

L800005

REDACTED

United States Environmental Protection Agency
Region 4



35TH AVENUE REMOVAL INVESTIGATION
BIRMINGHAM, ALABAMA
JEFF CROWLEY, ON-SCENE COORDINATOR

FIELD SAMPLING LOGBOOK

Book ____ of ____

Inclusive Dates: 11/13/12 -

List of Sampling Team in logbook:

Name	Initials	Organization/Duties
(b) (6)	(6)	OTIE, Team Leader
(b) (6)	(6)	(URS) OTIE
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

General Soil Descriptions

Color	Abbv
Black	blk
Brown	bwn
Light Brown	lt/bwn
Dark Brown	dk/bwn
Gray	gry
Light Gray	lt/gry
Olive Gray	olv/gry
Greenish Gray	grn/gry
Dark Gray	dk/gry
Tan	tn
Light Tan	lt/tn
Orange	Org
Red	Rd

Soils	Abbv
Clay	CL
Sandy Clay	sndy CL
Silty Clay	slty CL
Sand	Snd
Silty Sand	slty Snd
Silt	slt
Grass	grs
Organic	Org

Sizes	Abbv
Coarse	C
Coarse to medium	c-m
Coarse to fine	c-f
Medium to fine	m-f
Fine	f

Texture	Abbv
Hard	hrd
Dry	Dry
brittle	brt
Stiff	stf
Very Stiff	vry stf
soft	sft
Very Soft	vry sft
Damp	dmp
Wet	wt
Wet	wt

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Sampling Procedures and Methodology

Unless specified elsewhere in this logbook, all soil samples will be collected in accordance with the EPA Science and Ecosystem Division (SESD) Field Branches Quality System and Technical Procedures (FBQSTP) Soil Sampling (SESDPROC-300-R2) based on the following design.

The total number of 5-point composite surface soil samples (0-4 inches below ground surface) to be collected from each property will be based on the lot size as follows:

- For residential properties with a total parcel lot size equal to or less than (\leq) 5,000 square feet - the front yard and back yards of each property. If the property has a substantial side yard (primarily corner lots), then one composite soil sample may also be collected from the side yard. Aliquots will be collected away from influences with drip lines and burn areas in a five dice configuration (each of the four corners and the center).
- For residential properties with a total parcel lot size greater than ($>$) 5,000 square feet and \leq ¼-acre - the property should be divided into two roughly equal surface areas. If the property has a substantial side yard (primarily corner lots), then one composite soil sample may be collected from the side yard with the remainder of the property being divided into two roughly equal surface areas. Aliquots will be collected away from influences including drip lines and burn areas with reasonably equal spacing between aliquots.
- Residential properties over ¼-acre in parcel lot size will be divided into ¼-acre sections. When dividing any such property with a substantial side yard (primarily corner lots), one composite soil sample may be collected from the side yard. Aliquots will be collected away from influences including drip lines and burn areas in a five dice configuration, if possible, with reasonably equal spacing between aliquots.

Grab surface soil samples will be collected from apparent exposure pathways where active play sets are located.

Three-point composite surface soil samples will be collected from distinct vegetable gardens from each residential property.

Samples shall not be collected under paved areas or under stationary fixed structures.

Grab sediment samples will be collected in accordance with EPA SESD FBSTP Sediment Sampling (SESDPROC-200-R2) from any surface water drainage pathways located on individual properties, as directed by the OSC, and in and along the banks of the 34th Street North Ditch.

Each surface soil or sediment sample should be homogenized in a stainless steel bowl. One 8-ounce jar will be filled and the remaining sample material will be placed in zip-top bags for screening. Information identifying the location, sample, and date/time will be inscribed on each jar and zip-top bag.

All sample bags will be screened for metals in accordance with SESD FBQSTP Field XRF Measurement (SESDPROC-107-R2) using a Niton XRF. The sample will be dried before sieving or analysis is performed. Once the sample has dried, the sample will be divided into two subsamples; one subsample will be sieved through a #10 screen (2 mm) and the other will be left unsieved. Once separated into sieved and unsieved samples, the zip-top bag will be compressed by folding over the excess plastic and removing as much air and space from the sample as possible. The XRF will be placed directly on the exterior of the compressed sample in the plastic zip-top bag to measure metals concentrations. Following XRF screening, the unsieved portion of the sample material will be containerized into one 8-ounce jars and the sieved portion of the sample will be containerized into another 8-ounce jar.

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Based on the site DQOs the 8-ounce jars of surface soil and sediment samples should be submitted to PEL, Tampa, Florida (a NELAC certified laboratory) for low level PAH, and/or TCL SVOC, RCRA metals, PCB, and/or Hexavalent Chromium analysis. RCRA metals will be analyzed from both the sieved and unsieved portions of the sample. All other analysis will be conducted on the unsieved portion.

The location of each aliquot will also be logged in accordance with SESD FBQSTP Global Positioning System (SESDPROC- 110-R3) using a Trimble GPS.

A description of the color and texture of the aliquot material will be recorded in each box.

The *station ID* for each location will consist of seven characters, beginning with the six digit Property ID designation for the property followed by a alphabetic letter beginning with "A".

e.g. CV0001A would be the station ID for the front yard 5-pt composite sample collected at the property with Property ID CV0001.

The *sample ID* for each sample is the station ID with "CS" (composite soil), "GS" (grab soil), "SD" (sediment), or "SW" (surface water) appended, therefore, the sample ID for this sample would be CV0001A-CS. Co-located duplicates will be designated by appending a "D" to the end of the sample ID. Pan splits will be identified by appending an "SP" to the end of the sample ID.

(b) (6)

ADDRESS:

PROPERTY ID:

CV0107

DATE: 11/13/12

ARRIVAL TIME: 0910

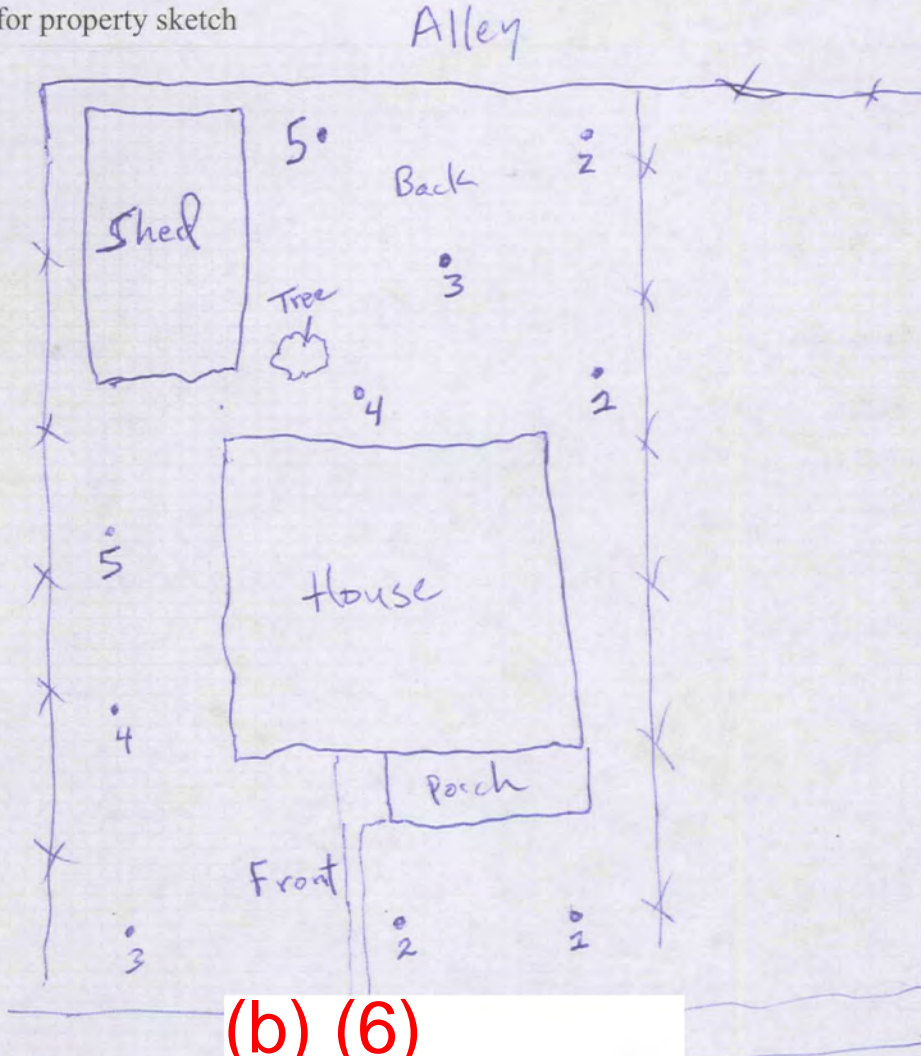
Other pertinent information (weather conditions, etc.):

Clear + windy / Sulfur like odor evident

PROPERTY COMMENTS:

No garden or playset

Grid for property sketch



(b) (6)

Front + side

- 1 to 2 = 21.5 feet
- 2 to 3 = 22.5'
- 3 to House = 16'
- 3 to 4 = 33'
- 4 to 5 = 22.5'

Back

- 5 to house = 32 feet
- 4 to 5 = 21.5'
- 3 to 5 = 15'
- 1 to 2 = 24'

STATION ID: CV0107A SAMPLE ID: CV0107A-CS

SAMPLE COLLECTION TIME: 0950

Description of sample location (front, back, side yard; vegetable garden; play set; ditch, etc):

Front + side yard

Collection: Composite or Grab MS/MSD? Y or N

Field Duplicate or Split: Yes or No If yes, indicate Duplicate/split sample station ID: _____

GPS Coordinates: Trimble [] Instrument #: <u>018591</u> Logged? <u>Y</u> or N
Aliquot #1: Latitude: <u>33.55902293°</u> N Longitude <u>86.80504622°</u> W Media description: <u>CV0107A1 / dk/brn silty Sand m-F dump</u>
Aliquot #2: Latitude: <u>33.55895965°</u> N Longitude <u>86.80502463</u> W Media description: <u>CV0107A2 / Same soil</u>
Aliquot #3: Latitude: <u>33.5589689</u> N Longitude <u>86.80503319</u> W Media description: <u>CV0107A3 / Same soil</u>
Aliquot #4: Latitude: <u>33.55890234</u> N Longitude <u>86.8051418</u> W Media description: <u>CV0107A4 / Same soil</u>
Aliquot #5: Latitude: <u>33.55889974</u> N Longitude <u>86.80520322</u> W Media description: <u>CV0107A5 / Same soil</u>

STATION ID: CV0107B SAMPLE ID: CV0107B-CS

SAMPLE COLLECTION TIME: 1030

Description of sample location (front, back, side yard; vegetable garden; play set; ditch, etc):

Back yard

Collection: Composite or Grab MS/MSD? Y or N

Field Duplicate or Split: Yes or No If yes, indicate Duplicate/split sample station ID: _____

GPS Coordinates: Trimble [] Instrument #: <u>018591</u> Logged? <u>Y</u> or N
Aliquot #1: Latitude: <u>CV0107B1</u> N Longitude <u>86.80526293</u> W Media description: <u>↓ Lat 33.55901947 / Soil same as front</u>
Aliquot #2: Latitude: <u>CV0107B2</u> N Longitude <u>86.80535050</u> W Media description: <u>↓ Lat 33.55902401 / Soil same as front</u>
Aliquot #3: Latitude: <u>CV0107B3</u> N Longitude <u>86.80530903</u> W Media description: <u>↓ Lat 33.55908682 / Soil same as front</u>
Aliquot #4: Latitude: <u>CV0107B4</u> N Longitude <u>86.80525828</u> W Media description: <u>↓ Lat 33.55894000 / Soil same as front</u>
Aliquot #5: Latitude: <u>CV0107B5</u> N Longitude <u>86.80533350</u> W Media description: <u>↓ Lat 33.55896643 / Soil same as front</u>

Air samples started 0917 / Held at 1036

DataRAM (06243) started at 0920 / stopped at 1036

ADDRESS: (b) (6) PROPERTY ID: CV0040

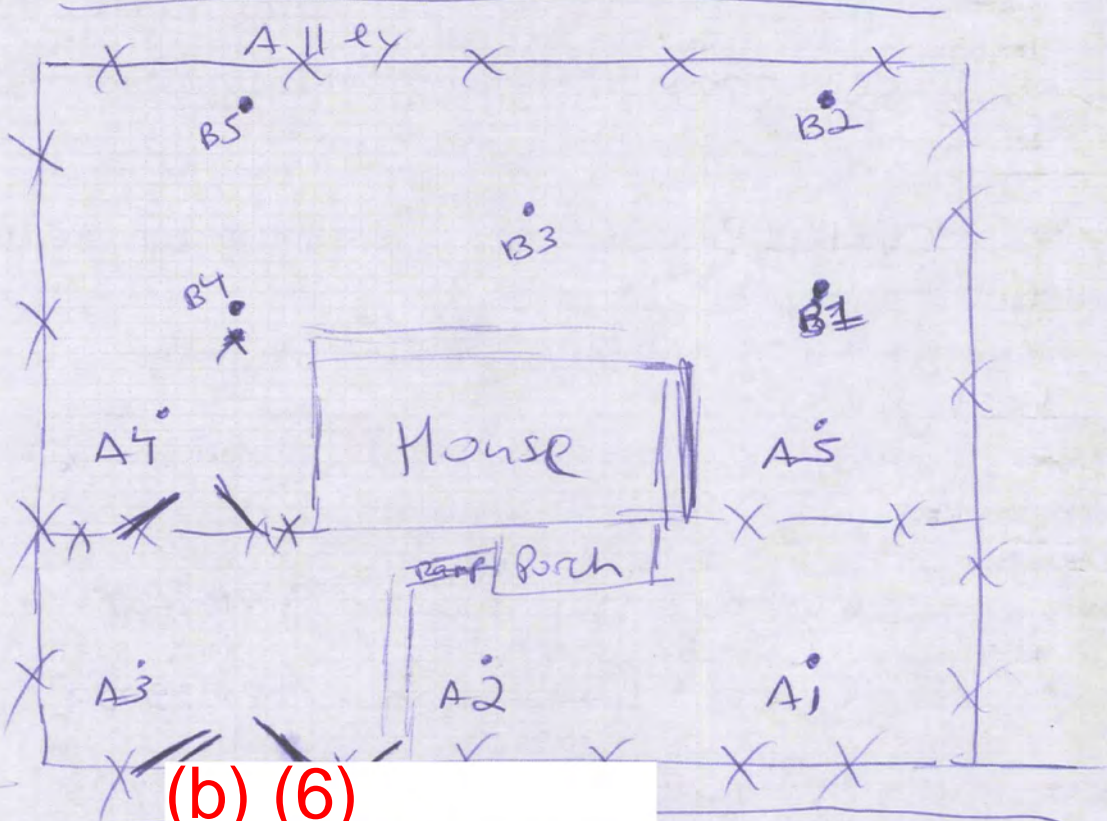
DATE: 11/13/12 ARRIVAL TIME: 1052

Other pertinent information (weather conditions, etc.):

PROPERTY COMMENTS:

No garden or play set

Grid for property sketch (Car parts and Salvage yard)



(b) (6)

Front E.S. (A)

- 1 to 2 = 21 feet
- 2 to 3 = 20 feet
- 3 to House = 17 feet
- 3 to 4 = 29 feet
- 1 to 5 = 24 feet

Back (B)

- 1 to 2 = 42 feet
- 1 to 3 = 28 feet
- 1 to 4 = 39 feet
- 4 to 5 = 49 feet
- 5 to House = 65 feet

STATION ID: CV0040A

SAMPLE ID: CV0040A-CS

SAMPLE COLLECTION TIME: 11:15

Description of sample location (front, back, side yard; vegetable garden; play set; ditch, etc):

Front E side yards

Collection: Composite or Grab

MS/MSD? Y or N

Field Duplicate or Split: Yes or No If yes, indicate Duplicate/split sample station ID: _____

GPS Coordinates: Trimble <input checked="" type="checkbox"/> Instrument #: <u>018591</u>		Logged? <input checked="" type="checkbox"/> or N	
Aliquot #1: Latitude: <u>33.55904262°</u>	33.55904262°	N Longitude <u>86.80673624°</u>	W
Media description: <u>CV0040A1 dk/bwn silty sand m-f dmp</u>			
Aliquot #2 Latitude: <u>33.55904262°</u>		N Longitude <u>86.80676572°</u>	W
Media description: <u>CV0040A2 Same soil</u>			
Aliquot #3: Latitude: <u>33.55899000°</u>		N Longitude <u>86.80678792°</u>	W
Media description: <u>CV0040A3 Same soil</u>			
Aliquot #4: Latitude: <u>33.55900714°</u>		N Longitude <u>86.80687375°</u>	W
Media description: <u>CV0040A4 Same soil</u>			
Aliquot #5: Latitude: <u>33.55911678°</u>		N Longitude <u>86.80681328°</u>	W
Media description: <u>CV0040A5 Same soil</u>			

STATION ID: CV0040B

SAMPLE ID: CV0040B-CS

SAMPLE COLLECTION TIME: 11:40

Description of sample location (front, back, side yard; vegetable garden; play set; ditch, etc):

Back yard

Collection: Composite or Grab

MS/MSD? Y or N

Field Duplicate or Split: Yes or No If yes, indicate Duplicate/split sample station ID: _____

GPS Coordinates: Trimble <input checked="" type="checkbox"/> Instrument #: <u>018591</u>		Logged? <input checked="" type="checkbox"/> or N	
Aliquot #1: Latitude: <u>33.55914008°</u>		N Longitude <u>86.80693684°</u>	W
Media description: <u>CV0040B1 dk/bwn silty sand m-f dmp</u>			
Aliquot #2 Latitude: <u>33.55917000°</u>	33.55917000°	N Longitude <u>86.80707032°</u>	W
Media description: <u>CV0040B2 same soil but w/ coal</u>			
Aliquot #3: Latitude: <u>33.55909941°</u>		N Longitude <u>86.80702335°</u>	W
Media description: <u>CV0040B3 same soil as #1</u>			
Aliquot #4: Latitude: <u>33.55902712°</u>		N Longitude <u>86.80697062°</u>	W
Media description: <u>CV0040B4 same soil as #1</u>			
Aliquot #5: Latitude: <u>33.55068330°</u>		N Longitude <u>86.80713077°</u>	W
Media description: <u>CV0040B5 same soil as #1</u>			

Air Samples started 1055/ stopped at 1145
Data RAM(06243) started at 1055/ stopped at 1145

(b) (6)

ADDRESS:

PROPERTY ID:

FM 0102

DATE:

11/13/12

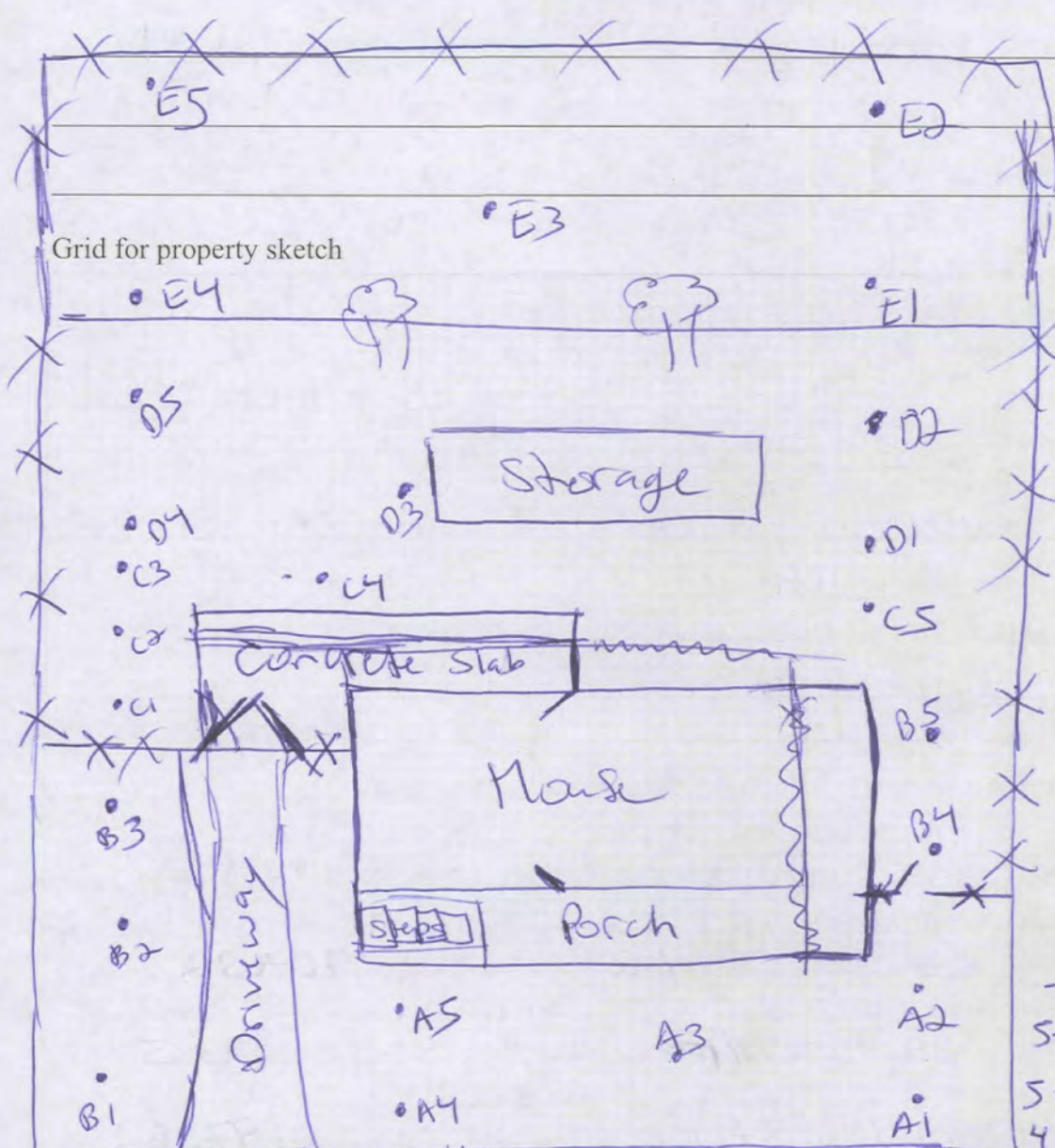
ARRIVAL TIME:

1320

Other pertinent information (weather conditions, etc.):

PROPERTY COMMENTS:

27
57
22
27
75



E Way
Back
Yard

Sto to House = 34 ft
 5 to 4 = 39 ft
 4 to 3 = 36 ft
 4 to 1 = 56 ft
 1 to 2 = 31 ft

Front yard (A)	Side yards (B)	C Back E side at back corner	D Back yard
1 to 2 = 22 feet	1 to 2 = 24 feet	1 to 2 = 18	1 to 2 = 27
1 to House = 30 feet	2 to 3 = 27 feet	1 to 3 = 34	1 to 4 = 57
1 to 3 = 20 feet	1 to House = 39 feet	3 to 4 = 30	4 to 3 = 22
1 to 4 = 29 feet	4 to 5 = 31 feet	4 to 5 = 27	4 to 5 = 27
4 to 5 = 22 feet	5 to House = 8 feet	3 to House = 33	5 to House = 75

STATION ID: FM0102A

SAMPLE ID: FM0102A-CS

SAMPLE COLLECTION TIME: 1345

Description of sample location (front, back, side yard; vegetable garden; play set; ditch, etc):

Front yard

Collection: Composite or Grab

MS/MSD? Y or N

Field Duplicate or Split: No or No If yes, indicate Duplicate/split sample station ID: FM0102

GPS Coordinates: Trimble <input checked="" type="checkbox"/>	Instrument #: <u>018591</u>	Logged? Y or N
Aliquot #1: Latitude: <u>33.56953075°</u>	N Longitude <u>86.80410223°</u>	W
Media description: <u>FM0102A1 dk/bwn slty snd m-f dmp</u>		
Aliquot #2 Latitude: <u>33.56953674°</u>	N Longitude <u>86.80417212°</u>	W
Media description: <u>FM0102A2 Same soil</u>		
Aliquot #3: Latitude: <u>33.56949442°</u>	N Longitude <u>86.80413415°</u>	W
Media description: <u>FM0102A3 same soil</u>		
Aliquot #4: Latitude: <u>33.56945192°</u>	N Longitude <u>86.80410468°</u>	W
Media description: <u>FM0102A4 Same soil</u>		
Aliquot #5: Latitude: <u>33.56945933°</u>	N Longitude <u>86.80417559°</u>	W
Media description: <u>FM0102A5</u>		

STATION ID: FM0102B

SAMPLE ID: FM0102B-CS

SAMPLE COLLECTION TIME: 1400

Description of sample location (front, back, side yard; vegetable garden; play set; ditch, etc):

Side yards

Collection: Composite or Grab

MS/MSD? Y or N

Field Duplicate or Split: Yes or No If yes, indicate Duplicate/split sample station ID: _____

GPS Coordinates: Trimble <input checked="" type="checkbox"/>	Instrument #: <u>018591</u>	Logged? <u>Y</u> or N
Aliquot #1: Latitude: <u>33.56937547°</u>	N Longitude <u>86.80413645°</u>	W
Media description: <u>FM0102B1 dk/bwn slty snd m-f dmp</u>		
Aliquot #2 Latitude: <u>33.56938081°</u>	N Longitude <u>86.80420776°</u>	W
Media description: <u>FM0102B2 same soil</u>		
Aliquot #3: Latitude: <u>33.56938166°</u>	N Longitude <u>86.80430831°</u>	W
Media description: <u>FM0102B3 same soil</u>		
Aliquot #4: Latitude: <u>33.56954641</u>	N Longitude <u>86.80425785°</u>	W
Media description: <u>FM0102B4 same soil</u>		
Aliquot #5: Latitude: <u>33.56954689°</u>	N Longitude <u>86.80436539°</u>	W
Media description: <u>FM0102B5</u>		

Air Samples started 1322 / stopped 1516

Data RAM (06243) started 1322 / stopped 1516

ADDRESS: (b) (6)

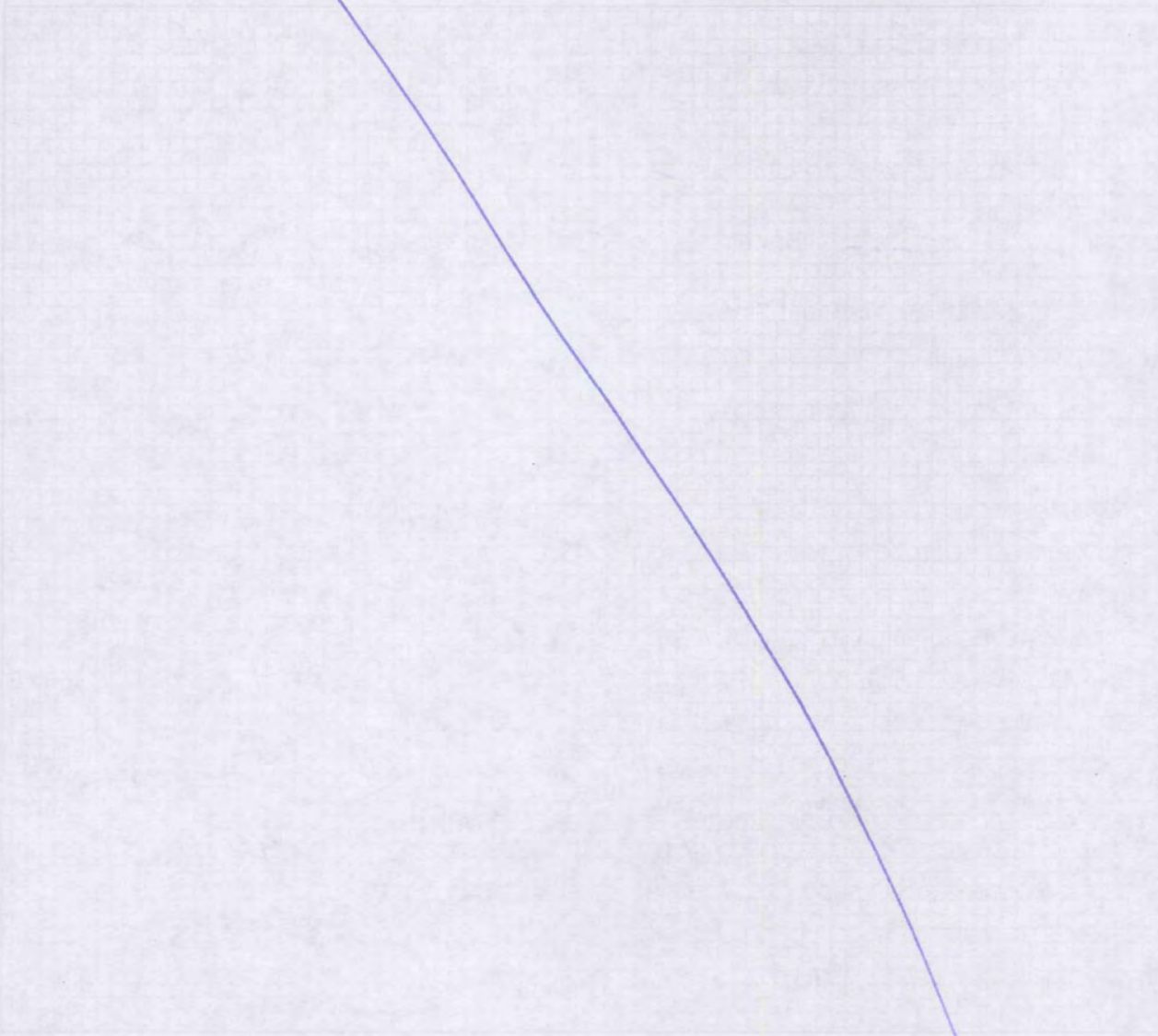
PROPERTY ID: FMO127 (con.)

DATE: 11/13/12 ARRIVAL TIME: _____

Other pertinent information (weather conditions, etc.):

PROPERTY COMMENTS:

Grid for property sketch



STATION ID: FM0102C

SAMPLE ID: FM0102C-CS

SAMPLE COLLECTION TIME: 1425

Description of sample location (front, back, side yard; vegetable garden; play set; ditch, etc):

Back & side along back concrete slab

Collection: Composite or Grab

MS/MSD? Y or N

Field Duplicate or Split: Yes or No If yes, indicate Duplicate/split sample station ID: FM0102C-CSD

GPS Coordinates: Trimble <input checked="" type="checkbox"/> Instrument #: <u>018591</u>		Logged? <input checked="" type="checkbox"/> or N	
Aliquot #1: Latitude: <u>33.56939348°</u>	N Longitude <u>86.80435389°</u>	W	
Media description: <u>FM0102C1 dk/bwn slty sml m-f dmp</u>			
Aliquot #2 Latitude: <u>33.56939087°</u>	N Longitude <u>86.80441051°</u>	W	
Media description: <u>FM0102C2 same soil</u>			
Aliquot #3: Latitude: <u>33.56939069°</u>	N Longitude <u>86.80446908°</u>	W	
Media description: <u>FM0102C3 same soil</u>			
Aliquot #4: Latitude: <u>33.56946383°</u>	N Longitude <u>86.80447816°</u>	W	
Media description: <u>FM0102C4 same soil</u>			
Aliquot #5: Latitude: <u>33.56953575°</u>	N Longitude <u>86.80446669°</u>	W	
Media description: <u>FM0102CS</u>			

(Don next page)

STATION ID: FM0102E

SAMPLE ID: FM0102E-CS

SAMPLE COLLECTION TIME: ~~1445~~ 1510

Description of sample location (front, back, side yard; vegetable garden; play set; ditch, etc):

Way Back Yard ~~around storage shed/trailer~~

Collection: Composite or Grab

MS/MSD? Y or N

Field Duplicate or Split: Yes or No If yes, indicate Duplicate/split sample station ID: _____

GPS Coordinates: Trimble <input checked="" type="checkbox"/> Instrument #: <u>018591</u>		Logged? <input checked="" type="checkbox"/> or N	
Aliquot #1: Latitude: <u>33.56953998°</u>	N Longitude <u>86.80474521°</u>	W	
Media description: <u>FM0102E1 dk/bwn slty sml m-f dmp</u>			
Aliquot #2 Latitude: <u>33.56958510°</u>	N Longitude <u>86.80478754°</u>	W	
Media description: <u>FM0102E2 dk/bwn slty sml m-f dmp</u>			
Aliquot #3: Latitude: <u>33.56948129°</u>	N Longitude <u>86.80475002°</u>	W	
Media description: <u>FM0102E3 same soil but with coal</u>			
Aliquot #4: Latitude: <u>33.56938413°</u>	N Longitude <u>86.80469853°</u>	W	
Media description: <u>FM0102E4 dk/bwn slty sml m-f dmp</u>			
Aliquot #5: Latitude: <u>33.56937462°</u>	N Longitude <u>86.80482685°</u>	W	
Media description: <u>FM0102E5 dk/bwn slty sml m-f dmp</u>			

(b) (6)

ADDRESS

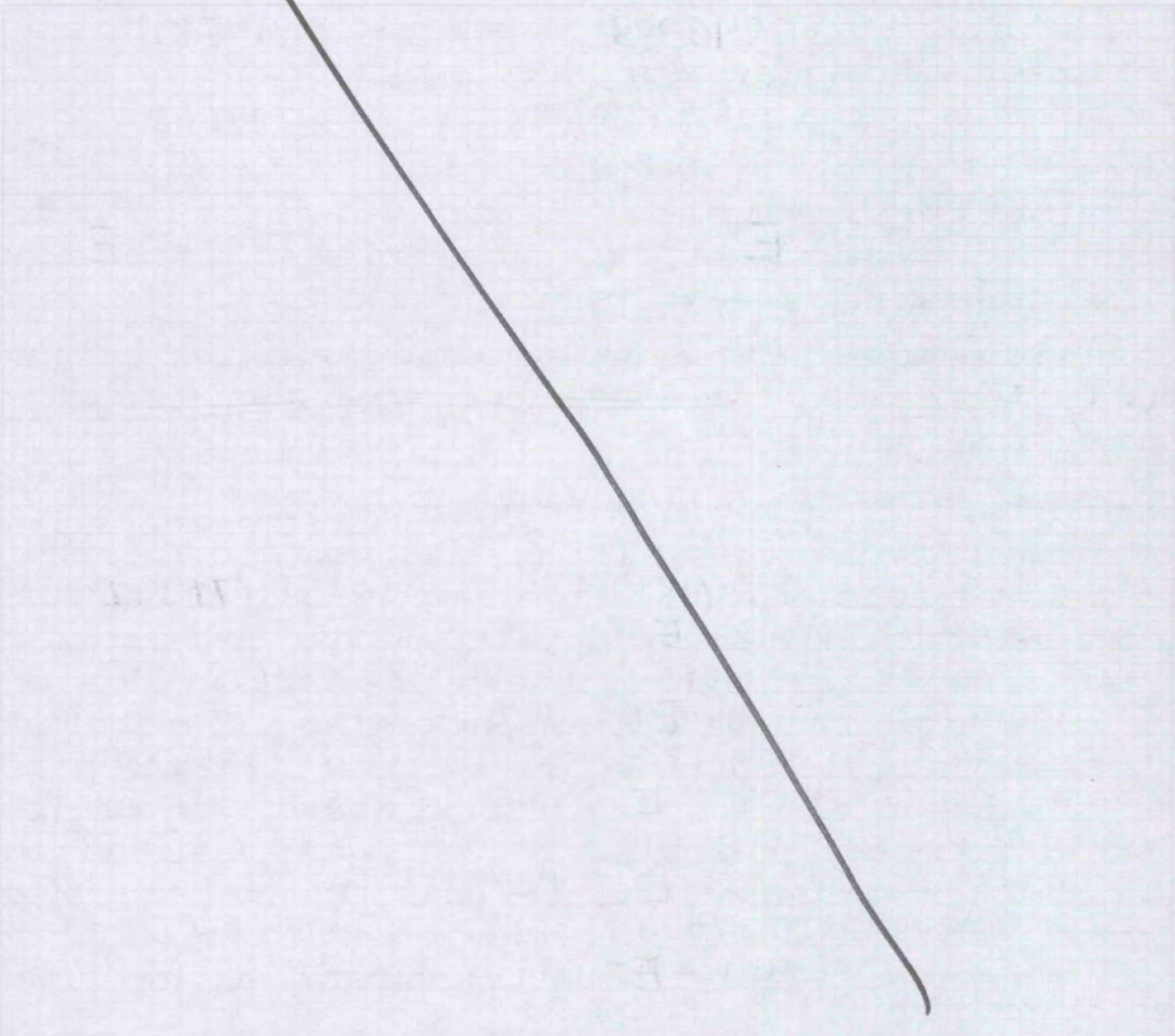
PROPERTY ID: Fm 202 (con)

DATE: 11/13/12 ARRIVAL TIME: _____

Other pertinent information (weather conditions, etc.):

PROPERTY COMMENTS:

Grid for property sketch



STATION ID: FM0102D SAMPLE ID: FM0102D-CS

SAMPLE COLLECTION TIME: ~~1510~~ 1445

Description of sample location (front, back, side yard; vegetable garden; play set; ditch, etc):
Back yard around storage shed/trailer

Collection: Composite or Grab MS/MSD? Y or N

Field Duplicate or Split: Yes or No If yes, indicate Duplicate/split sample station ID: _____

GPS Coordinates: Trimble [<input checked="" type="checkbox"/>] Instrument #: <u>018591</u> Logged? [<input checked="" type="checkbox"/>] Y or N	
Aliquot #1: Latitude: <u>33.56953641°</u> N Longitude <u>86.80452537°</u> W	Media description: <u>FM0102D1 dk/bun sily sml m-f dry</u>
Aliquot #2: Latitude: <u>33.56952814°</u> N Longitude <u>86.80459918°</u> W	Media description: <u>FM0102D2 Same soil</u>
Aliquot #3: Latitude: <u>33.56942841°</u> N Longitude <u>86.80456964°</u> W	Media description: <u>FM0102D3 Same soil</u>
Aliquot #4: Latitude: <u>33.56938315°</u> N Longitude <u>86.80453451°</u> W	Media description: <u>FM0102D4 Same soil</u>
Aliquot #5: Latitude: <u>33.56937944°</u> N Longitude <u>86.80462682°</u> W	Media description: <u>FM0102D5 Same soil</u>

STATION ID: _____ SAMPLE ID: _____

SAMPLE COLLECTION TIME: _____

Description of sample location (front, back, side yard; vegetable garden; play set; ditch, etc):

Collection: Composite or Grab MS/MSD? Y or N

Field Duplicate or Split: Yes or No If yes, indicate Duplicate/split sample station ID: _____

GPS Coordinates: Trimble [] Instrument #: _____ Logged? Y or N	
Aliquot #1: Latitude: _____ N Longitude _____ W	Media description: _____
Aliquot #2: Latitude: _____ N Longitude _____ W	Media description: _____
Aliquot #3: Latitude: _____ N Longitude _____ W	Media description: _____
Aliquot #4: Latitude: _____ N Longitude _____ W	Media description: _____
Aliquot #5: Latitude: _____ N Longitude _____ W	Media description: _____

(b) (6)

ADDRESS

PROPERTY ID: CV 0181

DATE: 11/13/12

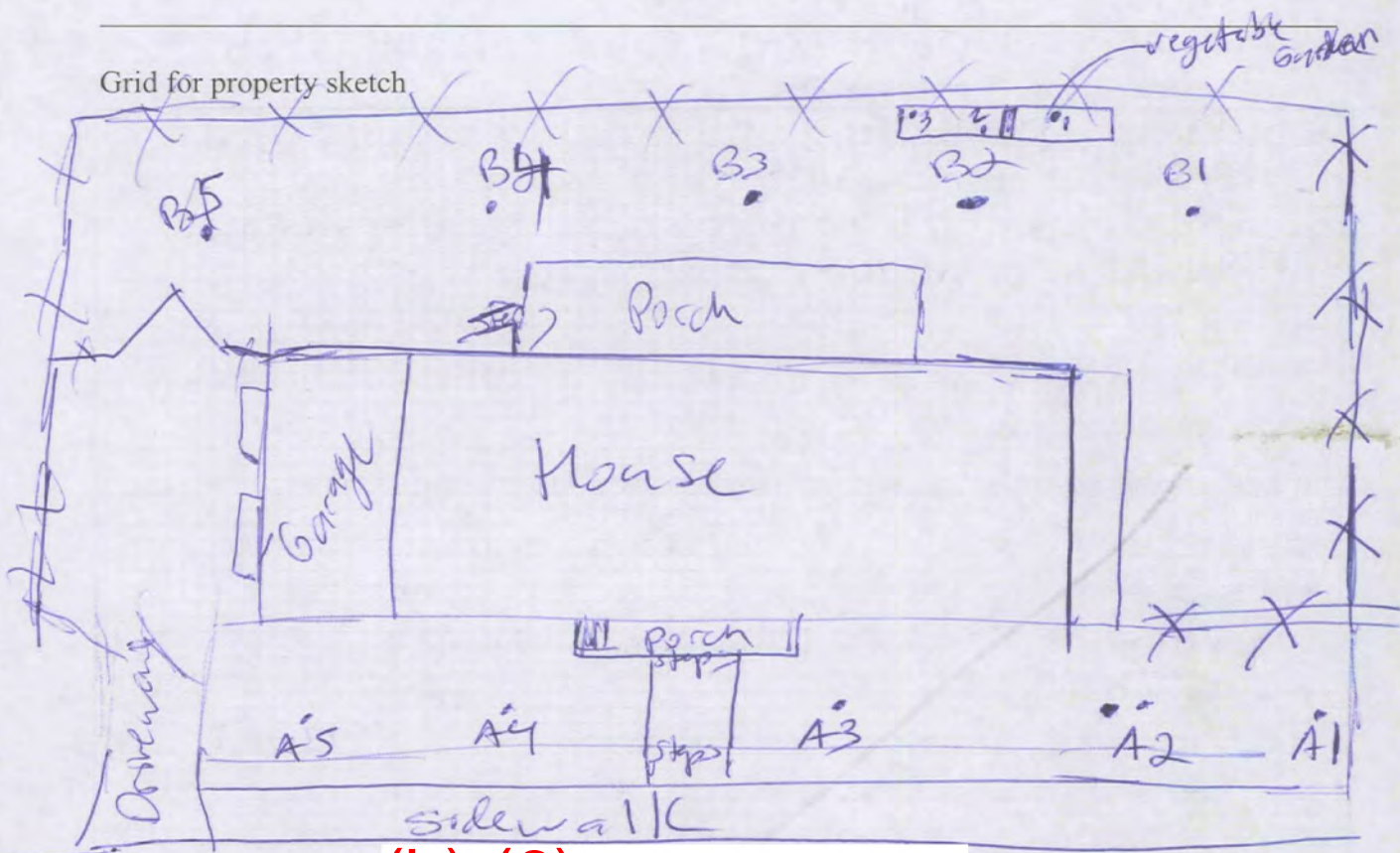
ARRIVAL TIME: 1545

Other pertinent information (weather conditions, etc.):

PROPERTY COMMENTS:

Vegetable Garden: Tomatoes, Peppers, ^{Jalapenos} String beans

Grid for property sketch



(b) (6)

Front yard (A)

- 1 to 2 = 28 feet
- 1 to 2 = 22 feet
- 2 to 3 = 24 feet
- 3 to 4 = 28 feet
- 4 to 5 = 23 feet

Back Yard (B)

- 5 to House = 31 feet
- 5 to 4 = 38 feet
- 4 to 3 = 30 feet
- 3 to 2 = 29 feet
- 2 to 1 = 27 feet

Vegetable Garden (C)

- 46 feet from House
- 16 feet x 2 feet near back fence

STATION ID: CV0181A

SAMPLE ID: CV0181A-CS

SAMPLE COLLECTION TIME: 1600

Description of sample location (front, back, side yard; vegetable garden; play set; ditch, etc):

Front Yard

Collection: Composite or Grab

MS/MSD? Y or N

Field Duplicate or Split: Yes or No If yes, indicate Duplicate/split sample station ID:

GPS Coordinates: Trimble [X] Instrument #: 018591 Logged? [Y] or N

Aliquot #1: Latitude: 35.55933597° N Longitude 86.80415649° W

Media description: CV0181A1 dk/bwn slty soil m-f drp w/ coal

Aliquot #2 Latitude: 35.55926890° N Longitude 86.80415872° W

Media description: CV0181A2 same soil

Aliquot #3: Latitude: 35.55920896° N Longitude 86.80415613° W

Media description: CV0181A3 same soil

Aliquot #4: Latitude: 35.55913730° N Longitude 86.80415367° W

Media description: CV0181A4 same soil

Aliquot #5: Latitude: 35.55907818° N Longitude 86.80415502° W

Media description: CV0181A5 same soil

STATION ID: CV0181B

SAMPLE ID: CV0181B-CS

SAMPLE COLLECTION TIME: 1625

Description of sample location (front, back, side yard; vegetable garden; play set; ditch, etc):

Back Yard

Collection: Composite or Grab

MS/MSD? Y or N

Field Duplicate or Split: Yes or No If yes, indicate Duplicate/split sample station ID:

GPS Coordinates: Trimble [X] Instrument #: 018591 Logged? [Y] or N

Aliquot #1: Latitude: 35.55932319° N Longitude 86.80438463° W

Media description: CV0181B1 dk/bwn slty soil m-f drp w/ coal

Aliquot #2 Latitude: 35.55923498° N Longitude 86.80440848° W

Media description: CV0181B2 same soil

Aliquot #3: Latitude: 35.55916649° N Longitude 86.80441262° W

Media description: CV0181B3 same soil

Aliquot #4: Latitude: 35.55908568° N Longitude 86.80440559° W

Media description: CV0181B4 same soil

Aliquot #5: Latitude: 35.55898287° N Longitude 86.80439160° W

Media description: CV0181B5 same soil

Air samples started 1555/stopped 1644

Data RAM (02643) started 1555/stopped 1644

ADDRESS: (b) (6)

PROPERTY ID: CV0181 (con.)

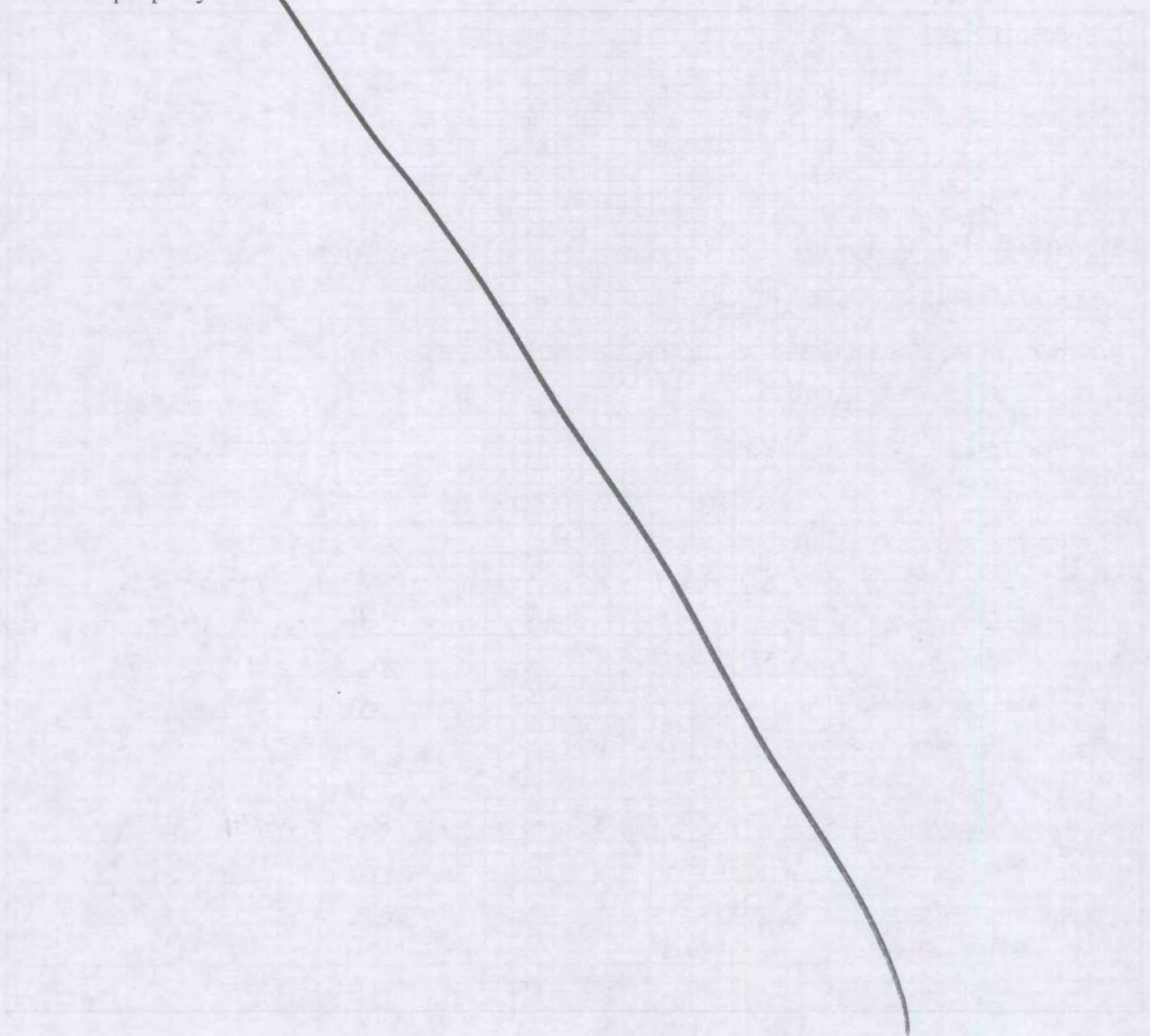
DATE: 11/13/12

ARRIVAL TIME: _____

Other pertinent information (weather conditions, etc.):

PROPERTY COMMENTS:

Grid for property sketch



STATION ID: CVØ181C SAMPLE ID: CVØ181C-CS

SAMPLE COLLECTION TIME: 1610

Description of sample location (front, back, side yard; vegetable garden; play set; ditch, etc):
Vegetable Garden

Collection: Composite or Grab MS/MSD? Y or N

Field Duplicate or Split: Yes or No If yes, indicate Duplicate/split sample station ID: _____

GPS Coordinates: Trimble Instrument #: 018591 Logged? Y or N

Aliquot #1: Latitude: 33.55923525° N Longitude 86.80446701° W
Media description: CVØ181C1

Aliquot #2 Latitude: 33.55922672° N Longitude 86.80446782° W
Media description: CVØ181C2

Aliquot #3: Latitude: 33.55920805° N Longitude 86.80446487° W
Media description: CVØ181C3

Aliquot #4: Latitude: _____ N Longitude _____ W
Media description: _____

Aliquot #5: Latitude: _____ N Longitude _____ W
Media description: _____

STATION ID: _____ SAMPLE ID: _____

SAMPLE COLLECTION TIME: _____

Description of sample location (front, back, side yard; vegetable garden; play set; ditch, etc):

Collection: Composite or Grab MS/MSD? Y or N

Field Duplicate or Split: Yes or No If yes, indicate Duplicate/split sample station ID: _____

GPS Coordinates: Trimble Instrument #: _____ Logged? Y or N

Aliquot #1: Latitude: _____ N Longitude _____ W
Media description: _____

Aliquot #2 Latitude: _____ N Longitude _____ W
Media description: _____

Aliquot #3: Latitude: _____ N Longitude _____ W
Media description: _____

Aliquot #4: Latitude: _____ N Longitude _____ W
Media description: _____

Aliquot #5: Latitude: _____ N Longitude _____ W
Media description: _____

(b) (6)

ADDRESS

PROPERTY ID:

CV 0192

DATE:

11/14/12

ARRIVAL TIME:

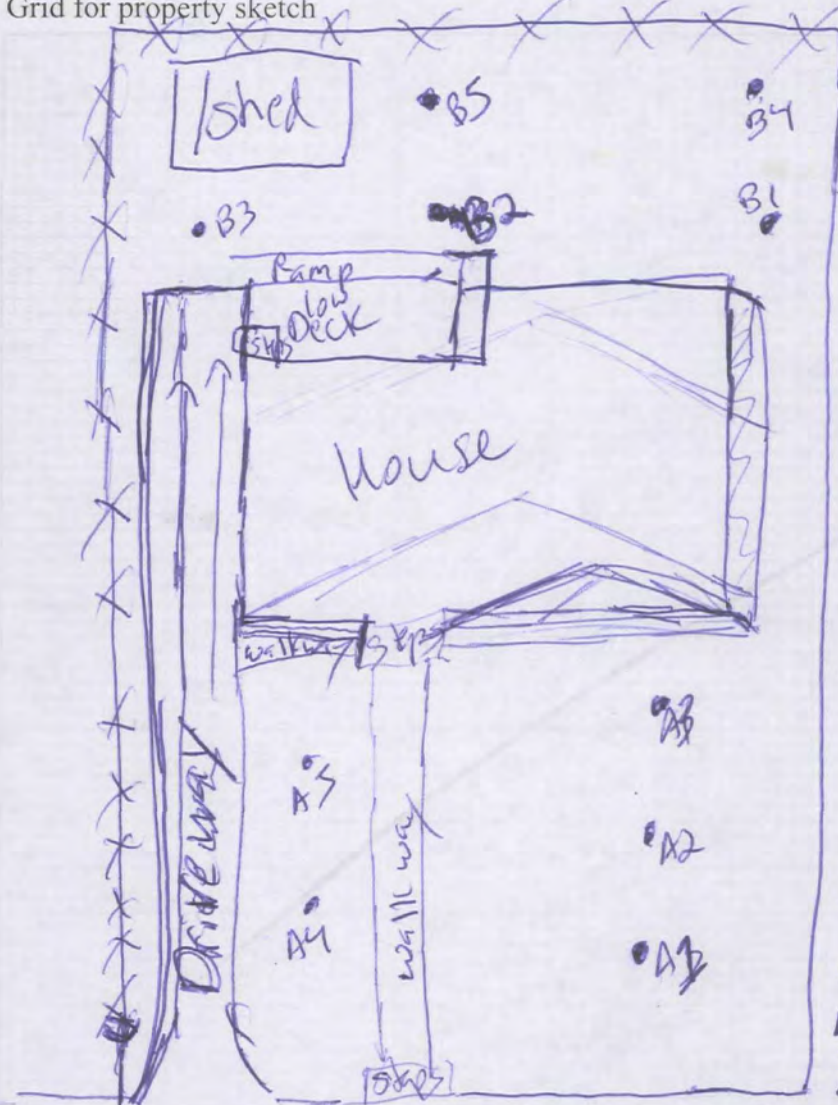
08:42

Other pertinent information (weather conditions, etc.):

PROPERTY COMMENTS:

No garden or playsets
no fence along one side of property - follow parcel map line and fence line of property behind house

Grid for property sketch



Front yard (A)

- 1 to House = 23 feet
- 1 to 2 = 8 feet
- 2 to 3 = 8 feet
- 3 to 5 = 20 feet
- 5 to 4 = 10 feet

Back yard (B)

- 1 to 2 = 24 feet
- 2 to 3 = 16.5 feet
- 3 to 5 = 25 feet
- 4 to 5 = 23 feet
- 4 to 1 = 20 feet
- 4 to House = 30 feet

(b) (6)

STATION ID: CVØ192A SAMPLE ID: CVØ192A-CS

SAMPLE COLLECTION TIME: 0900

Description of sample location (front, back, side yard; vegetable garden; play set; ditch, etc):

Front Yard

Collection: Composite or Grab

MS/MSD? Y or N

Field Duplicate or Split: Yes or No If yes, indicate Duplicate/split sample station ID: _____

GPS Coordinates: Trimble Instrument #: 016144 Logged? Y or N

Aliquot #1: Latitude: 33.56017414° N Longitude 86.80402283° W

Media description: CVØ192A1 dk/bwn silty clay f damp w/coal pieces

Aliquot #2 Latitude: 33.56017307° N Longitude 86.80405015° W

Media description: CVØ192A2 same soil

Aliquot #3: Latitude: 33.56017616° N Longitude 86.80408594° W

Media description: CVØ192A3 same soil

Aliquot #4: Latitude: 33.56012166° N Longitude 86.80403705° W

Media description: CVØ192A4 same soil

Aliquot #5: Latitude: 33.56012381° N Longitude 86.80407190° W

Media description: CVØ192A5 same soil

STATION ID: CVØ192B SAMPLE ID: CVØ192B-CS

SAMPLE COLLECTION TIME: 0930

Description of sample location (front, back, side yard; vegetable garden; play set; ditch, etc):

Back yard

Collection: Composite or Grab

MS/MSD? Y or N

Field Duplicate or Split: Yes or No If yes, indicate Duplicate/split sample station ID: _____

GPS Coordinates: Trimble Instrument #: 016144 Logged? Y or N

Aliquot #1: Latitude: 33.56020023° N Longitude 86.80430991° W

Media description: CVØ192B1 dk/bwn silty clay f damp w/coal pieces

Aliquot #2 Latitude: 33.56013340° N Longitude 86.80431210° W

Media description: CVØ192B2 same soil but with gravel also

Aliquot #3: Latitude: 33.56008430° N Longitude 86.80431823° W

Media description: CVØ192B3 same soil as B1

Aliquot #4: Latitude: 33.56020396° N Longitude 86.80437035° W

Media description: CVØ192B4 same soil

Aliquot #5: Latitude: 33.56014392° N Longitude 86.80437009° W

Media description: CVØ192B5 same soil

Air Samples started 0849 / ^{stopped} 0945

Data RAM (004672) started 0849 / stopped at 0945

ADDRESS: (b) (6)

PROPERTY ID: CVPP41

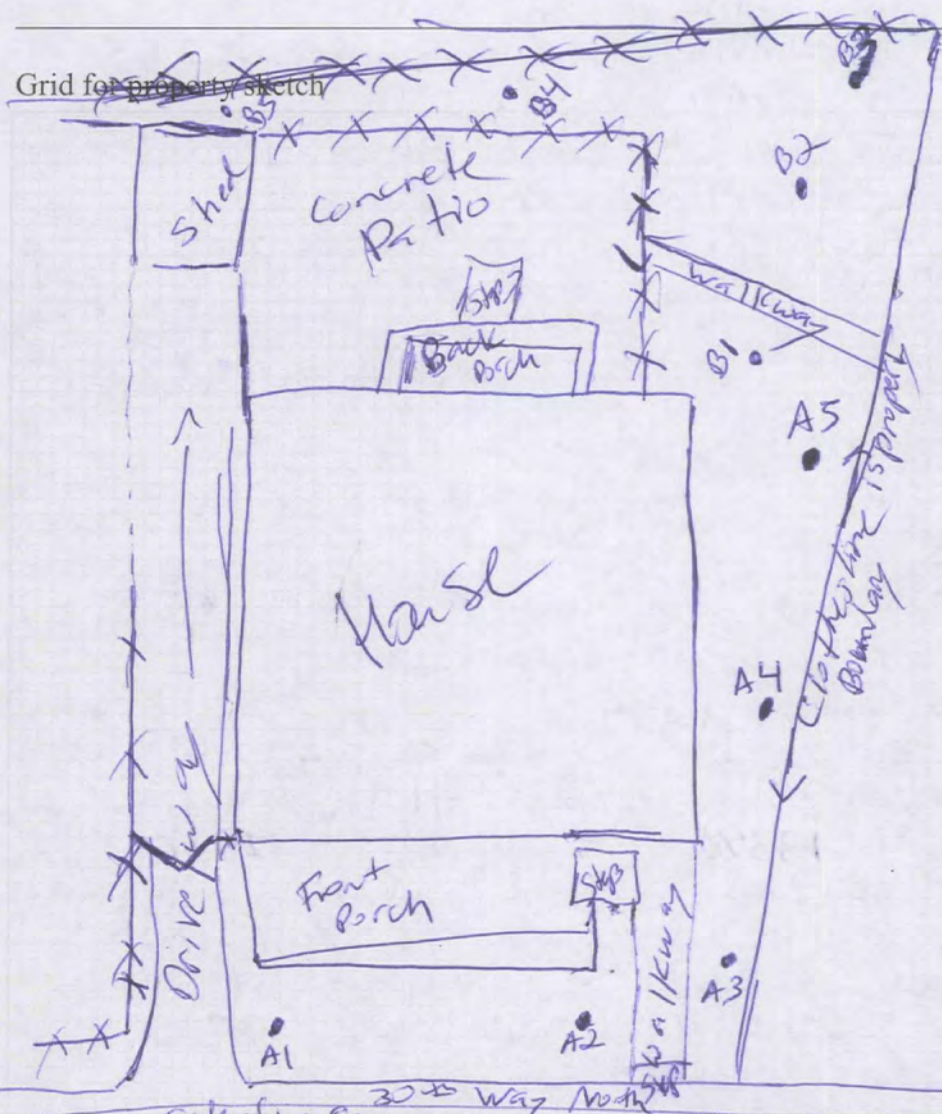
DATE: 11/14/12

ARRIVAL TIME: 1000

Other pertinent information (weather conditions, etc.):

PROPERTY COMMENTS:

Grid for property sketch



Front & ~~side~~ side of house
 3 to House = 10 feet
 1 to 2 = 17 feet
 2 to 3 = 15 feet
 3 to 4 = 23 feet
 4 to 5 = 24 feet

Back yard & side of patio
 1 to 2 = 20 feet
 2 to 3 = 21 feet
 3 to 4 = 12 feet
 4 to 5 = 16 feet
 - to House = 47.5 feet

STATION ID: CV0041A

SAMPLE ID: CV0041A-CS

SAMPLE COLLECTION TIME: 1025

Description of sample location (front, back, side yard; vegetable garden; play set; ditch, etc):
Front E side of house yard

Collection: Composite or Grab MS/MSD? Y or X

Field Duplicate or Split: Yes or No If yes, indicate Duplicate/split sample station ID: _____

GPS Coordinates: Trimble <input checked="" type="checkbox"/> Instrument #: <u>016144</u>		Logged? <input checked="" type="checkbox"/> or N	
Aliquot #1: Latitude: <u>33.55919888°</u>	N Longitude: <u>86.80649034°</u>	W	
Media description: <u>CV0041A1 dk/bwn sity CL f dmp w/ bits of coal</u>			
Aliquot #2 Latitude: <u>33.55915648°</u>	N Longitude: <u>86.80651635°</u>	W	
Media description: <u>CV0041A2 same soil</u>			
Aliquot #3: Latitude: <u>33.55911509°</u>	N Longitude: <u>86.80651791°</u>	W	
Media description: <u>CV0041A3 same soil</u>			
Aliquot #4: Latitude: <u>33.55908243°</u>	N Longitude: <u>86.80645799°</u>	W	
Media description: <u>CV0041A4 same soil</u>			
Aliquot #5: Latitude: <u>33.55904931°</u>	N Longitude: <u>86.80639465°</u>	W	
Media description: <u>CV0041A5 same soil</u>			

STATION ID: CV0041B

SAMPLE ID: CV0041B-CS

SAMPLE COLLECTION TIME: 1045

Description of sample location (front, back, side yard; vegetable garden; play set; ditch, etc):
Back yard E side of patio

Collection: Composite or Grab MS/MSD? Y or N

Field Duplicate or Split: Yes or No If yes, indicate Duplicate/split sample station ID: _____

GPS Coordinates: Trimble <input checked="" type="checkbox"/> Instrument #: <u>016144</u>		Logged? <input checked="" type="checkbox"/> or N	
Aliquot #1: Latitude: <u>33.55903277°</u>	N Longitude: <u>86.80634280°</u>	W	
Media description: <u>CV0041B1 dk/bwn sity CL f dmp</u>			
Aliquot #2 Latitude: <u>33.55901646°</u>	N Longitude: <u>86.80628363°</u>	W	
Media description: <u>CV0041B2 dk/bwn sity CL f dmp</u>			
Aliquot #3: Latitude: <u>33.55899390°</u>	N Longitude: <u>86.80622167°</u>	W	
Media description: <u>CV0041B3 blk sity CL f dmp w/ gravel</u>			
Aliquot #4: Latitude: <u>33.55903043°</u>	N Longitude: <u>86.80620752°</u>	W	
Media description: <u>CV0041B4 dk/bwn sity CL f dmp w/ gravel</u>			
Aliquot #5: Latitude: <u>33.55906930°</u>	N Longitude: <u>86.80619129°</u>	W	
Media description: <u>CV0041B5 dk/bwn sity CL f dmp w/ gravel</u>			

Air samples started 1010/S stopped at 1100

Data RAM (004672) started 1010/ stopped at 1100

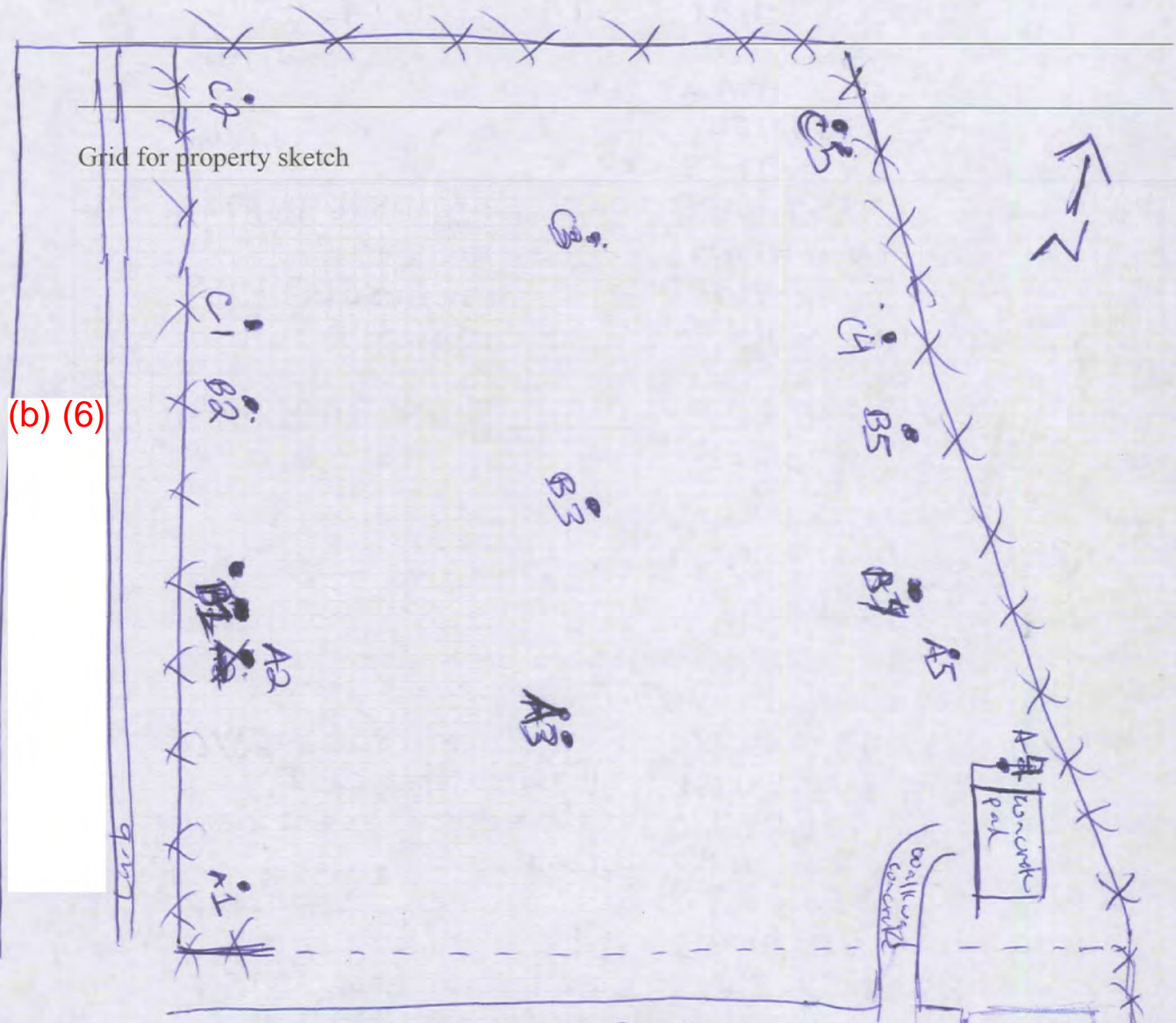
ADDRESS: (b) (6) PROPERTY ID: CV 0043

DATE: 11/14/12 ARRIVAL TIME: 1100

Other pertinent information (weather conditions, etc.):

PROPERTY COMMENTS:

Vacant lot adjacent to CV 0041 (3429), same owner



(b) (6)

Southern 1/3 of parcel (A)	Middle 1/3 of parcel (B)	Northern 1/3 of parcel (C)
3 to 4 = 31 feet	1 to 2 = 22.5 feet	1 to 2 = 24.5 feet
1 to 4 = 75 feet	2 to 3 = 29.5 feet	2 to 3 = 28.5 feet
1 to 2 = 29 feet	2 to 5 = 53 feet	3 to 5 = 44 feet
4 to 5 = 60 feet	5 to 4 = 21 feet	5 to 4 = 24 feet
5 to House = 60 feet	5 to House = 94 feet	5 to House = 128 feet

STATION ID: CV0043A

SAMPLE ID: CV0043A-CS

SAMPLE COLLECTION TIME: 1125

Description of sample location (front, back, side yard; vegetable garden; play set; ditch, etc):

southern 1/3 of parcel

Collection: Composite or Grab

MS/MSD? Y or N

Field Duplicate or Split: Yes or No If yes, indicate Duplicate/split sample station ID: _____

GPS Coordinates: Trimble [] Instrument #: 016144 Logged? Y or N

Aliquot #1: Latitude: 33.55923156° N Longitude 86.80641994° W

Media description: CV0043A1 dk/bwn silty CL f dmp w/bits of coal

Aliquot #2 Latitude: 33.55930886° N Longitude 86.80637200° W

Media description: CV0043A2 same soil

Aliquot #3: Latitude: 33.55924132° N Longitude 86.80631946° W

Media description: CV0043A3 same soil

Aliquot #4: Latitude: 33.55918386° N Longitude 86.80621038° W

Media description: CV0043A4 same soil

Aliquot #5: Latitude: 33.55924334° N Longitude 86.80618259° W

Media description: CV0043A5 same soil

STATION ID: CV0043B

SAMPLE ID: CV0043B-CS

SAMPLE COLLECTION TIME: 1150

Description of sample location (front, back, side yard; vegetable garden; play set; ditch, etc):

middle 1/3 of parcel

Collection: Composite or Grab

MS/MSD? Y or N

Field Duplicate or Split: Yes or No If yes, indicate Duplicate/split sample station ID: _____

GPS Coordinates: Trimble [] Instrument #: 016144 Logged? Y or N

Aliquot #1: Latitude: 33.55933552° N Longitude 86.80635704° W

Media description: CV0043B1 dk/bwn silty CL f dmp

Aliquot #2 Latitude: 33.55939014° N Longitude 86.80631836° W

Media description: CV0043B2 same soil

Aliquot #3: Latitude: 33.55933719° N Longitude 86.80625064° W

Media description: CV0043B3 same soil

Aliquot #4: Latitude: 33.55928471° N Longitude 86.80617517° W

Media description: CV0043B4 same soil

Aliquot #5: Latitude: 33.55934003° N Longitude 86.80615919° W

Media description: CV0043B5 same soil

Air samples started 1100 / stopped at 1228
DataRAM (004672) started 1100 / stopped at 1228

(b) (6)

ADDRESS

(con.)

PROPERTY ID:

CV 0043 (con.)

DATE:

ARRIVAL TIME:

Other pertinent information (weather conditions, etc.):

PROPERTY COMMENTS:

Grid for property sketch

STATION ID: CV0043C SAMPLE ID: CV0043C-CS

SAMPLE COLLECTION TIME: 1225

Description of sample location (front, back, side yard; vegetable garden; play set; ditch, etc):
Northern 1/3 of parcel

Collection: Composite or Grab MS/MSD? Y or N

Field Duplicate or Split: Yes or No If yes, indicate Duplicate/split sample station ID: _____

GPS Coordinates:	Trimble <input checked="" type="checkbox"/>	Instrument #: <u>016144</u>	Logged? <input checked="" type="checkbox"/>	Y or N
Aliquot #1:	Latitude: <u>33.55941135°</u>	N Longitude: <u>86.80630753°</u>	W	
	Media description: <u>CV0043C1 dk/bwn silty CL f drp</u>			
Aliquot #2:	Latitude: <u>33.55947058°</u>	N Longitude: <u>86.80626620°</u>	W	
	Media description: <u>CV0043C2 Same soil</u>			
Aliquot #3:	Latitude: <u>33.55941319°</u>	N Longitude: <u>86.80620477°</u>	W	
	Media description: <u>CV0043C3 Same soil</u>			
Aliquot #4:	Latitude: <u>33.55937057°</u>	N Longitude: <u>86.80614483°</u>	W	
	Media description: <u>CV0043C4 Same soil</u>			
Aliquot #5:	Latitude: <u>33.55943454°</u>	N Longitude: <u>86.80613104°</u>	W	
	Media description: <u>CV0043C5 Same soil</u>			

STATION ID: _____ SAMPLE ID: _____

SAMPLE COLLECTION TIME: _____

Description of sample location (front, back, side yard; vegetable garden; play set; ditch, etc):

Collection: Composite or Grab MS/MSD? Y or N

Field Duplicate or Split: Yes or No If yes, indicate Duplicate/split sample station ID: _____

GPS Coordinates:	Trimble <input type="checkbox"/>	Instrument #: _____	Logged? Y or N
Aliquot #1:	Latitude: _____	N Longitude: _____	W
	Media description: _____		
Aliquot #2:	Latitude: _____	N Longitude: _____	W
	Media description: _____		
Aliquot #3:	Latitude: _____	N Longitude: _____	W
	Media description: _____		
Aliquot #4:	Latitude: _____	N Longitude: _____	W
	Media description: _____		
Aliquot #5:	Latitude: _____	N Longitude: _____	W
	Media description: _____		

(b) (6)

ADDRESS:

PROPERTY ID:

CV 0688

DATE:

11/14/12

ARRIVAL TIME:

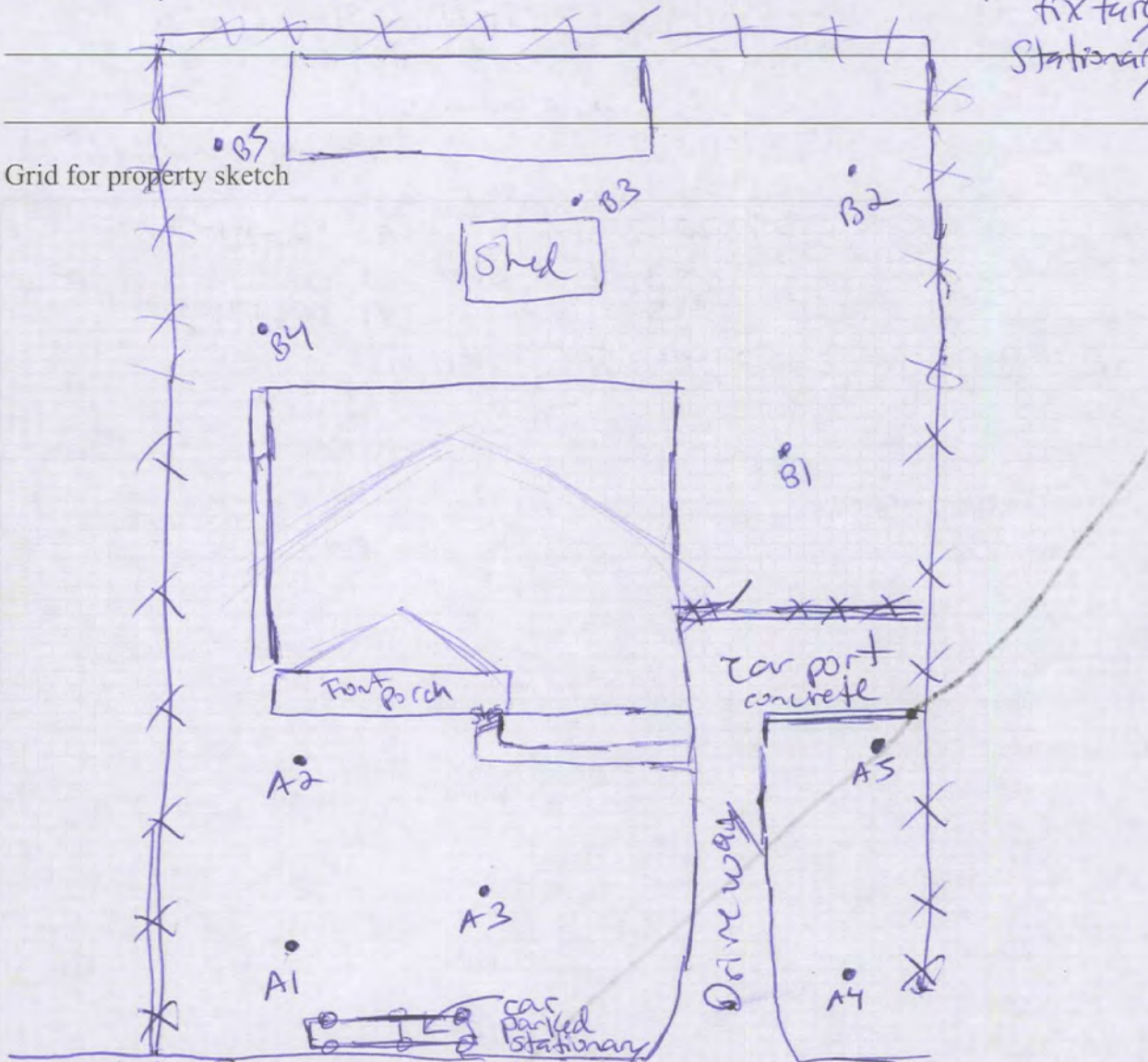
1408

Other pertinent information (weather conditions, etc.):

PROPERTY COMMENTS:

No gardens or playsets
car parked on front lawn, appears to be permanent
fixture
Stationary

Grid for property sketch



Front yard (A)

Rearl Avenue

- 4 to House = 32 feet
- 4 to 5 = 23 feet
- 5 to 3 = 28 feet
- 5 to 2 = 29.5 feet
- 1 to 2 = 12 feet

Back yard (B)

- 1 to 3 = 42 feet
- 2 to 3 = 23 feet
- 4 to 5 = 31 feet
- 2 to House = 42 feet

STATION ID: CV0688A

SAMPLE ID: CV0688A-CS

SAMPLE COLLECTION TIME: 1430

Description of sample location (front, back, side yard; vegetable garden; play set; ditch, etc):

Front Yard

Collection: Composite or Grab

MS/MSD? Y or N

Field Duplicate or Split: Yes or No If yes, indicate Duplicate/split sample station ID: _____

GPS Coordinates: Trimble <input checked="" type="checkbox"/> Instrument #: <u>016144</u>		Logged? <input checked="" type="checkbox"/> or N	
Aliquot #1: Latitude: <u>33.55917143°</u>	N Longitude <u>86.80250969°</u>	W	
Media description: <u>CV0688A1 dk/bwn silty CL f dmp</u>			
Aliquot #2 Latitude: <u>33.55915180°</u>	N Longitude <u>86.80248418°</u>	W	
Media description: <u>CV0688A2 same soil</u>			
Aliquot #3: Latitude: <u>33.55913938°</u>	N Longitude <u>86.80253455°</u>	W	
Media description: <u>CV0688A3 same soil</u>			
Aliquot #4: Latitude: <u>33.55909881°</u>	N Longitude <u>86.80260780°</u>	W	
Media description: <u>CV0688A4 same soil</u>			
Aliquot #5: Latitude: <u>33.55905130°</u>	N Longitude <u>86.80254941°</u>	W	
Media description: <u>CV0688A5 same soil</u>			

STATION ID: CV0688B

SAMPLE ID: CV0688B-CS

SAMPLE COLLECTION TIME: 1450

Description of sample location (front, back, side yard; vegetable garden; play set; ditch, etc):

Back yard

Collection: Composite or Grab

MS/MSD? Y or N

Field Duplicate or Split: Yes or No If yes, indicate Duplicate/split sample station ID: _____

GPS Coordinates: Trimble <input checked="" type="checkbox"/> Instrument #: <u>016144</u>		Logged? <input checked="" type="checkbox"/> or N	
Aliquot #1: Latitude: <u>33.55897638°</u>	N Longitude <u>86.80240977°</u>	W	
Media description: <u>CV0688B1 dk/bwn silty CL f dmp</u>			
Aliquot #2 Latitude: <u>CV0688B2</u>	N Longitude <u>86.80228605°</u>	W	
Media description: <u>33.55886979° dk/bwn silty CL f dmp</u>			
Aliquot #3: Latitude: <u>33.55893892°</u>	N Longitude <u>86.80227104°</u>	W	
Media description: <u>CV0688B3 dk/bwn silty CL f dmp w/ Sandstone</u>			
Aliquot #4: Latitude: <u>33.55800649°</u>	N Longitude <u>86.80229196°</u>	W	
Media description: <u>CV0688B4 dk/bwn silty CL f dmp</u>			
Aliquot #5: Latitude: <u>33.55896628°</u>	N Longitude <u>86.80221034°</u>	W	
Media description: <u>CV0688B5 BL silty sand m-f dmp</u>			

Air samples started 1410/ stopped at 1500
 Data RAM (004672) started 1410/ stopped at 1500

The remaining pages in this logbook are
blank and have not been scanned.