

**Phase II Environmental Site Assessment
Sampling and Analysis Plan
Kitelinger Property
Eleva, Wisconsin**

October 1, 2019



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Eleva, Wisconsin**

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Prepared for:



Wisconsin Department of Natural Resources
101 South Webster Street – RR/5
P.O. Box 7921
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Prepared by:



Bay West LLC
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Acronyms and Abbreviations

°C	degrees Celsius	oz.....	ounce
Bay West	Bay West LLC	PID.....	photoionization detector
BRRTS	Bureau for Remediation and Redevelopment Tracking System [Wisconsin]	PVC	Polyvinyl Chloride
CFR	Code of Federal Regulations	QAPP	Quality Assurance Project Plan
CoC	chain of custody	REC	Recognized Environmental Condition
ESA	Environmental Site Assessment	RCRA.....	Resource Conservation and Recovery Act
eV	electron-Volt	SAP.....	Sampling and Analysis Plan
GPS	global positioning system	SOP	standard operating procedure
GRO	gasoline range organics	SSHP	Site Safety and Health Plan
HCL	Hydrochloric Acid	USCS	United Soil Classification System
HDPE.....	High Density Polyethylene	USEPA.....	U.S. Environmental Protection Agency
HNO ₃	Nitric Acid	UST.....	Underground Storage Tank
ID.....	identification	VEC	Vapor Encroachment Concern
IDW.....	investigation-derived waste	VOA	Volatile Organic Analysis
mg/kg.....	milligrams per kilogram	VOCs	Volatile Organic Compounds
mL.....	milliliters	WDNR.....	Wisconsin Department of Natural Resources
MS/MSD	matrix spike/matrix spike duplicate		
NTP	Notice to Proceed		
OSHA	Occupational Safety and Health Administration		

1.0 INTRODUCTION

Bay West LLC (Bay West) has prepared this Sampling and Analysis Plan (SAP) to conduct a Phase II Environmental Site Assessment (ESA) at the Kitelinger Property (the Site) located in Eleva, Wisconsin. This Phase II proposal is based on information gleaned from a Phase I ESA conducted by Bay West (Bay West, 2019) for the Wisconsin Department of Natural Resources (WDNR).

This SAP is intended to be implemented in conjunction with Bay West’s approved programmatic Quality Assurance Project Plan (QAPP) developed to describe the personnel, procedures, and methods for ensuring the quality, accuracy, and precision of data associated with sites assessed through the WDNR Brownfields Assessment Coalition Grant. The WDNR, the grantee and lead coalition member, received a United States Environmental Protection Agency (USEPA) Grants BF-00E02021 and BF00E02369.

This SAP summarizes the Site background and problem definition, sample network design, and field investigation and sampling protocols.

This SAP is organized as follows:

- Section 1 – Introduction
- Section 2 – Site Background and Objectives
- Section 3 – Scope and Rationale of Phase II Assessment
- Section 4 – Field Investigation Protocols
- Section 5 – Reporting
- Section 6 – Cost Estimate
- Section 7 – Schedule
- Section 8 – References

Interested Parties:

<p><u>Property Owner:</u> Dennis Kitelinger S10405 County Road HHI Eleva, WI 54738 Phone: (715) 579-3634</p>	<p><u>Consultant:</u> Bay West 5 Empire Drive St. Paul, MN 55103 Contact: Rick Van Allen rickv@baywest.com</p>
<p><u>Regulatory Agency (Project Manager):</u> WDNR 1300 W Clairemont Ave Eau Claire, WI 54701 Contact: Matt Thompson MatthewA.Thompson@wisconsin.gov</p>	<p><u>Regulatory Agency (Project Coordinator):</u> WDNR 101 South Webster Street – RR/5 Madison, WI 53707-7921 Contact: Tom Coogan Thomas.coogan@wisconsin.gov</p>
<p><u>City:</u> Town of Pleasant Valley W165 Woodridge Drive Eau Claire, WI 54701 Contact: Jennifer Meyer, Clerk/Treasurer Phone: (715) 878-4645 townofpleasantvalley@gmail.com</p>	

2.0 SITE BACKGROUND AND OBJECTIVES

2.1 Site Background

The Site property is located at S10405 County Road HHI, Eleva, Eau Claire County, Wisconsin 54738 (**Figure 1**), and is approximately 0.17 acres in size. The Property is currently occupied by an approximately 2,000 square foot, two-story building (**Figure 2**).

Per the Eau Claire County Interactive Parcel Application Map, the parcel identification number (PID) for the Property is 1801822509012202002. The center of the Property is located at latitude 46.6814010° and longitude – 91.4269950°. The Property is located within the northwest quarter of the northwest quarter of Section 1, Township 25 North, Range 9 West.

The Property is predominantly flat with a slight gradient towards Pine Creek, located approximately 200 feet to the northeast. The topography of the surrounding area gently slopes northwest along Pine Creek to Lowes Creek. The surrounding area consists of residential and municipal properties. Specific adjacent property uses are described below:

North	Gravel parking lot, followed by a vacant single-story building.
South	Single-family residence, followed by the Town of Pleasant Valley Road Maintenance Department.
East	Undeveloped land along Pine Creek, followed by agricultural land.
West	County Road HHI, followed by Pleasant Valley Town Hall.

The property is currently occupied with a mixed-use two-story building and landscaped areas. The first story of the building contains an active taxidermy business, and the second story contains two residential apartments.

Available historical information indicates the Property has been occupied by the building since the late 1920s. The building was first used as a general store and gasoline station and by 1975 was repurposed for a taxidermy business. A gasoline underground storage tank (UST) leak was reported at the Property (BRRTS# 03-18-171623) during removal of a 500-gallon tank in 1997. Soil samples following tank removal detected gasoline range organics (GRO) at concentrations above 100 milligrams per kilogram (mg/kg). No further investigation or remedial action has been performed to date, and the leak listing is listed as open.

According to the property owner, sanitary wastewater from the on-Site building is discharged to two 1,000-gallon septic tanks located on the east side of the Property. The owner noted that one 1,000-gallon septic tank and a dry well historically operated at the Property but were removed and replaced due to frequent backup. According to the Eau Claire City-County Health Department tank records, a 2,000-gallon septic holding tank was installed on the east side of the Property parcel.

In June 2019 Bay West conducted a Phase I ESA on the Site on behalf of the WDNR. Bay West's Phase I report, dated August 2019, identified the following recognized environmental conditions (RECs) and vapor encroachment concerns (VECs) associated with the Site:

- An historical gasoline release to soil has been documented on the Property that has not been investigated or subject to a risk evaluation; this represents a REC and a VEC for the Property.

- The potential for a release to the environment via the on-site septic system of chemicals associated with the historical taxidermy business represents a REC for the Property.

No evidence of additional RECs at the Site were identified. However, the following observations made during the Site visit may require assessment prior to demolition of the structure:

- The presence of asbestos is suspected in building materials in the Property building; and
- PCBs may be present in the fluorescent light ballasts observed in the 1st floor ceiling of the Property building.

2.2 Phase II ESA Objectives

The primary objective of this Phase II ESA is to assess for the presence or absence of soil and groundwater contaminants potentially associated with the former gasoline UST and with the former dry well and existing septic drain field. Due to the reported petroleum release associated with the former gasoline UST, leaded gasoline impacts to soil and groundwater may exist. Also, because the Property is currently utilized as a taxidermy business, there is the potential for a release of volatile organic compounds (VOCs) and other hazardous substances such as arsenic formaldehyde, and pesticides to the environment (soil and groundwater) via the former dry well and septic system.

Bay West has developed a sampling design and protocol to provide aerial coverage of the assumed location of the former UST and the location of the former and existing septic system to assess for contaminants of concern associated with the RECs and VECs identified in the Phase I ESA (Bay West, 2019).

Specifics of the sampling design are provided in **Section 3.0** and the soil, groundwater, and waste characterization sampling methods are provided in **Section 4.0**.

2.3 Safety and Security

Site safety and security is addressed in the Site Safety and Health Plan (SSHP). All field staff will maintain health and safety training to ensure compliance with Occupational Safety and Health Administration (OSHA) as established in 29 Code of Federal Regulations (CFR) 1910.120 and 29 CFR 1910.126 (as applicable).

3.0 SCOPE AND RATIONALE OF PHASE II ASSESSMENT

The Phase I ESA (Bay West, 2019) identified that a former gasoline UST existed at the Site, and that an open leak file for the UST exists. Therefore, the former UST represents a REC and VEC for the property. In addition, a taxidermy business has operated at the on-site building. The building included the use of a former dry well and septic system, and currently utilizes an on-site septic system. The potential for a release to the environment associated with improper disposal of arsenic, pesticides or VOCs via the on-site septic system represents a REC for the Property. To assess these potential sources of contamination, Bay West will complete the following scope of work:

- Advance six (6) soil borings to a minimum of 12 feet below grade – five (5) within and around the assumed location of the former UST, and one adjacent the assumed location of the former dry well and existing septic system. The six proposed boring locations are depicted on **Figure 3**.
- Collect soil samples at each boring location continuously from the ground surface to the termination depth of the boring for field screening, soil classification, and laboratory analysis.
- Classify soil and log the lithology at each boring location.
- Screen soil in the field for the presence of organic vapors using a photoionization detector (PID) by the ziplock bag headspace screening technique.
- Collect soil samples from the boring terminus or just above the groundwater interface, and at the depth interval of greatest PID reading (and/or visual/olfactory evidence of release) if impacts are evident. The expected depth of the water table is approximately 10 feet below grade based on hydrogeology information for the area (Bay West, 2019). If groundwater is observed at a depth of 6 feet below grade or less, only one soil sample will be collected per boring location.
 - Soil samples will be collected adjacent the former UST (proposed boring SB-1 (**Figure 3**)) and submitted for laboratory analysis of Resource Conservation and Recovery Act (RCRA) metals and VOCs.
 - Soil samples will be collected adjacent the former and existing septic system (proposed boring SB-6 (**Figure 3**)) and submitted for laboratory analysis of RCRA metals (including mercury), VOCs, formaldehyde, pesticides, and pH.
- Advance two soil vapor borings to 9 feet below grade and collect soil vapor samples between the building and the former UST (proposed boring SV-1) and between the building and the existing septic system (proposed boring SV-2) (**Figure 3**). Both soil vapor samples will be submitted for laboratory analysis of VOCs by US EPA Method TO-15.
- Collect groundwater samples at proposed borings SB-1 and SB-6 (see **Figure 3**). Groundwater samples will be collected by advancing the direct push boring to the local water table depth (assumed to be approximately 10 feet below grade) and placing a temporary disposable polyvinyl chloride (PVC) well screen in the open borehole.
 - Groundwater samples collected adjacent the former UST (SB-1) will be submitted for laboratory analysis of dissolved RCRA metals and VOCs.
 - If impacts to groundwater are evident at SB-1, groundwater samples will also be collected at borings SB-3, SB-4 and SB-5 and submitted for laboratory analysis of RCRA metals and VOCs. The rationale for the

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proposed contingent groundwater sampling at SB-3, SB-4, and SB-5 are that an unresolved leak listing exists for the former UST and these samples may help define and close out the leak listing.

- A groundwater sample collected adjacent the former and existing septic system (SB-6) will be submitted for laboratory analysis of dissolved RCRA metals (including mercury), VOCs, formaldehyde, and pesticides. A pH reading for the groundwater sample collected at SB-6 will be measured and recorded in the field.

Table 3-0 provides a summary of boring locations, sample matrices, sample depths, and rationale.

Table 3-0 Former UST and Former/Existing Septic System - Sampling Rationale

Boring ID	Rationale	Matrix	Depth (ft)	Analysis
SB-1	Assess shallow soil quality at the assumed location of former UST	Soil	TBD, if necessary	RCRA metals, VOCs
	Assess at-depth soil quality at the assumed location of former UST	Soil	~8-10	RCRA metals, VOCs
	Assess groundwater quality at the assumed location of former UST	Water	~10-12	Dissolved RCRA metals, VOCs
SB-2	Assess shallow soil quality east of assumed location of former UST	Soil	TBD, if necessary	RCRA metals, VOCs
	Assess at-depth soil quality east of assumed location of former UST	Soil	~8-10	RCRA metals, VOCs
	Assess groundwater quality east of assumed location of former UST if impacts observed at SB-1	Water	~10-12, if necessary	Dissolved RCRA metals, VOCs
SB-3	Assess shallow soil quality north of assumed location of former UST	Soil	TBD, if necessary	RCRA metals, VOCs
	Assess at-depth soil quality north of assumed location of former UST	Soil	~8-10	RCRA metals, VOCs
	Assess groundwater quality north of assumed location of former UST if impacts observed at SB-1	Water	~10-12, if necessary	Dissolved RCRA metals, VOCs
SB-4	Assess shallow soil quality west of assumed location of former UST	Soil	TBD, if necessary	RCRA metals, VOCs
	Assess at-depth soil quality west of assumed location of former UST	Soil	~8-10	RCRA metals, VOCs
	Assess groundwater quality west of assumed location of former UST if impacts observed at SB-1	Water	~10-12, if necessary	Dissolved RCRA metals, VOCs
SB-5	Assess shallow soil quality south of assumed location of former UST	Soil	TBD, if necessary	RCRA metals, VOCs
	Assess at-depth soil quality south of assumed location of former UST	Soil	~8-10	RCRA metals, VOCs
	Assess groundwater quality south of assumed location of former UST if impacts observed at SB-1	Water	~10-12, if necessary	Dissolved RCRA metals, VOCs
SB-6	Assess shallow soil quality near assumed inlet location of the former and existing septic system	Soil	TBD, if necessary	RCRA metals, VOCs, formaldehyde, pesticides, pH
	Assess at-depth soil quality near assumed inlet location of the former and existing septic system	Soil	~8-10	RCRA metals, VOCs, formaldehyde, pesticides, pH
	Assess groundwater quality near assumed inlet location of the former and existing septic system	Water	~10-12	Dissolved RCRA metals, VOCs, formaldehyde, pesticides, pH

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SV-1	Assess soil vapor quality between the building and the assumed location of the former UST	Soil Vapor	9	VOCs
SV-2	Assess soil vapor quality between the building and the assumed location of the existing septic system	Soil Vapor	9	VOCs

4.0 FIELD INVESTIGATION PROTOCOLS

The field investigation activities/procedures presented within the following sections will be conducted in accordance with the approved WDNR programmatic QAPP (Bay West, 2017), and applicable Bay West SOPs (attached as Appendix 1 to the programmatic QAPP), and this SAP.

4.1 Sample Mapping

A sub-meter global positioning system (GPS) unit will be used to identify and map all sample locations. If other significant features of environmental concern are noted on the Site during the field work, these features will be mapped as well with a description, photograph, and comments in the field log.

4.2 Sampling Equipment and Procedures

4.2.1 Soil Borings and Soil Sampling

Soil borings will be completed using a direct push drill rig equipped with a 5-foot long, 2-inch diameter stainless-steel core sampler fitted with disposable acetate liners. The sampler will be hydraulically advanced at 5-foot intervals to the termination depth of the boring.

The Bay West field technician will remove the disposable acetate liner from the sampler and cut the liner open with a utility knife. Immediately upon opening the acetate liner, soil samples will be collected for laboratory analysis at the depths and for the analytes as described in **Section 3.0**. Bay West staff will place soil immediately into laboratory supplied sample containers, label the samples and store them on ice for transport to the analytical laboratory.

Following lab sample collection, soil from the liner will be collected at 2.5-foot intervals for field headspace screening using a photoionization detector (PID) equipped with a 10.6 eV lamp. Following headspace screening the field technician will log the boring which will consist of describing soil type, grain size, moisture content, field indications of contamination (staining, odors, or the presence of slag, cinders, etc.) in accordance with Unified Soil Classification System (USCS). Soil sampling activities will be completed in accordance with the Bay West SOPs contained in Appendix 1 of the programmatic QAPP.

4.2.2 Groundwater Sampling

Groundwater samples will be collected at the boring locations described in **Section 3.0** by setting a temporary, 1-inch diameter, PVC screen and casing in the borehole. The samples will be collected using a peristaltic pump equipped with dedicated polyethylene sample tubing that will be discarded between groundwater sampling locations.

Bay West staff will transfer groundwater immediately into laboratory supplied sample containers, label the samples and store them on ice for transport to the analytical laboratory. For dissolved metals analysis, Bay West field staff will field filter groundwater samples using a 0.45-micron filter prior to transferring the samples to preserved laboratory supplied bottles. Field sampling datasheets and the field log will be completed by the Bay West field technician documenting the sample collection activities. Groundwater sampling activities will be completed in accordance with the Bay West SOPs contained in Appendix 1 of the programmatic QAPP.

4.2.3 Soil Vapor Sampling

Soil gas samples will be collected using direct-push technology at depths of approximately 9 fbg to assess the risk to residential receptors with basements. Soil gas samples will be collected using 6- or 1-liter Summa canisters fitted with flow controllers. The samples will be submitted to Pace Analytical for analysis of Minnesota soil gas list VOCs by EPA method TO-15.

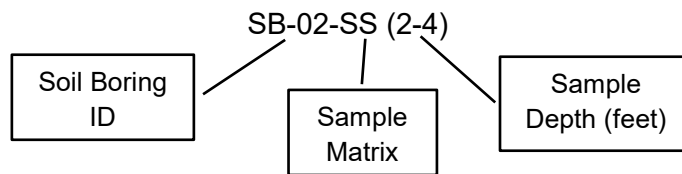
4.2.4 Field Documentation

A field notebook or electronic log will be used to record field-collected data. Data to be recorded includes the following:

- The date, names of sampling crew members, and general weather conditions will be recorded on a daily basis;
- A description of daily field activities, sample collection information, other pertinent observations, and any deviations from the approved SAP.

4.2.5 Sample Numbering System

Soil and groundwater samples collected during the Phase II assessment will be identified using a sample identification protocol consisting of the boring identification number, the sample matrix, and the sample depth in feet below grade. An example is shown below:



Sample matrix: SS – soil sample, GW – groundwater sample, SV – soil vapor

4.3 Laboratory Analytical Procedures

4.3.1 Soil Sample Analytical Methods

Bay West will submit soil samples collected adjacent the assumed former gasoline UST location for analysis of Lead and VOCs, and soil samples collected adjacent the septic system for analysis of RCRA metals (including mercury), formaldehyde, VOCs, pesticides and pH. Laboratory analytical methods, container requirements, preservation, and holding times are summarized in the **Table 4-1**:

Table 4-1 Soil Sample Container, Preservation, and Holding Times

Analysis (Method)	Container	Preservation	Holding Time
Metals (6010C & 7471B)	1 – 4 oz glass jar	Cool to < 6° C, but not frozen	6 months; mercury 28 days;
VOCs (8260B)	2 - tared 40 mL VOA vial	10 mL methanol, < 6° C, but not frozen	14 days
Formaldehyde (8315A)	1 – 4 oz glass jar – sample; 1 – 4 oz glass jar – percent moisture	Cool to < 6° C, but not frozen	14 days
Pesticides (8081A)	1 – 8 oz glass jar	Cool to < 6° C, but not frozen	14 days
pH (9045D)	Plastic/glass	None	7 days

4.3.2 Soil Vapor Sample Analytical Methods

Bay West will submit soil vapor samples collected between the on-Site building and the former gasoline UST location, and also between the building and the existing septic system for analysis

of VOCs. Laboratory analytical methods, container requirements, preservation, and holding times are summarized in **Table 4-2**.

Table 4-2 Soil Vapor Sample Container, Preservation, and Holding Times

Analysis	Container	Preservation	Holding Time
VOCs (TO-15)	1 Liter Summa Cannister	None	14 days

4.3.3 Groundwater Sample Analytical Methods

Bay West will submit groundwater samples adjacent and surrounding the assumed former gasoline UST location for analysis of dissolved Lead and VOCs, and groundwater samples collected adjacent the septic system for analysis of dissolved RCRA metals (including mercury), formaldehyde, VOCs, and pesticides. Groundwater pH will be analyzed in the field. Laboratory analytical methods, container requirements, preservation, and holding times are summarized in **Table 4-3**.

Table 4-3 Groundwater Sample Container, Preservation, and Holding Times

Analysis	Container	Preservation	Holding Time
Metals (6010C & 7470A)	1 – 250 mL HDPE bottle	HNO ₃ to pH<2, cool to < 6° C, but not frozen	6 months; mercury 28 days;
VOCs (8260B)	3 – 40 mL level 2 glass VOA vials	HCl to pH <2, cool to < 6° C, but not frozen	14 days
Formaldehyde (8315A)	1 – 125 mL amber glass bottle	Cool to < 6° C, but not frozen	3 days
Pesticides (8081A)	1 – Liter amber glass	Cool to < 6° C, but not frozen, Na ₂ S ₂ O ₃ if Cl ₂ present	7 days

4.3.4 Quality Control Samples

In accordance with the programmatic QAPP (Bay West, 2017), Bay West will collect field duplicate samples for analysis using identical recovery techniques and treated in an identical manner during storage, transportation, and analysis. Field duplicate samples will be collected at a frequency of 1 per 20 samples per matrix per analyte. Since less than twenty samples of each matrix (soil and groundwater) will be collected, one field duplicate will be collected for each matrix.

Matrix spike/matrix spike duplicate (MS/MSDs) samples will be collected at a frequency of 1 per 20 samples per matrix per analyte. Field equipment rinsate blanks will not be collected because all disposable sampling equipment will be used, instead Bay West will submit one field blank for the project, per matrix per analyte.

One trip blank will be analyzed per cooler containing groundwater samples for VOC analysis.

Table 4-3 Quality Assurance/Quality Control Sample Collection

	QC Sample Type	Frequency of Sample/Analysis	Details
Field Samples	Duplicate Samples	1 duplicate per 20 samples per matrix, or 1 duplicate per sample matrix if fewer than 20 samples	Duplicate sample to be collected by the same methods at the same time as the original sample. Used to verify sample and analytical reproducibility.
	Field Blanks	1 field blank per bottle lot used, or one per site, whichever is more frequent	For all disposable equipment/single use sampling equipment, field blanks will be collected at a rate of 1 per bottle lot or per site, whichever is more frequent.
	Trip Blanks	1 trip blank per cooler containing samples for VOC analysis for water samples	Laboratory prepared organic-free blank to assess potential contamination during sample container shipment and storage, for VOCs in water only.
		1 trip blank per field sampling event, or per lot of bottles for soils, whichever is more frequent	If soil VOC samples are to be preserved with methanol and/or sodium bisulfate, one set of preserved vials will be included to assess potential contamination during sample container shipment and storage.
	Matrix Spike/ Matrix Spike Duplicate	1 MS/MSD per 20 or fewer samples per matrix	Laboratory spiked sample to evaluate matrix and measurement methodology.

4.3.5 Chain-of-Custody and Sample Shipping Procedures

Chain of custody (CoC) forms will be used to track all samples from the time of sampling to the arrival of samples at the laboratory. Every sample container being shipped, hand delivered to, or picked up by the laboratory will contain a CoC form. Field personnel will maintain their copy while the other copies are enclosed in a waterproof enclosure within the shipping container. The laboratory, upon receiving the samples, will sign the remaining copies and keep one copy for its records. Additional information on the CoC is included in the Bay West SOP *Sample Custody* included in **Appendix 1** of the programmatic QAPP.

To ensure that samples will arrive at the laboratory without breakage and the CoC intact, packaging and shipping of all samples will be completed in accordance with Bay West SOP *Packaging and Shipping of Environmental Samples* included in **Appendix 1** of the programmatic QAPP.

4.4 Investigation Derived Waste

Soil cuttings generated during drilling activities will be minimal due to the direct push soil coring methodology. Soil remaining following analytical sampling will be returned to the borehole or thin-spread on the ground surface at the boring location.

Groundwater sampling will occur immediately following boring advancement and will not result in the generation of excess purge water or development water.

Spent personal protective equipment such as sampling gloves, excess glassware, paper towels, etc. will be placed in trash bags and disposed of as municipal solid waste in a trash receptacle at Bay West's office in St. Paul, Minnesota.

5.0 REPORTING

Following completion of field activities and receipt of the final laboratory data, Bay West will prepare a comprehensive report presenting the results of the Phase II ESA. Laboratory results for soil samples collected on the Site will be compared to Wis. Admin. Code § NR 720 residual contaminant levels (RCLs). Laboratory results for groundwater samples collected on the Site will be compared to Wis. Admin. Code § NR 140 Enforcement Standards (ES) and Preventive Action Limits (PAL). The report will include sections on the Site background describing the site history and previous environmental assessment work, the scope of the field work, the results of field screening and laboratory analysis, quality assurance/quality control data (including preparation of a Data Assessment Report), and conclusions with recommendations for the path forward.

A draft report in electronic format will be submitted to the WDNR Program Manager/Project Manager for their review and comment prior to submitting a final report. We anticipate that bound copies and electronic copies of the final report will be submitted to the WDNR. Specifically, final copies of the report will be forwarded to:

1. Town of Pleasant Valley – Jennifer Meyer (1 bound copy and CD)
2. Property Owner – Dennis Kitelinger (1 bound copy and CD)
3. WDNR Project Coordinator – Tom Coogan (1 bound copy plus 2 CDs)
4. WDNR Project Manager – Matt Thompson (1 bound copy and CD)

6.0 COST ESTIMATE

This cost proposal has been prepared based upon information currently available to Bay West and includes the tasks described above. Bay West will complete the Phase II ESA on a time & materials basis for a fee of **\$19,975.73** in accordance with the fee schedule contained in our response to the WDNR's June 2016 Request for Statements of Qualification. A summary of our costs by task is presented below. A detailed cost breakdown is also attached for your review.

Cost Estimate Summary

Task	Fee
Phase II ESA	\$15,390.73
Final Report	\$4,585.00
Project Total:	\$19,975.73

7.0 SCHEDULE

The schedule below presents estimated timeframes to complete the project work. Actual calendar dates are dependent on the date that Bay West receives an executed contract and notice to proceed.

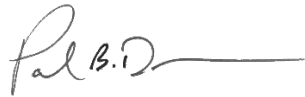
Task	Typical Duration
Field Work Coordination, Scheduling, and Preparation	30 calendar days upon receipt of executed contract and NTP
Phase II ESA	2 calendar days including prep, mob, field work, and demob
Final Report	30 calendar days upon receipt of final laboratory data

If you have any questions or concerns regarding this Sampling and Analysis Plan, please contact me at [rickv@baywest.com](mailto:rkv@baywest.com) or Donovan Hannu at dhannu@baywest.com.

Respectfully,



Rick Van Allen, PG
Senior Project Manager



Paul Donovan, PE
Project Engineer

8.0 REFERENCES

- Bay West LLC (Bay West), 2019. Phase I Environmental Site Assessment, Kitelinger Property, S10405 County Road HHI, Eleva, WI 54738. August.
- Bay West, 2017. U.S. Environmental Protection Agency, Hazardous Substances And Petroleum. Wisconsin Department Of Natural Resources, Wisconsin DNR Brownfields Program, Quality Assurance Project Plan, August.

Figures

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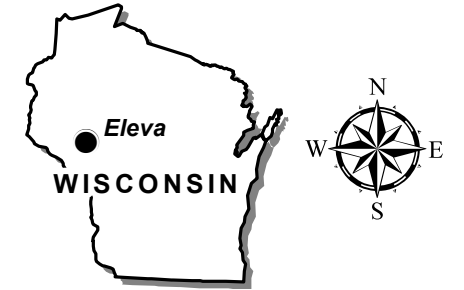


Figure 1

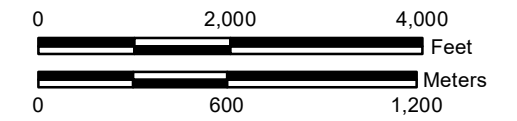
Site Location Map

Kitelinger Property

S10405 County Road I
Eleva, WI 54738



Map Projection: NAD 1983 UTM Zone 16N, Meters
Basemap: National Geographic Society, i-cubed



 Site Location

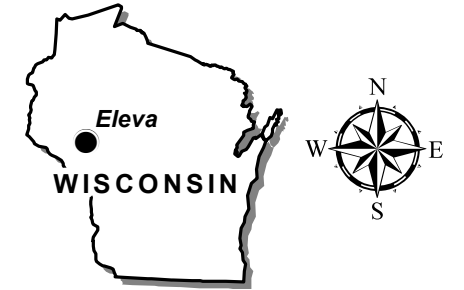




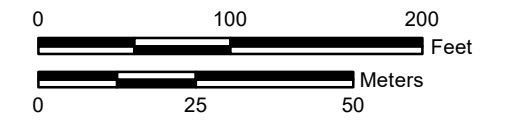
Figure 2 Site Map

Kitelinger Property

S10405 County Road I
Eleva, WI 54738



Map Projection: NAD 1983 UTM Zone 16N, Meters
Basemap: ESRI Imagery 9/22/2018



- Site Boundary
- Parcel Boundary



Figure 3

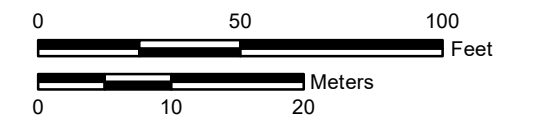
**Proposed Boring
Location Map**






Kitelinger Property

S10405 County Road I
Eleva, WI 54738



Map Projection: NAD 1983 UTM Zone 16N, Meters
Basemap: ESRI Imagery 9/22/2018



-  Approximate Location of Former 500 gallon UST
-  Proposed Soil Boring Sample Location
-  Proposed Soil Vapor Sample Location
-  Approximate Location of Existing Water Supply Well
-  Approximate Location of Existing Septic Tank



Cost Estimate

Bay West LLC
Work Plan / Cost Proposal Spreadsheet

Site Name: Kitelinger Property
 Site Location: Eleva, Wisconsin
 Bay West Proposal #: P190928

TASK	Unit Rate	Frequency	Hours					Other	Contractors	Total Value	Time Total	Comments	
			Project Manager	Staff Professional II	CADD Specialist	Field Technician II	Office Support	Owned Equipment and Inventory	Sub-Contractors				
			\$110.00	\$80.00	\$60.00	\$55.00	\$45.00	(\$)	(\$)				
Task 1 - Phase II Assessment													
L		Project Coordination, field prep, mob, demob, field work		10.00	24.00	2.00				\$ 3,140.00	36.00	one field staff mobilized from St. Paul	
T		Meals	\$51.00	1.5					\$ 76.50			Estimated, actual expenses incurred with receipts	
		Lodging	\$91.00	1					\$ 91.00				
E	3300m	Service Vehicle, Truck Mileage	\$0.58	210.0				\$ 121.80	\$ 121.80			-210 miles round trip plus local travel	
	2000	Meter, P.I.D.	\$100.00	1.0			\$ 100.00	\$ 100.00					
	2755	Pump, Peristaltic	\$50.00	1.0			\$ 50.00	\$ 50.00					
	5670	Tubing, Sample - Well Development	\$0.50	60.0			\$ 30.00	\$ 30.00				5 borings to water, 12 feet per boring	
	2300	Meter, Water Level	\$30.00	1.0			\$ 30.00	\$ 30.00					
	6502	GPS, Sub-meter accuracy	\$75.00	1.0			\$ 75.00	\$ 75.00					
	6503	Laser Survey System	\$75.00	0.0			\$ -	\$ -					
	159	Soil Sampling Equipment	\$65.00	1.0			\$ 65.00	\$ 65.00				sampling equipment, gloves, ziplocks, etc	
I	5680	Filter, Sample High Capacity Quick	\$27.00	7			\$ 189.00	\$ 189.00				field filtering for dissolved metals	
S		Drilling Contractor	\$4,113.50	1				\$ 4,113.50	\$ 4,113.50				
		Lab (Soil - RCRA Metals)	\$65.00	14				\$ 910.00	\$ 910.00				
		Lab (Soil - Formaldehyde)	\$300.00	4				\$ 1,200.00	\$ 1,200.00				
		Lab (Soil - VOCs)	\$70.00	14				\$ 980.00	\$ 980.00				
		Lab (Soil - Pesticides)	\$110.00	4				\$ 440.00	\$ 440.00				
		Lab (Soil - pH)	\$10.00	4				\$ 40.00	\$ 40.00				
		Lab (Soil Vapor - VOCs)	\$215.00	4				\$ 860.00	\$ 860.00				
		Lab (Soil Vapor - flow controller)	\$25.00	1				\$ 25.00	\$ 25.00				
		Lab (Groundwater - RCRA Metals)	\$65.00	8				\$ 520.00	\$ 520.00				
		Lab (Groundwater - Formaldehyde)	\$300.00	3				\$ 900.00	\$ 900.00				
		Lab (Groundwater - VOCs)	\$70.00	8				\$ 560.00	\$ 560.00				
		Lab (Groundwater - Pesticides)	\$110.00	3				\$ 330.00	\$ 330.00				
		5% markup on subcontractors	\$543.93	1				\$ 543.93	\$ 543.93				
Total Task 1 - Phase II Assessment				\$ 1,100.00	\$ 1,920.00	\$ 120.00	\$ -	\$ -	\$ 660.80	\$ 11,422.43	\$ 15,390.73	36.00	
Task 2 - Final Report													
L		Final Report Prep		8.00	40.00	4.00	4.00	1.00		\$ 4,585.00	57.00	Staff pro time includes chemist time to complete data validation and prepare the Data Assessment Report	
Total Task 2 - Final Report				\$ 880.00	\$ 3,200.00	\$ 240.00	\$ 220.00	\$ 45.00	\$ -	\$ -	\$ 4,585.00	57.00	
Total Cost Estimate				\$ 1,980.00	\$ 5,120.00	\$ 360.00	\$ 220.00	\$ 45.00	\$ 660.80	\$ 11,422.43	\$ 19,975.73	93.00	

Site Safety and Health Plan

for
Phase II Environmental Site Assessment

at
**Kitelinger Property
S10405 County Road HHI
Eleva, Wisconsin 54738**

09/17/2019

Prepared by:



**Bay West LLC
5 Empire Drive
Saint Paul, MN 55103-1867**

**BWJ190928
DMS#2521494**

Table 1 Responsible Personnel

Title	Name	Office Phone	Cell Phone
Project Manager	Rick Van Allen	651.291.3441	612.419.2580
Site Safety and Health Officer	Brandon Flaada	218.740.0103	218.234.6010
Plan Preparer	Rick Van Allen	651.291.3441	612.419.2580

Table 2 General Information

Site Name	Kitelinger Property
Site Address	S10405 County Road HHI Eleva, Wisconsin 54738
Site Type	Taxidermy Business and Residential
Site Status	Active
Site Identification Number	NA
Client Name	Wisconsin Department of Natural Resources
Client Address	101 South Webster Street Madison, Wisconsin 53707
Client Contact	Mr. Tom Coogan
Client Phone	608.267.7560
Contaminant(s) of Concern	Petroleum hydrocarbons (GRO, DRO), volatile organic compounds, RCRA metals (including mercury), formaldehyde, pesticides, pH
Event	Phase II Environmental Site Assessment
Preparation Date	09/16/2019
Project Number	190928
Document Number	2521494

Approvals



 Date: 9/16/2019

 Prepared by:
 Rick Van Allen
 Project Manager



 Date: 9/16/2019

 Approved by:
 Xiong Yang
 Corporate Health and Safety

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1.0 INTRODUCTION

The purpose of this project Site Safety and Health Plan (SSHP) is to communicate hazards (biological, chemical, physical and radiological) to which employees could potentially be exposed, and describe measures to reduce these hazards. This SSHP has been prepared based upon known or anticipated site conditions and hazards and according to the Occupational Safety and Health Administration (OSHA) standard 29 CFR 1910.120(b)(1)(ii)(C). This SSHP must be kept at the project location until completion of the project and must be made available to all workers, visitors, and Bay West LLC (Bay West) sub-contractors whose activities are covered under the scope of work described below. The Site Supervisor has the authority to modify the contents of this SSHP to adequately protect the safety and health of the project work crew. The Site Supervisor is encouraged to discuss such changes with the Corporate Safety and Health Specialist if he/she deems it necessary. All modifications will be documented at the end of this plan.

Employees performing activities under this SSHP are required to be properly trained to an appropriate level for the task(s) they will be completing. At a minimum, site workers will conform to the necessary training requirements under the OSHA standard 29 CFR 1910.120 (HAZWOPER). Employees that are or potentially exposed to hazardous substances exceeding occupational exposure limits for more than 30 calendar days per will participate in an exposure medical monitoring program per 29 CFR 1910.120(f).

This SSHP will be reviewed at the beginning of the project/task, daily thereafter and immediately following any modification to its content and by the introduction of new personnel to the site. Document safety meetings on the form included in **Appendix A**. This SSHP and all associated safety and health documents from this project (e.g., completed confined space entry permits, daily tailgate safety meeting forms, and air monitoring sheets) will be filed in the project file at the conclusion of this project. This SSHP has been prepared, in part, from information provided by completed project site visits and remedial investigation activities.

2.0 PROJECT DESCRIPTION

Bay West will perform a Phase II Environmental Site Assessment on the Site. The following is a summary of the project activities, the full project scope is described in the Sampling and Analysis Plan.

Bay West will mobilize to the site to conduct a utility locate meeting. Subsequent to clearing utilities, Bay West will advance 6 push probe soil borings on the site to depths of 12 feet below grade for the collection of soil and groundwater samples, and 2 push probe soil vapor borings on site to depths of 8 feet below grade for the collection of soil vapor samples. Bay West will contract a subcontracted drilling firm to complete the drilling activities. Analytical samples collected during the field effort will be shipped off- site for fixed based laboratory analysis.

Project tasks covered under this SHPP include:

- Mobilization/Demobilization;
- Utility Locate;
- Push-Probe Boring Installation;
- Soil and Groundwater Sampling

3.0 EMPLOYEE RESPONSIBILITIES

3.1 Project Manager

The Project Manager (**Rick Van Allen**) is responsible for obtaining site specific hazard information to be incorporated into the SSHP, and ensuring that a SSHP is developed, distributed, and discussed with all on-site employees.

3.2 Site Supervisor

The Site Supervisor (**Brandon Flaada**) acts as the Site Safety and Health Officer (SSHO) and is responsible for implementation of the SSHP, i.e., hazard evaluation, hazard reduction measures, and communication with the Safety and Health Department in cases where unexpected hazards arise.

3.3 Operators, Helpers, Subcontractors and Visitors

Operators, helpers, subcontractors and visitors are responsible for receiving a copy of the SSHP, reading the plan, understanding the plan, abiding by the provisions, procedures, and requirements outlined in the plan, and informing the Site Supervisor of any hazardous conditions or materials that the plan did not cover.

4.0 HAZARD IDENTIFICATION

- Never work with hazardous materials or in hazardous conditions alone--always have a buddy;
- If you experience any upper respiratory, eye, or skin irritation remove yourself from the exposure area and report your symptoms to your supervisor immediately;
- If you experience headache, dizziness, vertigo, nausea, or any other symptom of central nervous system depression remove yourself from the exposure area and report your symptoms to your supervisor immediately;
- If you detect an odor or other strong smell, remove yourself from the exposure area and report your symptoms to your supervisor immediately; and
- No smoking on any job site.

4.1 Physical Hazards

Employees should be aware of and anticipate the following physical hazards that may be encountered during site activities:

4.1.1 Injury

Due to falling objects; slipping, tripping, and falling; contact with pinch-points; contact (entanglement) with rotating portions of the equipment; or traffic accidents.

- The drill rig/Geoprobe® operator will inspect the drill rig daily for structural damage, loose bolts and nuts, proper tension in chain drives, loose or missing guards or protective covers, fluid leaks, damaged hoses, and/or damaged pressure gauges and pressure relief valves. Repair or maintain as indicated;
- The drill rig/Geoprobe® operator will check and test all safety devices such as emergency shut off switches daily and at the start of a drilling shift. NO DRILLING can commence until these devices are determined to be operational;
- The drill rig/Geoprobe® operator will check that all gauges, warning lights, and control levers are functioning properly and listen for any unusual sounds on each starting of an engine;

- All on site personnel will wear the required PPE as detailed in **Section 7.0**;
- Employees will practice good "housekeeping" around the work site. Supplies will be kept stacked or stored neatly and securely away from work areas where they may present a tripping hazard. Work areas will be kept clean, free of materials, and clear of rocks, snow, ice, oil, and grease;
- Damaged tools will be repaired or discarded. Do not use damaged tools. Keep tools clean;
- Ensure that the work area is stable and there are not obstructions (power lines, tree limbs, etc.) that may interfere with safe drilling operations;
- Keep clear of the auger during operations. Keep your body and body parts (hands and feet) from beneath hoisted augers. Use a long-handled shovel to remove auger cuttings. Stop auger rotation to remove cuttings;
- Clothing should be close fitting, but comfortable no loose ends, straps, draw strings, or belts or other unfastenable parts that might catch on some rotating or translating component of the drill rig/Geoprobe®; and
- Do not wear rings or other jewelry during a work shift.

4.1.2 Back Injury

Due to repetitive lifting using poor technique.

- Think about situations where you need to lift objects. Plan the lift;
- Choose the flattest, straightest, and clearest route, even if it is a little longer;
- Make sure you can see over the load;
- Check the load to determine stability and weight. If it is too heavy, ASK FOR HELP;
- Use material handling equipment whenever possible (drum carts, cylinder carts, dollies, hand truck, fork truck, etc.);
- Bend your knees, not your back. Keep your back straight. Lift with your leg muscles; and
- Do not twist your back while lifting or with a load. Move your feet.

4.1.3 Repetitive Motion Disorders

Such as tendonitis from overuse of wrists or elbows, for example, installing soil borings by hand.

- Rotate personnel through these jobs if possible;
- Rest frequently. Do not overexert yourself;
- Avoid awkward postures of body, hands, wrists or arms;
- Avoid tasks that require substantial force to accomplish; and
- Use appropriate tools for the job.

4.1.4 Electrocutation

Stemming from contact with overhead or underground electrical utilities or contact with damaged electrical power tools and equipment.

- Look up and check for overhead power lines before raising the mast. Maintain the minimum required clearance between equipment and overhead power lines: 10 feet increased 4 in. for every 10kV over 50kV;
- Locate all public/private overhead and buried utilities prior to commencement of site work;
- Assume all overhead lines are live;

- Call the local electric utility company to move sagging lines;
- Move the rig only with the mast down;
- Suspend drilling operations and get away from the rig during (or at the threat of) electrical storms;
- If the drill rig makes contact with electrical wires, it may or may not be insulated from the ground by the tires of the carrier. If the human body simultaneously comes in contact with the drill rig and the ground it will conduct electricity to the ground resulting in either serious injury or death;
 - Under most circumstances, the operator and other personnel on the seat of the vehicle should remain seated and not leave the vehicle. Do not move or touch any part, especially a metal part, of the vehicle or rig;
 - If it is determined that the rig should be vacated, then all personnel should jump clear and as far as possible from the rig. **DO NOT STEP OFF, JUMP OFF, HANG ON** to the vehicle or any part of the rig when jumping clear;
 - If you are on the ground, stay away from the rig. **CALL EMERGENCY MEDICAL SERVICES (EMS)**. Keep others away from the rig while emergency services are called;
 - If an individual is injured or in contact with the rig or power lines, attempt rescue with extreme caution. Use a long, dry, unpainted piece of wood or a dry, clean rope. Keep as far away from the rig and victim as possible until the victim is completely clear of the rig or power lines; and
 - When the victim is completely clear of the rig or power lines, check pulse and breathing provide CPR as necessary.
- Refer to Utility Clearance SOP and complete Utility Clearance Form

Look up and check for overhead power lines before raising the mast. Maintain the minimum required clearance between equipment and overhead power lines: 10 feet increased 4 in. for every 10kV over 50kV;

Table 3 Overhead Line Clearance Distances

Nominal Voltage (kV)	Clearance Distance (feet)
Up to 50	10
51 – 200	15
201 – 350	20
351 – 500	25
501 – 750	35
751 – 1,000	45
> 1,000	As determined by professional engineer (PE).

4.1.5 Heat Stress

Associated with work in warm weather, direct sunlight, high humidity, semi-impermeable chemical protective equipment, lack of hydration and/or lack of acclimatization to warm weather; may take the form of heat rash, fainting, heat exhaustion, or life-threatening heat stroke.

- Recognizing general heat stress conditions and individual sensitivity to these conditions;

- Providing an adequate supply of drinking water or electrolyte replenishing fluids (Gatorade®) for all crew members;
- Drinking water frequently and in quantities slightly more than required to slake thirst and maintain adequate hydration levels;
- Resting at reasonable intervals in shaded or cooled areas;
- Informing your supervisor or crew mates of any ill health you may be experiencing; and
- Performing heat stress monitoring when using chemical protective clothing.

4.1.6 Cold Stress

Associated with work in cold, wet, windy weather with insufficient layers of thermal clothing and/or unprotected skin surfaces.

- Keeping inner clothing dry from rain or wet precipitation;
- Wearing layers of thermal clothing that cover as much exposed skin as feasible;
- Recognizing cold stress conditions by referencing a wind chill index chart; and
- No work should be performed if temperature is -20°F or lower or wind chill index is greater than -21°F.

4.1.7 Noise

Exposure in excess of the OSHA Action Level of 85 decibels (dBA) is anticipated. Noise overexposure can be minimized by using hearing protection in situations where you must raise your voice to be heard by someone standing next to you, or in situations where the TWA noise exposure will likely be above the OSHA action level of 85 dBA. Do not allow yourself to be exposed to obviously loud noises without hearing protection.

4.1.8 Fire

Associated with flammable or combustible materials on site (fuels, decontamination solutions) or encountered as part of the investigation (methane, gasoline, etc.).

- Keep containers of flammable or combustible liquids away from sources of ignition and away from paths, roads, or other vehicle/personnel access areas;
- Ensure that all containers of flammable or combustible liquids are properly labeled and stored in appropriate safety containers; and
- Keep a fire extinguisher (ABC type) on hand in case of fire.

4.1.9 Weather

Weather conditions are an important consideration in planning and conducting site operations. If performing tasks during inclement weather, work deliberately and adjust the work procedures to address the changed conditions. During storms, rain may cause slippery surfaces. Lightning may also accompany storms, creating an electrocution hazard during outdoor operations. Terminate operations during an electrical storm and move to a safe area.

4.1.10 Traffic

Personnel may have to drive off and onto active roadways to access sites. In addition, investigation sites may be proximal to active roadways. Vehicles will display rooftop strobe lights and hazard lights when leaving/entering active roadways, and when parked near active roadways. Vehicles should be parked at least 15 feet off the shoulder.

4.2 Chemical Hazards

Chemicals that will be utilized during site activities are summarized in **Table** below. Site contaminants are summarized in **Table** below. The Hazard Communication Standard (29 CFR 1910.1200) does not cover nonhazardous chemicals, hazardous waste, consumer products, and trace amounts. Site workers are required to be knowledgeable on each hazardous chemical, including its potential hazardous effects, its physical and chemical characteristics, first aid procedures, and recommendations for appropriate protective measures.

Table 4 Chemical Summary and First Aid Procedures

Chemical	Symptoms/Effect of Exposure	First Aid	IDLH	PEL
Nitric Acid	Causes burns by all exposure routes. Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation	<p>Eye Contact: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required.</p> <p>Skin Contact: Wash off immediately with plenty of water for at least 15 minutes. Remove and wash contaminated clothing before re-use. Call a physician immediately.</p> <p>Inhalation: If breathing is difficult, give oxygen. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Remove from exposure, lie down. Call a physician immediately.</p> <p>Ingestion: Do not induce vomiting. Never give anything by mouth to an unconscious person. Clean mouth with water. Call a physician immediately</p>	25 ppm	2 ppm
Hydrochloric Acid	Causes severe skin burns and eye damage. Possible inflammation of the respiratory tract. Caustic burns/corrosion of the skin. Causes serious eye damage. Nausea. Vomiting. Irritation of the gastric/intestinal mucosa. Diarrhea. Affection/discoloration of the teeth.	<p>Inhalation: Remove person to fresh air. If breathing has stopped, perform cardio-pulmonary resuscitation. Have oxygen available for administration by a trained person if breathing is difficult.</p> <p>Ingestion: Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Immediately obtain medical care.</p> <p>Skin contact: Flood area with water for at least 15 minutes. Remove contaminated clothing and shoes. Wash clothing and clean shoes thoroughly before reuse.</p> <p>Eye contact: Immediately flush eyes with plenty of water for at least 15 minutes while holding lids gently, but firmly, apart. Lift upper and lower lids occasionally to ensure thorough flushing under them. Prompt action is necessary to minimize possibility of blindness.</p>	50 ppm	C 5 ppm
Methanol	Burning sensation. Coughing and/ or wheezing. Difficulty in breathing.	<p>Inhalation: Remove to fresh air. If breathing has stopped, give artificial respiration. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. If breathing is difficult, (trained personnel should) give oxygen.</p> <p>Eye contact: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area. Get immediate medical advice/attention. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>Skin contact: Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Get immediate medical advice/attention.</p> <p>Ingestion: Do NOT induce vomiting. Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Get immediate medical advice/attention.</p>	6000 ppm	200 ppm
Alconox	Harmful if swallowed. Causes skin irritation. Causes serious eye damage. May cause respiratory irritation.	<p>Inhaled: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.</p> <p>Skin contact: Wash off with soap and plenty of water. Consult a physician.</p> <p>Eye contact: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.</p> <p>Ingestion: Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician</p>	NE	NE

<i>C = Ceiling Limit (Exposure not to exceed value during any part of the work day.)</i> <i>IDLH = Immediately Dangerous to Life and Health</i>	<i>NE = Not Expressed</i> <i>PEL = Permissible exposure limit (enforceable by OSHA)</i> <i>ppm = parts per million</i>
--	--

4.2.1 Physical Forms of Site Contaminants

Personnel may encounter chemical exposure via inhalation of airborne chemical materials, and skin and eye contact with solids, liquids, or gases during operations from a variety of sources. Personnel will avoid intentional exposure, by all routes, to vapors, gases, particulates, solids and liquids with or without the use of PPE (respiratory protection or chemical protective clothing). If feasible remain and work upwind from source materials (e.g. soil cuttings). In general, the source types include:

Gases such as methane that may be released when the drilling rig encounters an underground pocket, natural gas from a buried pipeline, or other gases.

Vapors associated with soil cuttings, sampling, or headspace analyses may include a variety of volatile solvents or fuels with a wide range of chemical/physical/toxicological characteristics; toxic as well as flammable vapors may be encountered; gasoline vapors associated with contaminated cuttings represent a frequent encounter possibility. In some circumstances, personnel may be exposed to vapors associated with nearby surface sources such as leaking containers, sludge ponds, or contaminated surface soils.

Particulates associated with soil cuttings, sampling, headspace analyses, adjacent on-site surface contamination, or work materials (such as cement dust).

Liquids (including solvents, fuels, corrosives, pesticides, and other hazardous materials) may be encountered in soil cuttings, sampling, headspace analyses or adjacent surface contamination, or containers.

Table 5 Contaminant Summary and First Aid Procedures

Contaminant	Concentration Present		Symptoms/Effect of Exposure	First Aid	IDLH	STEL	PEL / TLV	Ionization Potential (IP)
	Soil	Water						
Benzene	Unk	Unk	Irritation eyes, skin, nose, respiratory system; dizziness; headache, nausea, staggered gait; anorexia, lassitude (weakness, exhaustion); dermatitis; bone marrow depression; [potential occupational carcinogen]	Eye: Irrigate immediately Skin: Soap wash immediately Breathing: Respiratory support Swallow: Medical attention immediately	500 ppm	2.5 ppm	1ppm and 5ppm STEL / 0.5 ppm	9.245 eV
Ethyl benzene	Unk	Unk	Irritation eyes, skin, mucous membrane; headache; dermatitis; narcosis, coma	Eye: Irrigate immediately Skin: Water flush promptly Breathing: Respiratory support Swallow: Medical attention immediately	800 ppm	100 ppm	125 ppm	3.76 eV
Toluene	Unk	Unk	Irritation eyes, nose; lassitude (weakness, exhaustion), confusion, euphoria, dizziness, headache; dilated pupils, lacrimation (discharge of tears); anxiety, muscle fatigue, insomnia; paresthesia; dermatitis; liver, kidney damage	Eye: Irrigate immediately Skin: Soap wash promptly Breathing: Respiratory support Swallow: Medical attention immediately	500 ppm	150 ppm	100 ppm	8.82 eV
o-, m-, and p-Xylenes	Unk	Unk	Irritation eyes, skin, nose, throat; dizziness, excitement, drowsiness, incoordination, staggering gait; corneal vacuolization; anorexia, nausea, vomiting, abdominal pain; dermatitis	Eye: Irrigate immediately Skin: Soap wash promptly Breathing: Respiratory support Swallow: Medical attention immediately	900 ppm	150 ppm	100 ppm	8.445-8.56 eV
Arsenic	Unk	Unk	Ulceration of nasal septum, dermatitis, gastrointestinal disturbances, peripheral neuropathy, resp irritation, hyperpigmentation of skin, [potential occupational carcinogen]	Eye: Irrigate immediately Skin: Water flush promptly Breathing: Respiratory support Swallow: Medical attention immediately	5 mg/m ³ (as As)	-	TWA 0.010 mg/m ³ / 0.002 mg/m ³	NA
Lead	Unk	Unk	lassitude (weakness, exhaustion), insomnia; facial pallor; anorexia, weight loss, malnutrition; constipation, abdominal pain, colic; anemia; gingival lead line; tremor; paralysis wrist, ankles; encephalopathy; kidney disease; irritation eyes; hypertension	Eye: Irrigate immediately Skin: Water flush promptly Breathing: Respiratory support Swallow: Medical attention immediately	100 mg/m ³	-	TWA 0.050 mg/m ³ / 0.050 mg/m ³	NA
Formaldehyde	Unk	Unk	irritation eyes, nose, throat, respiratory system; lacrimation (discharge of tears); cough; wheezing; [potential occupational carcinogen]	Eye: Irrigate immediately Breathing: Respiratory support	20 ppm	C 0.1 ppm (15-minute) / STEL 2 ppm	TWA 0.016 ppm / 0.75 ppm (NIOSH REL / OSHA PEL)	10.88 eV

			Table 5	Contaminant Summary and First Aid Procedures				
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Table 5 Contaminant Summary and First Aid Procedures

Contaminant	Concentration Present		Symptoms/Effect of Exposure	First Aid	IDLH	STEL	PEL / TLV	Ionization Potential (IP)
	Soil	Water						
DDT (Pesticide)	Unk	Unk	irritation eyes, skin; paresthesia tongue, lips, face; tremor; anxiety, dizziness, confusion, malaise (vague feeling of discomfort), headache, lassitude (weakness, exhaustion); convulsions; paresis hands; vomiting; [potential occupational carcinogen]	Eye: Irrigate immediately Skin: Soap wash promptly Breathing: Respiratory support Swallow: Medical attention immediately	500 mg/m ³	-	NIOSH REL Ca TWA 0.5 mg/m ³ OSHA PEL TWA 1 mg/m ³ [skin]	NA
1,4-Dichlorobenzene	Unk	Unk	Eye irritation, swelling periorbital (situated around the eye); profuse rhinitis; headache, anorexia, nausea, vomiting; weight loss, jaundice, cirrhosis; In Animals: liver, kidney injury; [potential occupational carcinogen]	Eye: Irrigate immediately Skin: Soap wash Breathing: Respiratory support Swallow: Medical attention immediately	150 ppm	-	OSHA PEL TWA 75 ppm (450 mg/m ³)	8.98 eV
1,1,1-trichloroethane	Unk	Unk	irritation eyes, skin; headache, lassitude (weakness, exhaustion), central nervous system depression, poor equilibrium; dermatitis; cardiac arrhythmias; liver damage	Eye: Irrigate immediately Skin: Soap wash promptly Breathing: Respiratory support Swallow: Medical attention immediately	700 ppm	-	NIOSH REL C 350 ppm (1900 mg/m ³) [15-minute] OSHA PEL TWA 350 ppm (1900 mg/m ³)	11.00 eV
Perchloroethylene	Unk	Unk	irritation eyes, skin, nose, throat, respiratory system; nausea; flush face, neck; dizziness, incoordination; headache, drowsiness; skin erythema (skin redness); liver damage; [potential occupational carcinogen]	Eye: Irrigate immediately Skin: Soap wash promptly Breathing: Respiratory support Swallow: Medical attention immediately	150 ppm	-	OSHA PEL TWA 100 ppm C 200 ppm (for 5 minutes in any 3-hour period), with a maximum peak of 300 ppm	9.32 eV
Trichloroethylene	Unk	Unk	irritation eyes, skin; headache, visual disturbance, lassitude (weakness, exhaustion), dizziness, tremor, drowsiness, nausea, vomiting; dermatitis; cardiac arrhythmias, paresthesia; liver injury; [potential occupational carcinogen]	Eye: Irrigate immediately Skin: Soap wash promptly Breathing: Respiratory support Swallow: Medical attention immediately	1000 ppm	-	TWA 100 ppm C 200 ppm 300 ppm (5-minute maximum peak in any 2 hours)	9.45 eV
Carbon Tetrachloride	Unk	Unk	irritation eyes, skin; central nervous system depression; nausea, vomiting; liver, kidney injury; drowsiness, dizziness, incoordination; [potential occupational carcinogen]	Eye: Irrigate immediately Skin: Soap wash immediately Breathing: Respiratory support Swallow: Medical attention immediately	200 ppm	ST 2 ppm (12.6 mg/m ³) [60-minute]	OSHA PEL TWA 10 ppm C 25 ppm 200 ppm (5-minute maximum peak in any 4 hours)	11.47 eV

Table 5 Contaminant Summary and First Aid Procedures

Contaminant	Concentration Present		Symptoms/Effect of Exposure	First Aid	IDLH	STEL	PEL / TLV	Ionization Potential (IP)
	Soil	Water						
Methylene Chloride	Unk	Unk	irritation eyes, skin; lassitude (weakness, exhaustion), drowsiness, dizziness; numb, tingle limbs; nausea; [potential occupational carcinogen]	Eye: Irrigate immediately Skin: Soap wash promptly Breathing: Respiratory support Swallow: Medical attention immediately	2300 ppm	ST 125 ppm	OSHA PEL TWA 25 ppm	11.32 eV
<i>IDLH = Immediately Dangerous to Life and Health</i> <i>STEL = Short-term exposure limit</i> <i>PEL = Permissible exposure limit (enforceable by OSHA)</i> <i>NE = Not Expressed</i> <i>NSP = Not Suspected to be Present</i>				<i>ppm = parts per million</i> <i>LEL= Lower Explosive Limit</i> <i>TLV = Threshold Limit Value</i> <i>Unk = Value is Unknown</i> See http://www.cdc.gov/niosh/npg/npgsyn-a.html for other substances.				

4.3 Biological Hazards

Biological hazards suspected to be present include: ultraviolet radiation from sunlight, poisonous plants (e.g., poison ivy), wild parsnip which has a blistering agent in its sap that acts differently than the urushiol found in poison ivy/oak/sumac, and has a tendency to grow along highways and abandoned equipment yards, insects, animals and pathogenic agents (e.g., through First Aid/CPR). Care should be used to avoid contact. Insect repellent and/or sun screen should be applied prior to exposure. A poison ivy care treatment kit should be utilized after such exposure to remove the toxin and provide skin relief.

5.0 AIR/EXPOSURE MONITORING

5.1 Environmental Media Monitoring

Soil may be monitored by headspace techniques to determine the relative amounts of volatile contamination. Soils and cuttings may also be monitored for the presence of corrosives using pH paper. The results will assist on-site hazard evaluation for selection of appropriate personal protective equipment (PPE).

5.2 Air Monitoring

Field screening of soil samples and ambient air monitoring will be performed with a photoionization detector (PID) (10.6 electron-volt [eV] lamp). Chemical exposure above the PEL/TLVs is not expected. The breathing zone will be monitored **initially, at the beginning of each work shift, and as conditions change** (e.g., olfactory detection of contaminants). Bay West workers should attempt to work in the up-wind area and keep soil and water samples away from the breathing zone to avoid exposure. The results will be entered in the project field notebook.

Table 6 PPE Action Levels

Concentration	Instrument	Sampling Duration	Action
< 50 ppm	PID	Not applicable	Continue to monitor as necessary.
> 50 ppm	PID	More than 1 minute	Monitor for benzene if it's a suspected contaminant or if its presence is unknown.

6.0 SITE CONTROL

Access onto and from the site must be controlled to prevent injury or exposure to unprotected persons, reduce associated liability, and minimize the spread of contamination from dirty to clean areas. To the extent possible, the area in which drilling is to be done will be designated using traffic cones. No unauthorized persons are to be allowed inside this EXCLUSION ZONE. Only personnel who have a need to enter, have permission to enter, and who have familiarized themselves with the site-specific hazards and requirements of the SSHP, and who are properly attired in PPE may enter the exclusion zone. A decontamination area located upwind and at the edge of the exclusion zone will be set up to remove contamination from reusable and disposable PPE, tools, equipment, and vehicles.

Due to the size of the worksites, verbal person-to-person communication methods are adequate for this project. Cellular telephones will be available for external communication as needed.

7.0 PERSONAL PROTECTIVE EQUIPMENT

PPE will be used as needed to eliminate or minimize exposure to physical and chemical hazards. All subcontractors are responsible for providing their own PPE. The minimum PPE requirement for all site workers performing any task is Level D:

Level D

- Safety-toe, leather work boots (with steel or fiberglass shank);
- Safety glasses or goggles;
- Cotton Coveralls (or appropriate work attire); and
- Inner surgical (sample) gloves (4-mil nitrile)

Modified Level D - Same items listed for Level D, with the addition of the following:

- Tyvek™ disposable suit;
- Disposable rubber or Tyvek™ boot covers;
- Outer nitrile gloves;
- High visibility Class II traffic vest.
- Hard hat (when overhead hazard is present);
- Hearing protection (as required by activity and exposure potential); and
- Gloves/boot covers will be duct-taped to the disposable suit.

Level C - Same items listed for Modified Level D, with the addition of the following:

- Full-face or half-face air purifying respirator with multi-purpose (OV/AG) cartridge.

The initial level of PPE for the site is Level D. Upgrade to Modified Level D when handling contaminated soil or equipment. Upgrade to Level C if air monitoring indicates.

8.0 DECONTAMINATION

All personnel working in the exclusion zone must decontaminate. For tasks that will require decontamination, the decontamination station will be set up near the work area, exclusion zone, or in another convenient location such that migration of contamination is minimized. Tools, equipment, and PPE suspected to be contaminated with hazardous chemicals can be adequately decontaminated with Alconox detergent and warm water. Do not reuse contaminated PPE. Disposition of the wash water will be the responsibility of the PM.

8.1 Decontamination Equipment

- Plastic sheeting;
- Plastic garbage bags;
- Container for disposable clothing & solid waste;
- Wash tub;
- Container for spent decontamination solutions;
- Long handled brush;
- Paper towels;
- Detergent;
- Gallon-size Ziploc® bags; and
- Source of water.

8.2 Emergency Decontamination

In the event of a medical emergency in the exclusion zone or a contaminated work area, immediately exit the area and provide emergency decontamination to the injured person(s) using the following procedure:

1. BLOT or wipe visible contamination from the person;
 2. STRIP contaminated clothing from the person;
 3. FLUSH impacted skin and/or eyes with copious quantities of water;
 4. COVER the employee;
 5. TRANSPORT the employee to the designated medical provider; and
- Utilize emergency eye wash fluids provided at the project site when necessary.

9.0 CONTINGENCY PLAN

9.1 Site Support Facilities

PRIOR to commencement of work on a Site the SSHO will determine what, if any, client emergency facilities are available for use by Bay West personnel. If such facilities are available, inform each employee and show them where they are.

9.2 Emergency Telephone Numbers

Take a cellular phone to the site or establish the location of a nearby telephones for use in case of emergency PRIOR to beginning work. The Site address is located in **Table 2 General Information**, on **page i** of this SSHP for emergency vehicle routing.

Table 7 Emergency Contact Numbers

Hospital	HSHS Sacred Heart Hospital 900 W Clairemont Ave, Eau Claire, WI 54701 (715) 717-4121
Ambulance	911
Fire	911
Police	911
Client Emergency Contact	608.267.7560

A map to the hospital is attached as **Figure 1**. In case of an emergency notify **Rick Van Allen** (Project Manager) at the earliest convenience at **651.291.3441** or **612.419.2580** (cell)

9.3 Personnel Injury

The site supervisor, site safety officer, or employee will evaluate and initiate first aid as necessary. Decontaminate (if necessary) to the extent possible. Contact ambulance. No work will be conducted until the cause of the injury has been evaluated and if necessary, rectified.

9.4 Heat Stress

9.4.1 Heat Rash

Heat rash is caused by continuous exposure to heat and humid air and is aggravated by wet chafing clothing. This condition decreases a worker's ability to tolerate hot environments.

- **Symptoms:** Mild red rash, especially in areas of the body that sweat heavily.
- **Treatment:** Use powder such as cornstarch or baby powder to help absorb moisture and decrease chafing. Maintain good personal hygiene standards and change into dry clothes as needed.

9.4.2 Heat Cramp

Heat cramps are caused by a profuse rate of perspiration not balanced by adequate fluid and electrolyte intake. The occurrence of heat-related cramps is an indication that excessive water and electrolyte loss has occurred, which can further develop into heat exhaustion or heat stroke.

- **Symptoms:** Acute, painful spasms of voluntary muscles such as the back, abdomen, and extremities.
- **Treatment:** Remove victim to a cool area and loosen restrictive clothing. Stretch and massage affected muscles to increase blood flow to the area. Have patient drink one to two cups of liquids immediately, and every 20 minutes thereafter. Consult with physician if condition does not improve. An electrolyte replacement solution will be provided to take along with liquids.

9.4.3 Heat Exhaustion

Heat exhaustion occurs due to large fluid and salt loss from profuse sweating. It is a state of very definite weakness or exhaustion caused by increased stress on various organs to meet increased demands to cool the body due to excessive loss of body fluids. This condition leads to inadequate blood supply and cardiac insufficiency.

Heat exhaustion is less dangerous than heat stroke but nonetheless must be treated. If allowed to go untreated, heat exhaustion can quickly develop into heat stroke.

- **Symptoms:** Pale or flushed, clammy, moist skin, profuse perspiration, and extreme weakness. Body temperature is basically normal or slightly elevated, the pulse is weak and rapid, and breathing is shallow. The individual may have a headache, be dizzy or nauseated.
- **Treatment:** Remove the individual to a cool, air-conditioned place, loosen clothing, elevate feet, and allow individual to rest. Consult physician, especially in severe cases. Have patient drink one to two cups of liquids immediately, and every 20 minutes thereafter. Total liquid consumption should be about one to two gallons per day. If the

9.4.4 Heat Stroke

Heat stroke is an acute and dangerous reaction to heat stress caused by failure of the heat regulating mechanisms of the body. Heat stroke occurs when the body's system of temperature regulation fails and the body temperature rises to critical levels. When this occurs, the body core temperature rises very rapidly to a point (>105.8 degrees Fahrenheit [°F]) where brain damage and death may result if the person is not cooled quickly.

- **Symptoms:** The victim's skin is hot, and may or may not be red, dry and/or spotted, due to the fact that the individual may still be wet from having sweat while wearing protective clothing earlier; nausea; dizziness; confusion; extremely high body temperature; rapid respiratory and pulse rate; delirium; convulsions; unconsciousness or coma.
- **Treatment:** Cool the victim immediately. If the body temperature is not brought down quickly, permanent brain damage or death may result. The victim should be moved to a shady area; lie down and keep their head elevated. Cool the victim by either sponging or

immersing the victim in very cool water to reduce the core temperature to a safe level (<102°F). If conscious, give the victim cool liquids to drink. Do not give the victim caffeinated or alcoholic beverages.

- Observe the victim and obtain immediate medical help. Heat stroke is considered a medical emergency. Medical help should be summoned immediately.

Wet Bulb Globe Temperature Category Work/Rest and Water Intake

08/07/15

Unacclimated and Acclimated Work/Rest and Water Intake Chart

Heat Risk Category		Wet Bulb Globe Temp	Light Work		Moderate Work		Heavy Work	
			Work/Rest	Water Intake (quart/hr)	Work/Rest	Water Intake (quart/hr)	Work/Rest	Water Intake (quart/hr)
No Risk	Unacclimated	78 – 79.9	50/10 min	1/2	40/20 min	3/4	30/30 min	3/4
	Acclimated	78 – 79.9	continuous	1/2	continuous	3/4	50/10 min	3/4
Low	Unacclimated	80 – 84.9	40/20 min	1/2	30/30 min	3/4	20/40 min	1
	Acclimated	80 – 84.9	continuous	1/2	50/10 min	3/4	40/20 min	1
Moderate	Unacclimated	85 – 87.9	30/30 min	3/4	20/40 min	3/4	10/50 min	1
	Acclimated	85 – 87.9	continuous	3/4	40/20 min	3/4	30/30 min	1
High	Unacclimated	88 – 90	20/40 min	3/4	10/50 min	3/4	avoid	1
	Acclimated	88 – 90	continuous	3/4	30/30 min	3/4	20/40 min	1
Extreme	Unacclimated	> 90	10/50 min	1	avoid	1	avoid	1
	Acclimated	> 90	50/10 min	1	20/40 min	1	10/50 min	1

Adapted from: 1) USGS Survey Manual, Management of Occupational Heat Stress, Chapter 45, Appendix A. 2) Manual of Naval Preventive Medicine, Chapter 3: Prevention of Heat and Cold Stress Injuries. 3) OSHA Technical Manual Section III: Chapter 4 Heat Stress. 4) National Weather Service Tulsa Forecast Office, Wet Bulb Globe Temperature.

9.5 Chemical Overexposure

9.5.1 Inhalation

Remove victim from exposure area to a clean air area. Monitor the victim's breathing. If breathing stops, initiate CPR. Call EMS.

9.5.2 Eye Contact

IMMEDIATELY flush the victim's eyes with water for at least 15 minutes to remove the material. Consult a physician.

9.5.3 Skin Contact

PROMPTLY remove any and all affected clothing. Decontaminate affected skin areas with soap and water. Consult a physician if residual skin damage is evident.

9.6 Fire

On discovery of a fire, activate a fire alarm. Attempt to extinguish the fire only if you can do so without risk of harming yourself.

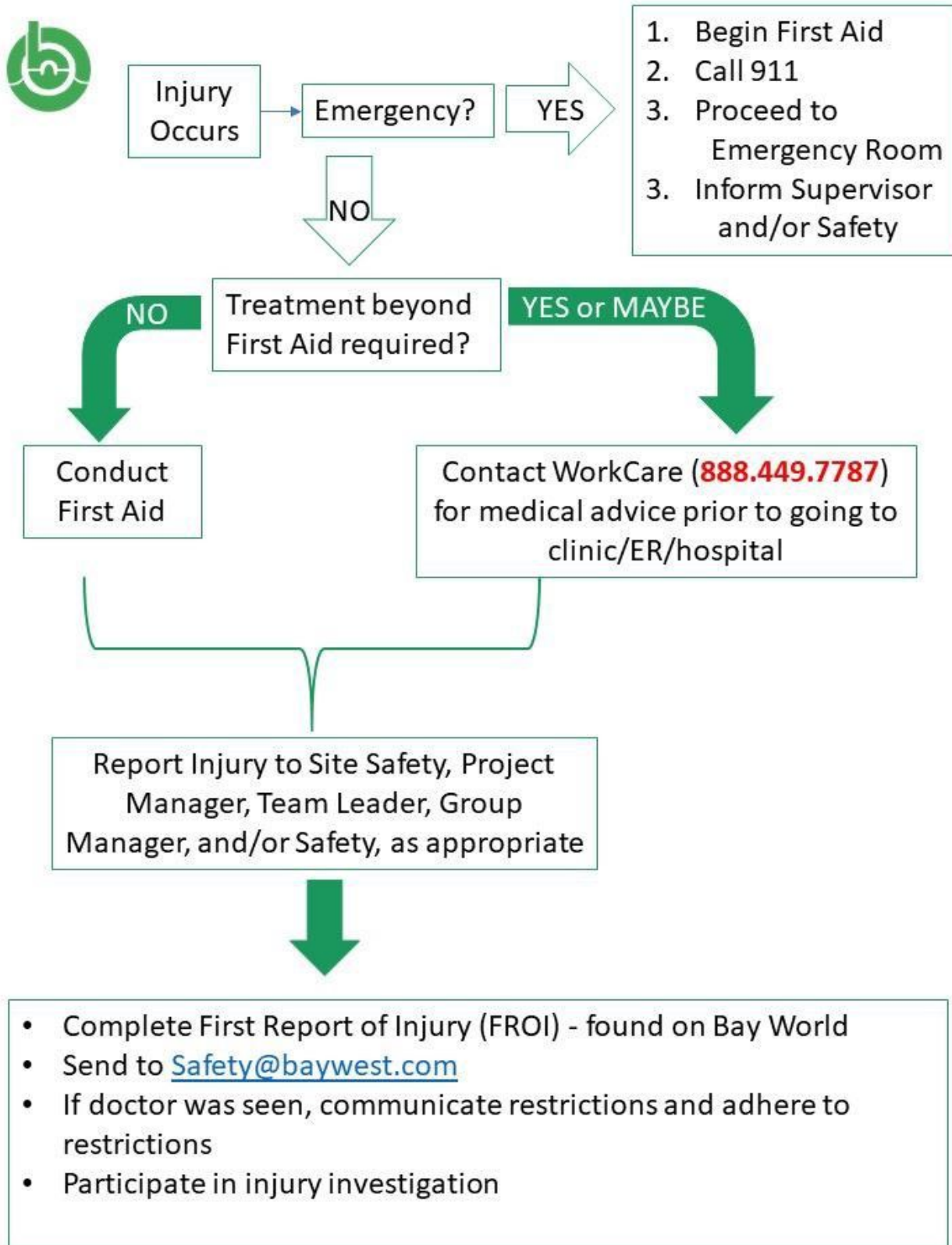
9.7 Spills

ALL SPILLS MUST BE CLEANED UP PROMPTLY. Use appropriate PPE (**Section 7.0**). Prevent the spilled material from flowing into a storm sewer or off site. Absorb the material with a suitable sorbent material and containerize (in a labeled container) for eventual disposal. Report the spill to the Bay West Project Manager (**Rick Van Allen**).

9.8 Emergency Equipment

The following emergency equipment will be maintained on the work site near where work is being performed.

- Eyewash bottles or station;
- First aid kit; and
- Fire extinguisher - 20 lb. ABC.



AHA 1 Mob/Demob Site Preparation Site Work

Appendix 1: Activity Hazard Analysis		1. Mob/Demob, Site Preparation Site Work		Overall Risk Assessment Code (RAC) (Use Highest Code)					L	
Project Location	Phase II Environmental Site Assessment			Risk Assessment Code (RAC) Matrix						
Job Number	BWJ190928									
Date Prepared	09/17/2019			Severity	Probability					
Prepared by (Name/Title):	Rick Van Allen, Project Manager				Frequent	Likely	Occasional	Seldom	Unlikely	
Reviewed by (Name/Title):	Xiong Yang, ASP; Corp. Health & Safety			Catastrophic	E	E	H	H	M	
Notes: (Field Notes, Review Comments, etc.)				Critical	E	H	H	M	L	
				Marginal	H	M	M	L	L	
				Negligible	M	L	L	L	L	
				Step 1: Review each "Hazard" with identified safety "Controls" and determine RAC (see above)						
				"Probability" is the likelihood to cause an incident, near miss, or accident, and identified as: Frequent, Likely, Occasional, Seldom, or Unlikely.				RAC Chart		
			"Severity" is the outcome/degree if an incident, near miss, or accident did occur and identified as Catastrophic, Critical, Marginal, and Negligible.				E = Extremely High Risk			
			Step 2: Identify the RAC (Probability/Severity) as E, H, M, or L for each "hazard" on AHA. Annotate the overall highest RAC at the top of AHA.				H = High Risk			
							M = Moderate Risk			
							L = Low Risk			
Job Steps		Hazards			Controls					RAC
Mobilization / Site Preparation: 1. Site Safety Meeting 2. Collect and Load Equipment 3. Don PPE		Vehicle accidents/collisions.			1. Wear high visibility safety vests when working around heavy equipment/motor vehicles. 2. Vehicle/equipment operators should look in the direction of travel; look before backing up. 3. Prevent foot traffic from crossing routes of heavy equipment. 4. Speed limit is 25 mph unless otherwise noted. 5. Use a spotter for maneuvering heavy equipment. 6. Ensure the operator acknowledge your presence before walking near equipment in operation. 7. Minimize distractions					L
Inspection & Sampling 1. Review worksite 2. Evaluate current conditions 3. Collect samples 4. Perform Overhead sampling 5. Note other regulated waste in the site work area										
Demobilization: 1. Decontamination 2. Waste and PPE Disposal 3. Remove equipment.		Injury from improper use of hand or power tools.			1. Only trained personnel will use hand and power tools. 2. Power tools and equipment will be equipped with a shutoff switch. 3. All rotating parts will be properly guarded. 4. Guard against burns from hot equipment. 5. Wear work gloves when working with hand tools					L

<p>4. Load unused material for removal off-site. 5. Demob.</p>	Electrical shock from energized equipment.	<ol style="list-style-type: none"> 1. Use GFCI plugs, 2. Utilize heavy duty extension cords, 3. All powered equipment must have 3-prong grounded and double insulated. 	L
	Muscle strain from improper lifting techniques.	<ol style="list-style-type: none"> 1. Follow proper lifting techniques; 2. No manual lifting of heavy loads over 50 lbs without assistance 	L
	Excessive noise exposure due to heavy equipment or power tool use.	<ol style="list-style-type: none"> 1. Wear hearing protection 	L
	Hands/feet caught in pinch points.	<ol style="list-style-type: none"> 1. Be aware of and keep hands and feet out of potential pinch points; 2. Wear heavy work gloves 	L
	Chemical Exposure	<ol style="list-style-type: none"> 1. Wear nitrile glove when working with samples 2. Wear air purifying respirator (APR) with OV/AG filters 	L
	Slips, trips, or falls.	<ol style="list-style-type: none"> 1. Practice good housekeeping procedures by keeping walking and working surfaces free from slip and trip hazards. 2. Walk around and not over object 	L
	Accidental Energization of Equipment / Hazardous Energies	<ol style="list-style-type: none"> 1. Properly isolate each piece of equipment with LOTO prior to start of project 2. Verification of LOTO by SSHO 3. All employees will place their individual lock and tag on the energy isolation device OR Group Lockout Box (if more than one isolation device) 	L
	Unauthorized Personnel	<ol style="list-style-type: none"> 1. Maintain positive site control; 2. Immediately cease operations if unauthorized entry is made. 	L

Equipment to be Used	Training Requirements / Competent or Qualified Personnel name(s)	Inspection Requirements
<ul style="list-style-type: none"> • Motor Vehicles • Communications Equipment • First Aid Kit • Fire Extinguisher • Eye Wash Bottles • Level D PPE <ul style="list-style-type: none"> ○ Safety-toe boots ○ Safety Glasses ○ Hearing Protection ○ Hard Hat ○ Sample Gloves ○ Hi Vis Class II Vest ○ Tyvek ○ Outer nitrile glove • Level C PPE <ul style="list-style-type: none"> ○ Full or Half-face Respirator ○ OV/AG cartridge • Hand tools • Air Monitor <ul style="list-style-type: none"> ○ PID 	<p>Training to be performed by the SSHO unless otherwise specified:</p> <ul style="list-style-type: none"> • OSHA 1910.120 HAZWOPER Program • Hand Tool Safety • Defensive Driving • Equipment familiarity as required. • Knowledge of the Emergency Response and Notifications procedures. • First Aid and CPR training as required by the SSHP. • Safe work practices and precautions associated with tasks being performed • Specific task response training. • Personnel will meet requirements for the training and use of PPE. • OSHA qualifications and training as required • Fit test and respirator clearance 	<p>Inspections to be performed by the SSHO unless otherwise specified:</p> <ul style="list-style-type: none"> • Daily serviceability check of equipment. • Daily communications checks. • Daily checks of first aid kits and weekly inventory of kits. • Daily check for serviceability, fit, and comfort of PPE. • Daily inspection of ladders • Vehicle pre and post inspection

Figures

← from S10405 Co Rd I, Eleva, WI 54738
to HSHS Sacred Heart Hospital, 900 W Clairemont Av...

16 min (12.4 miles) 📍 📄 🖨

via WI-93 Trunk N and I-94 W

S10405 Co Rd I
Eleva, WI 54738

- Take County Rd HH to WI-93 Trunk N
2 min (1.1 mi)
- Continue on WI-93 Trunk N. Take I-94 W to Hendrickson Dr in Eau Claire
13 min (11.0 mi)
- Continue on Hendrickson Dr to your destination
2 min (0.3 mi)

HSHS Sacred Heart Hospital
900 W Clairemont Ave, Eau Claire, WI 54701

These directions are for planning purposes only. You may find that construction projects, traffic, weather, or other events may cause conditions to differ from the map results, and you should plan your route accordingly. You must obey all signs or notices regarding your route.

Map data ©2019 United States Terms

Appendix A
Safety Meeting Report

Appendix B

Standard Operating Procedures

(See Project Sampling and Analysis Plan and Programmatic QAPP)

Appendix C

Safety Data Sheets

SDS attached

SDS are located within the client's facility at:

SDS can be access on MSDSONline.com and via Chem Mgmt mobile app

From: [Polston, Patricia](#)
To: [Coogan, Thomas J - DNR](#)
Cc: [Coogan, Thomas J - DNR](#)
Subject: RE: WCS-089 Kitelinger Phase II draft SAP
Date: Thursday, October 3, 2019 2:49:12 PM
Attachments: [image001.png](#)

Greetings Tom-

Thanks for ensuring that the proper screening values are included in the Sampling and Analysis Plans (SAPs) for proposed recommendation on next steps for the properties assessed.

I have received and reviewed the (SAP) submitted on September 25, 2019, and with the additional information on screening values to be used submitted on October 2, 2019, for the Kitelinger property site , located at S10405 County Road HHI, Eleva, Wisconsin.

The SAP contains all the necessary information and is approved.

If you have any questions, please let me know.

Thanks. Trish



Patricia J. Polston
Brownfields Project Manager
Redevelopment & Program Services Branch
Land, Chemicals & Redevelopment Division
US EPA, Region 5
77 W. Jackson Blvd LB-5J
Chicago, IL 60604
312-886-8093

From: Coogan, Thomas J - DNR <Thomas.Coogan@wisconsin.gov>
Sent: Wednesday, October 02, 2019 3:10 PM
To: Polston, Patricia <polston.patricia@epa.gov>
Cc: Coogan, Thomas J - DNR <thomas.coogan@wisconsin.gov>
Subject: FW: WCS-089 Kitelinger Phase II draft SAP

Hey Trish,

Attached you will find an updated SAP and budget for your review. The HASP was submitted in my previous email seeking your review. As you can see, below (email dated 10/1/19 from Rick Van Allen), Bay West has addressed our questions/concerns.

Please let me know if you have any questions.

Thanks Much!

Tom

We are committed to service excellence.

Visit our survey at <http://dnr.wi.gov/customersurvey> to evaluate how I did.

Tom Coogan

Phone: (608) 267-7560

Thomas.Coogan@wisconsin.gov

From: Rick Van Allen <rickv@BAYWEST.com>

Sent: Tuesday, October 1, 2019 5:23 PM

To: Coogan, Thomas J - DNR <Thomas.Coogan@wisconsin.gov>

Subject: RE: WCS-089 Kitelinger Phase II draft SAP

Hi Tom-

Revised Kitelinger proposal attached including language regarding regulatory levels (Section 5). I also added Matt Thompson in Section 1 as an "Interested Party".

Templates have been updated to make sure we reference the regulatory criteria going forward.

Thank you!

Rick Van Allen, PG

Senior Project Manager / Geologist

direct: 651-291-3441 · cell: 612-419-2580

rickv@baywest.com

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Customer-Focused Environmental & Industrial Solutions

5 Empire Drive, St. Paul, MN 55103

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Please consider the environment before printing this email.

From: Coogan, Thomas J - DNR <Thomas.Coogan@wisconsin.gov>

Sent: Monday, September 30, 2019 1:18 PM

To: Rick Van Allen <rickv@BAYWEST.com>

Cc: Thompson, Matthew A - DNR <MatthewA.Thompson@wisconsin.gov>

Subject: RE: WCS-089 Kitelinger Phase II draft SAP

Hey Rick,

Regarding the Sampling and Analysis Plan (SAP) for the Kitelinger Property located in Eleva, Wisconsin. The SAP seems to be missing any reference to screening values that will be used to screen results and make recommendations.

In the past SAPs included language such as: *Laboratory results of soil samples will be compared to Wis. Admin. Code § NR 720 residual contaminant levels (RCLs). Laboratory results of groundwater samples will be compared to Wis. Admin. Code § NR 140 Enforcement Standards (ES) and Preventive Action Limits (PAL).*

There needs to be language included indicating what State screening values will be used in regards to the Kitelinger Property investigation.

Please update the SAP to reflect this above, as well as update your process to make sure this information is included with all Phase II and Limited SI SAPs.

Thanks

Tom

We are committed to service excellence.

Visit our survey at <http://dnr.wi.gov/customersurvey> to evaluate how I did.

Tom Coogan

Phone: (608) 267-7560

Thomas.Coogan@wisconsin.gov