

# 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:** 06/06/2022 05:27 to 06/10/2022 16:55

Northeast Air Monitoring Station					
Instrument	Analyte	Morris Industrial Fire Public Health Screening Level <sup>1</sup>	Public Health Screening Level Exceeded?	1-Hour Period Concentration Range	Average of All 1-Hour Periods
DustTrak (S/N: 8533153912)	PM <sub>2.5</sub> (mg/m <sup>3</sup> )	0.025 mg/m <sup>3</sup>	No	0.003 to 0.022	0.008
	PM <sub>10</sub> (mg/m <sup>3</sup> )	0.05 mg/m <sup>3</sup>	No	0.003 to 0.024	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 0.0	0.0
	H <sub>2</sub> 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 <sup>1</sup>	Public Health Screening Level Exceeded?	1-Hour Period Concentration Range	Average of All 1-Hour Periods
DustTrak (S/N: 8533153917)	PM <sub>2.5</sub> (mg/m <sup>3</sup> )	0.025 mg/m <sup>3</sup>	Yes (see comment 2)	0.000 to 0.036	0.004
	PM <sub>10</sub> (mg/m <sup>3</sup> )	0.05 mg/m <sup>3</sup>	No	0.000 to 0.045	0.005
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 <sub>2</sub> 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 <sup>1</sup>	Public Health Screening Level Exceeded?	1-Hour Period Concentration Range	Average of All 1-Hour Periods
DustTrak (S/N: 8533153910)	PM <sub>2.5</sub> (mg/m <sup>3</sup> )	0.025 mg/m <sup>3</sup>	No	0.004 to 0.024	0.008
	PM <sub>10</sub> (mg/m <sup>3</sup> )	0.05 mg/m <sup>3</sup>	No	0.004 to 0.025	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 0.0	0.0
	H <sub>2</sub> 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 <sup>1</sup>	Public Health Screening Level Exceeded?	1-Hour Period Concentration Range	Average of All 1-Hour Periods
DustTrak (S/N: 8533154003)	PM <sub>2.5</sub> (mg/m <sup>3</sup> )	0.025 mg/m <sup>3</sup>	No	0.003 to 0.023	0.007
	PM <sub>10</sub> (mg/m <sup>3</sup> )	0.05 mg/m <sup>3</sup>	No	0.003 to 0.023	0.007
AreaRAE Pro (S/N: W01A00002411)	VOC (ppm)	0.5 ppm	No	0.0 to 0.4	0.0
	CO (ppm)	--	No	0.0 to 0.0	0.0
	H <sub>2</sub> 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.
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).
2 - Elevated PM <sub>2.5</sub> measurements greater than the Action Level were recorded at the Northwest Station on June 9, 2022 at 8:15. PM <sub>2.5</sub> was greater than the Action Level for less than 60 seconds. PM <sub>2.5</sub> measurements for the remainder of the monitoring period on June 9, 2022 were below the Action Level.
<b>Notes:</b> °F - Degrees Fahrenheit CO - Carbon Monoxide ERRS - Emergency and Rapid Response Services H <sub>2</sub> S - Hydrogen Sulfide HF - Hydrogen Fluoride LEL - Lower Explosive Limit mg/m <sup>3</sup> - Milligrams per cubic meter PM <sub>2.5</sub> - Particles that are 2.5 micrometers and smaller PM <sub>10</sub> - 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: 06/06/2022 and 06/08/2022**

**Morris Lithium Battery Fire Site**

**Morris, Grundy County, Illinois**

Location	Date/Time	VOC (ppm)	LEL (%)	CO (ppm)	O <sub>2</sub> (%)	H <sub>2</sub> S (ppm)	PM <sub>10</sub> (mg/m <sup>3</sup> )	PM <sub>2.5</sub> (mg/m <sup>3</sup> )
		Action Levels <sup>1</sup>						
		0.5 ppm	5 %	25 ppm	19.5 to 23.5 %	0.1 ppm	0.05 mg/m <sup>3</sup>	0.025 mg/m <sup>3</sup>
Southeast Station	06/06/2022 12:43	0	0	0	20.9	0	0.03	0.029 <sup>2</sup>
	06/06/2022 12:54	0	0		20.9	0	0.036	0.034 <sup>2</sup>
	06/06/2022 14:37	0						
	06/06/2022 14:56		0	0	20.9	0	0.029	0.028 <sup>2</sup>
	06/08/2022 08:26	0	0	0	20.9	0	0.016	0.011
	06/08/2022 08:35	0	0	0	20.9	0	0.011	
	06/08/2022 15:36							0.012
	06/08/2022 16:06	0	0	0	20.9	0	0.014	
Northeast Station	06/06/2022 12:46	0	0	0	20.9	0	0.036	0.033 <sup>2</sup>
	06/06/2022 14:39	0	0	0	20.9	0	0.031	0.029 <sup>2</sup>
	06/08/2022 08:29							0.01
	06/08/2022 15:39	0	0	0	20.9	0	0.012	0.011
Southwest Station	06/06/2022 12:56	0	0	0	20.9	0	0.035	0.034 <sup>2</sup>
	06/06/2022 14:44	0	0	0	20.9	0	0.024	0.023
	06/08/2022 08:35							0.009
	06/08/2022 15:47	0	0	0	20.9	0	0.011	0.01
Northwest Station	06/06/2022 14:46	0	0	0	20.9	0	0.029	0.028 <sup>2</sup>
	06/08/2022 08:38	0	0	0	20.9	0	0.013	0.011
	06/08/2022 09:32	0	0	0	20.9	0	0.011	
	06/08/2022 15:50	0	0	0	20.9	0	0.011	0.01

Notes: See last page.

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.

2 - Discrete measurements of PM<sub>2.5</sub> were recorded above the Action Levels at all stations on June 6, 2022. Upwind/off-site PM<sub>2.5</sub> likely impacted downwind stations, however discrete measurements do not represent conditions over a full 1-hour period and cannot be directly compared to Action Levels based on 1-hour time-weighted averages.

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

% - Percent

CO - Carbon Monoxide

H<sub>2</sub>S - Hydrogen Sulfide

LEL - Lower Explosive Limit

mg/m<sup>3</sup> - milligrams per cubic meter

O<sub>2</sub> - Oxygen

PM<sub>2.5</sub> - particles that are 2.5 micrometers and smaller

PM<sub>10</sub> - 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. PM2.5 Concentrations (ug/m3)	24-Hour Avg. PM10 Concentrations (ug/m3)	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: <b>Consider reducing</b> 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: <b>Reduce</b> 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: <b>Avoid</b> prolonged or heavy exertion.  Everyone else should <b>reduce</b> 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: <b>Avoid all physical activity outdoors.</b>  Everyone else should <b>avoid</b> prolonged or heavy exertion.
Hazardous	250.5 to 500.4	<b>425 to 605</b>	<b>Everyone should avoid all physical activity outdoors.</b>  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<sub>2.5</sub> Concentration in 2020: 19.9 ug/m3

Comment: Off-site monitoring locations include both upwind and downwind locations. Elevated PM<sub>2.5</sub> and PM<sub>10</sub> concentrations may represent other sources.

You can access daily average PM2.5 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>.