

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: 07/25/21 08:17 to 07/25/21 16:55

Weather

Temperature: 82°F, low of 71°F
Wind Speed: 0 to 8 miles per hour
Wind Direction: Northwest
Conditions: Sunny

Fixed Discrete Air Monitoring Location 010 - 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	0.027 to 0.045
	PM ₁₀ (mg/m ³)	0.05 mg/m ³	No	4	0.029 to 0.049

Fixed Discrete Air Monitoring Location 011 - 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	0.027 to 0.044
	PM ₁₀ (mg/m ³)	0.05 mg/m ³	No	4	0.030 to 0.047

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	4	0.000 to 0.000
	CO (ppm)	--	No	4	0.00 to 0.00
	O ₂ (%)	--	No	4	20.8 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	0.026 to 0.045
	PM ₁₀ (mg/m ³)	0.05 mg/m ³	No	4	0.028 to 0.046

Notes: See last page.

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Fixed Discrete Air Monitoring Location 013 - 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	0.031 to 0.050
	PM ₁₀ (mg/m ³)	0.05 mg/m ³	Yes	4	0.032 to 0.051

Fixed Discrete Air Monitoring Location 014 - 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	0.026 to 0.044
	PM ₁₀ (mg/m ³)	0.05 mg/m ³	No	4	0.029 to 0.047

Fixed Discrete Air Monitoring Location 015 - Upwind/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	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 0.045
	PM ₁₀ (mg/m ³)	0.05 mg/m ³	No	4	0.032 to 0.047

Notes: See last page.

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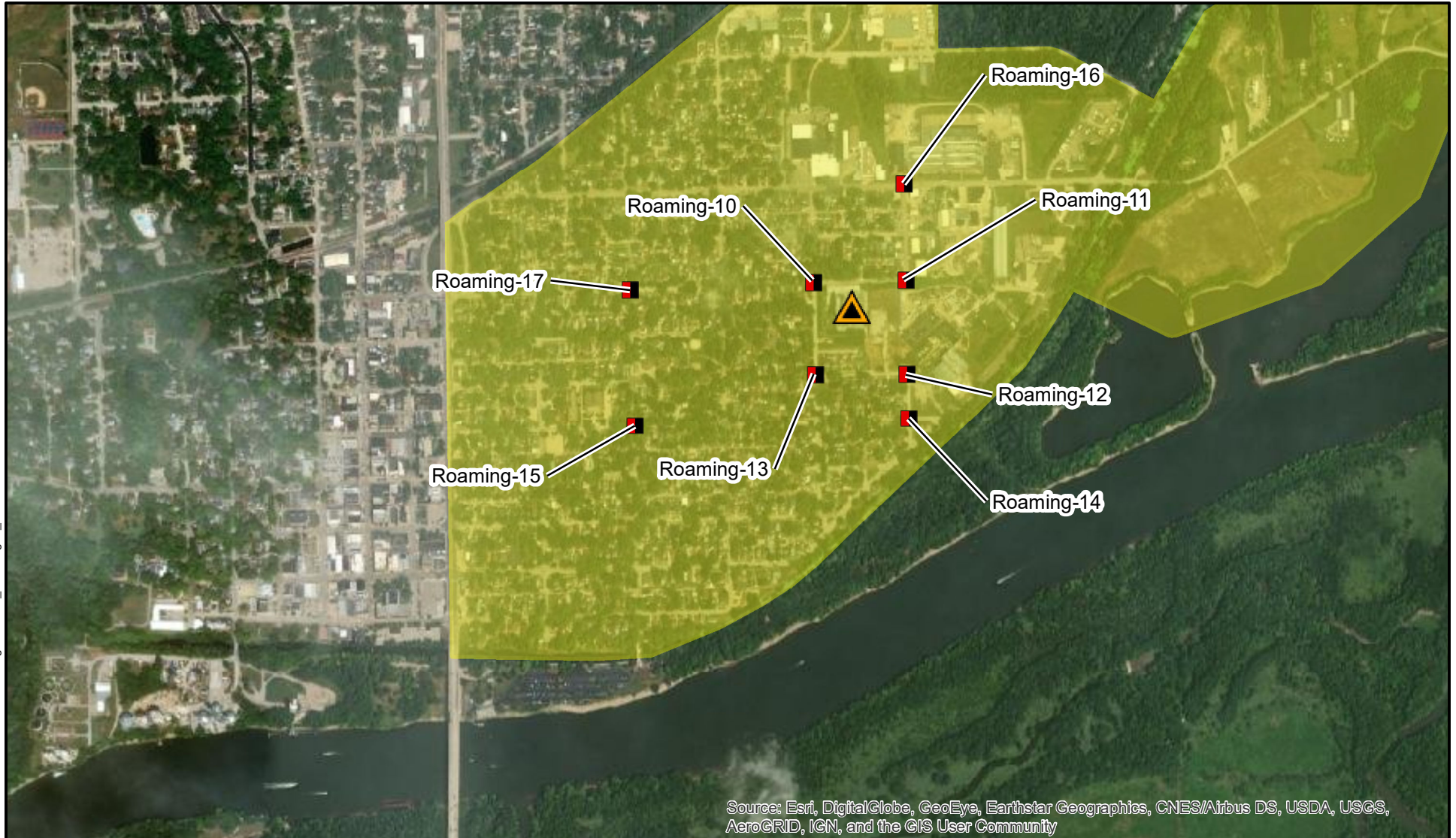
Fixed Discrete Air Monitoring Location 016 - Upwind					
Instrument	Analyte	Morris Industrial Fire Public Health Screening Level ¹	Public Health Screening Level Exceeded?	Number of Measurements	Concentration Range
MultiRAE Pro	H ₂ S (ppm)	0.1 ppm	No	4	0.000 to 0.000
	CO (ppm)	--	No	4	0.00 to 0.00
	O 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	0.026 to 0.044
	PM ₁₀ (mg/m ³)	0.05 mg/m ³	No	4	0.026 to 0.045

Fixed Discrete Air Monitoring Location 017 - 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	0.027 to 0.045
	PM ₁₀ (mg/m ³)	0.05 mg/m ³	Yes	4	0.031 to 0.052

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



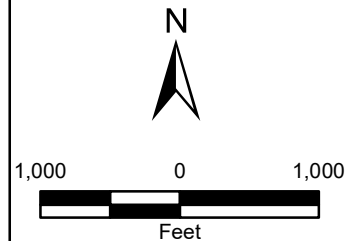
Fixed Discrete Air Monitoring Locations



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
07/25/21 08:17 to 07/25/21 16:55



TETRA TECH

Prepared For: USEPA

Prepared By: Tetra Tech Inc.