

Air Monitoring Summary Tables

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

Project Name: Rockton Chemtool Fire ER
Date/Time: 06/19/21 16:49 to 06/20/21 05:56

Weather

Temperature: high of 84°F, low of 60°F
Wind Speed: 0 to 3 miles per hour
Wind Direction: East/Southeast
Conditions: Mostly Clear

Fixed Station #4: Corner of Union and Ferry						
Instrument	Analyte	Chemtool Public Health Screening Level ¹	Public Health Screening Level Exceeded?	Number of 1-Hour Periods	1-Hour Period Concentration Range	Average of All 1-Hour Periods
DustTrak (S/N: 4304)	PM _{2.5} (mg/m ³)	0.025 mg/m ³	Yes	11	0.003 to 0.032	0.013
	PM ₁₀ (mg/m ³)	0.05 mg/m ³	No	11	0.003 to 0.032	0.013
AreaRAE Pro (S/N: 2172)	VOC (ppm)	1 ppm	No	12	0.00 to 0.08	0.03
	CO (ppm)	--	No	12	0.0 to 0.0	0.0
	O ₂ (%)	--	No	12	20.0 to 20.5	20.3
	H ₂ S (ppm)	0.1 ppm	No	12	0.0 to 0.0	0.0
	HCN (ppm)	1 ppm	No	12	0.0 to 0.0	0.0

Fixed Station #5: Stand alone area near stop sign on Chapel and Bridge St						
Instrument	Analyte	Chemtool Public Health Screening Level ¹	Public Health Screening Level Exceeded?	Number of 1-Hour Periods	1-Hour Period Concentration Range	Average of All 1-Hour Periods
AreaRAE Pro (S/N: 0640)	VOC (ppm)	1 ppm	No	11	0.02 to 0.08	0.06
	CO (ppm)	--	No	11	0.0 to 0.3	0.0
	O ₂ (%)	--	No	11	20.9 to 20.9	20.9
	H ₂ S (ppm)	0.1 ppm	No	11	0.0 to 0.0	0.0
	HCN (ppm)	1 ppm	No	11	0.0 to 0.0	0.0

Fixed Station #6: Corner of Union and Chapel						
Instrument	Analyte	Chemtool Public Health Screening Level ¹	Public Health Screening Level Exceeded?	Number of 1-Hour Periods	1-Hour Period Concentration Range	Average of All 1-Hour Periods
DustTrak (S/N: 3911)	PM _{2.5} (mg/m ³)	0.025 mg/m ³	No	0	0.000 to 0.000	#DIV/0!
	PM ₁₀ (mg/m ³)	0.05 mg/m ³	No	0	0.000 to 0.000	#DIV/0!
AreaRAE Pro (S/N: 0643)	VOC (ppm)	1 ppm	No	13	0.00 to 0.11	0.05
	CO (ppm)	--	No	13	0.0 to 1.4	0.1
	O ₂ (%)	--	No	13	20.5 to 22.0	21.0
	H ₂ S (ppm)	0.1 ppm	No	13	0.0 to 0.0	0.0
	HCN (ppm)	1 ppm	No	13	0.0 to 0.0	0.0

Fixed Station #13: North Residential - North						
Instrument	Analyte	Chemtool Public Health Screening Level ¹	Public Health Screening Level Exceeded?	Number of 1-Hour Periods	1-Hour Period Concentration Range	Average of All 1-Hour Periods
AreaRAE Pro (S/N: 2411)	VOC (ppm)	1 ppm	No	10	0.00 to 0.23	0.12
	CO (ppm)	--	No	10	0.0 to 12.0	1.7
	O ₂ (%)	--	No	10	20.4 to 20.9	20.7
	H ₂ S (ppm)	0.1 ppm	No	10	0.0 to 0.0	0.0
	HCN (ppm)	1 ppm	No	10	0.0 to 0.0	0.0

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Wind Direction: East/Southeast
Conditions: Mostly Clear

Fixed Station #14: North Residential - East						
Instrument	Analyte	Chemtool Public Health Screening Level ¹	Public Health Screening Level Exceeded?	Number of 1-Hour Periods	1-Hour Period Concentration Range	Average of All 1-Hour Periods
AreaRAE Pro (S/N: 2412)	VOC (ppm)	1 ppm	No	9	0.04 to 0.10	0.08
	CO (ppm)	--	No	9	0.0 to 0.0	0.0
	O ₂ (%)	--	No	9	20.9 to 21.0	20.9
	H ₂ S (ppm)	0.1 ppm	No	9	0.0 to 0.0	0.0
	HCN (ppm)	1 ppm	No	9	0.0 to 0.2	0.1

Fixed Station #15: North Residential - South						
Instrument	Analyte	Chemtool Public Health Screening Level ¹	Public Health Screening Level Exceeded?	Number of 1-Hour Periods	1-Hour Period Concentration Range	Average of All 1-Hour Periods
AreaRAE Pro (S/N: 2410)	VOC (ppm)	1 ppm	No	9	0.00 to 0.01	0.00
	CO (ppm)	--	No	9	0.0 to 0.2	0.1
	O ₂ (%)	--	No	9	19.7 to 20.9	20.3
	H ₂ S (ppm)	0.1 ppm	No	9	0.0 to 0.0	0.0

Fixed Station #16: North Residential - West						
Instrument	Analyte	Chemtool Public Health Screening Level ¹	Public Health Screening Level Exceeded?	Number of 1-Hour Periods	1-Hour Period Concentration Range	Average of All 1-Hour Periods
AreaRAE Pro (S/N: 2413)	VOC (ppm)	1 ppm	No	10	0.04 to 0.10	0.08
	CO (ppm)	--	No	10	0.0 to 0.0	0.0
	O ₂ (%)	--	No	10	20.3 to 20.3	20.3
	H ₂ S (ppm)	0.1 ppm	No	10	0.0 to 0.0	0.0
	HCN (ppm)	1 ppm	No	10	0.0 to 0.2	0.1

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 all units.						
1 - Chemtool Public Health Screening Levels are based on 1-hour time-weighted averages and were established by ATSDR						
Notes: CO - Carbon Monoxide H ₂ S - Hydrogen Sulfide O ₂ - Oxygen ppm - Parts per million VOC - Volatile organic compounds						

Air Monitoring Summary Tables

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

Date/Time: 6/19/2021 20:17 to 6/20/2021 05:28

Fixed Discrete Air Monitoring Location EZ-01: 1101-1159 Innovation Dr					
Instrument	Analyte	Chemtool 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	16	0.000 to 0.000
	HCN	1 ppm	No	16	0.000 to 0.500
	VOC (ppm)	1 ppm	No	16	0.000 to 0.000
SPM Flex	MDI (ppb)	5 ppb	No	6	0.000 to 0.0
	SO ₂ (ppb)	0.2 ppm	No	6	0.000 to 0.000
Handheld DustTrak	PM _{2.5} (mg/m ³)	0.025 mg/m ³	Yes	6	0.005 to 0.050
	PM ₁₀ (mg/m ³)	0.05 mg/m ³	Yes	7	0.000 to 0.053

Fixed Discrete Air Monitoring Location EZ-03: 860-998 N Prairie St					
Instrument	Analyte	Chemtool 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	5	0.000 to 0.000
	HCN	1 ppm	No	5	0.000 to 0.000
	VOC (ppm)	1 ppm	No	5	0.000 to 0.000
SPM Flex	MDI (ppb)	5 ppb	No	5	0.000 to 0.0
	SO ₂ (ppb)	0.2 ppm	No	5	0.000 to 0.000
Handheld DustTrak	PM _{2.5} (mg/m ³)	0.025 mg/m ³	Yes	5	0.005 to 0.070
	PM ₁₀ (mg/m ³)	0.05 mg/m ³	Yes	5	0.005 to 0.070

Fixed Discrete Air Monitoring Location EZ-05: 907-1099 Watts Ave					
Instrument	Analyte	Chemtool 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
	HCN	1 ppm	No	4	0.000 to 0.000
	VOC (ppm)	1 ppm	No	4	0.000 to 0.000
SPM Flex	MDI (ppb)	5 ppb	No	4	0.000 to 0.5
	SO ₂ (ppb)	0.2 ppm	No	4	0.000 to 0.000
Handheld DustTrak	PM _{2.5} (mg/m ³)	0.025 mg/m ³	Yes	4	0.006 to 0.060
	PM ₁₀ (mg/m ³)	0.05 mg/m ³	Yes	4	0.018 to 0.073

Fixed Discrete Air Monitoring Location EZ-06: 14632 S Bluff Rd					
Instrument	Analyte	Chemtool 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	6	0.000 to 0.000
	HCN	1 ppm	No	6	0.000 to 0.000
	VOC (ppm)	1 ppm	No	6	0.000 to 0.000
SPM Flex	MDI (ppb)	5 ppb	No	6	0.000 to 0.000
	SO ₂ (ppb)	0.2 ppm	No	6	0.000 to 0.000
Handheld DustTrak	PM _{2.5} (mg/m ³)	0.025 mg/m ³	Yes	6	0.005 to 0.052
	PM ₁₀ (mg/m ³)	0.05 mg/m ³	No	6	0.005 to 0.040

Fixed Discrete Air Monitoring Location EZ-07: 14728-14758 S Bluff Rd					
Instrument	Analyte	Chemtool 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	5	0.000 to 0.000
	HCN	1 ppm	No	5	0.000 to 0.000
	VOC (ppm)	1 ppm	No	5	0.000 to 0.000
SPM Flex	MDI (ppb)	5 ppb	No	5	0.000 to 0.000
	SO ₂ (ppb)	0.2 ppm	No	5	0.000 to 0.000
Handheld DustTrak	PM _{2.5} (mg/m ³)	0.025 mg/m ³	Yes	5	0.005 to 0.033
	PM ₁₀ (mg/m ³)	0.05 mg/m ³	No	5	0.005 to 0.044

Fixed Discrete Monitoring Location EZ-08: 1001-1199 Prairie Hill Rd					
Instrument	Analyte	Chemtool 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	5	0.000 to 0.000
	HCN	1 ppm	No	5	0.000 to 0.000
	VOC (ppm)	1 ppm	No	5	0.000 to 0.000
SPM Flex	MDI (ppb)	5 ppb	No	5	0.000 to 0.000
	SO ₂ (ppb)	0.2 ppm	No	5	0.000 to 0.000
Handheld DustTrak	PM _{2.5} (mg/m ³)	0.025 mg/m ³	Yes	5	0.005 to 0.031
	PM ₁₀ (mg/m ³)	0.05 mg/m ³	No	5	0.005 to 0.033

Fixed Discrete Monitoring Location EZ-09: Guetschow Ave & Fischer Rd					
Instrument	Analyte	Chemtool 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
	HCN	1 ppm	No	3	0.000 to 0.000
	VOC (ppm)	1 ppm	No	3	0.000 to 0.000
SPM Flex	MDI (ppb)	5 ppb	No	3	0.000 to 0.000
	SO ₂ (ppb)	0.2 ppm	No	3	0.000 to 0.000
Handheld DustTrak	PM _{2.5} (mg/m ³)	0.025 mg/m ³	Yes	3	0.026 to 0.035
	PM ₁₀ (mg/m ³)	0.05 mg/m ³	No	3	0.031 to 0.038

Comments

Start and stop times for each air monitoring instrument varies. The monitoring period is based on the earliest start time and latest stop

1 - Chemtool Public Health Screening Levels are based on 1-hour time-weighted averages and were established by ATSDR.

Notes:

CO - Carbon Monoxide

H₂S - Hydrogen Sulfide

O₂ - Oxygen

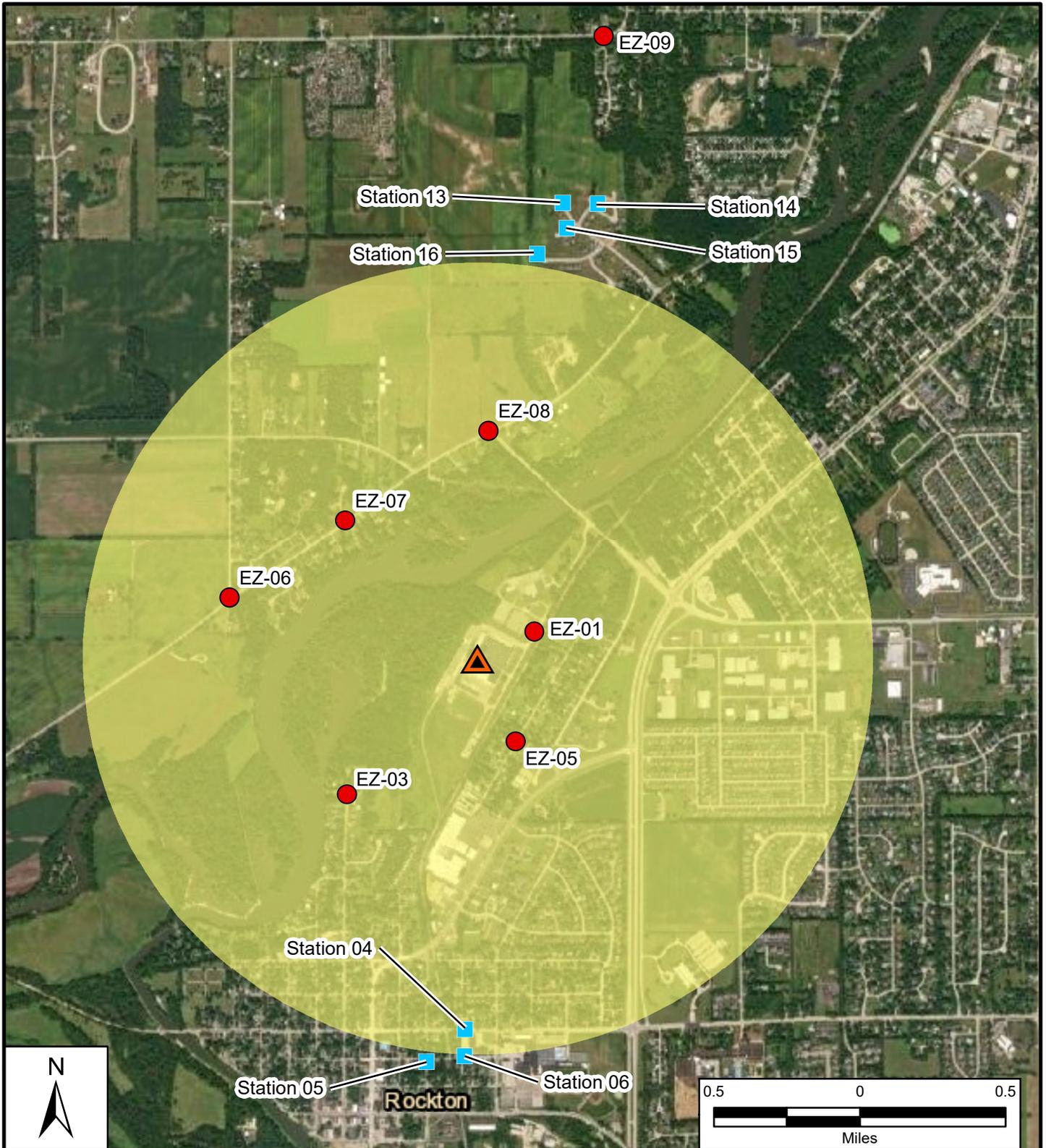
MDI - Methylene diphenyl diisocyanate

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



Site Location

Source: Esri 2020

Legend

-  Fixed Discrete Air Monitoring Locations
-  Fire Location
-  EPA Air Monitoring Station
-  1 Mile Evacuation Radius

Note: Monitoring station locations subject to change based on weather and operational objectives

Rockton Chemtool Fire ER
Rockton, IL

Figure 1
Air Monitoring Stations
06/19/2021 19:00 - 06/20/2021 06:00



Prepared For: USEPA

Prepared By: Tetra Tech Inc.