

# 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: 10/15/24**  
**5:00 PM**

**To: 10/16/24**  
**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	1105	0	0-0 ppb	0 ppb	9000 ppb 8hr avg
	H2S	No	1105	0	0-0 ppm	0 ppm	0.51 ppm 1hr avg
	CL2	No	2210	94	0-0.20 ppm	0.01 ppm	0.5 ppm 1hr avg
SPM Flex	HYDROGEN CHLORIDE (HCL)	No	13796	0	0-0 ppm	0 ppm	1.8 ppm 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	1107	0	0-0 ppb	0 ppb	9000 ppb 8hr avg
	H2S	No	1107	0	0-0 ppm	0 ppm	0.51 ppm 1hr avg
	CL2	No	2213	1122	0-0.30 ppm	0.07 ppm	0.5 ppm 1hr avg
SPM Flex	HYDROGEN CHLORIDE (HCL)	No	13825	0	0-0 ppm	0 ppm	1.8 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	1103	0	0-0 ppb	0 ppb	9000 ppb 8hr avg
	H2S	No	1103	0	0-0 ppm	0 ppm	0.51 ppm 1hr avg
	CL2	No	2204	1356	0-0.30 ppm	0.10 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	1105	0	0-0 ppb	0 ppb	9000 ppb 8hr avg
	CL2	No	2210	16	0-0.20 ppm	0.00 ppm	0.5 ppm 1hr avg
SPM Flex	HYDROGEN CHLORIDE (HCL)	No	13691	0	0-0 ppm	0 ppm	1.8 ppm 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	1086	434	0-56 ppb	3.78 ppb	9000 ppb 8hr avg
	CL2	No	2171	1853	0-0.30 ppm	0.15 ppm	0.5 ppm 1hr avg
SPM Flex	HYDROGEN CHLORIDE (HCL)	No	13737	0	0-0 ppm	0 ppm	1.8 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	623	0	0-0 ppb	0 ppb	9000 ppb 8hr avg
	H2S	No	623	0	0-0 ppm	0 ppm	0.51 ppm 1hr avg
	CL2	No	1246	774	0-0.30 ppm	0.10 ppm	0.5 ppm 1hr avg
SPM Flex	HYDROGEN CHLORIDE (HCL)	No	13598	0	0-0 ppm	0 ppm	1.8 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	1059	54	0-11 ppb	0.29 ppb	9000 ppb 8hr avg
	H2S	No	1059	0	0-0 ppm	0 ppm	0.51 ppm 1hr avg
	CL2	No	2117	1019	0-0.40 ppm	0.16 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	1038	691	0-65 ppb	18.71 ppb	9000 ppb 8hr avg
	H2S	No	1038	0	0-0 ppm	0 ppm	0.51 ppm 1hr avg
	CL2	No	2074	1792	0-0.50 ppm	0.17 ppm	0.5 ppm 1hr avg

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**From: 10/15/24**  
**5:00 PM**

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**5:00 AM**



Station 18 - Dogwood and VSW Checkpoint							
Instrument	Analyte	Action Level Exceedance?	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level
AreaRAE Pro	VOC	No	1102	812	0-25 ppb	11.09 ppb	9000 ppb 8hr avg
	H2S	No	1102	0	0-0 ppm	0 ppm	0.51 ppm 1hr avg
	CL2	No	2202	1304	0-0.20 ppm	0.06 ppm	0.5 ppm 1hr avg
SPM Flex	HYDROGEN CHLORIDE (HCL)	No	13803	0	0-0 ppm	0 ppm	1.8 ppm 1hr avg

Station 19 - Rockdale & Old Cov Hwy Checkpoint							
Instrument	Analyte	Action Level Exceedance?	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level
AreaRAE Pro	VOC	No	844	658	0-146 ppb	71.10 ppb	9000 ppb 8hr avg
	H2S	No	844	0	0-0 ppm	0 ppm	0.51 ppm 1hr avg
	CL2	No	1687	1483	0-0.50 ppm	0.23 ppm	0.5 ppm 1hr avg

Station 20 - West Old Cov Hwy Checkpoint							
Instrument	Analyte	Action Level Exceedance?	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level
AreaRAE Pro	VOC	No	449	22	0-13 ppb	0.20 ppb	9000 ppb 8hr avg
	H2S	No	449	0	0-0 ppm	0 ppm	0.51 ppm 1hr avg
	CL2	No	896	437	0-0.10 ppm	0.05 ppm	0.5 ppm 1hr avg

Station 21 - Railroad Crossing Checkpoint							
Instrument	Analyte	Action Level Exceedance?	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level
AreaRAE Pro	H2S	No	1069	0	0-0 ppm	0 ppm	0.51 ppm 1hr avg
	CL2	No	2136	1591	0-0.50 ppm	0.13 ppm	0.5 ppm 1hr avg

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

**From:** 10/15/24  
5:00 PM

The logo is circular with a blue upper half and a red lower half. The top half contains the EPA logo (a stylized flower/leaf) and the text "EPA" in white. The bottom half contains the text "EMERGENCY RESPONSE" in white. The outer ring of the circle contains the text "UNITED STATES" at the top and "ENVIRONMENTAL PROTECTION AGENCY" at the bottom, separated by small stars.

- % 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

[illegible]

# 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 10/15/2024 to 5:00am on 10/16/2024:

- **Station 2:** No issues observed.
- **Station 8:** From 11:00pm to 5:00am there were sustained measurements of Cl<sub>2</sub> with a peak of 0.3ppm; the maximum 1-hour average was 0.2ppm, the maximum 8-hour average was 0.11ppm.
- **Station 10:** From 11:40pm to 5:00am there were sustained measurements of Cl<sub>2</sub> with a peak of 0.3ppm; the maximum 1-hour average was 0.2ppm, the maximum 8-hour average was 0.14ppm.
- **Station 11:** No issues observed.
- **Station 13:** From 5:00pm to 5:00am there were sustained measurements of Cl<sub>2</sub> with a peak of 0.3ppm; the maximum 1-hour average was 0.3ppm, the maximum 8-hour average was 0.17ppm.
- **Station 14:** From 11:20pm to 5:00am there were sustained measurements of Cl<sub>2</sub> with a peak of 0.3ppm; the maximum 1-hour average was 0.2ppm, the maximum 8-hour average was 0.16ppm.
- **Station 16:** From 10:00pm to 1:00am there were sustained measurements of Cl<sub>2</sub> with a peak of 0.4ppm; the maximum 1-hour average was 0.2ppm, the maximum 8-hour average was 0.05ppm.
- **Station 17:** From 5:00pm to 5:00am there were sustained measurements of Cl<sub>2</sub> with a peak of 0.5ppm; the maximum 1-hour average was 0.3ppm, the maximum 8-hour average was 0.21ppm.
- **Station 18:** No issues observed.
- **Station 19:** From 5:00pm to 5:00am there were sustained measurements of Cl<sub>2</sub> with a peak of 0.5ppm; the maximum 1-hour average was 0.4ppm, the maximum 8-hour average was 0.27ppm.
- **Station 21:** From 5:00pm to 5:00am there were sustained measurements of Cl<sub>2</sub> with a peak of 0.5ppm; the maximum 1-hour average was 0.2ppm, the maximum 8-hour average was 0.14ppm.

# 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)
  - **H<sub>2</sub>S:** 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
  - **O<sub>2</sub>:** Oxygen; this is a default sensor for the instrument and is used for industrial safety
  - **Cl<sub>2</sub>:** 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
  - **COCl<sub>2</sub>:** 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](http://EPA.gov/AEGL).