

# Air Monitoring Summary Tables

This table summarizes monitoring data collected using DHEC monitors and EPA's Viper wireless remote monitoring system.

**Project Name:** H<sub>2</sub>S in South Carolina



**From:** 2/1/23  
12:00 AM

**To:** 2/1/23  
11:59 PM

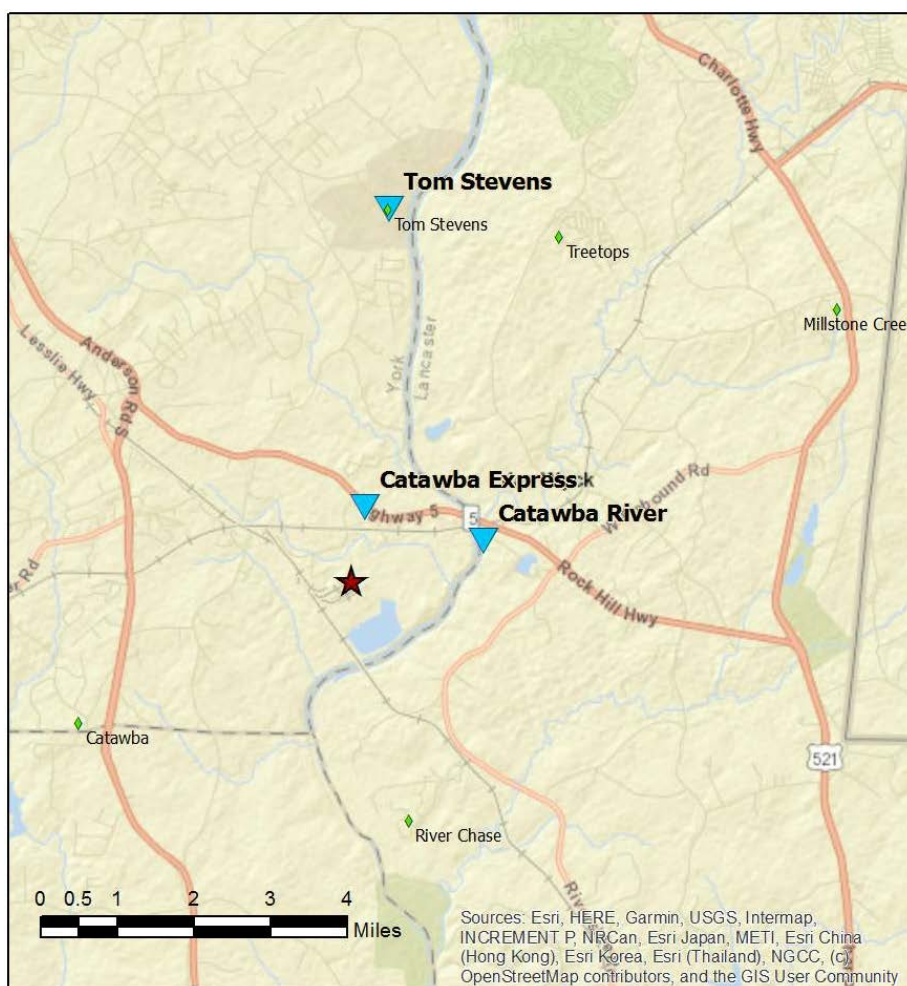
| Catawba River |         |                       |                    |                      |                     |                |           |
|---------------|---------|-----------------------|--------------------|----------------------|---------------------|----------------|-----------|
| Instrument    | Analyte | ATSDR MRL Exceedance? | Number of Readings | Number of Detections | Concentration Range | Period Average | ATSDR MRL |
| SPM Flex 3    | H2S     | No                    | 13249              | 6220                 | 0 - 21 ppb          | 2.11 ppb       | 70 ppb    |

| Catawba Express |         |                       |                    |                      |                     |                |           |
|-----------------|---------|-----------------------|--------------------|----------------------|---------------------|----------------|-----------|
| Instrument      | Analyte | ATSDR MRL Exceedance? | Number of Readings | Number of Detections | Concentration Range | Period Average | ATSDR MRL |
| SPM Flex 2      | H2S     | No                    | 2875               | 0                    | 0 - 0 ppb           | 0 ppb          | 70 ppb    |

**Notes:**

Hydrogen sulfide concentrations presented in this data summary table are converted from parts per million, the instrument readout units, to parts per billion. The SPM FLEX Minimum Detectable Limit (MDL) is 1 ppb of Hydrogen Sulfide.

- ATSDR MRL Agency for Toxic Substances and Disease Registry Minimal Risk Level - Acute Exposure (<14 days)
- H<sub>2</sub>S Hydrogen Sulfide
- hr Hour
- ppb Parts per billion
- MRL Exceedance Defines if the 24-hr TWA exceeded the MRL at any time during the period of this report
- SPM Single Point Monitor
- TWA Time Weighted Average



**Legend**

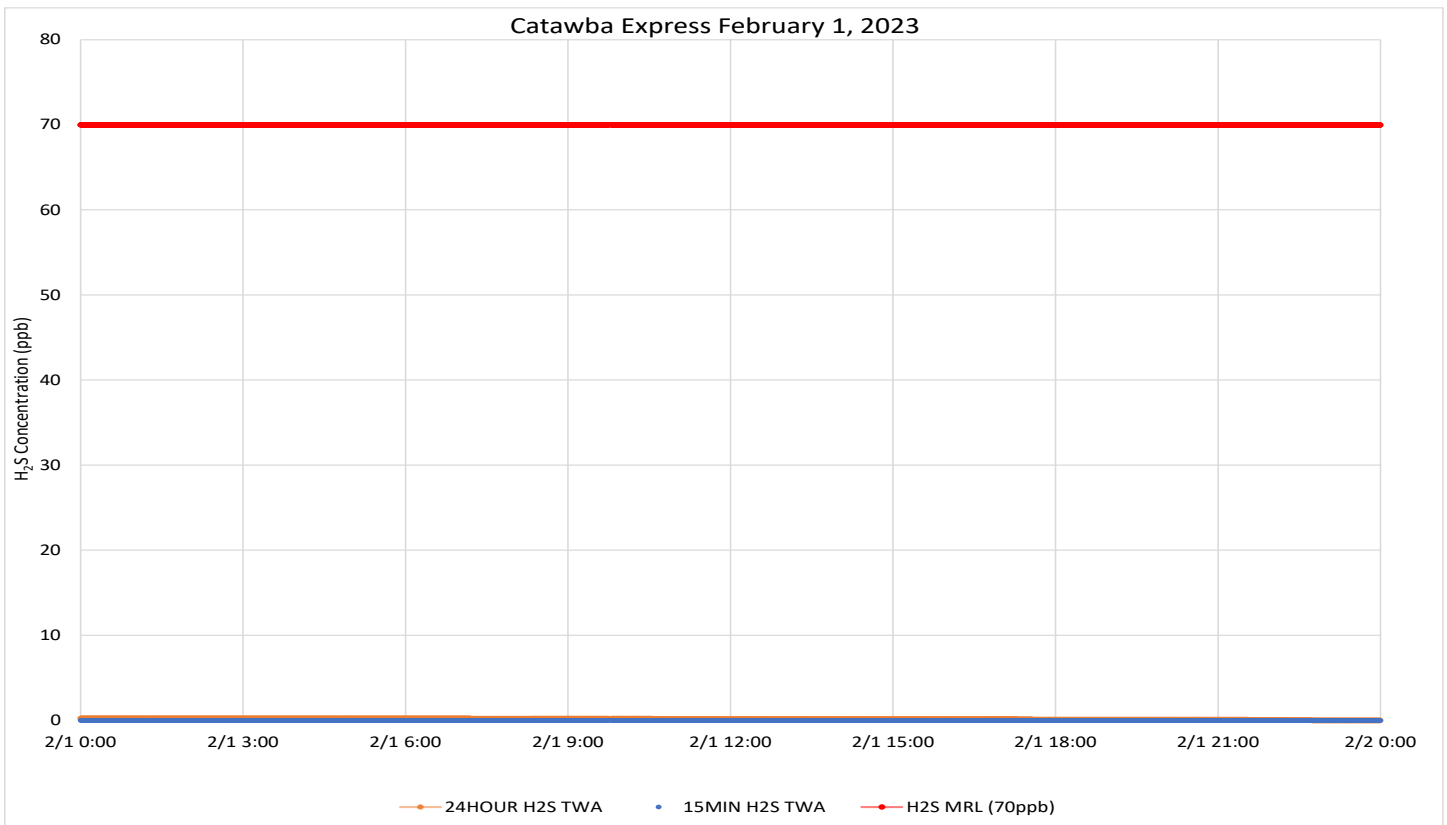
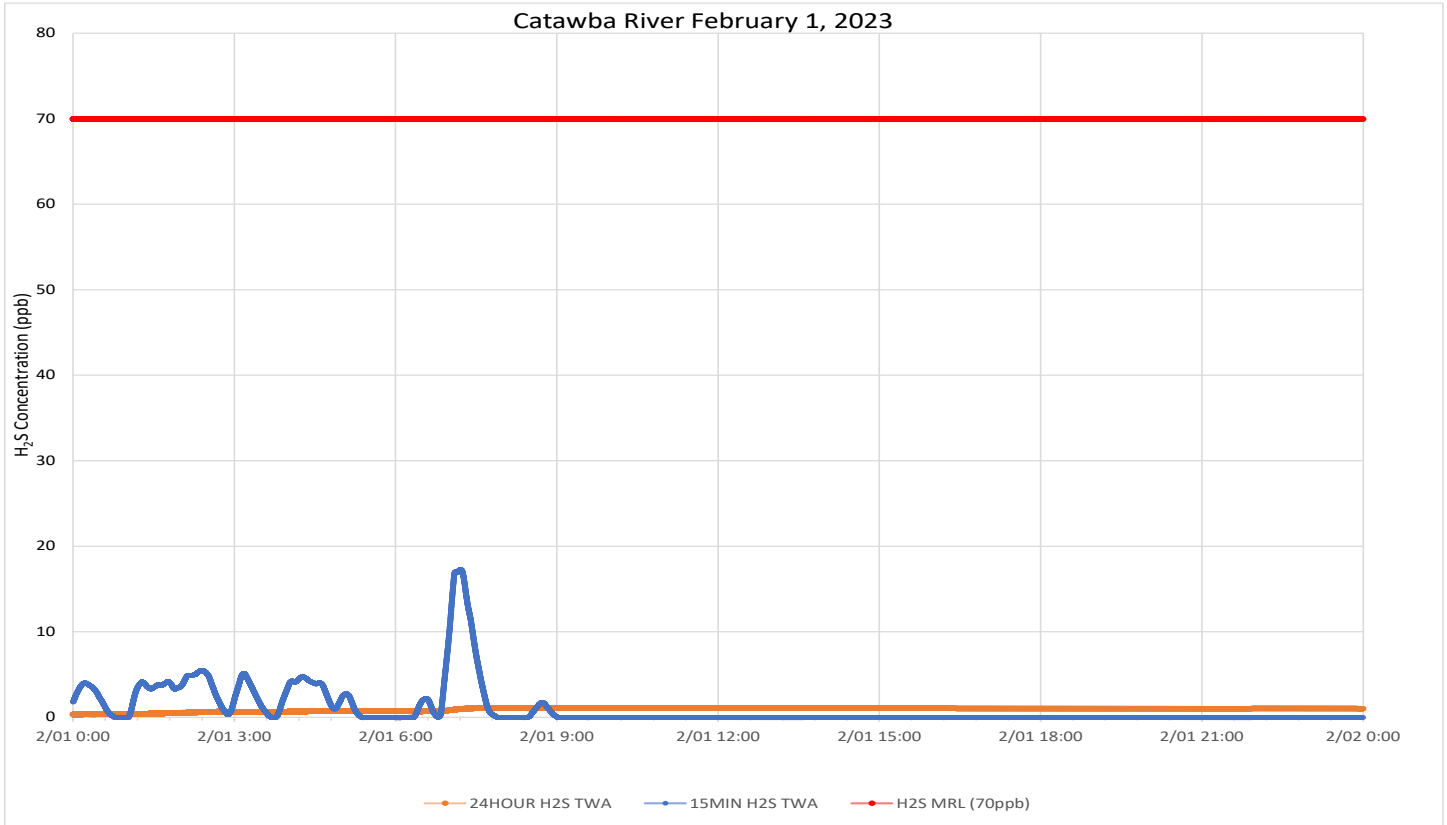
- ★ New Indy Containerboard
- ◆ NI Offsite Monitor
- ▲ DHEC Monitor

Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community

# H<sub>2</sub>S in South Carolina

## Hydrogen Sulfide 15-min and 24-hr Time Weighted Average Graphs

Wind was variable and light to calm throughout the period. Before dawn wind was from the south southwest to west southwest, and the rest of the day into the evening, from the north northeast to east.



Notes: Time is Eastern Standard Time H<sub>2</sub>S – Hydrogen Sulfide MRL – Minimal Risk Level ppb – Parts per billion

# Air Monitoring Summary Tables

This table summarizes monitoring data collected using DHEC monitors and EPA's Viper wireless remote monitoring system.

**Project Name:** H<sub>2</sub>S in South Carolina



**From:** 2/2/23  
12:00 AM

**To:** 2/2/23  
11:59 PM

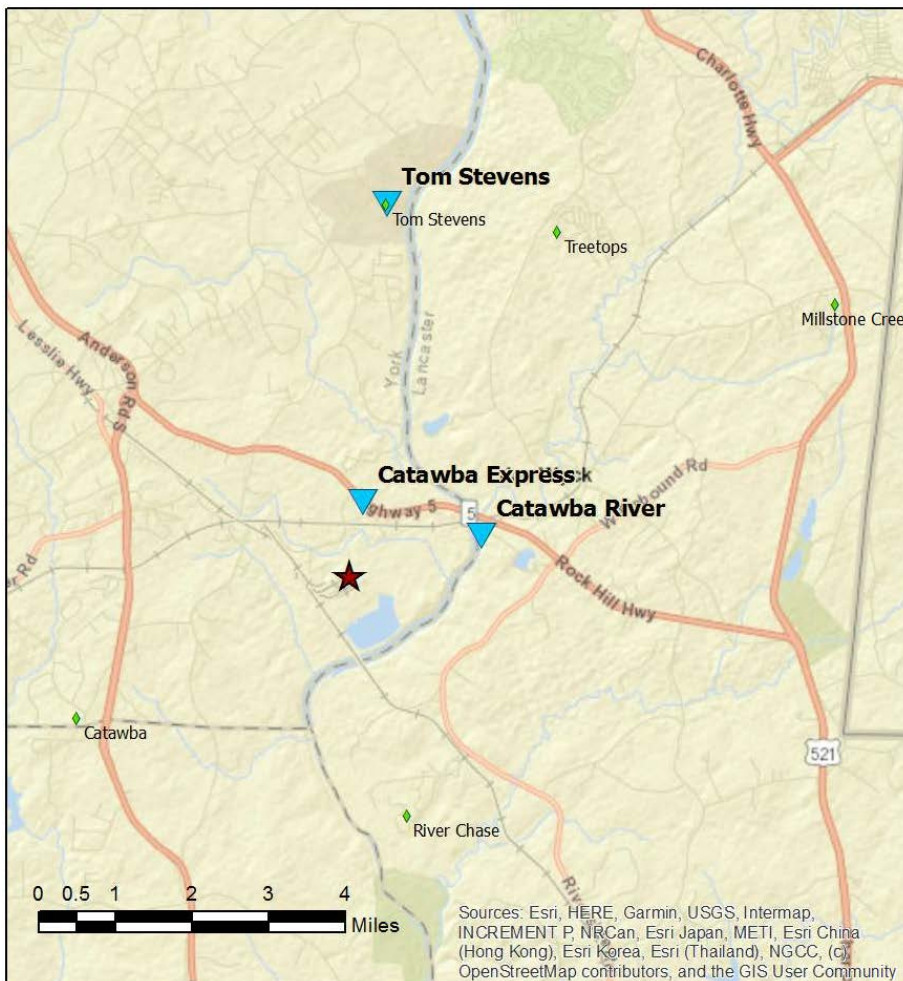
| Catawba River |                  |                       |                    |                      |                     |                |           |
|---------------|------------------|-----------------------|--------------------|----------------------|---------------------|----------------|-----------|
| Instrument    | Analyte          | ATSDR MRL Exceedance? | Number of Readings | Number of Detections | Concentration Range | Period Average | ATSDR MRL |
| SPM Flex 3    | H <sub>2</sub> S | No                    | 2880               | 599                  | 0 - 5 ppb           | 0.32 ppb       | 70 ppb    |

| Catawba Express |                  |                       |                    |                      |                     |                |           |
|-----------------|------------------|-----------------------|--------------------|----------------------|---------------------|----------------|-----------|
| Instrument      | Analyte          | ATSDR MRL Exceedance? | Number of Readings | Number of Detections | Concentration Range | Period Average | ATSDR MRL |
| SPM Flex 2      | H <sub>2</sub> S | No                    | 2881               | 700                  | 0 - 14 ppb          | 0.69 ppb       | 70 ppb    |

**Notes:**

Hydrogen sulfide concentrations presented in this data summary table are converted from parts per million, the instrument readout units, to parts per billion. The SPM FLEX Minimum Detectable Limit (MDL) is 1 ppb of Hydrogen Sulfide.

- ATSDR MRL Agency for Toxic Substances and Disease Registry Minimal Risk Level - Acute Exposure (<14 days)
- H<sub>2</sub>S Hydrogen Sulfide
- hr Hour
- ppb Parts per billion
- MRL Exceedance Defines if the 24-hr TWA exceeded the MRL at any time during the period of this report
- SPM Single Point Monitor
- TWA Time Weighted Average



**Legend**

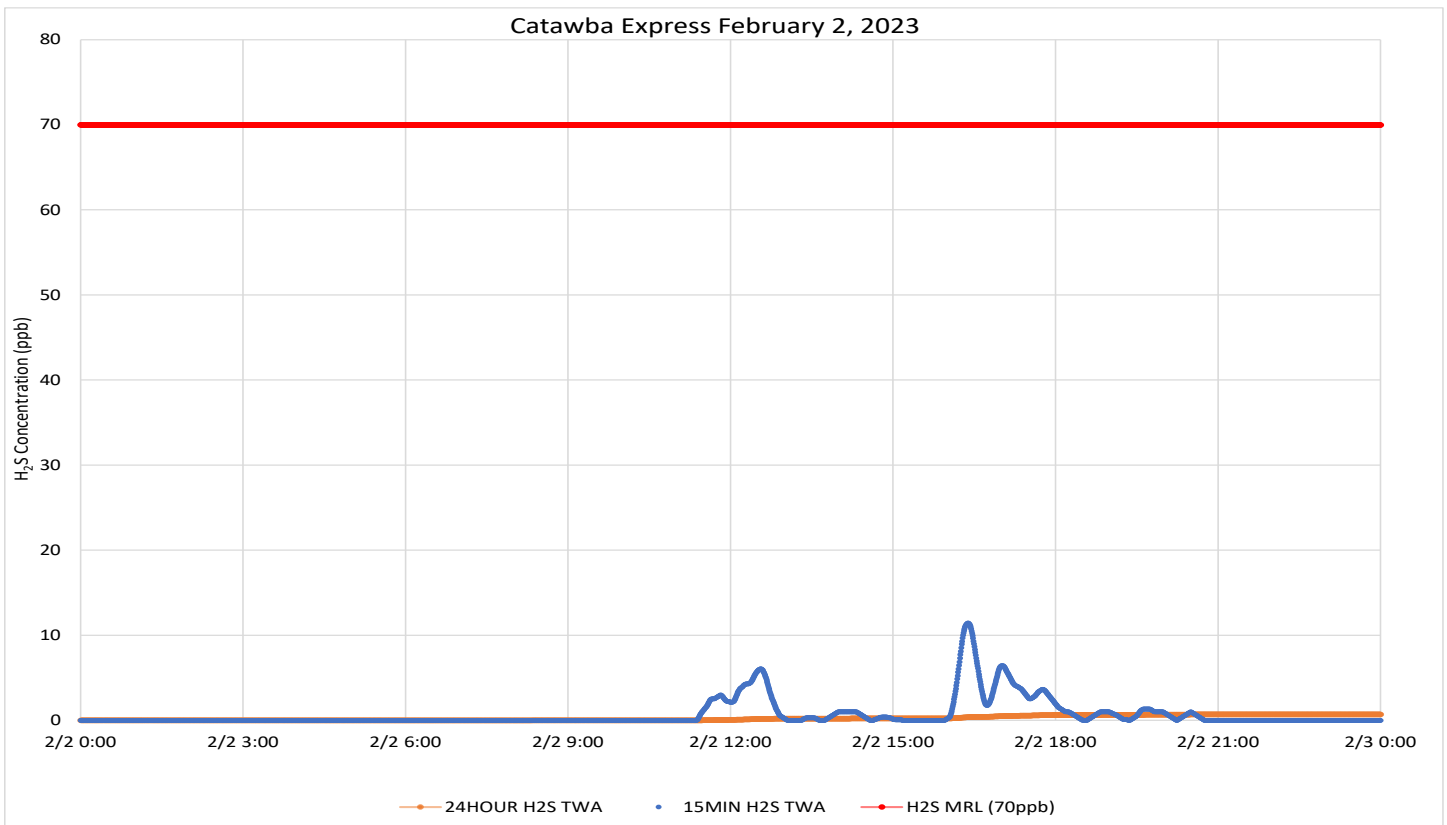
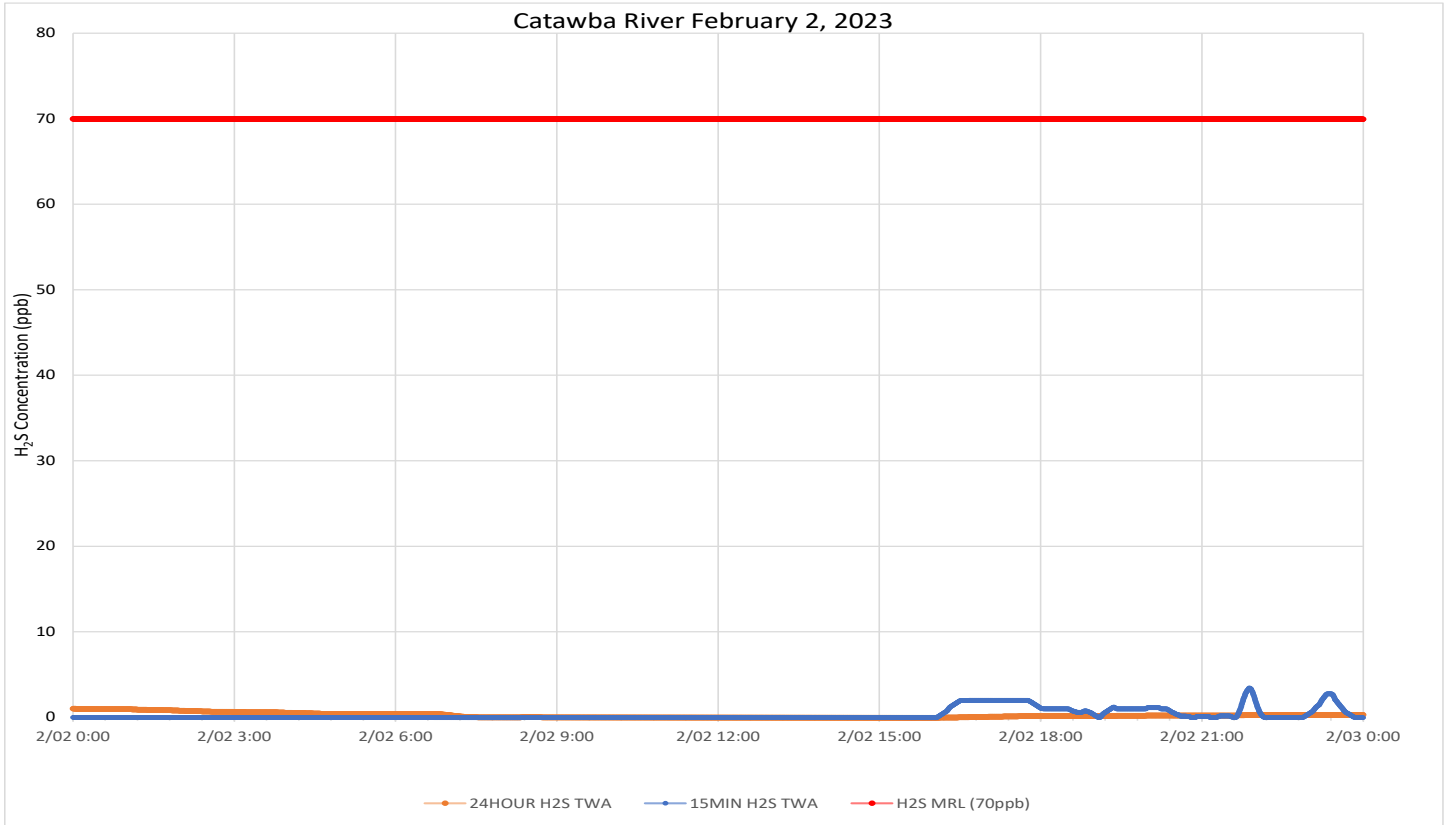
- ★ New Indy Containerboard
- ◆ NI Offsite Monitor
- ▲ DHEC Monitor

Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community

# H<sub>2</sub>S in South Carolina

## Hydrogen Sulfide 15-min and 24-hr Time Weighted Average Graphs

Wind was variable and light to calm throughout the period. In the morning, when detected, wind was from the north northeast to south southeast. After noon, it was calm with only one indication of some air movement from the west.



Notes: Time is Eastern Standard Time H<sub>2</sub>S – Hydrogen Sulfide MRL – Minimal Risk Level ppb – Parts per billion Wind data for KUZA



# Air Monitoring Summary Tables

This table summarizes monitoring data collected using DHEC monitors and EPA's Viper wireless remote monitoring system.



**Project Name:** H<sub>2</sub>S in South Carolina

**From:** 2/3/23  
12:00 AM

**To:** 2/3/23  
11:59 PM

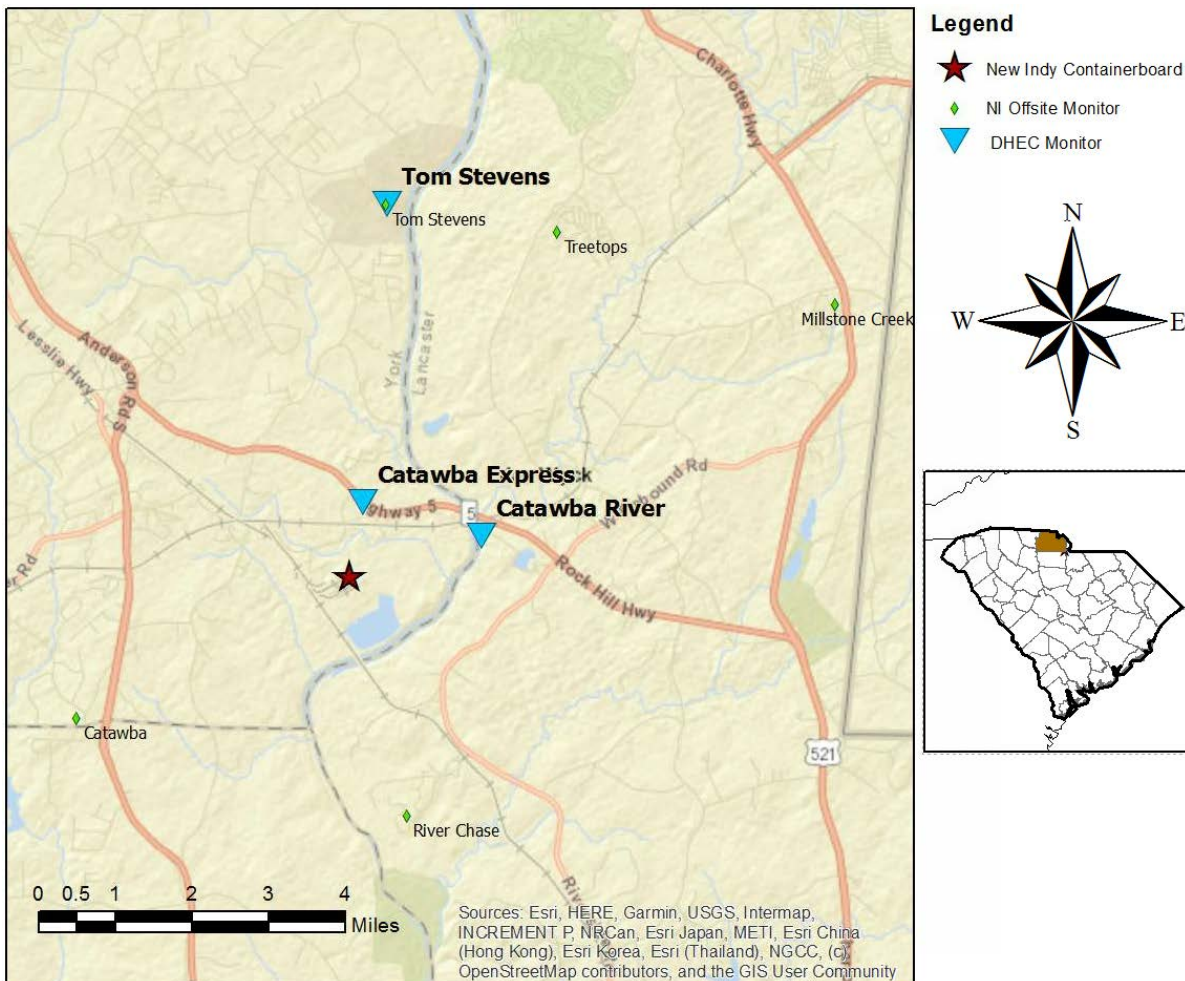
| Catawba River |                  |                       |                    |                      |                     |                |           |
|---------------|------------------|-----------------------|--------------------|----------------------|---------------------|----------------|-----------|
| Instrument    | Analyte          | ATSDR MRL Exceedance? | Number of Readings | Number of Detections | Concentration Range | Period Average | ATSDR MRL |
| SPM Flex 3    | H <sub>2</sub> S | No                    | 14653              | 101                  | 0 - 4 ppb           | 0.01 ppb       | 70 ppb    |

| Catawba Express |                  |                       |                    |                      |                     |                |           |
|-----------------|------------------|-----------------------|--------------------|----------------------|---------------------|----------------|-----------|
| Instrument      | Analyte          | ATSDR MRL Exceedance? | Number of Readings | Number of Detections | Concentration Range | Period Average | ATSDR MRL |
| SPM Flex 2      | H <sub>2</sub> S | No                    | 3727               | 0                    | 0 - 0 ppb           | 0 ppb          | 70 ppb    |

**Notes:**

Hydrogen sulfide concentrations presented in this data summary table are converted from parts per million, the instrument readout units, to parts per billion. The SPM FLEX Minimum Detectable Limit (MDL) is 1 ppb of Hydrogen Sulfide.

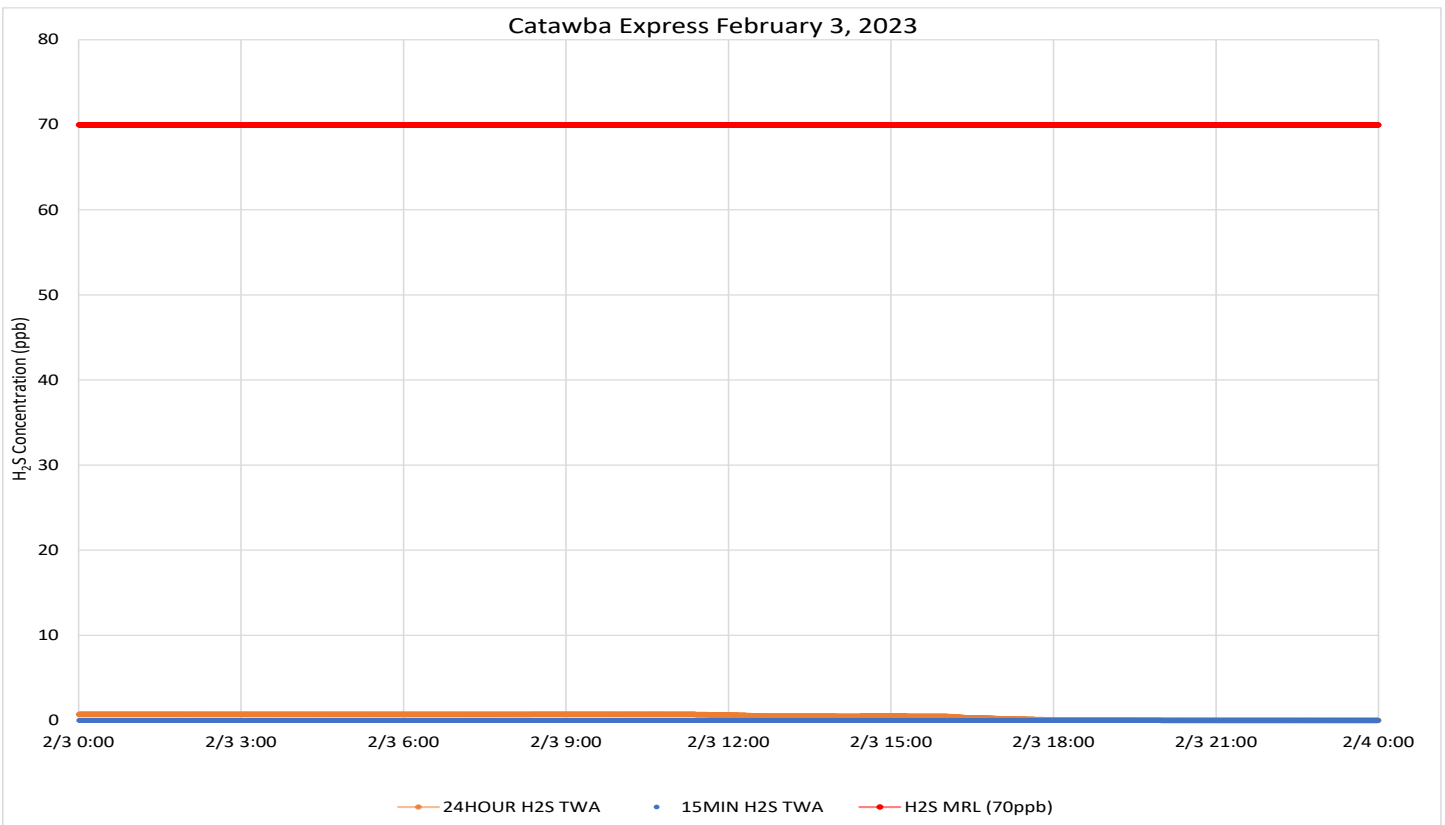
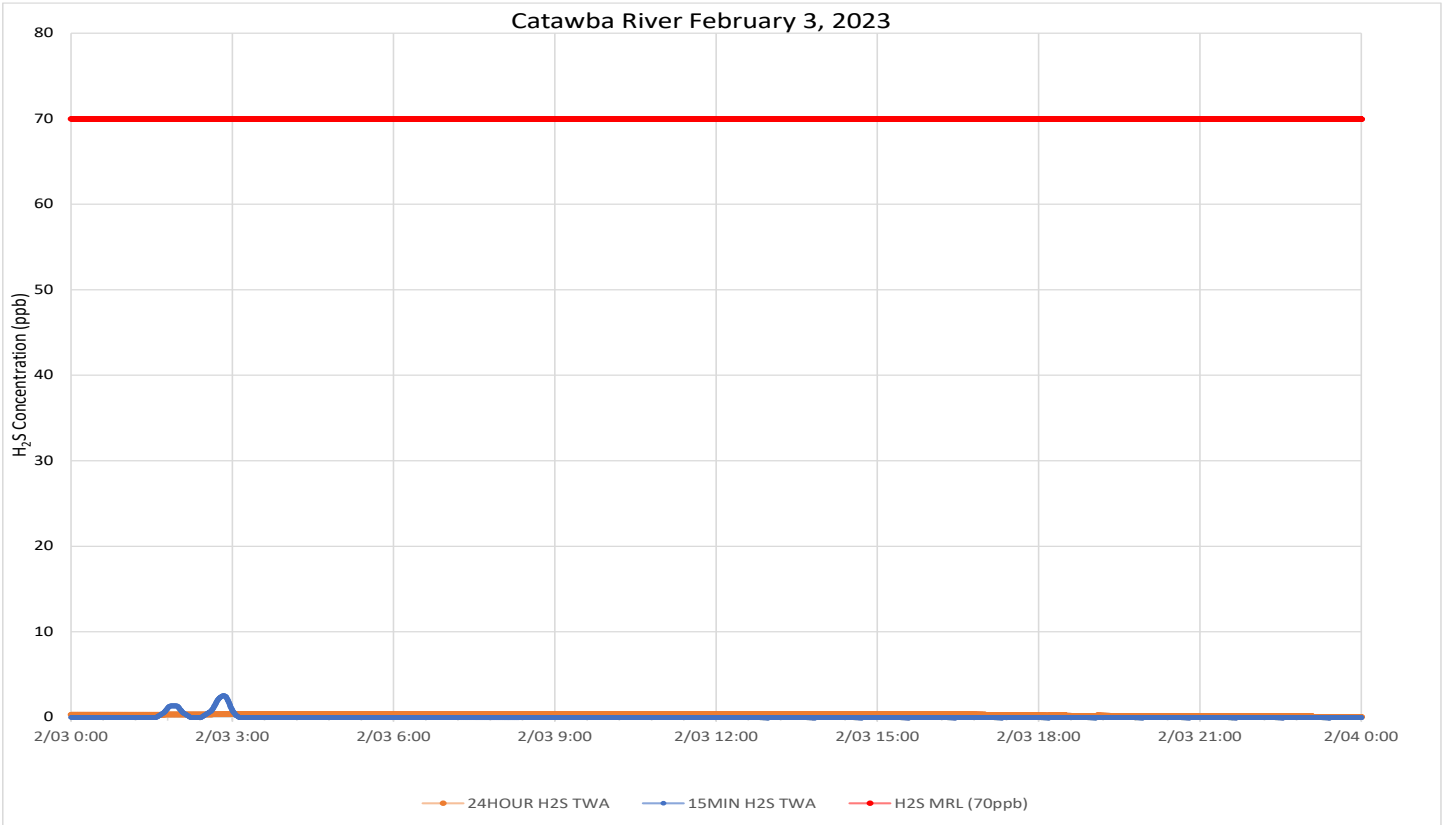
- ATSDR MRL Agency for Toxic Substances and Disease Registry Minimal Risk Level - Acute Exposure (<14 days)
- H<sub>2</sub>S Hydrogen Sulfide
- hr Hour
- ppb Parts per billion
- MRL Exceedance Defines if the 24-hr TWA exceeded the MRL at any time during the period of this report
- SPM Single Point Monitor
- TWA Time Weighted Average



# H<sub>2</sub>S in South Carolina

## Hydrogen Sulfide 15-min and 24-hr Time Weighted Average Graphs

Wind direction varied widely during the period, beginning the early morning from the west southwest, coming from the north northeast to northwest most of the day, and ending the evening predominantly from the north northeast.



Notes: Time is Eastern Standard Time H<sub>2</sub>S – Hydrogen Sulfide MRL – Minimal Risk Level ppb – Parts per billion Wind data for KUZA

# Air Monitoring Summary Tables

This table summarizes monitoring data collected using DHEC monitors and EPA's Viper wireless remote monitoring system.

**Project Name:** H<sub>2</sub>S in South Carolina



**From:** 2/4/23  
12:00 AM

**To:** 2/4/23  
11:59 PM

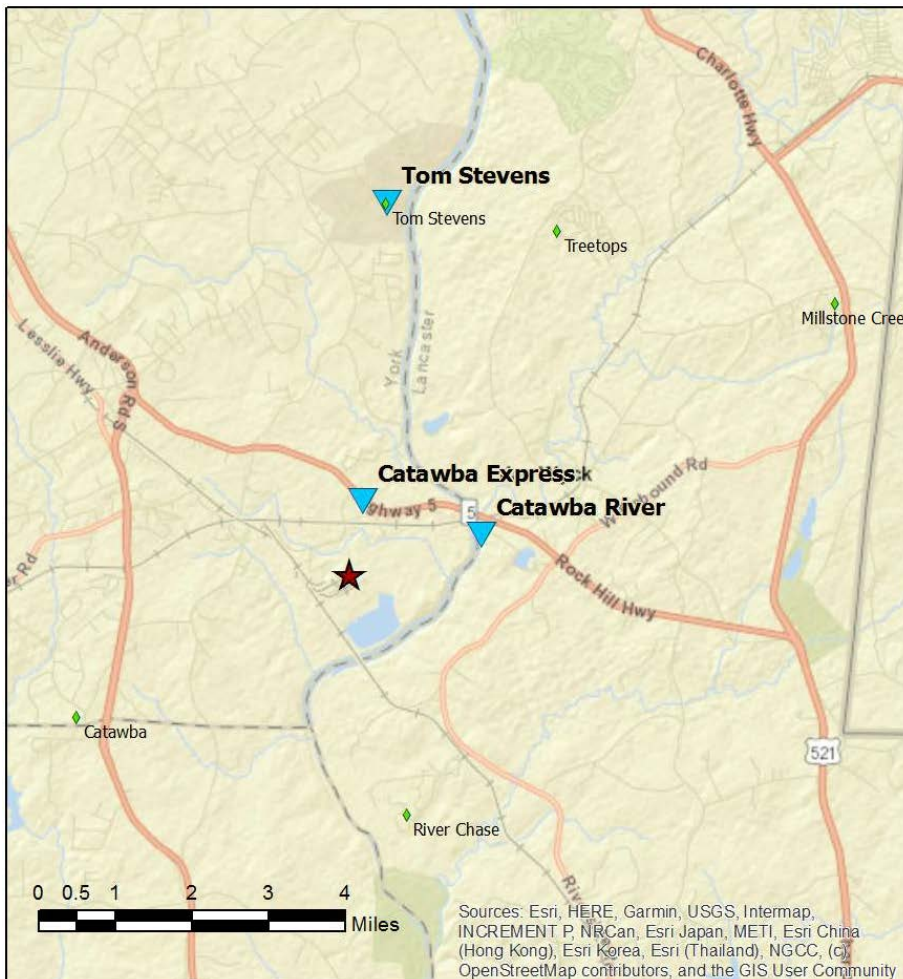
| Catawba River |                  |                       |                    |                      |                     |                |           |
|---------------|------------------|-----------------------|--------------------|----------------------|---------------------|----------------|-----------|
| Instrument    | Analyte          | ATSDR MRL Exceedance? | Number of Readings | Number of Detections | Concentration Range | Period Average | ATSDR MRL |
| SPM Flex 3    | H <sub>2</sub> S | No                    | 27554              | 0                    | 0 - 0 ppb           | 0 ppb          | 70 ppb    |

| Catawba Express |                  |                       |                    |                      |                     |                |           |
|-----------------|------------------|-----------------------|--------------------|----------------------|---------------------|----------------|-----------|
| Instrument      | Analyte          | ATSDR MRL Exceedance? | Number of Readings | Number of Detections | Concentration Range | Period Average | ATSDR MRL |
| SPM Flex 2      | H <sub>2</sub> S | No                    | 2881               | 485                  | 0 - 8 ppb           | 0.71 ppb       | 70 ppb    |

**Notes:**

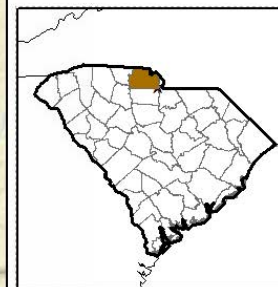
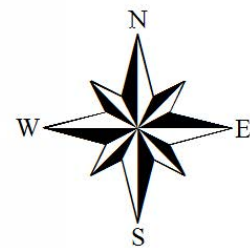
Hydrogen sulfide concentrations presented in this data summary table are converted from parts per million, the instrument readout units, to parts per billion. The SPM FLEX Minimum Detectable Limit (MDL) is 1 ppb of Hydrogen Sulfide.

- ATSDR MRL Agency for Toxic Substances and Disease Registry Minimal Risk Level - Acute Exposure (<14 days)
- H<sub>2</sub>S Hydrogen Sulfide
- hr Hour
- ppb Parts per billion
- MRL Exceedance Defines if the 24-hr TWA exceeded the MRL at any time during the period of this report
- SPM Single Point Monitor
- TWA Time Weighted Average



**Legend**

- ★ New Indy Containerboard
- ◆ NI Offsite Monitor
- ▲ DHEC Monitor

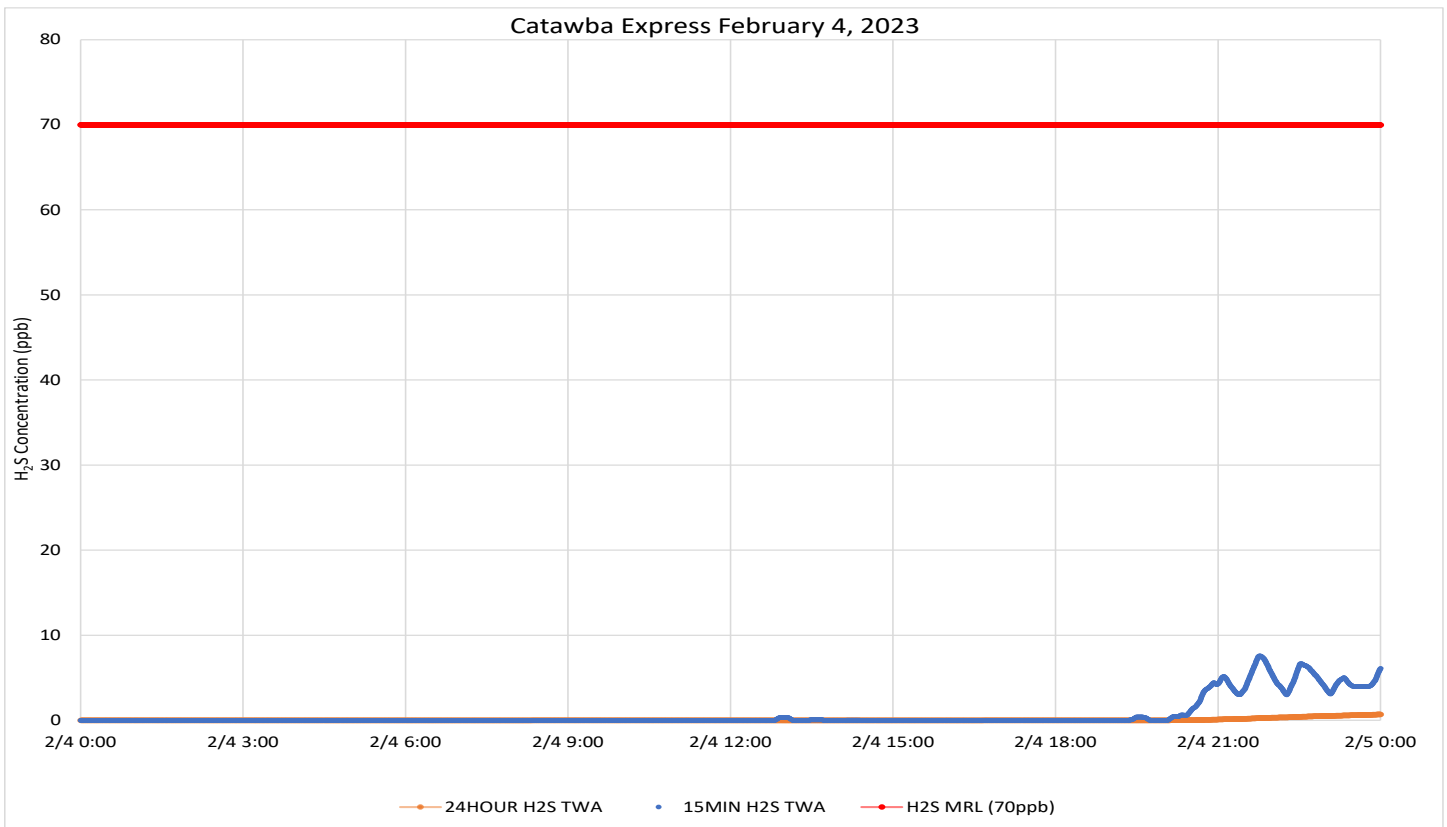
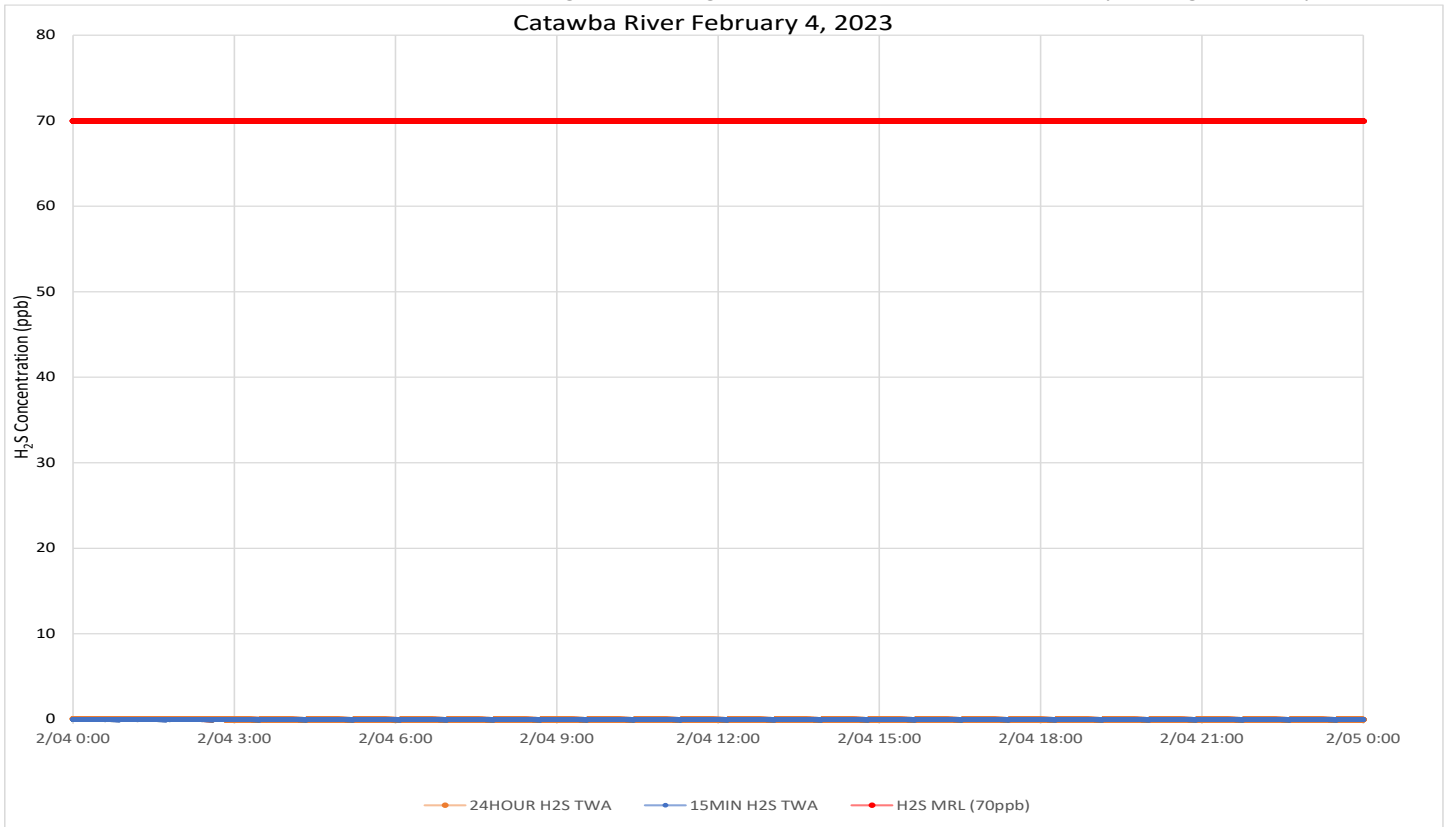


Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community

# H<sub>2</sub>S in South Carolina

## Hydrogen Sulfide 15-min and 24-hr Time Weighted Average Graphs

Wind direction varied widely during the period, beginning the early morning from the northeast, then briefly from the southeast, and from the south in the evening and overnight. Winds were calm intermittently throughout the period.



Notes: Time is Eastern Standard Time H<sub>2</sub>S – Hydrogen Sulfide MRL – Minimal Risk Level ppb – Parts per billion Wind data for KUZA



# Air Monitoring Summary Tables

This table summarizes monitoring data collected using DHEC monitors and EPA's Viper wireless remote monitoring system.

**Project Name:** H<sub>2</sub>S in South Carolina



**From:** 2/5/23  
12:00 AM

**To:** 2/5/23  
11:59 PM

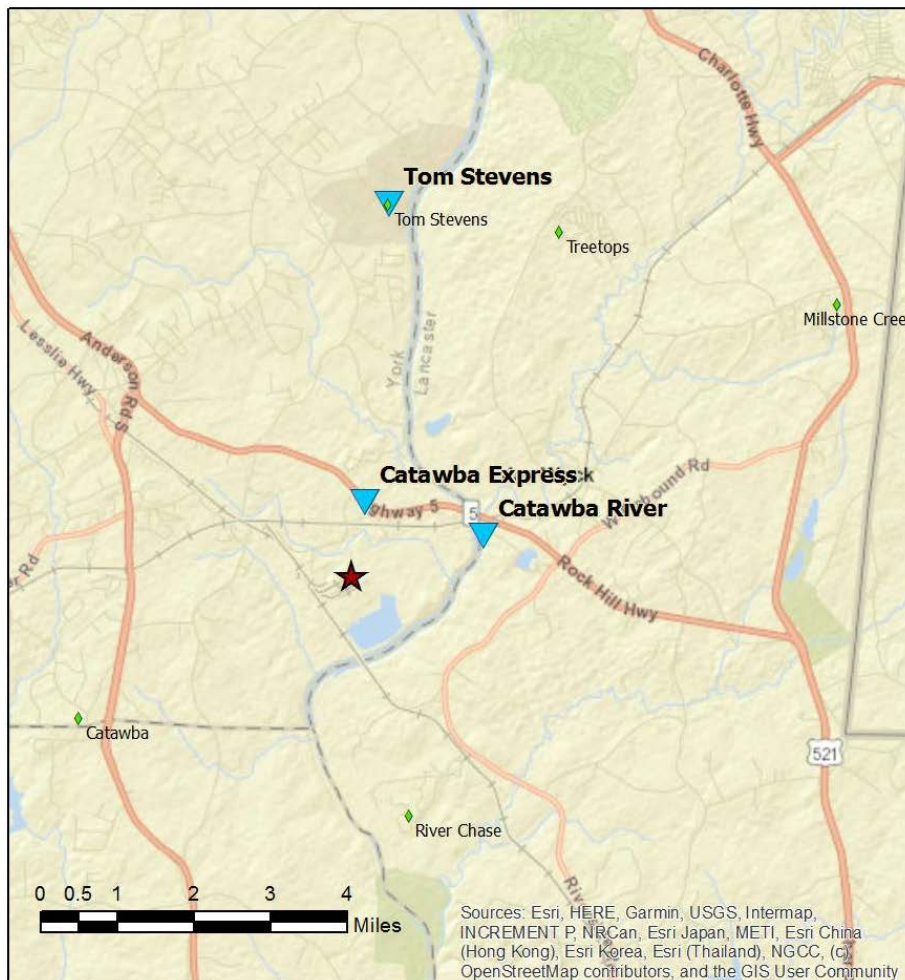
| Catawba River |                  |                       |                    |                      |                     |                |           |
|---------------|------------------|-----------------------|--------------------|----------------------|---------------------|----------------|-----------|
| Instrument    | Analyte          | ATSDR MRL Exceedance? | Number of Readings | Number of Detections | Concentration Range | Period Average | ATSDR MRL |
| SPM Flex 3    | H <sub>2</sub> S | No                    | 27556              | 6510                 | 0 - 19 ppb          | 0.9 ppb        | 70 ppb    |

| Catawba Express |                  |                       |                    |                      |                     |                |           |
|-----------------|------------------|-----------------------|--------------------|----------------------|---------------------|----------------|-----------|
| Instrument      | Analyte          | ATSDR MRL Exceedance? | Number of Readings | Number of Detections | Concentration Range | Period Average | ATSDR MRL |
| SPM Flex 2      | H <sub>2</sub> S | No                    | 2880               | 1299                 | 0 - 7 ppb           | 0.99 ppb       | 70 ppb    |

**Notes:**

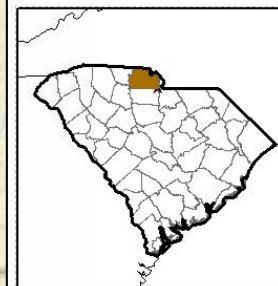
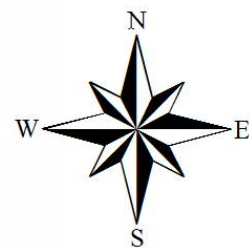
Hydrogen sulfide concentrations presented in this data summary table are converted from parts per million, the instrument readout units, to parts per billion. The SPM FLEX Minimum Detectable Limit (MDL) is 1 ppb of Hydrogen Sulfide.

- ATSDR MRL Agency for Toxic Substances and Disease Registry Minimal Risk Level - Acute Exposure (<14 days)
- H<sub>2</sub>S Hydrogen Sulfide
- hr Hour
- ppb Parts per billion
- MRL Exceedance Defines if the 24-hr TWA exceeded the MRL at any time during the period of this report
- SPM Single Point Monitor
- TWA Time Weighted Average



**Legend**

- ★ New Indy Containerboard
- ◆ NI Offsite Monitor
- ▲ DHEC Monitor



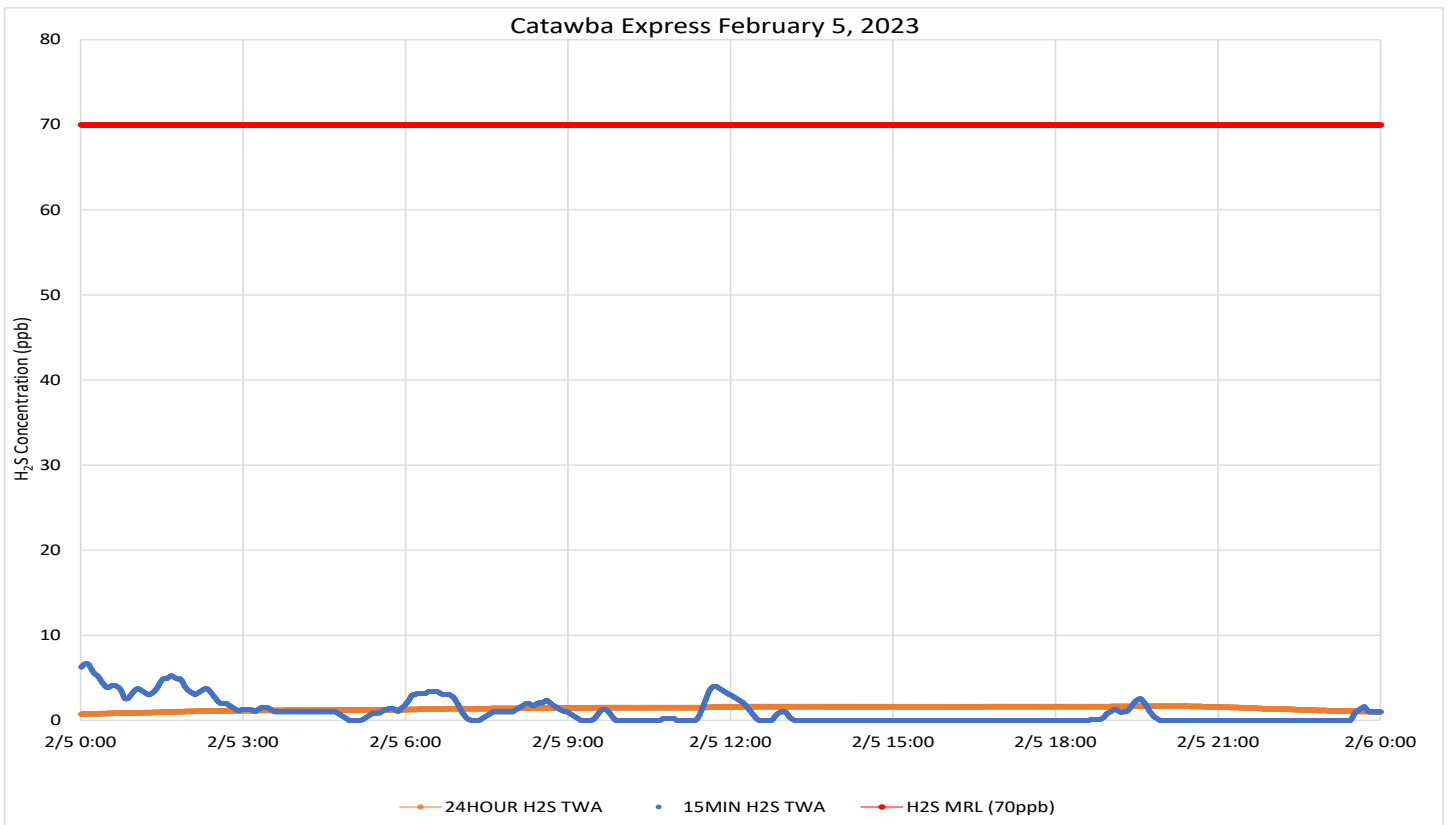
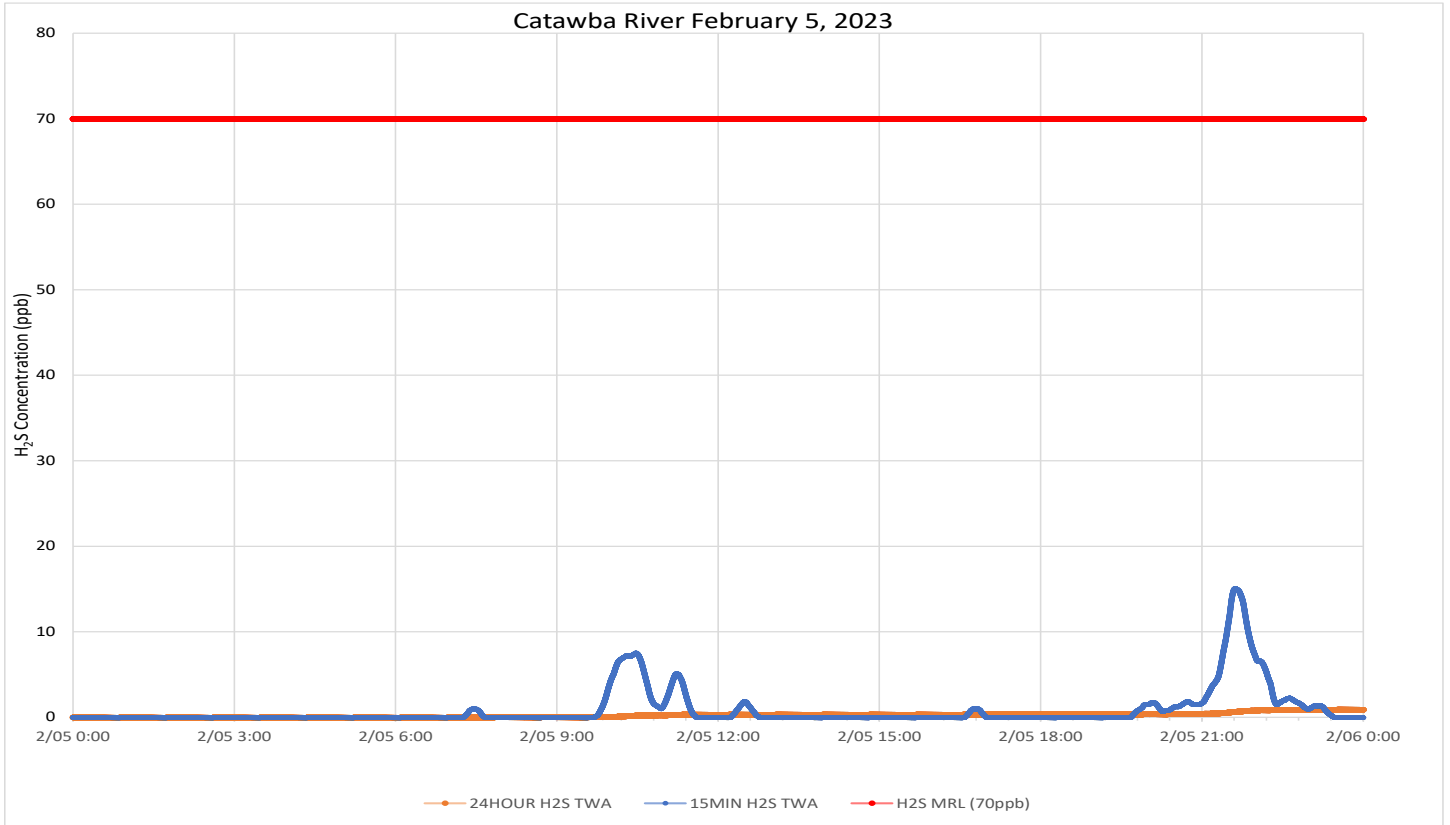
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community



# H<sub>2</sub>S in South Carolina

## Hydrogen Sulfide 15-min and 24-hr Time Weighted Average Graphs

Wind was from the south to southwest with the exception of several short calms, most significantly in the hours before dawn and for several hours around midday.



Notes: Time is Eastern Standard Time H<sub>2</sub>S – Hydrogen Sulfide MRL – Minimal Risk Level ppb – Parts per billion Wind data for KUZA

# Air Monitoring Summary Tables

This table summarizes monitoring data collected using DHEC monitors and EPA's Viper wireless remote monitoring system.

**Project Name:** H<sub>2</sub>S in South Carolina



**From:** 2/6/23  
12:00 AM

**To:** 2/6/23  
11:59 PM

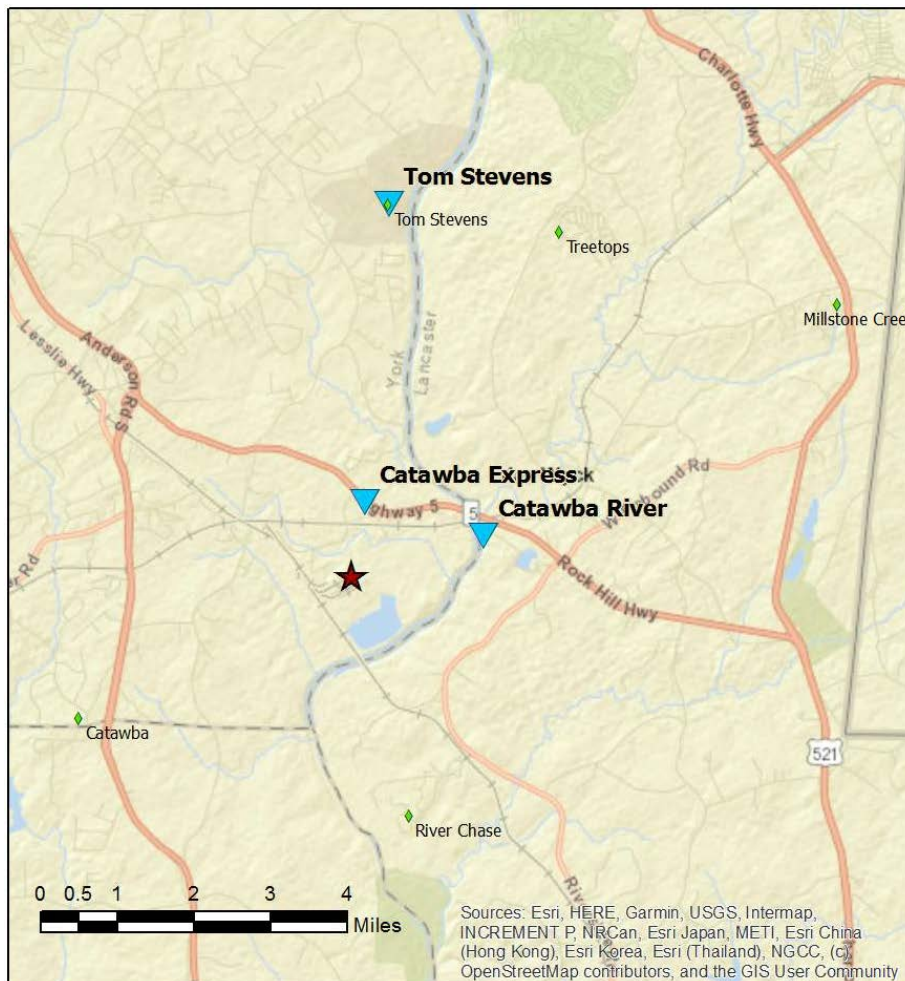
| Catawba River |                  |                       |                    |                      |                     |                |           |
|---------------|------------------|-----------------------|--------------------|----------------------|---------------------|----------------|-----------|
| Instrument    | Analyte          | ATSDR MRL Exceedance? | Number of Readings | Number of Detections | Concentration Range | Period Average | ATSDR MRL |
| SPM Flex 3    | H <sub>2</sub> S | No                    | 27538              | 7378                 | 0 - 5 ppb           | 0.57 ppb       | 70 ppb    |

| Catawba Express |                  |                       |                    |                      |                     |                |           |
|-----------------|------------------|-----------------------|--------------------|----------------------|---------------------|----------------|-----------|
| Instrument      | Analyte          | ATSDR MRL Exceedance? | Number of Readings | Number of Detections | Concentration Range | Period Average | ATSDR MRL |
| SPM Flex 2      | H <sub>2</sub> S | No                    | 2880               | 1024                 | 0 - 12 ppb          | 0.93 ppb       | 70 ppb    |

**Notes:**

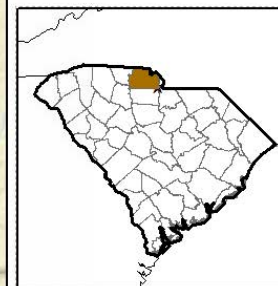
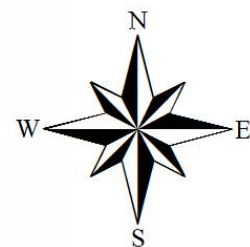
Hydrogen sulfide concentrations presented in this data summary table are converted from parts per million, the instrument readout units, to parts per billion. The SPM FLEX Minimum Detectable Limit (MDL) is 1 ppb of Hydrogen Sulfide.

- ATSDR MRL Agency for Toxic Substances and Disease Registry Minimal Risk Level - Acute Exposure (<14 days)
- H<sub>2</sub>S Hydrogen Sulfide
- hr Hour
- ppb Parts per billion
- MRL Exceedance Defines if the 24-hr TWA exceeded the MRL at any time during the period of this report
- SPM Single Point Monitor
- TWA Time Weighted Average



**Legend**

- ★ New Indy Containerboard
- ◆ NI Offsite Monitor
- ▲ DHEC Monitor

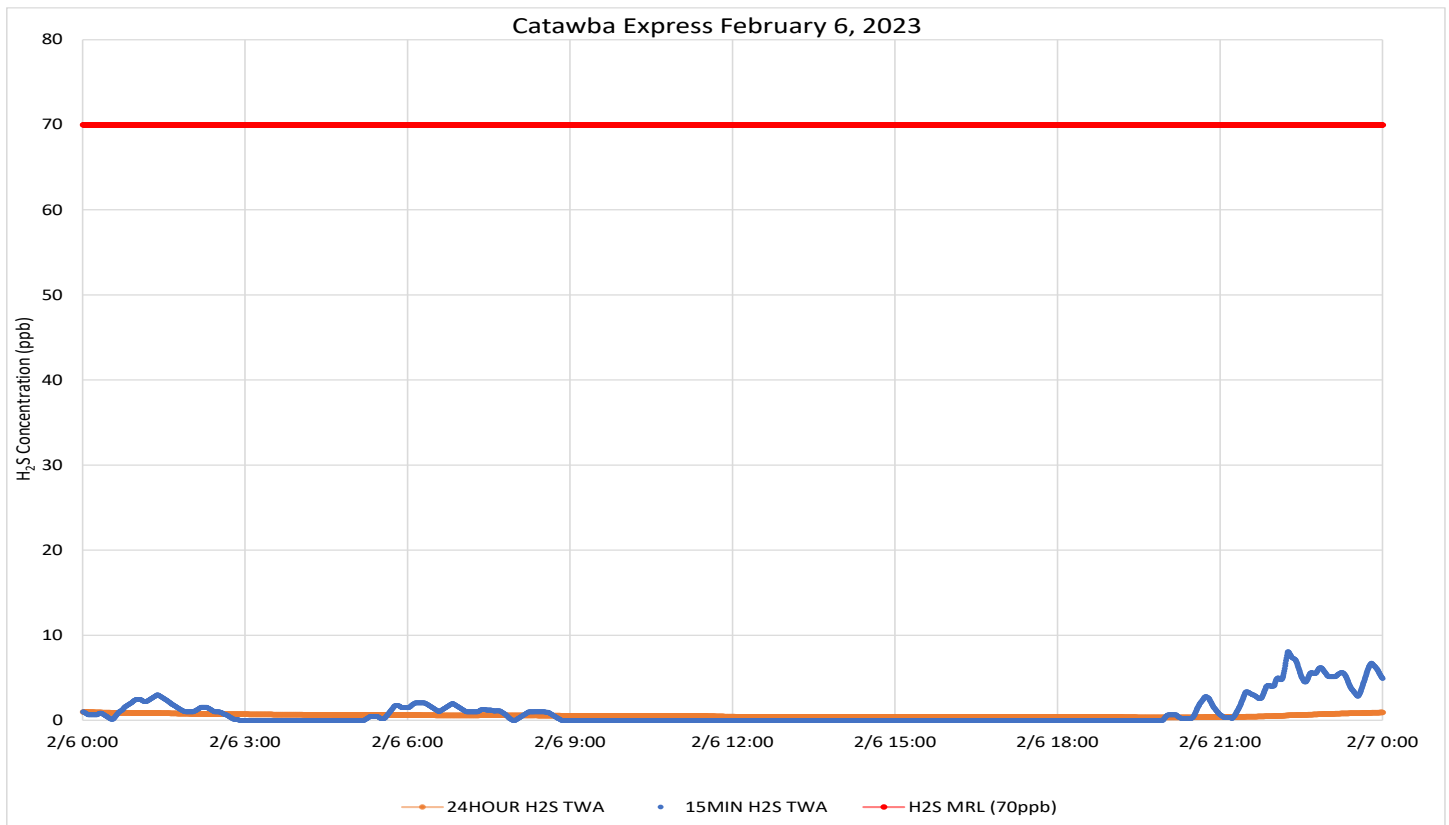
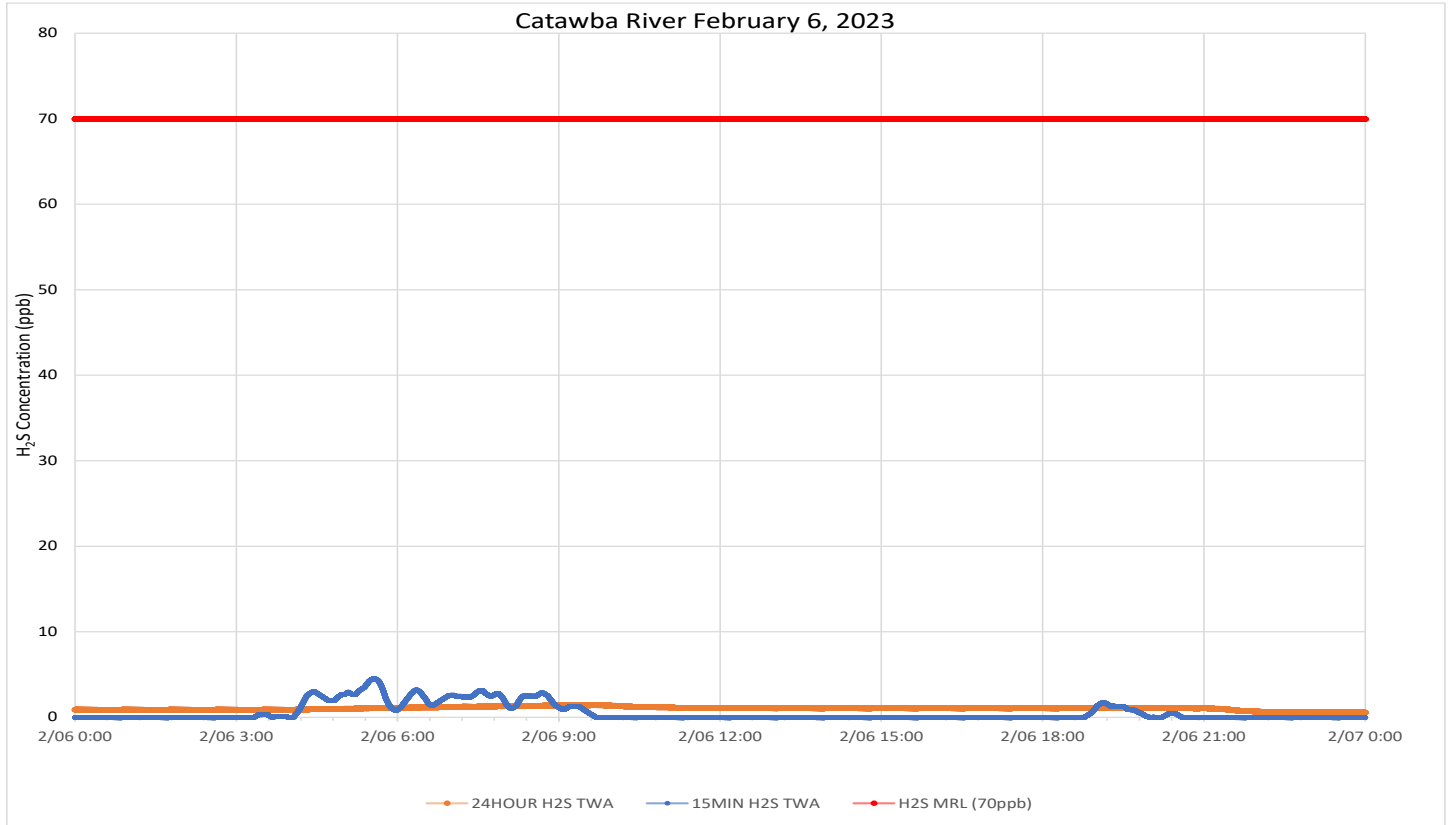


Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community

# H<sub>2</sub>S in South Carolina

## Hydrogen Sulfide 15-min and 24-hr Time Weighted Average Graphs

Winds shifted from the southwest to coming from the north in the early morning hours. It continued coming from the north to northwest until early evening, when wind again shifted to coming from the southwest.



Notes: Time is Eastern Standard Time H<sub>2</sub>S – Hydrogen Sulfide MRL – Minimal Risk Level ppb – Parts per billion Wind data for KUZA

# Air Monitoring Summary Tables

This table summarizes monitoring data collected using DHEC monitors and EPA's Viper wireless remote monitoring system.

**Project Name:** H<sub>2</sub>S in South Carolina



**From:** 2/7/23  
12:00 AM

**To:** 2/7/23  
11:59 PM

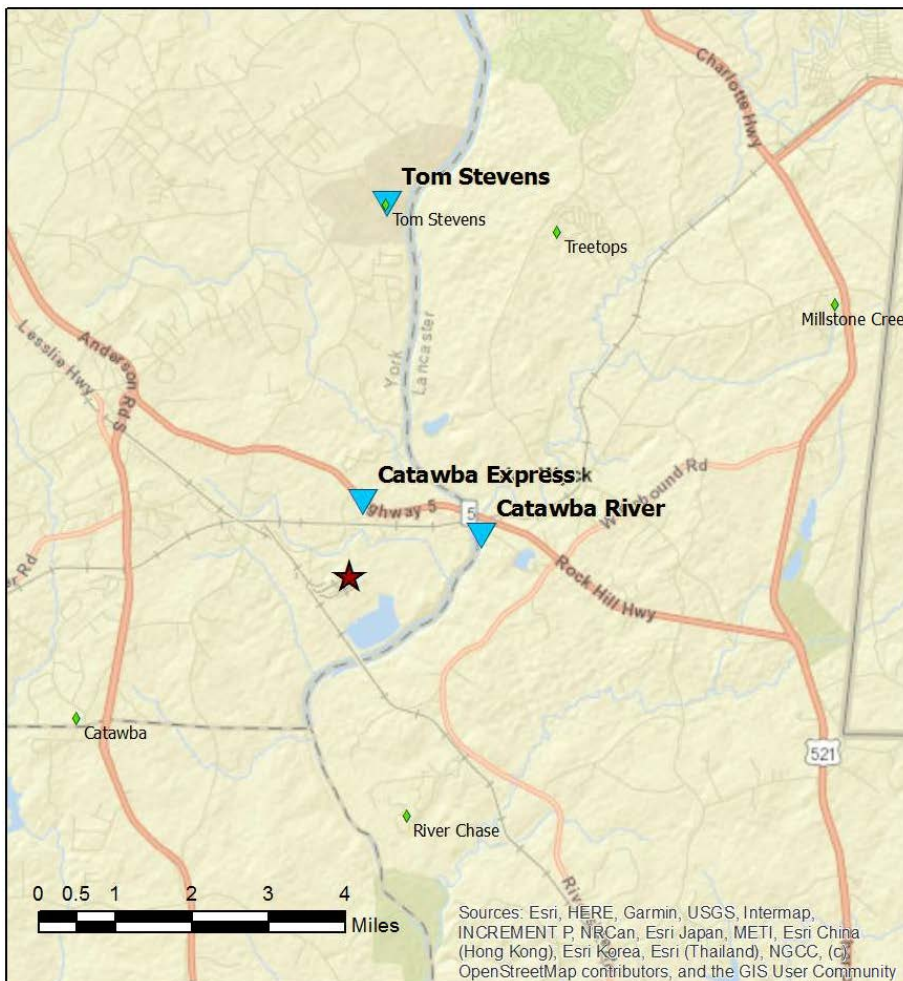
| Catawba River |                  |                       |                    |                      |                     |                |           |
|---------------|------------------|-----------------------|--------------------|----------------------|---------------------|----------------|-----------|
| Instrument    | Analyte          | ATSDR MRL Exceedance? | Number of Readings | Number of Detections | Concentration Range | Period Average | ATSDR MRL |
| SPM Flex 3    | H <sub>2</sub> S | No                    | 27557              | 2465                 | 0 - 11 ppb          | 0.26 ppb       | 70 ppb    |

| Catawba Express |                  |                       |                    |                      |                     |                |           |
|-----------------|------------------|-----------------------|--------------------|----------------------|---------------------|----------------|-----------|
| Instrument      | Analyte          | ATSDR MRL Exceedance? | Number of Readings | Number of Detections | Concentration Range | Period Average | ATSDR MRL |
| SPM Flex 2      | H <sub>2</sub> S | No                    | 3729               | 1428                 | 0 - 19 ppb          | 2.31 ppb       | 70 ppb    |

**Notes:**

Hydrogen sulfide concentrations presented in this data summary table are converted from parts per million, the instrument readout units, to parts per billion. The SPM FLEX Minimum Detectable Limit (MDL) is 1 ppb of Hydrogen Sulfide.

- ATSDR MRL Agency for Toxic Substances and Disease Registry Minimal Risk Level - Acute Exposure (<14 days)
- H<sub>2</sub>S Hydrogen Sulfide
- hr Hour
- ppb Parts per billion
- MRL Exceedance Defines if the 24-hr TWA exceeded the MRL at any time during the period of this report
- SPM Single Point Monitor
- TWA Time Weighted Average



**Legend**

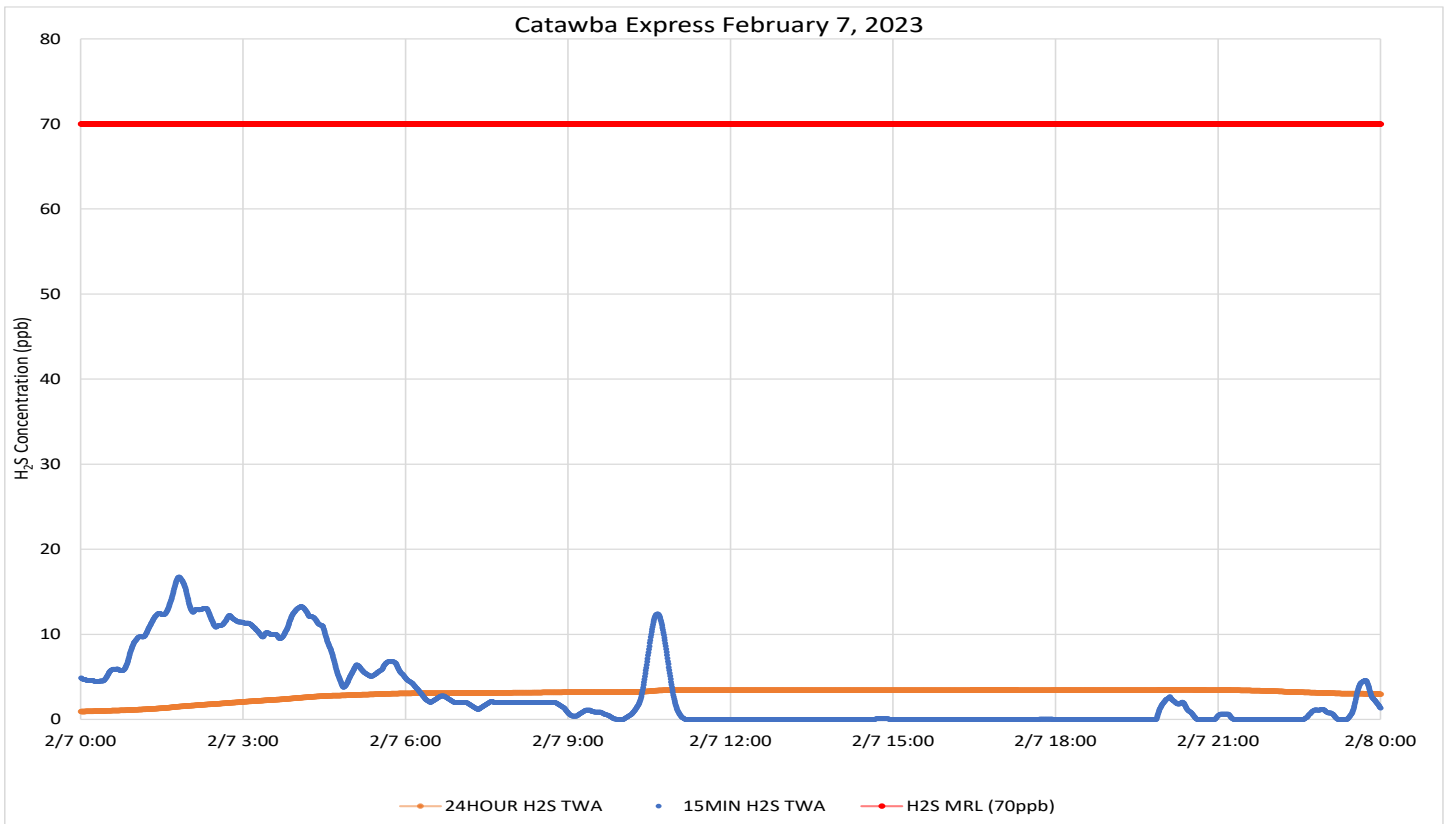
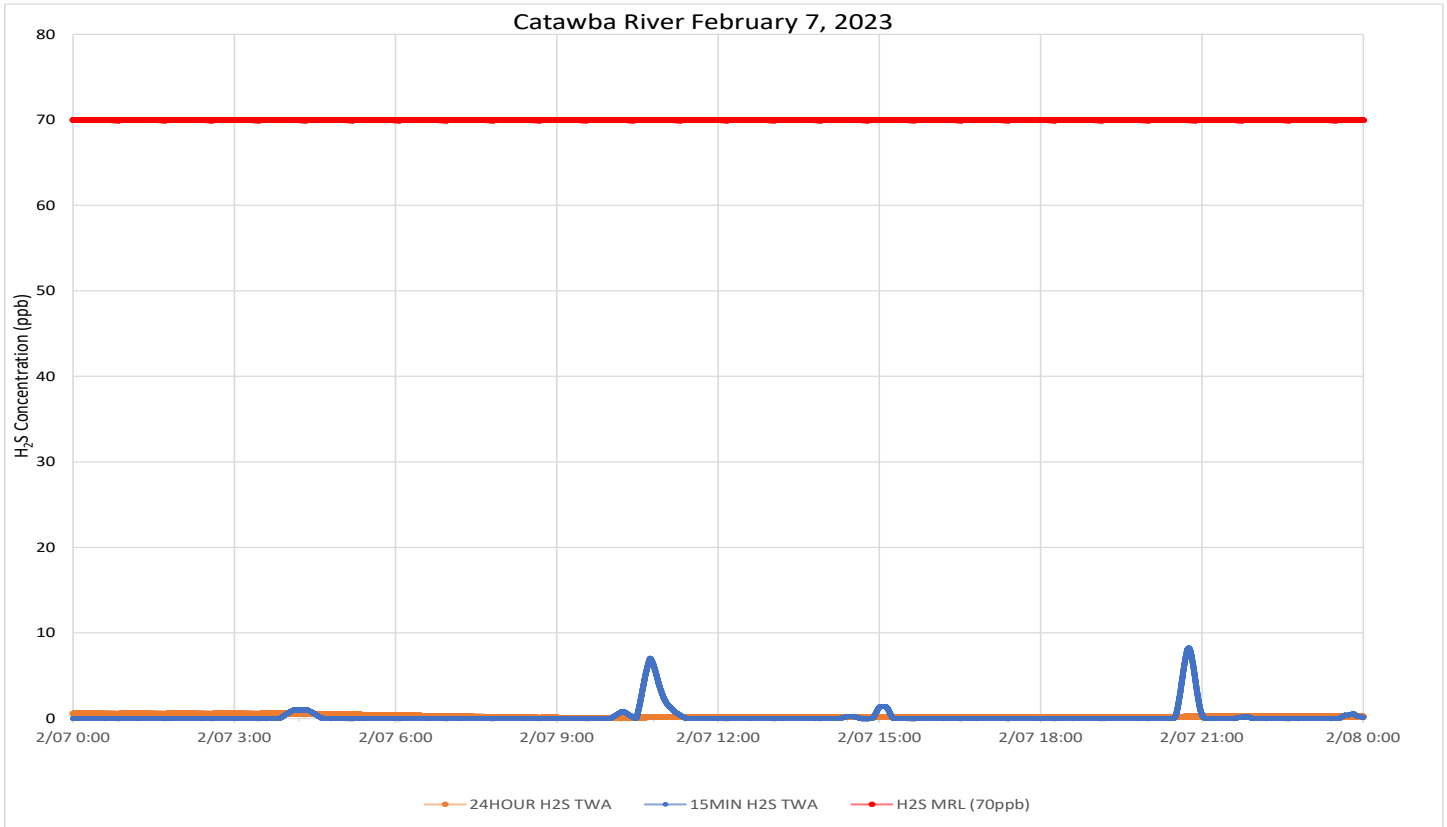
- ★ New Indy Containerboard
- ◆ NI Offsite Monitor
- ▲ DHEC Monitor

Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community

# H<sub>2</sub>S in South Carolina

## Hydrogen Sulfide 15-min and 24-hr Time Weighted Average Graphs

Winds were calm to midday. In the afternoon into evening, winds were from the south southwest to southwest.



Notes: Time is Eastern Standard Time H<sub>2</sub>S – Hydrogen Sulfide MRL – Minimal Risk Level ppb – Parts per billion Wind data for KUZA



# Air Monitoring Summary Tables

This table summarizes monitoring data collected using DHEC monitors and EPA's Viper wireless remote monitoring system.

**Project Name:** H<sub>2</sub>S in South Carolina



**From:** 2/8/23  
12:00 AM

**To:** 2/8/23  
11:59 PM

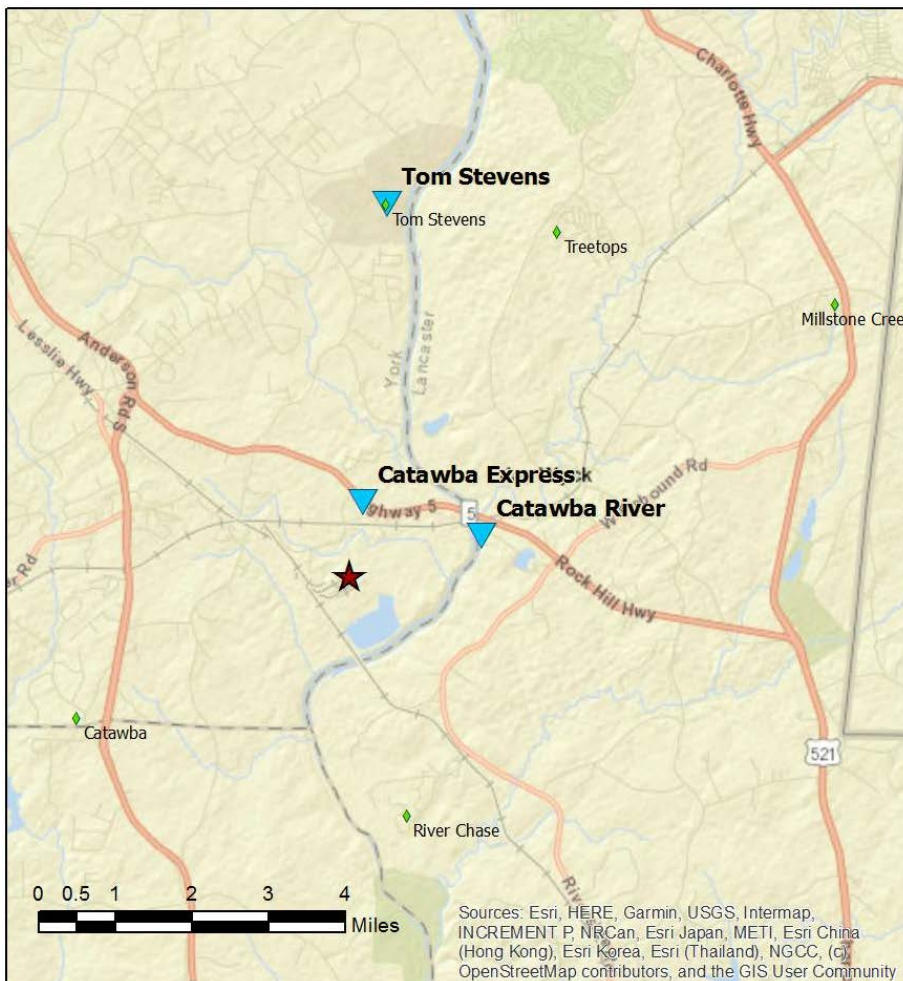
| Catawba River |                  |                       |                    |                      |                     |                |           |
|---------------|------------------|-----------------------|--------------------|----------------------|---------------------|----------------|-----------|
| Instrument    | Analyte          | ATSDR MRL Exceedance? | Number of Readings | Number of Detections | Concentration Range | Period Average | ATSDR MRL |
| SPM Flex 3    | H <sub>2</sub> S | No                    | 27541              | 8830                 | 0 - 4 ppb           | 0.51 ppb       | 70 ppb    |

| Catawba Express |                  |                       |                    |                      |                     |                |           |
|-----------------|------------------|-----------------------|--------------------|----------------------|---------------------|----------------|-----------|
| Instrument      | Analyte          | ATSDR MRL Exceedance? | Number of Readings | Number of Detections | Concentration Range | Period Average | ATSDR MRL |
| SPM Flex 2      | H <sub>2</sub> S | No                    | 2879               | 1599                 | 0 - 30 ppb          | 4.23 ppb       | 70 ppb    |

**Notes:**

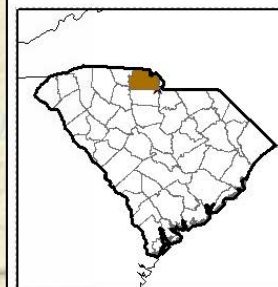
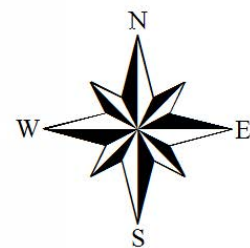
Hydrogen sulfide concentrations presented in this data summary table are converted from parts per million, the instrument readout units, to parts per billion. The SPM FLEX Minimum Detectable Limit (MDL) is 1 ppb of Hydrogen Sulfide.

- ATSDR MRL Agency for Toxic Substances and Disease Registry Minimal Risk Level - Acute Exposure (<14 days)
- H<sub>2</sub>S Hydrogen Sulfide
- hr Hour
- ppb Parts per billion
- MRL Exceedance Defines if the 24-hr TWA exceeded the MRL at any time during the period of this report
- SPM Single Point Monitor
- TWA Time Weighted Average



**Legend**

- ★ New Indy Containerboard
- ◆ NI Offsite Monitor
- ▲ DHEC Monitor

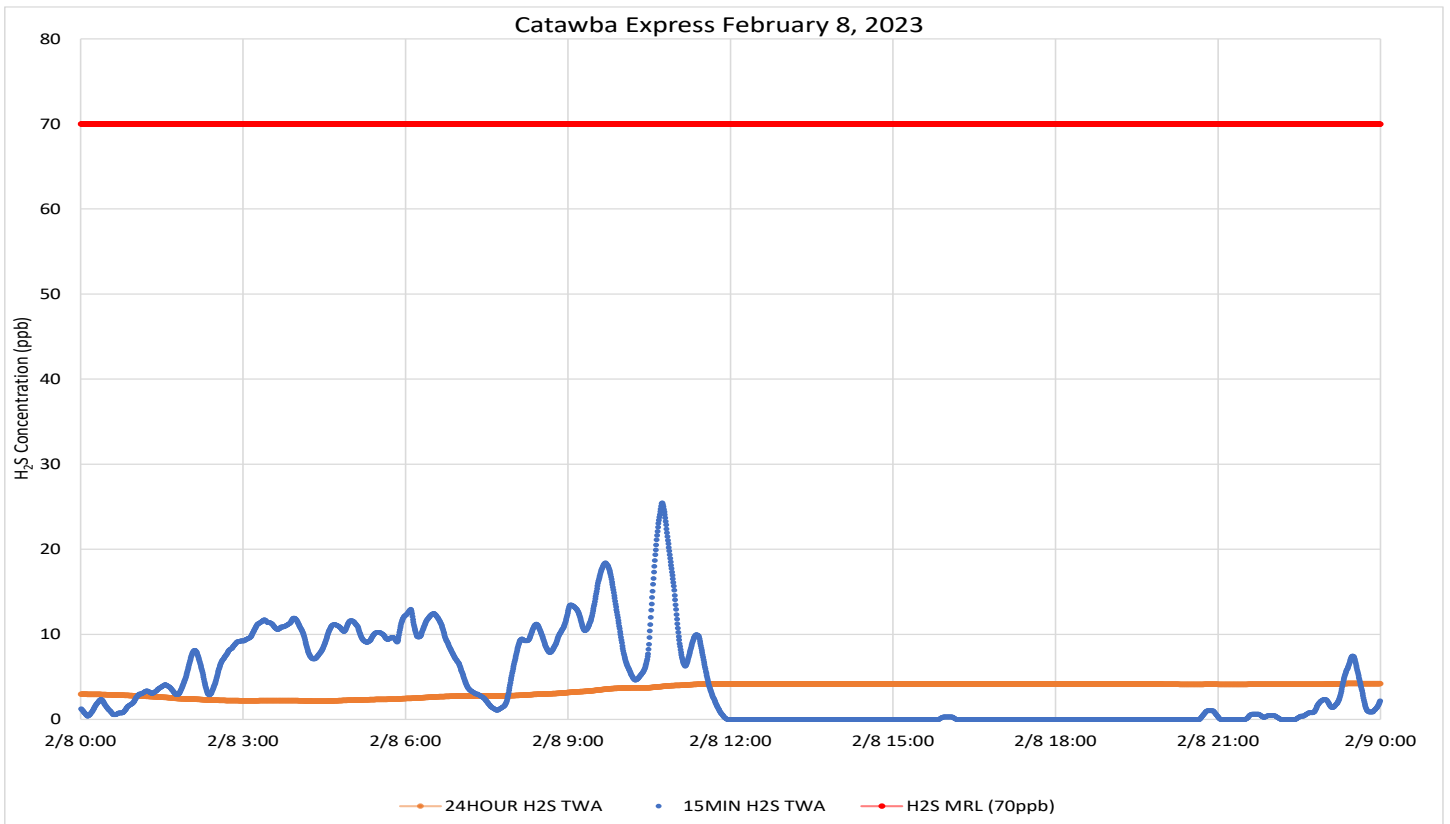
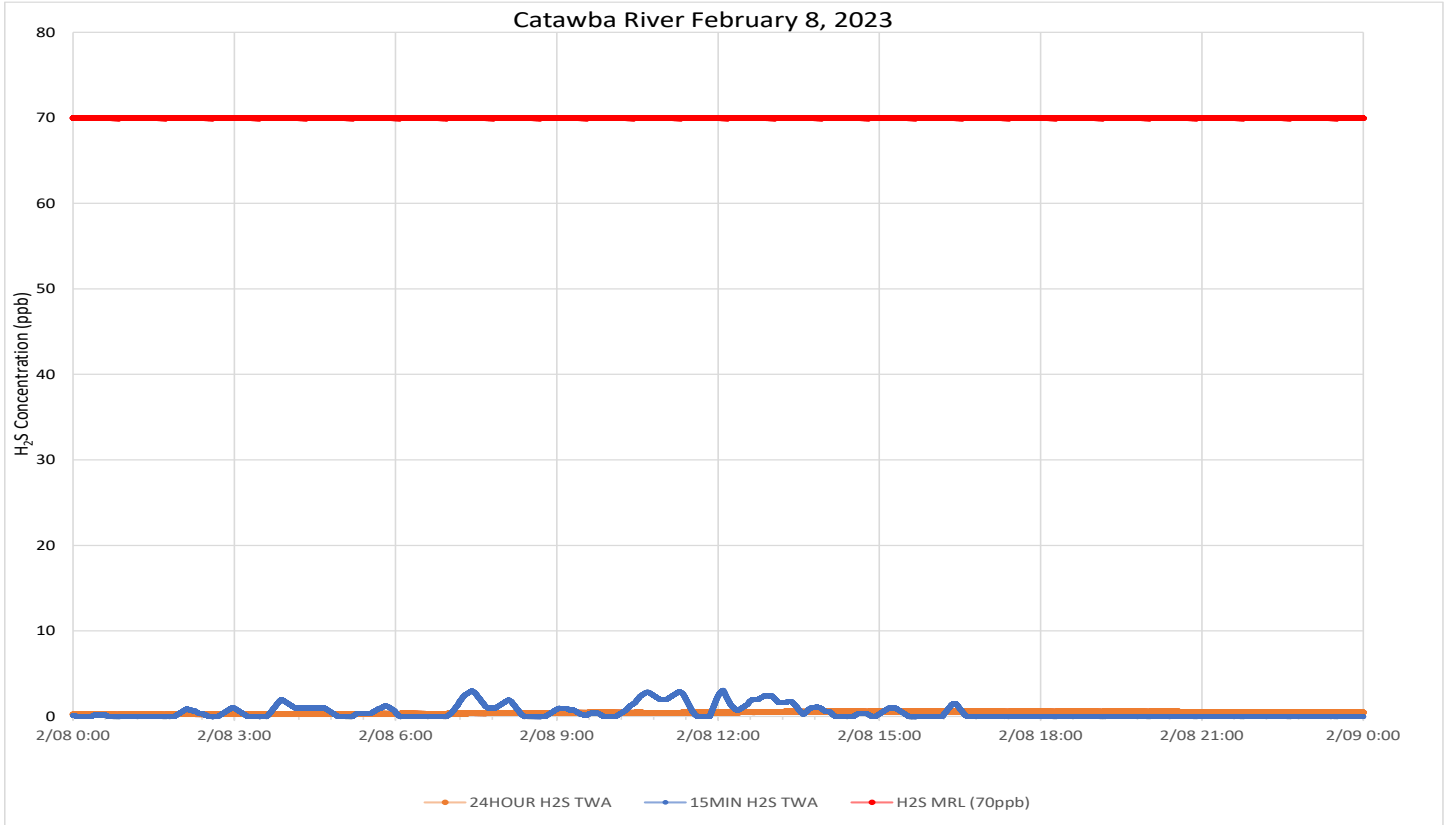


Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community

# H<sub>2</sub>S in South Carolina

## Hydrogen Sulfide 15-min and 24-hr Time Weighted Average Graphs

Winds were calm for much of the morning and evening. When detected, winds were generally from the south to southwest.



Notes: Time is Eastern Standard Time H<sub>2</sub>S – Hydrogen Sulfide MRL – Minimal Risk Level ppb – Parts per billion Wind data for KUZA

# Air Monitoring Summary Tables

This table summarizes monitoring data collected using DHEC monitors and EPA's Viper wireless remote monitoring system.

**Project Name:** H<sub>2</sub>S in South Carolina



**From:** 2/9/23  
12:00 AM

**To:** 2/9/23  
11:59 PM

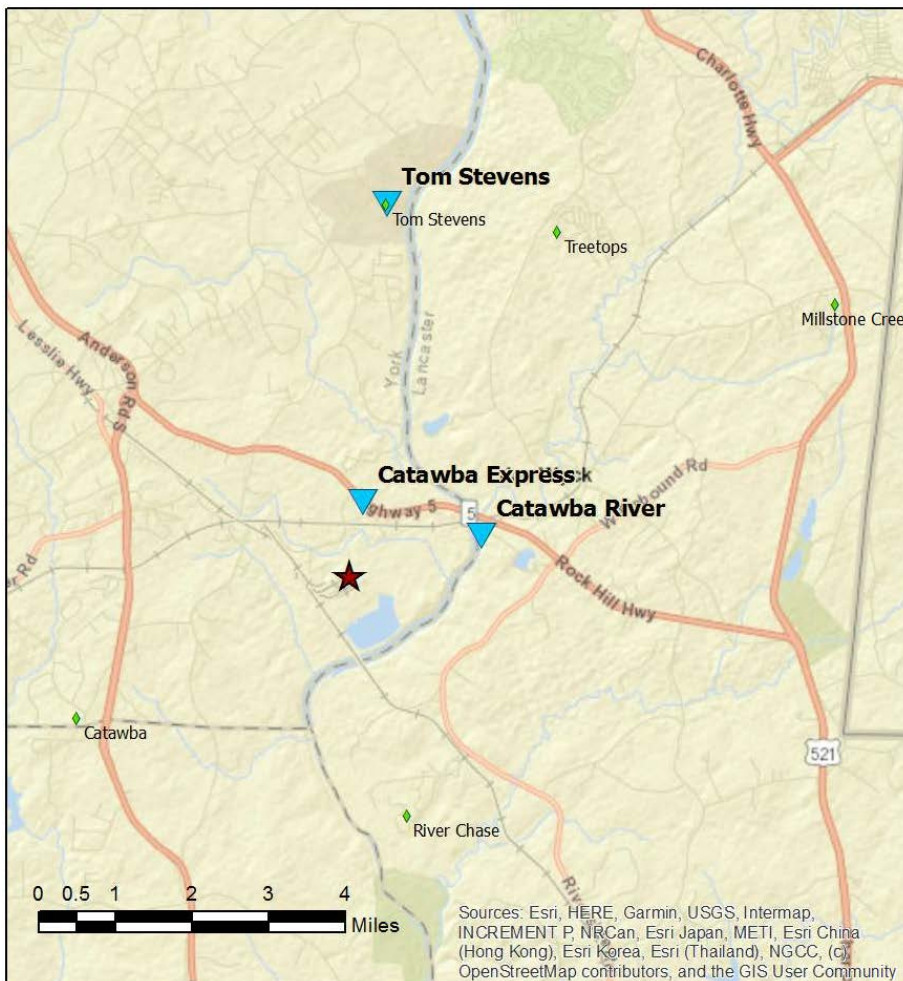
| Catawba River |                  |                       |                    |                      |                     |                |           |
|---------------|------------------|-----------------------|--------------------|----------------------|---------------------|----------------|-----------|
| Instrument    | Analyte          | ATSDR MRL Exceedance? | Number of Readings | Number of Detections | Concentration Range | Period Average | ATSDR MRL |
| SPM Flex 3    | H <sub>2</sub> S | No                    | 27567              | 8147                 | 0 - 24 ppb          | 1.23 ppb       | 70 ppb    |

| Catawba Express |                  |                       |                    |                      |                     |                |           |
|-----------------|------------------|-----------------------|--------------------|----------------------|---------------------|----------------|-----------|
| Instrument      | Analyte          | ATSDR MRL Exceedance? | Number of Readings | Number of Detections | Concentration Range | Period Average | ATSDR MRL |
| SPM Flex 2      | H <sub>2</sub> S | No                    | 3471               | 1940                 | 0 - 15 ppb          | 2.09 ppb       | 70 ppb    |

**Notes:**

Hydrogen sulfide concentrations presented in this data summary table are converted from parts per million, the instrument readout units, to parts per billion. The SPM FLEX Minimum Detectable Limit (MDL) is 1 ppb of Hydrogen Sulfide.

- ATSDR MRL Agency for Toxic Substances and Disease Registry Minimal Risk Level - Acute Exposure (<14 days)
- H<sub>2</sub>S Hydrogen Sulfide
- hr Hour
- ppb Parts per billion
- MRL Exceedance Defines if the 24-hr TWA exceeded the MRL at any time during the period of this report
- SPM Single Point Monitor
- TWA Time Weighted Average



**Legend**

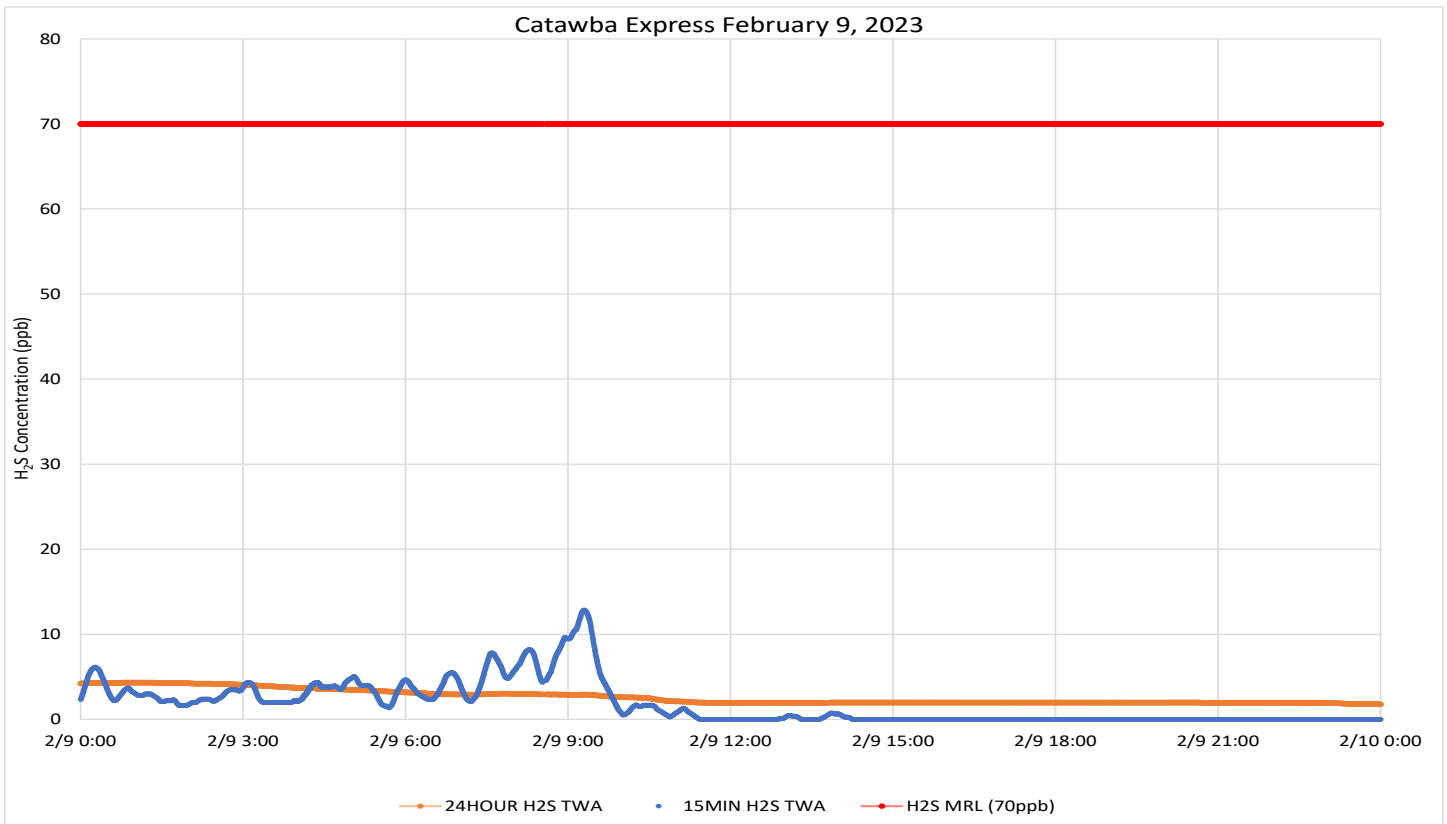
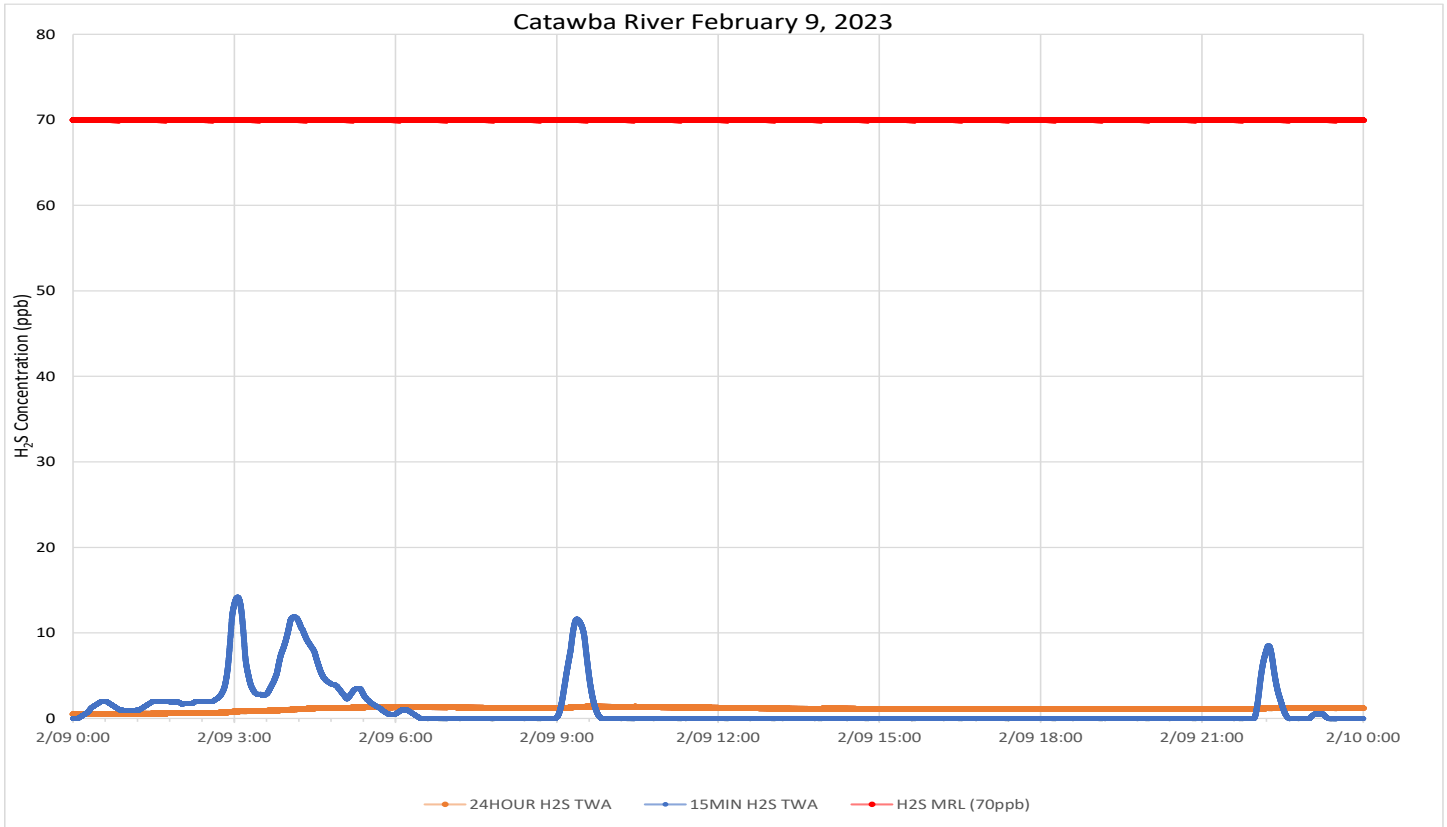
- ★ New Indy Containerboard
- ◆ NI Offsite Monitor
- ▲ DHEC Monitor

Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community

# H<sub>2</sub>S in South Carolina

## Hydrogen Sulfide 15-min and 24-hr Time Weighted Average Graphs

Winds began the period generally from the south and through the day shifted to more from the southwest.



Notes: Time is Eastern Standard Time H<sub>2</sub>S – Hydrogen Sulfide MRL – Minimal Risk Level ppb – Parts per billion Wind data for KUZA



# Air Monitoring Summary Tables

This table summarizes monitoring data collected using DHEC monitors and EPA's Viper wireless remote monitoring system.



**Project Name:** H<sub>2</sub>S in South Carolina

**From:** 2/10/23  
12:00 AM

**To:** 2/10/23  
11:59 PM

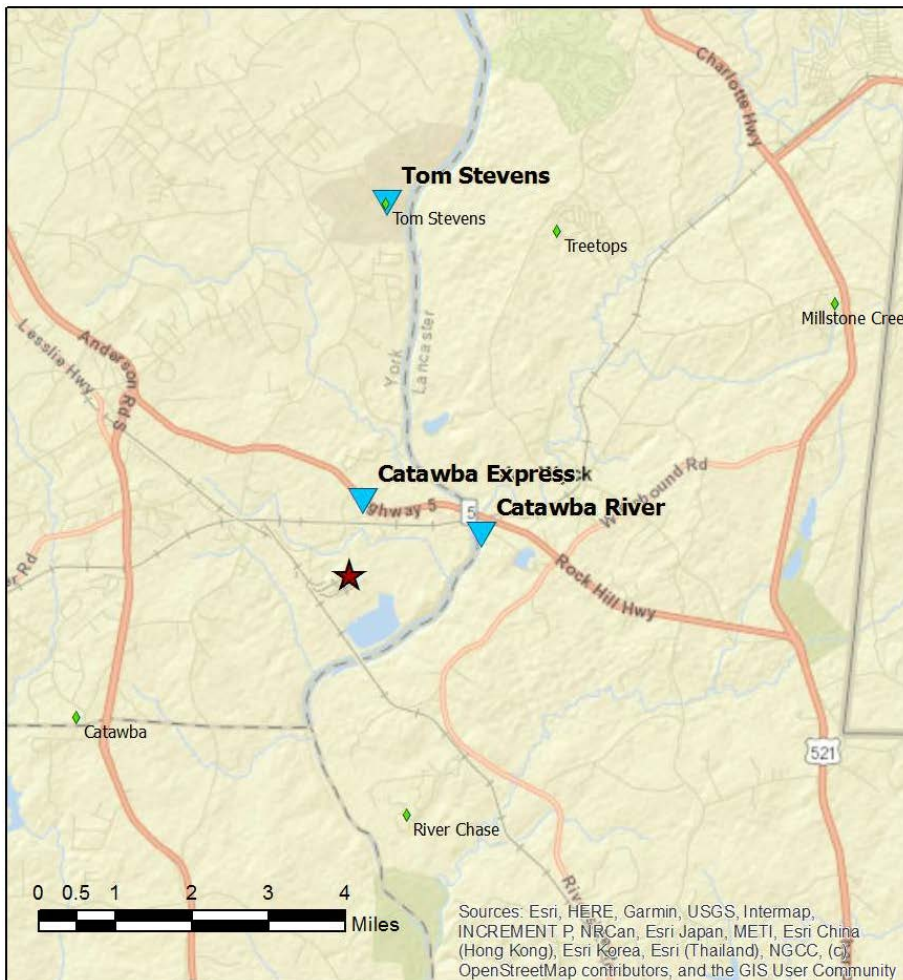
| Catawba River |                  |                       |                    |                      |                     |                |           |
|---------------|------------------|-----------------------|--------------------|----------------------|---------------------|----------------|-----------|
| Instrument    | Analyte          | ATSDR MRL Exceedance? | Number of Readings | Number of Detections | Concentration Range | Period Average | ATSDR MRL |
| SPM Flex 3    | H <sub>2</sub> S | No                    | 17587              | 5885                 | 0 - 18 ppb          | 1.09 ppb       | 70 ppb    |

| Catawba Express |                  |                       |                    |                      |                     |                |           |
|-----------------|------------------|-----------------------|--------------------|----------------------|---------------------|----------------|-----------|
| Instrument      | Analyte          | ATSDR MRL Exceedance? | Number of Readings | Number of Detections | Concentration Range | Period Average | ATSDR MRL |
| SPM Flex 2      | H <sub>2</sub> S | No                    | 2879               | 25                   | 0 - 2 ppb           | 0.01 ppb       | 70 ppb    |

**Notes:**

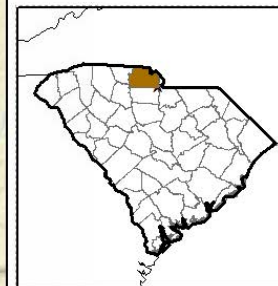
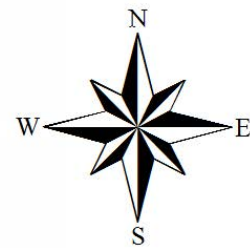
Hydrogen sulfide concentrations presented in this data summary table are converted from parts per million, the instrument readout units, to parts per billion. The SPM FLEX Minimum Detectable Limit (MDL) is 1 ppb of Hydrogen Sulfide.

- ATSDR MRL Agency for Toxic Substances and Disease Registry Minimal Risk Level - Acute Exposure (<14 days)
- H<sub>2</sub>S Hydrogen Sulfide
- hr Hour
- ppb Parts per billion
- MRL Exceedance Defines if the 24-hr TWA exceeded the MRL at any time during the period of this report
- SPM Single Point Monitor
- TWA Time Weighted Average



**Legend**

- ★ New Indy Containerboard
- ◆ NI Offsite Monitor
- ▲ DHEC Monitor



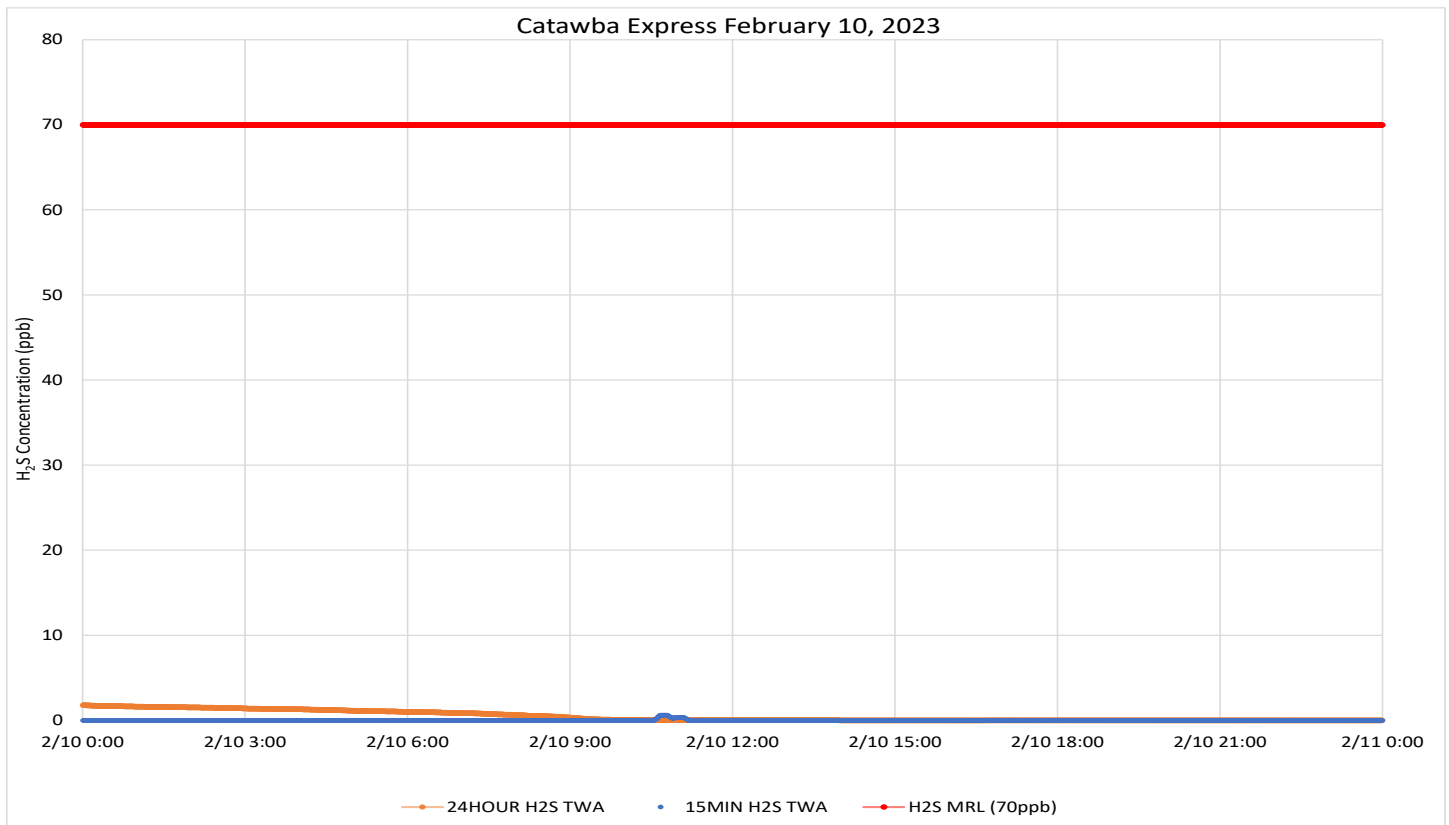
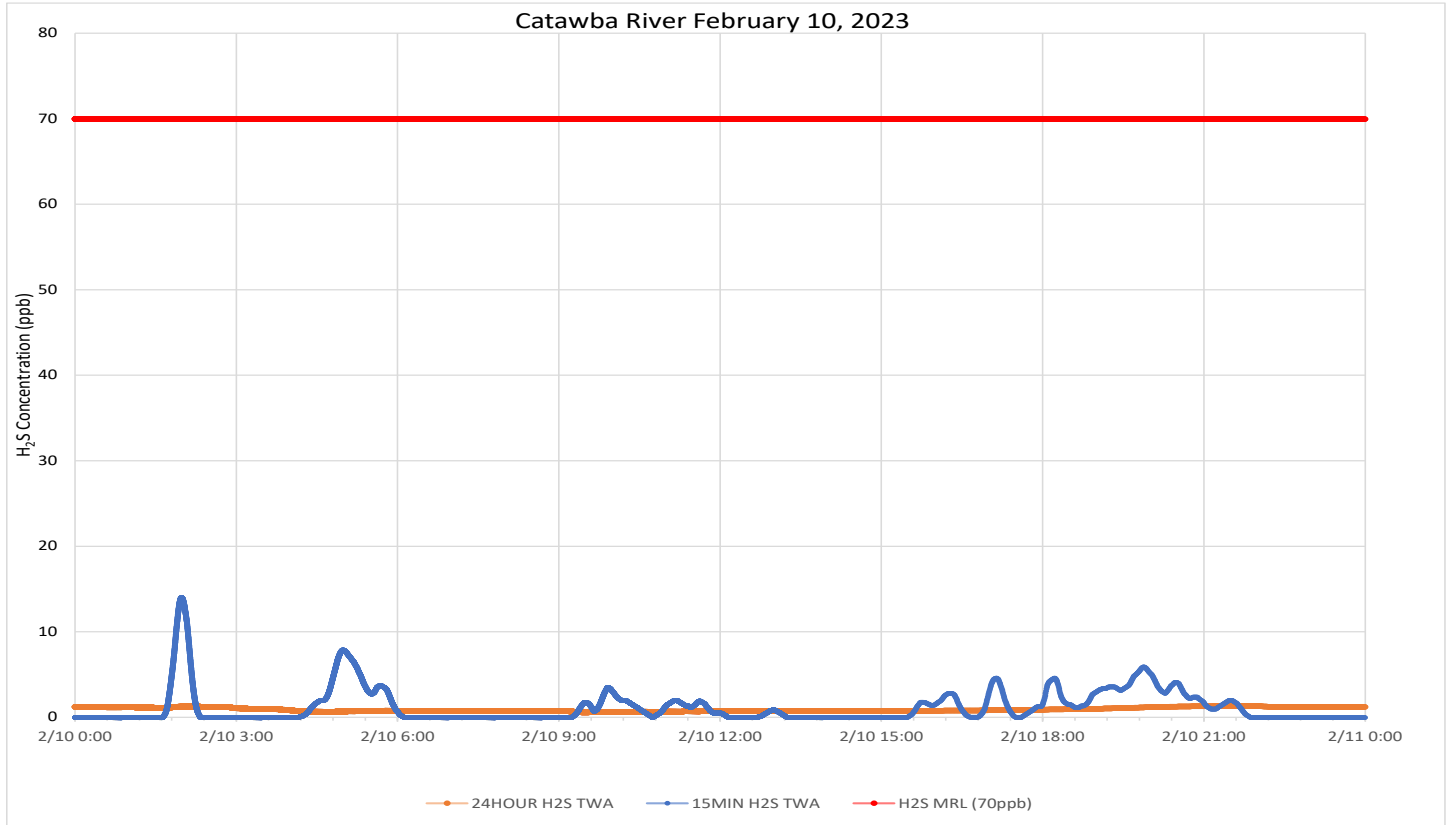
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community



# H<sub>2</sub>S in South Carolina

## Hydrogen Sulfide 15-min and 24-hr Time Weighted Average Graphs

Winds were from the south southwest early, shifting to from the west southwest before dawn, varying between the south and west for most of the remainder of the period, but ending the late evening coming from the north to northeast.



Notes: Time is Eastern Standard Time H<sub>2</sub>S – Hydrogen Sulfide MRL – Minimal Risk Level ppb – Parts per billion Wind data for KUZA

# Air Monitoring Summary Tables

This table summarizes monitoring data collected using DHEC monitors and EPA's Viper wireless remote monitoring system.



**Project Name:** H<sub>2</sub>S in South Carolina

**From:** 2/11/23  
12:00 AM

**To:** 2/11/23  
11:59 PM

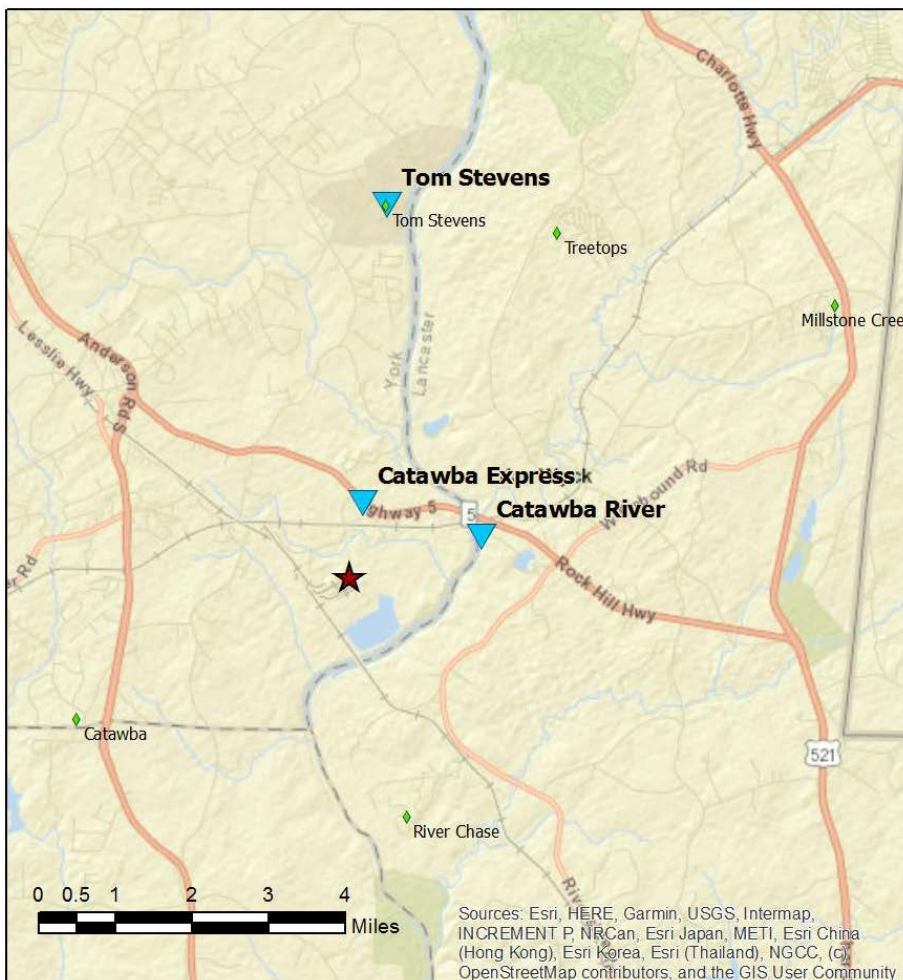
| Catawba River |                  |                       |                    |                      |                     |                |           |
|---------------|------------------|-----------------------|--------------------|----------------------|---------------------|----------------|-----------|
| Instrument    | Analyte          | ATSDR MRL Exceedance? | Number of Readings | Number of Detections | Concentration Range | Period Average | ATSDR MRL |
| SPM Flex 3    | H <sub>2</sub> S | No                    | 2880               | 0                    | 0 - 0 ppb           | 0 ppb          | 70 ppb    |

| Catawba Express |                  |                       |                    |                      |                     |                |           |
|-----------------|------------------|-----------------------|--------------------|----------------------|---------------------|----------------|-----------|
| Instrument      | Analyte          | ATSDR MRL Exceedance? | Number of Readings | Number of Detections | Concentration Range | Period Average | ATSDR MRL |
| SPM Flex 2      | H <sub>2</sub> S | No                    | 2881               | 0                    | 0 - 0 ppb           | 0 ppb          | 70 ppb    |

**Notes:**

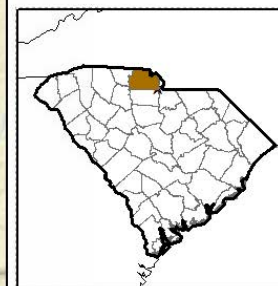
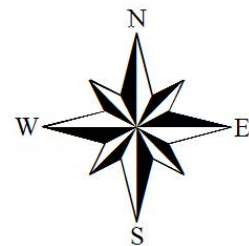
Hydrogen sulfide concentrations presented in this data summary table are converted from parts per million, the instrument readout units, to parts per billion. The SPM FLEX Minimum Detectable Limit (MDL) is 1 ppb of Hydrogen Sulfide.

- ATSDR MRL Agency for Toxic Substances and Disease Registry Minimal Risk Level - Acute Exposure (<14 days)
- H<sub>2</sub>S Hydrogen Sulfide
- hr Hour
- ppb Parts per billion
- MRL Exceedance Defines if the 24-hr TWA exceeded the MRL at any time during the period of this report
- SPM Single Point Monitor
- TWA Time Weighted Average



**Legend**

- ★ New Indy Containerboard
- ◆ NI Offsite Monitor
- ▲ DHEC Monitor

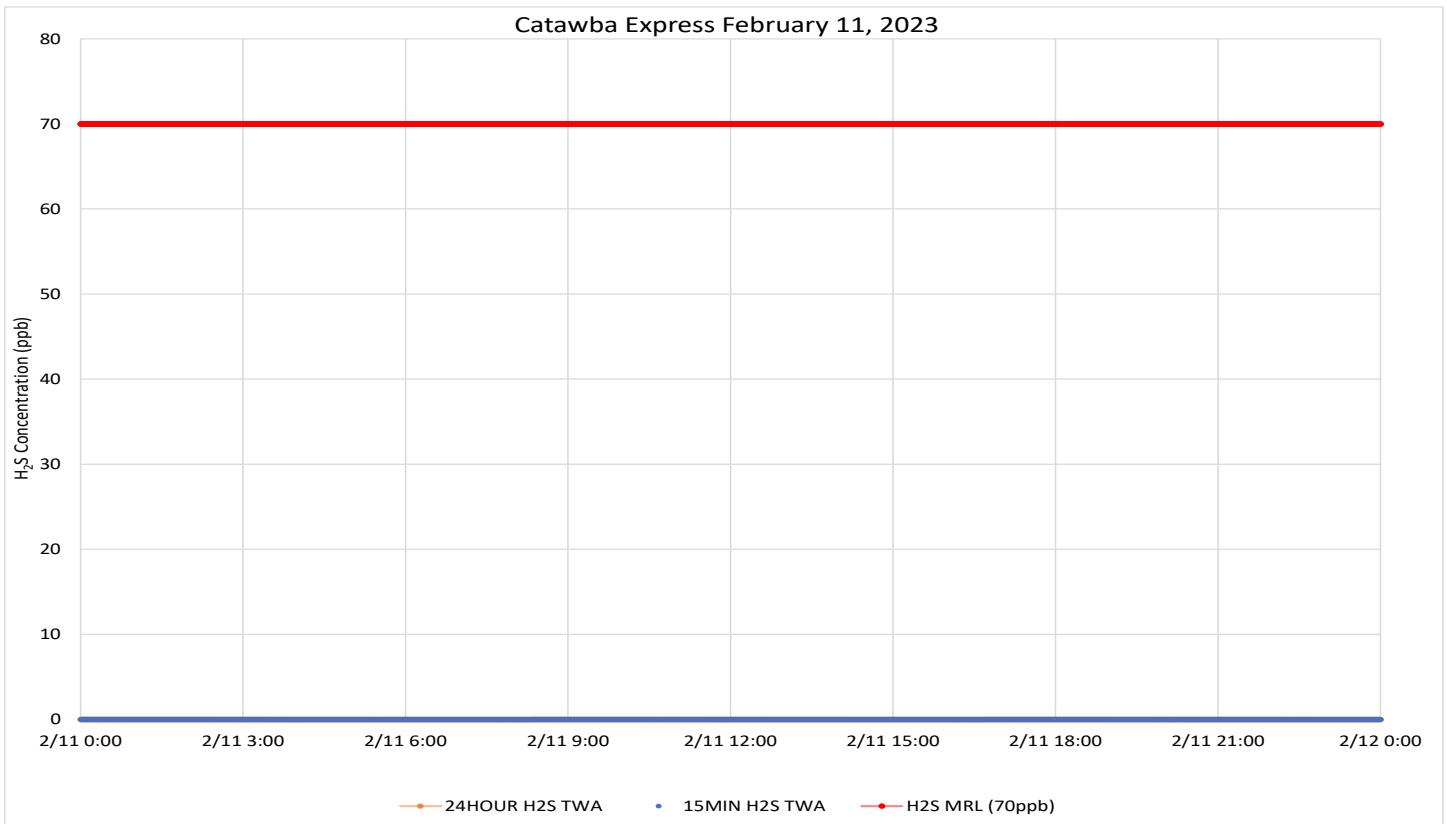
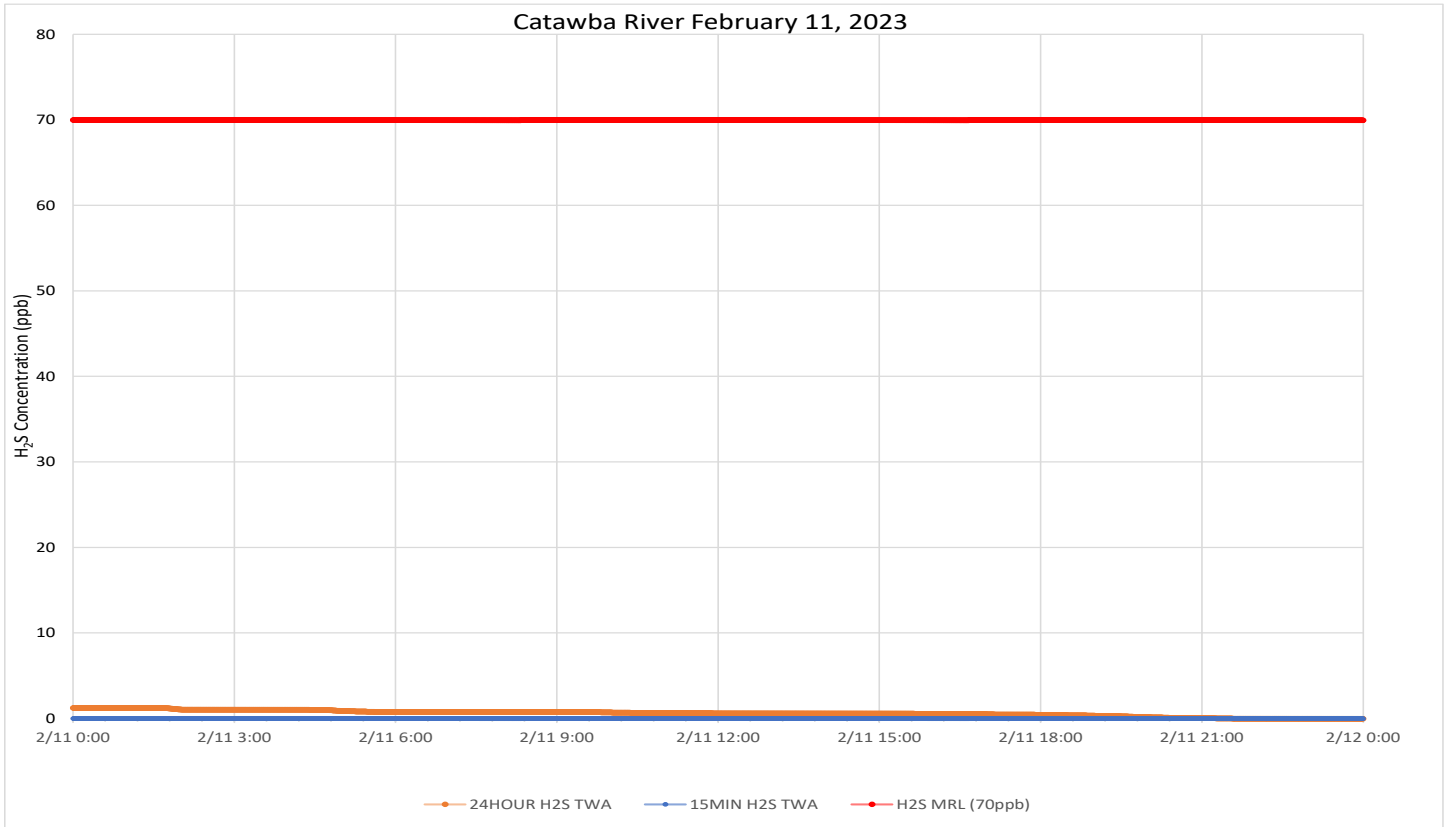


Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community

# H<sub>2</sub>S in South Carolina

## Hydrogen Sulfide 15-min and 24-hr Time Weighted Average Graphs

Winds were from the northeast throughout the period..



Notes: Time is Eastern Standard Time H<sub>2</sub>S – Hydrogen Sulfide MRL – Minimal Risk Level ppb – Parts per billion Wind data for KUZA

# Air Monitoring Summary Tables

This table summarizes monitoring data collected using DHEC monitors and EPA's Viper wireless remote monitoring system.

**Project Name:** H<sub>2</sub>S in South Carolina



**From:** 2/12/23  
12:00 AM

**To:** 2/12/23  
11:59 PM

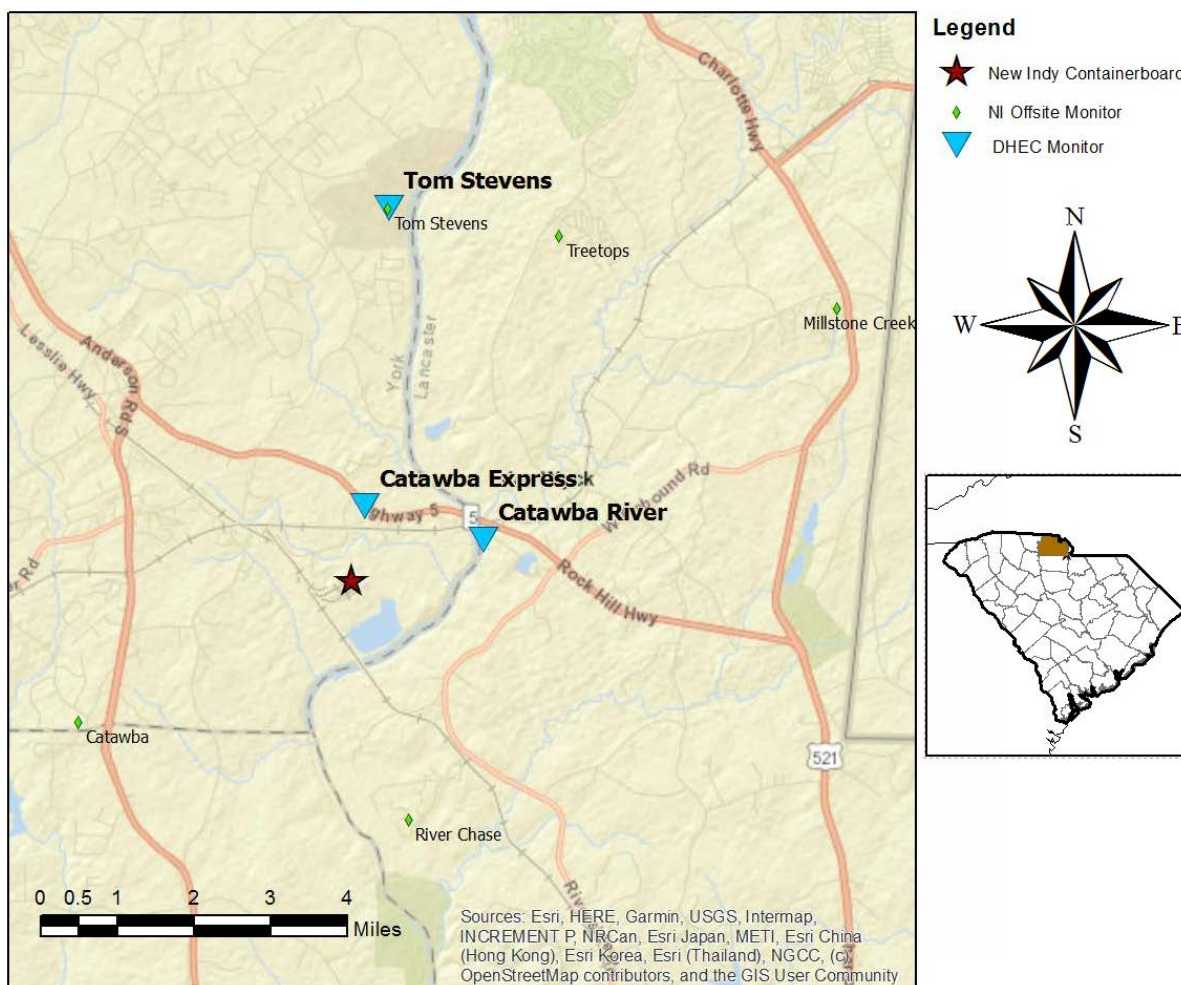
| Catawba River |                  |                       |                    |                      |                     |                |           |
|---------------|------------------|-----------------------|--------------------|----------------------|---------------------|----------------|-----------|
| Instrument    | Analyte          | ATSDR MRL Exceedance? | Number of Readings | Number of Detections | Concentration Range | Period Average | ATSDR MRL |
| SPM Flex 3    | H <sub>2</sub> S | No                    | 2880               | 0                    | 0 - 0 ppb           | 0 ppb          | 70 ppb    |

| Catawba Express |                  |                       |                    |                      |                     |                |           |
|-----------------|------------------|-----------------------|--------------------|----------------------|---------------------|----------------|-----------|
| Instrument      | Analyte          | ATSDR MRL Exceedance? | Number of Readings | Number of Detections | Concentration Range | Period Average | ATSDR MRL |
| SPM Flex 2      | H <sub>2</sub> S | No                    | 2880               | 0                    | 0 - 0 ppb           | 0 ppb          | 70 ppb    |

**Notes:**

Hydrogen sulfide concentrations presented in this data summary table are converted from parts per million, the instrument readout units, to parts per billion. The SPM FLEX Minimum Detectable Limit (MDL) is 1 ppb of Hydrogen Sulfide.

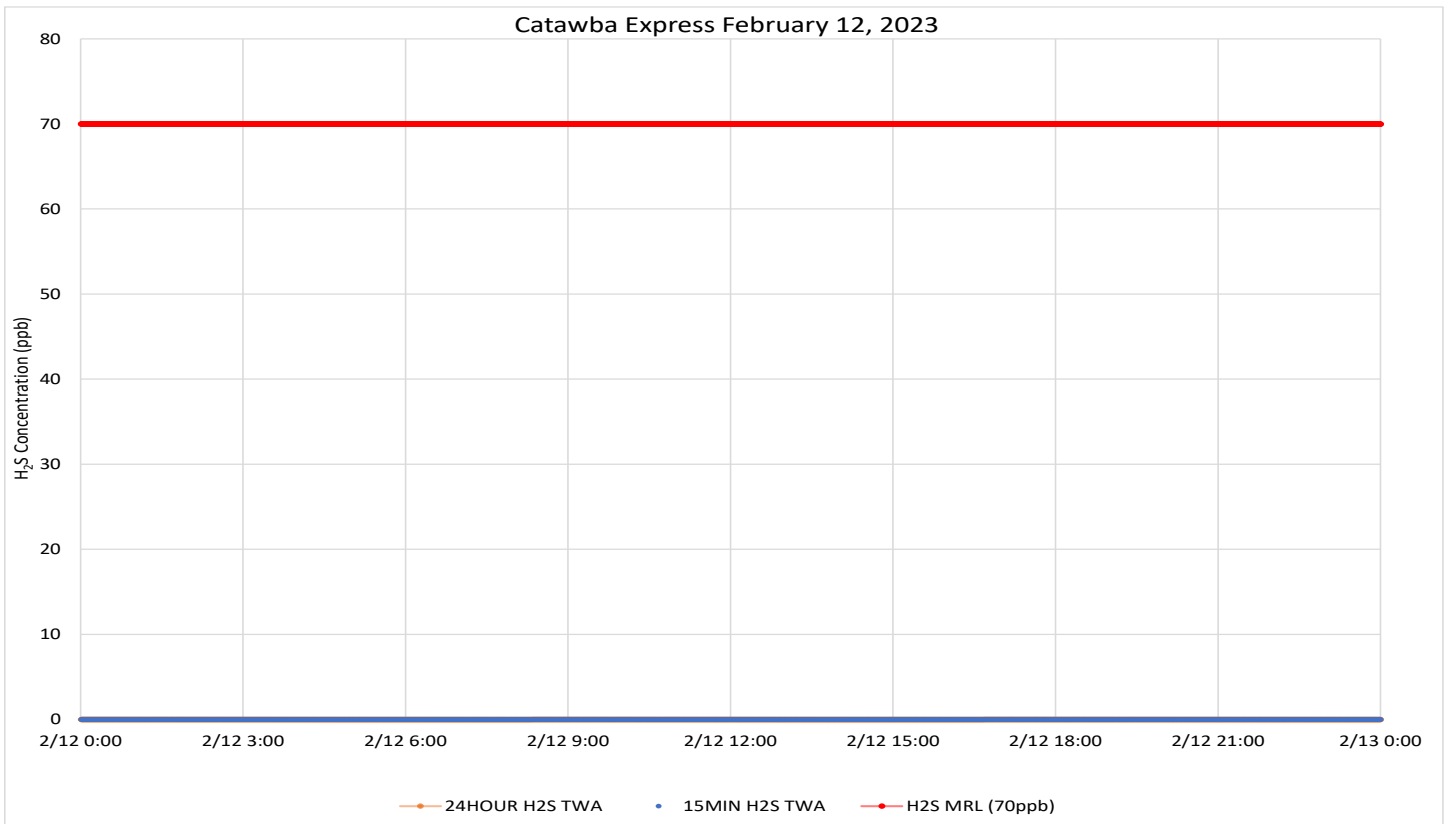
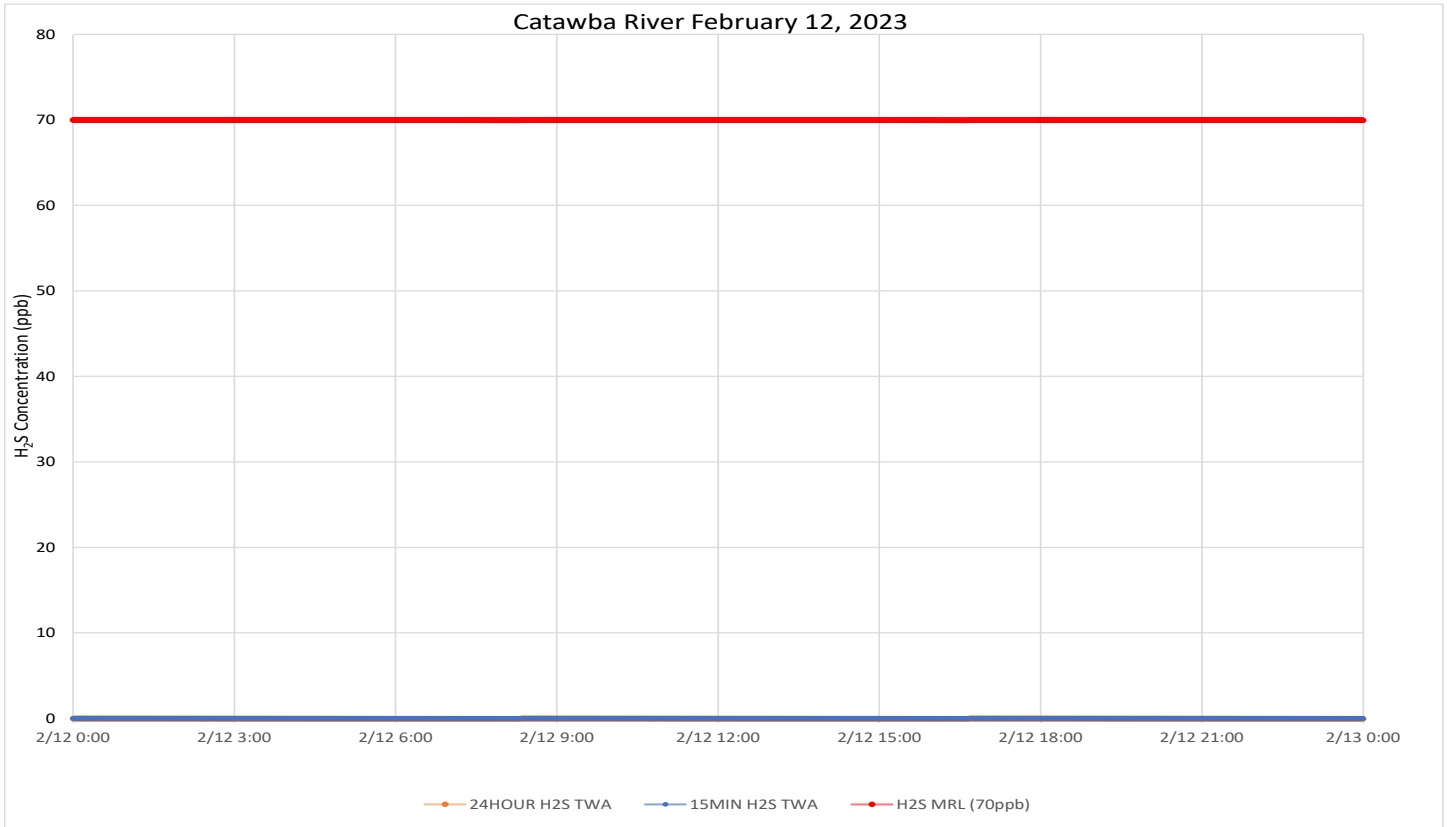
- ATSDR MRL Agency for Toxic Substances and Disease Registry Minimal Risk Level - Acute Exposure (<14 days)
- H<sub>2</sub>S Hydrogen Sulfide
- hr Hour
- ppb Parts per billion
- MRL Exceedance Defines if the 24-hr TWA exceeded the MRL at any time during the period of this report
- SPM Single Point Monitor
- TWA Time Weighted Average



# H<sub>2</sub>S in South Carolina

## Hydrogen Sulfide 15-min and 24-hr Time Weighted Average Graphs

Winds were from the northeast through midday, then shifted to coming from the northwest to west.



Notes: Time is Eastern Standard Time H<sub>2</sub>S – Hydrogen Sulfide MRL – Minimal Risk Level ppb – Parts per billion Wind data for KUZA



# Air Monitoring Summary Tables

This table summarizes monitoring data collected using DHEC monitors and EPA's Viper wireless remote monitoring system.



**Project Name:** H<sub>2</sub>S in South Carolina

**From:** 2/13/23  
12:00 AM

**To:** 2/13/23  
11:59 PM

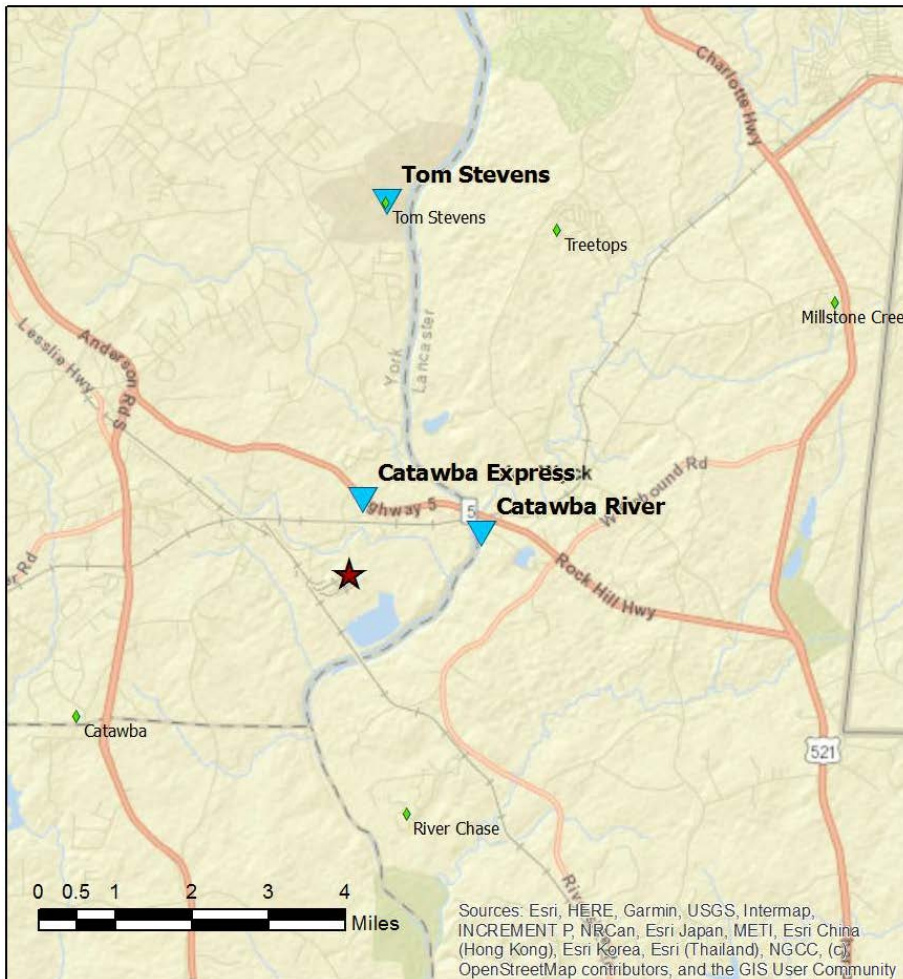
| Catawba River |                  |                       |                    |                      |                     |                |           |
|---------------|------------------|-----------------------|--------------------|----------------------|---------------------|----------------|-----------|
| Instrument    | Analyte          | ATSDR MRL Exceedance? | Number of Readings | Number of Detections | Concentration Range | Period Average | ATSDR MRL |
| SPM Flex 3    | H <sub>2</sub> S | No                    | 2880               | 1269                 | 0 - 5 ppb           | 0.79 ppb       | 70 ppb    |

| Catawba Express |                  |                       |                    |                      |                     |                |           |
|-----------------|------------------|-----------------------|--------------------|----------------------|---------------------|----------------|-----------|
| Instrument      | Analyte          | ATSDR MRL Exceedance? | Number of Readings | Number of Detections | Concentration Range | Period Average | ATSDR MRL |
| SPM Flex 2      | H <sub>2</sub> S | No                    | 2880               | 325                  | 0 - 9 ppb           | 0.4 ppb        | 70 ppb    |

**Notes:**

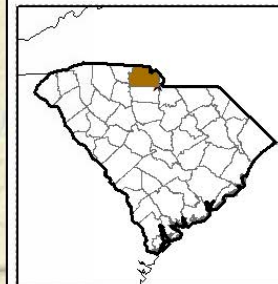
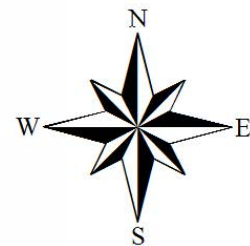
Hydrogen sulfide concentrations presented in this data summary table are converted from parts per million, the instrument readout units, to parts per billion. The SPM FLEX Minimum Detectable Limit (MDL) is 1 ppb of Hydrogen Sulfide.

- ATSDR MRL Agency for Toxic Substances and Disease Registry Minimal Risk Level - Acute Exposure (<14 days)
- H<sub>2</sub>S Hydrogen Sulfide
- hr Hour
- ppb Parts per billion
- MRL Exceedance Defines if the 24-hr TWA exceeded the MRL at any time during the period of this report
- SPM Single Point Monitor
- TWA Time Weighted Average



**Legend**

- ★ New Indy Containerboard
- ◆ NI Offsite Monitor
- ▲ DHEC Monitor

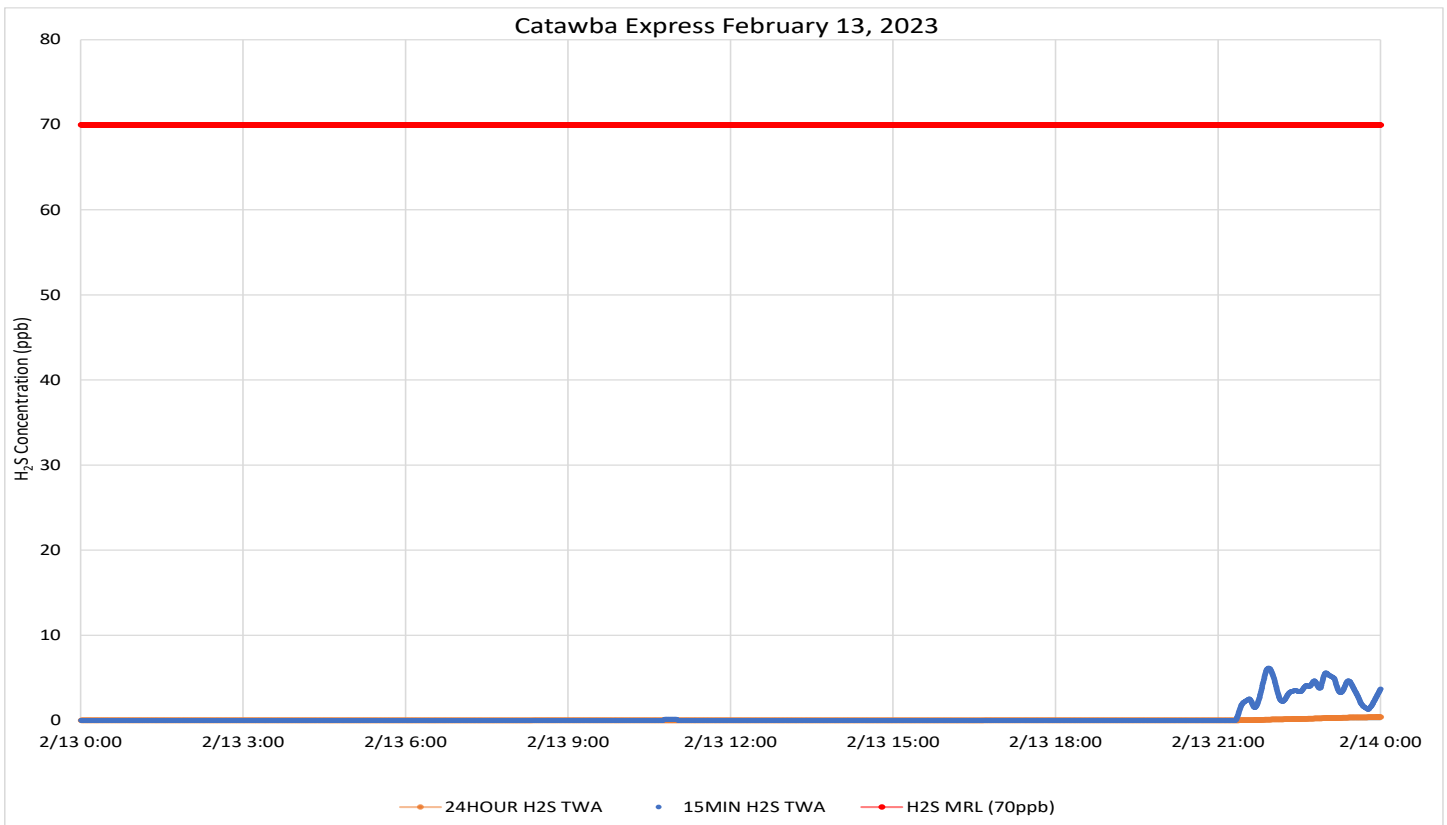
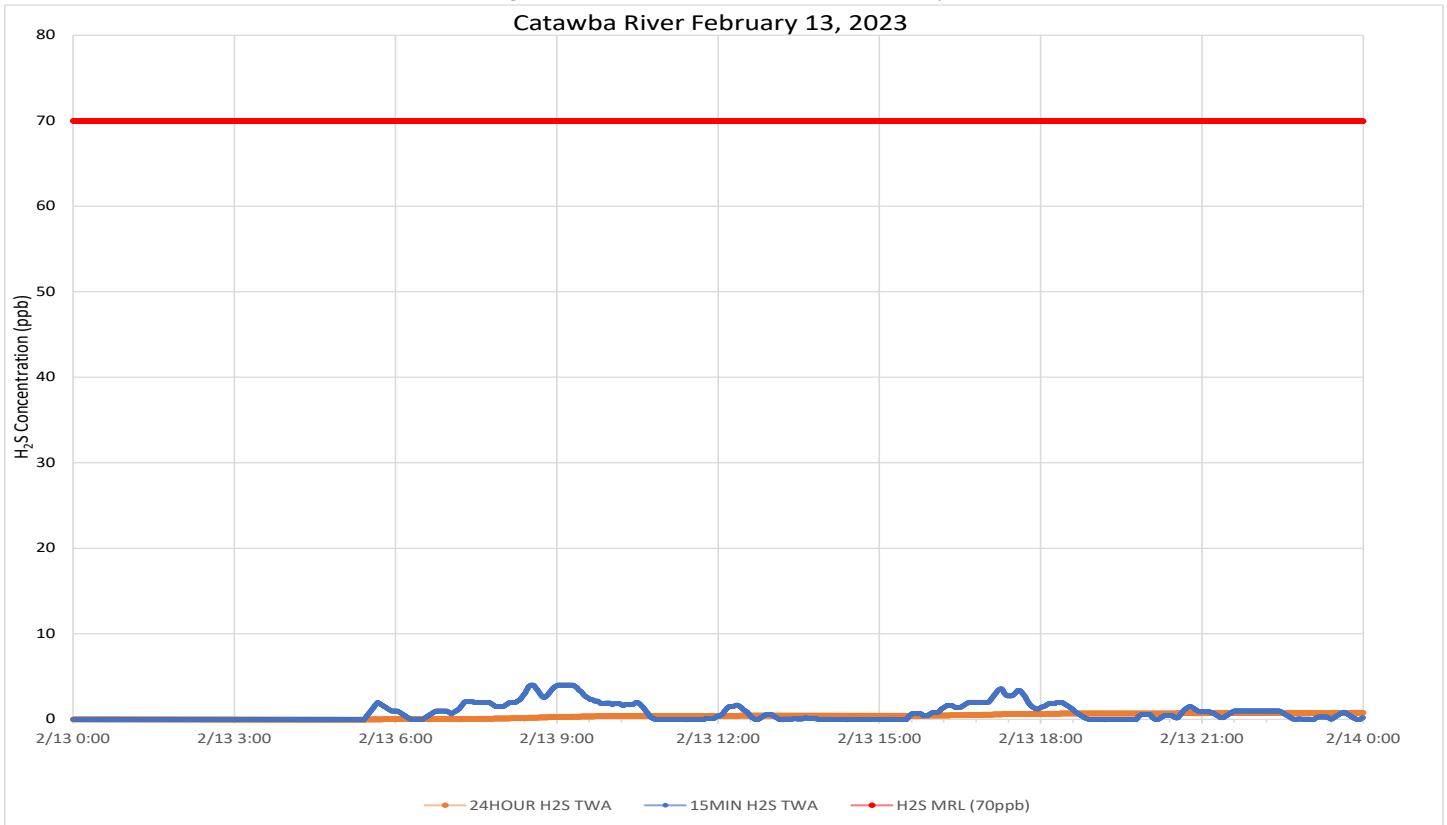


Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community

# H<sub>2</sub>S in South Carolina

## Hydrogen Sulfide 15-min and 24-hr Time Weighted Average Graphs

Winds were generally from the west northwest until daybreak, shifted to more from the west to southwest through the evening, and became calm at the end of the period.



Notes: Time is Eastern Standard Time H<sub>2</sub>S – Hydrogen Sulfide MRL – Minimal Risk Level ppb – Parts per billion Wind data for KUZA

Several very short data gaps were seen during this period. Catawba River- 7 minutes starting 1737 and two periods at Catawba Express: 3 minutes starting 1955 and 6 minutes starting 2113. All data in the summary table is valid.

## Air Monitoring Summary Tables

This table summarizes monitoring data collected using DHEC monitors and EPA's Viper wireless remote monitoring system.

**Project Name:** H<sub>2</sub>S in South Carolina



**From:** 2/14/23  
12:00 AM

**To:** 2/14/23  
11:59 PM

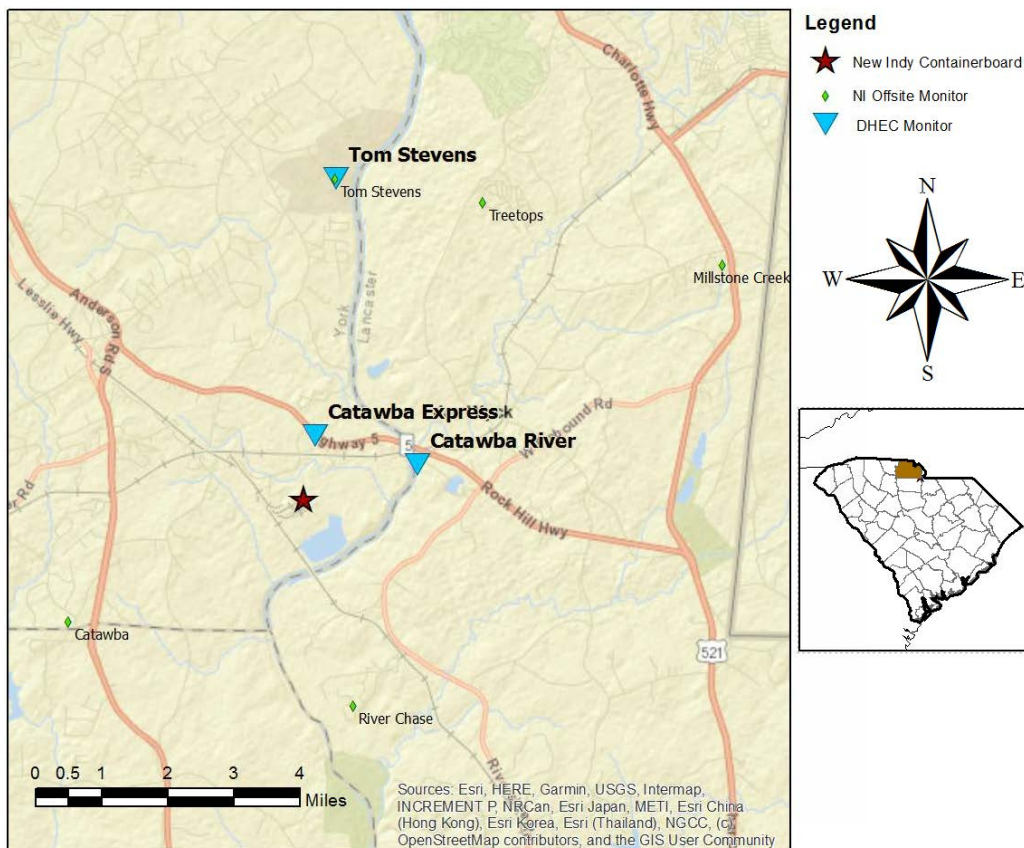
| Catawba River |                  |                       |                    |                      |                     |                |           |
|---------------|------------------|-----------------------|--------------------|----------------------|---------------------|----------------|-----------|
| Instrument    | Analyte          | ATSDR MRL Exceedance? | Number of Readings | Number of Detections | Concentration Range | Period Average | ATSDR MRL |
| SPM Flex 3    | H <sub>2</sub> S | No                    | 2866               | 875                  | 0 - 21 ppb          | 0.92 ppb       | 70 ppb    |

| Catawba Express |                  |                       |                    |                      |                     |                |           |
|-----------------|------------------|-----------------------|--------------------|----------------------|---------------------|----------------|-----------|
| Instrument      | Analyte          | ATSDR MRL Exceedance? | Number of Readings | Number of Detections | Concentration Range | Period Average | ATSDR MRL |
| SPM Flex 2      | H <sub>2</sub> S | No                    | 3252               | 1932                 | 0 - 29 ppb          | 3.43 ppb       | 70 ppb    |

**Notes:**

Hydrogen sulfide concentrations presented in this data summary table are converted from parts per million, the instrument readout units, to parts per billion. The SPM FLEX Minimum Detectable Limit (MDL) is 1 ppb of Hydrogen Sulfide.

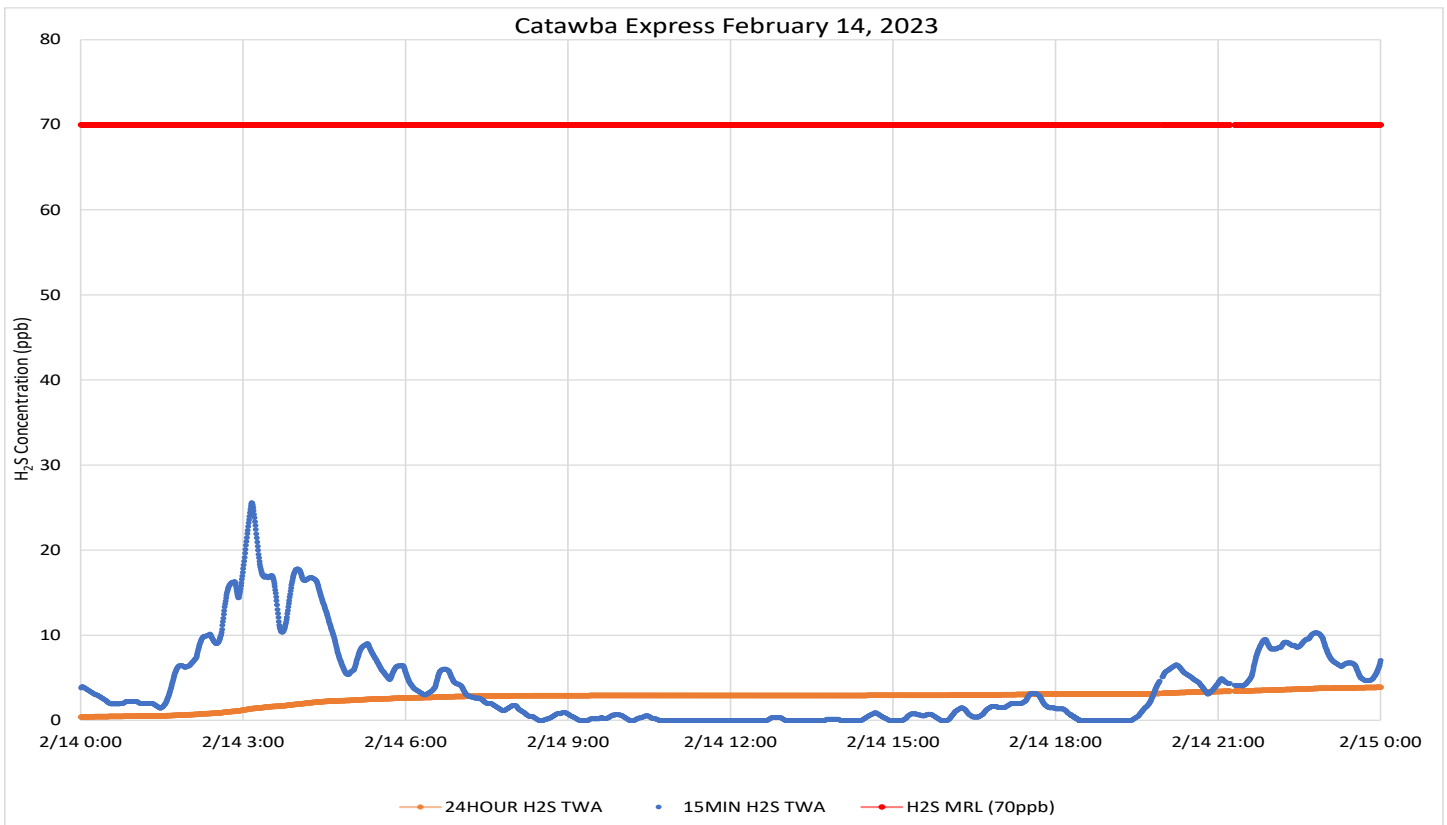
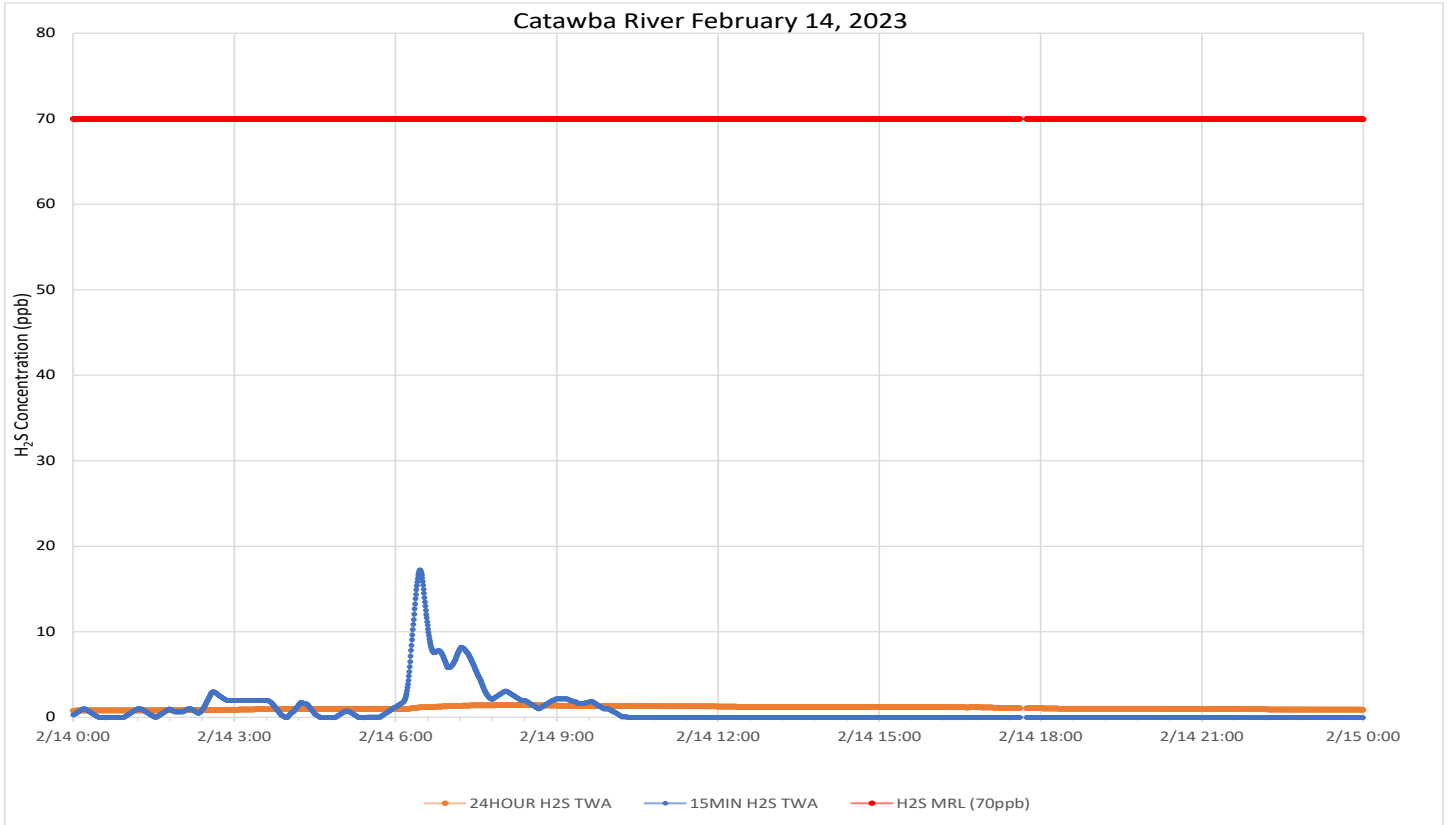
- ATSDR MRL Agency for Toxic Substances and Disease Registry Minimal Risk Level - Acute Exposure (<14 days)
- H<sub>2</sub>S Hydrogen Sulfide
- hr Hour
- ppb Parts per billion
- MRL Exceedance Defines if the 24-hr TWA exceeded the MRL at any time during the period of this report
- SPM Single Point Monitor
- TWA Time Weighted Average



# H<sub>2</sub>S in South Carolina

## Hydrogen Sulfide 15-min and 24-hr Time Weighted Average Graphs

Winds were generally calm through midmorning then became more consistent from the south southeast to southwest for remainder of the period.



Notes: Time is Eastern Standard Time H<sub>2</sub>S – Hydrogen Sulfide MRL – Minimal Risk Level ppb – Parts per billion Wind data for KUZA



# Air Monitoring Summary Tables

This table summarizes monitoring data collected using DHEC monitors and EPA's Viper wireless remote monitoring system.

**Project Name:** H<sub>2</sub>S in South Carolina



**From:** 2/15/23  
12:00 AM

**To:** 2/15/23  
11:59 PM

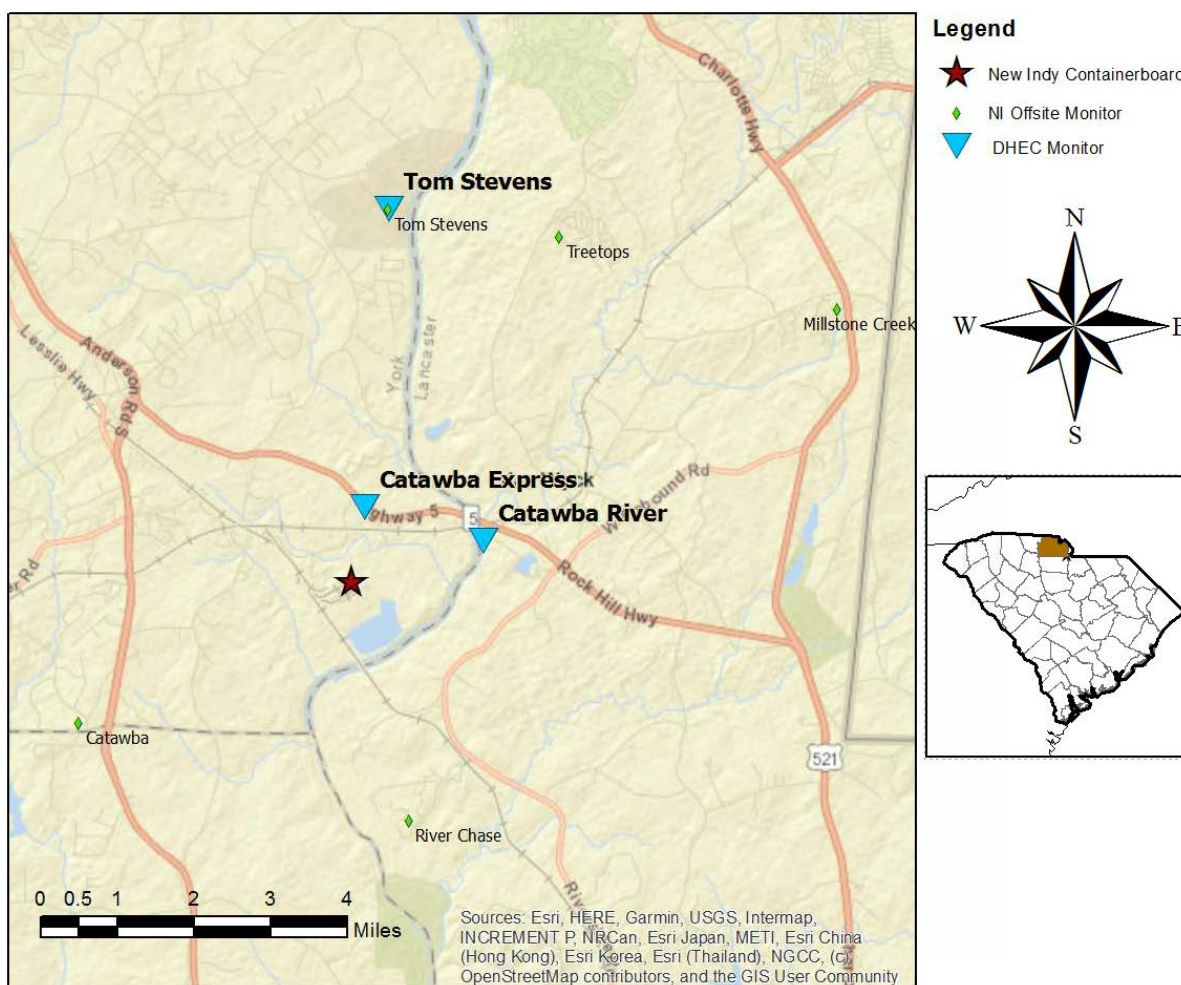
| Catawba River |                  |                       |                    |                      |                     |                |           |
|---------------|------------------|-----------------------|--------------------|----------------------|---------------------|----------------|-----------|
| Instrument    | Analyte          | ATSDR MRL Exceedance? | Number of Readings | Number of Detections | Concentration Range | Period Average | ATSDR MRL |
| SPM Flex 3    | H <sub>2</sub> S | No                    | 2880               | 1014                 | 0 - 7 ppb           | 0.93 ppb       | 70 ppb    |

| Catawba Express |                  |                       |                    |                      |                     |                |           |
|-----------------|------------------|-----------------------|--------------------|----------------------|---------------------|----------------|-----------|
| Instrument      | Analyte          | ATSDR MRL Exceedance? | Number of Readings | Number of Detections | Concentration Range | Period Average | ATSDR MRL |
| SPM Flex 2      | H <sub>2</sub> S | No                    | 2880               | 1013                 | 0 - 22 ppb          | 1.92 ppb       | 70 ppb    |

**Notes:**

Hydrogen sulfide concentrations presented in this data summary table are converted from parts per million, the instrument readout units, to parts per billion. The SPM FLEX Minimum Detectable Limit (MDL) is 1 ppb of Hydrogen Sulfide.

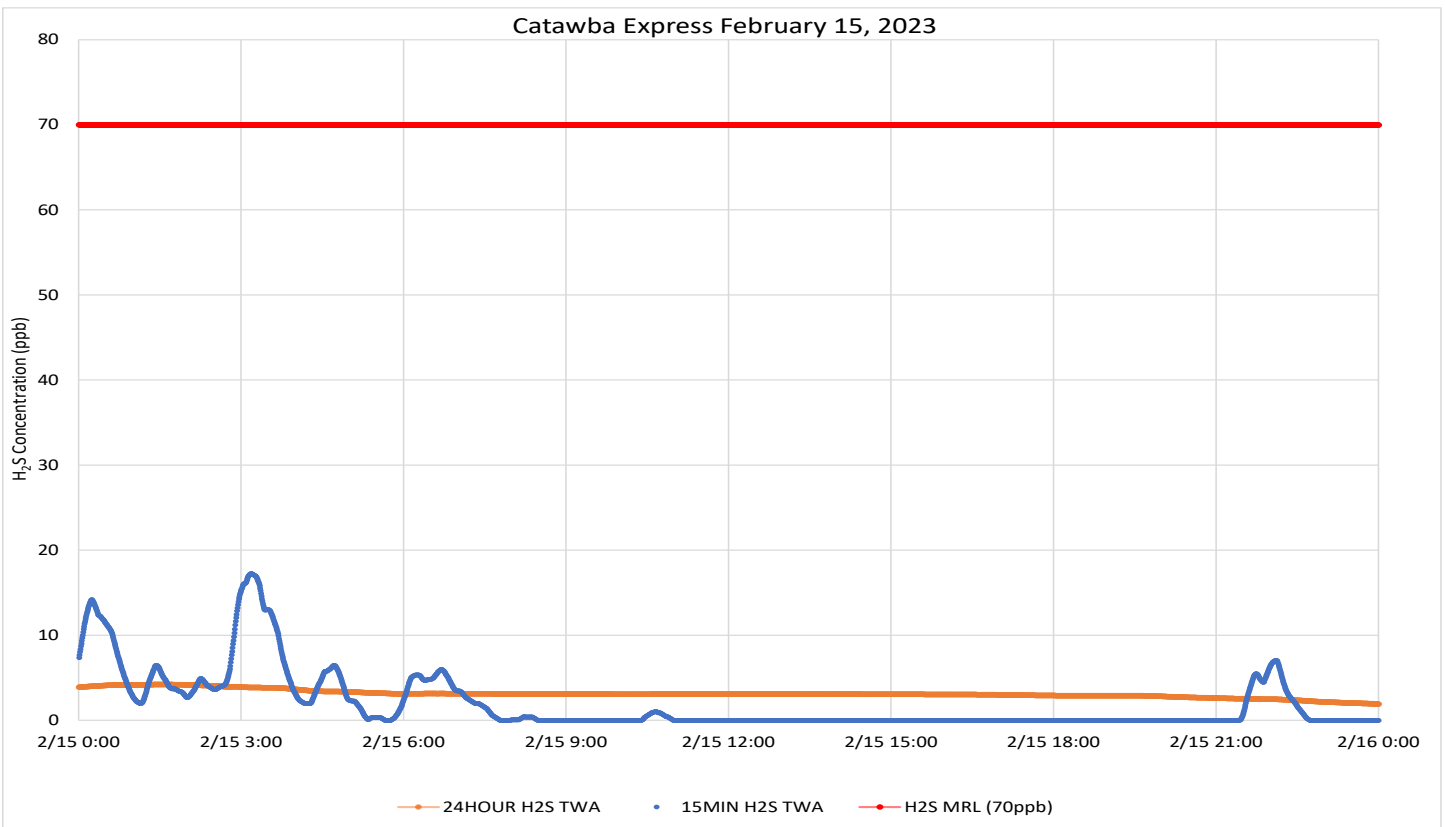
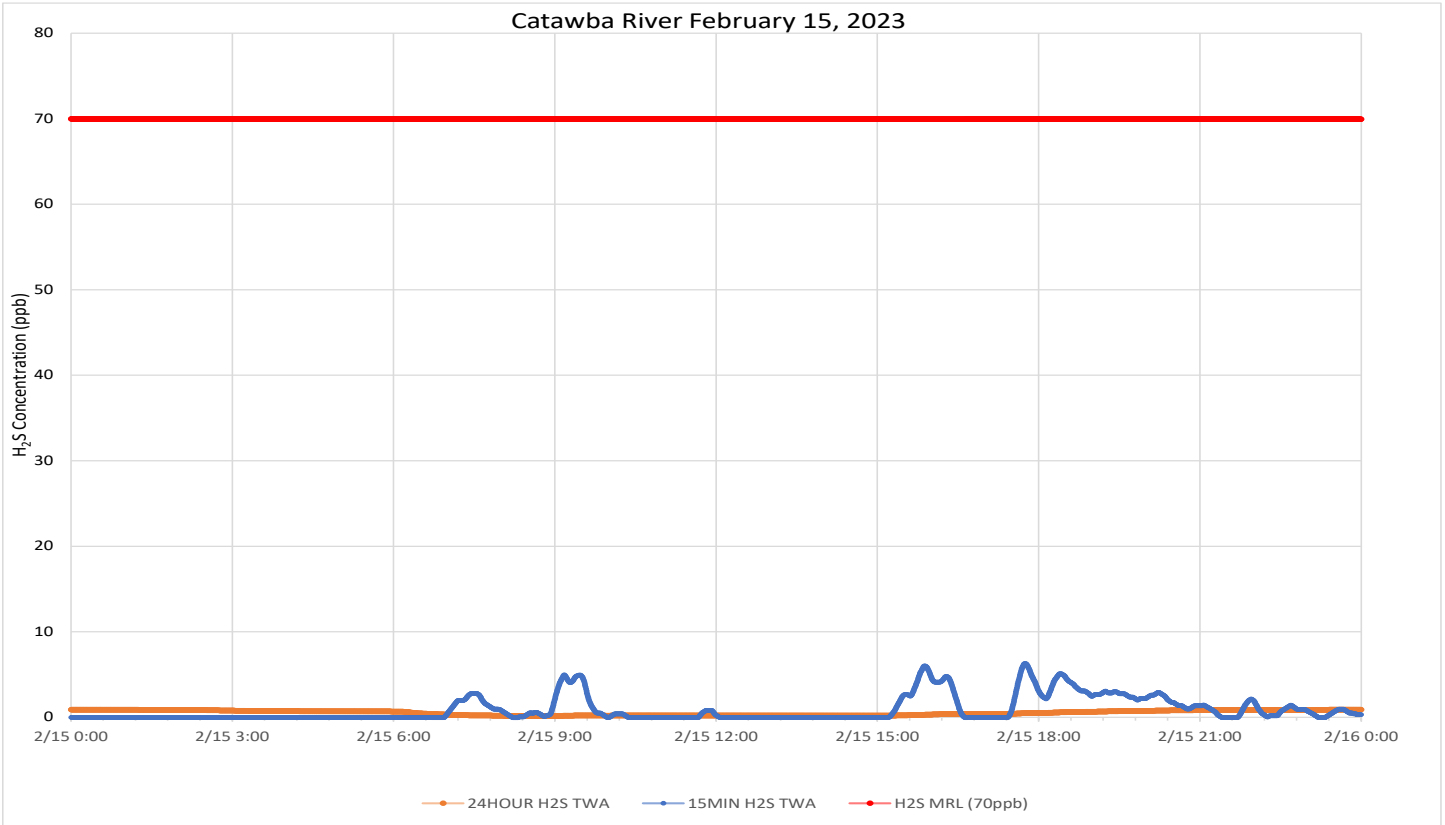
- ATSDR MRL Agency for Toxic Substances and Disease Registry Minimal Risk Level - Acute Exposure (<14 days)
- H<sub>2</sub>S Hydrogen Sulfide
- hr Hour
- ppb Parts per billion
- MRL Exceedance Defines if the 24-hr TWA exceeded the MRL at any time during the period of this report
- SPM Single Point Monitor
- TWA Time Weighted Average



# H<sub>2</sub>S in South Carolina

## Hydrogen Sulfide 15-min and 24-hr Time Weighted Average Graphs

Winds were from the south, trending more from the south west and south southwest through sunset, when winds became calm.



Notes: Time is Eastern Standard Time H<sub>2</sub>S – Hydrogen Sulfide MRL – Minimal Risk Level ppb – Parts per billion Wind data for KUZA

There was a 8 minute gap in data at the Catawba River site starting approximately 1037. All reported data is valid.

## Air Monitoring Summary Tables

This table summarizes monitoring data collected using DHEC monitors and EPA's Viper wireless remote monitoring system.

**Project Name:** H<sub>2</sub>S in South Carolina



**From:** 2/16/23  
12:00 AM

**To:** 2/16/23  
11:59 PM

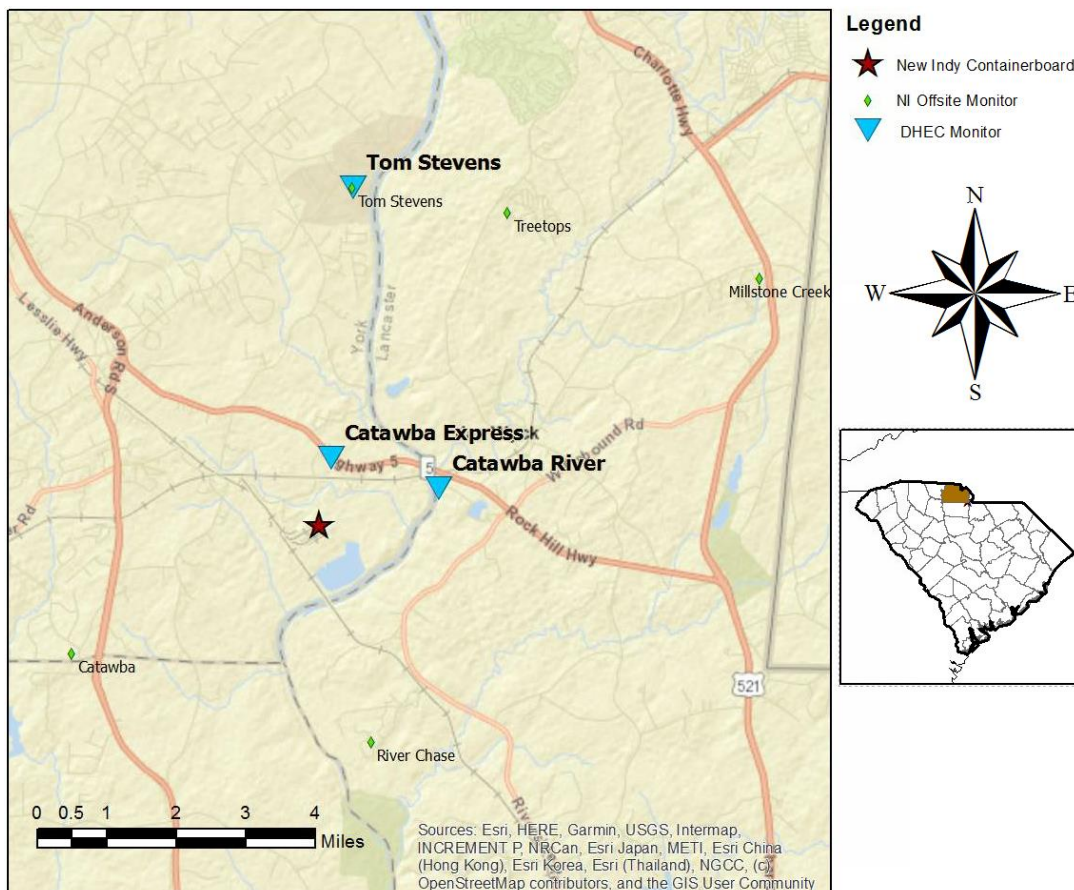
| Catawba River |         |                       |                    |                      |                     |                |           |
|---------------|---------|-----------------------|--------------------|----------------------|---------------------|----------------|-----------|
| Instrument    | Analyte | ATSDR MRL Exceedance? | Number of Readings | Number of Detections | Concentration Range | Period Average | ATSDR MRL |
| SPM Flex 3    | H2S     | No                    | 2860               | 618                  | 0 - 4 ppb           | 0.29 ppb       | 70 ppb    |

| Catawba Express |         |                       |                    |                      |                     |                |           |
|-----------------|---------|-----------------------|--------------------|----------------------|---------------------|----------------|-----------|
| Instrument      | Analyte | ATSDR MRL Exceedance? | Number of Readings | Number of Detections | Concentration Range | Period Average | ATSDR MRL |
| SPM Flex 2      | H2S     | No                    | 2876               | 1615                 | 0 - 26 ppb          | 3.39 ppb       | 70 ppb    |

**Notes:**

Hydrogen sulfide concentrations presented in this data summary table are converted from parts per million, the instrument readout units, to parts per billion. The SPM FLEX Minimum Detectable Limit (MDL) is 1 ppb of Hydrogen Sulfide.

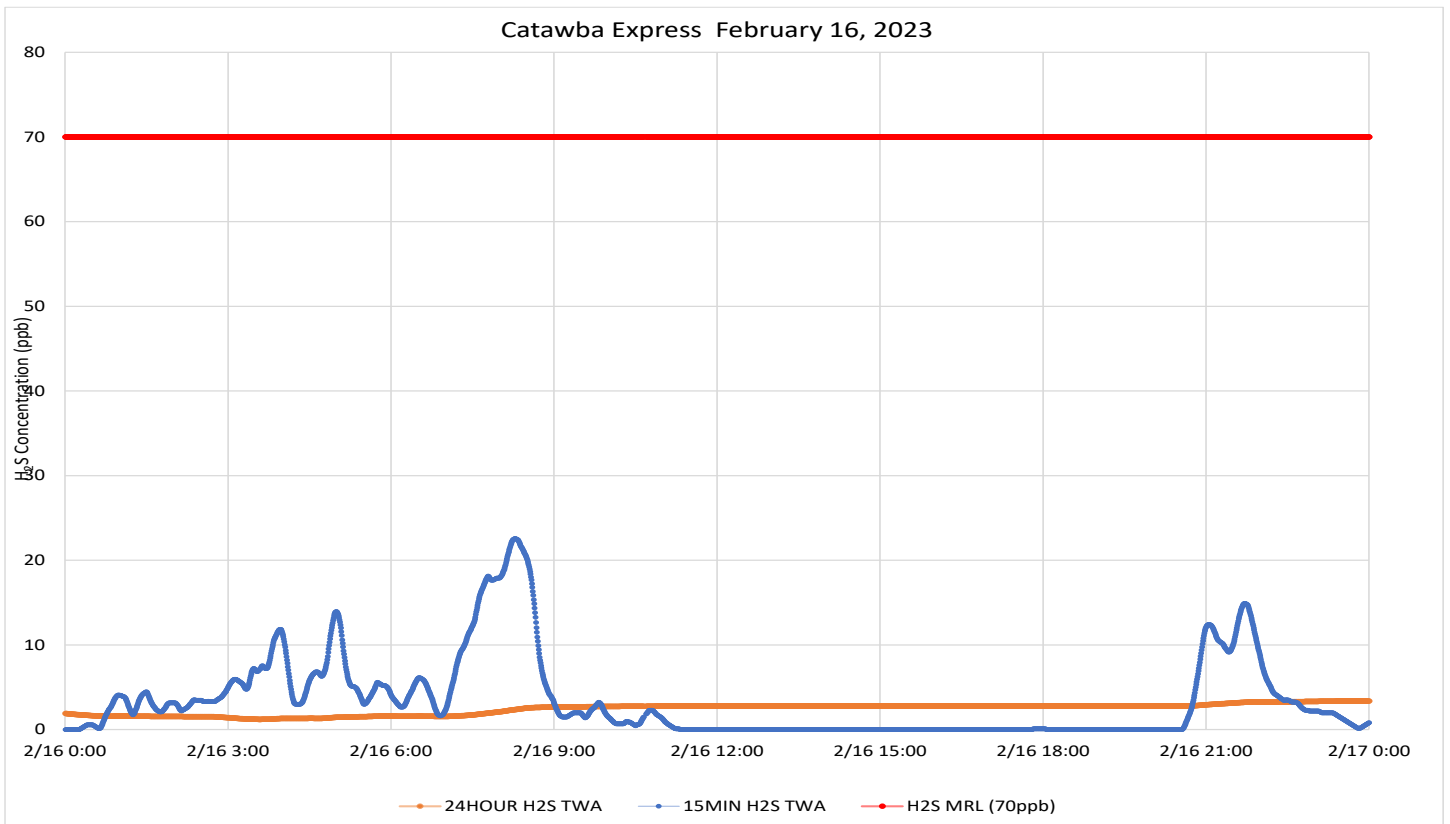
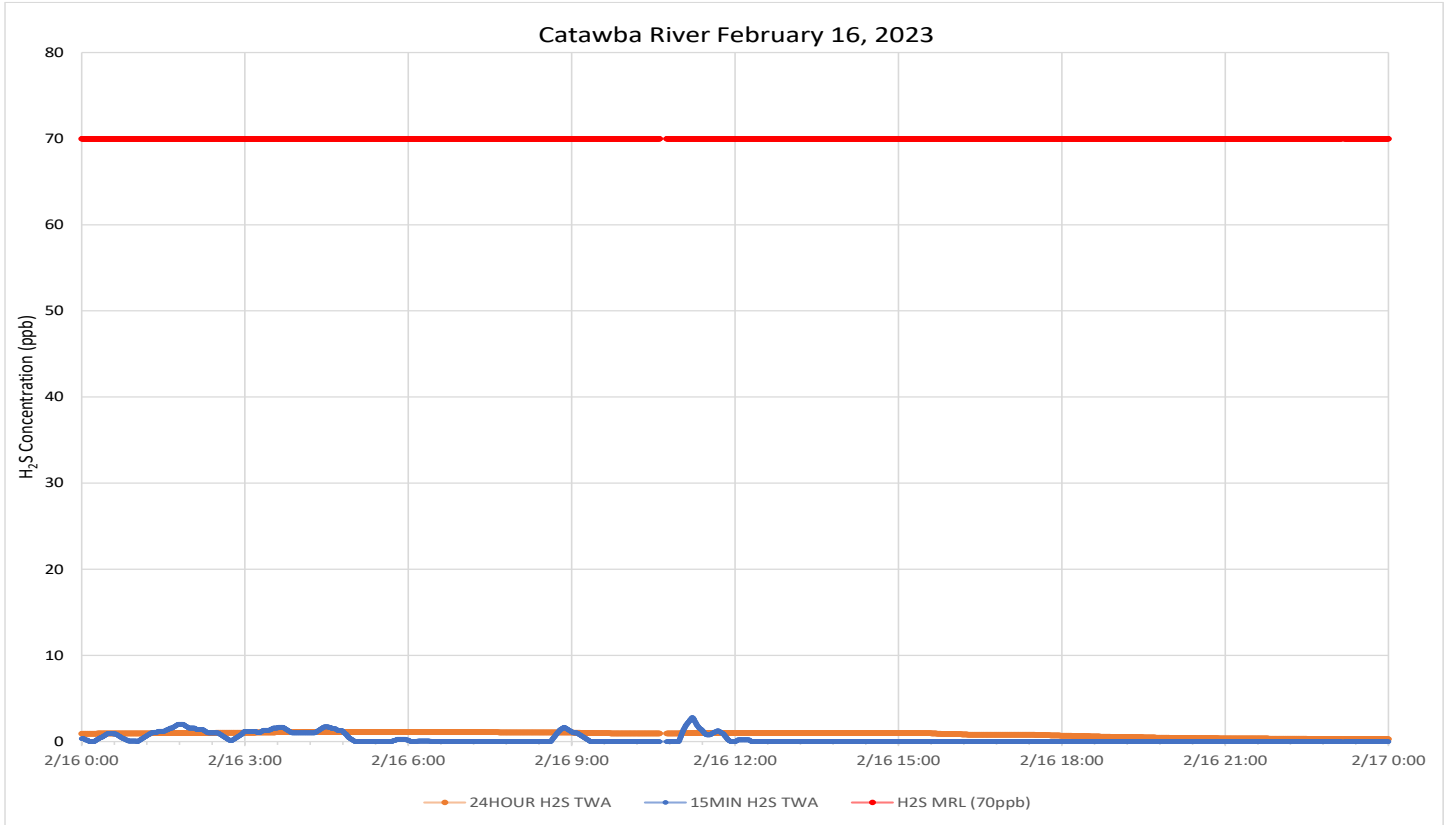
- ATSDR MRL Agency for Toxic Substances and Disease Registry Minimal Risk Level - Acute Exposure (<14 days)
- H<sub>2</sub>S Hydrogen Sulfide
- hr Hour
- ppb Parts per billion
- MRL Exceedance Defines if the 24-hr TWA exceeded the MRL at any time during the period of this report
- SPM Single Point Monitor
- TWA Time Weighted Average



# H<sub>2</sub>S in South Carolina

## Hydrogen Sulfide 15-min and 24-hr Time Weighted Average Graphs

Winds were from the southwest, trending more from the south around midnight.



Notes: Time is Eastern Standard Time H<sub>2</sub>S – Hydrogen Sulfide MRL – Minimal Risk Level ppb – Parts per billion Wind data for KUZA



# Air Monitoring Summary Tables

This table summarizes monitoring data collected using DHEC monitors and EPA's Viper wireless remote monitoring system.



**Project Name:** H<sub>2</sub>S in South Carolina

**From:** 2/17/23  
12:00 AM

**To:** 2/17/23  
11:59 PM

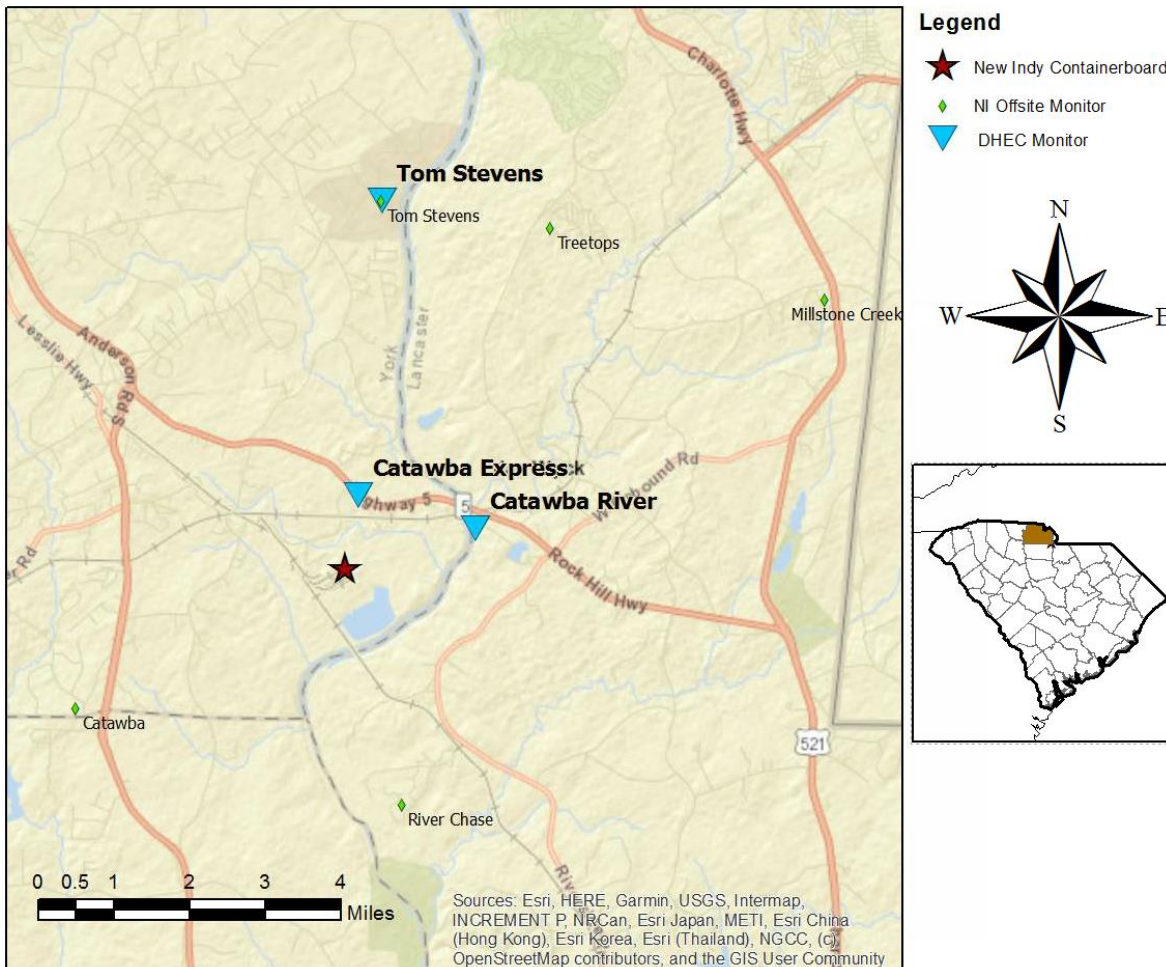
| Catawba River |         |                       |                    |                      |                     |                |           |
|---------------|---------|-----------------------|--------------------|----------------------|---------------------|----------------|-----------|
| Instrument    | Analyte | ATSDR MRL Exceedance? | Number of Readings | Number of Detections | Concentration Range | Period Average | ATSDR MRL |
| SPM Flex 3    | H2S     | No                    | 2880               | 383                  | 0 - 13 ppb          | 0.39 ppb       | 70 ppb    |

| Catawba Express |         |                       |                    |                      |                     |                |           |
|-----------------|---------|-----------------------|--------------------|----------------------|---------------------|----------------|-----------|
| Instrument      | Analyte | ATSDR MRL Exceedance? | Number of Readings | Number of Detections | Concentration Range | Period Average | ATSDR MRL |
| SPM Flex 2      | H2S     | No                    | 2880               | 1046                 | 0 - 10 ppb          | 1.19 ppb       | 70 ppb    |

**Notes:**

Hydrogen sulfide concentrations presented in this data summary table are converted from parts per million, the instrument readout units, to parts per billion. The SPM FLEX Minimum Detectable Limit (MDL) is 1 ppb of Hydrogen Sulfide.

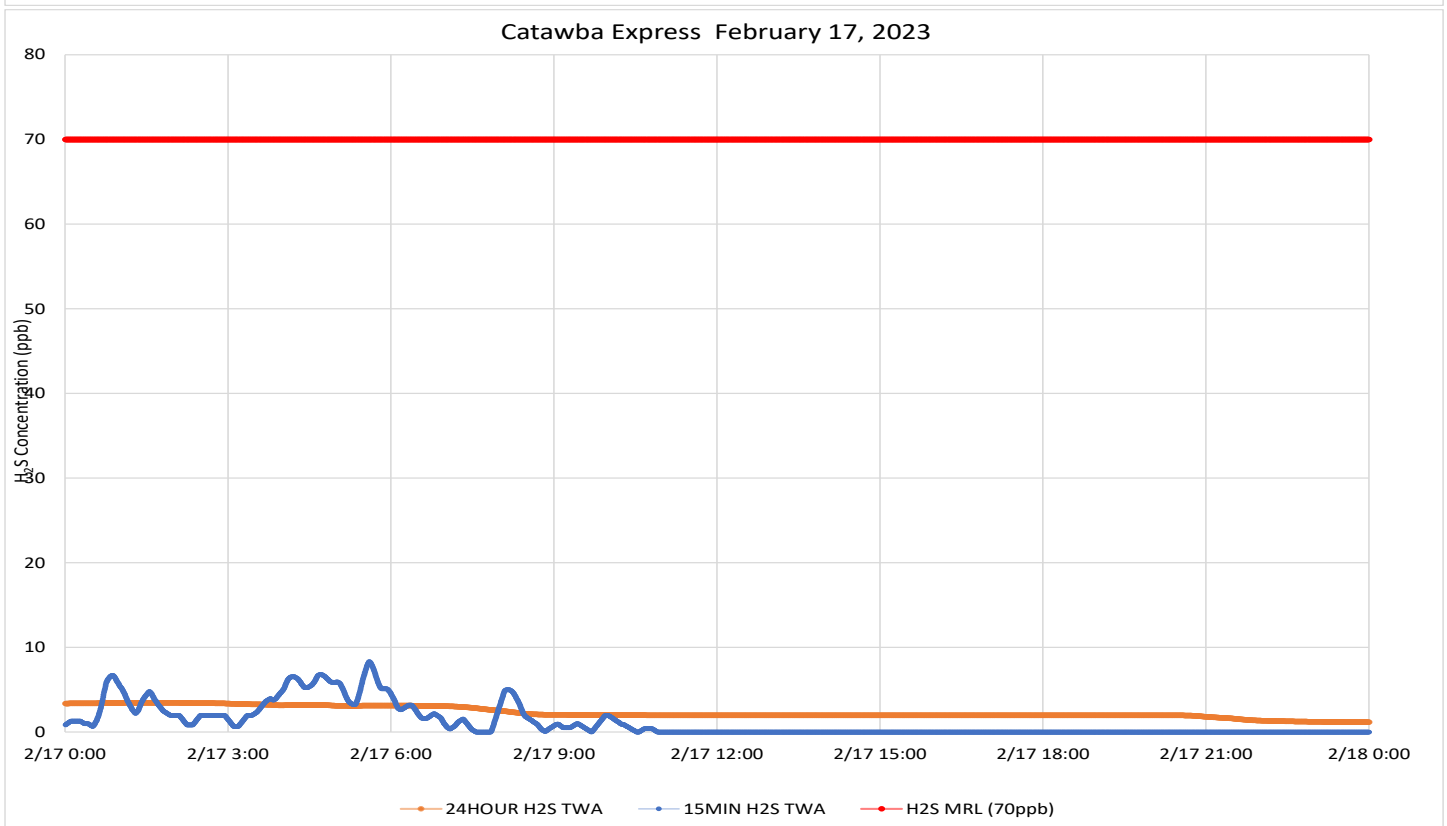
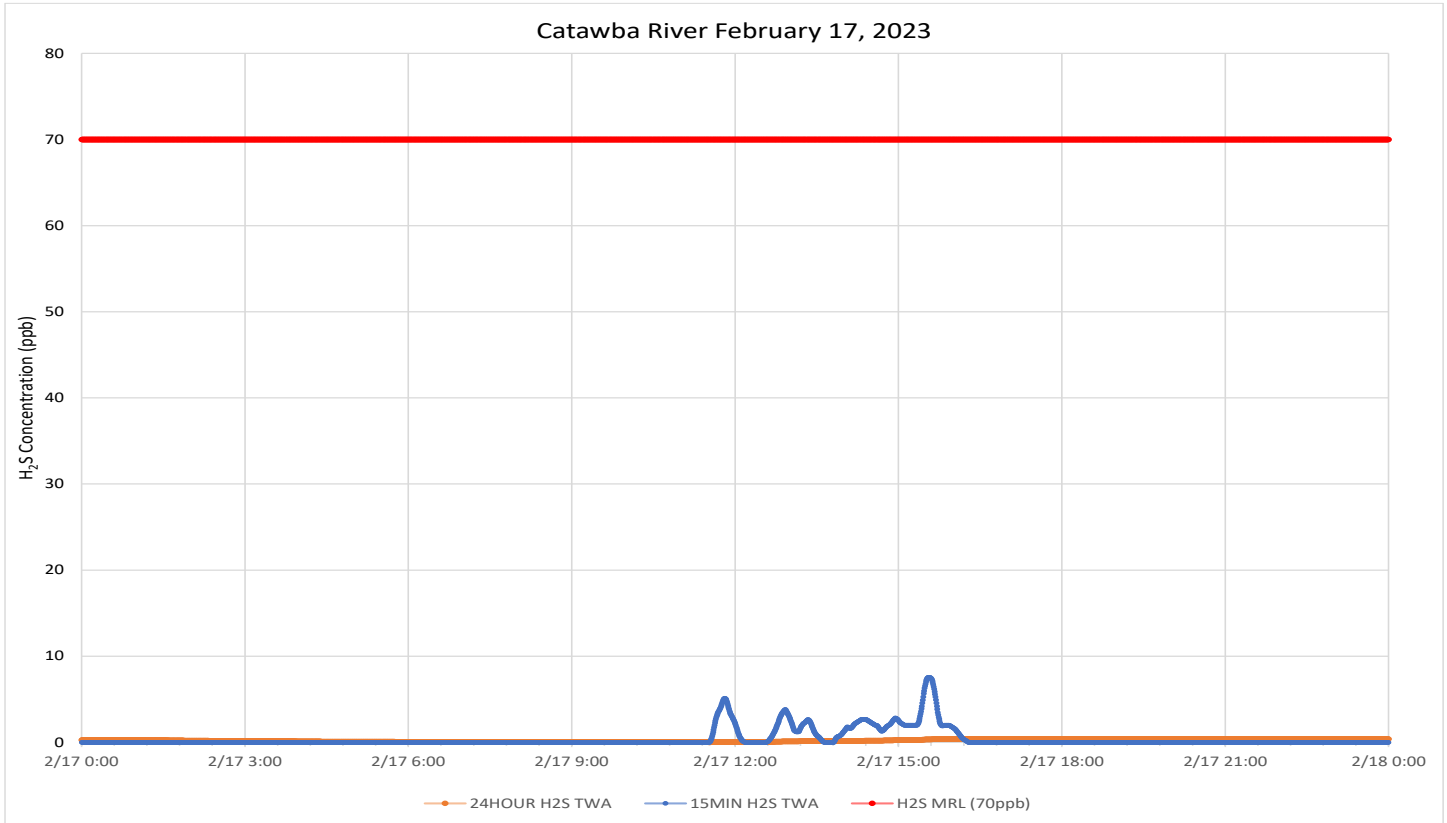
- ATSDR MRL Agency for Toxic Substances and Disease Registry Minimal Risk Level - Acute Exposure (<14 days)
- H<sub>2</sub>S Hydrogen Sulfide
- hr Hour
- ppb Parts per billion
- MRL Exceedance Defines if the 24-hr TWA exceeded the MRL at any time during the period of this report
- SPM Single Point Monitor
- TWA Time Weighted Average



# H<sub>2</sub>S in South Carolina

## Hydrogen Sulfide 15-min and 24-hr Time Weighted Average Graphs

The period began with winds from the southwest, with a shift to from the west during the midday hours and on to coming from the north by the end of the period.



Notes: Time is Eastern Standard Time H<sub>2</sub>S – Hydrogen Sulfide MRL – Minimal Risk Level ppb – Parts per billion Wind data for KUZA

# Air Monitoring Summary Tables

This table summarizes monitoring data collected using DHEC monitors and EPA's Viper wireless remote monitoring system.



**Project Name:** H<sub>2</sub>S in South Carolina

**From:** 2/18/23  
12:00 AM

**To:** 2/18/23  
11:59 PM

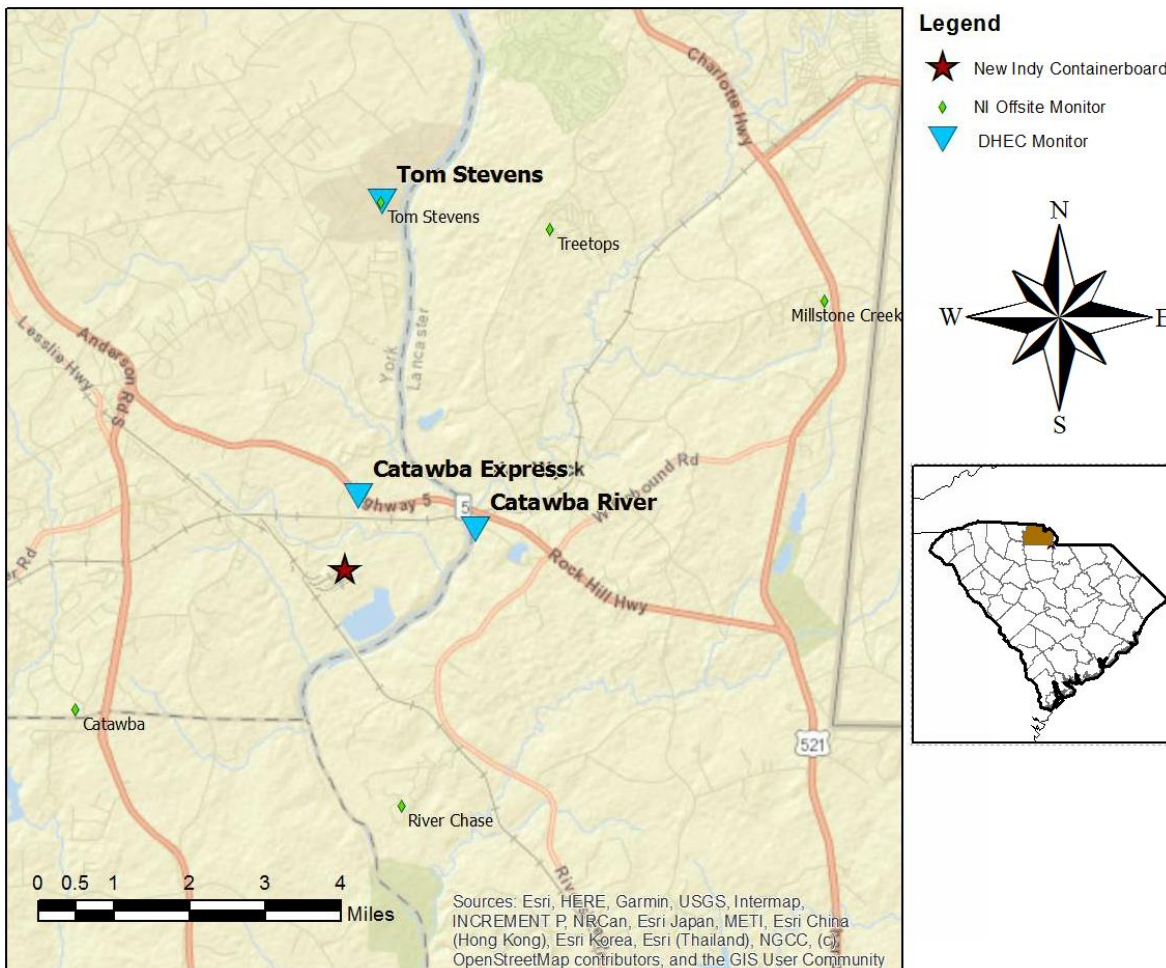
| Catawba River |         |                       |                    |                      |                     |                |           |
|---------------|---------|-----------------------|--------------------|----------------------|---------------------|----------------|-----------|
| Instrument    | Analyte | ATSDR MRL Exceedance? | Number of Readings | Number of Detections | Concentration Range | Period Average | ATSDR MRL |
| SPM Flex 3    | H2S     | No                    | 2880               | 0                    | 0 - 0 ppb           | 0 ppb          | 70 ppb    |

| Catawba Express |         |                       |                    |                      |                     |                |           |
|-----------------|---------|-----------------------|--------------------|----------------------|---------------------|----------------|-----------|
| Instrument      | Analyte | ATSDR MRL Exceedance? | Number of Readings | Number of Detections | Concentration Range | Period Average | ATSDR MRL |
| SPM Flex 2      | H2S     | No                    | 2880               | 682                  | 0 - 10 ppb          | 0.87 ppb       | 70 ppb    |

**Notes:**

Hydrogen sulfide concentrations presented in this data summary table are converted from parts per million, the instrument readout units, to parts per billion. The SPM FLEX Minimum Detectable Limit (MDL) is 1 ppb of Hydrogen Sulfide.

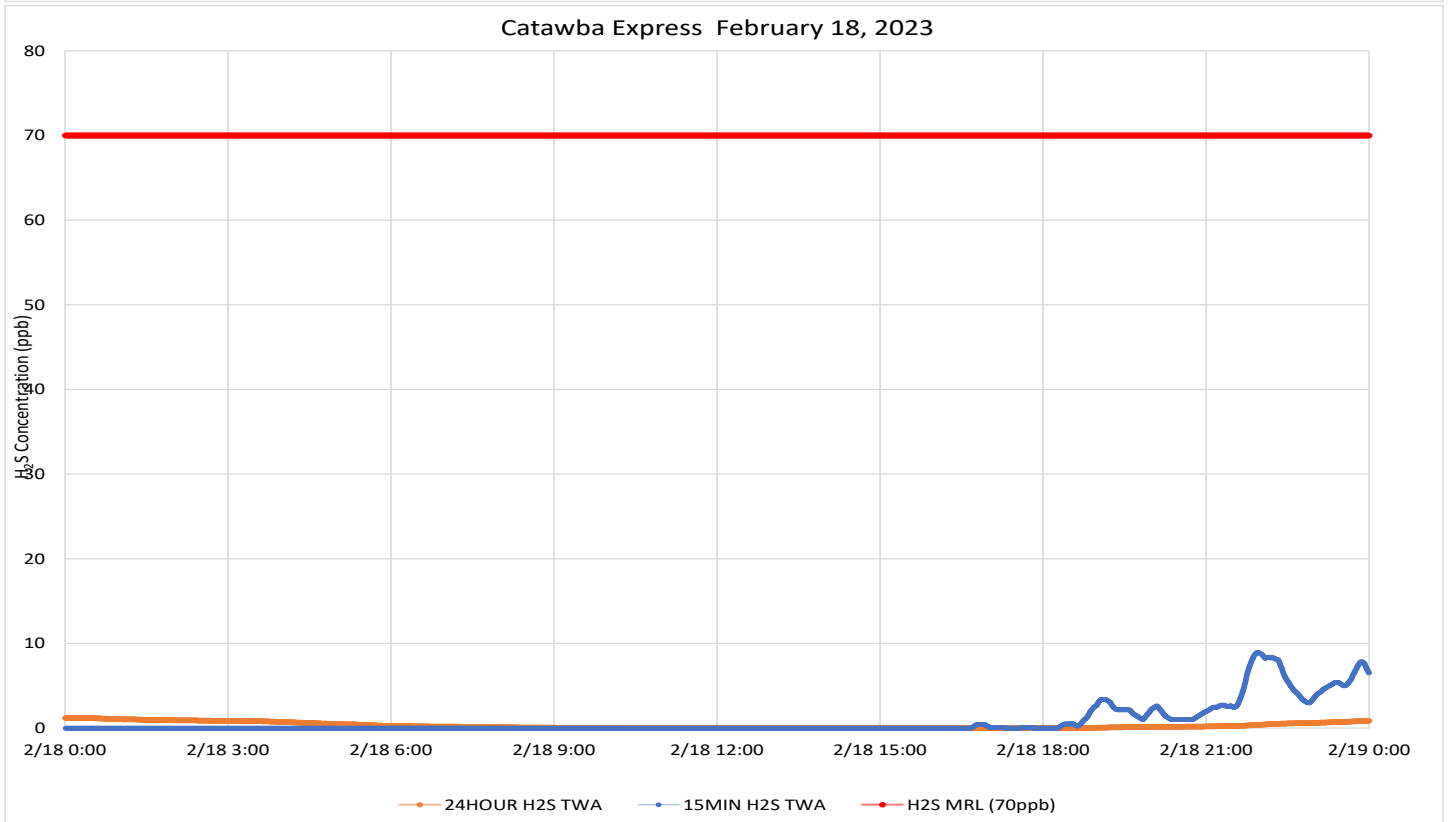
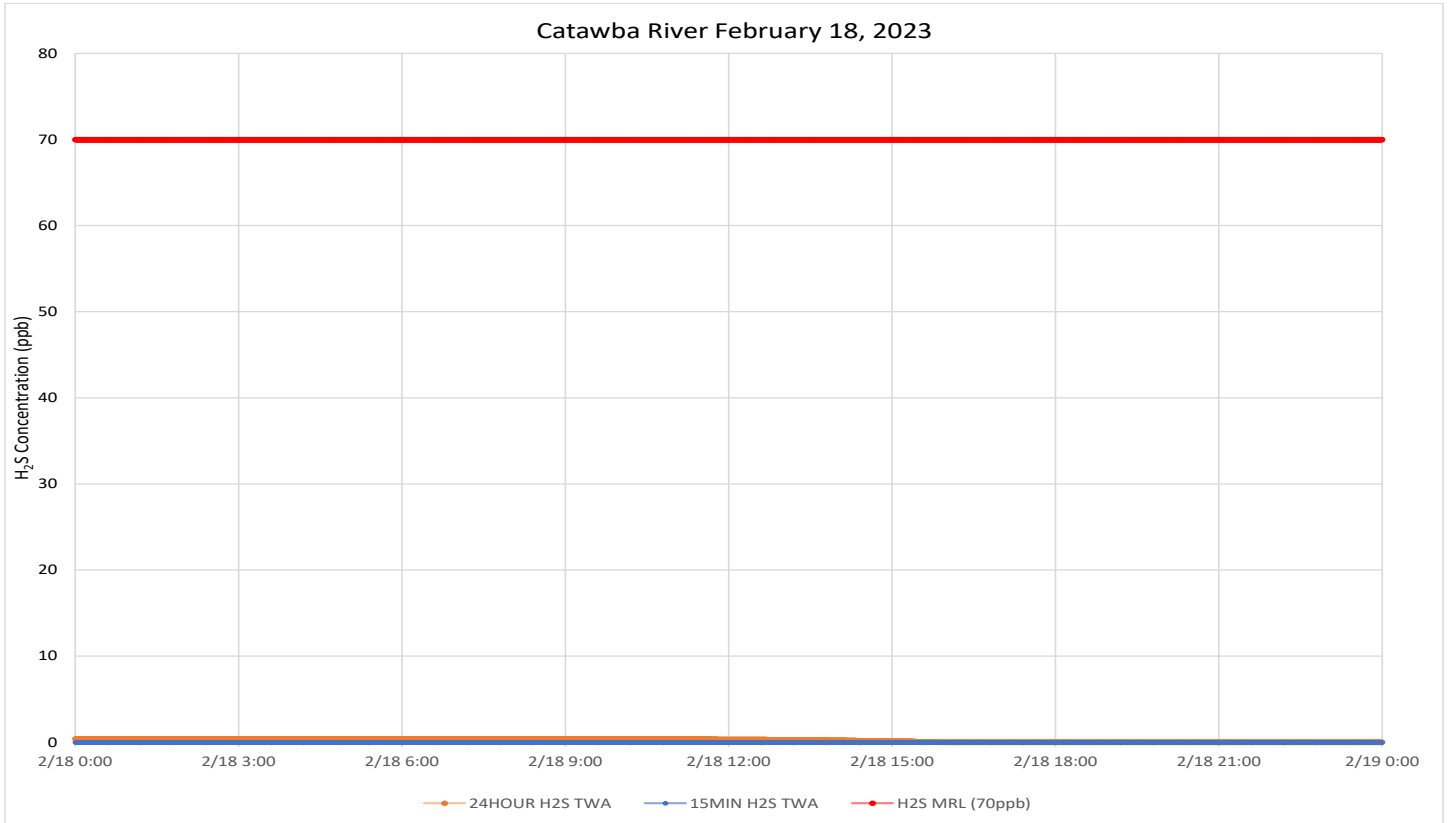
- ATSDR MRL Agency for Toxic Substances and Disease Registry Minimal Risk Level - Acute Exposure (<14 days)
- H<sub>2</sub>S Hydrogen Sulfide
- hr Hour
- ppb Parts per billion
- MRL Exceedance Defines if the 24-hr TWA exceeded the MRL at any time during the period of this report
- SPM Single Point Monitor
- TWA Time Weighted Average



# H<sub>2</sub>S in South Carolina

## Hydrogen Sulfide 15-min and 24-hr Time Weighted Average Graphs

Winds were light and variable to calm throughout the period. After midnight, winds were from the north for several hours, becoming generally from the southeast, when measurable, after midday.



Notes: Time is Eastern Standard Time H<sub>2</sub>S – Hydrogen Sulfide MRL – Minimal Risk Level ppb – Parts per billion Wind data for KUZA



# Air Monitoring Summary Tables

This table summarizes monitoring data collected using DHEC monitors and EPA's Viper wireless remote monitoring system.

**Project Name:** H<sub>2</sub>S in South Carolina



**From:** 2/19/23  
12:00 AM

**To:** 2/19/23  
11:59 PM

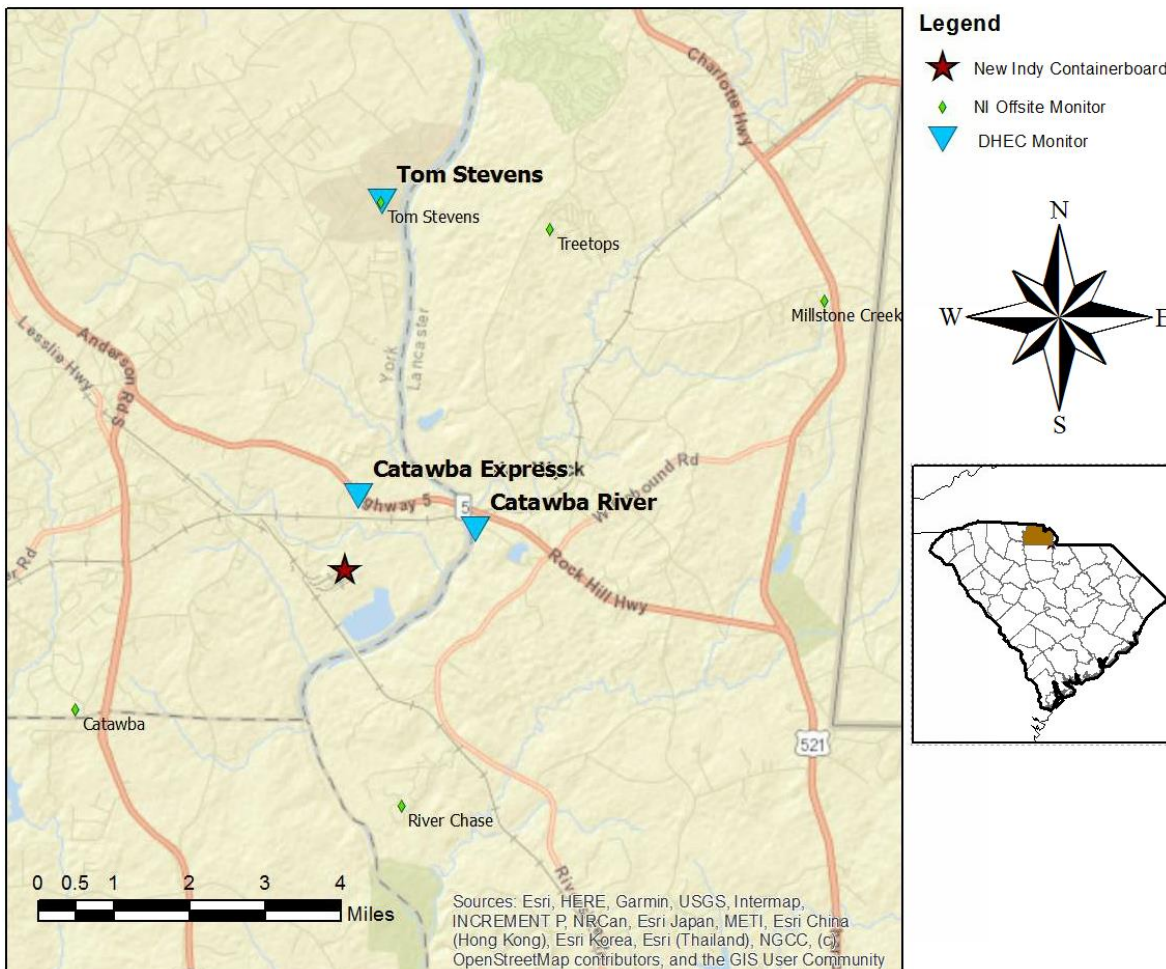
| Catawba River |                  |                       |                    |                      |                     |                |           |
|---------------|------------------|-----------------------|--------------------|----------------------|---------------------|----------------|-----------|
| Instrument    | Analyte          | ATSDR MRL Exceedance? | Number of Readings | Number of Detections | Concentration Range | Period Average | ATSDR MRL |
| SPM Flex 3    | H <sub>2</sub> S | No                    | 2880               | 247                  | 0 - 3 ppb           | 0.14 ppb       | 70 ppb    |

| Catawba Express |                  |                       |                    |                      |                     |                |           |
|-----------------|------------------|-----------------------|--------------------|----------------------|---------------------|----------------|-----------|
| Instrument      | Analyte          | ATSDR MRL Exceedance? | Number of Readings | Number of Detections | Concentration Range | Period Average | ATSDR MRL |
| SPM Flex 2      | H <sub>2</sub> S | No                    | 2897               | 2021                 | 0 - 17 ppb          | 3.07 ppb       | 70 ppb    |

**Notes:**

Hydrogen sulfide concentrations presented in this data summary table are converted from parts per million, the instrument readout units, to parts per billion. The SPM FLEX Minimum Detectable Limit (MDL) is 1 ppb of Hydrogen Sulfide.

- ATSDR MRL Agency for Toxic Substances and Disease Registry Minimal Risk Level - Acute Exposure (<14 days)
- H<sub>2</sub>S Hydrogen Sulfide
- hr Hour
- ppb Parts per billion
- MRL Exceedance Defines if the 24-hr TWA exceeded the MRL at any time during the period of this report
- SPM Single Point Monitor
- TWA Time Weighted Average

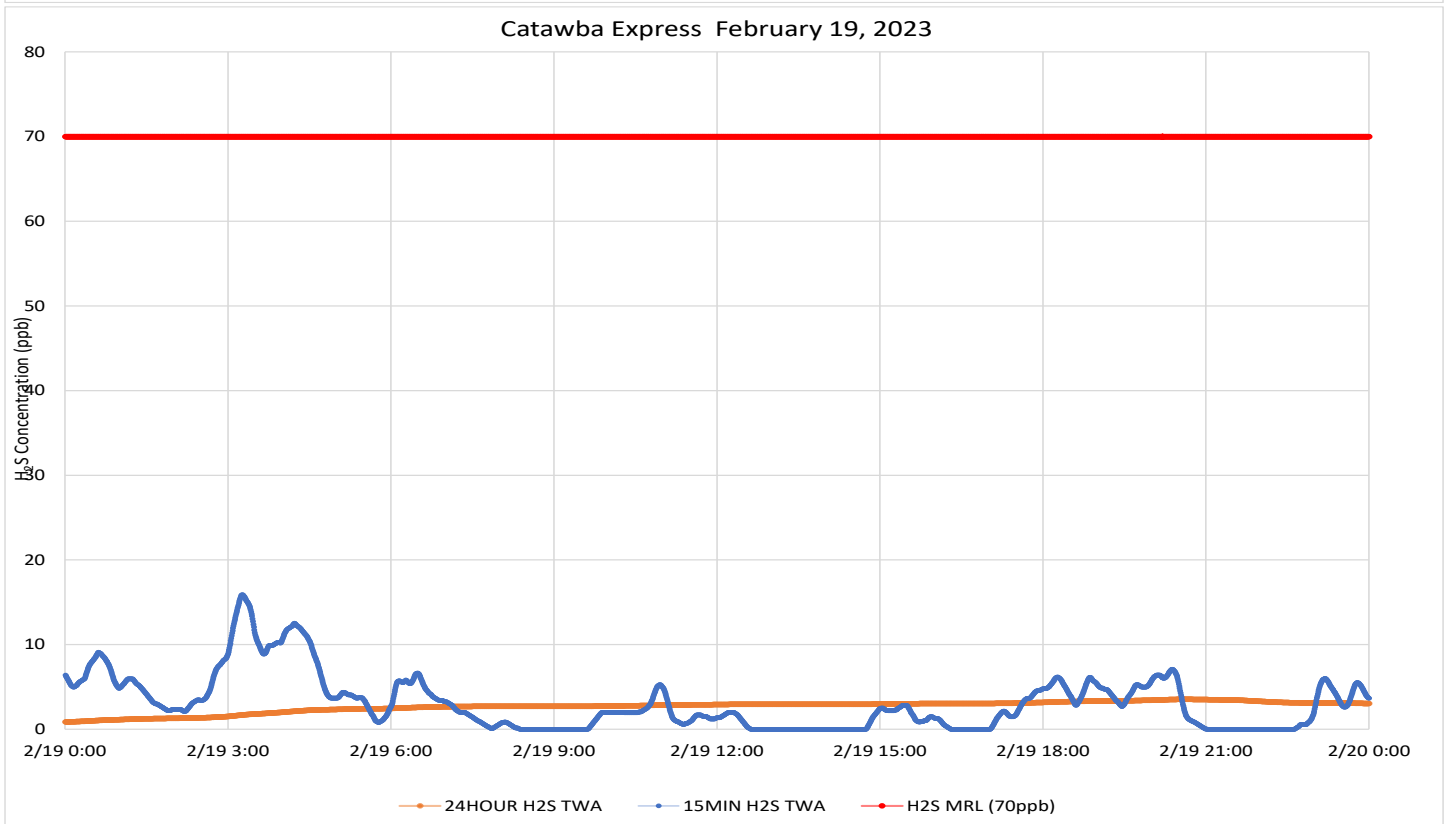
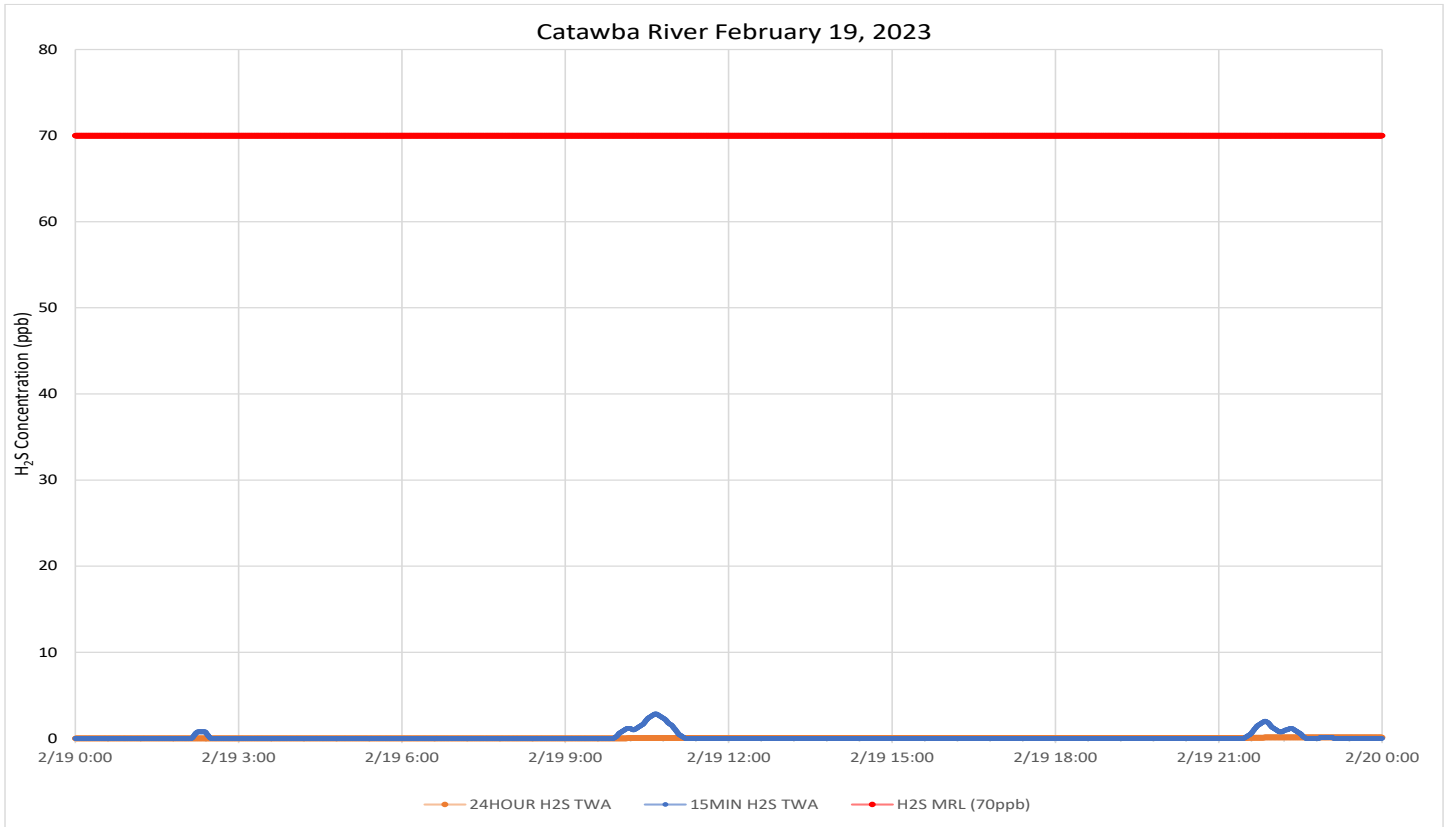


Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community

# H<sub>2</sub>S in South Carolina

## Hydrogen Sulfide 15-min and 24-hr Time Weighted Average Graphs

Except for several calm hours in the morning, winds were from the south to south southwest.



Notes: Time is Eastern Standard Time H<sub>2</sub>S – Hydrogen Sulfide MRL – Minimal Risk Level ppb – Parts per billion Wind data for KUZA

# Air Monitoring Summary Tables

This table summarizes monitoring data collected using DHEC monitors and EPA's Viper wireless remote monitoring system.



**Project Name:** H<sub>2</sub>S in South Carolina

**From:** 2/20/23  
12:00 AM

**To:** 2/20/23  
11:59 PM

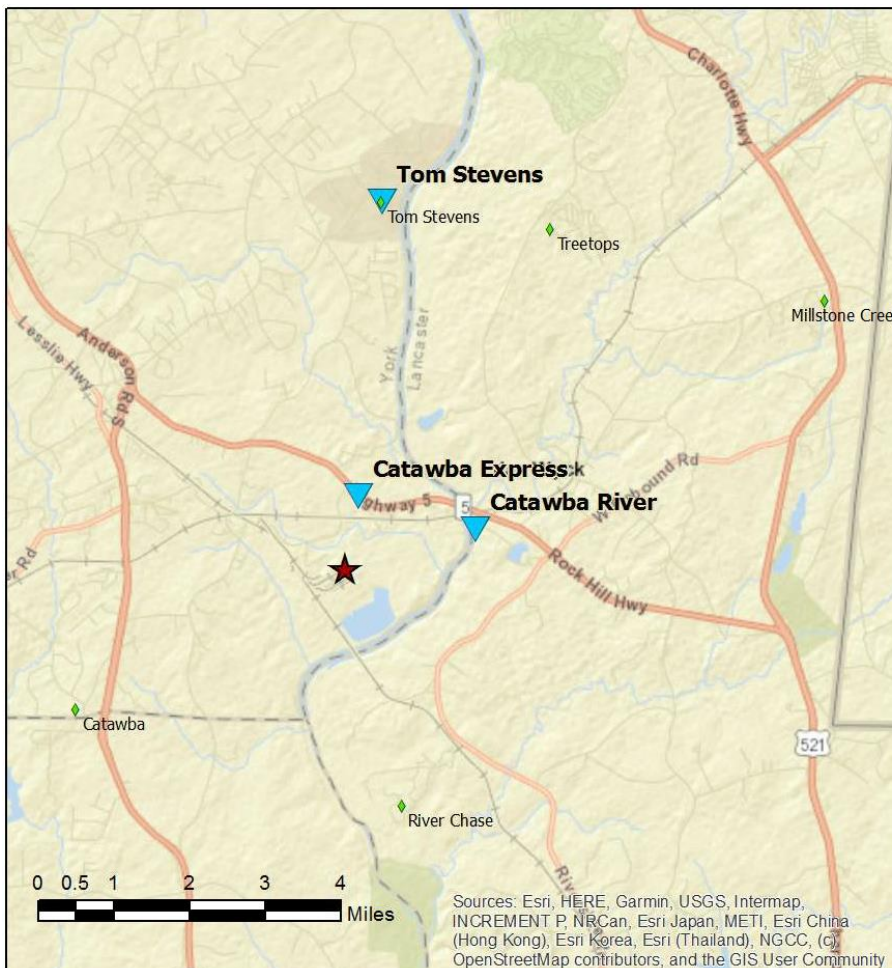
| Catawba River |         |                       |                    |                      |                     |                |           |
|---------------|---------|-----------------------|--------------------|----------------------|---------------------|----------------|-----------|
| Instrument    | Analyte | ATSDR MRL Exceedance? | Number of Readings | Number of Detections | Concentration Range | Period Average | ATSDR MRL |
| SPM Flex 3    | H2S     | No                    | 2880               | 639                  | 0 - 11 ppb          | 0.53 ppb       | 70 ppb    |

| Catawba Express |         |                       |                    |                      |                     |                |           |
|-----------------|---------|-----------------------|--------------------|----------------------|---------------------|----------------|-----------|
| Instrument      | Analyte | ATSDR MRL Exceedance? | Number of Readings | Number of Detections | Concentration Range | Period Average | ATSDR MRL |
| SPM Flex 2      | H2S     | No                    | 2879               | 902                  | 0 - 29 ppb          | 2.19 ppb       | 70 ppb    |

**Notes:**

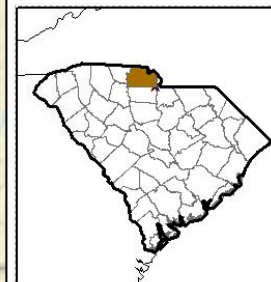
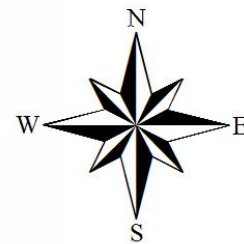
Hydrogen sulfide concentrations presented in this data summary table are converted from parts per million, the instrument readout units, to parts per billion. The SPM FLEX Minimum Detectable Limit (MDL) is 1 ppb of Hydrogen Sulfide.

- ATSDR MRL Agency for Toxic Substances and Disease Registry Minimal Risk Level - Acute Exposure (<14 days)
- H<sub>2</sub>S Hydrogen Sulfide
- hr Hour
- ppb Parts per billion
- MRL Exceedance Defines if the 24-hr TWA exceeded the MRL at any time during the period of this report
- SPM Single Point Monitor
- TWA Time Weighted Average



**Legend**

- ★ New Indy Containerboard
- ◆ NI Offsite Monitor
- ▲ DHEC Monitor

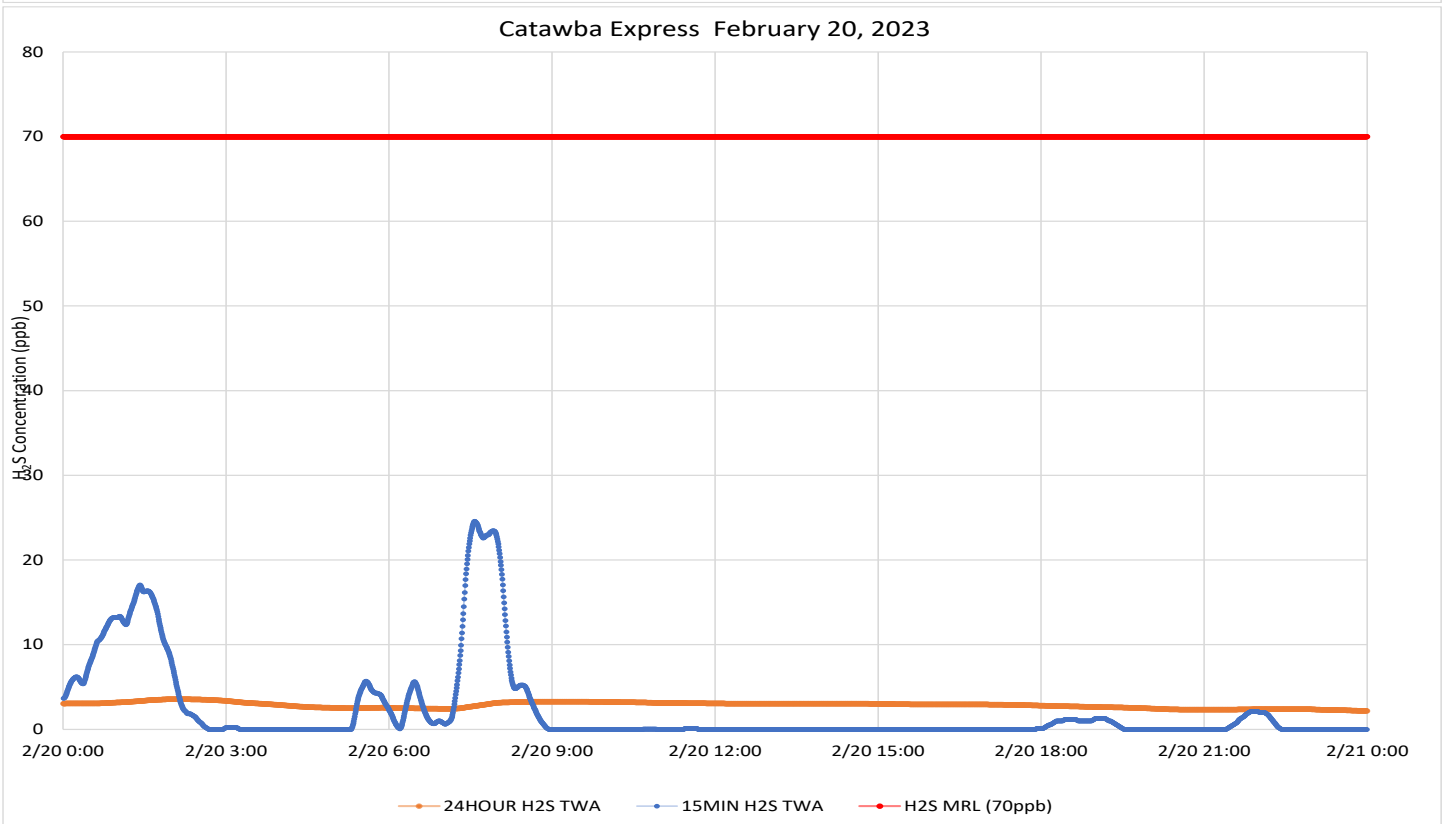
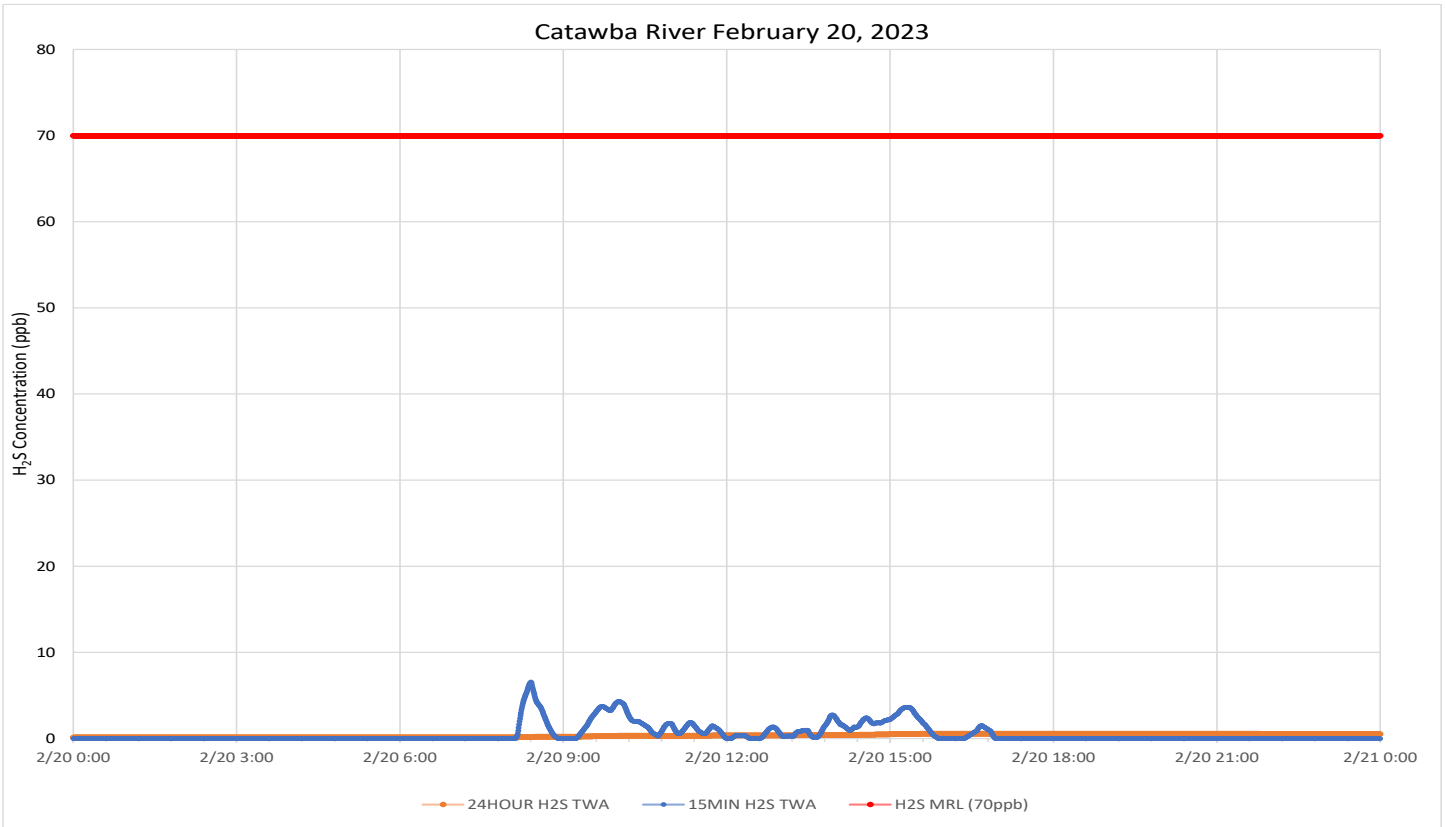


Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community

# H<sub>2</sub>S in South Carolina

## Hydrogen Sulfide 15-min and 24-hr Time Weighted Average Graphs

Winds were from the south southwest to west southwest throughout the period.



Notes: Time is Eastern Standard Time H<sub>2</sub>S – Hydrogen Sulfide MRL – Minimal Risk Level ppb – Parts per billion Wind data for KUZA



# Air Monitoring Summary Tables

This table summarizes monitoring data collected using DHEC monitors and EPA's Viper wireless remote monitoring system.



**Project Name:** H<sub>2</sub>S in South Carolina

**From:** 2/21/23  
12:00 AM

**To:** 2/21/23  
11:59 PM

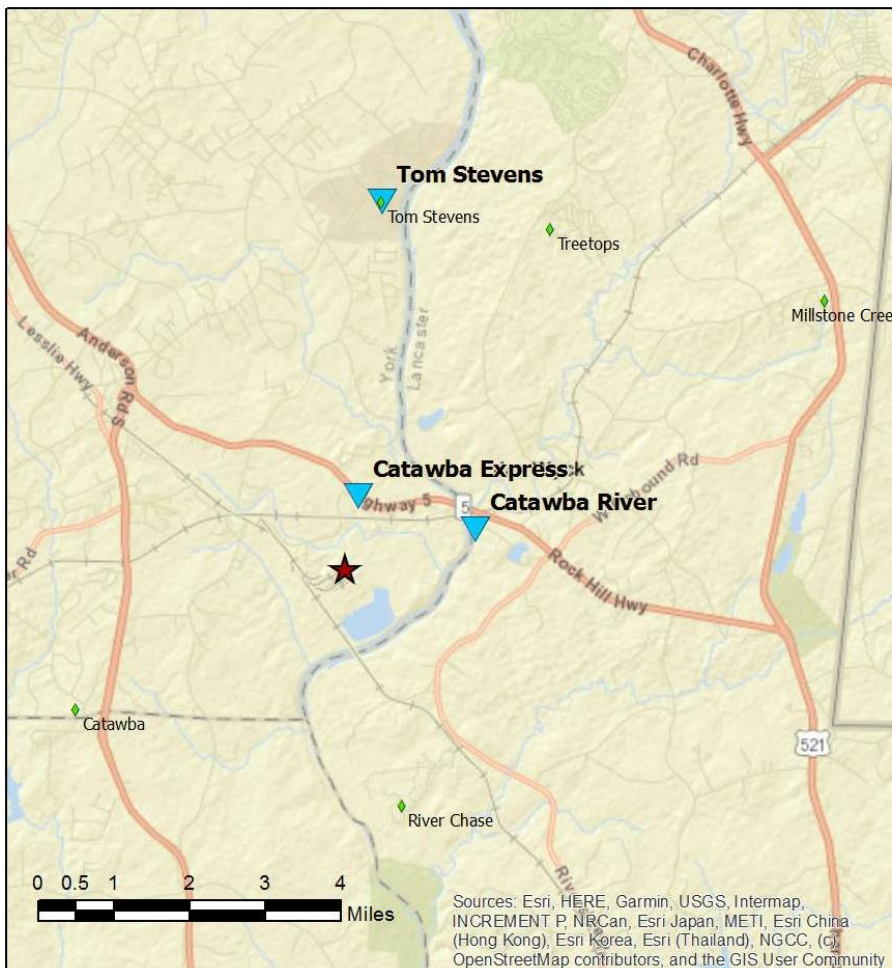
| Catawba River |                  |                       |                    |                      |                     |                |           |
|---------------|------------------|-----------------------|--------------------|----------------------|---------------------|----------------|-----------|
| Instrument    | Analyte          | ATSDR MRL Exceedance? | Number of Readings | Number of Detections | Concentration Range | Period Average | ATSDR MRL |
| SPM Flex 3    | H <sub>2</sub> S | No                    | 2880               | 1363                 | 0 - 14 ppb          | 1.62 ppb       | 70 ppb    |

| Catawba Express |                  |                       |                    |                      |                     |                |           |
|-----------------|------------------|-----------------------|--------------------|----------------------|---------------------|----------------|-----------|
| Instrument      | Analyte          | ATSDR MRL Exceedance? | Number of Readings | Number of Detections | Concentration Range | Period Average | ATSDR MRL |
| SPM Flex 2      | H <sub>2</sub> S | No                    | 4595               | 32                   | 0 - 2 ppb           | 0.01 ppb       | 70 ppb    |

**Notes:**

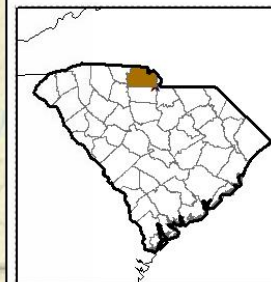
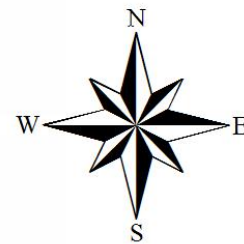
Hydrogen sulfide concentrations presented in this data summary table are converted from parts per million, the instrument readout units, to parts per billion. The SPM FLEX Minimum Detectable Limit (MDL) is 1 ppb of Hydrogen Sulfide.

- ATSDR MRL Agency for Toxic Substances and Disease Registry Minimal Risk Level - Acute Exposure (<14 days)
- H<sub>2</sub>S Hydrogen Sulfide
- hr Hour
- ppb Parts per billion
- MRL Exceedance Defines if the 24-hr TWA exceeded the MRL at any time during the period of this report
- SPM Single Point Monitor
- TWA Time Weighted Average



**Legend**

- ★ New Indy Containerboard
- ◆ NI Offsite Monitor
- ▼ DHEC Monitor



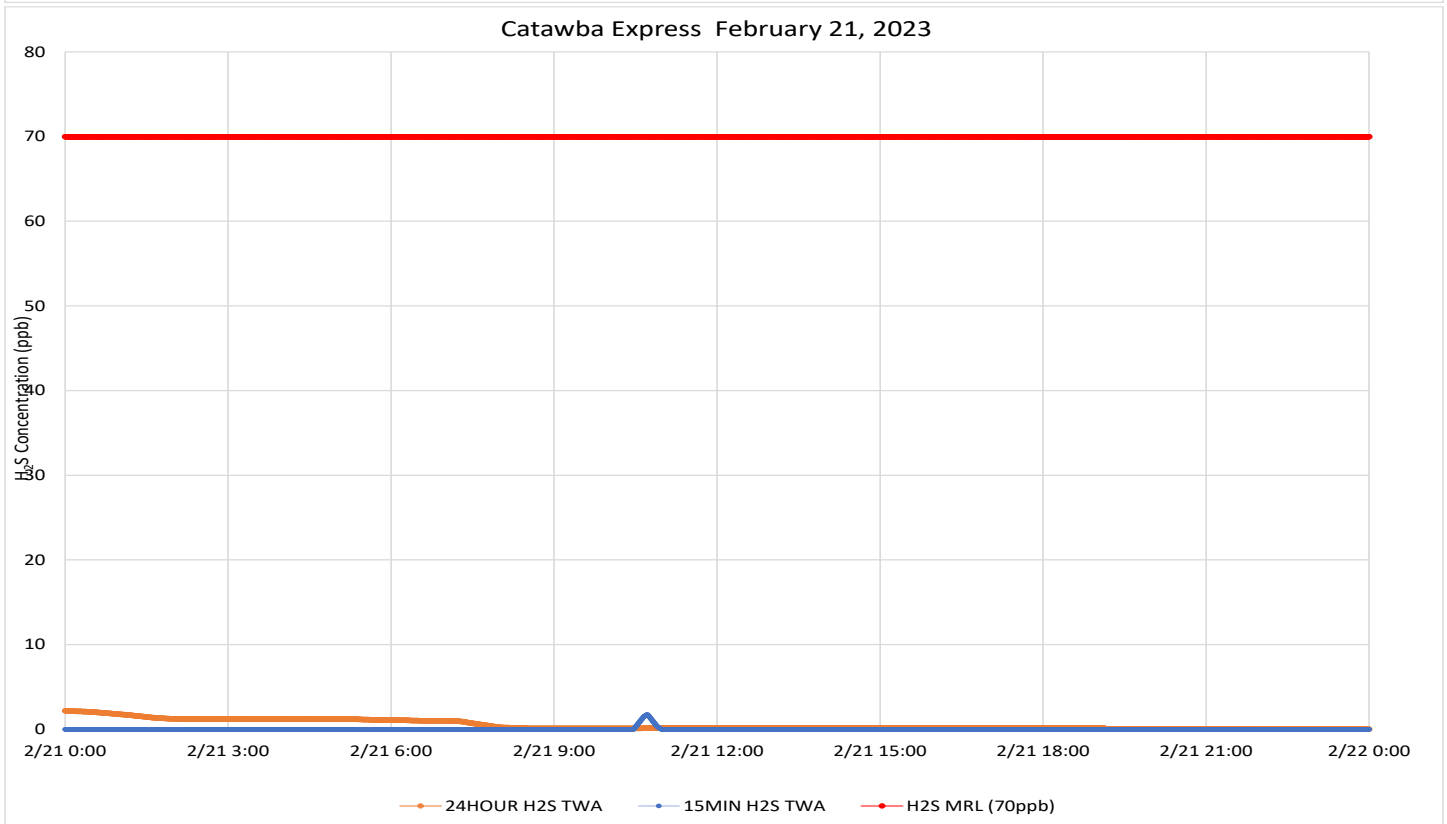
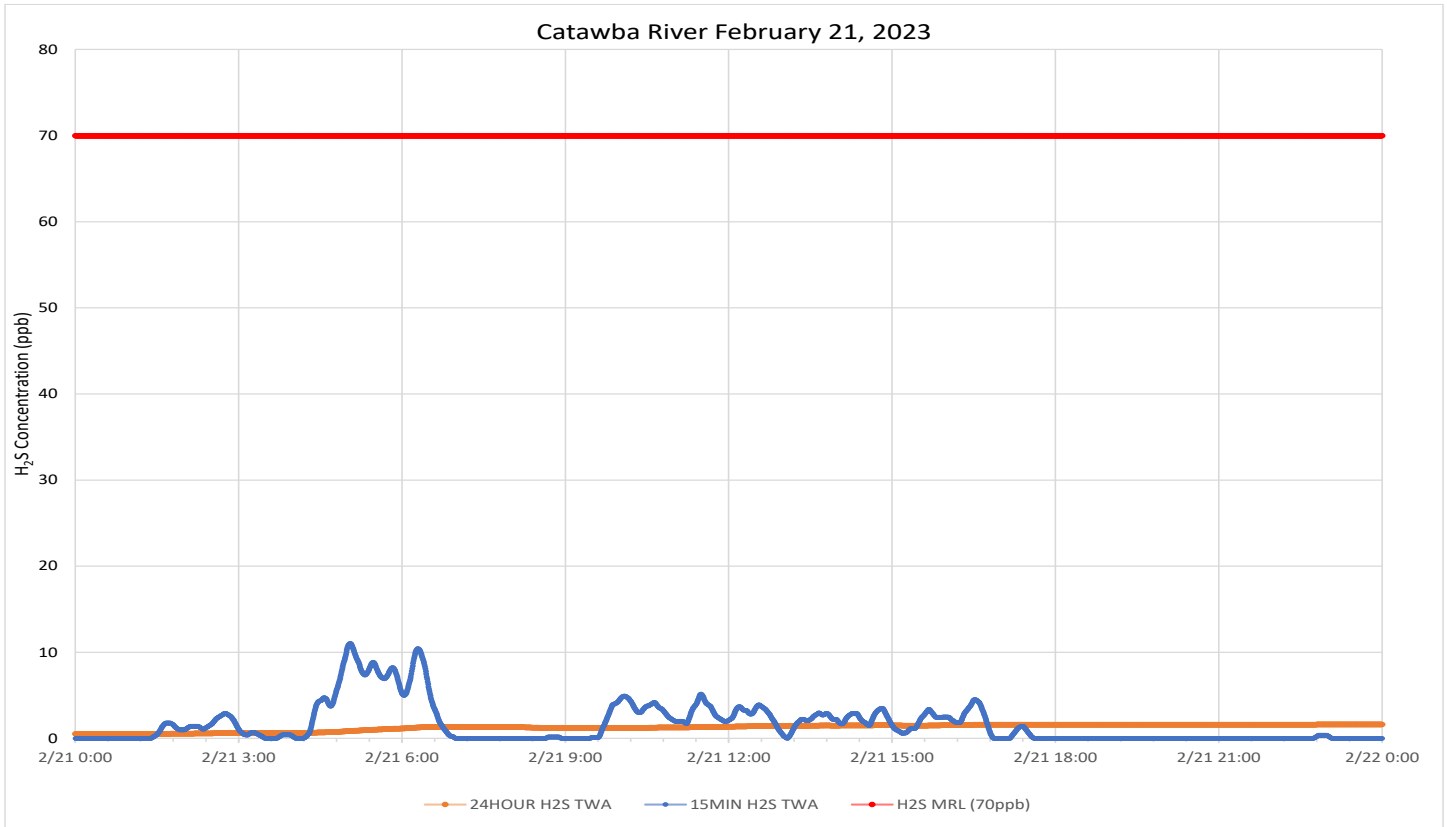
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community



# H<sub>2</sub>S in South Carolina

## Hydrogen Sulfide 15-min and 24-hr Time Weighted Average Graphs

Winds were from the south southwest to west throughout the period.



Notes: Time is Eastern Standard Time H<sub>2</sub>S – Hydrogen Sulfide MRL – Minimal Risk Level ppb – Parts per billion Wind data for KUZA

# Air Monitoring Summary Tables

This table summarizes monitoring data collected using DHEC monitors and EPA's Viper wireless remote monitoring system.



**Project Name:** H<sub>2</sub>S in South Carolina

**From:** 2/22/23  
12:00 AM

**To:** 2/22/23  
11:59 PM

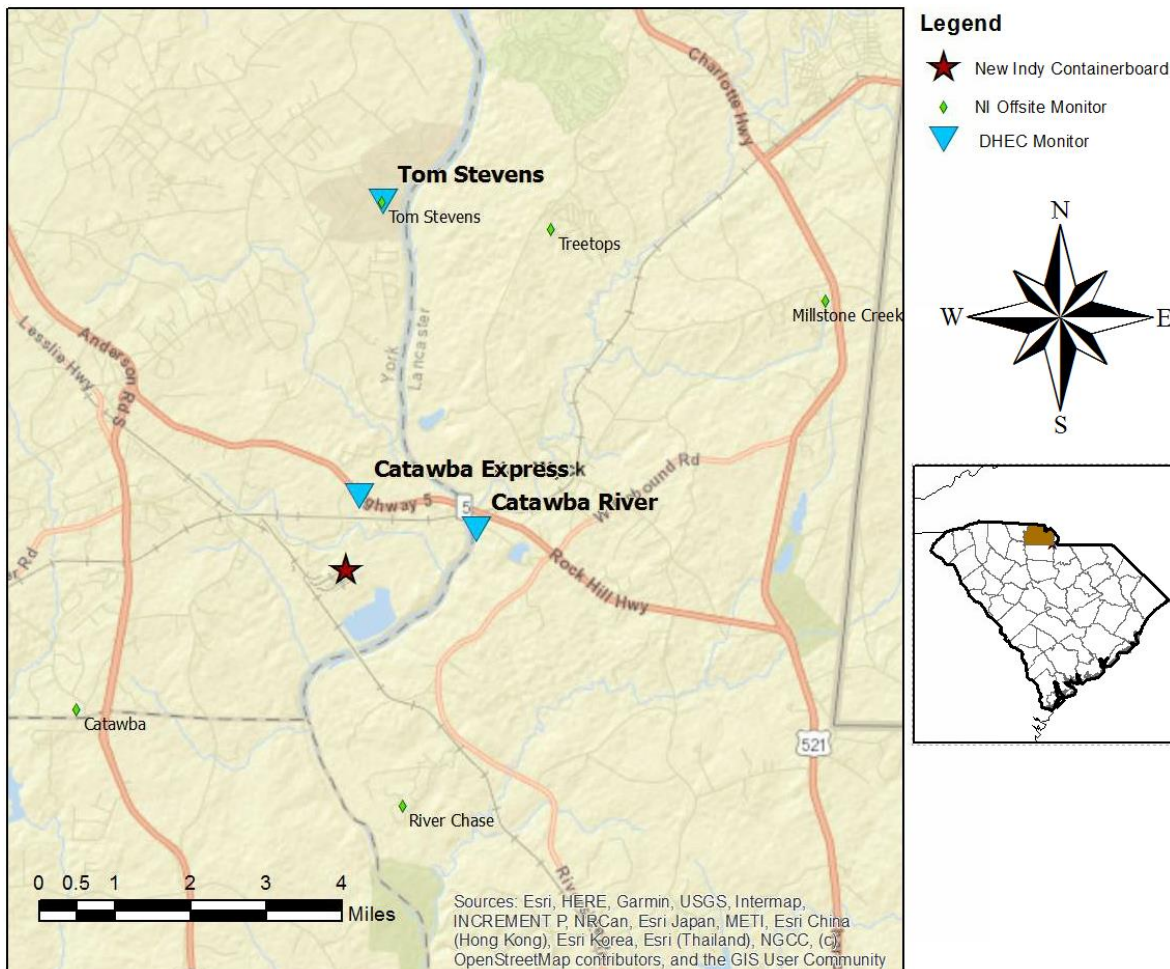
| Catawba River |                  |                       |                    |                      |                     |                |           |
|---------------|------------------|-----------------------|--------------------|----------------------|---------------------|----------------|-----------|
| Instrument    | Analyte          | ATSDR MRL Exceedance? | Number of Readings | Number of Detections | Concentration Range | Period Average | ATSDR MRL |
| SPM Flex 3    | H <sub>2</sub> S | No                    | 2880               | 98                   | 0 - 6 ppb           | 0.1 ppb        | 70 ppb    |

| Catawba Express |                  |                       |                    |                      |                     |                |           |
|-----------------|------------------|-----------------------|--------------------|----------------------|---------------------|----------------|-----------|
| Instrument      | Analyte          | ATSDR MRL Exceedance? | Number of Readings | Number of Detections | Concentration Range | Period Average | ATSDR MRL |
| SPM Flex 2      | H <sub>2</sub> S | No                    | 5460               | 915                  | 0 - 23 ppb          | 0.9 ppb        | 70 ppb    |

**Notes:**

Hydrogen sulfide concentrations presented in this data summary table are converted from parts per million, the instrument readout units, to parts per billion. The SPM FLEX Minimum Detectable Limit (MDL) is 1 ppb of Hydrogen Sulfide.

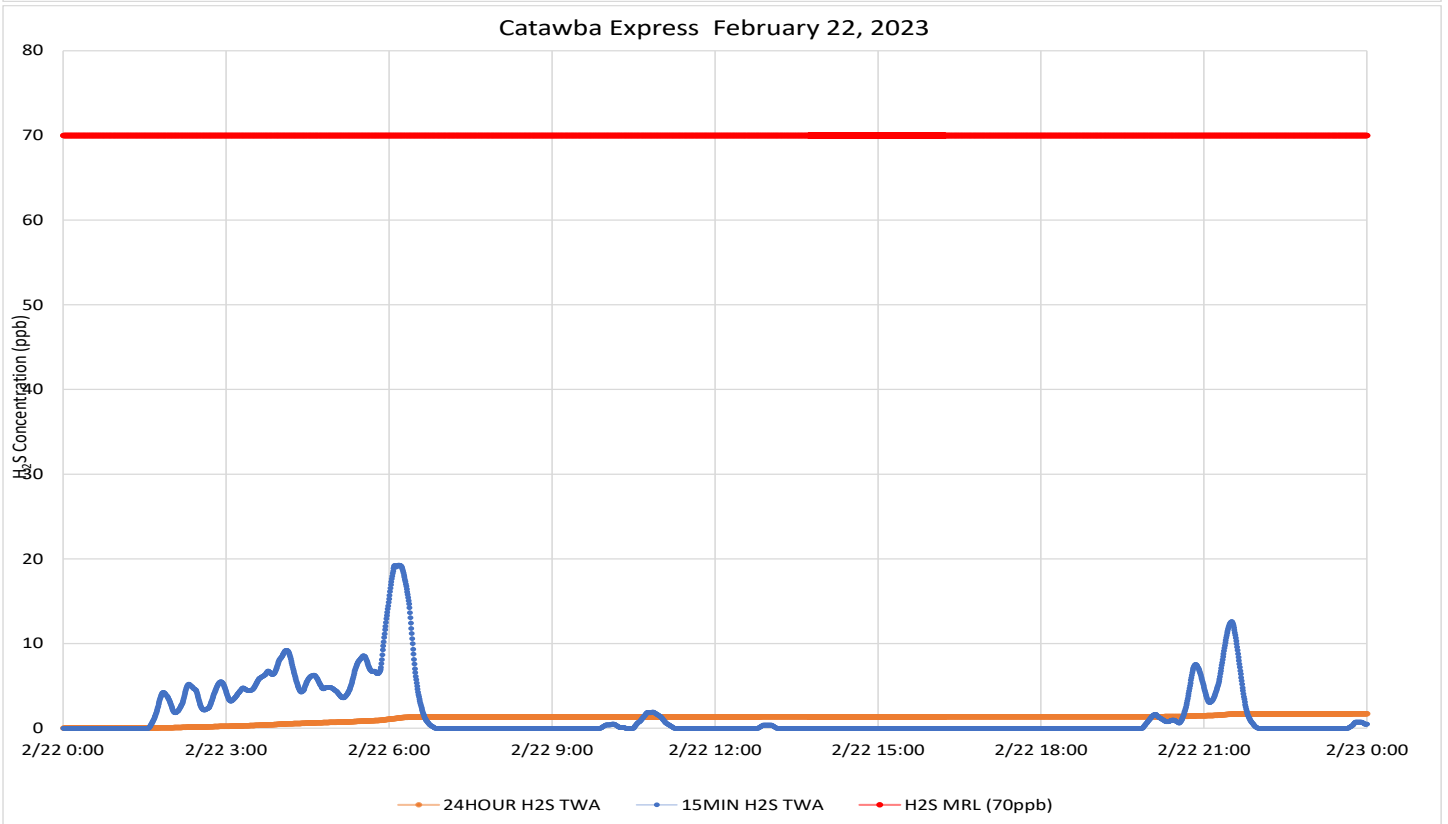
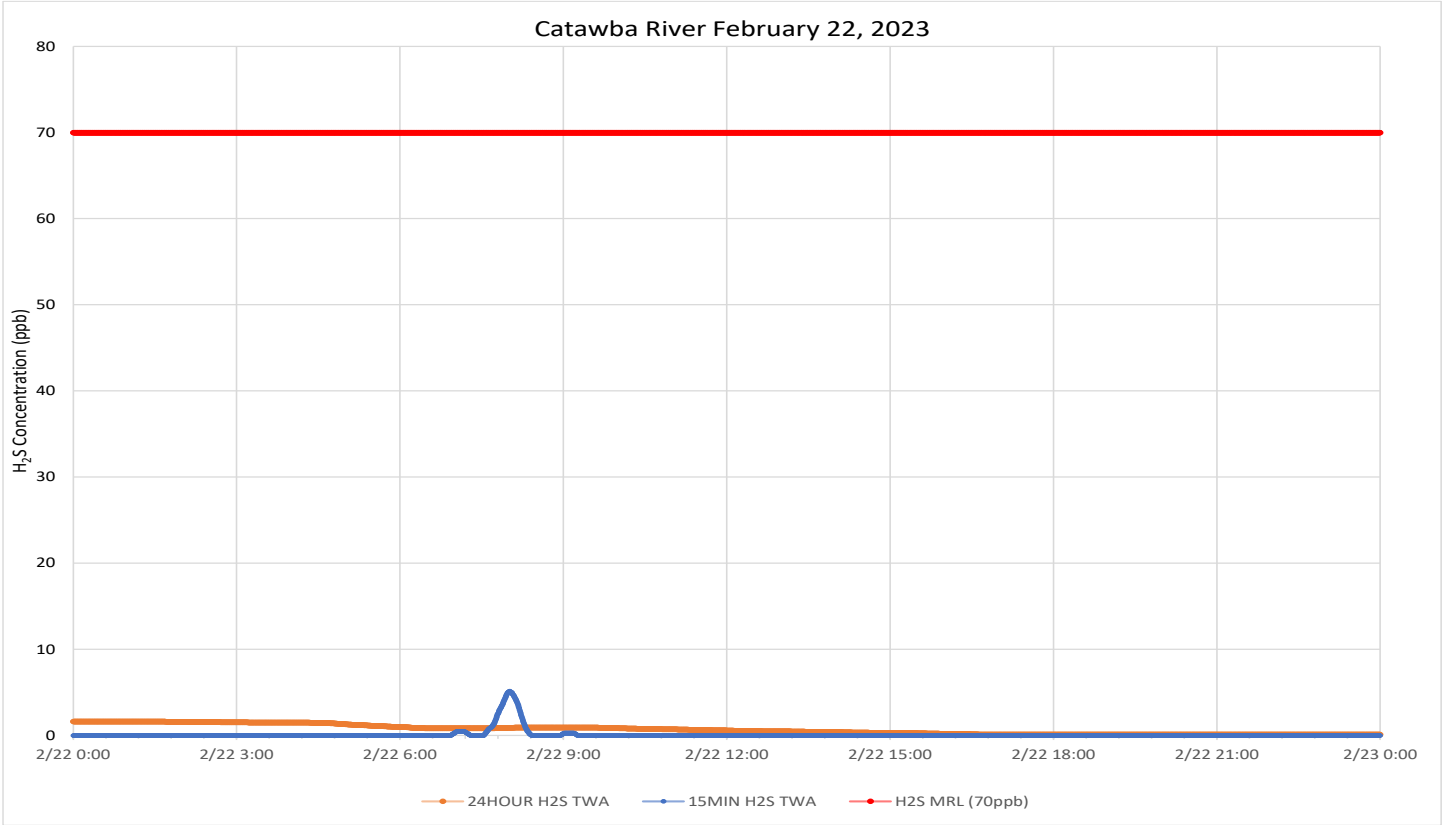
- ATSDR MRL Agency for Toxic Substances and Disease Registry Minimal Risk Level - Acute Exposure (<14 days)
- H<sub>2</sub>S Hydrogen Sulfide
- hr Hour
- ppb Parts per billion
- MRL Exceedance Defines if the 24-hr TWA exceeded the MRL at any time during the period of this report
- SPM Single Point Monitor
- TWA Time Weighted Average



# H<sub>2</sub>S in South Carolina

## Hydrogen Sulfide 15-min and 24-hr Time Weighted Average Graphs

Winds were calm in the very early morning and generally from the southwest thereafter, varying from south southwest to west southwest.



Notes: Time is Eastern Standard Time H<sub>2</sub>S – Hydrogen Sulfide MRL – Minimal Risk Level ppb – Parts per billion Wind data for KUZA

# Air Monitoring Summary Tables

This table summarizes monitoring data collected using DHEC monitors and EPA's Viper wireless remote monitoring system.



**Project Name:** H<sub>2</sub>S in South Carolina

**From:** 2/23/23  
12:00 AM

**To:** 2/23/23  
11:59 PM

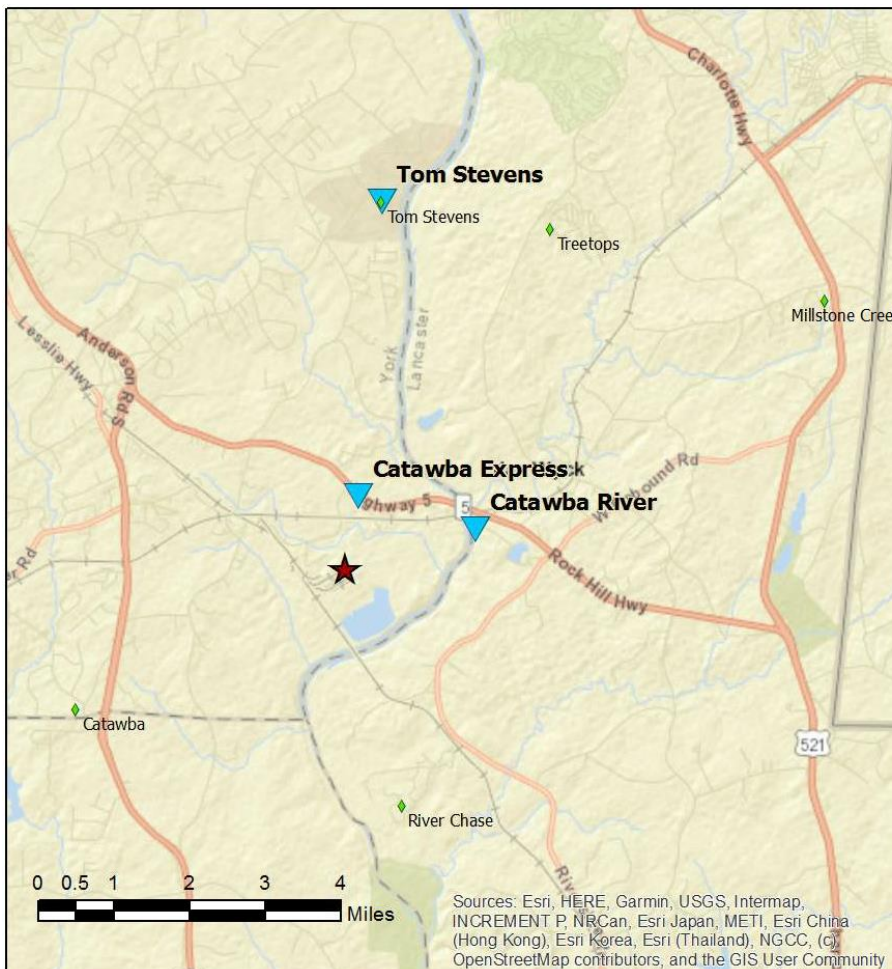
| Catawba River |                  |                       |                    |                      |                     |                |           |
|---------------|------------------|-----------------------|--------------------|----------------------|---------------------|----------------|-----------|
| Instrument    | Analyte          | ATSDR MRL Exceedance? | Number of Readings | Number of Detections | Concentration Range | Period Average | ATSDR MRL |
| SPM Flex 3    | H <sub>2</sub> S | No                    | 2880               | 847                  | 0 - 7 ppb           | 0.96 ppb       | 70 ppb    |

| Catawba Express |                  |                       |                    |                      |                     |                |           |
|-----------------|------------------|-----------------------|--------------------|----------------------|---------------------|----------------|-----------|
| Instrument      | Analyte          | ATSDR MRL Exceedance? | Number of Readings | Number of Detections | Concentration Range | Period Average | ATSDR MRL |
| SPM Flex 2      | H <sub>2</sub> S | No                    | 3008               | 113                  | 0 - 3 ppb           | 0.05 ppb       | 70 ppb    |

**Notes:**

Hydrogen sulfide concentrations presented in this data summary table are converted from parts per million, the instrument readout units, to parts per billion. The SPM FLEX Minimum Detectable Limit (MDL) is 1 ppb of Hydrogen Sulfide.

- ATSDR MRL      Agency for Toxic Substances and Disease Registry Minimal Risk Level - Acute Exposure (<14 days)
- H<sub>2</sub>S            Hydrogen Sulfide
- hr                Hour
- ppb              Parts per billion
- MRL Exceedance   Defines if the 24-hr TWA exceeded the MRL at any time during the period of this report
- SPM              Single Point Monitor
- TWA              Time Weighted Average



**Legend**

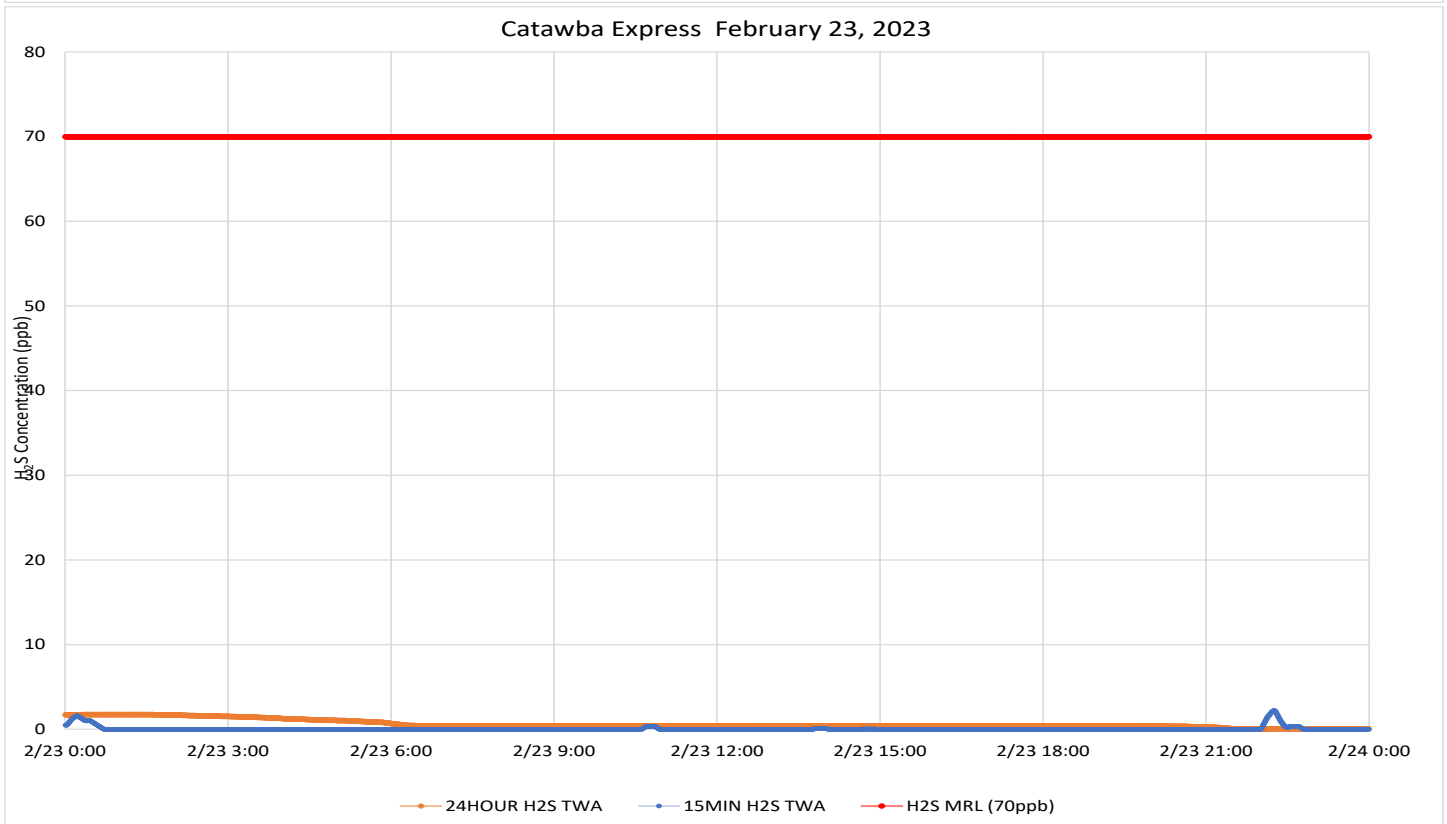
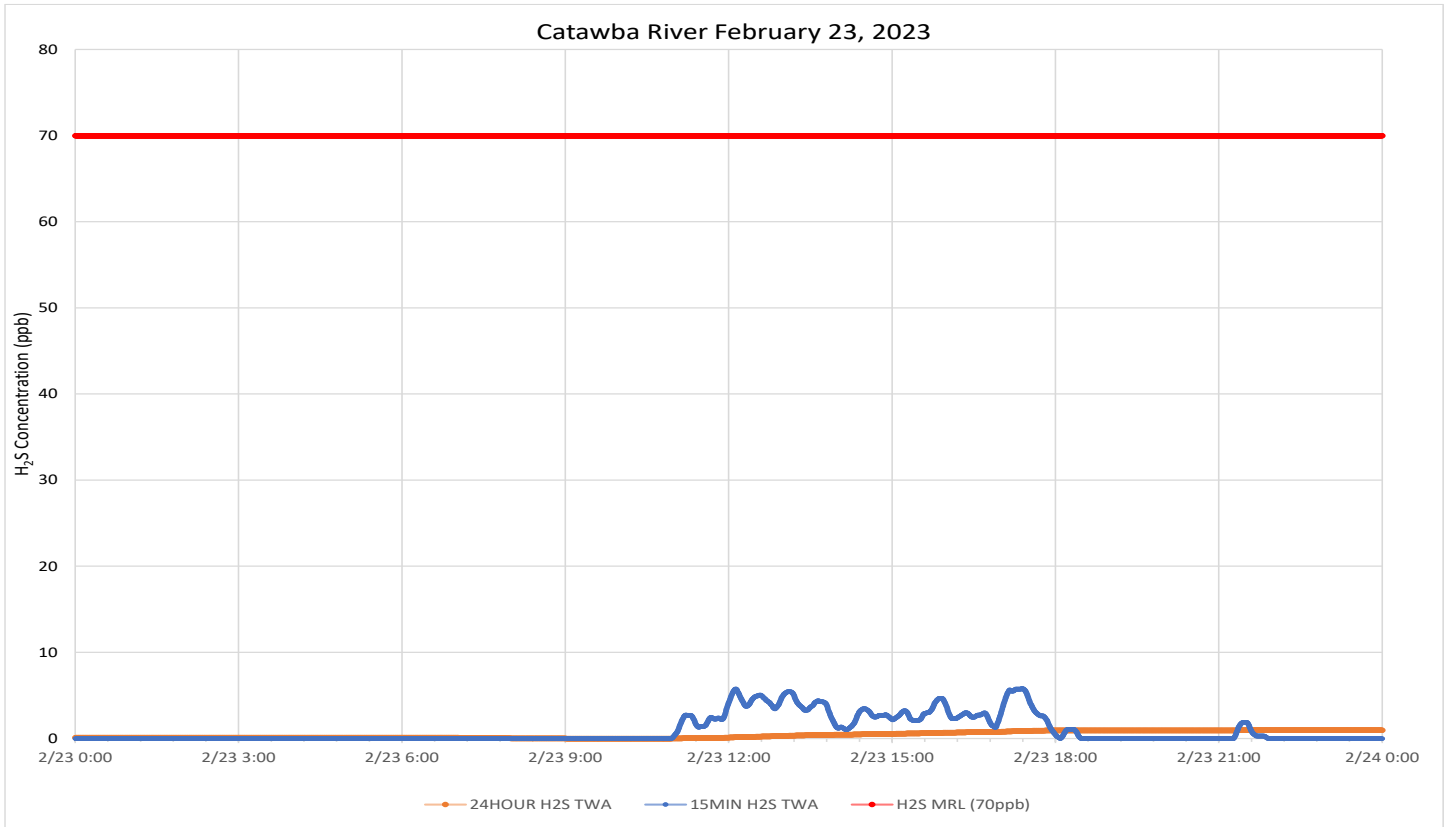
- ★ New Indy Containerboard
- ◆ NI Offsite Monitor
- ▲ DHEC Monitor

Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community

# H<sub>2</sub>S in South Carolina

## Hydrogen Sulfide 15-min and 24-hr Time Weighted Average Graphs

Winds were from the south southwest to west southwest throughout the period.



Notes: Time is Eastern Standard Time H<sub>2</sub>S – Hydrogen Sulfide MRL – Minimal Risk Level ppb – Parts per billion Wind data for KUZA



# Air Monitoring Summary Tables

This table summarizes monitoring data collected using DHEC monitors and EPA's Viper wireless remote monitoring system.



**Project Name:** H<sub>2</sub>S in South Carolina

**From:** 2/24/23  
12:00 AM

**To:** 2/24/23  
11:59 PM

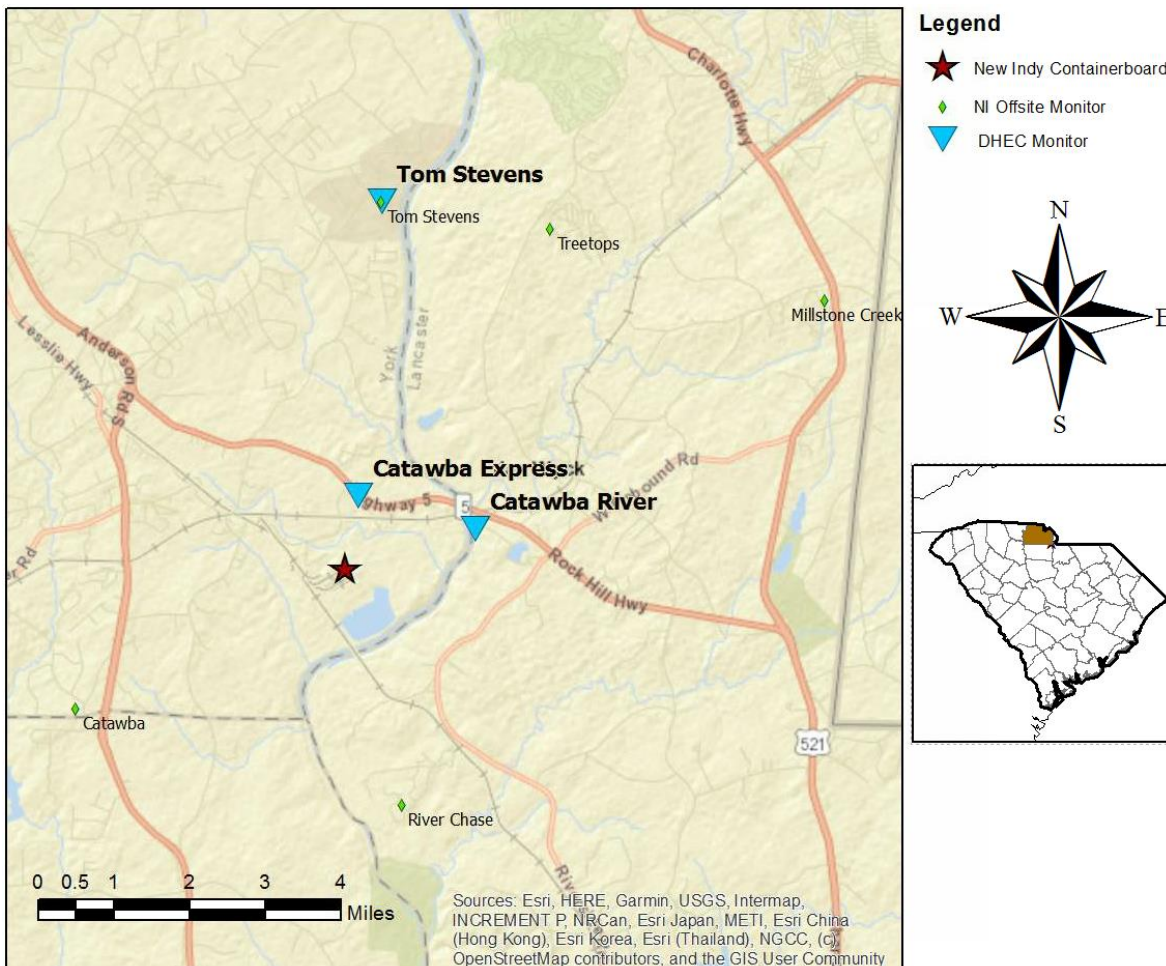
| Catawba River |         |                       |                    |                      |                     |                |           |
|---------------|---------|-----------------------|--------------------|----------------------|---------------------|----------------|-----------|
| Instrument    | Analyte | ATSDR MRL Exceedance? | Number of Readings | Number of Detections | Concentration Range | Period Average | ATSDR MRL |
| SPM Flex 3    | H2S     | No                    | 2880               | 265                  | 0 - 9 ppb           | 0.32 ppb       | 70 ppb    |

| Catawba Express |         |                       |                    |                      |                     |                |           |
|-----------------|---------|-----------------------|--------------------|----------------------|---------------------|----------------|-----------|
| Instrument      | Analyte | ATSDR MRL Exceedance? | Number of Readings | Number of Detections | Concentration Range | Period Average | ATSDR MRL |
| SPM Flex 2      | H2S     | No                    | 4308               | 0                    | 0 - 0 ppb           | 0 ppb          | 70 ppb    |

**Notes:**

Hydrogen sulfide concentrations presented in this data summary table are converted from parts per million, the instrument readout units, to parts per billion. The SPM FLEX Minimum Detectable Limit (MDL) is 1 ppb of Hydrogen Sulfide.

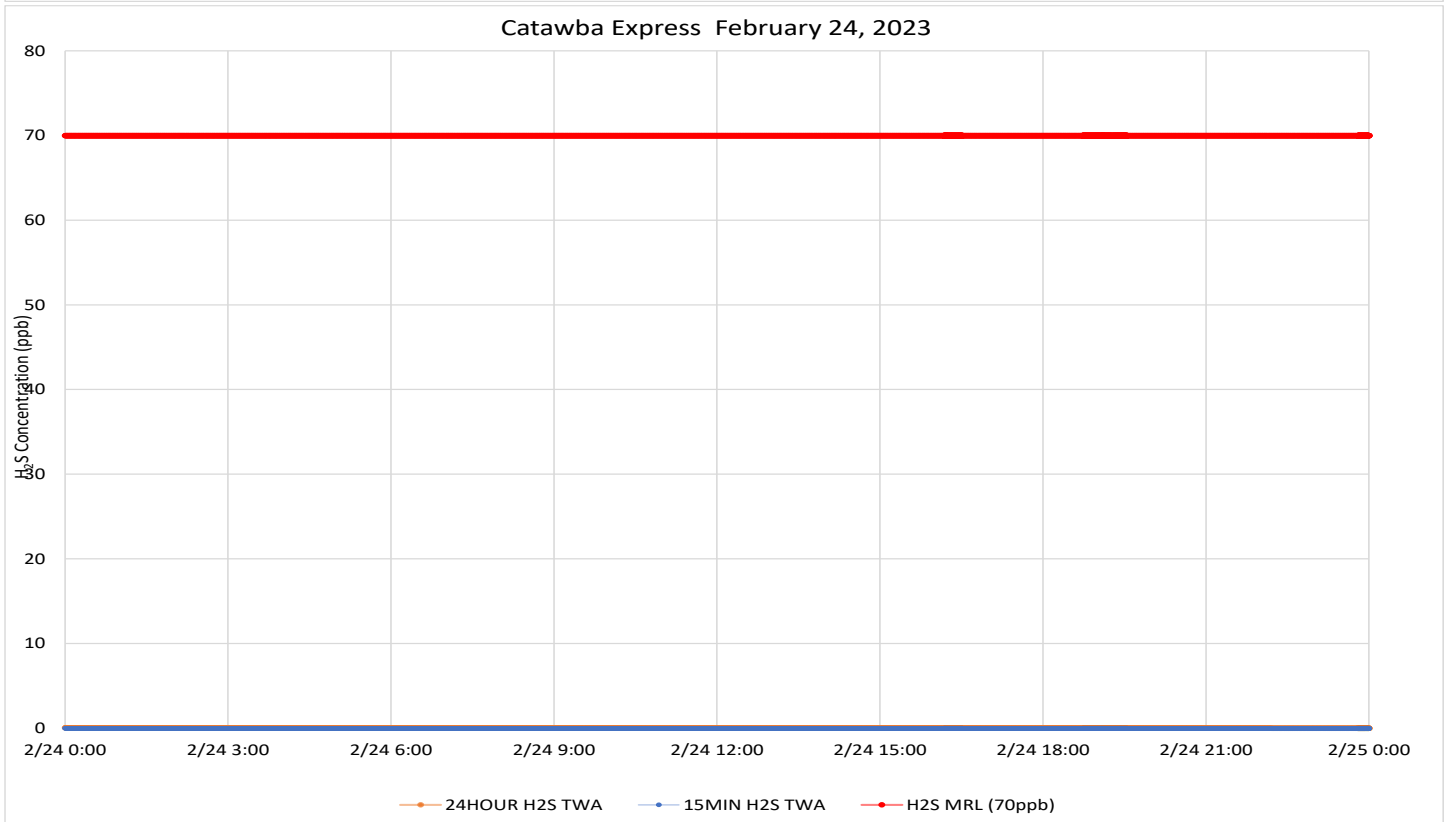
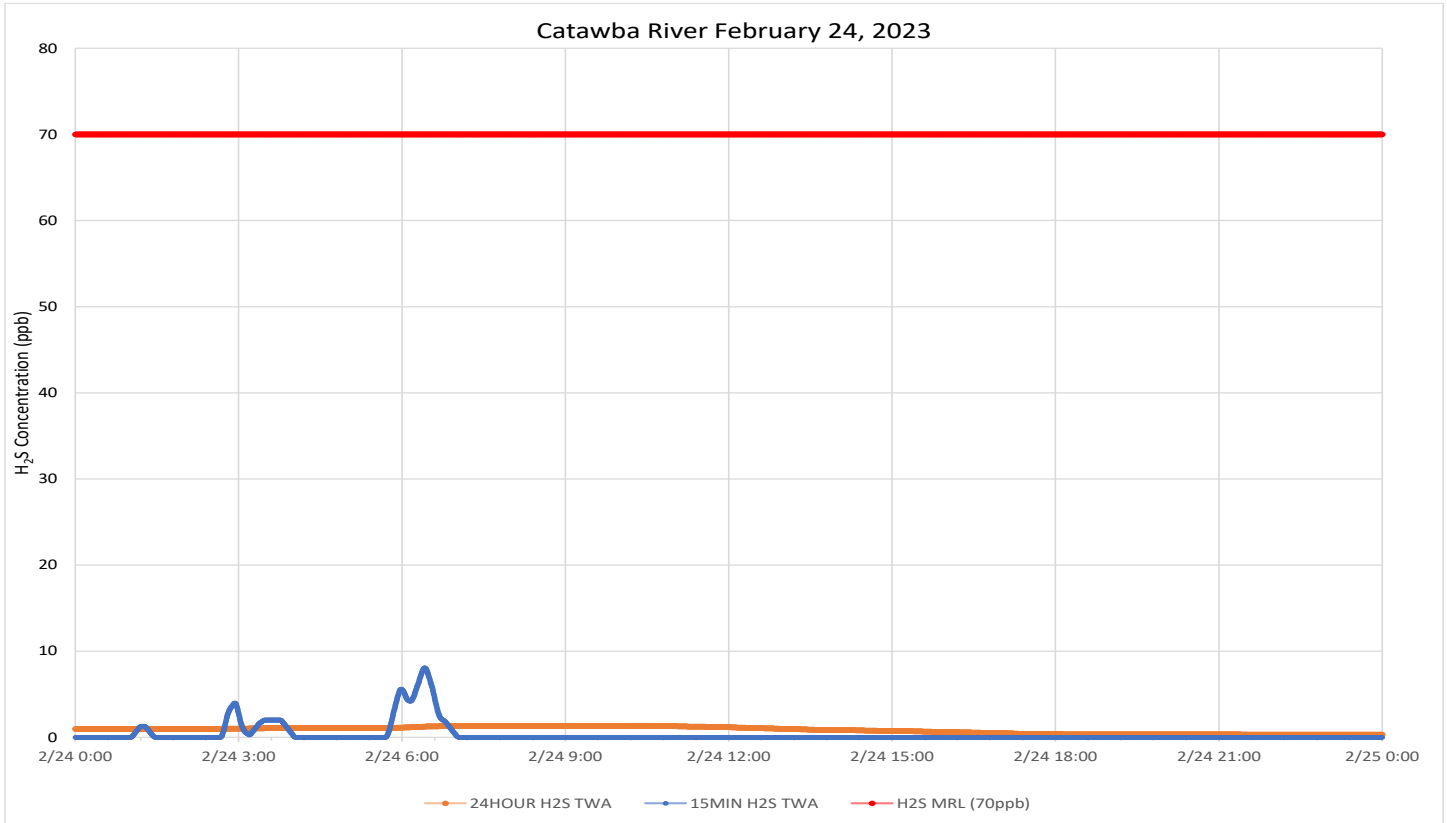
- ATSDR MRL Agency for Toxic Substances and Disease Registry Minimal Risk Level - Acute Exposure (<14 days)
- H<sub>2</sub>S Hydrogen Sulfide
- hr Hour
- ppb Parts per billion
- MRL Exceedance Defines if the 24-hr TWA exceeded the MRL at any time during the period of this report
- SPM Single Point Monitor
- TWA Time Weighted Average



# H<sub>2</sub>S in South Carolina

## Hydrogen Sulfide 15-min and 24-hr Time Weighted Average Graphs

Winds were from the southwest to west southwest through the early morning, shifting to northerly midday, and more variable, from the northeast to east, for the remainder of the period.



Notes: Time is Eastern Standard Time H<sub>2</sub>S – Hydrogen Sulfide MRL – Minimal Risk Level ppb – Parts per billion Wind data for KUZA

# Air Monitoring Summary Tables

This table summarizes monitoring data collected using DHEC monitors and EPA's Viper wireless remote monitoring system.

**Project Name:** H<sub>2</sub>S in South Carolina



**From:** 2/25/23  
12:00 AM

**To:** 2/25/23  
11:59 PM

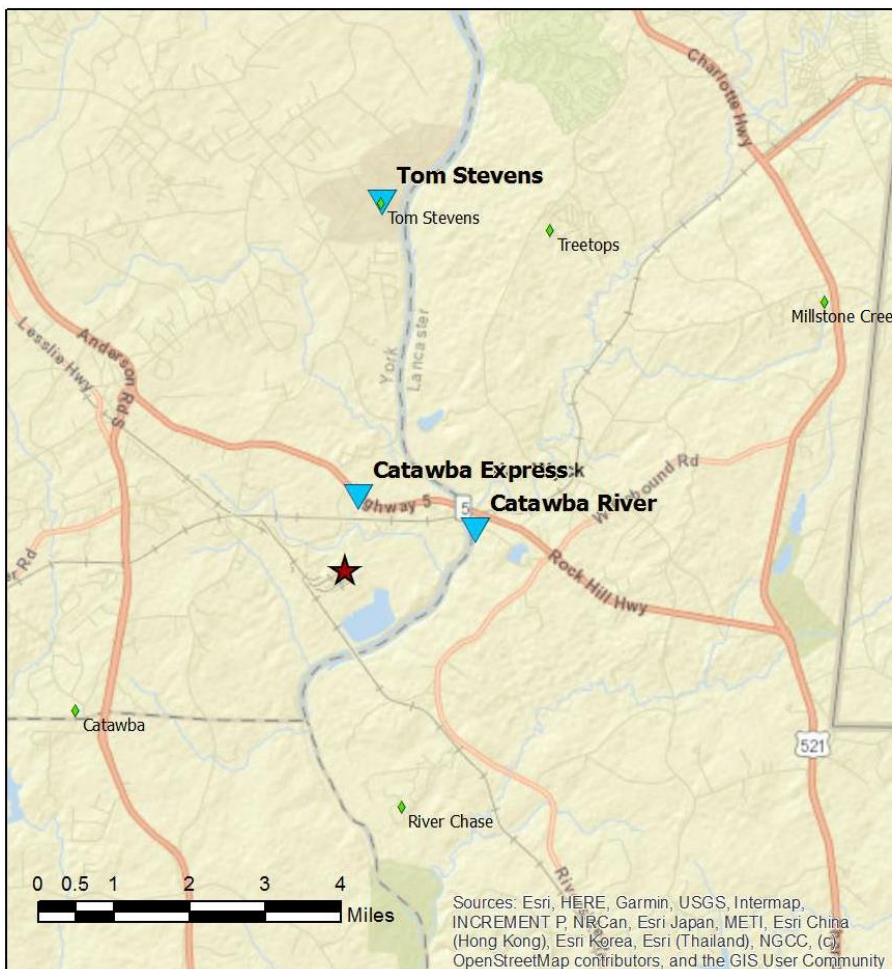
| Catawba River |                  |                       |                    |                      |                     |                |           |
|---------------|------------------|-----------------------|--------------------|----------------------|---------------------|----------------|-----------|
| Instrument    | Analyte          | ATSDR MRL Exceedance? | Number of Readings | Number of Detections | Concentration Range | Period Average | ATSDR MRL |
| SPM Flex 3    | H <sub>2</sub> S | No                    | 16516              | 5047                 | 0 - 5 ppb           | 0.54 ppb       | 70 ppb    |

| Catawba Express |                  |                       |                    |                      |                     |                |           |
|-----------------|------------------|-----------------------|--------------------|----------------------|---------------------|----------------|-----------|
| Instrument      | Analyte          | ATSDR MRL Exceedance? | Number of Readings | Number of Detections | Concentration Range | Period Average | ATSDR MRL |
| SPM Flex 2      | H <sub>2</sub> S | No                    | 4455               | 352                  | 0 - 4 ppb           | 0.18 ppb       | 70 ppb    |

**Notes:**

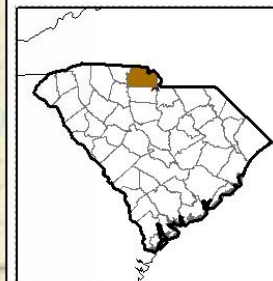
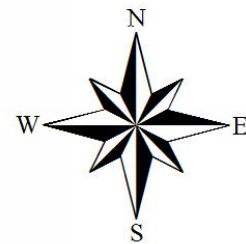
Hydrogen sulfide concentrations presented in this data summary table are converted from parts per million, the instrument readout units, to parts per billion. The SPM FLEX Minimum Detectable Limit (MDL) is 1 ppb of Hydrogen Sulfide.

- ATSDR MRL Agency for Toxic Substances and Disease Registry Minimal Risk Level - Acute Exposure (<14 days)
- H<sub>2</sub>S Hydrogen Sulfide
- hr Hour
- ppb Parts per billion
- MRL Exceedance Defines if the 24-hr TWA exceeded the MRL at any time during the period of this report
- SPM Single Point Monitor
- TWA Time Weighted Average



**Legend**

- ★ New Indy Containerboard
- ◆ NI Offsite Monitor
- ▲ DHEC Monitor

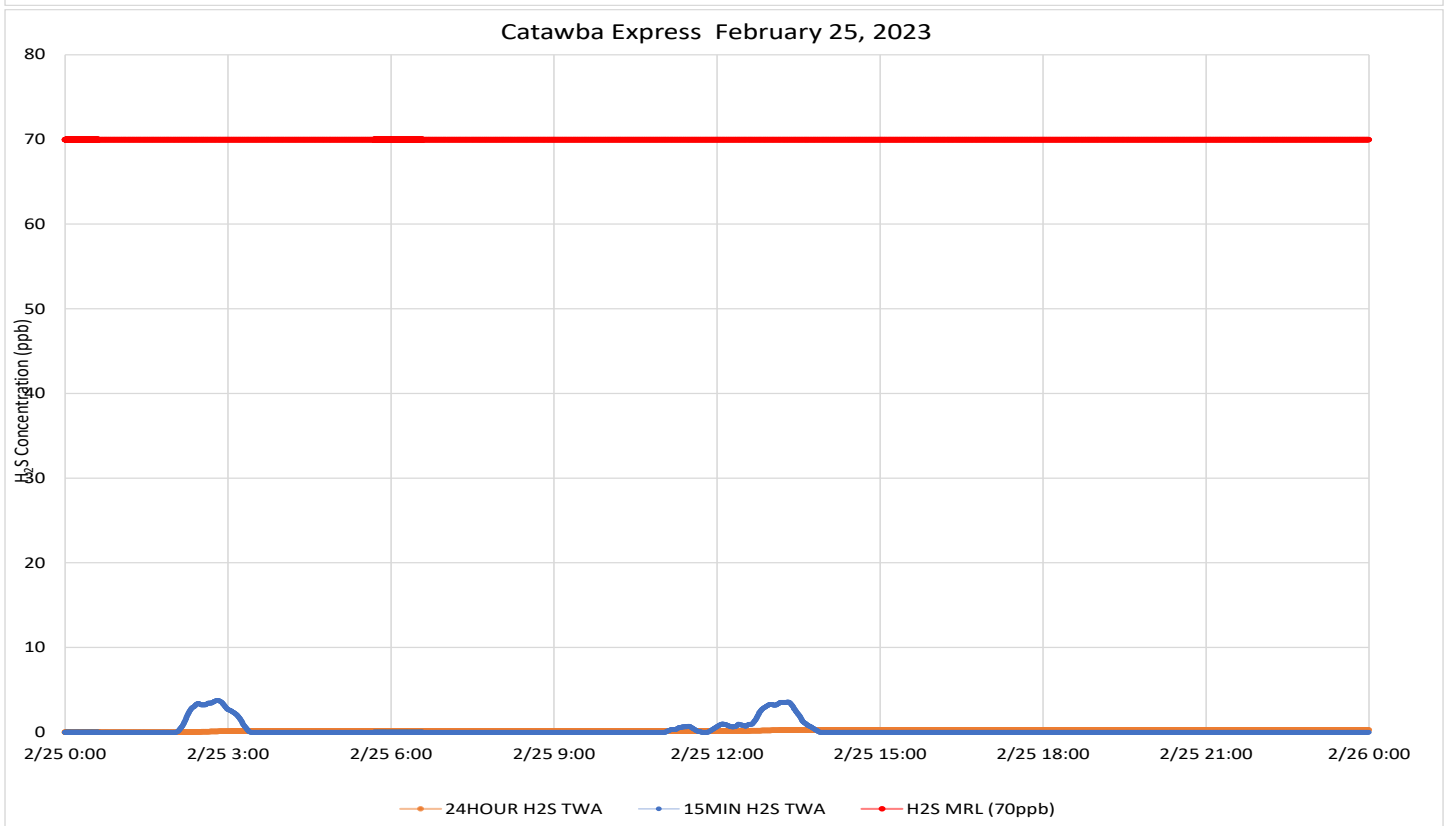
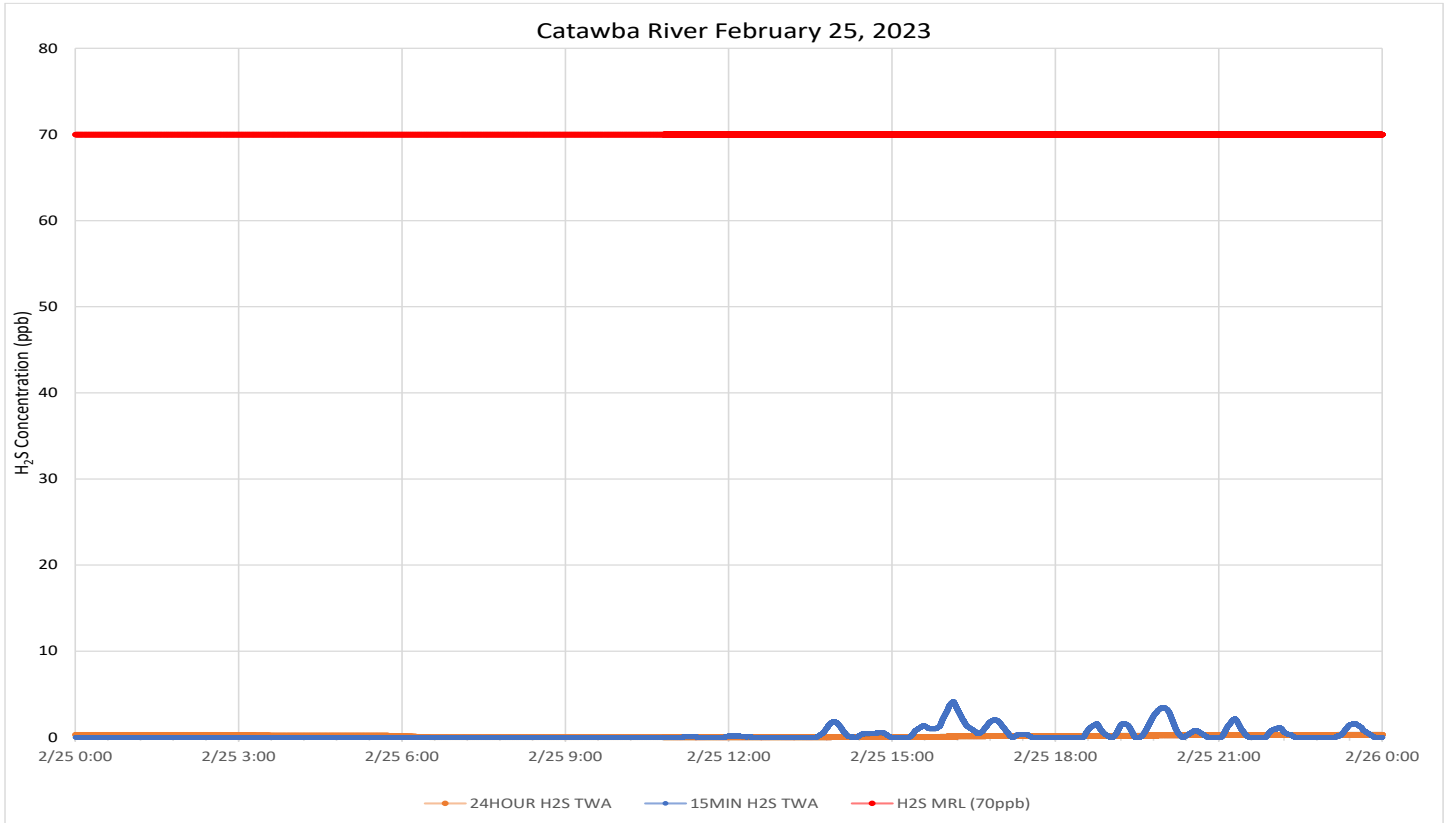


Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community

# H<sub>2</sub>S in South Carolina

## Hydrogen Sulfide 15-min and 24-hr Time Weighted Average Graphs

Winds direction varied widely and included calms during this period. Before noon, wind came from the north through south southeast. After a midday calm, winds came from south southwest to west.



Notes: Time is Eastern Standard Time H<sub>2</sub>S – Hydrogen Sulfide MRL – Minimal Risk Level ppb – Parts per billion Wind data for KUZA



# Air Monitoring Summary Tables

This table summarizes monitoring data collected using DHEC monitors and EPA's Viper wireless remote monitoring system.

**Project Name:** H<sub>2</sub>S in South Carolina



**From:** 2/26/23  
12:00 AM

**To:** 2/26/23  
11:59 PM

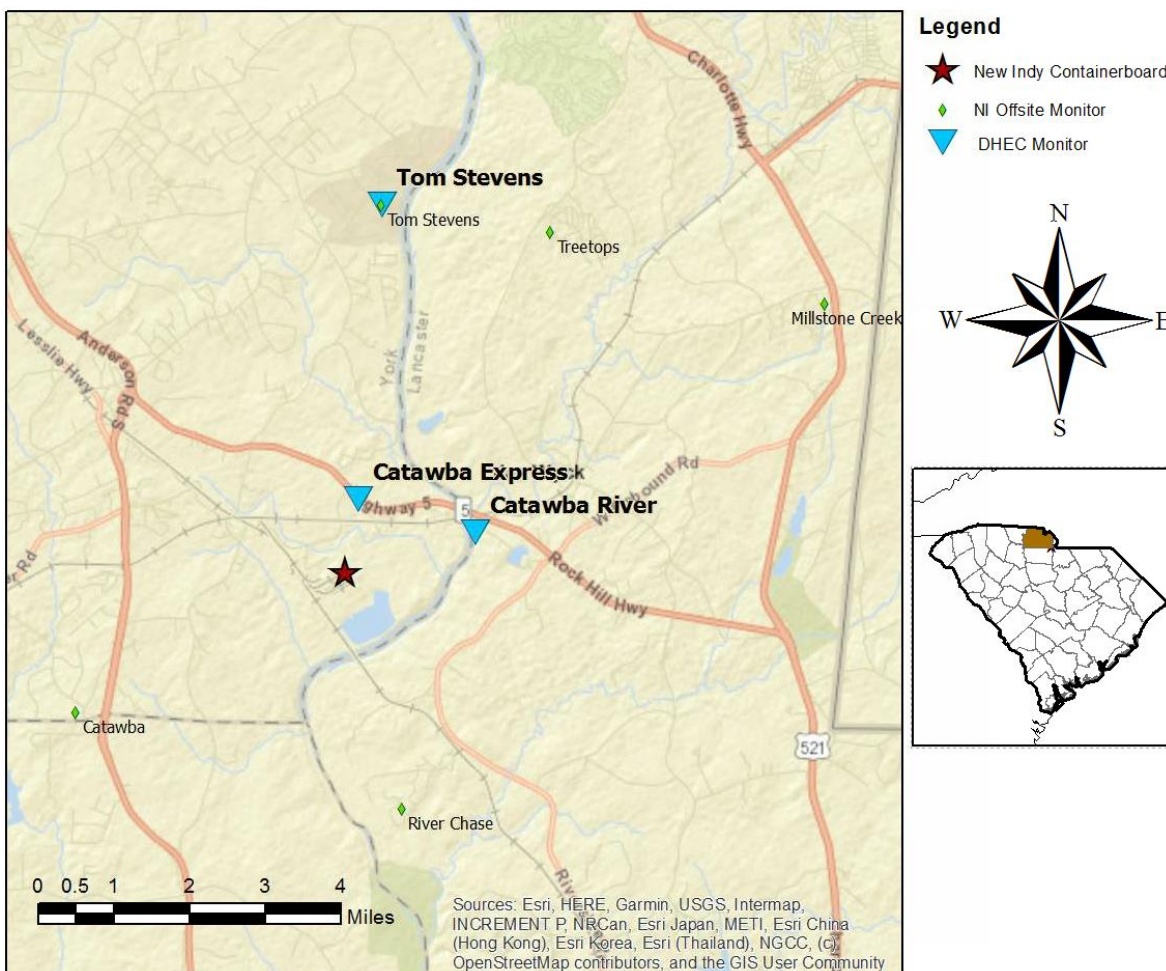
| Catawba River |                  |                       |                    |                      |                     |                |           |
|---------------|------------------|-----------------------|--------------------|----------------------|---------------------|----------------|-----------|
| Instrument    | Analyte          | ATSDR MRL Exceedance? | Number of Readings | Number of Detections | Concentration Range | Period Average | ATSDR MRL |
| SPM Flex 3    | H <sub>2</sub> S | No                    | 27676              | 1784                 | 0 - 3 ppb           | 0.12 ppb       | 70 ppb    |

| Catawba Express |                  |                       |                    |                      |                     |                |           |
|-----------------|------------------|-----------------------|--------------------|----------------------|---------------------|----------------|-----------|
| Instrument      | Analyte          | ATSDR MRL Exceedance? | Number of Readings | Number of Detections | Concentration Range | Period Average | ATSDR MRL |
| SPM Flex 2      | H <sub>2</sub> S | No                    | 2881               | 454                  | 0 - 5 ppb           | 0.37 ppb       | 70 ppb    |

**Notes:**

Hydrogen sulfide concentrations presented in this data summary table are converted from parts per million, the instrument readout units, to parts per billion. The SPM FLEX Minimum Detectable Limit (MDL) is 1 ppb of Hydrogen Sulfide.

- ATSDR MRL Agency for Toxic Substances and Disease Registry Minimal Risk Level - Acute Exposure (<14 days)
- H<sub>2</sub>S Hydrogen Sulfide
- hr Hour
- ppb Parts per billion
- MRL Exceedance Defines if the 24-hr TWA exceeded the MRL at any time during the period of this report
- SPM Single Point Monitor
- TWA Time Weighted Average

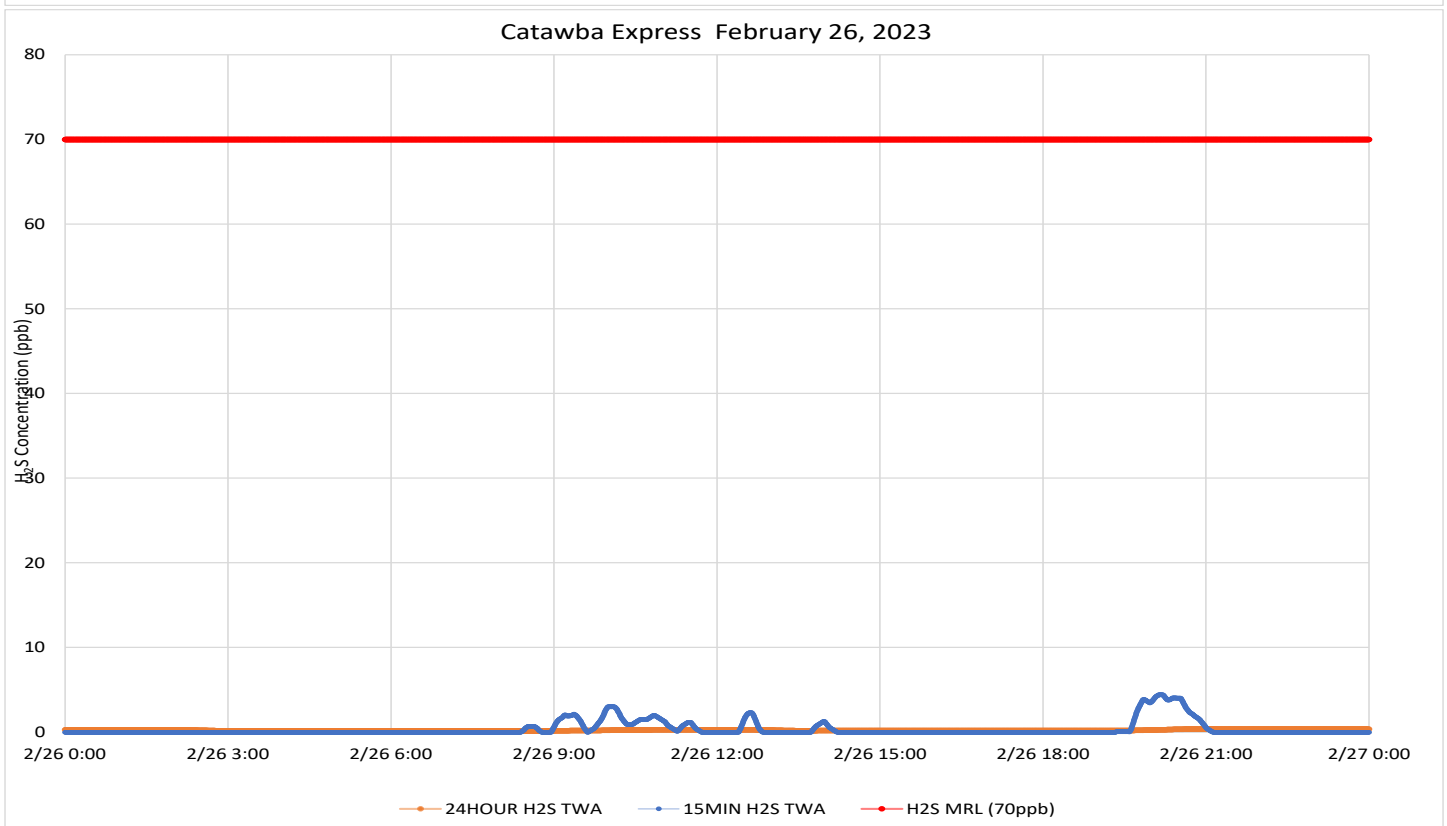
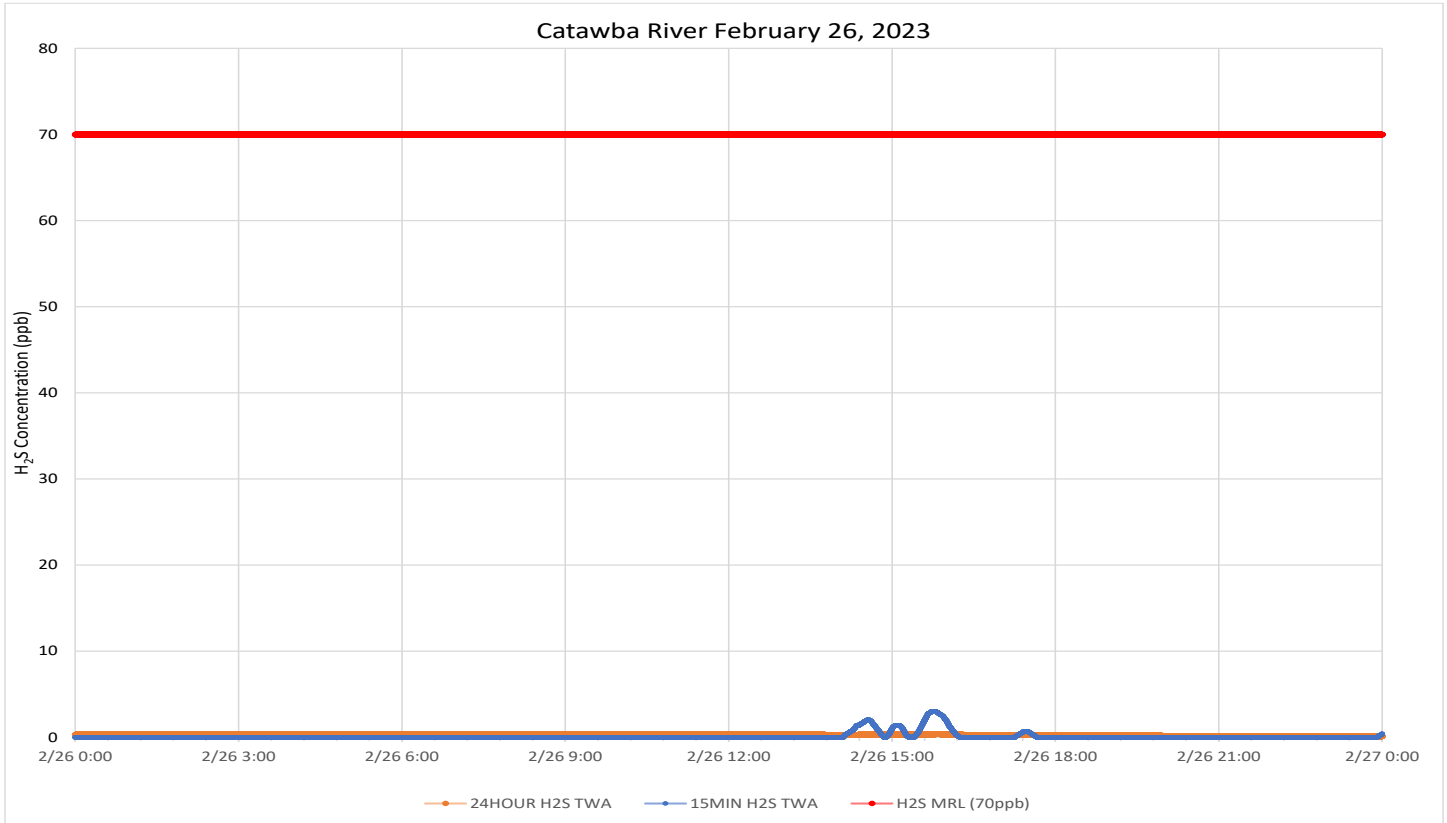




# H<sub>2</sub>S in South Carolina

## Hydrogen Sulfide 15-min and 24-hr Time Weighted Average Graphs

Winds direction varied widely and there were significant calm periods. When present, wind was most often from the southwest to south.



Notes: Time is Eastern Standard Time H<sub>2</sub>S – Hydrogen Sulfide MRL – Minimal Risk Level ppb – Parts per billion Wind data for KUZA

# Air Monitoring Summary Tables

This table summarizes monitoring data collected using DHEC monitors and EPA's Viper wireless remote monitoring system.



**Project Name:** H<sub>2</sub>S in South Carolina

**From:** 2/27/23  
12:00 AM

**To:** 2/27/23  
11:59 PM

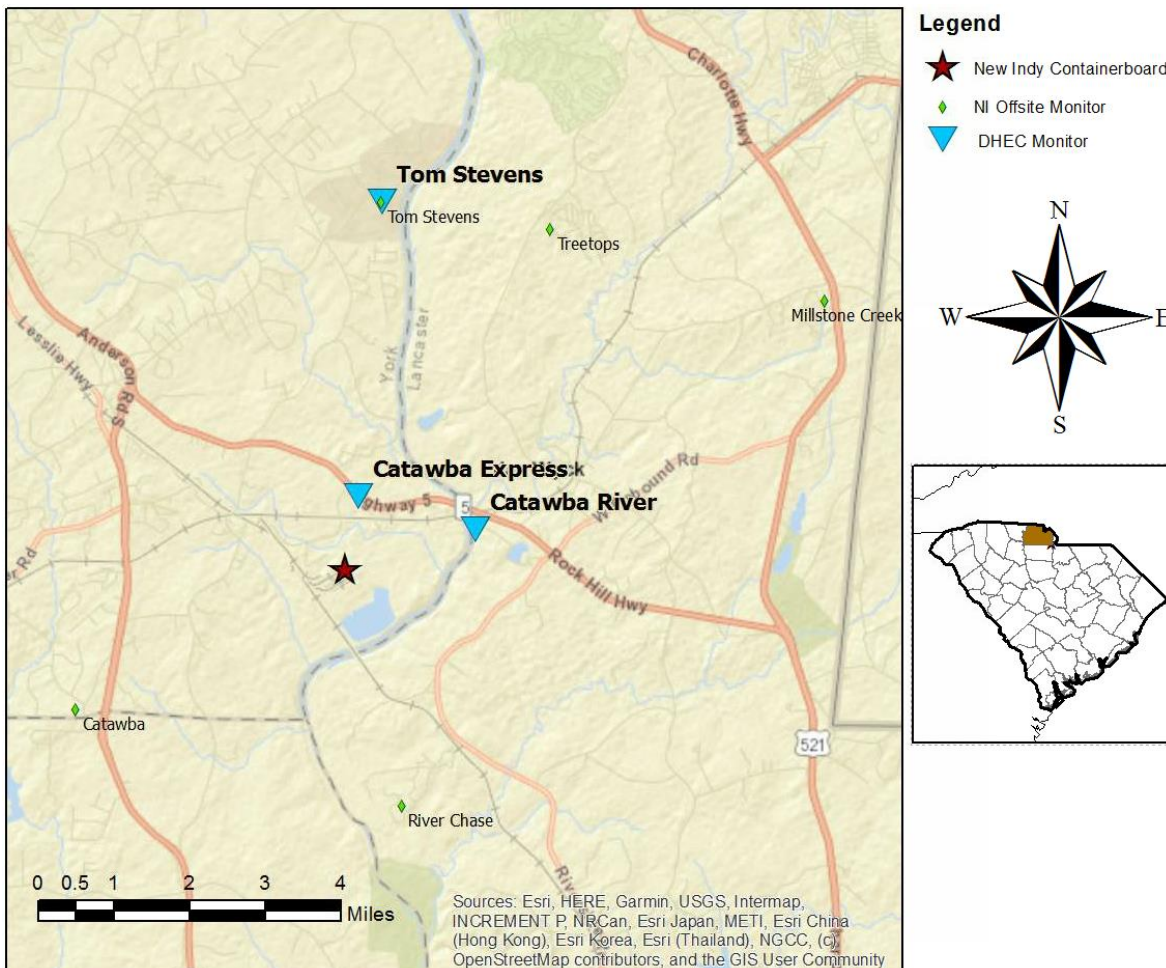
| Catawba River |         |                       |                    |                      |                     |                |           |
|---------------|---------|-----------------------|--------------------|----------------------|---------------------|----------------|-----------|
| Instrument    | Analyte | ATSDR MRL Exceedance? | Number of Readings | Number of Detections | Concentration Range | Period Average | ATSDR MRL |
| SPM Flex 3    | H2S     | No                    | 27659              | 3390                 | 0 - 5 ppb           | 0.34 ppb       | 70 ppb    |

| Catawba Express |         |                       |                    |                      |                     |                |           |
|-----------------|---------|-----------------------|--------------------|----------------------|---------------------|----------------|-----------|
| Instrument      | Analyte | ATSDR MRL Exceedance? | Number of Readings | Number of Detections | Concentration Range | Period Average | ATSDR MRL |
| SPM Flex 2      | H2S     | No                    | 2880               | 995                  | 0 - 7 ppb           | 0.96 ppb       | 70 ppb    |

**Notes:**

Hydrogen sulfide concentrations presented in this data summary table are converted from parts per million, the instrument readout units, to parts per billion. The SPM FLEX Minimum Detectable Limit (MDL) is 1 ppb of Hydrogen Sulfide.

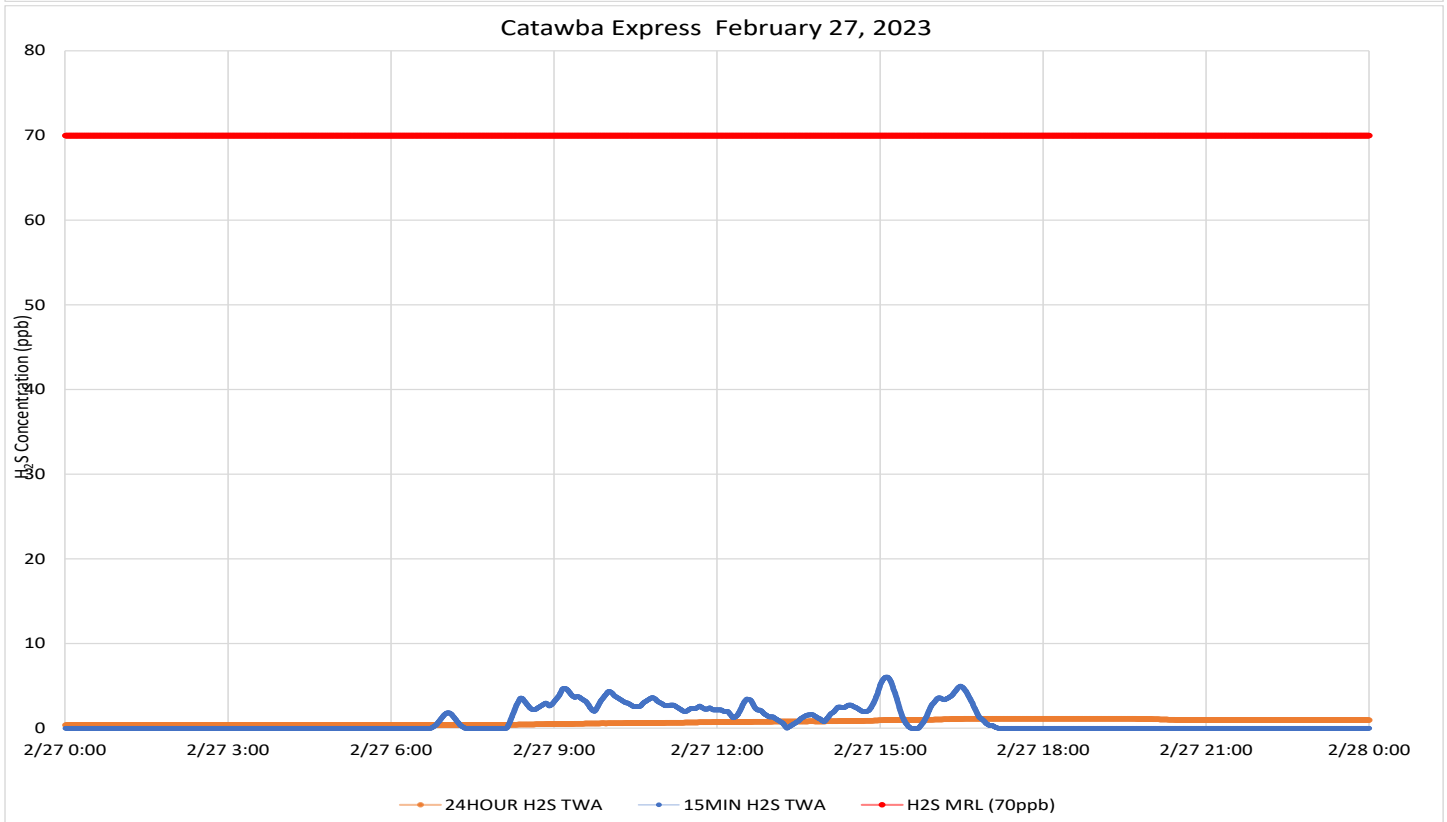
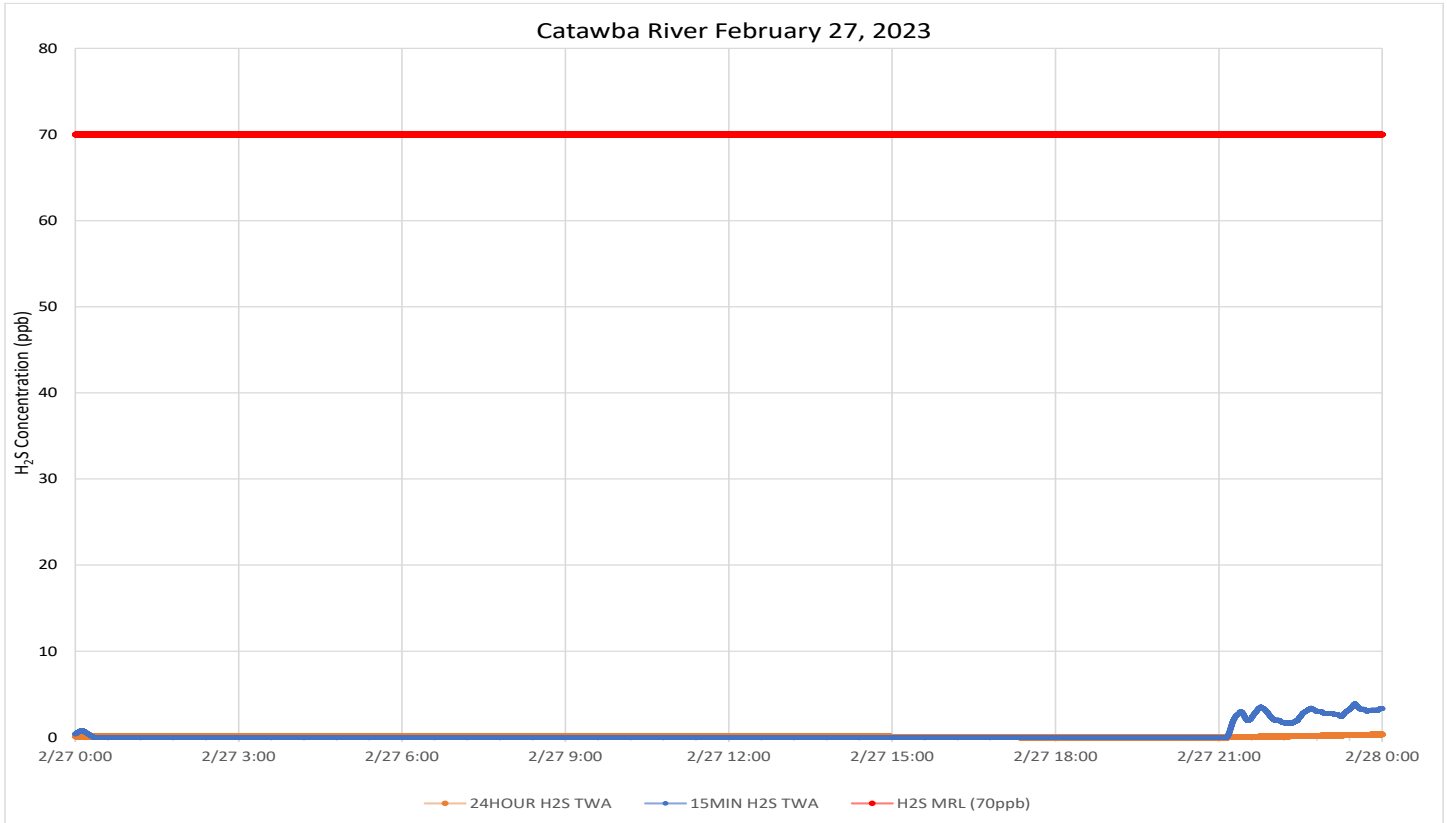
- ATSDR MRL Agency for Toxic Substances and Disease Registry Minimal Risk Level - Acute Exposure (<14 days)
- H<sub>2</sub>S Hydrogen Sulfide
- hr Hour
- ppb Parts per billion
- MRL Exceedance Defines if the 24-hr TWA exceeded the MRL at any time during the period of this report
- SPM Single Point Monitor
- TWA Time Weighted Average



# H<sub>2</sub>S in South Carolina

## Hydrogen Sulfide 15-min and 24-hr Time Weighted Average Graphs

Through midday, winds were calm to variable and came from the east to south. From midafternoon through the end of the period, winds freshened from the south southwest to west southwest.



Notes: Time is Eastern Standard Time H<sub>2</sub>S – Hydrogen Sulfide MRL – Minimal Risk Level ppb – Parts per billion Wind data for KUZA

The Catawba River monitor had a flow failure at 11:35 PM. The summary data in the table is valid.

## Air Monitoring Summary Tables

This table summarizes monitoring data collected using DHEC monitors and EPA's Viper wireless remote monitoring system.

**Project Name:** H<sub>2</sub>S in South Carolina



**From:** 2/28/23  
12:00 AM

**To:** 2/28/23  
11:59 PM

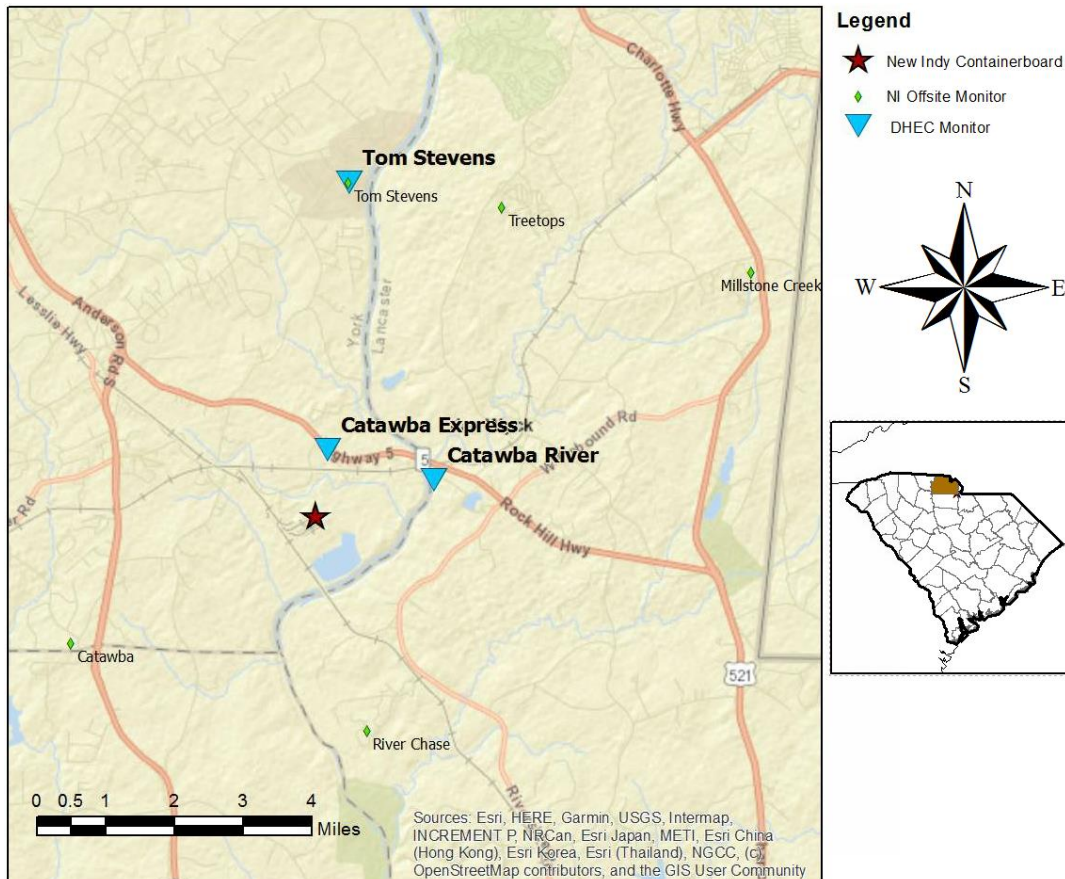
| Catawba River 0000-2335 |         |                       |                    |                      |                     |                        |           |
|-------------------------|---------|-----------------------|--------------------|----------------------|---------------------|------------------------|-----------|
| Instrument              | Analyte | ATSDR MRL Exceedance? | Number of Readings | Number of Detections | Concentration Range | Limited Period Average | ATSDR MRL |
| SPM Flex 3              | H2S     | No                    | 27143              | 14541                | 0 - 14 ppb          | 2.59 ppb               | 70 ppb    |

| Catawba Express |         |                       |                    |                      |                     |                |           |
|-----------------|---------|-----------------------|--------------------|----------------------|---------------------|----------------|-----------|
| Instrument      | Analyte | ATSDR MRL Exceedance? | Number of Readings | Number of Detections | Concentration Range | Period Average | ATSDR MRL |
| SPM Flex 2      | H2S     | No                    | 2880               | 352                  | 0 - 8 ppb           | 0.32 ppb       | 70 ppb    |

**Notes:**

Hydrogen sulfide concentrations presented in this data summary table are converted from parts per million, the instrument readout units, to parts per billion. The SPM FLEX Minimum Detectable Limit (MDL) is 1 ppb of Hydrogen Sulfide.

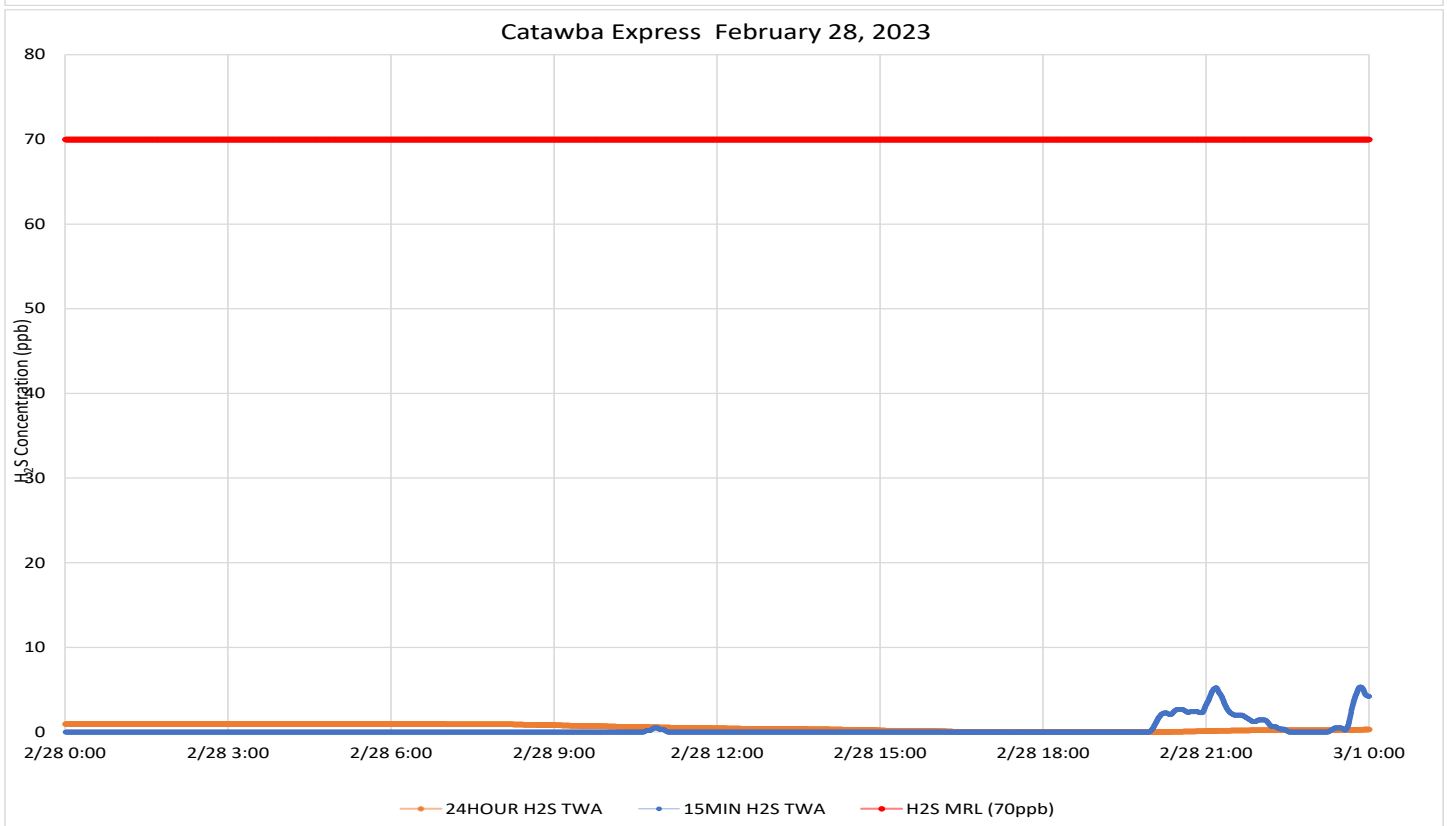
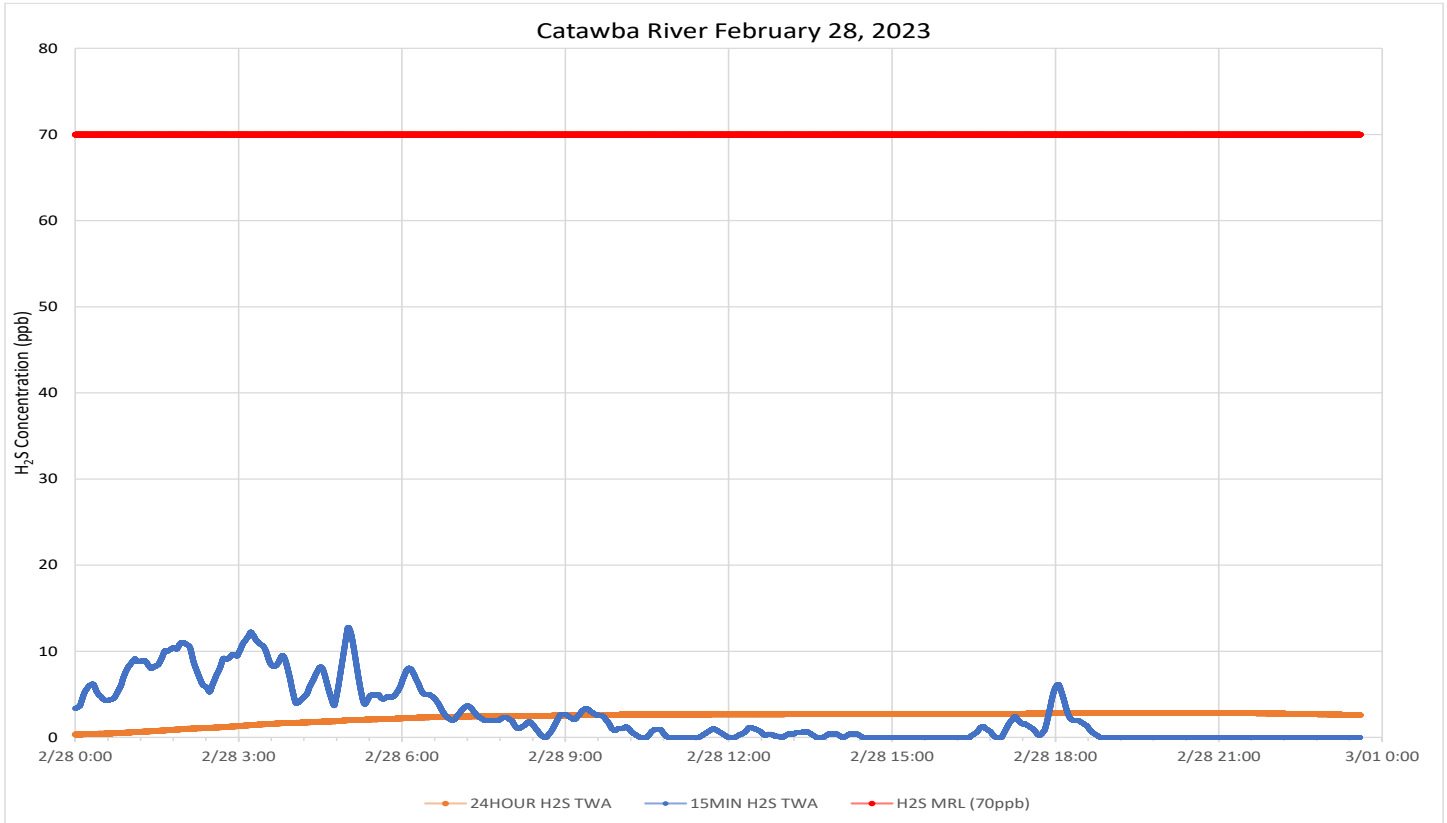
- ATSDR MRL Agency for Toxic Substances and Disease Registry Minimal Risk Level - Acute Exposure (<14 days)
- H<sub>2</sub>S Hydrogen Sulfide
- hr Hour
- ppb Parts per billion
- MRL Exceedance Defines if the 24-hr TWA exceeded the MRL at any time during the period of this report
- SPM Single Point Monitor
- TWA Time Weighted Average



# H<sub>2</sub>S in South Carolina

## Hydrogen Sulfide 15-min and 24-hr Time Weighted Average Graphs

Winds were from the west to west southwest through midday, becoming more variable, including a short period from the west northwest, before settling to coming from the south southeast in the late evening.



Notes: Time is Eastern Standard Time H<sub>2</sub>S – Hydrogen Sulfide MRL – Minimal Risk Level ppb – Parts per billion Wind data for KUZA