



**FORENSIC APPLICATIONS CONSULTING TECHNOLOGIES, INC.**

**Preliminary Assessment  
of an  
Identified Illegal Drug Laboratory**

**Columbine Apartments, Unit A107  
605 Wickes Ave.  
Craig, Colorado 81625**

Prepared for:  
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## EXECUTIVE SUMMARY

Based on available documentation,<sup>1</sup> on November 10, 2007, an Industrial Hygiene consulting firm based in Fort Collins, Colorado performed cursory wipe sampling for the presence of methamphetamine at Apartment A107 of the Columbine Apartments, 605 Wickes Ave., Craig, Colorado, 81625 (the subject property).

Although the report from the Industrial Hygienist contained mostly erroneous and technically incorrect information regarding the sampling and the data, the analysis nevertheless conclusively confirmed the presence of methamphetamine at Apartment A107; thus meeting the State definition<sup>2</sup> of “discovery” and the report met the state definition<sup>3</sup> of “notice.”

At the request of the manager of the registered property owner, (C. A. Partnership Ltd), pursuant to CRS §25-18.5-101, and Colorado Regulation 6 CCR 1014-3<sup>4</sup>, on December 10, 2007, Forensic Applications Consulting Technologies (FACTs) performed a State mandated “Preliminary Assessment” at the subject property. The results of the Preliminary Assessment indicate widespread, but moderate to low concentrations of methamphetamine present throughout the entire subject apartment. The conclusion of the Preliminary Assessment is that the contamination generated in the subject apartment (A107) is likely restricted exclusively to that apartment (A107); possible extant contamination in other apartments notwithstanding.

A recommended remediation scope of work is found in the RECOMMENDATIONS section of this document.

In Colorado, there is no *de minimis* concentrations of methamphetamine below which a property can be declared “not of regulatory concern.” In the context of suspected controlled substance use, storage, processing or possession, any concentration of methamphetamine in a property is sufficient to subsequently identify the property as an “illegal drug lab”<sup>5</sup> and trigger the regulatory requirement of a “Preliminary Assessment.” In strict adherence to State statutes and State regulations, FACTs has determined the following:

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<sup>1</sup> Century Environmental Hygiene, LLC, letter to Don Beeler, November 21, 2007

<sup>2</sup> CRS §25-18.5-103(1)(a)

<sup>3</sup> *Ibid*

<sup>4</sup> The Colorado State Board Of Health Regulations Pertaining to the Cleanup of Methamphetamine Laboratories, 6-CCR 1014-3 (§4)

<sup>5</sup> CRS §25-18.5-101



- An illegal drug lab, as that term is defined in CRS §25-18.5-101, existed at the subject property at the time of our assessment.
- A Class 1 Public Nuisance, as defined in CRS §16-13-303(1) existed at the subject property at the time of our assessment.
- The presence of methamphetamine was confirmed at the subject property at the time of our assessment.

## **REGULATORY REQUIREMENTS**

### ***City of Craig***

FACTs made five contacts within the City Government, including the Building Department, Police Department and City Hall to determine if city-specific controlled substances requirements existed that could impact this property. Based on the best information available, the City of Craig has not established a “Governing Body” as specified by State statutes<sup>6</sup> and has not otherwise adopted special rules or regulations pertaining to properties contaminated with controlled substances.

### ***County of Moffat***

FACTs made several contacts with offices and departments within the Moffat County government including the Building Department, Office of Emergency Services, Environmental Health, and the Sheriff’s Office in an attempt to determine the identity of the Governing Body as specified in State statutes and to determine if county-specific requirements existed that could impact this property. Based on the best information available, Moffat County has not established a “Governing Body” as specified by State statutes and has not otherwise adopted special rules or regulations pertaining to properties contaminated with controlled substances.

We were informed that for the purposes of “Governing Body,” all correspondence (and this Preliminary Assessment and all further documentation) should be directed to the office of:

Saed Tayyara  
County Commissioner  
221 W Victory Way #130  
Craig, CO 81625

### ***State of Colorado***

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

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<sup>6</sup> 25-18.5-101



“notification,” a “Preliminary Assessment” must be conducted at that property to characterize extant contamination (if any), and to direct appropriate decontamination procedures (if any). “Discovery” and “Notification” would have occurred at the subject property upon the Registered Owner’s receipt of the November 23, 2007 laboratory report from Century Environmental Hygiene, LLC. (CEH).

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).

### ***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).

## **PRELIMINARY ASSESSMENT**

The Preliminary Assessment must be conducted according to specified requirements<sup>7</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. The disc contains mandatory information and photographs required by State regulation for a Preliminary Assessment. This Preliminary Assessment is not complete without the digital disc and all associated support documents. Pursuant to State regulations, information obtained in the Preliminary Assessment enter the public domain and are not subject to confidentiality.<sup>8</sup>

### ***Preliminary Hypothesis***

During the Preliminary Assessment, the hypothesis is made that the subject area is clean and data will be collected to find support for this hypothesis. Any reliable data that argues against support for the hypothesis, including police records, visual clues of illegal production, cursory sampling (such as in this case), storage, or use, or documentation of drug paraphernalia being present, is considered conclusive, and compels the Industrial Hygienist to reject the working hypothesis and to accept the null hypothesis and declare the area non-compliant.<sup>9</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 popular misconception, sampling is not required during a Preliminary Assessment; however, if sampling is performed, it is conducted in the areas with the

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<sup>7</sup> Section 4 of 6 CCR 1014-3

<sup>8</sup> Section 8.26 of 6 CCR 1014-3

<sup>9</sup> This language and emphasis is verbatim from Appendix A (mandatory) of 6 CCR 1014-3



highest probability of containing the highest possible concentrations of contaminants. According to the State regulations:<sup>10</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.*

If the Industrial Hygienist performing the assessment finds *evidence* of contamination, the subject property owner is required to either remediate the subject property or demolish the subject property.<sup>11</sup>

In this case, the sampling performed by FACTs during the Preliminary Assessment was conducted in such a manner that if the data permitted, a Decision Statement, releasing the property, would have been issued. However, the resulting data did not warrant the issuance of a Decision Statement, and remediation will be required.

### **Initial Statement on Hypothesis Testing**

Regarding this subject property, information existed from the previous Industrial Hygiene consultant that confidently challenged the hypothesis. Specifically, one of the wipe samples collected by the initial Industrial Hygiene firm was conclusive for methamphetamine. In their report, CEH erroneously stated that their sample indicated that the methamphetamine concentrations in the residence were three times greater than the “allowable level” (wherein CEH erroneously referenced 0.5 µg/100cm<sup>2</sup>). In actuality, the CEH sample was a five-part composite, and as such, pursuant to state regulations, the “allowable limit” becomes 0.5 µg/100cm<sup>2</sup> divided by the number of samples collected or, 0.1 µg/100cm<sup>2</sup>; and, therefore, the CEH sample actually indicates that the concentration in the residence would have been approximately 16 times greater than the “allowable limit.”

The actual concentration of methamphetamine in the CEH samples notwithstanding, at least one CEH sample, and the quantitative sampling performed by FACTs during this Preliminary Assessment, confirmed the presence of methamphetamine at the residence.

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 residence and its contents as non-compliant.

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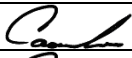


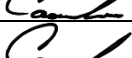

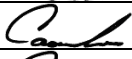







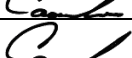
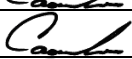


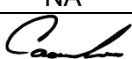



<sup>10</sup> Section 4.6 of 6 CCR 1014-3

<sup>11</sup> Colorado Revised Statutes §25-18.5-103



## Elements of the Preliminary Assessment

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

Form	DOCUMENT	Included
ML1- App. A	FACTs Property description field form	
ML2- App. A	Plumbing inspection field form and identification of ISDS	
ML2- App. A	Ventilation inspection	
ML3- App. A	FACTs Functional space inventory field form	
ML4- App. A	FACTs Law Enforcement documentation field form	
ML5- App. A	FACTs Field Observations field forms	
ML6- App. A	FACTs Contamination migration field form	
ML7- App. A	FACTs ISDS field form	
CD	FACTs Pre-remediation photographs	
ML8- App. A	FACTs Pre-remediation photograph log sheet field form	
Report	FACTs Drawing of Cook area(s)	
Report	FACTs Drawing of Storage area(s)	
Report	FACTs Drawing of Waste area(s)	
Report	FACTs Drawing General site field form	
Report	FACTs description sampling procedures, handling, and QA/QC	
Report	FACTs health and safety procedures used in accordance with OSHA	
App. B	FACTs Analytical Laboratory Documentation Form	
ML14- App. A	FACTs Certification of procedures	
ML15- App. A	FACTs SOQs	
Appendix B	FACTs Analytical Laboratory Reports	
NA	Available Law Enforcement documents	NA
ML18- App. B	FACTs Field Data Sheets	

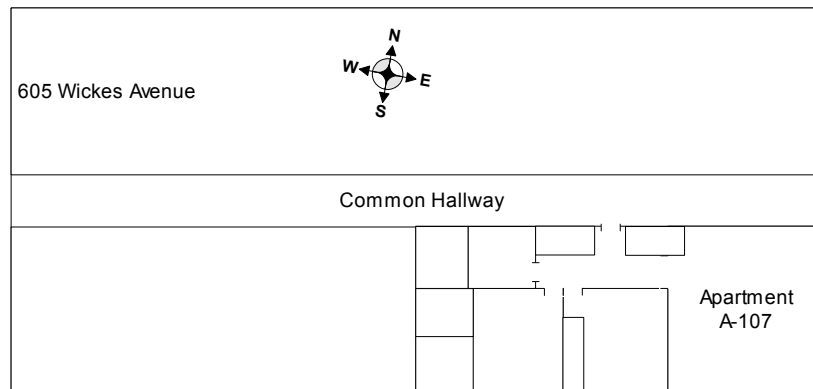
**Table 1**  
**Inventory of Mandatory Information**

### Primary Structure

The primary apartment structure was a three-story, multi-family dwelling built *circa* 1982. The residential apartment of primary interest (Apartment A-107) occupied the south eastern corner of the ground floor and consisted of approximating 775 square feet of living space. The structure was primarily heated by baseboard heaters, and there were no common ventilation ducts (including bathroom vents) between the subject apartment and other areas of the building. The structure appeared to have a concrete footer foundation upon which a floating slab served as the floor. The structure was on city



sewer and city water. A general layout of the apartment within the structure is depicted below.



**Figure 1**  
**General Apartment Layout (Not to Scale)**

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

As part of the Preliminary Assessment, FACTs is required by regulation<sup>12</sup> to review available law enforcement documents pertinent to a subject property. During this project, the City of Craig Police Department, and the Moffat County Sheriff's Office exhibited the highest level of professionalism and went to considerable effort to accommodate our review of available records, and made available to us direct interviews with Law Enforcement Officers who may have had knowledge of the subject property. Our review and interviews did not reveal information pertinent to our assessment.

### ***Visual Inspection of the Property***

As part of our Preliminary Assessment, on December 10, 2007, FACTs performed a visual inspection of the subject property. Due to the nature of the property, initial entry into the property was made pursuant to the Federal requirements found in Title 29 CFR §1910.120(c)(5)(iii), during which time, FACTs entry personnel also performed a protective sweep of the apartment.

At the time of our assessment, the occupant of Apartment A107 had failed to leave the apartment as required by State statute (CRS §25-18.5-104), and contrary to City of Craig Order pursuant to IPMC Section 108, which had been posted in a conspicuous manner on the front door of the apartment on December 7, 2007.

Furthermore, contrary to State statute, CRS §25-18.5-103(3), the occupant of the property was removing personal items from the apartment in a manner that was inconsistent with state statutes, and state regulations. As such, any and all items thus removed are still considered contaminated, and any areas wherein those items were taken (including

<sup>12</sup> 6 CCR 1014-3 (Section 4.2)





transportation vehicles) are now similarly considered contaminated, and subject to the clean-up requirements of the State statutes and State regulations.

At the time of our assessment, FACTs found the apartment in a state of squalor and chaos. The apartment was occupied and contained a large variety of appliances, furniture, clothing and other chattels. FACTs performed a video overview of the apartment upon entry.

To protect the property owner against the introduction of contaminants into the subject property, the FACTs Industrial Hygienist and his Technician donned fresh Tyvek<sup>®</sup> suits and booties upon entering the property. All equipment brought into the subject property was staged at the front door of the structure. The ladder used by FACTs during our assessment had been purchased that morning and no pre-decontamination was required.

### **Identification of Cook/Storage Areas**

Based on the best information available, we believe that no manufacturing took place at the property. However, based on our sampling results, and the sample results from the previous industrial hygiene firm, use and/or storage of methamphetamine may have occurred throughout the entire residence.

### **Functional Space Summary**

Pursuant to regulatory requirements, the subject property was assigned into “functional spaces,” and an indicia inventory and assessment was performed for each functional space. During a Preliminary Assessment, the Industrial Hygienist divides an area into “functional spaces” and evaluates 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>13</sup> For evaluation purposes, the following Functional Spaces have been identified and are addressed below:

Structure	Functional Space	Description of Functional Space
1	1	Kitchen and Living Room
1	2	Bedroom Hallway and hallway Closets
1	3	Secondary Bedroom
1	4	Master Bedroom, Master bath, and closet
1	5	Hall Bathroom
1	6	Common Structural Hallway

**Table 2**  
**Functional Space Summary**

<sup>13</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



## Functional Space 1: Kitchen and Living Room

This space was defined as those terms are commonly known. The areas are delineated and confined by the portions of tiled floor (kitchen) which was separated from the living room by a “breakfast bar.” The kitchen was open to the living room/dining room (all carpeted areas). This functional space contained several inconclusive visual indicators of methamphetamine production including yellow staining on the walls of the living room and the presence of an unusual quantity of a product known as “Safe Heat” which is a common heating fuel.

Two samples were collected from this functional space; one was collected from the south wall of the living room in the southeast corner, near the ceiling, and one was collected from the carpet. Both samples were conclusive for methamphetamine and both indicated the same level of contamination (0.03  $\mu\text{g}/100\text{cm}^2$ ).

## Functional Space 2: Bedroom Hallway and Closets

This space was contiguous with the kitchen/living room. The entire functional space is carpeted. A sample was collected from the tops of the door jambs. The sample result for this area had a numerical concentration of 0.48  $\mu\text{g}/100\text{cm}^2$  which is below the often cited State threshold value of 0.5  $\mu\text{g}/100\text{cm}^2$ . For all sampling and analytical methods, there is a specific uncertainty associated with the analysis. Therefore, for any reported laboratory value, there is a probability that the true result is greater than the reported value (Upper Confidence Limit, UCL), or less than the reported value (Lower Confidence Limit, LCL). A sample, and subsequent laboratory result, therefore, represents a *probable* result in between two limits and may be depicted thus:



**Figure 2**  
**Uncertainty in Reported Values**

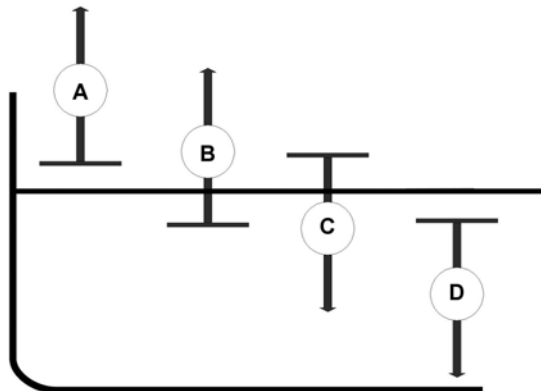
The reported value (RV) lies somewhere between two possible “true” values, the UCL and the LCL.

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

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



decision threshold, there is a probability the true value is greater than the decision threshold (C); such is the case with the sample collected from this functional space.



**Figure 3**  
**Uncertainty in Reported Values vis-à-vis Reference Values**

Standard industrial hygiene sampling protocols require that the Industrial Hygienist consider this degree of uncertainty, known as the total coefficient of variation ( $Cv_T$ ) for each method. The  $Cv_T$  includes the uncertainty associated with both the sampling and analytical processes. For many methods, the degree of uncertainty is known and published. However, for field methamphetamine sampling and analysis, the statistical uncertainty has yet to be fully characterized. Nevertheless, based on the sample results collected from this residence, we see that the sampling error (as indicated by the variation about the mean) is high.

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

Although the reported numerical value of Sample Number CM1201007-02, was numerically below the Decision Threshold, based on the best available sampling error information, the error is such that the UCL is probably greater than the Decision Threshold, and indicates an out of tolerance condition.

Therefore, since our role is to ensure that public health is protected, we believe that we are obligated to err on the side of the highest standard of care, and report that the sample result indicates a *potential* noncompliant condition. This interpretation is consistent with State regulations which state:<sup>14</sup>

The protocol is not a substitute for professional judgment, but must be utilized by cognizant professionals in the application of their professional skills. Neither is the method a “cook-book” recipe that if followed,

<sup>14</sup> 6 CCR 1014-3, Attachment to Appendix A



decontamination is guaranteed, and risks are assumed to be zero. The evaluation of any specific area must necessarily be based on the totality of the circumstances.

Furthermore, the eventual evaluation of contamination of any area is ultimately a process of professional judgment as specified in Section 4.6 of the State regulations which state:

This identification [of contaminated areas] 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;

As such, our professional judgment is that there is sufficient evidence to conclude that unacceptable concentrations of methamphetamine contamination potentially exists in all of the hallway.

### **Functional Space 3: Secondary Bedroom**

This functional space was delineated by the walls containing the bedroom and included the bedroom closet. This functional space contained several inconclusive visual indicators consistent with the production of methamphetamine including yellow staining on walls, and the presence of modified coolers. The single discreet sample collected from this area conclusively contained methamphetamine (0.03  $\mu\text{g}/100\text{cm}^2$ ). The sample was collected from the southeastern corner of the room, near the ceiling.

### **Functional Space 4: Master Bedroom and Master Bathroom,**

This space was defined as those terms are commonly used and included the closet. One discreet sample was collected from this space; on the eastern central wall at the ceiling line, and that sample was conclusive for methamphetamine (0.03  $\mu\text{g}/100\text{cm}^2$ ).

### **Functional Space 5: Common Bathroom**

The common bathroom is the bathroom at the end of the bedroom hallway. The bathroom contained inconclusive visual indicators for methamphetamine production including yellow staining on the walls. The discreet sample collected from this area conclusively contained methamphetamine (1.4  $\mu\text{g}/100\text{cm}^2$ ). The sample was collected from atop the light bar in the bathroom.

### **Functional Space 6: Common Hallway of Building**

This space was defined as the term is commonly used. The common hallway divides the structure down the long axis of the building. The need for further evaluation of the common areas was predicated on the results of the sample collected from the common hallway, in the totality of other information derived from the Preliminary Assessment. In this case, the following observations support our conclusion that contamination migration did not occur into the common hallway:

- 1) no visual indicators existed in the common hallway
- 2) no common ventilation ductwork connects other parts of the building
- 3) previous cursory sampling indicated no detectable methamphetamine



- 4) previous cursory sampling indicated a low probability of migration
- 5) quantitative Preliminary Assessment sampling confirmed a low probability of migration from the residence interior
- 6) the discreet sample collected from the hallway contained an absolute mass of methamphetamine that was only twice the practical limit of quantification resulting in a contaminant level of 0.01 µg/100cm<sup>2</sup>.

## **Functional Space 7: Exterior Grounds**

Arguably not a functional space, the exterior grounds were covered by snow and not readily visible. Therefore, no observations may be made that directly speak to exterior conditions. The patio of the walk-out contained chattels that are considered to be contaminated.

## **Adjoining Properties**

FACTs did not have legal authority to investigate fugitive emissions of potential contaminants beyond the confines of the subject property. However, based on the totality of the circumstances, including sampling that was performed by a previous industrial hygienist in adjoining properties (Apartment A103) and the common hallway (in front of Apartments A102, A103, A104, and A105) and based on the absence of common ventilation ducts, we conclude that there is insufficient evidence to confidently reject the working hypothesis, and available information supports the hypothesis and we therefore accept the hypothesis that the remaining areas are compliant – to the extent that no information exists, at this point, to contradict the conclusion.

## **SAMPLE COLLECTION**

Although State regulation does not require samples to be collected during a Preliminary Assessment, due to the available information and cursory sampling results, we collected samples from the subject property in an effort to better characterize the possible extent of contamination. We collected two types of samples: 1) wipe samples, and 2) vacuum samples. Selected wipe samples and vacuum samples were submitted for analysis to Analytical Chemistry Inc. in Tukwila, Washington; a laboratory listed in the Colorado regulations.

### ***Wipe Samples***

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.

### **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**

For QA/QC purposes, a field blank was randomly selected from the batch, randomly inserted in the sampling sequence and submitted along with the samples for methamphetamine analysis. To ensure the integrity of the blank, FACTs personnel were unaware, until the actual time of sampling, which specific sample would be submitted as a blank. To ensure the integrity of the blanks, laboratory personnel were not informed which specific sample was a blank. The history of the FACTs field blank media has demonstrated a media and solvent contamination level below the analytical detection limit for the method.

### **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.

### ***Vacuum Sample***

The vacuum sample was collected in accordance with standard industrial hygiene microvacuum sampling procedures.<sup>15</sup> After an area had been selected and measured, a commercially available 25 mm diameter extended-cowel cassette fitted with mixed cellulose ester (MCE) membrane was attached to a commercially available personal sampling industrial hygiene pump. The pump was adjusted to draw approximately four liters of air per minute with a back pressure of approximately two inches of water column. The cassette was opened to present an “open face,” and the selected area was vacuumed with the cassette. Prior to the collection of the sample, the Industrial Hygienist donned fresh surgical gloves, to protect against the possibility of cross contamination. The cassette was sealed and secured with a strip of duct tape for shipping to the laboratory.

### ***Collection Rationale***

The samples collected throughout the subject property were collected from areas anticipated to represent the highest degree of contamination. The sampling error is assumed to be relatively high (although unquantified) and within normal expected values.

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<sup>15</sup> For example, see ASTM Method D 5756-02



Since the samples are not intended to support a decision statement, the sampling error is not noteworthy.

### Sample Results

Type	Sample ID	Location	µg/100cm <sup>2</sup>
Wipe	CM1201007-01	Living room S Wall Near Ceiling	0.03
Wipe	CM1201007-02	Bedroom hallway, top of door jambs	0.48
Wipe	CM1201007-03	Second bedroom E end of S wall	0.03
Wipe	CM1201007-04	Master bedroom, S interior wall above bed	0.04
Wipe	CM1201007-05	Main bathroom top of light	1.39
Wipe	CM1201007-06	Common exterior hallway center of building	0.01
Vacuum	CM1201007-07	Living room carpet	0.03
Wipe	CM1201007-08	Field Blank	<0.01

**Table 3**  
**Summary of Sample Results**

Each sample collected in the residence conclusively contained methamphetamine. The samples indicate widespread, but low level contamination. Additionally, the previous Industrial Hygiene firm which performed the cursory sampling, conclusively identified methamphetamine in the kitchen, master bedroom exhaust vent, master bedroom wall.

Although the previous industrial hygiene consultant did not collect their samples in accordance to state regulations, the data nevertheless exist, and as such, the most prudent application of the data is found in State regulations:<sup>16</sup>

If it is determined that one or more individual samples making up the composite exceeds the cleanup level, all areas represented by the composite sample shall be considered to exceed the cleanup level unless a discrete sample of any individual area demonstrates that the cleanup level has been met in that area.

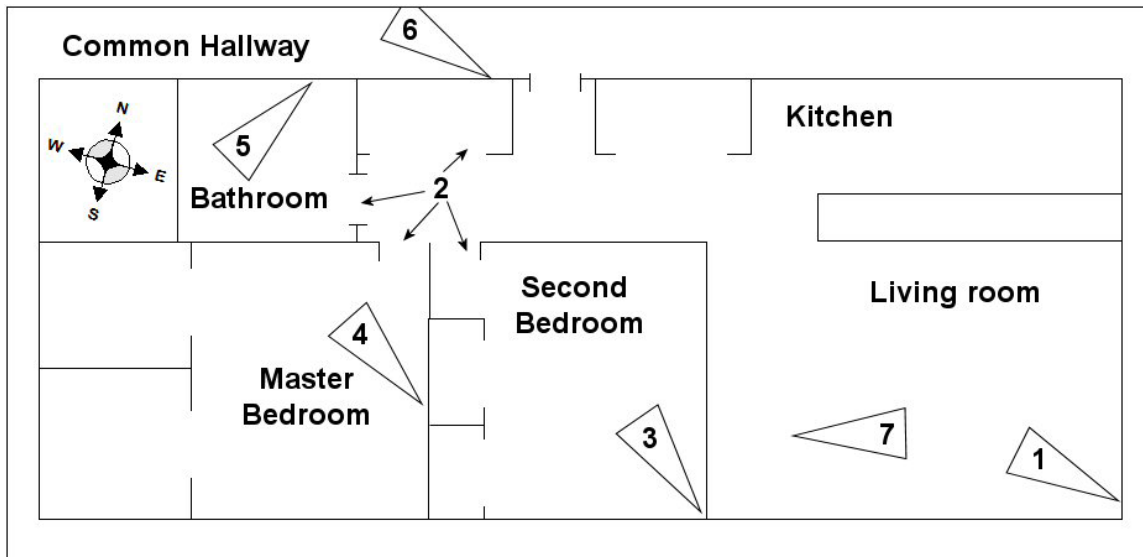
Therefore, each of the five areas represented by the composite are considered to contain methamphetamine at concentrations exceeding the state clean-up level.

### Sample Locations

The following graphic depicts the location of the samples collected by FACTs during our Preliminary Assessment.

<sup>16</sup> APPENDIX A to Colorado Regulation 6 CCR 1014-3, Methamphetamine Laboratories Sampling Methods and Procedures





**Figure 4**  
**Sample Locations**

### **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.

### **Primary Data Set**

MDL was 0.004 µg; LOQ was 0.03 µg; MBX <MDL; LCS 0.1 µg (RPD 1%, recovery =99%); Matrix spike 0.020 µg (RPD 0%; recovery 100%); Matrix spike Dup 0.020 µg; (RPD 9.5%; recovery 110%); Surrogate recovery (all samples): High 119% (Sample 5), Low 110% (Sample 1); FACTs reagents: MeOH lot #A0703 <MDL for n=6; Gauze lot G0703 <MDL for n=3.

The QA/QC indicate the data met the data quality objectives; and the results appear to be biased slightly high (that is, the samples may contain less methamphetamine than reported by the laboratory).

### **Notes on Analytical Report by Century Environmental Hygiene, LLC**

FACTs has previously (2006) provided expert witness courtroom testimony regarding the work of Century Environmental Hygiene, LLC. In that testimony, FACTs testified that CEH lacked technical competency in providing methlab assessment work, and was unauthorized to perform the work pursuant to state statutes. In this case, although the CEH report consists of only three paragraphs, we note that the report contains many technical errors. We have addressed those errors below.

CEH stated:

*“The samples were collected as specified in the regulation 6 CCR 1014-3...”*





The samples collected by CEH, were not collected in a manner specified by the 6CCR 1014-3 regulation for a variety of reasons. To begin with, 6CCR 1014-3 does not become applicable until *after* discovery and notification. Since neither had taken place at the time of the CEH samples, 6 CCR 1014-3 had no applicability.

If 6 CCR 1014-3 had been applicable at the time of the CEH sampling, the samples would not have been collected in a manner consistent with the regulation. For example, Section §5.8.3 of the regulations state:

Composite samples must be taken from items constructed of like materials that are contained within the same individual functional space...

However, CEH collected its composite samples from four dissimilar surfaces (painted drywall, enamel, plastic and metal), and from four distinctly different functional spaces (in fact, CEH never identified any functional spaces). Combining samples in this manner is not consistent with the State 6CCR 1014-3 regulation.

CEH stated:

*“The state clean-up level for meth is 0.5 ug meth/100 cm<sup>2</sup>, so the composite result in A107 is about three times the allowable level.*

As stated above, the composite sample under discussion was collected in a manner that is inconsistent with state regulations and would not be a valid composite. Nevertheless, the allusion to the 0.5 µg/100cm<sup>2</sup> value is erroneous.

CEH fails to recognize that the value of 0.5 µg/100cm<sup>2</sup> is not the “State Clean-up level” as stated, but rather the value upon which the level has been based. A recurring myth in methlab related issues amongst unqualified assessors, is that if a consultant performs a cursory investigation or a “Preliminary Assessment” and finds methamphetamine contamination, but that contamination is less than 0.5 micrograms per one hundred square centimeters (µg/100cm<sup>2</sup>), then the property is “OK,” and not covered by the State regulations.

However, this argument is erroneous and no such provisions are found anywhere in State statutes or State regulation. If a consultant arbitrarily chooses non-mandatory sampling (such as performed at this property) at the beginning of an industrial hygiene evaluation, and those samples result in ANY contamination, even below the value of 0.5 µg/100cm<sup>2</sup>, then the property must be declared a methlab.<sup>17</sup> This is because the cursory sampling does not meet the data quality objectives upon which the 0.5 µg/100cm<sup>2</sup> value is based. In any event, the mere value of 0.5 µg/100cm<sup>2</sup> is not the State of Colorado cleanup level, but rather is the basis of the cleanup level, which is described in the mandatory Appendix A of the State regulations.

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<sup>17</sup> *Ibid.* Appendix A



In this case, since CEH took a composite sample, the “state clean-up level” (applied at the end of the project only) would be 0.5 µg/100cm<sup>2</sup> divided by the number of samples comprising the composite (in this case five), and therefore, the State “clean-up level” for the composites would have been 0.1 µg/100cm<sup>2</sup>. It is for this reason that CEH has misinterpreted its results as being three times greater than the “allowable level” when in fact, the sample results would actually be 16 times the “allowable level.”

The third paragraph of the CEH letter begins with a lengthy sentence starting with:

“According to 6CCR 1014-3, the owner of the property should ...

Virtually every element contained within the sentence is erroneous and virtually none of the information presented is correct, some key elements follow.

Contrary to what is claimed in the CEH letter, nowhere in regulation does the State make a recommendation that the owner should prevent entry into the apartment by “unprotected” persons. However, the state regulations do explicitly state:

Access to the property shall be limited to those with appropriate training and personal protective equipment.

This mandatory requirement augments state statute (CRS §25-18.5-104) which reads:

...the owner of the structure or vehicle shall not permit any person to have access to the structure or vehicle unless the person is trained or certified to handle contaminated property pursuant to board rules or federal law.

Contrary to what is claimed in the CEH letter, nowhere do the state regulations permit sampling “if desired.” For a decision statement to be issued, additional sampling is mandatory (unless the owner demolishes the structure).

Contrary to what is claimed in the CEH letter, State regulations do not require the determination of which surfaces may have been painted, or when the paint may have been applied vis-a-vis the deposition of surface contamination.

Contrary to what is claimed in the CEH letter, State regulations do not require the demolition of drywall as a remediation technique.

## **CONCLUSIONS**

Based on the totality of the circumstances, including our objective sampling, and the objective sampling of the initial industrial hygiene consultants, insufficient evidence exists to support the preliminary hypothesis and we accept the null hypothesis and conclude that widespread methamphetamine presence exists throughout the residential structure of Apartment A-107.



## RECOMMENDATIONS

Based on our observations and laboratory results, we recommend standard industry practices for decontamination be followed. The remediation contractor should be given full responsibility for executing 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, or the imposition of additional regulatory restrictions.

Overall, the presence of surface methamphetamine in the building materials in this residence is low to moderate. The contamination scenario is complicated by the presence of contaminated chattels in the apartment.

Pursuant to Colorado Revised Statutes, §25-18.5-103(1)(b):

(b) An owner of any personal property within a structure or vehicle contaminated by illegal drug laboratory activity shall have ten days after the date of discovery of the laboratory or contamination to remove or clean his or her personal property according to board rules. If the personal property owner fails to remove the personal property within ten days, the owner of the structure or vehicle may dispose of the personal property during the cleanup process without liability to the owner of the personal property for such disposition.

It is with that provision in mind, we have made the following recommendations.

### ***Universal Site Requirements***

1. A secured (locked), on-site storage container (such as a poly lined and covered ro-ro or temporary trailer) should be established on the grounds. We recommend the ro-ro or container be established in the parking lot immediately to the south of the sliding glass door entrance to the subject apartment.
2. 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*.
3. We recommend the decontamination process be conducted in Level C PPE ensembles with a minimum of half-face APRs or PAPRs. We recommend that a decontamination corridor with showers be established at the sliding glass door of Apartment A107. All egress and ingress, including transloading and tool and equipment stage out can be performed at the decontamination corridor.
4. All remediation work performed at the residence should be conducted under written contract with a reputable remediation company qualified to perform the work.



5. All work performed at the residence should be conducted with open communication and cooperation with the Moffat County Department of Health and any interested office of the City of Craig and in accordance with all other State regulations.
6. All remediation work should be presumed to be pursuant to Title 29 of the Code of Federal Regulations, §1910.120 until otherwise indicated.
7. The remediation contractor *should* be contractually obligated to perform area air monitoring for methamphetamine in the common hallway for each day that remediation activities are being conducted. Since there are no validated methods for this kind of monitoring, FACTs recommends that the contractor use NIOSH Method 0500 to perform the sampling using 37 mm, 0.8 µm MCE cassettes. Samples should be submitted to an acceptable laboratory for the analysis of methamphetamine on the MCE cassette. The air monitoring should be used to determine if significant fugitive emissions occurred from the apartment during remediation. For the purposes of this protocol, “significant” is defined as an 8 hour time weighted average concentration of 3 micrograms of methamphetamine per cubic meter of air, as derived from the interior of the residence. To prevent confounding information from methamphetamine sources that may otherwise occur in the structure, one sample inside the residence should be simultaneously collected with the hallway sample. In the event that the hallway sample result is greater than the interior sample result, nor further interpretation shall be permitted, since the sample results indicate an unidentified source of methamphetamine in the building not related to the remediation. The interior sample should be collected in the hallway leading to the bedrooms.
8. The contractor *should* be contractually obligated to include the personnel air monitoring data in their final documentation.
9. 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.
10. Contractors should be contractually obligated to cover industrial hygiene costs of return visits and sample expenses as a result of failed final clearance(s).
11. State regulations prohibits painting or otherwise encapsulating surfaces prior to final clearance sampling by the Industrial Hygienist.
12. Following the decontamination process, and prior to the final clearance sampling by the Industrial Hygienist, the remediation contractor/subcontractor should be contractually obligated to collect a minimum of three QA/QC wipe samples from



- the subject property (including one common hallway sample), as part of their own QA program, and submit those samples for methamphetamine analysis. The contractor should 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.
13. If the contractor's three QA/QC samples suggest that contamination in the subject property remains at a concentration in excess of  $0.5 \mu\text{g}/100 \text{ cm}^2$ , the contractor should be contractually obligated to continue to clean, and sample, until the elevated concentrations are not observed.
  14. Once the contractor's samples indicate the contamination has been sufficiently reduced, the Industrial Hygienist should perform final clearance sampling according to 6-CCR 1014-3.

### ***Decontamination of the Apartment***

The following decontamination process should take place in this order:

1. Establish negative pressure inside Apartment A107, pursuant to State regulations. Make-up air should be taken exclusively from the conditioned air of the building. Caution should be taken to ensure that the negative pressure induced in the work area does not create back-drafting of exhaust gases in any of the mechanical rooms.
2. The contractor should establish a standard, two-chambered bag-out/load-out at the front door of the structure.
3. Bag and/or wrap all personal items, clothing, food, kitchen utensils, furniture, stereo equipment, computers, televisions, and all other items not mentioned. All items are considered contaminated. No items are scheduled for salvage. All items found within Apartment A107 will be discarded without being cleaned.
4. Once all items are bagged and/or wrapped, the items can be transported through the bag-out at the sliding glass door. At the bag-out, the exterior surfaces of the bags and the wrapping should be wiped down, and the items may then be handed out to the outside; where the items will be placed into the secured awaiting storage container.
5. The carpet should then be removed, wrapped and transloaded to the secure storage container.
6. Following the removal of interior contents, all surfaces in the entire interior space, 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, should be thoroughly wiped down to remove residual methamphetamine contamination.

7. The bathroom exhaust ducts should be cleaned from the top (roof) down in a chimney-sweep fashion. The exhaust fans and fan housings should be vacuumed with an HEPA filtered vacuum cleaner and then wiped down. The cleaning should take place at the face of the HEPA filtered negative air machine to reduce the possibility of contamination migration.
8. The kitchen range filter should be hand scrubbed with warm water and detergent.

Enclosures: One digital disc; Data package, and Appendices



## APPENDIX A:

### SUPPORTING DOCUMENTS

<b>Form</b>	<b>DOCUMENT</b>
ML1	FACTs Property description field form
ML2	Plumbing inspection field form (plumbing system integrity and 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
ML7	FACTs ISDS 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<sup>©</sup>**

<b>FACTs project name:</b>	Columbine	Form # ML1
<b>Date: December 10, 2007</b>		
<b>Reporting IH:</b>	Caoimhin P. Connell, Forensic IH	

**PROPERTY DESCRIPTION:**

Physical address	<b>Columbine Apartments, Unit A107 605 Wickes Ave. Craig, Colorado 81625</b>		
Legal description or VIN	<b>Subdivision: COLUMBINE LOT:1 DESC: S7.56 ACRES OF LOT 1</b>		
Registered Property Owner	<b>C A PARTNERSHIP LTD PO BOX 560807 DALLAS, TX 75356-0807</b>		
Number of structures	<b>One</b>		
Type of Structures (Each affected structure will need a "Functional Space" inventory)	1: Apartment A107	775	Square feet
	2: NA		Square feet
	3: NA		Square feet
	4: NA		Square feet
Adjacent and/or surrounding properties	1:North – common hall and residential apartment		
	2:South – grassy area and parking lot		
	3:East– grassy area and parking lot		
	4:West - residential apartment		
	5: Above - residential apartment		
General Property Observations	The Columbine Apartment Complex was a well maintained, well kempt facility.  Apartment A107, <i>per se</i> , was a poorly kempt personal residence. The subject apartment exhibited squalid and chaotic living conditions.		
Presumed Production Method	<b>Smoking, storage and use only</b>		



**PLUMBING INSPECTION AND INVENTORY**

<b>FACTs project name:</b>	<b>Columbine</b>	<b>Form # ML2</b>
<b>Date: December 10, 2007</b>		
<b>Reporting IH:</b>	<b>Caoimhin P. Connell, Forensic IH</b>	

Functional Space	Room	Fixture	Indicia?	Comments
4	Bathroom # 1	Bath	NA	
4	Bathroom # 1	Shower	NA	
4	Bathroom # 1	Sink	No	
4	Bathroom # 1	Toilet	No	
5	Bathroom # 2	Bath	No	
5	Bathroom # 2	Shower	No	
5	Bathroom # 2	Sink	No	
5	Bathroom # 2	Toilet	No	
1	Kitchen	Sink	No	
NA	Slop sink	NA	NA	
1	Washing machine		No	
1	Dishwasher		No	

**VENTILATION INSPECTION AND INVENTORY**

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

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**LAW ENFORCEMENT DOCUMENTATION**

<b>FACTs project name:</b>	Columbine	<b>Form # ML4</b>
<b>Date: December 10, 2007</b>		
<b>Reporting IH:</b>	Caoimhin P. Connell, Forensic IH	

Inventory of Reviewed Documents	1: S.O. ATIMS Records database 2: _____ 3: _____ 4: _____ 5: _____
Described method(s) of production	Storage and use only
Chemicals identified by the LEA as being present	None _____ _____ _____ _____ _____ _____ _____ _____ _____
Cooking areas identified	Storage and use took place throughout the apartment
Chemical storage areas identified	Kitchen, living room, bathrooms, bedroom hallway
LE Observation on areas of contamination or waste disposal	NA





**FORENSIC APPLICATIONS CONSULTING TECHNOLOGIES, INC.**

December 6, 2007

Craig Police Department  
800 W. 1st Street, Suite 300  
Craig, CO 81625

To Whom It May Concern:

Forensic Applications, Inc. has been retained to perform civil investigation of a possible clandestine drug lab in your jurisdiction. The type of investigation is known as a "Preliminary Assessment" of an illegal clandestine drug lab and is being conducted pursuant to Colorado Board Of Health Regulations 6-CCR-1014-3, and Colorado Revised Statutes §25-18.5-101 *et seq.* The subject property is located at:

**Columbine Apartments Unit A107, 605 Wickes Ave, Craig, Colorado 81625**

As you are aware, as part of that assessment, the Industrial Hygienist is required by State regulation to review available Law Enforcement documents associated with the property (§4.2). We would like to review any documentation or conduct short interviews with any officers who may have information on controlled substance activity at that apartment. Generally, we do not necessarily require copies of any documents.

If information is available, but it is classified as Law Enforcement Sensitive, 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 the 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. Included with this letter is a copy of our SOQ.

If preferable we can visit the CPD offices and review available information there. We are planning on visiting the property on Monday, December 10, 2007. Prior to our site visit, we would like to obtain at least a call history for the property, going back for the last 36 months or meet with one or more CPD members who may be familiar with the property.

We apologize for the short notice, however, we generally do not have any control over the timeframes involved. Please call me directly with any questions you may have.

Sincerely,

Caoimhín P. Connell  
Forensic Industrial Hygienist



**FORENSIC APPLICATIONS CONSULTING TECHNOLOGIES, INC.**

December 6, 2007

Moffat County Sheriff's Office  
800 West 1st Street Suite 100  
Craig, CO 81625

To Whom It May Concern:

Forensic Applications, Inc. has been retained to perform civil investigation of a possible clandestine drug lab in your jurisdiction. The type of investigation is known as a "Preliminary Assessment" of an illegal clandestine drug lab and is being conducted pursuant to Colorado Board Of Health Regulations 6-CCR-1014-3, and Colorado Revised Statutes §25-18.5-101 *et seq.* The subject property is located at:

**Columbine Apartments Unit A107, 605 Wickes Ave, Craig, Colorado 81625**

As you are aware, as part of that assessment, the Industrial Hygienist is required by State regulation to review available Law Enforcement documents associated with the property (§4.2). We would like to review any documentation or conduct short interviews with any officers who may have information on controlled substance activity at that apartment. Generally, we do not necessarily require copies of any documents.

If information is available, but it is classified as Law Enforcement Sensitive, 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 the 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. Included with this letter is a copy of our SOQ.

If preferable we can visit the MCSO offices and review available information there. We are planning on visiting the property on Monday, December 10, 2007. Prior to our site visit, we would like to obtain at least a call history for the property, going back for the last 36 months or meet with one or more MCSO members who may be familiar with the property.

We apologize for the short notice, however, we generally do not have any control over the timeframes involved. Please call me directly with any questions you may have.

Sincerely,

Caoimhín P. Connell  
Forensic Industrial Hygienist

**FIELD OBSERVATIONS**

<b>FACTs project name:</b>	Columbine	<b>Form # ML5</b>
<b>Date: December 10, 2007</b>		
<b>Reporting IH:</b>	Caoimhin P. Connell, Forensic IH	

**Structure: 1**  
**Functional Space: 1 (Kitchen Living Room)**

Item	Yes or Number	No	Item	Yes or Number	No
Acids	①		Heet or similar (MeOH)		X
Aerosol cans	①		Hydrogen peroxide		X
Alcohols (MeOH, EtOH)	X		Iodine	X	
Ammonia	①		Kitty litter		X
Ammunition		X	Lead	X	
Bags of salt	①		Lithium	X	
Bases	①		Match components	X	
Basters/Pipettes	①		Mercury		X
Batteries	①		Methamphetamine	X	
Bi-phasic wastes		X	Modified coolers		X
Booby traps (trips, triggers, etc)		X	Needles/Syringes		X
Bullet holes		X	Other OTC	①	
Chemical storage	X		Phenyl-2-propanone		X
Corrosion on surfaces		X	Presence of cats		X
Colored wastes		X	Pseudoephedrine		X
Drug paraphernalia	X		Red P	X	
Empty OTC Bottles	①		Solvents - ketones, etc	X	
Ephedrine		X	Solvents -aromatics	X	
Filters	①		Urine containers		X
Gas cylinders		X	Weapons		X
Gerry cans		X	Yellow staining	X	
Glassware	①		HEAT®	X	
Chaotic living conditions	X				

**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

Elevated broad range hydrocarbons (BRH) in the air during the assessment. BRH concentrations in this area were 6 ppm (toluene equivalents).



**FIELD OBSERVATIONS**

<b>FACTs project name:</b>	Columbine	<b>Form #</b> ML5
<b>Date:</b> December 10, 2007		
<b>Reporting IH:</b>	Caoimhín P. Connell, Forensic IH	

**Structure: 1**

**Functional Space: 2 (Hallway and closets)**

Item	Yes or Number	No	Item	Yes or Number	No
Acids	①		Heet or similar (MeOH)		X
Aerosol cans	①		Hydrogen peroxide		X
Alcohols (MeOH, EtOH)		X	Iodine		X
Ammonia		X	Kitty litter		X
Ammunition		X	Lead		X
Bags of salt		X	Lithium		X
Bases		X	Match components		X
Basters/Pipettes		X	Mercury		X
Batteries		X	Methamphetamine		X
Bi-phasic wastes		X	Modified coolers		X
Booby traps (trips, triggers, etc)		X	Needles/Syringes		X
Bullet holes		X	Other OTC		X
Chemical storage	①		Phenyl-2-propanone		X
Corrosion on surfaces		X	Presence of cats		X
Colored wastes		X	Pseudoephedrine		X
Drug paraphernalia		X	Red P		X
Empty OTC Bottles		X	Solvents - ketones, etc	①	
Ephedrine		X	Solvents -aromatics		X
Filters		X	Urine containers		X
Gas cylinders		X	Weapons		X
Gerry cans		X	Yellow staining	X	
Glassware		X			
Chaotic living conditions	X				

**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



**FIELD OBSERVATIONS**

<b>FACTs project name:</b>	Columbine	<b>Form # ML5</b>
<b>Date: December 10, 2007</b>		
<b>Reporting IH:</b>	Caoimhin P. Connell, Forensic IH	

**Structure: 1**

**Functional Space: 3 (Secondary bed room)**

Item	Yes or Number	No	Item	Yes or Number	No
Acids	①		Heet or similar (MeOH)		X
Aerosol cans	①		Hydrogen peroxide		X
Alcohols (MeOH, EtOH)		X	Iodine		X
Ammonia		X	Kitty litter		X
Ammunition		X	Lead		X
Bags of salt			Lithium		X
Bases		X	Match components		X
Basters/Pipettes		X	Mercury		X
Batteries	①		Methamphetamine	X	
Bi-phasic wastes		X	Modified coolers	X - 3	
Booby traps (trips, triggers, etc)		X	Needles/Syringes		X
Bullet holes		X	Other OTC		X
Chemical storage		X	Phenyl-2-propanone		X
Corrosion on surfaces		X	Presence of cats		X
Colored wastes		X	Pseudoephedrine		X
Drug paraphernalia		X	Red P		X
Empty OTC Bottles		X	Solvents - ketones, etc		X
Ephedrine		X	Solvents -aromatics		X
Filters		X	Urine containers		X
Gas cylinders		X	Weapons		X
Gerry cans		X	Yellow staining	X	
Glassware		X			
Chaotic living conditions	X				

**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





**FIELD OBSERVATIONS**

<b>FACTs project name:</b>	Columbine	<b>Form # ML5</b>
<b>Date: December 10, 2007</b>		
<b>Reporting IH:</b>	Caoimhin P. Connell, Forensic IH	

**Structure: 1**

**Functional Space: 4 (Master bedroom, master bath, and master closet)**

Item	Yes or Number	No	Item	Yes or Number	No
Acids		X	Heet or similar (MeOH)		X
Aerosol cans	①		Hydrogen peroxide	①	
Alcohols (MeOH, EtOH)	①		Iodine		X
Ammonia		X	Kitty litter		X
Ammunition		X	Lead		X
Bags of salt		X	Lithium		X
Bases		X	Match components		X
Basters/Pipettes		X	Mercury		X
Batteries	①		Methamphetamine	X	
Bi-phasic wastes		X	Modified coolers		X
Booby traps (trips, triggers, etc)		X	Needles/Syringes		X
Bullet holes		X	Other OTC	X	
Chemical storage		X	Phenyl-2-propanone		X
Corrosion on surfaces		X	Presence of cats		X
Colored wastes		X	Pseudoephedrine		X
Drug paraphernalia	X		Red P		X
Empty OTC Bottles		X	Solvents - ketones, etc	①	
Ephedrine		X	Solvents -aromatics	①	
Filters		X	Urine containers		X
Gas cylinders		X	Weapons		X
Gerry cans		X	Yellow staining	X	
Glassware					
Chaotic living conditions	X				

**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



**FIELD OBSERVATIONS**

<b>FACTs project name:</b>	Columbine	<b>Form # ML5</b>
<b>Date: December 10, 2007</b>		
<b>Reporting IH:</b>	Caoimhin P. Connell, Forensic IH	

**Structure: 1**

**Functional Space: 5 (Hall bathroom)**

Item	Yes or Number	No	Item	Yes or Number	No
Acids	①		Heet or similar (MeOH)		X
Aerosol cans	①		Hydrogen peroxide	①	
Alcohols (MeOH, EtOH)	①		Iodine		X
Ammonia		X	Kitty litter		X
Ammunition		X	Lead		X
Bags of salt		X	Lithium		X
Bases		X	Match components		X
Basters/Pipettes		X	Mercury		X
Batteries		X	Methamphetamine	X	
Bi-phasic wastes		X	Modified coolers		X
Booby traps (trips, triggers, etc)		X	Needles/Syringes		X
Bullet holes		X	Other OTC	①	
Chemical storage	①		Phenyl-2-propanone		X
Corrosion on surfaces		X	Presence of cats		X
Colored wastes		X	Pseudoephedrine		X
Drug paraphernalia		X	Red P		X
Empty OTC Bottles		X	Solvents - ketones, etc	①	
Ephedrine		X	Solvents -aromatics	①	
Filters		X	Urine containers		X
Gas cylinders		X	Weapons		X
Gerry cans		X	Yellow staining	X	
Glassware		X			

**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



**FIELD OBSERVATIONS**

<b>FACTs project name:</b>	Columbine	<b>Form #</b> ML5
<b>Date:</b> December 10, 2007		
<b>Reporting IH:</b>	Caoimhin P. Connell, Forensic IH	

**Structure: 1**

**Functional Space: 6 (Common Hallway)**

Item	Yes or Number	No	Item	Yes or Number	No
Acids		X	Heet or similar (MeOH)		X
Aerosol cans		X	Hydrogen peroxide		X
Alcohols (MeOH, EtOH)		X	Iodine		X
Ammonia		X	Kitty litter		X
Ammunition		X	Lead		X
Bags of salt		X	Lithium		X
Bases		X	Match components		X
Basters/Pipettes		X	Mercury		X
Batteries		X	Methamphetamine	See body of text	
Bi-phasic wastes		X	Modified coolers		X
Booby traps (trips, triggers, etc)		X	Needles/Syringes		X
Bullet holes		X	Other OTC		X
Chemical storage		X	Phenyl-2-propanone		X
Corrosion on surfaces		X	Presence of cats		X
Colored wastes		X	Pseudoephedrine		X
Drug paraphernalia		X	Red P		X
Empty OTC Bottles		X	Solvents - ketones, etc		X
Ephedrine		X	Solvents -aromatics		X
Filters		X	Urine containers		X
Gas cylinders		X	Weapons		X
Gerry cans		X	Yellow staining		X
Glassware		X			X

**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

<b>FACTs project name:</b>	Columbine	Form # ML7
<b>Date: December 10, 2007</b>		
<b>Reporting IH:</b>	Caoimhin P. Connell, Forensic IH	

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

\*NC = Not checked

### Qualitative Organic Vapor Monitoring

Photo ionization detector model	NA
Photo ionization lamp E (in Ev)	NA
Photo ionization Calibration	NA
Flame ionization detector model	NA
Flame ionization Calibration	NA

Location	PID*	FID*

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



**PRE-REMEDATION PHOTOGRAPH LOG SHEET**

<b>FACTs project name:</b>	<b>Columbine</b>	<b>Form # ML8</b>
<b>Date: December 10, 2007</b>		
<b>Reporting IH:</b>	<b>Caoimhin P. Connell, Forensic IH</b>	

Name ▲	Date taken	Name ▲	Date taken
Common bath	12/10/2007 01:12 PM	Hall (9)	12/10/2007 01:20 PM
Common bath (2)	12/10/2007 01:27 PM	Hall (10)	12/10/2007 01:46 PM
Common bath (3)	12/10/2007 01:27 PM	Hall (11)	12/10/2007 01:47 PM
Common bath (4)	12/10/2007 01:27 PM	Kitchen	12/10/2007 01:07 PM
Common bath (5)	12/10/2007 01:28 PM	Kitchen (2)	12/10/2007 01:08 PM
Common bath (6)	12/10/2007 01:28 PM	Kitchen (3)	12/10/2007 01:12 PM
Common bath (7)	12/10/2007 01:56 PM	Kitchen (4)	12/10/2007 01:13 PM
Common bath (8)	12/10/2007 01:57 PM	Kitchen (5)	12/10/2007 01:13 PM
Common hall	12/10/2007 02:08 PM	Kitchen (6)	12/10/2007 01:14 PM
Common hall (2)	12/10/2007 02:09 PM	Kitchen (7)	12/10/2007 01:15 PM
Common Hallway	12/10/2007 12:27 PM	Kitchen (8)	12/10/2007 01:15 PM
Entrance	12/10/2007 12:33 PM	Kitchen (9)	12/10/2007 01:15 PM
Entrance (2)	12/10/2007 12:33 PM	Kitchen (10)	12/10/2007 01:15 PM
Entrance (3)	12/10/2007 12:33 PM	Kitchen (11)	12/10/2007 01:15 PM
Entrance (4)	12/10/2007 12:47 PM	Kitchen (12)	12/10/2007 01:15 PM
Entrance (5)	12/10/2007 12:47 PM	Kitchen (13)	12/10/2007 01:16 PM
Entrance (6)	12/10/2007 12:50 PM	Kitchen (14)	12/10/2007 01:16 PM
Entrance (7)	12/10/2007 02:09 PM	Kitchen (15)	12/10/2007 01:16 PM
Exterior	12/10/2007 12:25 PM	Kitchen (16)	12/10/2007 01:16 PM
Exterior (2)	12/10/2007 12:27 PM	Kitchen (17)	12/10/2007 01:16 PM
Exterior (3)	12/10/2007 12:30 PM	Kitchen (18)	12/10/2007 01:16 PM
Exterior (4)	12/10/2007 12:30 PM	Kitchen (19)	12/10/2007 01:17 PM
Hall	12/10/2007 01:07 PM	Kitchen (20)	12/10/2007 01:17 PM
Hall (2)	12/10/2007 01:18 PM	Living room	12/10/2007 12:34 PM
Hall (3)	12/10/2007 01:19 PM	Livingroom	12/10/2007 01:07 PM
Hall (4)	12/10/2007 01:20 PM	Livingroom (2)	12/10/2007 01:08 PM
Hall (5)	12/10/2007 01:20 PM	Livingroom (3)	12/10/2007 01:09 PM
Hall (6)	12/10/2007 01:20 PM	Livingroom (4)	12/10/2007 01:09 PM
Hall (7)	12/10/2007 01:20 PM	Livingroom (5)	12/10/2007 01:09 PM
Hall (8)	12/10/2007 01:20 PM	Livingroom (6)	12/10/2007 01:09 PM



**PRE-REMEDATION PHOTOGRAPH LOG SHEET**

<b>FACTs project name:</b>	<b>Columbine</b>	<b>Form # ML8</b>
<b>Date: December 10, 2007</b>		
<b>Reporting IH:</b>	<b>Caoimhin P. Connell, Forensic IH</b>	

Name ▲	Date taken	Name ▲	Date taken
Livingroom (7)	12/10/2007 01:13 PM	Master bath (3)	12/10/2007 01:27 PM
Livingroom (8)	12/10/2007 01:13 PM	Master bedroom	12/10/2007 01:12 PM
Livingroom (9)	12/10/2007 01:13 PM	Master bedroom (2)	12/10/2007 01:12 PM
Livingroom (10)	12/10/2007 01:13 PM	Master bedroom (3)	12/10/2007 01:12 PM
Livingroom (11)	12/10/2007 01:13 PM	Master bedroom (4)	12/10/2007 01:23 PM
Livingroom (12)	12/10/2007 01:13 PM	Master bedroom (5)	12/10/2007 01:23 PM
Livingroom (13)	12/10/2007 01:14 PM	Master bedroom (6)	12/10/2007 01:24 PM
Livingroom (14)	12/10/2007 01:14 PM	Master bedroom (7)	12/10/2007 01:24 PM
Livingroom (15)	12/10/2007 01:14 PM	Master bedroom (8)	12/10/2007 01:24 PM
Livingroom (16)	12/10/2007 01:14 PM	Master bedroom (9)	12/10/2007 01:24 PM
Livingroom (17)	12/10/2007 01:14 PM	Master bedroom (10)	12/10/2007 01:25 PM
Livingroom (18)	12/10/2007 01:14 PM	Master bedroom (11)	12/10/2007 01:25 PM
Livingroom (19)	12/10/2007 01:14 PM	Master bedroom (12)	12/10/2007 01:26 PM
Livingroom (20)	12/10/2007 01:15 PM	Master bedroom (13)	12/10/2007 01:26 PM
Livingroom (21)	12/10/2007 01:15 PM	Master bedroom (14)	12/10/2007 01:26 PM
Livingroom (22)	12/10/2007 01:17 PM	Master bedroom (15)	12/10/2007 01:27 PM
Livingroom (23)	12/10/2007 01:17 PM	Master bedroom (16)	12/10/2007 01:36 PM
Livingroom (24)	12/10/2007 01:18 PM	Master bedroom (17)	12/10/2007 01:36 PM
Livingroom (25)	12/10/2007 01:35 PM	Master bedroom (18)	12/10/2007 01:53 PM
Livingroom (26)	12/10/2007 01:34 PM	Master bedroom (19)	12/10/2007 01:54 PM
Livingroom (27)	12/10/2007 01:35 PM	Master bedroom (20)	12/10/2007 01:54 PM
Livingroom (28)	12/10/2007 01:35 PM	MVI_7250	
Livingroom (29)	12/10/2007 01:43 PM	MVI_7250.THM	
Livingroom (30)	12/10/2007 01:59 PM	Sm Bedroom	12/10/2007 01:11 PM
Livingroom (31)	12/10/2007 01:59 PM	Sm Bedroom (2)	12/10/2007 01:12 PM
Livingroom (32)	12/10/2007 01:59 PM	Sm Bedroom (3)	12/10/2007 01:19 PM
Livingroom (33)	12/10/2007 01:59 PM	Sm Bedroom (4)	12/10/2007 01:19 PM
Livingroom (34)	12/10/2007 02:00 PM	Sm Bedroom (5)	12/10/2007 01:19 PM
Master bath	12/10/2007 01:26 PM	Sm Bedroom (6)	12/10/2007 01:20 PM
Master bath (2)	12/10/2007 01:27 PM	Sm Bedroom (7)	12/10/2007 01:21 PM









**DRAWING OF STORAGE/DISPOSAL AREA(S)**

<b>FACTs project name:</b>	Columbine	<b>Form #</b> ML11
<b>Date:</b> December 10, 2007		
<b>Reporting IH:</b>	Caoimhin P. Connell, Forensic IH	

See body of text																													
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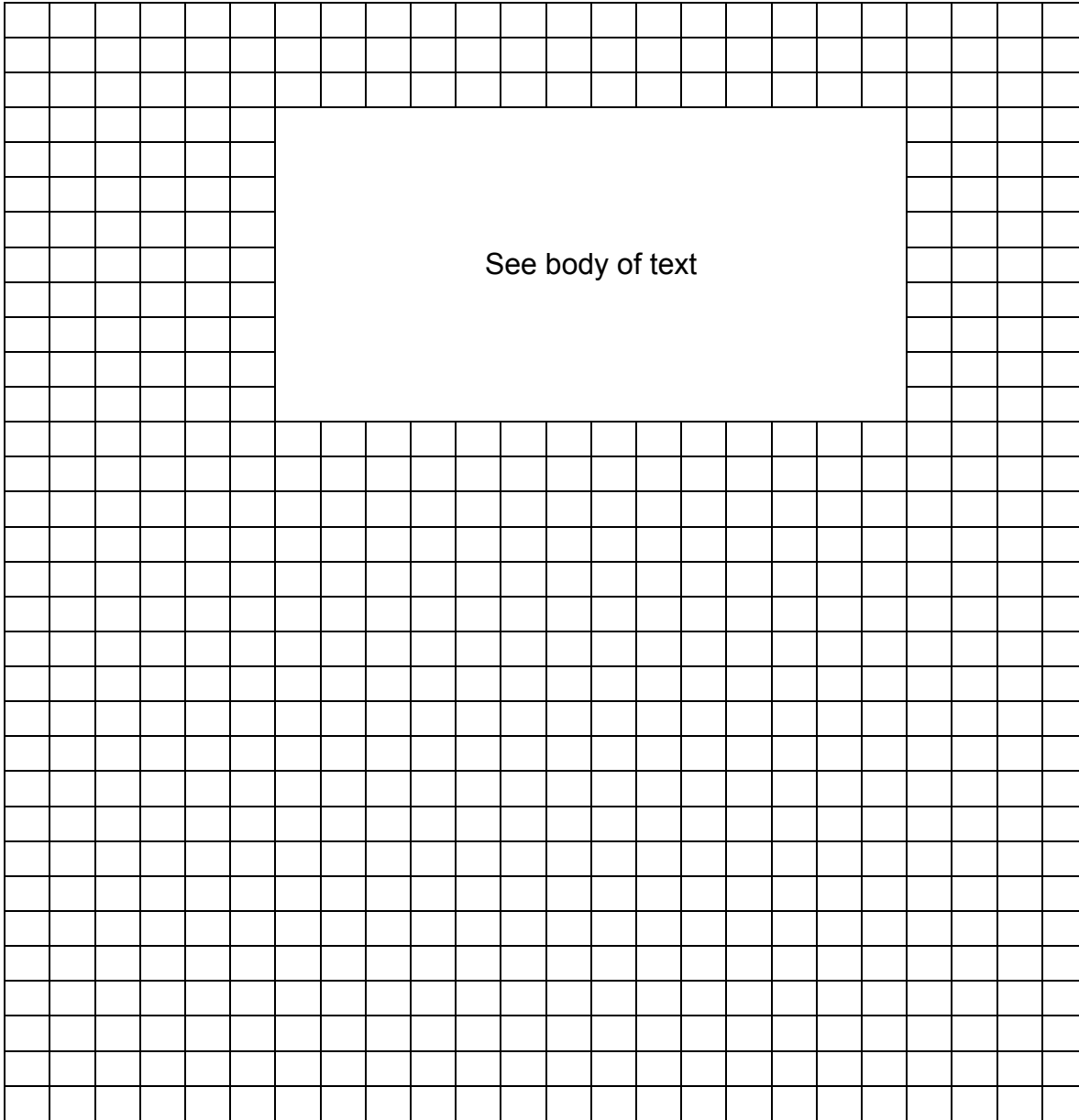
Each grid equals approximately \_\_\_\_\_ (Approximate lay-out; Not to scale)

Describe the area: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



**DRAWING OF GENERAL LAB AREA**

<b>FACTs project name:</b>	Columbine	<b>Form #</b> ML12
<b>Date:</b>	December 10, 2007	
<b>Reporting IH:</b>	Caoimhin P. Connell, Forensic IH	



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

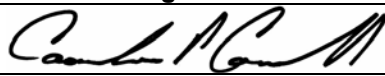
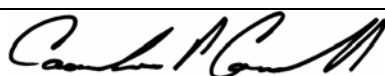
Describe the area: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



**CERTIFICATION, VARIATIONS AND SIGNATURE SHEET**

<b>FACTs project name:</b>	Columbine	<b>Form #</b> ML14
<b>Date:</b> December 10, 2007		
<b>Reporting IH:</b>	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.	
<del>I do hereby certify that the property has been decontaminated in accordance with the procedures set forth in 6 CCR 1014-3, § 5.</del>	XXXXXXXXXXXXXXXXXXXX
<del>I do hereby certify that I conducted post-decontamination clearance sampling in accordance with 6 CCR 1014-3, § 6.</del>	XXXXXXXXXXXXXXXXXXXX
<del>I do hereby certify that the cleanup standards established by 6 CCR 1014-3, § 7 have been met as evidenced by testing I conducted.</del>	XXXXXXXXXXXXXXXXXXXX
I do hereby certify that the analytical results reported here are faithfully reproduced.	

In the section below, describe any variations from the standard.  
 No deviations from the standard noted, except as identified in the body of the text.

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**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, and that I conducted post-decontamination clearance sampling in accordance with 6 CCR 1014-3, § 6. I further certify that the property has been decontaminated in accordance with the procedures set forth in 6 CCR 1014-3, § 5, and that the cleanup standards established by 6 CCR 1014-3, § 7 have been met as evidenced by testing I conducted.~~

Signature \_\_\_\_\_ Date: December 30, 2007 \_\_\_\_\_

**OR**

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 30, 2007





## FORENSIC APPLICATIONS CONSULTING TECHNOLOGIES, INC.

### CONSULTANT STATEMENT OF QUALIFICATIONS

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

<b>FACTs project name:</b>	<b>Columbine</b>	<b>Form # ML15</b>
<b>Date:</b>	<b>December 5, 2007</b>	
<b>Reporting IH:</b>	<b>Caoimhín P. Connell, Forensic IH</b>	

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

Mr. Connell is a recognized authority in methlab operations and is a Certified Meth-Lab Safety Instructor through the Colorado Regional Community Policing Institute (Colorado Department of Public Safety, Division of Criminal Justice). Mr. Connell has provided 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.

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, and the American Industrial Hygiene Association.

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 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 60 assessments in illegal drug labs.

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

### FINAL DOCUMENTATION CHECKLIST

<b>FACTs project name:</b>	Columbine	<b>Form # ML16</b>
<b>Date: December 10, 2007</b>		
<b>Reporting IH:</b>	Caoimhin P. Connell, Forensic IH	

DOCUMENT	Included
FACT Property description field form	<i>Paul</i>
FACTs Functional space inventory field form	<i>Paul</i>
FACTs Law Enforcement documentation field form	<i>Paul</i>
FACTs Field Observations field form	<i>Paul</i>
FACTs Contamination migration field form	<i>Paul</i>
FACTs ISDS field form	<i>Paul</i>
FACTs Pre-remediation photographs	<i>Paul</i>
FACTs Post-remediation photographs	NA
FACTs Pre-remediation photograph log sheet field form	<i>Paul</i>
FACTs Post-remediation photograph log sheet field form	NA
FACTs Drawing of Cook area(s) field form	<i>Paul</i>
FACTs Drawing of Storage area(s) field form	<i>Paul</i>
FACTs Drawing of Waste area(s) field form	<i>Paul</i>
FACTs Drawing General site field form	<i>Paul</i>
FACTs description sampling procedures, handling, and QA/QC	<i>Paul</i>
FACTs drawing of final sample locations?	NA
FACTs health and safety procedures used in accordance with OSHA	NA
FACTs post-decontamination samples locations	NA
FACTs Analytical Laboratory Documentation Form	<i>Paul</i>
FACTs SOQs	<i>Paul</i>
FACTs Certification of procedures, results, and variations from standard practices.	<i>Paul</i>
Analytical Laboratory Reports	<i>Paul</i>
Available Law Enforcement documents	None
Plumbing inspection field form (plumbing system integrity and identification of sewage disposal mechanism)	<i>Paul</i>
<del>Contractor's description of the decontamination procedures used and a description of each area that was decontaminated</del>	NA
Identification of common ventilation systems with adjacent units or common areas.	<i>Paul</i>
A description of the analytical methods used and laboratory QA/QC requirements.	<i>Paul</i>
<del>Contractor's description of the removal procedures used and a description of areas where removal was conducted, and the materials removed.</del>	NA
<del>Contractor's description of the encapsulation procedures used and a description of the areas and/or materials where encapsulation was performed.</del>	NA
<del>Contractor's description of the waste management procedures used, including handling and final disposition of wastes.</del>	NA



## **APPENDIX B**

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



# ANALYTICAL CHEMISTRY INC.

Established in 1979

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

<b>Lab Reference:</b>	07180-01
<b>Date Received:</b>	December 12, 2007
<b>Date Completed:</b>	December 14, 2007

December 14, 2007

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

**CLIENT REF:** Columbine

**SAMPLES:** wipes/7, filter/1

**ANALYSIS:** Methamphetamine by Gas Chromatography-Mass Spectrometry.

**RESULTS:** in total micrograms (ug)

<b>Sample</b>	<b>Methamphetamine, ug</b>	<b>% Surrogate Recovery</b>
CM121007 - 01	0.162	110
CM121007 - 02	5.04	117
CM121007 - 03	0.144	118
CM121007 - 04	0.166	114
CM121007 - 05	6.45	119
CM121007 - 06	0.065	112
CM121007 - 07 (170 mg)	0.186	114
CM121007 - 08	< 0.030	115
QA/QC Method Blank	< 0.004	
QC 0.100 ug Standard	0.099	
QA 0.020 ug Matrix Spike	0.020	
QA 0.020 ug Matrix Spike Duplicate	0.022	
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

Please do not write in shaded areas.

Page / of /

<b>SAMPLING DATE:</b>	December 10, 2007	<b>REPORT TO:</b>	Caoimhin P. Connell	<b>ANALYSIS REQUESTED</b>
<b>PROJECT Name/No:</b>	Columbine	<b>COMPANY:</b>	Forensic Applications, Inc.	1 Methamphetamine
<b>eMail:</b>	Fiosrach@aol.com	<b>ADDRESS:</b>	185 Bounty Hunters Lane, Bailey, CO 80421	2 Use entire contents
<b>SAMPLER NAME:</b>	Caoimhin P. Connell	<b>PHONE</b>	303-903-7494	3
				4
				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					
	CM121007-01	X			X	X									
	CM121007-02	X			X	X									
	CM121007-03	X			X	X									
	CM121007-04	X			X	X									
	CM121007-05	X			X	X									
	CM121007-06	X			X	X									
	CM121007-07			X	X	X									170 mg
	CM121007-08	X			X	X									
	CM121007-09				X	X									
	CM121007-10				X	X									

<b>CHAIN OF CUSTODY RECORD</b>				<b>Wipes Results in:</b>		<b>Total Number of Containers</b> (verified by laboratory)	
<b>PRINT NAME</b>	<b>Signature</b>	<b>COMPANY</b>	<b>DATE</b>	<b>TIME</b>	<input type="checkbox"/> µg/100cm <sup>2</sup>	<input checked="" type="checkbox"/> Total µg	<b>8</b>
Caoimhin P. Connell	<i>Caoimhin P. Connell</i>	FACTS, Inc.	12/10/07	14:32			
MIA SAZON	<i>MIA SAZON</i>	ACE	12/12/07	1500			
					<input type="checkbox"/> 24 Hours (2X)	<input type="checkbox"/> 2 Days (1.75X)	<input type="checkbox"/> 3 Days (1.5X)
					<input checked="" type="checkbox"/> Routine		
					<b>Inspected By:</b>	<b>Temperature:</b>	<b>Container:</b>
					MIA SAZON	Ambient	Intact
					<b>Lab File No.</b>		Broken
					07180-01		Cooled

**SAMPLING FIELD FORM**

**FACTs project name:** Columbine **Form #** ML17  
**Date:** December 10, 2007 **Alcohol Lot#:** A0703 **Gauze Lot#:** G0703  
**Reporting IH:** Caoimhin P. Connell, Forensic IH **Preliminary X** **Intermediate** **Final**

Sample ID	Type	Area/ Volume/ Weight	Location	Func. Space	Dimensions	Substrate	Result
-01	W		LIVING RM / So wall near ceiling - left of g/s d.e.	1	9x9	PTD. DW.	
-02	W		Hallway / tops of 5' drawers in hallway	2		WOOD	
-03	W		and BDRM / E. end of So wall (near clg.)	3	9x9	PTD. DW.	
-04	W		Master BDRM / So. INTERIOR WALL (ABOVE BED)	4	8x9	PTD. DW.	
-05	W		MAIN BATH / TOP OF LIGHT FIXTURE (OVER SINK)	5	3x24	GLASS	
-06	W		COMMON HALL OF BH / So wall (E. OF FRONT DOOR)	6	8x24		
-07	V		L RM / CARPET (FRONT OF CRACK)	1	8x12	CARPET	
-08							
-09							
-10							

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

\* 7/8 x 35 + 35 + 35 + 41 + 40

1# 50% under sampled

2# 50% under sampled



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**APPENDIX C**  
**DIGITAL DISC**