

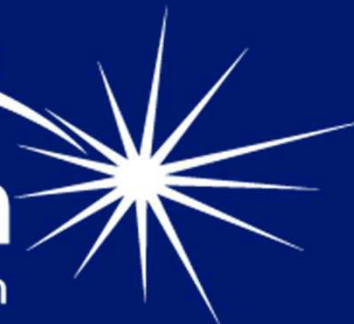


# Cutting Edge Satellite Methane Detection

*People. Power. Possibilities.*

**Central Hudson**

Gas & Electric Corporation



**Bill Brandt**  
**Senior Director-**  
**Customer Field Services**



# Central Hudson service territory

DIVISIONS & SERVICE TYPES

## LEGEND: SERVICE TYPES



### KINGSTON DIVISION

### CATSKILL DIVISION

### POUGHKEEPSIE DIVISION

### FISHKILL DIVISION

### NEWBURGH DIVISION

○ Locations of villages included in the Central Hudson service territory: Albany County (Ravena); Greene County (Coxsackie, Athens, Catskill, Hunter and Tannersville); Ulster County (Saugerties, Ellenville and New Paltz); Orange County (Montgomery, Maybrook, Cornwall and Highland Falls); Putnam County (Cold Spring and Nelsonville); Dutchess County (Fishkill, Wappingers Falls, Millbrook, Rhinebeck, Red Hook, Tivoli and Millerton).

● Locations of cities included in the Central Hudson service territory.





# How Satelytics Works

## Data Acquisition

Satelytics utilizes multi and hyperspectral data from a variety of third-party sources including enterprise satellite data providers using conventional and nano-satellite arrays, plane or drone aerial imagery, and fixed or persistent camera platforms.

## Algorithms

Satelytics applies complex, machine learning algorithms to isolate spectral signatures of phenomena contained in the data of an image. Using ratios, bands and computing techniques, our scientists can determine whatever it is we're observing using those spectral signatures.

## Spectra

Visible light and other portions of the electromagnetic spectrum from the sun are reflected off of objects and materials on Earth and into an aerial sensor.



ULTRAVIOLET

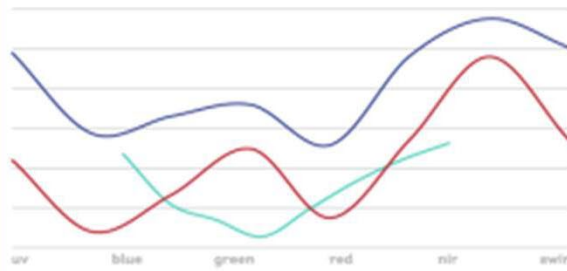
VISIBLE LIGHT

NEAR INFRARED

INFRARED



## Spectral Signatures



■ Liquid Hydrocarbon ■ Produced Water ■ Building Encroachment

## Analytics

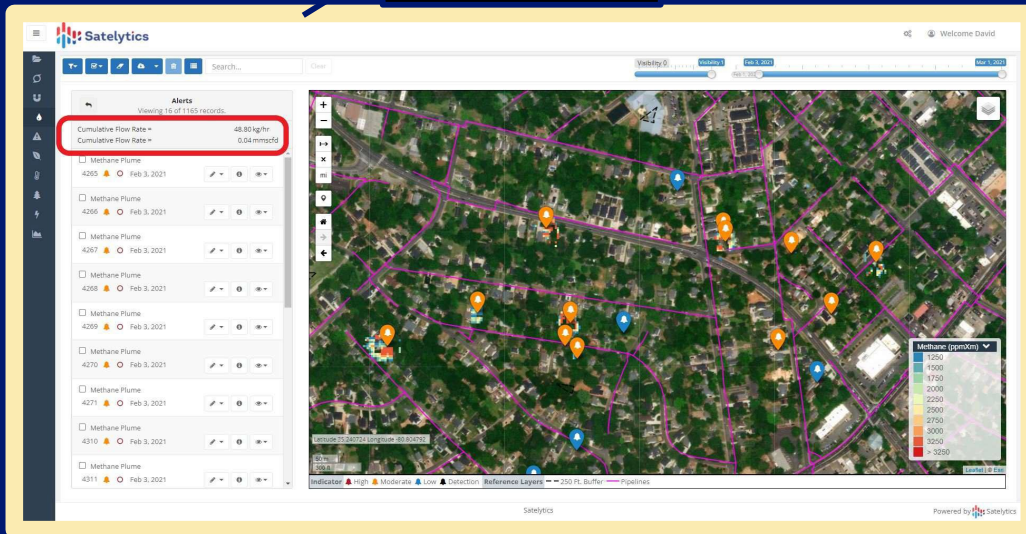
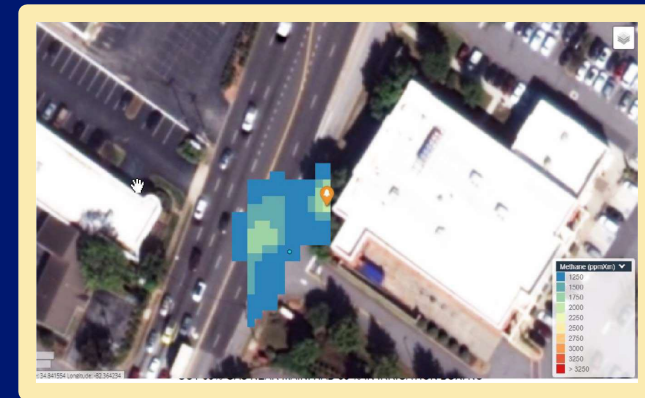
Satelytics processes petabytes of data comprising thousands of individual aerial or satellite images and builds a repository of spectral signatures. Satelytics runs predictive models or renders that data into interactive displays, alerts, and visualizations.



# Satelytics Methane Quantification

- Satelytics' algorithms measure the sun's energy reflecting off the earth's surface in the infrared wavelength bands, a passive measurement.
- Methane has a unique spectral signature that presents in the shortwave infrared (SWIR) bands.
- Satelytics purchases high-resolution (3.7-meter pixels) satellite SWIR data on behalf of our customers.
- The methane algorithm looks for the spectral fingerprint of methane AND its intensity in every pixel of the raw imagery.
- Measurement intensity and streaming in local weather conditions allows for quantification.
- Satelytics can quantify flow rate of a single plume or the entirety of the infrastructure area.

Cumulative emissions rate for the scene.



## Algorithm Accuracy\*

- Minimum flow rate: 54 scfh (1 kg/hr)
- Minimum concentration: 250 ppmXm
- Can detect smaller plumes but not quantify.
- Alerts are returned a few hours after satellite overpass.

\*Determined through customer-controlled releases.

# R&D Project

- Selection of 100 km<sup>2</sup> Area to utilize a Pilot Test Area- (Newburgh District).
- Assets within Pilot area ( LP/HP, Multiple Reg. Stations, Transmission Segments, thousands of meter sets, and hundreds of commercial rooftops.
- Vendor blind portion of project to compare known system classified leaks with vendor data.
- A.I. Learning off returned field data
- Response to 150+ locations- Project to date
- List Split between Service Techs and Survey Contractors based upon visual review of location.

# R&D Project Progress

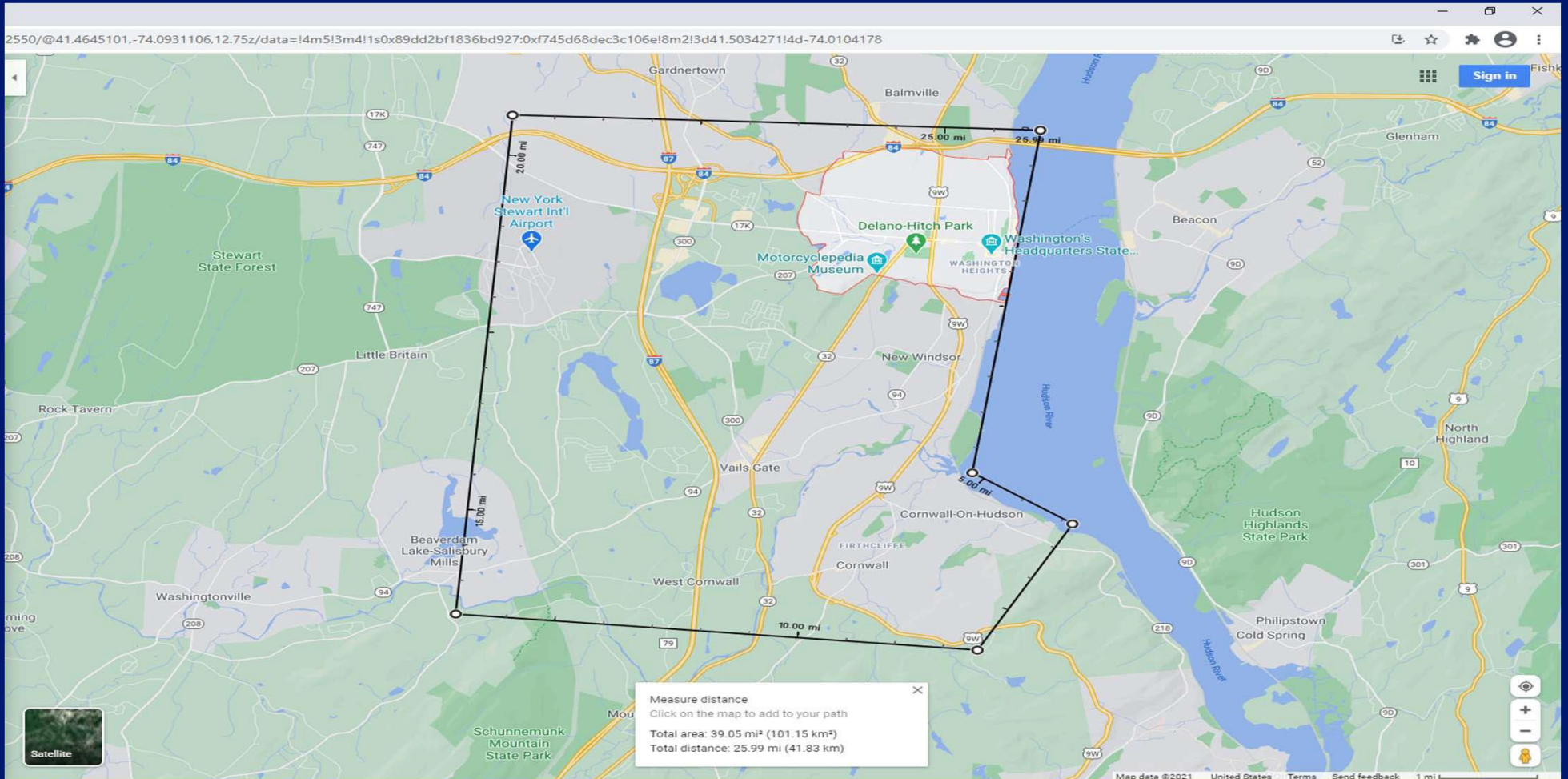
- First Shot – 14% hit rate (Leak Found/No Leak Found)
- Second Shot – 24% hit rate (Leak Found/No Leak Found)
- Third Shot – 35% hit rate (Leak Found/No Leak Found)



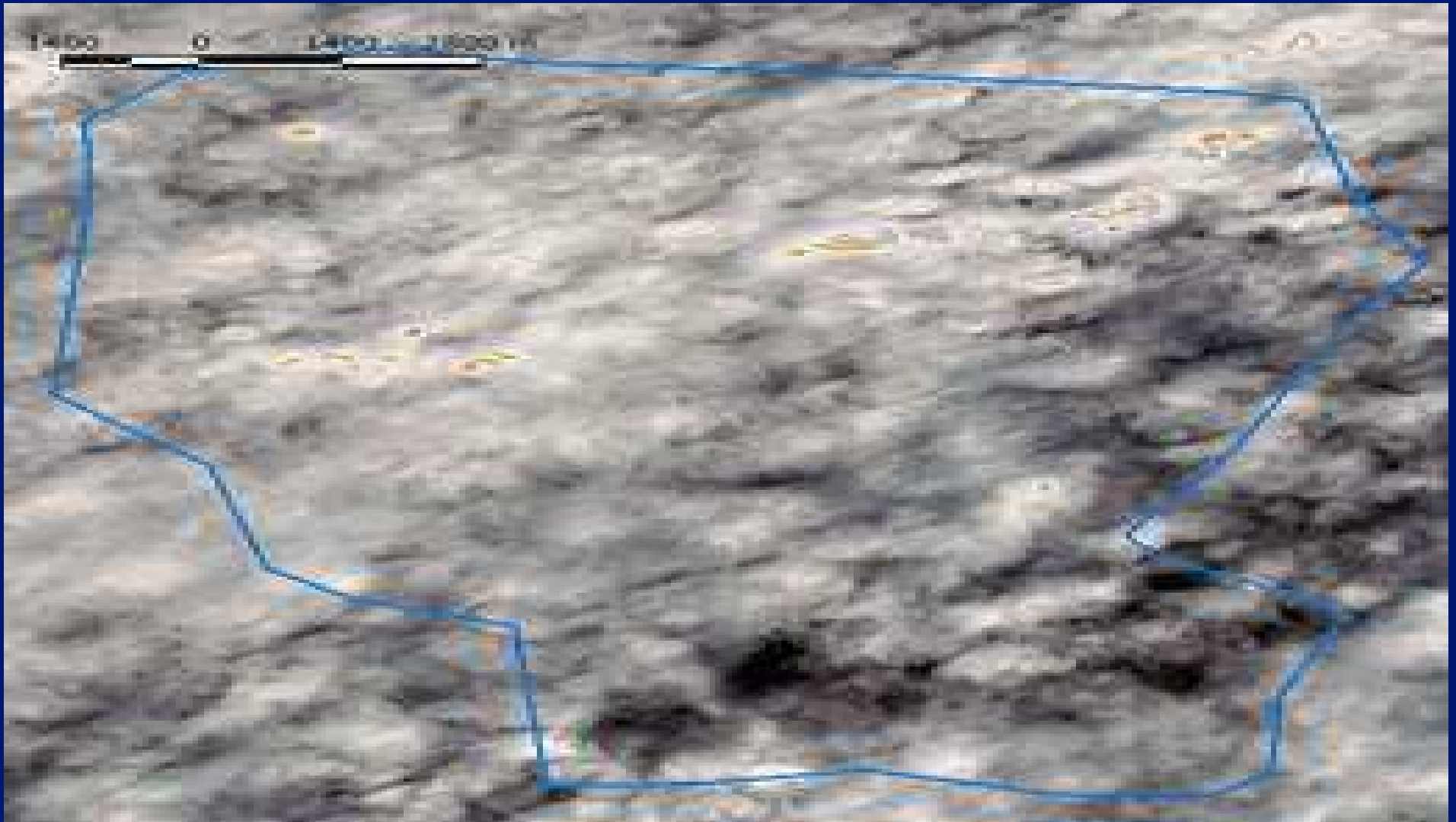
# Project Design Parameters

- Transmission System
- HP and LP Distribution Systems
- Thousands Meter Sets- Residential and Commercial
- Regulator Stations
- City, Suburbs, Country
- Large Box Distribution Warehouses-100's Rooftops

# Project Area Identified

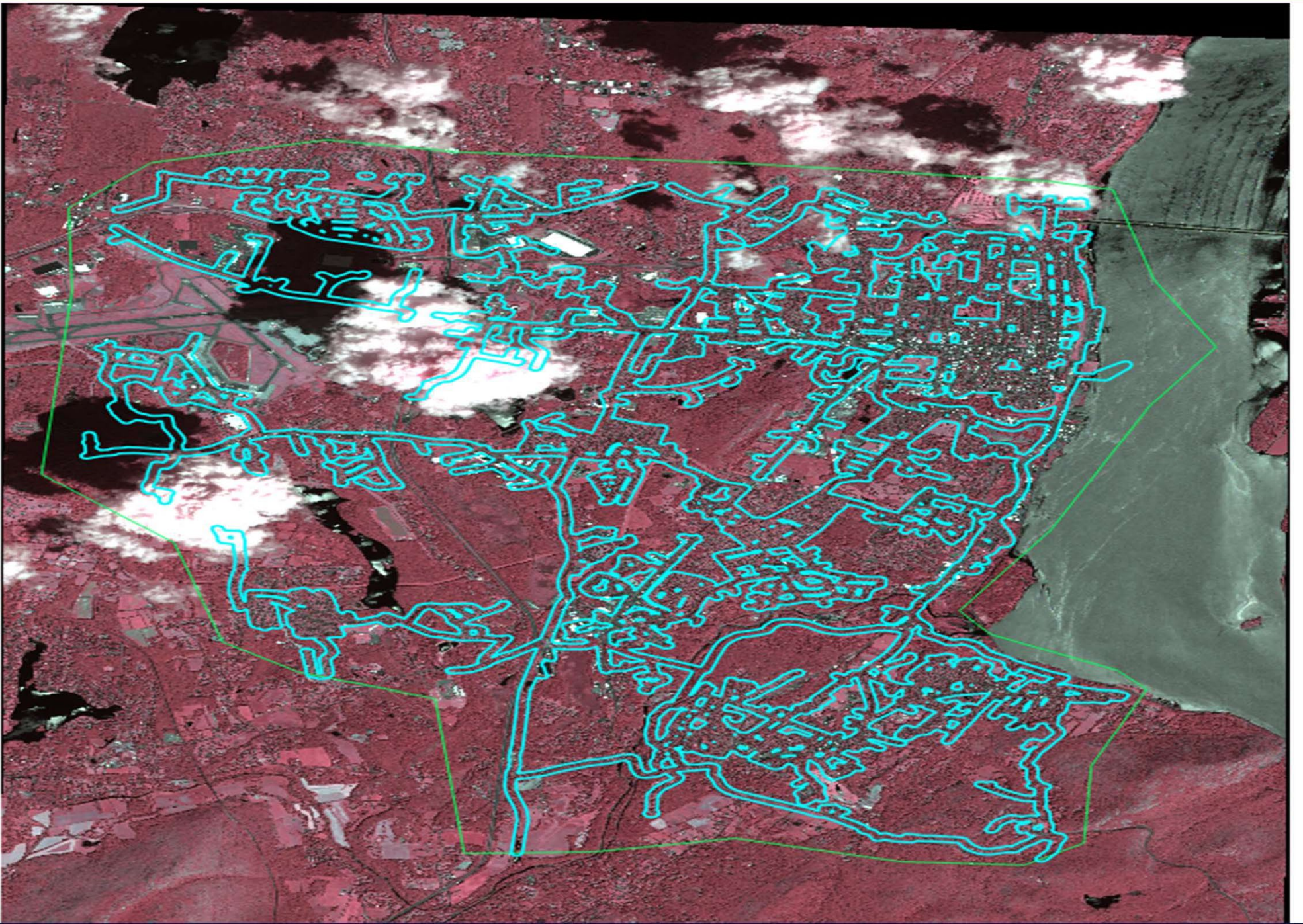


# Cloud Cover- Issues



# Clear Shot



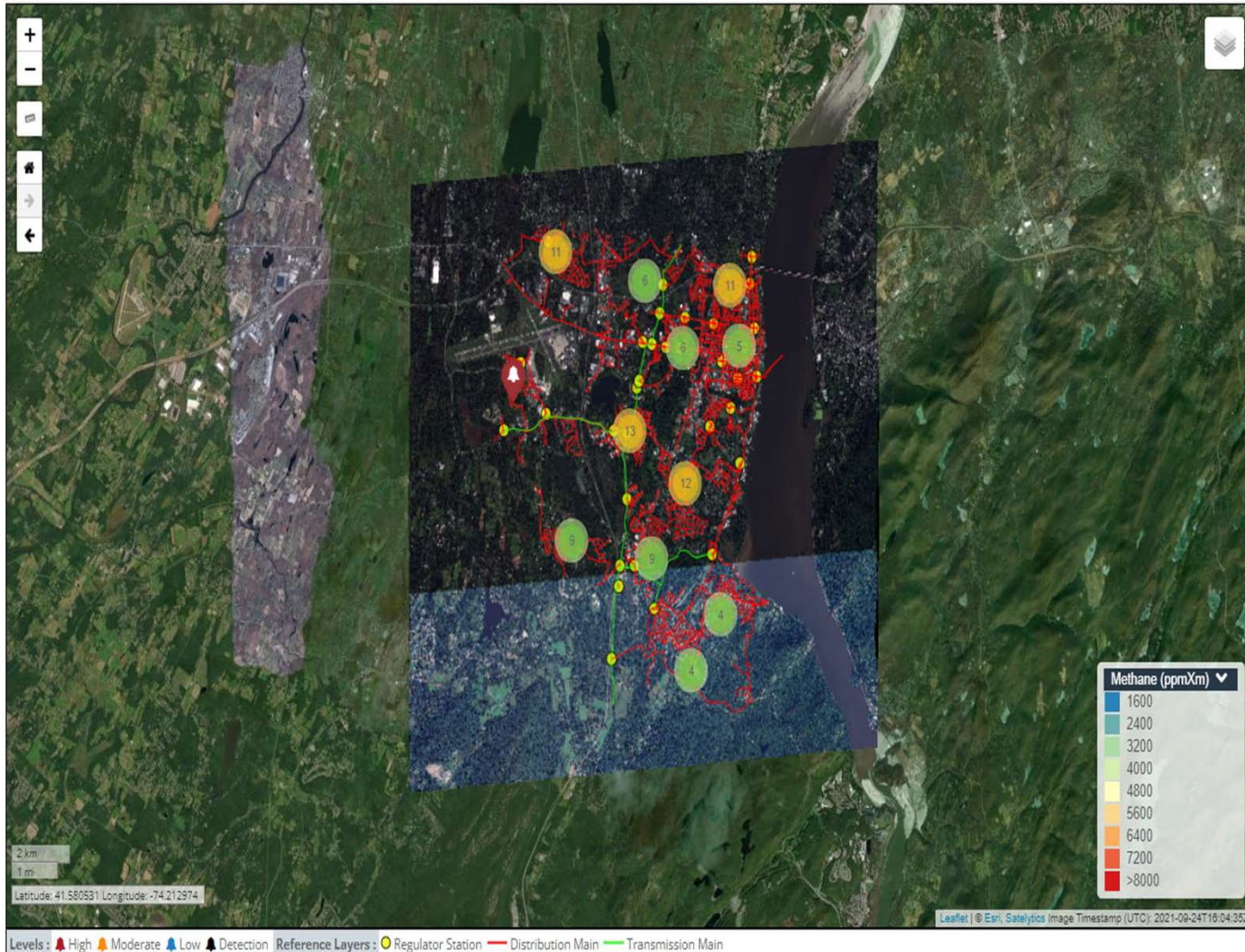


Leak Detection / Map

Search... Clear

Visibility: 0 | Visibility: 1 | Sep 17, 2021 — Sep 24, 2021

- Alerts (91)
- Methane Plume  
73 ▲ ● Sep 24, 2021
  - Methane Plume  
74 ▲ ● Sep 24, 2021
  - Methane Plume  
75 ▲ ● Sep 24, 2021
  - Methane Plume  
76 ▲ ● Sep 24, 2021
  - Methane Plume  
77 ▲ ● Sep 24, 2021
  - Methane Plume  
78 ▲ ● Sep 24, 2021
  - Methane Plume  
79 ▲ ● Sep 24, 2021
  - Methane Plume  
80 ▲ ● Sep 24, 2021
  - Methane Plume  
81 ▲ ● Sep 24, 2021
  - Methane Plume  
82 ▲ ● Sep 24, 2021
  - Methane Plume  
83 ▲ ● Sep 24, 2021



# City of Newburgh, NY



Welcome William

Leak Detection / Map

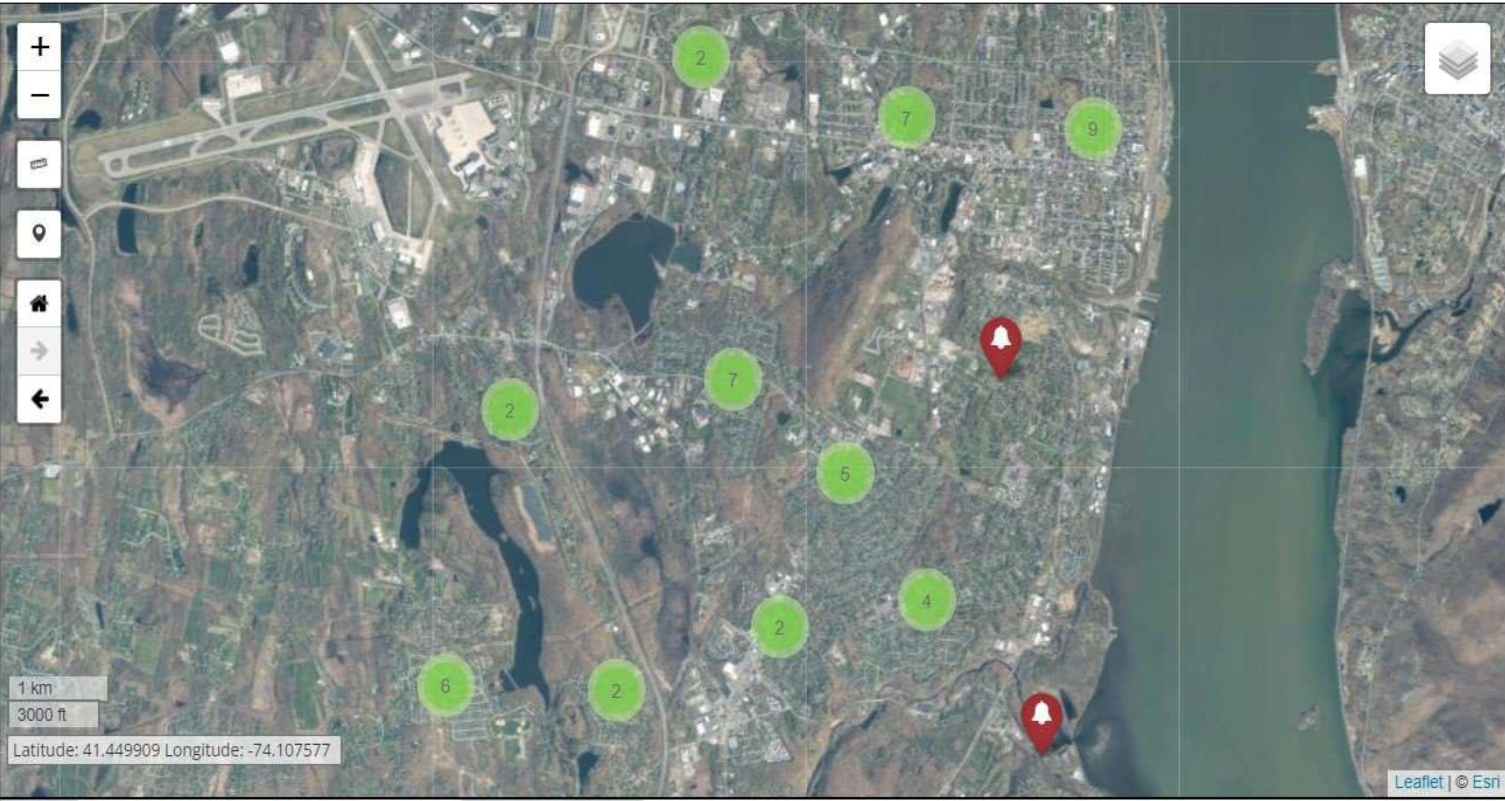
Navigation icons: Home, Back, Forward, Refresh, Print, Search, Clear

Timeline: Sep 1, 2021 | Sep 8, 2021 | Sep 16, 2021 | **Sep 17, 2021** | Sep 24, 2021 | Sep 30, 2021

### Alerts (48)

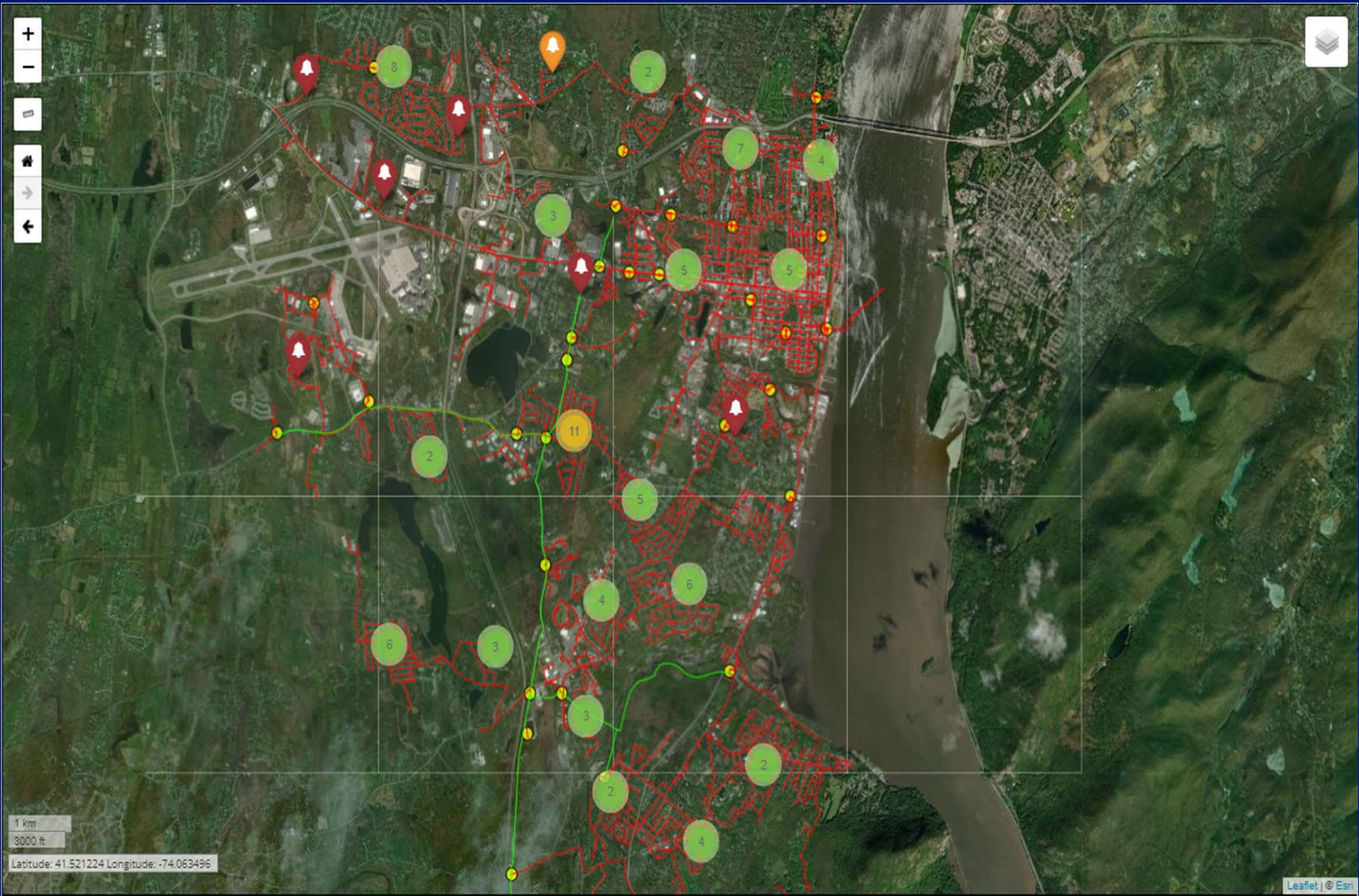
Cumulative Flow Rate = 210.40 kg/hr  
Cumulative Flow Rate = 0.18 mmscfd

- Methane Plume  
164   
Sep 24, 2021
- Methane Plume  
167   
Sep 24, 2021
- Methane Plume  
168   
Sep 24, 2021
- Methane Plume  
169   
Sep 24, 2021
- Methane Plume



Levels : High Moderate Low Detection Reference Layers : Regulator Station Distribution Main Transmission Main

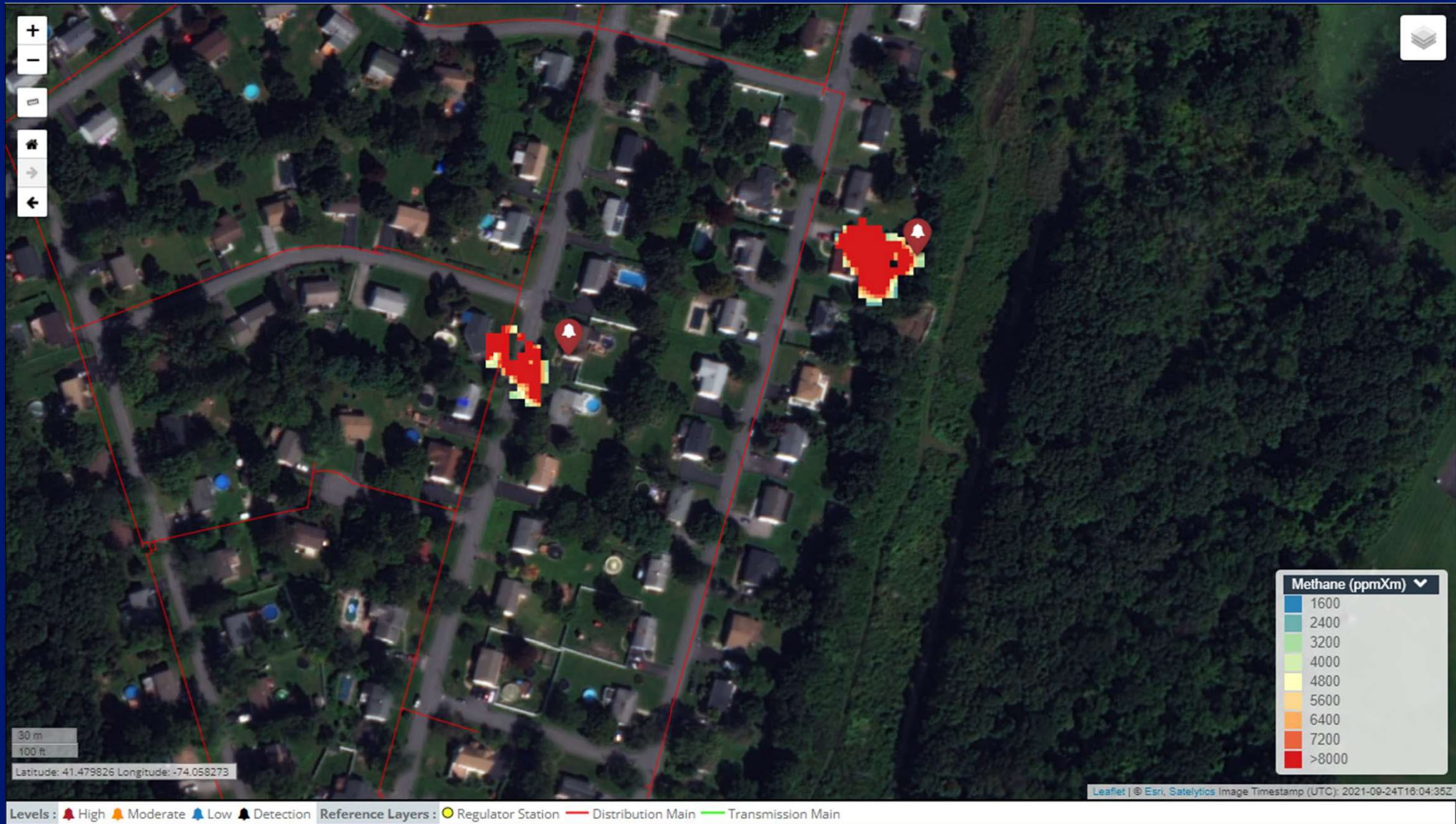




Levels : High Moderate Low Detection Reference Layers : Regulator Station Distribution Main Transmission Main



# Methane Plume Concentrations



# Wind affects on Plume



# PPM Levels Within Plume

**Alerts**  
Viewing 1 of 212 records.

Cumulative Flow 3.70 kg/hr  
Rate =  
Cumulative Flow 0.00 mmscfd  
Rate =

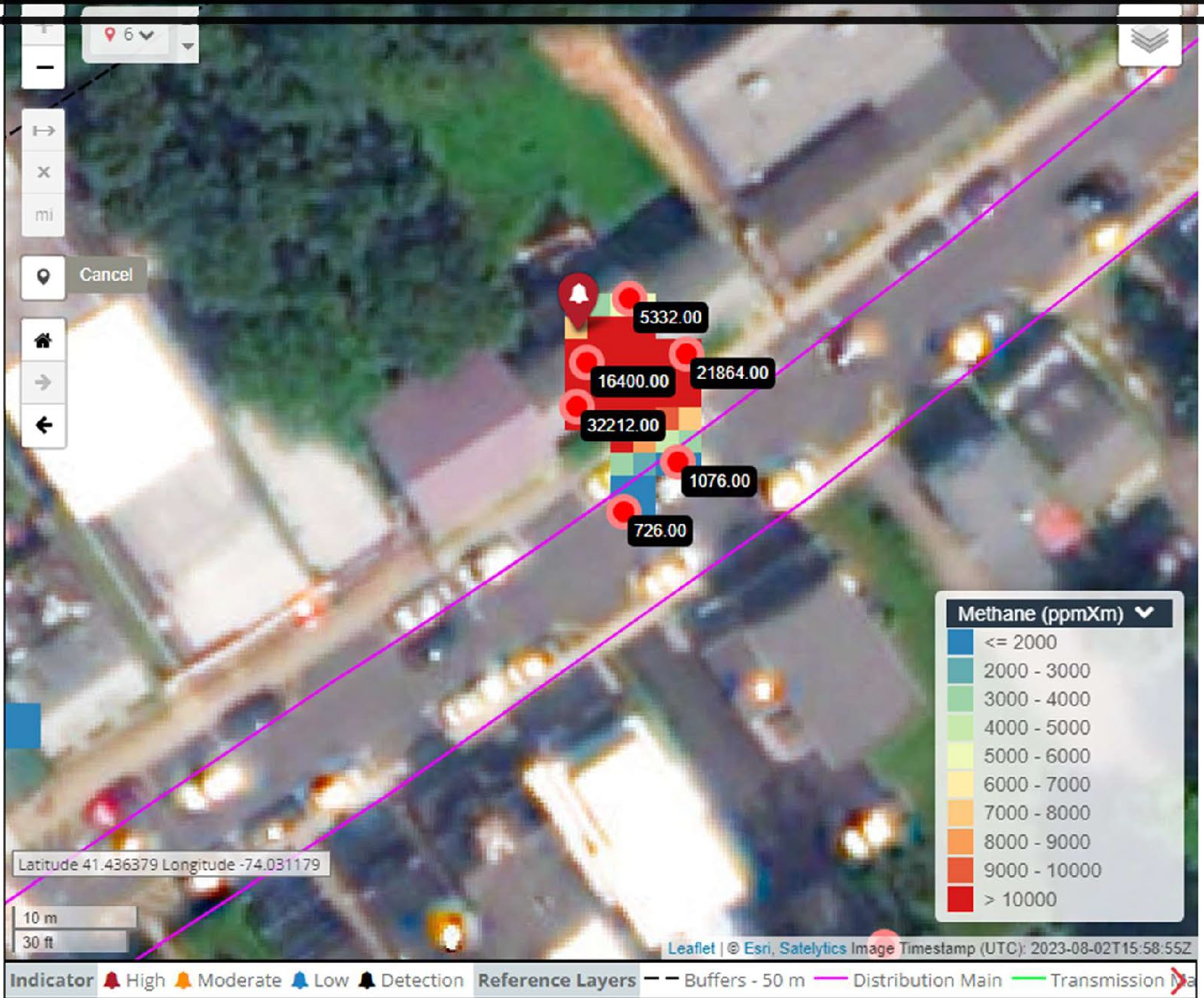
Methane Plume

793   
Aug 2, 2023

Flow Rate: 0.003 mmscfd  
Flow Rate: 3.700 kg/hr  
Max Concentration: 35746.000 ppmxm  
Wind Direction: NNE  
Wind Speed: 1.970 m/s  
Wind Speed: 4.400 mph

Indicator	High	Status	Ac
Latitude	41.436813	Longitude	-74.031
Created	Aug 11, 2023	Modified	Aug 2

Notes



# Methane Investigations Tracking

E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE
Alert T	Classificati	Alert Level	Alert St	Assoc	Assoc	Alert D	Impact	UOM	Flow R	UOM	Flow Ra	UOM	Vind S	UOM	Vind T	UOM	Vind D	Max Concentra	UOM	Notes	Potential Bel	Google Maps	Address	Town/City		
Methane Plume	High	Active				2021-09-24 16:04:35-00:00	511.2	kg/hr	0.433	mmsofd	14	mph	6.3	m/s	W	25742	ppm/m	No			<a href="https://maps.google.com/maps?daddr=41.51657482,-74.00362538">https://maps.google.com/maps?daddr=41.51657482,-74.00362538</a>	NY 12550	Newburgh	Nothing		
Methane Plume	High	Active				2021-09-24 16:04:35-00:00	480.9	kg/hr	0.407	mmsofd	14	mph	6.3	m/s	W	25538	ppm/m	No			<a href="https://maps.google.com/maps?daddr=41.47836588,-74.04329697">https://maps.google.com/maps?daddr=41.47836588,-74.04329697</a>	Windsor, NY 12553	New Windsor	no gas here, sewer plant		
Methane Plume	High	Active				2021-09-24 16:04:35-00:00	471.4	kg/hr	0.399	mmsofd	14	mph	6.3	m/s	W	25582	ppm/m	No			<a href="https://maps.google.com/maps?daddr=41.47828336,-74.04530581">https://maps.google.com/maps?daddr=41.47828336,-74.04530581</a>	Windsor, NY 12553	New Windsor	nothing		
Methane Plume	High	Active				2021-09-24 16:04:35-00:00	471	kg/hr	0.399	mmsofd	14	mph	6.3	m/s	W	25738	ppm/m	No			<a href="https://maps.google.com/maps?daddr=41.51832612,-74.01567355">https://maps.google.com/maps?daddr=41.51832612,-74.01567355</a>	gh, NY 12550	Newburgh	nothing		
Methane Plume	High	Active				2021-09-24 16:04:35-00:00	464	kg/hr	0.393	mmsofd	14	mph	6.3	m/s	W	25732	ppm/m	No			<a href="https://maps.google.com/maps?daddr=41.49421889,-74.03440123">https://maps.google.com/maps?daddr=41.49421889,-74.03440123</a>	h, NY 12560	Newburgh	3975 leak below looking		
Methane Plume	High	Active				2021-09-24 16:04:35-00:00	453	kg/hr	0.384	mmsofd	14	mph	6.3	m/s	W	25779	ppm/m	No			<a href="https://maps.google.com/maps?daddr=41.42479726,-74.03174522">https://maps.google.com/maps?daddr=41.42479726,-74.03174522</a>	NY 12518	Cornwall	3975 leak below looking		
Methane Plume	High	Active				2021-09-24 16:04:35-00:00	450.7	kg/hr	0.382	mmsofd	14	mph	6.3	m/s	W	25327	ppm/m	No			<a href="https://maps.google.com/maps?daddr=41.47873344,-74.05336466">https://maps.google.com/maps?daddr=41.47873344,-74.05336466</a>	Windsor, NY 12553	New Windsor	nothing		
Methane Plume	High	Active				2021-09-24 16:04:35-00:00	443.2	kg/hr	0.375	mmsofd	14	mph	6.3	m/s	W	25823	ppm/m	No			<a href="https://maps.google.com/maps?daddr=41.46200374,-74.02746619">https://maps.google.com/maps?daddr=41.46200374,-74.02746619</a>	Windsor, NY 12553	New Windsor	nothing, sewer plant		
Methane Plume	High	Active				2021-09-24 16:04:35-00:00	433.4	kg/hr	0.367	mmsofd	14	mph	6.3	m/s	W	25849	ppm/m	No			<a href="https://maps.google.com/maps?daddr=41.52199615,-74.01838974">https://maps.google.com/maps?daddr=41.52199615,-74.01838974</a>	Windsor, NY 12553	New Windsor	3975 leak below looking		
Methane Plume	High	Active				2021-09-24 16:04:35-00:00	426.8	kg/hr	0.362	mmsofd	14	mph	6.3	m/s	W	25563	ppm/m	No			<a href="https://maps.google.com/maps?daddr=41.47484229,-74.04026293">https://maps.google.com/maps?daddr=41.47484229,-74.04026293</a>	Windsor, NY 12553	New Windsor	nothing		
Methane Plume	High	Active				2021-09-24 16:04:35-00:00	424.3	kg/hr	0.359	mmsofd	14	mph	6.3	m/s	W	25607	ppm/m	No			<a href="https://maps.google.com/maps?daddr=41.47484229,-74.04026293">https://maps.google.com/maps?daddr=41.47484229,-74.04026293</a>	Windsor, NY 12553	New Windsor	nothing		
Methane Plume	High	Active				2021-09-24 16:04:35-00:00	418.1	kg/hr	0.354	mmsofd	14	mph	6.3	m/s	W	24098	ppm/m	No			<a href="https://maps.google.com/maps?daddr=41.47484229,-74.04026293">https://maps.google.com/maps?daddr=41.47484229,-74.04026293</a>	Windsor, NY 12553	New Windsor	nothing		
Methane Plume	High	Active				2021-09-24 16:04:35-00:00	416.3	kg/hr	0.353	mmsofd	14	mph	6.3	m/s	W	25736	ppm/m	No			<a href="https://maps.google.com/maps?daddr=41.42479726,-74.03174522">https://maps.google.com/maps?daddr=41.42479726,-74.03174522</a>	NY 12518	Cornwall	3975 leak below looking		
Methane Plume	High	Active				2021-09-24 16:04:35-00:00	411.1	kg/hr	0.348	mmsofd	14	mph	6.3	m/s	W	25215	ppm/m	No			<a href="https://maps.google.com/maps?daddr=41.44036381,-74.04861683">https://maps.google.com/maps?daddr=41.44036381,-74.04861683</a>	gh, NY 12550	Newburgh	nothing		
Methane Plume	High	Active				2021-09-24 16:04:35-00:00	410.8	kg/hr	0.348	mmsofd	14	mph	6.3	m/s	W	21633	ppm/m	No			<a href="https://maps.google.com/maps?daddr=41.52650192,-74.03038637">https://maps.google.com/maps?daddr=41.52650192,-74.03038637</a>	Newburgh, NY 12550	Newburgh	nothing		
Methane Plume	High	Active				2021-09-24 16:04:35-00:00	409.7	kg/hr	0.347	mmsofd	14	mph	6.3	m/s	W	25019	ppm/m	No			<a href="https://maps.google.com/maps?daddr=41.44830192,-74.02710359">https://maps.google.com/maps?daddr=41.44830192,-74.02710359</a>	gh, NY 12550	New Windsor	nothing		
Methane Plume	High	Active				2021-09-24 16:04:35-00:00	408.8	kg/hr	0.346	mmsofd	14	mph	6.3	m/s	W	24447	ppm/m	No			<a href="https://maps.google.com/maps?daddr=41.43830191,-74.02710359">https://maps.google.com/maps?daddr=41.43830191,-74.02710359</a>	gh, NY 12550	Newburgh	nothing		
Methane Plume	High	Active				2021-09-24 16:04:35-00:00	407.8	kg/hr	0.345	mmsofd	14	mph	6.3	m/s	W	25936	ppm/m	No			<a href="https://maps.google.com/maps?daddr=41.50839516,-74.00636634">https://maps.google.com/maps?daddr=41.50839516,-74.00636634</a>	gh, NY 12550	Newburgh	nothing		
Methane Plume	High	Active				2021-09-24 16:04:35-00:00	406.2	kg/hr	0.344	mmsofd	14	mph	6.3	m/s	W	23470	ppm/m	No			<a href="https://maps.google.com/maps?daddr=41.46833937,-74.03526242">https://maps.google.com/maps?daddr=41.46833937,-74.03526242</a>	gh, NY 12550	New Windsor	nothing		
Methane Plume	High	Active				2021-09-24 16:04:35-00:00	74.8	kg/hr	0.063	mmsofd	14	mph	6.3	m/s	W	23288	ppm/m	No			<a href="https://maps.google.com/maps?daddr=41.46100354,-74.03939111">https://maps.google.com/maps?daddr=41.46100354,-74.03939111</a>	Windsor, NY 12553	New Windsor	nothing - swamp		
Methane Plume	High	Active				2021-09-24 16:04:35-00:00	74.8	kg/hr	0.063	mmsofd	14	mph	6.3	m/s	W	23443	ppm/m	No			<a href="https://maps.google.com/maps?daddr=41.50000739,-74.03109234">https://maps.google.com/maps?daddr=41.50000739,-74.03109234</a>	NY 12550	Newburgh	nothing		
Methane Plume	High	Active				2021-09-24 16:04:35-00:00	74.8	kg/hr	0.063	mmsofd	14	mph	6.3	m/s	W	19889	ppm/m	No			<a href="https://maps.google.com/maps?daddr=41.52156448,-74.02716141">https://maps.google.com/maps?daddr=41.52156448,-74.02716141</a>	Newburgh, New York 12550	Newburgh	nothing		
Methane Plume	High	Active				2021-09-24 16:04:35-00:00	74.8	kg/hr	0.063	mmsofd	14	mph	6.3	m/s	W	23634	ppm/m	No			<a href="https://maps.google.com/maps?daddr=41.43269845,-74.03099211">https://maps.google.com/maps?daddr=41.43269845,-74.03099211</a>	NY 12518	Cornwall	nothing		
Methane Plume	High	Active				2021-09-24 16:04:35-00:00	74.7	kg/hr	0.063	mmsofd	14	mph	6.3	m/s	W	23607	ppm/m	No			<a href="https://maps.google.com/maps?daddr=41.51971779,-74.01862343">https://maps.google.com/maps?daddr=41.51971779,-74.01862343</a>	gh, NY 12550	Newburgh	3975 leak below looking		
Methane Plume	High	Active				2021-09-24 16:04:35-00:00	74.6	kg/hr	0.063	mmsofd	14	mph	6.3	m/s	W	25797	ppm/m	No			<a href="https://maps.google.com/maps?daddr=41.5883905,-74.07703982">https://maps.google.com/maps?daddr=41.5883905,-74.07703982</a>	gh, NY 12550	Newburgh	nothing		
Methane Plume	Moderate	Active				2021-09-24 16:04:35-00:00	74.6	kg/hr	0.063	mmsofd	14	mph	6.3	m/s	W	8913	ppm/m	No			<a href="https://maps.google.com/maps?daddr=41.5039424,-74.03649772">https://maps.google.com/maps?daddr=41.5039424,-74.03649772</a>	gh, NY 12550	Newburgh	nothing		
Methane Plume	High	Active				2021-09-24 16:04:35-00:00	74.5	kg/hr	0.063	mmsofd	14	mph	6.3	m/s	W	25847	ppm/m	No			<a href="https://maps.google.com/maps?daddr=41.48737321,-74.05843079">https://maps.google.com/maps?daddr=41.48737321,-74.05843079</a>	Windsor, NY 12553	New Windsor	3975 leak below looking		
Methane Plume	High	Active				2021-09-24 16:04:35-00:00	74.5	kg/hr	0.063	mmsofd	14	mph	6.3	m/s	W	18576	ppm/m	No			<a href="https://maps.google.com/maps?daddr=41.4300027,-74.02294031">https://maps.google.com/maps?daddr=41.4300027,-74.02294031</a>	Windsor, NY 12553	Cornwall	3975 leak below looking		
Methane Plume	Moderate	Active				2021-09-24 16:04:35-00:00	74.5	kg/hr	0.063	mmsofd	14	mph	6.3	m/s	W	4490	ppm/m	No			<a href="https://maps.google.com/maps?daddr=41.4576068,-74.05296814">https://maps.google.com/maps?daddr=41.4576068,-74.05296814</a>	Windsor, NY 12553	New Windsor	nothing		
Methane Plume	High	Active				2021-09-24 16:04:35-00:00	74.4	kg/hr	0.063	mmsofd	14	mph	6.3	m/s	W	21378	ppm/m	No			<a href="https://maps.google.com/maps?daddr=41.45564324,-74.08493426">https://maps.google.com/maps?daddr=41.45564324,-74.08493426</a>	Windsor, NY 12553	New Windsor	3975 leak below looking		
Methane Plume	High	Active				2021-09-24 16:04:35-00:00	74.1	kg/hr	0.063	mmsofd	14	mph	6.3	m/s	W	25276	ppm/m	No			<a href="https://maps.google.com/maps?daddr=41.48203622,-74.08048436">https://maps.google.com/maps?daddr=41.48203622,-74.08048436</a>	Windsor, NY 12553	New Windsor	nothing		
Methane Plume	High	Active				2021-09-24 16:04:35-00:00	73.9	kg/hr	0.063	mmsofd	14	mph	6.3	m/s	W	24562	ppm/m	No			<a href="https://maps.google.com/maps?daddr=41.44468506,-74.05042105">https://maps.google.com/maps?daddr=41.44468506,-74.05042105</a>	Windsor, NY 12553	New Windsor	nothing		
Methane Plume	High	Active				2021-09-24 16:04:35-00:00	73.7	kg/hr	0.062	mmsofd	14	mph	6.3	m/s	W	23495	ppm/m	No			<a href="https://maps.google.com/maps?daddr=41.49737321,-74.05843079">https://maps.google.com/maps?daddr=41.49737321,-74.05843079</a>	NY 12550	Newburgh	nothing		
Methane Plume	High	Active				2021-09-24 16:04:35-00:00	73.5	kg/hr	0.062	mmsofd	14	mph	6.3	m/s	W	15897	ppm/m	No			<a href="https://maps.google.com/maps?daddr=41.48395232,-74.05781001">https://maps.google.com/maps?daddr=41.48395232,-74.05781001</a>	Windsor, NY 12553	New Windsor	nothing		
Methane Plume	High	Active				2021-09-24 16:04:35-00:00	73.5	kg/hr	0.062	mmsofd	14	mph	6.3	m/s	W	17507	ppm/m	No			<a href="https://maps.google.com/maps?daddr=41.48760242,-74.05818945">https://maps.google.com/maps?daddr=41.48760242,-74.05818945</a>	Windsor, NY 12553	New Windsor	3975 leak below looking		
Methane Plume	High	Active				2021-09-24 16:04:35-00:00	73.5	kg/hr	0.062	mmsofd	14	mph	6.3	m/s	W	18182	ppm/m	No			<a href="https://maps.google.com/maps?daddr=41.44219191,-74.01779352">https://maps.google.com/maps?daddr=41.44219191,-74.01779352</a>	Windsor, NY 12553	Cornwall	3975 leak below looking		
Methane Plume	High	Active				2021-09-24 16:04:35-00:00	73.3	kg/hr	0.062	mmsofd	14	mph	6.3	m/s	W	23059	ppm/m	No			<a href="https://maps.google.com/maps?daddr=41.48245972,-74.05059313">https://maps.google.com/maps?daddr=41.48245972,-74.05059313</a>	Windsor, NY 12553	New Windsor	nothing		
Methane Plume	Moderate	Active				2021-09-24 16:04:35-00:00	73.3	kg/hr	0.062	mmsofd	14	mph	6.3	m/s	W	9691	ppm/m	No			<a href="https://maps.google.com/maps?daddr=41.45719311,-74.07197687">https://maps.google.com/maps?daddr=41.45719311,-74.07197687</a>	Windsor, NY 12553	New Windsor	nothing		
Methane Plume	High	Active				2021-09-24 16:04:35-00:00	72.4	kg/hr	0.061	mmsofd	14	mph	6.3	m/s	W	21925	ppm/m	No			<a href="https://maps.google.com/maps?daddr=41.46608804,-74.05838797">https://maps.google.com/maps?daddr=41.46608804,-74.05838797</a>	Windsor, NY 12553	New Windsor	nothing		
Methane Plume	High	Active				2021-09-24 16:04:35-00:00	71.3	kg/hr	0.06	mmsofd	14	mph	6.3	m/s	W	14063	ppm/m	No			<a href="https://maps.google.com/maps?daddr=41.50437321,-74.03839992">https://maps.google.com/maps?daddr=41.50437321,-74.03</a>					

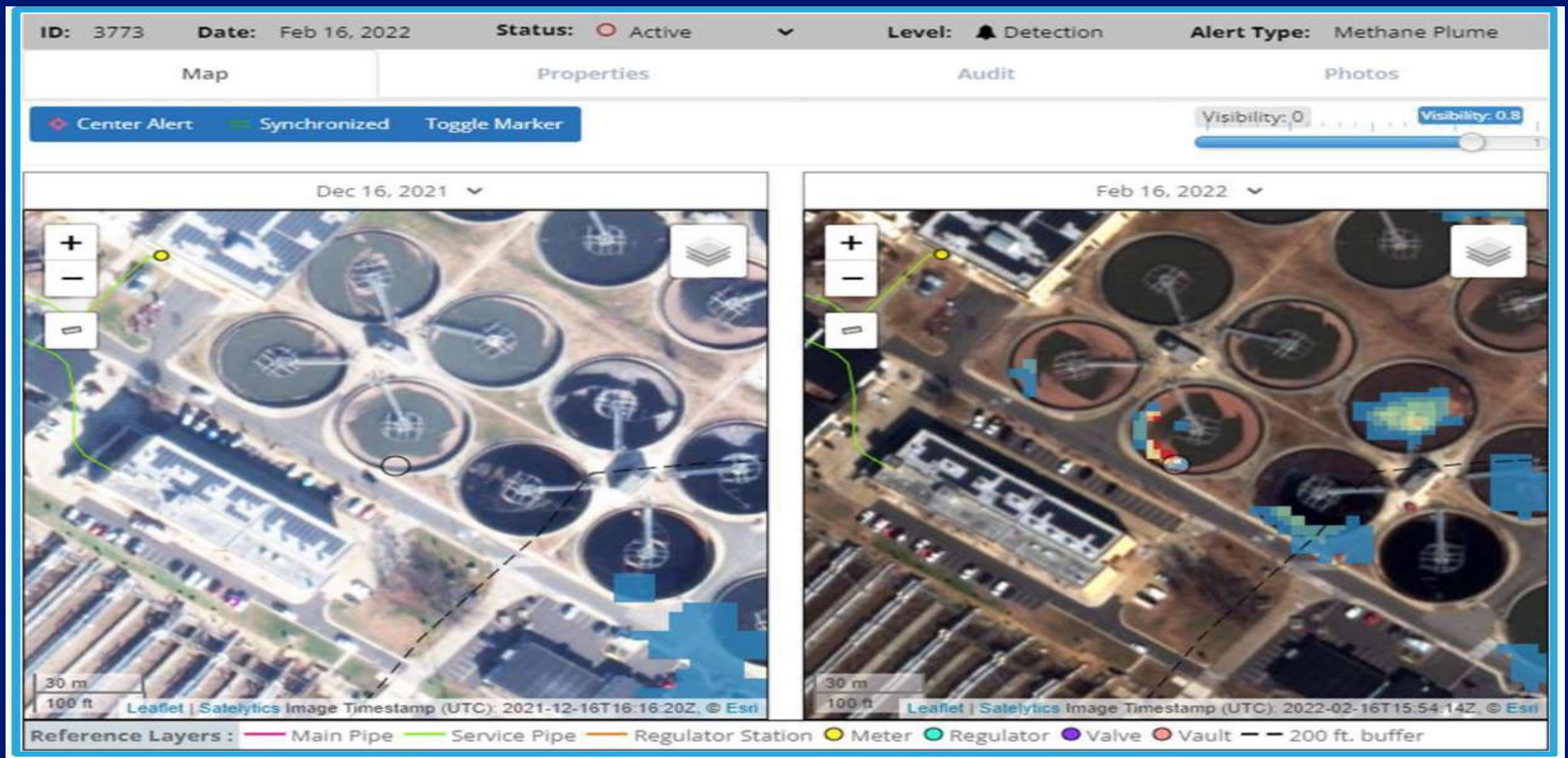
# Quality Evaluations

- Did not provide Vendor with known leaks
- After shots received gas engineering overlaid known leaks from GIS onto Vendor mapping to compare what we knew we had and what they identified. This process will be repeated with every shot.

# Leaks Found

- Rooftop Gas Utilization Equipment
- Meter Sets/ Riser Valves, Reliefs
- Mis-firing Appliances, as well as Chimney/Direct
- Cat 4 Gas Utilization Equipment- (High Efficiency direct vent. Gas burp at start-up.
- Several of the known Classified Street Leaks and a few that were new.
  
- **Sewage Treatment Plants- Every Municipality**

# Municipal Sewer Plants: Digester Methane Plumes, huge amounts compared to our confirmed leaks.







ID: 3857    Date: Mar 14, 2022    Status: ○ Active    Level: ▲ High    Alert Type: Methane Plume

Map

Properties

Audit

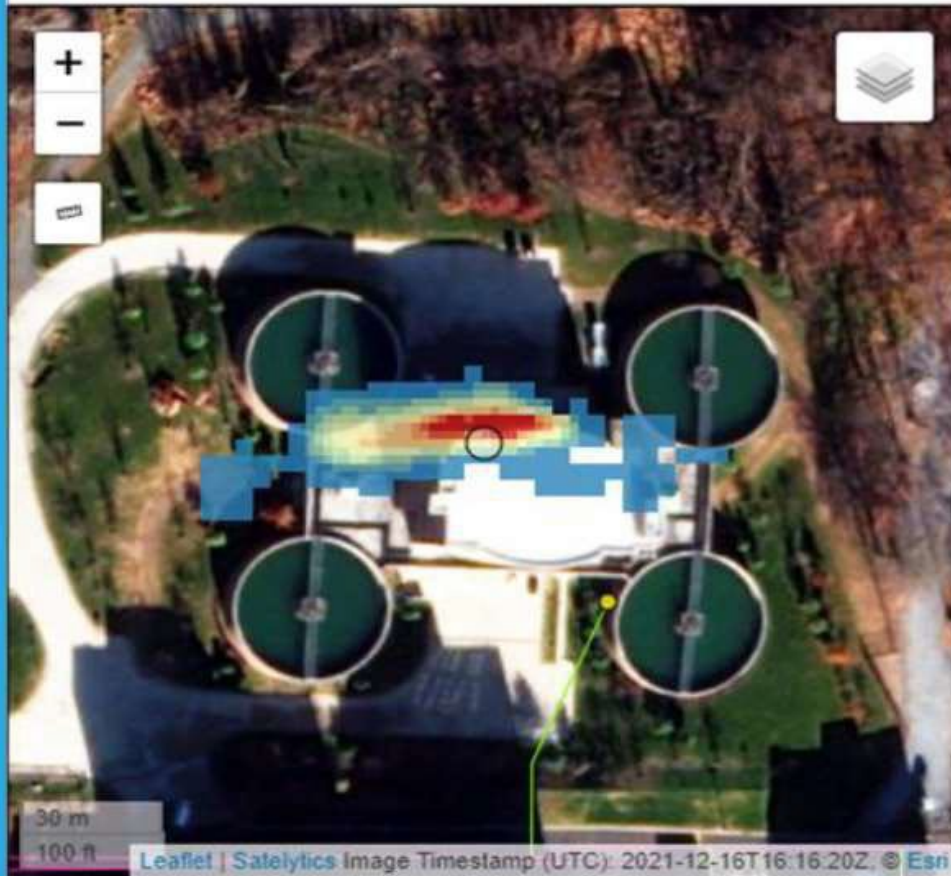
Photos

◆ Center Alert    ■ Synchronized    Toggle Marker

Visibility: 0 Visibility: 0.8



Dec 16, 2021 ▾



Mar 14, 2022 ▾



Reference Layers : — Main Pipe    — Service Pipe    — Regulator Station    ● Meter    ● Regulator    ● Valve    ● Vault    --- 200 ft. buffer

Search... Clear

Visibility 1 Aug 2, 2023  
 2023 Aug 8, 2023 Aug 16, 2023 Aug 24, 2023 Sep 1, 2023

### Alerts

Viewing 1 of 212 records.

Cumulative Flow Rate = 5.20 kg/hr  
 Cumulative Flow Rate = 0.00 mmscfd

Methane Plume

801

Aug 2, 2023

Flow Rate: 0.004 mmscfd  
 Flow Rate: 5.200 kg/hr  
 Max Concentration: 18960.000 ppmxm  
 Wind Direction: NNE  
 Wind Speed: 1.970 m/s  
 Wind Speed: 4.400 mph

Indicator	High	Status	Ac
Latitude	41.453078	Longitude	-74.019
Created	Aug 11, 2023	Modified	Aug 2

Notes



Indicator High Moderate Low Detection Reference Layers Buffers - 50 m Distribution Main Transmission Main

# Project Plans

- Planning to R&D Fund 3<sup>rd</sup> through 7<sup>th</sup> Shots –Q3/Q4 2023.
- Engineering –possible near future NYSEARCH Project
- Consideration for future vegetation and right-of-way management layers.
- Would like to see accuracy get to >60% to balance labor efficiencies.
- Leak/Appliance Data Collection (Cat. 4) Specifically, with “No Leak Found”
- Issues Found with Process:
  - Cloud Cover – concerns with frequency of shots in Northeast as sometimes it take several days to catch the area planned for the shot when it is cloud free.
  - List of Methane Leakage Locations- Timely response to many location difficult to schedule when shot is finally achieved.

# Portal Live Look- Upon Request



# Question -Discussion

