

AIR, NOISE AND VIBRATION MONTHLY MONITORING REPORT

Prepared By:
Hajeong Lim (HRCG)

DDC Project No.: BBJ Q DSS			Period Start: 10/01/23 End 10/31/23		
DDC Pin No.: 8502020CR0046P					
Project Name: NYC Borough Based Jails System - Queens Dismantle and Swing Space					
1) Community Air Monitoring Monthly Status Summary					
TWA – Time Weighted Average mg/m ³ - milligrams per cubic meter					
Number of Workdays in a Month	Number of Air Monitoring Days in a Month	Number of Days with Dust Concentrations above Action Concentrations by Month (0.1mg/m ³ 15 minute TWA)	Comments		
24	20	None	Daily air monitoring was not performed on 10/6 Friday because the AKRF's air monitoring staff reported to the site went back home because that individual was not feeling well. Daily air monitoring was not performed on 10/14 Saturday when only a small number of dismantling crews worked for cleaning up debris from dismantlement activities the day before. Daily air monitoring was not performed on 10/20 Friday due to rain. Daily air monitoring was not performed on 10/28 Saturday when the work other than dismantle/abatement was on going inside the buildings.		
Community Air Monitoring Monthly Excursions and Corrective Actions					
Action Concentration = 0.100 mg/m ³ 15 minute TWA above background concentration* Stop Work Concentration = 0.150 mg/m ³ 15 minute TWA above background concentration* * Background concentration values vary daily.					
Date: Time	Maximum Dust Reading Before Corrective Action 15 Minute TWA (mg/m ³)	Maximum Dust Reading After Corrective Action 15 Minute TWA (mg/m ³)	Corrective Action		
Narrative Summary of Air Monitoring, Excursions and Corrective Actions:					
<p><i>In October 2023, construction-related levels of Particulate Matter (PM) PM10 did not surpass Daily Permissible Exposure Limits (PEL) as set by federal standards for the 24-hour Time Weighted Average (TWA), or daily value, and did not cause air quality concerns to the public or on-site workers.</i></p> <p><i>The contractor, Hunter Roberts Construction Group, in conjunction with the contractor's environmental specialist, has successfully implemented mitigation techniques at Action Level as well as Permissible Exposure Limits (15-Minute TWA) to suppress construction activity effects on air quality throughout the project work-zone.</i></p>					

2) Community Noise Monitoring Monthly Summary

Units to be a weighted decibels (dBA) level

Number of Workdays in a Month	Number of Noise Monitoring Days in a Month	Number of Days with Noise Levels above Action Levels by Month	Comments
24	5	None	More than required minimum biweekly follow-up noise monitoring for Dismantle Phase IV was conducted in this month.

Community Noise Monitoring Monthly Excursions and Corrective Actions

Noise Monitoring Location 1 Action Level (Day – 7 am to 5 pm / Night – 5 pm to 7 am): 75 / NA

Noise Monitoring Location 2 Action Level (Day – 7 am to 5 pm / Night – 5 pm to 7 am): 75 / NA

Noise Monitoring Location 3 Action Level (Day – 7 am to 5 pm / Night – 5 pm to 7 am): 69 / 68

Noise Monitoring Location 4 Action Level (Day – 7 am to 5 pm / Night – 5 pm to 7 am): 65 / 55

Noise Monitoring Location 5 Action Level (Day – 7 am to 5 pm / Night – 5 pm to 7 am): 68 / 67

Date Time	Location	Maximum Noise Reading before Corrective Action (dBA)	Maximum Noise Reading after Corrective Action (dBA)	Baseline Noise Level Day/Night (dBA)	Corrective Action
N/A	N/A	N/A	N/A	N/A	N/A

Narrative Summary of Noise Monitoring, Excursions and Corrective Actions:

Throughout October 2023, noise levels remained below the set thresholds at all five locations. Construction-related activities in the month stayed within or below the warning limit at various locations. No corrective actions were required as noise levels didn't surpass the limits.

Nighttime Action Levels are established for three residential location, location #3, #4, and #5, in case dismantling activities are performed between 5 pm and 7 am.

3) Community Vibration Monitoring Monthly Summary

Units (in/sec)

Number of Workdays in a Month	Number of Vibration Monitoring Days in a Month	Number of Days with Vibration Levels above Action Levels by Month	Comments
24	24	2	

Community Vibration Monitoring Monthly Excursions and Corrective Actions

Alert / Action Level = 0.3 in/s

Stop Work Level = 0.5 in/s

Date: Time	Maximum Vibration Level before Corrective Action (in/s)	Exceedance Duration	Maximum Vibration Level after Corrective Action (in/s)	Corrective Action
Oct 23 around 8-9 am	N/A	N/A	N/A	N/A – AKRF staff replaced batteries of the vibration monitoring equipment on 10/23 & 10/25. Direct contact was made for battery replacement
Oct 23 around 8-9 am	N/A	N/A	N/A	

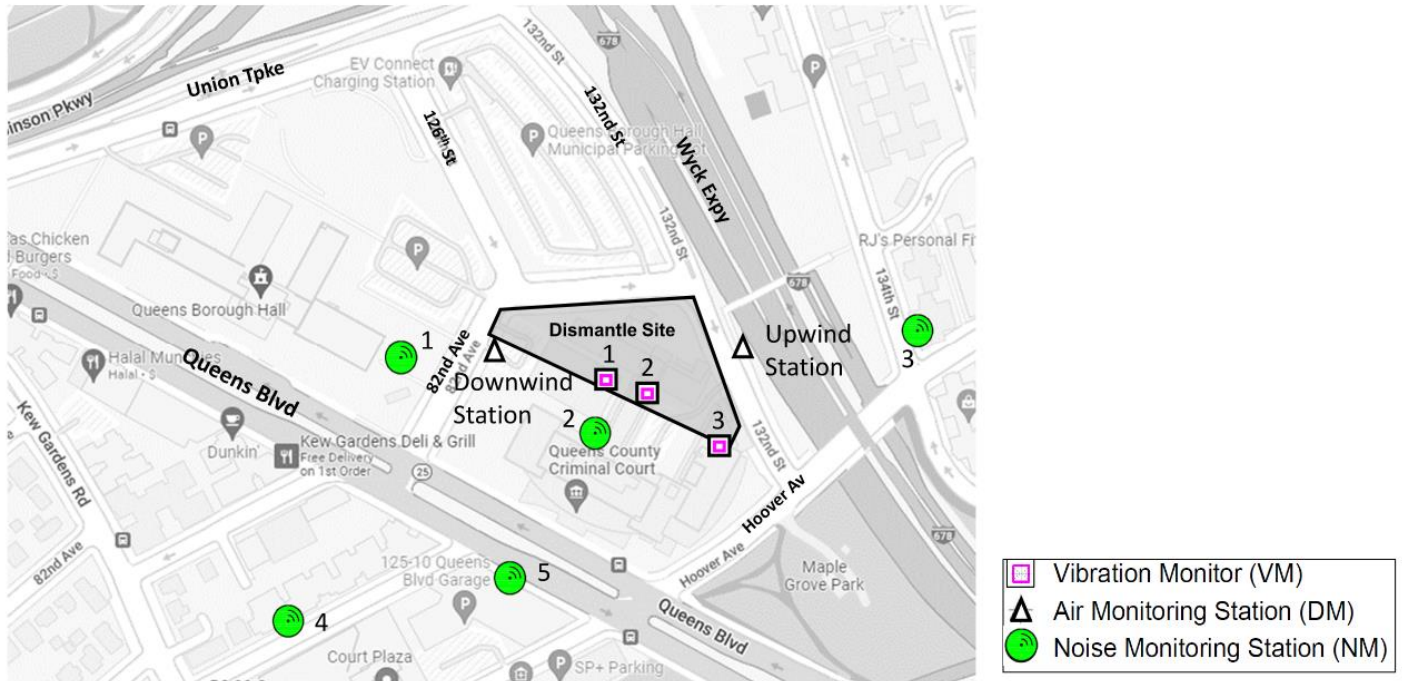
Narrative Summary of Vibration Monitoring, Excursions and Corrective Actions:

During the Month of October 2023, there was Zero vibration monitor exceedance. All monitors showed results of vibration being under the warning limit of 0.3(in/sec) / stop work limit of 0.5(in/sec), except 10/23 and 10/25 when the batteries of the monitoring equipment were replaced. Direct contact was made by the AKRF staff for battery replacement. There was no need for corrective action at this time.

ATTACHMENTS:

- 1 – Map of Monitoring Station/Locations
- 2 – Baseline Reference
- 3 – Data Plots

Environmental Monitoring Queens



Noise Threshold Limits in dBA – Baseline Survey April 2022

Construction Noise Threshold Limits in dBA

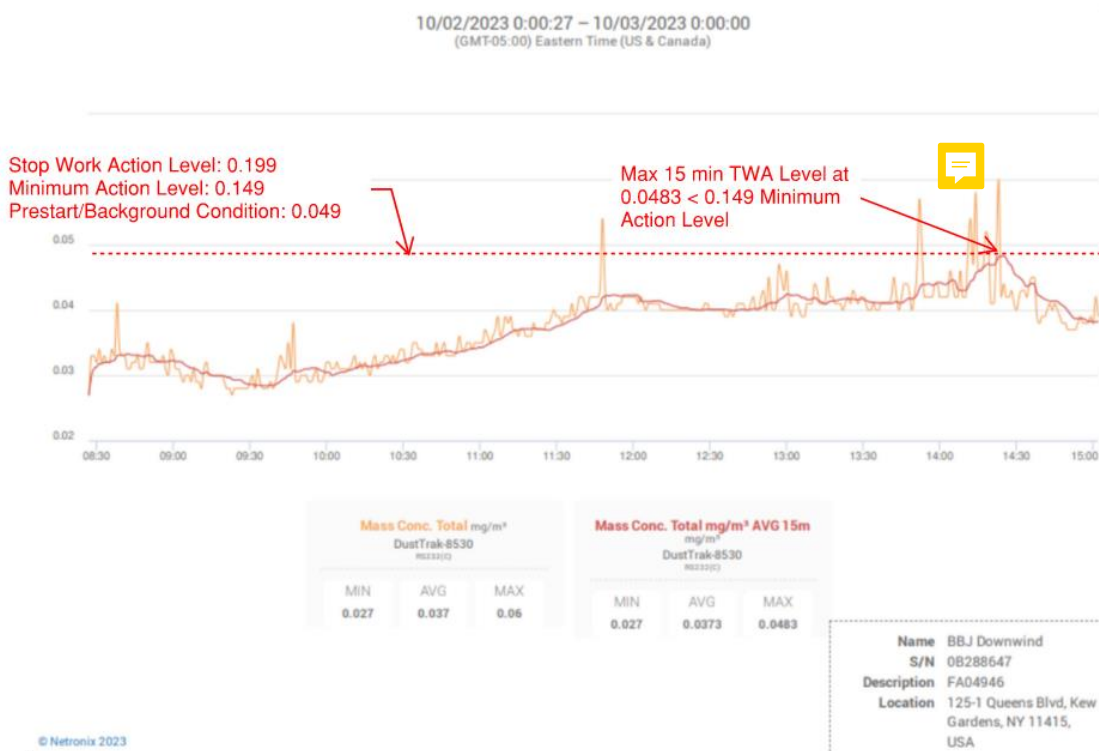
Location	Daytime L_{eq}	Nighttime L_{eq}
Adjacent to the easternmost façade of Queens Borough Hall	75	N/A
At the southwestern corner of the DA Wing	75	N/A
At the residences along 134th Street between 82nd Avenue and Hoover Avenue	69	68
At the residences on 82nd Road between Kew Gardens Road and Queens Boulevard, approximately 200 feet from Kew Gardens Road	65	55
At the residences on Queens Boulevard between 82nd Road and Lefferts Boulevard	68	67

Dismantle Activity Daily Air Monitoring on October 02, 2023

Upwind Station Data Charts (PM₁₀)



Downwind Station Data Charts (PM₁₀)



Dismantle Activity Air Daily Monitoring on October 03, 2023

Upwind Station Data Charts (PM₁₀)

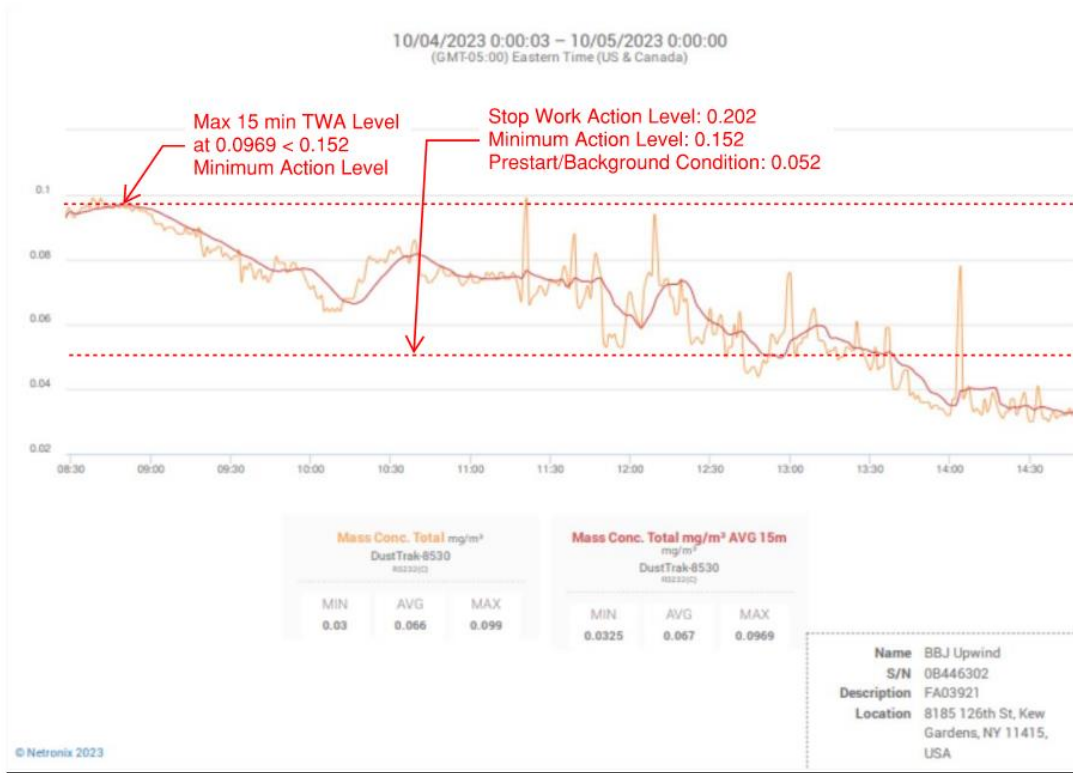


Downwind Station Data Charts (PM₁₀)

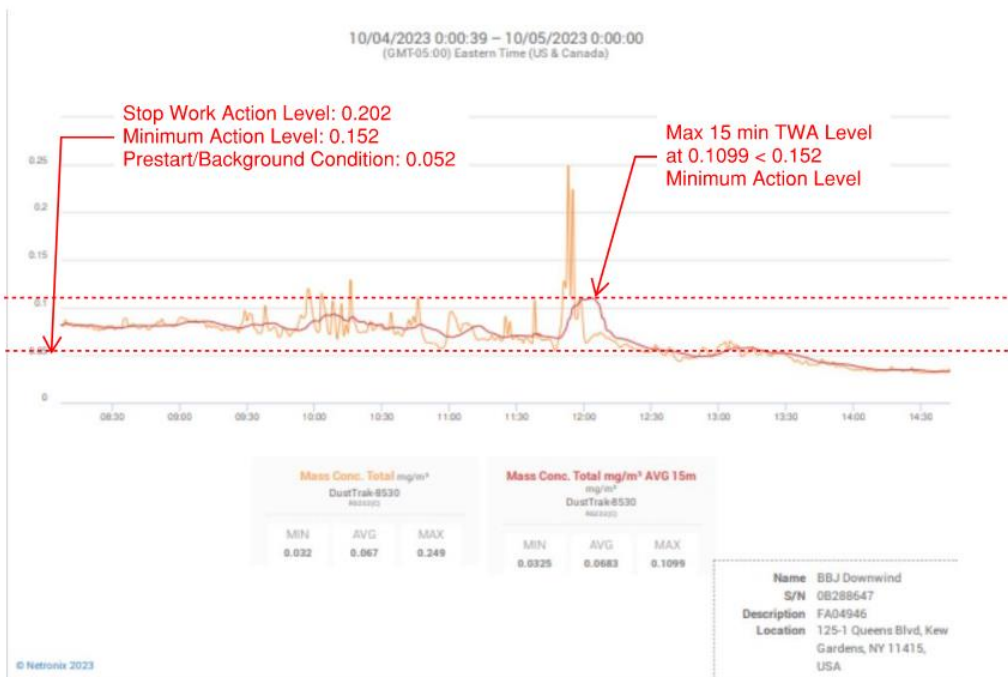


Dismantle Activity Daily Air Monitoring on October 04, 2023

Upwind Station Data Charts (PM₁₀)

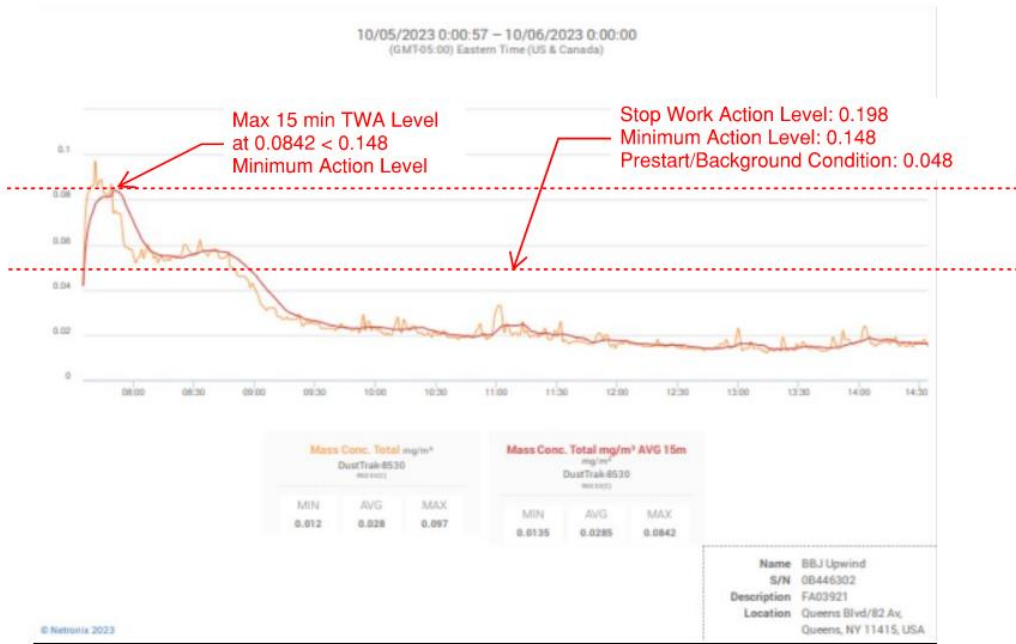


Downwind Station Data Charts (PM₁₀)

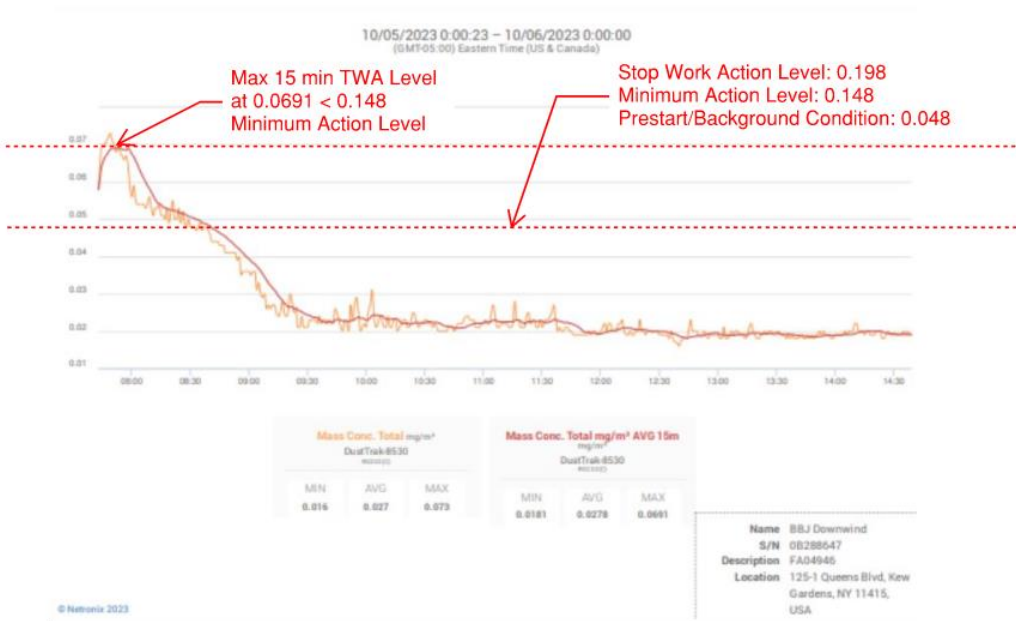


Dismantle Activity Daily Air Monitoring on October 05, 2023

Upwind Station Data Charts (PM₁₀)

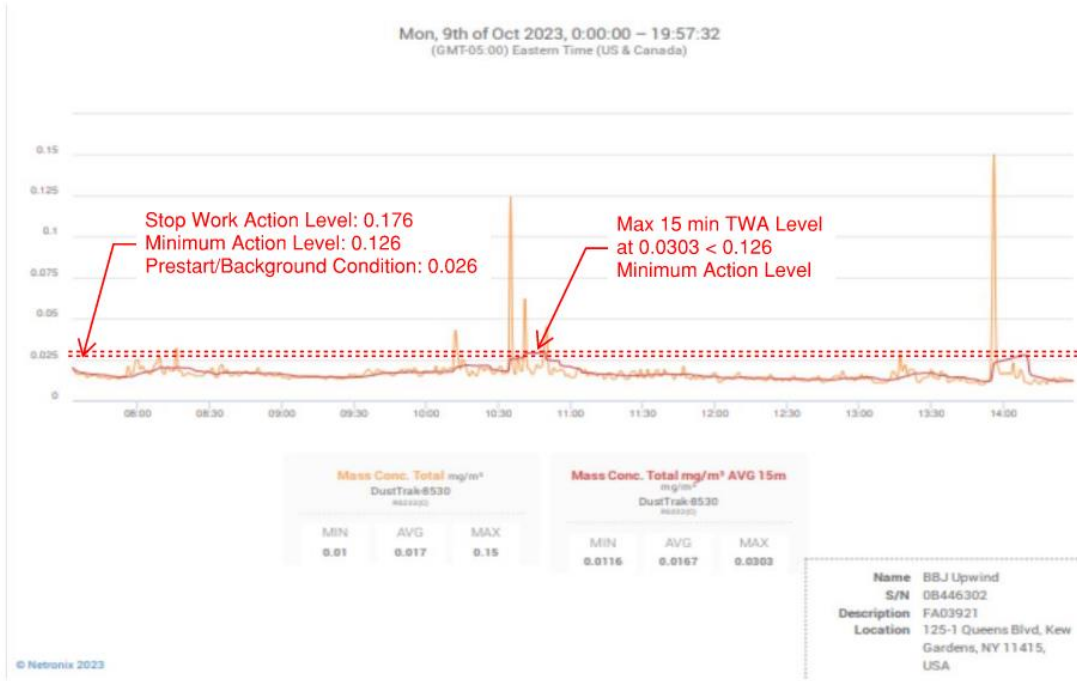


Downwind Station Data Charts (PM₁₀)



Dismantle Activity Daily Air Monitoring on October 09, 2023

Upwind Station Data Charts (PM₁₀)



Downwind Station Data Charts (PM₁₀)



Dismantle Activity Daily Air Monitoring on October 10, 2023

Upwind Station Data Charts (PM₁₀)

10/10/2023 0:00:03 – 10/11/2023 0:00:00
(GMT-05:00) Eastern Time (US & Canada)



Mass Conc. Total mg/m ³ DustTrak-8530 RS232C		
MIN	AVG	MAX
0	0.023	0.072

Mass Conc. Total mg/m ³ AVG 15m mg/m ³ DustTrak-8530 RS232C		
MIN	AVG	MAX
0.0148	0.0233	0.04

Name BBJ Upwind
S/N 0B446302
Description FA03921
Location Queens Blvd/82 Av,
Queens, NY 11415, USA

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Downwind Station Data Charts (PM₁₀)

10/10/2023 0:00:26 – 10/11/2023 0:00:00
(GMT-05:00) Eastern Time (US & Canada)



Mass Conc. Total mg/m ³ DustTrak-8530 RS232C		
MIN	AVG	MAX
0.016	0.024	0.065

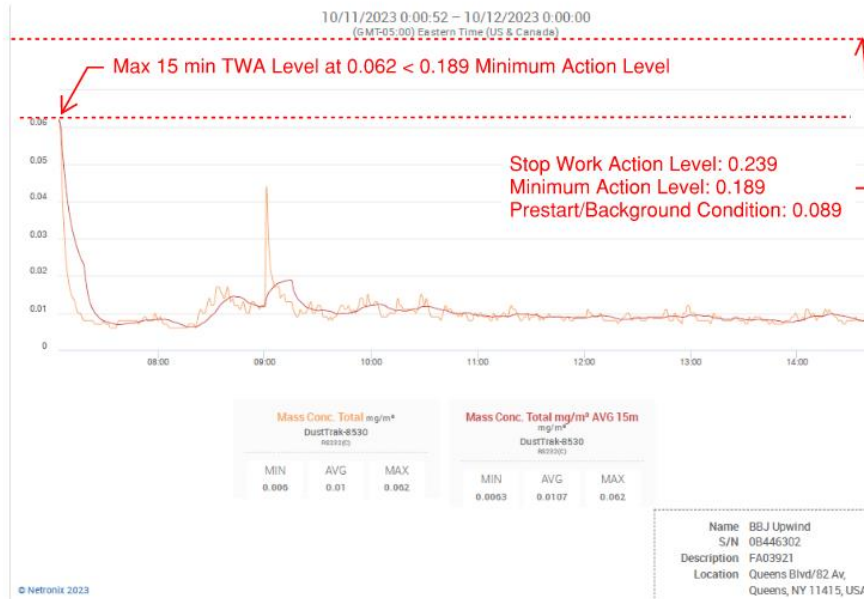
Mass Conc. Total mg/m ³ AVG 15m mg/m ³ DustTrak-8530 RS232C		
MIN	AVG	MAX
0.0165	0.0248	0.0424

Name BBJ Downwind
S/N 0B288647
Description FA04946
Location 125-1 Queens Blvd, Kew
Gardens, NY 11415,
USA

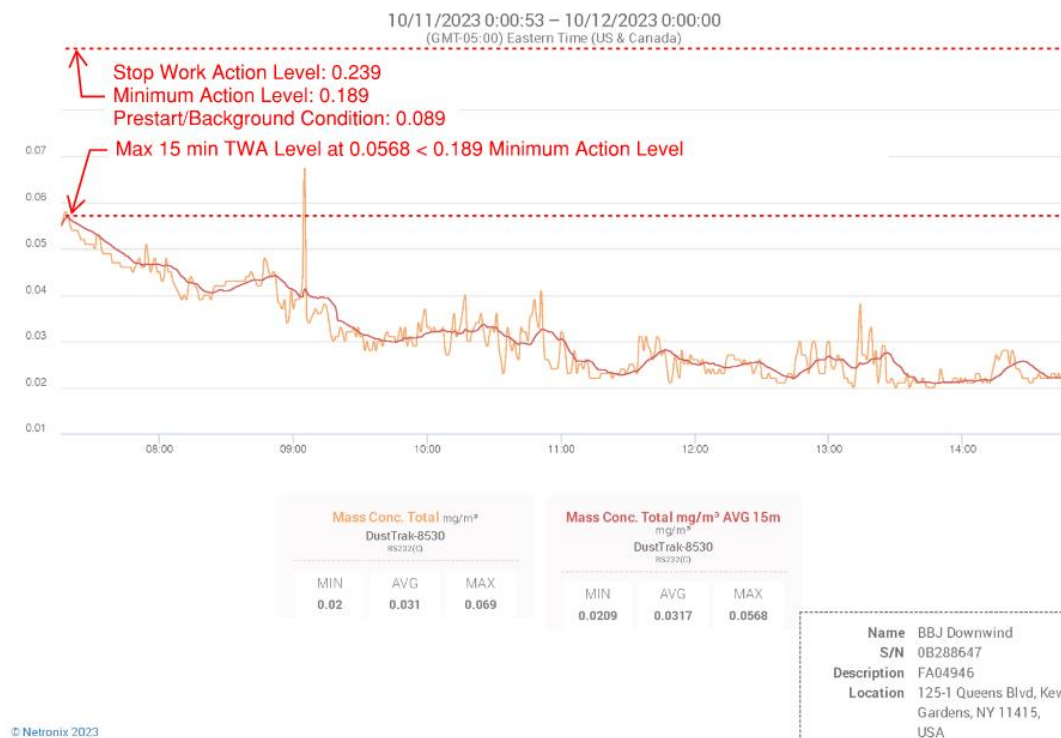
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Dismantle Activity Daily Air Monitoring on October 11, 2023

Upwind Station Data Charts (PM₁₀)

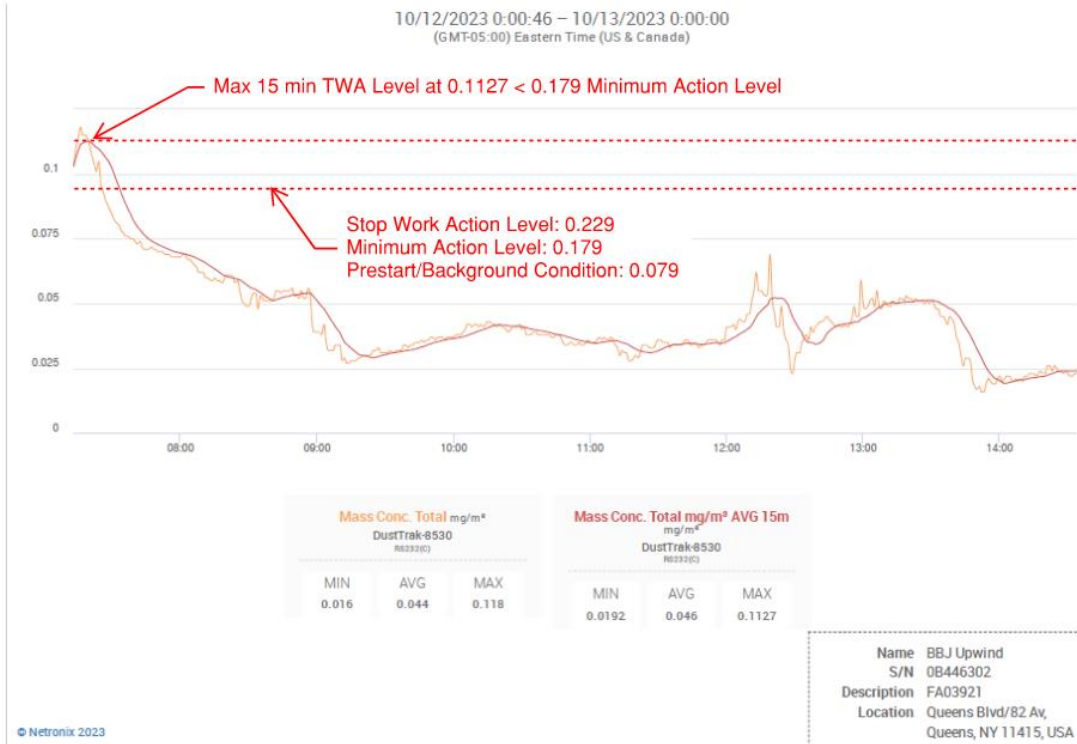


Downwind Station Data Charts (PM₁₀)

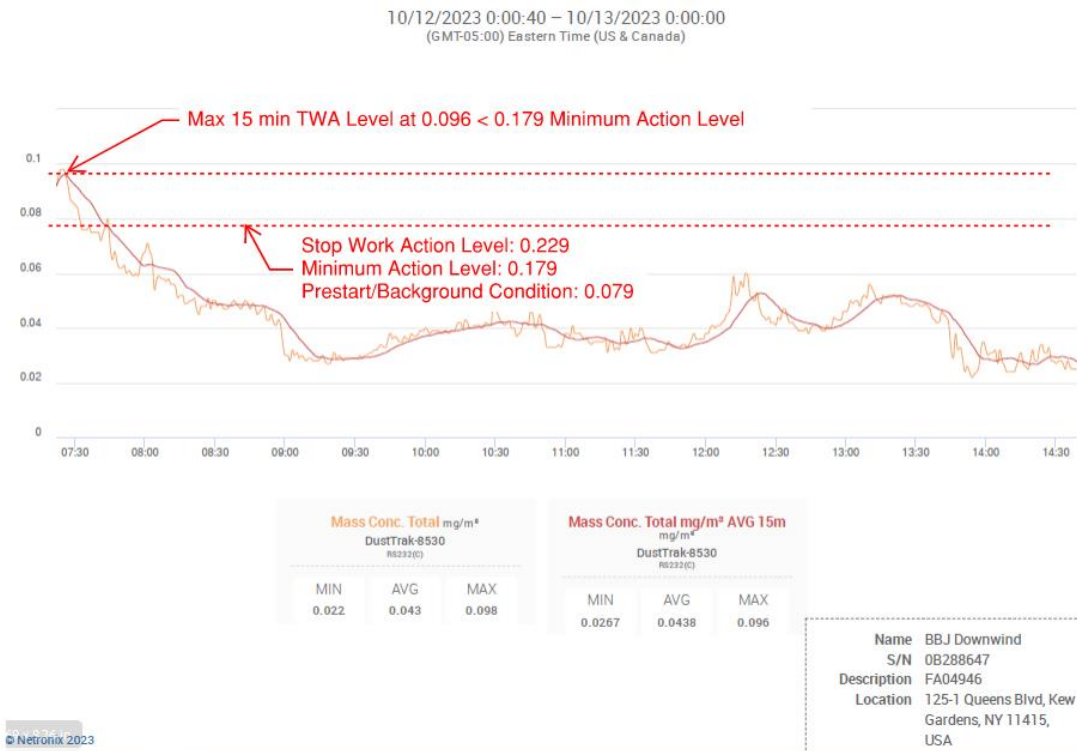


Dismantle Activity Daily Air Monitoring on October 12, 2023

Upwind Station Data Charts (PM₁₀)



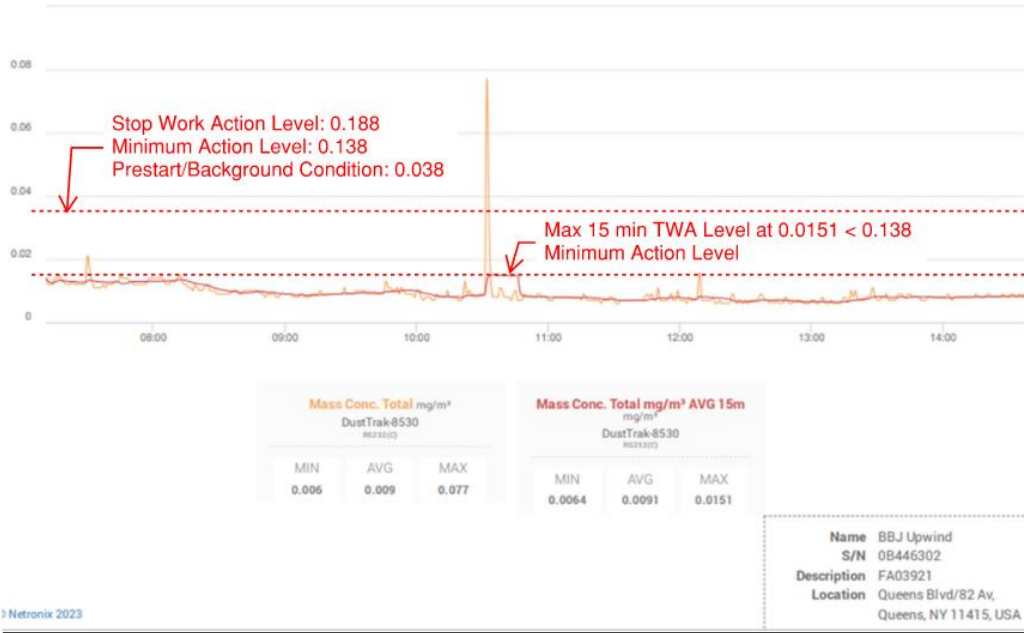
Downwind Station Data Charts (PM₁₀)



Dismantle Activity Daily Air Monitoring on October 13, 2023

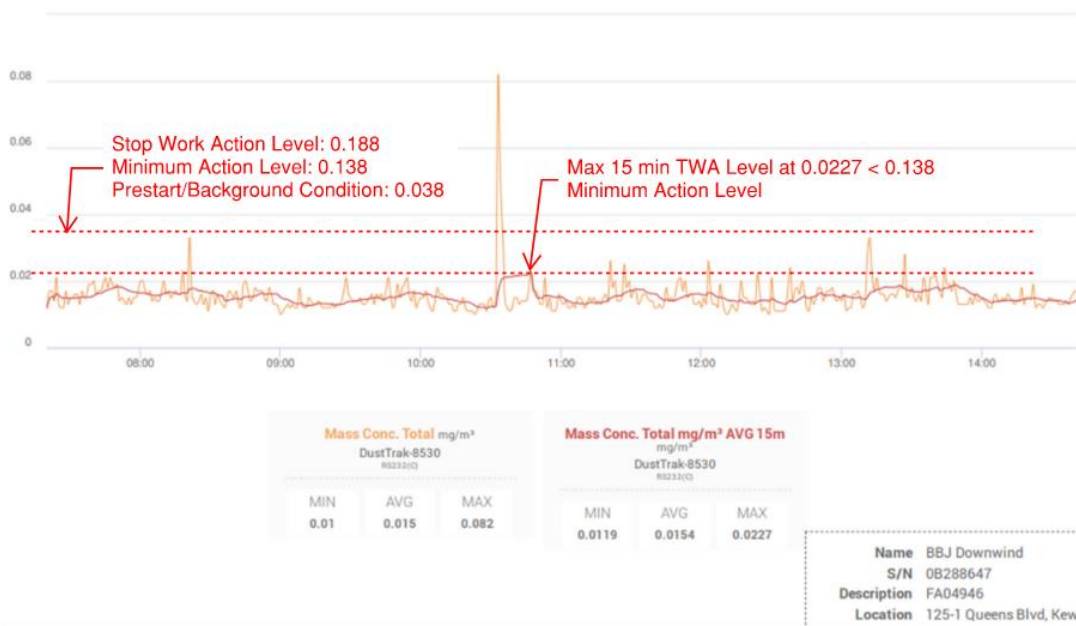
Upwind Station Data Charts (PM₁₀)

10/13/2023 5:19:00 – 10/14/2023 8:19:00
(GMT-05:00) Eastern Time (US & Canada)



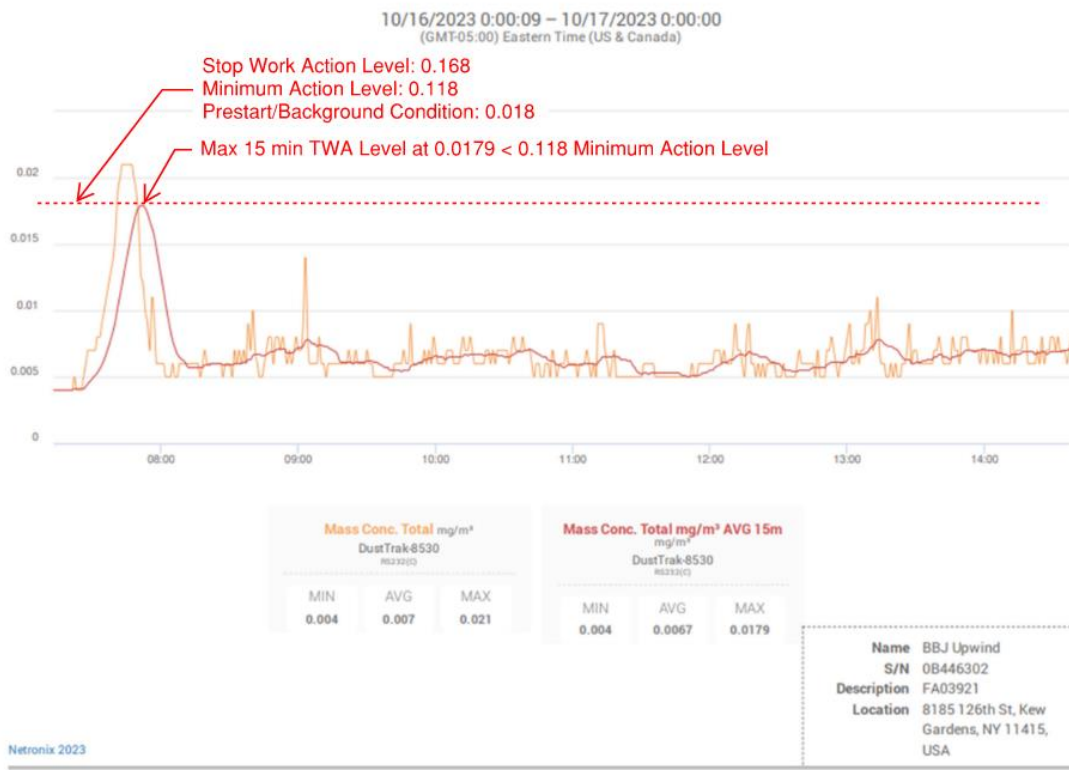
Downwind Station Data Charts (PM₁₀)

10/13/2023 5:27:00 – 10/14/2023 8:27:00
(GMT-05:00) Eastern Time (US & Canada)

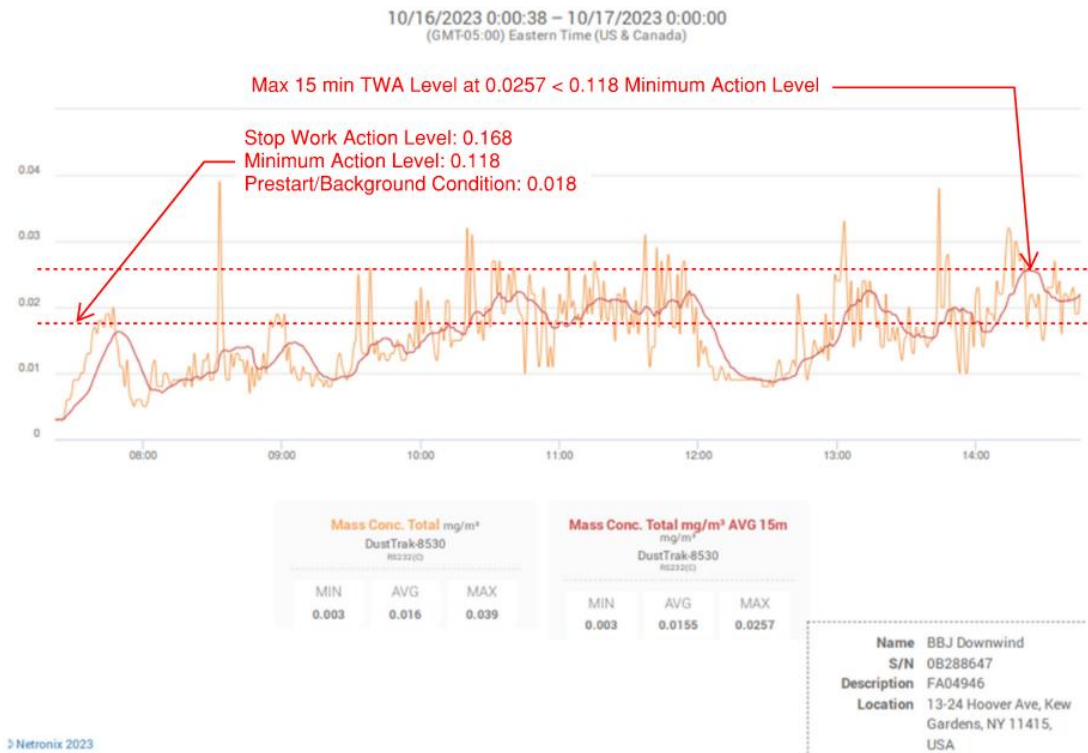


Dismantle Activity Daily Air Monitoring on October 16, 2023

Upwind Station Data Charts (PM₁₀)



Downwind Station Data Charts (PM₁₀)



Dismantle Activity Daily Air Monitoring on October 17, 2023

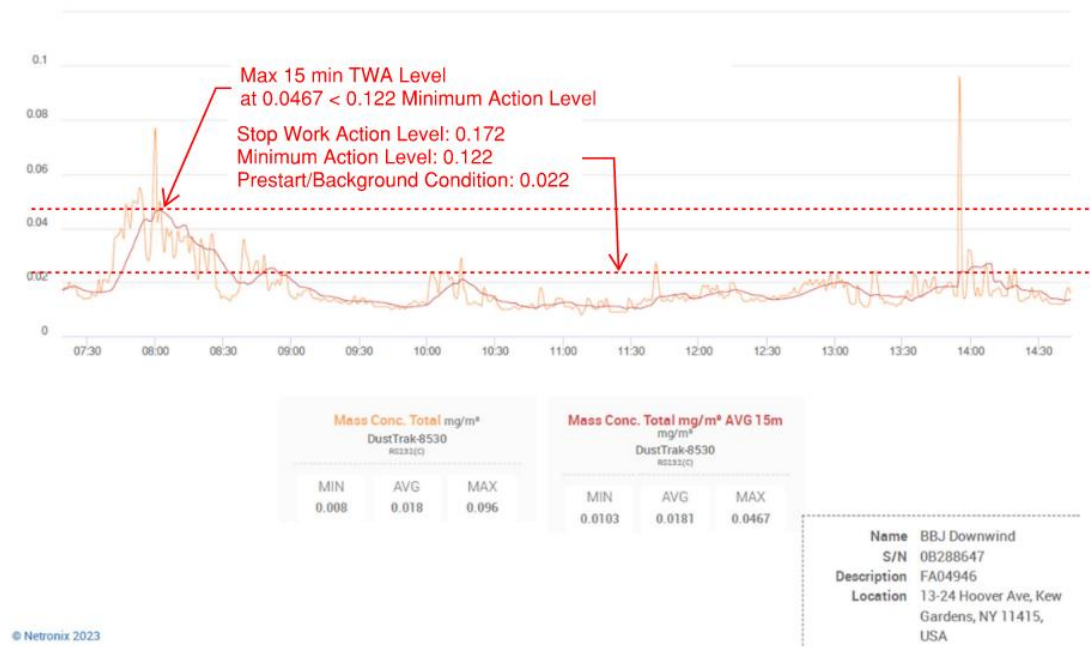
Upwind Station Data Charts (PM₁₀)

Tue, 17th of Oct 2023, 0:00:00 – 19:34:17
(GMT-05:00) Eastern Time (US & Canada)



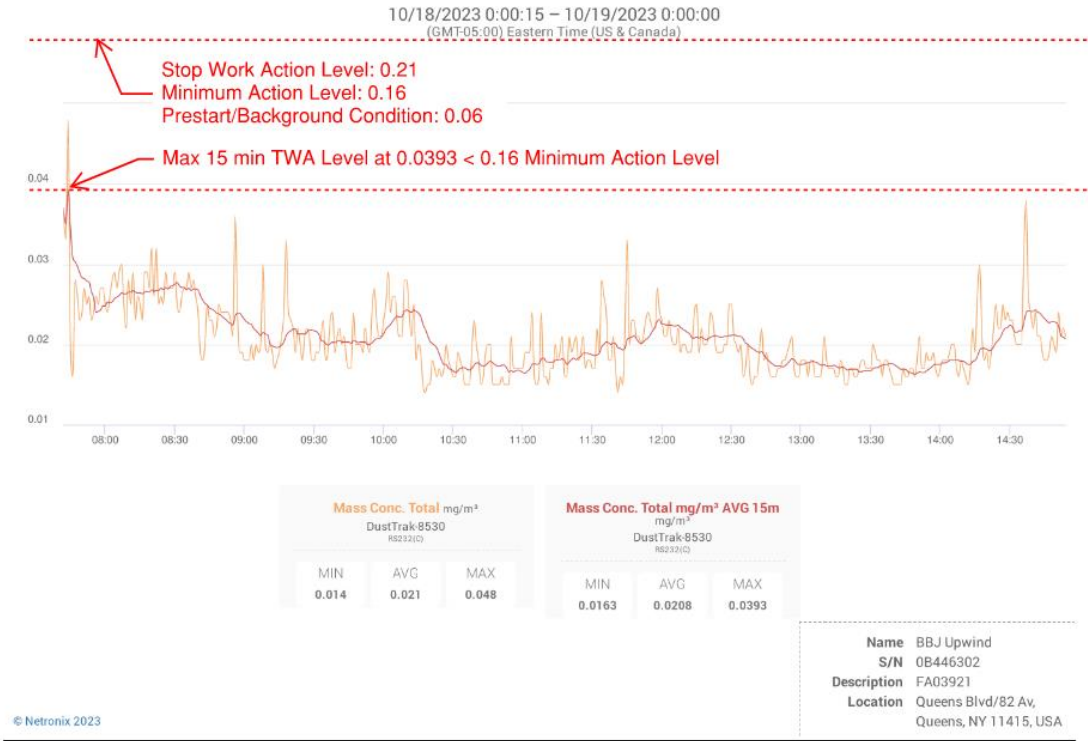
Downwind Station Data Charts (PM₁₀)

Tue, 17th of Oct 2023, 0:00:00 – 19:34:46
(GMT-05:00) Eastern Time (US & Canada)

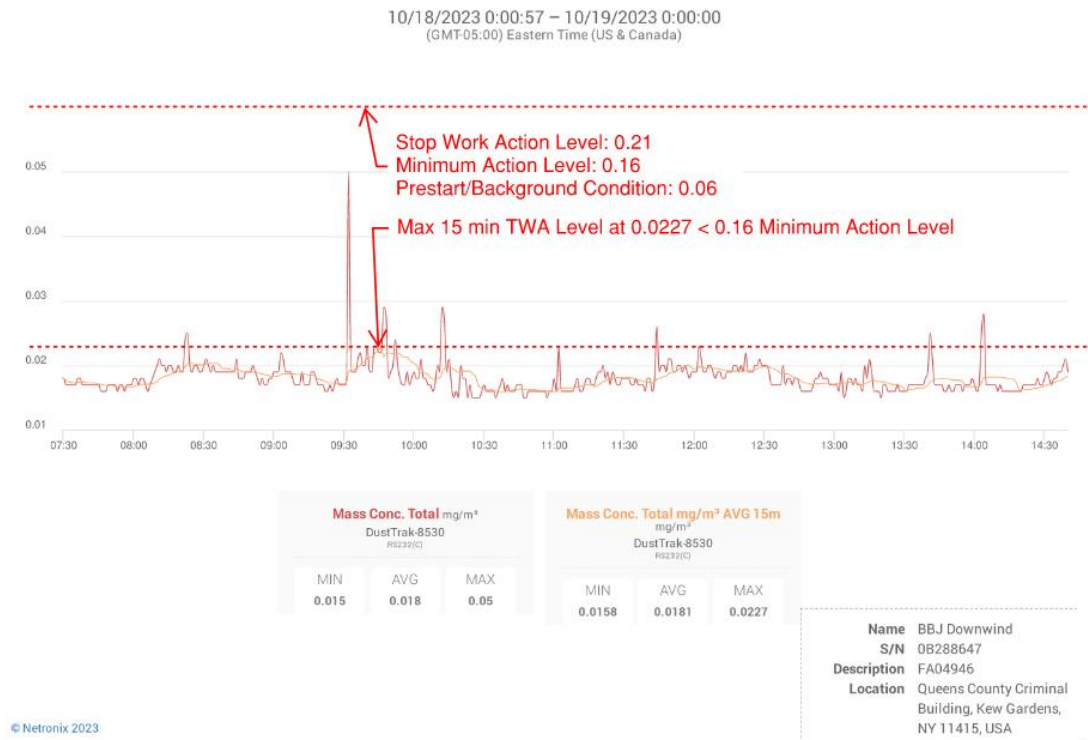


Dismantle Activity Daily Air Monitoring on October 18, 2023

Upwind Station Data Charts (PM₁₀)



Downwind Station Data Charts (PM₁₀)



Dismantle Activity Daily Air Monitoring on October 19, 2023

Upwind Station Data Charts (PM₁₀)

Thu, 19th of Oct 2023, 0:00:00 – 14:51:54
(GMT-05:00) Eastern Time (US & Canada)



Mass Conc. Total mg/m³			Mass Conc. Total mg/m³ AVG 15m		
DustTrak-8530			DustTrak-8530		
RS232(C)			RS232(C)		
MIN	AVG	MAX	MIN	AVG	MAX
0.014	0.028	0.067	0.0158	0.028	0.0541

Name BBJ Upwind
S/N 0B446302
Description FA03921
Location Queens Blvd/82 Av,
Queens, NY 11415, USA

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Downwind Station Data Charts (PM₁₀)

Thu, 19th of Oct 2023, 0:00:00 – 14:52:21
(GMT-05:00) Eastern Time (US & Canada)



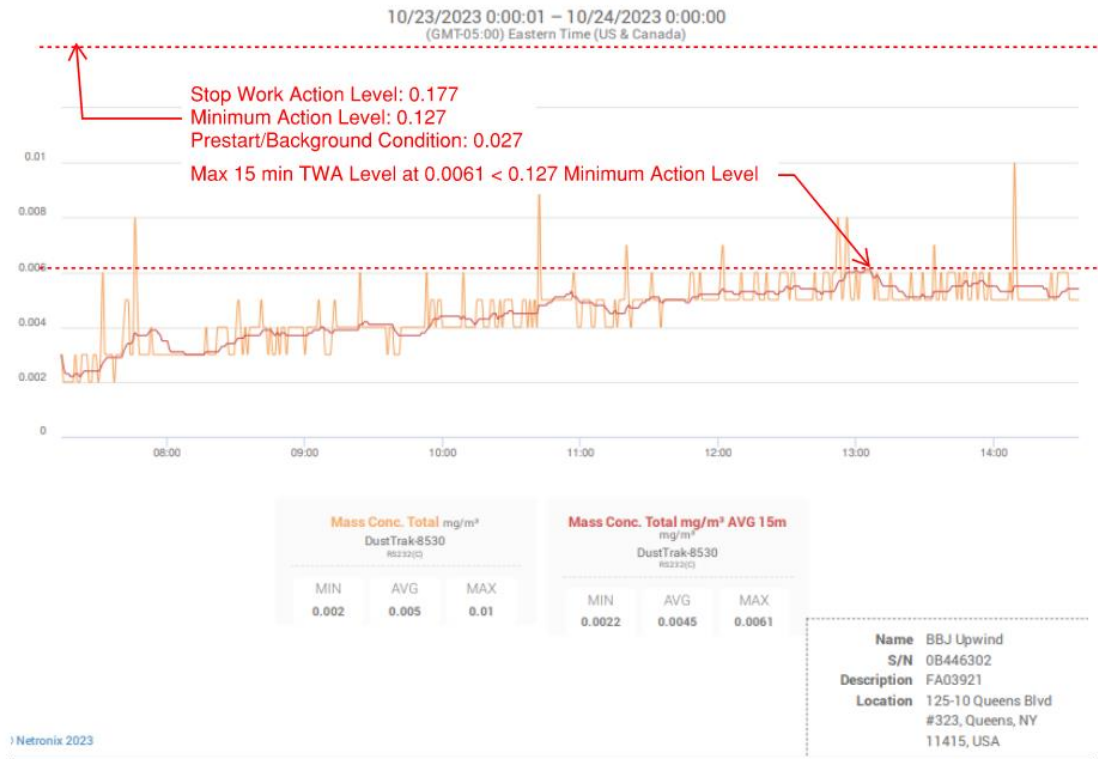
Mass Conc. Total mg/m³			Mass Conc. Total mg/m³ AVG 15m		
DustTrak-8530			DustTrak-8530		
RS232(C)			RS232(C)		
MIN	AVG	MAX	MIN	AVG	MAX
0.017	0.027	0.059	0.0178	0.0276	0.044

Name BBJ Downwind
S/N 0B288647
Description FA04946
Location Queens County Criminal
Building, Kew Gardens,
NY 11415, USA

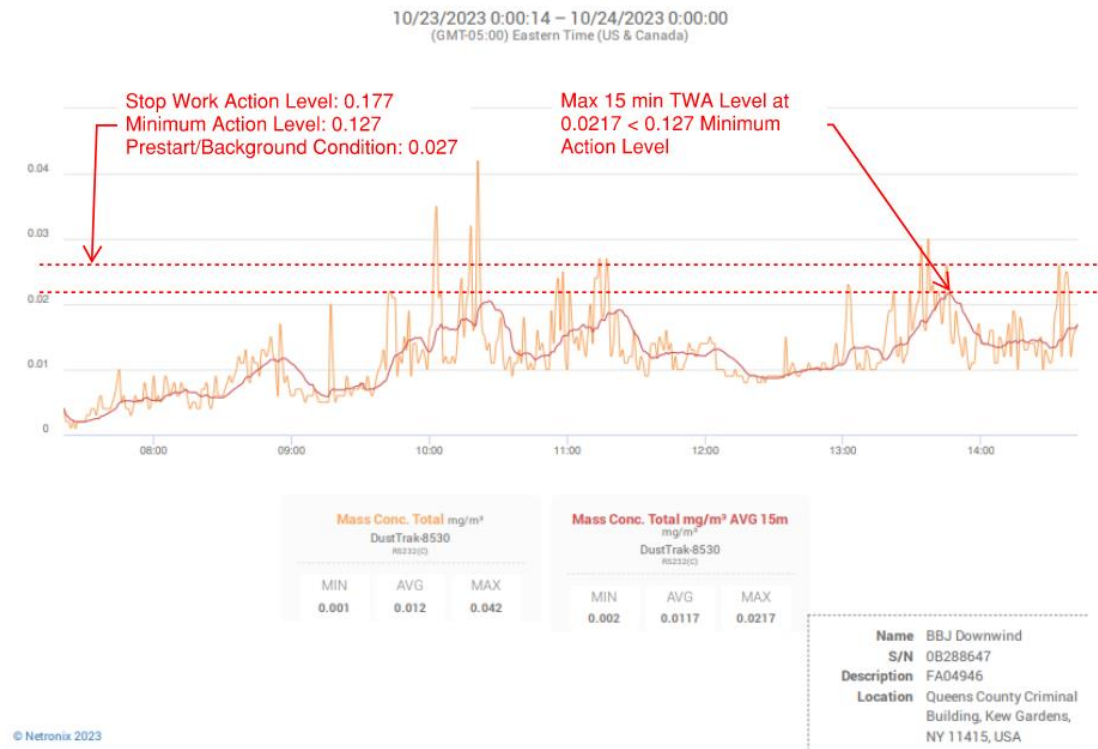
Netronix 2023

Dismantle Activity Daily Air Monitoring on October 23, 2023

Upwind Station Data Charts (PM₁₀)



Downwind Station Data Charts (PM₁₀)



Dismantle Activity Daily Air Monitoring on October 24, 2023

Upwind Station Data Charts (PM₁₀)

10/24/2023 0:00:48 – 10/25/2023 0:00:00
(GMT-05:00) Eastern Time (US & Canada)



Mass Conc. Total mg/m ³ DustTrak-8530 85222(0)		
MIN	AVG	MAX
0.007	0.014	0.07

Mass Conc. Total mg/m ³ AVG 15m mg/m ³ DustTrak-8530 85222(0)		
MIN	AVG	MAX
0.009	0.0143	0.0241

Name BBJ Upwind
S/N 0B446302
Description FA03921
Location Queens Blvd/82 Av,
Queens, NY 11415, USA

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Downwind Station Data Charts (PM₁₀)

10/24/2023 0:00:44 – 10/25/2023 0:00:00
(GMT-05:00) Eastern Time (US & Canada)



Mass Conc. Total mg/m ³ DustTrak-8530 85222(0)		
MIN	AVG	MAX
0.01	0.016	0.037

Mass Conc. Total mg/m ³ AVG 15m mg/m ³ DustTrak-8530 85222(0)		
MIN	AVG	MAX
0.0109	0.0162	0.0247

Name BBJ Downwind
S/N 0B288647
Description FA04946
Location 69 Kew Gardens Rd,
Queens, NY 11415, USA

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Dismantle Activity Daily Air Monitoring on October 25, 2023

Upwind Station Data Charts (PM₁₀)

Stop Work Action Level: 0.23
Minimum Action Level: 0.18
Prestart/Background Condition: 0.08

Wed, 25th of Oct 2023, 0:00:00 – 14:46:41
(GMT-05:00) Eastern Time (US & Canada)



Mass Conc. Total mg/m³ DustTrak-8530 RS232(C)		
MIN	AVG	MAX
0.022	0.034	0.055

Mass Conc. Total mg/m³ AVG 15m mg/m³ DustTrak-8530 RS232(C)		
MIN	AVG	MAX
0.0226	0.0341	0.048

Name BBJ Upwind
S/N 0B446302
Description FA03921
Location Queens Blvd/82 Av,
Queens, NY 11415, USA

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Downwind Station Data Charts (PM₁₀)

Wed, 25th of Oct 2023, 0:00:00 – 14:45:50
(GMT-05:00) Eastern Time (US & Canada)



Mass Conc. Total mg/m³ DustTrak-8530 RS232(C)		
MIN	AVG	MAX
0.025	0.037	0.117

Mass Conc. Total mg/m³ AVG 15m mg/m³ DustTrak-8530 RS232(C)		
MIN	AVG	MAX
0.0272	0.0368	0.0458

Name BBJ Downwind
S/N 0B288647
Description FA04946
Location 125-1 Queens Blvd, Kew
Gardens, NY 11415,
USA

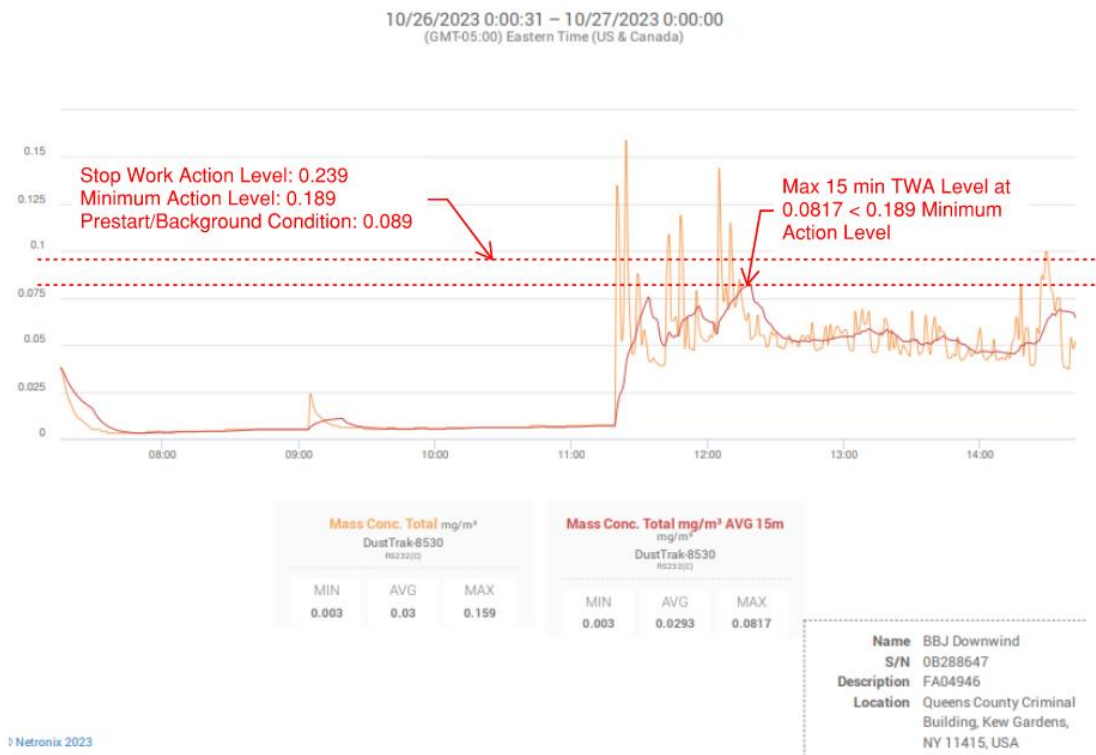
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Dismantle Activity Daily Air Monitoring on October 26, 2023

Upwind Station Data Charts (PM₁₀)



Downwind Station Data Charts (PM₁₀)

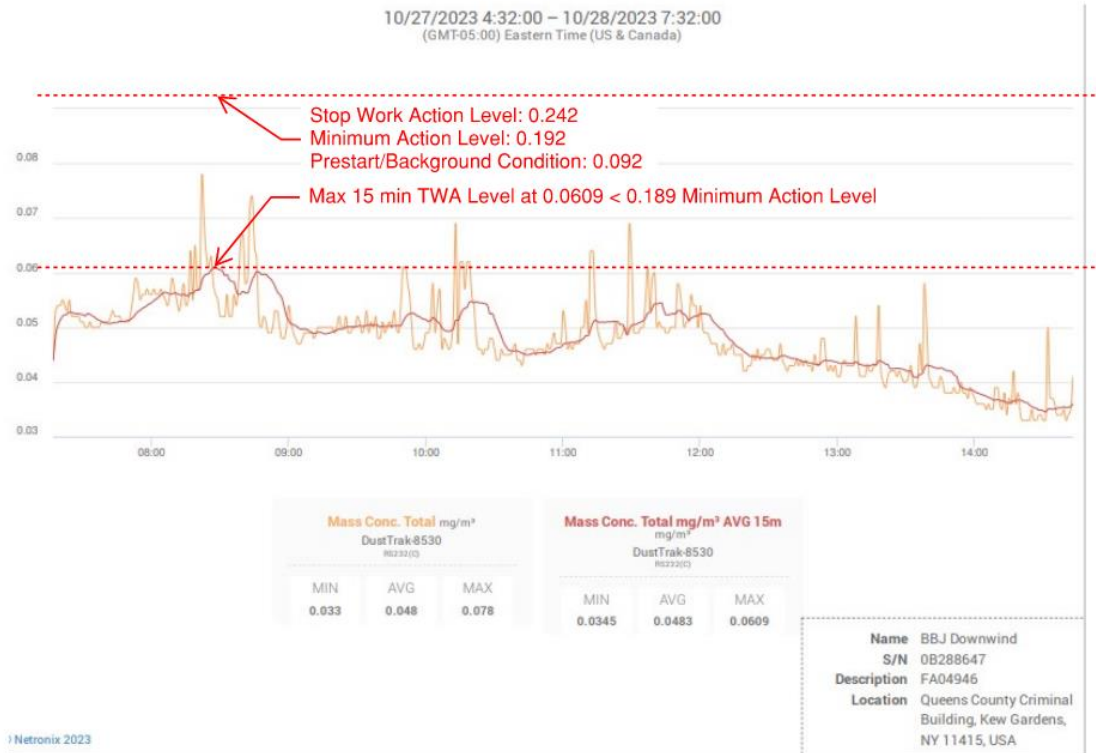


Dismantle Activity Daily Air Monitoring on October 27, 2023

Upwind Station Data Charts (PM₁₀)

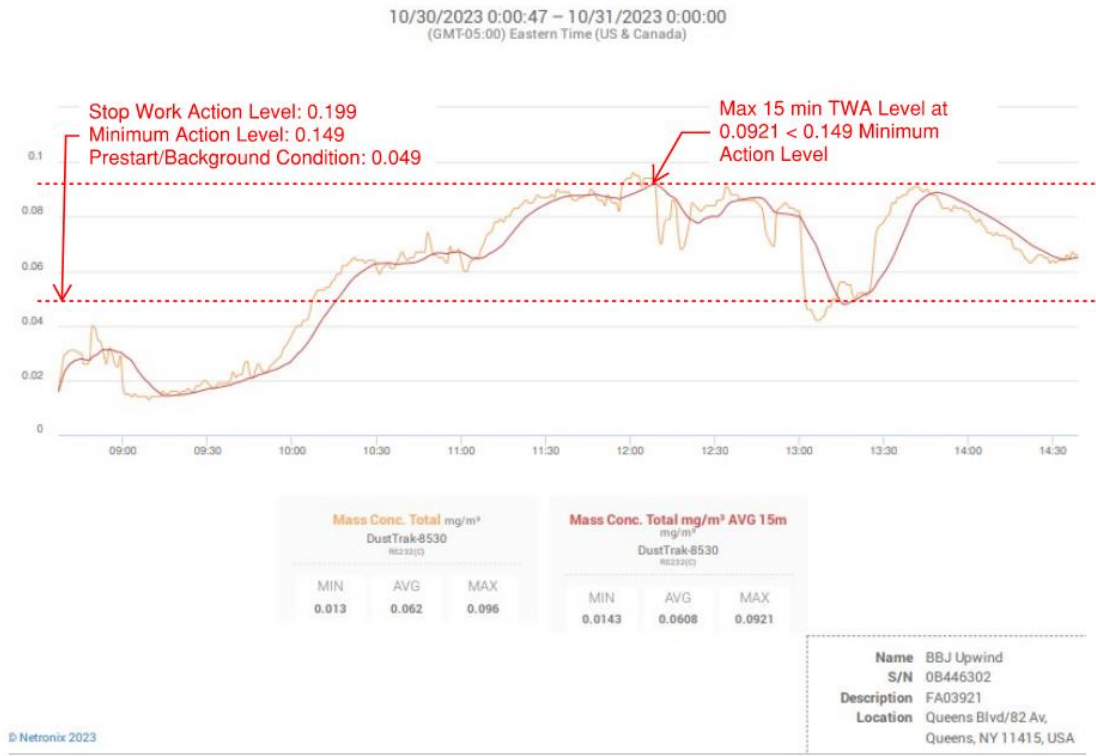


Downwind Station Data Charts (PM₁₀)

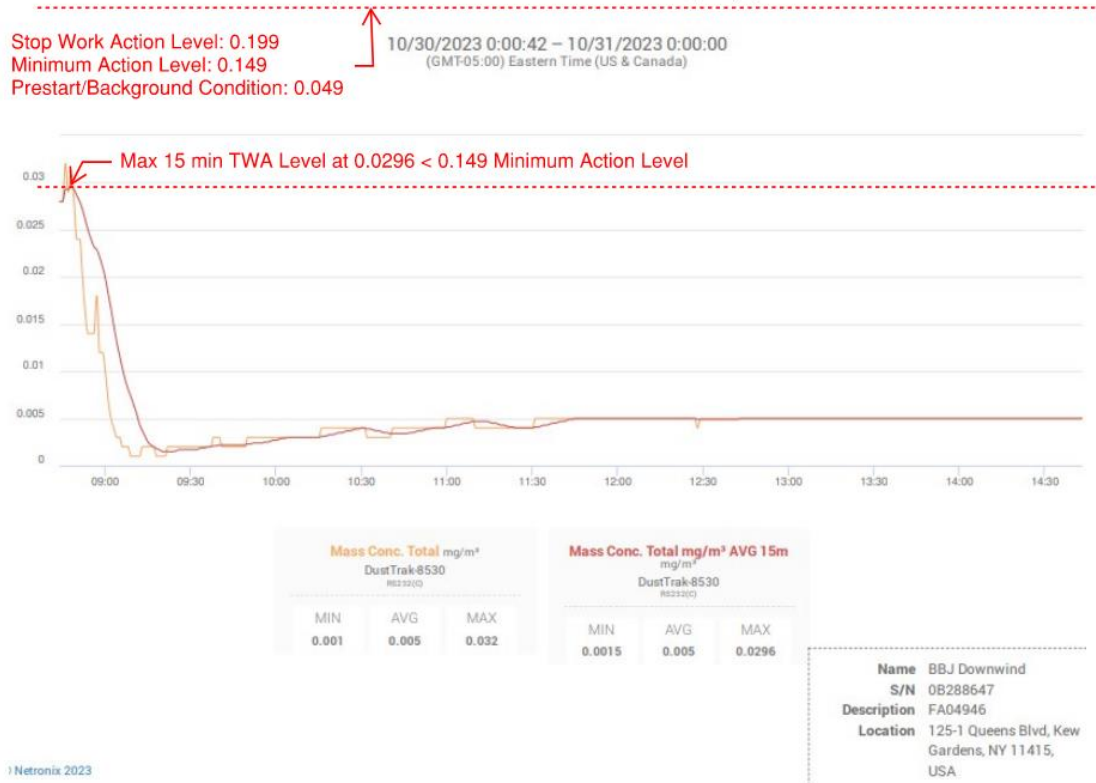


Dismantle Activity Daily Air Monitoring on October 30, 2023

Upwind Station Data Charts (PM₁₀)



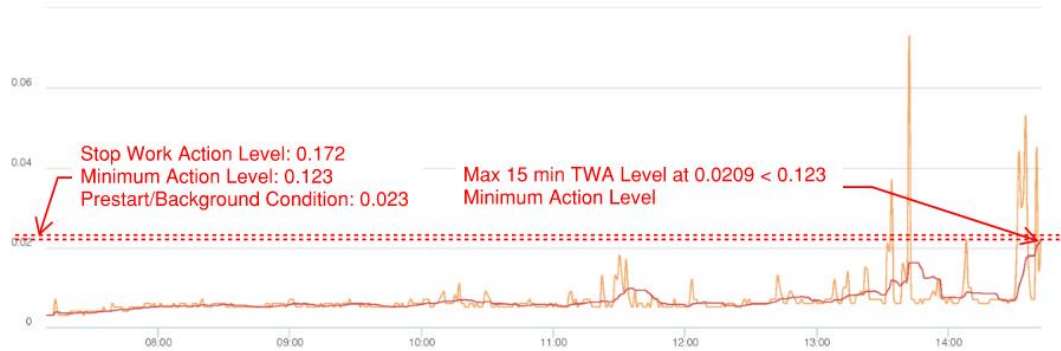
Downwind Station Data Charts (PM₁₀)



Dismantle Activity Daily Air Monitoring on October 31, 2023

Upwind Station Data Charts (PM₁₀)

10/31/2023 0:00:17 – 11/01/2023 0:00:00
(GMT-05:00) Eastern Time (US & Canada)



Mass Conc. Total mg/m ³			Mass Conc. Total mg/m ³ AVG 15m		
DustTrak-8530			DustTrak-8530		
RS232(E)			RS232(E)		
MIN	AVG	MAX	MIN	AVG	MAX
0.003	0.007	0.073	0.003	0.0067	0.0209

Name BBJ Upwind
S/N 0B446302
Description FA03921
Location 8185 126th St, Kew
Gardens, NY 11415,
USA

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Downwind Station Data Charts (PM₁₀)

10/31/2023 0:00:02 – 11/01/2023 0:00:00
(GMT-05:00) Eastern Time (US & Canada)



Mass Conc. Total mg/m ³			Mass Conc. Total mg/m ³ AVG 15m		
DustTrak-8530			DustTrak-8530		
RS232(E)			RS232(E)		
MIN	AVG	MAX	MIN	AVG	MAX
0.004	0.011	0.039	0.006	0.0111	0.0181

Name BBJ Downwind
S/N 0B288647
Description FA04946
Location 13-24 Hoover Ave, Kew
Gardens, NY 11415,
USA

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Noise Monitoring – Biweekly Follow Up during Demolition Phase IV

Project: DDC Queens Dismantle & Swing Space

Date: 10-4-2023 Wed Weather: Sunny 67°F

Work Activities: Demo slab at 7th fl, & concrete wall at 6th fl north day room.

Prepared by: Yao

NO.	Location	Time	Noise (dBA)	Noise Threshold (Day/Night)	Note
1 1A	Queens Borough Hall NW corner	9:32	65.2	< 75 dBA	other construction activity
2	Southwest corner of DA wing	9:07	64	< 75 dBA	bus horn, truck horn.
3	Corner of 134 th ST and Hoover Ave.			69 dBA/ 68 dBA	
4	200 ft away from Kew Garden Road on 82 nd Road			65 dBA/ 55 dBA	
5	Between 82 nd road and 83 rd Ave on Queens Blvd			68 dBA/ 67 dBA	
Corrective Action: <u>N/A</u>					

Project: DDC Queens Dismantle & Swing Space

Date: 10-11-2023 Wed Weather: Sunny 68°F

Work Activities: Demo slab at 7th floor & Demo walls at 6th fl.

Prepared by: Yao

NO.	Location	Time	Noise (dBA)	Noise Threshold (Day/Night)	Note
1	Queens Borough Hall	9:44	67	< 75 dBA	
2	Southwest corner of DA wing	9:21	69	< 75 dBA	
3	Corner of 134 th ST and Hoover Ave.	10:08	68.1	69 dBA/ 68 dBA NA	
4	200 ft away from Kew Garden Road on 82 nd Road	12:35	63	65 dBA/ 55 dBA NA	
5	Between 82 nd road and 83 rd Ave on Queens Blvd	10:31	66.7	68 dBA/ 67 dBA NA	
Corrective Action: <u>N/A</u>					

Project: DDC Queens Dismantle & Swing Space

Date: 10-13-2023 Fri Weather: 55°F Sunny

Work Activities: Demo slab at 7th fl & cut steel beams at 7th fl.

Prepared by: Yew

NO.	Location	Time	Noise (dBA)	Noise Threshold (Day/Night)	Note
1 1A	Queens Borough Hall NW corner	10:01	63 <	75 dBA	
2	Southwest corner of DA wing	9:38	69.2 <	75 dBA	N/A
3	Corner of 134 th ST and Hoover Ave.			69 dBA/ 68 dBA	
4	200 ft away from Kew Garden Road on 82 nd Road	10:26	64.2 <	65 dBA/ 55 dBA NA	
5	Between 82 nd road and 83 rd Ave on Queens Blvd			68 dBA/ 67 dBA	
Corrective Action: <u>N/A</u>					

Project: DDC Queens Dismantle & Swing Space

Date: 10-16-2023 Mon Weather: 53°F cloudy

Work Activities: cut steels at 7th fl & remove debris at 6th fl

Prepared by: Yew

NO.	Location	Time	Noise (dBA)	Noise Threshold (Day/Night)	Note
1	Queens Borough Hall	10:01	64 <	75 dBA	N/A
2	Southwest corner of DA wing	9:39	68 <	75 dBA	N/A
3	Corner of 134 th ST and Hoover Ave.			69 dBA/ 68 dBA	
4	200 ft away from Kew Garden Road on 82 nd Road			65 dBA/ 55 dBA	
5	Between 82 nd road and 83 rd Ave on Queens Blvd			68 dBA/ 67 dBA	
Corrective Action: <u>N/A</u>					

Project: DDC Queens Dismantle & Swing Space

Date: 10-24-2023 Tues Weather: 60°F Sunny

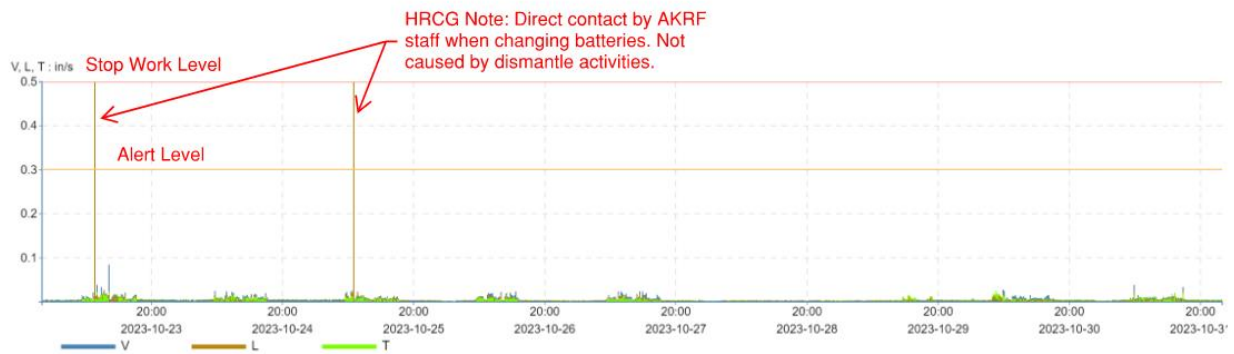
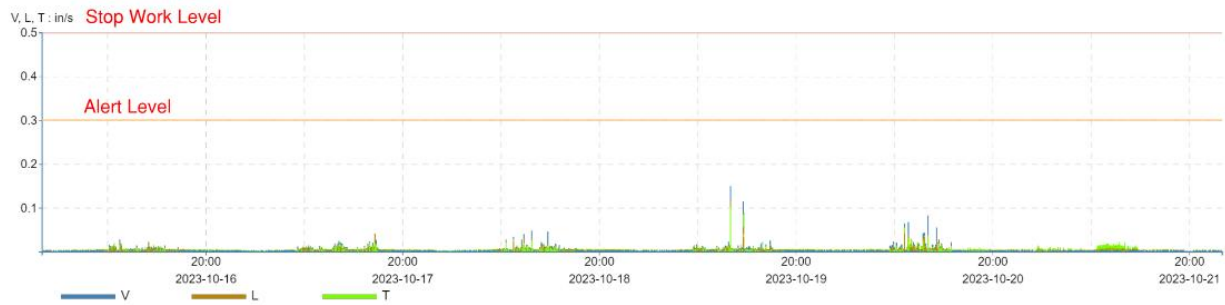
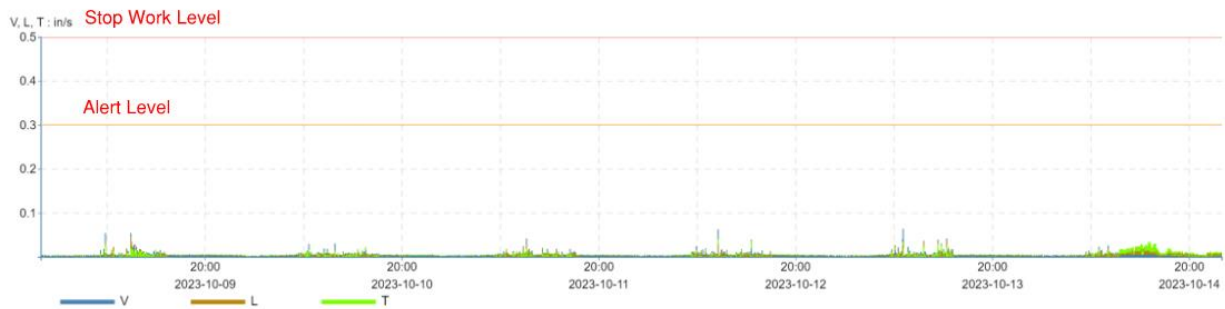
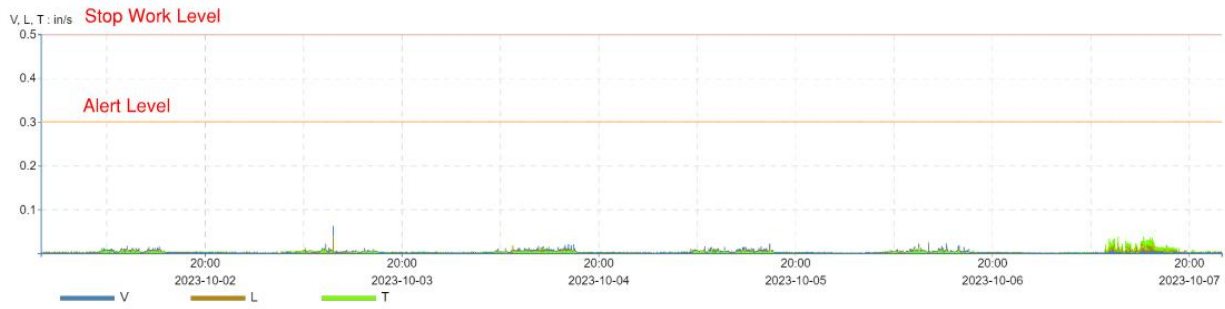
Work Activities: Demo slab at 6th floor & Remove debris

Prepared by: Yao

NO.	Location	Time	Noise (dBA)	Noise Threshold (Day/Night)	Note
1	Queens Borough Hall	9:58	68 <	75 dBA	N/A
2	Southwest corner of DA wing	9:33	70 <	75 dBA	N/A
3	Corner of 134 th ST and Hoover Ave.			69 dBA/ 68 dBA	
4	200 ft away from Kew Garden Road on 82 nd Road	10:21	64 <	65 dBA/ 55 dBA NA	N/A
5	Between 82 nd road and 83 rd Ave on Queens Blvd	10:45	66 <	68 dBA/ 67 dBA NA	N/A
Corrective Action: <u>N/A.</u>					

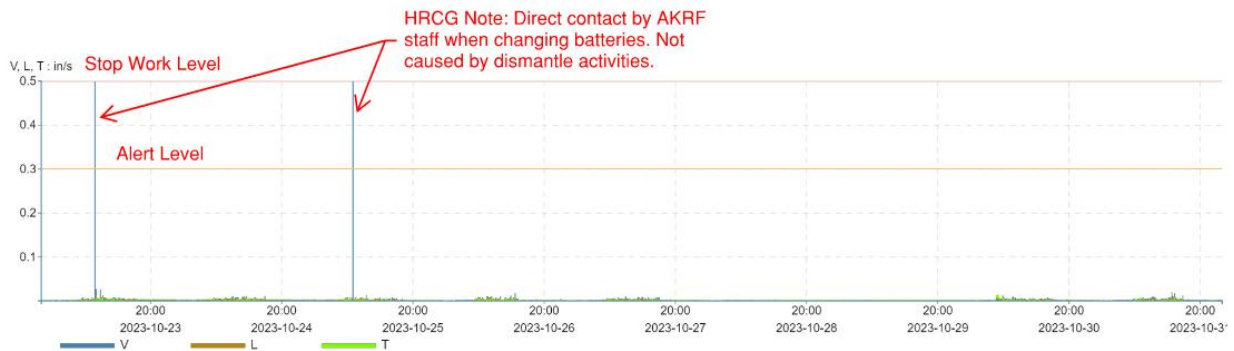
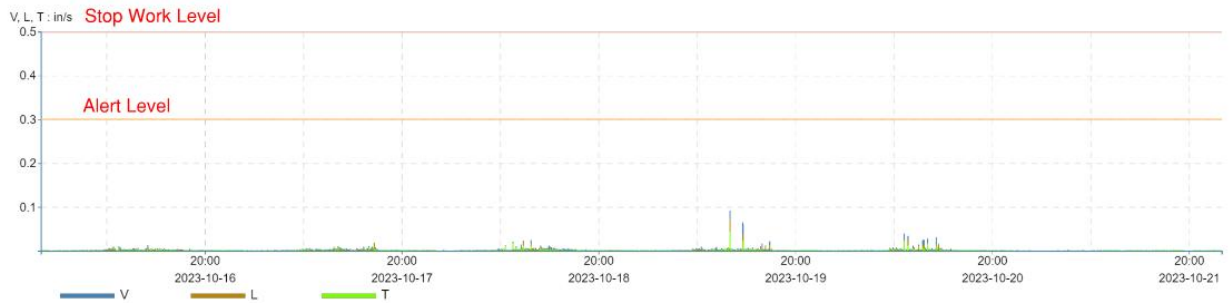
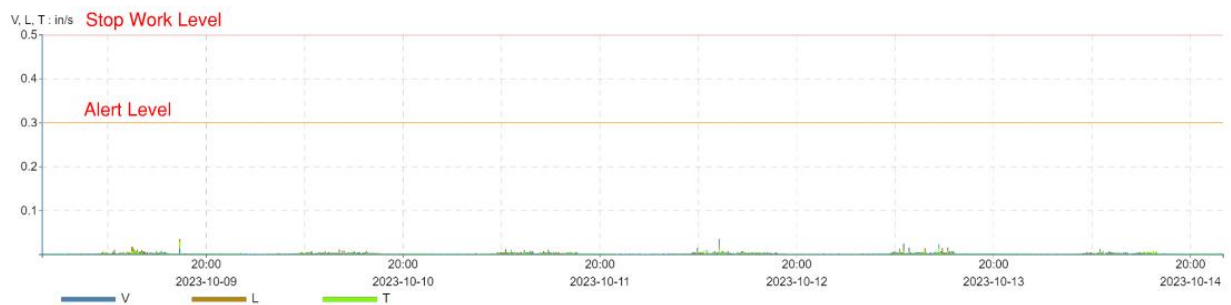
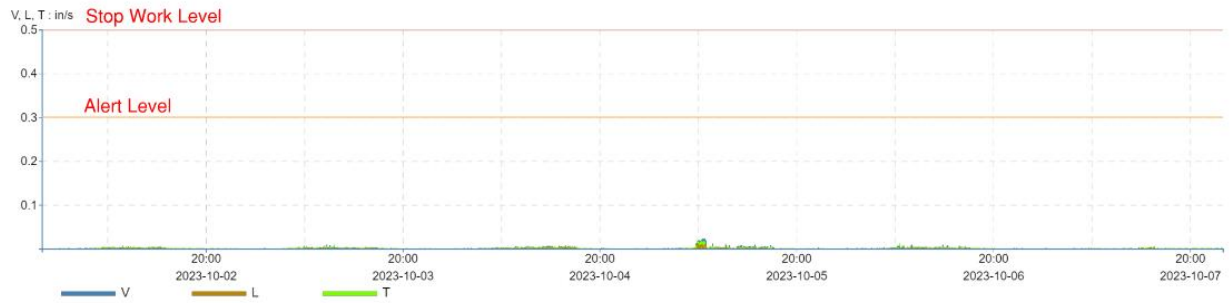
Vibration Monitor – VM1 October 2023

FAMILY JUSTICE CENTER – NORTHEAST CORNER



Vibration Monitor – VM2 October 2023

DA WING – NORTHWEST CORNER



Vibration Monitor – VM3 October 2023

ANNEX – BASEMENT FIRE PUMP ROOM

