FORENSIC APPLICATIONS CONSULTING TECHNOLOGIES, INC.

Preliminary Assessment of an Identified Illegal Drug Laboratory at:

20 Bluebird Lane
Bailey, Colorado 80421

Prepared for:

Richard White
189 Timbertop Rd.
Bailey, CO 80421

Prepared by:

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

October 15, 2010

Table of Contents

EXECUTIVE SUMMARY

On approximately May 20, 2010, Richard White took possession from the owner known as "US Bank NA as trustee for CCB LIBOR, SER" of the residence located at 20 Bluebird Lane, Bailey, CO (the subject property).

On Friday, September 17, 2010, consistent with the Colorado Real Estate methamphetamine disclosure and testing statute (CRS §38-35.7-103(2)(a)), Forensic Applications Consulting Technologies, Inc. (FACTs) was contracted to perform a cursory methamphetamine contamination assessment at the subject property . The testing confirmed the presence of methamphetamine contamination at the property in excess of regulatory concentrations. The testing indicated widespread contamination throughout the residence.

On September 23, 2010, FACTs issued a written report of the cursory testing which met the definition of "discovery" and "notification" and which triggered Colorado State Board of Health Regulation 6 CCR 1014-3.

On September 25, 2010 FACTs was contracted by the Registered Owner of the Bluebird Lane property (White) to perform a standard State-mandated Preliminary Assessment (PA) for the subject property. From September 25, 2010 to October 2, 2010 personnel from FACTs performed the PA pursuant to Colorado Regulation 6 CCR 1014-43, Part 4.

Samples taken during the cursory testing conclusively demonstrated the presence of methamphetamine contamination throughout the structure, including the furnace system and the crawlspace, but excluding the septic system and the two small sheds on the property. Pursuant to Colorado Revised Statutes, CRS §16-13-103, the residence, and all remaining personal items therein, meet the definition of an "illegal drug laboratory." Based on the totality of the circumstances, FACTs makes the following observations:

- The property exhibits overt noncompliance with Colorado's methamphetamine cleanup standards.

- "Discovery" and "Notification" existed by virtue of the FACTs September 17, 2010 samples as described in our September 23, 2010 report.

- A noncompliant illegal drug lab, as that term is defined in CRS §25-18.5-101, existed at the subject property from at least September 17, 2010 forward, and continues to exist at the time of this Preliminary Assessment.

- A Class 1 Public Nuisance, as defined in CRS §16-13-303(1) existed at the subject property from at least September 17, 2010 forward, and continues to exist at the time of this report.

- The entire interior structure, including the two attics and the crawlspace but excluding the two sheds, must be decontaminated in a manner consistent with State regulations.

- Following the decontamination activities, a qualified Industrial Hygienist must perform the post-decontamination process and issue a Decision Statement before reentry or occupancy of the subject property may occur.

- The PA and sampling was performed by Mr. Caoimhín P. Connell, Forensic Industrial Hygienist with FACTs. Mr. Connell was assisted by Ms. Christine Carty, and Mr. Tim White, Field Technicians.[1]

REGULATORY REQUIREMENTS

Federal Requirements

All work associated with this PA 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 PA and those findings, enter the public domain and are not subject to confidentiality.[2]

The PA must be conducted according to specified requirements[3] 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 PA 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 PA. This PA is not complete without the digital disc and all associated support documents.

Pursuant to CRS §25-18.5-105, the subject property is deemed a "public health nuisance." Pursuant to CRS §16-13-303, the subject property and all of its contents is deemed a Class 1 Public Nuisance. As such, the subject property must be remediated

[1] Ms. Carty received a training certificate in Clandestine Drug Lab Safety through the Colorado Regional Community Policing Institute (CRCPI) sponsored by the US Dept. of Justice High Intensity Drug Trafficking Area fund. Mr. White received site specific training pursuant to 29 CFR §1910.120.

[2] Section 8.26 of 6 CCR 1014-3

[3] Section 4 of 6 CCR 1014-3

according to State Board of Health regulations 6-CCR-1014-3 or demolished (CRS §25-18.5-103).

Preliminary Hypothesis

During the PA, the initial hypothesis is made that the subject area is clean, and data is collected to find support for this hypothesis. Any reliable data that fails to support the hypothesis, including police records, visual clues of illegal production, storage, or use, or documentation of drug paraphernalia being present, is considered conclusive, and requires the Industrial Hygienist to accept the null hypothesis and declare the area non-compliant.[4] The strength of evidence needed to reject the hypothesis is low, and is only that which would lead a reasonable person, trained in aspects of meth laboratories, to conclude the *presence* of methamphetamine, and/or its precursors or waste products as related to processing.

Contrary to common belief, sampling is **not** required during a PA; however, if sampling is performed, it is conducted in the areas with the highest probability of containing the highest possible concentrations of contaminants. According to the State regulations:[5]

> *Identification and documentation of areas of contamination. This identification may be based on visual observation, law enforcement reports, proximity to chemical storage areas, waste disposal areas, or cooking areas, or based on professional judgment of the consultant; or the consultant may determine that assessment sampling is necessary to verify the presence or absence of contamination.*

Initial Statement on Hypothesis Testing

Regarding this subject property, objective sampling performed by FACTs on Friday, September 17, 2010, confirmed overt methamphetamine contamination. In the totality of circumstances, any one of the samples would challenge the Primary Hypothesis, and require FACTs to accept the null hypothesis and declare the primary residence and all contents therein as non-compliant.

Pursuant to testing consistent with Section 7, 6 CCR 1014-3, FACTs further challenged the compliance status of the two attics, the furnace, the crawlspace and the two sheds. Through that sampling, we determined that although methamphetamine was present in one of the sheds, the concentrations did not rise to the standard of contaminant, and the concentrations were below the appropriate regulatory thresholds. Therefore, the sheds are excluded from the need for any corrective actions.

The samples designed to challenge the compliance status of the two attics, the furnace system and the crawlspace, however, confirmed the presence of overt and widespread contamination in excess of the regulatory thresholds, and these areas are included in the remediation process.

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

[5] Section 4.6 of 6 CCR 1014-3

Pursuant to Section 4.11, 6 CCR 1014-3, FACTs similarly ruled out significant contamination in the septic system and leach field (ISDS).[6] Therefore,, no further corrective actions are required for the ISDS.

Elements of the Preliminary Assessment

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

Mandatory Final Documents 6-CCR 1014-3	DOCUMENTATION	Included
§4.1	Property description field form	✓
§§4.4, 4.5	Description of manufacturing methods and chemicals	✓
§4.2	Law Enforcement documentation review discussion	✓
§4.7	Description and Drawing of Storage area(s)	NA
§4.8	Description and Drawing of Waste area(s)	✓
§4.9	Description and Drawing of Cook area(s)	NA
§§4.3, 4.6, 4.10	Field Observations field form	✓
	FACTs Functional space inventory field form	✓
§4.11	Plumbing inspection field form	✓
	FACTs ISDS field form	✓
§4.12	Contamination migration field form or description	✓
§4.13	Identification of common ventilation systems	✓
§8.11	Description of the sampling procedures and QA/QC	✓
§8.12	~~Analytical Description and~~ Laboratory QA/QC	✓
§8.13	Location and results of initial sampling with drawings	✓
§8.14	FACTs health and safety procedures in accordance with OSHA	✓
§8.15 - §8.19	These sections are not applicable to a Preliminary Assessment	
§8.20	FACTs Pre-remediation photographs and log	✓
	FACTs Post-remediation photographs and log	NA
§8.21	FACTs SOQ	✓
§8.22	Certification of procedures, results, and variations	✓
§8.23	Mandatory Certification Language	✓
§8.24	Signature Sheet	✓
NA	Analytical Laboratory Reports	✓
	FACTs final closeout inventory document	NA
	FACTs Field Sampling Forms	✓

Table 1
Inventory of Mandatory Elements and Documentation

Subject Structure

The primary residential structure was listed by the Park County (Colorado) Assessor's Office as a 1,536 square foot residence built *circa* 1965. For the purposes of regulatory compliance, traditionally non-taxable spaces (such as the crawlspace, attics and sheds) must be included in the assessment. Therefore, for the purposes of this PA, the approximate total square feet of potentially impacted floor space used in the PA is 2,272

[6] Individual Sewerage Disposal System.

square feet. Sampling requirements, excluding the exterior decking, are based on this value.

A general aerial layout of the residential setting is depicted in the aerial photograph below. The subject property is generally outlined in red.

Figure 1
General Site Layout[7]

A partial plat map for the property is given below with the subject property in red.

Figure 2
Partial Plat Map

[7] The best available aerial photograph was 2002. Although later photos are available, they lacked the clarity of the 2002 photograph. Courtesy of USDA Farm Service Agency as accessed through Google ™

Review of Law Enforcement Documentation

As part of the PA, FACTs is required by regulation[8] to review available law enforcement documents pertinent to a subject property. During this project, the Park County Sheriff's Office exhibited the highest standard of professionalism and courtesy, and participated openly with our requests for information. Sgt. Glenn Hardey with the PCSO informed us that his search of the records system did not reveal any reports or information pertaining to controlled substances for the subject property.

Based on the best available information, there are no law enforcement documents pertaining to controlled substances for this subject property.

Governing Body

The *de facto* "Governing Body" as defined in CRS 25-18.5-101 for this property is:

Tom Eisenman
Park County Development Services Coordinator
Environmental Health and Planning and Zoning
1246 CR 16
P.O. Box 216
Fairplay, CO 80440

County Requirements

To our knowledge, Park County does not have county specific regulations regarding clandestine drug laboratories.

Visual Inspection of the Property

As part of the Preliminary Assessment, on October 1, 2010, Mr. Caoimhín P. Connell, Forensic Industrial Hygienist with FACTs, performed a visual inspection of the subject property. During the assessment, Mr. Connell was assisted by Field Technicians Christine Carty and Mr. Tim White. The property was in an "unoccupied" condition, and was devoid of chattels.

Pursuant to regulatory requirements, the subject property was assigned into "functional spaces," and an indicia inventory and assessment was performed for each functional space.

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

[8] 6 CCR 1014-3 (Section 4.2)

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.[9]

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:

Building	Functional Space Number	Describe the functional space
1	1	Living Room, Kitchen and Dining Room
1	2	Mud room
1	3	Downstairs Bedroom and two closets
1	4	Downstairs bathroom
1	5	Stairway and Upstairs Bedroom
1	6	Attic East
1	7	Attic West
1	8	Upstairs Bathroom and Toilet
1	9	Crawlspace
1	10	Furnace system
2	1	A-Frame shed
3	1	Large shed

Table 2
Functional Space Inventory

Functional Space 1: Living Room Complex

The living room complex is the large central open-plan living area in the house that includes the kitchen, living room (with fireplace), and dining room to the south of the kitchen.

Characteristically for this property, there were no visual indicators in this space. This functional space was included in the sample suite that indicated methamphetamine concentrations in excess of a minimum of 60 times over the permitted level.

Functional Space 2: Mud Room

The mud room is accessed directly from the east side entrance. The mud room is a self-contained room with two doors. This room was freshly painted and contained no visual indicators.

Functional Space 3: Downstairs Bedroom and Closets

The main level of the residence contains a standard bedroom in the southeast corner of the structure. Within this room are two closets. This functional space was included in the sample suite that indicated methamphetamine concentrations in excess of at least 60 times over the permitted level.

[9] 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 4: Downstairs Bathroom

This functional space includes items and fixtures as that term is commonly understood. There were no visual indicators in this space. This functional space was included in the sample suite that indicated methamphetamine concentrations in excess of at least 60 times over the permitted level.

Functional Space 5: Stairway and Upstairs Bedroom

The stairway leads up to the second floor which contains a large bedroom and closet. There were no visual indicators in this space.

Functional Space 6: Attic East

Running along either side, and parallel to the upstairs bedroom, are two attic spaces, east and west. This space is the eastern attic which also houses duct work servicing the upstairs bedroom. There were no visual indicators in this space.

This functional space was included in the composite sample suite that indicated methamphetamine concentrations in excess of at least 40 times over the permitted level. We attempted to challenge the compliance status of this space specifically to clear the property and remove it from the remediation process. We collected a final clearance sample from this space pursuant to the Section 7 of 6 CCR 1014-3. However, the sample collected from this space explicitly demonstrated noncompliance and indicated that concentrations in this space specifically are approximately four times greater than the maximum permitted methamphetamine levels.

Functional Space 7: Attic West

This space is the western attic. There were no visual indicators in this space. This functional space was included in the composite sample suite that indicated methamphetamine concentrations in excess of at least 40 times over the permitted level.

Similar to the East Attic, we attempted to challenge the compliance status of this space and remove it from the remediation process. A single final verification sample collected from debris in this attic space indicated that the area is noncompliant; and is approximately seven times greater than the maximum permitted concentration.

Functional Space 8: Upstairs Bathroom and Toilet

Used here as those terms are commonly understood. There were no visual indicators in this space. This space was included in the composite suite that indicated methamphetamine concentrations in excess of 40 times the maximum permitted level.

Functional Space 9: Crawlspace

This space is the open earthen-floored area under the occupiable space. The crawlspace houses the furnace and is suitable for storage and entry by furnace maintenance personnel. Therefore, the area must be considered as a functional space and included in the Preliminary Assessment.

We attempted to challenge the compliance status of this space and remove it from the remediation process; a single final verification sample was collected from the top of a ventilation duct which indicated that the area is noncompliant, and contains methamphetamine concentrations approximately seven times greater than the maximum permitted concentration

Functional Space 10: Furnace

The Furnace System in the structure is a standard residential forced air system. The actual mechanical unit is located in the Crawlspace with a ducted distribution system throughout the entire residential structure (including traverses in the crawlspace and east attic).

Although arguably not a functional space *per se*, the sample collected from the duct interior in the crawlspace indicated that methamphetamine contamination in that system was significantly elevated (approximately 2.4 µg/100 cm2).[10]

It is well established knowledge in the Industrial Hygiene and medical professions that the use of methamphetamine in a home results in elevated exposures to the occupants via airborne migration. When methamphetamine is smoked, between 80%[11] and half[12] of the substance is released from the user's pipe. Of that material which is inhaled, between 33%[13] and 10%[14] of the nominal dose is not absorbed into the body, but rather exhaled back into the ambient air.

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[10] Collection of the sample for this Functional Space was inhibited by extreme lack of physical access. As such, we estimated that the selected surface was undersampled by approximately 25%. That is, only approximately 75% of the available residual material was removed during sampling. It is for this reason that if one attempts to calculate the concentration directly from the laboratory report, and the surface area given, the values will not reconcile. The values reported in this PA, consistent with proper Industrial Hygiene practices has been corrected for loss.

[11] 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

[12] 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.)

[13] 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.)

[14] 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

Recent work conducted by Industrial Hygienists at the National Jewish Hospital[15] in Denver, CO indicate that a single use of methamphetamine, by smoking, could result in an average residential area ambient airborne concentration of methamphetamine ranging from 35 micrograms per cubic meter (µg/m3) to over 130 µg/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*.'[16]

Since it is the purpose of the forced air ventilation system to move air throughout the structure, and the furnace (as evidenced by the sample collected from the duct interior) conclusively contained significantly elevated concentrations of methamphetamine, we conclude the furnace was an effective mechanism of dissemination of methamphetamine 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 methamphetamine laboratories, to conclude the *presence* of widespread elevated methamphetamine contamination throughout the entire occupied space, all other sample results notwithstanding, and in the absence of any sample result for any specific location. Therefore, it is for this reason that FACTs confidently concludes that, based on just this sample alone, an high probability of elevated concentrations of methamphetamine exists throughout the residence including all chattels, new carpets and all areas that have not been confirmed as contaminated by sampling. Having said this, the remaining samples have nevertheless objectively confirmed the existence of widespread contamination.

A-Frame Shed

Functional Space 1: A-Frame Shed

This is the small A-framed shed on the property. FACTs attempted to challenge the compliance status for this structure. However, it was physically impossible to collect a sample pursuant to State regulations from this structure; there were no non-porous surfaces in the functional space.

Therefore, FACTs collected a sample from the surface most likely to be contaminated even though that surface was a prohibited surface (OSB). This *de minimis* regulatory variation was unavoidable. The sample indicated compliance, and we have removed the shed from the remediation process.

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[15] 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.)

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

Large Shed

Functional Space 1: Large Shed

This is the larger of the two sheds on the property. FACTs attempted to challenge the compliance status for this structure. FACTs collected a sample from the shed interior which indicated compliance, and we have removed this shed from the remediation process.

EXTERIOR GROUNDS

Although not truly a functional space *per se*, the exterior grounds were assessed independently. Although we did observe some evidence of stressed vegetation, the stressed vegetation was associated with season variations and the location of the ISDS.

During our evaluation of the ISDS, we observed indicators of waste materials being deposited in the sewerage system, and which may have contaminated the surrounding soils. However, as discussed later, upon subsequent objective investigations, we were able to rule out possible contamination.

SEWERAGE SYSTEM

Regulation 6-CCR-1014-3 (§4.11) requires inspection of plumbing system integrity and identification and documentation of potential disposal into the sanitary sewer or an individual sewage disposal system (ISDS). The ISDS for this property consisted of a septic tank and leach field.

FACTs assessed the septic system and, performed subsoil gas analysis to determine if hydrocarbons (waste products) may have been deposited in the septic tank and subsequently leaked from the septic tank or leach field into surrounding soils. Hydrocarbons were measured using an on-site, state-of-the-art, broad-range hydrocarbon meter which is capable of detecting virtually all hydrocarbons in the vapor phase. The device also has an acid gas sensor. Our instrument was an Enmet™ Target® Series instrument employing MOS technology, and had been calibrated according to the manufacturer's procedure using toluene as a span gas.

Also for this project, we used standard semi-quantitative water quality wet chemistry methods to test the effluent for acidity/alkalinity.

State statutes require a utilities location to be performed prior to any digging and prior to sinking any soil gas probes. Locator documentation was obtained and is included in the data package.

Soil Gas Assessment

To assess the soils around the septic tanks and the leach field, FACTs employed direct push soil sampling techniques, wherein we drove an hollow gas sampling tip to a desired depth in the soils. The tip is attached to a length of Teflon® tubing, and using an high vacuum hand pump, soil gases are extracted into a Tedlar® gas sampling bag (See

Photograph 1, below). Gases from the Tedlar bag are then introduced into suitable instruments for direct reading qualitative analysis (in this case, we measured broad range hydrocarbons and acid gases).

Photograph 1
Direct Push Soil Gas Sampling

The diagram that follows provides the approximate locations for each of the soil gas probe sampling locations. The large red outlined square identifies the location of the septic tank; the large white box is the residential structure. The red triangles are the locations where the soil gas was sampled.

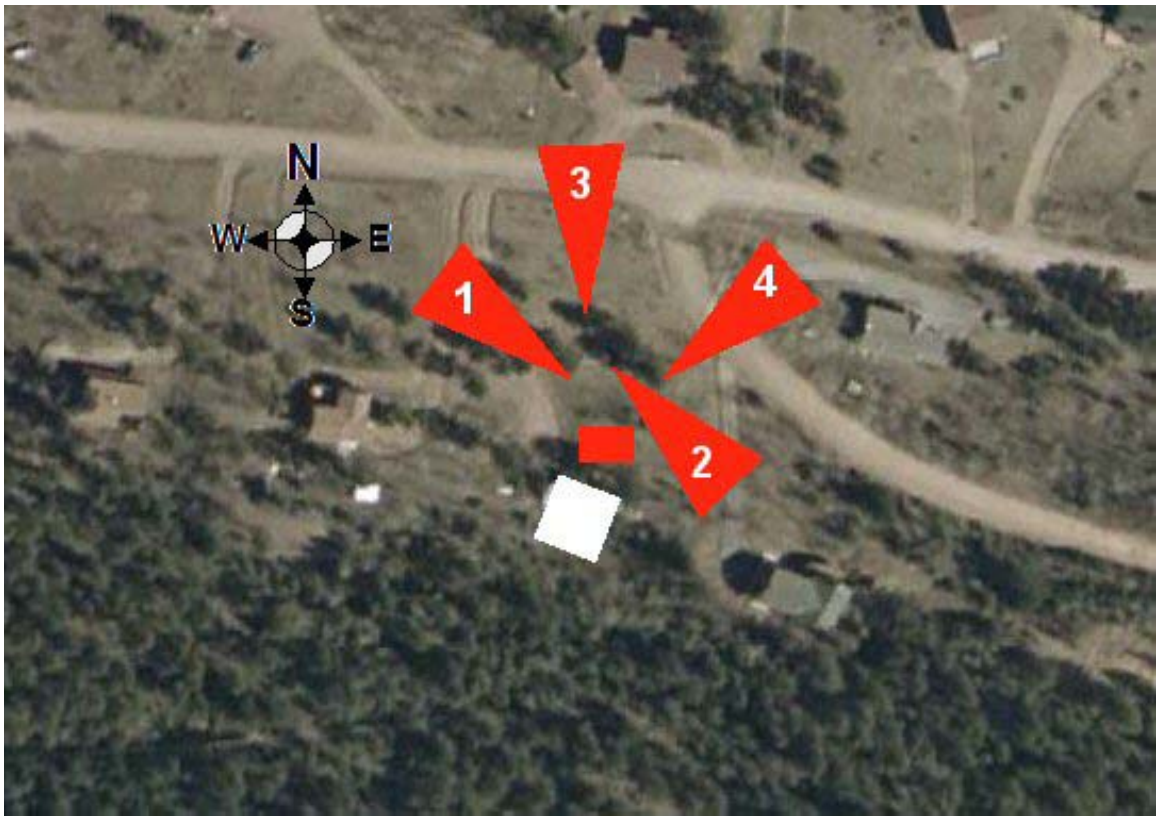


Figure 3
Soil Gas Probe Sampling Locations

During this project, soil gas was sampled at a depth of one meter. The samples indicated a solvent vapor concentration gradient from high to low as one moved in elevation from south to north and laterally from east to west. This observation would be consistent with a contamination plume originating from the leach field. The highest solvent vapor concentration was in excess of 200 parts of hydrocarbons per one million parts of soil gas (200 ppm). More typically, we generally do not encounter concentrations exceeding 10 ppm. In the table below, we have summarized the results of the soil gas testing.

Hole #	BRH ppm	HCl ppm	PH_3 ppm	Vacuum (Hg")	Instrument Response (sec)
1	<1	<0.01	<0.01	5	45
2	112	1.2	<0.01	2	45
3	4	0.5	<0.01	2	45
4	>200	NA	NA	2	5

BRH=total hydrocarbons, HCl= hydrogen chloride, PH_3=phosphine

Table 3
Soil Gas Probe Sampling Summary

We initially interpreted the data to indicate that hydrocarbons had in fact leaked from the ISDS into surrounding soils. The state of Colorado regulations state:

For laboratories with outdoor components, or laboratories which are exclusively outdoors, the following sampling shall be performed when conditions indicate the potential for soil contamination. Sampling shall be conducted in accordance with the grid sampling method as described in the Midwest Research Institute's publication titled "Field Manual for Grid Sampling of PCB Spill Sites to Verify Cleanup" (referenced in 40 CFR § 761.130), which is incorporated herein by reference. Surface samples shall be taken to a depth of no greater than 8 cm. Sample volume should be at least 100 cm^3 and no more than 250 cm^3. …

In this case, the soil gas samples were not conclusive, and we lacked sufficient information to conclusively indicate a plume. Therefore, prior to initiating a full blown grid, a single screening soil sample was collected from 18" down the penetration hole that had exhibited the highest hydrocarbon solvent vapor concentration. The sample was submitted to a USA EPA CLP laboratory for analysis by USEPA Method SW846 8260B. In the table below, we have presented a summary of the analysis of the soil sample.

CAS	Compound	Result	RL	MDL	Units
67-64-1	Acetone	ND	1100	530	µg/kg
71-43-2	Benzene	ND	53	16	µg/kg
75-27-4	Bromodichloromethane	ND	270	110	µg/kg
75-25-2	Bromoform	ND	270	110	µg/kg
108-90-7	Chlorobenzene	ND	270	110	µg/kg
75-00-3	Chloroethane	ND	270	110	µg/kg
67-66-3	Chloroform	ND	270	53	µg/kg
110-75-8	2-Chloroethyl vinyl ether	ND	1100	640	µg/kg
75-15-0	Carbon disulfide	ND	270	110	µg/kg
56-23-5	Carbon tetrachloride	ND	270	110	µg/kg
75-34-3	1,1-Dichloroethane	ND	270	110	µg/kg
75-35-4	1,1-Dichloroethylene	ND	270	110	µg/kg
107-06-2	1,2-Dichloroethane	ND	270	53	µg/kg
78-87-5	1,2-Dichloropropane	ND	270	110	µg/kg
124-48-1	Dibromochloromethane	ND	270	110	µg/kg
156-59-2	cis-1,2-Dichloroethylene	ND	270	110	µg/kg
10061-01-5	cis-1,3-Dichloropropene	ND	270	110	µg/kg
541-73-1	m-Dichlorobenzene	ND	270	110	µg/kg
95-50-1	o-Dichlorobenzene	ND	270	110	µg/kg
106-46-7	p-Dichlorobenzene	ND	270	110	µg/kg
156-60-5	trans-1,2-Dichloroethylene	ND	270	110	µg/kg
10061-02-6	trans-1,3-Dichloropropene	ND	270	110	µg/kg
100-41-4	Ethylbenzene	ND	110	21	µg/kg
591-78-6	2-Hexanone	ND	1100	160	µg/kg
108-10-1	4-Methyl-2-pentanone	ND	1100	160	µg/kg
74-83-9	Methyl bromide	ND	270	110	µg/kg
74-87-3	Methyl chloride	ND	270	110	µg/kg
75-09-2	Methylene chloride	ND	270	110	µg/kg
78-93-3	Methyl ethyl ketone	ND	1100	210	µg/kg
100-42-5	Styrene	ND	270	110	µg/kg
71-55-6	1,1,1-Trichloroethane	ND	270	53	µg/kg
79-34-5	1,1,2,2-Tetrachloroethane	ND	530	110	µg/kg

ND= Not detected at MDL, MDL=Method Detection Limit, RL= Reporting Limit

Table 4
Summary of Soil Analysis

The shaded compounds are those we would use as "probable indicators" for methlab contamination. In each case the concentration of the contaminant was below the detection limit and, therefore, below the Reporting Limit (RL) for that compound. Based on these data and the totality of the circumstance, including the inspection of the septic tank (discussed below), we concluded that further investigation, including the initiation of a grid, was not warranted.

Septic Tank

We were able to locate and easily access the holding tank and the septic tank serving the residence. Our visual inspections indicated that the tank was devoid of "slick" and bi-phasic liquids, indicating that organic solvents had not been discarded in the septic system. Subjectively, we did not observe any odors associated with cyclic aromatic or aliphatic solvents. The vapor phase hydrocarbon concentration in the headspace above the holding tank liquid was less than 5 ppm.

Using standard semi-quantitative wet chemistry methodologies, we determined that the aqueous phase of the septic tank contents was 7.5.

The tank appeared to be at full capacity, and also appeared to contain an appropriate fraction of solids indicating that the tank had not been emptied after the end of the last occupancy. Therefore, we would expect that if the surrounding soil gas hydrocarbons were due to the material being dumped into the ISDS, there would be residual concentrations in the ISDS tank head space.

Based on these observations, we concluded that the septic system and the leach field can be excluded from the remediation process.

SAMPLE COLLECTION

During this project, we collected four distinct types of samples:

Liquid samples (effluent from the ISDS, described above)
Air samples (ISDS evaluation soil gas samples)
Bulk sample (soil sample)
Wipe samples (methamphetamine analysis)

Liquid Sample

The liquid sample was collected using a standard single use siphoning tube and deposited into a glass I-Chem jar. See the discussion on the ISDS.

Air Samples

See the discussion on the ISDS.

Bulk Sample

Prior to collecting the soil sample, the sampling equipment was decontaminated pursuant to standard SW 846 decontamination methods. The wash and rinse effluent were discarded off site. See the discussion on the ISDS for additional information.

Wipe Samples

The samples collected throughout the subject property comprised of "discreet" samples and "composite" samples.

Discreet samples were collected during the PA and are a single wipe, collected from a single area, and submitted for analysis as a unique location.

Composite samples were collected during the cursory evaluation and are single wipes, which are included with other single wipes placed together and analyzed as a single sample.

Each sample location was identified by the Industrial Hygienist based on authoritative bias sampling theory. In this theory, as mandated by State regulation, samples are purposely collected from those areas which have the highest probability of containing the highest concentrations of methamphetamine.

Methamphetamine

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

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

QA/QC Precautions

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

Field Blanks

For QA/QC purposes, and in accordance with State requirements, one field blank was submitted for every ten wipe samples. The field blank was randomly selected from the sampling sequence and included with the samples. 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.

Cross Contamination

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

Collection Rationale

Primary Objective

It is a common misconception that the Industrial Hygienist is required to collect samples during a PA. However, no such requirement exists in Colorado. Rather, regarding samples, the regulations state:

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

Similarly, there is a misconception that if samples are collected, and the laboratory results are below the value often misinterpreted as the State's regulatory threshold value (0.5 µg/100 cm2), the samples necessarily indicate that the area is not contaminated and no action is required. However, the regulatory threshold values are exclusively to be used as *prima fascia* evidence during final verification activities in the absence of all other information. Except, during a final verification or a properly designed Preliminary Assessment, there is no *de minimis* concentration of methamphetamine below which a statement of compliance can be made in the absence of final verification sampling. Although State regulation does not require samples to be collected during a Preliminary Assessment, as part of this Preliminary Assessment, samples were collected.

For this project, FACTs had sufficient information from the cursory sampling results to conclude that the contamination in the subject property was widespread, and, based on the totality of the circumstances, in accordance with 6 CCR 1014-3, we concluded that those areas not sampled were similarly contaminated.

However, to objectively test the *a priori* assumption for the two attics, the crawlspace and the two sheds, (which could significantly increase remediation costs), FACTs selected a sample from each functional space which would best represent the worst case scenario in those spaces, as required by regulation. These samples, along with a blank, were

submitted for analysis. Based on these samples, we were able to exclude the two exterior sheds from the scheduled remediation.

Sample Results

Methamphetamine

The results of the methamphetamine samples are summarized in the table below. The shaded samples are those that were collected during the cursory evaluation.

Sample ID	Sample Location	Area	Result	Threshold	Status
BM091710-01A	Living room, top of fluorescent light fixture	6.45			
BM091710-01B	SE Bedroom, ceiling fan	6.45			
BM091710-01C	Ground floor bathroom, top of shower stall	6.45	31.6	0.10	FAIL
BM091710-01D	A-Frame shed, plastic on window	6.45			
BM091710-01E	Tool shed, top of electrical outlet	6.45			
BM091710-02A	SE Bedroom, supply vent duct interior	6.45			
BM091710-02B	Living room, return vent	6.45			
BM091710-02C	US Bath, top of north light	6.45	23.1	0.10	FAIL
BM091710-02D	US West cubby, top of electrical wiring	6.45			
BM091710-02E	US East cubby, top of duct	6.45			
BM100110-01	East attic top of duct work	523	2.1	0.50	FAIL
BM100110-02	West attic, debris in attic	523	3.6	0.50	FAIL
BM100110-03	Field Blank	NA	<0.030	0.03	PASS
BM100110-04	Crawlspace, top of furnace duct	516	3.4	0.50	FAIL
BM100110-05	Furnace interior, at fan housing	774	2.4	0.50	FAIL
BM100110-06	Large shed, pegged jacket holder	711	0.013	0.50	PASS
BM100110-07	A-Frame shed, finished OSB	523	<0.006	0.50	PASS

Area is expressed in square centimeters
Result and Threshold are expressed as µg/100cm2 (Field blanks are reported as absolute mass)
The symbol "<" indicates that methamphetamine was not detected at the detection limit expressed.

Table 5
Results of Methamphetamine Wipe Samples

Wipe Sample Results

The samples confirm widespread noncompliant concentrations of methamphetamine throughout the structure to within a very strong degree of confidence.

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, and the data pertains to the Preliminary Assessment samples only (those samples that can be used for compliance purposes).

Erratum entered 10/16/10

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 14%; recovery 115%); Matrix spike Dup 0.020 µg;

(RPD <1%; recovery 100%); Surrogate recovery: High 119% (Sample 4), Low 82% (Sample 2 and 6); FACTs reagents: MeOH lot #A1001 <MDL for n=21, >MDL for n=0; Gauze lot G1004 <MDL for n=8, >MDL for n=0. The QA/QC indicate the two samples we outside of tolerance due to low recoveries; the actual methamphetamine concentrations for these two samples may be significantly greater than reported here. However, since one datum is significantly greater than the threshold and one is significantly below the threshold, the compliance status of either sample expressed as its UCL does not alter the compliance status of the area. Otherwise the data met the data quality objectives; and the results do appear to exhibit slight negative bias.

Sample Locations

Consistent with State Regulations and good sampling theory, the location of the samples was based on professional judgment. In this case, it was FACTs' Industrial Hygienist's professional judgment that authoritative biased sampling would be appropriate.

As such, during this project, the Industrial Hygienist selected those areas which had the highest probability of exhibiting the highest concentrations of contamination. Based on our experience, state of the art information on indoor methamphetamine migration patterns and professional judgment, FACTs selected specific locations throughout the structure in an attempt to represent the highest possible concentrations of methamphetamine. Each sample area was then delineated with a measured outline.

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. Where the identifier has an alpha code, the sample was collected during the cursory evaluation.

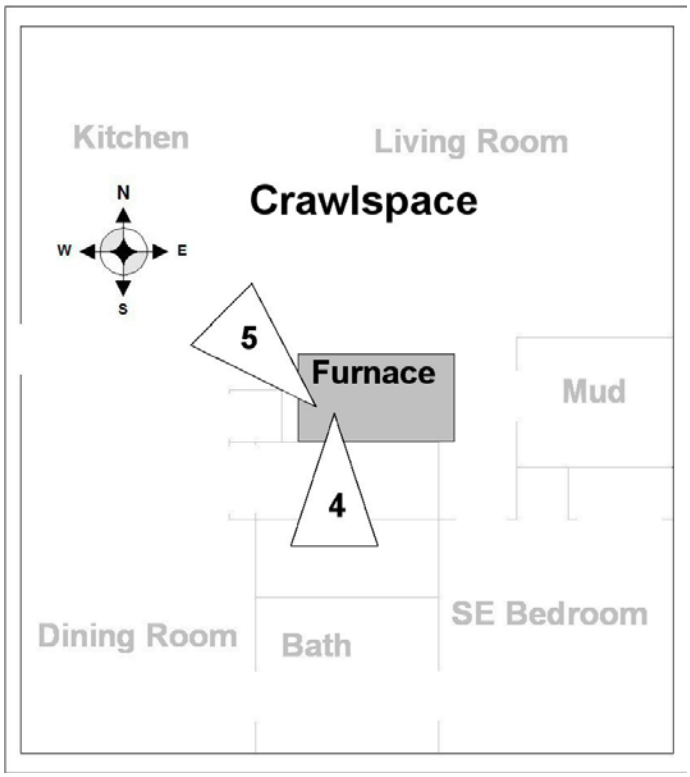


Figure 4
Crawlspace Sample Locations

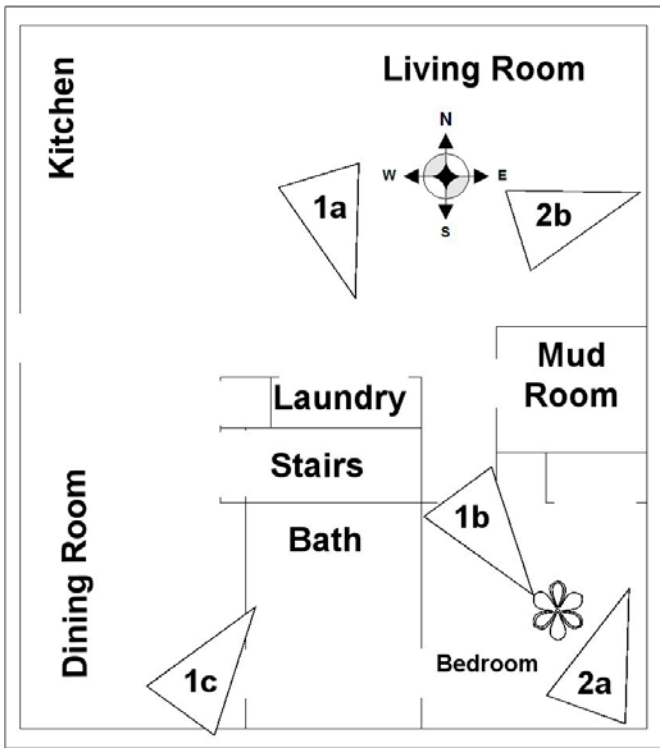


Figure 5
Main Level Sample Locations

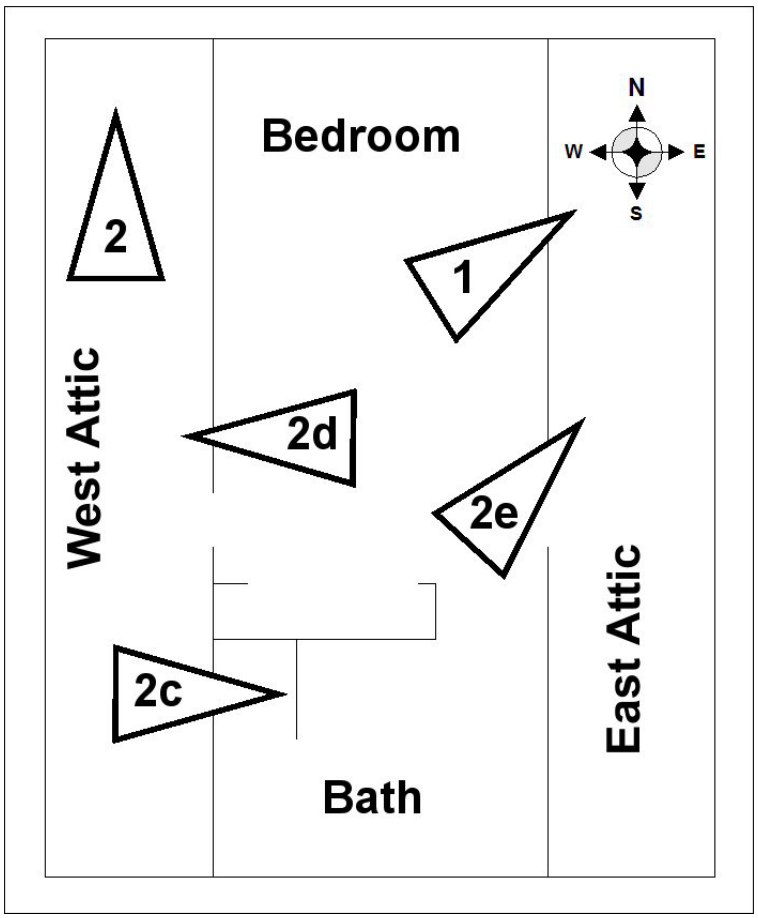


Figure 6
Second Floor Sample Locations

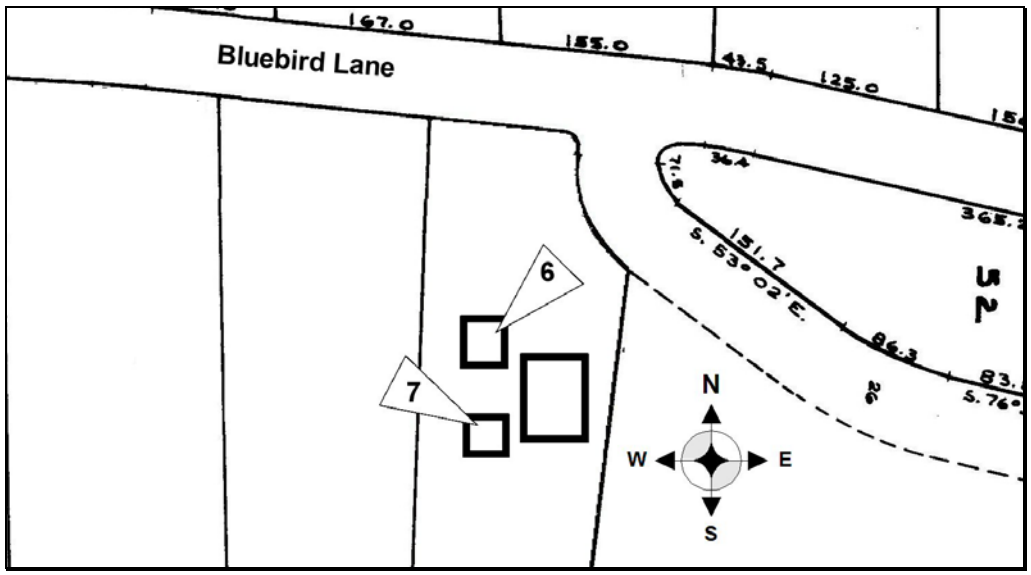


Figure 7
Shed Sample Locations

Identification of Cook/Storage Areas

Colorado Regulations 6 CCR 1014-3 (4.2) states that the Industrial Hygienist is required to perform a:

> Review of available law enforcement reports that provide information regarding the manufacturing method, chemicals present, cooking areas, chemical storage areas, and observed areas of contamination or waste disposal

In this case, we were not able to confidently identify *if* manufacturing took place at all, nevermind *where* it may have taken place (if at all). Our best assessment at this point is that the widespread contamination is the result of methamphetamine smoked at the property. The question of whether or not methamphetamine was actually manufactured is not of regulatory significance.

Identification of Contamination Migration

FACTs has knowledge that chemicals such as methamphetamine were stored on the property. However, FACTs must rely exclusively on subjective extant observations we make on site. Based on the best information readily available, FACTs was not able to find any indicators that would suggest contamination migration.

CONCLUSIONS

Based on the totality of the circumstances, including our subjective observations and objective data from sampling, we find that there is insufficient evidence to support the preliminary hypothesis and we accept the null hypothesis and conclude that widespread methamphetamine contamination exists throughout the entire residential structure (but not the exterior sheds) of the subject property.

Based on our observations, the entire structure, including all surfaces in the occupiable space (but excluding the sheds), must be cleaned pursuant to 6 CCR 1014-3.

RECOMMENDATION

Universal Site Requirements

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 their own standard operating procedures. The following are provided as guidance and reflect standard practices for the remediation of similar properties. The Governing Body has statutory authority to require a greater degree of decontamination of the subject property.

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.

5. We recommend that a decontamination corridor with showers be established at the west 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 Park County Department of Health.

8. All remediation work should be presumed to be pursuant to Title 29 of the Code of Federal Regulations, §1910.120 until otherwise indicated.

9. The contractor shall be contractually obligated to perform personnel air monitoring for methamphetamine for at least one full shift employee per day to allow for support of proper PPE selection. If the air monitoring results in a concentration of greater than 120 µg methamphetamine per cubic meter, the contractor is required to upgrade respiratory protection to a minimum of either full face APR or PAPR.

10. The contractor *should* be contractually obligated to include the personnel air monitoring data in their final documentation.

11. 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.

12. Contractors should be contractually obligated to cover costs of return visits by the Industrial Hygiene and sample expenses as a result of a failed final clearance.

13. State regulations prohibit painting or otherwise encapsulating surfaces prior to final clearance sampling by the Industrial Hygienist.

14. State regulations prohibit the use of strong oxidizers to mask the presence of methamphetamine; no cleaning agents greater than 5% hydrogen peroxide (or other oxidizer) are permitted on site.

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 required to submit those samples for methamphetamine analysis. The contractor shall be contractually obligated to provide their wipe sampling data (including location of sample, area of sample, and analysis results), to the consulting Industrial Hygienist for review prior to final clearance sampling.

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^2, 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 should perform final clearance sampling according to 6-CCR 1014-3.

Decontamination of the Residence

Although FACTs does not believe that the furnace can be economically decontaminated, the contractor may propose removal of the furnace and associated ductwork, *in toto*, or may propose cleaning, and decontamination of the ventilation system.

The following decontamination process should take place in this order:

1. Establish negative pressure in each area to be remediated pursuant to State regulations. No removal or decontamination shall occur until negative pressure is established.

2. No work, except as needed to establish critical barriers, shall begin until negative pressure is established.

3. Exhaust from the negative enclosure may take place at any ground level location.

4. Negative pressure must be maintained at all times until final sampling has been completed, and the written intent to issue a Decision Statement has been issued to the contractor by the consulting Industrial Hygienist.

5. The contractor should establish a standard, two-chambered decon and/or bag-out/load-out at the west entrance.

6. A three part airlock shall be established at the crawlspace entrance. All items in the crawlspace must be wiped down in the airlock prior to being transloaded through the airlock. Otherwise unmanageable items shall be bagged and/or wrapped, or otherwise prepared to be transported into the airlock where the outside surface of the bag or wrapping can be wiped down.

7. All items (trash and debris) in the crawlspace shall be removed and discarded.

8. The top one inch of dirt shall be excavated and removed from the crawlspace floor.

9. After the dirt has been removed, ALL surfaces in the crawlspace shall be wet wiped.

10. FACTs believes that if the crawlspace is maintained under negative pressure with respect to the occupied space, the carpeting can be salvaged. Any carpeting in an area to be remediated shall be steam cleaned. Any fabric materials that are to be left in the property, such as carpets, shall be subjected to final clearance sampling in accordance with standard industrial hygiene microvacuum sampling procedures.[17]

    a. Currently, in the State of Colorado, there are no regulatory limits by which one may compare vacuum results; the interpretation of such results is left within the realm of the professional judgment of the Industrial Hygienist. FACTs interprets vacuum samples in the context of contaminant density. The interpretation of the results of the vacuum samples takes into account the size of the surface area sampled, the mass of material removed from that surface, and the mass of contaminant in the removed material. 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 (ρ).

       Based on our database of vacuum samples (n=70) from previous methamphetamine contaminated properties, FACTs has set a qualified density "threshold of concern" of 0.5 ρ. That is, if the methamphetamine density in the remaining fabric exceeds 0.5 ρ, FACTs will make the unqualified statement that in the absence of conflicting information, the material requires decontamination. The value of "0.5" in this case, has no

[17] For example, see ASTM Method D 5756-02

association with the State mandated decision threshold of 0.5 µg/100cm2 – the resemblance of the two values is purely coincidental.

11. All surfaces within a remediation area, including all ceilings, all hanging fixtures, all cabinets (interior and exterior surfaces), all shelving, all floors, doors, hinges, the exterior surfaces of the fireplace, and every other interior surface whether specifically mentioned or not, shall be thoroughly wiped down to remove residual contamination.

12. The furnace system shall be removed or cleaned in a manner consistent with State regulations.

-*END*-

Enclosures: One CD; Data package, and Appendices

Appendix A:

Supporting Documents

FACTs project name: Bluebird	Form # ML1
Date: October 1, 2010	
Reporting IH:	Caoimhín P. Connell, Forensic IH

PROPERTY DESCRIPTION:

Physical address	20 Bluebird Lane, Bailey, Colorado 80421		
Legal description or VIN	T07 R72 S26 NW4, Burland Ranchettes, Unit 12, Lot 51, Tax Area 0005, Schedule Number 18551		
Registered Property Owner	Richard White 189 Timbertop Rd Bailey, CO 80421		
Number of structures	Three		
Type of Structures	Residential	2,538	Square feet
	A-frame shed	64	Square feet
	Large shed	184	Square feet
Adjacent and/ or surrounding properties	North: Street front, rural mountain terrain		
	South: Rural mountain terrain		
	East: Residential structure - rural mountain terrain		
	West: Residential structure - rural mountain terrain		
General Property Observations	Excellent condition, newly refurbished		
Presumed Production Method	Red-P pseudoephedrine reduction		

Plumbing Inspection and Inventory

FACTs project name: Bluebird	Form # ML2
Date: October 1, 2010	
Reporting IH:	Caoimhín P. Connell, Forensic IH

Functional Space	Room	Fixture	Indicia?	Comments
1	Kitchen	East Sink	N	No indicators, no comment
1	Kitchen	West Sink	N	No indicators, no comment
1	Kitchen	Dishwasher	N	No indicators, no comment
1	Laundry Room	Slop sink	NA	NA
1	Laundry Room	Washing machine	NA	NA
4	Bathroom # 1	Shower	N	No indicators, no comment
4	Bathroom # 1	Sink 1	N	No indicators, no comment
4	Bathroom # 1	Toilet	N	No indicators, no comment
8	Bathroom # 2	Bath/Shower	N	No indicators, no comment
8	Bathroom # 2	Sink	N	No indicators, no comment
8	Bathroom # 2	Toilet	N	No indicators, no comment

This area is blank

Ventilation Inspection and Inventory

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

Functional Space Inventory

FACTs project name: Bluebird	Form # ML3
Date: October 1, 2010	
Reporting IH:	Caoimhín P. Connell, Forensic IH

Building	Functional Space Number	Describe the functional space
1	1	Living Room, Kitchen and Dining Room
1	2	Mud room
1	3	Downstairs Bedroom and two closets
1	4	Downstairs bathroom
1	5	Stairway and Upstairs Bedroom
1	6	Attic East
1	7	Attic West
1	8	Upstairs Bathroom and Toilet
1	9	Crawlspace
1	10	Furnace system
2	1	A-Frame shed
3	1	Large shed

Law Enforcement Documentation

FACTs project name: Bluebird	Form # ML4
Date: October 1, 2010	
Reporting IH:	Caoimhín P. Connell, Forensic IH

Inventory of Reviewed Documents	No documents available
Described method(s) of production	No documents available
Chemicals identified by the LEA as being present	No documents available
Cooking areas identified	No documents available
Chemical storage areas identified	No documents available
LE Observation on areas of contamination or waste disposal	No documents available

FORENSIC APPLICATIONS CONSULTING TECHNOLOGIES, INC.

September 24, 2010

Sgt. Glenn Hardey
Park County Sheriff's Office
1180 CR 16
P.O. Box 604
Fairplay, CO 80440

Via Fax: 303-816-5911

Dear Sgt. Hardey:

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 Park County at:

20 Bluebird Lane, Bailey, CO

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 your office and review available information there.

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

We will be performing the on-site assessment on about Sept. 29, 2010 and would like to review any available documents before then. We apologize for the short notice, however, we generally do not have any control over the timeframes involved.

Forensic Applications takes extreme caution to protect all Law Enforcement Sensitive information. When requested by the Law Enforcement Agency, we do NOT reveal names, document identities, or include <u>any</u> information considered sensitive by an investigating agency. We have developed a close working relationship with Park County Sheriff's Office, and we value and respect that open line of communication. I have included my SOQ. Please feel free to call me directly with any comments or questions.

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

Sincerely,

Caoimhín P. Connell
Forensic Industrial Hygienist

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

Field Observations

FACTs project name: Bluebird	Form # ML5
Date: October 1, 2010	
Reporting IH:	Caoimhín P. Connell, Forensic IH

Structure: Residential

Indicator	Functional Space	Indicator	Functional Space
Acids	No comment	Lithium	No comment
Aerosol cans	No comment	Marijuana	No comment
Alcohols (MeOH, EtOH)	No comment	Match components	No comment
Ammonia	No comment	Mercury	No comment
Ammunition	No comment	Methamphetamine	All spaces
Artistic expressions	No comment	Modified coolers	No comment
Bags of salt	No comment	Modified electrical	No comment
Bases	No comment	Modified structure	No comment
Basters/Pipettes	No comment	Modified ventilation	No comment
Batteries	No comment	Needles/Syringes	No comment
Bi-phasic wastes	No comment	OTC Containers	No comment
Booby traps	No comment	OTC drugs	No comment
Bullet holes	No comment	pH papers/indicators	No comment
Burn marks	No comment	Phenyl-2-propanone	No comment
Cat litter	No comment	Pornography, Sex toys	No comment
Chemical storage	No comment	Prescription drugs	No comment
Colored wastes	No comment	Presence of cats	No comment
Corrosion on surfaces	No comment	Propane bottles	No comment
Death bag	No comment	Pseudoephedrine	No comment
Delaminating paint	No comment	Red P	No comment
Drug paraphernalia	No comment	Red Staining	No comment
Empty OTC Containers	No comment	Salters	No comment
Ephedrine	No comment	Security devices	No comment
Feces	No comment	Signs of violence	No comment
Filters	No comment	Smoke alarm disabled	No comment
Forced entry marks	No comment	Solvents - (organic)	No comment
Gang markings	No comment	Squalor	No comment
Gas cylinders	No comment	Staining on floors	No comment
Gerry cans	No comment	Staining on walls/ceiling	No comment
Glassware	No comment	Stash holes	No comment
Graffiti	No comment	Structure damage	No comment
Heating mantles	No comment	Tubing	No comment
Hidden items	No comment	Urine containers	No comment
Hydrogen peroxide	No comment	Weapons	No comment
Iodine	No comment	Window block material	No comment
Lead	No comment	Yellow staining	No comment

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

FACTs project name: Bluebird	Form # ML5
Date: October 1, 2010	
Reporting IH:	Caoimhín P. Connell, Forensic IH

Structure: A-Frame

Indicator	Functional Space	Indicator	Functional Space
Acids	No comment	Lithium	No comment
Aerosol cans	No comment	Marijuana	No comment
Alcohols (MeOH, EtOH)	No comment	Match components	No comment
Ammonia	No comment	Mercury	No comment
Ammunition	No comment	Methamphetamine	No comment
Artistic expressions	No comment	Modified coolers	No comment
Bags of salt	No comment	Modified electrical	No comment
Bases	No comment	Modified structure	No comment
Basters/Pipettes	No comment	Modified ventilation	No comment
Batteries	No comment	Needles/Syringes	No comment
Bi-phasic wastes	No comment	OTC Containers	No comment
Booby traps	No comment	OTC drugs	No comment
Bullet holes	No comment	pH papers/indicators	No comment
Burn marks	No comment	Phenyl-2-propanone	No comment
Cat litter	No comment	Pornography, Sex toys	No comment
Chemical storage	No comment	Prescription drugs	No comment
Colored wastes	No comment	Presence of cats	No comment
Corrosion on surfaces	No comment	Propane bottles	No comment
Death bag	No comment	Pseudoephedrine	No comment
Delaminating paint	No comment	Red P	No comment
Drug paraphernalia	No comment	Red Staining	No comment
Empty OTC Containers	No comment	Salters	No comment
Ephedrine	No comment	Security devices	No comment
Feces	No comment	Signs of violence	No comment
Filters	No comment	Smoke alarm disabled	No comment
Forced entry marks	No comment	Solvents - (organic)	No comment
Gang markings	No comment	Squalor	No comment
Gas cylinders	No comment	Staining on floors	No comment
Gerry cans	No comment	Staining on walls/ceiling	Present
Glassware	No comment	Stash holes	No comment
Graffiti	No comment	Structure damage	No comment
Heating mantles	No comment	Tubing	No comment
Hidden items	No comment	Urine containers	No comment
Hydrogen peroxide	No comment	Weapons	No comment
Iodine	No comment	Window block material	No comment
Lead	No comment	Yellow staining	No comment

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

FACTs project name: Bluebird	Form # ML5
Date: October 1, 2010	
Reporting IH:	Caoimhín P. Connell, Forensic IH

Structure: Large Shed

Indicator	Functional Space	Indicator	Functional Space
Acids	No comment	Lithium	No comment
Aerosol cans	No comment	Marijuana	No comment
Alcohols (MeOH, EtOH)	No comment	Match components	No comment
Ammonia	No comment	Mercury	No comment
Ammunition	No comment	Methamphetamine	Present
Artistic expressions	No comment	Modified coolers	No comment
Bags of salt	No comment	Modified electrical	No comment
Bases	No comment	Modified structure	No comment
Basters/Pipettes	No comment	Modified ventilation	No comment
Batteries	No comment	Needles/Syringes	No comment
Bi-phasic wastes	No comment	OTC Containers	No comment
Booby traps	No comment	OTC drugs	No comment
Bullet holes	No comment	pH papers/indicators	No comment
Burn marks	No comment	Phenyl-2-propanone	No comment
Cat litter	No comment	Pornography, Sex toys	No comment
Chemical storage	No comment	Prescription drugs	No comment
Colored wastes	No comment	Presence of cats	No comment
Corrosion on surfaces	No comment	Propane bottles	No comment
Death bag	No comment	Pseudoephedrine	No comment
Delaminating paint	No comment	Red P	No comment
Drug paraphernalia	No comment	Red Staining	Present
Empty OTC Containers	No comment	Salters	No comment
Ephedrine	No comment	Security devices	No comment
Feces	No comment	Signs of violence	No comment
Filters	No comment	Smoke alarm disabled	No comment
Forced entry marks	No comment	Solvents - (organic)	No comment
Gang markings	No comment	Squalor	No comment
Gas cylinders	No comment	Staining on floors	Present
Gerry cans	No comment	Staining on walls/ceiling	Present
Glassware	No comment	Stash holes	No comment
Graffiti	No comment	Structure damage	No comment
Heating mantles	No comment	Tubing	No comment
Hidden items	No comment	Urine containers	No comment
Hydrogen peroxide	No comment	Weapons	No comment
Iodine	No comment	Window block material	No comment
Lead	No comment	Yellow staining	No comment

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

Contaminant Migration Observations

FACTs project name: Bluebird	Form # ML6
Date: October 1, 2010	
Reporting IH:	Caoimhín P. Connell, Forensic IH

Describe/identify adjacent areas where contaminants may have migrated.

See body of report

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

Describe the area:_____

_____

_____

_____

Individual Sewage Disposal System Field Form

FACTs project name: Bluebird	**Form # ML7**
Date: October 1, 2010	
Reporting IH:	**Caoimhín 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	
Is there evidence of wastes being disposed down internal drains	X		
Are solvent odors present from the external sewer drain stacks			X
Was the septic tank lid(s) accessible	X		
Was the leach field line accessible		X	
Was the septic tank or leach field lines opened	X		
Are solvent odors present from the leach field lines (if "yes" see below)		X	
Are solvent odors present from the septic tank (if "yes" see below)		X	
Is "slick" present in the septic tank		X	
Are biphasic (aqueous-organic) layers present in the septic tank		X	
Was pH measured in the septic tank	X		
Were organic vapors measured in the septic tank (if "yes" see below)	X		
Is sampling of the ISDS warranted		X	
Were calawasi/drum thief samples collected from the septic tank	X		

*NC = Not checked

Qualitative Organic Vapor Monitoring

Instrument Type	Make and Model
Hydrocarbon detector	EnMet Target Series, MOS detector
Wet chemistry titrations	Taylor Industries

Sample Location	MOS*	PID*	FID*
All internal sinks	<1	NA	
Soils surrounding leach field (see body of report for explanation)	<1- 200		
Septic tank	5		

*Units of measurement are in parts per million equivalents compared to the toluene calibration vapor. Detection limit 1 ppm

Locator Notes:
EMLCFM 01710 UNCCa 09/24/10 01:00 PM A0285641-00A NORM NEW STRT LREQ
Ticket Nbr: A0285641-00A
Original Call Date: 09/24/10 Time: 01:00 PM Op: GJH
Locate By Date : 09/28/10 Time: 11:59 PM Meet: N Extended job: N
State: CO County: PARK City: Addr: 20 Street: BLUEBIRD LN
Grids: 07S072W27NE : : Legal: Y
Lat/Long: 39.414375/-105.436346 39.414375/-105.434485
: 39.412820/-105.436346 39.412820/-105.434485
Type of Work: SOIL TEST/GAS Exp.: N Boring: N
Location: LOC ENTIRE LOT *ACCESS OPEN*
Company : FORENSIC APPLICATIONS Type: OTHR
Caller : CAOIMHIN CONNELL Phone: (303)816-1086
Fax: (303)568-0489 Email: INFO@FORENSIC-APPLICATIONS.COM
Done for: RICHARD WHITE- H/O
Remarks: Members CONG1A = COLORADO NATL GAS, INC QLNCSD0= QWEST LOCAL NETWORK
You are responsible for contacting any other utilities that are not listed above
including the following tier 2 members not notified by the center:
PARK01 PARK COUNTY ROAD & BRIDGE (719)836-4282 (Contacted by FACTs 9/27/10 – No interests in study area)

Pre-Remediation Photograph Log Sheet

FACTs project name: Bluebird	Form # ML8
Date: October 1, 2010	
Reporting IH:	Caoimhín P. Connell, Forensic IH

Name	Date taken
A-frame	10/1/2010 13:56 PM
A-frame a	10/1/2010 13:56 PM
A-frame b	10/1/2010 13:56 PM
A-frame sample #7	10/1/2010 13:57 PM
Bluebird ladder	10/1/2010 11:06 AM
Crawlspace	10/1/2010 12:59 PM
Crawlspace a	10/1/2010 12:59 PM
Crawlspace b	10/1/2010 13:00 PM
Crawlspace c	10/1/2010 13:00 PM
Crawlspace d	10/1/2010 13:00 PM
Crawlspace e	10/1/2010 13:01 PM
Crawlspace f	10/1/2010 13:01 PM
Crawlspace sample #4	10/1/2010 13:05 PM
Crawlspace sample #4a	10/1/2010 13:16 PM
Crawlspace Sample #4b	10/1/2010 13:16 PM
Crawlspace Sample #4c	10/1/2010 13:17 PM
Crawlspcae Sample #4d	10/1/2010 13:22 PM
Dining room	10/1/2010 11:33 AM
Dining room a	10/1/2010 11:33 AM
Dining room b	10/1/2010 11:36 AM
Dining room c	10/1/2010 11:36 AM
Dining room e	10/1/2010 11:36 AM

Name	Date taken
DS BR	10/1/2010 11:35 AM
DS BR a	10/1/2010 11:35 AM
DS BR b	10/1/2010 11:35 AM
DS BR Bath	10/1/2010 11:35 AM
DS BR Bath a	10/1/2010 11:36 AM
DS BR Bath b	10/1/2010 11:36 AM
DS BR Bath c	10/1/2010 11:36 AM
DS BR Bath e	10/1/2010 11:36 AM
DS BR c	10/1/2010 11:35 AM
DS BR d	10/1/2010 11:35 AM
DS BR e	10/1/2010 11:35 AM
DS BR f	10/1/2010 11:35 AM
DS BR g	10/1/2010 11:36 AM
DS BR h	10/1/2010 11:36 AM
E Attic	10/1/2010 12:23 PM
E Attic a	10/1/2010 12:23 PM
E Attic b	10/1/2010 12:26 PM
E Attic sample #1	10/1/2010 12:24 PM
E Attic Sample #1a	10/1/2010 12:24 PM
Exterior	10/1/2010 11:23 AM
Exterior a	10/1/2010 11:23 AM
Exterior b	10/1/2010 11:23 AM

Pre-Remediation Photograph Log Sheet

FACTs project name: Bluebird	Form # ML8
Date: October 1, 2010	
Reporting IH:	Caoimhín P. Connell, Forensic IH

Name	Date taken
Exterior c	10/1/2010 11:26 AM
Exterior d	10/1/2010 11:27 AM
Exterior e	10/1/2010 11:27 AM
Exterior f	10/1/2010 11:27 AM
Exterior g	10/1/2010 11:27 AM
Exterior h	10/1/2010 11:27 AM
Exterior i	10/1/2010 11:27 AM
Exterior j	10/1/2010 11:27 AM
Exterior k	10/1/2010 11:27 AM
Exterior l	10/1/2010 11:28 AM
Exterior m	10/1/2010 11:28 AM
Exterior n	10/1/2010 11:28 AM
Exterior o	10/1/2010 11:28 AM
Exterior p	10/1/2010 11:28 AM
Exterior q	10/1/2010 11:28 AM
Exterior r	10/1/2010 11:29 AM
Exterior s	10/1/2010 11:29 AM
Exterior t	10/1/2010 11:30 AM
Exterior u	10/1/2010 13:57 PM
Gloves	10/1/2010 13:28 PM
Hall	10/1/2010 11:33 AM
Hall a	10/1/2010 11:34 AM

Name	Date taken
Hall b	10/1/2010 11:34 AM
Kitchen	10/1/2010 11:33 AM
Kitchen a	10/1/2010 11:33 AM
Kitchen b	10/1/2010 11:33 AM
Kitchen c	10/1/2010 11:33 AM
Kitchen d	10/1/2010 11:33 AM
Kitchen e	10/1/2010 11:33 AM
Kitchen f	10/1/2010 11:34 AM
Kitchen g	10/1/2010 12:14 PM
Kitchen h	10/1/2010 12:14 PM
Kitchen i	10/1/2010 12:14 PM
Kitchen j	10/1/2010 12:14 PM
Laundry	10/1/2010 11:34 AM
Laundry a	10/1/2010 11:34 AM
LR	10/1/2010 11:33 AM
LR a	10/1/2010 11:34 AM
LR b	10/1/2010 11:34 AM
LR c	10/1/2010 11:34 AM
LR d	10/1/2010 11:36 AM
Master Bath	10/1/2010 11:38 AM
Master Bath a	10/1/2010 11:38 AM
Master Bath b	10/1/2010 11:39 AM

Pre-Remediation Photograph Log Sheet

FACTs project name: Bluebird	Form # ML8
Date: October 1, 2010	
Reporting IH:	Caoimhín P. Connell, Forensic IH

Name	Date taken
Master Bath c	10/1/2010 11:39 AM
Master Bath d	10/1/2010 11:39 AM
Master Bath e	10/1/2010 11:39 AM
Master Bath f	10/1/2010 11:39 AM
Master Bath g	10/1/2010 11:39 AM
Master Bath h	10/1/2010 11:39 AM
Master Bath i	10/1/2010 11:39 AM
Master Bath j	10/1/2010 11:39 AM
Master Bath k	10/1/2010 12:15 PM
Master Bath l	10/1/2010 12:15 PM
Master BR	10/1/2010 11:37 AM
Master BR a	10/1/2010 11:37 AM
Master BR b	10/1/2010 11:37 AM
Master BR c	10/1/2010 11:37 AM
Master BR d	10/1/2010 11:37 AM
Master BR e	10/1/2010 11:37 AM
Master BR f	10/1/2010 11:37 AM
Master BR g	10/1/2010 11:38 AM
Master BR h	10/1/2010 11:38 AM
Master BR i	10/1/2010 11:38 AM
Master BR j	10/1/2010 11:38 AM
Master BR k	10/1/2010 11:38 AM

Name	Date taken
Mud room	10/1/2010 11:35 AM
Mud room a	10/1/2010 11:35 AM
Mud room b	10/1/2010 11:35 AM
Septic	10/1/2010 11:23 AM
Septic a	10/1/2010 11:23 AM
Septic aa	10/1/2010 11:51 AM
Septic aaa	10/1/2010 13:32 PM
Septic b	10/1/2010 11:25 AM
Septic bb	10/1/2010 11:51 AM
Septic bbb	10/1/2010 13:32 PM
Septic c	10/1/2010 11:25 AM
Septic cc	10/1/2010 11:51 AM
Septic ccc	10/1/2010 13:35 PM
Septic d	10/1/2010 11:29 AM
Septic dd	10/1/2010 11:51 AM
Septic ddd	10/1/2010 13:37 PM
Septic e	10/1/2010 11:38 AM
Septic ee	10/1/2010 11:52 AM
Septic eee	10/1/2010 13:38 PM
Septic f	10/1/2010 11:44 AM
Septic ff	10/1/2010 11:52 AM
Septic fff	10/1/2010 13:38 PM

Pre-Remediation Photograph Log Sheet

FACTs project name: Bluebird	Form # ML8
Date: October 1, 2010	
Reporting IH:	Caoimhín P. Connell, Forensic IH

Name	Date taken
Septic g	10/1/2010 11:44 AM
Septic gg	10/1/2010 11:53 AM
Septic ggg	10/1/2010 14:07 PM
Septic h	10/1/2010 11:45 AM
Septic hh	10/1/2010 11:53 AM
Septic i	10/1/2010 11:45 AM
Septic ii	10/1/2010 11:54 AM
Septic j	10/1/2010 11:45 AM
Septic jj	10/1/2010 11:58 AM
Septic k	10/1/2010 11:45 AM
Septic kk	10/1/2010 11:58 AM
Septic l	10/1/2010 11:45 AM
Septic ll	10/1/2010 11:58 AM
Septic m	10/1/2010 11:46 AM
Septic mm	10/1/2010 11:58 AM
Septic n	10/1/2010 11:47 AM
Septic nn	10/1/2010 11:58 AM
Septic o	10/1/2010 11:47 AM
Septic oo	10/1/2010 12:00 PM
Septic p	10/1/2010 11:47 AM
Septic pp	10/1/2010 12:01 PM
Septic q	10/1/2010 11:48 AM

Name	Date taken
Septic qq	10/1/2010 12:01 PM
Septic r	10/1/2010 11:49 AM
Septic rr	10/1/2010 12:01 PM
Septic s	10/1/2010 11:49 AM
Septic ss	10/1/2010 12:29 PM
Septic t	10/1/2010 11:49 AM
Septic tt	10/1/2010 12:29 PM
Septic u	10/1/2010 11:49 AM
Septic uu	10/1/2010 12:30 PM
Septic v	10/1/2010 11:49 AM
Septic vv	10/1/2010 12:30 PM
Septic w	10/1/2010 11:49 AM
Septic ww	10/1/2010 12:30 PM
Septic x	10/1/2010 11:49 AM
Septic xx	10/1/2010 12:31 PM
Septic y	10/1/2010 11:50 AM
Septic yy	10/1/2010 12:32 PM
Septic z	10/1/2010 11:50 AM
Septic zz	10/1/2010 12:37 PM
Shed	10/1/2010 13:50 PM
Shed a	10/1/2010 13:50 PM
Shed b	10/1/2010 13:50 PM

Pre-Remediation Photograph Log Sheet

FACTs project name: Bluebird	Form # ML8
Date: October 1, 2010	
Reporting IH:	Caoimhín P. Connell, Forensic IH

Name	Date taken
Shed sample #6	10/1/2010 13:54 PM
Shed sample #6a	10/1/2010 13:54 PM
Shed sample #6b	10/1/2010 13:54 PM
Shed sample #6c	10/1/2010 13:55 PM
Soil sample	10/5/2010 11:26 AM
Soil sample (2)	10/5/2010 11:27 AM
Soil sample (3)	10/5/2010 11:28 AM
Soil sample (4)	10/5/2010 11:29 AM
Soil sample (5)	10/5/2010 11:29 AM
Soil sample (6)	10/5/2010 11:29 AM
Soil sample (7)	10/5/2010 11:30 AM
Soil sample (8)	10/5/2010 11:32 AM
Soil sample (9)	10/5/2010 11:33 AM
Soil sample (10)	10/5/2010 11:34 AM
Soil sample (11)	10/5/2010 11:35 AM
Soil sample (12)	10/5/2010 11:35 AM
Soil sample (13)	10/5/2010 11:36 AM
Soil sample (14)	10/5/2010 11:38 AM
Soil sample (15)	10/5/2010 11:38 AM
Stairs UP	10/1/2010 11:36 AM
Stairs UP a	10/1/2010 11:37 AM
Stairs UP b	10/1/2010 11:37 AM

Name	Date taken
Soil sample (3)	10/5/2010 11:28 AM
Soil sample (4)	10/5/2010 11:29 AM
Soil sample (5)	10/5/2010 11:29 AM
Soil sample (6)	10/5/2010 11:29 AM
Soil sample (7)	10/5/2010 11:30 AM
Soil sample (8)	10/5/2010 11:32 AM
Soil sample (9)	10/5/2010 11:33 AM
Soil sample (10)	10/5/2010 11:34 AM
Soil sample (11)	10/5/2010 11:35 AM
Soil sample (12)	10/5/2010 11:35 AM
Soil sample (13)	10/5/2010 11:36 AM
Soil sample (14)	10/5/2010 11:38 AM
Soil sample (15)	10/5/2010 11:38 AM
Stairs UP	10/1/2010 11:36 AM
Stairs UP a	10/1/2010 11:37 AM
Stairs UP b	10/1/2010 11:37 AM
Stairs UP c	10/1/2010 11:37 AM
W Attic	10/1/2010 12:54 PM
W Attic a	10/1/2010 12:55 PM
W Attic b	10/1/2010 12:55 PM
W Attic Sample #2	10/1/2010 12:56 PM
W Attic Sample #2a	10/1/2010 12:56 PM

Drawing of Cook Area(s)

FACTs project name: Bluebird	Form # ML10
Date: October 1, 2010	
Reporting IH:	Caoimhín P. Connell, Forensic IH

See body of report

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

Describe the area:_____

_____

_____

_____

Drawing of Storage/Disposal Area(s)

FACTs project name: Bluebird	Form # ML11
Date: October 1, 2010	
Reporting IH:	Caoimhín P. Connell, Forensic IH

See body of report

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

Describe the area:_____

_____

_____

_____

Drawing of General Lab Area

FACTs project name: Bluebird	Form # ML12
Date: October 1, 2010	
Reporting IH:	Caoimhín P. Connell, Forensic IH

See body of report

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

Describe the area:_____

_____

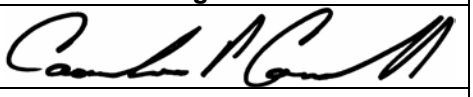
_____

_____

Certification, Variations and Signature sheet

FACTs project name: Bluebird	**Form # ML14**
Date: October 15, 2010	
Reporting IH:	**Caoimhín P. Connell, Forensic IH**

Certification

Statement	Signature
I do hereby certify that I conducted a preliminary assessment of the subject property in accordance with 6 CCR 1014-3, § 4.	
~~I do hereby certify that the property has been decontaminated in accordance with the procedures set forth in 6 CCR 1014-3, § 5.~~	XXXXXXXXXXXXX
~~I do hereby certify that I conducted post-decontamination clearance sampling in accordance with 6 CCR 1014-3, §6.~~	
~~I do hereby certify that the cleanup standards established by 6 CCR 1014-3, § 7 have been met as evidenced by testing I conducted~~.	
I do hereby certify that the analytical results reported here are faithfully reproduced.	

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

De minimis variations, based on professional judgment, as described in the body of the report.

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

Signature  Date: October 15, 2010

FORENSIC APPLICATIONS CONSULTING TECHNOLOGIES, INC.

CONSULTANT STATEMENT OF QUALIFICATIONS

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

FACTs project name:	**Bluebird**	**Form # ML15**
Date: October 15, 2010		
Reporting IH:	**Caoimhín P. Connell, Forensic IH**	

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

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

Mr. Connell is Colorado's only private consulting Industrial Hygienist certified by the Office of National Drug Control Policy High Intensity Drug Trafficking Area Clandestine Drug Lab Safety Program, and P.O.S.T. certified by the Colorado Department of Law; he is a member of the Colorado Drug Investigators Association, the American Industrial Hygiene Association (where he serves on the Clandestine Drug Lab Work Group), and the Occupational Hygiene Society of Ireland. Mr. Connell is an Subject Matter Expert for the Department of Homeland Security, IAB Health, Medical, and Responder Safety SubGroup, and he conducted the May 2010 Clandestine Drug Lab Professional Development Course for the American Industrial Hygiene Association.

He has received over 128 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 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 200 assessments in illegal drug labs, and collected over 1,900 samples during assessments (a detailed list of drug lab experience is available on the web at: http://forensic-applications.com/meth/DrugLabExperience2.pdf

He has extensive experience performing assessments pursuant to the Colorado meth-lab regulation, 6 CCR 1014-3, (State Board Of Health *Regulations Pertaining to the Cleanup of Methamphetamine Laboratories*) and was an original team member on two of the legislative working-groups which wrote the regulations for the State of Colorado. Mr. Connell was the primary contributing author of Appendix A (*Sampling Methods And Procedures*) and Attachment to Appendix A (*Sampling Methods And Procedures Sampling Theory*) of the Colorado regulations. He has provided expert witness testimony in civil cases and testified before the Colorado Board of Health and Colorado Legislature Judicial Committee regarding methlab issues. Mr. Connell has provided services to private consumers, Indian Nations, state officials and Federal Government representatives with forensic services and 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 a coauthor of a 2007 AIHA Publication on methlab assessment and remediation.

Appendix B

Analytical Reports for FACTs Samples

Sampling Field Form

FACTs project name: Bluebird	**Form # ML17**
Date: October 1, 2010	**Alcohol Lot#: A1ØØ1 Gauze Lot#: G1ØØ5**
Reporting IH: Caoimhín P. Connell, Forensic IH	**Preliminary _____ Intermediate____ Final____**

Sample ID BM1ØØ11Ø -	Type	Location	Funct. Space	Dimensions	Substrate
-Ø1	W	East attic, north end, top of ventilation duct	6	18" X 4.5"	M
-Ø2	W	West attic, far north end, top of metalsized debris	7	9" X 9"	M
-Ø3	W	BX	NA	NA	NA
-Ø4	W	Crawlspace, central area top of duct work	9	4" X 20"	M
-Ø5	W	Furnace system, interior of furnace fan housing	10	6" X 20"	M
-Ø6	W	Large shed, pegged jacket holder	3/1	See note	VW
-Ø7	W	A-Frame, finished OSB	2/1	9" X 9"	Treated wood
-Ø8					
-Ø9					
-1Ø					

Sample Types: W=Wipe; V=Microvacuum; A=Air; B=Bulk; L=liquid
Surfaces: DW= Drywall, P=Painted; W= Wood, L= Laminated, V= Varnished, M= Metal, C=Ceramic, Pl=Plastic

-04 10% under sampled

-05 25% under sampled

-06= (50" X 1")+((4" X 0.5")X19)+(5.5" X 3")

ANALYTICAL CHEMISTRY INC.

Established in 1979

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

Phone: 206-622-8353
Website: www.acilabs.com E-mail: info@acilabs.com

Lab Reference:	10160-05
Date Received:	October 4, 2010
Date Completed:	October 5, 2010

October 5, 2010

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

CLIENT REF: Bluebird

SAMPLES: wipes/7

ANALYSIS: Methamphetamine by Gas Chromatography-Mass Spectrometry.

RESULTS: in total micrograms (ug)

Sample	***Methamphetamine, ug***	*% Surrogate Recovery*
BM100110-01	11.1	91
BM100110-02	18.6	82
BM100110-03	< 0.030	88
BM100110-04	15.9	119
BM100110-05	13.7	99
BM100110-06	0.089	82
BM100110-07	< 0.030	84
QA/QC Method Blank	< 0.004	
QC 0.100 ug Standard	0.099	
QA 0.020 ug Matrix Spike	0.023	
QA 0.020 ug Matrix Spike Duplicate	0.020	
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.

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

Please do not write in shaded areas.

				ANALYSIS REQUESTED	
SAMPLING DATE:	October 1 , 2010	REPORT TO:	Caoimhín P. Connell	1	Methamphetamine
PROJECT Name/No:	Bluebird	COMPANY:	Forensic Applications, Inc.	2	Use entire contents
eMail:	Fiosrach@aol.com	ADDRESS:	185 Bounty Hunters Lane, Bailey, CO 80421	3	Normal Turn-around time
				4	RUSH
SAMPLER NAME:	Caoimhín P. Connell	PHONE	303-903-7494	5	Weigh and report in mg
				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			
B1	BM10011Ø- Ø1	X			X	X	X						1
B2	BM10011Ø- Ø2	X			X	X	X						1
B3	BM10011Ø- Ø3	X			X	X	X						1
B4	BM10011Ø- Ø4	X			X	X	X						1
B5	BM10011Ø- Ø5	X			X	X	X						1
B6	BM10011Ø- Ø6	X			X	X	X						1
B7	BM10011Ø- Ø7	X			X	X	X						1
	BM10011Ø- Ø8	X			X	X	X			X			
	BM10011Ø- Ø9	X			X	X	X			X			
	BM10011Ø- 1Ø	X			X	X	X			X			

CHAIN OF CUSTODY RECORD — Wipes Results in: ☐ µg/100cm² ☒ Total µg — Total Number of Containers (verified by laboratory): 7

PRINT NAME	Signature	COMPANY	DATE	TIME	Turnaround Time
Caoimhín P. Connell		FACTs, Inc.	10/01/2010	4pm	☐ 24 Hours (2X)
MIA SAZON		ACI	10/4/10	1500	☐ 2 Days (1.75X)
					☐ 3 Days (1.5X)
					X Routine

Custody Seals:	Yes	No
Container:	Intact	Broken
Temperature:	Ambient	Cooled
Inspected By:	MIA SAZON	
Lab File No.	10160-05	

ANALYTICAL CHEMISTRY INC.

Established in 1979

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

Website: www.acilabs.com

Phone: 206-622-8353
E-mail: info@acilabs.com

Lab Reference:	10157-09
Date Received:	September 20, 2010
Date Completed:	September 21, 2010

September 22, 2010

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

CLIENT REF: Bluebird

SAMPLES: wipes/2

ANALYSIS: Methamphetamine by Gas Chromatography-Mass Spectrometry.

RESULTS: in total micrograms (ug)

Sample	***Methamphetamine, ug***	***% Surrogate Recovery***
BM091710-01	10.1	106
BM091710-02	7.40	110
QA/QC Method Blank	< 0.004	
QC 2.00 ug Standard	1.88	
QA 0.020 ug Matrix Spike	0.021	
QA 0.020 ug Matrix Spike Duplicate	0.020	
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.

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

Please do not write in shaded areas.

				ANALYSIS REQUESTED	
SAMPLING DATE:	9,17, 2010	REPORT TO:	Caoimhín P. Connell	1	Methamphetamine
PROJECT Name/No:	BLUEBIRD	COMPANY:	Forensic Applications, Inc.	2	Use entire contents
eMail:	Fiosrach@aol.com	ADDRESS:	185 Bounty Hunters Lane, Bailey, CO 80421	3	Normal Turn-around time
				4	RUSH
SAMPLER NAME:	Caoimhín P. Connell	PHONE	303-903-7494	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			
	BM091710-01	X			X	X	X						1
	-02	X			X	X	X						1

CHAIN OF CUSTODY RECORD

Wipes Results in: ☐ µg/100cm² ☒ Total µg

Total Number of Containers (verified by laboratory): 2

PRINT NAME	Signature	COMPANY	DATE	TIME	Turnaround Time
Caoimhín P. Connell		FACTs, Inc.	9/17/2010	15:00	☐ 24 Hours (2X)
MIA SAZON		ACI	9/20/10	1400	☐ 2 Days (1.75X)
					☐ 3 Days (1.5X)
					☒ Routine

Custody Seals:	Yes	No
Container:	Intact	Broken
Temperature:	Ambient	Cooled
Inspected By:	MIA SAZON	
Lab File No.	10157-09	

Mountain States ACCUTEST LABORATORIES

10/13/10

Technical Report for

Forensic Application

Forensic Appl

Bluebird

Accutest Job Number: D17959

Sampling Date: 10/05/10

Report to:

Forensic Applications

admin@forensic-applications.com

ATTN: Caoimhin Connell

Total number of pages in report: **16**

ACCREDITED IN ACCORDANCE WITH nelac

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

John Hamilton
Laboratory Director

Client Service contact: Shea Greiner 303-425-6021

Certifications: CO, ID, NE, NM, ND (R-027) (PW) UT (NELAP CO00049)

Test results relate only to samples analyzed.

Sections: 1 2 3 4 5

Table of Contents

Sample Summary

Forensic Application

Job No: D17959

Forensic Appl
Project No: Bluebird

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
D17959-1	10/05/10	10:30	Q	10/05/10	SO	Soil	BM100510-01

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	Forensic Application	**Job No**	D17959
Site:	Forensic Appl	**Report Dat**	10/13/2010 9:51:55 AM

On 10/05/2010, one (1) sample, 0 Trip Blanks, and 0 Field Blanks were received at Accutest Mountain States (AMS) at a temperature of 14.5°C. The sample was intact and properly preserved, unless noted below. An AMS Job Number of D17959 was assigned to the project. The lab sample ID, client sample ID, and date of sample collection are detailed in the report's Results Summary.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Volatiles by GCMS By Method SW846 8260B

Matrix SO **Batch ID:** V3V409

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Samples D18004-12MS and D18004-12MSD were used as the QC samples indicated.
- The matrix spike and matrix spike duplicate (MS/MSD) recovery of 1,1,2-Trichloroethane are outside control limits. Outside control limits due to matrix interference.
- The RPD for the MS and MSD recoveries of 1,1,2-Trichloroethane are outside control limits for sample D18004-12MSD. Probable cause due to sample homogeneity.

Wet Chemistry By Method SM19 2540B M

Matrix SO **Batch ID:** GN6697

- The data for SM19 2540B M meets quality control requirements.

AMS certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting AMS's Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

AMS is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. This report is authorized by AMS indicated via signature on the report cover.

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	BM100510-01		
Lab Sample ID:	D17959-1	**Date Sampled:**	10/05/10
Matrix:	SO - Soil	**Date Received:**	10/05/10
Method:	SW846 8260B	**Percent Solids:**	96.9
Project:	Forensic Appl		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3V07625.D	1	10/11/10	DC	n/a	n/a	V3V409
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.00 g	5.0 ml	100 ul
Run #2			

VOA HSL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	1100	530	ug/kg	
71-43-2	Benzene	ND	53	16	ug/kg	
75-27-4	Bromodichloromethane	ND	270	110	ug/kg	
75-25-2	Bromoform	ND	270	110	ug/kg	
108-90-7	Chlorobenzene	ND	270	110	ug/kg	
75-00-3	Chloroethane	ND	270	110	ug/kg	
67-66-3	Chloroform	ND	270	53	ug/kg	
110-75-8	2-Chloroethyl vinyl ether	ND	1100	640	ug/kg	
75-15-0	Carbon disulfide	ND	270	110	ug/kg	
56-23-5	Carbon tetrachloride	ND	270	110	ug/kg	
75-34-3	1,1-Dichloroethane	ND	270	110	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	270	110	ug/kg	
107-06-2	1,2-Dichloroethane	ND	270	53	ug/kg	
78-87-5	1,2-Dichloropropane	ND	270	110	ug/kg	
124-48-1	Dibromochloromethane	ND	270	110	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	270	110	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	270	110	ug/kg	
541-73-1	m-Dichlorobenzene	ND	270	110	ug/kg	
95-50-1	o-Dichlorobenzene	ND	270	110	ug/kg	
106-46-7	p-Dichlorobenzene	ND	270	110	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	270	110	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	270	110	ug/kg	
100-41-4	Ethylbenzene	ND	110	21	ug/kg	
591-78-6	2-Hexanone	ND	1100	160	ug/kg	
108-10-1	4-Methyl-2-pentanone	ND	1100	160	ug/kg	
74-83-9	Methyl bromide	ND	270	110	ug/kg	
74-87-3	Methyl chloride	ND	270	110	ug/kg	
75-09-2	Methylene chloride	ND	270	110	ug/kg	
78-93-3	Methyl ethyl ketone	ND	1100	210	ug/kg	
100-42-5	Styrene	ND	270	110	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	270	53	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	530	110	ug/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BM100510-01		
Lab Sample ID:	D17959-1	**Date Sampled:**	10/05/10
Matrix:	SO - Soil	**Date Received:**	10/05/10
Method:	SW846 8260B	**Percent Solids:**	96.9
Project:	Forensic Appl		

VOA HSL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	270	110	ug/kg	
127-18-4	Tetrachloroethylene	ND	270	110	ug/kg	
108-88-3	Toluene	ND	110	53	ug/kg	
79-01-6	Trichloroethylene	ND	270	53	ug/kg	
75-01-4	Vinyl chloride	ND	270	110	ug/kg	
108-05-4	Vinyl Acetate	ND	1100	430	ug/kg	
1330-20-7	Xylene (total)	ND	110	37	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	87%		70-130%
460-00-4	4-Bromofluorobenzene	84%		70-130%
17060-07-0	1,2-Dichloroethane-D4	87%		70-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Mountain States ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

ACCUTEST Laboratories

CHAIN OF CUSTODY

4036 Youngfield Street, Wheat Ridge, Colorado 80033
TEL. 303-425-6021; 877-737-4521 FAX: 303-425-6854
www.accutest.com

D17959
D17958

PAGE 1 OF 1

FED-EX Tracking # | Bottle Order Control #
Accutest Quote # | Accutest Job #

Client / Reporting Information

Company Name: Forensic Application
Street Address: 185 Bounty Hunters Ln
City: Bailey State: CO Zip: 80421
Project Contact: Cadimhin Connell E-mail:
Phone #: 303-903-7494 Fax #:
Sampler(s) Name(s): C.Connell Phone #:

Project Information

Project Name: Bluebird
Street:
City: State:
Project #:
Client Purchase Order #:
Project Manager:

Billing Information (If different from Report to)

Company Name:
Street Address:
City: State: Zip:
Attention:

Requested Analysis (see TEST CODE sheet): V8260 HSL

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL- Sludge
SED-Sediment
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe
FB-Field Blank
EB-Equipment Blank
RB- Rinse Blank
TB-Trip Blank

Accutest Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	V8260 HSL	LAB USE ONLY
	BM100510-01		10/5/10	10:30A	Q	SO	1										01

Turnaround Time (Business days)

- [x] Std. 10 Business Days
- [ ] UST Analysis 3-5 Days
- [ ] 6 - 9 Day *RUSH*
- [ ] 3 - 5 Day *RUSH*
- [ ] 2 Day *EMERGENCY*
- [ ] 1 Day *EMERGENCY*

Emergency & Rush T/A data available VIA Lablink

Approved By (Accutest PM): / Date:

Data Deliverable Information

- [ ] Level 1
- [x] Level 2
- [ ] Level 3
- [ ] Level 4
- [ ] PDF
- [ ] EDD Format
- [ ] Other

Level 1 = Results Only
Level 2 = Results + QC Summary + Case Narrative
Level 3 = Results + QC Summary + Partial Raw data
Level 4 = Full Deliverable

Comments / Special Instructions

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1 C.A. Cary Connell	10/5/2010 2:03P	1 S. Dreiner 10/5/2010 2:03P	2		2
Relinquished by Sampler: 3	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
Relinquished by: 5	Date Time:	Received By: 5	Custody Seal #	[x] Intact [ ] Not intact	Preserved where applicable [x] On Ice [x] Cooler Temp. 14.5

4.1

4

D17959: Chain of Custody
Page 1 of 1

Mountain States ACCUTEST LABORATORIES

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: D17959
Account: FORENCOB Forensic Application
Project: Forensic Appl

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3V409-MB1	3V07610.D	1	10/11/10	DC	n/a	n/a	V3V409

The QC reported here applies to the following samples: **Method:** SW846 8260B

D17959-1

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	1000	500	ug/kg	
71-43-2	Benzene	ND	50	15	ug/kg	
75-27-4	Bromodichloromethane	ND	250	100	ug/kg	
75-25-2	Bromoform	ND	250	100	ug/kg	
108-90-7	Chlorobenzene	ND	250	100	ug/kg	
75-00-3	Chloroethane	ND	250	100	ug/kg	
67-66-3	Chloroform	ND	250	50	ug/kg	
110-75-8	2-Chloroethyl vinyl ether	ND	1000	600	ug/kg	
75-15-0	Carbon disulfide	ND	250	100	ug/kg	
56-23-5	Carbon tetrachloride	ND	250	100	ug/kg	
75-34-3	1,1-Dichloroethane	ND	250	100	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	250	100	ug/kg	
107-06-2	1,2-Dichloroethane	ND	250	50	ug/kg	
78-87-5	1,2-Dichloropropane	ND	250	100	ug/kg	
124-48-1	Dibromochloromethane	ND	250	100	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	250	100	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	250	100	ug/kg	
541-73-1	m-Dichlorobenzene	ND	250	100	ug/kg	
95-50-1	o-Dichlorobenzene	ND	250	100	ug/kg	
106-46-7	p-Dichlorobenzene	ND	250	100	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	250	100	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	250	100	ug/kg	
100-41-4	Ethylbenzene	ND	100	20	ug/kg	
591-78-6	2-Hexanone	ND	1000	150	ug/kg	
108-10-1	4-Methyl-2-pentanone	ND	1000	150	ug/kg	
74-83-9	Methyl bromide	ND	250	100	ug/kg	
74-87-3	Methyl chloride	ND	250	100	ug/kg	
75-09-2	Methylene chloride	ND	250	100	ug/kg	
78-93-3	Methyl ethyl ketone	ND	1000	200	ug/kg	
100-42-5	Styrene	ND	250	100	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	250	50	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	500	100	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	250	100	ug/kg	
127-18-4	Tetrachloroethylene	ND	250	100	ug/kg	
108-88-3	Toluene	ND	100	50	ug/kg	
79-01-6	Trichloroethylene	ND	250	50	ug/kg	

Method Blank Summary

Job Number: D17959
Account: FORENCOB Forensic Application
Project: Forensic Appl

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3V409-MB1	3V07610.D	1	10/11/10	DC	n/a	n/a	V3V409

The QC reported here applies to the following samples: **Method:** SW846 8260B

D17959-1

CAS No.	Compound	Result	RL	MDL	Units	Q
75-01-4	Vinyl chloride	ND	250	100	ug/kg	
108-05-4	Vinyl Acetate	ND	1000	400	ug/kg	
1330-20-7	Xylene (total)	ND	100	35	ug/kg	

CAS No.	Surrogate Recoveries		Limits
2037-26-5	Toluene-D8	87%	70-130%
460-00-4	4-Bromofluorobenzene	85%	70-130%
17060-07-0	1,2-Dichloroethane-D4	82%	70-130%

Blank Spike Summary

Job Number: D17959
Account: FORENCOB Forensic Application
Project: Forensic Appl

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3V409-BS1	3V07611.D	1	10/11/10	DC	n/a	n/a	V3V409

The QC reported here applies to the following samples: **Method:** SW846 8260B

D17959-1

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
67-64-1	Acetone	50	30.1	60	34-130
71-43-2	Benzene	50	49.5	99	68-130
75-27-4	Bromodichloromethane	50	45.9	92	65-133
75-25-2	Bromoform	50	42.0	84	55-130
108-90-7	Chlorobenzene	50	52.2	104	70-130
75-00-3	Chloroethane	50	52.9	106	67-130
67-66-3	Chloroform	50	51.2	102	70-130
110-75-8	2-Chloroethyl vinyl ether	50	42.4	85	20-177
75-15-0	Carbon disulfide	50	49.9	100	23-130
56-23-5	Carbon tetrachloride	50	51.8	104	62-130
75-34-3	1,1-Dichloroethane	50	50.9	102	70-130
75-35-4	1,1-Dichloroethylene	50	51.0	102	70-130
107-06-2	1,2-Dichloroethane	50	45.6	91	70-130
78-87-5	1,2-Dichloropropane	50	48.7	97	70-130
124-48-1	Dibromochloromethane	50	49.4	99	65-130
156-59-2	cis-1,2-Dichloroethylene	50	50.6	101	70-130
10061-01-5	cis-1,3-Dichloropropene	50	46.2	92	66-130
541-73-1	m-Dichlorobenzene	50	48.2	96	70-130
95-50-1	o-Dichlorobenzene	50	48.4	97	70-130
106-46-7	p-Dichlorobenzene	50	48.1	96	70-130
156-60-5	trans-1,2-Dichloroethylene	50	50.7	101	70-130
10061-02-6	trans-1,3-Dichloropropene	50	43.7	87	70-130
100-41-4	Ethylbenzene	50	52.8	106	70-130
591-78-6	2-Hexanone	50	38.0	76	46-130
108-10-1	4-Methyl-2-pentanone	50	43.1	86	58-130
74-83-9	Methyl bromide	50	54.2	108	40-145
74-87-3	Methyl chloride	50	38.5	77	42-130
75-09-2	Methylene chloride	50	49.4	99	70-130
78-93-3	Methyl ethyl ketone	50	39.9	80	21-130
100-42-5	Styrene	50	47.1	94	38-130
71-55-6	1,1,1-Trichloroethane	50	47.9	96	68-130
79-34-5	1,1,2,2-Tetrachloroethane	50	44.2	88	70-130
79-00-5	1,1,2-Trichloroethane	50	48.1	96	70-130
127-18-4	Tetrachloroethylene	50	52.0	104	70-130
108-88-3	Toluene	50	51.6	103	70-130
79-01-6	Trichloroethylene	50	51.6	103	70-130

Blank Spike Summary

Job Number: D17959
Account: FORENCOB Forensic Application
Project: Forensic Appl

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3V409-BS1	3V07611.D	1	10/11/10	DC	n/a	n/a	V3V409

The QC reported here applies to the following samples: **Method:** SW846 8260B

D17959-1

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
75-01-4	Vinyl chloride	50	38.9	78	55-130
108-05-4	Vinyl Acetate	50	41.5	83	54-130
1330-20-7	Xylene (total)	100	97.1	97	60-130

CAS No.	Surrogate Recoveries	BSP	Limits
2037-26-5	Toluene-D8	87%	70-130%
460-00-4	4-Bromofluorobenzene	86%	70-130%
17060-07-0	1,2-Dichloroethane-D4	85%	70-130%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: D17959
Account: FORENCOB Forensic Application
Project: Forensic Appl

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D18004-12MS	3V07622.D	1	10/11/10	DC	n/a	n/a	V3V409
D18004-12MSD	3V07623.D	1	10/11/10	DC	n/a	n/a	V3V409
D18004-12	3V07621.D	1	10/11/10	DC	n/a	n/a	V3V409

The QC reported here applies to the following samples: **Method:** SW846 8260B

D17959-1

CAS No.	Compound	D18004-12 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		3770	2570	68	2620	69	2	34-130/30
71-43-2	Benzene	ND		3770	3790	100	3850	102	2	55-140/30
75-27-4	Bromodichloromethane	ND		3770	3450	91	3420	91	1	50-146/30
75-25-2	Bromoform	ND		3770	2920	77	3210	85	9	56-130/30
108-90-7	Chlorobenzene	ND		3770	3960	105	4130	109	4	66-130/30
75-00-3	Chloroethane	ND		3770	3470	92	3960	105	13	62-130/30
67-66-3	Chloroform	ND		3770	3920	104	3990	106	2	70-130/30
110-75-8	2-Chloroethyl vinyl ether	ND		3770	3520	93	3690	98	5	20-162/30
75-15-0	Carbon disulfide	ND		3770	3820	101	3790	100	1	19-130/30
56-23-5	Carbon tetrachloride	ND		3770	3810	101	3850	102	1	54-141/30
75-34-3	1,1-Dichloroethane	ND		3770	4000	106	4000	106	0	70-130/30
75-35-4	1,1-Dichloroethylene	ND		3770	4000	106	4170	111	4	70-140/30
107-06-2	1,2-Dichloroethane	ND		3770	3620	96	3570	95	1	68-130/30
78-87-5	1,2-Dichloropropane	ND		3770	3760	100	3790	100	1	70-130/30
124-48-1	Dibromochloromethane	ND		3770	3540	94	3630	96	3	56-130/30
156-59-2	cis-1,2-Dichloroethylene	ND		3770	4020	107	4090	108	2	70-130/30
10061-01-5	cis-1,3-Dichloropropene	ND		3770	3540	94	3550	94	0	56-130/30
541-73-1	m-Dichlorobenzene	ND		3770	3700	98	3760	100	2	70-130/30
95-50-1	o-Dichlorobenzene	ND		3770	3730	99	3780	100	1	70-130/30
106-46-7	p-Dichlorobenzene	ND		3770	3730	99	3700	98	1	70-130/30
156-60-5	trans-1,2-Dichloroethylene	ND		3770	3940	104	4010	106	2	64-130/30
10061-02-6	trans-1,3-Dichloropropene	ND		3770	3240	86	3290	87	2	53-130/30
100-41-4	Ethylbenzene	ND		3770	4080	108	4210	112	3	56-139/30
591-78-6	2-Hexanone	ND		3770	3220	85	3230	86	0	48-132/30
108-10-1	4-Methyl-2-pentanone	ND		3770	3510	93	3700	98	5	58-138/30
74-83-9	Methyl bromide	ND		3770	1040	28	1030	27	1	10-165/30
74-87-3	Methyl chloride	ND		3770	2920	77	2870	76	2	35-130/30
75-09-2	Methylene chloride	ND		3770	3890	103	4010	106	3	70-130/30
78-93-3	Methyl ethyl ketone	ND		3770	3390	90	3400	90	0	20-130/30
100-42-5	Styrene	ND		3770	3640	96	3770	100	4	33-130/30
71-55-6	1,1,1-Trichloroethane	ND		3770	3650	97	3670	97	1	55-138/30
79-34-5	1,1,2,2-Tetrachloroethane	ND		3770	4310	114	4290	114	0	69-130/30
79-00-5	1,1,2-Trichloroethane	ND		3770	5850	155* [a]	3980	105	38* [a]	62-134/30
127-18-4	Tetrachloroethylene	ND		3770	4060	108	4220	112	4	47-136/30
108-88-3	Toluene	ND		3770	3950	105	4080	108	3	57-144/30
79-01-6	Trichloroethylene	ND		3770	3960	105	4030	107	2	70-149/30

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: D17959
Account: FORENCOB Forensic Application
Project: Forensic Appl

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D18004-12MS	3V07622.D	1	10/11/10	DC	n/a	n/a	V3V409
D18004-12MSD	3V07623.D	1	10/11/10	DC	n/a	n/a	V3V409
D18004-12	3V07621.D	1	10/11/10	DC	n/a	n/a	V3V409

The QC reported here applies to the following samples: **Method:** SW846 8260B

D17959-1

CAS No.	Compound	D18004-12 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
75-01-4	Vinyl chloride	ND		3770	3060	81	3020	80	1	59-131/30
108-05-4	Vinyl Acetate	ND		3770	3120	83	3070	81	2	20-141/30
1330-20-7	Xylene (total)	ND		7550	7340	97	7620	101	4	51-130/30

CAS No.	Surrogate Recoveries	MS	MSD	D18004-12	Limits
2037-26-5	Toluene-D8	88%	90%	89%	70-130%
460-00-4	4-Bromofluorobenzene	89%	91%	89%	70-130%
17060-07-0	1,2-Dichloroethane-D4	85%	87%	86%	70-130%

(a) Outside control limits due to matrix interference.

Appendix C

Compact Digital Disk
(Photographs and Additional Documentation)