VERMONT

State of Vermont
Department of Environmental Conservation
Waste Management & Prevention Division
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AGENCY OF NATURAL RESOURCES

DRAFT MEMORANDUM

TO: Dan Albrecht and Emily Nosse-Leirer
Chittenden County Regional Planning Commission

FROM: Patricia Coppolino, Brownfields Program Manager
Linda Elliott, Project Manager

DATE: November 13, 2019

SUBJECT: Phase II ESA Funding Request for property in Chittenden County

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Thank you for discussing the Bert White Junkyard property located at 740 Bert White Road in the Town of Huntington, last week. Below is a summary of the property and funding request.

Background

The Bert White Junkyard is currently owned by Mr. William "Bill' White who operated a vehicle salvage business (including car crushing) from approximately 1960 until 2019. Camel's Hump Auto (CHA) also operated on this property between 2000 and 2019. The property comprises one parcel totaling approximately 78.28 acres and includes a one -story metal and wood building that was used by CHA.

The DEC refers to the property as Bert White Junkyard and was placed on the active hazardous site lists (SMS #2004-3246) in 2004 due to a number of hazardous waste storage violations and release of gasoline to the environment from at least one leaking drum. The DEC requested the owner back in 2004 to conduct a site investigation. Over the years the owner has made an effort to tidy up the yard, however the site investigation remains outstanding. The property currently sits idle.

Proposed Redevelopment
Adam Piper (as a prospective purchaser) was accepted into the BRELLA Program.

Mr. Piper's proposed redevelopment includes expansion of his maple sugaring operation, which is currently on the western-adjoining property. He currently has 600-700 taps and his long-term goal is to expand to 7,000 taps. Mr. Piper intends to make use of the existing CHA building as a shop for his business. In addition, he would like to have up to three rental camping sites (including the hunting camp depicted on site maps) throughout the property.

Summary of Phase I Findings:
The DEC retained Stone Environmental (Stone) to conduct a Phase I Environmental Site Assessment and preparation of a Phase II work plan /cost estimate for the entire parcel. Stone identified two *historical* recognized environmental conditions (RECs). These include:

- Historical Use of the Property as a salvage yard from 1960s until 2019.
- Historical Use of the On-Site building, Previously Operated as CHA, for Vehicle Repairs/Disassembly from Approximately 2000 until 2019.

Phase II Work Plan /Cost Estimate
The total cost of the Phase II work ranges from $72,000 to $111,500 for the entire parcel. The upper amount includes a contingency if a release is identified and additional assessment work is needed (pending the results of the ISM field screening).

The assessment for just the former CHA is approximately $30,000 (see attached cost estimate from Stone). Section 3.3.5 of the October 1, 2019 Work Plan includes a description of the CHA tasks in assessing whether contaminants of concern have been discharged to the concrete slab, sub-slab soils, exterior soils, and groundwater.

Funding Consideration
Adam Piper has spent a lot of his time over the years contemplating acquiring this property and how to make his business grow. With no viable current owner to address the outstanding environmental issues this property will most likely remain idle. This property has been an eyesore for the local community for many years and assessing and cleaning up this property will improve the overall landscape for this area of Chittenden County and the local environment.

The DEC is still committed to providing some funding for the Phase II ESA is suggesting as a starting point a 3-way split. We are in hopes that the CCRPC Brownfields Committee will also support this project by partnering with us to provide funding towards the Phase II ESA and cleanup planning. Due to the historical land use and nature of the contaminants of concern, the DEC believes the majority of the assessment work would be eligible for EPA Petroleum Funds.

If you need any additional information, please do not hesitate to contact us. Thank you for your consideration and we look forward to working with you on this project.

Purchase and Sales Agreement
Bill White
Selling property to
Adam Piper
Huntington Vermont

Description:
All Lands and a barn owned by Bill White, South of Burt White Road in Huntington Vermont excluding a parcel of land where Bill Currently Resides. The boundaries are shown on a survey by David Tudhope and depict the property as 80.34 acres.

Sale:
The seller agree to sell to the buyer and the buyer agrees to buy from the seller 80.34 acres as depicted on the Tudhope survey.

The Purchase price of 165,000 will be paid by the buyer to the seller at the time of sale unless both parties agree to an alternative.

- Sale price may be renegotiated by the buyer if the appraisal, inspection or BRELLA work uncovers any issues impacting the value of the land.
- If not completed already, both parties will work to complete the sale by Dec 29th 2016 - Flexible

Seller will work with the buyer to time the closing on this property in order to allow for the sale of a property currently owned by the seller in Burlington VT.

Environmental Conditions:
Seller agrees to remove **all** debris and items currently on the property including but not limited to vehicles, an unlived in home, tires, vehicle parts, machinery and any items not natural in nature. Anything left on the property must be done so through mutual agreement between the Seller and the Buyer.

Seller agrees to allow buyer to participate in the states Brownfields Reuse and Environmental Liability Limitation Act (BRELLA) program prior to the sale. Buyer agrees to allow seller enough time to retain all items he would like to keep and to arrange for the clean up.

If substantial issues are surfaced while the buyer participates in the BRELLA program the contract may be terminated by the purchaser.

Transfer Documents:
At the Closing, Seller shall cause to be delivered to Purchaser a Vermont Warranty Deed and Vermont Property Transfer Tax Form.

- Buyer and Seller will both be required to produce all necessary documents for the closing.

Seller shall pay all real estate taxes that are due and payable as of the closing date on or before closing. .This obligation shall survive closing.

The terms and conditions of this Contract are herby accepted by Sellers and Purchasers. Sellers certify that they are sole legal and/or equitable owners of the Property. Sellers and Purchasers certify that they are competent to enter into this Contract and do not need authority or consent of any other person to execute and be bound by this Contract.

On this 29th day of December, 2015 Bill White agrees to sell 80.34 acres of land to Adam Piper.

SELLERS

William White

PURCHASER

Adam Piper

Address:
630 Bert White Rd
Huntington VT. 05462

Address:
1 Steele St #3
Burlington VT 05462

Schedule 1
Contingencies and Supplemental Conditions:

- Sale may be terminated if buyer is unable to secure adequate financing.

Bill white and Adam Piper agree to extend this contract until the materials have been removed from the garage and Property. This contract is Binding for Bill white, his heirs ~~and~~ assigns and administrators

1-18-17
Date

William White
Bill white

Adam Piper
Adam Piper

Phase II Environmental Site Assessment Work Plan

740 Bert White Road
Huntington, Vermont
October 1, 2019

STONE ENVIRONMENTAL

PROJECT NO.

19-116

REVIEWED BY:

DTV
9/30/19

PREPARED FOR:

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SUBMITTED BY:

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Title and Approval Page

Document Title

Phase II Environmental Site Assessment Work Plan, 740 Bert White Road, Huntington Vermont,

October 1, 2019

Document Prepared by:

Stone Environmental, Inc., 535 Stone Cutters Way, Montpelier, VT 05602 (802) 229-4541

Document Preparer Approvals:

Summers Long, Staff Scientist, Stone Environmental, Inc.

Signature Date 10.1.2019

I certify under penalty of perjury that I am an environmental professional and that all content contained within this deliverable is to the best of my knowledge true and correct.

Daniel Voisin, Director of Environmental Assessment and Remediation Services, Stone Environmental, Inc.

Signature Date 10/1/19

Phase II Environmental Site Assessment Work Plan, 740 Bert White Road, Huntington, Vermont

Cover Photo: 740 Bert White Road, Former Camel's Hump Auto, Stone Phase I ESA, 2019.

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1. Introduction

Stone Environmental, Inc. (Stone) has prepared this Work Plan on behalf of Mr. Adam Piper to conduct a supplemental Phase II Environmental Site Assessment (ESA) for the property located at 740 Bert White Road in Huntington, Vermont (the Site or Property; Figure 1 in Appendix A). Based on the findings of Stone's Phase I ESA of the Site dated September 18, 2019, further environmental assessment is necessary to evaluate the environmental condition of the property and to satisfy continuing obligations as a willing participant of the Vermont Agency of Natural Resources Department of Environmental Conservation (VT DEC) Brownfield Environmental Re-use and Liability Limitation Act (BRELLA) program. This Work Plan was prepared with funding from the VT Environmental Contingency Fund through the VT DEC Brownfield Response Program

The Property, currently owned by Mr. William "Bill" White (Mr. White), was previously operated as a vehicle salvage yard from approximately 1960 until 2019. A building formerly operated as Camel's Hump Auto (CHA) from approximately 2000 until 2019 is located on the northern part of the Property. At the time of the Phase I ESA walkover inspection most of the vehicles associated with the salvage yard have been removed; remaining vehicles and scrap metal were in a central portion of the former salvage yard and within the former CHA building.

1.1. Proposed Redevelopment

According to the prospective property purchaser, Mr. Piper, the proposed redevelopment includes expansion of his maple sugaring operation, which is currently located on the western-adjoining property. Mr. Piper also intends to use the previous CHA building as a shop to for his maple sugaring business.

1.2. Site Description

The Site is located at 44.322533 north latitude and -72.949258 west longitude and elevation ranges from approximately 1,215 feet above sea level (ASL) in the northern portion of the Site to 1,330 feet ASL in the southern portion of the site in Huntington, Vermont (Figure 2). The Site comprises one parcel totaling approximately 78.28 acres (Table 1; Figure 3).

Table 1: Summary of Site Parcels

Address	Current Use	Approximate Acreage	Tax Parcel ID
740 Bert White Road	Vacant	78.28	016065

The Site is bound to the north by Bert White Road with residential and agricultural properties beyond with rural residential properties to the west, south, and east. The properties within the vicinity of the Site are a mixture of undeveloped woodlands, rural residential, and agricultural properties.

The Site includes two functional areas of environmental concern as depicted on Figure 3. The CHA garage and surrounding area have had both automotive salvage and automotive repair land uses. According to Mr. Piper, CHA previously had multiple trailers to store salvaged parts surrounding the garage building. The salvage yard, which extended along a gravel drive extending from Bert White Road to the nearly the southwest corner of the property with several branch roads, reportedly included the storage of hundreds of cars for salvage. Cars were nearly continuously parked along the gravel drive that extend a half mile into the Property from Bert White Road and were concentrated within eight yards situated along the drive. The two largest yards, referred to as the Main Yard and Upper Yard on Figure 3, total approximately 1.3 and 3.9 acres, respectively.

1.3. Site History

A portion of the Site was previously used as a salvage yard from approximately 1960 until 2019. Multiple former vehicle storage areas are apparent in historical aerial photographs and were confirmed during the Phase I ESA walkover inspection. A substantial amount of debris including apparent vehicle parts, scrap metal, wood piles, and other unidentified materials were observed in the former vehicle storage areas. According to Mr. White, a vehicle crusher was operated at the Property. The vehicle crusher was reportedly used without a containment during its operation.

A metal building, previously operated as CHA from approximately 2000 until 2019, is located on the northern part of the Property. The former CHA building was used for vehicle repair and disassembly.

1.4. Prior Environmental Investigations

1.4.1. Resource Conservation and Recovery Act (RCRA) Inspection Report, completed by VT DEC, dated December 28, 2004

VT DEC completed a RCRA Inspection Report (*Inspection Report)* at the follow up on various issues observed during a previous inspection conducted on May 25, 2004. The *Inspection Report* identified the following violations observed during the Site inspection:

- Oil soaked rags not stored in appropriate or labeled containers;
- Oil soaked Speedi-Dry container open and unlabeled;
- Spent lead-acid batteries not covered and some still in cars scheduled for crushing;
- Two drums that were cut in half and filled with used oil;
- Unlabeled containers of used oil;
- Containers of used oil stored on bare ground with no containment;
- Used oil AST without secondary containment stored outside on the bare ground and not within a covered structure;
- Release of gasoline to the environment from a leaking drum of gasoline.

1.4.2. Stone Environmental Phase I ESA, September 18, 2019

Stone conducted a Phase I ESA of the Property on behalf of Mr. Piper in accordance with ASTM Standard Practice E1527-13. Stone identified the following recognized environmental conditions (RECs) associated with the Property:

Historical Use of the Property as a salvage yard from the 1960s until 2019

- The potential release of hazardous materials and/or petroleum products to the ground surface and possibly the groundwater as a result of vehicle disassembly/crushing activities at the Property represents a REC

Historical Use of the On-Site Building, Previously Operated as CHA, for Vehicle Repairs/Disassembly from Approximately 2000 until 2019

- Historical handling and use of hazardous materials and petroleum products associated with the previous CHA building has resulted in releases evident by substantial surface staining of concrete slab within the building. In addition, historical practices at similar facilities have been known to cause adverse environmental impacts beneath the concrete slab and in surrounding soils. Based on this information, the historical use of the building as an automotive repair/disassembly facility represents a REC.

2. Conceptual Site Model

The Conceptual Site Model (CSM) presented herein is primarily based on findings of Stone's Phase I ESA and VT DECs *Inspection Report*. If additional data are made available, the CSM will be updated.

2.1. Topography

Topography at the Property is hilly with steep terrain in certain areas. Terrain in the southern part of the Property is at a higher elevation with the topography generally sloping to the north-northwest, towards an unnamed tributary of the Huntington River.

2.2. Geology and Hydrogeology

According to the Bedrock Geology layer within the Vermont Agency of Natural Resources Atlas, bedrock at the Site includes two mapped units. Most of the Site is mapped as primarily containing schist and is described as silvery-green quartz-muscovite-chlorite schist and phyllite with albite, magnetite, and dolomite, and is included in the mountain massif belt of the Underhill Formation (Ratcliffe et al., 2011). In the southeastern portion of the Site, a klippe of carbonite-albite-epidote greenstone and amphibolite. Bedrock was not observed during site reconnaissance on September 4, 2019. According to the well details for Mr. White's water supply well (Tag #46985), located approximately 380 feet west of the former CHA garage, the overburden thickness within the well borehole is 5 feet.

The dominant orientation of contacts, faults, and other geologic structures at the Site is to the north, northeast. We expect that secondary fractures may be present to the west, northwest.

According to surficial geologic mapping by the Vermont Geological Survey, native unconsolidated soils at Property are predominately characterized as glacially deposited till. Glacial till is a catch-all term for sediment that is directly deposited by glacial ice. Variations within the "genus" include basal tills, ablation tills, or those deposited within a moraine (terminal tills). At the Site, we expect predominantly basal tills mantling bedrock with localized ablation till comprising surficial soils. Typically, these sediments are composed of poorly sorted, sand, gravel, cobbles, and boulders within a matrix of silt and clay. While often seen as an aquitard, permeability within tills can be highly variable and will depend on the presence of fractures within the matrix or seams of coarser sediments. Within ablation tills, the matrices can be devoid of clay or silt resulting in higher hydraulic conductivities than basal tills. Based on the thin veneer of till observed within well #46985, we expect that some areas of the site may have exposed bedrock that have not been identified to date.

A spring was observed in the northeastern portion of the Property and runoff appeared to be flowing to the north-northwest, following the slope of the surface topography. According to the User and Owner, a second spring is in the northwestern portion of the Property. The nearest mapped surface water feature is an unnamed tributary of the Huntington River, located approximately 1,400 feet to the northwest of the Property.

According to a *Site Status Update Report*, completed by Lincoln Applied Geology, Inc., (LAG) dated March 29, 2004, groundwater flow at the Bert White Residence which is located approximately 225 feet northwest of the Property is expected to flow to the northwest.

2.3. Release Mechanisms

Based on our understanding of the Site and past practices under CHA and the salvage yard, Site contaminants of concern include all manner of automotive fluids and materials. Specifically, petroleum automotive fuels and lubricants, chlorinated and petroleum solvents, acid-lead battery fluids, transmission, power steering, and brake fluids, hydraulic oils, and antifreeze. The following sections describe physical characteristics of these compounds and their potential points of entry to the environment.

2.3.1. Volatile Organic Compounds and Semi-Volatile Organic Compounds

Past Site practices include the use and storage of hazardous substances, petroleum products, and possible chlorinated solvents within the former CHA building. These materials could potentially have been introduced to the subsurface through spills to the ground surface or through cracks within concrete slab during automotive repairs and/or vehicle disassembly. Past VT DEC inspection of the Site identified several areas at the Site where a release of motor oil and gasoline had occurred. Based on the Site's history, undocumented releases of volatile organic compounds (VOCs) and semi-volatile organic compounds (SVOCs) to the ground surface in the former vehicle storage are likely.

2.3.1.1. Solvents

According to the ESA, completed by Stone, dated September 18, 2019, a parts washer was used in the former CHA facility and consisted of kerosene and degreaser. According to Mr. White, CHA began operations in 2000 and did not use chlorinated solvents within its parts washers. Historically, parts washers have been known to utilize chlorinated VOCs (CVOCs), specifically tetrachloroethylene (PCE) and trichloroethylene (TCE). Small quantity, spray-applied chlorinated solvents, such as carburetor or break cleaners may have been in use at the Site for small, focused applications where there may have been a release to the concrete slab. Petroleum solvents were reportedly in use at the Site and may have been released to the concrete slab. If released to the slab, solvents – either chlorinated or petroleum – may enter the subsurface through preferential pathways.

2.3.1.2. PAHs

Polycyclic Aromatic Hydrocarbons (PAHs) are a subset of SVOCs that are common byproducts of the combustion of fossil fuels and occur naturally in fuel oil, coal, gasoline, motor oil, and tar. At the Site, we expect that PAHs may be present in the environment in relation to spilled motor oil or fuels within the CHA garage, associated with the former crushing operations, or at any number of locations where leaking automobiles were situated.

2.3.1.3. Antifreeze/Engine Coolant

Typically, antifreeze is captured and recycled or disposed as hazardous wastes. Based on reported Site practices and the extended duration of operation, we expect that antifreeze may have been released to the environment through leaks within automobile radiators or during uncontrolled crushing operations. Antifreeze may contain other contaminants, such as benzene or lead, that can enter the environment through the release of antifreeze.

2.3.2. Polychlorinated Biphenyls (PCBs)

PCBs are a group of structurally similar man-made chemicals that were manufactured in the United States from 1929 until 1979, when manufacturing was banned (https://www.epa.gov/pcbs/learn-about-polychlorinated-biphenyls-pcbs). PCBs were commonly used in lubricating oils and hydraulic fluids used in a wide range of manufacturing processes and equipment. Unreported spills of lubricating oils and hydraulic fluids during automotive repairs and disassembly may have occurred at the Site as indicated by the presence of oil-staining in the CHA garage slab or other locations throughout the salvage yard. If these oils and hydraulic fluids contained PCBs, they could potentially diffuse into the concrete slab or be present on solid surfaces, and possibly within the stained areas of the slab that were observed during Stone's Phase I ESA inspection. PCB-contaminated hydraulic fluids may have also been released at unknown locations within the salvage yard.

2.3.3. Heavy Metals

Heavy metals such as arsenic, lead, cadmium, copper, and zinc can be present in used motor oil. Used motor oil was observed stored on-site within the former CHA building and at various unknown locations across the Site. Lead may also be present in the environment at the Site due to improper storage of lead-acid batteries or past releases of leaded gasoline or diesel fuel.

2.4. Contaminant Distribution, Fate, and Transport

2.4.1. PCBs

PCBs are persistent in the environment and may have been introduced to the concrete slab in the on-site building via improper handling of lubricating oils and hydraulic fluids associated with the former CHA facility. PCBs may also be released to surficial soils by unknown releases of contaminated fluids within the salvage yard. In the environment, PCBs

2.4.2. PAHs

PAHs do not readily dissolve into water without help from a co-solvent and are therefore slow to migrate to or via groundwater.

2.4.3. VOCs

Past Site practices include the use and storage of hazardous substances, chlorinated solvents and petroleum products within the former CHA building. These materials could potentially have been introduced to the subsurface through spills to the ground surface or concrete slab during automotive repairs and/or vehicle disassembly. Releases to the concrete slab could result in VOCs diffusing into the concrete, which could serve as an ongoing source of indoor air contamination as the VOCs back diffuse into indoor air. Cracks and penetrations within the building slab could have served as pathways for VOCs to enter the subsurface. Based on the Site's history, a release of VOCs to the ground surface in the former vehicle storage areas is also likely as a result of vehicle disassembly and crushing activities.

In general, once released to the subsurface, petroleum can partition into four phases: 1) vapor (i.e. soil gas), 2) aqueous (dissolved in pore water or ground water), 3) sorbed (to soil minerals and organic matter), and 4) remain as light non-aqueous phase liquid (LNAPL), either residual or mobile. The phase partitioning and migration of petroleum hydrocarbons, once released to the subsurface, depends on several factors, including: the volume of the release, the physical and chemical properties of the individual hydrocarbon compounds, and the physical and chemical properties of the media that the hydrocarbons were released into.

At the Site, motor oil and fuel may have been released to subsurface soils during prior crushing activities and from potentially hundreds of locations where vehicles were stored. If enough quantity was released and if in contact with permeable soils, liquid petroleum may travel downward under the influence of gravity before encountering the water table. As this liquid migrates downward, horizontal spreading will occur as variations in strata are encountered. Residual and sorbed phase petroleum would be left in the migration path and remain in vadose zone soils. Once groundwater is encountered and pore space is occupied by water, additional lateral spreading of the fuel oil will occur. Depression of the equipotential surface may occur if enough LNAPL is present. Seasonal variations of groundwater equipotential surface elevation will result in further downward migration as the pore spaces are temporarily vacated from water. A dissolved phase plume consisting of the lighter fraction of petroleum compounds can be expected if a release has occurred.

Based on the duration of time CHA operated a parts washer within the building (~19 years), the presence of CVOCs on or beneath the building's concrete slab cannot be ruled out and could pose a risk to indoor air quality. If released to the slab, solvents may enter the subsurface through preferential pathways (e.g. cracks) within the slab and be present in residual, sorbed, or vapor phases below the slab. It is unknown if solvents were used within the salvage yard portion of the Site.

Heavy metals typically bind to soil and sediment; however, can leach into groundwater under low pH conditions. If discharged to soils near streams, metals from Site releases may migrate within surface water through sediment transport. Sensitive Receptor Evaluation

Contamination from Site sources has been evaluated for its potential to adversely affect sensitive receptors. Table 2 presents the potentially affected media, potential pathways, and potential receptors.

Table 2: Sensitive Receptors Evaluation

Potentially Affected Media	Potential Pathways	Sensitive Receptors	Relative Level of Risk
Concrete Slab	Vapor released from concrete slab	Occupants (Vapor Intrusion)	Unknown
Surface Soil	Direct contact to contaminated materials.	Trespassers Site Workers Site Users Native biota	Unknown
Sub Surface Soil	Direct contact to contaminated materials.	Future users performing excavations for construction or utility maintenance Occupants (Vapor Intrusion)	Unknown Unknown

Potentially Affected Media	Potential Pathways	Sensitive Receptors	Relative Level of Risk
	Vapor released from soil infiltrating Site structures or during construction.		
Groundwater	Infiltration of surface water through affected surface soil may leach contaminants into the groundwater table	Groundwater users – water supply wells are present on adjoining properties	Unknown
Air	Vapor intrusion of volatile constituents from potential sub-slab contamination Indoor air quality due to off-gassing from concrete slab or soil gas	Building occupants	Unknown

Table 3, below, presents a summary of groundwater supply wells within 1/2-mile of the Site. Distance and direction are given from the well to the neared portion of the Site parcel boundary.

Table 3: Sensitive Receptors Evaluation

Well Report #	Tag	Owner	Direction (approx..)	Distance (ft)
12933	12933	David Martin	1,600	W, NW
5072	8-18-97	Albert Nemethy	870	S
3024	237/1208A	GARY FAY	1200	N, NW
22715	22715	Rob and Mary Muir	820	NW
2156	780	ROB ZIMMERMAN	1200	W, SW
52917	52917	Clay DeMelo	740	W
93		DON PIPER	1250	S
299	114/B557	NATALLA CZAR	1500	N, NW
340	664	EDWARD BOURQUE	1300	S
191	23-6-320	ED DAUPHIN	1400	NW
8136	1-224	Mark Torelli	1040	NE
46985	46985	Bill White	250	W
10042	10042	Frankie Chandler	1000	W, NW
88		JOHN & GLORIA DONAGHY	1450	NW
15557	1-286	Dori Barton	400	E

4750	1104	JED CRUXSFORD	660	E
55864	55864	Mark Smith	1550	E, SE
334	60/933B	JEFF FORTUNE	1200	E
206	6678	HOWARD ATHERTON	990	S
55654	55654	Robert Thompson	1280	W, NW
22794	22794	Mark Smith	1830	E, SE
178	23-6-219	SHERWOOD BUILDERS	1600	N, NW
50165	50165	Brian Russin	150	N
204	6329	Howard Atherton	730	SW

3. Scope of Work

The scope of work presented in this Work Plan is designed to evaluate whether RECs presented in Stone's September 18, 2019 Phase I ESA present an ongoing liability concern for the prospective Property purchaser, specifically:

1. Evaluate whether previous activities associated with the CHA garage have resulted in releases of contaminants of concern (COC) to the surface of the concrete slab and/or sub-surface soils.
    a. Evaluate the presence/absence of PCBs in the concrete slab within the garage.
    b. Assess whether past use of CVOCs or VOCs within the previous CHA building present a risk to indoor air quality.
    c. Assess
2. Assess whether past Site practices associated with the former Bert White Salvage Yard have resulted in a release of COCs to Site media of interest, including soil and groundwater.

Stone Standard Operating Procedures (SOPs) and Site-Specific Procedures to be used during the Site Investigation are listed below and available in their entirety upon request.

-
- SEI-4.2.7: Chain of Custody Procedures
- SEI-4.5.11: Data Handling, Storage, Retrieval and Error Coding
- SEI-5.1.5: Maintenance and Decontamination of Field Equipment
- SEI-5.34.6: Installation, Development, and Decommissioning of Monitoring Wells
- SEI-5.41.4: Handling, Collection and Transportation of Samples
- SEI-5.49.1: Groundwater Sampling Using Low-Flow
- SEI-5.51.2: Procedure for Collection of Soil Gas Samples for VOC Analysis
- SEI-5.56.2: Geologic Description of Unconsolidated Deposits Using the Wentworth Grain Size Scale
- SEI-5.58.1: Collection, Handling, and Preservation of Discrete Soil Samples
- SEI-5-64.0: Procedure for Sampling Porous Surfaces for PCB Analysis
- SEI-5.66.1: Sampling for Volatile Organic Compounds Using a Static Flux or Active Chamber (Vapor Dome)
- SEI-5.63.0: Use, Maintenance and Calibration of the Ion Science Tiger Photoionization Detector (PID)
- SEI 119-116.1.0: Procedure for Collection of Primary Soil Samples Using Compositing and Incremental Sampling Methodology, 740 Bert White Road Huntington, VT
- SSP SEI-19-116.1.0: Determination of Lead in Soil Samples Using Field Portable XRF Spectrum Analyzers

3.1. Work Plan

Stone has prepared this Work Plan document for review by Ms. Linda Elliott with the VT DEC. The Work Plan details the purpose, methodologies, and quality control measures of the supplemental Phase II ESA.

3.2. Project Management and Coordination

Stone's project manager will coordinate all field sampling activities with the drilling subcontractor, analytical laboratory, Mr. White (Owner), and Mr. Piper (User), and VT DEC. The project manager will provide periodic updates to the stakeholder group throughout the completion of the Phase II ESA site investigation and as results are made available.

Prior to initiating field activities, Stone will develop a site-specific health and safety plan (HASP). All field staff will have OSHA HAZWOPER training. The HASP will be available to VT DEC upon request.

All exterior soil boring locations will be pre-marked by Stone for utility clearance by DigSafe. Stone will also coordinate with the current property owner, Mr. White, to ensure that soil borings and interior sub-slab sample locations do not conflict with private utilities. While on-Site for DigSafe demarcation, Stone will establish decision units for surface soil assessment (see Section 3.4.1).

3.3. Site Investigation

Stone proposes to utilize a dynamic Site Investigation strategy to assess each area of concern and, if a release is identified, proceed with delineation of the nature and extent of the associated release. The following sections are organized to present "base assessment" tasks that will be completed will be completed to assess whether the RECs resulted in a release to the environment and "contingent assessment" tasks that will be performed in the event that a release is identified.

3.3.1. Base Task: Salvage Yard Assessment

3.3.1.1. Surficial Soil Assessment

Stone proposes to assess surface soil quality using ISM within each area that was formerly used for salvage yard operations. Figure 4 includes a depiction of the location of assigned decision units (DU's) for salvage yard lay down areas (Yard 1, Main Yard, Yard 3, Yard 4, Yard 5, Yard 6, Upper Yard 1, and Upper Yard 2). The Upper Yard is divided in to two separate areas to ease assessment and reduce the size of the decision units (DUs).

ISM samples will be collected from the eight salvage yard DUs with each containing a minimum of 30 grid-based increments (Figure 4). DUs are sample areas that represent the smallest volume of soil that will be collected and analyzed based on ISM sampling methods. The location and size of each DU was chosen based on evidence of disturbance from historical aerial photographs and likely contamination observed during the site reconnaissance performed on September 4, 2019, as part of a Phase I ESA. Evidence of contamination included presence of debris, stained soils, stressed vegetation, and oil-like sheens observed on puddles of water. To collect individual increments, a hand shovel will be used to remove sod, humus, or vegetation at each ISM increment location, if present. Hand tooling will be used to collect soil from the 0.0 – 0.5 interval foot below ground surface (bgs) at each increment location. This sampling procedure will be repeated at five locations per sub-unit to generate five ISM sample replicates. The five replicates will be collected following a randomized sampling strategy.

To collect each ISM replicate, approximately 20 grams of soil will be collected from each increment and placed in dedicated new aluminum trays. Separate aluminum trays will be used for each of the five replicates within each DU. New aluminum trays will be used for each DU and its five replicates. Due to the expected extreme heterogeneity of Site soils, we are proposing to use five replicates per DU to provide additional statistical weight to concentration results.

Once all increments have been sampled and soil aliquots placed in the aluminum pans, soil will be mixed, subsampled, and placed in sample containers in accordance with Site-Specific Procedure *SEI 17-070.1.0: Procedure for Collection of Primary Soil Samples Using Compositing and Incremental Sampling Methodology, 740 Bert White Road, VT*.

Subsampling will be conducted by spreading the mixed soil to a uniform thickness across the aluminum pans, dividing the pans into 30 equally sized grid squares, and placing approximately 1.5 grams of soil from each grid square into the sample container. In this manner, approximately 45 g of soil will be collected, which is enough for 20 g of soil necessary for SVOC analysis, 12 g of soil required for 13 PP metals including barium analyses, and the remaining soil will be used for dry weight determination. An electronic field balance will be used to ensure the proper amount of soil is collected from each subsample grid square. These subsampling procedures will be repeated to obtain an additional jar of soil to be analyzed in the event of sample breakage, need for additional extraction, or other scenarios that may arise requiring additional sample volume.

Upon collection, all ISM samples will be placed in an ice filled cooler and transported under chain-of-custody to Phoenix for SVOC, PCB, and PP Metals plus barium analyses by EPA Methods 8270, 8082 with Soxhlet extraction, and 6010C /7471.

Duplication is inherent in ISM; therefore, field duplicates will not be collected.

Soil collected from the A increment from each sub-unit will be logged for texture, color, and moisture content and screened for the presence of VOCs using a handheld photoionization detector (PID) equipped with a 10.6 electron volt (eV) lamp. Soils will also be field screened for lead using a field-portable x-ray fluorimeter (XRF). An Innov-X Delta XRF analyzer or equivalent will be utilized to assess in-situ surface soils at the Site. Due to the interferences caused by excessive moisture, the lead assessment will not be conducted within 24-hours following rain.

PID and XRF field screening measurements will be used for the basis of performing a contingent soil boring or submitting the individual increment for analyses.

3.3.2. Contingent Soil Borings

If, during the ISM-based soil assessment, contamination is detected at concentrations greater than 5 ppmv VOCs by PID or over 400 ppm lead by XRF, a soil boring will be performed. Soil borings will be performed in the same manner as proposed in Section 3.3.3. For planning purposes, we assume up to 20 additional soil borings will be performed based on contingent criteria.

3.3.3. Base Task: Main Yard Assessment

3.3.3.1. Targeted Soil Borings

A subsurface soil assessment will be conducted to evaluate the impact of the former salvage yard to the subsurface soils. Due to the number of stored automobiles, reported to be several hundred, and the wide array in which the vehicles were stored, performing targeted soil borings at each potential point of release is not feasible. Stone proposes to focus targeted soil borings on the Main Yard (Figure 4) where car crushing occurred in 2004. Other soil borings will be performed to assess vertical extent of contamination if identified during ISM-based surface soil assessment.

Eight soil borings will be advanced using a 2.25-inch outer diameter closed piston macro core sampler advanced using a Geoprobe direct push drill rig to refusal, ten ft bgs, or until the vertical extent of contamination has been defined (whichever is shallower). Soil cores will be retrieved within disposable acetate sleeves and logged for texture, color, moisture content, and visual or olfactory evidence of contamination. Samples will be collected from each one-foot vertical interval for field screening for VOCs by a calibrated photoionization detector equipped with a 10.6 eV lamp. A discrete sample will be collected for laboratory analysis from 0.5 ft bgs and from the interval representing the highest VOC concentration by PID. For the purpose of this Work Plan, we assume a total of two samples will be collected from this soil boring. The soil samples will be submitted to Phoenix Laboratories for VOC, SVOC, PCBs, and 13 Priority Pollutant Metals (PP Metals) analyses by EPA Methods 8260, 8270, 8082, and 6010/7471, respectively.

3.3.3.2. Groundwater Assessment

Stone proposes to collect up to seven locations down gradient of the Main Yard and five locations downgradient of the Upper Yard portions of the salvage yard (Figure 4). Groundwater samples will be collected using a screen point sampler (Geoprobe SP22 or equivalent) installed using direct push methods described above for soil borings. Soil cores will be field screened for VOCs; discrete samples will be collected for VOC analyses in the vent that PID measurements exceed 5 ppmv.

Proposed groundwater sample locations associated with the salvage yard are presented on Figure 5. The SP22 system includes a variable length stainless steel well screen deployed within a standard macro-core drill string. Once an interval is selected based on the observation of saturated soils within the soil boring, the SP22 system is driven to the target interval and the well screen exposed by retracting the drive rod. The soil borings will be logged for texture, color, moisture content, and visual or olfactory evidence of contamination. Samples will be collected from each one-foot vertical interval for field screening for VOCs by a calibrated photoionization detector equipped with a 10.6 eV lamp.

Upon installation, Stone will purge the drive point using dedicated fluoroethyl propylene (FEP) tubing and a peristaltic pump. Physical and chemical field parameters (pH, specific conductance, temperature, dissolved oxygen [DO], and oxidation reduction potential [ORP]) will be measured using a calibrated multi-parameter meter and flow-through cell system. Turbidity will be measured using a standalone turbidity meter. The SP-22 will be purged until the following parameters have stabilized:

- pH ± 0.1 unit
- Specific Conductance ±3%
- ORP ± 10 mV

- DO ± 10%, or 3 consecutive readings below 0.5 mg/L
- Temperature ± 3%
- Turbidity ± 10%, or 3 consecutive readings below 5.0 nephelometric turbidity units (NTU)

Following stabilization, samples will be collected in accordance with Stone SOPs. Samples will be submitted to Phoenix for VOC, SVOC, and PP Metals analyses by EPA Methods 8260, 8270, and 6010D/7471, respectively.

Groundwater sampling locations will be geographically positioned using a sub-meter GPS. G

3.3.4. Contingent Groundwater Samples

To determine if additional screen point sample locations are required, laboratory data generated from the surface soil ISM and VOC and lead field screening will be reviewed in conjunction with the VT DEC Site Manager to identify elevated concentrations of COCs. If elevated levels are detected, additional screen points will be advanced in the location or down gradient of the detected contamination.

For the purpose of this Work Plan, we have assumed up to ten additional screen point samples will be collected to assess impacts to groundwater from unidentified Site releases.

3.3.5. Base Assessment: CHA Garage Assessment

The assessment of the former CHA garage will include an assessment of COCs that may have been discharged to the concrete slab, sub-slab soils, exterior soils, and groundwater.

3.3.5.1. Interior PCB Assessment

Stone will collect four concrete samples from the former CHA building slab to assess whether historical uses of possible PCB-containing materials has resulted in PCB contamination of the slab. Proposed sample locations are depicted on Figure 4 but will be adjusted in the field to be representative of areas where oil-stained concrete is observed.

Concrete samples will be collected from each location by pulverizing the upper 0.5-inch of slab with a rotary hammer drill and placing the resulting sample in a laboratory-provided sample jar. Multiple holes will be advanced adjacent to each other to ensure that a minimum of 20 g of pulverized concrete is collected per sample.

All concrete samples will be placed in the laboratory-provided sample jar, labeled, packed in ice-filled coolers, and shipped under chain-of-custody to Phoenix for analysis of PCBs by EPA Method 8082 with manual Soxhlet extraction.

3.3.5.2. Vapor Intrusion Pathway Assessment

To assess whether past use of VOCs within the former CHA garage present a risk to indoor air quality, Stone will perform the following tasks within the facility:

- Perform an inventory of potential indoor air VOC sources;
- Collect four sub-slab soil gas samples; and
- Assess whether VOCs are off-gassing from building slabs by collecting 2 flux chamber samples

3.3.5.2.1. Indoor Air Inventory

Prior to flux chamber sampling, Stone will perform an inventory of potential VOC sources in the former CHA building. The inventory will include a walk-through of the building to identify any remaining stored chemicals that could affect the indoor air quality during the assessment. Potential VOC sources that may affect flux chamber sample results will be removed at least 48 hours prior to sampling. If it is not feasible to remove a potential VOC source, the location of the source will be noted, and Stone staff will attempt to place flux chamber air samples away from the potential source(s) to the extent practical. Stone will also take this opportunity to evaluate any penetrations through the slab to determine if there are any preferential pathways between the interior and the sub slab.

3.3.5.2.2. Flux Chambers

To evaluate whether contaminated concrete poses an ongoing source of indoor air contamination, Stone proposes to use a flux chamber to collect samples of off gassing VOCs (if present) from the concrete slab at up to two locations. Flux chambers will be sealed to the concrete slab using hydrated bentonite and will be located at likely areas of contamination based on visible staining or past use.

S Flux chamber sample locations will be selected from competent portions of the slab and will not be installed over cracks or penetrations in the slab. Plastic wrap will be placed around the clay to prevent drying and cracking during the sample period. After 24 hours, a grab sample will be collected from each vapor dome into 0.5-liter Tedlar bags using a dedicated syringe. Samples will be submitted to Contest Laboratories Inc. of East Longmeadow, Massachusetts (Contest)for VOC analysis by TO-15.

3.3.5.2.3. Sub-Slab Soil Gas

Sub-slab soil gas samples (Figure 4) will be collected to assess the risk of vapor intrusion of VOCs into the building. Prior to sample collection, Stone will perform a visual inspection of the concrete slab near each sample location and seal all cracks or holes with a thin-set mortar or mason's caulk. Temporary stainless-steel Vapor Pins™ will be installed to enable collection of sub-slab soil gas samples. Vapor pins will be equipped with extension fittings such that the inlet of the pin is below the bottom of the concrete slab. Shut-in and water dam leak testing will be conducted prior to sampling to ensure that ambient air is not drawn into the sample container. In addition, Stone will collect pressure differential measurements and screen each sample location for VOCs using a PID equipped with a 10.6 eV lamp. Sub- soil gas samples will be collected into 1-liter, batch certified clean Summa® canisters equipped with 30-minute flow regulators.

Due to the stripping of volatile contaminants from soil gas that can occur following significant rain events, Stone will not perform the soil gas assessment task if over 0.5 inches of rain falls within two days of the scheduled field work.

Soil gas samples will be submitted to Contest for analysis of VOCs by EPA Method TO-15. Samples will be transported under chain of custody. One field duplicate will be collected for QA/QC purposes. The field duplicate will be collected by splitting the sample influent into two Summa® canisters using a T-fitting.

3.3.5.3. Exterior Soils

Stone proposes to assess soils exterior of the CHA garage using tone will utilize Incremental Sampling Methodology (ISM). A decision unit will be established that covers exterior areas surrounding the garage (Figure 5). Refer to Section 3.4.1 for a description on the proposed surface soil assessment methodology.

Due to observations made during the site inspection, Stone proposes to conduct one boring during the base assessment of the garage immediately adjacent to the shed situated at the rear of the garage building. The soil boring will be advanced to at least ten feet below ground surface (ft bgs) using a direct push drill rig. Soil cores will be retrieved within disposable acetate sleeves and logged for texture, color, moisture content, and visual or olfactory evidence of contamination. Samples will be collected from each one-foot vertical interval for field screening for VOCs by a calibrated photoionization detector equipped with a 10.6 eV lamp. A discrete sample will be collected for laboratory analysis from 0.5 ft bgs and from the interval representing the highest VOC concentration by PID. For the purpose of this Work Plan, we assume a total of two samples will be collected from this soil boring. The soil samples will be submitted to Phoenix Laboratories for VOC, SVOC, and 13 Priority Pollutant Metals (PP Metals) analyses by EPA Methods 8260, 8270, and 6010/7471, respectively.

3.3.5.4. Groundwater Assessment

Stone proposes to collect groundwater samples at three to four locations along the presumed downgradient property boundary from the CHA garage (Figure 5). Groundwater sample will be collected using a screen point sampler (Geoprobe SP22 or equivalent) installed using direct push methods. Contingent Tasks – CHA Garage Assessment

No dynamically driven, contingent tasks are proposed for the assessment the CHA garage.

3.4. Quality Assurance / Quality Control

Stone will collect field duplicate samples at a frequency of 1/20 (5%) for each matrix, including soil, groundwater, concrete, soil gas, and vapor from flux chambers. Duplication is inherent in ISM; therefore, field duplicates of the ISM soil samples will not be collected.

Matrix-specific trip blank samples will be prepared by the laboratory for groundwater, soil, and flux chamber samples being analyzed for VOCs and will accompany the samples for the duration of the field work until delivery to the laboratory.

One equipment blank sample will be collected for each day PCB sampling is conducted. PCB equipment blank samples will be collected by wiping sample collection equipment, following decontamination, with hexane wipes. PCB sampling equipment will include masonry drill bits. Equipment blanks will be submitted to Phoenix for PCB analysis by EPA Method 8082 with Manual Soxhlet extraction.

3.5. Investigation Derived Waste Management

Anticipated investigation derived waste (IDW) produced during this Site Investigation include soil cuttings, purge water, personal protective equipment (PPE) including gloves, and decontamination materials.

Soil generated from soil borings will be placed back in the open borehole and the remaining borehole backfilled with bentonite chips. Purge water will be generated during the development and sampling of the installed monitoring wells. Decontamination materials will include rinsate, nitrile gloves, and paper towels. Rinsate and purge water will be contained in 55-gallon drums, labeled with contents and generation date, and stored in a secure location on-Site pending receipt of analytical results. Stone will determine whether rinsate requires disposal as non-hazardous waste or, with VT DEC concurrence, can be discharged to the ground surface. Nitrile gloves and paper towels generated during the Phase II ESA will be disposed of as non-hazardous solid waste.

4. Project Schedule

Table 4 provides a summary of the proposed project timeline. The proposed schedule assumes funding for the Phase II ESA is provided through the VT DEC ECF.

Table 4: Proposed Project Timeline

Task	Duration	Anticipated Completion Date
Project Management and Coordination	Ongoing	NA
Work Plan	2 weeks	September 30, 2019
VTDEC Review	4 weeks	October 29, 2019
Phase II ESA Site Investigation field work	3 weeks	November 19, 2019
Laboratory Analysis	2 weeks	December 3, 2019
Phase II ESA Report	3 weeks	December 24, 2019
Project Team Meeting	1 Day	Week of December 30, 2019
Regulatory Review	4 weeks	January 28, 2020
Final Phase II ESA Report	1 week	February 5, 2020

Delays in the proposed schedule may result from subcontractor availability, weather, access, or if the Site cannot be closed to hunting during the Vermont whitetail deer hunting season.

Cost Estimate

Table 5, below, provides a summary of costs for the proposed scope of services described above. We have included costs for both “base” and “contingent” Site investigation elements and included sub totals for each.

Table 5: Estimated Costs

Cost Summary					
	Task	**Professional Services**	**Consultant**	**Expenses**	**Total**
1	BASE Task 1 - Project Coordination, HASP, Site Layout, and Dig Safe	$3,872	$0	$324	$4,196
2	BASE Task 2 - ISM Soil Assessment	$8,300	$17,153	$3,026	$28,479
3	BASE Task 3 - Groundwater/Surface Water Assessment	$4,363	$12,603	$2,185	$19,150
4	Base Task 4 - Soil Assessment (Soil Borings)	$2,094	$9,981	$310	$12,385
5	BASE Task 5 - Vapor Intrusion Assessment	$1,424	$1,760	$686	$3,870
6	CONTINGENT Task 1 - Soil Boring Assessment	$4,363	$19,142	$482	$23,986
7	CONTINGENT Task 2 - Groundwater Assessment	$4,150	$8,185	$1,813	$14,148
8	BASE Task - Phase II ESA Report	$3,860	$0	$0	$3,860
9	CONTINGENT Task - Phase II ESA Report	$1,372	$0	$0	$1,372
	BASE TOTAL	**$23,913**	**$41,498**	**$6,531**	**$71,941**
	CONTINGENT TOTAL	**$9,885**	**$27,327**	**$2,295**	**$39,507**
	PROJECT TOTAL (Includes Contingent)	**$33,797**	**$68,825**	**$8,826**	**$111,447**

In developing this cost estimate, the following assumptions were made:

- Contingent groundwater assessment assumes up to 10 additional sample locations via SP-22 for VOC, SVOC, and PP Metals analysis.
- Contingent soil boring assessment assumes up to 20 additional soil borings will be performed. Two discrete soil samples will be collected from each boring for VOC, SVOC, and PP Metals analysis.
- ISM assessment of surface soil assumes five replicates will be collected from each DU. If three replicates are generated, the costs for Task 2 will decrease by $3,762.

5. Project Resources and Contacts

Table 5, below, provides a summary of project resources.

Table 6: Proposed Project Resources

Project Role	Personnel	Organization	Phone	E-Mail
Site Owner Representative	William "Bill" White	Property Owner		
Prospective Purchaser	Adam Piper	User, Prospective Purchaser	(802) 371-8613	adpiper1981@gmail.com
Environmental Professionals	Daniel Voisin, Senior Geologist Summers Long, Staff Scientist	Stone Stone	(802) 229-1875 (303) 532-7437	dvoisin@stone-env.com slong@stone-env.com
Quality Assurance/Health and Safety Officer	Kim Watson, Quality Assurance Manager, Health and Safety Officer	Stone	(802) 229-2196	kwatson@stone-env.com
Field Geologists	Summers Long, Staff Scientist Daniel Curran, Staff Scientist	Stone Stone	(303) 532-7437 (802) 778-3001	slong@stone-env.com dcurran@stone-env.com
Field Technicians	Daniel Curran, Staff Scientist Summers Long, Staff Scientist Laura Rajnak, Staff Scientist	Stone Stone Stone	(802) 778-3001 (303) 532-7437 (228) 731-1000	dcurran@stone-env.com slong@stone-env.com lrajnak@stone-env.com

Subcontractors and their respective roles will include:

- Phoenix Laboratories of Burlington, Vermont – Fixed laboratory services for concrete, soil, and groundwater samples
- Con-Test Analytical Laboratory (Con-Test) of East Longmeadow, Massachusetts – Fixed laboratory services for soil gas and flux chamber samples.
- Eastern Analytical Inc. (EAI) of Concord, New Hampshire – Environmental drilling services

Appendix A: Figures

LEGEND

Property Boundary

Minor Contour (20ft)

Major Contour (20ft)

Source: Vermont Natural Resource Atlas

File: O:\PROJ-19\EAR\19-116 Bert White Auto Salvage\Data\AutoCAD\19-116_Figures.dwg

DRAWING CREDITS	
Drawn On:	9/5/2019
Drawn By:	LBR
Checked On:	9/5/2019
Checked By:	BSL
Project No.:	19-116

DRAWING SCALE

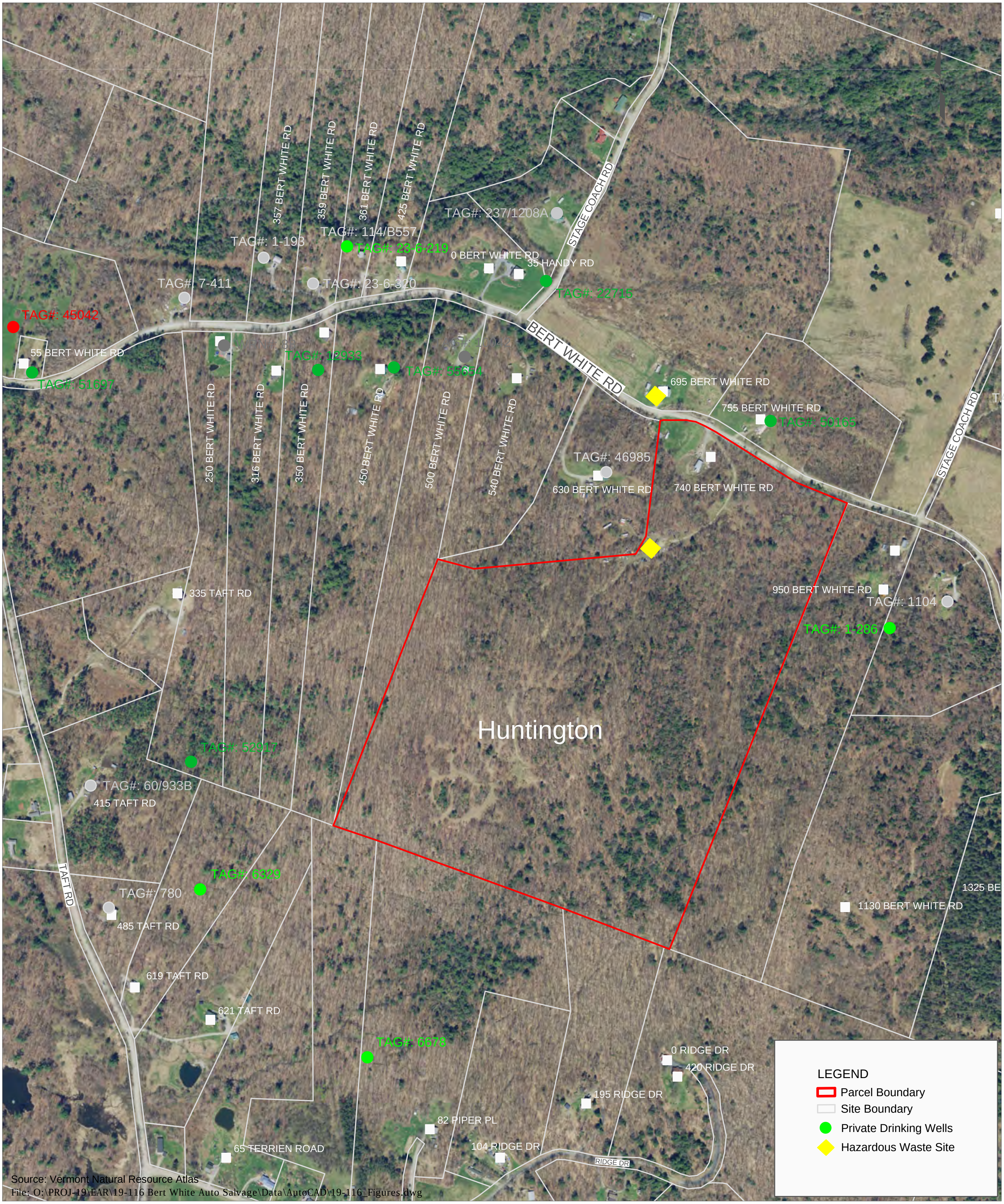
0 500 1000 Feet

Scale 1:1000

STONE ENVIRONMENTAL

SITE LOCATION
BERT WHITE AUTO SALVAGE
740 BERT WHITE ROAD
HUNTINGTON VERMONT

FIGURE NO. 1



DRAWING CREDITS

Drawn On:	9/5/2019
Drawn By:	LBR
Checked On:	9/5/2019
Checked By:	BSL
Project No.:	19-116

DRAWING SCALE

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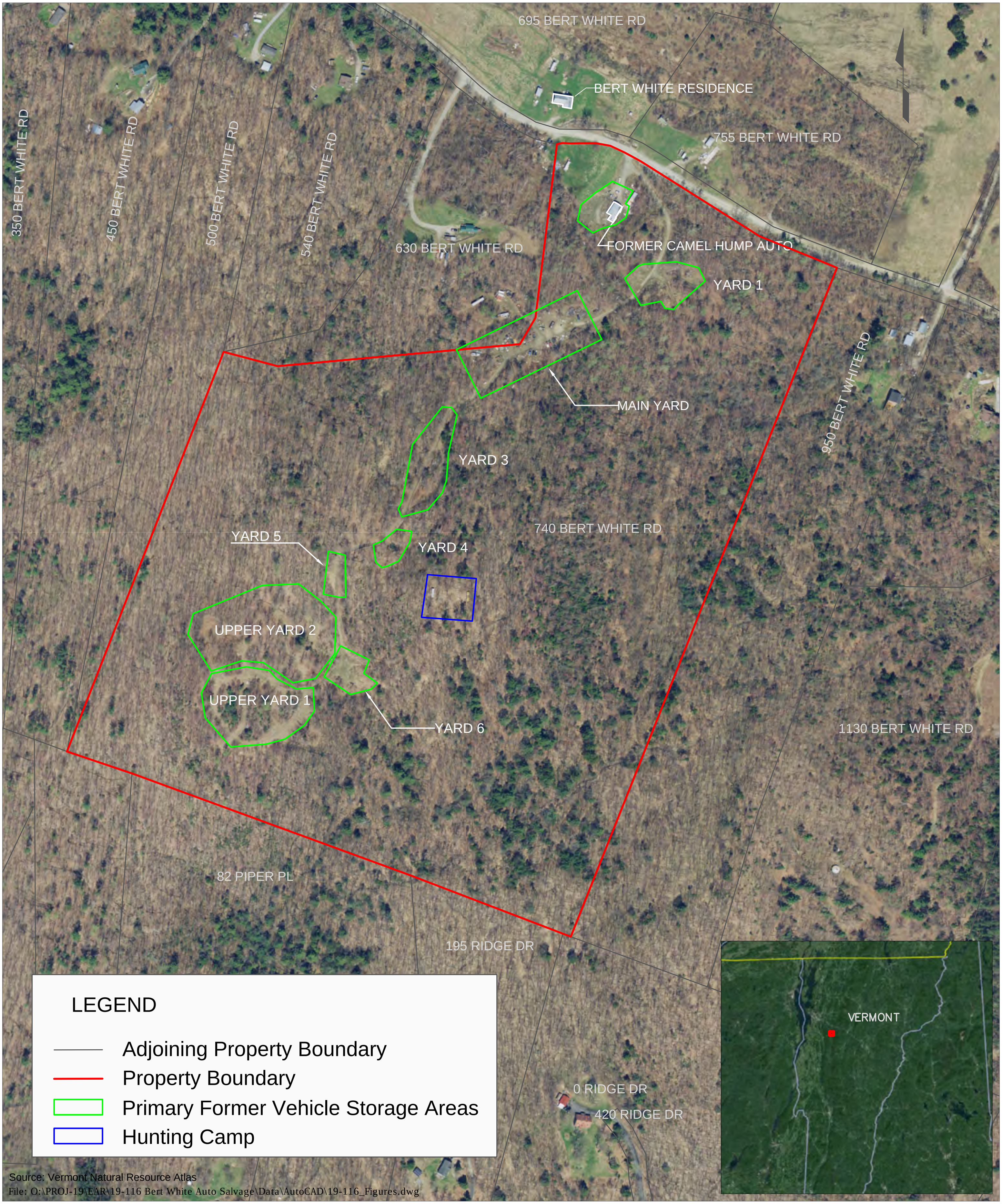
Scale 1:600

STONE ENVIRONMENTAL

VICINITY MAP
BERT WHITE AUTO SALVAGE
740 BERT WHITE ROAD

HUNTINGTON VERMONT

FIGURE NO. 2



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Drawn By: LBR
Checked On: 9/16/2019
Checked By: BSL
Project No.: 19-116

DRAWING SCALE

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Scale 1:400

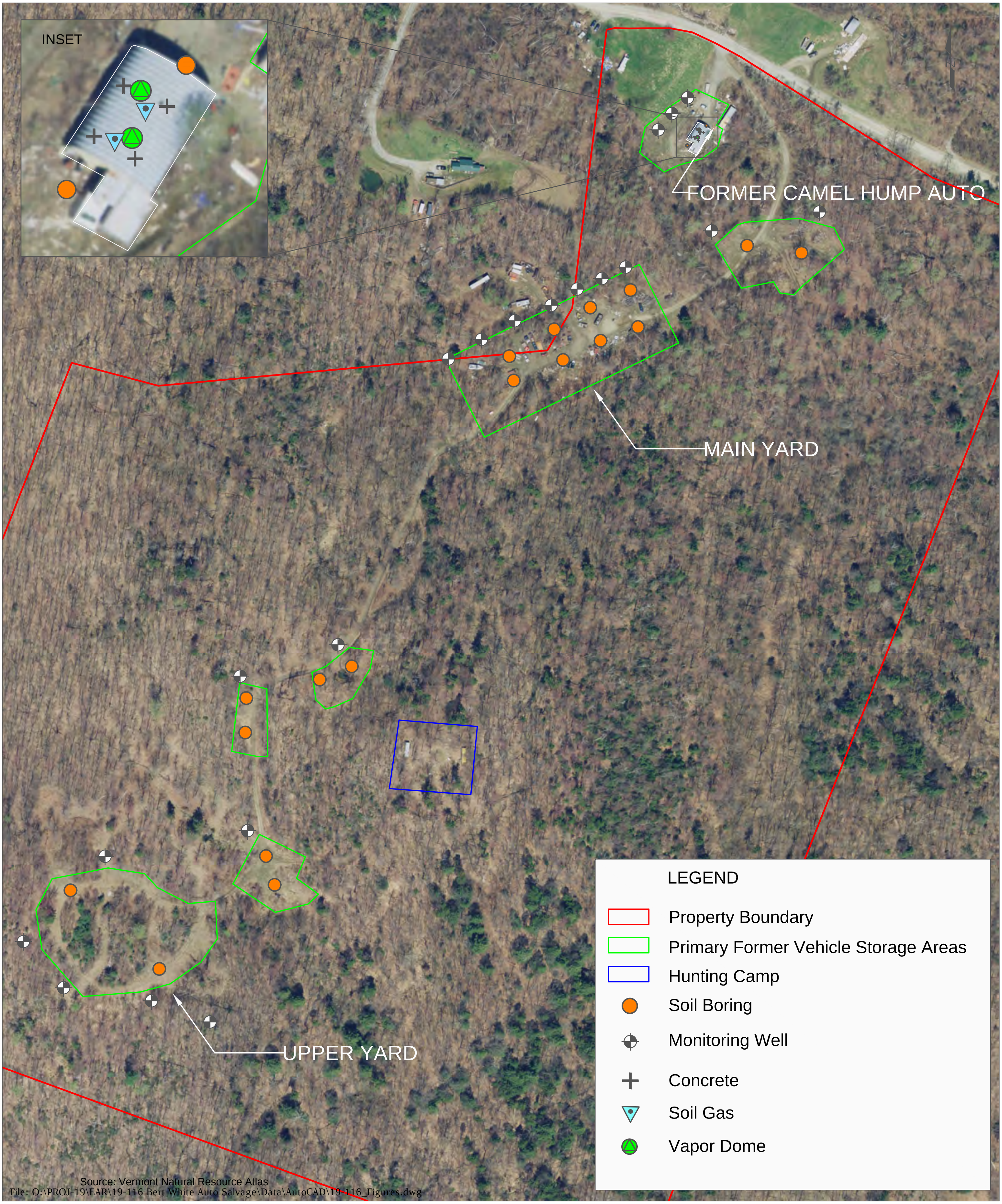
STONE ENVIRONMENTAL

SITE DETAIL MAP
BERT WHITE AUTO SALVAGE
740 BERT WHITE ROAD

HUNTINGTON VERMONT

FIGURE NO.

3



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DRAWING CREDITS	
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Drawn By:	LBR
Checked On:	9/24/2019
Checked By:	BSL
Project No.:	19-116

DRAWING SCALE

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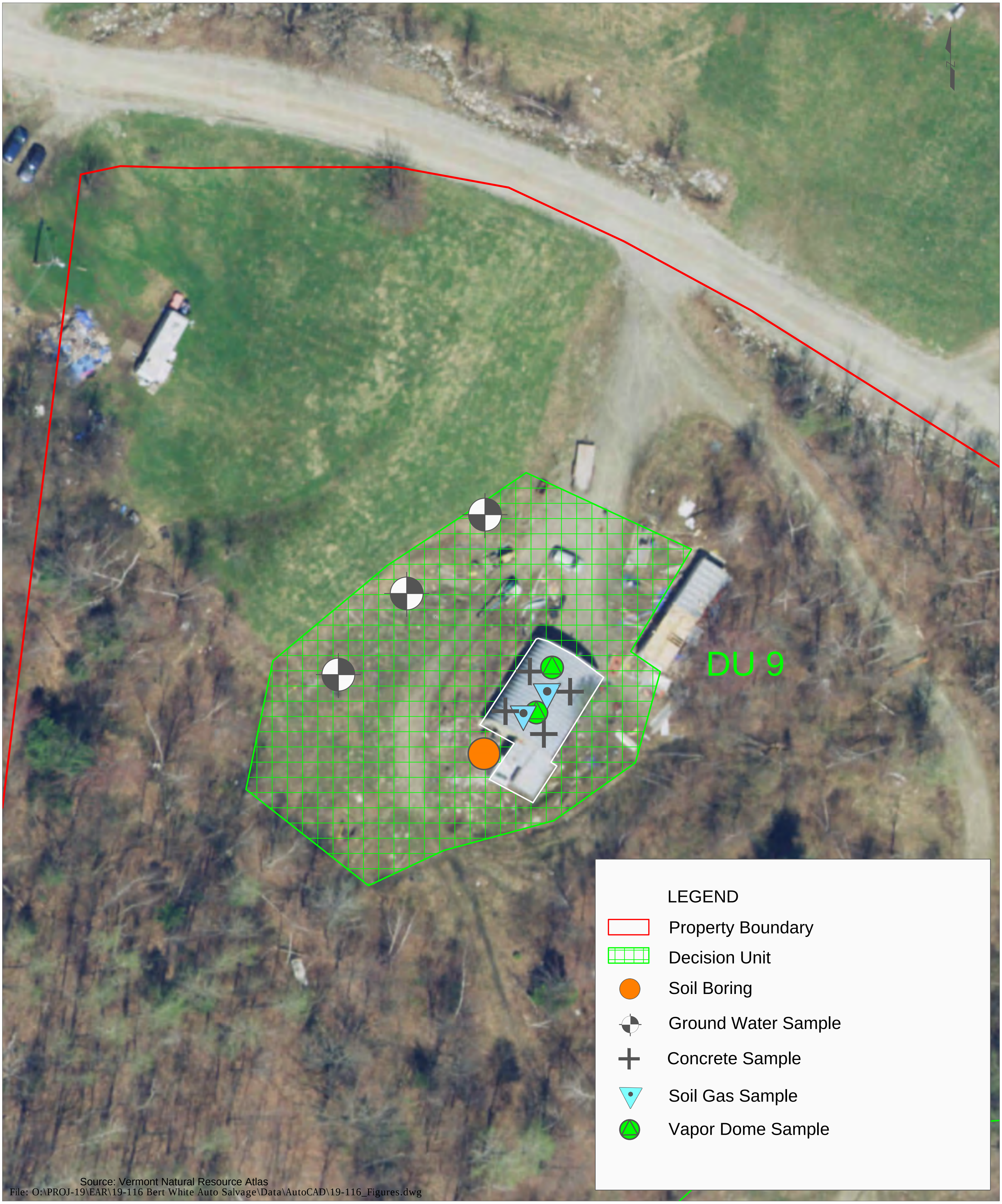
Scale 1:250

STONE ENVIRONMENTAL

PROPOSED SAMPLE LOCATION
BERT WHITE AUTO SALVAGE
740 BERT WHITE ROAD
HUNTINGTON VERMONT

FIGURE NO. 4



DRAWING CREDITS

Drawn On:	9/24/2019
Drawn By:	LBR
Checked On:	9/24/2019
Checked By:	BSL
Project No.:	19-116

DRAWING SCALE

0 25 50 Feet

Scale 1:50

STONE ENVIRONMENTAL

PROPOSED SAMPLE LOCATION
BERT WHITE AUTO SALVAGE
740 BERT WHITE ROAD
HUNTINGTON VERMONT

FIGURE NO.

4A

Appendix B: Cost Estimate

Bert White Salvage Yard Phase II ESA
19-116
DETAILED FEE & SCOPE DETAILS

#	Staff Type	Name	Rate Per Unit	Unit	Amount	Subtotal		Scope Details
1	**BASE Task 1 - Project Coordination, HASP, Site Layout, and Dig Safe**							Prepare a site specific Health and Safety Plan. Includes invoicing time, subcontractor coordination, et. Stone will perform a site visit and dig safe mark-out. During the site vist, Stone will assess the previous vehicle storage areas and lay out the grid for the decision units. Assumes 1.5 hours per DU (total of 14 hours on SIte). Labor includes travel to/from site (2 hours RT Travel)
	Professional Services							
	Senior Professional 1	DTV/KBW	$ 124 / hour	8	$992			
	Staff Professional 3	BSL	$ 89 / hour	16	$1,424			
	Staff Professional 1	LBR	$ 77 / hour	16	$1,232			
	Project Professional 2	KJM	$ 112 / hour	2	$224			
			Professional Services Summary	*42*		*$3,872*		
	Stone Equipment							
	Tacoma Mileage		$0.58 / mile	128	$74.24			
	GDS Trimble GEO 7X GPS		$125.00 / day	2	$250.00			
			Expense Summary			*$324*		
	TASK SUBTOTAL						**$4,196**	
2	**BASE Task 2 - ISM Soil Assessment**							Perform ISM Sampling of 9 DUs. DU1: Yard 1 DU2: Main Yard DU3: Yard 3 DU4: Yard 4 DU5: Yard 5 DU6: Yard 6 DU7: Upper Yard 1 DU8: Upper Yard 2 DU9: Garage Labor: Two field scientists for 4, 10-hour days to collect decision units DU-1 throught DU-9. 2 hrs RT travel per day, 2 hours to manage equipment and ship samples. Five replicates will be collected from each DU. Analysis: PCBs 8082= 45 = 4 EBs PAH 8270 SIMs= 45 PP Metals= 45 TPH DRO=45 Includes 5 replicates for each DU to account for suspected heterogeneity of the Site. If using 3 replicates, cost for analyses will decrease by $3,762. Mileage is 32 miles one way from Montpelier.
	Professional Services							
	Staff Professional 3	BSL	$ 89 / hour	50	$4,450			
	Staff Professional 1	LBR	$ 77 / hour	50	$3,850			
			Professional Services Summary	*100*		*$8,300*		
	Consultants*							
	Phoenix - 8270 SIM		$152 / sample	45	$7,524			
	Phoenix - PCBs 8082		$51 / sample	49	$2,749			
	Phoenix - PP 13 Metals + Barium		$89 / sample	45	$4,406			
	Phoenix - TPH DRO		$50 / sample	45	$2,475			
			Consultant Summary			*$17,153*		
	External Expenses							
	Rental-Field Equipment - XRF		$500 / day	4	$2,200			
	Shipping/Freight		$125 / ea	1	$138			
	Stone Equipment							
	Tacoma Mileage		$0.58 / mile	256	$148.48			
	EAR PID		$90.00 / day	4	$360.00			
	Stone Consumables							
	EAR PPE		$15.00 / day/staff	8	$120.00			
	EAR General Field Sampling Consumables		$15.00 / ea	4	$60.00			
			Expense Summary			*$3,026*		
	TASK SUBTOTAL						**$28,479**	
3	**BASE Task 3 - Groundwater/Surface Water Assessment**							Groundwater will be assessed with screen point sampler at 15 locations downgradient from the CHA garage (3), the Main Yard (7), and the Upper Yard (5). Collect up to two grab samples of sediment and surface water for VOC, SVOC, and metals analyses. Labor: Two field scientists for 2, 10-hour days. 2 hours roundtrip per person per day. 1 hour each for prep and sample management Analysis: Groundwater VOCs 8260=15+ FD + Trip SVOCs 8270 = 15 + FD PP Metals= 15+ FD Sediment VOCs 8260=2 + 1FD + 1 TB SVOCs 8270 =2 + 1FD PP Metals= 2 + 1FD Surface Water VOCs 8260=2 + 1FD SVOCs 8270 = 2 + 1FD PP Metals= 2 + 1FD Assumes 2 SP-22 samples to be deployed simultaneously.
	Professional Services							
	Staff Professional 3	BSL	$ 89 / hour	25	$2,225			
	Staff Professional 2	DTC	$ 86 / hour	25	$2,138			
			Professional Services Summary	*50*		*$4,363*		
	Consultants*							
	Phoenix -VOCs 8260		$70 / sample	24	$1,848			
	Phoenix - SVOCs 8270		$152 / sample	22	$3,678			
	Phoenix PP Metals		$89 / sample	22	$2,154			
	EAI - Geoprobe Labor and Equipment		$1,300 / day	2	$2,860			
	EAI - Mob/Demob		$750 / each	1	$825			
	EAI - Geoprobe Suppport Vehicle		$150 / day	2	$330			
	EAI - Consumables		$25 / each	1	$28			
	EAI - Per Diem		$400 / day	2	$880			
			Consultant Summary			*$12,603*		
	External Expenses							
	Shipping/Freight		$125 / ea	1	$138			
	Rental-Field Equipment - WQS		$125 / day	4	$550			
	Stone Equipment							
	Tacoma Mileage		$0.58 / mile	128	$74.24			
	EAR PID		$90.00 / day	2	$180.00			
	EAR Water Level Meter		$15.00 / day	2	$30.00			
	EAR Peristaltic Pump		$75.00 / day	4	$300.00			
	EAR Samsung Field Tablet		$50.00 / Day	2	$100.00			
	Stone Consumables							
	EAR 1/4" OD FEP Tubing		$2.16 / ea	300	$648.00			
	EAR PPE		$15.00 / day/staff	4	$60.00			
	EAR 55-Gallon Drum		$75.00 / ea	1	$75.00			
	EAR General Field Sampling Consumables		$15.00 / ea	2	$30.00			
			Expense Summary			*$2,185*		
	TASK SUBTOTAL						**$19,150**	
4	**Base Task 4 - Soil Assessment (Soil Borings)**							Includes 1 day of field work with Geoporobe to collect up to 9 soil borings to 10 feet bgs. Labor: Two field scientists for 1, 10 hr day with 2 hours RT travel. Analysis: 8270 SIM=18+ FD 8260 VOCs=18 + FD + TB PCBs 8082= 18+ FD + EB PP Metals= 18+ FD
	Professional Services							
	Staff Professional 3	BSL	$ 89 / hour	12	$1,068			
	Staff Professional 2	DTC	$ 86 / hour	12	$1,026			
			Professional Services Summary	*24*		*$2,094*		
	Consultants*							
	Phoenix - SVOCs by 8270		$152 / sample	19	$3,177			
	Phoenix - PP Metals		$89 / sample	19	$1,860			
	Phoenix - PCBs 8082		$51 / sample	20	$1,122			
	Phoenix - VOCs by		$70 / sample	20	$1,540			
	EAI - Geoprobe Labor and Equipment		$1,300 / day	1	$1,430			
	EAI - Geoprobe Suppport Vehicle		$150 / day	1	$165			
	EAI - Consumables		$25 / each	9	$248			
	EAI - Per Diem		$400 / day	1	$440			
			Consultant Summary			*$9,981*		
	External Expenses							
	Shipping/Freight		$125 / ea	1	$138			
	Stone Equipment							
	Tacoma Mileage		$0.58 / mile	64	$37.12			
	EAR PID		$90.00 / day	1	$90.00			
	Stone Consumables							
	EAR PPE		$15.00 / day/staff	2	$30.00			
	EAR General Field Sampling Consumables		$15.00 / day/staff	1	$15.00			
			Expense Summary			*$310*		
	TASK SUBTOTAL						**$12,385**	
5	**BASE Task 5 - Vapor Intrusion Assessment**							Day 1 - VOC Inventory of CHA facility, remove VOC sources as needed. Day 4 - Installation of vapor domes and soil gas pins Day 5 - Sampling of vapor domes and soil gas pins
	Professional Services							
	Staff Professional 3	BSL	$ 89 / hour	16	$1,424			
			Professional Services Summary	*16*		*$1,424*		

Bert White Salvage Yard Phase II ESA
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DETAILED FEE & SCOPE DETAILS

#	Staff Type	Name	Rate Per Unit	Unit	Amount	Subtotal		Scope Details
	Consultants*							Labor estimate: 3 trips to Site for Staff Scientist, 2 hours RT travel Day 1: 2 hours on Site Day 4: 4 hours on Site Day 5: 4 hours on Site. Samples include 2 Tedlar, 4 Summa and Field Duplicates for each.
	Con-Test - VOCs TO-15		$200 / sample	8	$1,760			
		Consultant Summary				*$1,760*		
	External Expenses							
	Shipping/Freight		$125 / ea	2	$275			
	Stone Equipment							
	EAR Bosch Hammer Drill		$50.00 / day	1	$50.00			
	EAR Cox-Colvin Vapor Pin Kit		$35.00 / day	1	$35.00			
	Tacoma Mileage		$0.58 / mile	192	$111.36			
	EAR PID		$90.00 / day	1	$90.00			
	EAR Manometer		$65.00 / day	1	$65.00			
	Stone Consumables							
	EAR General Field Sampling Consumables		$15.00 / ea	2	$30.00			
	EAR PPE		$15.00 / day/staff	2	$30.00			
			#N/A / #N/A		#N/A			
		Expense Summary				*$686*		
	TASK SUBTOTAL						**$3,870**	
6	**CONTINGENT Task 1 - Soil Boring Assessment**							In the event that PID/XRF field screening during ISM sampling indicate a release, a soil boring will be performed. For planning purposes, we assume up to 20 soil borings. Up to 2 discrete samples will be collected from each boring for VOC, SVOC, PP Metals analyses. Assumes up to 2 additional days of drilling over 2, 10-hr days. 2 hr RTs and 2 hrs for sample/equipment management.
	Professional Services							
	Staff Professional 3	BSL	$ 89 / hour	25	$2,225			
	Staff Professional 2	DTC	$ 86 / hour	25	$2,138			
		Professional Services Summary		*50*		*$4,363*		
	Consultants*							
	Phoenix - SVOCs by 8270		$152 / sample	42	$7,022			
	Phoenix - PP Metals		$89 / sample	42	$4,112			
	Phoenix - VOCs by		$70 / sample	44	$3,388			
	EAI - Geoprobe Labor and Equipment		$1,300 / day	2	$2,860			
	EAI - Geoprobe Suppport Vehicle		$150 / day	2	$330			
	EAI - Consumables		$25 / boring	20	$550			
	EAI - Per Diem		$400 / day	2	$880			
		Consultant Summary				*$19,142*		
	External Expenses							
	Shipping/Freight		$125.000 / ea	1	$138			
	Stone Equipment							
	Tacoma Mileage		$0.58 / mile	128	$74.24			
	EAR PID		$90.00 / day	2	$180.00			
	Stone Consumables							
	EAR General Field Sampling Consumables		$15.00 / day	2	$30.00			
	EAR PPE		$15.00 / day/staff	4	$60.00			
		Expense Summary				*$482*		
	TASK SUBTOTAL						**$23,986**	
7	**CONTINGENT Task 2 - Groundwater Assessment**							If ISM or soil borings indicate a potential impact to groundwater, up to 10 additional groundwater samples will be collected using screen point sampler. Locations to be determined. Labor: Two field scientists for 2, 10-hour days. 2 hours roundtrip per person per day. 1 hour each for prep and sample management Analysis: VOCs 8260=10 + FD + Trip SVOCs 8270 = 10 + FD PP Metals= 10+ FD Assumes 2 SP-22 samples to be deployed simultaneously.
	Professional Services							
	Staff Professional 3	BSL	$ 89 / hour	25	$2,225			
	Staff Professional 1	LBR	$ 77 / hour	25	$1,925			
		Professional Services Summary		*50*		*$4,150*		
	Consultants*							
	Phoenix - SVOCs by 8270		$152 / sample	11	$1,839			
	Phoenix - PP Metals		$89 / sample	11	$1,077			
	Phoenix - VOCs by		$70 / sample	12	$924			
	EAI - Geoprobe Labor and Equipment		$1,300 / day	2	$2,860			
	EAI - Geoprobe Suppport Vehicle		$150 / day	2	$330			
	EAI - Consumables		$25 / ea	10	$275			
	EAI - Per Diem		$400 / day	2	$880			
		Consultant Summary		*50*		*$8,185*		
	External Expenses							
	Rental-Field Equipment - WQS		$125 / day	2	$275			
	Shipping/Freight		$125 / ea	2	$275			
	Stone Equipment							
	EAR PID		$90.00 / day	2	$180.00			
	EAR Peristaltic Pump		$75.00 / day	4	$300.00			
	EAR Water Level Meter		$15.00 / day	2	$30.00			
	Stone Consumables							
	EAR 1/4" OD FEP Tubing SG		$2.16 / ea	300	$648.00			
	EAR 55-Gallon Drum		$75.00 / ea	1	$75.00			
	EAR General Field Sampling Consumables		$15.00 / ea	2	$30.00			
		Expense Summary				*$1,813*		
	TASK SUBTOTAL						**$14,148**	
8	**BASE Task - Phase II ESA Report**							Prepare Phase II ESA Report in accordance with Irule. Manage data, create tables, create figures, etc.
	Professional Services							
	Senior Professional 1		$ 124 / hour	2	$248			
	Project Professional 2		$ 112 / hour	24	$2,688			
	Staff Professional 1		$ 77 / hour	12	$924			
		Professional Services Summary		*38*		*$3,860*		
	TASK SUBTOTAL						**$3,860**	
9	**CONTINGENT Task - Phase II ESA Report**							Additional level of effort for data management and figure development if contingent tasks are realized.
	Professional Services							
	Project Professional 2		$ 112 / hour	4	$448			
	Staff Professional 1		$ 77 / hour	12	$924			
		Professional Services Summary		*16*		*$1,372*		
	TASK SUBTOTAL						**$1,372**	
	Base Task Total						**$71,941**	
	PROJECT TOTAL						***$111,447***	Includes Contingent

**Stone Environmental's standard mark-up on all subcontractor expenses is 10%.*

Bert White Salvage Yard Phase II ESA

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DETAILED FEE & SCOPE DETAILS

#	Staff Type	Name	Rate Per Unit	Unit	Amount	Subtotal	
1	**Task 1 - Project Coordination, HASP, Site Layout, and Dig Safe**						
	Professional Services						
	Senior Professional 1	DTV	$ 124 / hour	2	$248		
	Staff Professional 3	BSL	$ 89 / hour	7	$623		
	Staff Professional 1	LBR	$ 77 / hour	5	$385		
	Senior Professional 2	KBW	$ 130 / hour	2	$260		
	Professional Services Summary			*16*		*$1,516*	
	Stone Equipment						
	Tacoma Mileage		$0.58 / mile	64	$37.12		
	GDS Trimble GEO 7X GPS		$125 / day	1	$125.00		
	Expense Summary					*$162*	
	TASK SUBTOTAL						**$1,678**

Scope Details (Task 1):

Prepare a site-specific Health and Safety Plan. (2 hrs SS2, 2 hrs Sen2)

Includes invoicing time, subcontractor coordination, etc. (2 hrs Sen 1)

Stone will perform a site visit and dig safe mark-out. During the site vist, Stone will assess the area surrounding the CHA building and lay out the grid for decision unit DU-9. While on site, Stone will perform a VOC Inventory of the CHA facility and remove any VOC sources, as needed.

Assumes:
1 hour for DU-9, 2 hours for inspection. (total of 3 hours on SIte for two staff).
Labor includes travel to/from site (2 hours RT Travel)

#	Staff Type	Name	Rate Per Unit	Unit	Amount	Subtotal	
2	**Task 2 - CHA ISM Soil Assessment, Vapor Intrusion Assessment, PCB Assessment**						
	Professional Services						
	Staff Professional 3	BSL	$ 89 / hour	16	$1,424		
	Staff Professional 1	LBR	$ 77 / hour	16	$1,232		
	Professional Services Summary			*32*		*$2,656*	
	Consultants*						
	Phoenix - 8270 SIM		$152 / sample	5	$836		
	Phoenix - PCBs 8082		$51 / sample	12	$673		
	Phoenix - PP 13 Metals + Barium		$89 / sample	5	$490		
	Phoenix - TPH DRO		$50 / sample	5	$275		
	Contest-VOCs TO-15		$200 / sample	8	$1,760		
	Consultant Summary					*$4,034*	
	External Expenses						
	Shipping/Freight		$125 / ea	2	$275		
	Rental-Field Equipment - XRF		$500 / day	1	$550		
	Stone Equipment						
	Tacoma Mileage		$0.58 / mile	128	$74.24		
	EAR Bosch Hammer Drill		$50.00 / day	1	$50.00		
	EAR Cox-Colvin Vapor Pin Kit		$35.00 / day	1	$35.00		
	EAR PID		$90.00 / day	2	$180.00		
	EAR Manometer		$65.00 / day	1	$65.00		
	EAR PID		$90.00 / day	1	$90.00		
	Stone Consumables						
	EAR PPE		$15.00 / day/staff	1	$15.00		
	EAR General Field Sampling Consumables		$15.00 / ea	1	$15.00		
	Expense Summary					*$1,349*	
	TASK SUBTOTAL						**$8,039**

Scope Details (Task 2):

Perform ISM Sampling adjacent to the former CHA garage. Deploy vapor domes and soil gas pins, collect PCB concrete samples.

<u>Labor:</u>
Two field scientists toL
- collect replicate samples from decision unit (4 hrs). Field screen samples for VOCs by PID and metals by XRF
- collect up to 10 samples of pulvarized concrete for PCB analysis (2 hrs)
- collect 4 samples of soil gas for TO-15 analysis (2 hrs)
- Deploy 4 vapor flux sampling domes, return 24hrs later to collect samples for TO-15 analysis (4 hrs)

2 hrs RT travel per day, 2 hours to manage equipment and ship samples. Five replicates are planned to be collected from DU9.

<u>Analysis:</u>

<u>Soil</u>
PCBs 8082= 5 + 1 EB
PAH 8270 SIMs= 5
PP Metals= 5
TPH DRO=5

<u>Concrete</u>
PCBs 8082= 4 + FD

<u>Air</u>
VOCs TO-15: 8 samples plus FD.

Includes 5 replicates for each DU to account for suspected heterogeneity of the Site.

#	Staff Type	Name	Rate Per Unit	Unit	Amount	Subtotal	
3	**Task 3 - CHA Soil and Groundwater Assessment**						
	Professional Services						
	Staff Professional 3	BSL	$ 89 / hour	13	$1,157		
	Staff Professional 1	LBR	$ 77 / hour	13	$1,001		
	Professional Services Summary			*26*		*$2,158*	
	Consultants*						
	Phoenix -VOCs 8260		$70 / sample	9	$693		
	Phoenix - SVOCs 8270 groundwater		$165 / sample	5	$908		
	Phoenix - SVOCs 8270 soil		$155 / sample	3	$512		
	Phoenix PP Metals		$89 / sample	8	$783		
	EAI - Geoprobe Labor and Equipment		$1,300 / day	1	$1,430		
	EAI - Mob/Demob		$750 / each	1	$825		
	EAI - Geoprobe Suppport Vehicle		$150 / day	1	$165		
	EAI - Consumables		$25 / each	5	$138		
	EAI - Per Diem		$400 / day	1	$440		
	Consultant Summary					*$5,893*	
	External Expenses						
	Shipping/Freight		$125 / ea	1	$138		
	Rental-Field Equipment - WQS		$125 / day	2	$275		
	Stone Equipment						
	Tacoma Mileage		$0.58 / mile	128	$74.24		
	EAR PID		$90.00 / day	1	$90.00		
	EAR Water Level Meter		$15.00 / day	2	$30.00		
	EAR Peristaltic Pump		$75.00 / day	2	$150.00		
	EAR Samsung Field Tablet		$50.00 / Day	1	$50.00		
	Stone Consumables						
	EAR 1/4" OD FEP Tubing		$2.16 / ea	60	$129.60		
	EAR PPE		$15.00 / day/staff	4	$60.00		
	EAR 55-Gallon Drum		$75.00 / ea	1	$75.00		
	EAR General Field Sampling Consumables		$15.00 / ea	2	$30.00		
	Expense Summary					*$1,101*	
	TASK SUBTOTAL						**$9,152**

Scope Details (Task 3):

One soil boring will be advanced at leat 10 feet bgs adjacent to the shed at the rear (south) of CHA building. Collect up to 2 samples from the boring for VOC, SVOC, and PP Metals analyses.

Groundwater will be assessed with a screen point sampler at 3 to 4 locations along the presumed downgradient property boundary (north) from the CHA garage. Soil cores will be logged and screened, but no soil samples will be collected from downgradient locations. Assumes two (leap frog-style).

Total of 5 borings.

Labor:
Two field scientists for 1, 10-hour day on Site.
2 hours roundtrip per person.
1 hour each for prep and sample management

Analyses by media:

<u>Groundwater</u>
VOCs 8260=4+ FD + Trip
SVOCs 8270 = 4 + FD
PP Metals= 4+ FD

<u>Soil</u>
VOCs 8260 = 2 + FD
SVOCs 8270 = 2 + FD
PP Metals = 2 + FD

Bert White Salvage Yard Phase II ESA
19-116
DETAILED FEE & SCOPE DETAILS

#	Staff Type	Name	Rate Per Unit	Unit	Amount	Subtotal		Scope Details
4	**CONTINGENT CHA Soil and Ground Assessment**							In the event that PID/XRF field screening during ISM sampling in decision unit DU-9 indicates a release, a soil boring will be performed. For planning purposes, we assume up to 5 soil borings for DU9 requiring an additional day of drilling. A groundwater sample will be collected from each boring using a SP21 screen point sampler. Assumes two SP21s are deployed and sampled simultaneously. Up to 1 discrete sample will be collected from each boring for VOC, SVOC, PP Metals analyses. QC satified in Task 3. Labor: Two field scientists for 1, 10-hour day on Site. 2 hours roundtrip per person.
	Professional Services							
	Staff Professional 3	BSL	$ 89 / hour	12	$1,068			
	Staff Professional 1	LBR	$ 77 / hour	12	$924			
	Professional Services Summary			*24*		*$1,992*		
	Consultants*							
	Phoenix - SVOCs by 8270 soil		$155 / sample	5	$853			
	Phoenix - SVOCs by 8270 groundwater		$165 / sample	5	$908			
	Phoenix - PP Metals		$89 / sample	5	$490			
	Phoenix - VOCs by		$70 / sample	5	$385			
	EAI - Geoprobe Labor and Equipment		$1,300 / day	1	$1,430			
	EAI - Geoprobe Suppport Vehicle		$150 / day	1	$165			
	EAI - Consumables		$25 / boring	5	$138			
	EAI - Per Diem		$400 / day	1	$440			
	Consultant Summary					*$4,807*		
	External Expenses							
	Shipping/Freight		$125 / ea	1	$138			
	Rental-Field Equipment - WQS		$125 / day	2	$275			
	Stone Equipment							
	Tacoma Mileage		$0.58 / mile	64	$37.12			
	EAR PID		$90.00 / day	1	$90.00			
	EAR Water Level Meter		$15.00 / day	2	$30.00			
	EAR Peristaltic Pump		$75.00 / day	2	$150.00			
	EAR Samsung Field Tablet		$50.00 / Day	1	$50.00			
	Stone Consumables							
	EAR General Field Sampling Consumables		$15.00 / day	1	$15.00			
	EAR PPE		$15.00 / day/staff	2	$30.00			
	EAR 1/4" OD FEP Tubing		$2.16 / ea	75	$162.00			
	Expense Summary					*$977*		
	TASK SUBTOTAL						**$7,776**	
6	**Phase II ESA Report**							Prepare Phase II ESA Report in accordance with IRule. Manage data, create tables, create figures, etc. Assumes contingent tasks are implemented.
	Professional Services							
	Senior Professional 1	DTV	$ 124 / hour	2	$248			
	Staff Professional 3	BSL	$ 89 / hour	20	$1,780			
	Staff Professional 1	LBR	$ 77 / hour	16	$1,232			
	Professional Services Summary			*38*		*$3,260*		
	TASK SUBTOTAL						**$3,260**	
	PROJECT TOTAL						***$29,905***	Includes Contingent

**Stone Environmental's standard mark-up on all subcontractor expenses is 10%.*