



Seagull Environmental Technologies, Inc.

121 NE 72nd Street
Gladstone, Missouri 64118
www.seagullenvirotech.com

July 2, 2012

Mr. Roy Crossland
Mini-START Project Officer
U.S. Environmental Protection Agency, Region 7
901 North 5th Street
Kansas City, Kansas 66101

**Subject: Addendum to the Quality Assurance Project Plan
Kuhlman Diecasting Site, Stanley, Kansas
EPA Region 7, Mini-START, Contract No. EP-S7-09-01, Task Order No. 0035
Task Monitor: Todd Davis, EPA Project Manager**

Dear Mr. Crossland:

Seagull Environmental Technologies, Inc. is submitting the attached addendum to the Quality Assurance Project Plan for a Phase II Targeted Brownfields Assessment (TBA) for the Kuhlman Diecasting site in Stanley, Kansas. If you have any questions or comments, please contact the project manager at (913) 220-5887.

Sincerely,

Jeff Pritchard, CHMM
Mini-START Project Manager

Hieu Q. Vu, PE
Mini-START Program Manager

Enclosures

**ADDENDUM TO THE QAPP FOR THE KUHLMAN DIECASTING SITE
STANLEY, KANSAS
Task Order No. 0035**

This document is an addendum to the Quality Assurance Project Plan (QAPP) dated June 5, 2012, for a Phase II Targeted Brownfields Assessment (TBA) at the Kuhlman Diecasting site in Stanley, Kansas. The previous QAPP submitted by Seagull remains the primary guidance document for this activity.

SAMPLING ACTIVITIES

Based on conversations with the EPA Project Manager and EPA Region 7 Resource Conservation and Recovery Act personnel, the proposed sampling activities at the site have been revised. Primarily discussed in this QAPP addendum is the addition of soil and groundwater sample locations for the Phase II TBA sampling activities.

Sample locations for collection of both soil and groundwater samples are being added to the western portion of the site. The sample locations are being placed at/near: the two former surface impoundments in the southwestern portion of the site, the former locations of aboveground storage tanks (AST), and within the proposed surface soil sampling grid area. Sampling is being conducted at these locations to determine if historic use has resulted in releases of site-related contaminants. Figure 1 in Appendix A shows all the proposed sample locations for the Phase II TBA, including the additional sample locations discussed in this QAPP addendum. Figure 2 in Appendix A only shows the additional sample locations discussed in this QAPP addendum.

Additionally, several sample locations have been moved to new locations based on discussions with EPA personnel. One of the Geoprobe[®] soil and groundwater sample locations proposed in the original QAPP to be collected from the northeast boundary of the site will be moved to a location just south and east of the location where the main access road crosses the railroad track (see Appendix A, Figures 1 and 2). Also, the proposed surface soil sampling grid shown on Figure 4 of the original QAPP will be shifted approximately 100 feet to the east to cover the eastern portion of the former parking lot area. Another revision to the original QAPP is to add the analysis of hexavalent chromium to select samples.

Specifically, the samples collected from the following locations, that were detailed in the original QAPP, will also be analyzed for hexavalent chromium following EPA SW-846 Method 7196: the 12 surface soil samples collected from the surface soil sampling grid; three collocated surface water and sediment samples collected from the basement of the building; two collocated surface water and sediment samples collected from the two wastewater evaporation sanitary lagoons; permanent monitoring wells GM-2, GM-

5, GM-10, and GM-13; and the equipment rinsate and field blank. For the samples collected from the monitoring wells, analysis for both total and dissolved hexavalent chromium will be conducted. Soil and groundwater samples for hexavalent chromium will be collected in 8-ounce glass jars and 1-liter polyethylene bottles (both unpreserved), respectively. The holding time for hexavalent chromium following this analytical method is 24 hours.

The sampling methodology and collection procedures for the remainder of the proposed sampling have not been changed as written in the original QAPP except for the depth of surface soil samples. All surface soil samples will be collected from the upper 2 inches of soil, not the upper 6 inches (as stated in the original QAPP).

Subsurface Soil Sampling

Subsurface soil samples will be collected from an additional 13 boring locations (see Appendix A, Figure 2). Of the 13 boring locations, three will be from locations within/or adjacent to the two former surface impoundments located in the southwest portion of the site, four will be from locations where large ASTs were formerly located, and six will be from the proposed surface soil sampling grid.

At each of the boreholes, a Geoprobe[®] Macro-Core soil sampler fitted with a disposable polyvinyl chloride (PVC) sleeve will be advanced to 20 feet below ground surface (bgs), groundwater, or refusal, whichever is encountered first. It is anticipated that groundwater will be encountered between 10 to 15 feet bgs. The soil cores will be retrieved and screened for volatile organic compounds (VOC) with a photoionization detector (PID) and for metals with an x-ray fluorescence spectrometer (XRF). All soil cores will be logged to determine lithology and soil characteristics. From each of the boreholes advanced at the former surface impoundments and former ASTs, one sample will be collected from a 2-foot interval. The specific 2-foot sample intervals will be selected based on field screening results, visual observations, and sampler judgment. From the six borings advanced within the proposed soil sampling grid, two samples will be collected for laboratory analysis. In general, sample intervals that yield the highest PID and/or XRF readings will be selected for sampling. However, if no PID or XRF readings above background are observed at a boring location, then the 2-foot sample interval will be determined by the field project manager based on field observations and sampler judgment. These field observations and sampler judgment will involve identifying visually stained soil or abnormal soil characteristics. If no contamination is indicated based on field screening readings, visual observations, or sampler judgment, then the bottom 2-foot interval of soil from the boring will be sampled.

Soil samples will be submitted for the full suite of laboratory analysis listed in the original QAPP. Those analyses are: VOCs, total petroleum hydrocarbons (TPH)-gasoline range organics (GRO) (by Method OA-1) and diesel range organics (DRO) (by Method OA-2), polynuclear aromatic hydrocarbons (PAH), and priority pollutant metals.

Soil samples for analysis of VOCs and TPH-GRO will be collected following EPA Method 5035 guidelines, which will involve placing approximately 5 grams of soil into two 40-milliliter (mL) volatile organic analysis (VOA) vials pre-preserved with sodium bisulfate and one VOA vial preserved with methanol. Soil samples for analysis of TPH-DRO (OA-2), PAHs, and metals will be removed from the PVC sleeves and placed in disposable aluminum pie pans for homogenization prior to transfer to 8-ounce glass jars. Following sample collection, excess soil will be returned to the respective boreholes. Remaining void space in the boreholes will be filled with bentonite.

Pertinent data, including analyses to be performed and exact sample locations, will be recorded on field sheets for each soil sample. All soil samples will be stored in coolers maintained at or below 4 degrees Celsius (°C) pending submittal to a Seagull-contracted laboratory.

Groundwater Sampling - Temporary Geoprobe® Wells

Four additional groundwater samples will be collected from temporary Geoprobe® wells that will be installed at the west portion of the site (see Appendix A, Figure 2). At each temporary Geoprobe® well location, a Geoprobe® Screen Point 15 groundwater sampling apparatus will be driven below the water table, and a disposable 4-foot-long PVC screen will be deployed. A peristaltic pump with disposable polyethylene tubing will be used for collection of groundwater samples from the temporary Geoprobe® wells. From each temporary Geoprobe® well, a grab sample will be collected; therefore, no monitoring of water quality parameters for stabilization criteria will be required. Immediately after sampling, the temporary wells will be removed, and the open boreholes will be filled with bentonite.

The temporary well samples will be submitted for analysis of VOCs, TPH-GRO (OA-1), PAHs, TPH-DRO (OA-2), and priority pollutant metals. Water samples submitted for analysis of VOCs and TPH-GRO will be collected in four 40-mL vials preserved with hydrochloric acid (HCl) to a pH<2. Water samples that will be analyzed for PAHs and TPH-DRO (OA-2) will be collected in 1-liter glass bottles (two per sample). Water samples that will be analyzed for metals will be collected in two 1-liter polyethylene bottles (one each for total and dissolved metals) and preserved with nitric acid (HNO₃) to a pH<2. Dissolved metals samples will be filtered in the field.

A field sheet will be completed for each groundwater sample. The field sheets will include the exact sample locations and analyses to be performed. All water samples will be stored in coolers maintained at or below 4 °C until they are submitted to the Seagull-contracted laboratory.

ANALYTICAL METHODS

As stated in the original QAPP, all samples will be submitted to a Seagull-contracted laboratory. Soil, groundwater, surface water, and sediment samples submitted for hexavalent chromium will be analyzed according to EPA SW-846 Method 7196. Standards detection limits will be sufficient for the sampling activities. As previously mentioned, the holding time for hexavalent chromium is 24 hours. Appropriate containers and physical/chemical preservation techniques will be employed during the field activities to help verify that representative analytical results are obtained. Submittal of samples to the laboratory is expected in July 2012.

APPROVED BY:



Jeff Pritchard, CHMM, Mini-START Project Manager

Date



Hieu Q. Vu, PE, Mini-START Program Manager

Date



Laura Moore, Mini-START Quality Assurance Manager

Date

Todd Davis, EPA Project Manager, Superfund Division

Date

Diane Harris, EPA Region 7, Quality Assurance Manager

Date

APPENDIX A

FIGURES



Figure 1
Proposed Sample Location Map

Kuhlman Diecasting Site, Stanley, Kansas

Seagull Environmental Technologies, Inc.

Source: ArcGIS Online, Bing Maps Aerial Imagery, 2011

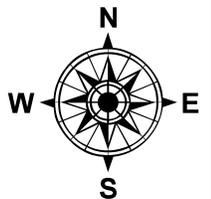




Figure 2
 Additional Proposed Sample Location Map
 Kuhlman Diecasting Site, Stanley, Kansas



Seagull Environmental Technologies, Inc.

Source: ArcGIS Online, Bing Maps Aerial Imagery, 2011