

Department of the Army New York District Corps of Engineers Jacob K. Javits Federal Building 26 Federal Plaza New York, NY 10278-0090

# Week of December 09 - December 15, 2013

The following pages display the results from the USACE-NYD real-time website for the week of Monday, December 09, through Sunday, December 15, 2013.

There were 8 blasts this week in the S-AK-3 project area.

We recorded vibrations in S-AK-3 project area. The maximum vibration recorded was 0.0444 in/s recorded at Elizabeth Marina on December 14. Table 1 summarizes the blasts this week.

Page 2 summarizes dredge locations for this week. The map shows the week's last dredge locations by colored symbols, connected by colored lines to the week's previous locations marked by gray symbols. Drillboat Apache and operated in S-AK-3 all week.

The remaining odd pages display the home page showing the maximum vibration measured in all of the stations for the most recent event for each day:

December 09

December 10

December 11

December 12

December 13

December 14

December 15

The even pages show the maximum vibration observed at each station along easting for each event.

The results for this week show the measurements at the three active stations: New York Container Terminal (NYCT), Elizabethport, and Elizabeth Marina. The station locations are on each page.

Ground vibrations at NYCT were all below 0.025 in/s. Vibrations at Elizabethport were all below 0.040 in/s. Vibrations at Elizabeth Marina were all below 0.045 in/s. All blast vibration measurements are below the contract vibration limits for this site.

Table 1. Blast Summary for this week

Blast	Date & Time	Distance from blast	e4s Max.
	EST/EDT of blast	to e4s stations (feet)	vibration (in/s)
AK-141	2013-12-09 11:14	1,550 - 2,890	0.035
AK-142	2013-12-10 09:13	1,660 - 3,000	0.0419
AK-143	2013-12-11 09:15	1,800 - 3,160	0.0256
AK-144	2013-12-11 14:35	1,550 - 2,880	0.04
AK-145	2013-12-12 09:15	1,580 - 2,880	0.035
AK-146	2013-12-12 14:56	1,810 - 3,160	0.0294
AK-147	2013-12-13 13:56	1,950 - 3,320	0.035
AK-148	2013-12-14 14:19	2,100 - 3,480	0.0444



US Army Corps of Engineers® **New York District** 

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## **Dredge Position Summary**

This page summarizes dredge positions for the week. The Arthur Kill contract area is mapped with a top-of-rock map. The navigation grid is superimposed. The map shows dredge locations by colored symbols, connected by colored lines to the week's past locations marked by gray symbols. The map resets beginning the Monday of each week.

Mousing over a dredge location produces a pop-up text box giving dredge name, date of location, and easting and northing coordinates of the location in the NAD83 New Jersey State Plane coordinate system.

Click on a station for station information.



**Todays Dredge Position** 

Latest Week's **Dredge Position Summary** 

**Project** History List

The table below lists the date, name, easting, northing, and notes for the week's dredge positions. The position is the last reported dredge position of the day.

#### Dredge Location Table

Date	Dredge Name	Easting	Northing	Notes
2013-12-15 Sun 2013-12-14 Sat	Drillboat Apache Drillboat Apache	<ul><li>▶ 577737</li><li>▶ 577791</li></ul>	658173 658584	
2013-12-13 Fri 2013-12-12 Thu	Drillboat Apache	<b>■</b> 577916 <b>■</b> 578323	658720 659005	
2013-12-12 Thu 2013-12-11 Wed	Drillboat Apache Drillboat Apache	■ 578323 ■ 578001	658815	
2013-12-11 Wed 2013-12-10 Tue	Drillboat Kraken Drillboat Apache	<b>■</b> 578020 <b>■</b> 578132	658717 658917	
2013-12-09 Mon	Drillboat Apache	<b>578237</b>	659001	



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## **Arthur Kill Blast Vibration Summary**

New York District

This site summarizes the measured ground vibrations in northwest Staten Island, from rock blasting in the Arthur Kill and other possible sources. The site is updated daily. The data are intended for the sole use of the US Army Corps of Engineers - New York District, for managing and monitoring the performance of NYNJ Harbor Deepening Project Contract in Arthur Kill starting 25 July 2011.

This page represents the most recent observations.

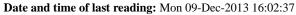
The Arthur Kill contract area is mapped below in light gray. The navigation grid is superimposed. Today's dredge locations are marked by colored symbols, connected by colored lines to this week's past locations marked by gray symbols. The drilling and blasting barge is marked in red. The easting and northing map coordinates in the New Jersey State Plane coordinate system are in yellow. The locations of active seismograph stations are marked by yellow station symbols. (e4sciences stations are circles. CDB stations are triangles.) Selecting a station activates its station page.

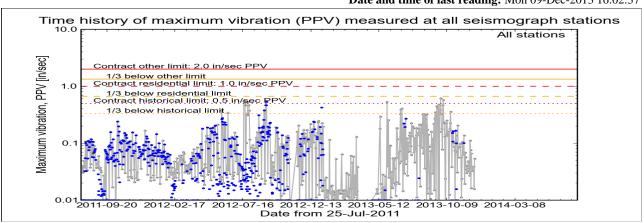
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Latest Event Summary

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(Click on graph or here for larger view)

The table below lists the date, time, level, and station of the maximum-vibration recording for each and every event. Selecting an event activates its event page.

Blast ID	Date	Time	Max PPV (in / second)	Max PPV Station
Ambient	Mon 09-Dec-2013	16:02:37	0.0537	Elizabeth Marina
Ambient	Sun 08-Dec-2013	16:32:36	0.0156	Elizabeth Marina
Ambient	Sat 07-Dec-2013	17:02:36	0.0387	Elizabeth Marina
Ambient	Fri 06-Dec-2013	13:47:35	0.0331	Elizabeth Marina
Ambient	Thu 05-Dec-2013	15:47:35	0.0325	Elizabeth Marina
Ambient	Wed 04-Dec-2013	19:02:35	0.0381	Elizabeth Marina
	e4sciences   Earthwork	S, LLC 27 Glen Ro	ad, Sandy Hook, CT 064	82 www.e4sciences.com



**Event Summary** Stations: Dredges History Links

# **Arthur Kill Blasting Event Summary**

This page summarizes measurements of ground vibrations for the selected event. This page displays the maximum vibration recorded at each and every seismograph station during this event.

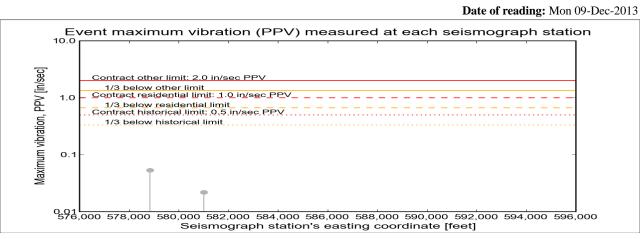
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Selected Event Summary

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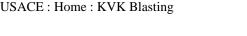
(Click on graph or here for larger view)

The table below lists the date, time, and level of the maximum-vibration recording at each station for the selected event.

Station	Date	Time	Max PPV (in / second)	Vibration Type
Elizabeth Marina - e4s010	Mon 09-Dec-2013	16:02:37	0.0537	Ambient
NYCT - e4s008	Mon 09-Dec-2013	17:22:44	0.0219	Ambient

e4sciences | Earthworks, LLC 27 Glen Road, Sandy Hook, CT 06482

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## **Arthur Kill Blast Vibration Summary**

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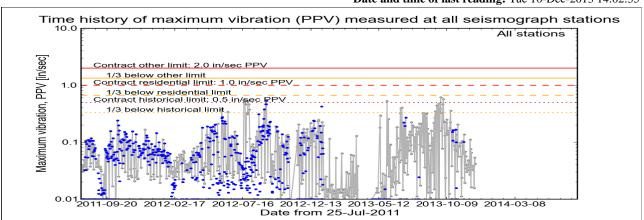
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Latest Event Summary

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_	sciences   Earthworks,	LLC 27 Glen Road, Sa	andy Hook, CT 064	www.e4sciences.com



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This page summarizes measurements of ground vibrations for the selected event. This page displays the maximum vibration recorded at each and every seismograph station during this event.

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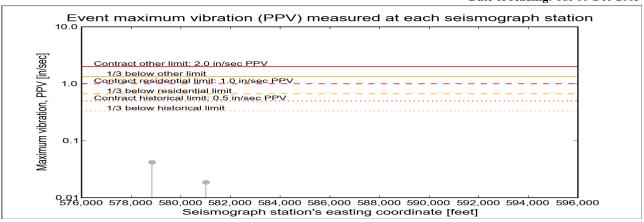
Click station for more information about the station.



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The table below lists the date, time, and level of the maximum-vibration recording at each station for the selected event.

Station	Date	Time	Max PPV (in / second)	Vibration Type
Elizabeth Marina - e4s010	Tue 10-Dec-2013	14:02:35	0.0419	Ambient
NYCT - e4s008	Tue 10-Dec-2013	14:07:09	0.0187	Ambient

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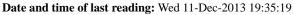
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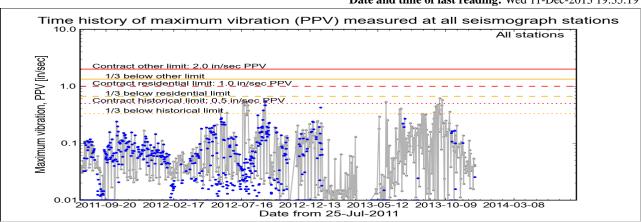
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Ambient	Mon 09-Dec-2013	16:02:37	0.0537	Elizabeth Marina
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Links

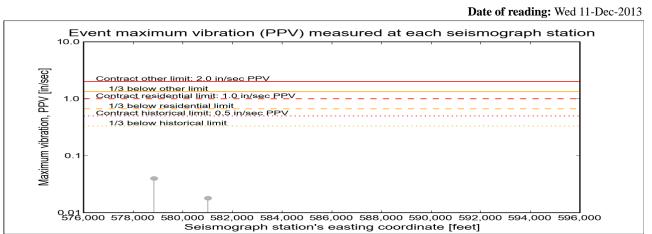
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Station	Date	Time	Max PPV (in / second)	Vibration Type
Elizabeth Marina - e4s010	Wed 11-Dec-2013	19:35:19	0.04	Ambient
NYCT - e4s008	Wed 11-Dec-2013	14:07:48	0.0181	Ambient



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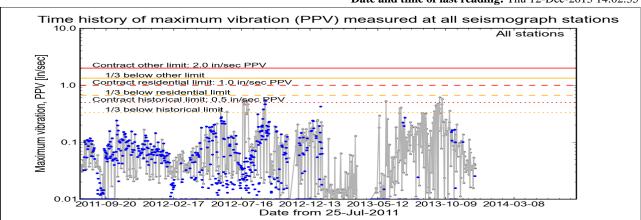
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**Event Summary** 

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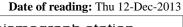
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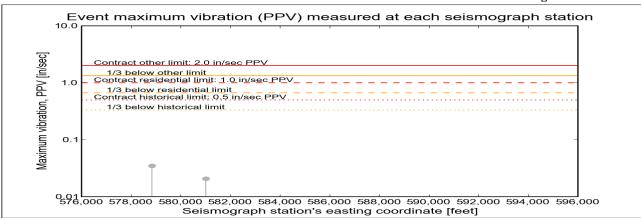
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NYCT - e4s008	Thu 12-Dec-2013	14:07:46	0.0206	Ambient

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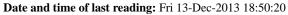
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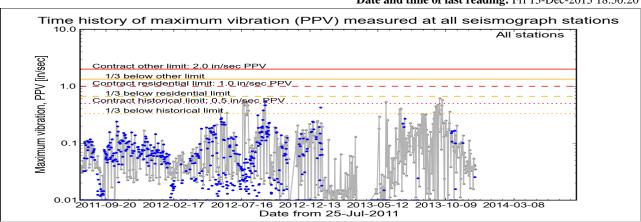
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	e4sciences   Earthworks	, LLC 27 Glen Road, S	Sandy Hook, CT 064	www.e4sciences.com

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**Event Summary** 

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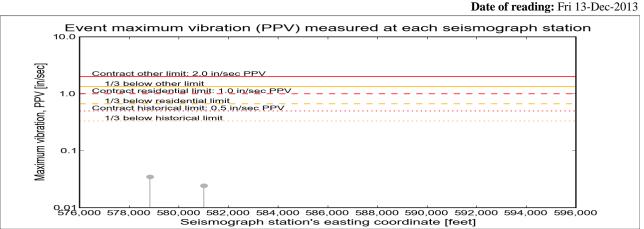
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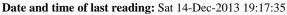
The Arthur Kill contract area is mapped below in light gray. The navigation grid is superimposed. Today's dredge locations are marked by colored symbols, connected by colored lines to this week's past locations marked by gray symbols. The drilling and blasting barge is marked in red. The easting and northing map coordinates in the New Jersey State Plane coordinate system are in yellow. The locations of active seismograph stations are marked by yellow station symbols. (e4sciences stations are circles. CDB stations are triangles.) Selecting a station activates its station page.

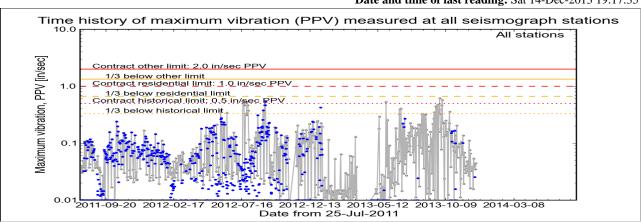
Click station for station information or click channel for event summary.



Latest Event Summary

The graph below is a plot of the maximum vibration recorded by any and all of the numerous seismograph stations during the current observation event (ambient or blast). The horizontal axis gives the date from the start of the project on 25 July 2011. The vertical axis gives the maximum vibration in peak particle velocity (PPV) in units of inches per second (in/sec). The red curves show the project's contract limits; the orange curves show one-third (1/3) below these contract limits. (The light gray curve is ambient-vibration level. The blue dots are blast-vibration levels.)





(Click on graph or here for larger view)

The table below lists the date, time, level, and station of the maximum-vibration recording for each and every event. Selecting an event activates its event page.

Blast ID	Date	Time	Max PPV (in / second)	Max PPV Station
Ambient	Sat 14-Dec-2013	19:17:35	0.0444	Elizabeth Marina
Ambient	Fri 13-Dec-2013	18:50:20	0.0350	Elizabeth Marina
Ambient	Thu 12-Dec-2013	14:02:35	0.0350	Elizabeth Marina
Ambient	Wed 11-Dec-2013	19:35:19	0.0400	Elizabeth Marina
Ambient	Tue 10-Dec-2013	14:02:35	0.0419	Elizabeth Marina
Ambient	Mon 09-Dec-2013	16:02:37	0.0537	Elizabeth Marina
	e4sciences   Earthworks,	LLC 27 Glen Road, Sa	andy Hook, CT 064	www.e4sciences.com

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**Event Summary** Stations: History Links

#### **Arthur Kill Blasting Event Summary**

This page summarizes measurements of ground vibrations for the selected event. This page displays the maximum vibration recorded at each and every seismograph station during this event.

Dredges

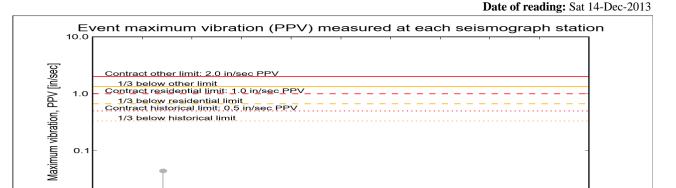
The Arthur Kill contract area is mapped below with a top-of-rock map. Today's dredge locations are marked by colored symbols, connected by colored lines to this week's past locations marked by gray symbols. The drilling and blasting barge location is marked in red. The easting and northing map coordinates in the New Jersey State Plane coordinate system are in yellow. The locations of active seismograph stations are marked by yellow station symbols. (e4sciences stations are circles. CDB stations are triangles.) Selecting a station activates its station page.

Click station for more information about the station.



Selected Event Summary

The graph below plots the maximum vibration during the selected event period (blast or ambient) recorded at each and every seismograph station along the easting positions. The vertical axis gives the maximum vibration in peak particle velocity (PPV) in units of inches per second (in/sec). If the maximum vibration level at a station is below 0.01 in/sec, the marker is a v-shaped triangle at 0.01 in/sec. (Light-gray stems indicate ambientvibration level. Black stems indicate blast-vibration level. Dark-gray stems indicate predicted blast-vibration level.)



000 582,000 584,000 586,000 588,000 590,000 592,000 594,000 596,000 Seismograph station's easting coordinate [feet] 576,000 578,000 580,000 (Click on graph or here for larger view)

The table below lists the date, time, and level of the maximum-vibration recording at each station for the selected event.

Station	Date	Time	Max PPV (in / second)	Vibration Type
Elizabeth Marina - e4s010	Sat 14-Dec-2013	19:17:35	0.0444	Ambient
NYCT - e4s008	Sat 14-Dec-2013	19:07:44	0.0187	Ambient

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Home Event Summary Stations: Dredges History Links

## **Arthur Kill Blast Vibration Summary**

New York District

This site summarizes the measured ground vibrations in northwest Staten Island, from rock blasting in the Arthur Kill and other possible sources. The site is updated daily. The data are intended for the sole use of the US Army Corps of Engineers - New York District, for managing and monitoring the performance of NYNJ Harbor Deepening Project Contract in Arthur Kill starting 25 July 2011.

This page represents the most recent observations.

The Arthur Kill contract area is mapped below in light gray. The navigation grid is superimposed. Today's dredge locations are marked by colored symbols, connected by colored lines to this week's past locations marked by gray symbols. The drilling and blasting barge is marked in red. The easting and northing map coordinates in the New Jersey State Plane coordinate system are in yellow. The locations of active seismograph stations are marked by yellow station symbols. (e4sciences stations are circles. CDB stations are triangles.) Selecting a station activates its station page.

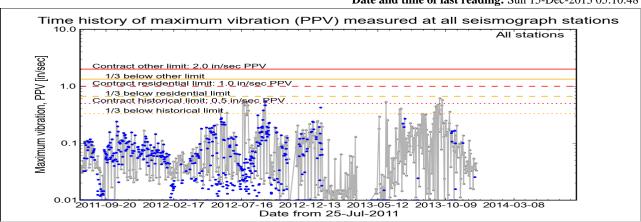
Click station for station information or click channel for event summary.



Latest Event Summary

The graph below is a plot of the maximum vibration recorded by any and all of the numerous seismograph stations during the current observation event (ambient or blast). The horizontal axis gives the date from the start of the project on 25 July 2011. The vertical axis gives the maximum vibration in peak particle velocity (PPV) in units of inches per second (in/sec). The red curves show the project's contract limits; the orange curves show one-third (1/3) below these contract limits. (The light gray curve is ambient-vibration level. The blue dots are blast-vibration levels.)





(Click on graph or here for larger view)

The table below lists the date, time, level, and station of the maximum-vibration recording for each and every event. Selecting an event activates its event page.

Blast ID	Date	Time	Max PPV (in / second)	Max PPV Station
Ambient	Sun 15-Dec-2013	05:10:48	0.0331	Elizabeth Marina
Ambient	Sat 14-Dec-2013	19:17:35	0.0444	Elizabeth Marina
Ambient	Fri 13-Dec-2013	18:50:20	0.0350	Elizabeth Marina
Ambient	Thu 12-Dec-2013	14:02:35	0.0350	Elizabeth Marina
Ambient	Wed 11-Dec-2013	19:35:19	0.0400	Elizabeth Marina
Ambient	Tue 10-Dec-2013	14:02:35	0.0419	Elizabeth Marina
	e4sciences   Earthworks,	LLC 27 Glen Road, Sa	andy Hook, CT 064	82 www.e4sciences.com

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**Event Summary** Stations: Dredges

#### **Arthur Kill Blasting Event Summary**

This page summarizes measurements of ground vibrations for the selected event. This page displays the maximum vibration recorded at each and every seismograph station during this event.

History

Links

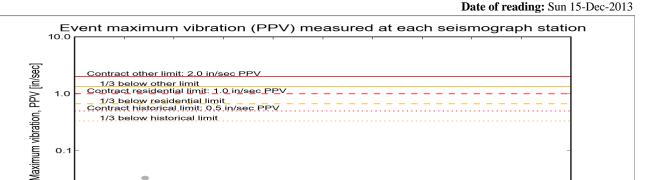
The Arthur Kill contract area is mapped below with a top-of-rock map. Today's dredge locations are marked by colored symbols, connected by colored lines to this week's past locations marked by gray symbols. The drilling and blasting barge location is marked in red. The easting and northing map coordinates in the New Jersey State Plane coordinate system are in yellow. The locations of active seismograph stations are marked by yellow station symbols. (e4sciences stations are circles. CDB stations are triangles.) Selecting a station activates its station page.

Click station for more information about the station.



Selected Event Summary

The graph below plots the maximum vibration during the selected event period (blast or ambient) recorded at each and every seismograph station along the easting positions. The vertical axis gives the maximum vibration in peak particle velocity (PPV) in units of inches per second (in/sec). If the maximum vibration level at a station is below 0.01 in/sec, the marker is a v-shaped triangle at 0.01 in/sec. (Light-gray stems indicate ambientvibration level. Black stems indicate blast-vibration level. Dark-gray stems indicate predicted blast-vibration level.)



0.01 576,000 578,000 580,000 582,000 584,000 586,000 588,000 590,000 592,000 594,000 596,000 Seismograph station's easting coordinate [feet] (Click on graph or here for larger view)

The table below lists the date, time, and level of the maximum-vibration recording at each station for the selected event.

Max PPV Station Date Time Vibration Type (in / second) Elizabeth Marina -Sun 15-Dec-2013 05:10:48 0.0331 Ambient e4s010 NYCT - e4s008 Sun 15-Dec-2013 17:22:46 0.0075 Ambient

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