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Mr. David Long, Project Manager
West Virginia Department of Environmental Protection
Division of Land Restoration
601 57th St., SE
Charleston, WV 25304

ENVIRONMENT

Subject:
Addendum to VRRP Interim Measures Work Plan
Freedom Industries Etowah Terminal
Charleston, Kanawha County, West Virginia,
VRP #15017

Date:
May 1, 2015

Dear Mr. Long:

Contact:
Ira Buchanan

Freedom Industries was accepted into the West Virginia Voluntary Remediation and Redevelopment Program (WV VRRP) on March 30, 2015 and the Voluntary Remediation Agreement (VRA) was signed on March 27, 2015. The VRA contains the plan and schedule for achieving a certificate of completion at the Site. Prior to acceptance into the VRRP, the West Virginia Department of Environmental Protection (WVDEP) mandated that all surface water runoff be intercepted, recovered, and transported off-site so no water from the site contacts the Elk River. That has been successfully achieved while investigation and remediation efforts have been ongoing. Considering the cost associated with off-site disposal of rain water, and the finite funds available to an entity in bankruptcy, it seems prudent to determine if the recovery and off-site disposal of rainwater, is necessary. Freedom Industries understands the concern of MCHM impacted groundwater entering the Elk River is the primary concern of WVDEP.

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Our ref:
OH003003.0001

During a site meeting on April 6, 2015, The Licensed Remediation Specialist (Ira Buchanan, [ARCADIS]) representing Freedom Industries and the WVDEP Project Manager (David Long) discussed the concept of installing a new trench to collect surface water runoff. The driving factor being that the existing interceptor trench is potentially impacted and will not yield a representative water sample. WVDEP has indicated they agree that the current interceptor trench will not provide representative samples. Samples collected from a new trench will help determine if storm water runoff is impacted with MCHM from contacting site media, or if the existing collection trench is the source of the detects. The proposed location was viewed by both Mr.

Imagine the result

Long and Mr. Buchanan mutually agreed that a work plan would be required prior to installation of the new trench. Further, surface water samples would be collected from the Elk River to provide assurance that MCHM is not detected.

An interim work plan summarizing the installation of the new trench was submitted to the WVDEP on April 22, 2015. The interim work plan includes work that was discussed by ARCADIS and the WVDEP during the April 6, 2015 site meeting. Upon receipt of the work plan, the WVDEP emailed Freedom Industries voicing disappointment and frustration that the work plan did not outline an excavation. Further, the WVDEP requested a site meeting on April 27, 2015 to discuss the work plan. The WVDEP again voiced their concerns that the work plan did not contain an excavation plan. In email correspondence dated April 28, 2015, the WVDEP requested an amendment to the work plan, and specifically requested a response on five items be submitted to the agency no later than May 1, 2015. Responses to the five items are below.

1. Include provisions for closing the open pit currently filled with MCHM-impacted water, and sampling the water prior to emptying.

The pit is an open excavation generated prior to entry into the VRRP during demolition of the pump house. ARCADIS fully agrees that the pit needs to be closed. The water in the pit was sampled in April 28, 2015 and submitted for laboratory analysis. Confirmation soil samples from the pit bottom and sidewalls will be collected prior to backfilling. The water in the open excavation pit will be removed using submersible pumps or a vac truck. Water from the pit will be disposed of offsite in a manner similar to previous water disposal activities conducted at the site. Once all standing water is removed from the pit and representative confirmation soil samples are taken (two floor samples and one from each wall, totaling 6 samples) the pit will be backfilled with clean fill. A source of clean fill will be located and approved for use by WVDEP.

2. Explain plans for closing the currently in use collection trench

The existing trench will not be closed until a water sample with no MCHM detects is collected from the new trench. The existing trench will remain operational but will be covered with plastic to prohibit potential cross contamination to runoff prior to that runoff entering the new trench. Once a satisfactory water sample (no detectable MCHM) is collected from the new

trench, the existing trench will be excavated and backfilled with clean fill. Once the pumping capacity of the old trench is removed, the new trench will be enlarged and overlap the area where the old trench was located. This will allow sufficient freeboard in the event water collection is needed during a rain event. The new trench will be equipped with adequate pumping equipment to recover all of the runoff entering the pit and the pumping infrastructure will remain in the old trench until such time it can be removed.

3. Demonstrate that water entering the new trench is not impacted with MCHM and does not need to be collected and disposed and that contaminated water is not entering the Elk River, by updating the sampling plan

Surface water runoff samples will be collected as stated in Section 2.2 of the interim measures work plan. The work plan recommends collecting a single surface water sample from the Elk River. However, ARCADIS will collect surface water samples for each twenty-five feet (25') of riverbank beginning at the northern end of the trench, the last sample will be collected just downriver of the southern end of the trench (instead of the 100' sample). Sample locations will start at the upstream, northern end of trench (will be referred to as 0'), then to the south at 25', 50', 75', and finally just downstream of southern end of trench (in lieu of 100'). Descriptions of the surface water sample locations will be recorded in field log notes and on a map. A total of six samples will be collected, including the sample from the new trench.

4. Outline a monitoring plan to ensure MCHM-impacted water is not entering the trench and does not need to be collected until such time as the trench is no longer needed

ARCADIS proposes surface water runoff sampling from the new collection trench every two weeks following the collection of a water sample with no MCHM detects.

5. Provide information on any proposed excavation and confirmatory sampling activities, including areas to be excavated, amounts estimated, confirmatory sampling protocol, etc.

It should be noted that the soils most impacted by MCHM has already been excavated and disposed of offsite. Confirmation soil samples have been collected from these excavations and remaining soils which are impacted exhibit significantly lower concentrations. Since the existing trench is likely impacted with trace amounts of MCHM the first phase should be to cover the existing trench with plastic, install a new trench adjacent to the existing trench, and monitor the newly installed trench.

In the event MCHM impacted water is detected in the new trench, ARCADIS proposes that an excavation be completed. **Figure 1** details the potentially impacted soil along the spill pathway. The excavation will exclude areas that have previously been excavated and will focus on the slope and preferential pathways. The minimum digging depth will likely be two feet below grade; however, if gross MCHM impacts are encountered, excavation will continue to remove them. This excavation will also focus on the highest known soil impacts within the former tank area. Confirmation soil samples will be collected for the chemicals of concern for the site. The confirmation soil samples will be collected at the deepest points of the excavation and there will be at least one confirmation soil sample for every 400 square feet of area or 20 by 20 grid based approach. Due to the time constraints, a figure depicting the confirmation sampling rational is not available. Upon completion of the excavation, the excavated area will be back filled with a clean, impermeable fill (clay) to eliminate precipitation from contacting MCHM impacted media, as well as reduce infiltration in the former tank area as well as the sloped spill area. The backfill will be analyzed for MCHM, PPH, Glycols, VOCs, SVOCs and metals and will not be used if impacts are detected.

Sincerely,

ARCADIS U.S., Inc.

A handwritten signature in blue ink, appearing to read "Michael V. Lutz".

Michael Lutz
Project Scientist

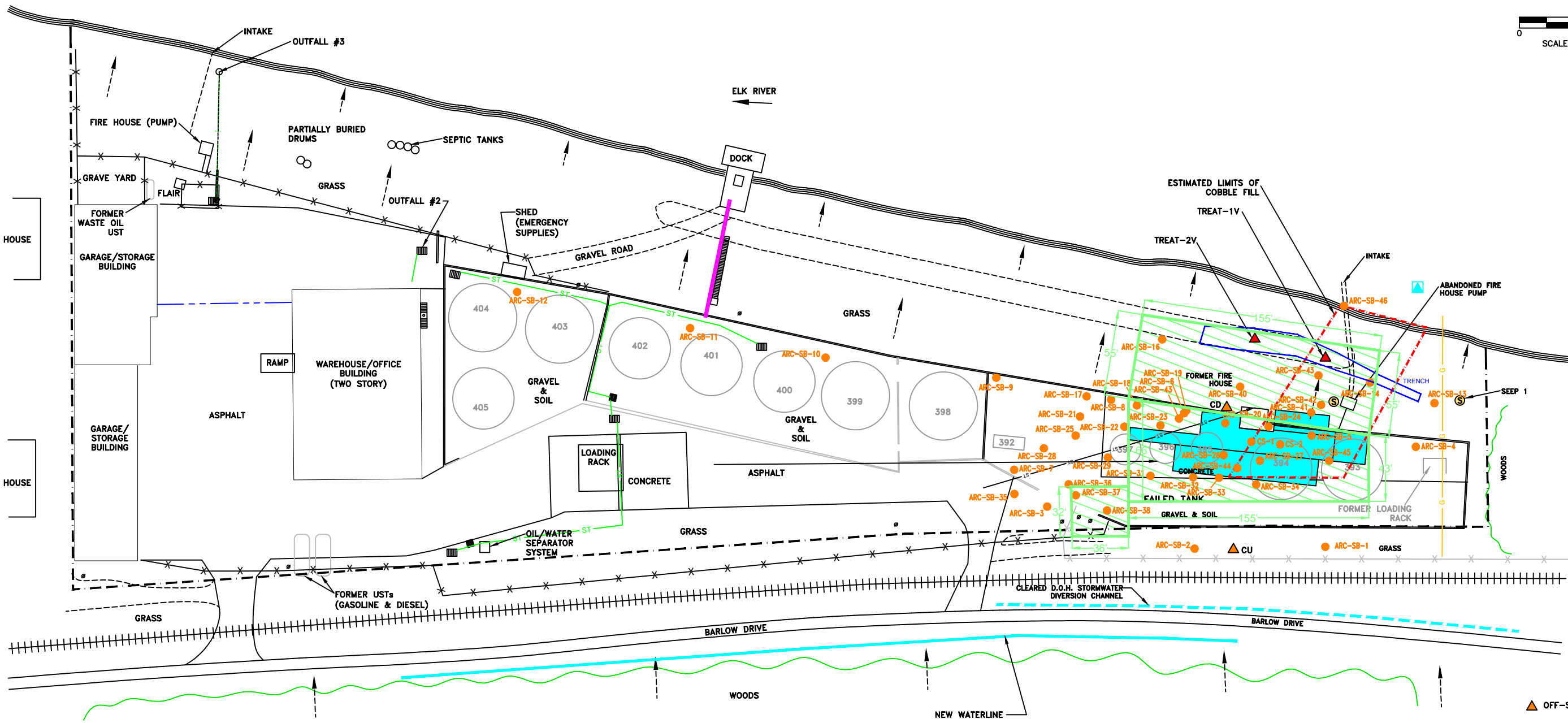
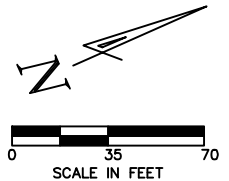


Mr. David Long
May 1, 2015

A handwritten signature in blue ink that reads "Ira Buchanan".

Ira Buchanan
Licensed Remediation Specialist

Attachments:
Figure 1



- LEGEND**
- EXISTING WELL (7)
 - SEEP
 - CULVERT SAMPLE
 - SUMP SAMPLE
 - PROPOSED NEW WELL (5)
 - PROPOSED DEEP SOIL BORING (38)
 - PROPOSED SURFACE SOIL SAMPLE (26, 0-1')
 - PROPOSED SURFACE WATER SAMPLE
 - FORMER SOIL EXCAVATION
 - LIMITS OF EXCAVATION
 - PROPERTY BOUNDARY
 - FENCE
 - RAILROAD TRACKS
 - PRODUCT PIPING
 - DIKE WALL
 - STEEP SLOPE
 - TREE LINE
 - STORM SEWER LINE
 - NATURAL GAS LINE
 - STEAM LINE
 - DRAIN POLE

DRAFT

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LIMITS OF EXCAVATION

FIGURE
1