



January 25, 2022

Ms. Maureen Hatfield, P.G.

Texas Commission on Environmental Quality
MC-127
VCP-CA Section, Team 1, Remediation Division
P.O. Box 13087
Austin, Texas 78711-3087

**RE: WEEKLY STATUS UPDATE – ENGLEWOOD YARD NORTH BYPASS PROJECT
UNION PACIFIC RAILROAD HOUSTON WOOD PRESERVING WORKS SITE
4910 LIBERTY ROAD FACILITY, HOUSTON, TEXAS
POST-CLOSURE CARE PERMIT NO. 50343, INDUSTRIAL SWR NO. 31547**

Dear Ms. Hatfield:

Golder Associates USA Inc. (Golder), a member of WSP, on behalf of Union Pacific Railroad (UPRR), prepared this weekly status update for the Englewood Yard North By-Pass Project (the Project) that includes areas of construction within the UPRR Houston Wood Preserving Works (HWPW) site (the Site) (Post-Closure Care Permit No. 50343) located at 4910 Liberty Road, Houston, Texas. Below is a summary of the Project activities conducted at the Site for the reporting period:

Week Period: *January 17 through January 23, 2022*

- **Dust Control and Air Monitoring**
 - Construction activities performed during this reporting period did not involve excavation of soils within the HWPW Site.
 - Between January 20 and 22, 2022, IHST conducted real time air and dust monitoring in areas outside of the HWPW Site in accordance with the Air Monitoring Plan (July 8, 2021), and the results for this period are provided in **Attachment A**.
- **Soil Management**
 - Construction activities performed during this reporting period did not involve excavation of soils within the Project Area. Therefore, Soil Management was not conducted during this reporting period.
 - A waste profile for the wash water sample collected on December 16, 2021 was submitted to US Ecology Texas for review. Upon approval, the wash water will be disposed as liquid classified as impacted with listed hazardous waste (F034/K001) at US Ecology Texas in Robstown, TX.
 - Three 40-yard roll-off containers containing old weathered power poles were scheduled for shipment to Republic Services – Blue Ridge Landfill in Fresno, TX. The power poles will be disposed as nonhazardous waste (Waste Profile Approval: 5112220076, Exp. Date: 12/9/2022).

- One roll-off container containing approximately 15 cubic yards (CY) of soil classified as impacted with listed hazardous waste (F034/K001) was shipped to US Ecology Texas on January 6, 2022 (Hazardous Waste Manifest Number: 022648999JJK).

- **Stormwater Management**

- There was no rainfall during this reporting period that resulted in management of stormwater within the Project area.

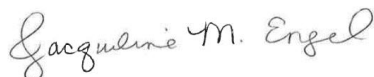
Planned Construction Activities for the period between **January 24 and January 30, 2022:**

- Per the Contractor schedule, no soil generating activities are planned for the period between January 24 and January 30, 2022. Construction activities are tentatively scheduled to resume within the Site in February 2022. The planned activities include construction of a shallow trench for installation of new signal lines within the Railroad Ballast Cap area.

If you have any questions or need additional information, please feel free to contact Mr. Kevin Peterburs of UPRR at (414) 267-4164.

Sincerely,

Golder Associates USA Inc.



Jacqueline M. Engel
Project Geologist



Eric Matzner
Practice Leader/ Principal

ATTACHMENT A

Weekly Report of Air Monitoring

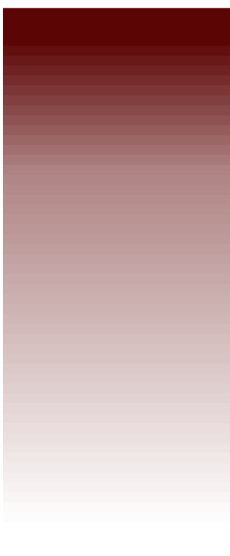


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Weekly Report of Air Monitoring

Union Pacific Railroad North Bypass Construction Project

**Former Houston Wood Preserving Works Site
Houston, TX**

For Period from 2022-01-17 to 2022-01-23

Contents

Summary Results of Daily Dust Monitoring	3
Summary Results of Daily Weather Conditions	8
Daily Time History Detail for PM 2.5 and PM 10 Dust Levels.....	13
Results of Integrated Air Samples for Metals.....	24
Results of Integrated Air Samples for Polynuclear Aromatic Hydrocarbons (PAH).....	25

Summary Results of Daily Dust Monitoring

This section provides overall summary results for perimeter dust monitoring conducted during the week specified. Dust monitoring results include the average PM 2.5 and PM 10 monitoring results over the sample period at each sample location for each day. Each day's summary provides also includes a description of the work activities performed that day, and any items, issues or occurrences of note.

The 24-hour USEPA National Ambient Air Quality Standard (NAAQS) for PM 2.5 particulate matter is 35 ug/m³, and 150 ug/m³ for PM 10 particulate matter. The Texas Department of Environmental Quality (TCEQ) has adopted these values. UPRR has established dust control levels for railroad construction activities to help ensure that particulate levels do not exceed the 24-hour NAAQS as a result of construction activities.

Overall averages provided are for the sample period specified by the start and stop times. Unless otherwise specified, the sample periods are inclusive of all potentially significant dust generating activities.

Station AMS-01 is a background reference station, continually located inside the Union Pacific Railroad (UPRR) Englewood Railyard approximately 1.1 miles from the Houston Wood Preserving Works site.

Location of air sampling stations are consistent the Dust Control and Air Monitoring Plan dated 7/8/2021 and approved by the Texas Commission on Environmental Quality (TCEQ). Minor variations in station placement may occur, based on work activities, environmental factors, observed patterns of dust dispersion and practical constraints.

Notes:

No construction work was conducted on the capped area of the former Houston Wood Preserving Works site this week. The only soil-disturbing activities were excavation of holes for four (4) wooden utility poles and setting of wooden utility poles in those holes. These activities occurred on 1/20-22/2022 and were located adjacent to the northernmost Union Pacific railroad track, just south of Liberty Road, between the Lockwood overpass and the intersection of Liberty and Rupert.

Three (3) air monitoring stations were deployed on 1/20-22/2022, two on the south side of Liberty Road, near the work areas and one (1) near the intersection of Wallisville and Sam Wilson Road.

No air monitoring was conducted on 1/17/2022 through 1/19/2022, and no air monitoring was conducted on 1/23/2022, as no soil-disturbing activities occurred on these days.

PM 2.5 and PM 10 Daily Summary Results

Sample Date	Description of Work Performed
Jan 20, 2022	Work plan for the day included air knitting to excavate holes for wooden utility poles and setting of poles by electrical contractors. Poles were located near the northernmost Union Pacific track, just south of Liberty Road, between the Lockwood overpass and the intersection of Liberty and Rupert Streets. Two holes were excavated, and two poles set. Work hours were approximately 07:30 – 16:50.

Overview Map of Daily Sample Locations

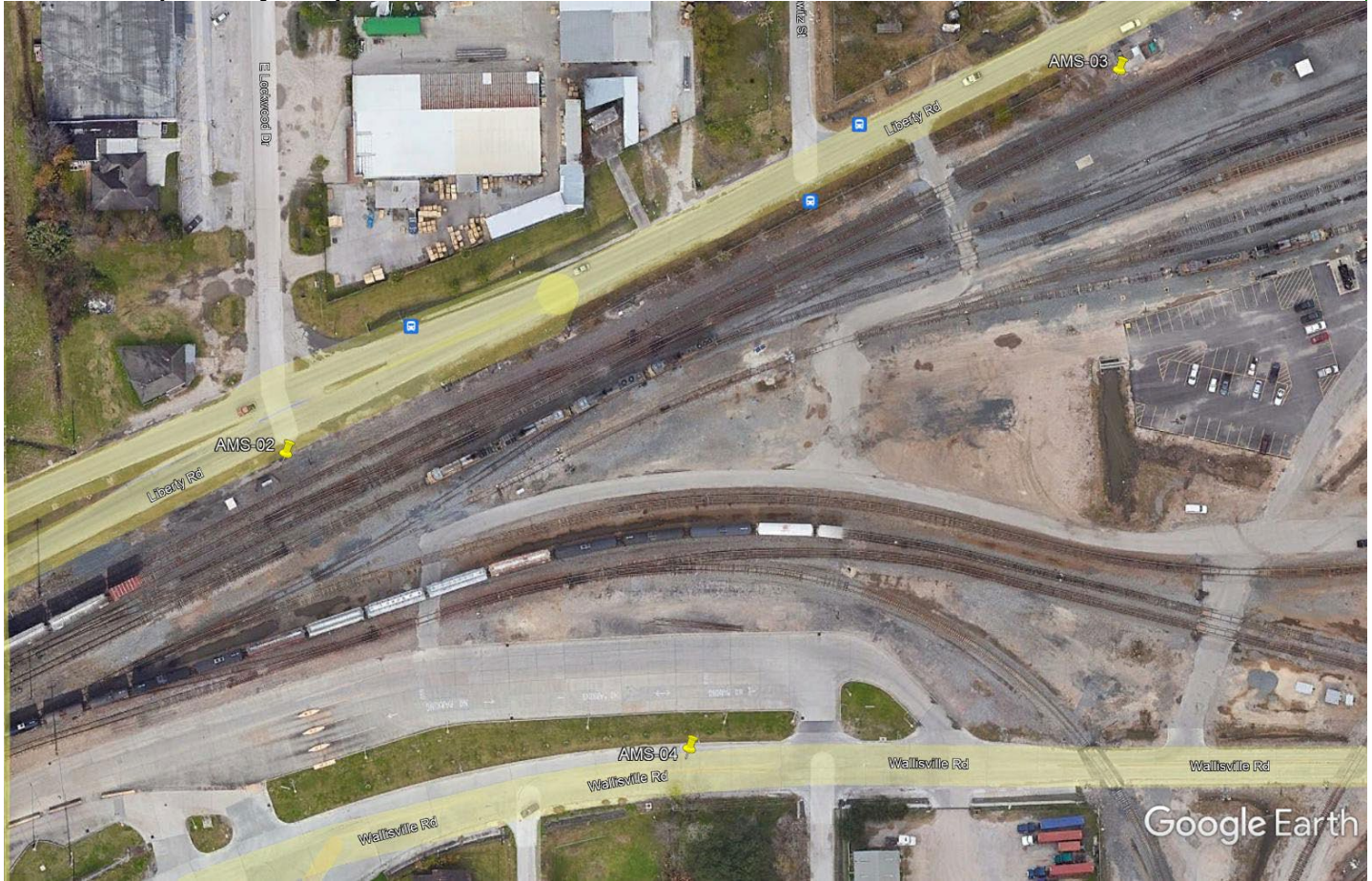


Station ID	Location Description	Start	Stop	Latitude	Longitude	Overall Average PM 2.5	Overall Average PM 10
AMS-02	Lockwood Overpass East	07:55	17:07	29.78817	-95.31505	6.2 ug/m3	16.8 ug/m3
AMS-03	Liberty - Rupert	08:06	17:00	29.78912	-95.31267	5.9 ug/m3	15.5 ug/m3
AMS-04	Wallisville – Sam Wilson	09:26	17:12	29.78762	-95.31392	4 ug/m3	9.6 ug/m3

PM 2.5 and PM 10 Daily Summary Results

Sample Date	Description of Work Performed
Jan 21, 2022	Work plan for the day included air knitting to excavate holes for wooden utility poles and setting of poles by electrical contractors. Poles were located near the northernmost Union Pacific track, just south of Liberty Road, between the Lockwood overpass and the intersection of Liberty and Rupert Streets. Two holes were excavated, and two poles set. Work hours were approximately 07:30 – 17:15.

Overview Map of Daily Sample Locations



Station ID	Location Description	Start	Stop	Latitude	Longitude	Overall Average PM 2.5	Overall Average PM 10
AMS-02	Lockwood Overpass East	05:51	15:19	29.78817	-95.31505	4.3 ug/m3	8.5 ug/m3
AMS-03	Liberty - Rupert	06:01	15:25	29.78912	-95.31267	5.5 ug/m3	10.3 ug/m3
AMS-04	Wallisville – Sam Wilson	06:18	15:36	29.78762	-95.31392	4.8 ug/m3	8.2 ug/m3

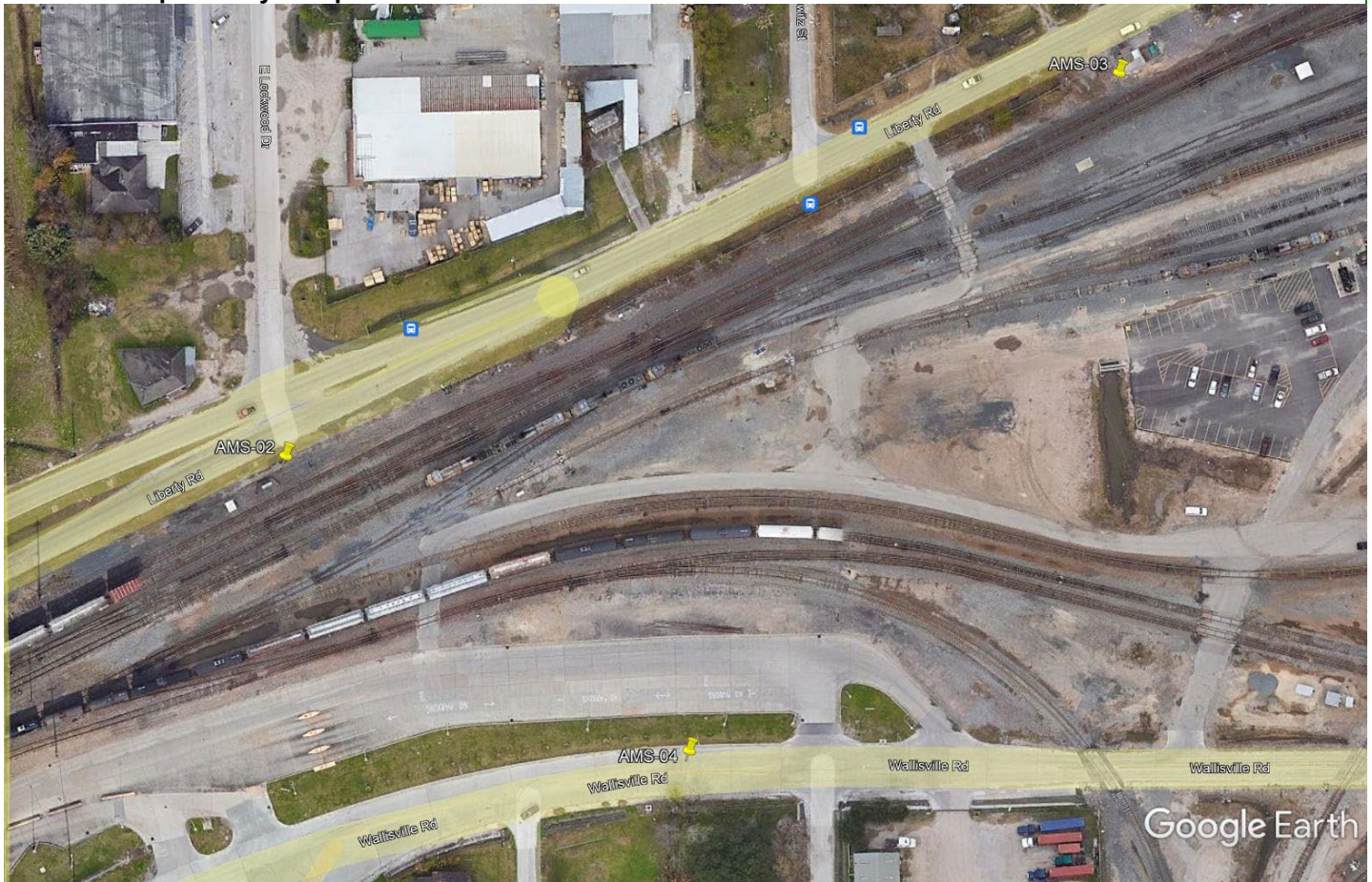
PM 2.5 and PM 10 Daily Summary Results

Sample Date
Jan 22, 2022

Description of Work Performed

Work plan for the day included air knitting to excavate a new hole for a wooden utility pole and reset a pole from the previous day. The pole was located near the northernmost Union Pacific track, just south of Liberty Road and east of the intersection of Liberty and Sakowitz. Excavation and pole setting took place between approximately 07:50 and 10:00. Air monitoring was discontinued after excavation and pole setting was complete. Remainder of work for the day consisted of overhead prep and installation by electrical crews. No excavation or soil disturbing activities were conducted after air monitoring ceased.

Overview Map of Daily Sample Locations



Station ID	Location Description	Start	Stop	Latitude	Longitude	Overall Average PM 2.5	Overall Average PM 10
AMS-02	Lockwood Overpass East	06:02	10:18	29.78817	-95.31505	4.1 ug/m3	9.7 ug/m3
AMS-03	Liberty - Rupert	06:14	10:12	29.78912	-95.31267	6.9 ug/m3	15.5 ug/m3
AMS-04	Wallisville – Sam Wilson	05:52	10:28	29.78762	-95.31392	6.7 ug/m3	16.3 ug/m3

No air monitoring was conducted on 1/23/2022, as no soil-disturbing activities occurred on this day.

Summary Results of Daily Weather Conditions

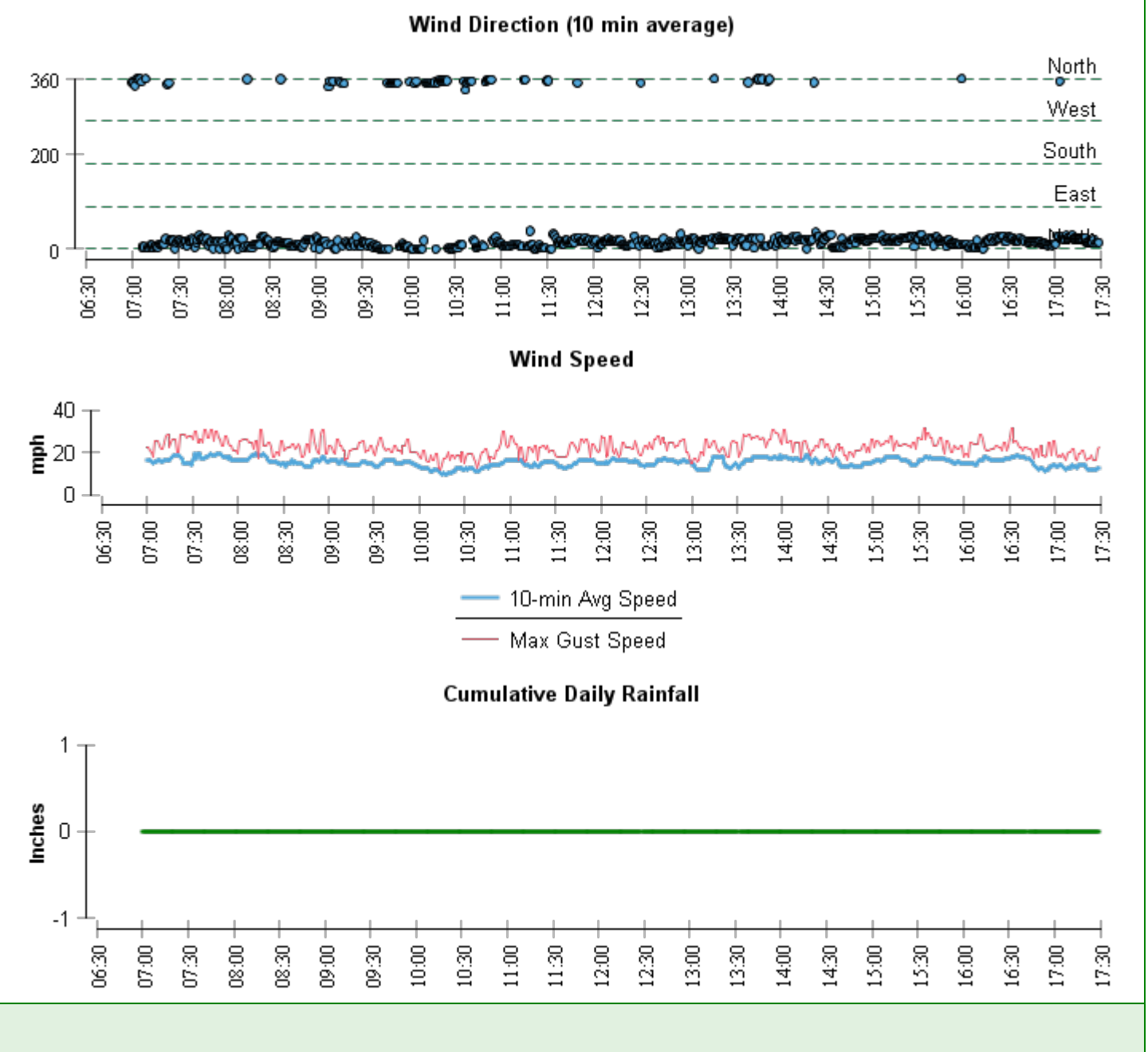
This section provides charts showing wind speed, wind direction and rainfall during each day of sampling during the specified week.

Note:

No air monitoring was conducted on 1/17/2022 through 1/19/2022, and no air monitoring was conducted on 1/23/2022, as no soil-disturbing activities occurred on these days.

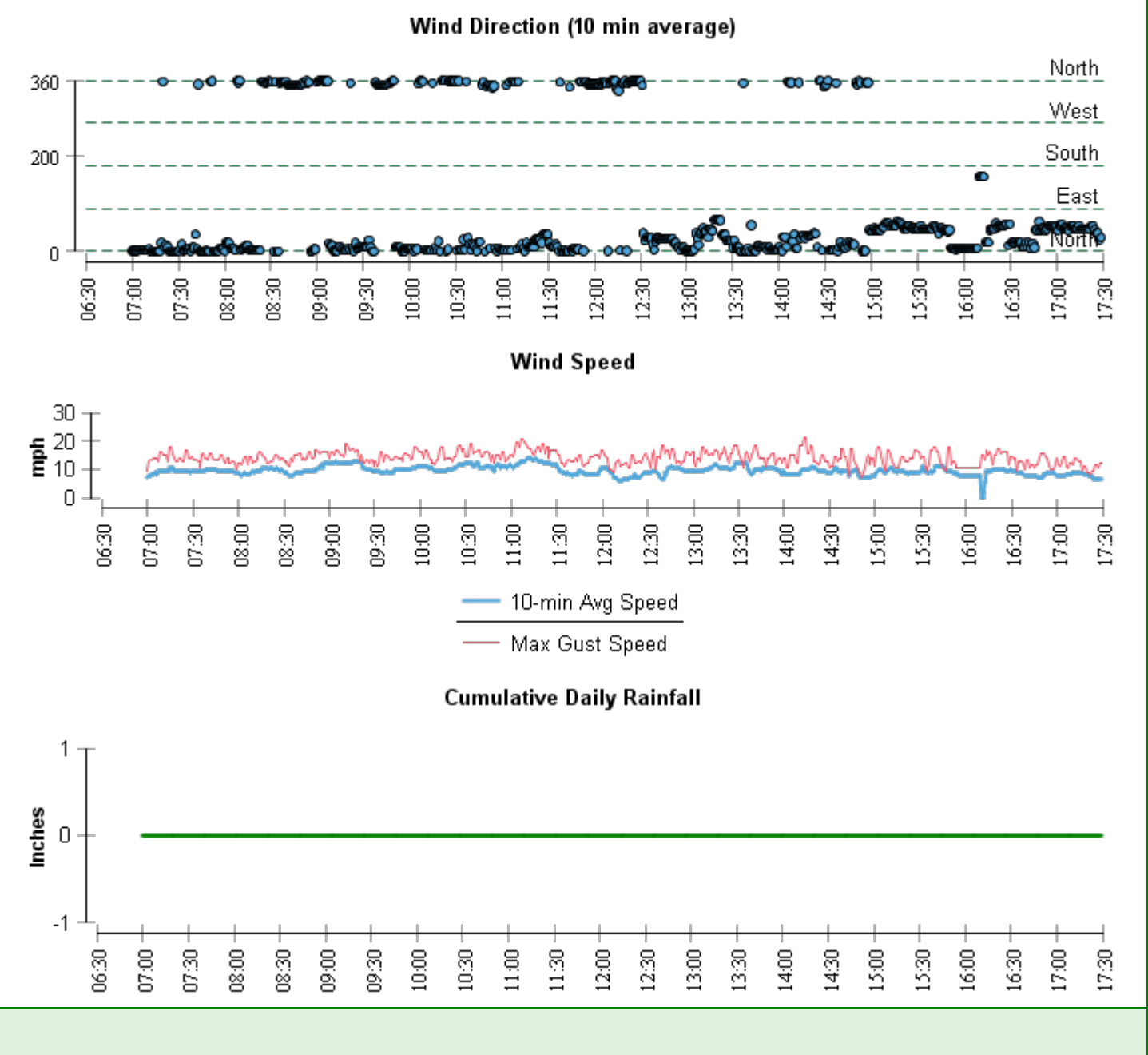
Weather Time History Data

Sample Date Jan 20, 2022



Weather Time History Data

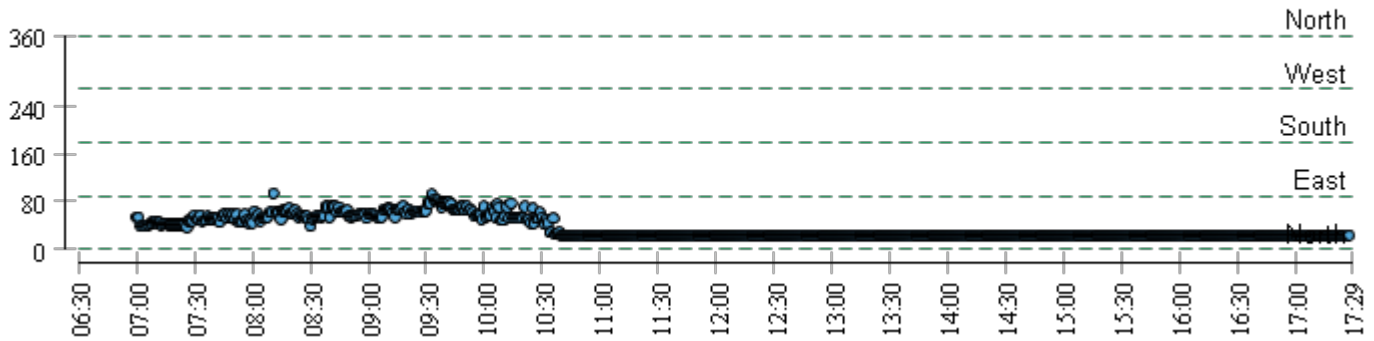
Sample Date Jan 21, 2022



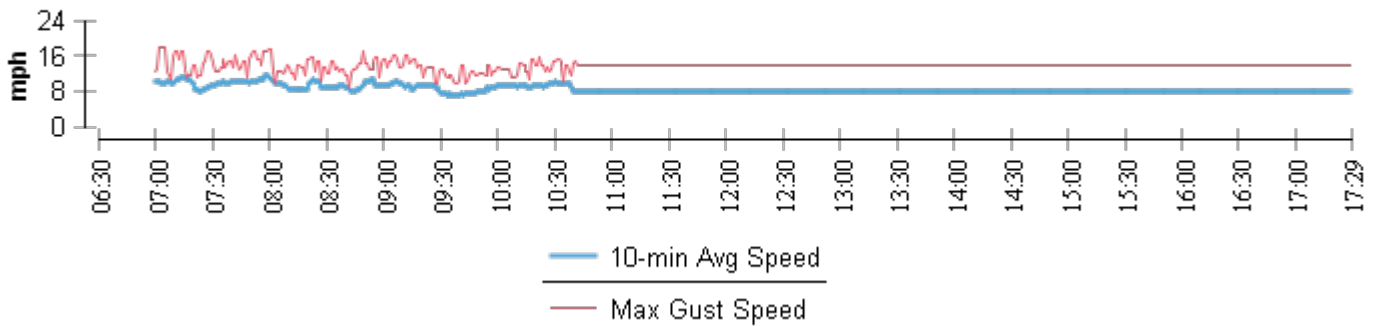
Weather Time History Data

Sample Date Jan 22, 2022

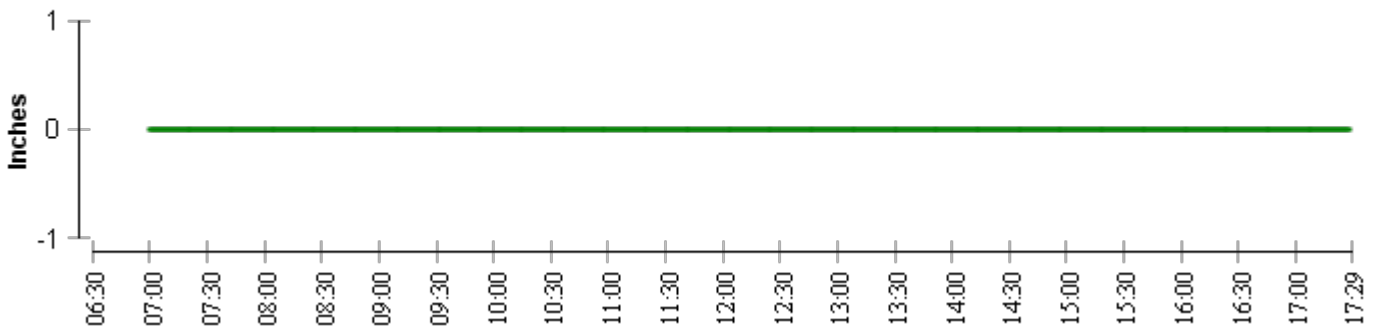
Wind Direction (10 min average)



Wind Speed



Cumulative Daily Rainfall



No air monitoring was conducted on 1/23/2022, as no soil-disturbing activities occurred on this day.

Daily Time History Detail for PM 2.5 and PM 10 Dust Levels

This section provides charts showing the rolling thirty-minute average concentrations of PM 2.5 and PM 10 particulates measured at each location on each sample day during the specified week.

PM 2.5 and PM 10 airborne particulate levels are measured every two minutes during the active sampling period. The charts track the average particulate concentrations over the past 30 minutes at the time of the measurement.

Union Pacific Railroad (UPRR) has established control levels for airborne particulates to help ensure that construction-related dust levels are adequately controlled. These levels are explained as follows:

- Take-Action Level - 30-minute average dust concentrations $>55 \text{ ug/m}^3$ (PM 2.5) or $>150 \text{ ug/m}^3$ (PM 10)
Additional dust control measures, as outlined in the site dust control plan, will be promptly implemented to reduce levels below the Take-Action Level.
- Stop-Work Level - 30-minute average dust concentrations $>85 \text{ ug/m}^3$ (PM 2.5) or $>300 \text{ ug/m}^3$ (PM 10)
Work will be stopped immediately, as outlined in the site dust control plan, and UPRR will evaluate dust control measures. Work will not resume until UPRR has implemented additional controls that will effectively prevent generation of dust levels above the Stop-Work Level.

Air monitoring stations may exhibit higher than actual readings during the first 5 - 10 minutes after startup, before the instrumentation has fully warmed up. This is a known and expected behavior of the instrumentation.

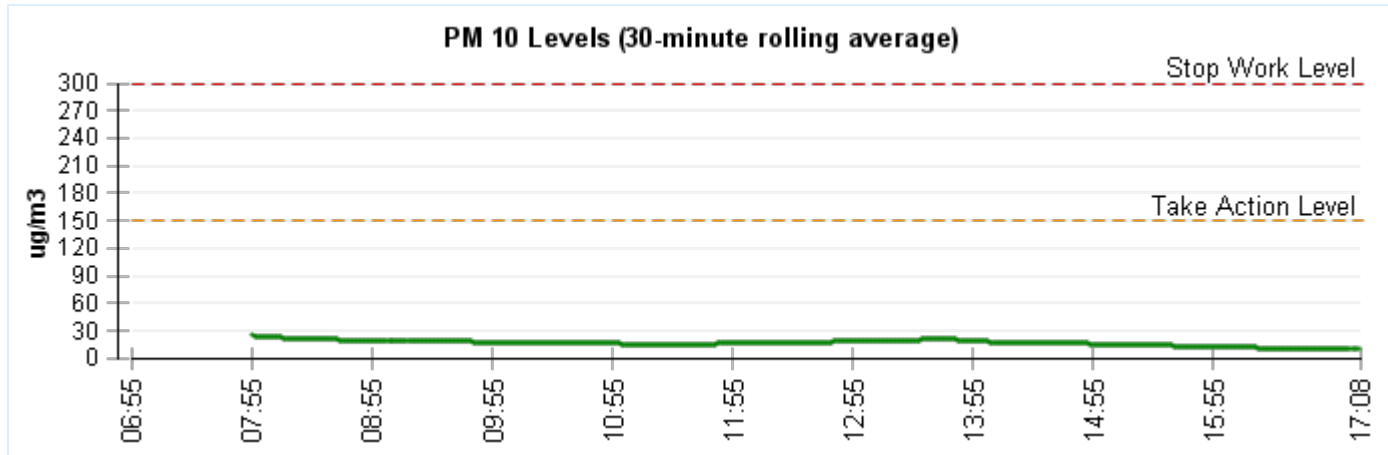
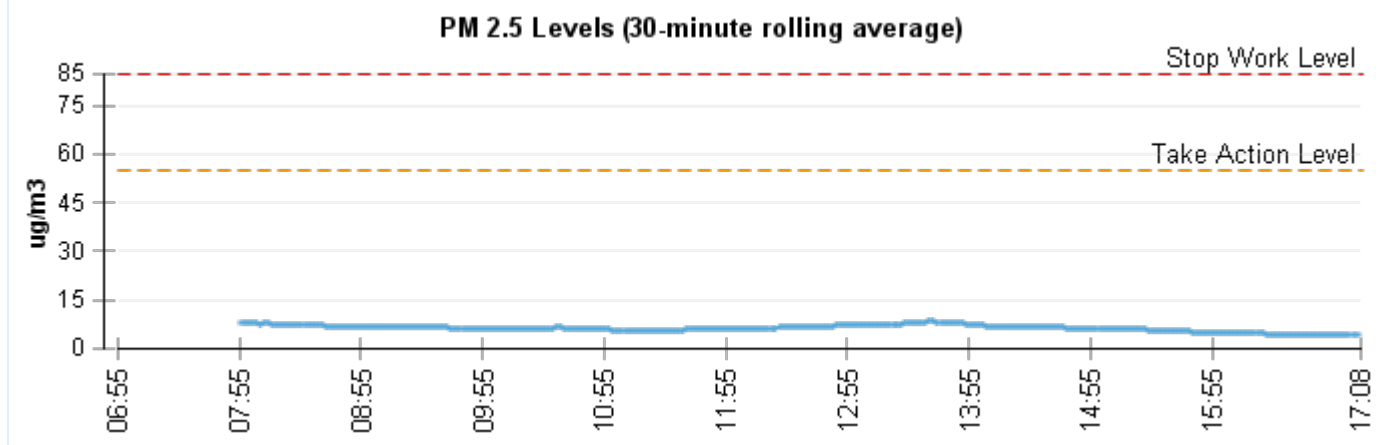
Note:

No air monitoring was conducted on 1/17/2022 through 1/19/2022, and no air monitoring was conducted on 1/23/2022, as no soil-disturbing activities occurred on these days.

PM 2.5 and PM 10 Time History Data

Sample Date Jan 20, 2022

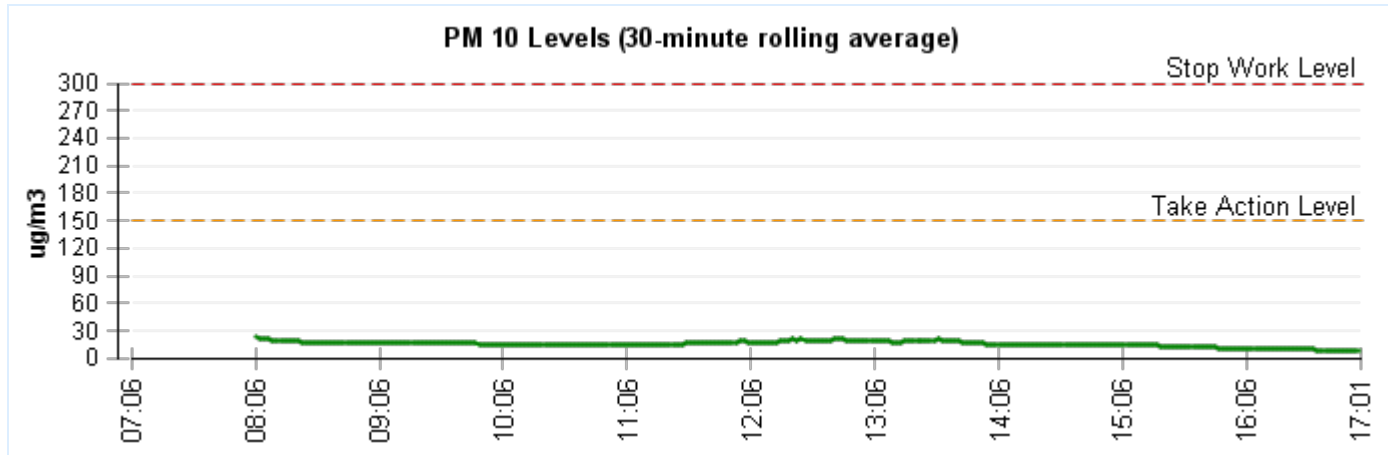
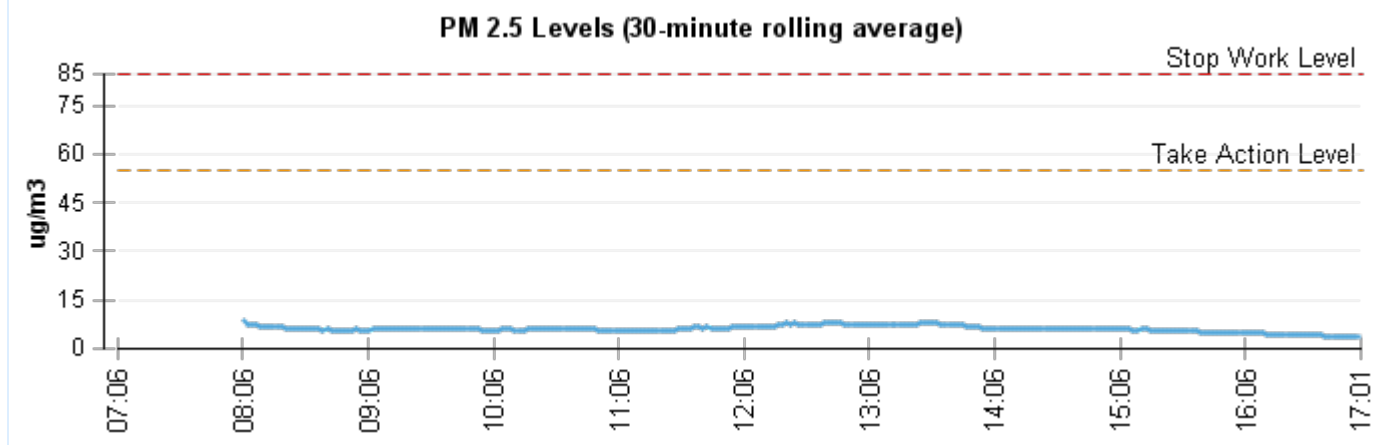
Station ID AMS-02
Location Description 29.78817, -95.31505 - Lockwood Overpass East



PM 2.5 and PM 10 Time History Data

Sample Date Jan 20, 2022

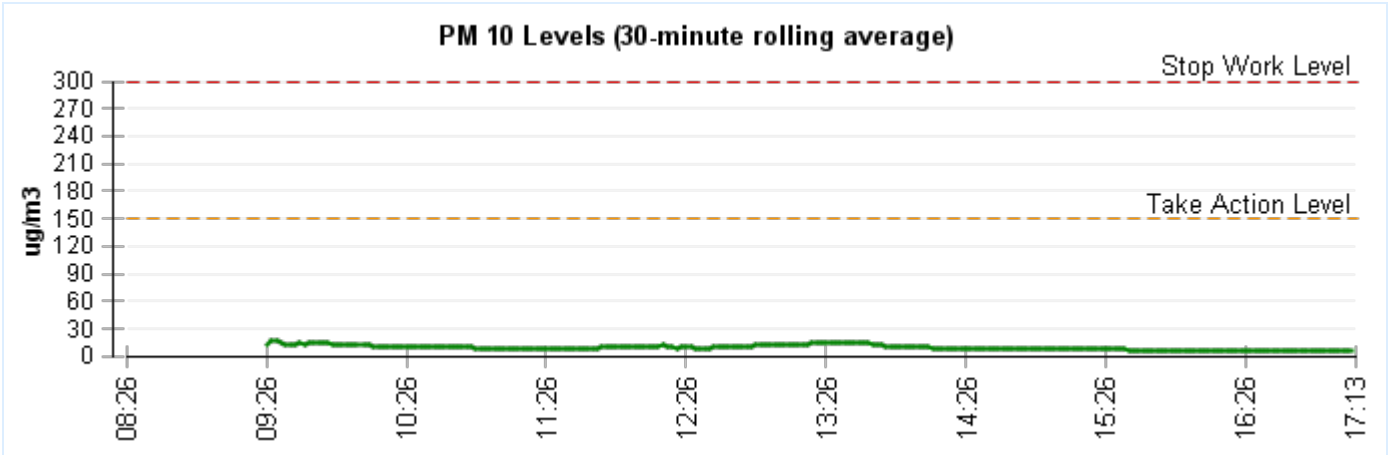
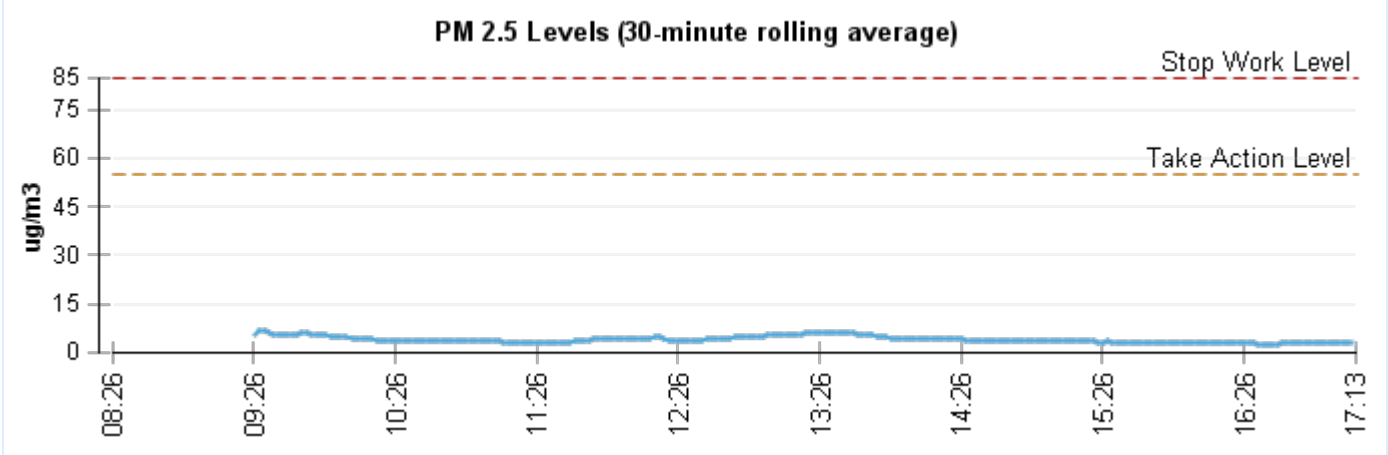
Station ID AMS-03
Location Description 29.78912, -95.31267 - Liberty - Rupert



PM 2.5 and PM 10 Time History Data

Sample Date Jan 20, 2022

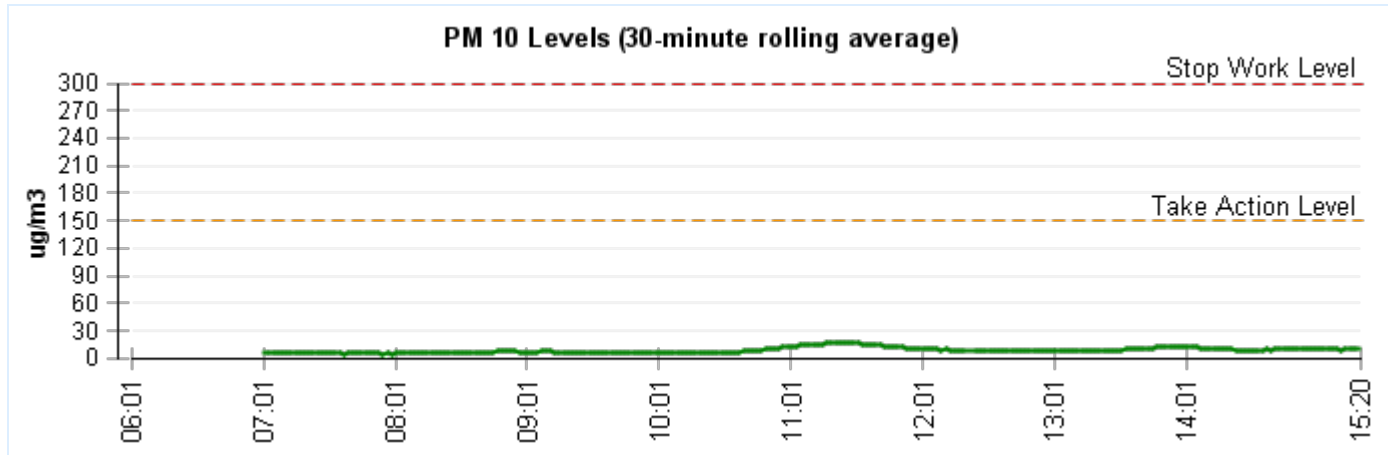
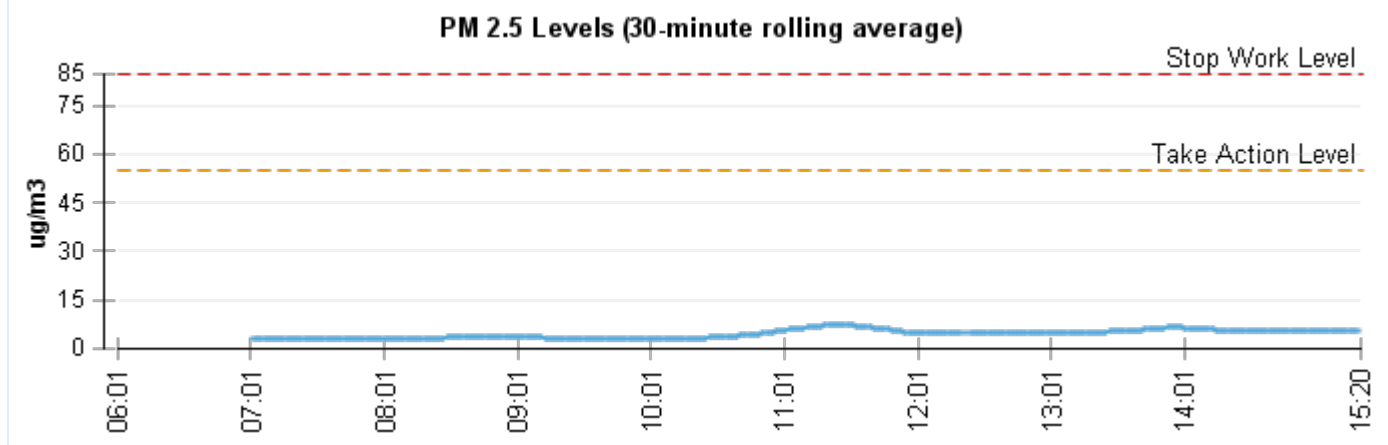
Station ID AMS-04 **Location Description** 29.78762, -95.31392 – Wallisville and Sam Wilson



PM 2.5 and PM 10 Time History Data

Sample Date Jan 21, 2022

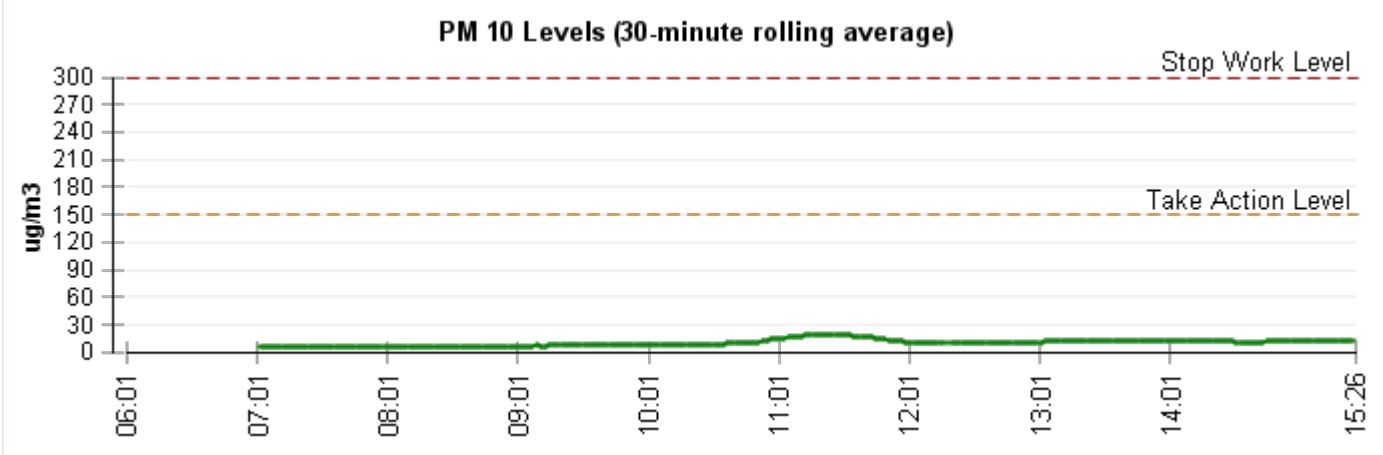
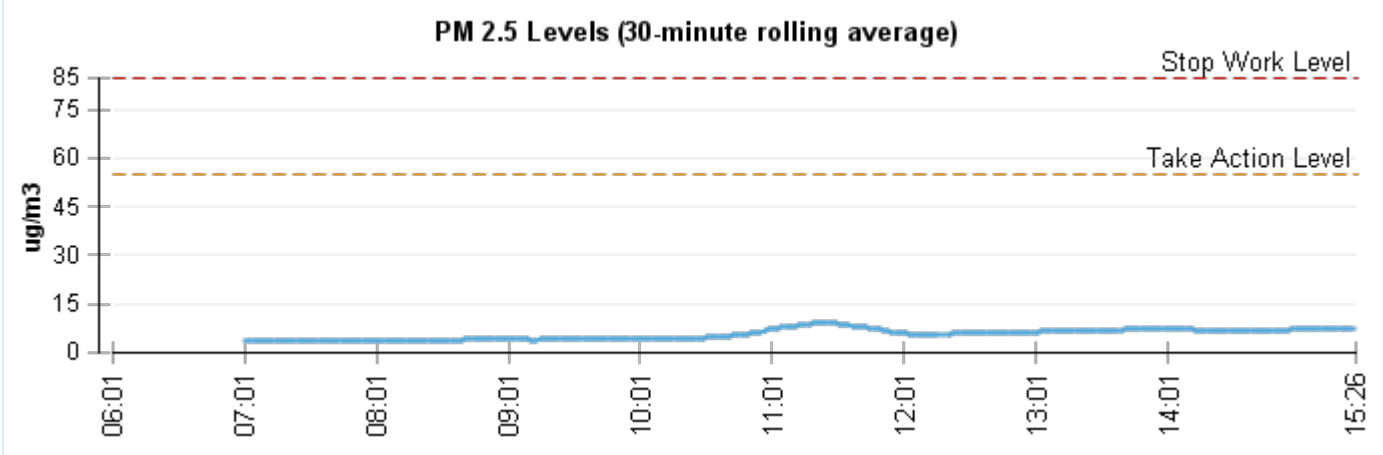
Station ID AMS-02
Location Description 29.78817, -95.31505 - Lockwood Overpass East



PM 2.5 and PM 10 Time History Data

Sample Date Jan 21, 2022

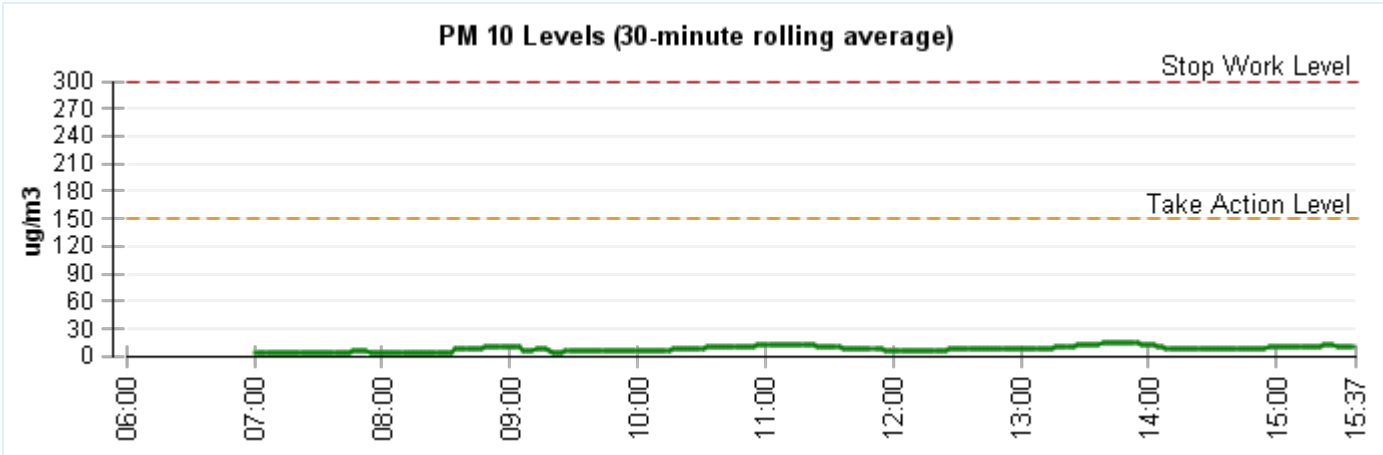
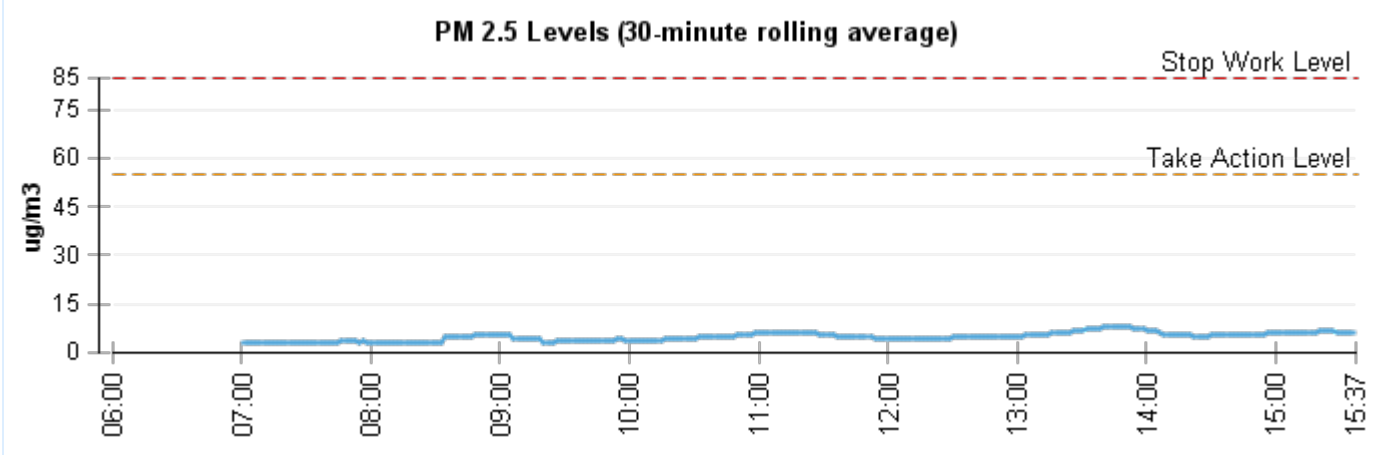
Station ID AMS-03 **Location Description** 29.78912, -95.31267 - Liberty - Rupert



PM 2.5 and PM 10 Time History Data

Sample Date Jan 21, 2022

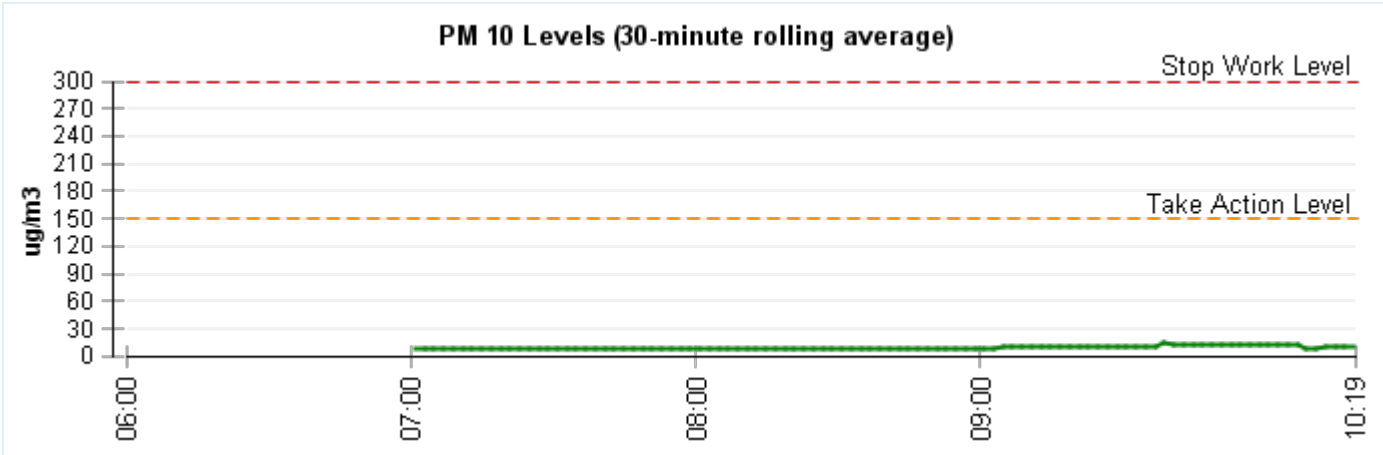
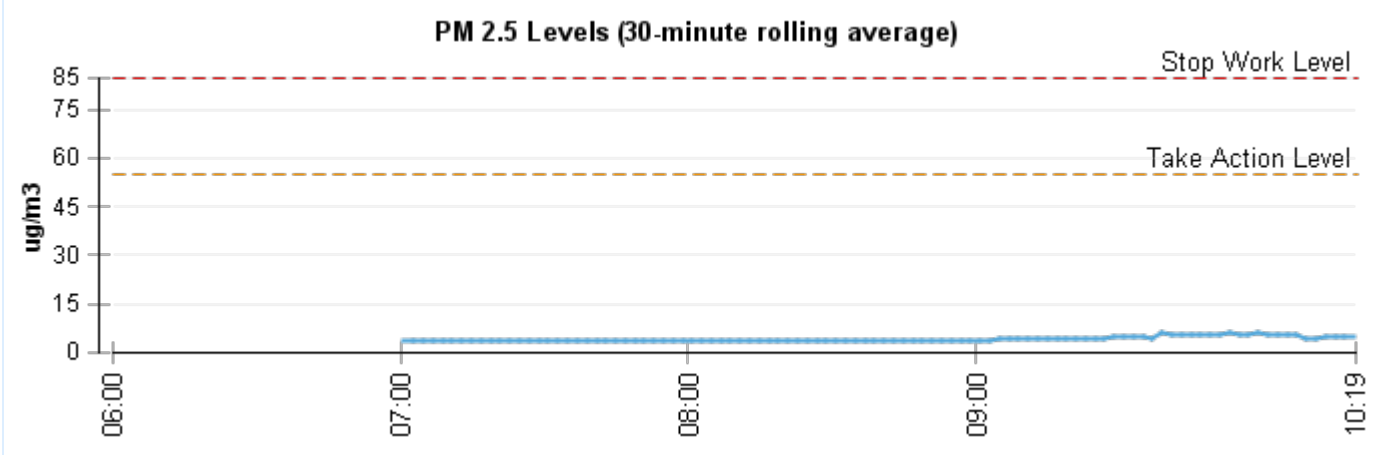
Station ID AMS-04 **Location Description** 29.78762, -95.31392 - Wallisville and Sam Wilson



PM 2.5 and PM 10 Time History Data

Sample Date Jan 22, 2022

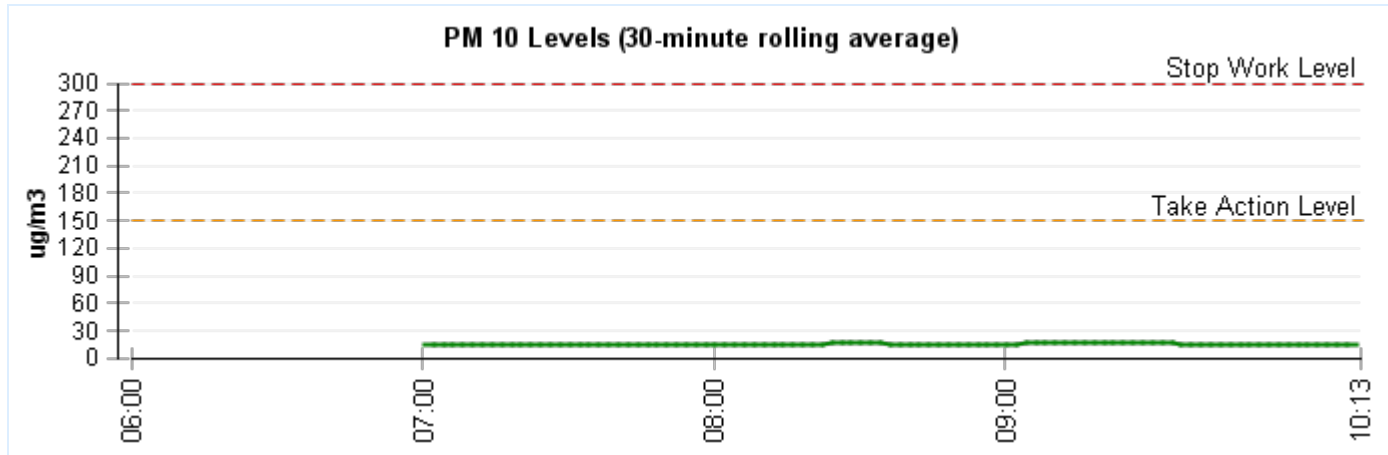
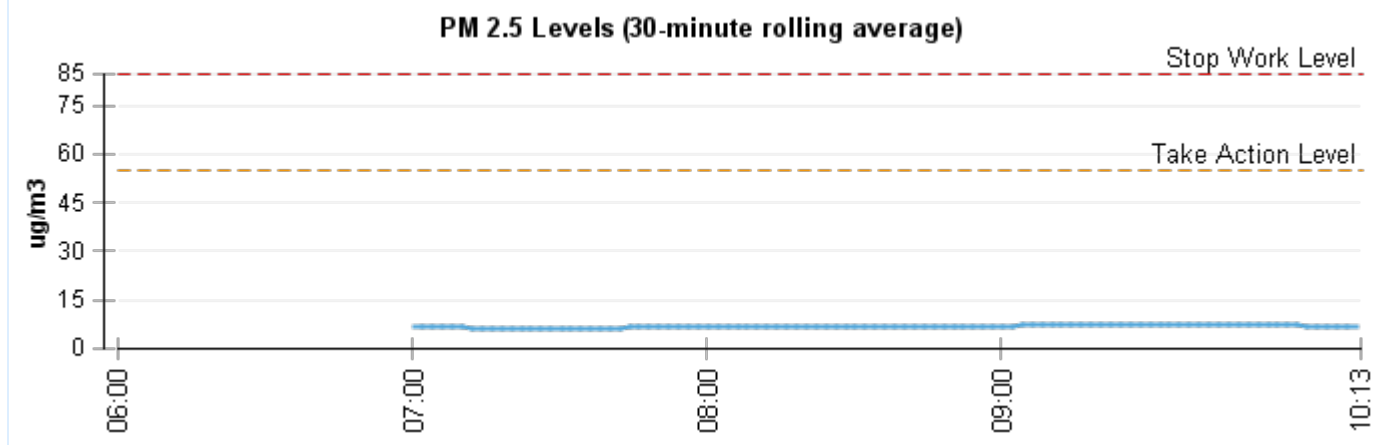
Station ID AMS-02 **Location Description** 29.78817, -95.31505 - Lockwood Overpass East



PM 2.5 and PM 10 Time History Data

Sample Date Jan 22, 2022

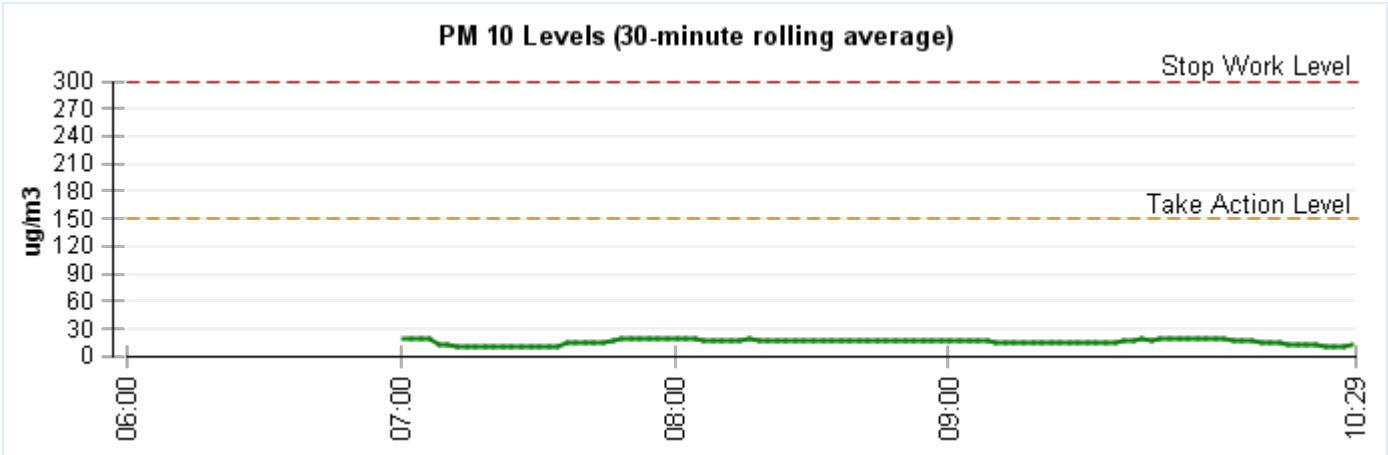
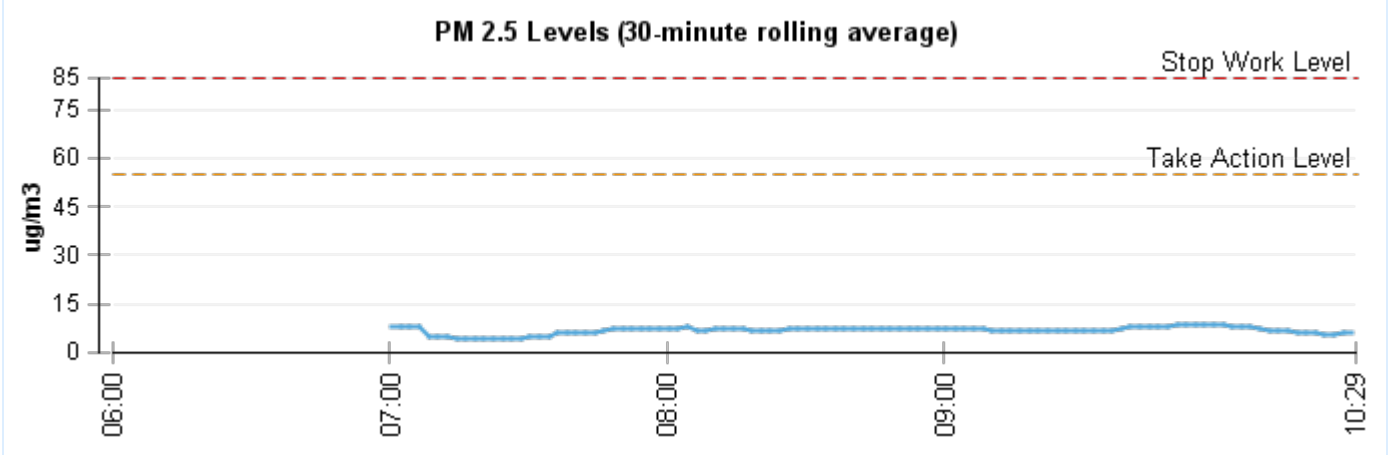
Station ID AMS-03
Location Description 29.78912, -95.31267 - Liberty - Rupert



PM 2.5 and PM 10 Time History Data

Sample Date Jan 22, 2022

Station ID AMS-04 **Location Description** 29.78762, -95.31392 - Wallisville and Sam Wilson



No air monitoring was conducted on 1/23/2022, as no soil-disturbing activities occurred on this day.

Results of Integrated Air Samples for Metals

This section provides results of integrated air samples collected for lead and arsenic.

Integrated air samples are air samples collected by drawing a known volume of air through filters, sorbents or other media and then submitted to a qualified independent laboratory analysis. Integrated samples for selected metals (lead and arsenic) are collected and reported for this project. Integrated air sample results lag behind real-time results, due to the time required for sample collection, shipping, analysis and data validation. Results provided in this report are the results received and validated since the last weekly report.

Data items included on this report are explained as follows:

- **Sample Number:** The unique identifier for the sample.
- **Date:** The date on which the sample was collected.
- **Start:** The time at which sample collection began.
- **End:** The time at which sample collection ended.
- **Station ID:** The name of the air monitoring station where the sample was collected.
- **Location:** The geographic coordinates and general area description, indicating the location where the sample was collected.
- **Agent:** The name of the chemical substance(s) for which the sample was analyzed.
- **Airborne Concentration:** The unique identifier for the sample.
- **Short-Term AMCV:** The Short-Term Air Monitoring Comparison Value (AMCV) for the agent. N/A means no short-term AMCV has been established for the specified agent.
- **Long-Term AMCV:** The Long-Term Air Monitoring Comparison Value (AMCV) for the agent. N/A means no long-term AMCV has been established for the specified agent.

About the Air Monitoring Comparison Values (AMCV)

Air Monitoring Comparison Values (AMCV) are chemical-specific air concentrations determined by the Texas Department of Environmental Quality (TCEQ) and intended to protect human health and welfare. Exposure to an air concentration at or below the AMCVs is not likely to cause adverse health effects in the general public, including sensitive subgroups such as children, the elderly, pregnant women, and people with preexisting health conditions. They are *not* intended for use as an indicator or threshold of harm or disease. AMCV have not been established for all chemicals. TCEQ currently has AMCV's appropriate for air monitoring for approximately 120 chemicals. Both short-term and long-term AMCVs may be established. These are explained as follows:

- **Short-Term AMCV:** The short-term AMCV, based on acute exposure health and welfare data, is compared to monitored concentrations that can be *30 minutes to 1-hour*, which represent a point in time for a specific location.
- **Long-Term AMCV:** The long-term AMCV, based on chronic health and welfare data, is used to evaluate *annual* averaged monitored concentrations or annual concentrations averaged over multiple years (if available), which represent multiple points in time for specific locations.

Air samples for lead and arsenic are collected, based on the results of prior soil sampling at the Houston Wood Preserving Works site. However, soils from the former Houston Wood Preserving Works site are not the only sources of these agents. These agents may be produced by a variety of sources. Lead may be produced from ore and metals processing, piston-engined aircraft operating on leaded aviation fuel, waste incinerators, lead-acid battery manufacturers and recyclers and smelting operations. Arsenic may be produced from pesticides, ore and metals processing, semiconductor and LED manufacturing, and lead-acid battery manufacturers and recyclers. Both metals also occur naturally.

Note: No metals samples were collected this week.

Results of Integrated Air Samples for Polynuclear Aromatic Hydrocarbons (PAH)

This section provides results of integrated air samples collected for polynuclear aromatic hydrocarbons.

Integrated air samples are air samples collected by drawing a known volume of air through filters, sorbents or other media and then submitted to a qualified independent laboratory analysis. Integrated samples for selected metals and polynuclear aromatic hydrocarbons are collected and reported for this project. Integrated air sample results lag behind real-time results, due to the time required for sample collection, shipping, analysis and data validation. Results provided in this report are the results received and validated since the last weekly report.

Data items included on this report are explained as follows:

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- **Short-Term AMCV:** The short-term AMCV, based on acute exposure health and welfare data, is compared to monitored concentrations that can be *30 minutes to 1-hour*, which represent a point in time for a specific location.
- **Long-Term AMCV:** The long-term AMCV, based on chronic health and welfare data, is used to evaluate *annual* averaged monitored concentrations or annual concentrations averaged over multiple years (if available), which represent multiple points in time for specific locations.

Air samples for polynuclear aromatic hydrocarbons (PAHs) are collected, based on the results of prior soil sampling at the Houston Wood Preserving Works site. However, soils from the former Houston Wood Preserving Works site are not the only sources of these agents. PAHs may be produced by a variety of sources, including power generation, vehicle and aircraft exhaust, burning of wood or garbage, cement manufacturing, rubber tire manufacturing and burning, various chemical manufacturing, wildfires and application of pesticides.

Note: No PAH samples were collected this week.