

Air Monitoring Summary Tables

The tables below summarize preliminary air monitoring data collected using Handheld DustTrak, SPM Flex, and MultiRAE Pro instruments.

Project Name: Morris Industrial Fire ER
Date/Time: 07/28/21 08:07 to 07/28/21 19:01

Weather

Temperature: 87°F, low of 70°F
Wind Speed: 0 to 9 miles per hour
Wind Direction: Southwest
Conditions: Cloudy

Fixed Discrete Air Monitoring Location 010 - Downwind					
Instrument	Analyte	Morris Industrial Fire Public Health Screening Level ¹	Public Health Screening Level Exceeded?	Number of Measurements	Concentration Range
MultiRAE Pro	H ₂ S (ppm)	0.1 ppm	No	4	0.000 to 0.000
	CO (ppm)	--	No	4	0.00 to 0.00
	O ₂ (%)	--	No	4	20.9 to 20.9
	LEL (%)	--	No	4	0.000 to 0.000
	VOC (ppm)	1 ppm	No	4	0.000 to 0.000
SPM Flex	HF	1 ppm	No	12	0.000 to 0.000
Handheld DustTrak	PM _{2.5} (mg/m ³)	0.025 mg/m ³	Yes	4	0.035 to 0.066
	PM ₁₀ (mg/m ³)	0.05 mg/m ³	Yes	4	0.041 to 0.071

Fixed Discrete Air Monitoring Location 011 - Downwind					
Instrument	Analyte	Morris Industrial Fire Public Health Screening Level ¹	Public Health Screening Level Exceeded?	Number of Measurements	Concentration Range
MultiRAE Pro	H ₂ S (ppm)	0.1 ppm	No	3	0.000 to 0.000
	CO (ppm)	--	No	3	0.00 to 0.00
	O ₂ (%)	--	No	3	20.9 to 20.9
	LEL (%)	--	No	3	0.000 to 0.000
	VOC (ppm)	1 ppm	No	3	0.000 to 0.000
SPM Flex	HF	1 ppm	No	9	0.000 to 0.000
Handheld DustTrak	PM _{2.5} (mg/m ³)	0.025 mg/m ³	Yes	3	0.032 to 0.067
	PM ₁₀ (mg/m ³)	0.05 mg/m ³	Yes	3	0.038 to 0.076

Fixed Discrete Air Monitoring Location 012 - Downwind					
Instrument	Analyte	Morris Industrial Fire Public Health Screening Level ¹	Public Health Screening Level Exceeded?	Number of Measurements	Concentration Range
MultiRAE Pro	H ₂ S (ppm)	0.1 ppm	No	2	0.000 to 0.000
	CO (ppm)	--	No	2	0.00 to 0.00
	O ₂ (%)	--	No	2	20.9 to 20.9
	LEL (%)	--	No	2	0.000 to 0.000
	VOC (ppm)	1 ppm	No	2	0.000 to 0.000
SPM Flex	HF	1 ppm	No	6	0.000 to 0.000
Handheld DustTrak	PM _{2.5} (mg/m ³)	0.025 mg/m ³	Yes	2	0.032 to 0.063
	PM ₁₀ (mg/m ³)	0.05 mg/m ³	Yes	2	0.033 to 0.064

Notes: See last page.

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Fixed Discrete Air Monitoring Location 013 - Upwind					
Instrument	Analyte	Morris Industrial Fire Public Health Screening Level ¹	Public Health Screening Level Exceeded?	Number of Measurements	Concentration Range
MultiRAE Pro	H ₂ S (ppm)	0.1 ppm	No	4	0.000 to 0.000
	CO (ppm)	--	No	4	0.00 to 0.00
	O ₂ (%)	--	No	4	20.9 to 20.9
	LEL (%)	--	No	4	0.000 to 0.000
	VOC (ppm)	1 ppm	No	4	0.000 to 0.000
SPM Flex	HF	1 ppm	No	12	0.000 to 0.000
Handheld DustTrak	PM _{2.5} (mg/m ³)	0.025 mg/m ³	Yes	4	0.031 to 0.068
	PM ₁₀ (mg/m ³)	0.05 mg/m ³	Yes	4	0.033 to 0.072

Fixed Discrete Air Monitoring Location 014 - Upwind					
Instrument	Analyte	Morris Industrial Fire Public Health Screening Level ¹	Public Health Screening Level Exceeded?	Number of Measurements	Concentration Range
MultiRAE Pro	H ₂ S (ppm)	0.1 ppm	No	3	0.000 to 0.000
	CO (ppm)	--	No	3	0.00 to 0.00
	O ₂ (%)	--	No	3	20.9 to 20.9
	LEL (%)	--	No	3	0.000 to 0.000
	VOC (ppm)	1 ppm	No	3	0.000 to 0.000
SPM Flex	HF	1 ppm	No	9	0.000 to 0.000
Handheld DustTrak	PM _{2.5} (mg/m ³)	0.025 mg/m ³	Yes	3	0.031 to 0.068
	PM ₁₀ (mg/m ³)	0.05 mg/m ³	Yes	3	0.033 to 0.072

Fixed Discrete Air Monitoring Location 015 - Upwind					
Instrument	Analyte	Morris Industrial Fire Public Health Screening Level ¹	Public Health Screening Level Exceeded?	Number of Measurements	Concentration Range
MultiRAE Pro	H ₂ S (ppm)	0.1 ppm	No	3	0.000 to 0.000
	CO (ppm)	--	No	3	0.00 to 0.00
	O ₂ (%)	--	No	3	20.9 to 20.9
	LEL (%)	--	No	3	0.000 to 0.000
	VOC (ppm)	1 ppm	No	3	0.000 to 0.000
SPM Flex	HF	1 ppm	No	9	0.000 to 0.000
Handheld DustTrak	PM _{2.5} (mg/m ³)	0.025 mg/m ³	Yes	3	0.033 to 0.066
	PM ₁₀ (mg/m ³)	0.05 mg/m ³	Yes	3	0.037 to 0.070

Notes: See last page.

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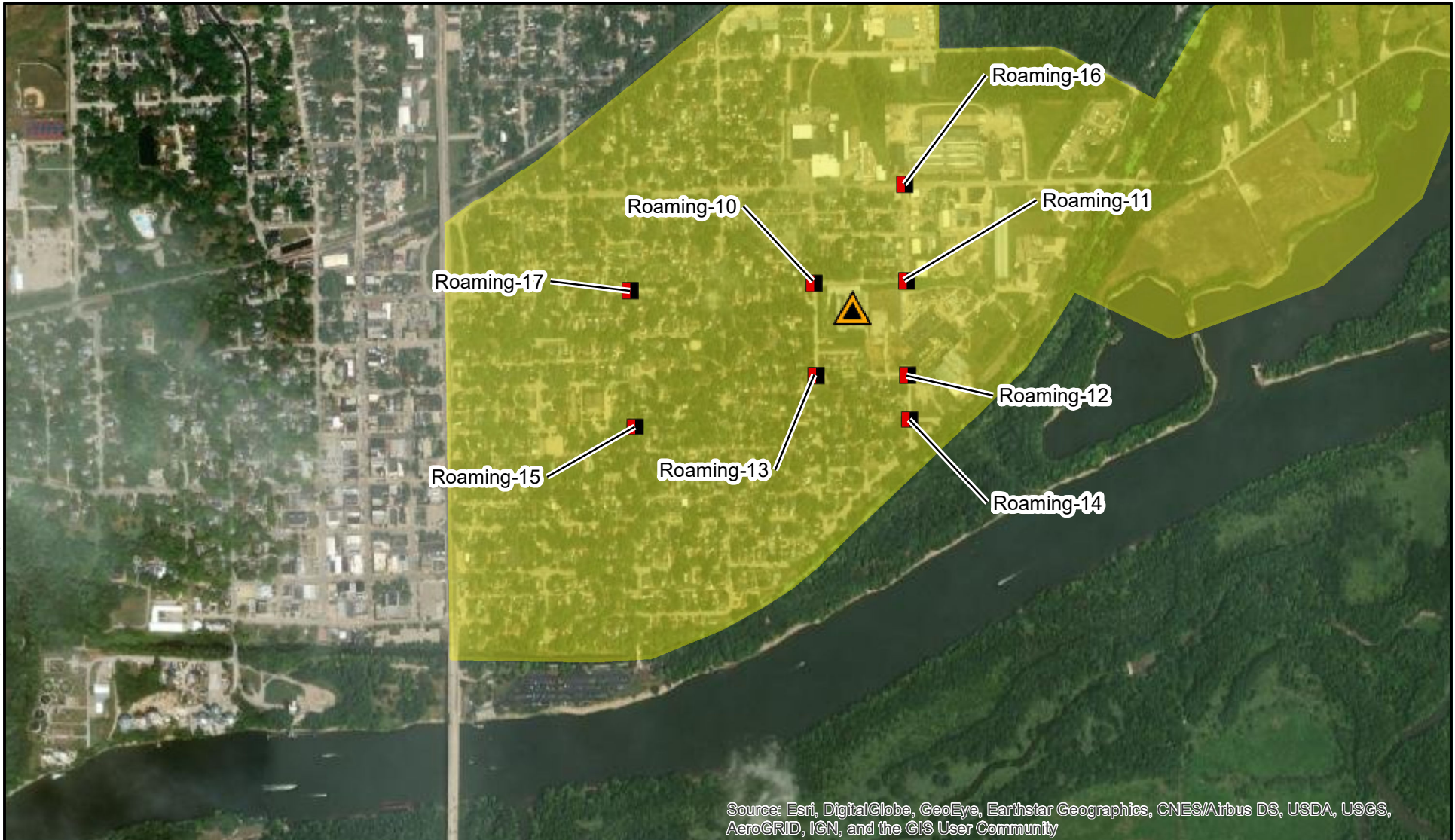
Fixed Discrete Air Monitoring Location 016 - Downwind					
Instrument	Analyte	Morris Industrial Fire Public Health Screening Level ¹	Public Health Screening Level Exceeded?	Number of Measurements	Concentration Range
MultiRAE Pro	H ₂ S (ppm)	0.1 ppm	No	3	0.000 to 0.000
	CO (ppm)	--	No	3	0.00 to 0.00
	O ₂ (%)	--	No	3	20.9 to 20.9
	LEL (%)	--	No	3	0.000 to 0.000
	VOC (ppm)	1 ppm	No	3	0.000 to 0.000
SPM Flex	HF	1 ppm	No	9	0.000 to 0.000
Handheld DustTrak	PM _{2.5} (mg/m ³)	0.025 mg/m ³	Yes	3	0.035 to 0.810
	PM ₁₀ (mg/m ³)	0.05 mg/m ³	Yes	3	0.036 to 0.091

Fixed Discrete Air Monitoring Location 017 - Downwind/Crosswind					
Instrument	Analyte	Morris Industrial Fire Public Health Screening Level ¹	Public Health Screening Level Exceeded?	Number of Measurements	Concentration Range
MultiRAE Pro	H ₂ S (ppm)	0.1 ppm	No	3	0.000 to 0.000
	CO (ppm)	--	No	3	0.00 to 0.00
	O ₂ (%)	--	No	3	20.9 to 20.9
	LEL (%)	--	No	3	0.000 to 0.000
	VOC (ppm)	1 ppm	No	3	0.000 to 0.000
SPM Flex	HF	1 ppm	No	9	0.000 to 0.000
Handheld DustTrak	PM _{2.5} (mg/m ³)	0.025 mg/m ³	Yes	3	0.033 to 0.065
	PM ₁₀ (mg/m ³)	0.05 mg/m ³	Yes	3	0.034 to 0.068

Comments
Start and stop times for each air monitoring instrument varies. The monitoring period is based on the earliest start time and latest stop time out of all units.
1 - Site-Specific Public Health Screening Levels are based on 1-hour time-weighted averages and were established by ATSDR. Fixed discrete monitoring readings are discrete readings, and so do not represent conditions over a full 1-hour period.
2 - PM _{2.5} and PM ₁₀ exceedances of site-specific screening levels were observed at the fixed discrete air monitoring locations during the monitoring period. There was no active fire, smoke or site activities conducted at the facility during the monitoring period.

Notes:

CO - Carbon Monoxide
H₂S - Hydrogen Sulfide
LEL - Lower Explosive Limit
HF - Hydrogen Fluoride
mg/m³ - milligrams per cubic meter
O₂ - Oxygen
PM_{2.5} - particles that are 2.5 micrometers and smaller
PM₁₀ - particles that are 10 micrometers and smaller
ppb - Parts per billion
ppm - Parts per million
VOC - Volatile organic compounds



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



Site
Location

Legend



Fire Location



Fixed Discrete Air Monitoring Locations



Former Approximate Evacuation Zone

Source: Esri 2020

Note: Air monitoring locations subject to change based on site conditions and response objectives



Morris Industrial Fire ER
Morris, Illinois

Figure 1
Air Monitoring Stations
07/28/21 08:07 to 07/28/21 19:01



TETRA TECH

Prepared For: USEPA

Prepared By: Tetra Tech Inc.