Addendum to the Site Specific Sampling Plan

Remedial Investigation, Part 1, at Acid Areas 2 & 3

Introduction

This addendum has been prepared to address the sampling strategy for additional surface water and sediment samples at Acid Areas 2 & 3. Data collected during the October 2004 sampling event indicates contamination exceeding the PRGs is present in sediment at the drainage ditches at both sites. As presented in the Draft Site Characterization Report, Figures 6-1 and 6-2, PCBs and PAHs are present at elevated levels. The extent of contamination has not been adequately defined in the upstream and downstream directions at AA2 or in the downstream direction at AA3. Also sediment samples have not been collected from the northern drainage ditch at AA2. Only three surface water and sediment samples were collected from each location during the April 2005 sampling event, which do not provide sufficient data to allow for meaningful statistical analysis for the future human health and ecological risk assessments. Additional surface water and sediment samples are therefore proposed to provide further contaminant delineation and statistical data.

Scope and Objectives

Thirty additional surface water and sediment sampling locations are proposed, as shown in Figures 1 & 2. The proposed locations include co-located surface water and sediment sampling as follows:

- Twelve additional locations at the southern drainage ditch at AA2, which are spaced at 200 ft. intervals (Figure 1). These locations include one upstream location, eight on-site locations, and three downstream locations.
- Eight locations at the northern drainage ditch at AA3, which are spaced at 300 ft. intervals (Figure 1). These locations include six onsite locations and two downstream locations.
- Ten additional locations at the AA3 drainage ditch, which are spaced at 200 ft intervals (Figure 2). These locations include seven on-site locations and 3 downstream locations.

Surface water samples will be submitted to an off-site laboratory and analyzed for PCBs (SW8082//3520C), SVOCs (SW8270C/3520C), PAHs (SW8310/3540C), VOCs (SW8260B/5030), explosives (SW8330), TAL metals (SW3050A/6010C), and mercury (7470A). Sediment samples will be submitted

to an off-site laboratory and analyzed for PCBs (SW8082//3540C), SVOCs (SW8270C/3540C), PAHs (SW8310/3540C), VOCs (SW8260B/5035), explosives (SW8330), TAL metals (SW3050B/6010C), and mercury (7471A). Surface water sampling is scheduled for mid May 2006. Sediment sampling is scheduled for mid June 2006.

Sampling Methods

Surface water samples will be collected using direct fill methods or with a peristaltic pump (excluding VOCs) in accordance with the approved Site-Wide SAP. Surface water sampling will start from the downstream location and will progress to the next upstream location to avoid sediment disturbance. Sediment samples will be collected with a stainless steel hand auger equipped with disposable stainless steel sleeves in accordance with the Site-Wide SAP. Each sample will be homogenized in a glass bowl using a stainless steel spoon. VOC samples will be collected directly from the stainless steel sleeve prior to homogenization.

Decontamination of the hand auger will be performed between sample locations as specified in the Site-Wide SAP. Dedicated bowls and spoons will be used for each sample.

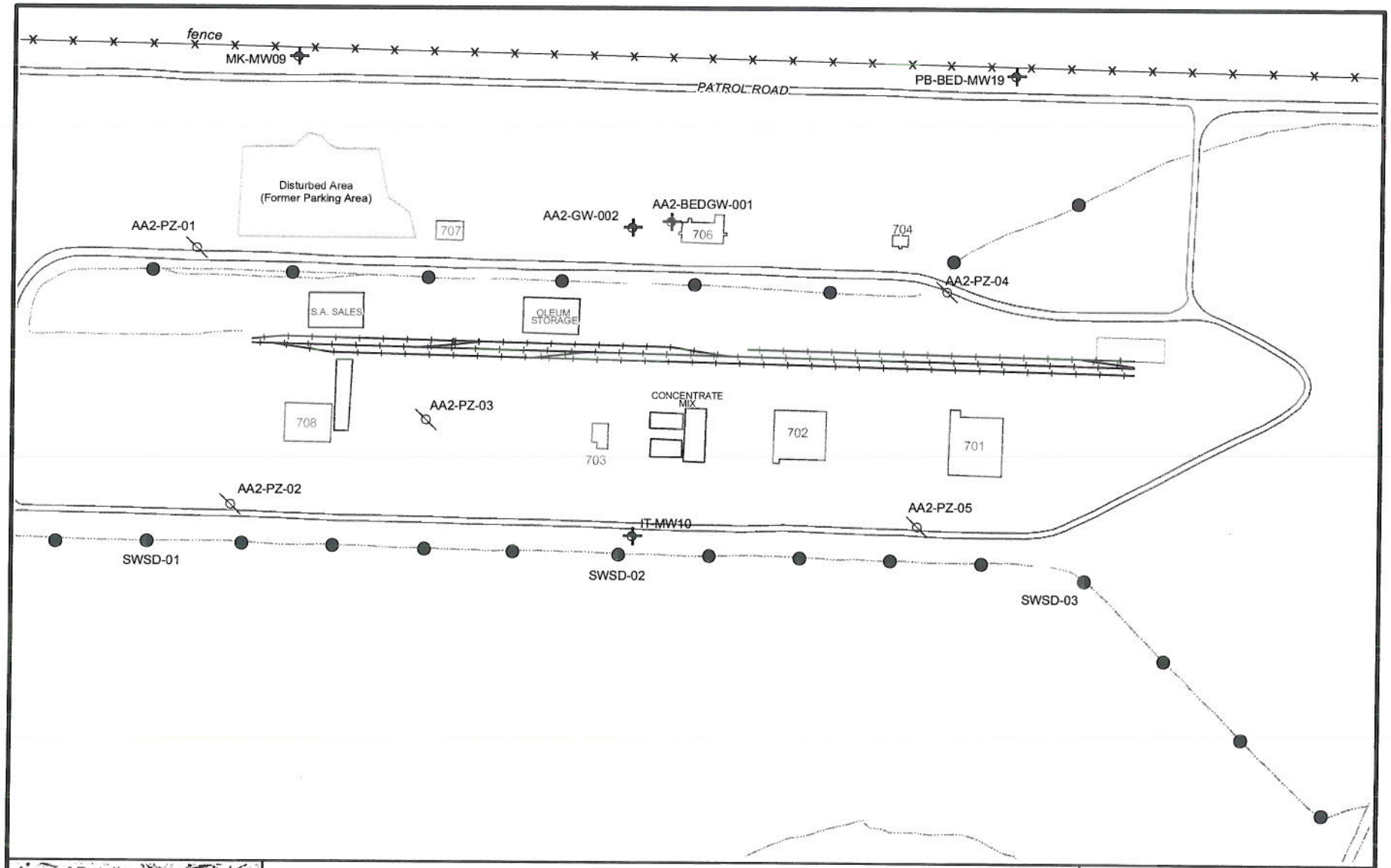
QA/QC samples will be collected in accordance with the Site-specific QAPP, to include field duplicates, matrix spike/matrix spike duplicates, and a QA sample to be submitted to a separate laboratory.

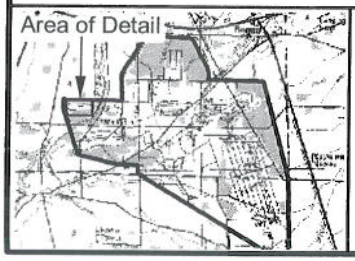
Sample handling, preservation, packing, and shipping will be in accordance with the Site-Specific QAPP.

Land surveying will be performed for each of the 30 locations in accordance with the Site-Wide SAP using conventional surveying methods.

Data Reporting

Analytical results will be used to update the figures and text discussion as presented in the Draft Site Characterization Report. An Interim Final Site Characterization Report will be submitted, which will address comments from the draft report and will include the additional surface water and sediment data and associated conclusions.





Legend

- Storage Tank Areas from Engineering Drawings
- Creek, Ditch, Conveyance
- Buildings
- Railway
- Proposed Surface Water and Sediment Sampling Locations
- Monitoring Wells
- Piezometers
- Surface Water Sampling Locations

100 50 0 100
Feet

N

Notes:
Data mapped to Ohio State Plane North NAD83, map units are feet.

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Proposed Surface Water and Sediment Sampling Locations — Acid Area 2

Plum Brook Ordnance Works
Sandusky, Ohio

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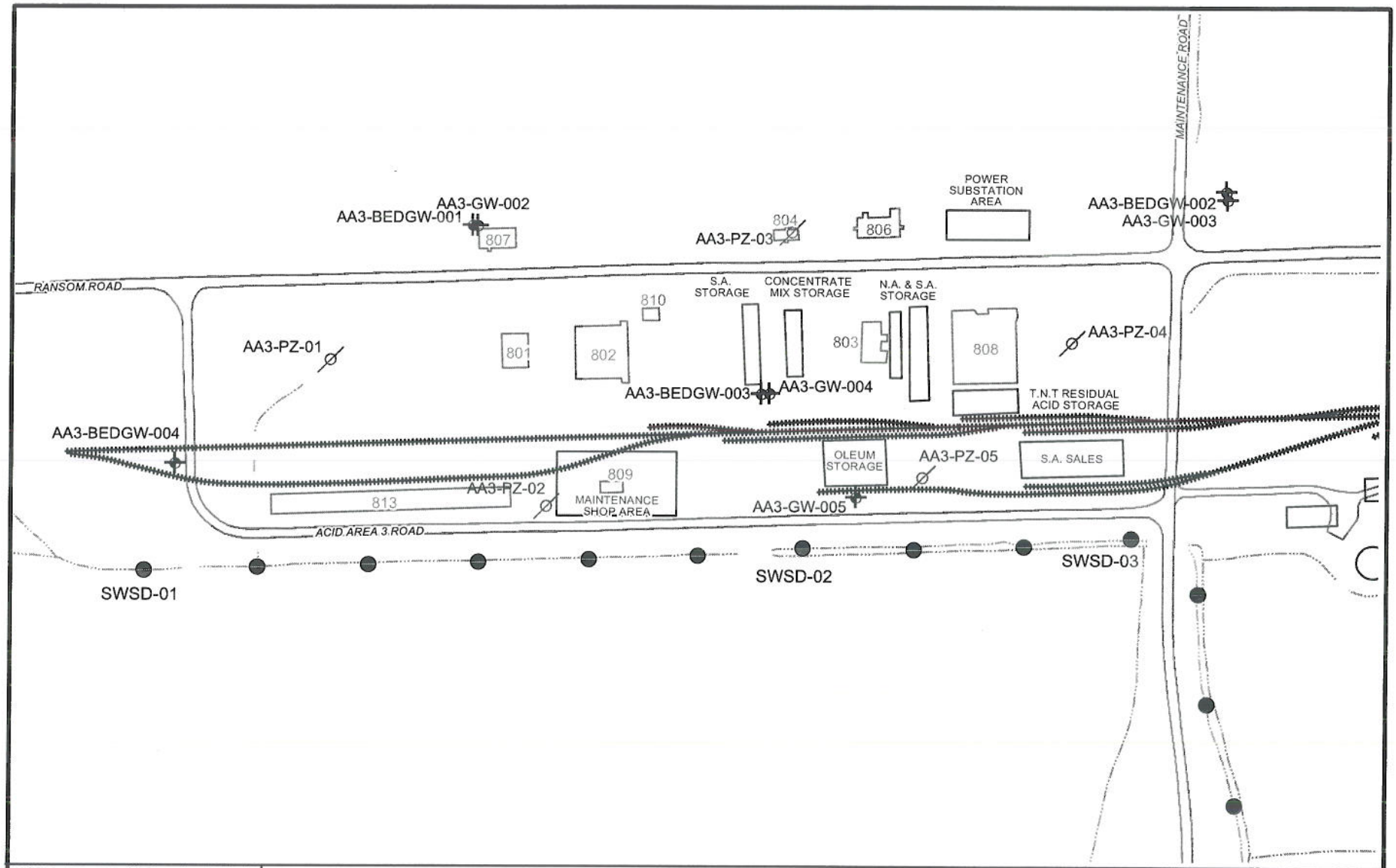
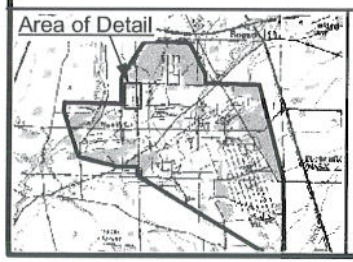
Figure 1



Area of Detail



Legend

- Storage Tank Areas from Engineering Drawings
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100 50 0 100
Feet

N

Notes:
Data mapped to Ohio State Plane North NAD83, map units are feet.

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Proposed Surface Water and Sediment Sampling Locations — Acid Area 3

Plum Brook Ordnance Works
Sandusky, Ohio

4/11/06 NZ Y:/GIS/Plumbrook/Projects/SAP_addendum_4_11_06/ArcGIS Spider Diagrams/AA3_Proposed_Sediment.mxd

Figure 2