

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: 10/13/24
5:00 PM

To: 10/14/24
4:59 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	997	3	0-387 ppb	0.95 ppb	9000 ppb 8hr avg
	H2S	No	997	0	0-0 ppm	0 ppm	0.51 ppm 1hr avg
	CL2	No	1993	1728	0-0.40 ppm	0.17 ppm	0.5 ppm 1hr avg
SPM Flex	HYDROGEN CHLORIDE (HCL)	No	13394	0	0 ppm	0-0 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	Period Average	Concentration Range	Action Level
AreaRAE Pro	VOC	No	990	138	0-321 ppb	27.80 ppb	9000 ppb 8hr avg
	H2S	No	990	0	0-0 ppm	0 ppm	0.51 ppm 1hr avg
	CL2	No	1979	0	0-0 ppm	0 ppm	0.5 ppm 1hr avg
SPM Flex	HYDROGEN CHLORIDE (HCL)	No	13811	0	0 ppm	0-0 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	Period Average	Concentration Range	Action Level
AreaRAE Pro	VOC	No	1010	152	0-134 ppb	1.84 ppb	9000 ppb 8hr avg
	H2S	No	1010	0	0-0 ppm	0 ppm	0.51 ppm 1hr avg
	CL2	No	2019	1947	0-0.50 ppm	0.19 ppm	0.5 ppm 1hr avg

Station 11 -Patrick & Associates Inc							
Instrument	Analyte	Action Level Exceedance?	Number of Readings	Number of Detections	Period Average	Concentration Range	Action Level
AreaRAE Pro	VOC	No	1006	0	0-0 ppb	0 ppb	9000 ppb 8hr avg
	CL2	No	2012	0	0-0 ppm	0 ppm	0.51 ppm 1hr avg
SPM Flex	HYDROGEN CHLORIDE (HCL)	No	13684	0	0-0 ppm	0 ppm	0.5 ppm 1hr avg

Station 13 - 3rd Ave Checkpoint							
Instrument	Analyte	Action Level Exceedance?	Number of Readings	Number of Detections	Period Average	Concentration Range	Action Level
AreaRAE Pro	VOC	No	904	0	0-0 ppb	0 ppb	9000 ppb 8hr avg
	CL2	No	1807	1807	0.10-0.30 ppm	0.14 ppm	0.51 ppm 1hr avg
SPM Flex	HYDROGEN CHLORIDE (HCL)	No	13720	189	0.00 ppm	0-0.19 ppm	0.5 ppm 1hr avg

Station 14 - Smyrna Road							
Instrument	Analyte	Action Level Exceedance?	Number of Readings	Number of Detections	Period Average	Concentration Range	Action Level
AreaRAE Pro	VOC	No	437	0	0-0 ppb	0 ppb	9000 ppb 8hr avg
	H2S	No	437	0	0-0 ppm	0 ppm	0.51 ppm 1hr avg
	CL2	No	874	0	0-0 ppm	0 ppm	0.5 ppm 1hr avg
SPM Flex	HYDROGEN CHLORIDE (HCL)	No	13802	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	Period Average	Concentration Range	Action Level
AreaRAE Pro	VOC	No	990	0	0-0 ppb	0 ppb	9000 ppb 8hr avg
	H2S	No	990	0	0-0 ppm	0 ppm	0.51 ppm 1hr avg
	CL2	No	1980	0	0-0 ppm	0 ppm	0.5 ppm 1hr avg

Station 17 - Lester Biolab							
Instrument	Analyte	Action Level Exceedance?	Number of Readings	Number of Detections	Period Average	Concentration Range	Action Level
AreaRAE Pro	VOC	No	988	1	0-502 ppb	0.51 ppb	9000 ppb 8hr avg
	H2S	No	988	0	0-0 ppm	0 ppm	0.51 ppm 1hr avg
	CL2	No	1976	1134	0-0.30 ppm	0.10 ppm	0.5 ppm 1hr avg

Station 18 - Dogwood and VSW Checkpoint							
Instrument	Analyte	Action Level Exceedance?	Number of Readings	Number of Detections	Period Average	Concentration Range	Action Level
AreaRAE Pro	VOC	No	937	0	0-0 ppb	0 ppb	9000 ppb 8hr avg
	H2S	No	937	0	0-0 ppm	0 ppm	0.51 ppm 1hr avg
	CL2	No	1874	1314	0-0.20 ppm	0.07 ppm	0.5 ppm 1hr avg
SPM Flex	HYDROGEN CHLORIDE (HCL)	No	13799	0	0 ppm	0-0 ppm	1.8 ppm 1hr avg

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Project Name: **Biolab Chlorine**

From: 10/13/24
5:00 PM

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Station 19 - Rockdale & Old Cov Hwy Checkpoint							
Instrument	Analyte	Action Level Exceedance?	Number of Readings	Number of Detections	Period Average	Concentration Range	Action Level
AreaRAE Pro	VOC	No	902	0	0 ppb	0-0 ppb	9000 ppb 8hr avg
	H2S	No	902	0	0 ppm	0-0 ppm	0.51 ppm 1hr avg
	CL2	No	1804	676	0.04 ppm	0-0.20 ppm	0.5 ppm 1hr avg

Station 20 - West Old Cov Hwy Checkpoint							
Instrument	Analyte	Action Level Exceedance?	Number of Readings	Number of Detections	Period Average	Concentration Range	Action Level
AreaRAE Pro	VOC	No	906	548	0-137 ppb	63.53 ppb	9000 ppb 8hr avg
	H2S	No	906	0	0-0 ppm	0 ppm	0.51 ppm 1hr avg
	CL2	No	1812	1786	0-0.30 ppm	0.15 ppm	0.5 ppm 1hr avg

Station 21 - Railroad Crossing Checkpoint							
Instrument	Analyte	Action Level Exceedance?	Number of Readings	Number of Detections	Period Average	Concentration Range	Action Level
AreaRAE Pro	VOC	No	906	548	0-137 ppb	63.53 ppb	9000 ppb 8hr avg
	H2S	No	906	0	0-0 ppm	0 ppm	0.51 ppm 1hr avg
	CL2	No	1971	1694	0-0.50 ppm	0.17 ppm	0.5 ppm 1hr avg

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

From: 10/13/24
5:00 PM



%	Percent
<	Less than
>	Greater than
AEGL	Acute Exposure Guideline Levels for Airborne Chemicals
C/m	Counts (ionization events) per minute
µg/m³	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 10/13/2024 to 5:00am on 10/14/2024:

- **Station 2:** 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 0.20ppm.
- **Station 8:** No issues observed.
- **Station 10:** 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 0.19ppm.
- **Station 11:** No issues observed.
- **Station 13:** From 5:00pm to 5:00am there were sustained measurements of Cl₂ with a peak of 0.2ppm; the maximum 1-hour average was 0.2ppm, the maximum 8-hour average was 0.21ppm.
- **Station 14:** No issues observed.
- **Station 16:** No issues observed.
- **Station 17:** From 9:00pm to 5:00am there were sustained measurements of Cl₂ with a peak of 0.3ppm; the maximum 1-hour average was 0.2ppm, the maximum 8-hour average was 0.10ppm.
- **Station 18:** No issues observed.
- **Station 19:** No issues observed.
- **Station 20:** From 5:00pm to 5:00am there were sustained measurements of Cl₂ with a peak of 0.3ppm; the maximum 1-hour average was 0.2ppm, the maximum 8-hour average was 0.17ppm.
- **Station 21:** From 5:00pm to 5:00am there were sustained measurements of Cl₂ with a peak of 0.5ppm; the maximum 1-hour average was 0.2ppm, the maximum 8-hour average was 0.20ppm.

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.