

Air Monitoring Summary Tables

The tables below summarize preliminary air monitoring data collected using EPA AreaRAE Pro and DustTrak DRX instruments.

Project Name: Morris Industrial Fire Site
Date/Time: 05/23/2022 05:13 to 05/26/2022 16:39

Northeast Air Monitoring Station					
Instrument	Analyte	Morris Industrial Fire Public Health Screening Level ¹	Public Health Screening Level Exceeded?	1-Hour Period Concentration Range	Average of All 1-Hour Periods
DustTrak (S/N: 8533153912)	PM _{2.5} (mg/m ³)	0.025 mg/m ³	No	0.005 to 0.012	0.007
	PM ₁₀ (mg/m ³)	0.05 mg/m ³	No	0.005 to 0.015	0.008
AreaRAE Pro (S/N: W01A00002413)	VOC (ppm)	0.5 ppm	No	0.0 to 0.0	0.0
	CO (ppm)	--	No	0.0 to 2.0	0.0
	H ₂ S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	No	0.0 to 0.0	0.0

Northwest Air Monitoring Station					
Instrument	Analyte	Morris Industrial Fire Public Health Screening Level ¹	Public Health Screening Level Exceeded?	1-Hour Period Concentration Range	Average of All 1-Hour Periods
DustTrak (S/N: 8533153917)	PM _{2.5} (mg/m ³)	0.025 mg/m ³	No	0.000 to 0.012	0.005
	PM ₁₀ (mg/m ³)	0.05 mg/m ³	No	0.000 to 0.019	0.006
AreaRAE Pro (S/N: W01A00002412)	VOC (ppm)	0.5 ppm	No	0.0 to 0.1	0.0
	CO (ppm)	--	No	0.0 to 0.0	0.0
	H ₂ S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	No	0.0 to 0.0	0.0

Southeast Air Monitoring Station					
Instrument	Analyte	Morris Industrial Fire Public Health Screening Level ¹	Public Health Screening Level Exceeded?	1-Hour Period Concentration Range	Average of All 1-Hour Periods
DustTrak (S/N: 8533153910)	PM _{2.5} (mg/m ³)	0.025 mg/m ³	No	0.004 to 0.016	0.007
	PM ₁₀ (mg/m ³)	0.05 mg/m ³	No	0.004 to 0.018	0.008
AreaRAE Pro (S/N: W01A00002410)	VOC (ppm)	0.5 ppm	No	0.0 to 0.0	0.0
	CO (ppm)	--	No	0.0 to 0.3	0.0
	H ₂ S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	No	0.0 to 0.0	0.0

Notes: See last page.

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Southwest Air Monitoring Station					
Instrument	Analyte	Morris Industrial Fire Public Health Screening Level ¹	Public Health Screening Level Exceeded?	1-Hour Period Concentration Range	Average of All 1-Hour Periods
DustTrak (5/23-5/24 - S/N: 8533154003 5/24-5/26 - S/N: 8533154004)	PM _{2.5} (mg/m ³)	0.025 mg/m ³	No	0.004 to 0.010	0.007
	PM ₁₀ (mg/m ³)	0.05 mg/m ³	No	0.005 to 0.013	0.008
AreaRAE Pro (S/N: W01A00002411)	VOC (ppm)	0.5 ppm	No	0.0 to 0.1	0.0
	CO (ppm)	--	No	0.0 to 0.0	0.0
	H ₂ S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	No	0.0 to 0.0	0.0

Comments
Air monitoring measurements have been averaged over a 1-hour time period and summarized above.
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
Air monitoring is not performed during inclement weather conditions/rain and thunderstorms. On May 25, 2022, AreaRAE Pro and DustTrak instruments were not deployed due to inclement weather. Discrete air monitoring measurements were collected with a Handheld DustTrak and a MultiRAE Pro. No measurements were observed above the screening levels.
1 - Morris Industrial Fire Public Health Screening Levels are based on 1-hour time-weighted averages and were established by Agency for Toxic Substances and Disease Registry (ATSDR).
Notes: °F - Degrees Fahrenheit CO - Carbon Monoxide ERRS - Emergency and Rapid Response Services H ₂ S - Hydrogen Sulfide HF - Hydrogen Fluoride LEL - Lower Explosive Limit mg/m ³ - Milligrams per cubic meter PM _{2.5} - Particles that are 2.5 micrometers and smaller PM ₁₀ - Particles that are 10 micrometers and smaller ppm - Parts per million S/N - Serial number VOC - Volatile organic compounds

Preliminary Air Monitoring Results Summary Table
Monitoring Period: 05/25/2022 12:53 to 05/25/2022 16:55
Morris Lithium Battery Fire Site
Morris, Grundy County, Illinois

Location	Date/Time	VOC (ppm)	LEL (%)	CO (ppm)	O ₂ (%)	H ₂ S (ppm)	PM ₁₀ (mg/m ³)	PM _{2.5} (mg/m ³)
		Action Levels ¹						
		0.5 ppm	5 %	25 ppm	19.5 to 23.5 %	0.1 ppm	0.05 mg/m ³	0.025 mg/m ³
Northeast Station	05/25/2022 12:53						0.026	0.022
	05/25/2022 12:56	0	0	0	20.9	0		
	05/25/2022 15:21	0	0	0	20.9	0	0.01	0.009
	05/25/2022 16:48	0	0	0	20.9	0	0.013	0.01
Southeast Station	05/25/2022 12:56						0.021	0.02
	05/25/2022 13:03	0	0	0	20.9	0		
	05/25/2022 15:17	0	0	0	20.9	0	0.011	
	05/25/2022 16:55	0	0	0	20.9	0	0.013	0.012
Southwest Station	05/25/2022 15:26	0	0	0	20.9	0	0.01	0.009
	05/25/2022 16:45	0	0	0	20.9	0	0.013	0.011
Northwest Station	05/25/2022 13:13	0	0	0	20.9	0	0.017	0.015
	05/25/2022 15:29	0	0	0	20.9	0	0.01	0.009
	05/25/2022 16:42	0	0	0	20.9	0	0.027	0.015

Notes:

1 - Site-Specific Public Health Screening Levels are based on 1-hour time-weighted averages and were established by Agency for Toxic Substances and Disease Registry (ATSDR). Fixed discrete monitoring readings are discrete readings, and so do not represent conditions over a full 1-hour period.

Highlighted values are discrete readings above the 1-hour time weighted average Site-Specific Public Health Screening Level

% - Percent

CO - Carbon Monoxide

H₂S - Hydrogen Sulfide

HF - Hydrogen Fluoride

LEL - Lower Explosive Limit

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

ppm - Parts per million

VOC - Volatile organic compounds

Air Quality Index Categories and Recommendations

Air Quality Index Category	24-Hour Avg. PM _{2.5} Concentrations (ug/m ³)	24-Hour Avg. PM ₁₀ Concentrations (ug/m ³)	Recommended Actions
Good	0 to 12.0	0 to 54	None
Moderate	12.1 to 35.4	55 to 154	People with heart or lung disease, older adults (65 and up), and children: <u>Consider reducing</u> prolonged or heavy exertion.
Unhealthy for Sensitive Groups	35.5 to 55.4	155 to 254	People with heart or lung disease, older adults (65 and up), and children: <u>Reduce</u> prolonged or heavy exertion.
Unhealthy	55.5 to 150.4	255 to 354	People with heart or lung disease, older adults (65 and up), and children: <u>Avoid</u> prolonged or heavy exertion. Everyone else should <u>reduce</u> prolonged or heavy exertion.
Very Unhealthy	150.5 to 250.4	355 to 424	People with heart or lung disease, older adults (65 and up), and children: <u>Avoid all physical activity outdoors.</u> Everyone else should <u>avoid</u> prolonged or heavy exertion.
Hazardous	250.5 to 500.4	425 to 605	<u>Everyone should avoid all physical activity outdoors.</u> People with heart or lung disease, older adults (65 and up), and children should remain indoors and keep activity levels low.

Comment: Illinois Statewide Average 24-hour PM_{2.5} Concentration in 2020: 19.9 ug/m³

Comment: Off-site monitoring locations include both upwind and downwind locations. Elevated PM_{2.5} and PM₁₀ concentrations may represent other sources.

You can access daily average PM_{2.5} data for fixed monitoring locations here:

<http://www.epa.state.il.us/air/pm25/index.html>. Yesterday's average is available and it looks like you can access data for the trailing 12 months.

You can also get there by visiting the landing page for the Air Quality Index, Ozone, and PM Data:

<https://www2.illinois.gov/epa/topics/air-quality/outdoor-air/Pages/default.aspx>.