REDACTED VERSION

US OIL RECOVERY SUPERFUND SITE
WORK PLAN REFINEMENT/MODIFICATION NOTICE

REFERENCE DOCUMENTS: Remedial Investigation/Feasibility Study (RI/FS) Work Plan, Sampling and Analysis Plan Volume I Field Sampling Plan (FSP), Sampling and Analysis Plan Volume II Quality Assurance Project Plan (QAPP) (all dated December 23, 2015)

WORKPLAN REFINEMENT/MODIFICATION NOTICE NO.: AO1-1-3

DATE: October 11, 2016

DESCRIPTION OF REFINEMENT/MODIFICATION:

This Work Plan Refinement Notice (WRN) proposes two alternative background soil sampling locations and provides additional details of the background soil sampling, including sample locations, the COPCs to be analyzed and the statistical methods to be used to evaluate the background soil sample analytical data.

Section 5.6.4.1 of the RI/FS Work Plan states that the background soil study will be performed within the City of Pasadena Memorial Park. Based on input from Harris County Pollution Control Services (HCPCS), EPA and TCEQ, two alternative proposed background soil sampling areas have been selected for background soil sampling (Figures 1 and 2). Both locations have characteristics similar to the USOR site and to the original background soil sampling location in Memorial Park. The first background soil sampling location ([redacted] Background Location, Figure 1) is located at the corner of [redacted] and [redacted] in Pasadena, just across Vince Bayou from the original background soil sampling location in Memorial Park. This area is currently vacant and is owned by the Harris County Flood Control District (HCFCD). Historical aerial photos indicate that the area has been either vacant or a residential area since at least 1944. Only non-tidally influenced samples will be collected from the [redacted] Background Location because the tidally-influenced area near Vince Bayou at this location is not owned by HCFCD. The second background soil sampling location ([redacted] Background Location, Figure 2) is located south of [redacted] on Vince Bayou and is also owned by HCFCD. The [redacted] Background Location has not been developed since at least 1944, according to historical aerial photos. Both tidally and non-tidally influenced sample locations will be collected from this proposed sampling area. Based on preliminary research, the area very near the shore at the [redacted] Background Location is tidally influenced, while the upland area selected for the study is not tidally-influenced. Access to the proposed sampling areas will be coordinated with the HCFCD prior to collecting background soil samples from the properties.

At the [redacted] Background Location, soil samples will be collected from 10 sample locations within an upland area that is not tidally-influenced. For the [redacted] Location, samples will be collected from 10 sample locations within an upland area that is not tidally-influenced and 10 sample locations from an area that is tidally influenced. At each sample location, soil samples will be collected from 0-0.5 and 1-2 feet below ground surface (feet bgs). Consistent with the approved RI/FS Work Plan, each sample will be collected using hand tools such as a hand auger. The soil samples will be analyzed in the laboratory for metals, SVOCs, and pesticides/herbicides. The specific analytes evaluated in the laboratory will be in accordance with the analyte lists specified in the QAPP for those groups of compounds. All other methods for sample collection, processing, shipment, etc. will be per the RI/FS Work Plan, FSP, and QAPP.

The soil background datasets for the tidally-influenced and non-tidally influenced areas and the 0-0.5 and 1-2 feet sample intervals within those datasets will be initially evaluated separately using statistical population comparisons. Based on the results of the statistical population comparisons and field observations, professional judgement will be used to decide whether separate statistical analysis will be performed to derive background values from the tidally and non-tidally influenced background sample data sets or if both datasets will be combined and analyzed together to derive background values from the

entire data set. For each analyte, the data will be evaluated for potential outliers and data distribution using EPA's ProUCL statistical software. Based on the data distribution of each analyte, an appropriate statistic such as an Upper Tolerance Limit (UTL) or similar statistic will be calculated using ProUCL for each analyte. The resulting statistic is proposed to be used as the site-specific background concentration for that analyte.

The need for additional background soil sampling will be addressed after the data from the proposed background study and the site soil investigation are evaluated.

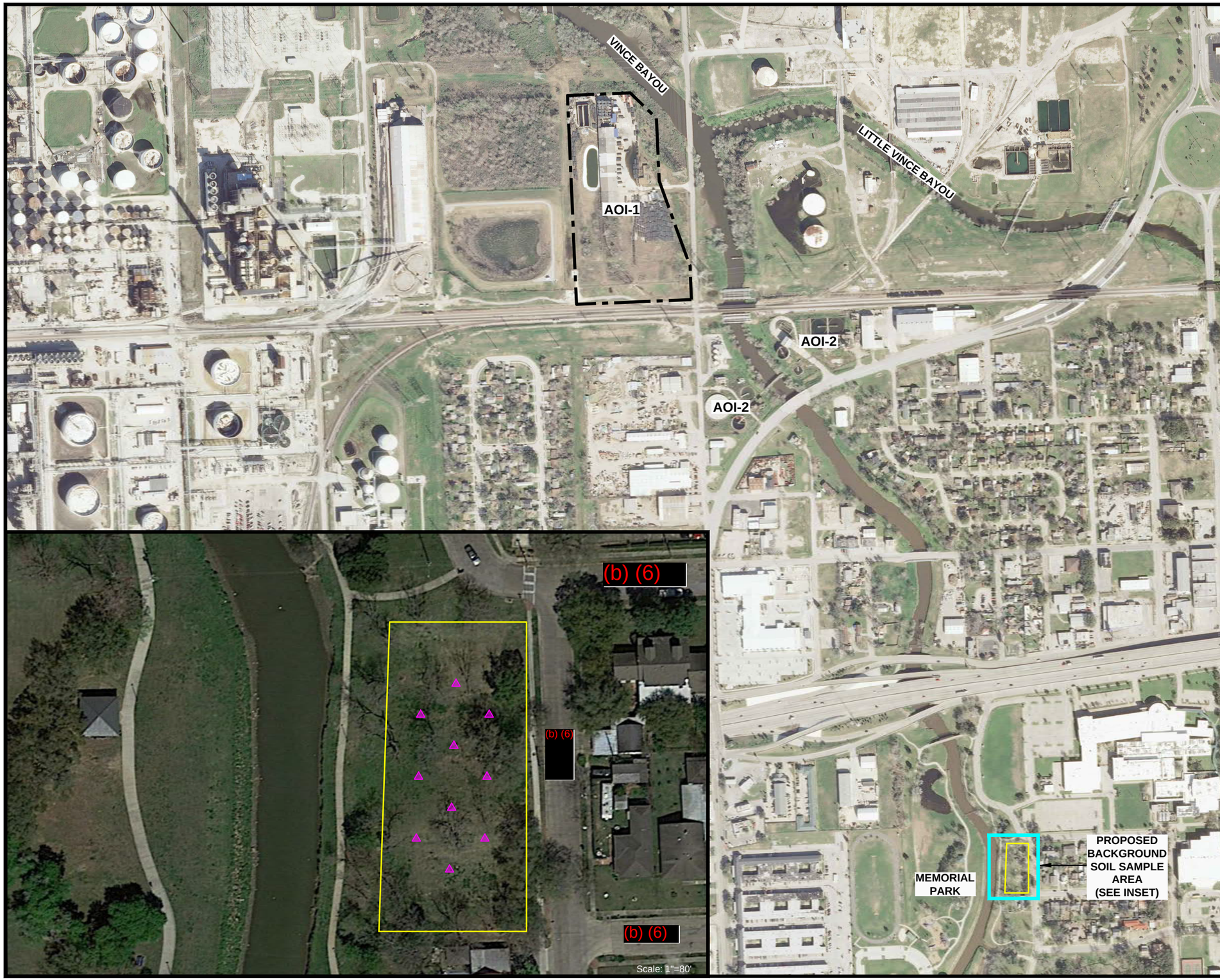
RATIONALE FOR REFINEMENT/MODIFICATION:

This WRN proposes alternative background soil sampling areas based on feedback from Harris County Pollution Control Services, EPA and TCEQ. In addition, as specified in the RI/FS work plan, this WRN provides details of the background soil sampling, including sample locations, the COPCs to be analyzed and the statistical methods to be used to evaluate the background soil analytical data.

Respondents' Project Coordinator: _____ Date: 10/12/16
Eric Pastor
Pastor, Behling & Wheeler, LLC

EPA Project Manager: _____ Date: 10/12/16
Raji Josiam

FIGURES



EXPLANATION

- Approx. Property Boundary
- Proposed Background Area
- Proposed Non-Tidally Influenced Background Sample Location

N

Approx. Scale in Feet

0 250 500

Source:
Houston-Galveston Area Council, April 2012 Image, 2012 Aerial Imagery Data is the sole property of Houston-Galveston Area Council, which reserves all rights thereto. Use or reproduction of this data is strictly prohibited absent written consent from the Houston-Galveston Area Council.

US OIL RECOVERY SUPERFUND SITE

PASADENA, HARRIS COUNTY, TEXAS

Figure 1

PROPOSED BACKGROUND SOIL SAMPLE LOCATIONS

(b) (6) **LOCATION**

PROJECT: 3333	BY: AJD	REVISIONS
DATE: SEPT., 2016	CHECKED: MKW	

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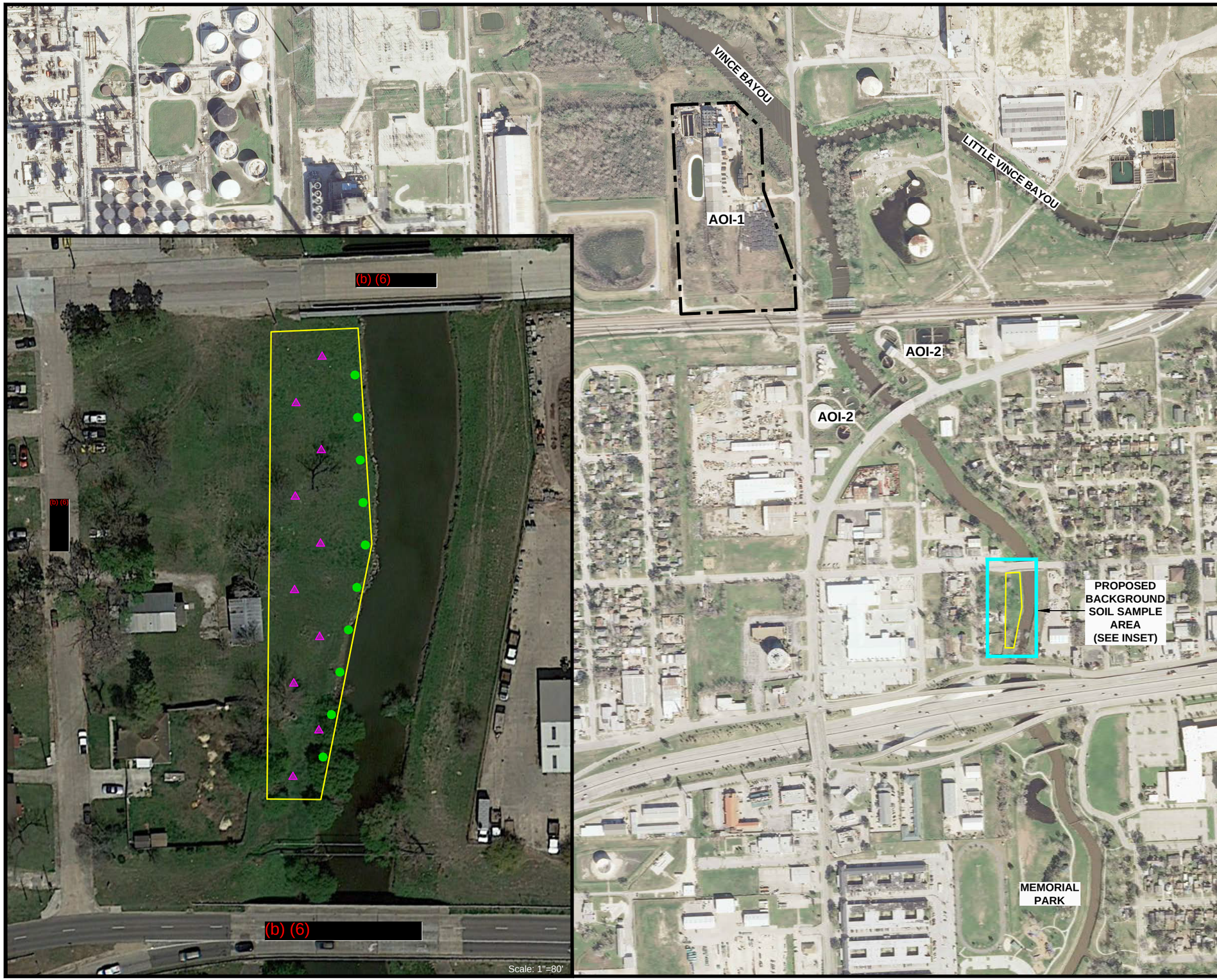

EXPLANATION

- Approx. Property Boundary
- Proposed Background Area
- Proposed Non-Tidally Influenced Background Sample Location
- Proposed Tidally Influenced Background Sample Location

N

Approx. Scale in Feet

0 250 500

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PASADENA, HARRIS COUNTY, TEXAS

Figure 2

PROPOSED BACKGROUND SOIL SAMPLE LOCATIONS
(b) (6) STREET LOCATION

PROJECT: 3333	BY: AJD	REVISIONS
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