

Air Monitoring Summary Tables

The table below summarize monitoring data collected on using EPA's Viper wireless remote monitoring system.

Project Name: BioLab Chlorine

From: 10/6/24
5:00 PM

To: 10/7/24
5:00 AM



Station 2 - Mammy's							
Instrument	Analyte	Action Level Exceedance?	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level
AreaRAE Pro	VOC	No	781	1	0-34 ppb	0.04 ppb	9000 ppb 8hr avg
	H2S	No	781	0	0-0 ppm	0 ppm	0.51 ppm 1hr avg
	CL2	No	1562	1024	0-0.40 ppm	0.15 ppm	0.5 ppm 1hr avg
SPM Flex	HYDROGEN CHLORIDE (HCL)	No	13800	40	0-0.02 ppm	0.00 ppm	1.8 ppm 1hr avg
SPM Flex	PHOSGENE (COCL2)	No	13828	0	0-0 ppb	0 ppb	300 ppb 1hr avg

Station 8- Iris Drive SW Near Pyro Fireworks							
Instrument	Analyte	Action Level Exceedance?	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level
AreaRAE Pro	VOC	No	762	95	0-1184 ppb	92.74 ppb	9000 ppb 8hr avg
	H2S	No	762	0	0-0 ppm	0 ppm	0.51 ppm 1hr avg
	CL2	No	1524	858	0-0.50 ppm	0.11 ppm	0.5 ppm 1hr avg

Station 10 - Gated Community Near Rockdale Plaza Shopping Center							
Instrument	Analyte	Action Level Exceedance?	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level
AreaRAE Pro	VOC	No	777	10	0-70 ppb	0.12 ppb	9000 ppb 8hr avg
	H2S	No	777	0	0-0 ppm	0 ppm	0.51 ppm 1hr avg
	CL2	No	1554	0	0-0 ppm	0 ppm	0.5 ppm 1hr avg

Station 11 -Patrick & Associates Inc							
Instrument	Analyte	Action Level Exceedance?	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level
AreaRAE Pro	VOC	No	784	586	0-133 ppb	76.78 ppb	9000 ppb 8hr avg
	H2S	No	784	0	0-0 ppm	0 ppm	0.51 ppm 1hr avg
	CL2	No	1568	0	0-0 ppm	0 ppm	0.5 ppm 1hr avg
SPM Flex	HYDROGEN CHLORIDE (HCL)	No	13722	0	0-0 ppm	0 ppm	1.8 ppm 1hr avg
SPM Flex	PHOSGENE (COCL2)	No	13780	0	0-0 ppb	0 ppb	300 ppb 1hr avg

Station 13- Intersection of Old Covington Highway and 3rd Avenue							
Instrument	Analyte	Action Level Exceedance?	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level
AreaRAE Pro	VOC	No	769	0	0-0 ppb	0 ppb	9000 ppb 8hr avg
	H2S	No	769	0	0-0 ppm	0 ppm	0.51 ppm 1hr avg
	CL2	No	1538	1526	0-0.40 ppm	0.17 ppm	0.5 ppm 1hr avg

Station 14 - Smyrna Road							
Instrument	Analyte	Action Level Exceedance?	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level
AreaRAE Pro	VOC	No	778	250	0-399 ppb	37.99 ppb	9000 ppb 8hr avg
	H2S	No	778	0	0-0 ppm	0 ppm	0.51 ppm 1hr avg
	CL2	No	1556	1086	0-0.50 ppm	0.14 ppm	0.5 ppm 1hr avg

Station 16 - Corner of General Arts and Farmers Rd							
Instrument	Analyte	Action Level Exceedance?	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level
AreaRAE Pro	VOC	No	769	460	0-2114 ppb	26.17 ppb	9000 ppb 8hr avg
	H2S	No	769	1	0-0.70 ppm	0.00 ppm	0.51 ppm 1hr avg
	CL2	No	1538	1438	0-0.50 ppm	0.17 ppm	0.5 ppm 1hr avg

Station 17 - Lester Biolab							
Instrument	Analyte	Action Level Exceedance?	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level
AreaRAE Pro	VOC	No	771	0	0-0 ppb	0 ppb	9000 ppb 8hr avg
	H2S	No	771	0	0-0 ppm	0 ppm	0.51 ppm 1hr avg
	CL2	No	1542	900	0-0.70 ppm	0.12 ppm	0.5 ppm 1hr avg

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From: 10/6/24
5:00 PM

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Notes:

% Percent
< Less than
> Greater than

AEGL Acute Exposure Guideline Levels for Airborne Chemicals

C/m Counts (ionization events) per minute

$\mu\text{g}/\text{m}^3$ Micrograms per cubic meter

min Minute

PAC Protective Action Criteria

PEL Permissible exposure limit

ppb Parts per billion

ppm Parts per million

PM Particulate matter

SOG Standard Operating Guidelines

SPM Single Point Monitor

TEEL Temporary Emergency Exposure Limit

TLV Threshold limit value

Air Monitoring Summary Tables – Review



Project Name: Bio Lab Chlorine

The EPA uses air monitoring instruments with real-time alerts to track air quality during an emergency response. This air monitoring summary table report is used by EPA and local responders to review the thousands of measurements that can be collected in a single day.

The following is a review of station results for the time period from 5:00pm on 10/6/2024 to 5:00am on 10/7/2024:

- **Station 2:** From 9:00pm to 5:00am there were sustained measurements of Cl₂ with a peak of 0.4ppm; the maximum 1-hour average was 0.3ppm, the maximum 8-hour average was 0.23ppm.
- **Station 8:** From 7:15pm to 5:00am there were sustained measurements of Cl₂ with a peak of 0.5ppm; the maximum 1-hour average was 0.3ppm, the maximum 8-hour average was 0.13ppm.
- **Station 10:** No issues observed
- **Station 11:** No issues observed
- **Station 13:** From 5:00pm to 5:00am there were sustained measurements of Cl₂ with a peak of 0.4ppm; the maximum 1-hour average was 0.2ppm, the maximum 8-hour average was 0.19ppm.
- **Station 14:** From 7:30pm to 5:00am there were sustained measurements of Cl₂ with a peak of 0.5ppm; the maximum 1-hour average was 0.4ppm, the maximum 8-hour average was 0.17ppm.
- **Station 16:** From 5:00pm to 5:00am there were sustained measurements of Cl₂ with a peak of 0.5ppm; the maximum 1-hour average was 0.3ppm, the maximum 8-hour average was 0.16ppm.
- **Station 17:** From 9:30pm to 5:00am there were sustained measurements of Cl₂ with a peak of 0.7ppm; the maximum 1-hour average was 0.2ppm, the maximum 8-hour average was 0.3ppm.

Air Monitoring Summary Tables – Explanation of Tables



Project Name: Bio Lab Chlorine

The following information is provided in each report:

- **Station** – at the top of each table is a name and location for each air monitoring station. These are mobile stations that may change over time and new station numbers are established. Previously used station numbers will not appear on this report.
- **Instrument** – this is the model of instrument being used to measure the air. Some stations may use multiple instruments, and some instruments may measure multiple things at once
- **Analyte** – these are the chemicals or other compounds that the instrument is measuring:
 - **VOC**: Volatile Organic Compounds; this is not a specific chemical but includes a long list of possible chemicals, many of which have strong odors
 - **CO**: Carbon Monoxide; this compound is commonly associated with combustion (i.e. fires)
 - **H2S**: Hydrogen Sulfide; this is a default sensor for the instrument and is used for industrial safety
 - **LEL**: Lower-Explosive Limit; this is a default sensor for the instrument and is used for industrial safety
 - **O2**: Oxygen; this is a default sensor for the instrument and is used for industrial safety
 - **Cl2**: Chlorine; chlorine gas is an inhalation hazard with a pungent suffocating odor and is a contaminant of concern for the site
 - **HCl**: Hydrogen Chloride; a corrosive gas with a sharp, pungent odor and is a contaminant of concern for the site
 - **COCl2**: Phosgene; a potential combustion product that EPA monitors for at chemical and industrial fires
- **Action Level Exceedance** – is an easy-to-read determination whether one of the Action Levels in the column on the right *may have* been exceeded. The action levels are based on *averages over time* but this column may say "Yes" whenever a single measurement exceeds that number. This helps responders assess whether further protective measures are needed.
- **Number of Readings** – the number of measurements collected by the sensor, usually collected once every second or every minute.
- **Number of Detections** – the number of measurements greater than zero
- **Concentration Range** – the minimum and maximum measurement that was collected
- **Period Average** – the average measurement for the entire collection period
- **Action Levels** – based on the most protective AEGLs (Acute Exposure Guideline Levels) which are used by emergency responders when dealing with chemical spills or other exposures and describe the human health effects from once-in-a-lifetime, or rare, exposure to airborne chemicals. Further information is available at EPA.gov/AEGL.