



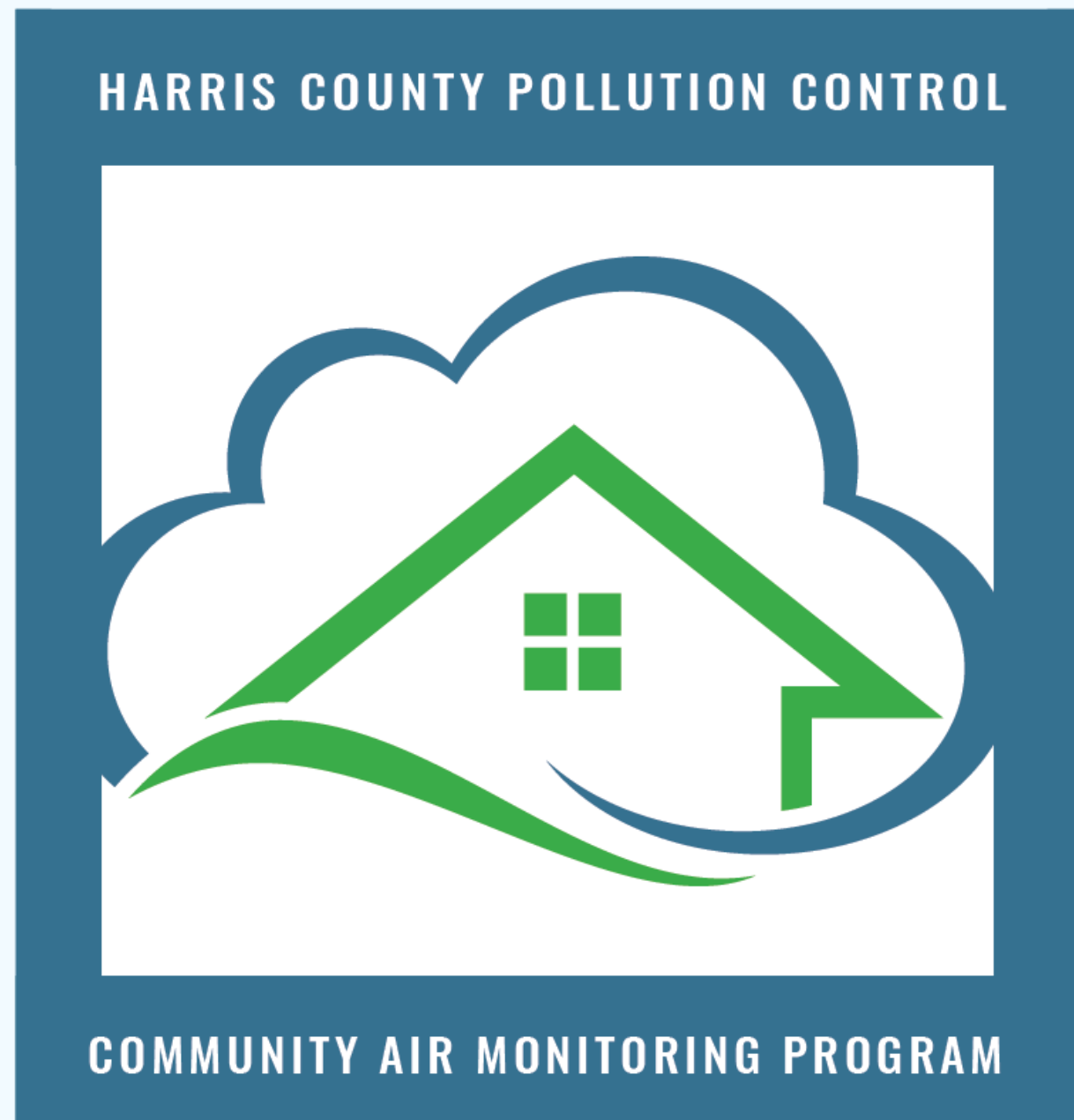
Harris County
Pollution Control

Community Air Monitoring Program

December 9, 2021

Matt Van Vleck

CAMP Logo



The Harris County Community Air Monitoring Program (CAMP) is designed to:

- ❖ Measure pollution levels that affect environmental health and public health across Harris County.
- ❖ Identify emission sources that adversely impact local communities.
- ❖ Inform the public and elected officials on priorities related to clean air and environmental sustainability.
- ❖ Highlight patterns and trends that may support environmental regulatory activities.

Monitoring Equipment



SPOD



APIS

- Two makes of monitor fielded
- Sensit SPOD, Apis Air Quality Monitoring System
- Volatile organic compounds (VOC)
- Particulate Matter (PM1, PM2.5, PM10)
- Wind Speed, Wind Direction, Temperature, Humidity
- Sensit SPOD now used at all VOC/PM sites

Sensit SPOD



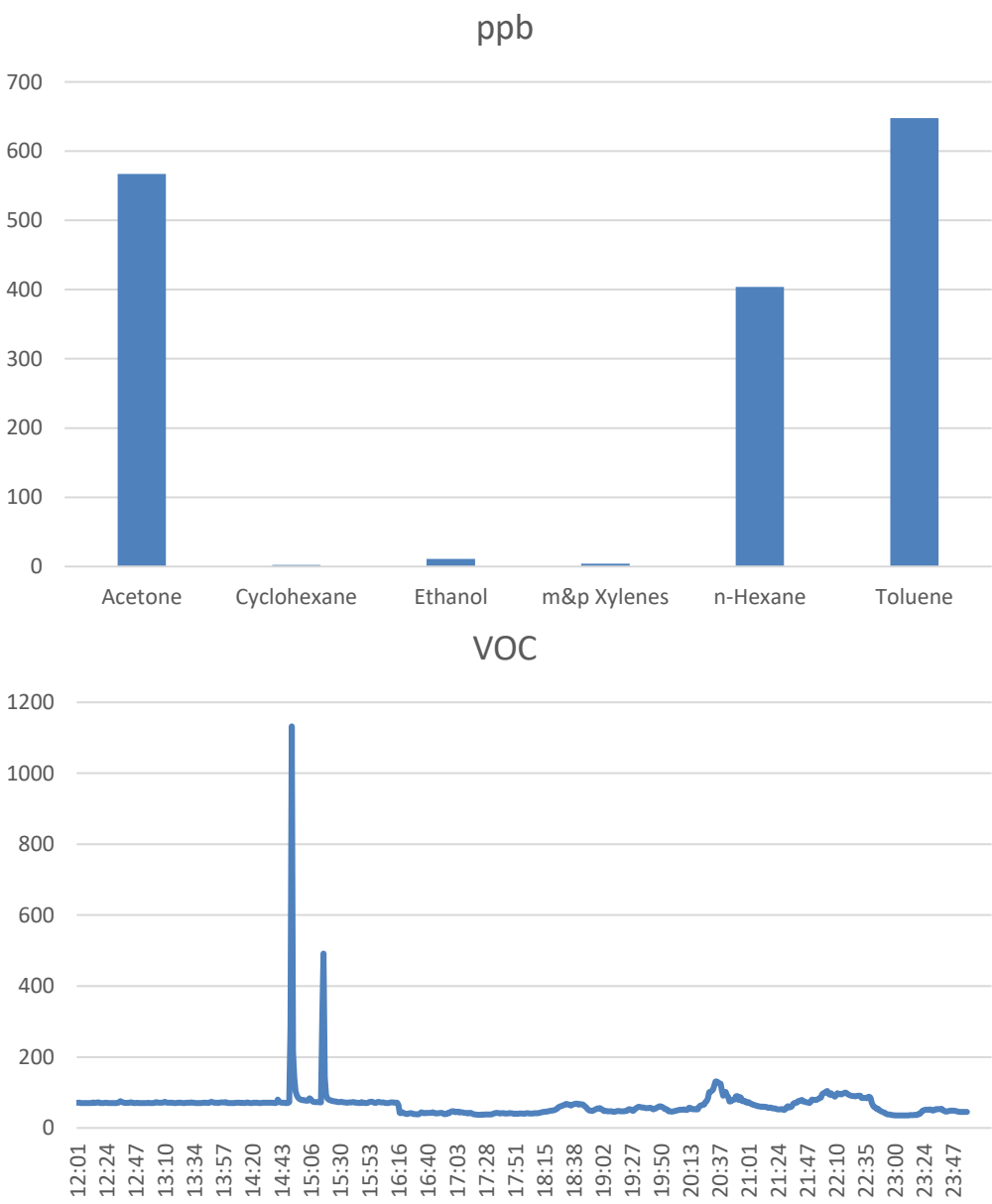
Tripod mounted in Hockley Park



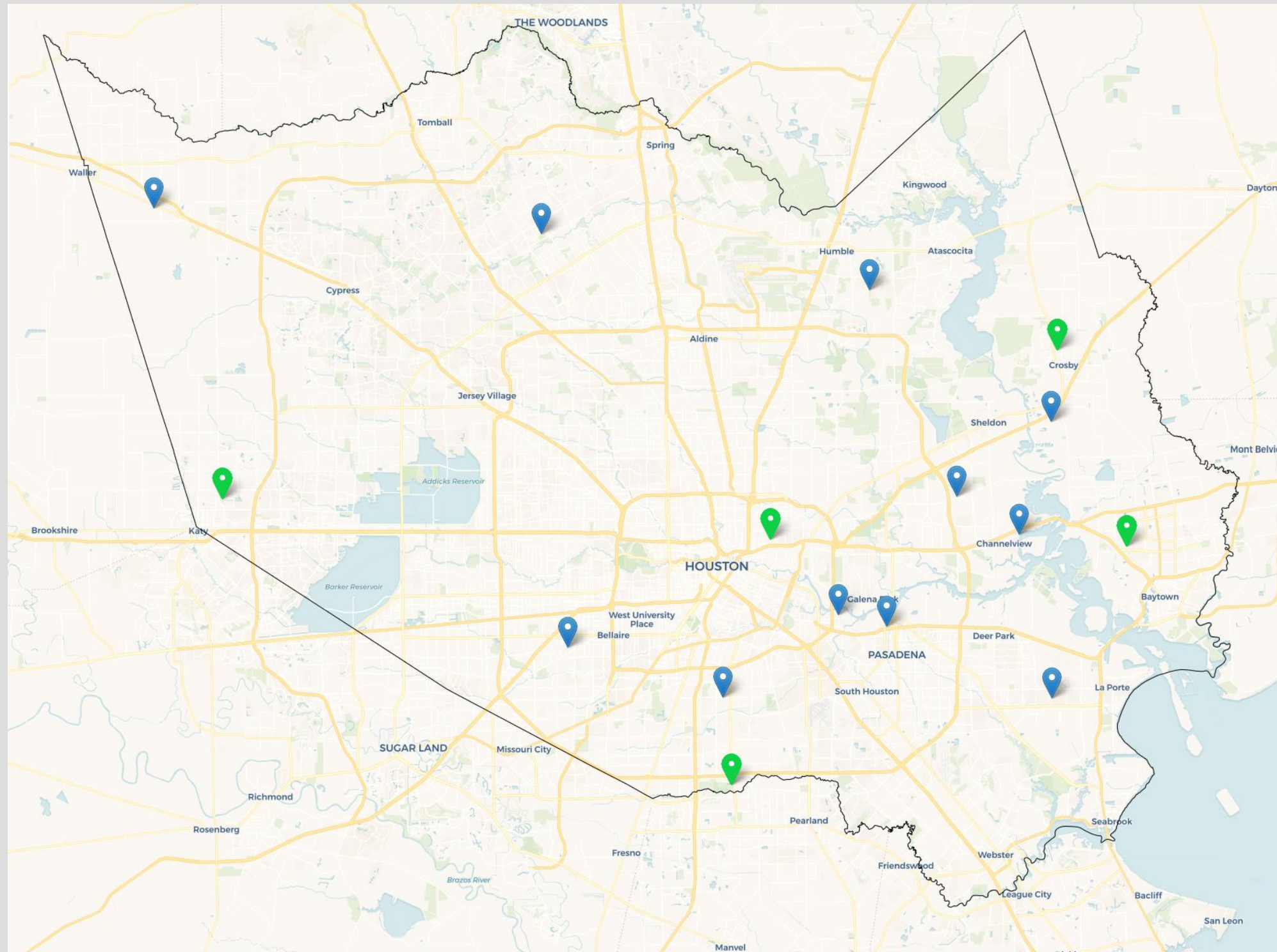
Mounted to existing utility structure in Lindsay Lyons Park

Canisters

High VOC readings trigger canister samples for laboratory analysis.



CAMP Monitoring Locations

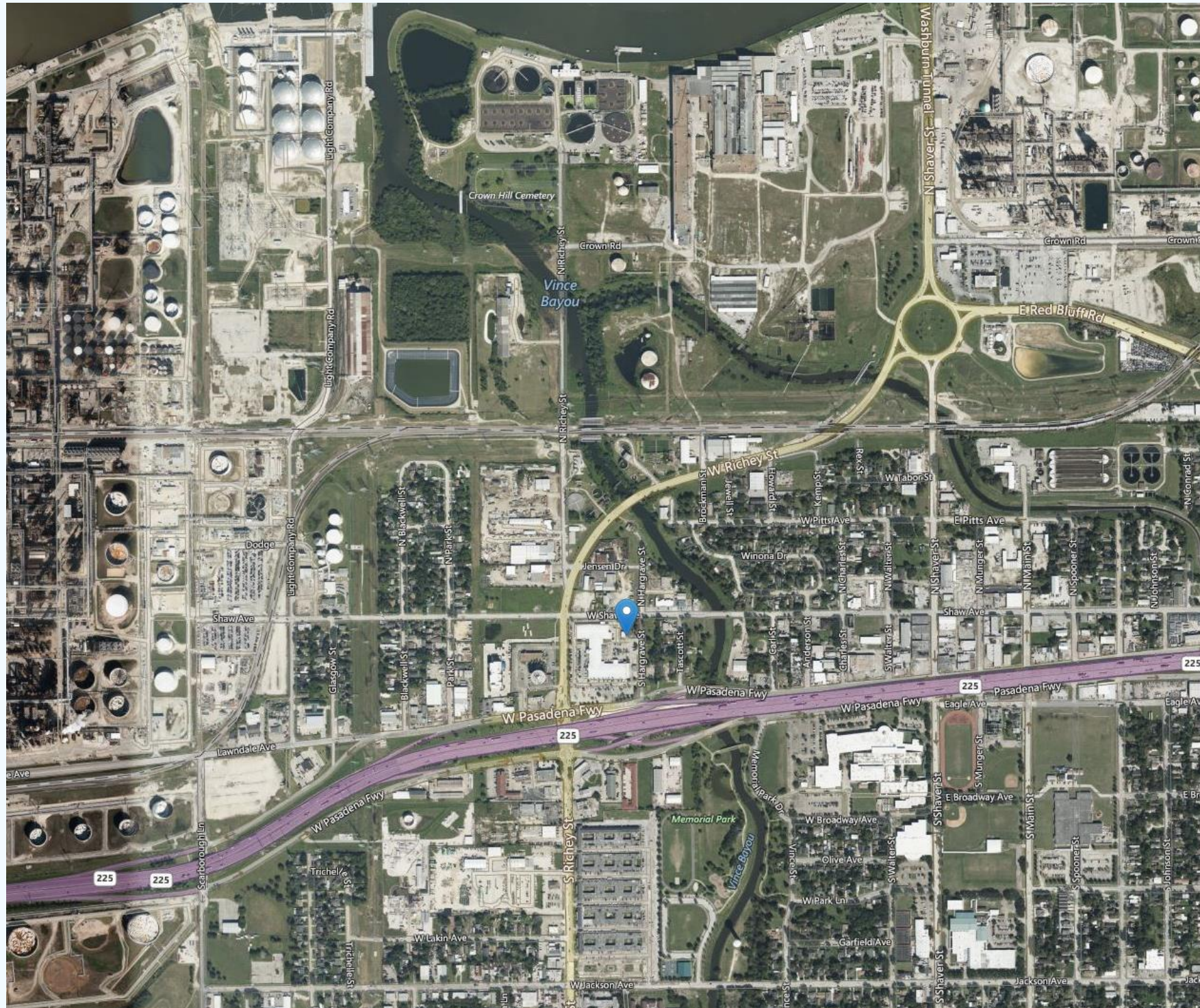


Current CAMP monitoring locations



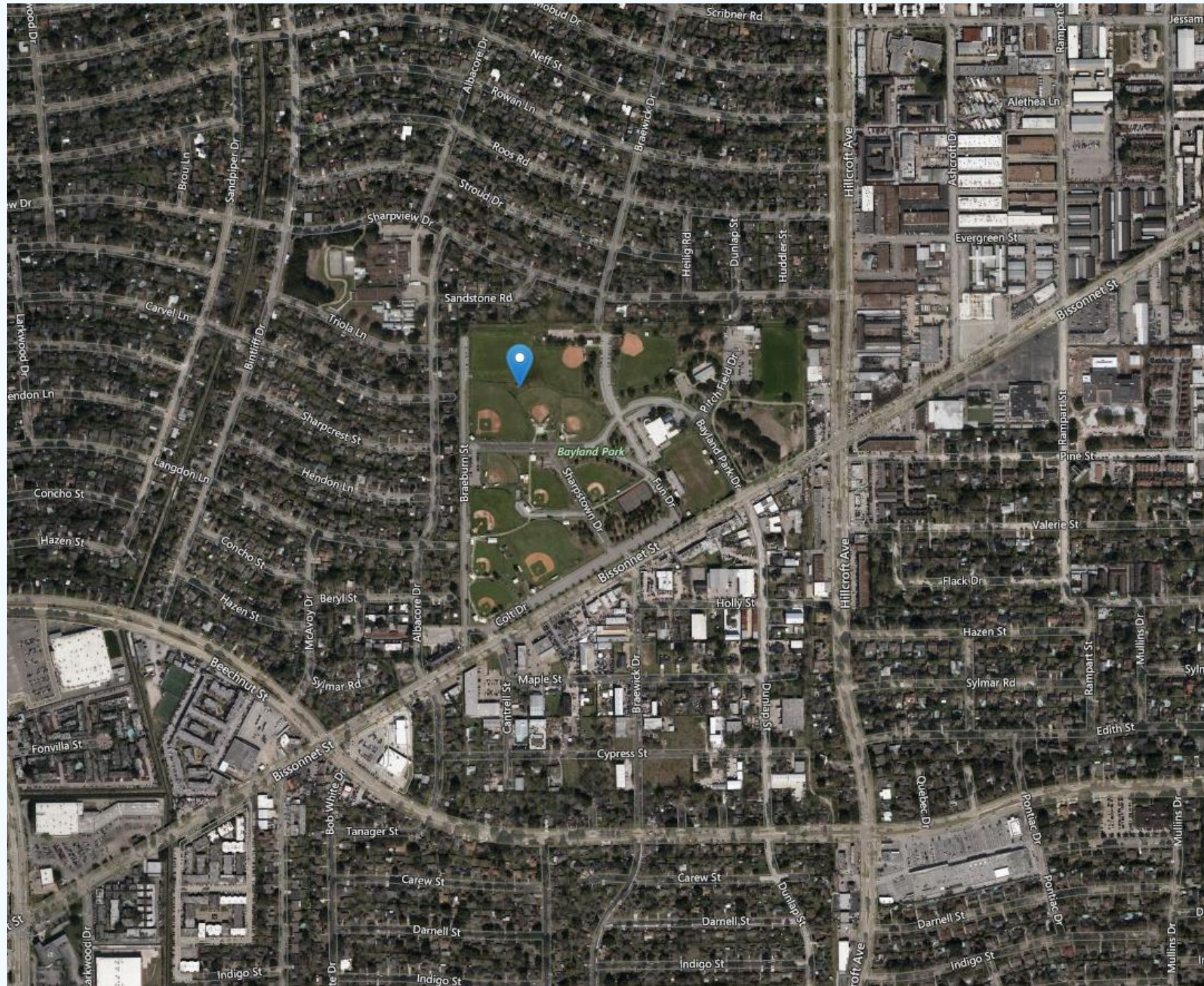
Planned CAMP monitoring locations
Q1 2022

John Phelps Courthouse



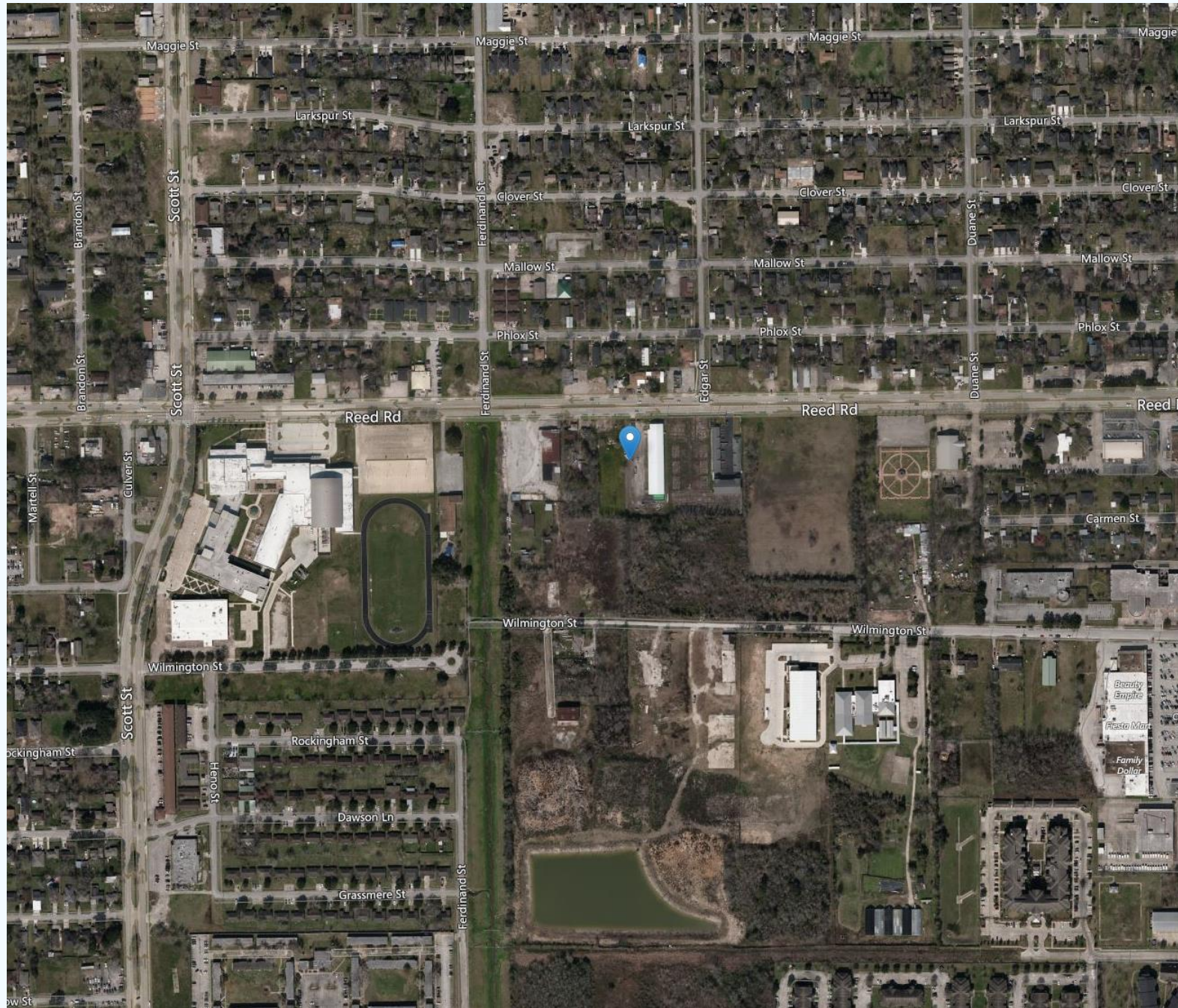
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Bayland Park

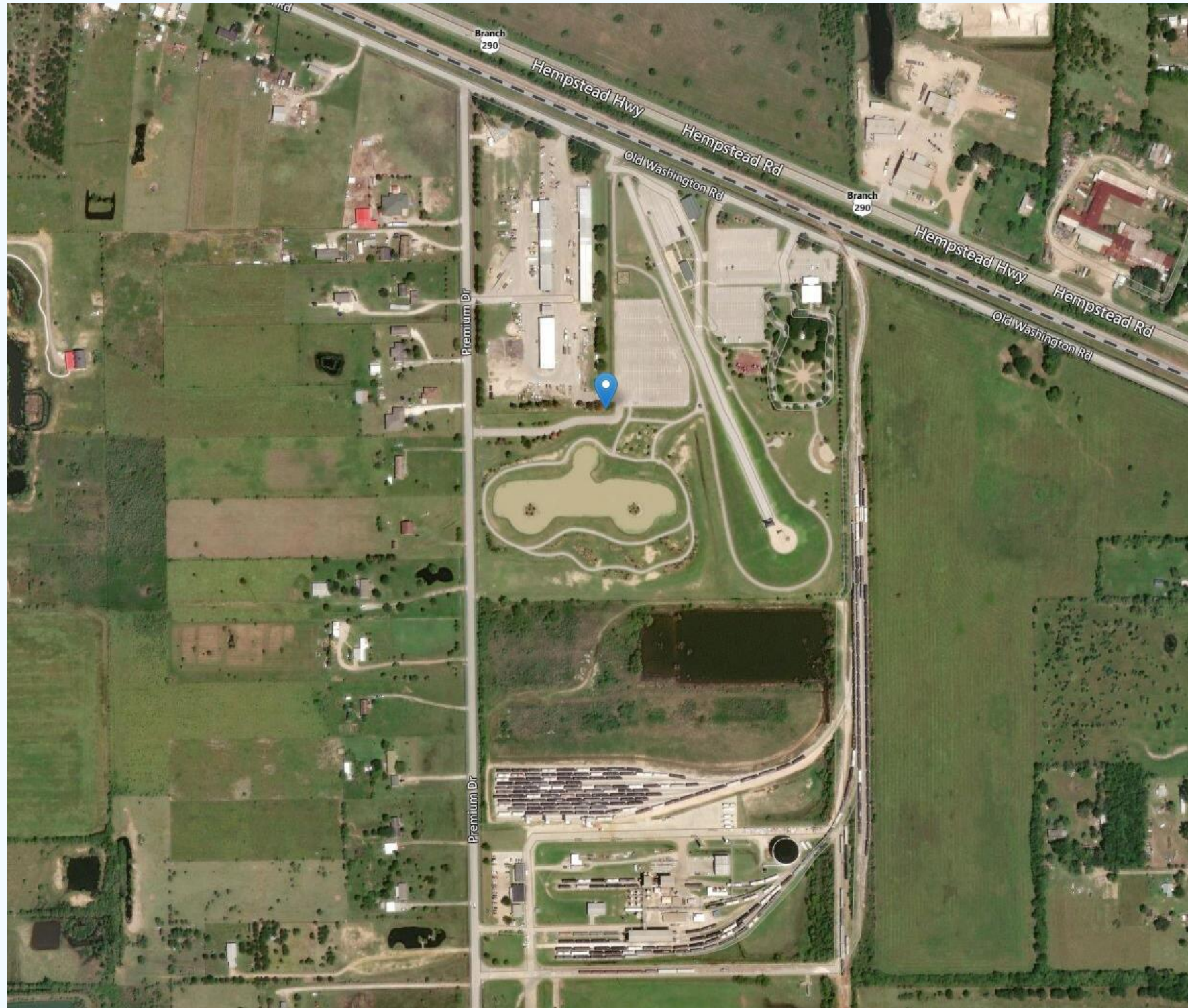


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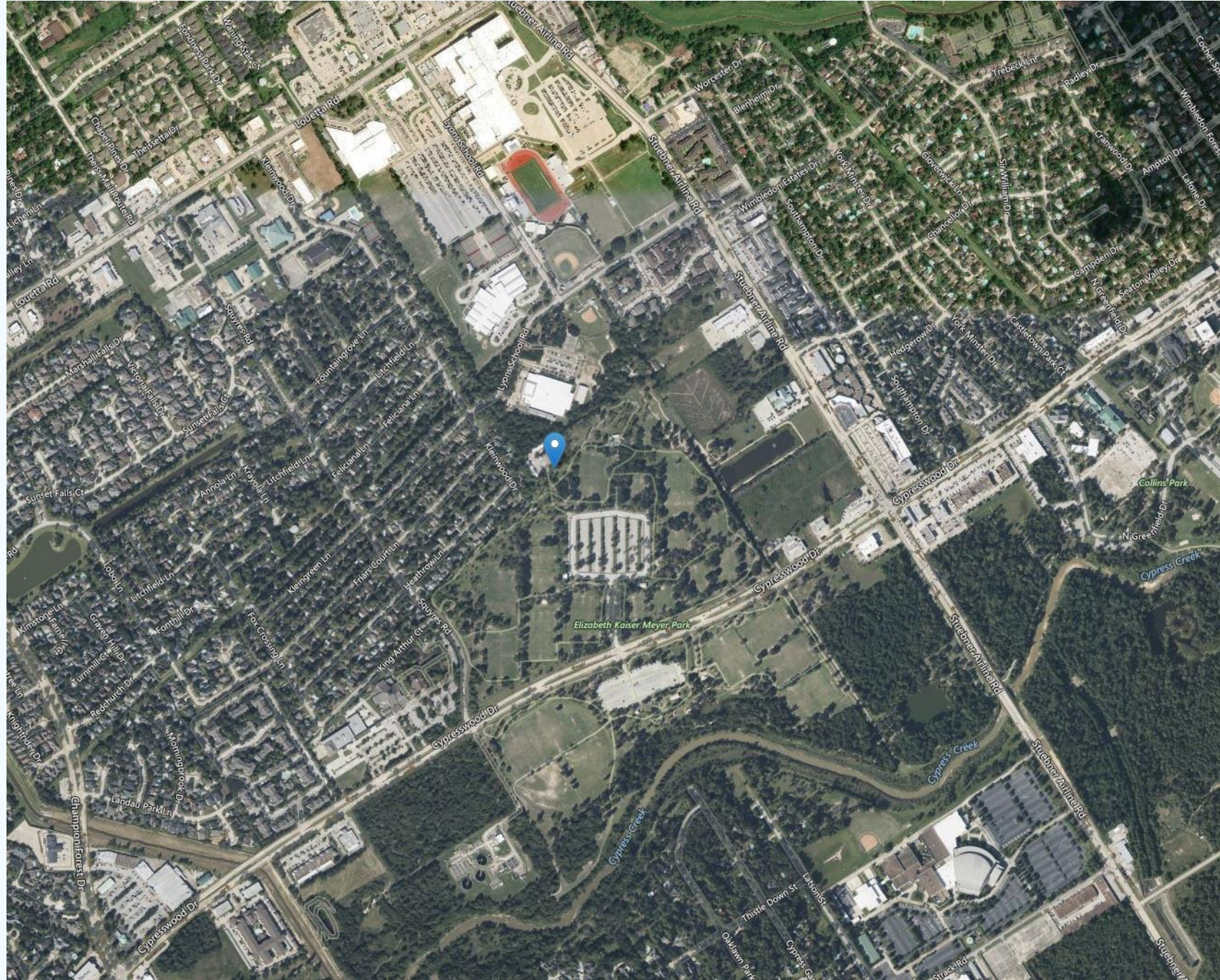
Reed Road



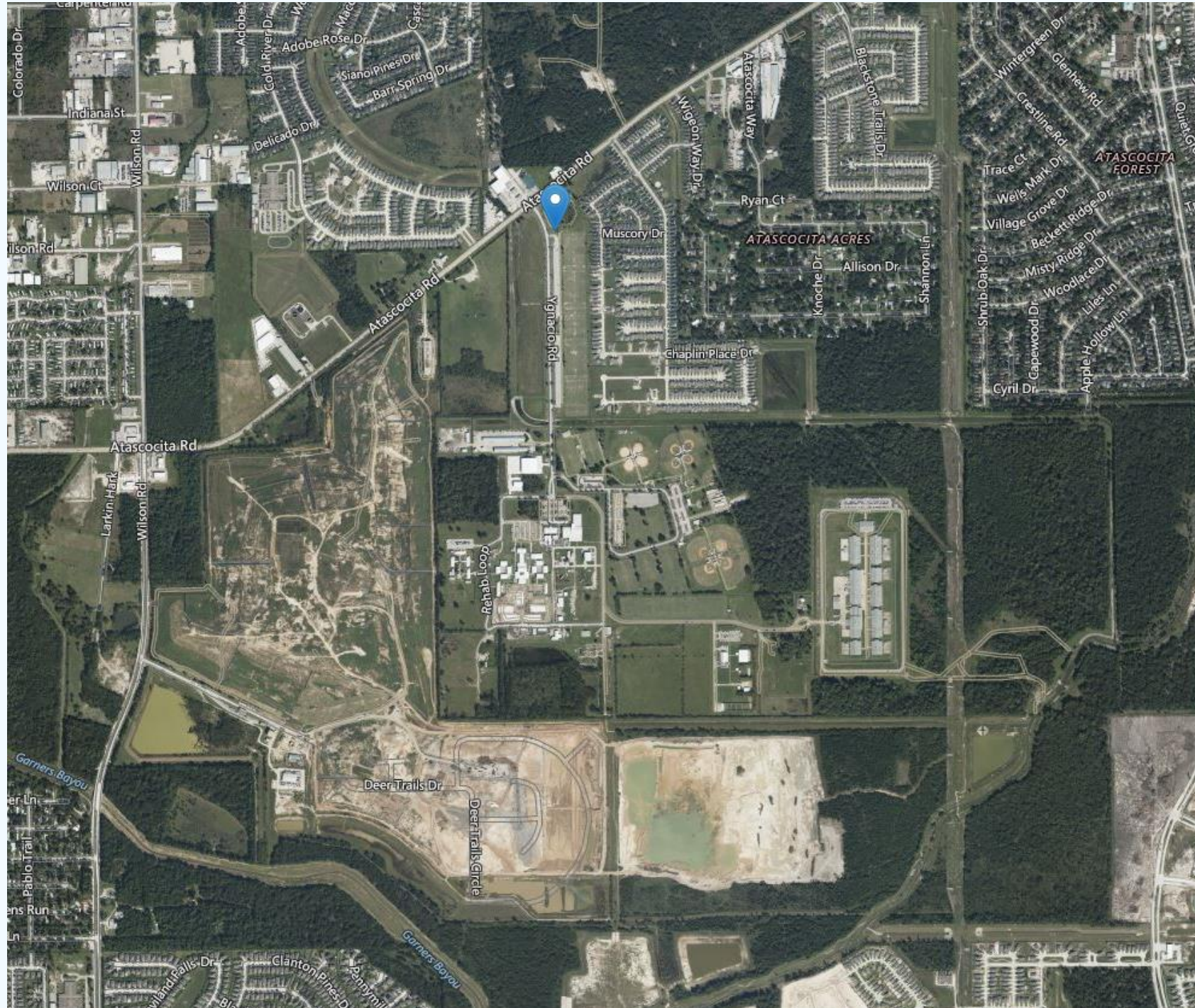
Hockley Park



Meyer Park



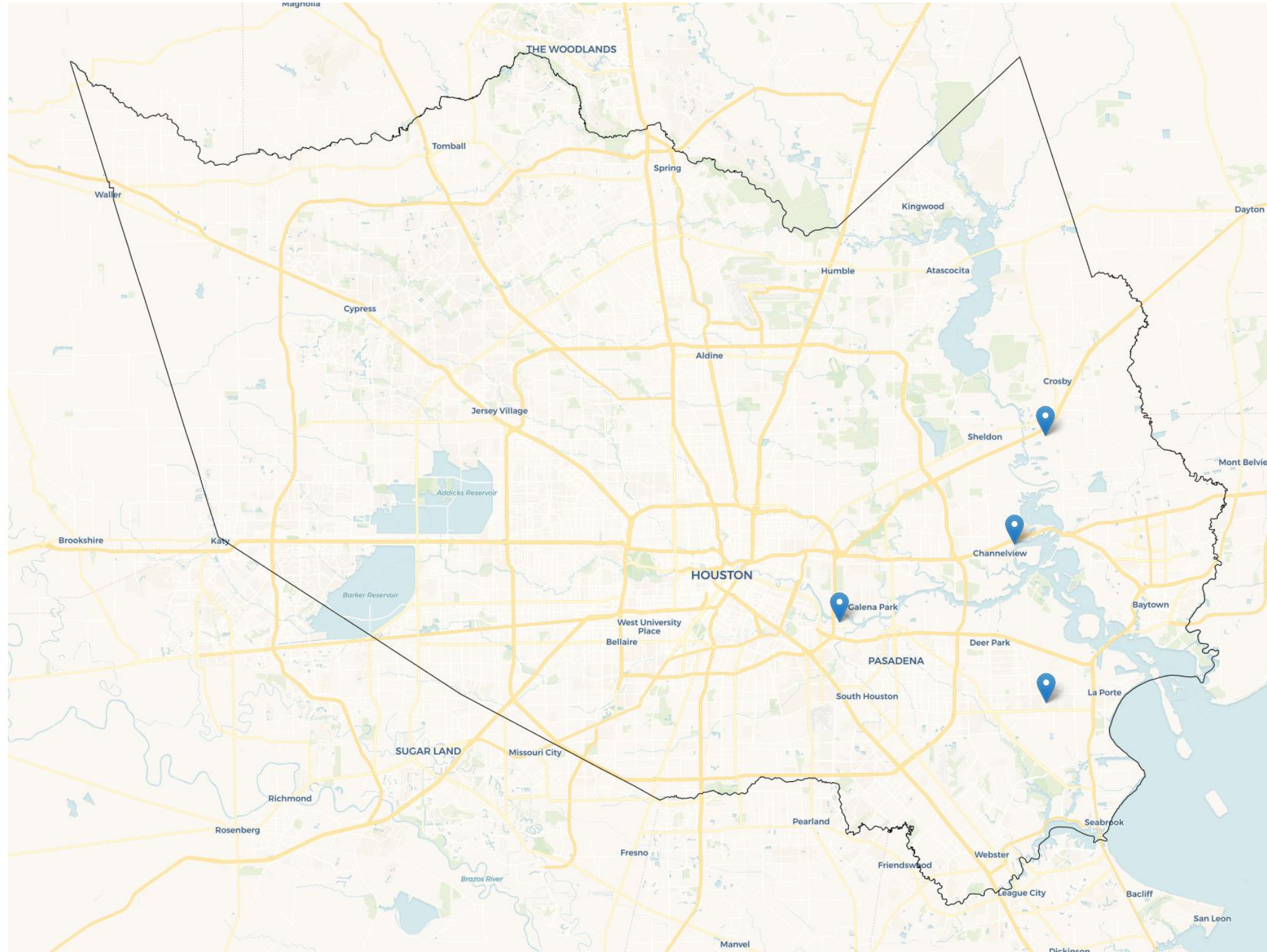
Lindsay Lyons Park



North Channel Library

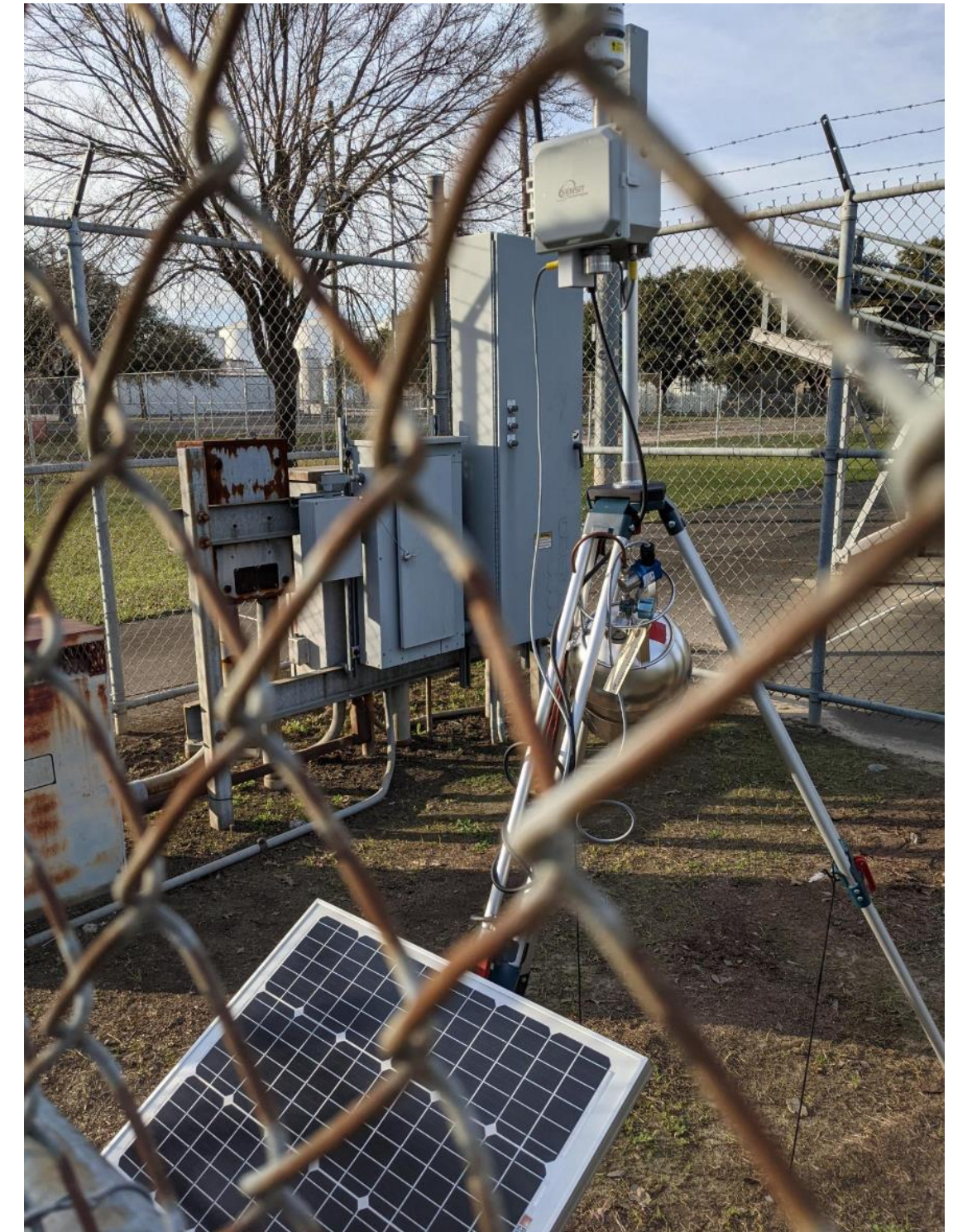
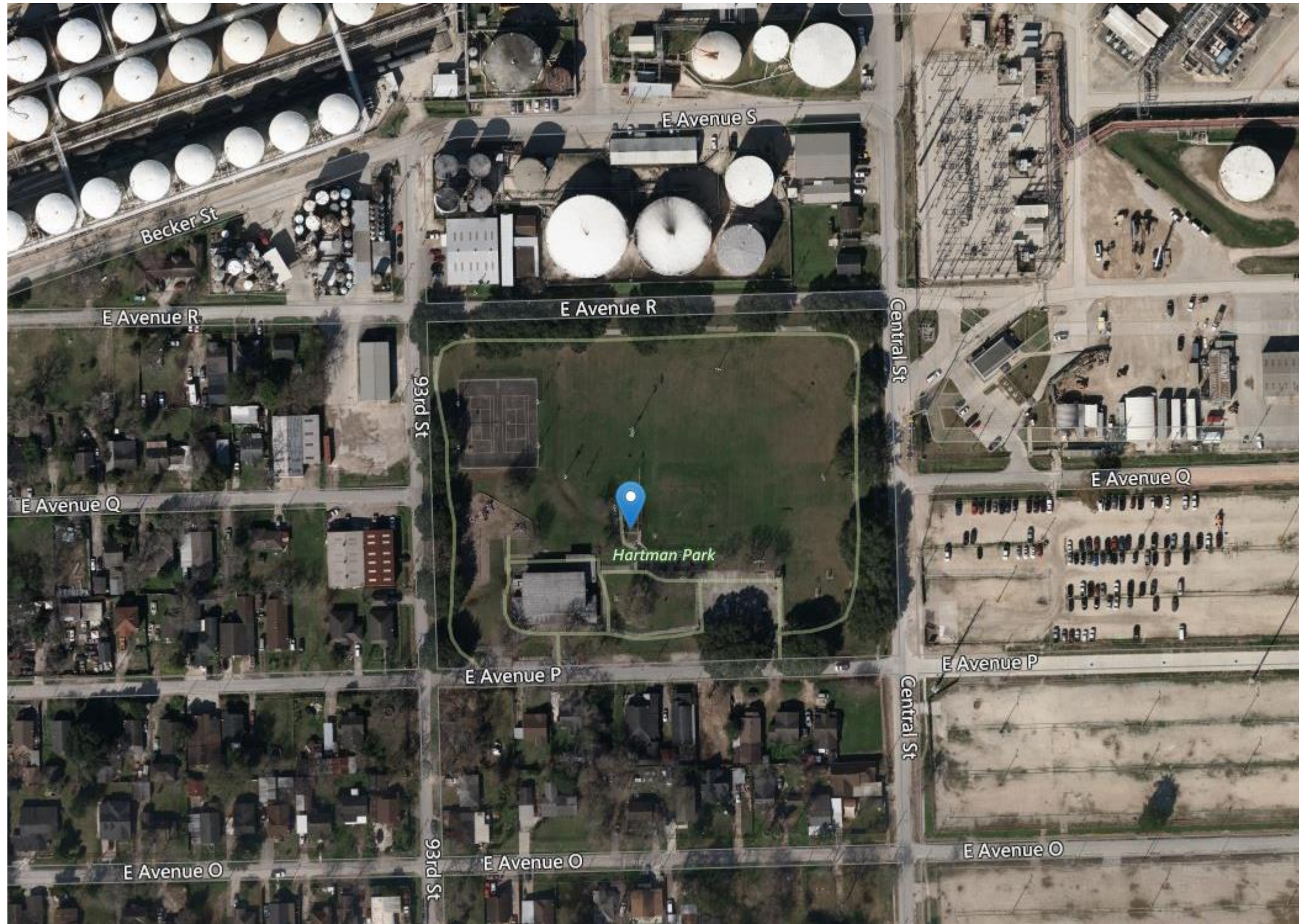


ACC Grant Funded Locations



- ❖ City of La Porte Fairmont Park
- ❖ City of Houston Hartman Park and Community Center
- ❖ River Terrace Park
- ❖ Riley Chambers Park

Hartman Park



Fairmont Park

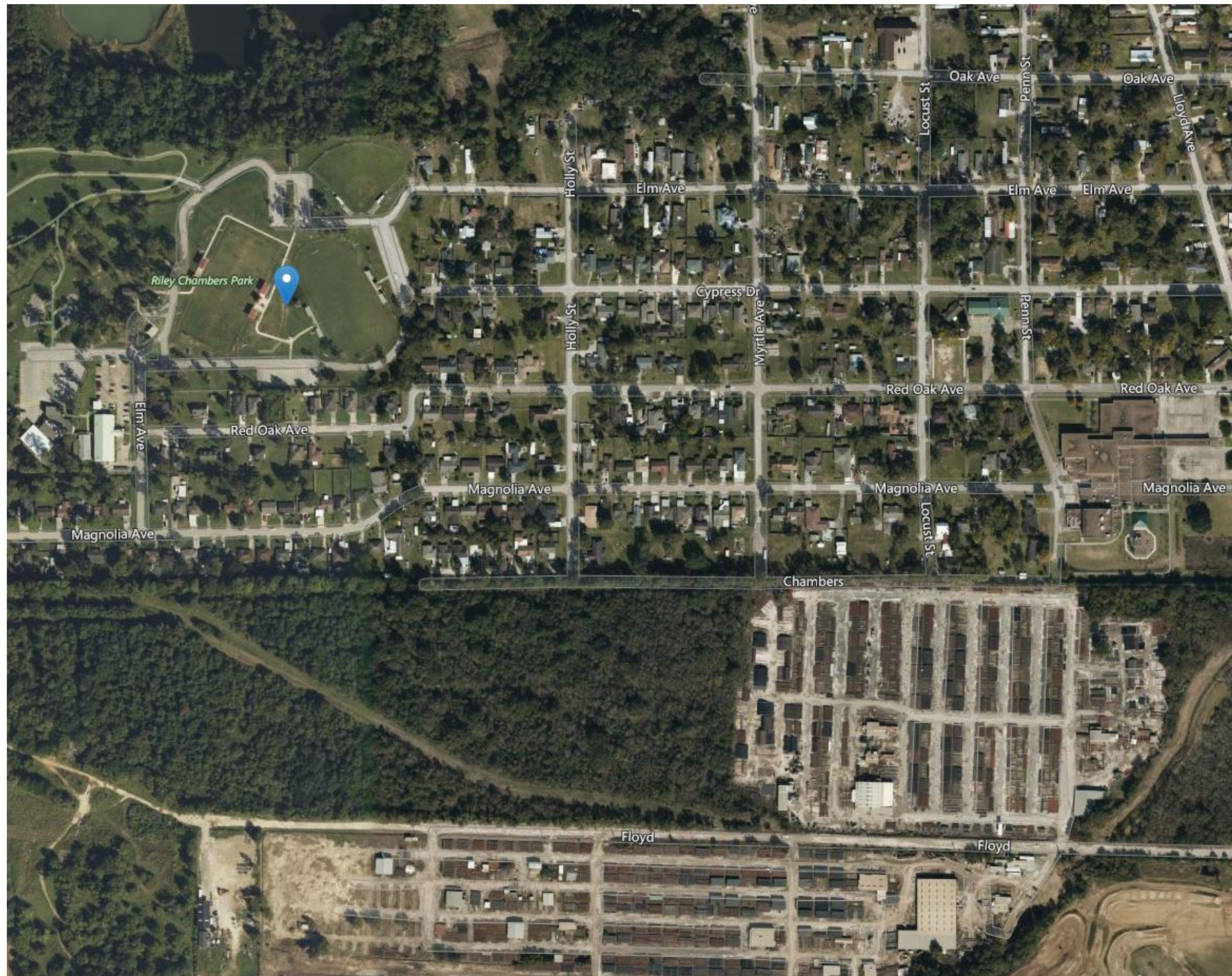



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River Terrace Park




Riley Chambers Park





Pollution Control Services Department

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Community Air Monitoring Program

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- Measure pollution levels that affect public and environmental health across Harris County.
- Identify emission sources that adversely impact local communities.
- Inform the public and elected officials on priorities related to clean air and environmental sustainability.
- Highlight patterns and trends that may support environmental regulatory activities.

[Click Here To Access The CAMP Dashboard](#)

[Click Here To Access The Houston Regional Monitoring \(HRM\) Dashboard](#)

Data courtesy of Houston Regional Monitoring

[Click Here To Access The CAMP and Houston Regional Monitoring \(HRM\) Locations](#)



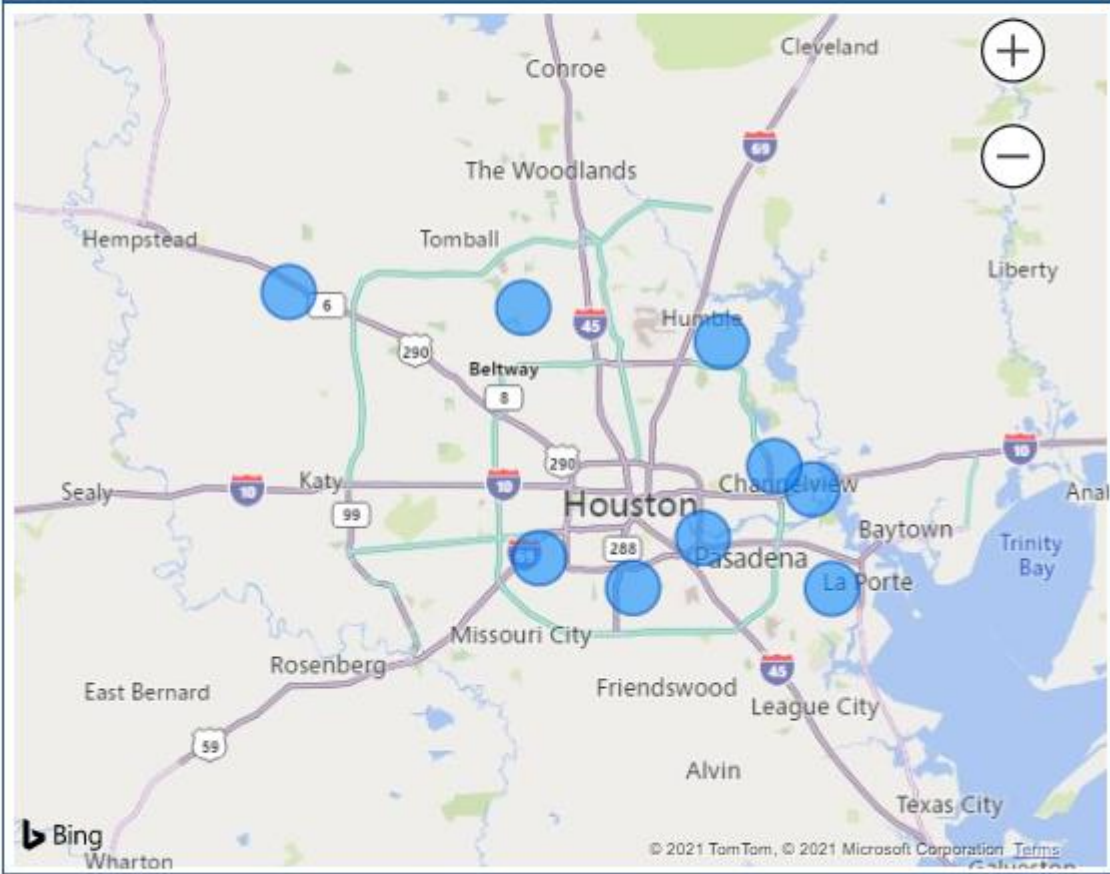
CAMP Dashboard



CAMP Monitoring Dashboard

Select A Location:

All Sites Average Value



VOC (ppb) Updated 09/17/2021 11:59 AM

39.16

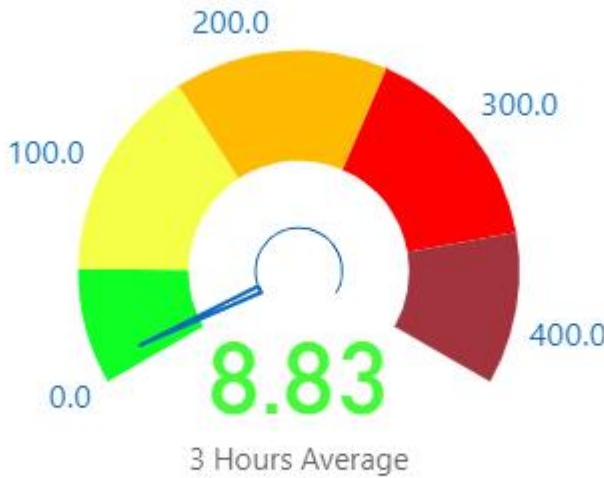
Background Value*

8.56

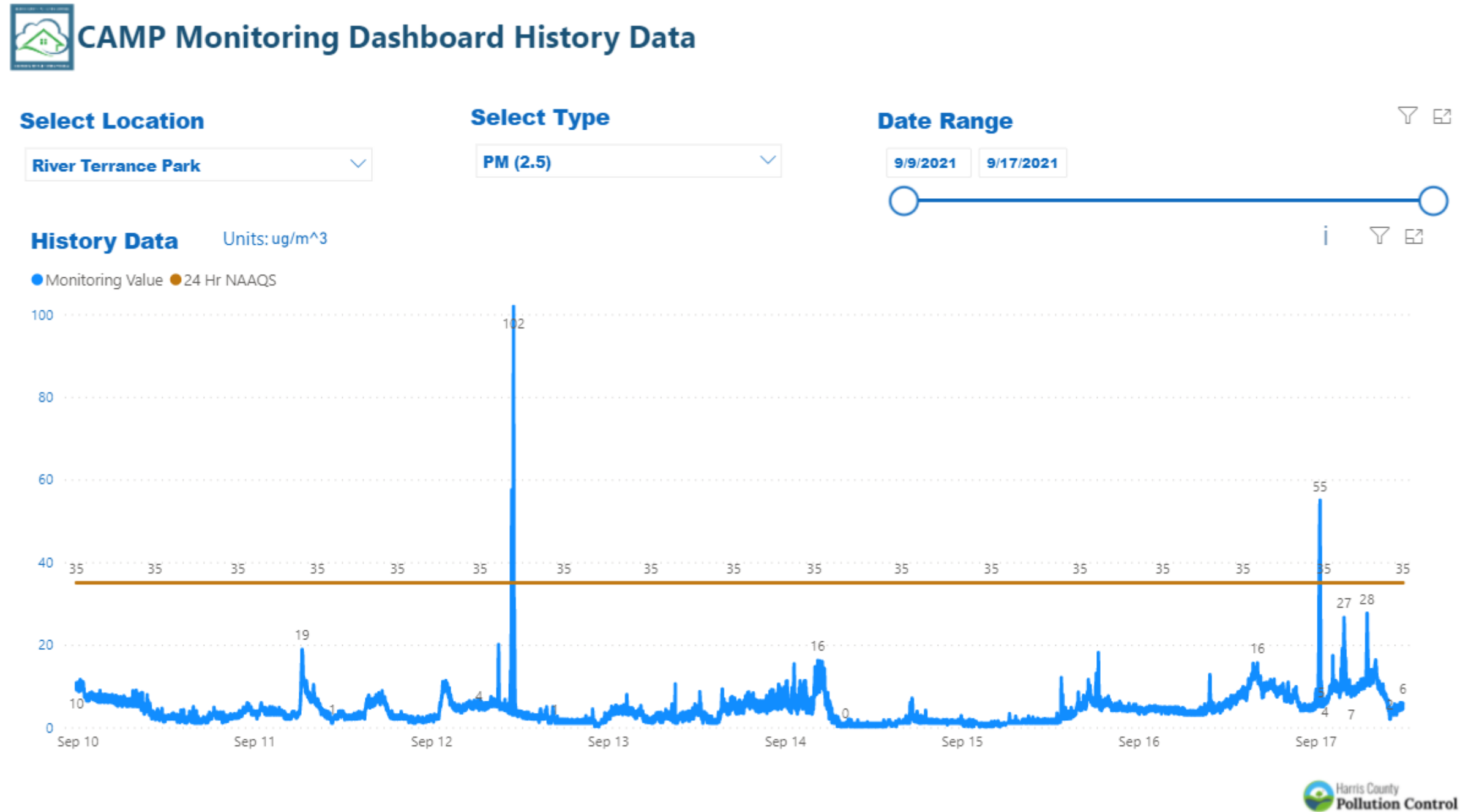
3 Hours Average

* Yearly average value for each CAMP monitor site

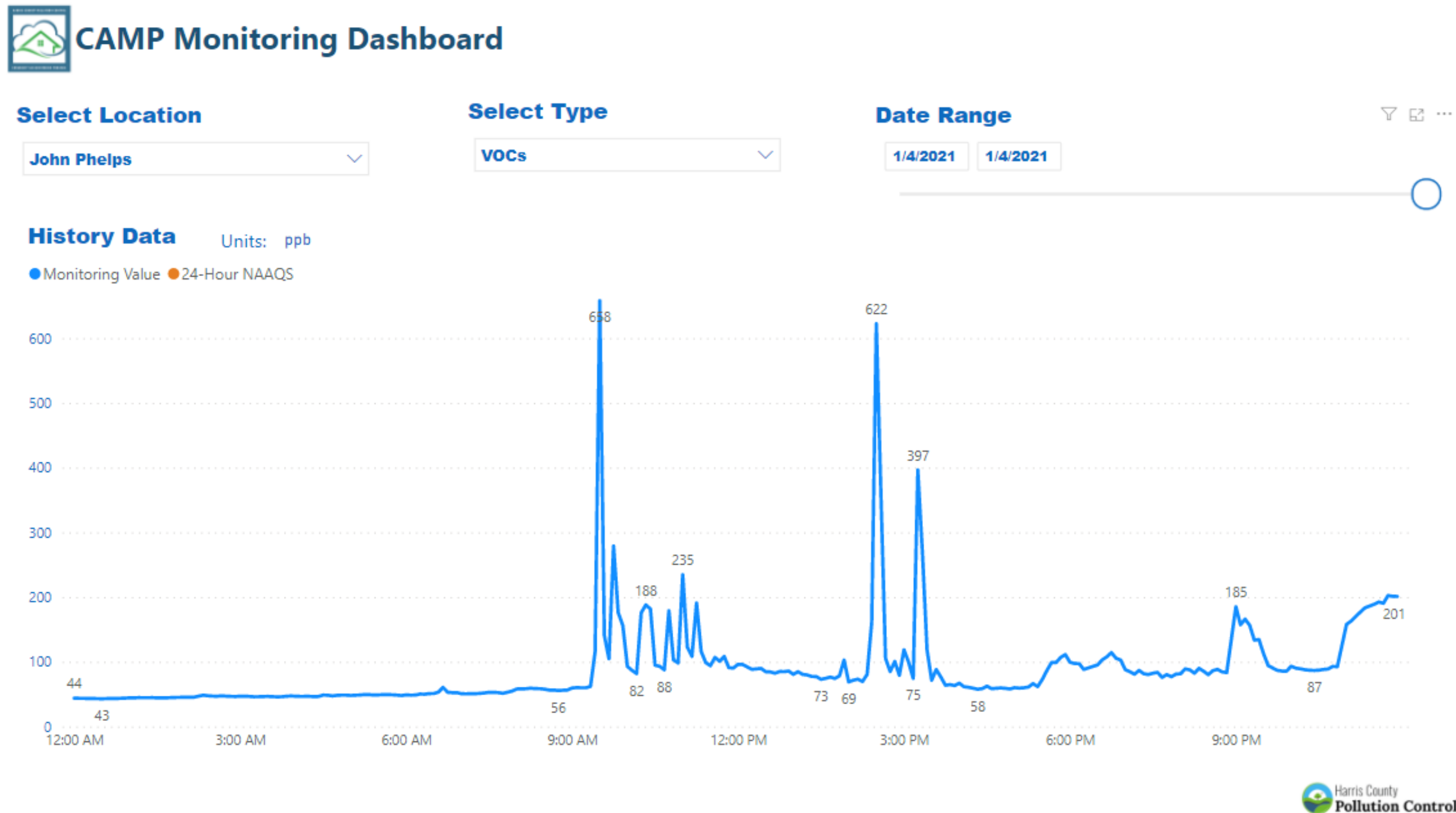
PM (ug/m³) Updated 09/17/2021 11:59 AM



Sensor Data



Sensor Data



Sensor Data



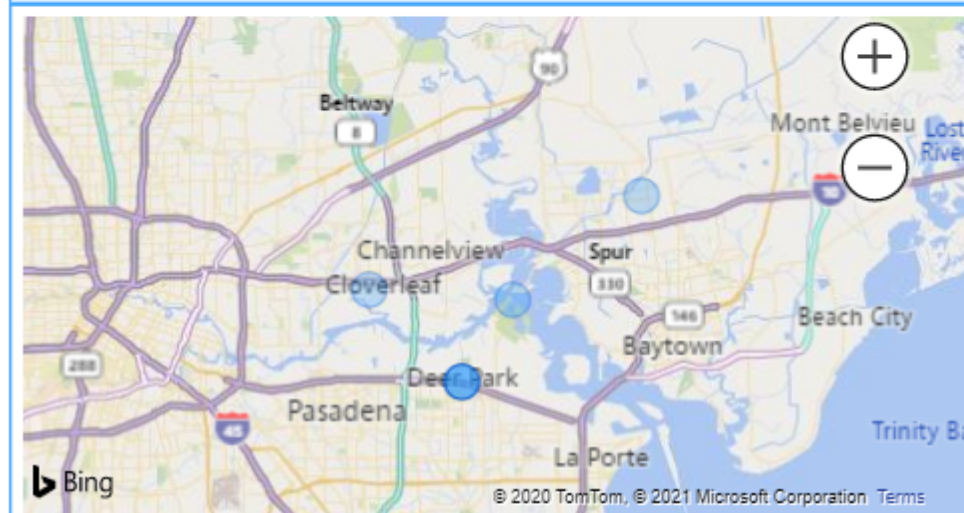
HRM Monitoring Dashboard

1/5/2021

Data provided courtesy of Houston Regional Monitoring

Select Location From Map

Deer Park North



Select Date Range

12/1/2020 1/5/2021

Choose Chemical

Benzene

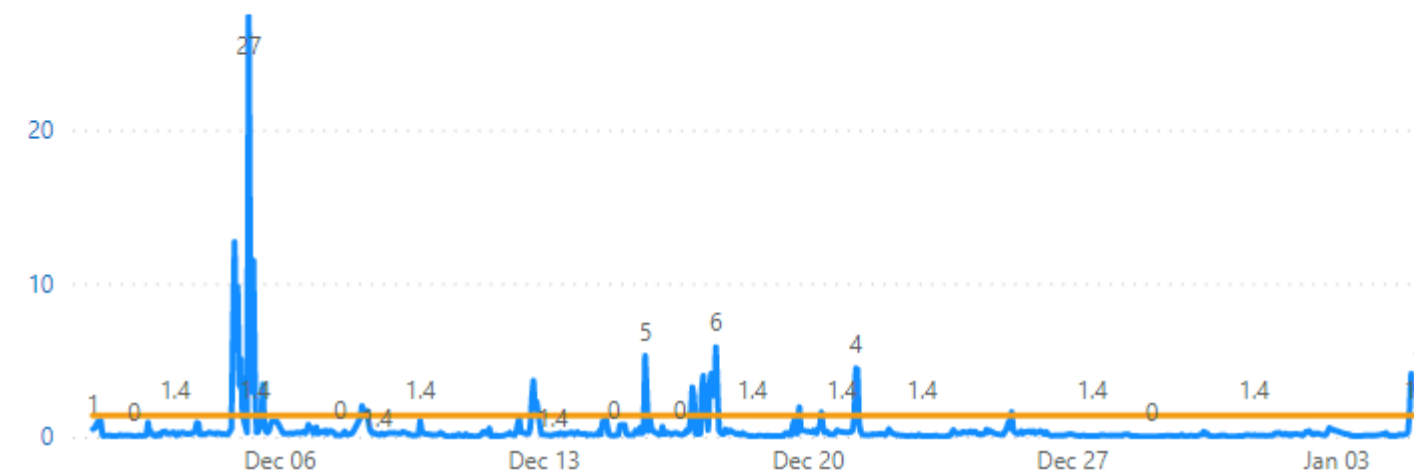
Latest Value

4.03

ppb

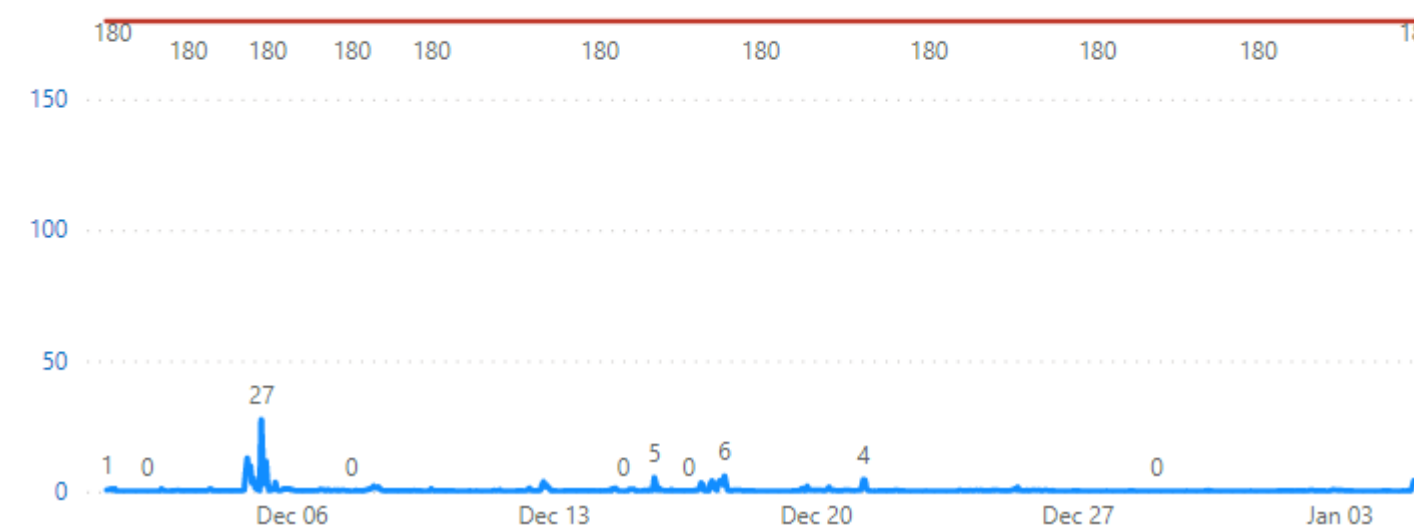
History Value VS Long Term AMCV (Annual)

Monitoring Value Long-Term AMCV (Annual)

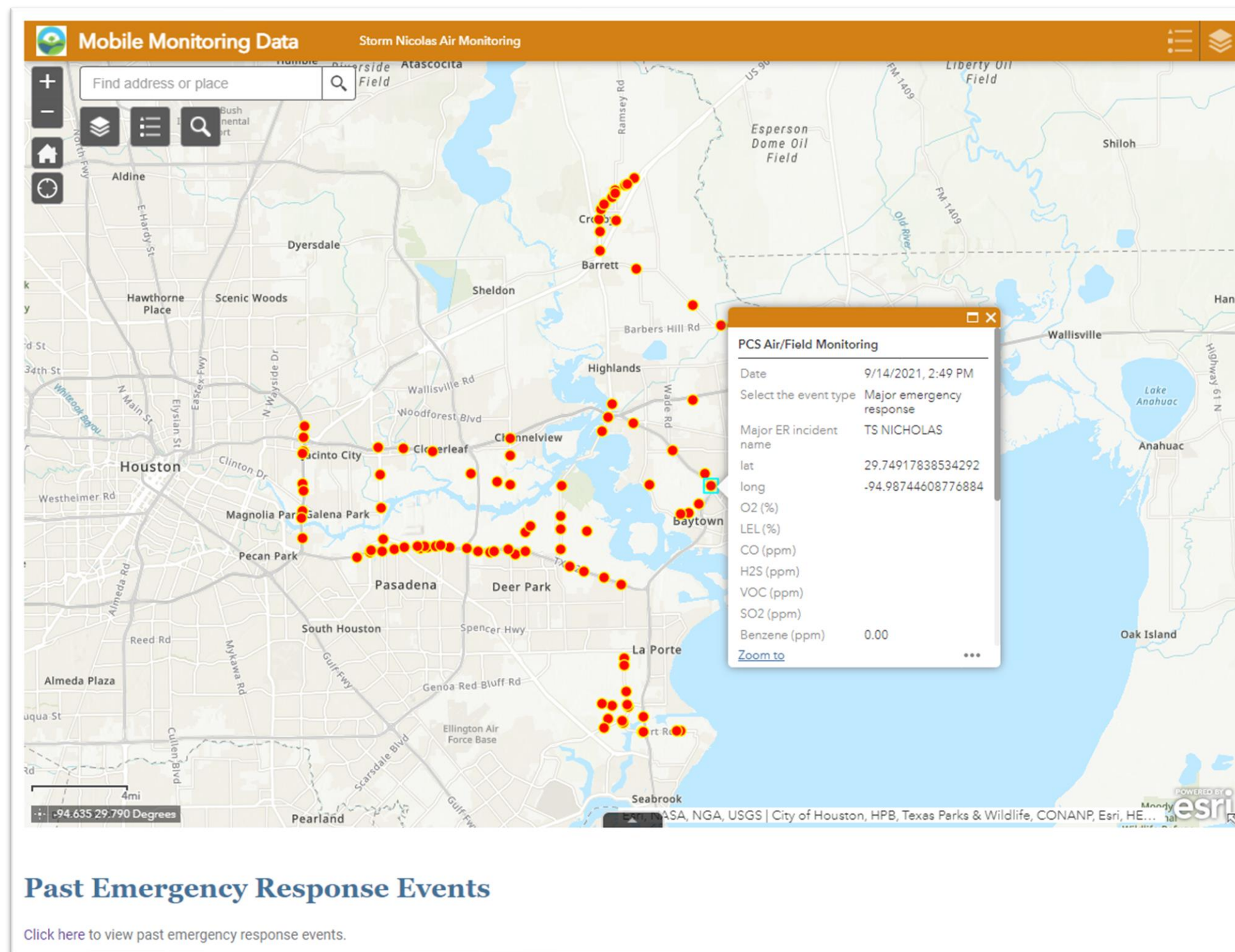


History Value VS Short Term AMCV (1 hour)

Monitor Value Short-Term AMCV (1-Hour)

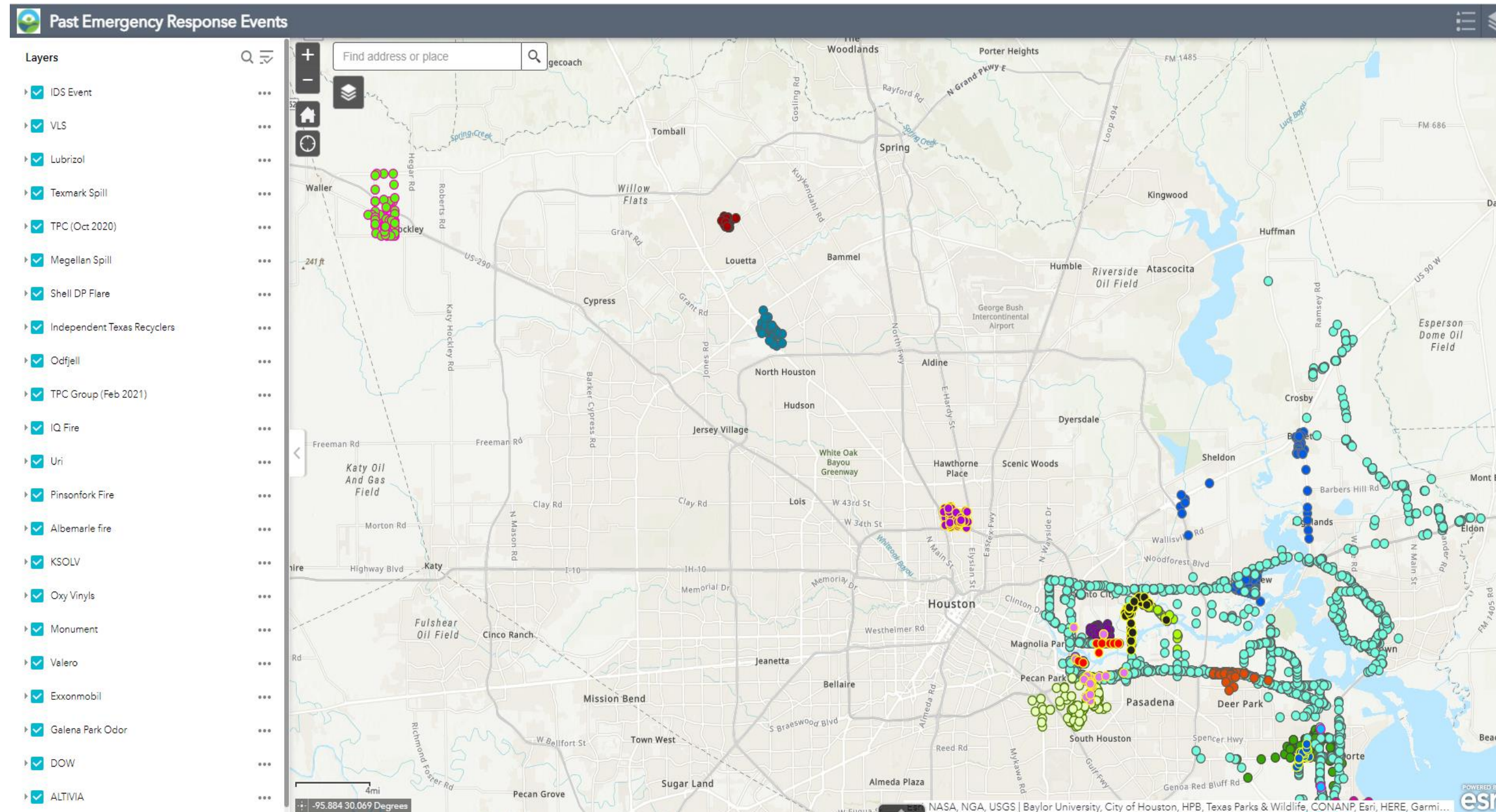


CAMP Mobile Monitoring



- PCS Emergency Response Section collects mobile air monitoring data.
- The data is published in near-real time on the PCS webpage

Past Emergency Response Event Monitoring



- Filter by event on the left
- Click on dots to view data

Handheld and Portable Mobile Monitoring



Cerex UV Hound

- Rapid identification and quantification of 18 compounds including benzene



Rae Systems Multirae

- Hand-held VOC detection



Flir Griffin G510 GC-Mass Spec

- Rapid identification of thousands of compounds



Dräger X-pid

- Rapid identification and quantification of 19 compounds including benzene, 1,3-butadiene, and ethylene oxide

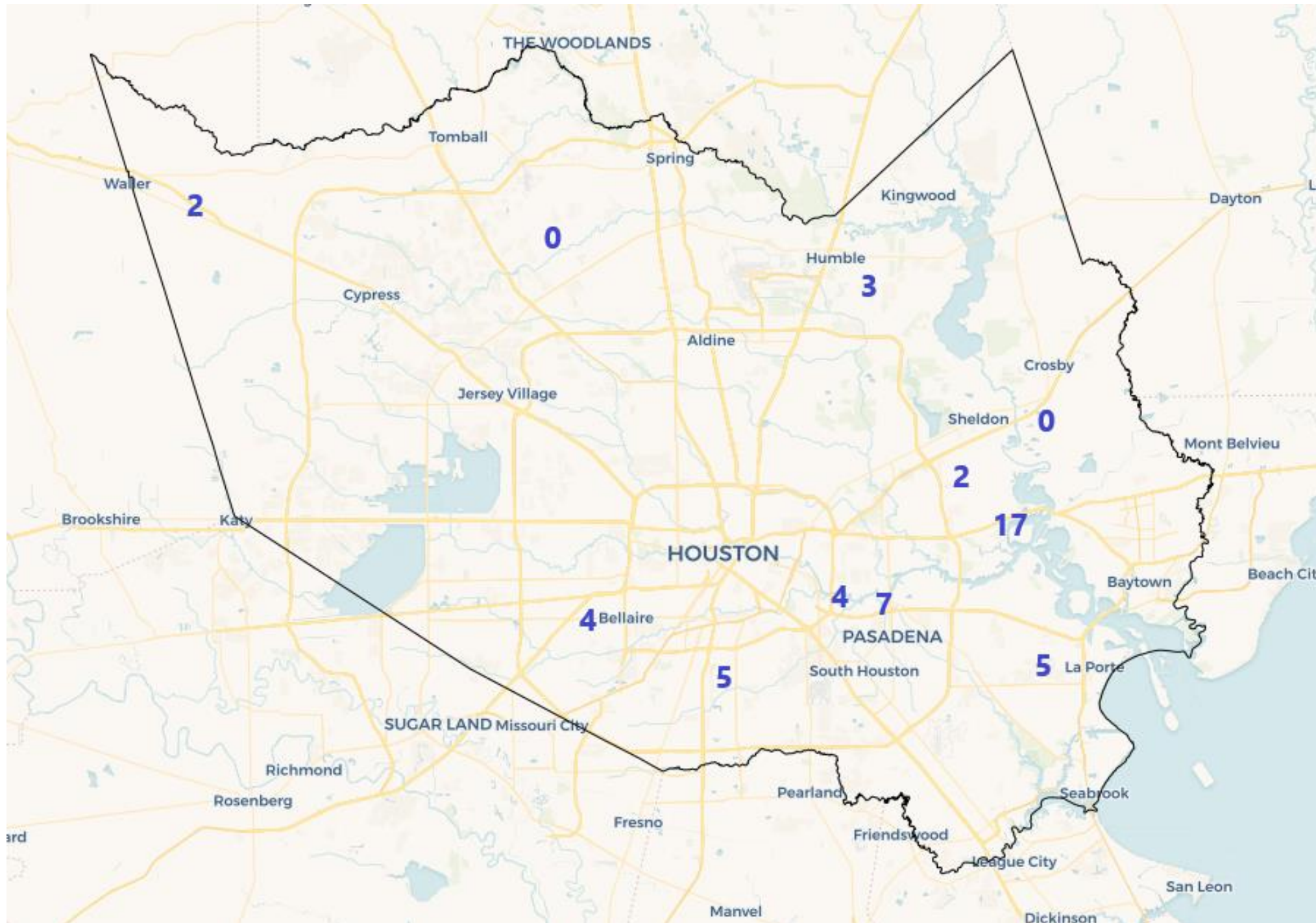
Rapid Ambient Air Monitoring Vehicle



RAAM

- Entanglement AROMA
- FLIR Griffin
- Cerex UV Hound
- PM monitor

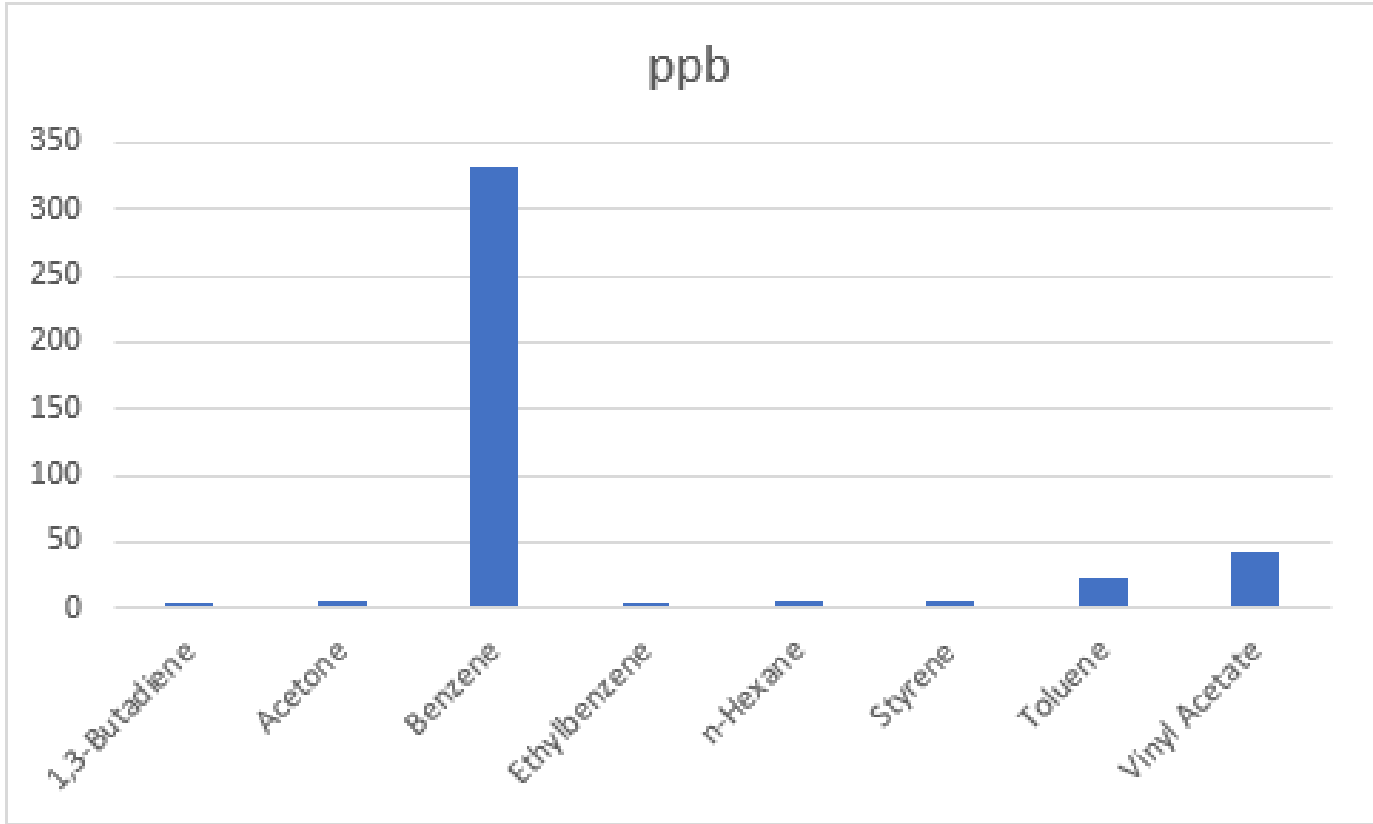
CAMP Canister Samples



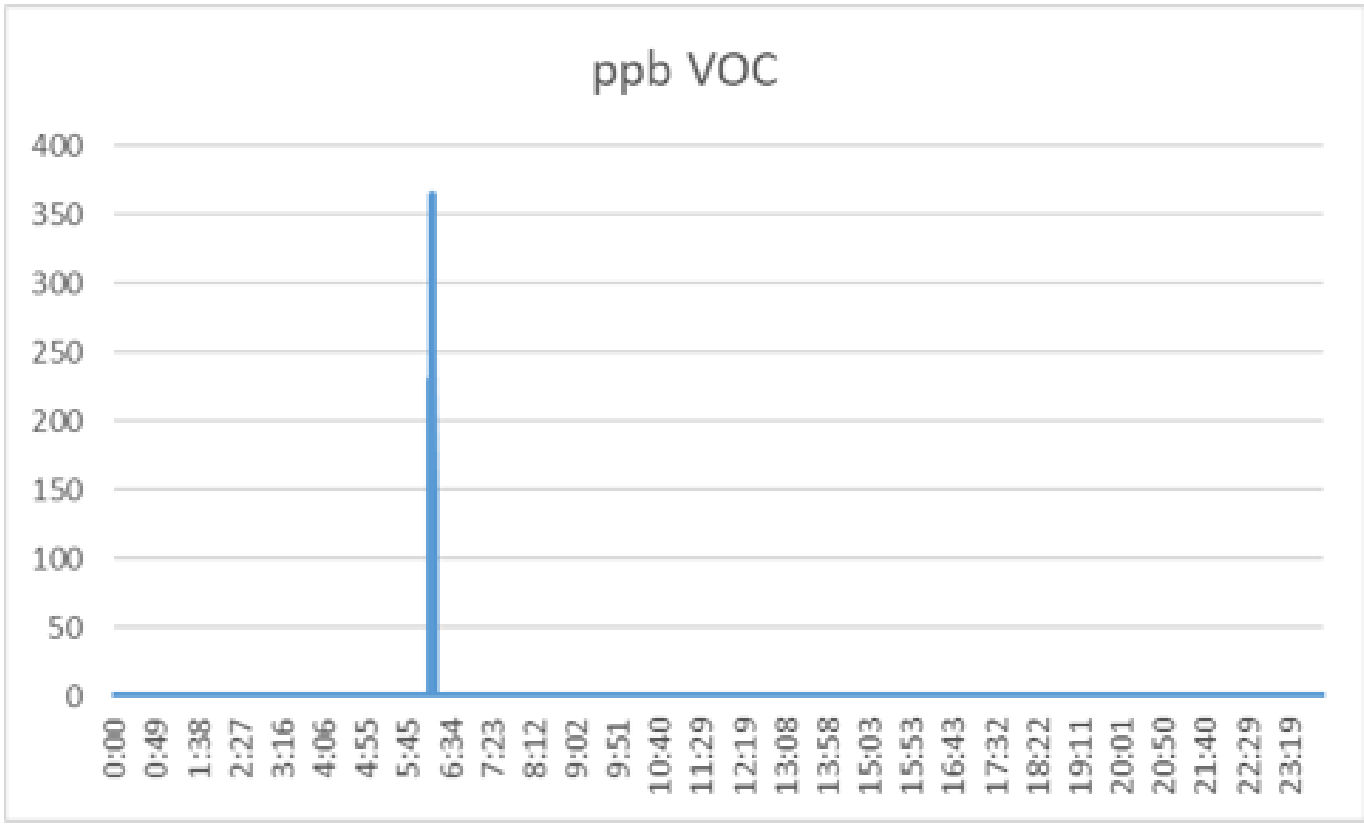
- 49 canister samples collected since August 2020
- 40 second grab sample
- Triggered at 250 to 300 ppb (isobutylene)
- Typical sampling events occur during short duration peaks (<10 minutes) in VOC data
- River Terrace is most active site
- Ethanol and acetone are frequently encountered

CAMP Canister Sample Data

River Terrace Park 9/22/2021 6:14 AM



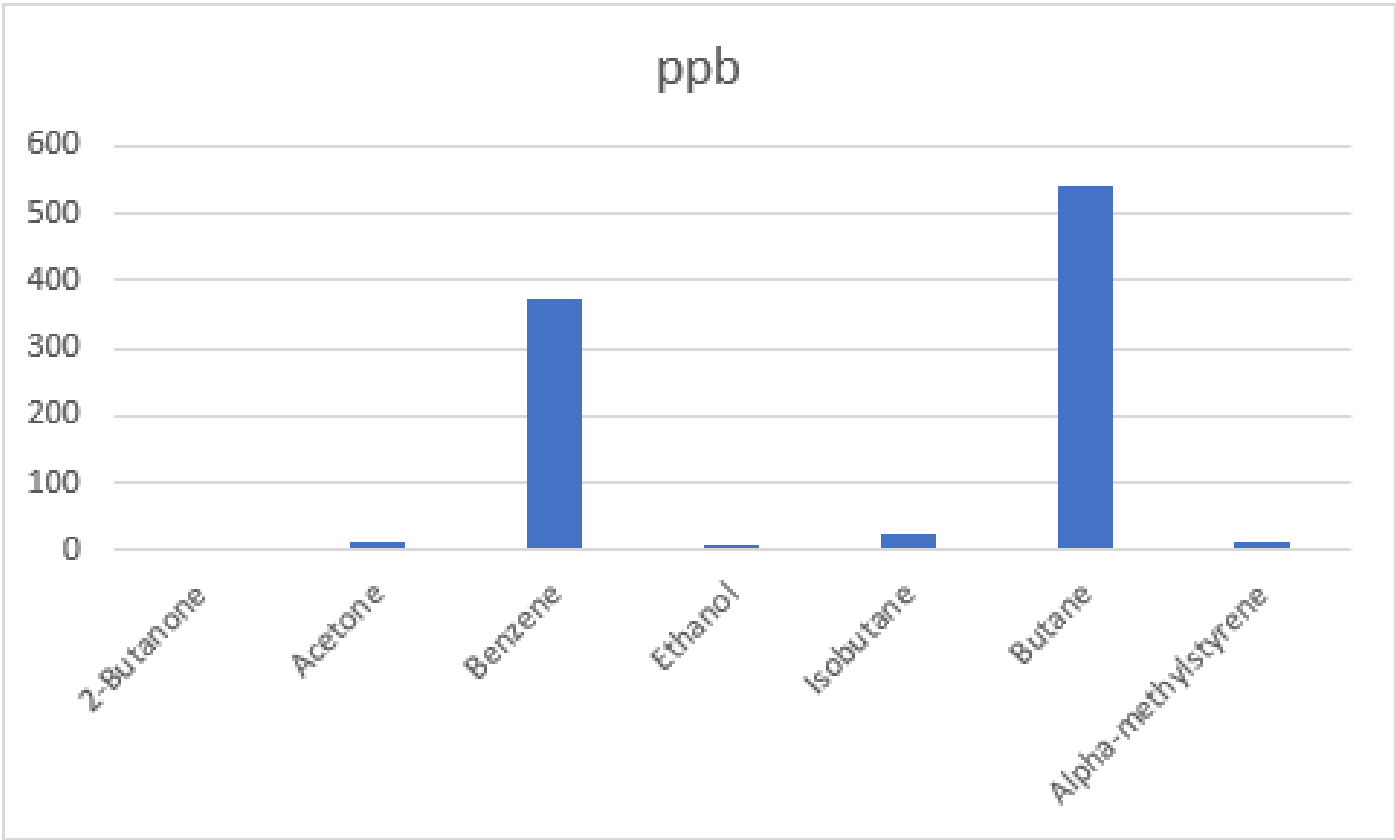
Total Calculated VOC = 421 ppb



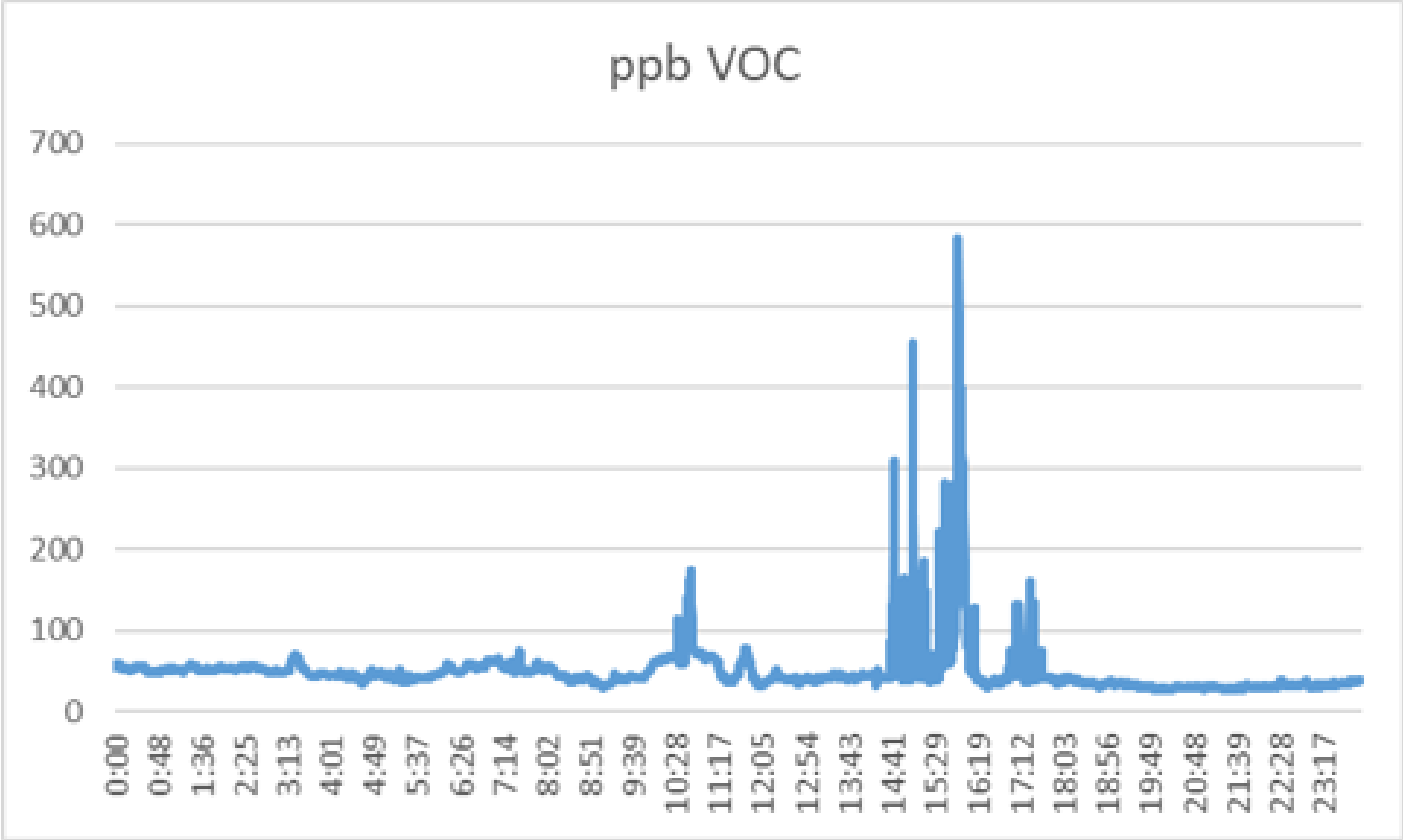
SPOD response. Sample collected at 06:14.

CAMP Canister Sample Data

River Terrace Park 10/1/2021 3:55 PM



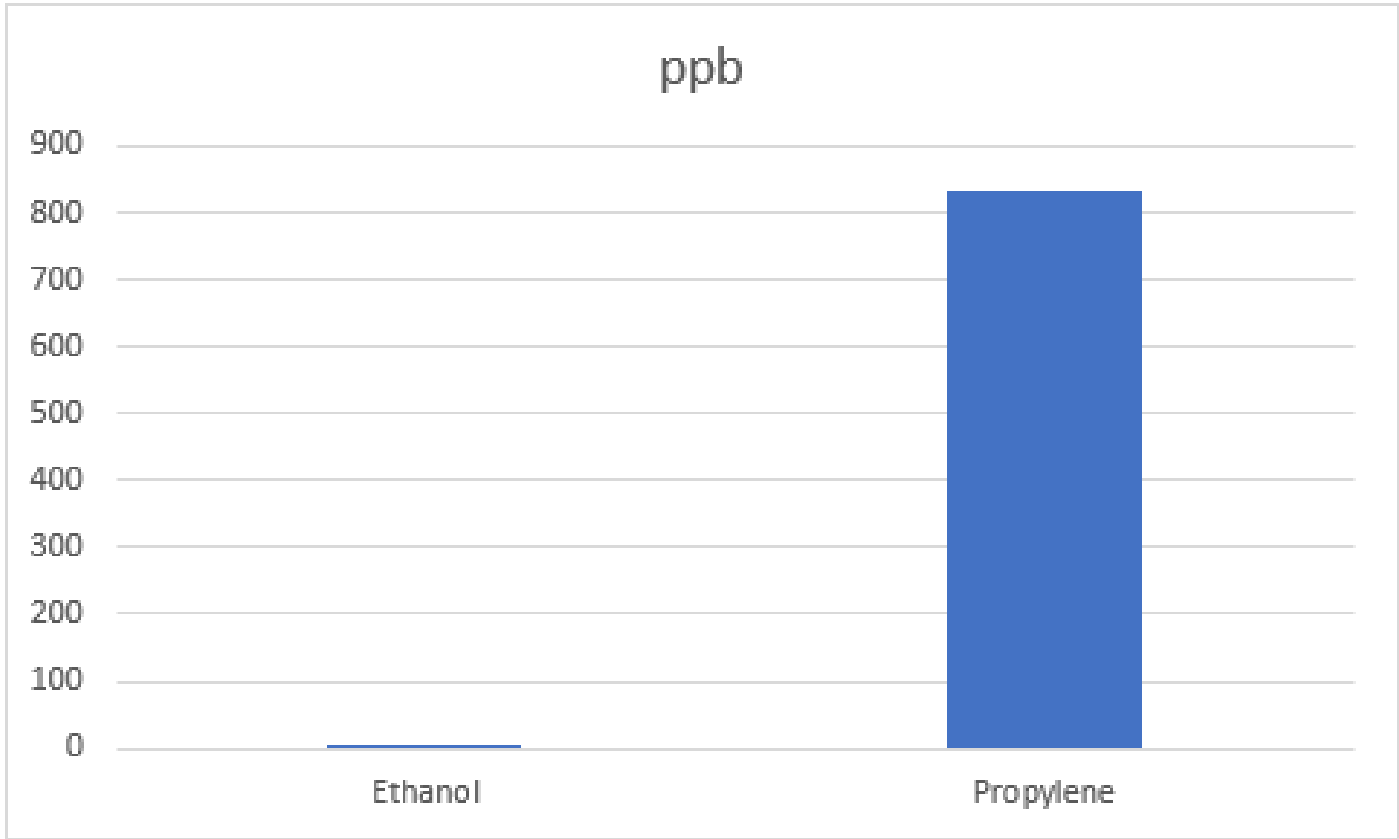
Total Calculated VOC = 976 ppb



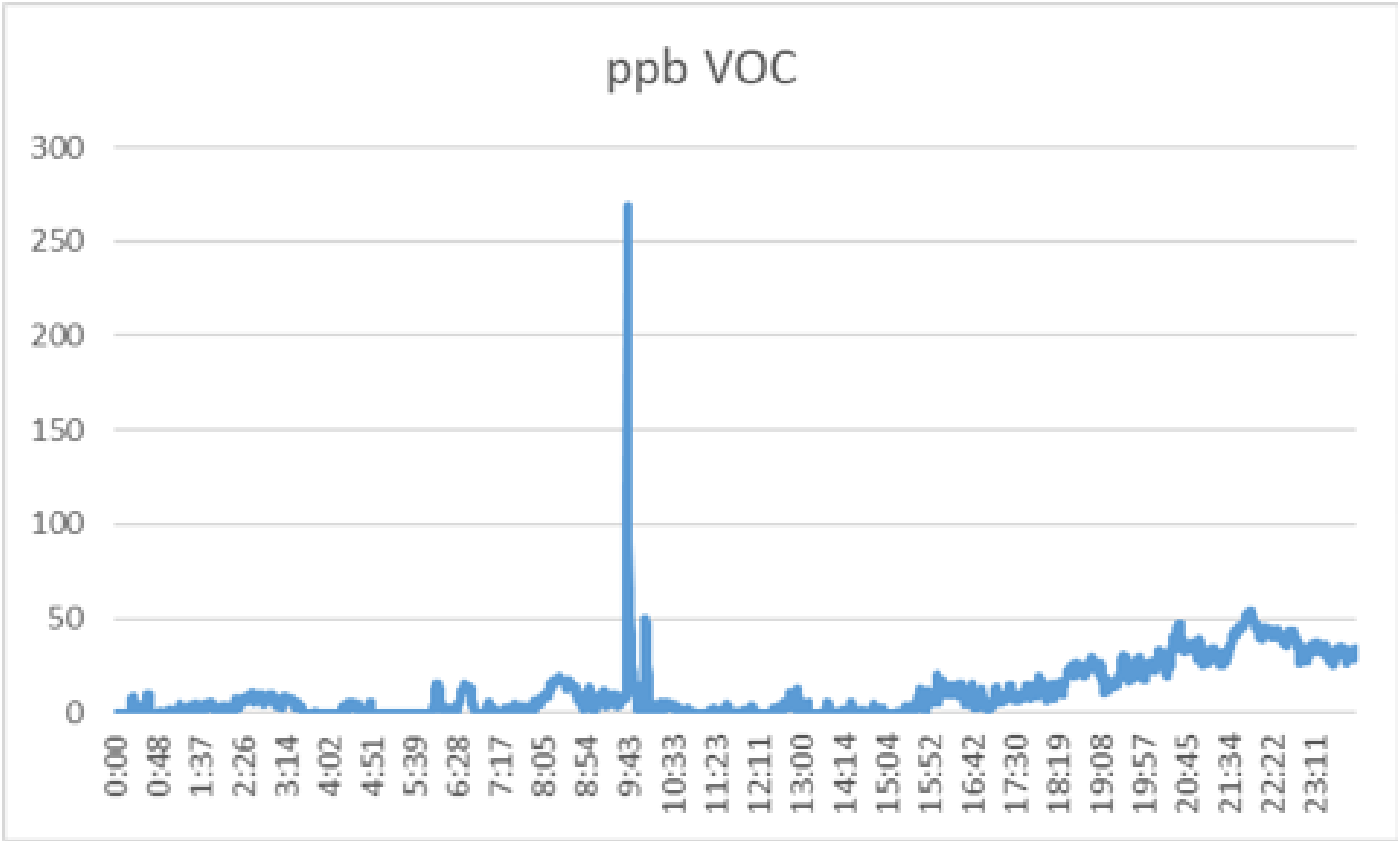
SPOD response. Sample collected at 15:55.

CAMP Canister Sample Data

Fairmont Park 9/29/2021 9:41 AM



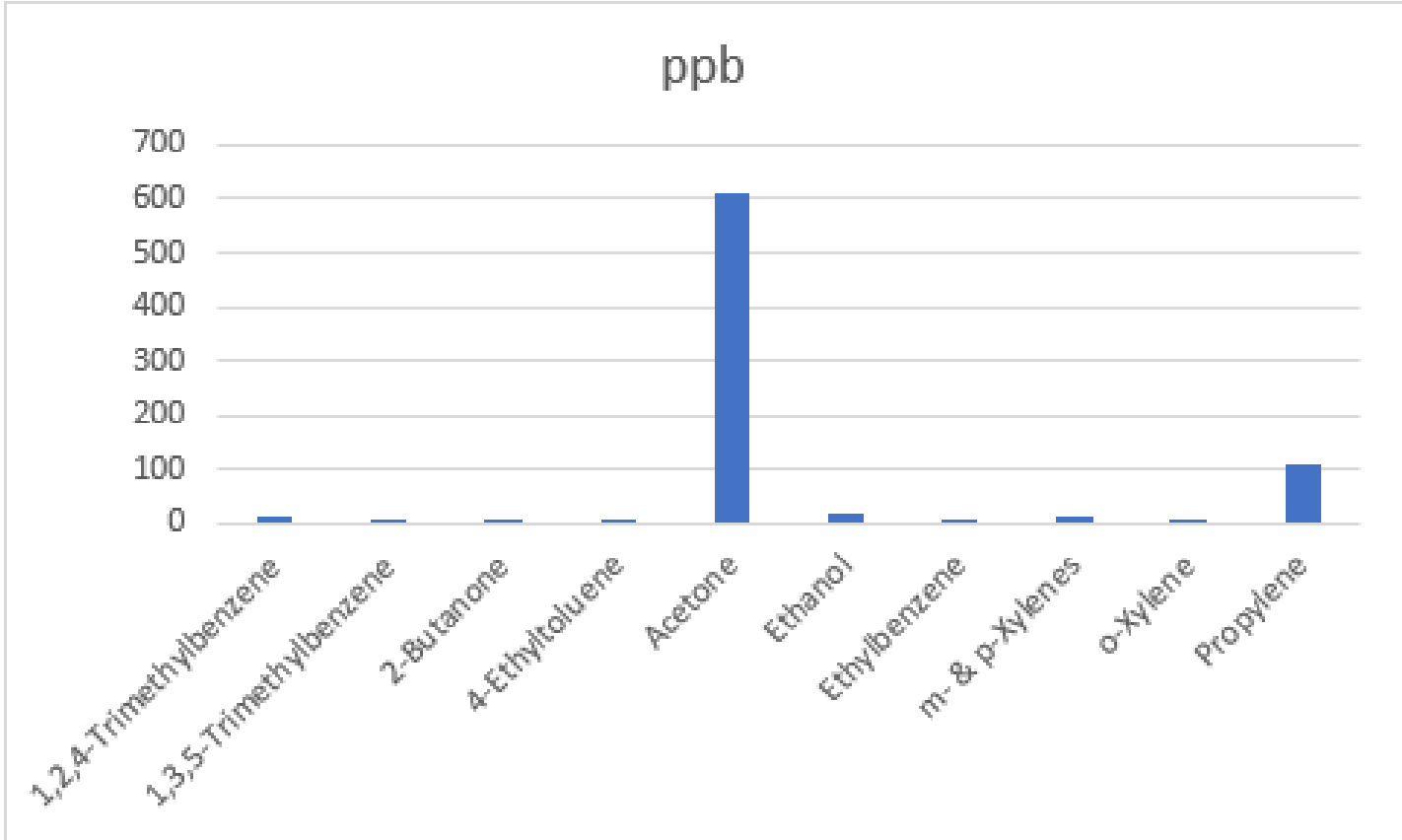
Total Calculated VOC = 837 ppb



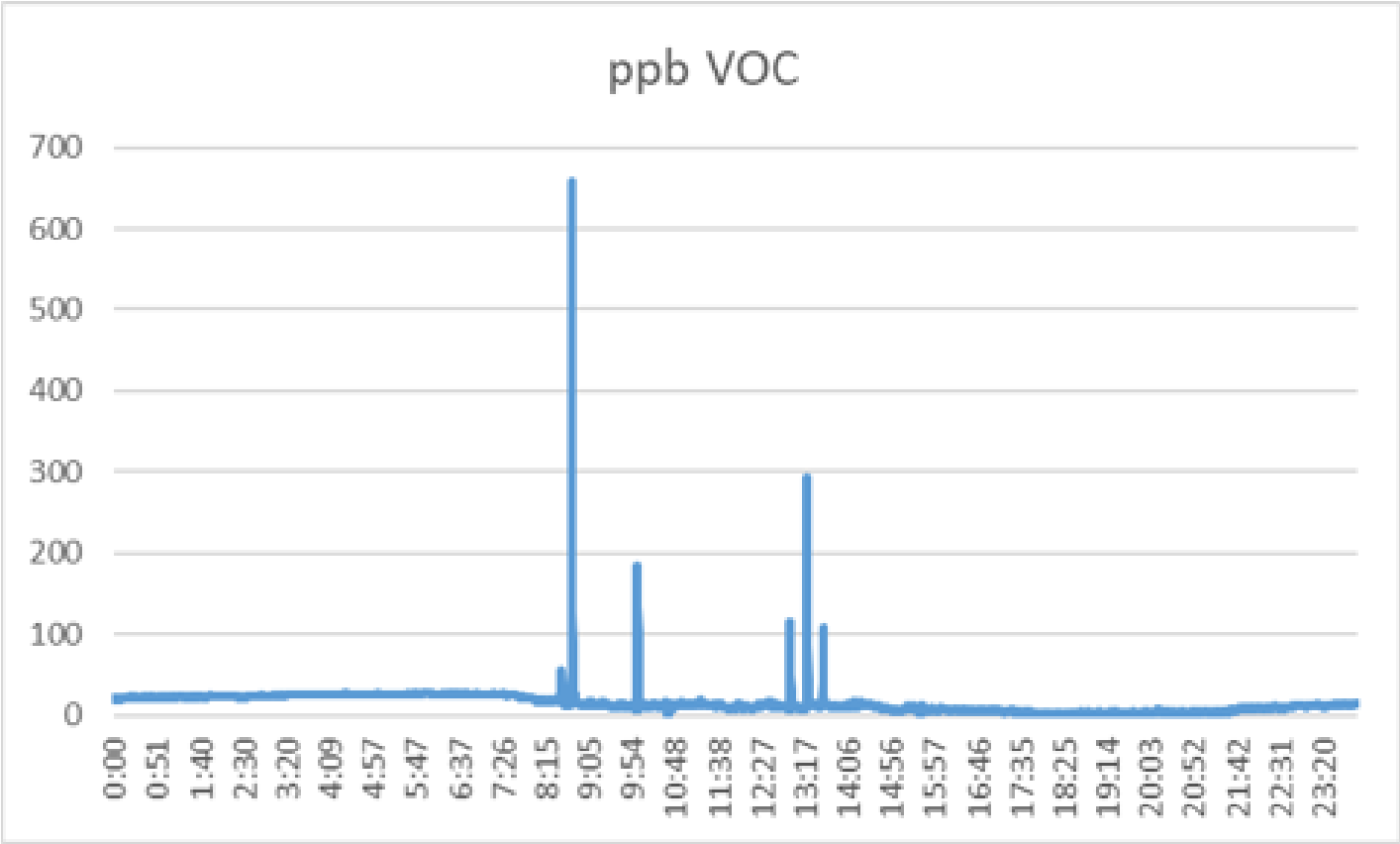
SPOD response. Sample collected at 09:41.

CAMP Canister Sample Data

Reed Road 8/20/2021 8:46 AM



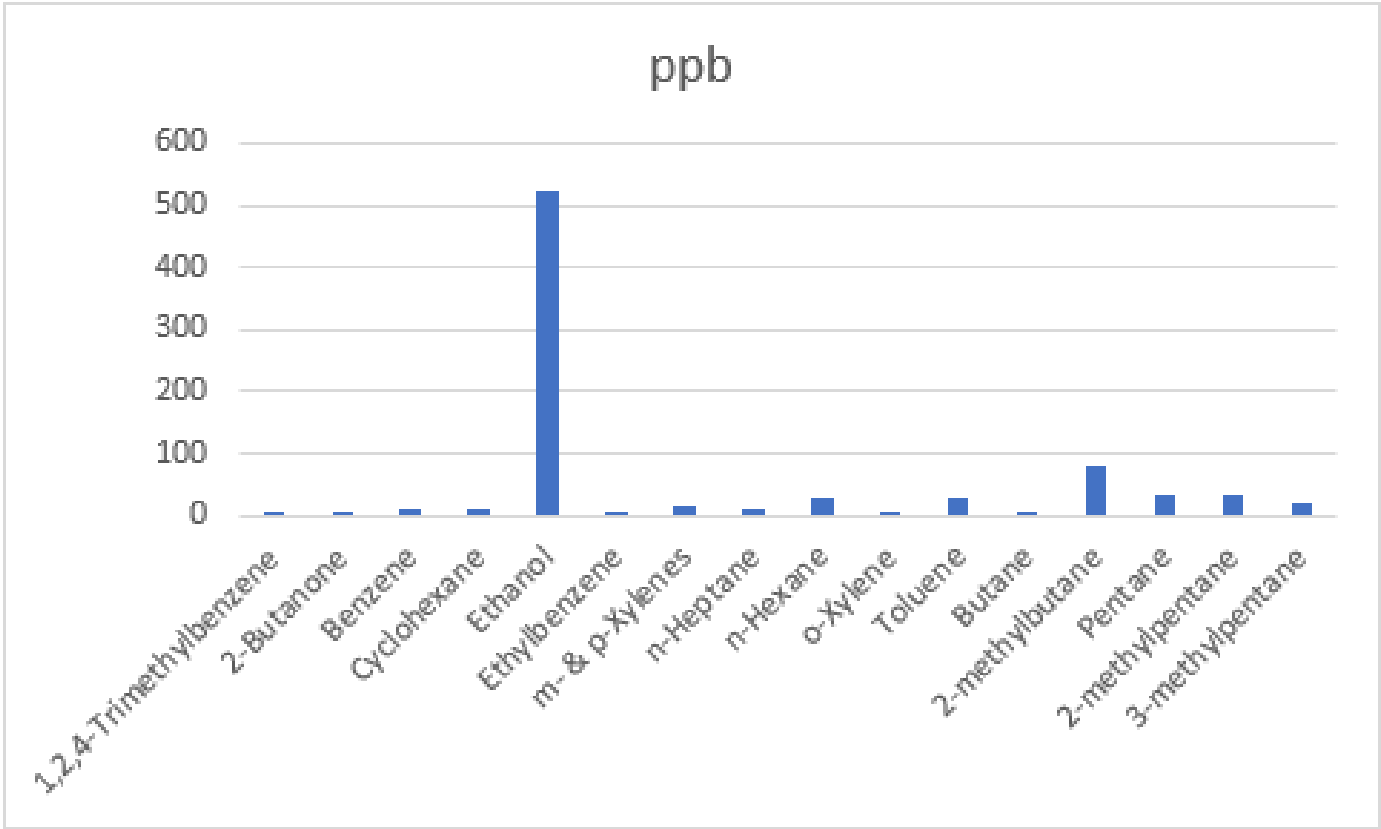
Total Calculated VOC = 782 ppb



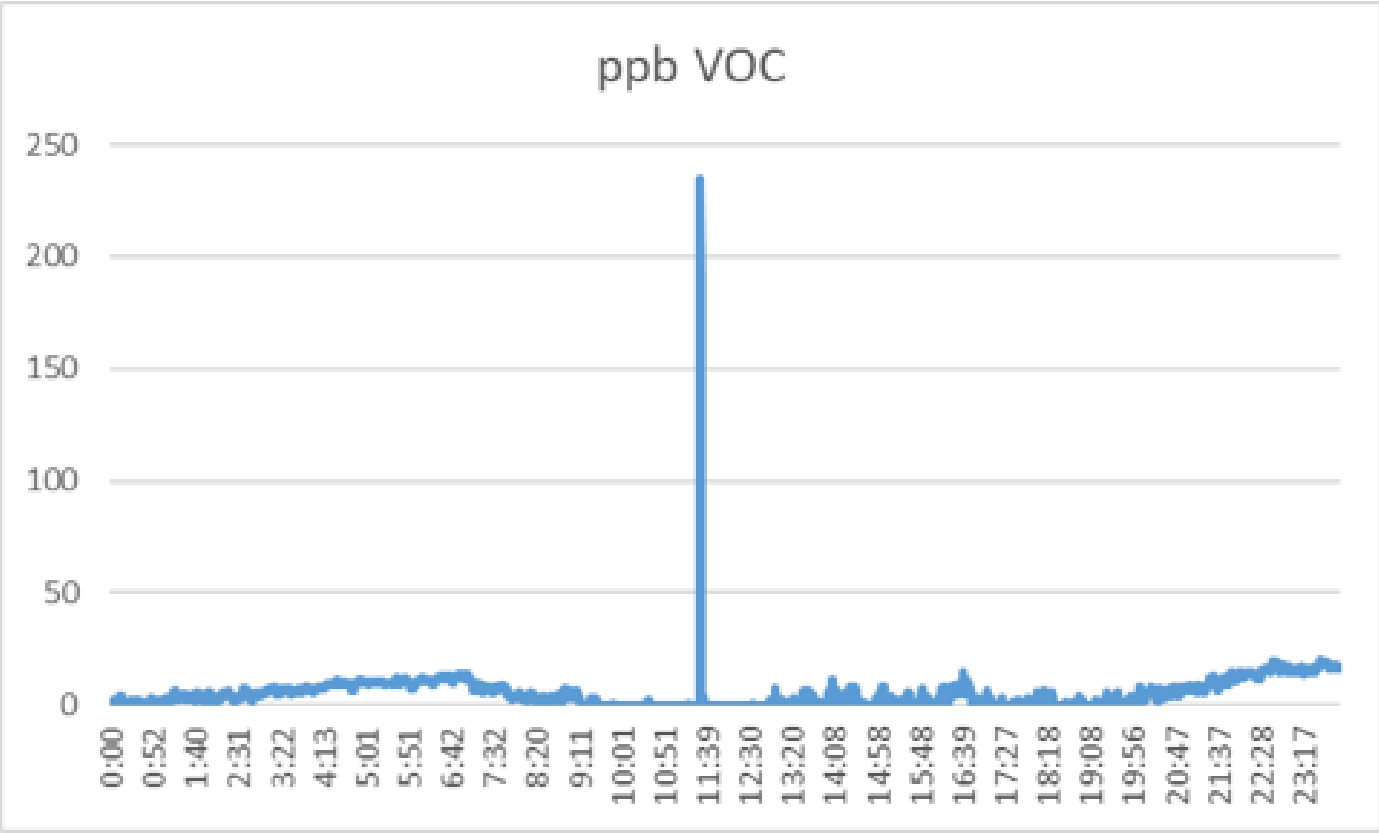
SPOD response. Sample collected at 08:46.

CAMP Canister Sample Data

Bayland Park 9/17/21 11:33AM



Total Calculated VOC = 816 ppb



SPOD response. Sample collected at 11:33.

OUR NEW COMPLAINT FORM IS NOW LIVE!



QUESTIONS? COMMENTS?

LET US KNOW!

ADDRESS

101 SOUTH RICHEY, SUITE H PASADENA, TEXAS 77506

PHONE

713-920-2831 (PCS MAIN)

WEBSITE

[PCS.HARRISCOUNTYTX.GOV](https://pcs.harriscountytexas.gov)

EMAIL

PCS-COMMUNICATIONS@PCS.HCTX.NET

Harris County Pollution Control Services Department