

Table 2  
**PRELIMINARY** Analytical Results Summary for Surface Water Samples  
 Edwardsville Oil Spill  
 Edwardsville, Madison County, Illinois

	EPA MCL	IEPA Water Quality Standards		EOS-SW03-031522	EOS-SW04-031522	EOS-SW05-031522
		Chronic Aquatic Life	Human Health	03/15/2022 14: 55	03/15/2022 13: 40	03/15/2022 11: 55
				Field Sample	Field Sample	Field Sample
<b>Semivolatile Organic Compounds (mg/L)</b>						
Acenaphthene	NE	0.062	NE	0.00025 U *1	0.00025 U *1	0.00025 U *1
Anthracene	NE	0.00053	35	0.00027 U	0.00027 U	0.00027 U
Benzo(a)anthracene	NE	NE	0.00016	0.000045 U	0.000045 U	0.000045 U
Benzo(a)pyrene	0.2	NE	0.000016	0.000079 U	0.000079 U	0.000079 U
Benzo(b)fluoranthene	NE	NE	0.00016	0.000065 U	0.000065 U	0.000065 U
Benzo(k)fluoranthene	NE	NE	0.0016	0.000051 U	0.000051 U	0.000051 U
Chrysene	NE	NE	0.016	0.000055 U	0.000055 U	0.000055 U
Dibenzo(a,h)anthracene	NE	NE	0.000016	0.000041 U	0.000041 U	0.000041 U
Fluoranthene	NE	0.0018	0.12	0.00036 U	0.00036 U	0.00036 U
Fluorene	NE	0.016	4.5	0.0002 U *1	0.0002 U *1	0.0002 U *1
Indeno(1,2,3-cd)pyrene	NE	NE	0.00016	0.00006 U	0.00006 U	0.00006 U
Naphthalene	NE	0.068	NE	0.00025 U *1	0.00025 U *1	0.00025 U *1
Pyrene	NE	NE	3.5	0.00034 U	0.00034 U	0.00034 U
<b>Volatile Organic Compounds (µg/L)</b>						
Benzene	5	860	310	0.15 U	0.15 U	0.15 U
Ethylbenzene	700	14	NE	0.18 U	0.18 U	0.18 U
MTBE	NE	6700	NE	0.39 U	0.39 U	0.39 U
Toluene	1000	600	NE	0.15 U	0.23 J	0.34 J
Xylenes, Total	10000	360	NE	0.22 U	0.22 U	0.34 J
<b>Organics using GC/FID (mg/L)</b>						
Diesel Range Organics [C10-C21]	NE	NE	NE	0.1 J	0.11 J	0.17 J
Gasoline Range Organics [C6-C10]	NE	NE	NE	0.01 U	0.01 U	0.01 U
Oil Range Organics [C21-C35]	NE	NE	NE	0.4 U	0.4 U	0.4 U

**Notes:**

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Analyte was detected

= result greater than the EPA MCL

= result greater than the IEPA Water Quality Standards for Chronic Aquatic Life

= result greater than the IEPA Water Quality Standards for Human Health

= analyte was not detected and result value was reported at the MDL, but the MDL is greater than the screening criteria.

**Abbreviations**

-- = Not analyzed

µg/L = microgram per liter

EPA = U. S. Environmental Protection Agency

HQ = Hazard quotient

IEPA = Illinois Environmental Protection Agency

LCS = Laboratory control sample

LCSD = Laboratory control sample duplicate

MDL = Method detection limit

mg/L = milligram per liter

MCL = Maximum Contaminant Level

RL = Reporting limit

RPD = Relative percent difference

RSL = Regional screening level

TCR = Target cancer risk

**Result Qualifiers:** All qualifiers are laboratory qualifiers. Results and qualifiers have been not been validated and are considered preliminary.

\*1 = LCS/LCSD RPD exceeds control limits.

\*- = LCS and/or LCSD is outside acceptance limits, low biased.

U = analyte was not detected

J = Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

EPA Regional Screening Levels (RSLs) TCR 1E-06 and HQ 0.1 Generic Tables as of November 2021: <https://www.epa.gov/risk/regional-screening-levels-rsls-generic-tables>

IEPA Water Quality Standards for Chronic Aquatic Life and Human Health are provided in Table 2 Petroleum Objectives for Groundwater and Surface Water, 35 Illinois Administrative Code 302

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	EPA MCL	IEPA Water Quality Standards		EOS-SW06-031522	EOS-SW07-031522	EOS-SW08-031522
		Chronic Aquatic Life	Human Health	03/15/2022 12: 04	03/15/2022 12: 32	03/15/2022 12: 57
				Field Sample	Field Sample	Field Sample
<b>Semivolatile Organic Compounds (mg/L)</b>						
Acenaphthene	NE	0.062	NE	0.00025 U *1	0.00025 U *1	0.00025 U *1
Anthracene	NE	0.00053	35	0.00027 U	0.00027 U	0.00027 U
Benzo(a)anthracene	NE	NE	0.00016	0.000045 U	0.000045 U	0.000045 U
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<b>Organics using GC/FID (mg/L)</b>						
Diesel Range Organics [C10-C21]	NE	NE	NE	0.13 J	0.092 J	0.1 J
Gasoline Range Organics [C6-C10]	NE	NE	NE	0.01 U	0.01 U	0.01 U
Oil Range Organics [C21-C35]	NE	NE	NE	0.4 U	0.32 U	0.4 U

**Notes:**

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**0.2** = result greater than the EPA MCL

**0.00053** = result greater than the IEPA Water Quality Standards for Chronic Aquatic Life

**35** = result greater than the IEPA Water Quality Standards for Human Health

**0.00025 U \*1** = analyte was not detected and result value was reported at the MDL, but the MDL is greater than the screening criteria.

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