

## MARATHON PIPE LINE LLC (MPL) EDWARDSVILLE RESPONSE

### PRIVATE WATER WELL SAMPLING PLAN

This Private Water Well Sampling Plan describes procedures for water sampling of nearby residential or irrigation wells, near the pipeline release location, in Edwardsville, Illinois. The purpose of the sampling is to provide an assessment of the potential extent of water impacts by a crude release that occurred on March 11, 2022 from MPL's Wood River to Patoka 22" pipeline.

### GENERAL SITE CONDITIONS

The release location is within a pipeline right-of-way (ROW), coordinates [REDACTED] N [REDACTED] W. The product entered Cahokia Creek via overland flow. Containment boom was added in 10 locations to contain the release material. See **Attachment A** for general layout.

### SAMPLING EQUIPMENT

Water samples will be obtained in three, 40 ml vials with hydrochloric acid (HCl) preservative (for benzene, toluene, ethylbenzene, and xylenes, BTEX, analysis via 524.2) glass sample containers. The sampler shall wear new nitrile gloves and utilize new sample equipment at every sample location. All samples will be placed on ice to preserve quality. Samples will be shipped via overnight delivery within 12 hours to Pace Analytical in Lenexa, Kansas to be analyzed. Alternatively, samples will be hand delivered if determined necessary.

### PRIVATE WATER WELL SAMPLE COLLECTION METHOD

Grab water samples will be collected from an outside spigot. The spigot will be run for approximately five minutes prior to sample collection directly into sample containers. 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, bubble bag and placed in a cooler with ice. A chain of custody will be prepared and used.

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).

## PRIVATE WATER WELL SAMPLE LOCATIONS

The water will be sampled per the sampling plan. The sample locations evaluated for sampling including global positioning system (GPS) coordinates are listed below and included in **Attachment B**.

- Property 1 – [REDACTED], [REDACTED]
- Property 2 – [REDACTED], [REDACTED]
- Property 3 – [REDACTED], [REDACTED]
- Property 4 – [REDACTED], [REDACTED]
- Property 5 – [REDACTED], [REDACTED]
- Property 6 – [REDACTED], [REDACTED]
- Property 7 – [REDACTED], [REDACTED]
- Property 8 – [REDACTED], [REDACTED]

A summary of the investigation of the sampling locations and field notes are provided in **Table 1** below.

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**Table 1: Summary of Sampling Location Investigation**

Well Number	Latitude	Longitude	Address	Field Notes
121192624500	██████████	██████████	██████████ Edwardsville Road, Edwardsville, Illinois 62025	Database indicated a well existed at S&K Towing, located at ██████████ Edwardsville Road, Edwardsville, Illinois 62025. MPL ROW personnel spoke to the landowner and they stated that the well in question had been plugged many years ago. The landowner also stated that they have been on city water for approximately 30 years.
NA, well was identified during field activities.	██████████	██████████	██████████ Redbud Lane, Edwardsville, Illinois 62025	Well was located within the property boundary of Schulte Supply at ██████████ Redbud Lane, Edwardsville, Illinois 62025 during a field exercise to locate a different well. Property owner and staff were interviewed about the status and location of the well. The well was identified on the property and was observed to be of an open hole construction, with a subsurface steel casing covered with a rectangle concrete surface vault. Well was not sampled due to the status (inactive).
121192326600	██████████	██████████	██████████ Redbud Lane, Edwardsville, Illinois 62025	Well was located within the property boundary at ██████████ Redbud Lane, Edwardsville, Illinois 62025. The landowner claimed that the well had not been used since water was provided to the address by the city. The well was observed to be an open hole design, covered with a cylindrical shaped concrete vault that measured approximately four feet in diameter. There was a small opening or access point on top, where water could be observed at approximately 15 feet below grade. Well was not sampled due to the status (inactive).
121192326600	██████████	██████████	NA	Illinois Environmental Protection Agency (IEPA), MPL right-of-way (ROW), and Antea Group personnel looked extensively for this well, however were unable to find. Alternatively, we went to the house immediately north of this location at ██████████, ██████████ (see above).
121192316600	██████████	██████████	NA	IEPA, MPL ROW, and Antea Group personnel looked extensively for well and spoke to landowners around the well location. No well was observed, and the landowners stated that they are not aware of any well and are on city water.
121192521900	██████████	██████████	NA	IEPA, MPL ROW, and Antea Group personnel looked extensively for a well and spoke to landowners around the well location. No well was observed, and the landowners stated that they are not aware of any well and are on city water.
121192618800	██████████	██████████	NA	IEPA, MPL ROW, and Antea Group personnel looked extensively for the well, however, were unable to find. We also attempted to contact the property owner (knocked on resident's door) however were unable to reach anyone.
NA, property owner informed MPL of the well's existence	██████████	██████████	██████████ Oldenburg Road, Hartford, Illinois 62048	Property owner contacted MPL ROW and stated a sheen was present on his tap water. A site visit was performed on March 19, and the presence of a potable well on the property was confirmed. The property owner did not have well construction details but believed well depth to be 21-25 feet below ground surface. The wellhead is present within the garage and is not sealed off from the surface. The pressure tank and water softener are located adjacent to the wellhead.

As a result, only one private water well was sampled (i.e., property 8 located at ██████████, ██████████).

Sampling events will be completed until results meet Agency for Toxic Substances and Disease Registry (ATSDR) Health-Based Screening Values for BTEX Compounds summarized below in **Table 2**.

**Table 2: ATSDR Health-Based Screening Values for BTEX Compounds**

Chemical	HBCV	Source
Benzene	3.5 (child)	ATSDR EMEG – Chronic
Ethylbenzene	700 ppb (child)	ATSDR RMEG* – Chronic
Toluene	560 ppb (child)	ATSDR RMEG* – Chronic
Xylenes	1,400 ppb (child)	ATSDR RMEG* – Chronic

\*Derived using USEPA Reference Dose.

## FIELD OBSERVATIONS AND MEASUREMENTS

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

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

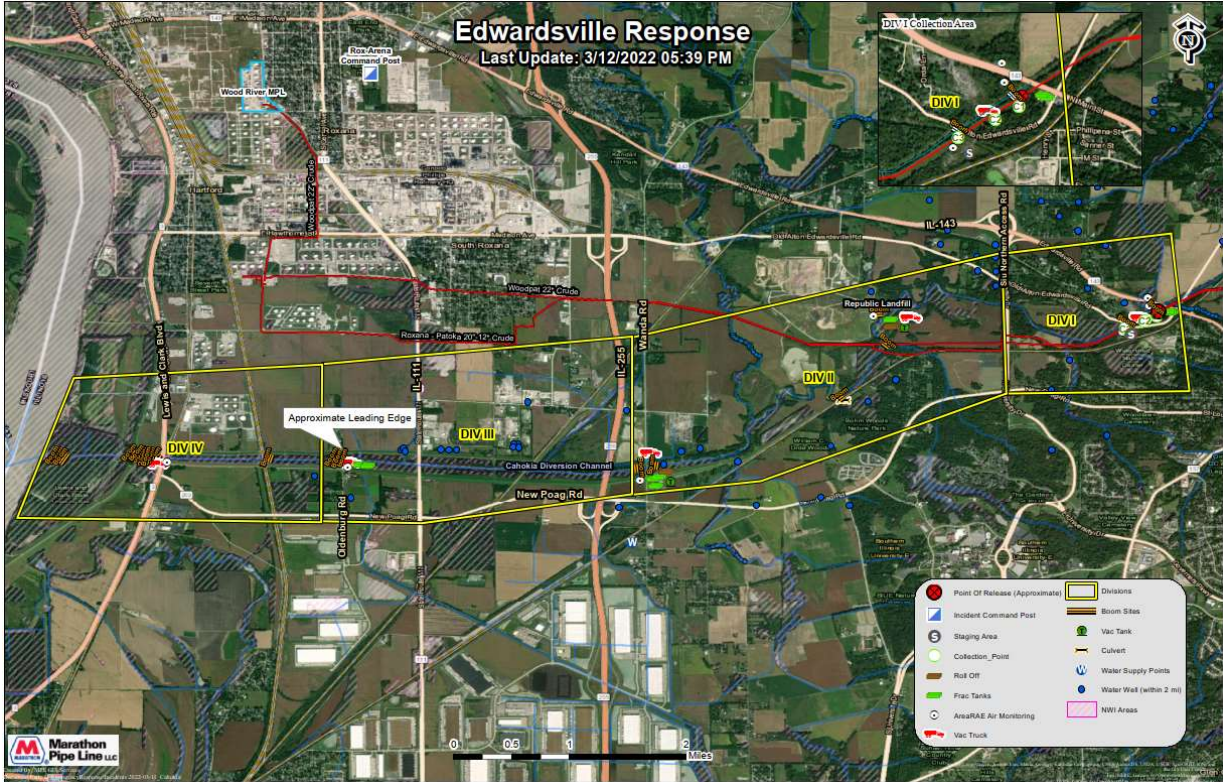
Photos shall be collected to document the conditions at each sampling location.

## WATER LABORATORY ANALYSES

Water samples will be analyzed for the following analytes by the indicated method:

- BTEX by United States Environmental Protection Agency (USEPA) Method 524.2

**ATTACHMENT A: GENERAL LAYOUT OF RELEASE LOCATION**




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## ATTACHMENT B: GENERAL LAYOUT OF SAMPLING LOCATIONS

