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:	1/1/23
	12:00 AM

To:	1/1/23
	11:59 PM

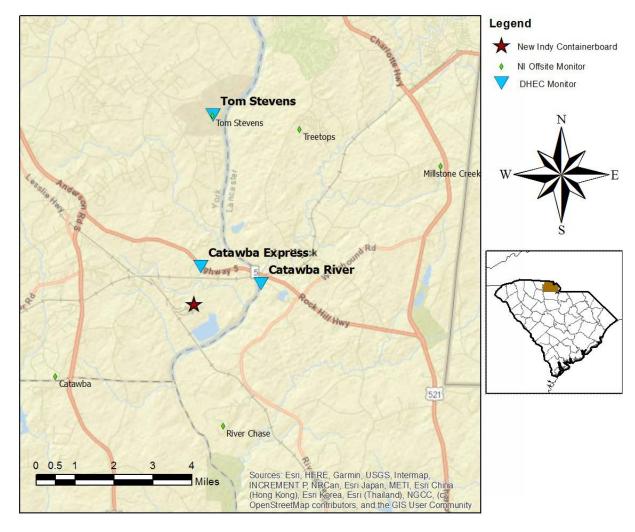


Catawba River							
Instrument	Analyte	ATSDR MRL Exceedance?	Number of Readings	Number of Detections	Concentration Range	Period Average	ATSDR MRL
SPM Flex 3	H2S	No	2880	485	0 - 3 ppb	0.23 ppb	70 ppb

Catawba Express							
Instrument	Analyte	ATSDR MRL	Number of	Number of	Concentration Range	Period Average	AT SDR MRL
matrument	Analyte	Exceedance?	Readings	Detections	concentration Range	renou Arciuge	ATSDICHINE
SPM Flex 2	H2S	No	2879	0	0 - 0 ppb	0 ppb	70 ppb

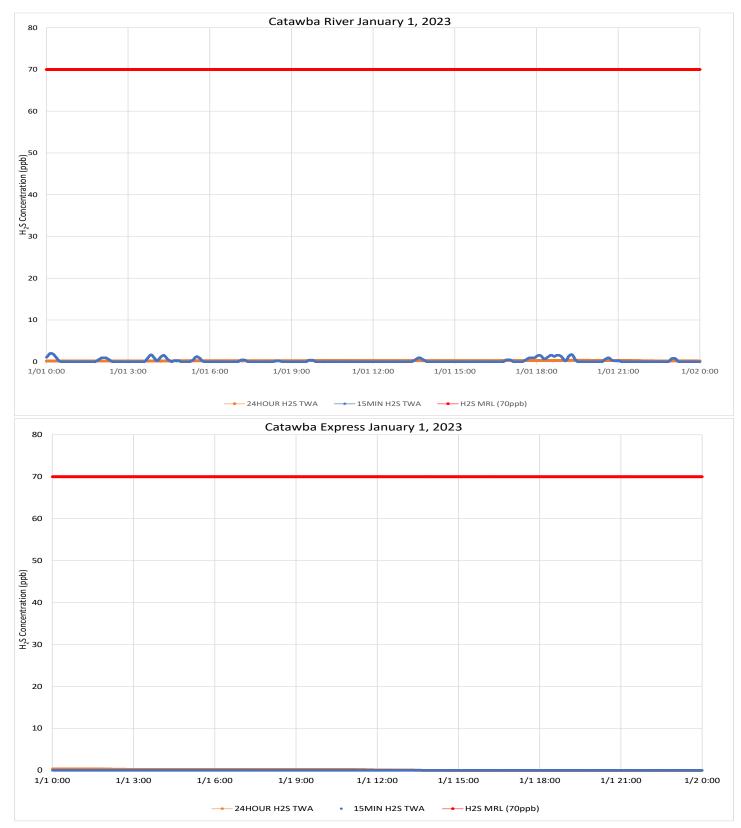
Notes:

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



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

Winds were light and variable with calm periods throughout the day. When detected, winds came from the west north west very early in the morning, and from the south west to west for the rest of the period.



Notes: Time is Eastern Standard Time H<sub>2</sub>S – Hydrogen Sulfide MRL – Minimal Risk Level ppb – Parts per billion Report Revised 1/23/23 to correct title of Catawba River chart. All other information unrevised.

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:	1/2/23
	12:00 AM

To:	1/2/23
	11:59 PM

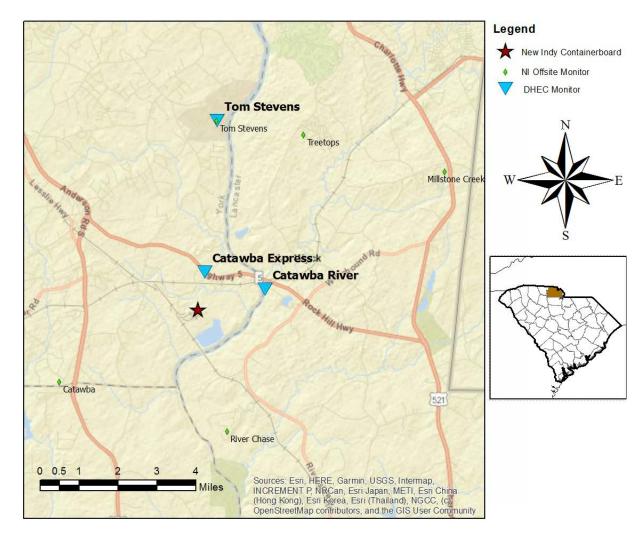


Catawba River							
Instrument	Analyte	ATSDR MRL	ATSDR MRL Number of Number of Concentration Range		Period Average	ATSDR MRL	
instrument		Exceedance?	Readings	Detections	Concentration Range	Periou Average	AT SUK MIKE
SPM Flex 3	H2S	No	2880	503	0 - 2 ppb	0.26 ppb	70 ppb

Catawba Express							
Instrument	Analyte	ATSDR MRL Exceedance?	Number of Readings	Number of Detections	Concentration Range	Period Average	ATSDR MRL
SPM Flex 2	H2S	No	2880	287	0 - 3 ppb	0.13 ppb	70 ppb

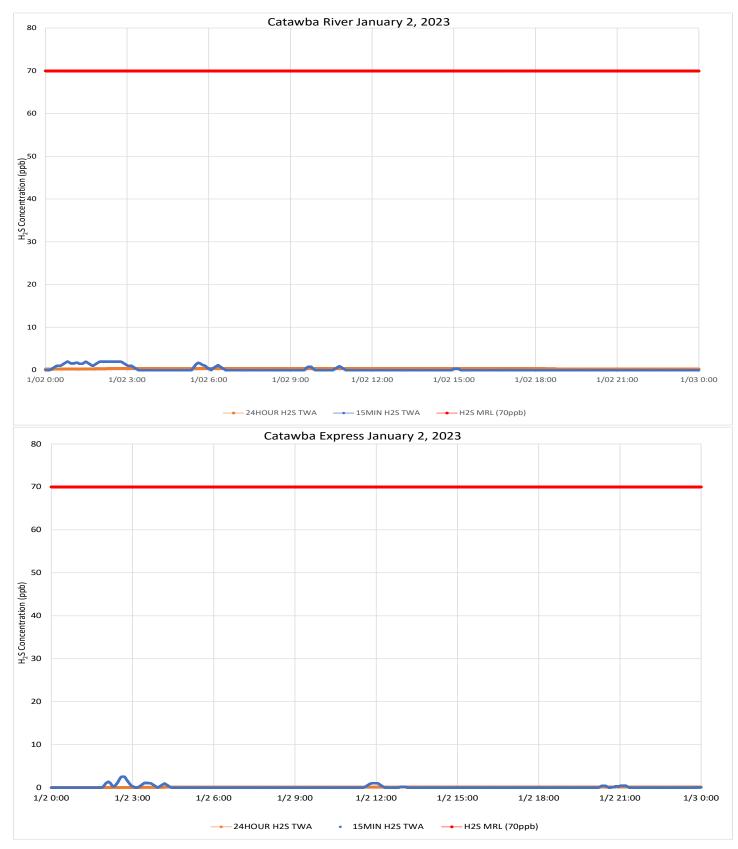
Notes:

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
ppb MRL Exceedance SPM	Parts per billion Defines if the 24-hr TWA exceeded the MRL at any time during the period of this report Single Point Monitor



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

Winds were light and variable with calm periods before midmorning. Before noon, winds were generally from the west, and after noon, from the west southwest to south southwest.



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:	1/3/23
	12:00 AM

To:	1/3/23
	11:59 PM

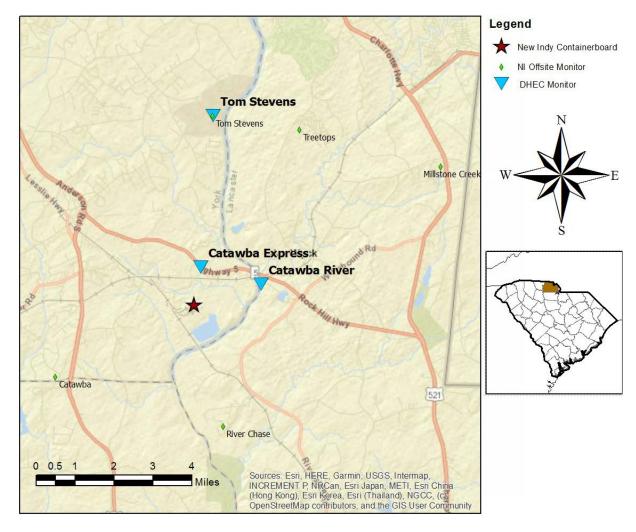


Catawba River							
Instrument	Analyte	ATSDR MRL Exceedance?	Number of Readings	Number of Detections	Concentration Range	Period Average	ATSDR MRL
SPM Flex 3	H2S	No	2880	234	0 - 15 ppb	0.41 ppb	70 ppb

Instrument         Analyte         ATSDR MRL Exceedance?         Number of Readings         Number of Detections         Concentration Range         Period Average         ATSDR MRL           SPM Flex 2         H2S         No         2881         531         0 - 7 ppb         0.34 ppb         70 ppb	Catawba Express							
	Instrument	Analyte				Concentration Range	Period Average	ATSDR MRL
	SPM Flex 2	H2S	No	2881	531	dag 7 - 0	0.34 ppb	70 ppb

Notes:

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



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

Winds were generally from the south to west southwest during the period.



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:	1/4/23
	12:00 AM

To:	1/4/23
	11:59 PM

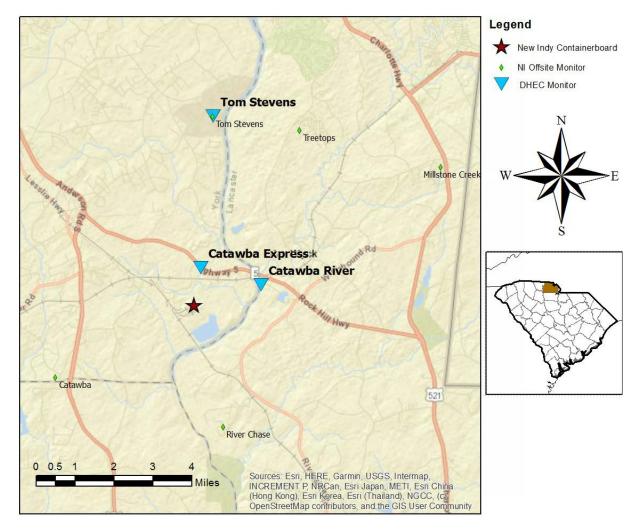


Catawba River								
Instrument	Analyte	ATSDR MRL	Number of	Number of	Concentration Range	Period Average	ATSDR MRL	
instrument	Analyte	Exceedance?	Readings	Detections	concentration Mange	Feriou Average	ATSDICMILE	
SPM Flex 3	H2S	No	2880	337	0 - 8 ppb	0.29 ppb	70 ppb	

Catawba Express							
Instrument	Analyte	ATSDR MRL	Number of	Number of	Concentration Range	Period Average	AT SDR MRL
liisuument	Analyte	Exceedance?	Readings	Detections	concentration Range	Period Average	ATSON MILLE
SPM Flex 2	H2S	No	2880	1016	0 - 6 ppb	0.54 ppb	70 ppb

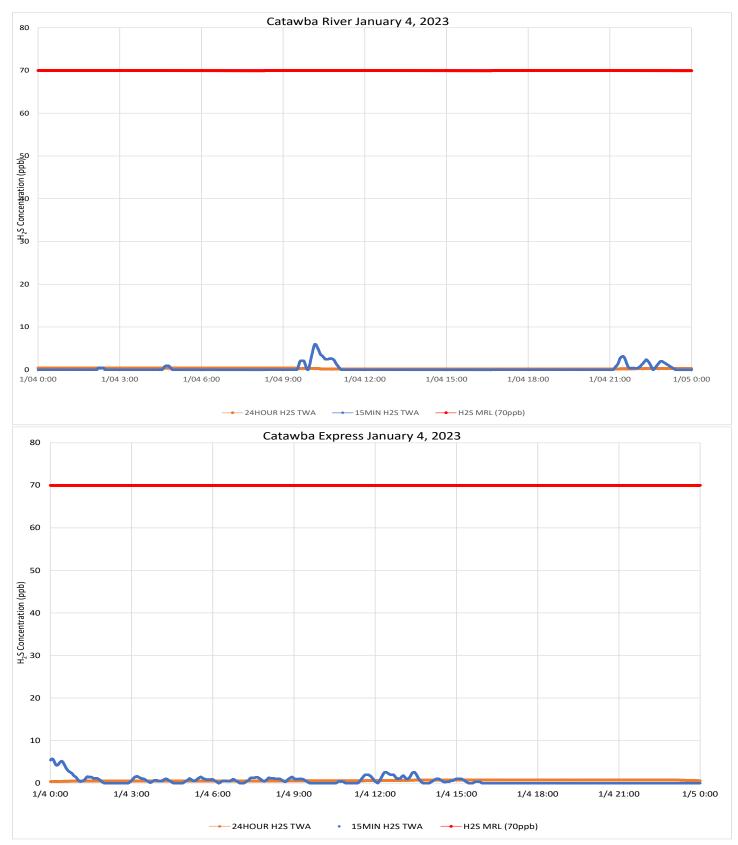
Notes:

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



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

Winds were generally from the south to west southwest during the period.



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:	1/5/23
	12:00 AM

To:	1/5/23
	11:59 PM

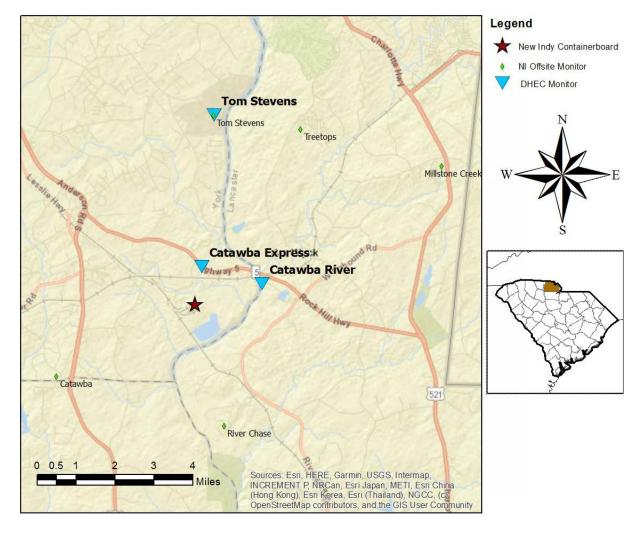


Catawba River								
Instrument	Analyte	ATSDR MRL Exceedance?	Number of Readings	Number of Detections	Concentration Range	Period Average	ATSDR MRL	
SPM Flex 3	H2S	No	2880	590	0 - 10 ppb	0.36 ppb	70 ppb	

Catawba Express								
Instrument	Analyte	ATSDR MRL	Number of	Number of	Concentration Range	Period Average	AT SDR MRL	
monument	Analyte	Exceedance?	Readings	Detections	concentration Range	Period Average	ATSUTTINE	
SPM Flex 2	H2S	No	2880	32	0 - 1 ppb	0.01 ppb	70 ppb	

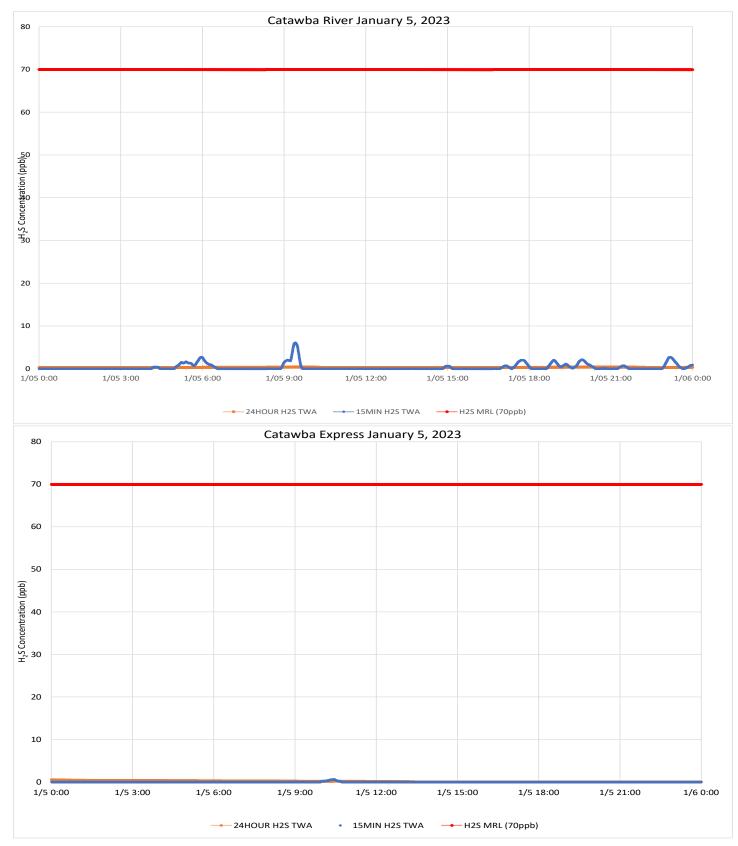
Notes:

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



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

Winds were generally from the west southwest to southwest during the period.



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:	1/6/23
	12:00 AM

To:	1/6/23
	11:59 PM

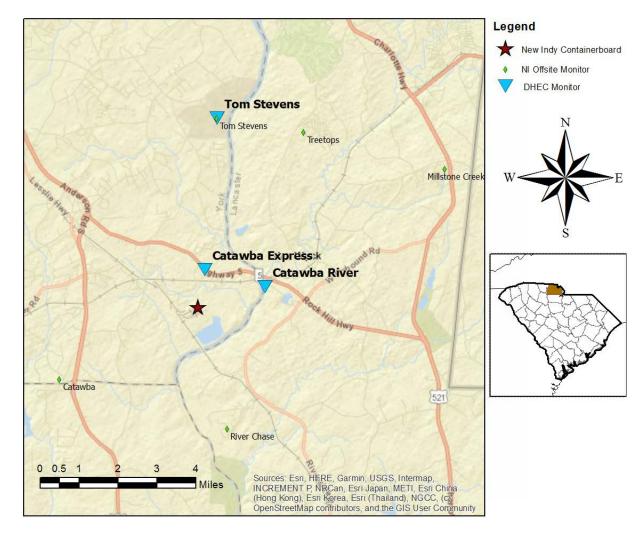


Catawba River							
Instrument	Analyte	ATSDR MRL Exceedance?	Number of Readings	Number of Detections	Concentration Range	Period Average	ATSDR MRL
SPM Flex 3	H2S	No	2880	838	0 - 11 ppb	0.63 ppb	70 ppb

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	243	0 - 5 ppb	0.2 ppb	70 ppb

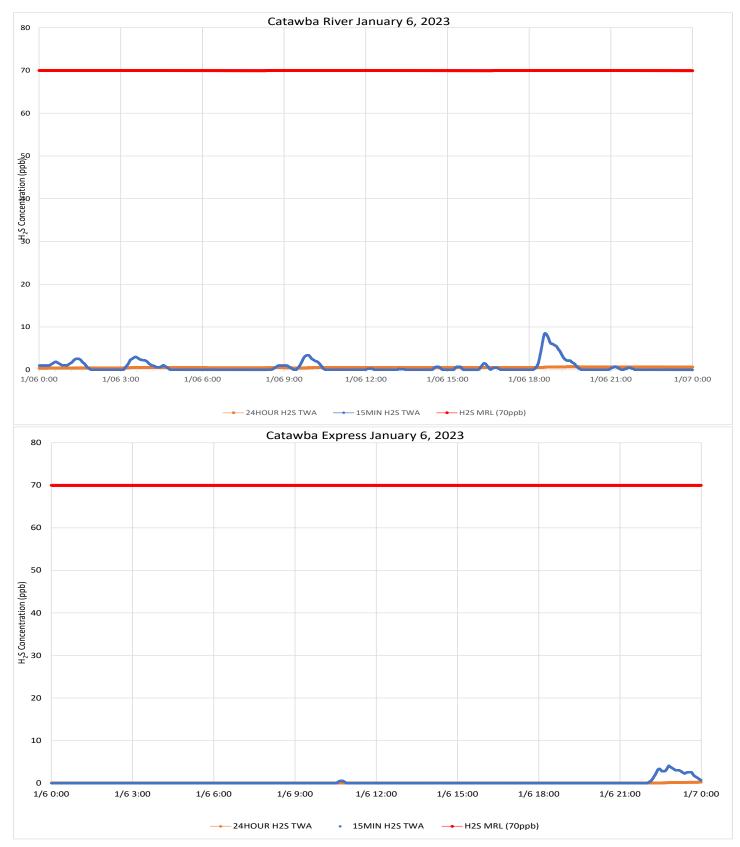
Notes:

ATSDR MRL H <sub>2</sub> S	Agency for Toxic Substances and Disease Registry Minimal Risk Level - Acute Exposure (<14 days) 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



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

Winds were from the southwest to west northwest with intermittent hours of calm during this period.



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:	1/7/23
	12:00 AM

To:	1/7/23
	11:59 PM

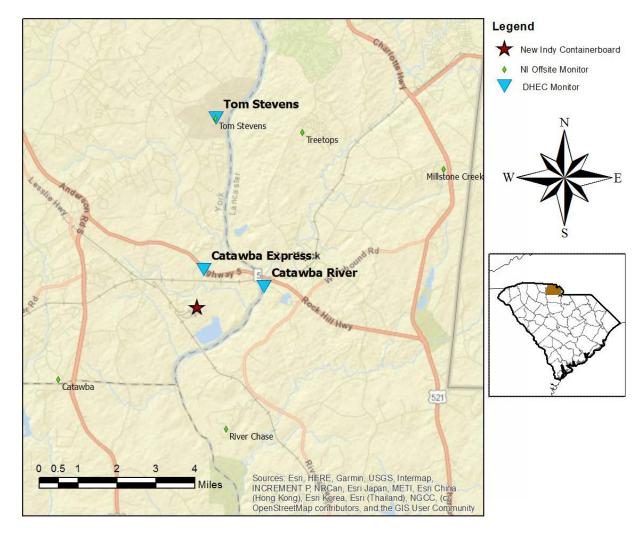


Catawba River							
Instrument	Analyte	ATSDR MRL Exceedance?	Number of Readings	Number of Detections	Concentration Range	Period Average	ATSDR MRL
SPM Flex 3	H2S	No	2880	316	0 - 9 ppb	0.24 ppb	70 ppb

Catawba Express							
Instrument	Analyte	ATSDR MRL Exceedance?	Number of Readings	Number of Detections	Concentration Range	Period Average	ATSDR MRL
SPM Flex 2	H2S	No	2881	249	0 - 5 ppb	0.16 ppb	70 ppb

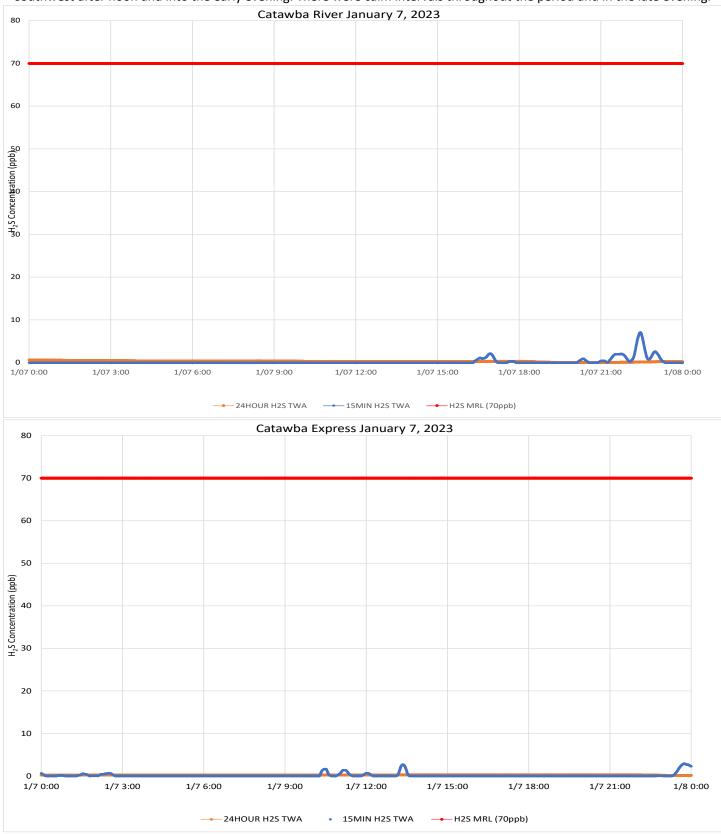
Notes:

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
TWA	Time Weighted Average



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

When not calm, winds were from the north northeast before dawn, from the south southeast before noon, and west southwest after noon and into the early evening. There were calm intervals throughout the period and in the late evening.



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:	1/8/23
	12:00 AM

To:	1/8/23
	11:59 PM

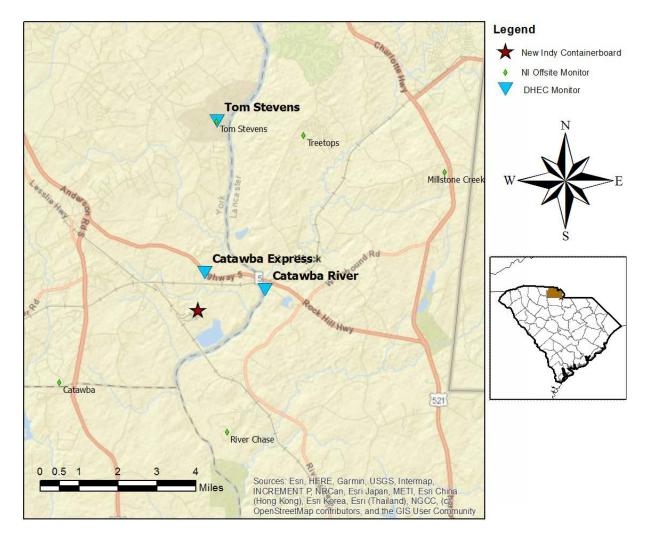


Catawba River								
Instrument	Analyte	ATSDR MRL Exceedance?	Number of Readings	Number of Detections	Concentration Range	Period Average	ATSDR MRL	
SPM Flex 3	H2S	No	2880	38	0 - 1 ppb	0.01 ppb	70 ppb	

Catawba Express								
Instrument	Analyte	ATSDR MRL Exceedance?	Number of Readings	Number of Detections	Concentration Range	Period Average	ATSDR MRL	
SPM Flex 2	H2S	No	2879	1476	0 - 13 ppb	1.06 ppb	70 ppb	

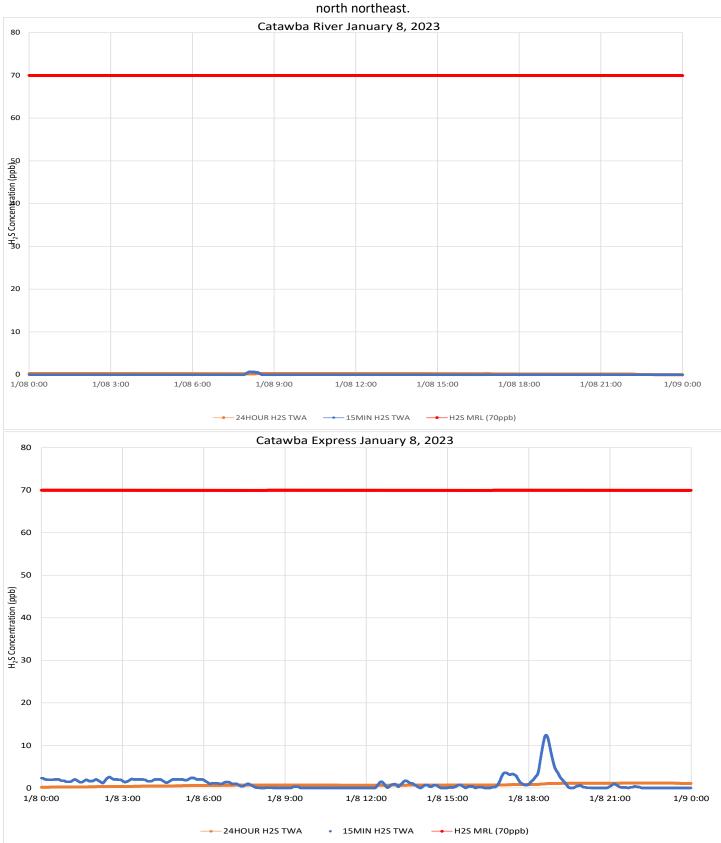
Notes:

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



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

Winds were light and variable to calm, with most calm hours before dawn. When detected , winds were from the north to



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:	1/9/23
	12:00 AM

To:	1/9/23
	11:59 PM

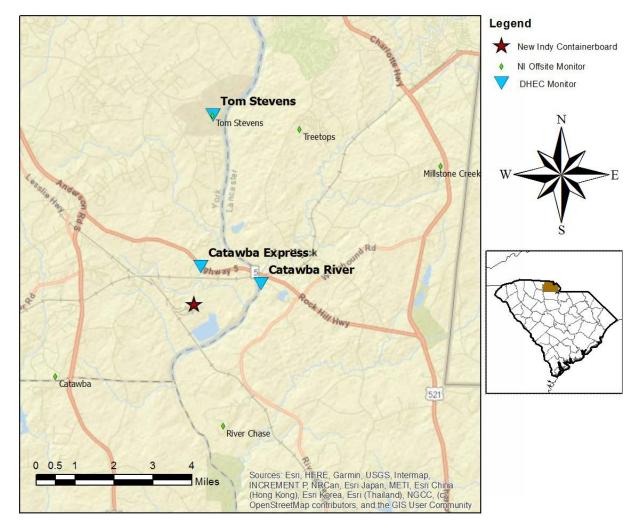


Catawba River								
Instrument	Analyte	ATSDR MRL Exceedance?	Number of Readings	Number of Detections	Concentration Range	Period Average	ATSDR MRL	
SPM Flex 3	H2S	No	2880	171	0 - 5 ppb	0.13 ppb	70 ppb	

Catawba Express								
Instrument	Analyte	ATSDR MRL Exceedance?	Number of Readings	Number of Detections	Concentration Range	Period Average	ATSDR MRL	
SPM Flex 2	H2S	No	2881	228	0 - 4 ppb	0.14 ppb	70 ppb	

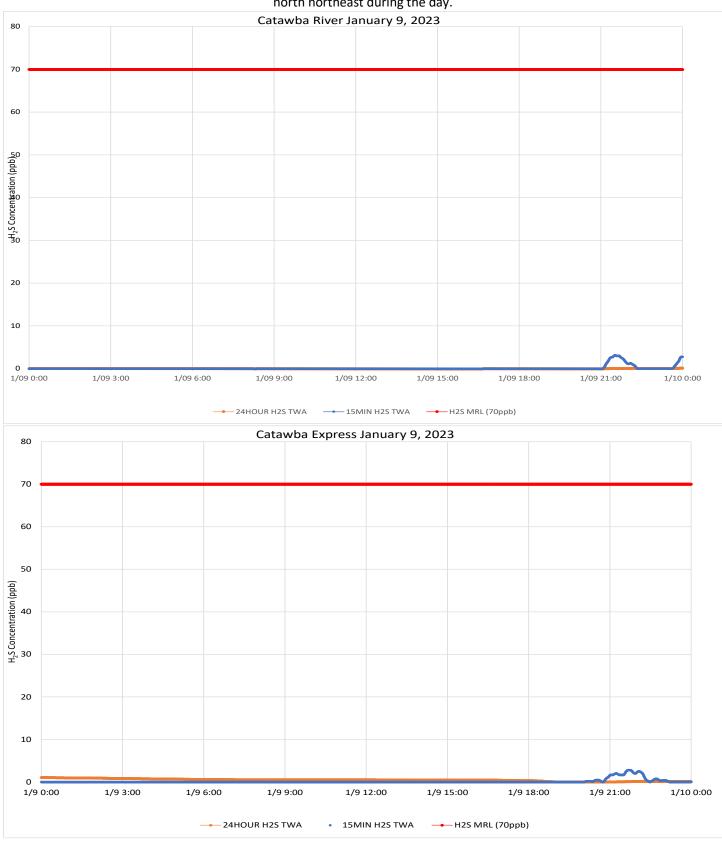
Notes:

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



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

Winds were light and variable to calm, with most calm hours after sundown. Winds were generally from the northwest to north northeast during the day.



There are short gaps in the data transmitted from the Catawba Express and Catawba River sites between 2127 and 2132 and 2232 to 2237, respectively. All reported summary 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			dhec
From:	1/10/23	To:	1/10/23	
	12:00 AM		11:59 PM	

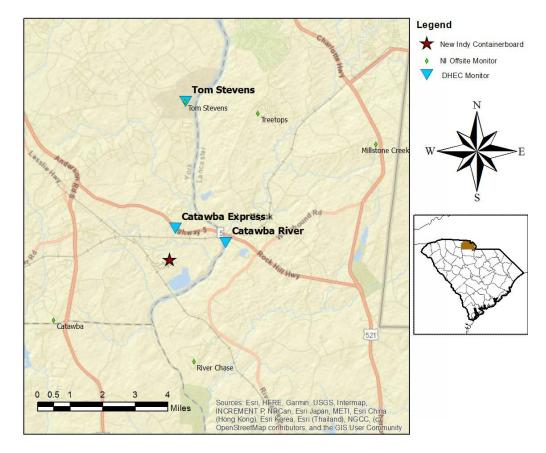
Catawba River								
Instrument	Analyte	ATSDR MRL Exceedance?	Number of Readings	Number of Detections	Concentration Range	Period Average	ATSDR MRL	
SPM Flex 3	H2S	No	2871	522	0 - 10 ppb	0.63 ppb	70 ppb	

#### Catawba Expres

Catawba Express								
Instrument	Analyte	ATSDR MRL Exceedance?	Number of Readings	Number of Detections	Concentration Range	Period Average	ATSDR MRL	
SPM Flex 2	H2S	No	2869	824	0 - 16 ppb	0.89 ppb	70 ppb	

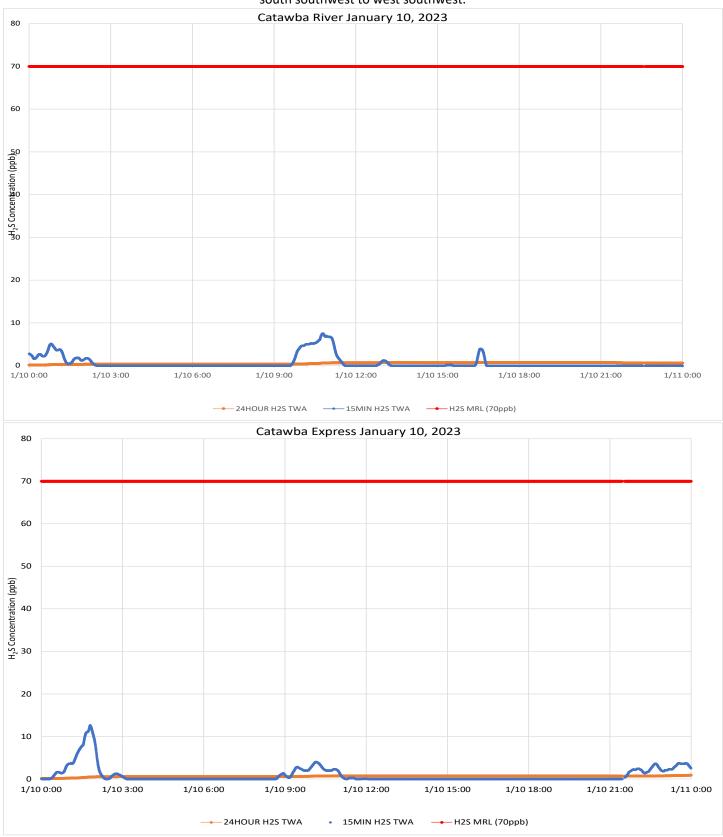
Notes:

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



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

Winds were calm for most of the period – through mid morning and after sundown. When present, winds were from the south south west to west southwest.



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:	1/11/23
	12:00 AM

To:	1/11/23
	11:59 PM

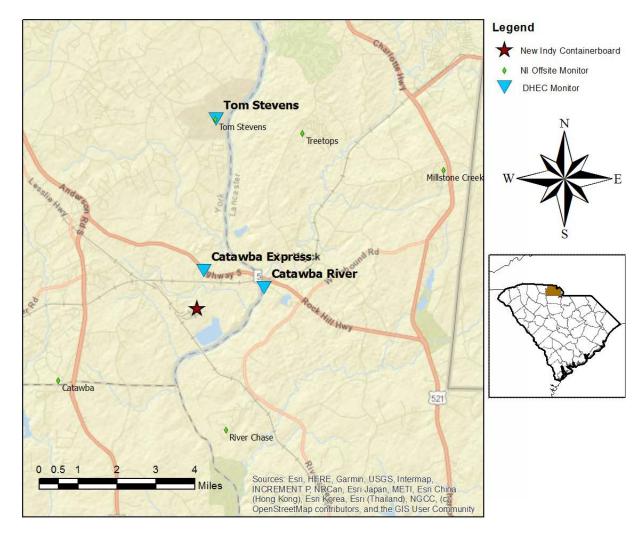


Catawba River							
Instrument	Analyte	ATSDR MRL Exceedance?	Number of Readings	Number of Detections	Concentration Range	Period Average	ATSDR MRL
SPM Flex 3	H2S	No	2880	33	0 - 2 ppb	0.01 ppb	70 ppb

Catawba Express							
Instrument	Analyte	ATSDR MRL Exceedance?	Number of Readings	Number of Detections	Concentration Range	Period Average	ATSDR MRL
SPM Flex 2	H2S	No	2880	1519	0 - 5 ppb	0.94 ppb	70 ppb

Notes:

ATSDR MRL	Agency for Toxic Substances and Disease Registry Minimal Risk Level - Acute Exposure (<14 days)
H₂S	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



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

Winds were light and variable or calm for much of the period. Except for several hours in around sunup when winds were from the north, winds were from the south to south southwest.



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:	1/12/23
	12:00 AM

To:	1/12/23
	11:59 PM

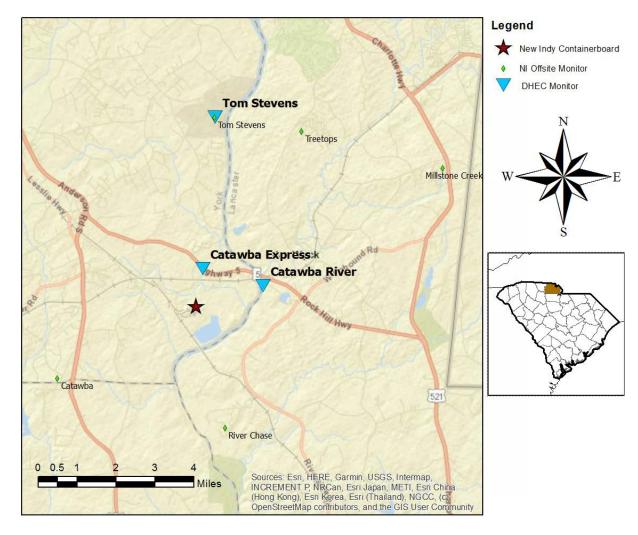


Catawba River							
Instrument	Analyte	ATSDR MRL Exceedance?	Number of Readings	Number of Detections	Concentration Range	Period Average	ATSDR MRL
SPM Flex 3	H2S	No	2880	111	0 - 10 ppb	0.1 ppb	70 ppb

Catawba Express							
Instrument	Analyte	ATSDR MRL Exceedance?	Number of Readings	Number of Detections	Concentration Range	Period Average	ATSDR MRL
SPM Flex 2	H2S	No	2881	2296	0 - 9 ppb	1.7 ppb	70 ppb

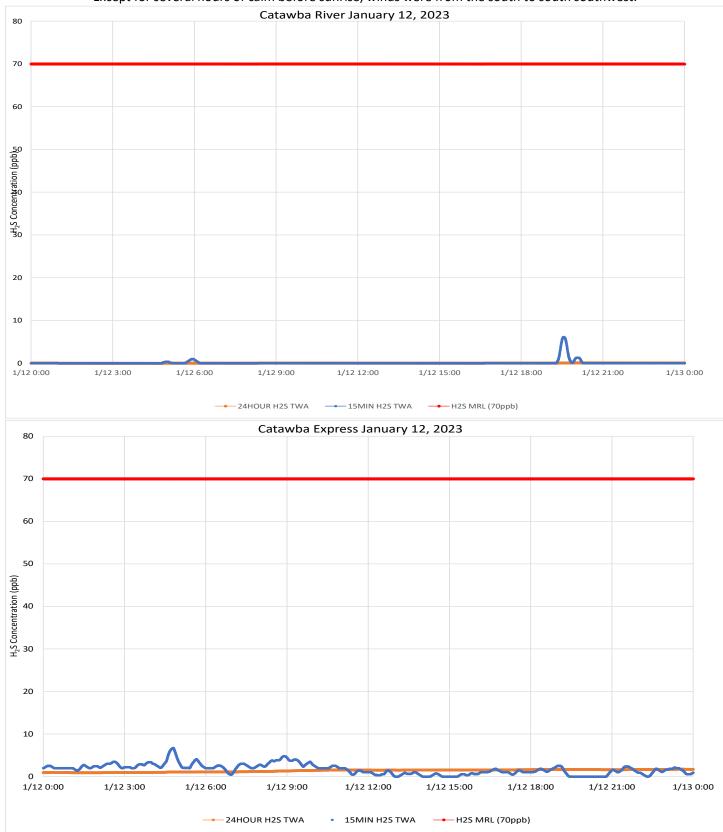
Notes:

ATSDR MRL H₂S	Agency for Toxic Substances and Disease Registry Minimal Risk Level - Acute Exposure (<14 days) 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



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

Except for several hours of calm before sunrise, winds were from the south to south southwest.



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:	1/13/23
	12:00 AM

To:	1/13/23
	11:59 PM

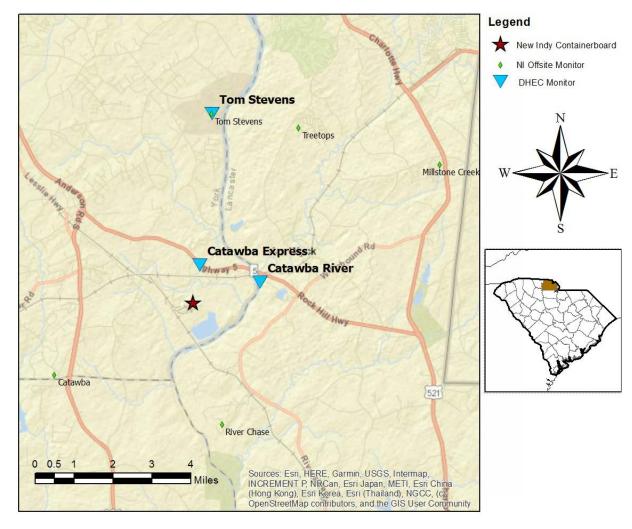


Catawba River								
Instrument	Analyte	ATSDR MRL Exceedance?	Number of Readings	Number of Detections	Concentration Range	Period Average	ATSDR MRL	
SPM Flex 3	H2S	No	2880	230	0 - 13 ppb	0.32 ppb	70 ppb	

Catawba Express							
Instrument	Analyte	ATSDR MRL Exceedance?	Number of Readings	Number of Detections	Concentration Range	Period Average	ATSDR MRL
SPM Flex 2	H2S	No	2880	78	0 - 2 ppb	0.05 ppb	70 ppb

Notes:

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



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

From Midnight through 10AM, the direction winds came from shifted steadily from the southwest to the north. From late morning through the end of the period, winds came from the north to northwest.



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:	1/14/23
	12:00 AM

To:	1/14/23				
	11:59 PM				

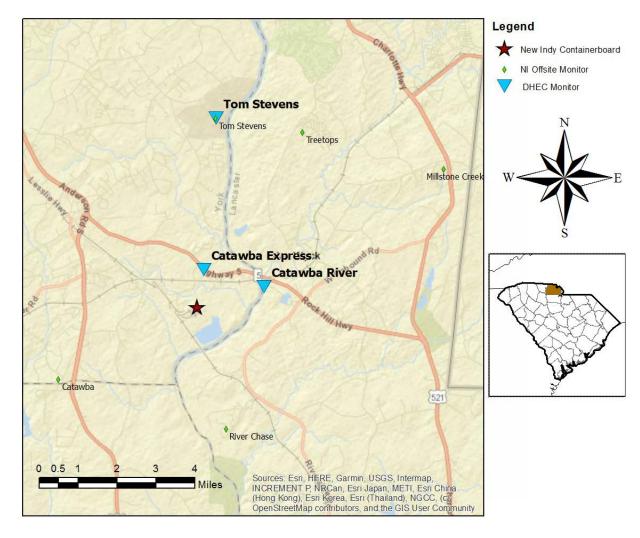


Catawba River								
Instrument	Analyte	ATSDR MRL Exceedance?	Number of Readings	Number of Detections	Concentration Range	Period Average	ATSDR MRL	
SPM Flex 3	H2S	No	2880	0	0 - 0 ppb	0 ppb	70 ppb	

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	0	0 - 0 ppb	0 ppb	70 ppb	

Notes:

ATSDR MRL H <sub>2</sub> S	Agency for Toxic Substances and Disease Registry Minimal Risk Level - Acute Exposure (<14 days) 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



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

Winds came from the north northwest to north throughout the period.



The Catawba Express monitor began having intermittent sample flow problems about 10AM, leading up to an indication of a sample pump failure. Summary data up to the time of the first sample air flow problem are valid.

## **Air Monitoring Summary Tables**

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

	H <sub>2</sub> S in South Carolina	.0		
From:	1/15/23	To:	1/15/23	<b>N</b> dhec
	12:00 AM		11:59 PM	

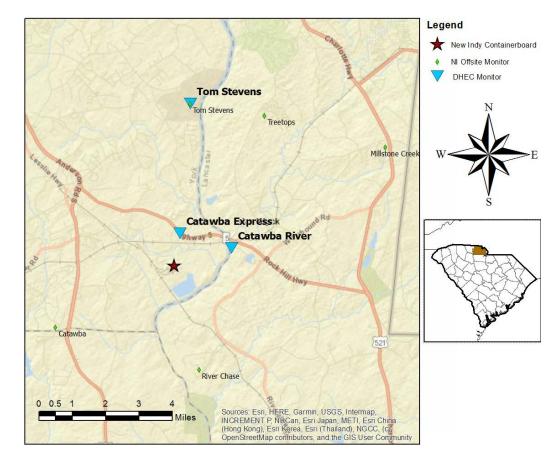
Catawba River	Latawba River								
Instrument	Analyte	ATSDR MRL Exceedance?	Number of Readings	Number of Detections	Concentration Range	Period Average	ATSDR MRL		
SPM Flex 3	H2S	No	2880	144	0 - 3 ppb	0.11 ppb	70 ppb		

Catawba	Express	0000 -	0952

Catawba express 0000-0552								
Instrument	Analyte	ATSDR MRL Exceedance?	Number of Readings	Number of Detections	Concentration Range	Limited Period Average	ATSDR MRL	
SPM Flex 2	H2S	No	3895	0	0 - 0 ppb	0 ppb	70 ppb	

Notes:

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



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

Winds came from the north northwest to north northeast for most of the period then were calm from late afternoon through



The Catawba Express monitor is offline due to a sample pump failure.

## 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: 1/16/23

*To:* 1/16/23 11:59 PM



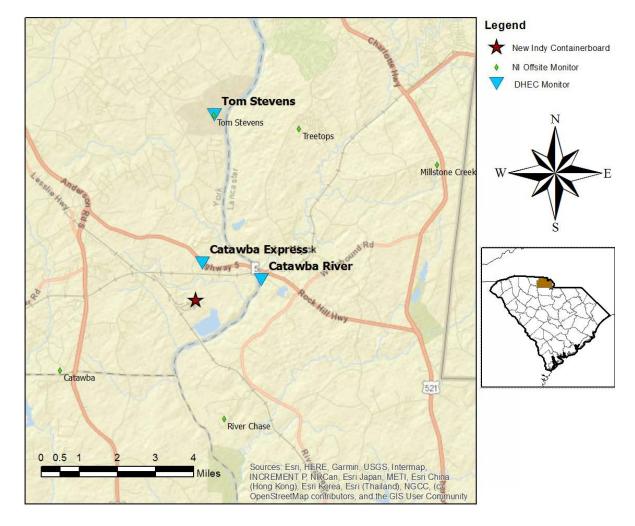
12:00 AM

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	28	0 - 1 ppb	0.01 ppb	70 ppb	

#### Catawba Express Off Line

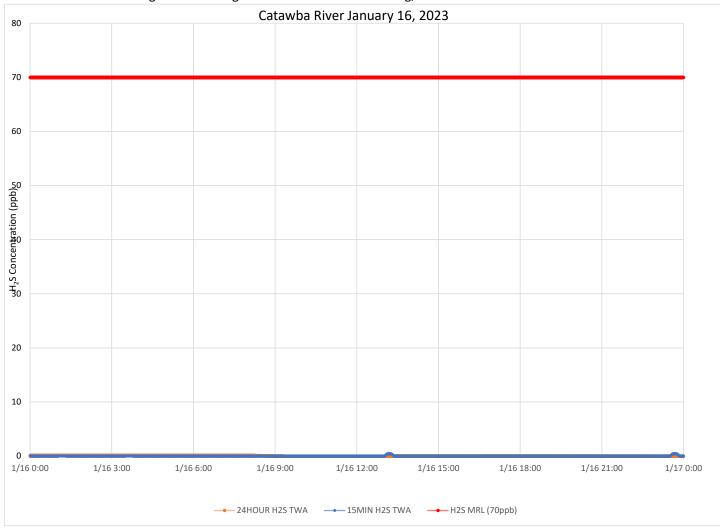
Notes:

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



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

Winds were calm through late morning. In the afternoon and evening, wind was from west southwest to south southwest.



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

The Catawba Express monitor is offline due to a sample pump failure.

## 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: 1/17/23

*To:* 1/17/23 11:59 PM



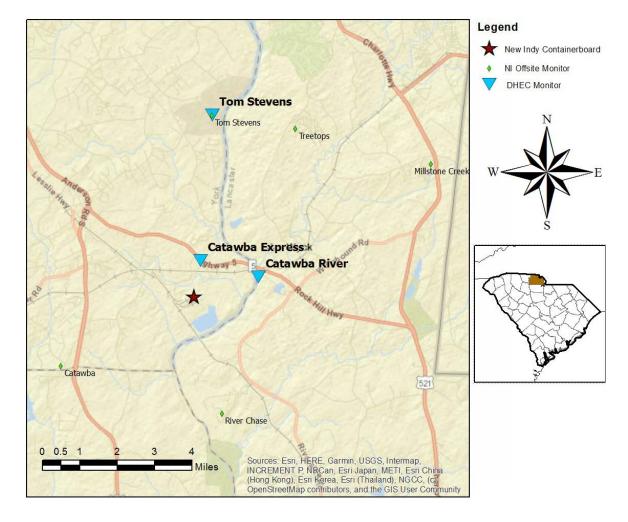
12:00 AM

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	797	0 - 6 ppb	0.46 ppb	70 ppb	

#### Catawba Express Off Line

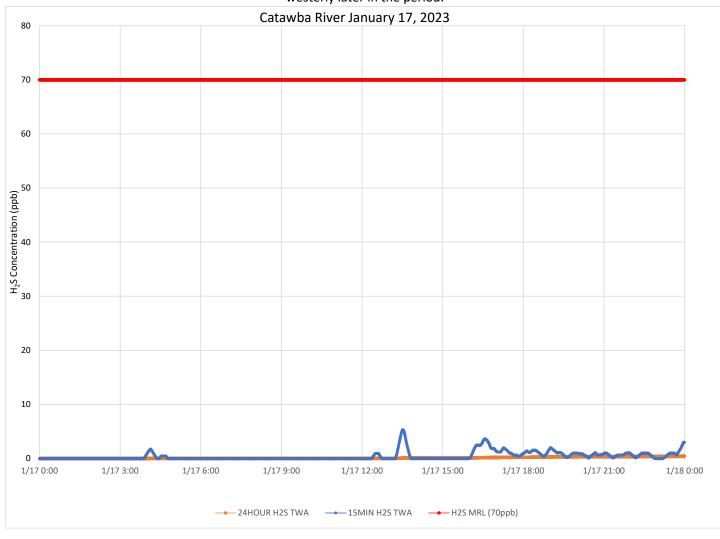
Notes:

ATSDR MRL	Agency for Toxic Substances and Disease Registry Minimal Risk Level - Acute Exposure (<14 days)
H₂S	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



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

Winds were from the south southwest to west southwest throughout the period, trending from more southerly early, to more westerly later in the period.



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

The Catawba Express monitor was replaced approximately noon on the 18<sup>th</sup>. Summary data only reflects the period after resumption of monitoring.

## **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

12:00 AM

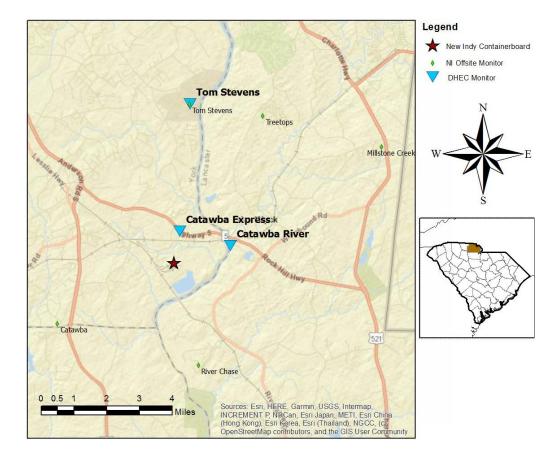
To: 1/18/23 11:59 PM shec

Instrument	Analyte	ATSDR MRL Exceedance?	Number of Readings	Number of Detections	Concentration Range	Period Average	ATSDR MRL
SPM Flex 3	H2S	No	2880	1368	0 - 9 ppb	1.01 ppb	70 ppb

Catawba Express 1212-2399								
Instrument	Analyte	ATSDR MRL Exceedance?	Number of Readings	Number of Detections	Concentration Range	Partial Period Average	ATSDR MRL	
SPM Flex 2	H2S	No	1414	264	0 - 4 ppb	0.39 ppb	70 ppb	

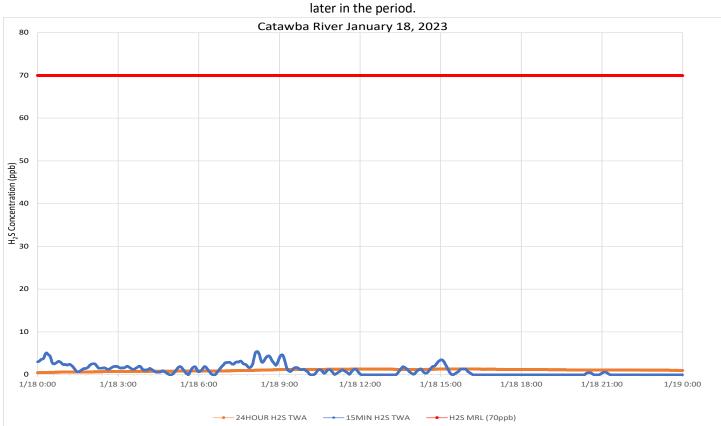
Notes:

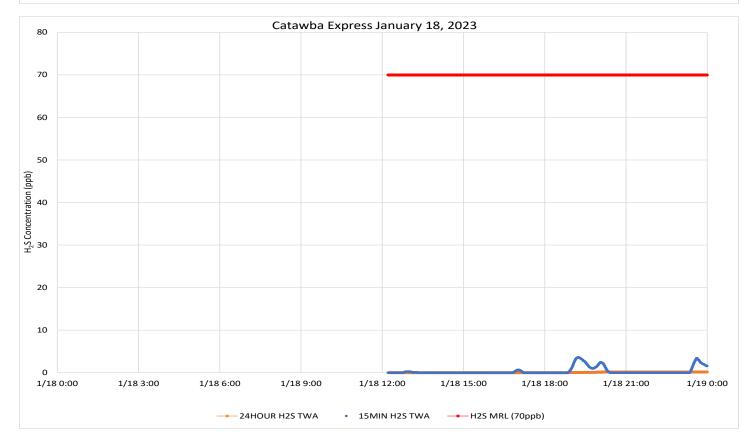
days)



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

Winds were from the west to south southwest throughout the period, trending from more westerly early, to more southerly





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:	1/19/23
	12:00 AM

To:	1/19/23
	11:59 PM

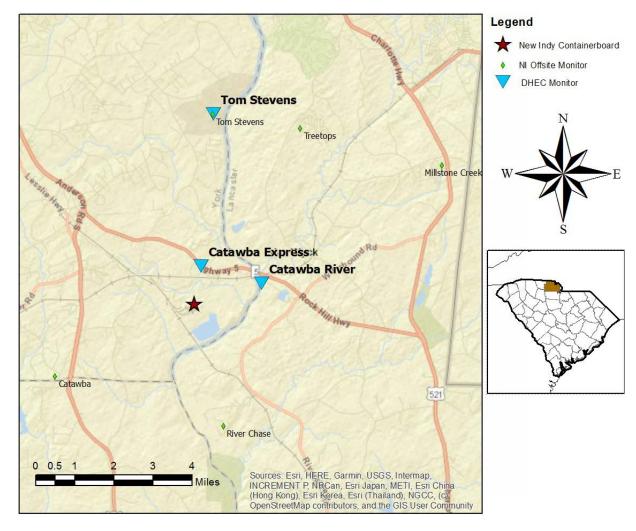


Catawba River							
Instrument	Analyte	ATSDR MRL Exceedance?	Number of Readings	Number of Detections	Concentration Range	Period Average	ATSDR MRL
SPM Flex 3	H2S	No	2880	266	0 - 6 ppb	0.12 ppb	70 ppb

Catawba Express							
Instrument	Analyte	ATSDR MRL Exceedance?	Number of Readings	Number of Detections	Concentration Range	Period Average	ATSDR MRL
SPM Flex 2	H2S	No	2881	1541	0 - 5 ppb	1.12 ppb	70 ppb

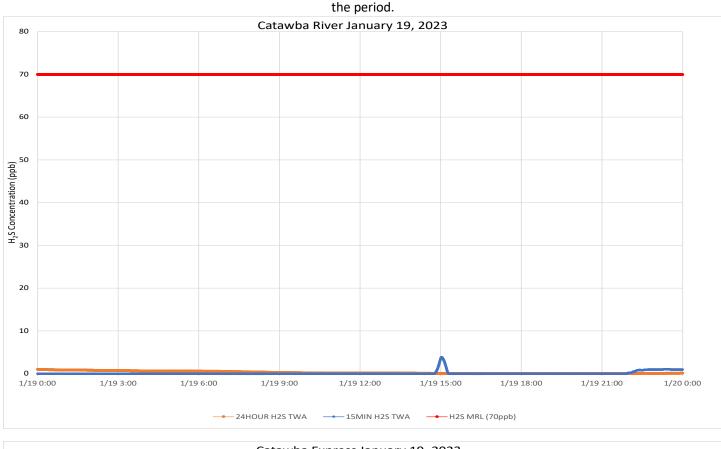
Notes:

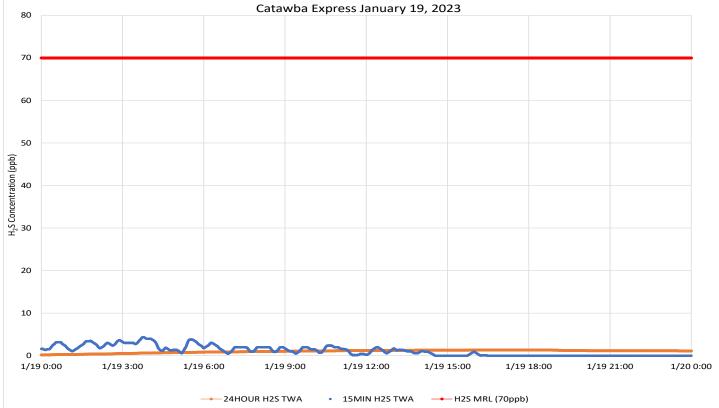
ATSDR MRL	Agency for Toxic Substances and Disease Registry Minimal Risk Level - Acute Exposure (<14 days)
H <sub>2</sub> S	Hydrogen Sulfide
hr	Hour
ppb	Parts per billion
MRL Exceedance	Defines if the 24-hr TWA exceeded the MRL at any time during the period of this report
SPM	Single Point Monitor
TWA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



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

Winds were from the south to west southwest throughout the period, trending from southerly early, to more westerly later in





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:	1/20/23
	12:00 AM

To:	1/20/23
	11:59 PM

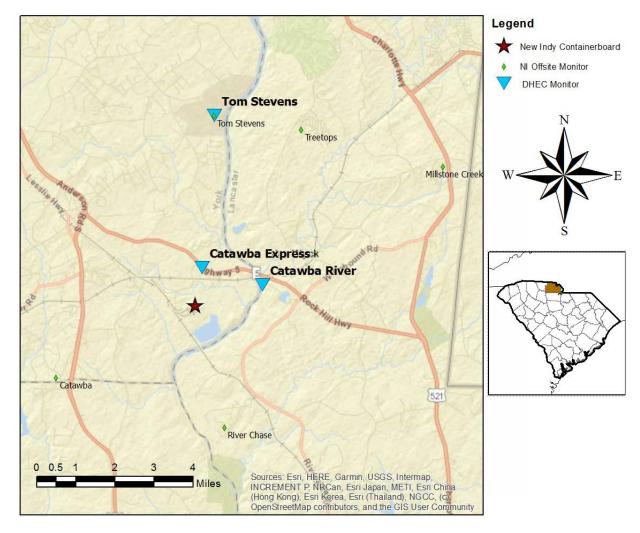


Catawba River							
Instrument	Analyte	ATSDR MRL Exceedance?	Number of Readings	Number of Detections	Concentration Range	Period Average	ATSDR MRL
SPM Flex 3	H2S	No	2880	1456	0 - 15 ppb	1.36 ppb	70 ppb

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	7	0 - 1 ppb	0 ppb	70 ppb

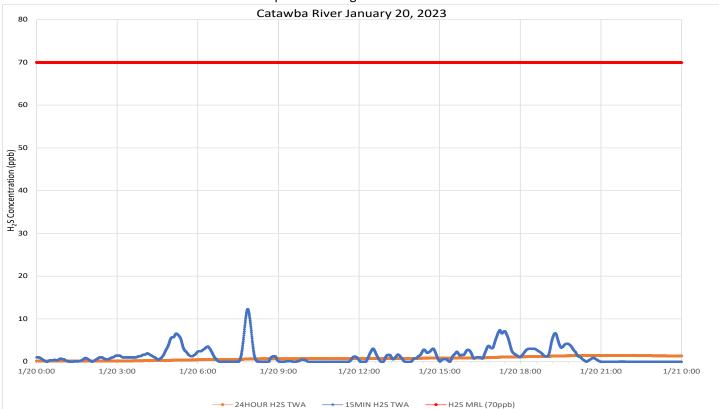
Notes:

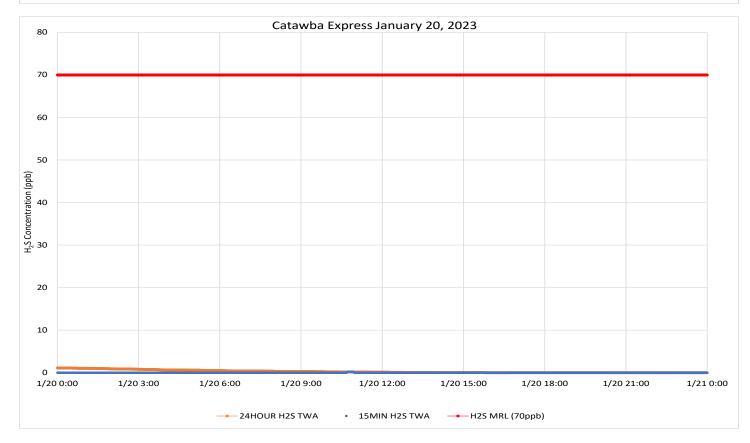
ATSDR MRL H₂S	Agency for Toxic Substances and Disease Registry Minimal Risk Level - Acute Exposure (<14 days) Hydrogen Sulfide
hr	Hour
ppb	Parts per billion
MRL Exceedance	Defines if the 24-hr TWA exceeded the MRL at any time during the period of this report
SPM	Single Point Monitor
TWA	Time Weighted Average



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

Winds were from the west southwest to west through midday then began shifting through the northwest and north, ending the period coming from the northeast.





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:	1/21/23
	12:00 AM

To:	1/21/23
	11:59 PM

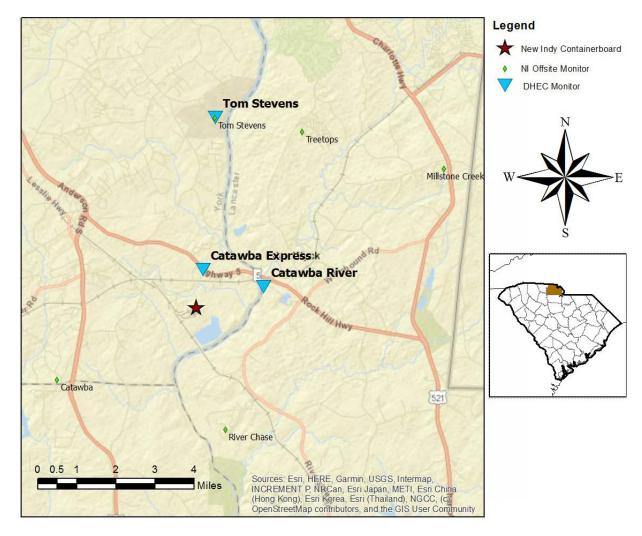


Catawba River							
Instrument	Analyte	ATSDR MRL	Number of	Number of	Concentration Range	Period Average	ATSDR MRL
instrument		Exceedance?	Readings	Detections	Concentration Range		
SPM Flex 3	H2S	No	21040	0	0 - 0 ppb	0 ppb	70 ppb

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	332	0 - 5 ppb	0.21 ppb	70 ppb

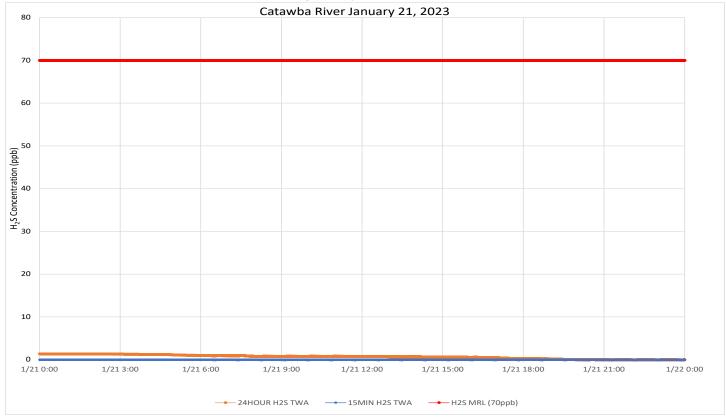
Notes:

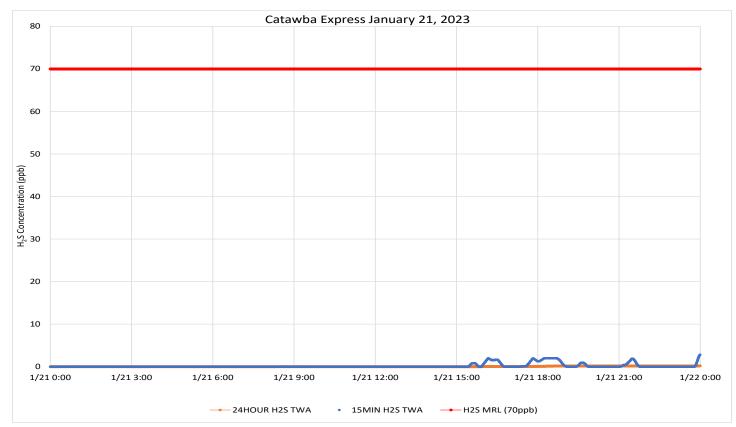
ATSDR MRL	Agency for Toxic Substances and Disease Registry Minimal Risk Level - Acute Exposure (<14 days)
H <sub>2</sub> S	Hydrogen Sulfide
hr	Hour
ppb	Parts per billion
MRL Exceedance	Defines if the 24-hr TWA exceeded the MRL at any time during the period of this report
SPM	Single Point Monitor
TWA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



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

Winds were variable and light to calm. During the morning, wind was generally from the north northeast to east northeast. After noon, wind was generally from the southeast to southwest.





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:	1/22/23
	12:00 AM

To:	1/22/23
	11:59 PM

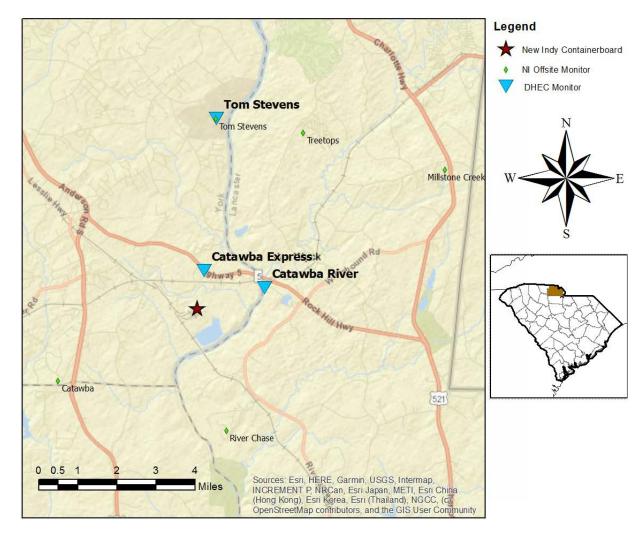


Catawba River							
Instrument	Analyte	ATSDR MRL Exceedance?	Number of Readings	Number of Detections	Concentration Range	Period Average	ATSDR MRL
SPM Flex 3	H2S	No	27600	1492	0 - 3 ppb	0.11 ppb	70 ppb

Catawba Express							
Instrument	Analyte	ATSDR MRL Exceedance?	Number of Readings	Number of Detections	Concentration Range	Period Average	ATSDR MRL
SPM Flex 2	H2S	No	2881	362	0 - 8 ppb	0.31 ppb	70 ppb

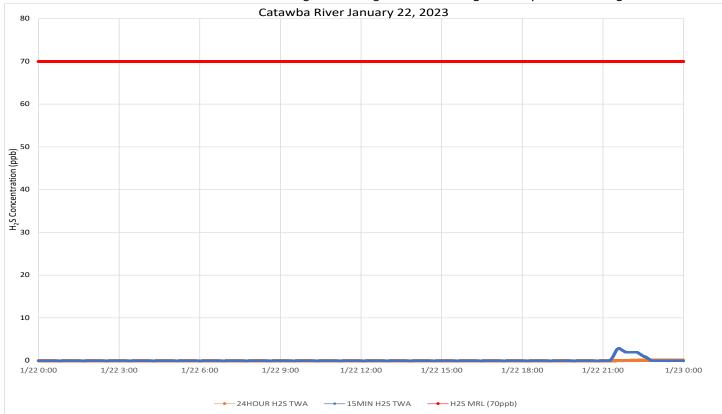
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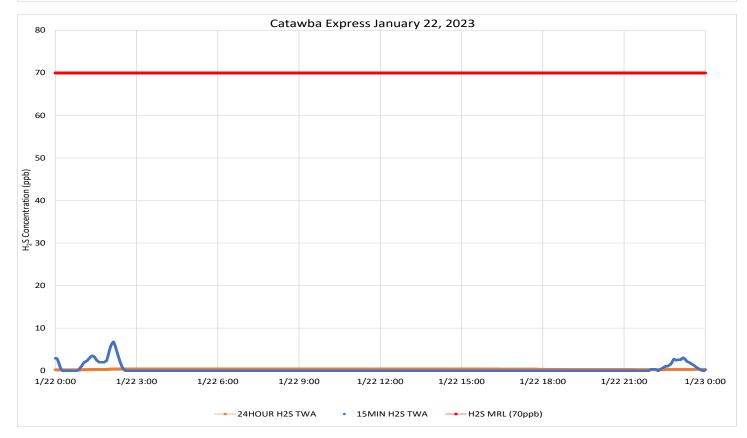
ATSDR MRL H₂S	Agency for Toxic Substances and Disease Registry Minimal Risk Level - Acute Exposure (<14 days) Hydrogen Sulfide
hr	Hour
ppb	Parts per billion
MRL Exceedance	Defines if the 24-hr TWA exceeded the MRL at any time during the period of this report
SPM	Single Point Monitor
TWA	Time Weighted Average



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

Winds were variable and light to calm until sunrise. During the day, wind generally came from the north northeast, then from the northwest for several hours during the evening before becoming southerly around midnight.





The Catawba River monitor was offline starting 1049 for approximately 6 minutes for maintenance. All reported summary data is valid.

### **Air Monitoring Summary Tables**

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

	H <sub>2</sub> S in South Carolina			dhec
From:	1/23/23	To:	1/23/23	
	12:00 AM		11:59 PM	
Catawba River				

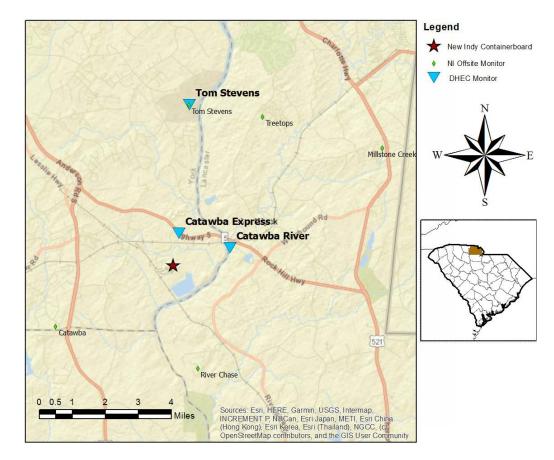
Catawba River							
Instrument	Analyte	ATSDR MRL Exceedance?	Number of Readings	Number of Detections	Concentration Range	Period Average	ATSDR MRL
SPM Flex 3	H2S	No	13845	7822	0 - 9 ppb	1.17 ppb	70 ppb

#### Catawba Express

Catawba Express							
Instrument	Analyte	ATSDR MRL	Number of	Number of	Concentration Range	Period Average	ATSDR MRL
		Exceedance?	Readings	Detections	Concentration Range		
SPM Flex 2	H2S	No	2879	38	0 - 2 ppb	0.02 ppb	70 ppb

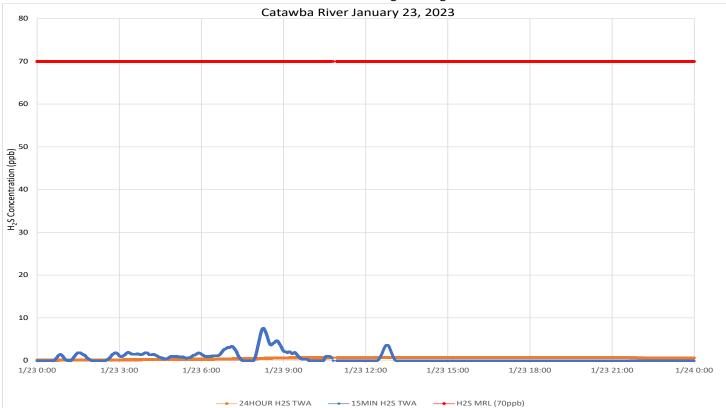
#### Notes:

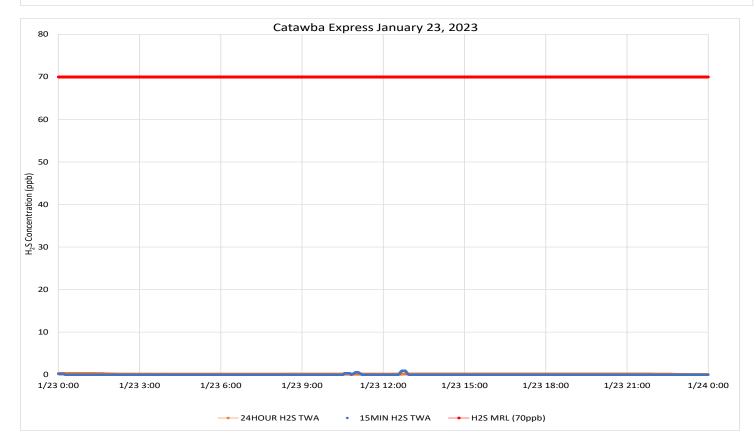
ATSDR MRL	Agency for Toxic Substances and Disease Registry Minimal Risk Level - Acute Exposure (<14 days)
H <sub>2</sub> S	Hydrogen Sulfide
hr	Hour
ppb	Parts per billion
MRL Exceedance	Defines if the 24-hr TWA exceeded the MRL at any time during the period of this report
SPM	Single Point Monitor
TWA	Time Weighted Average
	5 5



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

Winds were variable throughout the reporting period, generally from the southwest to west through midday and west to north northwest through midnight.





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:	1/24/23
	12:00 AM

To:	1/24/23
	11:59 PM

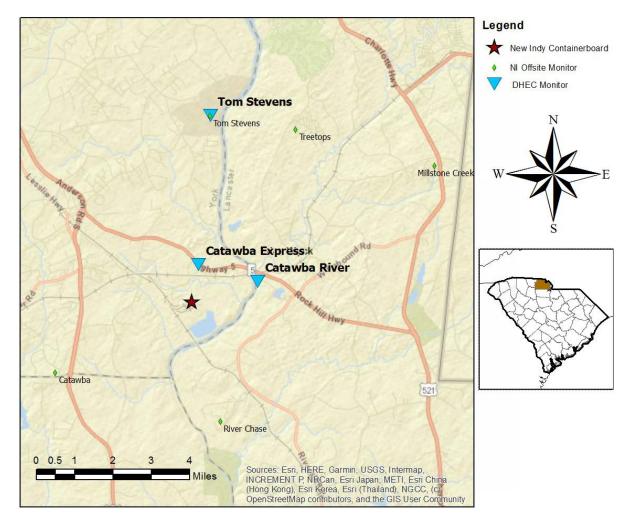


Catawba River							
Instrument	Analyte	ATSDR MRL Exceedance?	Number of Readings	Number of Detections	Concentration Range	Period Average	ATSDR MRL
SPM Flex 3	H2S	No	15893	1159	0 - 6 ppb	0.18 ppb	70 ppb

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	1454	0 - 18 ppb	2.51 ppb	70 ppb

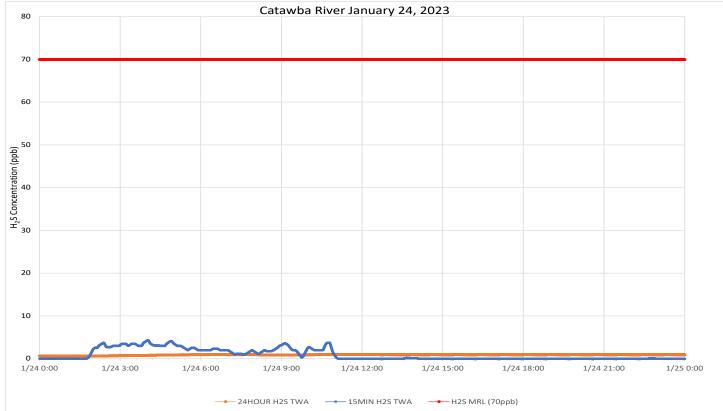
Notes:

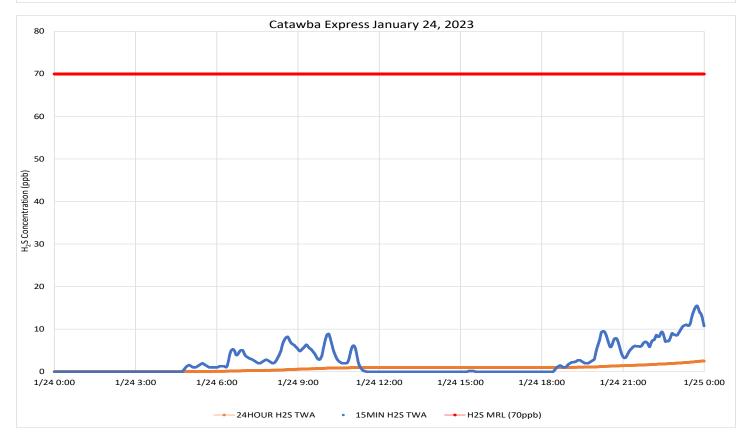
ATSDR MRL	Agency for Toxic Substances and Disease Registry Minimal Risk Level - Acute Exposure (<14 days)
H <sub>2</sub> S	Hydrogen Sulfide
hr	Hour
ppb	Parts per billion
MRL Exceedance	Defines if the 24-hr TWA exceeded the MRL at any time during the period of this report
SPM	Single Point Monitor
TWA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



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

Winds were light and variable with extended calm periods through sunup and early morning hours and early evening through midnight. Between noon and sunset, the winds were generally from the south southwest to southwest.





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:	1/25/23
	12:00 AM

To:	1/25/23
	11:59 PM

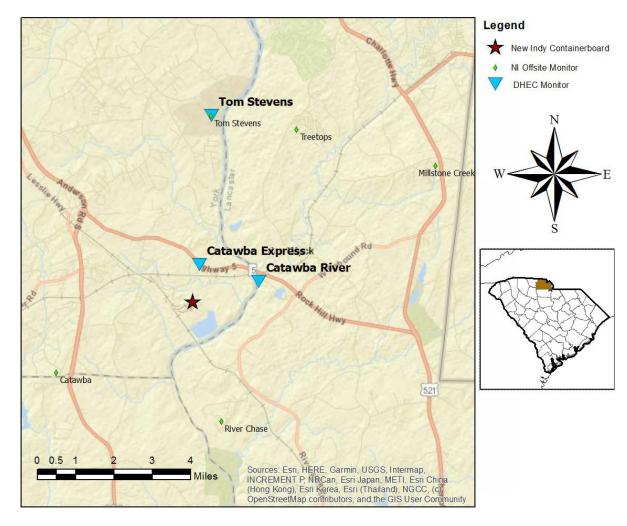


Catawba River							
Instrument	Analyte	ATSDR MRL Exceedance?	Number of Readings	Number of Detections	Concentration Range	Period Average	ATSDR MRL
SPM Flex 3	H2S	No	27613	5869	0 - 19 ppb	0.63 ppb	70 ppb

Catawba Express							
Instrument	Analyte	ATSDR MRL Exceedance?	Number of Readings	Number of Detections	Concentration Range	Period Average	ATSDR MRL
SPM Flex 2	H2S	No	2881	1265	0 - 15 ppb	2.22 ppb	70 ppb

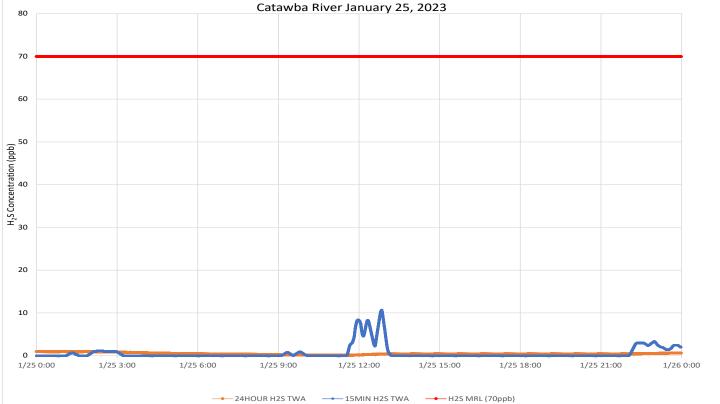
Notes:

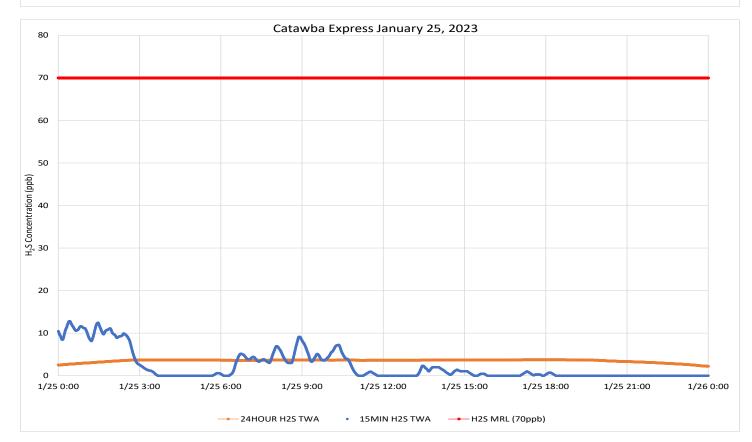
ATSDR MRL H <sub>2</sub> S	Agency for Toxic Substances and Disease Registry Minimal Risk Level - Acute Exposure (<14 days) Hydrogen Sulfide
hr	Hour
ppb	Parts per billion
MRL Exceedance	Defines if the 24-hr TWA exceeded the MRL at any time during the period of this report
SPM	Single Point Monitor
TWA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



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

Winds were calm through the early morning and for several hours in the late afternoon. The day began with winds from the west southwest to south, from the north in the early afternoon, and in the late evening, from the west to west southwest.





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:	1/26/23
	12:00 AM

To:	1/26/23
	11:59 PM

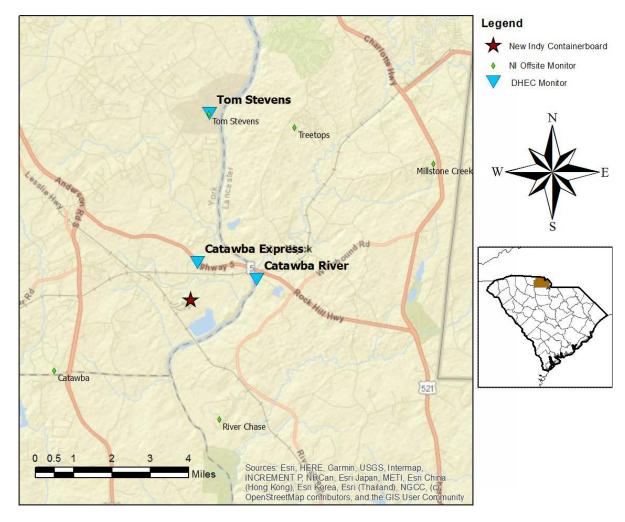


Catawba River								
Instrument	Analyte	ATSDR MRL Exceedance?	Number of Readings	Number of Detections	Concentration Range	Period Average	ATSDR MRL	
SPM Flex 3	H2S	No	27537	17195	0 - 8 ppb	1.23 ppb	70 ppb	

Catawba Express								
Instrument	Analyte	ATSDR MRL Exceedance?	Number of Readings	Number of Detections	Concentration Range	Period Average	ATSDR MRL	
SPM Flex 2	H2S	No	2880	7	0 - 1 ppb	0 ppb	70 ppb	

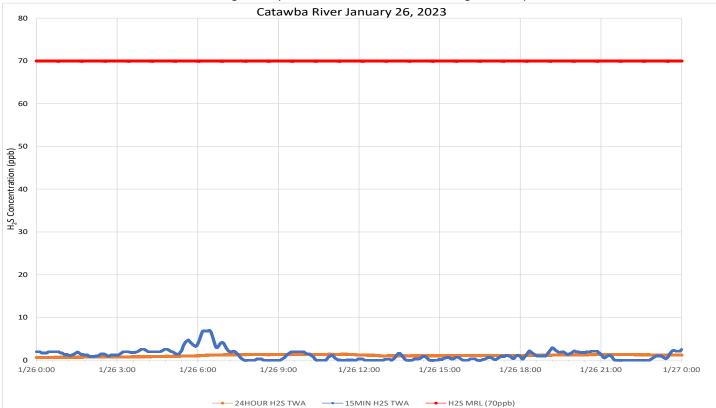
Notes:

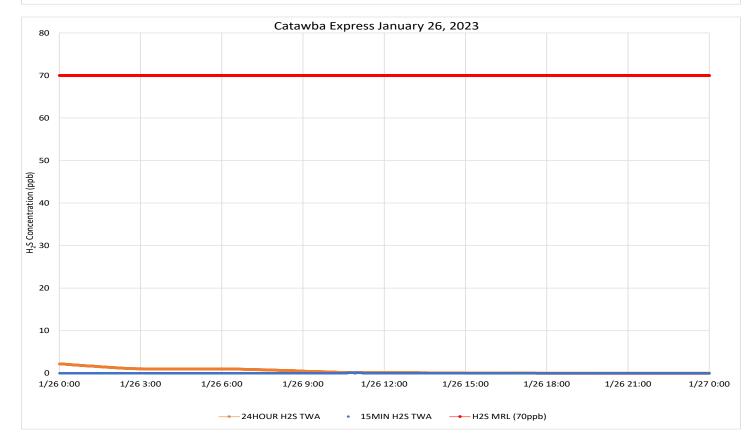
ATSDR MRL H <sub>2</sub> S	Agency for Toxic Substances and Disease Registry Minimal Risk Level - Acute Exposure (<14 days) Hydrogen Sulfide
hr	Hour
ppb	Parts per billion
MRL Exceedance	Defines if the 24-hr TWA exceeded the MRL at any time during the period of this report
SPM	Single Point Monitor
TWA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



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

Winds were generally from the west southwest throughout the period.





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:	1/27/23
	12:00 AM

To:	1/27/23
	11:59 PM

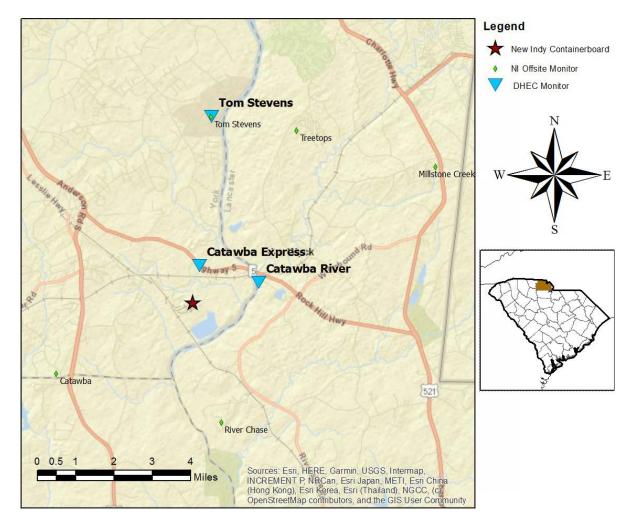


Catawba River								
Instrument	Analyte	ATSDR MRL Exceedance?	Number of Readings	Number of Detections	Concentration Range	Period Average	ATSDR MRL	
SPM Flex 3	H2S	No	27550	5464	0 - 4 ppb	0.34 ppb	70 ppb	

Catawba Express								
Instrument	Analyte	ATSDR MRL Exceedance?	Number of Readings	Number of Detections	Concentration Range	Period Average	ATSDR MRL	
SPM Flex 2	H2S	No	4583	0	0 - 0 ppb	0 ppb	70 ppb	

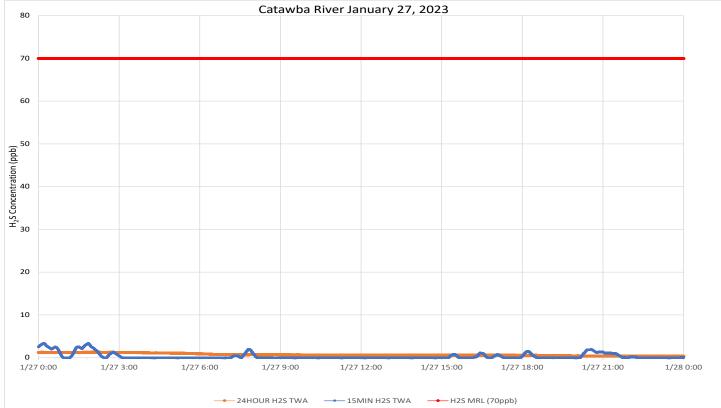
Notes:

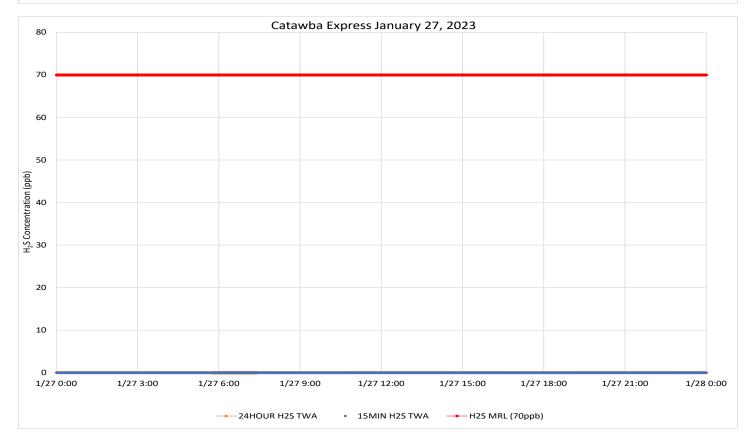
ATSDR MRL H₂S	Agency for Toxic Substances and Disease Registry Minimal Risk Level - Acute Exposure (<14 days) Hydrogen Sulfide
hr	Hour
ppb	Parts per billion
MRL Exceedance	Defines if the 24-hr TWA exceeded the MRL at any time during the period of this report
SPM	Single Point Monitor
TWA	Time Weighted Average



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

Winds were generally from the west to west southwest through 8 AM, then west northwest to northwest until 4PM, ending the day trending coming from the west southwest to south southwest through the end of the period.





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:	1/28/23
	12:00 AM

To:	1/28/23
	11:59 PM

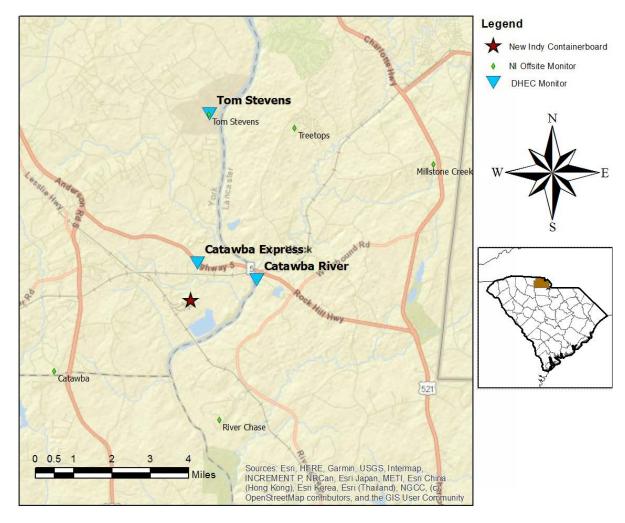


Catawba River								
Instrument	Analyte	ATSDR MRL Exceedance?	Number of Readings	Number of Detections	Concentration Range	Period Average	ATSDR MRL	
SPM Flex 3	H2S	No	27565	3303	0 - 8 ppb	0.45 ppb	70 ppb	

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	722	0 - 7 ppb	0.48 ppb	70 ppb	

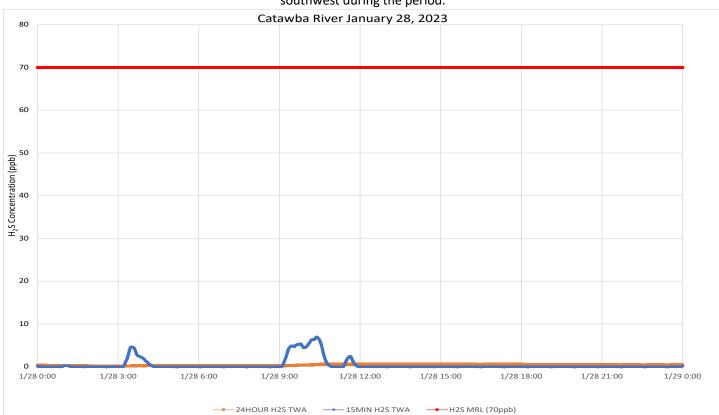
Notes:

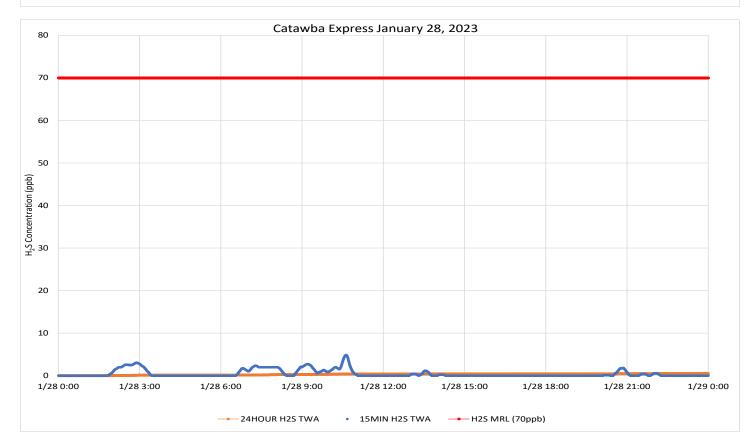
ATSDR MRL	Agency for Toxic Substances and Disease Registry Minimal Risk Level - Acute Exposure (<14 days)
H <sub>2</sub> S	Hydrogen Sulfide
hr	Hour
ppb	Parts per billion
MRL Exceedance	Defines if the 24-hr TWA exceeded the MRL at any time during the period of this report
SPM	Single Point Monitor
TWA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



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

Although more variable with intermittent calm periods during the day, winds were generally from the south to west southwest during the period.





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:	1/29/23
	12:00 AM

To:	1/29/23
	11:59 PM

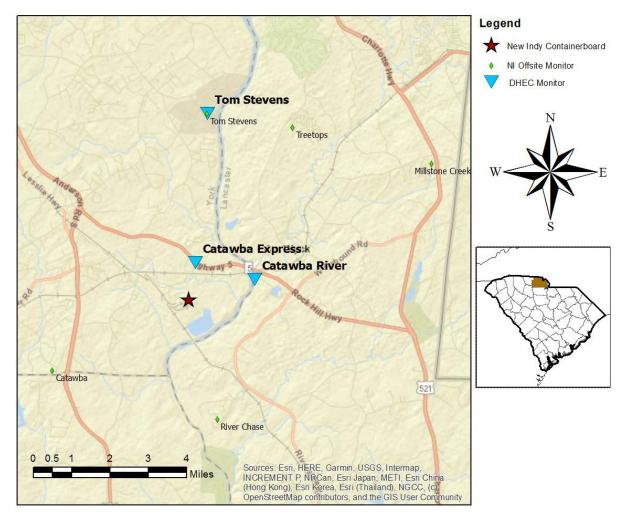


Catawba River							
Instrument	Analyte	ATSDR MRL Exceedance?	Number of Readings	Number of Detections	Concentration Range	Period Average	ATSDR MRL
SPM Flex 3	H2S	No	27532	4889	0 - 4 ppb	0.28 ppb	70 ppb

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	1446	0 - 8 ppb	1.08 ppb	70 ppb

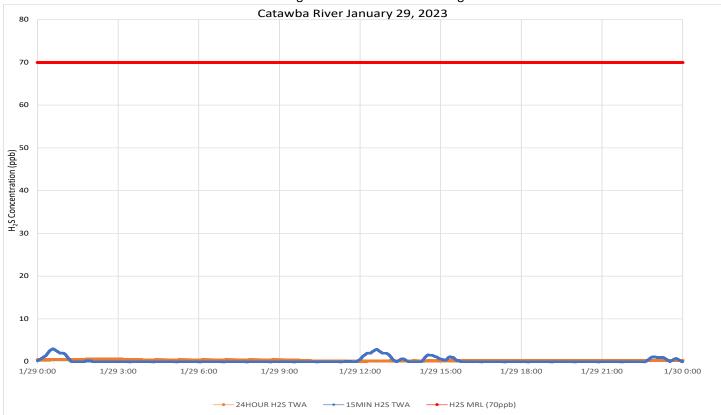
Notes:

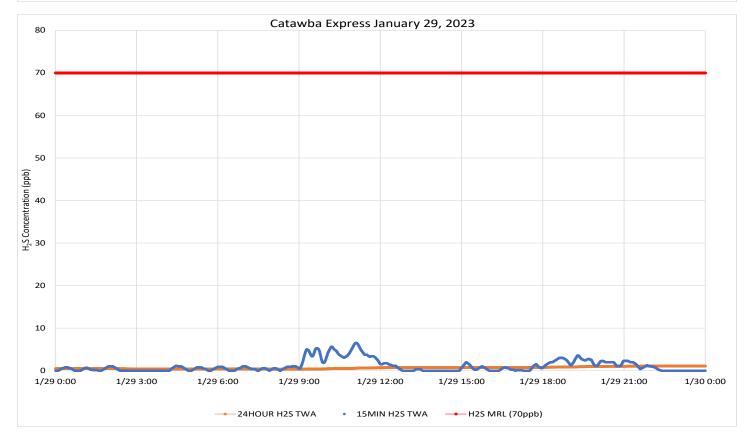
ATSDR MRL H₂S	Agency for Toxic Substances and Disease Registry Minimal Risk Level - Acute Exposure (<14 days) Hydrogen Sulfide
hr	Hour
ppb	Parts per billion
MRL Exceedance	Defines if the 24-hr TWA exceeded the MRL at any time during the period of this report
SPM	Single Point Monitor
TWA	Time Weighted Average



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

Winds were generally from the south to southwest during the period, becoming more variable with calm periods as it shifted to coming from the northwest overnight.





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:	1/30/23
	12:00 AM

To:	1/30/23
	11:59 PM

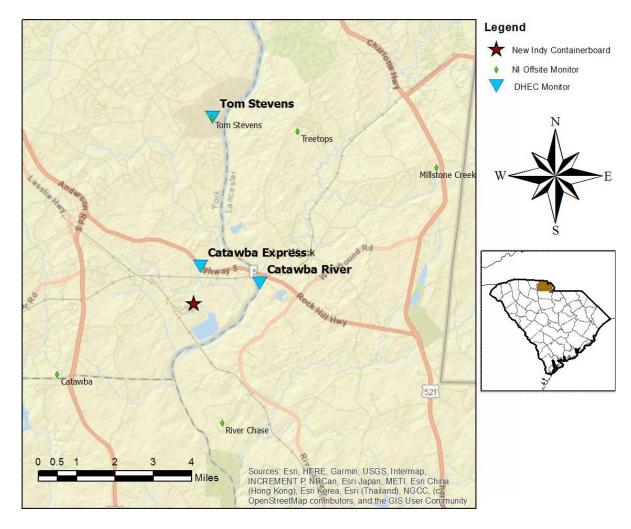


Catawba River							
Instrument	Analyte	ATSDR MRL Exceedance?	Number of Readings	Number of Detections	Concentration Range	Period Average	ATSDR MRL
SPM Flex 3	H2S	No	27541	5166	0 - 6 ppb	0.39 ppb	70 ppb

Catawba Express							
Instrument	Analyte	ATSDR MRL	Number of	Number of	Concentration Range	Period Average	ATSDR MRL
	-	Exceedance?	Readings	Detections	-	-	
SPM Flex 2	H2S	No	2880	644	0 - 9 ppb	0.63 ppb	70 ppb

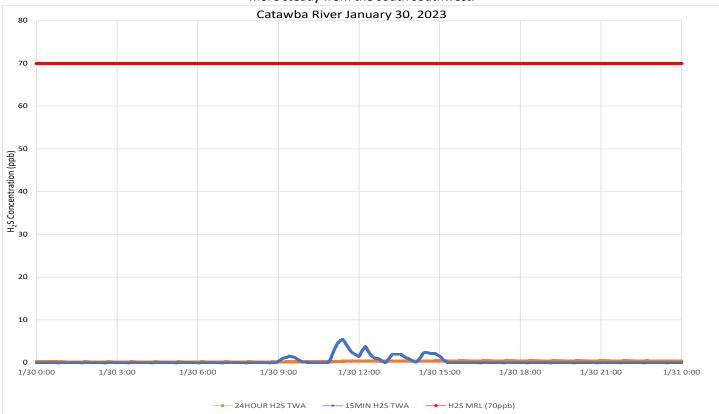
Notes:

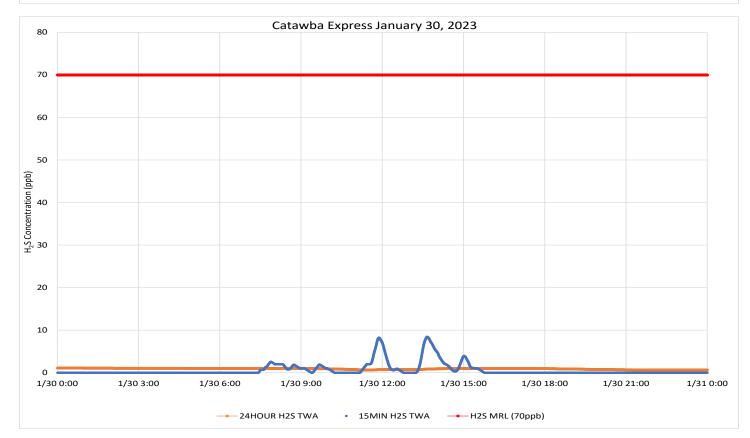
ATSDR MRL	Agency for Toxic Substances and Disease Registry Minimal Risk Level - Acute Exposure (<14 days)
H <sub>2</sub> S	Hydrogen Sulfide
hr	Hour
ppb	Parts per billion
MRL Exceedance	Defines if the 24-hr TWA exceeded the MRL at any time during the period of this report
SPM	Single Point Monitor
TWA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



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

Winds were variable, mostly calm, and generally from the northwest until midday. In the afternoon and evening, wind became more steady from the south southwest.





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:	1/31/23
	12:00 AM

To:	1/31/23		
	11:59 PM		

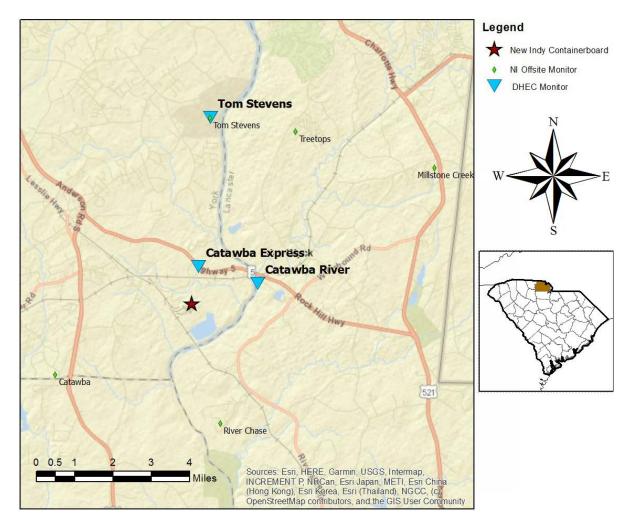


Catawba River							
Instrument	Analyte	ATSDR MRL Exceedance?	Number of Readings	Number of Detections	Concentration Range	Period Average	ATSDR MRL
SPM Flex 3	H2S	No	27549	4129	0 - 6 ppb	0.33 ppb	70 ppb

Catawba Express							
Instrument	Analyte	ATSDR MRL Exceedance?	Number of Readings	Number of Detections	Concentration Range	Period Average	ATSDR MRL
SPM Flex 2	H2S	No	3727	596	0 - 6 ppb	0.24 ppb	70 ppb

Notes:

ATSDR MRL	Agency for Toxic Substances and Disease Registry Minimal Risk Level - Acute Exposure (<14 days)
H₂S	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



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

There were several calm periods in the late afternoon and early evening, but when present, winds were from the south to

