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MARATHON PIPE LINE LLC (MPL) EDWARDSVILLE RESPONSE

SURFACE WATER SAMPLING PLAN

This Surface Water Sampling Plan describes procedures for surface water sampling of Cahokia Creek near the pipeline release location, in Edwardsville, Illinois. The purpose of the water sampling is to provide a comprehensive assessment of the extent of surface water impacts by a crude oil release that occurred on March 11, 2022, from an MPL's Wood Rive to Patoka 22" pipeline.

GENERAL SITE CONDITIONS

The release location is within a wooded area, coordinates [REDACTED] N [REDACTED] W. The product entered Cahokia Creek via overland flow. Containment boom was added in 21 locations to contain the release material. See **Attachment A** for general layout.

SAMPLING EQUIPMENT

Surface water samples will be obtained in three, 40 milliliter (ml) vials with hydrochloric acid (HCl) preservative glass sample containers (for benzene, toluene, ethylbenzene, and xylenes, BTEX, analysis via 8260) and one, 100 ml vial without preservative glass sample container (for polyaromatic hydrocarbons, PAH, analysis via 8270). The sampler shall wear new latex/nitrile gloves and utilize new sample equipment (new sampling cups) at every sample location and will start at the furthest downstream sample location heading upstream to eliminate the concern of cross contamination. All samples will be placed on ice to preserve quality. Samples will be shipped by overnight delivery within 12 hours to Pace Analytical in Lenexa, Kansas. Alternatively, samples will be hand delivered if determined necessary.

SURFACE WATER SAMPLE COLLECTION METHOD

Grab surface water samples will be hand dipped from the surface body bank or overhead from a bridge (as applicable) using individual containers and poured into laboratory bottles. The sample lid will be tightly secured to prevent spilling and the outside of the sample container will be wiped with a clean dry cloth. Sample containers will be marked with the date, time, sample location, and sample identification (ID). Sample containers will be sealed in zip-lock bags and placed in a cooler with ice. A chain of custody will be prepared and used.

Surface water samples will be collected with clean sampling equipment. If sample equipment is reused, sample equipment will be decontaminated (e.g. washing with Liquinox followed by rinsing a minimum of three times with distilled water).



SURFACE WATER SAMPLE LOCATIONS

The surface waters will be sampled per the sampling plan. The sample locations including global positioning system (GPS) coordinates are listed below and included in **Attachment B**. Sampling events will be completed until results meet Illinois Water Quality Standards/Criteria for Chronic Aquatic Life as specified in 35 Illinois Administrative Code (IAC) 302, Criteria from Illinois Environmental Protection Agency (IEPA) internal document with a minimum of at least two sampling events. A background sample will also be collected.

consecutive 44

- Surface Water Sample Location 1: 38.825936, -89.971549, collected on 03/11/2022
- Surface Water Sample Location 2: 38.821963, -89.979569, collected on 03/12/2022
- Surface Water Sample Location 3: 38.805514, -90.104048, collected on 03/13/2022, 03/14/2022
- Surface Water Sample Location 4: 38.805454, -90.112734, collected on 03/13/2022, 03/14/2022
- Surface Water Sample Location 5: 38.805431, -90.111028, collected on 03/13/2022, 03/14/2022
- Surface Water Sample Location 6: 38.805100, -90.077113, collected on 03/13/2022, 03/14/2022
- Surface Water Sample Location 7: 38.805251, -90.093578, collected on 03/12/2022

FIELD OBSERVATIONS AND MEASUREMENTS

At each water sampling location, the following will be recorded:

- date and time;
- sample location;
- sample ID;

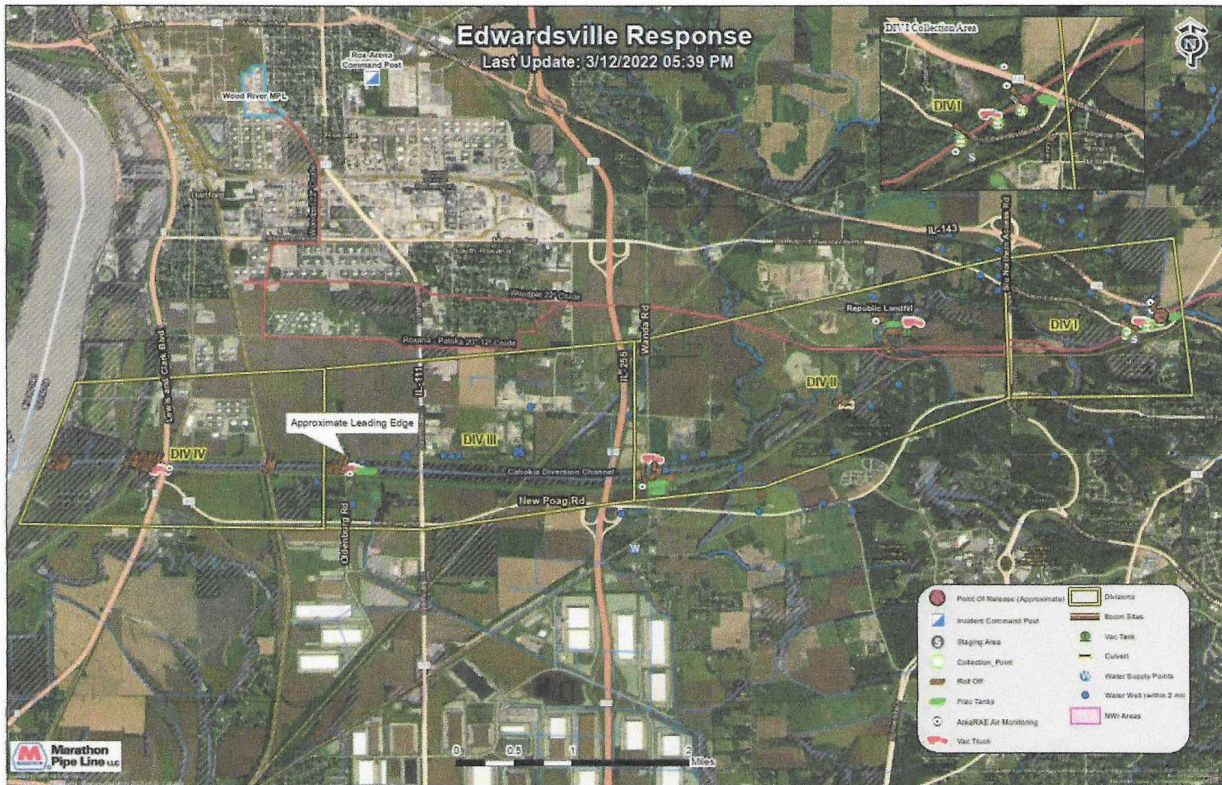
Photos shall be collected to document the conditions at each sampling location.

WATER LABORATORY ANALYSES

Surface water samples will be analyzed for the following analytes by the indicated method in accordance with the 35 IAC 734.405(c):

- BTEX by United State Environmental Protection Agency (USEPA) Method 8260
- PAH by USEPA Method 8270

ATTACHMENT A: GENERAL LAYOUT OF THE RESPONSE



ATTACHMENT B: GENERAL LAYOUT OF SAMPLING LOCATIONS

