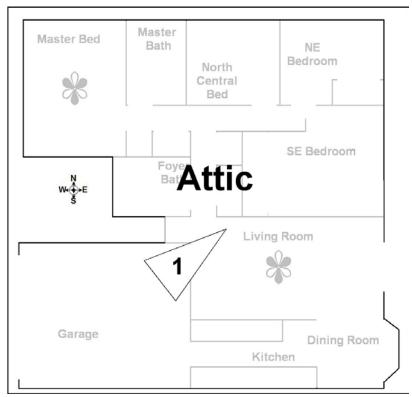


Figure 4 Attic Sample

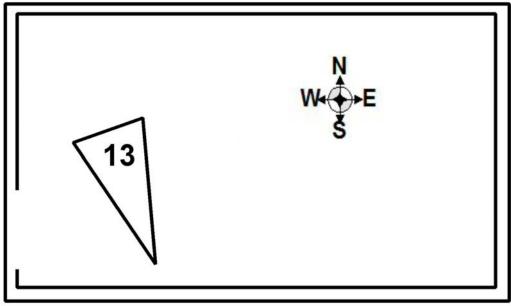


Figure 5 Shed Sample

#### Identification of Cook/Storage Areas

Based on the law enforcement documents, and our observations, although there was no cook area, specified quantities of methamphetamine were identified in the garage.

#### **Identification of Contamination Migration**

Air within a structure communicates, to some extent, with all other areas within that structure. Airborne contaminants therefore, similarly, have the potential for migration, following the paths of air movement. Walls and floors may either act as partial barriers or enhance migration by acting as migration conduits. Air migration patterns within a structure is extremely complex and difficult to quantify with certainty. In this case, airborne methamphetamine migrated throughout the structure, but there is no indication that measureable fugitive emissions occurred to adjoining properties.

As stated in the Executive Summary, personal belongings were illegally removed from the property in an uncontrolled fashion, and relocated to other unknown properties. The personal belongings from the property were heavily contaminated, and that contamination was delivered to the location where the property was taken. The (unknown) location where the personal property was relocated is now contaminated with methamphetamine, and now poses a significant public health hazard and meets the definition of an illegal drug laboratory pursuant to CRS §25-18.5-101, and a Class 1 Public Nuisance as defined in CRS §16-13-303(1).

Similarly, the (unknown) vehicles used to transport the personal property are now contaminated with methamphetamine, and now pose a significant public health hazard and meets the definition of an illegal drug laboratory pursuant to CRS §25-18.5-101, and a Class 1 Public Nuisance as defined in CRS §16-13-303(1).

The writ of restitution issued by the Montrose County Court, requiring all chattels to be removed from the property, in no way alleviated the occupant from the requirements of CRS §25-18.5-103(3) which explicitly states:

CRS §25-18.5-103(3) A person who removes personal property or debris from a drug laboratory shall secure the property and debris to prevent theft or exposing another person to any toxic or hazardous chemicals until the property and debris is appropriately disposed of or cleaned according to board rules.

The occupants removed the personal property, not the courts, the Sheriff's Office and not the registered property owner. As such, the occupants were exclusively responsible for ensuring compliance with this mandatory State statute.

<sup>&</sup>lt;sup>7</sup> Rasmuson J, Hall D, Birkner AZ; Connell CP, Martyny J., *A Computational Fluid Dynamics (CFD) and Tracer Gas Comparison of the Spatial Distribution of an Airborne Contaminant in an Office Space as a Function of General Ventilation Conditions*, American Industrial Hygiene Assoc. Philadelphia (2007)

#### **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.<sup>8</sup>

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:

Functional Space	Describe the functional space
Number	(See drawings for delineating structural features)
1	Master Bedroom and closet
2	Master Bathroom
3	Foyer Hall, Foyer Closets (2), Bedroom Hall, Laundry Room
4	North Central Bedroom
5	North East Bedroom
6	South East Bedroom
7	Foyer Bathroom
8	Living Room
9	Kitchen Dining Room
10	Garage
11	Attic
12	Exterior Shed

Table 4
Functional Space Inventory

#### Structure Number 1- Residence

#### **Functional Space 1: Master Bedroom**

This space is defined as that term is commonly known. This functional space contained several visual indicators consistent with clandestine drug laboratories and controlled substance use/abuse

<sup>&</sup>lt;sup>8</sup> Asbestos Containing Materials in Schools; Final Rule and Notice, Title 40 CFR Part 763, Fed. Reg. Vol. 52, No. 210, Fri. Oct. 30, 1987



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#### **Functional Space 2: Master Bathroom**

This space is defined as that term is commonly known. A wipe sample was collected from the top of the light fixture in this space and which indicated a methamphetamine contamination level of not less than  $18 \mu g/100 \text{ cm}2$ .

#### **Functional Space 3: Foyer and Entrance Areas**

This space included the entrance hallway, the hallway leading into the main living room, the hallway leading to the bedrooms, the laundry nook, and the closets immediate to the hallway. Yellow staining was associated with the hallway. Access to the northern portion of the attic is gained from this area.

#### Functional Space 4: North Central Bedroom

This is the bedroom along the north of the building between the bathroom and the northeast corner bedroom. There were no visual indicators associated with this functional space.

#### **Functional Space 5: North East Corner Bedroom**

This is the bedroom in the north east corner of the structure. Law Enforcement personnel identified drug paraphernalia in this room. In addition to probable methamphetamine contamination, FACTs identified yellow staining in this room.

#### Functional Space 6: South East Bedroom

This is the bedroom along the east of the structure. Law Enforcement personnel identified drug paraphernalia in this room. In addition to probable methamphetamine contamination, FACTs identified yellow staining and red staining in this room.

#### **Functional Space 7: Foyer Bathroom**

FACTs observed probable broken drug paraphernalia (meth-pipe) and yellow staining in this room.

#### **Functional Space 8: Living Room**

This area is defined as that term is commonly known. A wipe sample collected from the ceiling fan in this room indicated a methamphetamine contamination level of not less than  $2 \mu g/100 \text{ cm}2$ .

#### **Functional Space 9: Kitchen and Dining Room**

This space is defined as those terms are normally used; the Dining area is contiguous to the Kitchen and the Living Room. FACTs observed yellow staining on the upper portion of the cabinets.

#### **Functional Space 10: Garage**

The garage is used here as that term is commonly known. The south access to the attic is from this area. Specified quantities of methamphetamine were recovered from this room by Law Enforcement personnel. This area also contains the furnace.

#### **Functional Space 11: Attic**

The structure has one attic, accessible from two locations. We collected a wipe sample from the top of a metalicized duct in the attic. The sample result indicates that methamphetamine fugitive emissions migrated into the attic. The attic is a usable space in the structure and it is reasonable to presume that future occupants will enter the attic for storage and other activities. The sample collected from this space indicates a methamphetamine contamination level of not less than twice the highest level permitted by the State of Colorado. Therefore, this space must be included in the remediation process.

#### **Functional Space 12: Shed**

The small storage shed in the back yard was packed with personal belongings, thus preventing entry for closer inspection. Since our sampling has demonstrated widespread contamination, all belongings removed from the main structure would be similarly heavily contaminated. Since some of those belongings have been relocated into the shed, it is reasonable to conclude that the shed is similarly non-compliant, and has been included in the remediation process.

#### **Functional Space 13: Furnace**

Although arguably not a functional space *per se*, the sample collected from the interior of the ventilation system indicated that methamphetamine contamination in that system was significantly elevated; approximately 40 times greater than the highest allowable regulatory limit.<sup>9</sup>

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  $80\%^{10}$  and half<sup>11</sup> of the substance is released from the user's pipe. Of that material which is inhaled, between  $33\%^{12}$  and  $10\%^{13}$  of the nominal dose is not absorbed into the body (leaving the

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<sup>&</sup>lt;sup>9</sup> The sample result reported in the PA has been corrected for a 75% recovery of material harvested from the surface of the duct interior.

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

<sup>&</sup>lt;sup>11</sup> Cook CE, Jeffcoat AR, Hill JM, et al. *Pharmacokenetics 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.)

<sup>&</sup>lt;sup>12</sup> 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.)

remainder airborne). Recent work conducted by Industrial Hygienists at the National Jewish Hospital in Denver, Colorado, indicate 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 ( $\mu g/m3$ ) to over 130  $\mu g/m3$ . 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."

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 until 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, <u>all other sample results notwithstanding.</u>

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 existed on all personal belongings in the residence and continues to exist 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.

#### **EXTERIOR GROUNDS**

Although not truly a functional space *per se*, the exterior grounds were assessed independently. During the summer months, stressed vegetation indicating illegal dumping is more readily observable. In this case, the winter cycle of growth had already set in, making observations less reliable since all the visible vegetation had already

<sup>&</sup>lt;sup>15</sup> 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.)



<sup>&</sup>lt;sup>13</sup> 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

<sup>&</sup>lt;sup>14</sup> 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.)

become dormant. Nevertheless, within the limitations of a visual inspection, we did not observe any stressed vegetation or other indicators that would suggest the exterior grounds were adversely affected by controlled substance activities in the residence.

#### SEWERAGE SYSTEM

The Montrose County Assessor's Office indicates the 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 that the property was compliant, and we therefore, are required by regulation to 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 garage and the shed and all remaining contents in the entire superstructure must be subjected to thorough 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 (or in this case, if the City of Montrose exercises jurisdiction) 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 initially 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 SJDTF, Montrose County Sheriff's Office, City of Montrose, and the Montrose County Department of Health and Environment
- 8. Discovery of any controlled substances shall be immediately reported to the Montrose County Sheriff's Office.
- 9. All remediation work should be presumed to be pursuant to Title 29 of the Code of Federal Regulations, §1910.120 until otherwise indicated.
- 10. 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.
- 11. The contractor *should* be contractually obligated to include the personnel air monitoring data in their final documentation.
- 12. 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.
- 13. Contractors should be contractually obligated to cover industrial hygiene costs of return visits and sample expenses as a result of a failed final clearance(s).
- 14. State regulations prohibit painting or otherwise encapsulating surfaces prior to final clearance sampling by the Industrial Hygienist.
- 15. 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 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.

- 16. If the contractor's three QA/QC samples suggest that contamination in the subject property remains at a concentration in excess of 0.25 μg/100 cm<sup>2</sup>, the contractor shall be contractually obligated to continue to clean, and sample, until the elevated concentrations are not observed.
- 17. 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

In general, decontamination of a forced air furnace system can be difficult, and often impossible. The contractor may propose removal of the furnace and associated ductwork, *in* toto, or may propose cleaning, and decontamination of the ventilation system. If the furnace system is left in place, final clearance sampling will include at least two locations of the furnace duct interiors.

The following decontamination process should take place in this order:

- 1. Establish negative pressure pursuant to State regulations.
- 2. The contractor shall be required to monitor the negative pressure at all times and ensure that the negative pressure (pressure differential) between the work area and adjoining properties, is not less than 0.02 inches of water column at all times.
- 3. Exhaust from the negative enclosure may take place at any exterior location.
- 4. No work, except as needed to establish critical barriers shall begin until negative pressure is established.
- 5. 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.
- 6. The contractor should establish a standard, two-chambered decon and/or bagout/load-out at the back, sliding glass door.
- 7. Window coverings (window blinds) should be discarded.
- 8. All large household appliances (dishwasher, refrigerator, large screen TV, etc) shall be wiped down and salvaged.



- 9. All bathroom exhaust fans shall be removed from their housing, and thoroughly cleaned.
- 10. The entire contents of the attic, including all insulation shall be removed and discarded. All surfaces in the attic shall be vacuumed and wiped down in a normal fashion
- 11. Carpeting and associated padding should be removed and discarded. However, the contractor is encouraged to provide a proposal for steam-cleaning the carpet, and allowing the carpet to remain. If the carpet remains, it will be subjected to final clearance sampling in accordance with standard industrial hygiene microvacuum sampling procedures.<sup>16</sup>
  - The interpretation of the results of the vacuum samples takes into account the surface area sampled, and the mass of material removed from that surface. The laboratory will be instructed to weigh and report the mass of debris recovered from the cassette, along with the total mass of methamphetamine in that debris. From this information, FACTs will calculate and report a "density" of methamphetamine. The "density" used here is expressed in units of micrograms of methamphetamine recovered per milligram of removable material, per unit area of surface (µg/mg/cm2) and is designated with the Greek letter rho ( $\rho$ ). There are no regulatory guidelines by which we may compare densities; the interpretation of the data is exclusively within the realm of professional judgment of the Industrial Hygienist. In our opinion, based on our database of samples from previous methamphetamine contaminated properties, FACTs has set a qualified density "threshold of concern" of 0.5 p. That is, if the methamphetamine density in the carpet exceeds 0.5 p, FACTs will make the unqualified statement that in the absence of conflicting information, the material requires further decontamination. The value of "0.5" in this case, has no association with the State mandated decision threshold of 0.5 μg/100cm2 – the resemblance of the two values is purely coincidental.
- 12. <u>All</u> surfaces in the entire interior space (including 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), and every other interior surface whether specifically mentioned or not, shall be thoroughly wiped down to remove residual contamination.

#### Compliance for the Shed

1. The shed and all of its contents may be simply dismantled and discarded. If the shed is not demolished, the following procedures are to be followed:

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<sup>&</sup>lt;sup>16</sup> For example, see ASTM Method D 5756-02

- A. Negative pressure shall be established in the shed and maintained at all times. The contractor is permitted to use a common ducting system to establish negative pressure in both structures.
- B. All chattels in the shed should be bagged and taken directly to the roll-on, roll-off. If the contractor identifies particularly valuable items that may be salvaged, the contractor shall contact the property owner to discuss the feasibility of salvage.
- C. Following the removal of interior contents, <u>all</u> surfaces in the entire interior space including the ceiling, floor, doors, hinges, and every other interior surface whether specifically mentioned or not, should be thoroughly wiped down to remove residual methamphetamine contamination.

Enclosures: One CD; Data package, and Appendices

#### **APPENDICES**

#### **SUPPORTING DOCUMENTS**

#### **APPENDIX A**

#### FIELD FORMS

Form	DOCUMENT
ML1	FACTs Property description field form
ML2	Plumbing inspection field form (plumbing system integrity and
IVILZ	identification of sewage disposal mechanism)
ML2	Ventilation inspection
ML3	FACTs Functional space inventory field form
ML4	FACTs Law Enforcement documentation field form
ML5	FACTs Field observations field forms
ML6	FACTs Contamination migration field form
ML8	FACTs Pre-remediation photograph log sheet field form
ML14 FACTs Certification of procedures, results, and variations from	
standard practices. (Signature page)	
ML15	FACTs SOQs
ML 17	FACTs Field Data Sheets



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

FACTs project name: COW BELL		Form # ML1
Date: November 21, 2008		
Reporting IH:	Caoimhín P. Connell, Forensic IH	

#### **PROPERTY DESCRIPTION:**

PROPERTY DESCRIPTION:			
Physical address	812 Cow Bell Court Montrose, CO 81401		
Legal description or VIN	Parcel Number 3767-221-12-014 Tax Area Id - 001140 Homestead Estates Subdivision Filing No. 1 Lot: 58		
Registered Property Owner	Mary Ann Shepard 272 North Santa Cruz Ave. Los Gatos, CA 95030-0000		
Number of structures	Two		
Type of Structures	1: Residential structure 2,842 Square feet		Square feet
(Each affected structure will need a	2: Backyard Shed	120	Square feet
"Functional Space"	Total Lab Area	2,962	Square feet
inventory)			
,	1: North: Single family resid	dential	
Adjacent and/	2: South: Single family resi		_
or surrounding properties	3: East: Single family resident		
	4: West: Single family residential		
General Property Observations	Dirty, but generally fair to good		
Presumed Production Method	Heavy use and distribution		

#### PLUMBING INSPECTION AND INVENTORY

FACTs project name: CO	W BELL	Form # ML2
Date: November 21, 2008		
Reporting IH:	Caoimhín P. Connell, Forensic IH	

Functional	Room	Fixture	Indicia?	Comments
Space				
2	Bathroom # 1	Bath	N	None
2	Bathroom # 1	Shower	N	None
2	Bathroom # 1	Sink 1	N	None
2	Bathroom # 1	Sink 2	N	None
7	Bathroom # 1	Toilet	N	None
7	Bathroom # 2	Bath	N	None
7	Bathroom # 2	Shower	N	None
7	Bathroom # 2	Sink	N	None
9	Kitchen	Sink	N	None
9	Kitchen	Dishwasher	Υ	Yellow staining
3	Laundry	Washing machine	NA	Missing

#### **VENTILATION INSPECTION AND INVENTORY**

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

#### **FUNCTIONAL SPACE INVENTORY**

FACTs project name: CO	W BELL	Form # ML3
Date: November 21, 2008		
Reporting IH:	Caoimhín P. Connell, Forensi	c IH

Structure Number	Functional Space Number	Indicia (Y/N)	Describe the functional space (See drawings for delineating structural features, and body of report for descriptions)
1	1	Υ	Master Bedroom and closet
1	2	Υ	Master Bathroom
1	3	Υ	Foyer Hall, Foyer Closets (2), Bedroom Hall, Laundry Room
1	4	Υ	North Central Bedroom
1	5	Υ	North East Bedroom
1	6	Υ	South East Bedroom
1	7	Υ	Foyer Bathroom
1	8	Υ	Living Room
1	9	Υ	Kitchen Dining Room
1	10	Υ	Garage
1	11	Υ	Attic
2	12	Υ	Exterior Shed

#### **LAW ENFORCEMENT DOCUMENTATION**

FACTs project name: COW BELL		Form # ML4
Date: November 21, 2008		
Reporting IH:	Caoimhín P. Connell, Forensi	c IH

Inventory of Reviewed Documents	FACTs personnel conducted interviews with undercover and uniformed law enforcement personnel and reviewed law enforcement sensitive documentation. FACTs did not obtains any copies of any material.
Described method(s) of production	Distribution point and smoking.
Chemicals identified by the LEA as being present	Methamphetamine
Cooking areas identified	Cooking is not thought to have occurred at this property.
Chemical storage areas identified	Methamphetamine is thought to have been stored in all areas of the house.
LE Observation on areas of contamination or waste disposal	Law Enforcement Sensitive information is available that places potential contamination in all areas of the house.



#### FORENSIC APPLICATIONS CONSULTING TECHNOLOGIES, INC.

November 17, 2008

Montrose County Sheriff's Office 1200 North Grand Avenue Montrose, CO 81401

Via Fax: (970) 252 4061

To Whom It May Concern:

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 Montrose at:

#### 812 Cowbell Court, Montrose, Colorado

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 obtain a copy of any narratives regarding controlled substances or hazardous materials responses, or speak with any MCSO or Task Force personnel who may be familiar with the property. We are only interested in issues involving controlled substances or hazardous materials responses. If no such records are available please let us know and we will merely make that notation in our report to the Montrose Department of Health.

We will be performing the on-site assessment on November 21, 2008, and will need to review 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 <u>any</u> information considered sensitive by an investigating agency. We have developed a close working relationship with Law Enforcement personnel across the State of Colorado, and we value and respect that open line of communication. I have included the SOQ of my Industrial Hygienist, as required by regulation

Sincerely,

Christine A Carty

Christine A. Carty

President



FORENSIC APPLICATIONS CONSULTING TECHNOLOGIES, INC.

November 17, 2008

Montrose Police Department 434 S. First St.
Montrose, CO 81401

Via Fax: (970) 252-5216

To Whom It May Concern:

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 Montrose at:

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Sincerely.

Christine A Carty

Christine A. Carty

President

### FIELD OBSERVATIONS INDICIA INVENTORY FORM

FACTs project name: COW BELL		Form # ML5		
Date: November 21, 2008				
Reporting IH:	Caoimhín P. Connell, Forensic IH			

Indicator	Functional Space	Indicator	Functional Space
Acids	No comment	Hydrogen peroxide	No comment
Aerosol cans	10①	Iodine	No comment
Alcohols (MeOH, EtOH)	10 ①	Kitty litter	No comment
Ammonia	No comment	Lead	No comment
Ammunition	No comment	Lithium	No comment
Bags of salt	No comment	Match components	No comment
Bases	No comment	Mercury	No comment
Basters/Pipettes	No comment	Methamphetamine	1,2,3,4,5,6,7,8,9,10,11,12
Batteries	No comment	Modified coolers	No comment
Bi-phasic wastes	No comment	Needles/Syringes	No comment
Booby traps (trips, triggers, etc)	No comment	Other OTC	No comment
Bullet holes	No comment	Phenyl-2-propanone	No comment
Chemical storage	See report	Presence of cats	No comment
Corrosion on surfaces	No comment	Pseudoephedrine	No comment
Colored wastes	No comment	Red P	No comment
Drug paraphernalia	7	Red Staining	6,9
Empty OTC Bottles	No comment	Solvents - ketones, etc	10①
Ephedrine	No comment	Solvents -aromatics	10①
Filters	No comment	Squalor	No comment
Faeces	No comment	Staining on floors	1,2,3,4,5,6,7,8,9
Gas cylinders	No comment	Urine containers	No comment
Gerry cans	No comment	Weapons	No comment
Glassware	No comment	Yellow staining	3,5,6,7,8,9

#### Notes

- ① Present but not as indicia
- ② Copious or unusual quantities
- 3 As reported by others (credible witnesses, Law Enforcement, etc).
- 4 Modified in manner consistent with clanlab use



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#### INDIVIDUAL SEWAGE DISPOSAL SYSTEM FIELD FORM

FACTs project name: CO	W BELL	Form # ML7
Date: November 21, 2008		
Reporting IH:	Caoimhín P. Connell, Forension	: IH

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

<sup>\*</sup>NC = Not checked

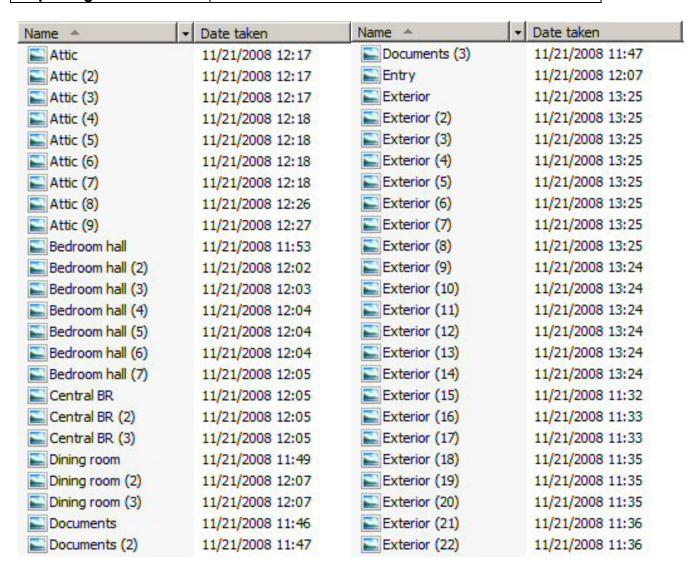
**Qualitative Organic Vapor Monitoring** 

Hydrocarbon detector model	EnMet Target Series, MOS detector
NA	NA

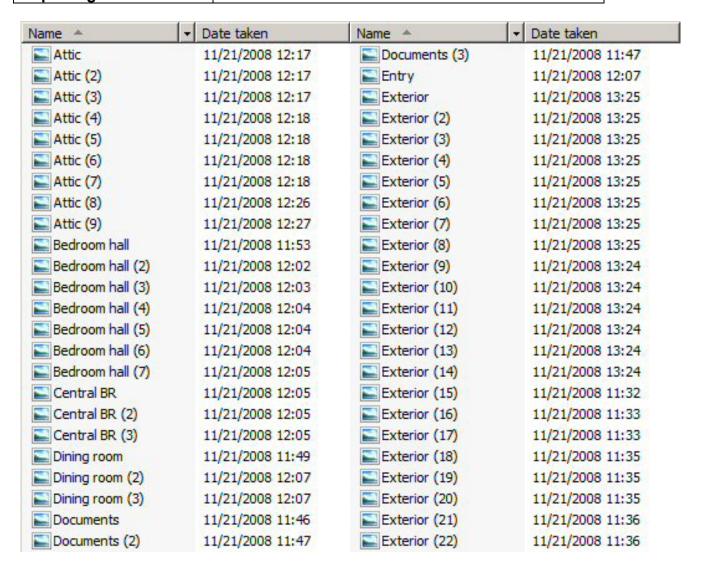
Location	MOS*	PID*	FID*
NA	NA	NA	NA

<sup>\*</sup>Units of measurement are in parts per million equivalents compared to the calibration vapor.

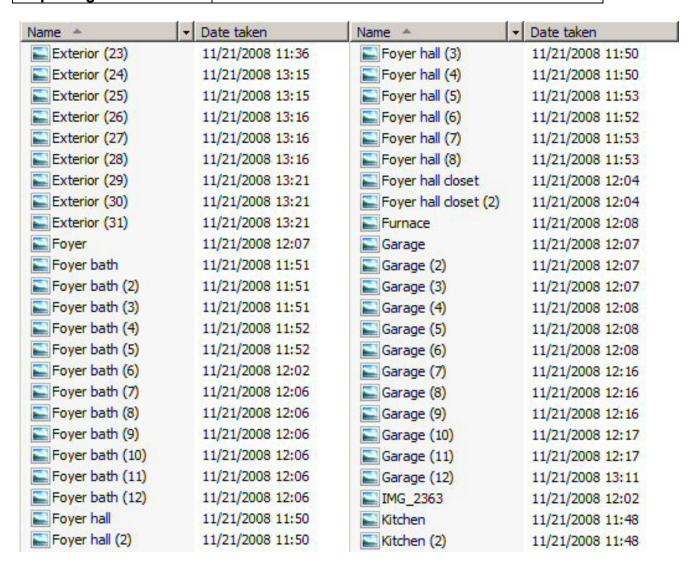
FACTs project name: COW BELL		Form # ML8
Date: November 21, 2008		
Reporting IH:	Caoimhín P. Connell, Forensi	c IH



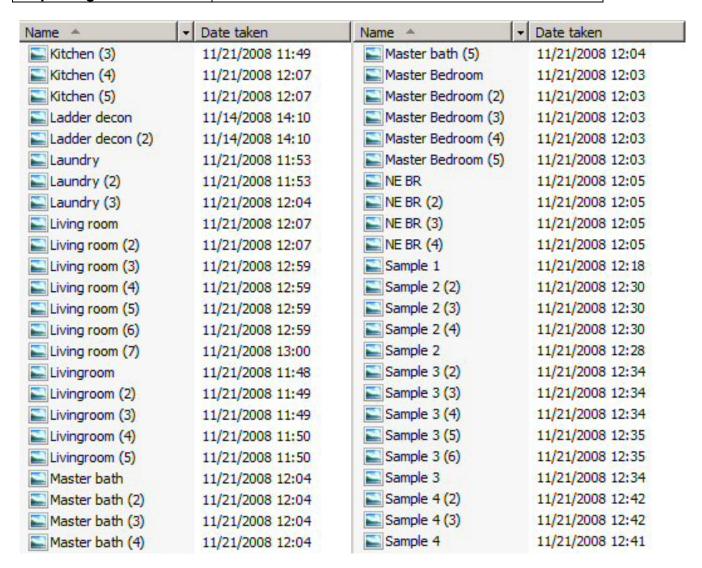
FACTs project name: CO	W BELL	Form # ML8
Date: November 21, 2008		
Reporting IH:	Caoimhín P. Connell, Forensi	c IH



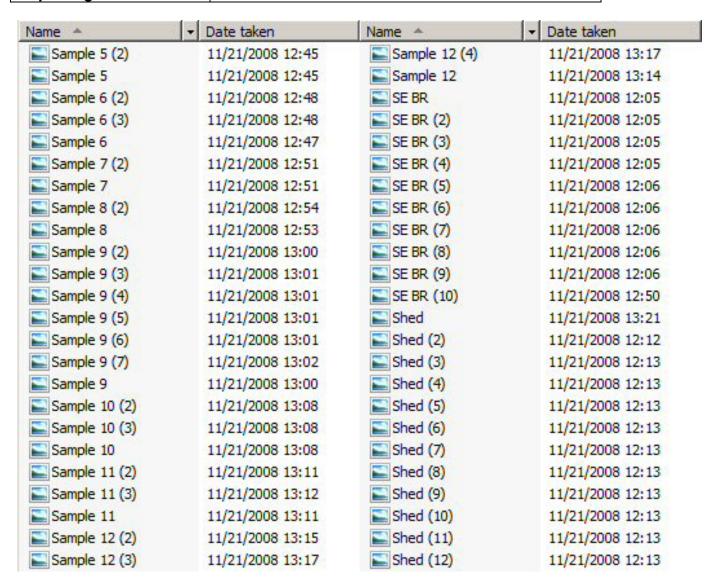
FACTs project name: CO	W BELL	Form # ML8
Date: November 21, 2008		
Reporting IH:	Caoimhín P. Connell, Forensi	c IH



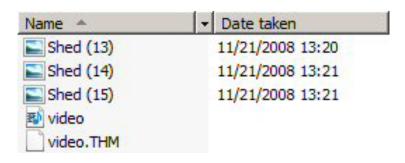
FACTs project name: CO	W BELL	Form # ML8
Date: November 21, 2008	3	
Reporting IH:	Caoimhín P. Connell, Forensi	c IH



FACTs project name: CO	W BELL	Form # ML8
Date: November 21, 2008	3	
Reporting IH:	Caoimhín P. Connell, Forensi	c IH



FACTs project name: COW BELL		Form # ML8
Date: November 21, 2008		
Reporting IH:	Caoimhín P. Connell, Forensi	c IH



FACTs project name: COW BELL		Form # ML9
Date: November 21, 2008		
Reporting IH:	Caoimhín P. Connell, Forensi	c IH

Not Applicable

### **CERTIFICATION, VARIATIONS AND SIGNATURE SHEET**

FACTs project name: COW BELL		Form # ML14
Date: November 21, 2008		
Reporting IH:	Caoimhín P. Connell, Forensi	c 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.	Called
I do hereby certify that the analytical results reported here are faithfully reproduced.	Called

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

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

LA Com

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: December 5, 2008



### 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:	Cowbell	Form # ML15
Date: November 17,	2008	
Reporting IH:	Caoimhín P. Connell, Forensi	c 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 methlab) 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 methlab training for officers of over 25 Colorado Police agencies, 20 Sheriff's Offices, federal agents, and probation and parole officers from the 2<sup>nd</sup>, 7<sup>th</sup> and 9<sup>th</sup> 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, and Regis University.

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 condominia. Mr. Connell has conducted over 80 assessments in illegal drug labs, and collected over 1,000 samples during assessments.

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: CO	W BELL	Form # ML16
Date: November 21, 2008		
Reporting IH:	Caoimhín P. Connell, Forensi	c IH

Mandatory Final Documents 6-CCR 1014-3	DOCUMENTATION	Included
§8.1	Property description field form	01
§8.2	Description of manufacturing methods and chemicals	0/
§8.3	Law Enforcement documentation review discussion	0/
§8.4	Description and Drawing of Storage area(s)	0/
§8.5	Description and Drawing of Waste area(s)	Carl
§8.6	Description and Drawing of Cook area(s)	C.
20.7	Field observations field form	01
§8.7	FACTs Functional Space inventory field form	0/
20.0	Plumbing inspection field form	0/
§8.8	FACTs ISDS field form	61
§8.9	Contamination migration field form	0/
§8.10	Identification of common ventilation systems	6/
§8.11	Description of the sampling procedures and QA/QC	01
§8.12	Analytical Description and Laboratory QA/QC	0/
§8.13	Location and results of initial sampling with figure(s)	0/
§8.14	FACTs health and safety procedures in accordance with OSHA	01
§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	Carl
_	FACTs Post-remediation photographs and log	NA
§8.21	FACTs SOQ	Cant
§8.22	Certification of procedures, results, and variations	Canton
§8.23	Mandatory Certification Language	Can
§8.24	Signature Sheet	Canton
	Analytical Laboratory Reports	Canton
	FACTs Field Sampling Forms	Canton

### **APPENDIX B**

### **ANALYTICAL REPORTS FOR FACTS SAMPLES**

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### SAMPLING FIELD FORM

FACTs project name: Cowbell	Form # ML17
Date: Nov. 21, 2008	Alcohol Lot#: A O & Cauze Lot#: G o SOS
Reporting IH: Caoimhín P. Connell, Forensic IH	Preliminary X Intermediate Final

<b>†</b>	‡	かます	-12	-11	-10	-Ø9	-Ø8	-Ø7	-Ø6	-Ø5	-Ø4	-Ø3	-Ø2	-Ø1	Sample ID CM1121Ø8-
	,	$\tilde{\lambda}$												3	Туре
					100	*									Area/ Volume/ Weight
	2	OUTSIDE SHED / LAM, WD TABLE TOP S.	+	PARACE I GARAGE DOOR EGENEL WELHANISM	KITCHEN TOP OF CABINET/RIGHT OF SINK	* LP/ Qeiling FAN	MAIN BATH 1 TOP OF CERUME HE MENUS SHOWER	SE BORMI 'E WOW / SO END	NE BORY NO WAIL E END	No CENTRAL BRING WARTERNO	HAMI /AID INTAKE (OUTSIDE OF BATH)	MATER BATH/LIGHTEIXTURE BUSINE	MAGED BORY/Criling FAN	appointic	Location
,	8/	1 10 =	ŧ	al	0	∞	7	6	4	4	w	જ	~	=	Func. Space
		33 × 31×4	0,70	9x9	0×0	#/2×4//2×2	80	5×6	929	9X9	1x24x1	1	3x6 x 5	6×6	Dimensions
	33	5 * 31x + 124, wood	METAl	NETAL	VAR, WOS	CAMINATED WA	CERAMIC TILE	PAD DRY	PTD DRY	Pri DRI	METAI	METAI	LAM, WOOD)	Alun Derux	Substrate
						-									Result

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

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30 X 1 X 2 + 52 × 1/2

DIKK \*00 undergampled Dim: 18 x +1/2

Meth-lab	130	いい	
Assessment	DOJ:	A 0703	
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FORENSIC APPLICATIONS CONSULTING TECHNOLOGIES, INC.

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### ANALYTICAL CHEMISTRY INC

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

Phone: 206-622-8353 Fax: 206-622-4623 E-mail: aci@acilabs.com

Website: www.acilabs.com

Lab Reference:	08163-10
Date Received:	December 1, 1008
Date Completed:	December 3, 2008

December 3, 2008

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

CLIENT REF: Cowbell

SAMPLES:

wipes/4

ANALYSIS:

Methamphetamine by Gas Chromatography-Mass Spectrometry.

RESULTS:

in total micrograms (ug)

Sample	Methamphetamine, ug	% Surrogate Recovery	
CM112108 - 01	4.84	107	
CM112108 - 03	71.3	106	
CM112108 - 09	8.63	107	
CM112108 - 12	70.4	110	
QA/QC Method Blank	< 0.004		
QC 4.00 ug Standard	3.90		
QA 0.020 ug Matrix Spike	0.018		
QA 0.020 ug Matrix Spike Duplicate	0.017	1	
Method Detection Limit (MDL)	0.004	1	
Practical Quantitation Limit (PQL)	0.030	1	

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

Robert M. Orheim

Director of Laboratories

## ANALYTICAL CHEMISTRY INC.

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

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

# CDL SAMPLING & CUSTODY FORM

Page

1 of

PROJECT Name/No: SAMPLING DATE: SAMPLER NAME: | Caoimhín P. Connel Number Caoimhín P. Connell LAB PRINT NAME eMail: CHAIN OF CUSTODY RECORD CM112108-09 CM112108-03 CM112108-01 CM112108-12 Fiosrach@aol.com Cowbell November 21,2008 Sample Number Signature FACTs, Inc. COMPANY Wipe × × × × REPORT TO: Caoimhín P. Connell COMPANY: ADDRESS: Wipes Results in: PHONE SAMPLE MATRIX Vacuum 11/24/08 185 Bounty Hunters Lane, Bailey, CO 80421 303-903-7494 Forensic Applications, Inc. DATE Other □ µg/100cm<sup>2</sup> TIME × × × × ANALYSIS REQUESTS 2 × × × Please do not write in shaded areas w X Routine **Turnaround Time** 3 Days (1.5X) 2 Days (1.75X) 24 Hours (2X) X Total µg 5 6 Custody Seals: SAMPLER COMMENTS Temperature: Inspected By: Container: Lab File No. 5 ω Total Number of Containers (verified by laboratory) ANALYSIS REQUESTED Methamphetamine Not Submitted Use entire contents Ambiep LAB COMMENTS Intact Yes MIA SAZON Cooled Broken No 4

### **APPENDIX C**

### COMPACT DIGITAL DISC PHOTOGRAPHS