

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 March 31 – April 06, 2014

The following pages display the results from the USACE-NYD real-time website for the week of Monday, March 31, through Sunday, April 06, 2014.

There were 11 blasts this week in the S-AK-3 project area.

We recorded vibrations in S-AK-3 project area. The maximum vibration recorded was 0.286 in/s recorded at Elizabeth Marina on April 01. 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:

March 31 April 01 April 02 April 03 April 04 April 05 April 06

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 0.02 in/s. Vibrations at Elizabethport were all below 0.03 in/s. Vibrations at Elizabeth Marina were all below 0.29 in/s (this station records heavy noise from surrounding construction activities). All blast vibration measurements are below the contract vibration limits for this site.

Blast	Date & Time	Distance from blast	e4s Max.
	EST/EDT of blast	to e4s stations (feet)	vibration (in/s)
AK-264	2014-03-31 09:01	1,740 - 3,260	0.0287
AK-265	2014-03-31 14:15	3,020 - 4,460	0.0419
AK-266	2014-04-01 09:00	1,900 - 3,400	0.2860
AK-267	2014-04-01 14:40	3,160 - 4,600	0.0219
AK-268	2014-04-02 09:00	2,060 - 3,550	0.0150
AK-269	2014-04-02 12:45	2,970 - 4,420	0.2380
AK-270	2014-04-03 09:01	2,220 - 3,680	0.0256
AK-271	2014-04-03 13:59	3,340 - 4,780	0.0100
AK-272	2014-04-04 09:01	2,380 - 3,820	0.0431
AK-273	2014-04-04 14:15	3,320 - 4,760	0.0100
AK-274	2014-04-05 10:58	1,580 - 3,180	0.0425

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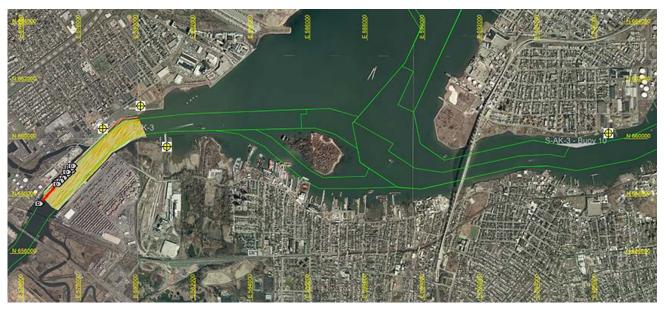
History Links

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 l	Location Table	
Data		D.

Date	Dredge Name	Easting	Northing	Notes
2014-04-06 Sun				No Activity
2014-04-05 Sat	Drillboat Apache	577784	659058	
2014-04-04 Fri	Drillboat Apache	577273	658462	
2014-04-04 Fri	Drillboat Kraken	576671	657801	
2014-04-03 Thu	Drillboat Apache	577384	658554	
2014-04-02 Wed	Drillboat Apache	577497	658667	
2014-04-01 Tue	Drillboat Apache	577627	658773	
2014-04-01 Tue	Drillboat Kraken	576759	657939	
2014-03-31 Mon	Drillboat Apache	577738	658894	
2014-03-31 Mon	Drillboat Kraken	576839	658061	
e	4sciences Earthworks, LLC	27 Glen Road, Sandy	Hook, CT 06482	www.e4sciences.com



B History Links

Arthur Kill Blast Vibration Summary

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This page represents the most recent observations.

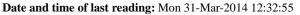
The Arthur Kill contract area is mapped below in light gray. The navigation grid is superimposed. Today's dredge locations are marked by colored symbols, connected by colored lines to this week's past locations marked by gray symbols. The drilling and blasting barge is marked in red. The easting and 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.

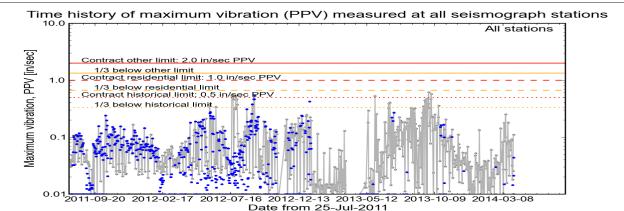
Click station for station information or click channel for event summary.



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*. *The dark gray dots are predicted 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	Mon 31-Mar-2014	12:32:55	0.1110	Elizabeth Marina
Ambient	Sun 30-Mar-2014	15:32:32	0.0256	Elizabeth Marina
Ambient	Sat 29-Mar-2014	01:02:34	0.0181	Elizabeth Marina
Ambient	Fri 28-Mar-2014	13:17:36	0.0319	Elizabeth Marina
Ambient	Thu 27-Mar-2014	11:18:09	0.0919	Elizabeth Marina
Ambient	Wed 26-Mar-2014	13:40:06	0.0869	Elizabeth Marina
	auccioncoc Earthwork		I Control CTOU	02

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27 Glen Road, Sandy Hook, CT 06482 www.e4sciences.com



Home 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

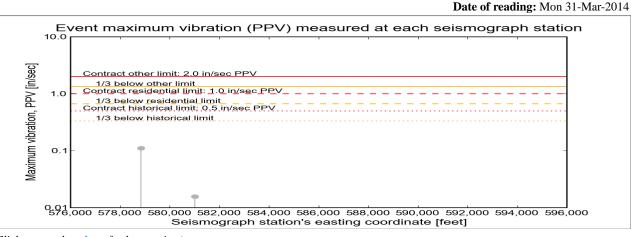
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Selected Event Summary

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 ambient-vibration level. Black stems indicate blast-vibration level. Dark-gray stems indicate predicted blast-vibration level.*)



(Click on graph or here for larger view)

Station	Date	Time	Max PPV (in / second)	Vibration Type
Elizabeth Marina - e4s010	Mon 31-Mar-2014	12:32:55	0.111	Ambient
NYCT - e4s008	Mon 31-Mar-2014	12:52:44	0.0156	Ambient



Arthur Kill Blast Vibration Summary

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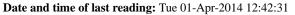
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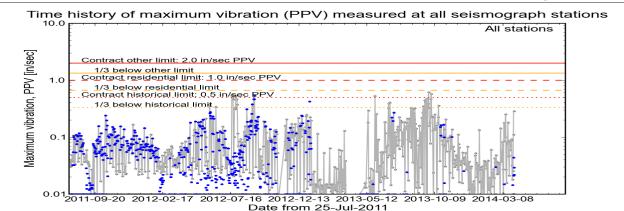
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(Click on graph or here for larger view)

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	Tue 01-Apr-2014	12:42:31	0.2860	Elizabeth Marina
Ambient	Mon 31-Mar-2014	12:32:55	0.1110	Elizabeth Marina
Ambient	Sun 30-Mar-2014	15:32:32	0.0256	Elizabeth Marina
Ambient	Sat 29-Mar-2014	01:02:34	0.0181	Elizabeth Marina
Ambient	Fri 28-Mar-2014	13:17:36	0.0319	Elizabeth Marina
Ambient	Thu 27-Mar-2014	11:18:09	0.0919	Elizabeth Marina
	eqsciences Earthwork	S, LLC 27 Glen Ro	ad, Sandy Hook, CT 064	82 www.e4sciences.com



Home Event Summary Stations:

History Links

Arthur Kill Blasting Event Summary

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Dredges

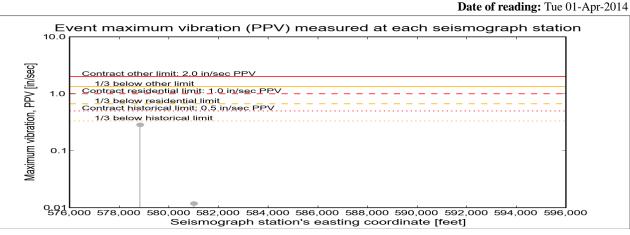
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(Click on graph or here for larger view)

Station	Date	Time	Max PPV (in / second)	Vibration Type
Elizabeth Marina - e4s010 NYCT - e4s008	Tue 01-Apr-2014 Tue 01-Apr-2014	12:42:31 12:52:45	0.286 0.0119	Ambient Ambient



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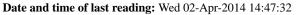
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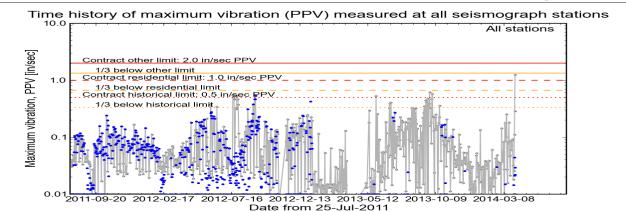
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Ambient	Wed 02-Apr-2014	14:47:32	1.2500	Elizabeth Marina
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Ambient	Sat 29-Mar-2014	01:02:34	0.0181	Elizabeth Marina
Ambient	Fri 28-Mar-2014	13:17:36	0.0319	Elizabeth Marina
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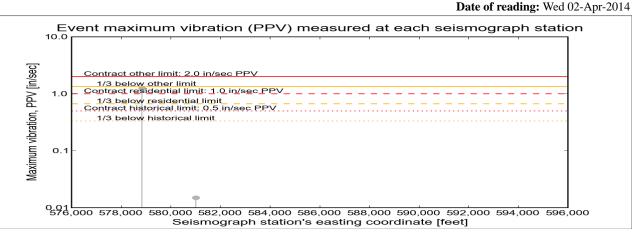
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Station	Date	Time	Max PPV (in / second)	Vibration Type
Elizabeth Marina - e4s010	Wed 02-Apr-2014	14:47:32	1.25	Ambient
NYCT - e4s008	Wed 02-Apr-2014	12:52:44	0.015	Ambient



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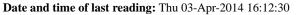
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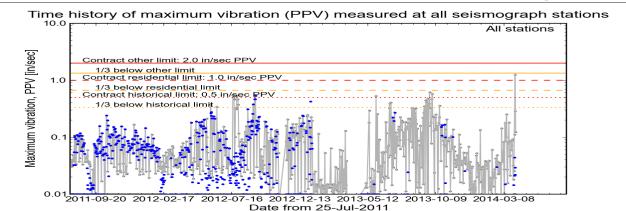
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Ambient	Thu 03-Apr-2014	16:12:30	0.1230	NYCT
Ambient	Wed 02-Apr-2014	14:47:32	1.2500	Elizabeth Marina
Ambient	Tue 01-Apr-2014	12:42:31	0.2860	Elizabeth Marina
Ambient	Mon 31-Mar-2014	12:32:55	0.1110	Elizabeth Marina
Ambient	Sun 30-Mar-2014	15:32:32	0.0256	Elizabeth Marina
Ambient	Sat 29-Mar-2014	01:02:34	0.0181	Elizabeth Marina
	easciences Earthwork	CILC 27 Class De	ad Sandy Hank CT 064	92

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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.

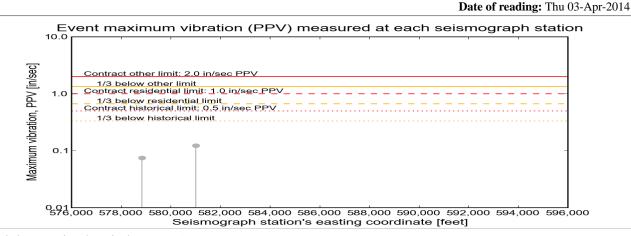
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(Click on graph or here for larger view)

Station	Date	Time	Max PPV (in / second)	Vibration Type
Elizabeth Marina - e4s010	Thu 03-Apr-2014	12:06:01	0.075	Ambient
NYCT - e4s008	Thu 03-Apr-2014	16:12:30	0.123	Ambient



Stations: Home Event Summarv Dredges History

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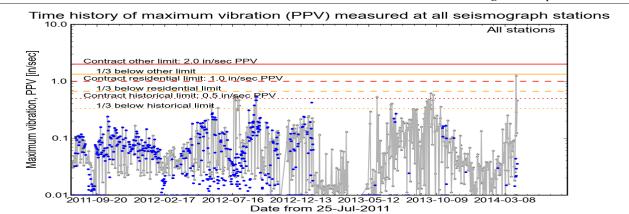
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Date and time of last reading: Fri 04-Apr-2014 19:17:20



(Click on graph or here for larger view)

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Ambient	Thu 03-Apr-2014	16:12:30	0.1230	NYCT
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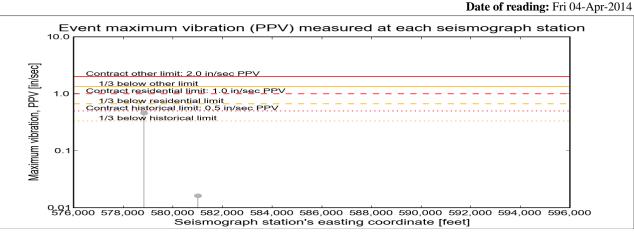
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Station	Date	Time	Max PPV (in / second)	Vibration Type
Elizabeth Marina - e4s010	Fri 04-Apr-2014	19:17:20	0.459	Ambient
NYCT - e4s008	Fri 04-Apr-2014	12:53:02	0.0162	Ambient



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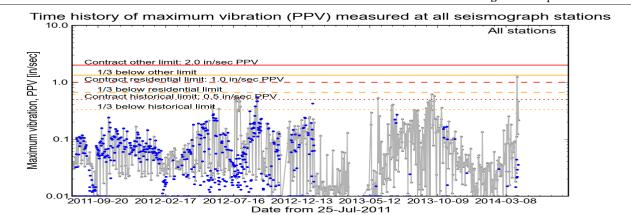
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Date and time of last reading: Sat 05-Apr-2014 03:19:03



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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 05-Apr-2014	03:19:03	0.2170	Elizabeth Marina
Ambient	Fri 04-Apr-2014	19:17:20	0.4590	Elizabeth Marina
Ambient	Thu 03-Apr-2014	16:12:30	0.1230	NYCT
Ambient	Wed 02-Apr-2014	14:47:32	1.2500	Elizabeth Marina
Ambient	Tue 01-Apr-2014	12:42:31	0.2860	Elizabeth Marina
Ambient	Mon 31-Mar-2014	12:32:55	0.1110	Elizabeth Marina
	easciences Farthwork	S LLC 27 Clop Po	ad Sandy Hook CT 064	182 www.odscioncos.co

eqsciences | Earthworks, LLC 27 G

27 Glen Road, Sandy Hook, CT 06482

www.e4sciences.com



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.

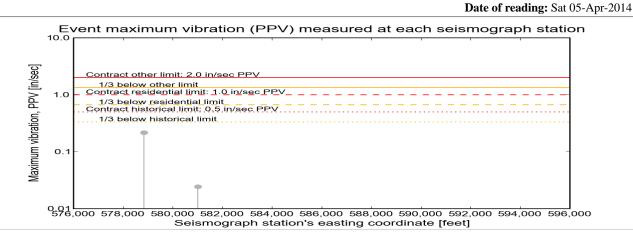
The Arthur Kill contract area is mapped below with a top-of-rock map. Today's dredge locations are marked by colored symbols, connected by colored lines to this week's past locations marked by gray symbols. The drilling and blasting barge location is marked in red. The easting and northing map coordinates 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 ambient-vibration level. Black stems indicate blast-vibration level. Dark-gray stems indicate predicted blast-vibration level.*)



(Click on graph or here for larger view)

Station	Date	Time	Max PPV (in / second)	Vibration Type
Elizabeth Marina - e4s010	Sat 05-Apr-2014	03:19:03	0.217	Ambient
NYCT - e4s008	Sat 05-Apr-2014	12:52:43	0.0244	Ambient



Stations: Home Event Summarv Dredges History

Arthur Kill Blast Vibration Summary

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.

Links

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.

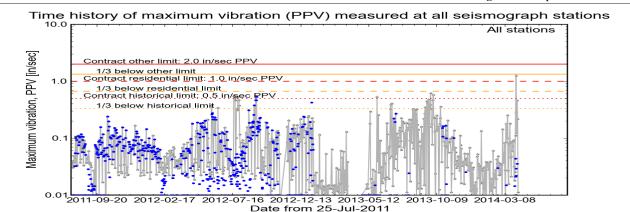
Click station for station information or click channel for event summary.



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. The dark gray dots are predicted blast-vibration levels.)

Date and time of last reading: Sun 06-Apr-2014 14:22:46



(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 06-Apr-2014	14:22:46	0.0112	NYCT
Ambient	Sat 05-Apr-2014	03:19:03	0.2170	Elizabeth Marina
Ambient	Fri 04-Apr-2014	19:17:20	0.4590	Elizabeth Marina
Ambient	Thu 03-Apr-2014	16:12:30	0.1230	NYCT
Ambient	Wed 02-Apr-2014	14:47:32	1.2500	Elizabeth Marina
Ambient	Tue 01-Apr-2014	12:42:31	0.2860	Elizabeth Marina
	e4sciences Earthwork	S, LLC 27 Glen Ro	oad, Sandy Hook, CT 064	82 www.e4sciences.com

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



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.

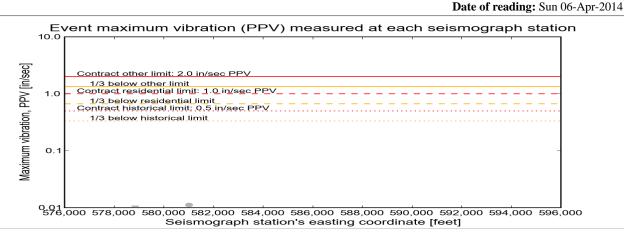
The Arthur Kill contract area is mapped below with a top-of-rock map. Today's dredge locations are marked by colored symbols, connected by colored lines to this week's past locations marked by gray symbols. The drilling and blasting barge location is marked in red. The easting and northing map coordinates 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 ambient-vibration level. Black stems indicate blast-vibration level. Dark-gray stems indicate predicted blast-vibration level.)



(Click on graph or here for larger view)

Station	Date	Time	Max PPV (in / second)	Vibration Type
Elizabeth Marina - e4s010 NYCT - e4s008	Sun 06-Apr-2014 Sun 06-Apr-2014	19:32:34 14:22:46	0.00937 0.0112	Ambient Ambient