Effective Communication through Dashboards

Arkla Terra Superfund Site

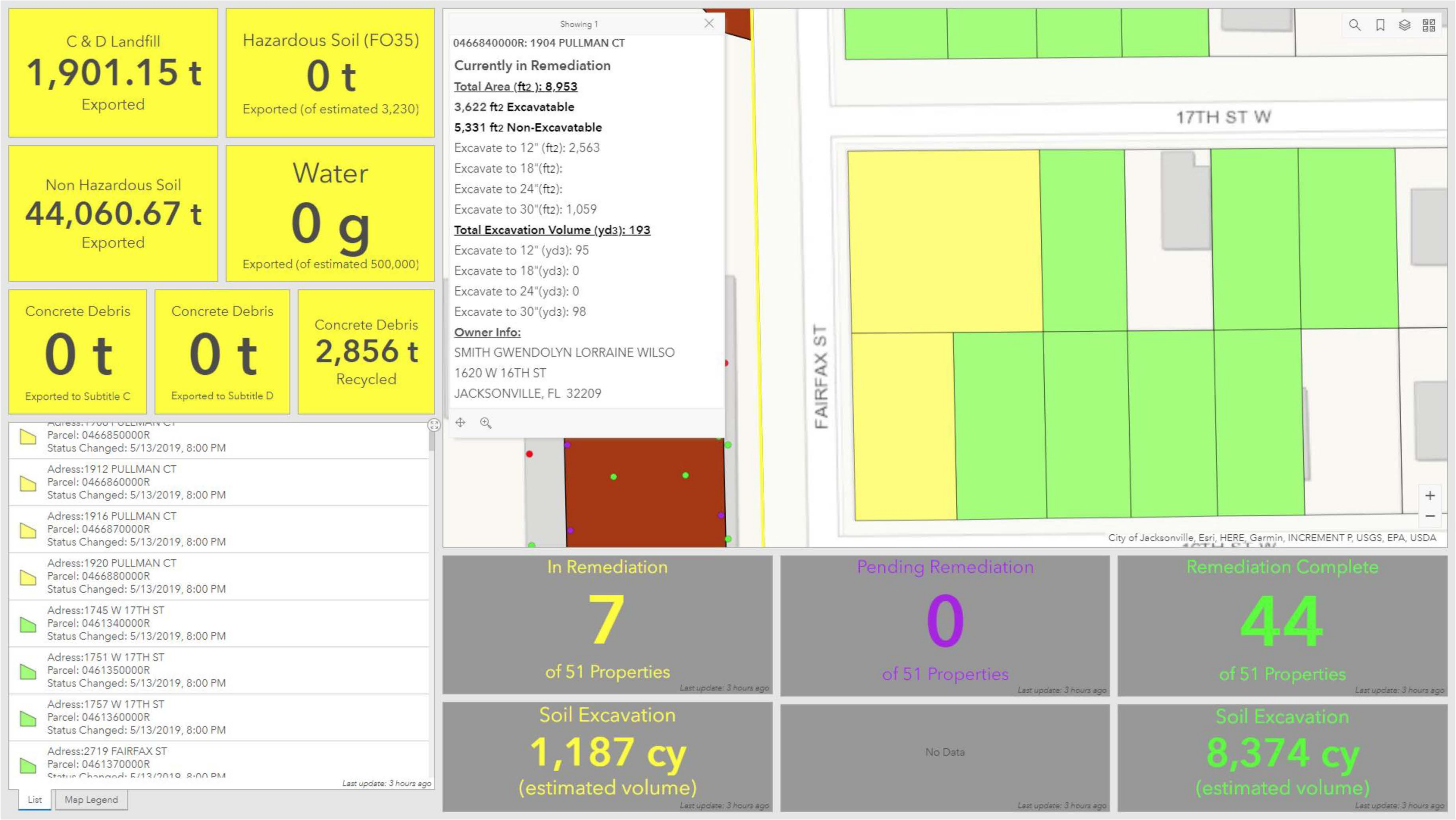
Beth Walden, USEPA Region 4

AGENDA

Site Background

Dashboard Overview

Dashboard Benefits

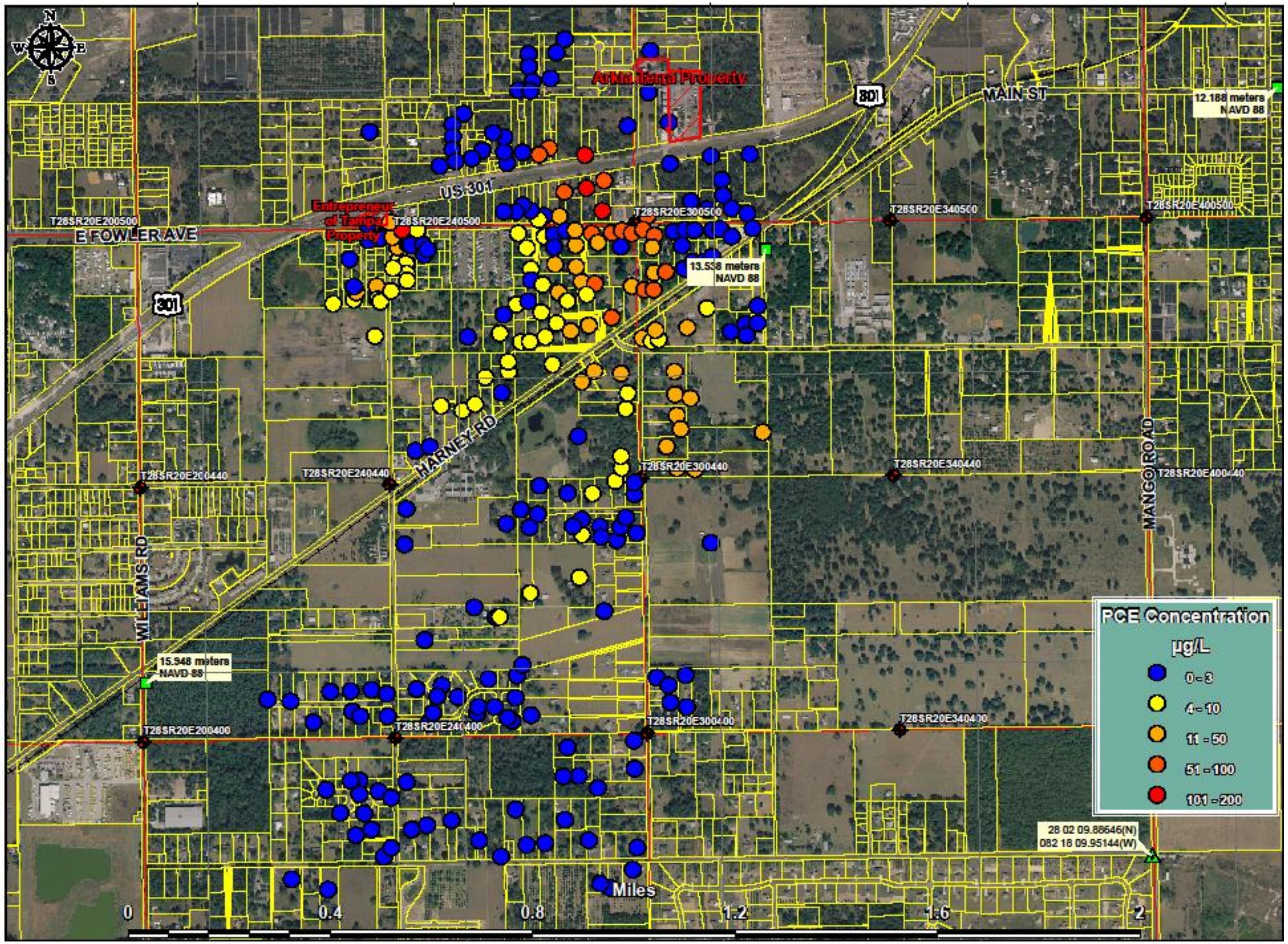

C & D Landfill
1,901.15 t
Exported
Hazardous Soil (FO35)
0 t
Exported (of estimated 3,230)
Non Hazardous Soil
44,060.67 t
Exported
Water
0 g
Exported (of estimated 500,000)
Concrete Debris
0 t
Exported to Subtitle C
Concrete Debris
0 t
Exported to Subtitle D
Concrete Debris
2,856 t
Recycled
Parcel: 0466850000R
Status Changed: 5/13/2019, 8:00 PM
Adress:1912 PULLMAN CT
Parcel: 0466860000R
Status Changed: 5/13/2019, 8:00 PM
Adress:1916 PULLMAN CT
Parcel: 0466870000R
Status Changed: 5/13/2019, 8:00 PM
Adress:1920 PULLMAN CT
Parcel: 0466880000R
Status Changed: 5/13/2019, 8:00 PM
Adress:1745 W 17TH ST
Parcel: 0461340000R
Status Changed: 5/13/2019, 8:00 PM
Adress:1751 W 17TH ST
Parcel: 0461350000R
Status Changed: 5/13/2019, 8:00 PM
Adress:1757 W 17TH ST
Parcel: 0461360000R
Status Changed: 5/13/2019, 8:00 PM
Adress:2719 FAIRFAX ST
Parcel: 0461370000R
Last update: 3 hours ago
List
Map Legend
Showing 1
0466840000R: 1904 PULLMAN CT
Currently in Remediation
Total Area (ft2): 8,953
3,622 ft2 Excavatable
5,331 ft2 Non-Excavatable
Excavate to 12" (ft2): 2,563
Excavate to 18"(ft2):
Excavate to 24"(ft2):
Excavate to 30"(ft2): 1,059
Total Excavation Volume (yd3): 193
Excavate to 12" (yd3): 95
Excavate to 18"(yd3): 0
Excavate to 24"(yd3): 0
Excavate to 30"(yd3): 98
Owner Info:
SMITH GWENDOLYN LORRAINE WILSO
1620 W 16TH ST
JACKSONVILLE, FL 32209
17TH ST W
FAIRFAX ST
City of Jacksonville, Esri, HERE, Garmin, INCREMENT P, USGS, EPA, USDA
In Remediation
7
of 51 Properties
Last update: 3 hours ago
Pending Remediation
0
of 51 Properties
Last update: 3 hours ago
Remediation Complete
44
of 51 Properties
Last update: 3 hours ago
Soil Excavation
1,187 cy
(estimated volume)
Last update: 3 hours ago
No Data
Last update: 3 hours ago
Soil Excavation
8,374 cy
(estimated volume)
Last update: 3 hours ago

Southside Chattanooga Dashboard
A Story Map
Samples
Parcels
Alton Park
Sample Data
Parcel and Cadastral Data
Layers
Residential Lead Property Form
Blood Lead Sample Location
Historial XRF Screening Results Arsenic Greater than or Equal to 68 ppm
Historial XRF Screening Results Arsenic Less Than 68 ppm
Counts
Parcel Filters
Parcel Boundary - Access Denied 0
Parcel Boundary - Access Granted 9
Parcel Boundary - No Answer 9
Parcel Boundary - Researching 0
Parcel Boundary - Partially Sampled 0
Parcel Boundary - Sampled 137
Parcel Boundary - Cleanup Denied 0
Parcel Boundary - Cleanup Granted 0
Parcel Boundary - Removal Started 0
Parcel Boundary - Restoration Complete 0
Find address or place
35.002222 -85.311444 Degrees
USDA FSA | Esri, HERE, Garmin, © OpenStreetMap contributors, and the G...
POWERED BY esri
Legend
Alton Park
Alton Park
Parcel Boundary
Access Denied
Smart Editor
Screening
Select a template to create features
Sampled This Week 0
Sampled This Month 3
Sampled This Year 7
Sampled to Date 258
Removal Started - WtD
Restoration Complete - WtD
0
Removal Started - MtD 0
Removal Started - YtD 0
Removal Started - StD 0

Arkla Terra Property

- UST Refurbishment Facility
- PCE and TCE Contamination
- Groundwater Contamination Extends ~1 Mile
- Impacted Residential Wells

Residential Wells 1999-2010



Activities

- ✓ Remedial Investigation (RI) / Feasibility Study (FS)
- ✓ Human Health Risk Assessment (HHRA)
- ✓ Source removal via thermal treatment
- ✓ Residences connected to municipal water supply or point of use treatment
- ✓ Continued monitoring

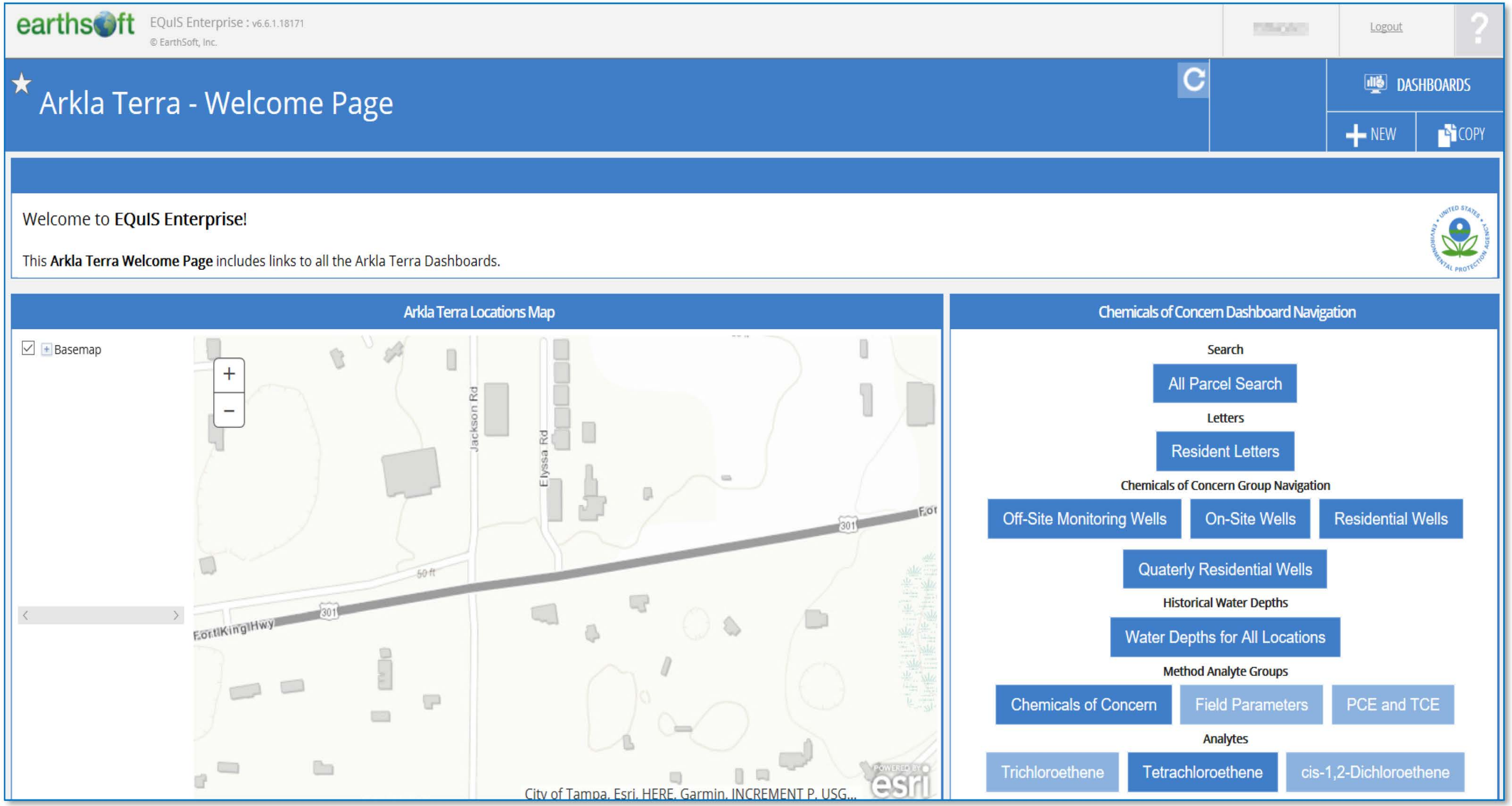
CHALLENGES

- Large volumes of soil and groundwater data from many sampling locations
- Manage and track residential impacts
- Numerous professionals (e.g., EPA Remedial Project Manager, hydrogeologists, risk assessors) need access to data
- Need to communicate with various stakeholders, including the public
- Respond to public inquires

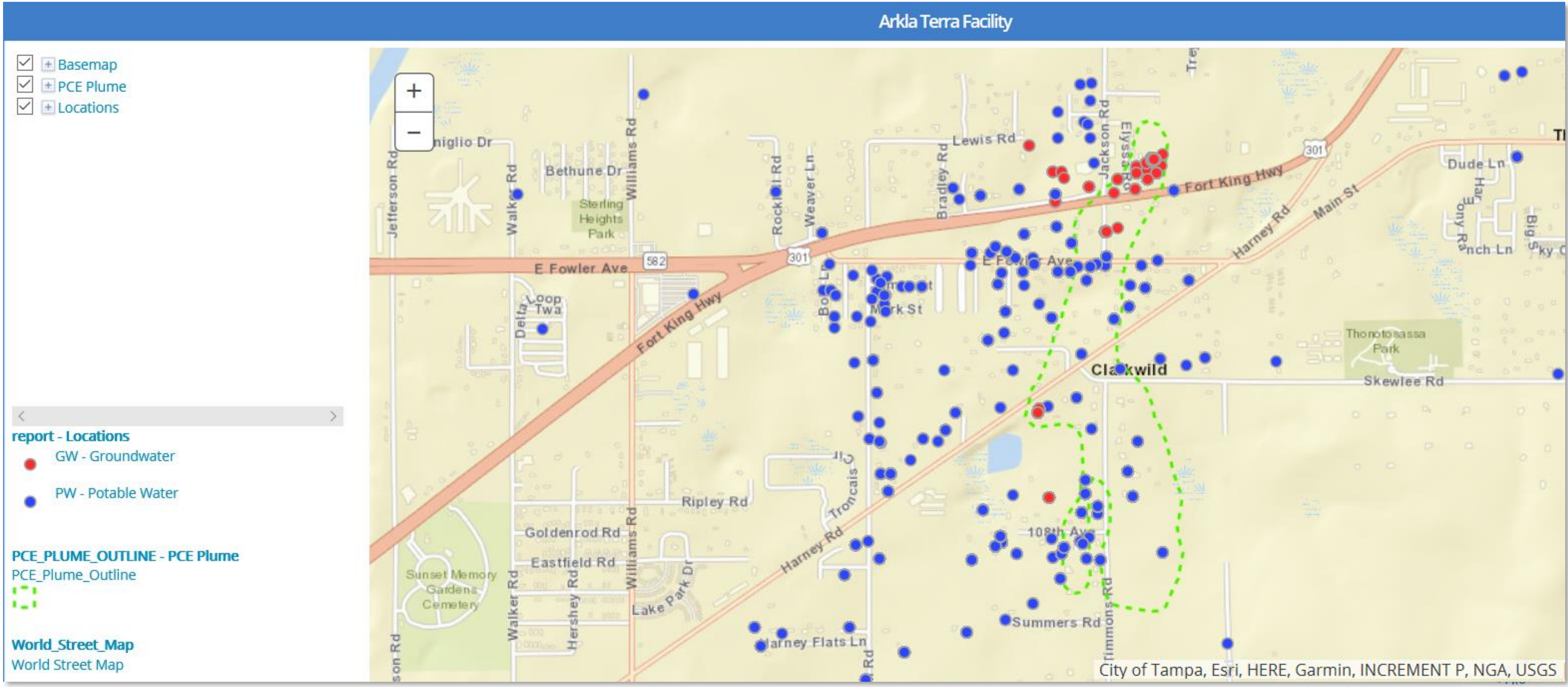
SOLUTION

Pre-Configured EQuIS Enterprise Dashboards

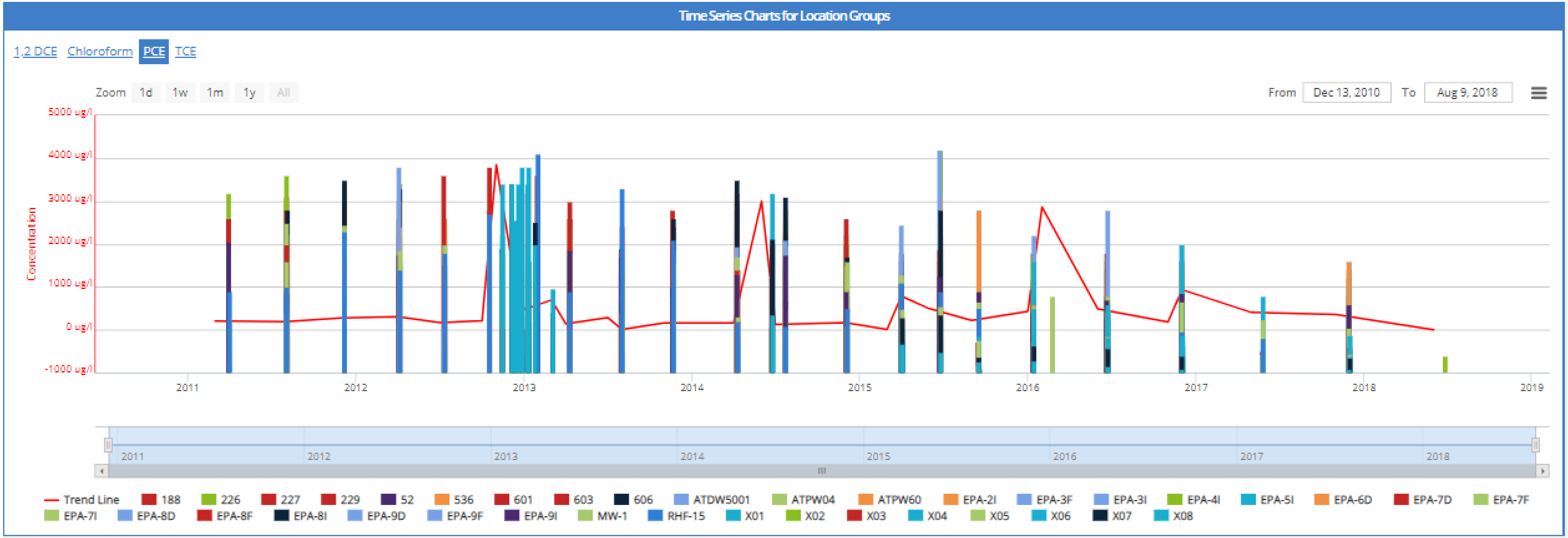
- Visual display of data easier to understand and allows for quick communication with interested parties
- Easy access to site data for EPA staff and contractors
- Available for presentation at public meetings or other interactions with interested stakeholders


earthsoft
EQuIS Enterprise : v6.6.1.18171
© EarthSoft, Inc.
Logout
Arkla Terra - Welcome Page
DASHBOARDS
NEW
COPY
Welcome to EQuIS Enterprise!
This Arkla Terra Welcome Page includes links to all the Arkla Terra Dashboards.
Arkla Terra Locations Map
Basemap
Jackson Rd
Elyssa Rd
Fort King Hwy
301
50 ft
City of Tampa, Esri, HERE, Garmin, INCREMENT P, USG...
esri
Chemicals of Concern Dashboard Navigation
Search
All Parcel Search
Letters
Resident Letters
Chemicals of Concern Group Navigation
Off-Site Monitoring Wells
On-Site Wells
Residential Wells
Quaterly Residential Wells
Historical Water Depths
Water Depths for All Locations
Method Analyte Groups
Chemicals of Concern
Field Parameters
PCE and TCE
Analytes
Trichloroethene
Tetrachloroethene
cis-1,2-Dichloroethene

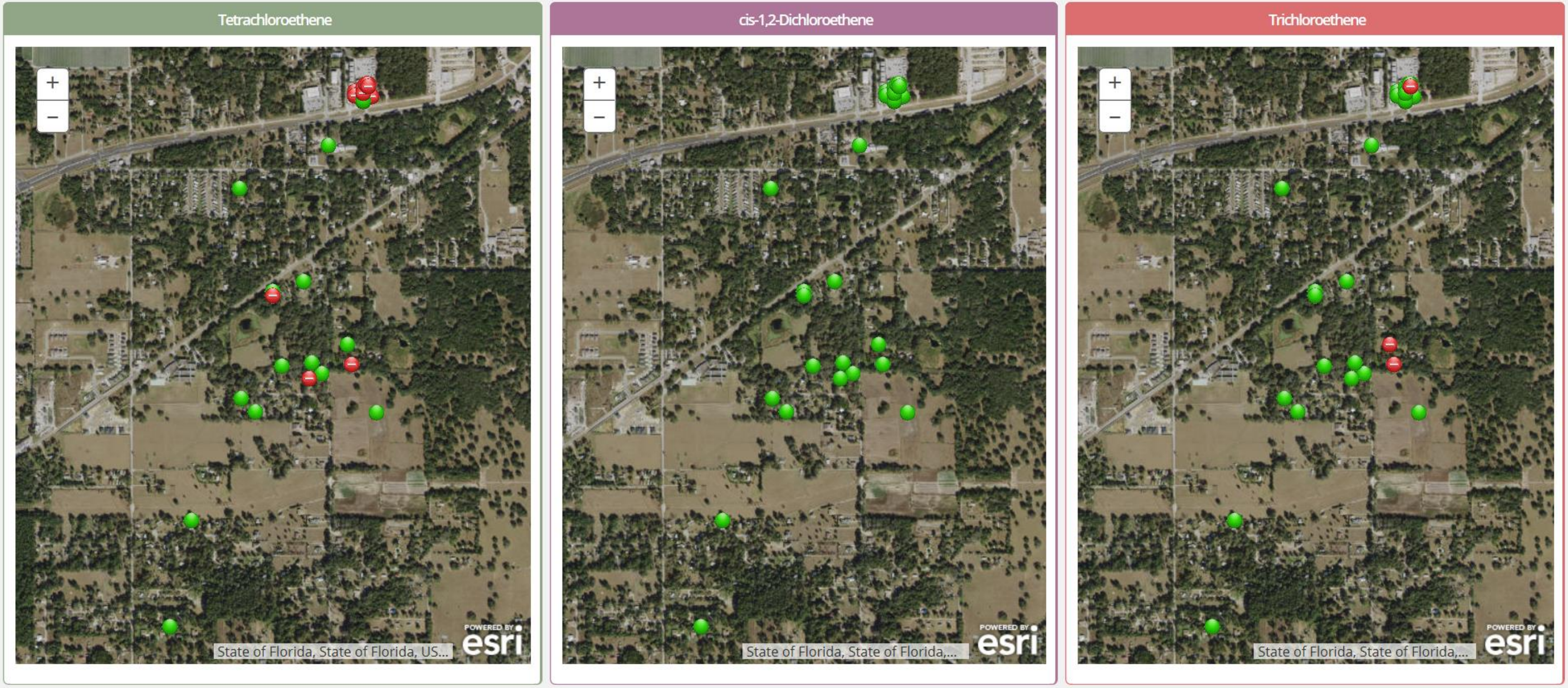
Plume Maps


Arkla Terra Facility
Basemap
PCE Plume
Locations
report - Locations
GW - Groundwater
PW - Potable Water
PCE_PLUME_OUTLINE - PCE Plume
PCE_Plume_Outline
World_Street_Map
World Street Map
Lewis Rd
Fort King Hwy
E Fowler Ave
Harney Rd
Main St
Dude Ln
Bethune Dr
Sterling Heights Park
Williams Rd
Jefferson Rd
Walker Rd
Rockhill Rd
Weaver Ln
Bradley Rd
Jackson Rd
Elyssa Rd
Mark St
Clarkwild
Thonotosassa Park
Skewlee Rd
Ripley Rd
Goldenrod Rd
Eastfield Rd
Hershey Rd
Lake Park Dr
Sunset Memory Gardens Cemetery
Troncais Ct
108th Ave
Summers Rd
Harney Flats Ln
Timmons Rd
301
582
City of Tampa, Esri, HERE, Garmin, INCREMENT P, NGA, USGS

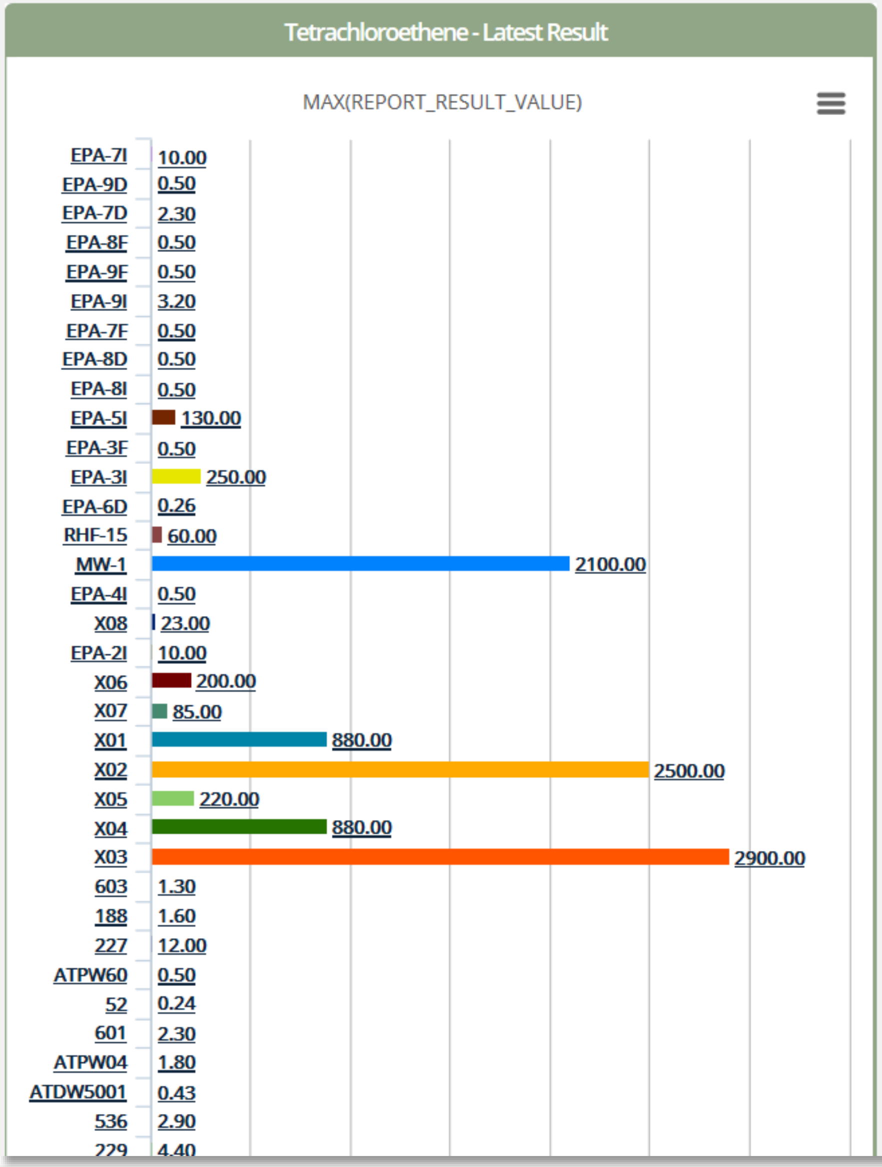
Chemicals of Concern

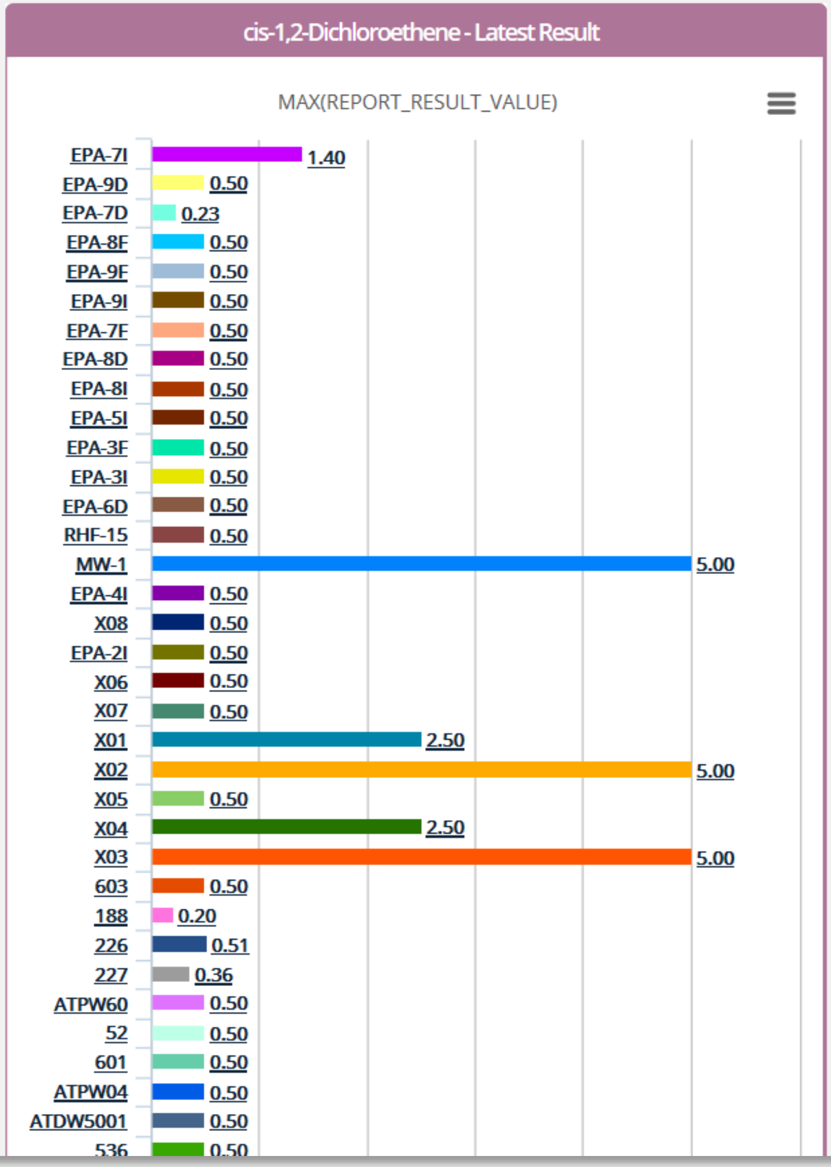


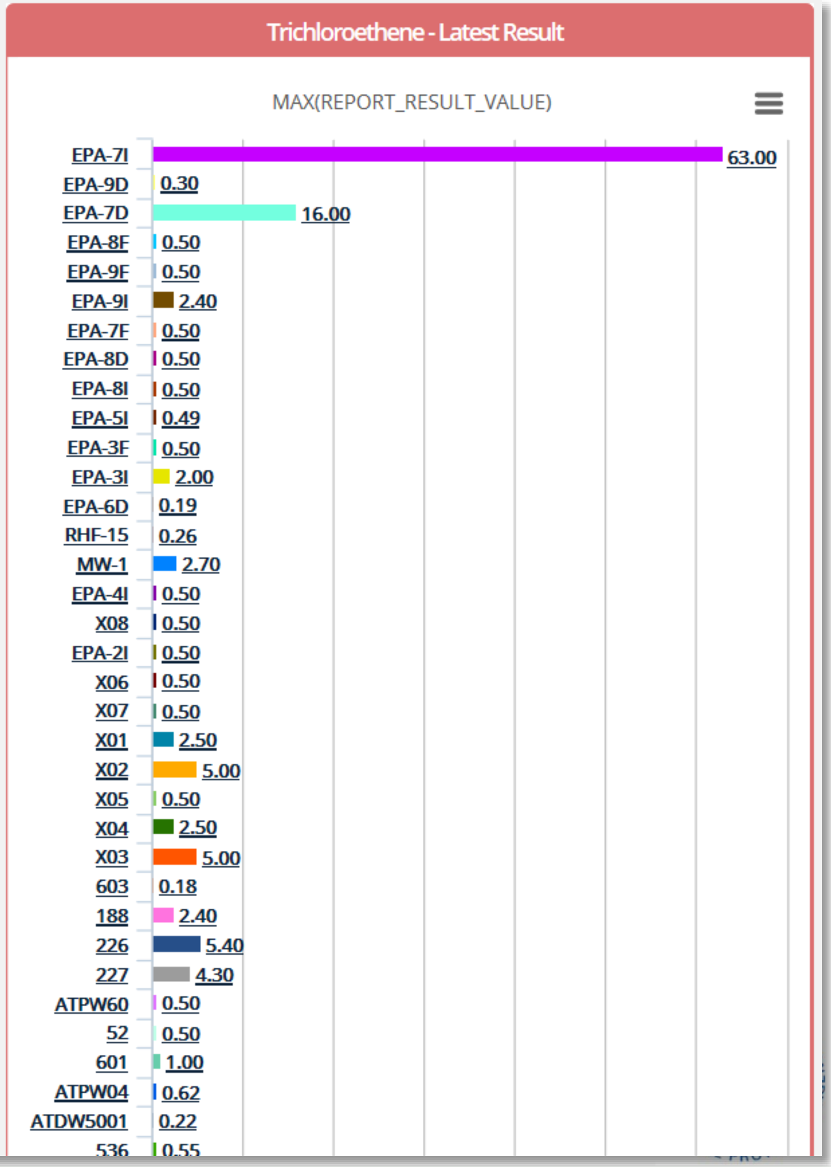
Chemicals of Concern



Chemicals of Concern





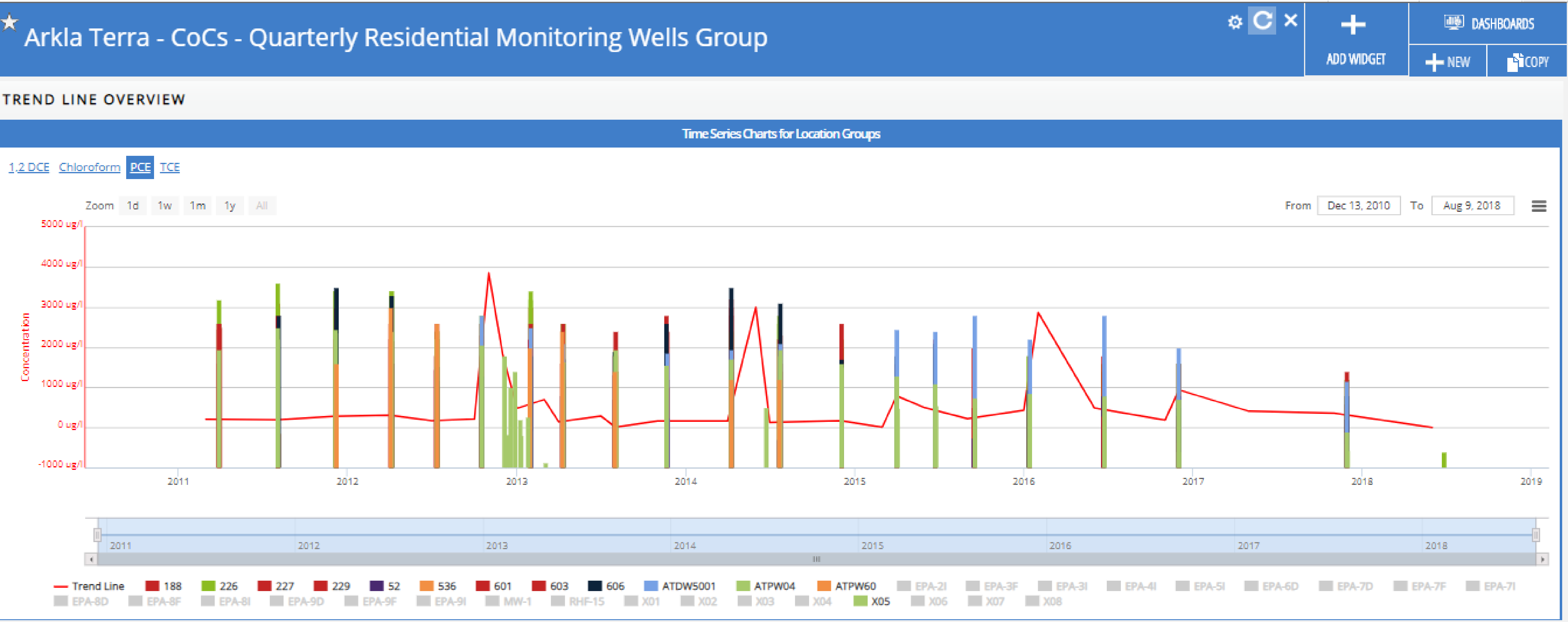


Benefits of the Dashboard

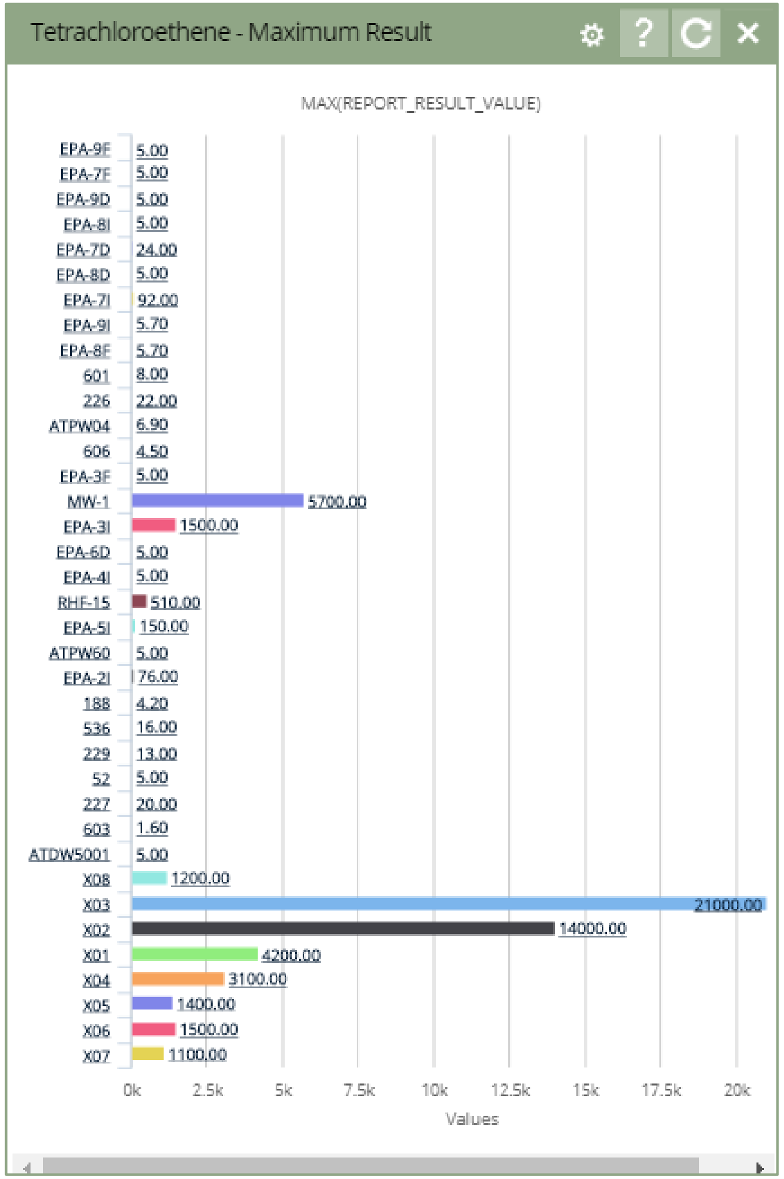
Data Presentation and Analysis

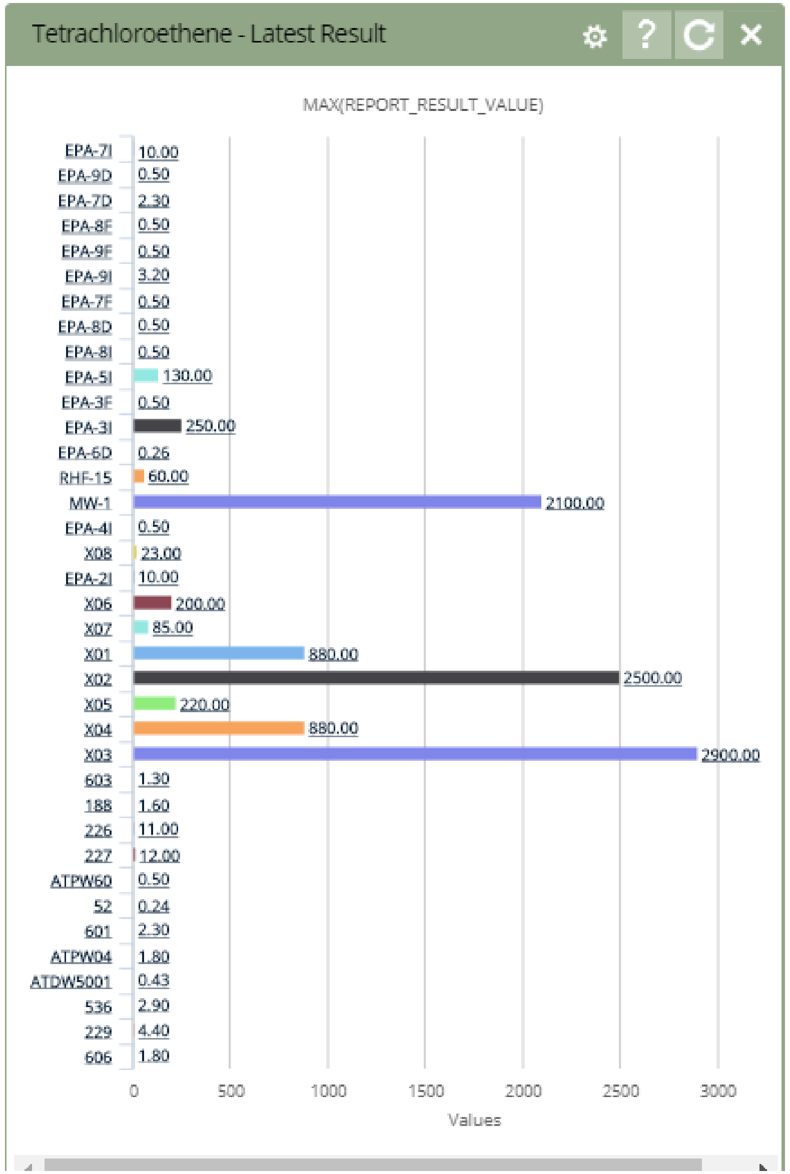
- ✓ Compare maximum detections versus most recent detections
- ✓ Assess and display aquifer cleanup progress since treatment
- ✓ Quickly provides most recent results to EPA RPM and others
- ✓ Onsite and offsite monitoring wells and residential wells grouped for analysis

Chemicals of Concern

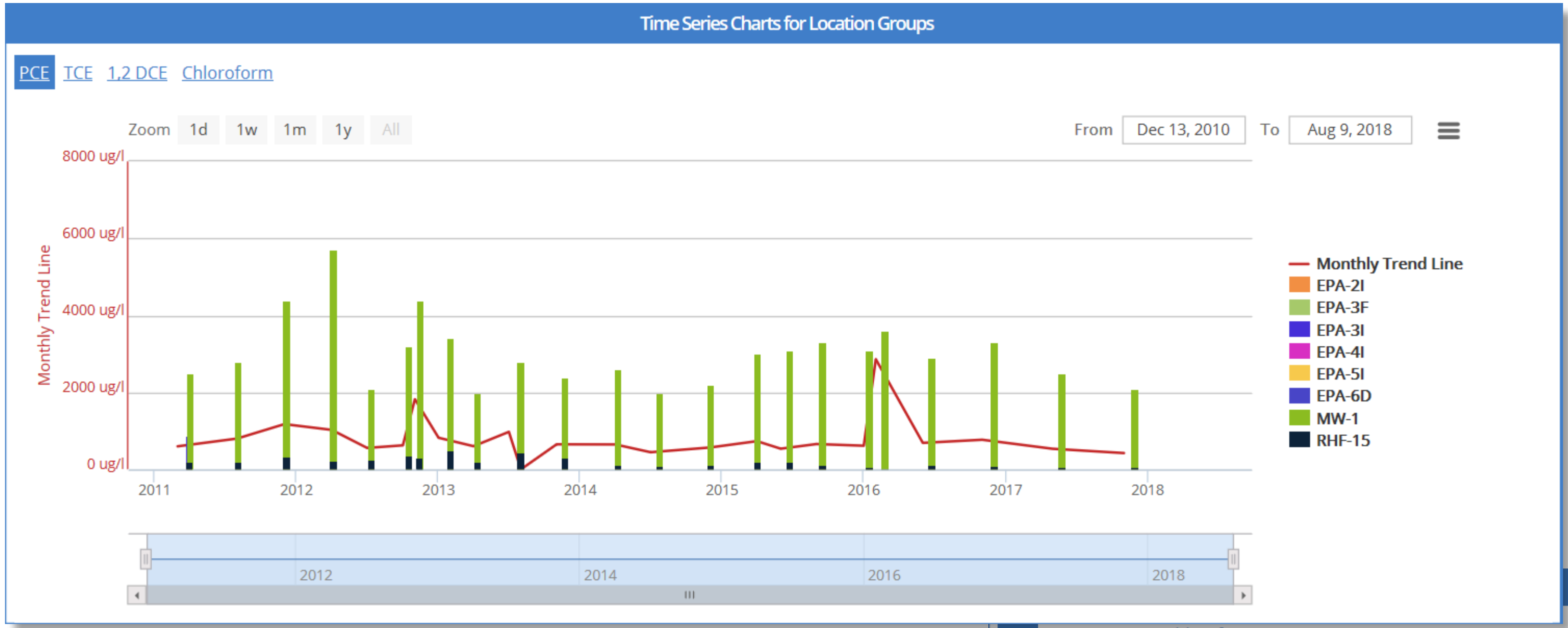


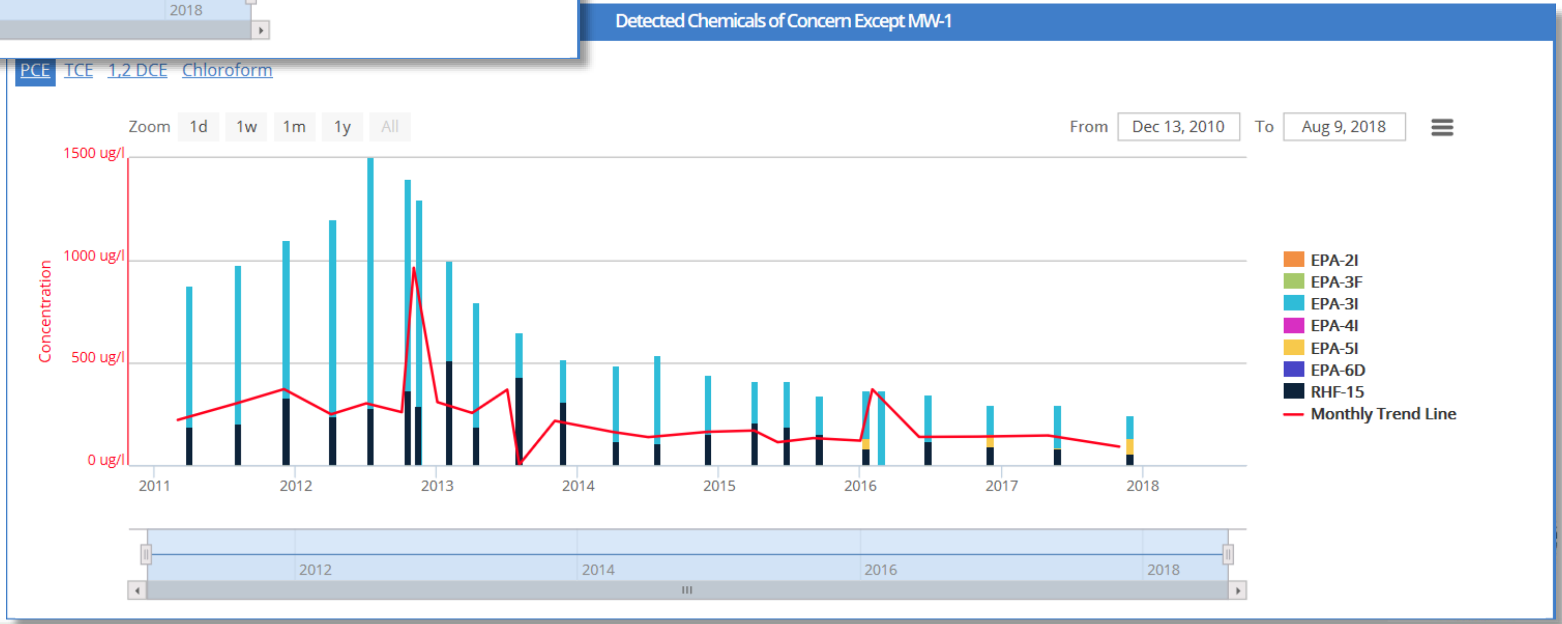
Max vs Recent Data Comparison





Source Removal Demonstration





Parcel Search Filter

DATA SECTION

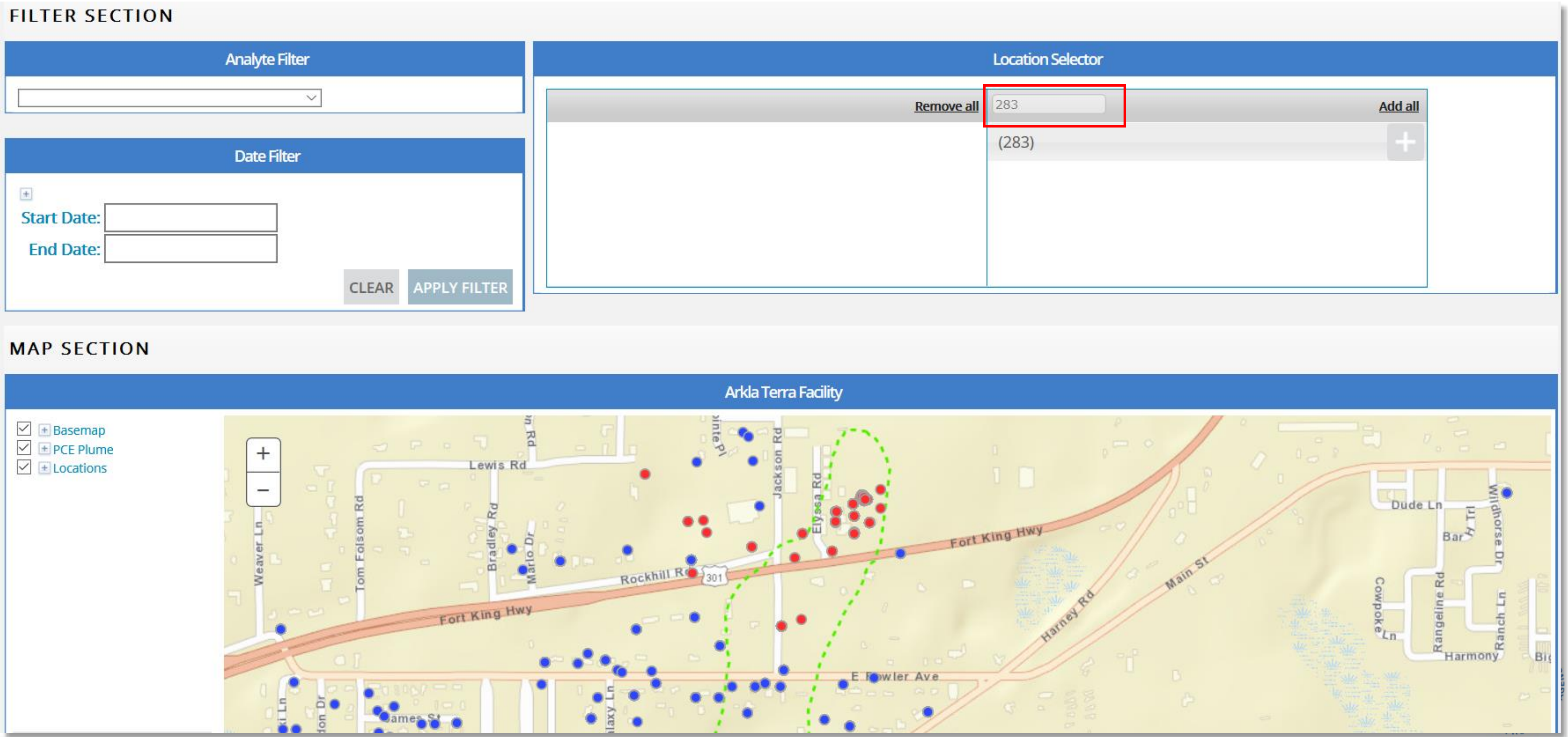
Arkla Terra Data

ATP_ALLLOCATIONS_CoCs   [*.xlsx] Filter:

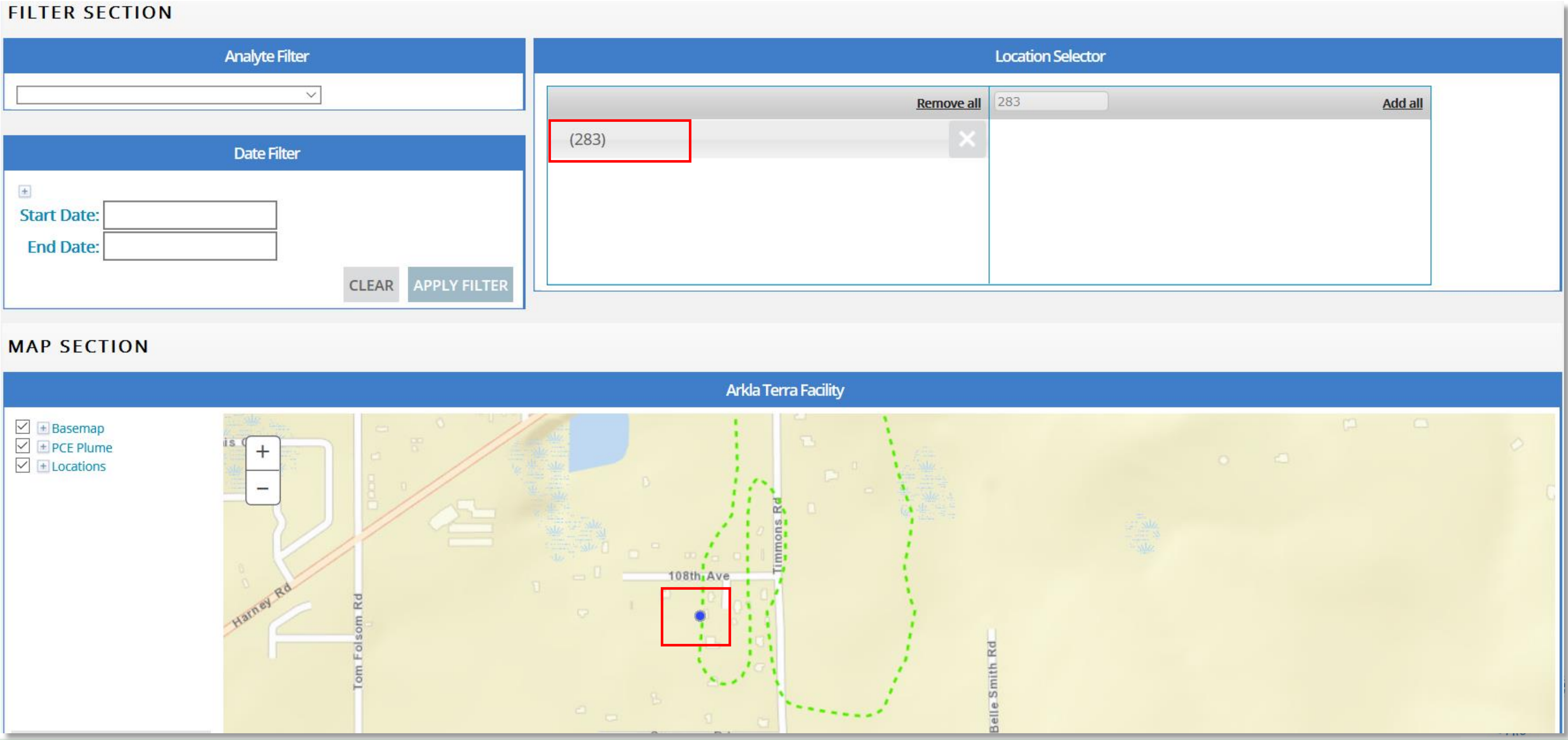
<< < 1 2 ... 265 266 > >> Go to page: 1 Rows per page: 10   Showing 1-10 of 2658

SYS_LOC_CODE	LOC_DESC	SAMPLE_DATE	SAMPLE_TYPE_CODE	CHEMICAL_NAME	REPORT_RESULT_TEXT	REPORT_RESULT_UNIT	METHOD_DETECTION_LIMIT
238	9834 ROCK HILL RD	1/6/2000 11:00:00 AM	N	Tetrachloroethene (Tetrachloroethylene)	2	ug/l	
238	9834 ROCK HILL RD	1/6/2000 11:00:00 AM	N	Chloroform	0.17	ug/l	
238	9834 ROCK HILL RD	1/6/2000 11:00:00 AM	N	Trichloroethene (Trichloroethylene)	0.2	ug/l	
9	9830 E FOWLER AV	1/6/2000 11:00:00 AM	N	Tetrachloroethene (Tetrachloroethylene)	2.3	ug/l	
9	9830 E FOWLER AV	1/6/2000 11:00:00 AM	N	Trichloroethene (Trichloroethylene)	0.29	ug/l	
14	11149 GALAXY LN	1/6/2000 11:00:00 AM	N	Tetrachloroethene (Tetrachloroethylene)	2.1	ug/l	
14	11149 GALAXY LN	1/6/2000 11:00:00 AM	N	Chloroform	0.17	ug/l	
14	11149 GALAXY LN	1/6/2000 11:00:00 AM	N	Trichloroethene (Trichloroethylene)	0.2	ug/l	
283	10206 LAID BACK LANE	1/6/2000 11:00:00 AM	N	Tetrachloroethene (Tetrachloroethylene)	3.1	ug/l	
283	10206 LAID BACK LANE	1/6/2000 11:00:00 AM	N	Chloroform	0.17	ug/l	

Parcel Search Filter



Parcel Search Filter

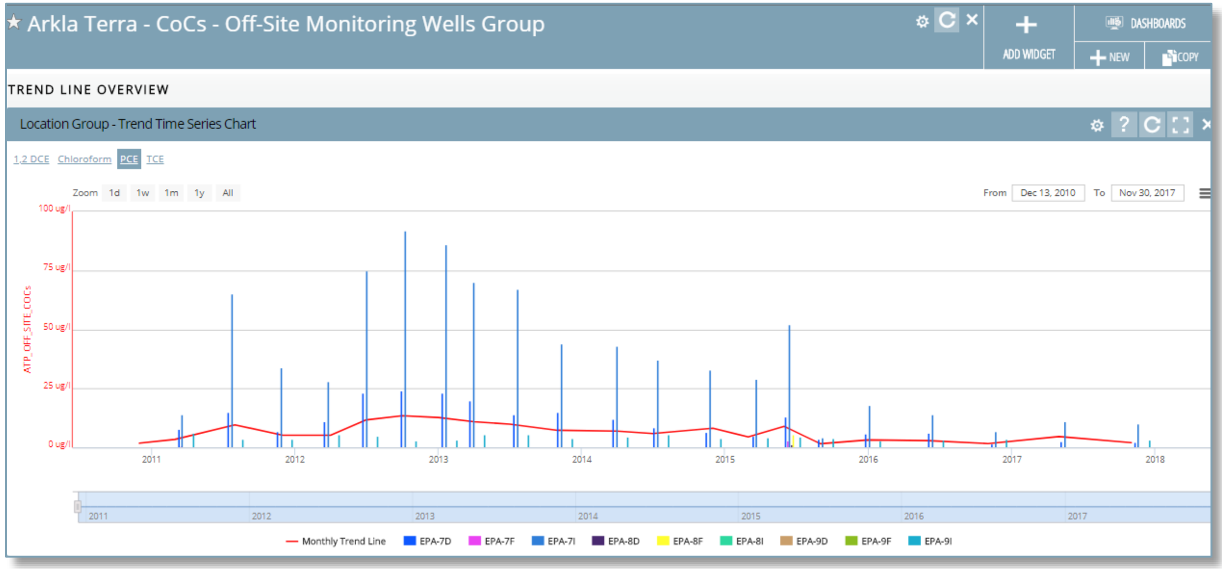


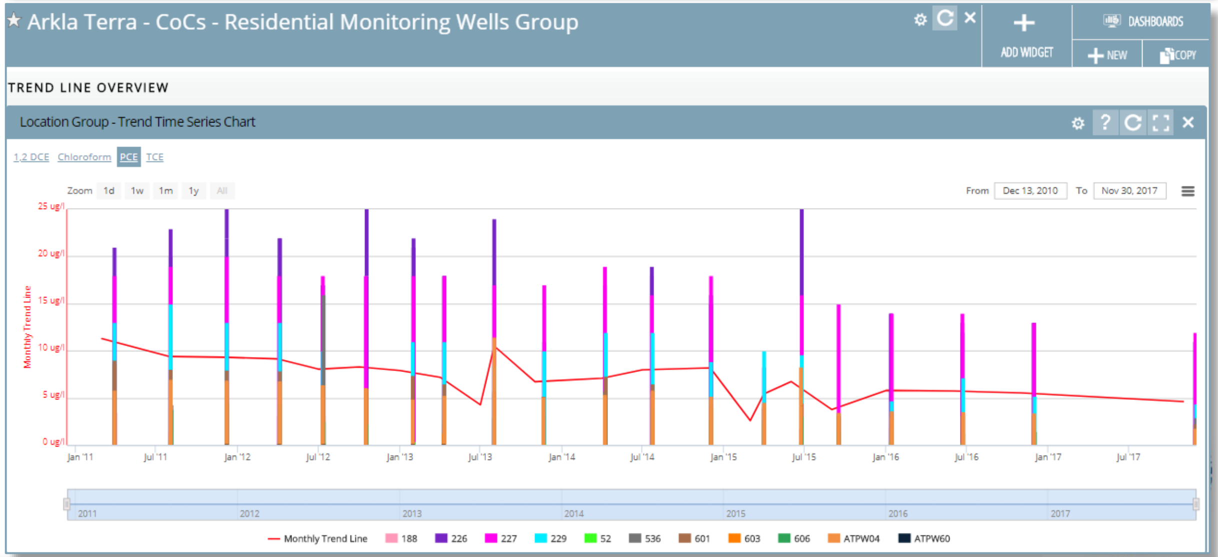
Assist Risk Assessor

- ✓ Data selection for risk assessments can be challenging
- ✓ Groundwater concentration data from **residential** wells NOT typically included
- ✓ Offsite **monitoring** well data used to develop the offsite groundwater Exposure Point Concentration (EPC)
- ✓ EPC developed for a reasonable maximum exposure condition using PCE = 30.43 µg/L and TCE = 30.17 µg/L
    - Greater than any concentrations measured in residential wells
    - Worst-case exposure scenario for a hypothetical offsite current receptor

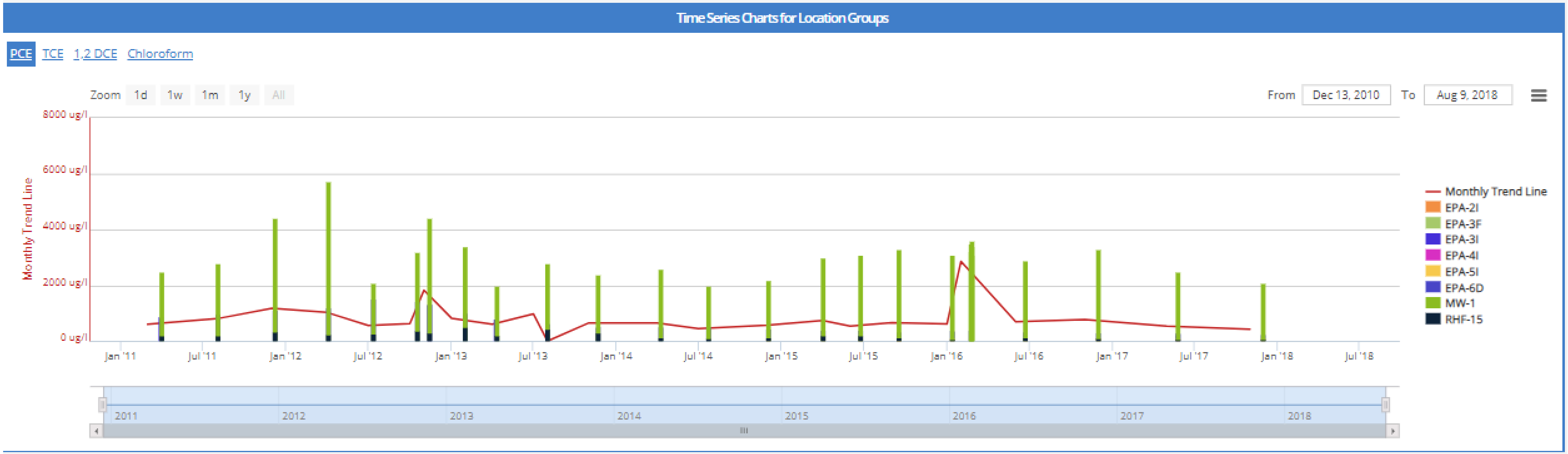
Assist Risk Assessor

- ✓ EQuIS Enterprise charts demonstrated concentration trends and actual residential well values to risk assessor
- ✓ Improved understanding of site conditions
- ✓ Allowed risk assessor to appropriately draft language
- ✓ Provided guidance for selection of EPA's preferred cleanup remedy that will be protective of human health

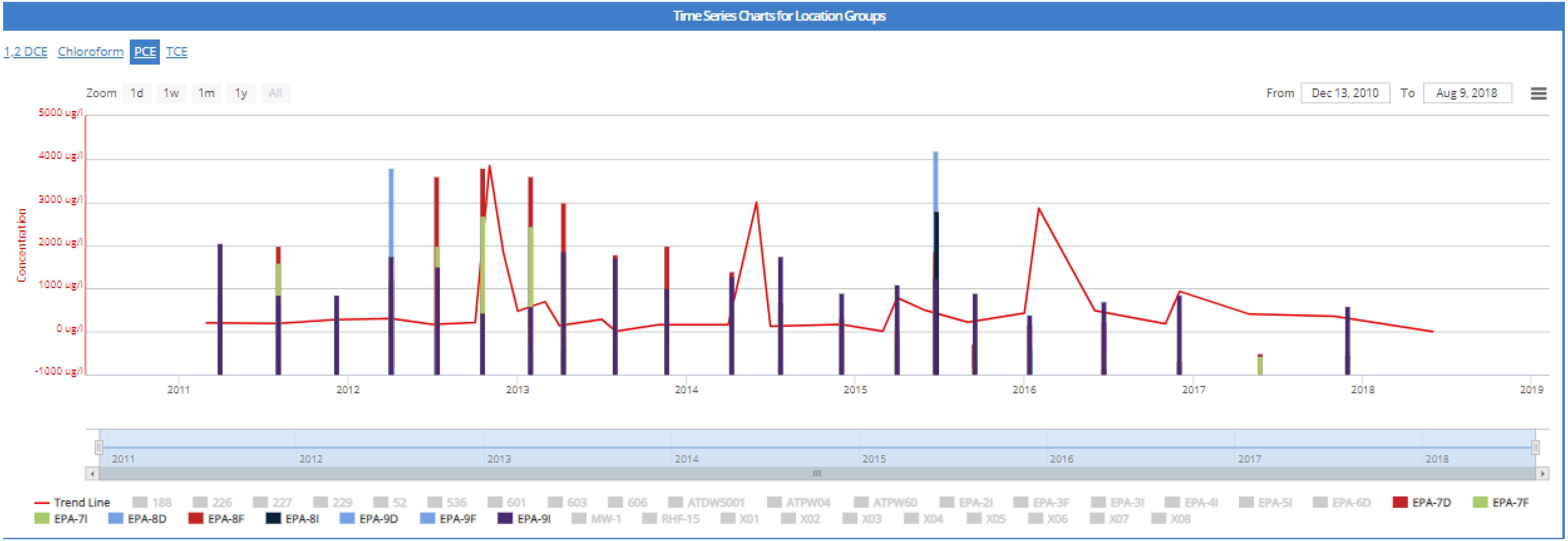




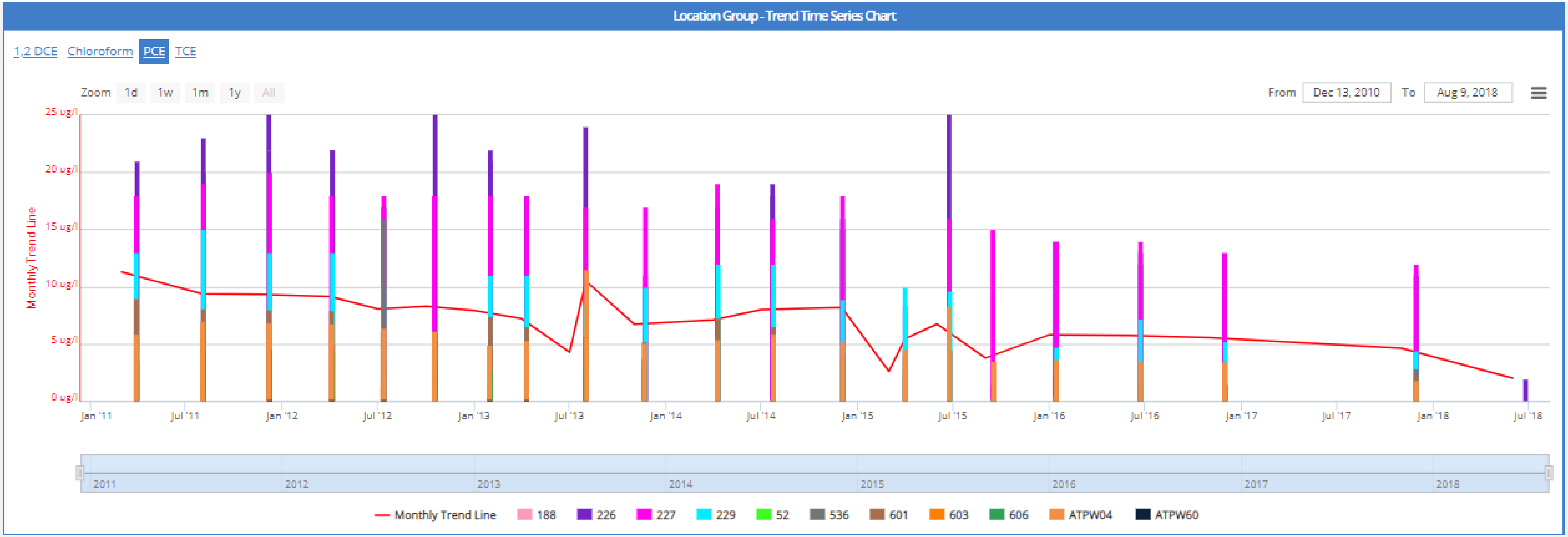
On Site Monitoring Wells



Off Site Monitoring Wells



Residential Wells



Benefits of Dashboard Summary

- ✓ Overall effective site management
- ✓ Visual communication to stakeholders (public and management)
- ✓ Data presentation and analysis
- ✓ Improved site understanding
- ✓ Assist with risk assessment and remedy selection
- ✓ Search filter
- ✓ Quick response to inquires