U.S. Environmental Protection Agency (USEPA) Environmental Response Team Trace Atmosphere Gas Analyzer (TAGA) Post-Harvey Monitoring Houston, Corpus Christi, and Beaumont Areas, TX

October 9, 2017

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Background

Hurricane Harvey hit the Texas Coast as a Category 4 Hurricane on August 25, 2017, and subsequent stalling of the system over south Texas, caused unprecedented flooding in the Houston Region. As a result, several industrial facilities were damaged. To help protect and minimize damage to valuable monitoring equipment, the U.S. Environmental Protection Agency (USEPA), the Texas Commission on Environmental Quality (TCEQ), and other monitoring entities temporarily shut down several air monitoring stations from the greater Houston, Corpus Christi, and Beaumont areas ahead of the storm, as one of many preparations. After the storm passed, and conditions were safe, state and local authorities began work to get the systems up and running again as soon as possible. By August 28, 2017, TCEQ began efforts to assess sites for damage and bring monitors back online. In the interim, the USEPA dispatched its Environmental Response Team to conduct mobile monitoring in the Houston areas most affected by Hurricane Harvey.

USEPA Trace Atmosphere Gas Analyzer (TAGA)

The Trace Atmospheric Gas Analyzer (TAGA) is a self-contained mobile laboratory capable of real-time sampling of outdoor air emissions while in motion. The instrumentation refers both to the analytical instrument and the mobile laboratory built around it. The instrumentation aboard a TAGA mobile air monitoring bus (TAGA bus) includes:

1. A TAGA mass spectrometer/mass spectrometer (MS/MS), which provides real-time monitoring for many organic and inorganic compounds at the part-per-billion by volume (ppbv) levels or lower
2. An Agilent gas chromatograph/mass spectrometer (GC/MS), which analyzes volatile organic compounds at the ppbv level or lower in air samples collected in Tedlar® bags using a loop injection system
3. An Agilent Micro GC, which assays permanent gases at part-per-million by volume (ppmv) levels
4. A global positioning system (GPS), which supplies accurate, real-time positional data during mobile monitoring or stationary events
5. A GIS system, which maps and presents the TAGA's position in real time.

This versatile mobile monitoring system offers a wide variety of services to assist groups within USEPA with cost-effectively conducting investigatory and enforcement activities. This mobile monitoring system collects instantaneous/grab samples which are not directly comparable to the TCEQ's 1-hour, short-term ambient air monitoring comparison values (AMCVs), although the USEPA concluded that no levels of targeted air toxics were above the TCEQ's AMCVs.

USEPA Mobile Monitoring in Houston and Southeast Texas

The USEPA conducted post-Hurricane Harvey air monitoring by deploying up to two TAGA buses throughout Houston and southeast Texas (see Table 1). Specifically, an area in the Manchester community near the Valero Houston Refinery, which had suffered significant damage from Hurricane Harvey, was a particular focus of sampling efforts.

Table 1. Areas and Dates of Post-Harvey TAGA Monitoring

Area(s) Monitored	Date(s) of Monitoring
Manchester	9/5/2017 – 9/7/2017 & 9/10/2017 – 9/12/2017
Deer Park	9/14/2017
Baytown	9/15/2017
Sweeny	9/17/2017
Texas City	9/17/2017
Beaumont/Port Arthur	9/18/2017
Victoria	9/18/2017
Point Comfort	9/18/2017
Corpus Christi	9/19/2017

The TAGA buses measured ambient, instantaneous concentrations (durations ranging from 1 to 2 minutes) of six air toxics (benzene; 1,1-dichloroethene; tetrachloroethene; toluene; trichloroethene; xylene) throughout Houston and southeast Texas (see Table 1). This duration of data are classified as grab samples. Grab samples (instantaneous samples) provide data that are used for source identification. The short nature of the sample, in conjunction with meteorological data, aids in the identification of potential sources of a contaminant plume. Grab samples are not sufficiently similar to the durations used to derive safe levels, such as AMCVs, for comparison.

For six days the TAGA mobile air monitoring bus collected thousands of ambient air samples in and around the Manchester community area. Following analysis of these samples, the USEPA concluded “no levels of targeted toxic chemicals were detected above the Texas TCEQ AMCV short-term screening levels” and “that the probable source of benzene and volatile organic compound readings in the Manchester community in Houston was the roof failure and spill from a light crude storage tank at the Valero Houston Refinery during Hurricane Harvey.” The TCEQ reviewed the TAGA data provided by the USEPA for any levels of potential concern. Maximum concentrations (Table 2) and associated mapped locations can be found in the Attachments. The TCEQ’s short-term AMCV’s are provided for information purposes only in order to provide some context to the monitored levels. All of the TAGA measured

concentrations were below levels of concern and would not be expected to cause health, odor, or welfare effects. The USEPA and TCEQ will continue their investigations into the incident at the Valero Houston Refinery.

Additional sampling was conducted in other Houston communities and areas along southeast Texas (see Table 1). Maximum concentrations (Table 3) and associated mapped locations can be found in the Attachments. The TCEQ's short-term AMCV's are provided for information purposes only in order to provide some context to the monitored levels. All of the TAGA measured concentrations were below levels of concern and would not be expected to cause health, odor, or welfare effects.

Attachments

Table 2. Maximum concentrations measured in the Manchester area TAGA study

Date	Substance	Maximum Instantaneous Concentration (ppbv)	TCEQ 1-Hour Short-Term AMCV (ppbv)*
Sept. 5, 2017	Benzene	21.22	180
	1,1-Dichloroethene	7.50	180
	Tetrachloroethene	6.66	1,000
	Toluene	27.40	4,000
	Trichloroethene	5.60	100
	Xylene	30.40	1,700
Sept. 6, 2017	Benzene	15.98	180
	1,1-Dichloroethene	7.86	180
	Tetrachloroethene	6.80	1,000
	Toluene	73.13	4,000
	Trichloroethene	7.06	100
	Xylene	76.51	1,700
Sept. 7, 2017	Benzene	25.35	180
	1,1-Dichloroethene	8.47	180
	Tetrachloroethene	4.71	1,000
	Toluene	45.90	4,000
	Trichloroethene	5.84	100
	Xylene	34.00	1,700
Sept. 10, 2017	Benzene	29.03	180
	1,1-Dichloroethene	9.39	180
	Tetrachloroethene	9.61	1,000
	Toluene	89.84	4,000
	Trichloroethene	9.22	100
	Xylene	155.48	1,700
Sept. 11, 2017	Benzene	9.14	180
	1,1-Dichloroethene	7.09	180
	Tetrachloroethene	9.86	1,000
	Toluene	16.39	4,000
	Trichloroethene	4.18	100
	Xylene	32.10	1,700
Sept. 12, 2017	Benzene	11.36	180
	1,1-Dichloroethene	8.68	180
	Tetrachloroethene	8.88	1,000
	Toluene	23.99	4,000
	Trichloroethene	8.38	100
	Xylene	46.83	1,700

*Short-term, 1-hour AMCVs are provided for informational purposes in order to provide some context to the monitored levels. Instantaneous samples should not be directly compared to 1-hour AMCVs.

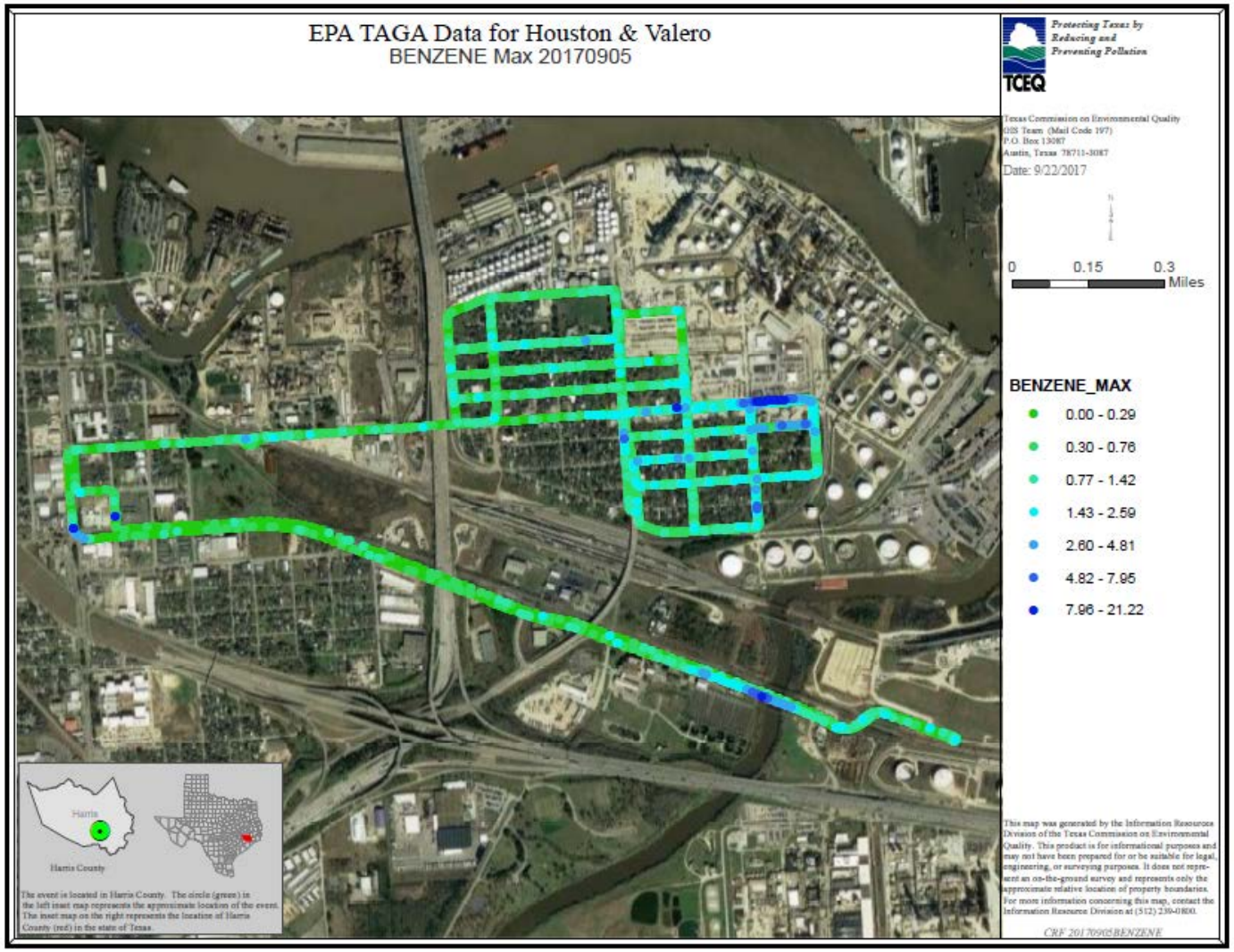
Table 3. Maximum concentrations measured in the Houston and southeast Texas TAGA study

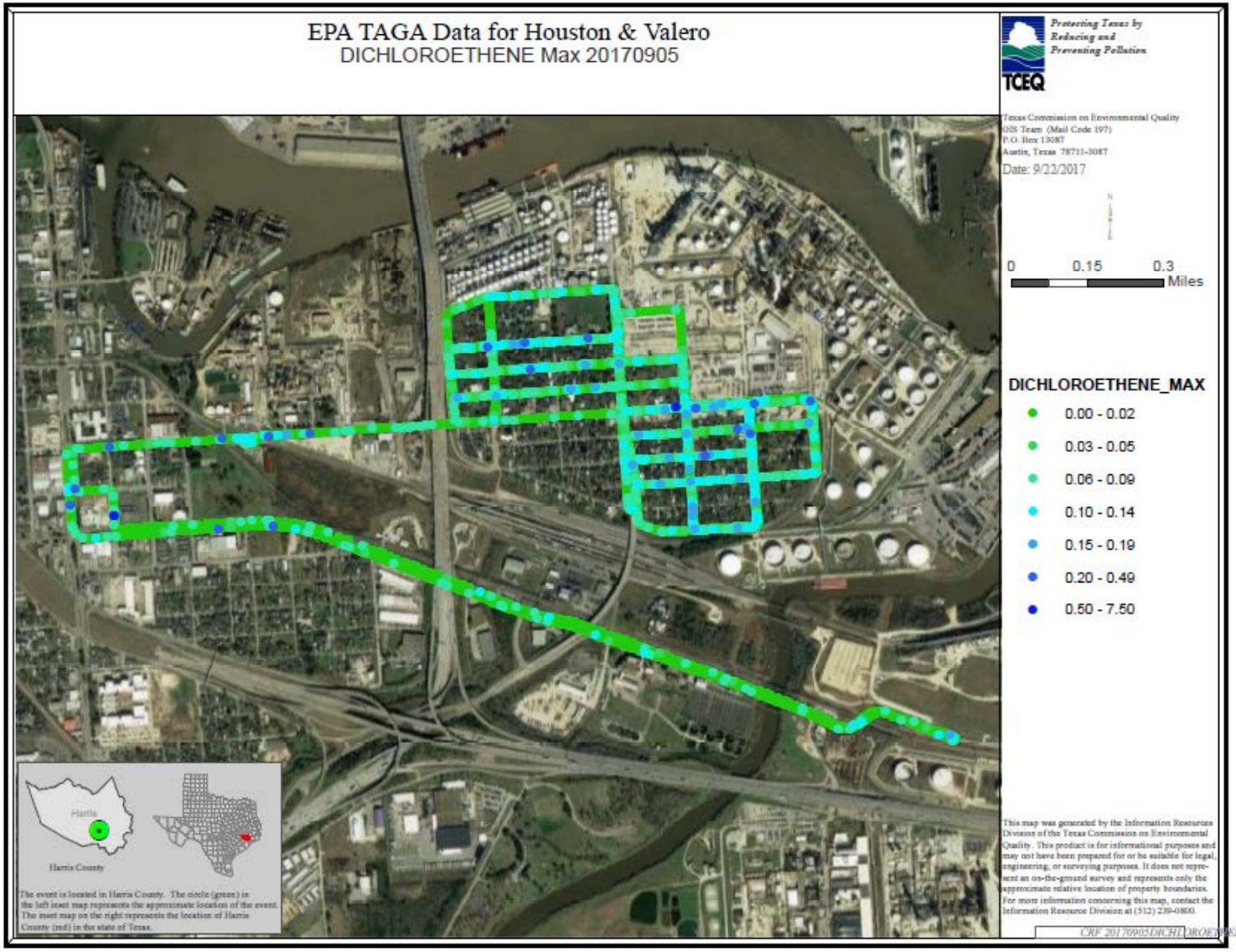
Date	Location	Substance	Maximum Instantaneous Concentration (ppbv)	TCEQ 1-Hour Short-Term AMCV (ppbv)*
Sept. 14, 2017	Deer Park Study	Benzene	10.88	180
		1,1-Dichloroethene	8.51	180
		Tetrachloroethene	6.61	1,000
		Toluene	26.07	4,000
		Trichloroethene	6.91	100
		Xylene	30.74	1,700
Sept. 15, 2017	Baytown Study	Benzene	11.38	180
		1,1-Dichloroethene	8.08	180
		Tetrachloroethene	7.38	1,000
		Toluene	16.06	4,000
		Trichloroethene	7.52	100
		Xylene	24.40	1,700
Sept. 17, 2017	Sweeny Study	Benzene	11.45	180
		1,1-Dichloroethene	8.46	180
		Tetrachloroethene	6.63	1,000
		Toluene	6.75	4,000
		Trichloroethene	8.57	100
		Xylene	9.83	1,700
Sept. 17, 2017	Texas City Study	Benzene	10.30	180
		1,1-Dichloroethene	7.76	180
		Tetrachloroethene	6.64	1,000
		Toluene	6.66	4,000
		Trichloroethene	7.40	100
		Xylene	9.38	1,700
Sept. 18, 2017	Port Arthur Study 1	Benzene	22.09	180
		1,1-Dichloroethene	7.86	180
		Tetrachloroethene	6.56	1,000
		Toluene	12.56	4,000
		Trichloroethene	6.58	100
		Xylene	24.55	1,700
Sept. 18, 2017	Port Arthur Study 2	Benzene	6.96	180
		1,1-Dichloroethene	0.77	180
		Tetrachloroethene	0.19	1,000
		Toluene	2.36	4,000
		Trichloroethene	0.18	100
		Xylene	1.95	1,700

Date	Location	Substance	Maximum Instantaneous Concentration (ppbv)	TCEQ 1-Hour Short-Term AMCV (ppbv)*
Sept. 18, 2017	Victoria Study	Benzene	8.82	180
		1,1-Dichloroethene	7.27	180
		Tetrachloroethene	5.68	1,000
		Toluene	6.27	4,000
		Trichloroethene	6.11	100
		Xylene	9.03	1,700
Sept. 18, 2017	Point Comfort Study	Benzene	11.06	180
		1,1-Dichloroethene	7.92	180
		Tetrachloroethene	6.53	1,000
		Toluene	20.05	4,000
		Trichloroethene	7.00	100
		Xylene	24.40	1,700
Sept. 19, 2017	Corpus Christi Study 1	Benzene	30.56	180
		1,1-Dichloroethene	8.53	180
		Tetrachloroethene	4.62	1,000
		Toluene	11.66	4,000
		Trichloroethene	5.78	100
		Xylene	10.51	1,700
Sept. 19, 2017	Corpus Christi Study 2	Benzene	7.95	180
		1,1-Dichloroethene	7.91	180
		Tetrachloroethene	3.97	1,000
		Toluene	5.36	4,000
		Trichloroethene	5.40	100
		Xylene	5.45	1,700

*Short-term, 1-hour AMCVs are provided for informational purposes in order to provide some context to the monitored levels. Instantaneous samples should not be directly compared to 1-hour AMCVs.

Manchester Monitoring Study – Sept. 5-7;9-12, 2017




EPA TAGA Data for Houston & Valero
DICHLOROETHENE Max 20170905
Protecting Texas by Reducing and Preventing Pollution
TCEQ
Texas Commission on Environmental Quality
GIS Team (Mail Code 197)
P.O. Box 13087
Austin, Texas 78711-3087
Date: 9/22/2017
0
0.15
0.3
Miles
DICHLOROETHENE_MAX
0.00 - 0.02
0.03 - 0.05
0.06 - 0.09
0.10 - 0.14
0.15 - 0.19
0.20 - 0.49
0.50 - 7.50
Harris
Harris County
The event is located in Harris County. The circle (green) in the left inset map represents the approximate location of the event. The inset map on the right represents the location of Harris County (red) in the state of Texas.
This map was generated by the Information Resources Division of the Texas Commission on Environmental Quality. This product is for informational purposes and may not have been prepared for or be suitable for legal, engineering, or surveying purposes. It does not represent an on-the-ground survey and represents only the approximate relative location of property boundaries.
For more information concerning this map, contact the Information Resource Division at (512) 239-0800.
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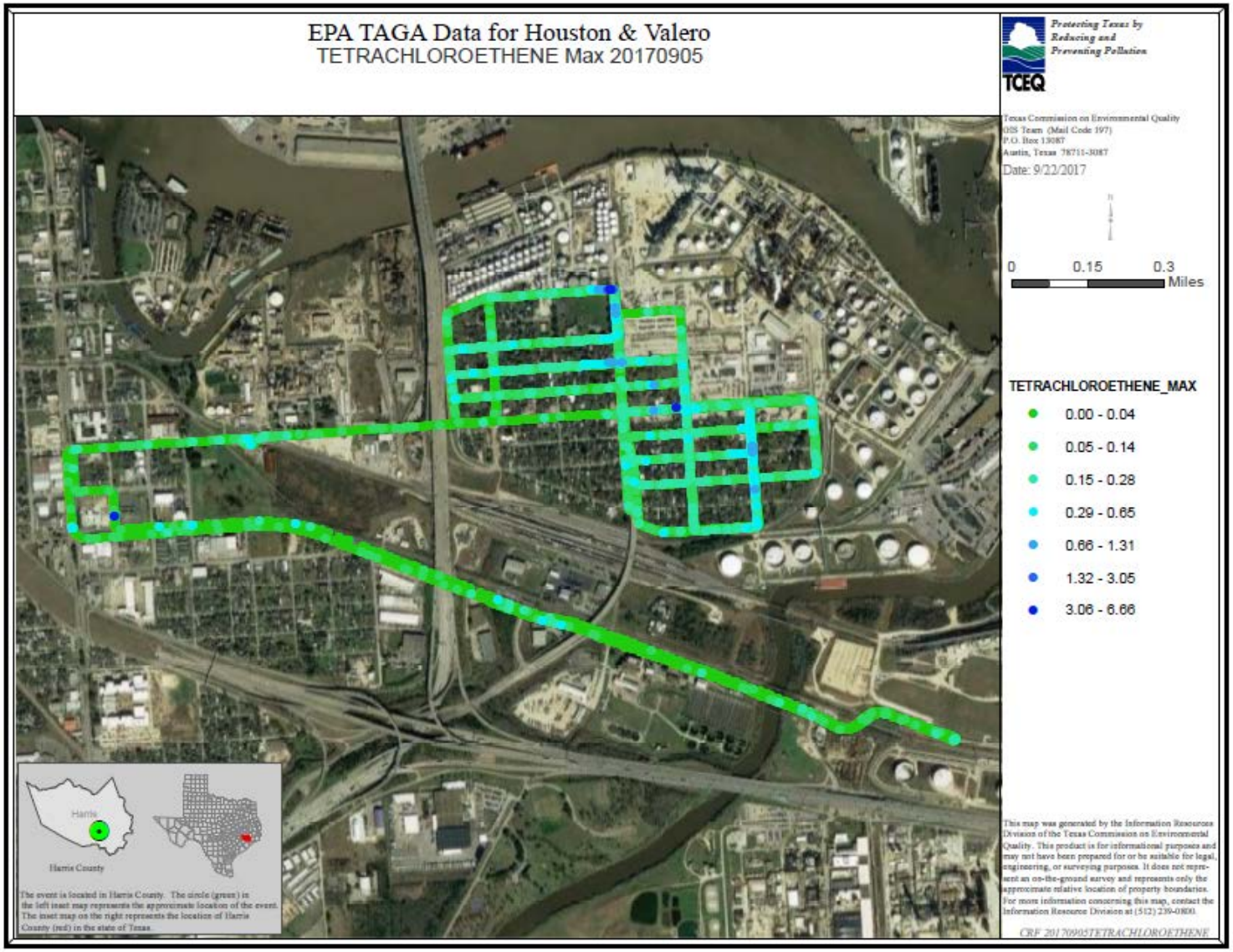
EPA TAGA Data for Houston & Valero
TETRACHLOROETHENE Max 20170905
Protecting Texas by Reducing and Preventing Pollution
TCEQ
Texas Commission on Environmental Quality
GIS Team (Mail Code 197)
P.O. Box 13087
Austin, Texas 78711-3087
Date: 9/22/2017
0
0.15
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Miles
TETRACHLOROETHENE_MAX
0.00 - 0.04
0.05 - 0.14
0.15 - 0.28
0.29 - 0.65
0.66 - 1.31
1.32 - 3.05
3.06 - 6.66
Harris
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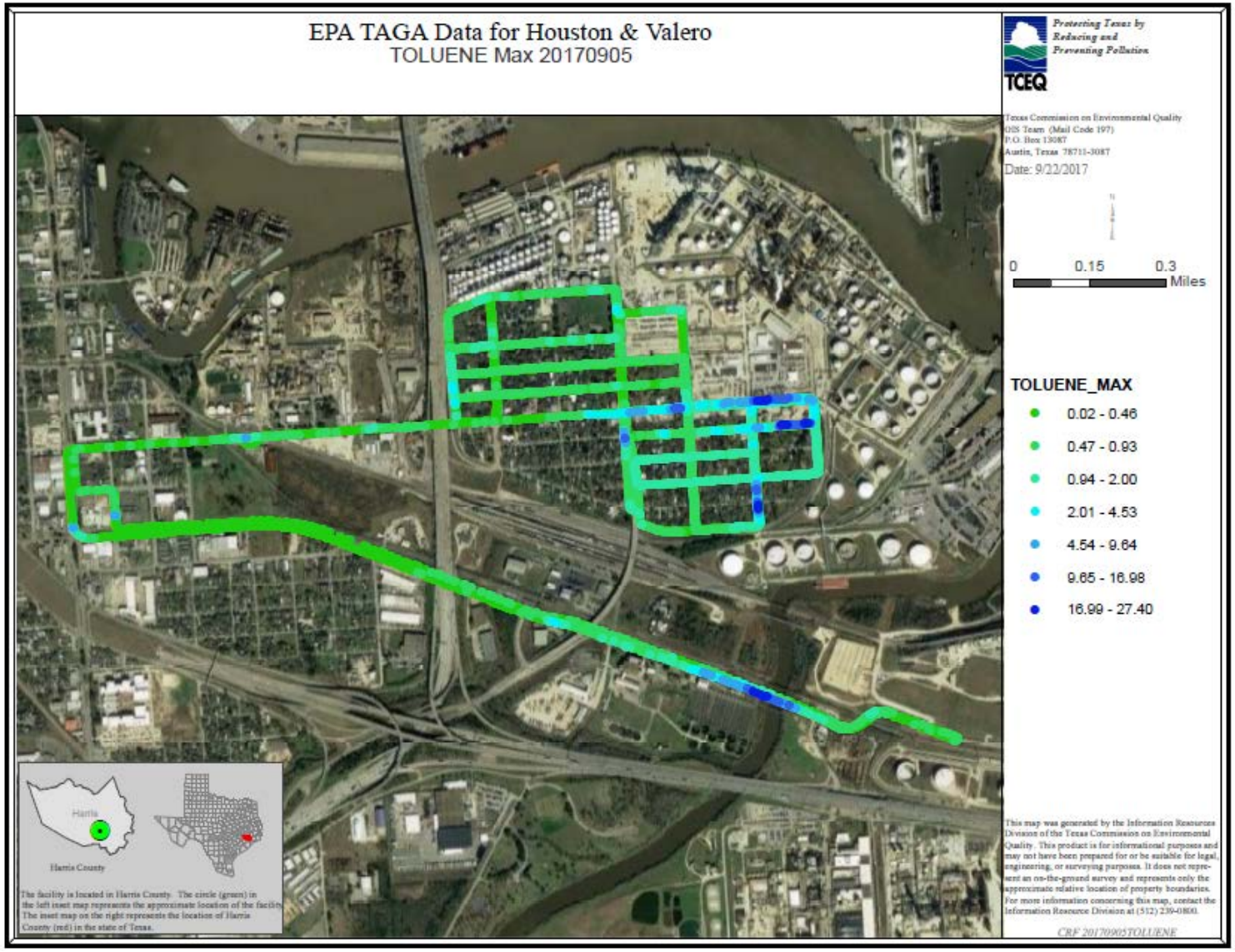
EPA TAGA Data for Houston & Valero
TOLUENE Max 20170905
Protecting Texas by Reducing and Preventing Pollution
TCEQ
Texas Commission on Environmental Quality
GIS Team (Mail Code 197)
P.O. Box 13087
Austin, Texas 78711-3087
Date: 9/22/2017
0
0.15
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Miles
TOLUENE_MAX
0.02 - 0.46
0.47 - 0.93
0.94 - 2.00
2.01 - 4.53
4.54 - 9.64
9.65 - 16.98
16.99 - 27.40
Harris
Harris County
The facility is located in Harris County. The circle (green) in the left inset map represents the approximate location of the facility. The inset map on the right represents the location of Harris County (red) in the state of Texas.
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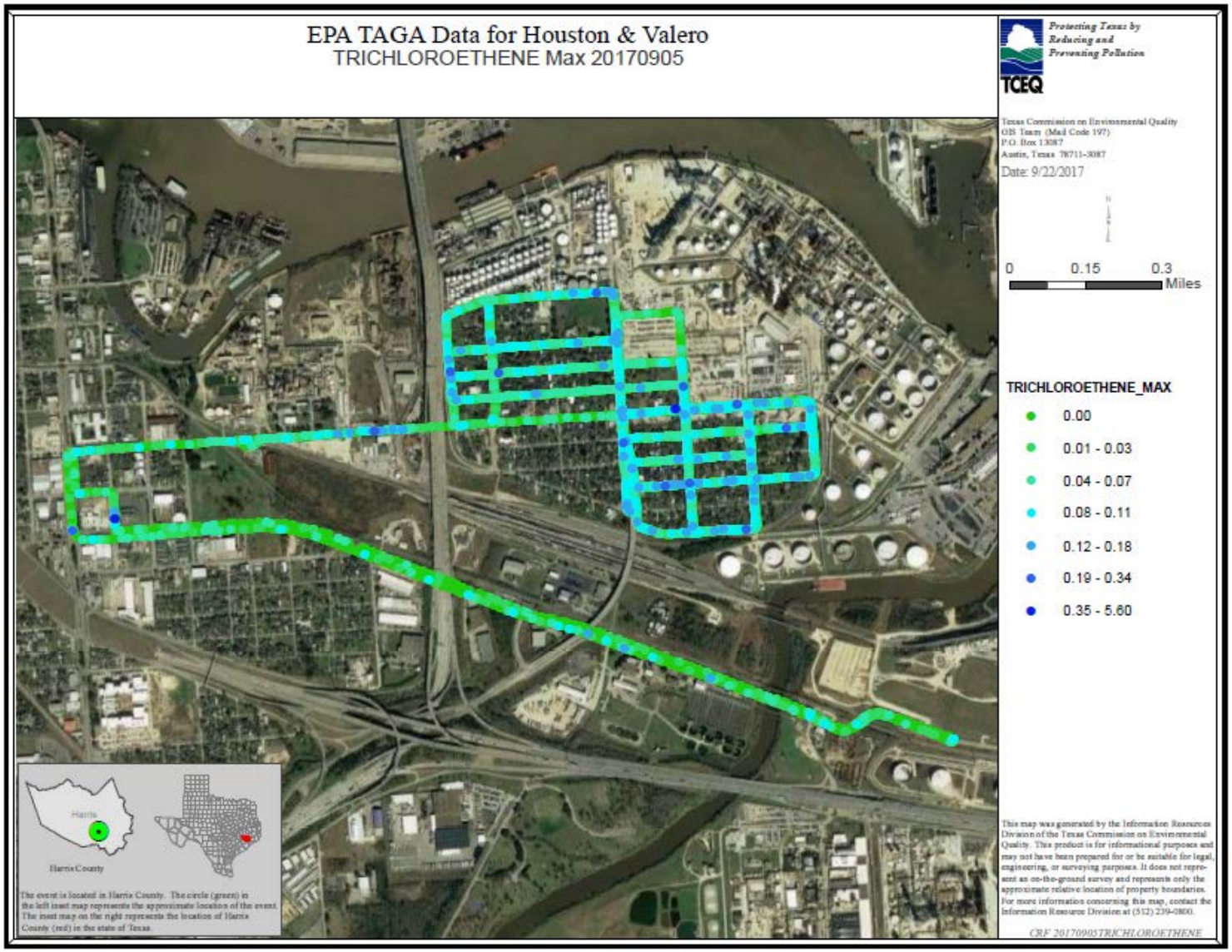
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Date: 9/22/2017
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Miles
TRICHLOROETHENE_MAX
0.00
0.01 - 0.03
0.04 - 0.07
0.08 - 0.11
0.12 - 0.18
0.19 - 0.34
0.35 - 5.60
Harris
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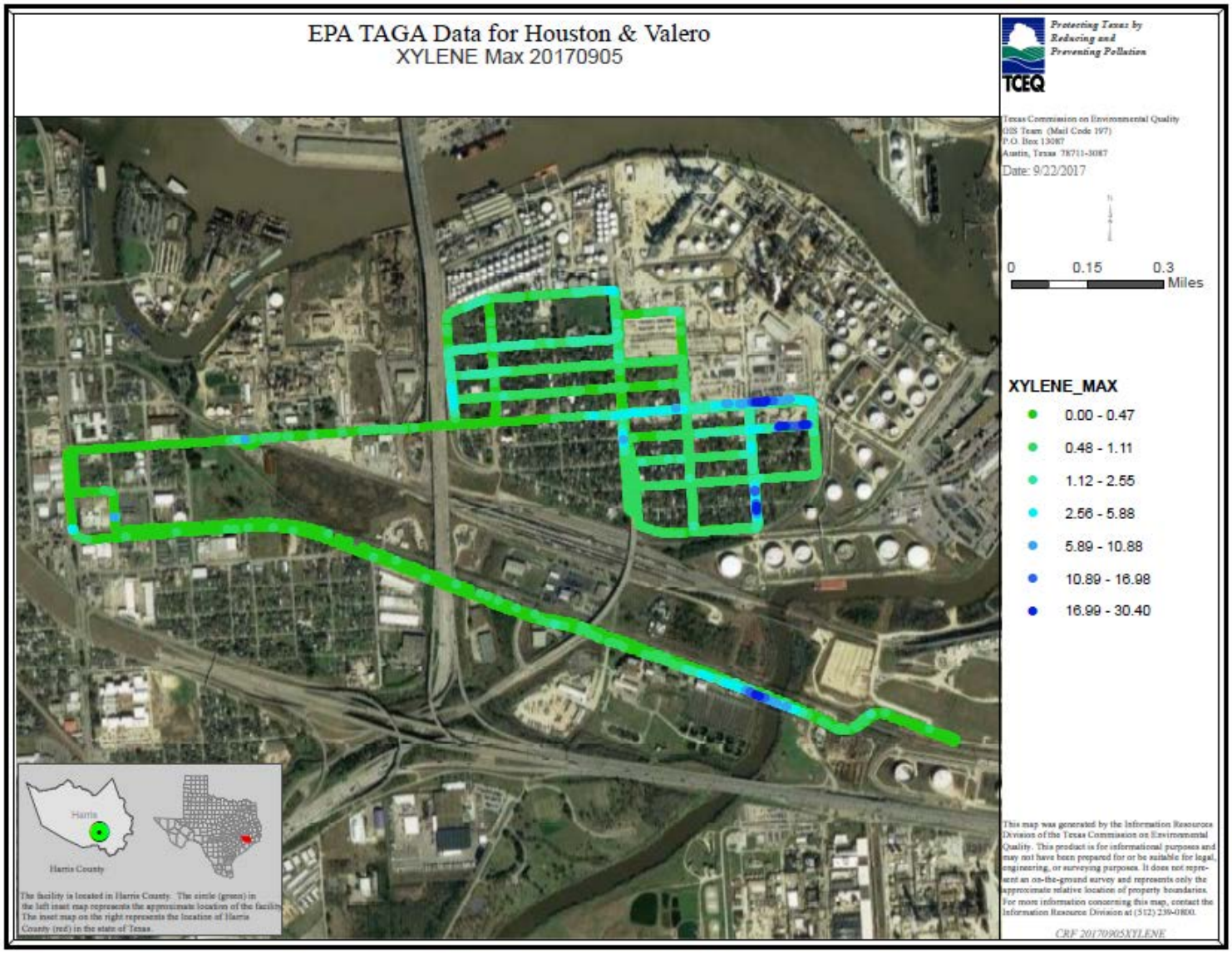
CRF 20170905TRICHLOROETHENE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XYLENE Max 20170905
Protecting Texas by Reducing and Preventing Pollution
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Date: 9/22/2017
0
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Miles
XYLENE_MAX
0.00 - 0.47
0.48 - 1.11
1.12 - 2.55
2.56 - 5.88
5.89 - 10.88
10.89 - 16.98
16.99 - 30.40
Harris
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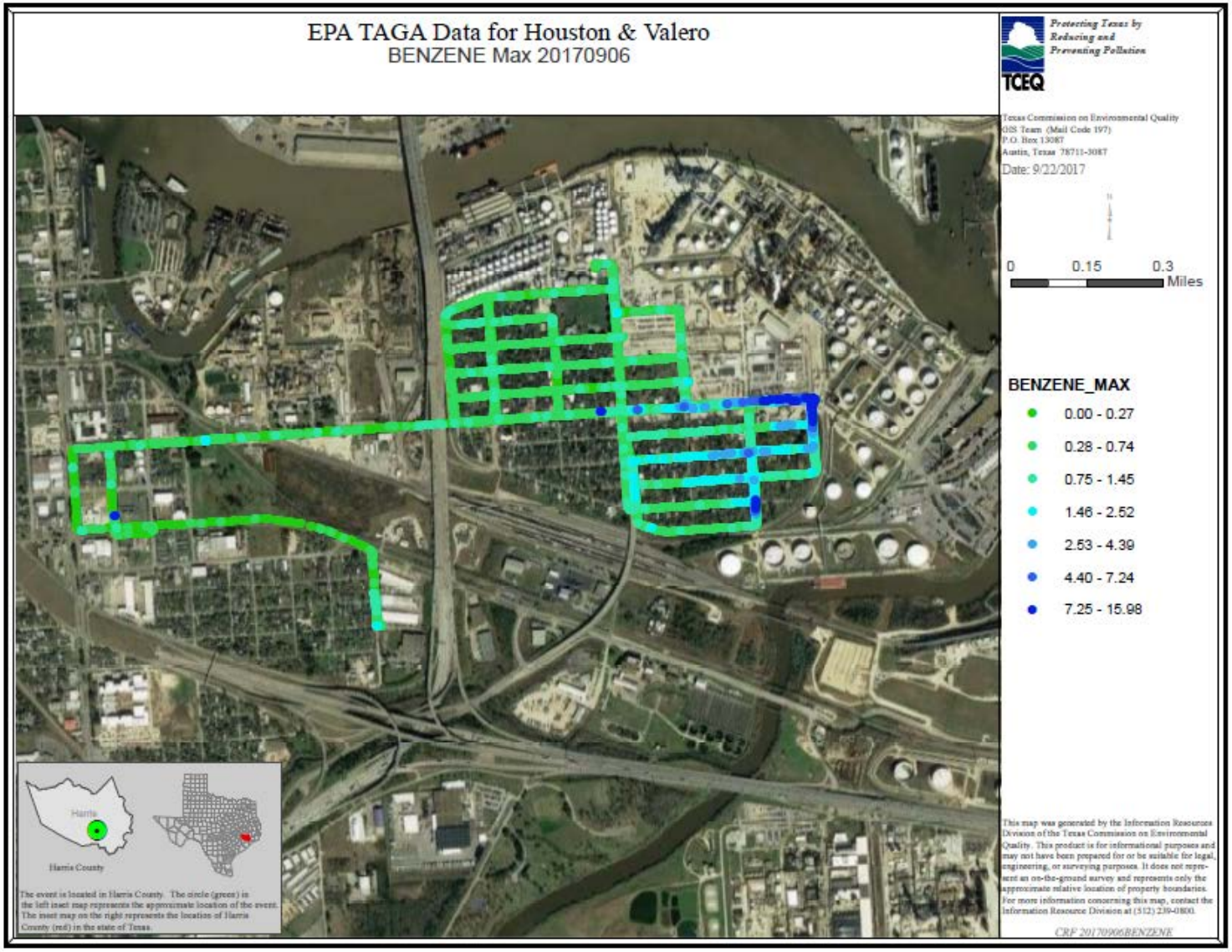
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BENZENE Max 20170906
Protecting Texas by Reducing and Preventing Pollution
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Texas Commission on Environmental Quality
GIS Team (Mail Code 197)
P.O. Box 13087
Austin, Texas 78711-3087
Date: 9/22/2017
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Miles
BENZENE_MAX
0.00 - 0.27
0.28 - 0.74
0.75 - 1.45
1.46 - 2.52
2.53 - 4.39
4.40 - 7.24
7.25 - 15.98
Harris
Harris County
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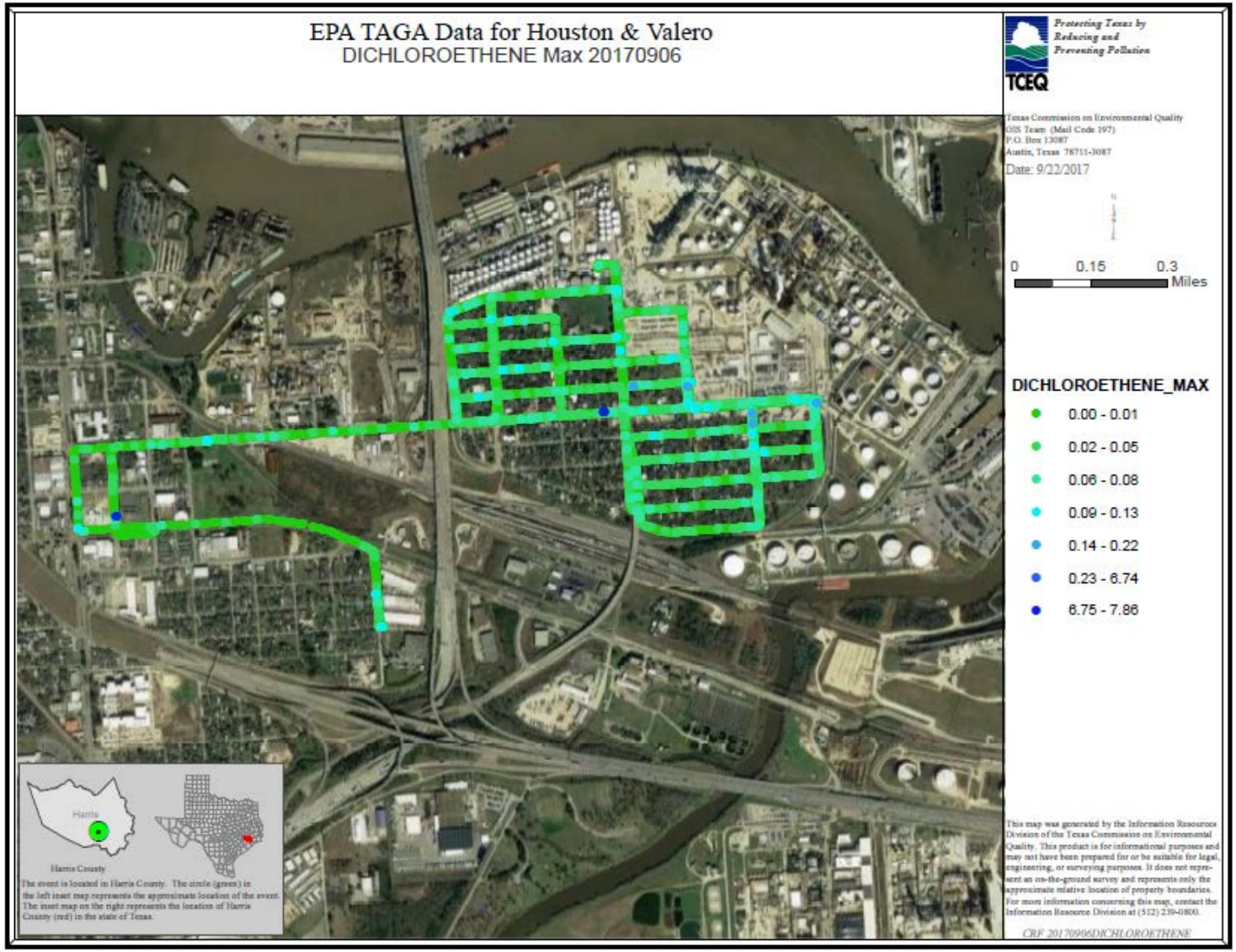
CRP 20170906BENZENE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DICHLOROETHENE Max 20170906
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0
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Miles
DICHLOROETHENE_MAX
0.00 - 0.01
0.02 - 0.05
0.06 - 0.08
0.09 - 0.13
0.14 - 0.22
0.23 - 6.74
6.75 - 7.86
Harris
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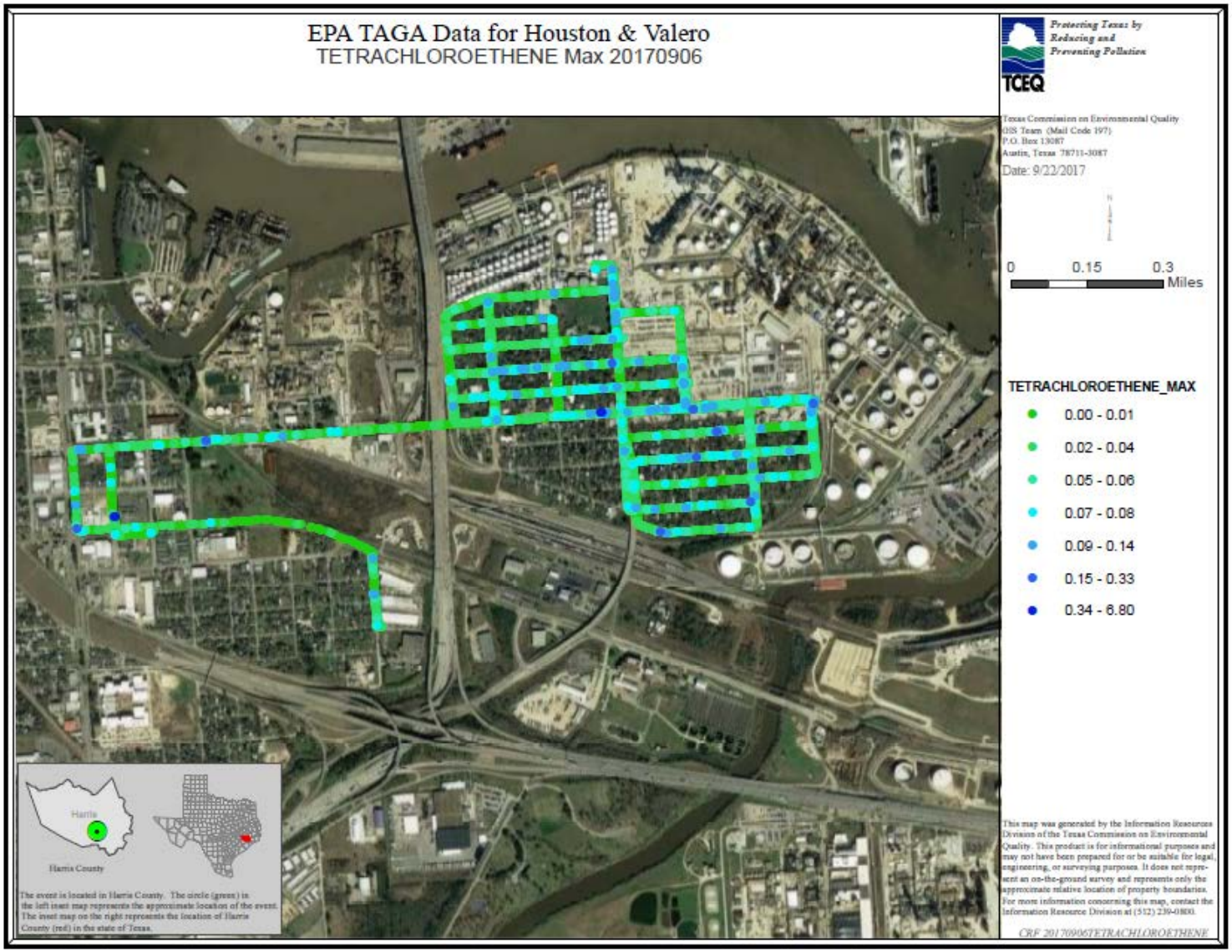
CRF 20170906DICHLOROETHENE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Miles
TETRACHLOROETHENE_MAX
0.00 - 0.01
0.02 - 0.04
0.05 - 0.06
0.07 - 0.08
0.09 - 0.14
0.15 - 0.33
0.34 - 6.80
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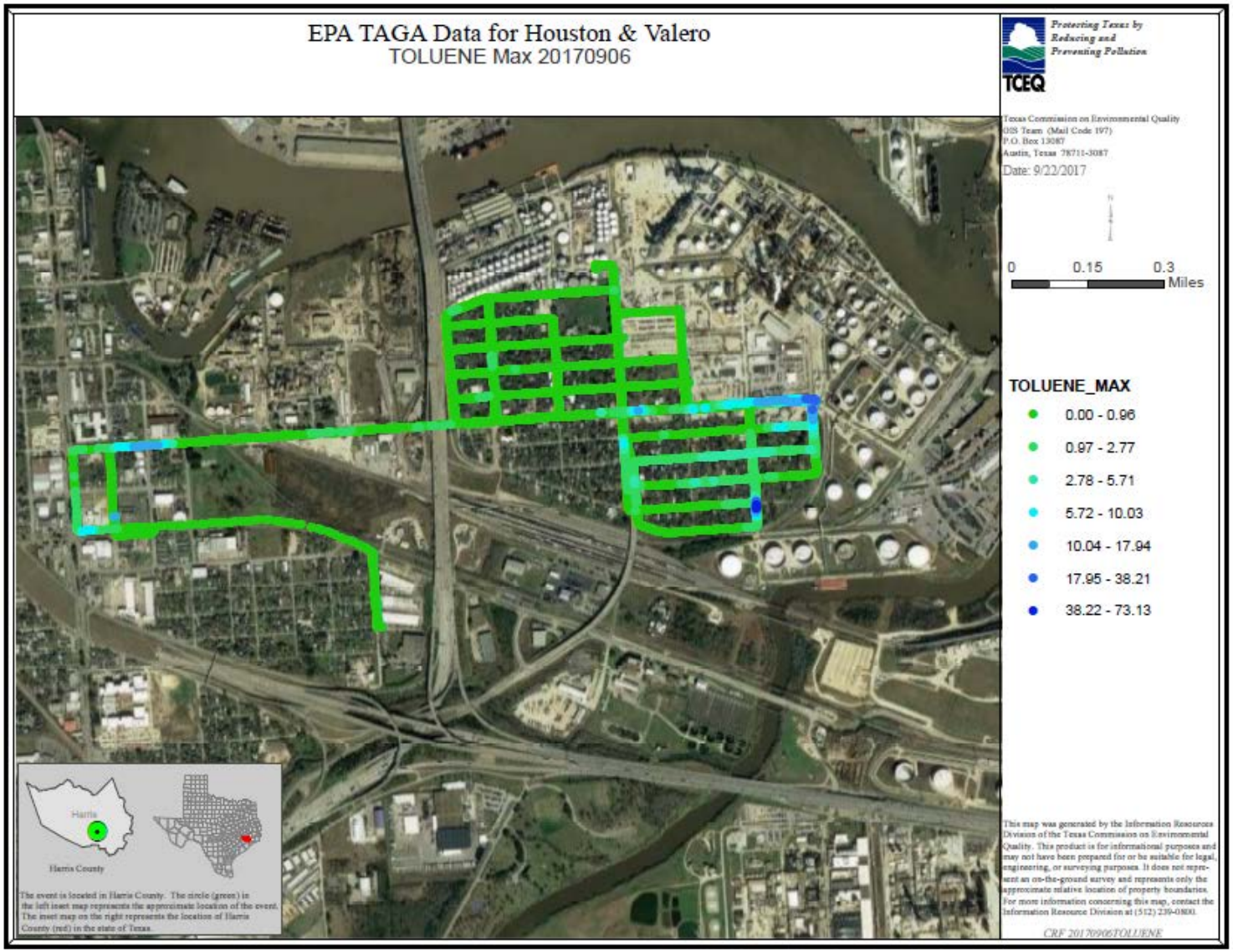
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TOLUENE Max 20170906
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P.O. Box 13087
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Date: 9/22/2017
0 0.15 0.3
Miles
TOLUENE_MAX
0.00 - 0.96
0.97 - 2.77
2.78 - 5.71
5.72 - 10.03
10.04 - 17.94
17.95 - 38.21
38.22 - 73.13
Harris
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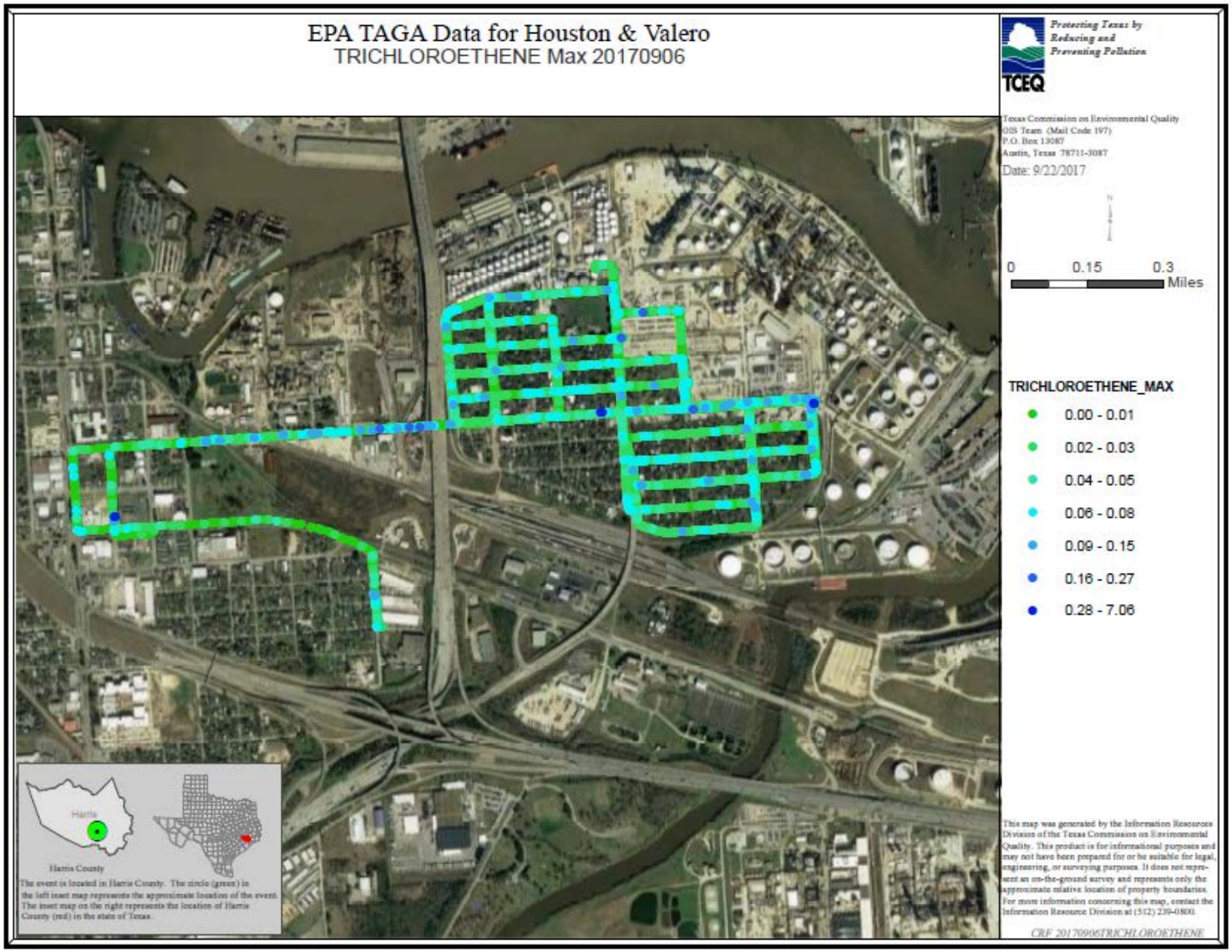
CRF 20170906TOLUENE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Date: 9/22/2017
0
0.15
0.3
Miles
TRICHLOROETHENE_MAX
0.00 - 0.01
0.02 - 0.03
0.04 - 0.05
0.06 - 0.08
0.09 - 0.15
0.16 - 0.27
0.28 - 7.06
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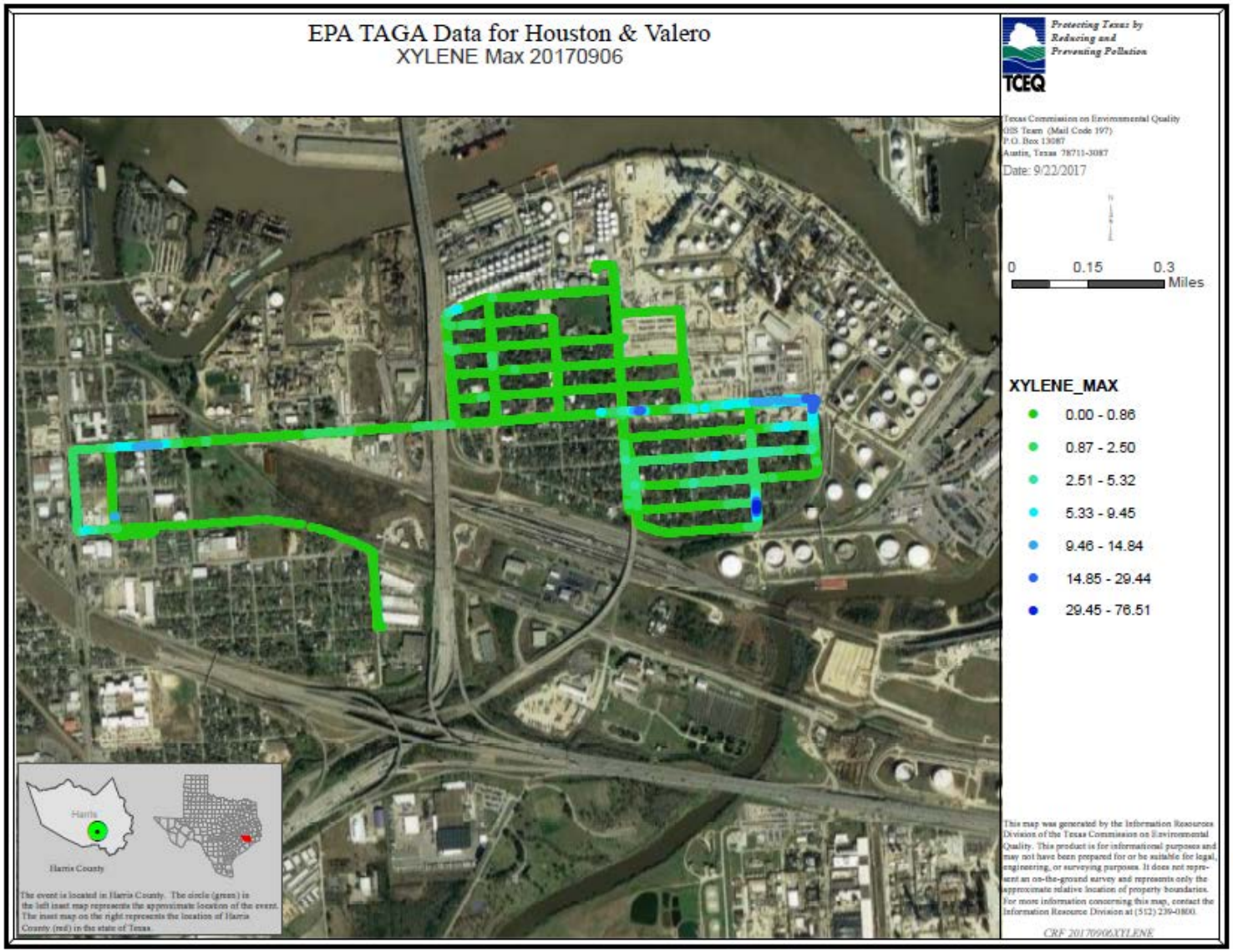
CRF 20170906TRICHLOROETHENE


EPA TAGA Data for Houston & Valero
XYLENE Max 20170906
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SIS Team (Mail Code 197)
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Date: 9/22/2017
0
0.15
0.3
Miles
XYLENE_MAX
0.00 - 0.86
0.87 - 2.50
2.51 - 5.32
5.33 - 9.45
9.46 - 14.84
14.85 - 29.44
29.45 - 76.51
Harris
Harris County
The event is located in Harris County. The circle (green) in the left inset map represents the approximate location of the event. The inset map on the right represents the location of Harris County (red) in the state of Texas.
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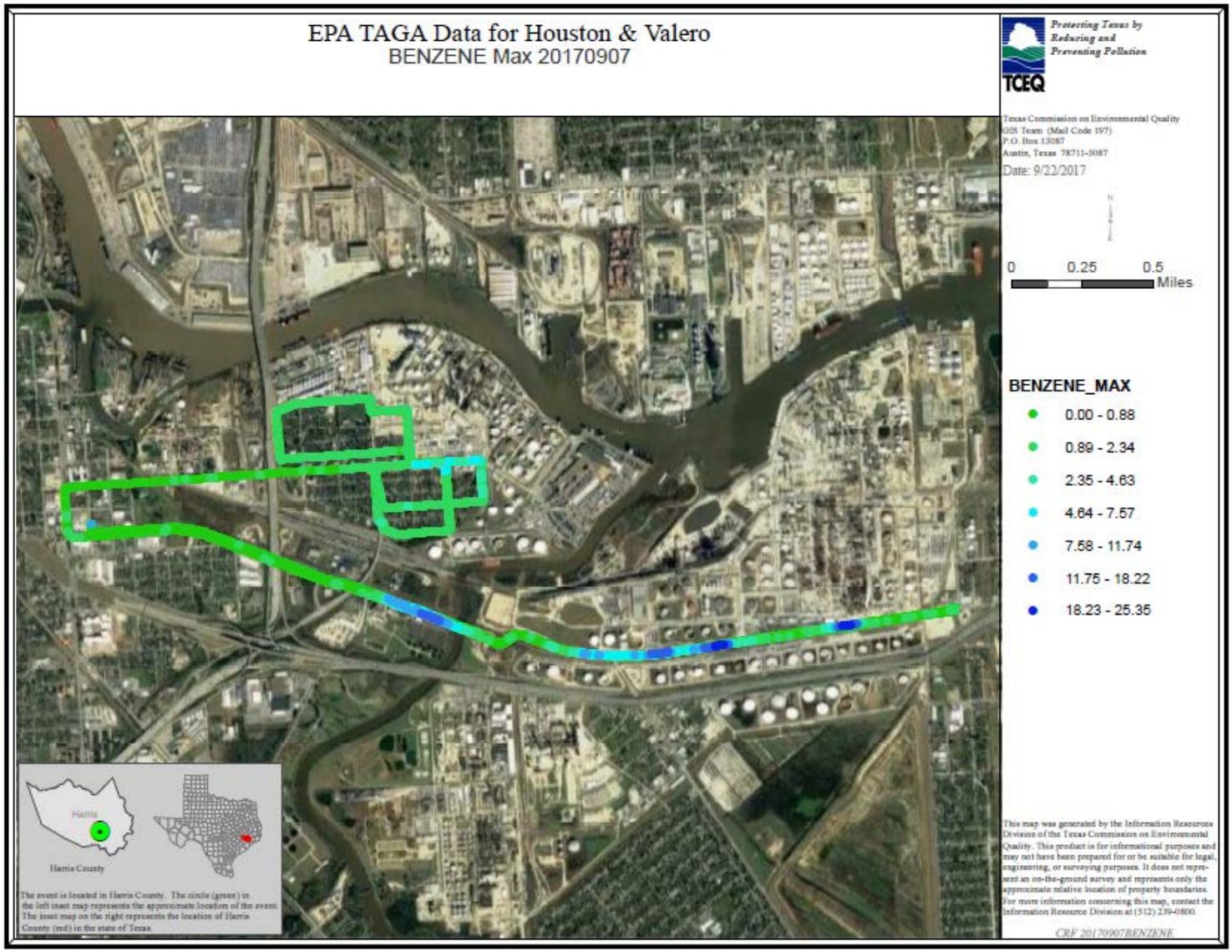
For more information concerning this map, contact the Information Resource Division at (512) 239-0800.
CRF 20170906XYLENE


EPA TAGA Data for Houston & Valero
BENZENE Max 20170907
Protecting Texas by Reducing and Preventing Pollution
TCEQ
Texas Commission on Environmental Quality
MC 197
P.O. Box 13087
Austin, Texas 78711-3087
Date: 9/22/2017
0 0.25 0.5 Miles
BENZENE_MAX
0.00 - 0.88
0.89 - 2.34
2.35 - 4.63
4.64 - 7.57
7.58 - 11.74
11.75 - 18.22
18.23 - 25.35
Harris
Harris County
The event is located in Harris County. The circle (green) in the left inset map represents the approximate location of the event. The inset map on the right represents the location of Harris County (red) in the state of Texas.
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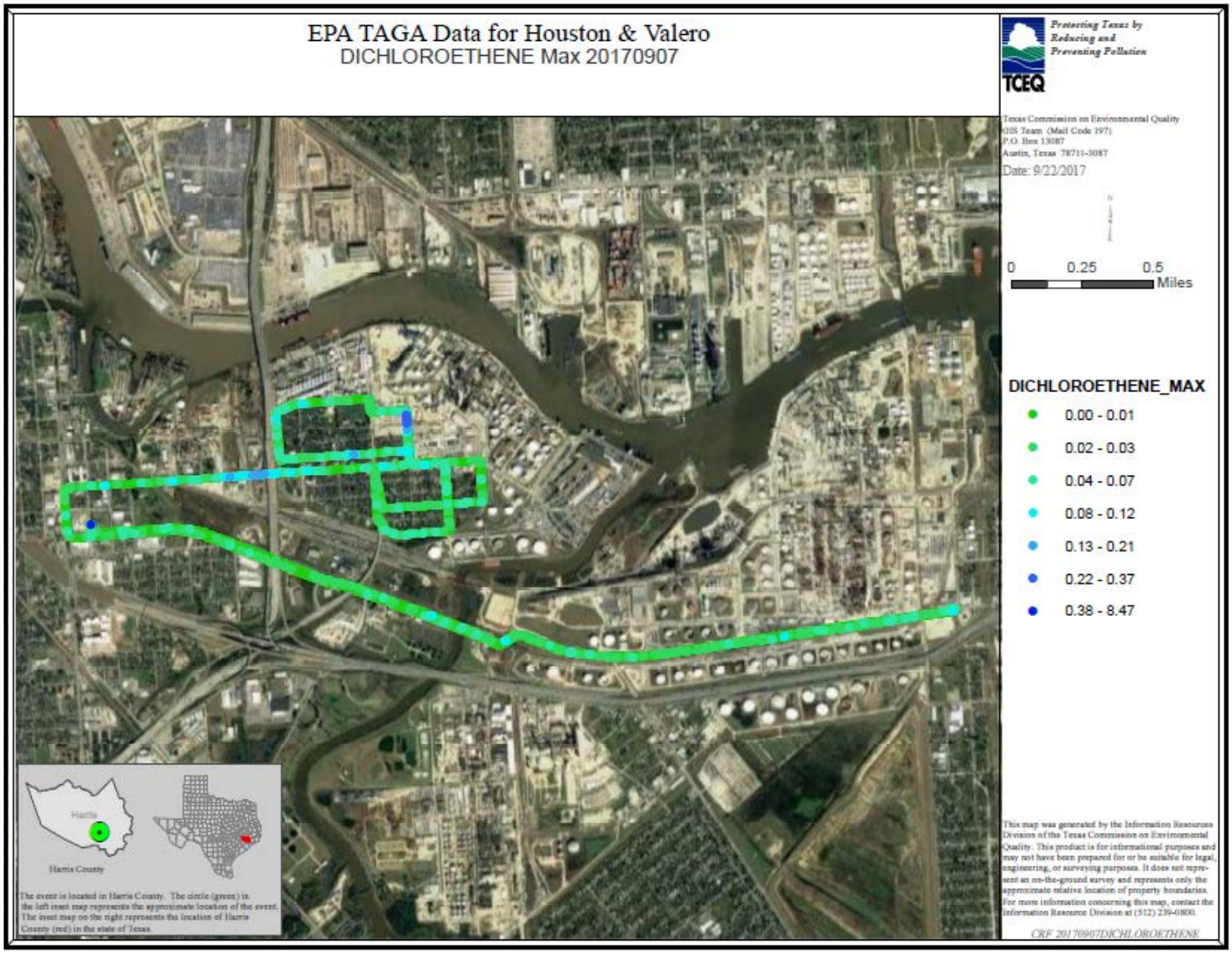
CRF 20170907BENZENE


EPA TAGA Data for Houston & Valero
DICHLOROETHENE Max 20170907
Protecting Texas by Reducing and Preventing Pollution
TCEQ
Texas Commission on Environmental Quality
GIS Team (Mail Code 197)
P.O. Box 13087
Austin, Texas 78711-3087
Date: 9/22/2017
0
0.25
0.5
Miles
DICHLOROETHENE_MAX
0.00 - 0.01
0.02 - 0.03
0.04 - 0.07
0.08 - 0.12
0.13 - 0.21
0.22 - 0.37
0.38 - 8.47
Harris
Harris County
The event is located in Harris County. The circle (green) in the left inset map represents the approximate location of the event. The inset map on the right represents the location of Harris County (red) in the state of Texas.
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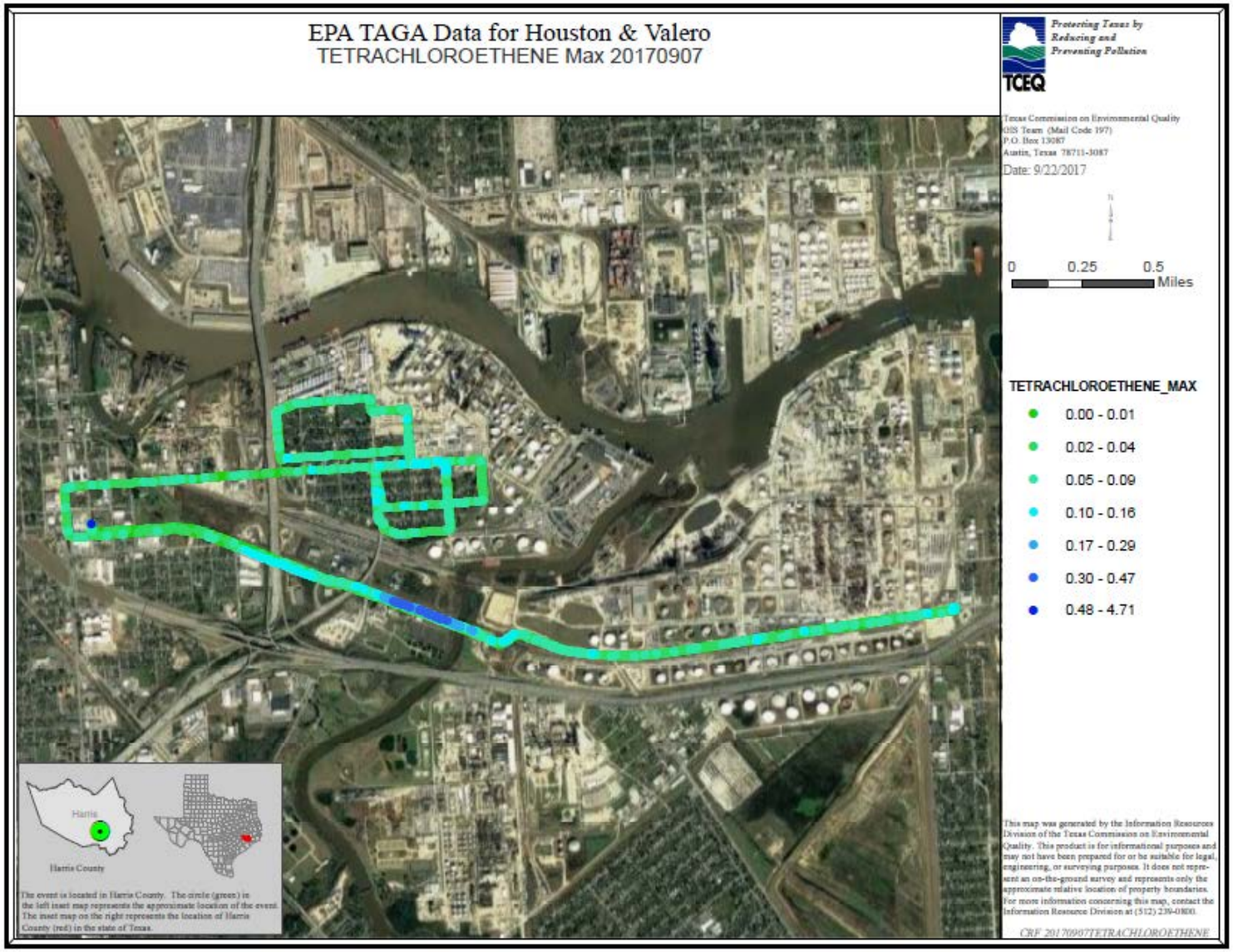
CRF 20170907DICHLOROETHENE


EPA TAGA Data for Houston & Valero
TETRACHLOROETHENE Max 20170907
Protecting Texas by Reducing and Preventing Pollution
TCEQ
Texas Commission on Environmental Quality
GIS Team (Mail Code 197)
P.O. Box 13087
Austin, Texas 78711-3087
Date: 9/22/2017
0 0.25 0.5
Miles
TETRACHLOROETHENE_MAX
0.00 - 0.01
0.02 - 0.04
0.05 - 0.09
0.10 - 0.16
0.17 - 0.29
0.30 - 0.47
0.48 - 4.71
Harris
Harris County
The event is located in Harris County. The circle (green) in the left inset map represents the approximate location of the event. The inset map on the right represents the location of Harris County (red) in the state of Texas.
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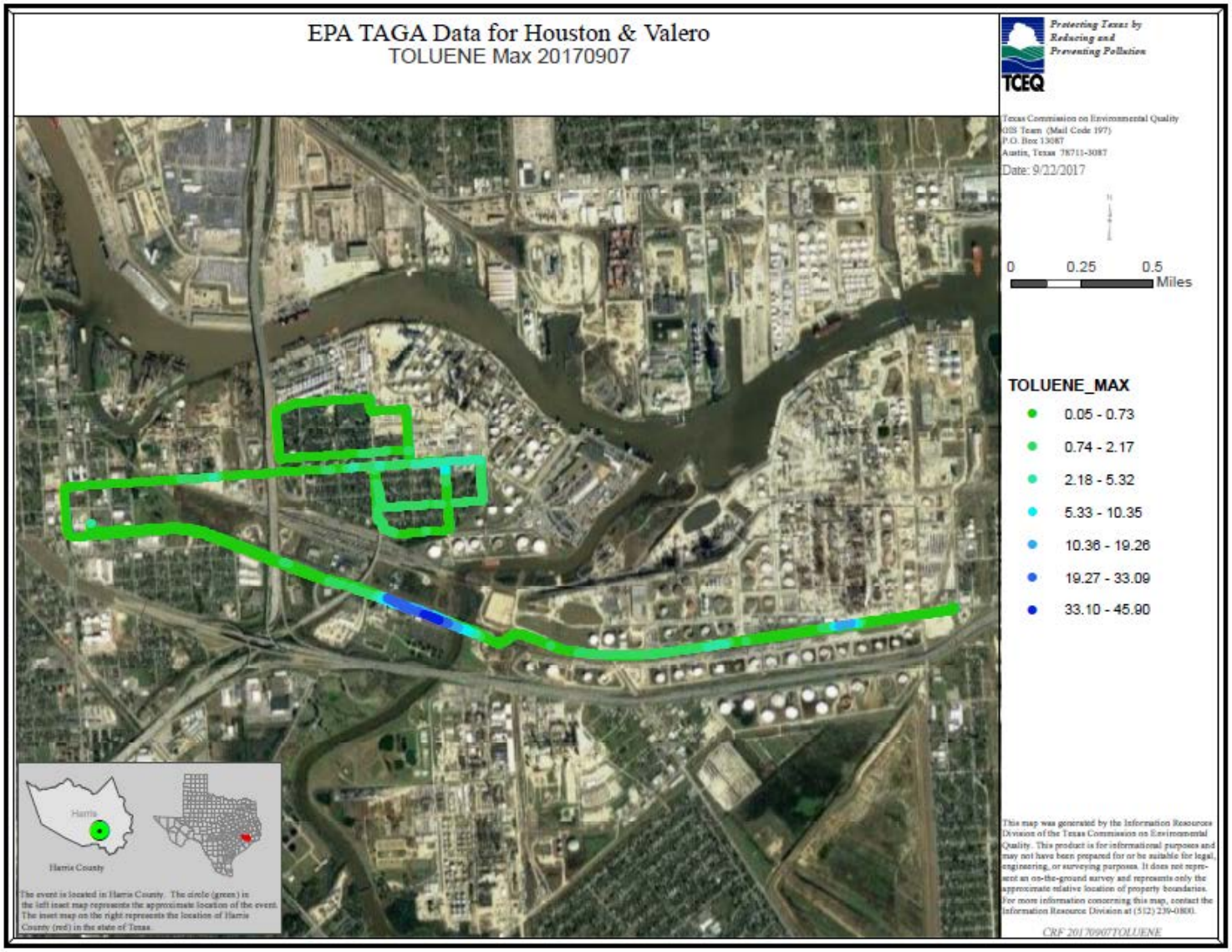
CRF 20170907TETRACHLOROETHENE


EPA TAGA Data for Houston & Valero
TOLUENE Max 20170907
Protecting Texas by Reducing and Preventing Pollution
TCEQ
Texas Commission on Environmental Quality
SIS Team (Mail Code 197)
P.O. Box 13087
Austin, Texas 78711-3087
Date: 9/22/2017
0 0.25 0.5
Miles
TOLUENE_MAX
0.05 - 0.73
0.74 - 2.17
2.18 - 5.32
5.33 - 10.35
10.36 - 19.26
19.27 - 33.09
33.10 - 45.90
Harris
Harris County
The event is located in Harris County. The circle (green) in the left inset map represents the approximate location of the event. The inset map on the right represents the location of Harris County (red) in the state of Texas.
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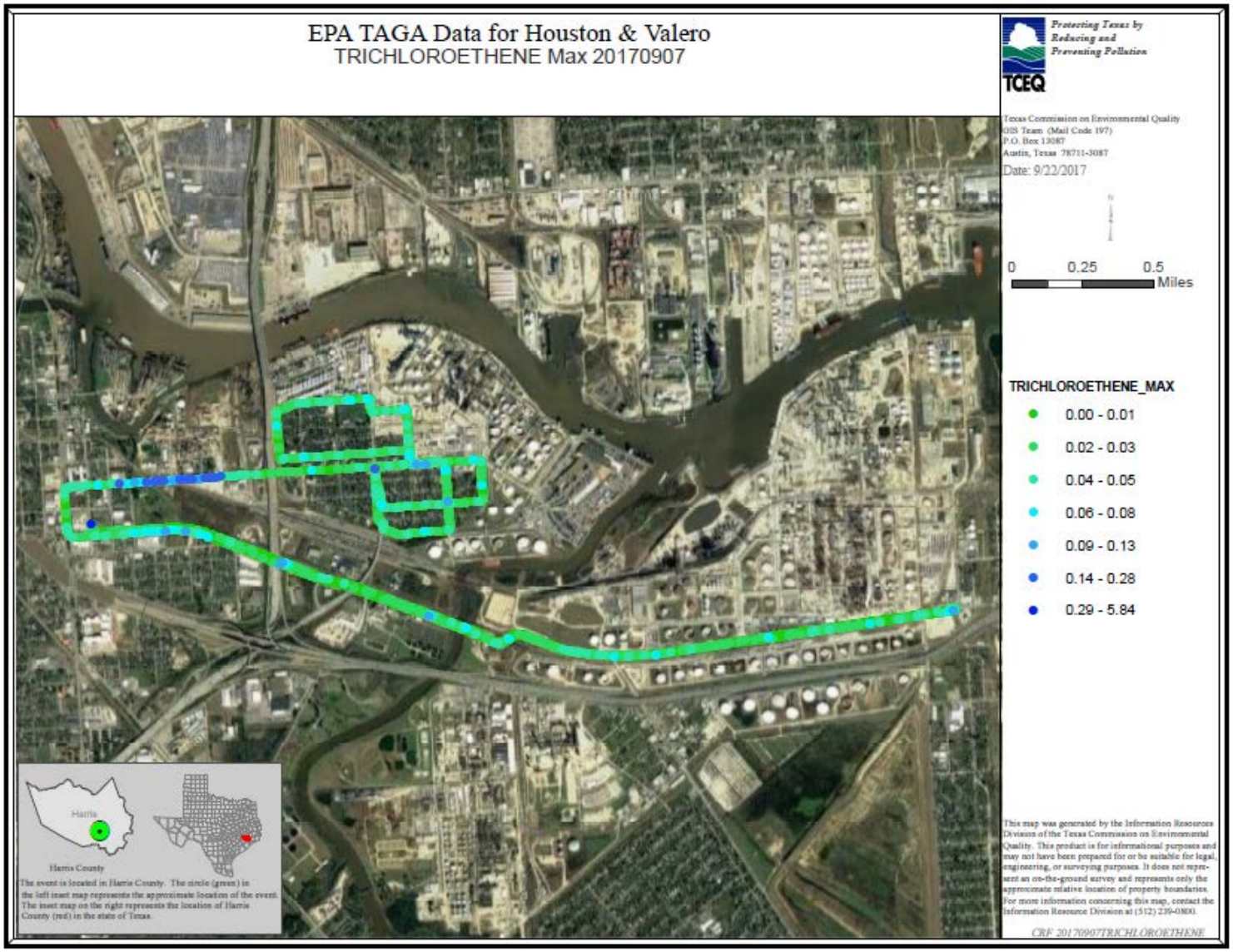
CRF 20170907TOLUENE


EPA TAGA Data for Houston & Valero
TRICHLOROETHENE Max 20170907
Protecting Texas by Reducing and Preventing Pollution
TCEQ
Texas Commission on Environmental Quality
GIS Team (Mail Code 197)
P.O. Box 13087
Austin, Texas 78711-3087
Date: 9/22/2017
0
0.25
0.5
Miles
TRICHLOROETHENE_MAX
0.00 - 0.01
0.02 - 0.03
0.04 - 0.05
0.06 - 0.08
0.09 - 0.13
0.14 - 0.28
0.29 - 5.84
Harris
Harris County
The event is located in Harris County. The circle (green) in the left inset map represents the approximate location of the event. The inset map on the right represents the location of Harris County (red) in the state of Texas.
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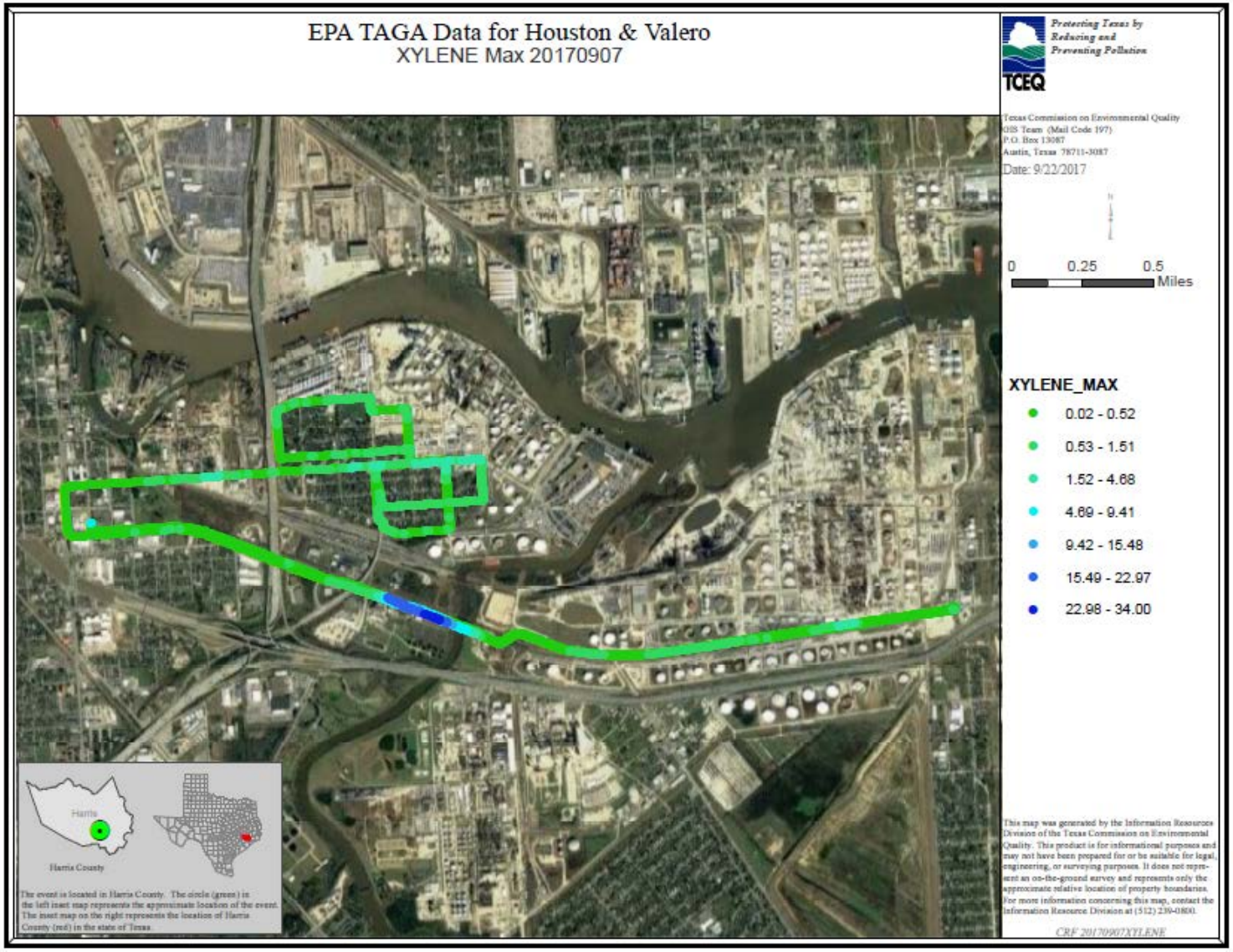
CRF 20170907TRICHLOROETHENE


EPA TAGA Data for Houston & Valero
XYLENE Max 20170907
Protecting Texas by Reducing and Preventing Pollution
TCEQ
Texas Commission on Environmental Quality
GIS Team (Mail Code 197)
P.O. Box 13087
Austin, Texas 78711-3087
Date: 9/22/2017
0 0.25 0.5
Miles
XYLENE_MAX
0.02 - 0.52
0.53 - 1.51
1.52 - 4.68
4.69 - 9.41
9.42 - 15.48
15.49 - 22.97
22.98 - 34.00
Harris
Harris County
The event is located in Harris County. The circle (green) in the left inset map represents the approximate location of the event. The inset map on the right represents the location of Harris County (red) in the state of Texas.
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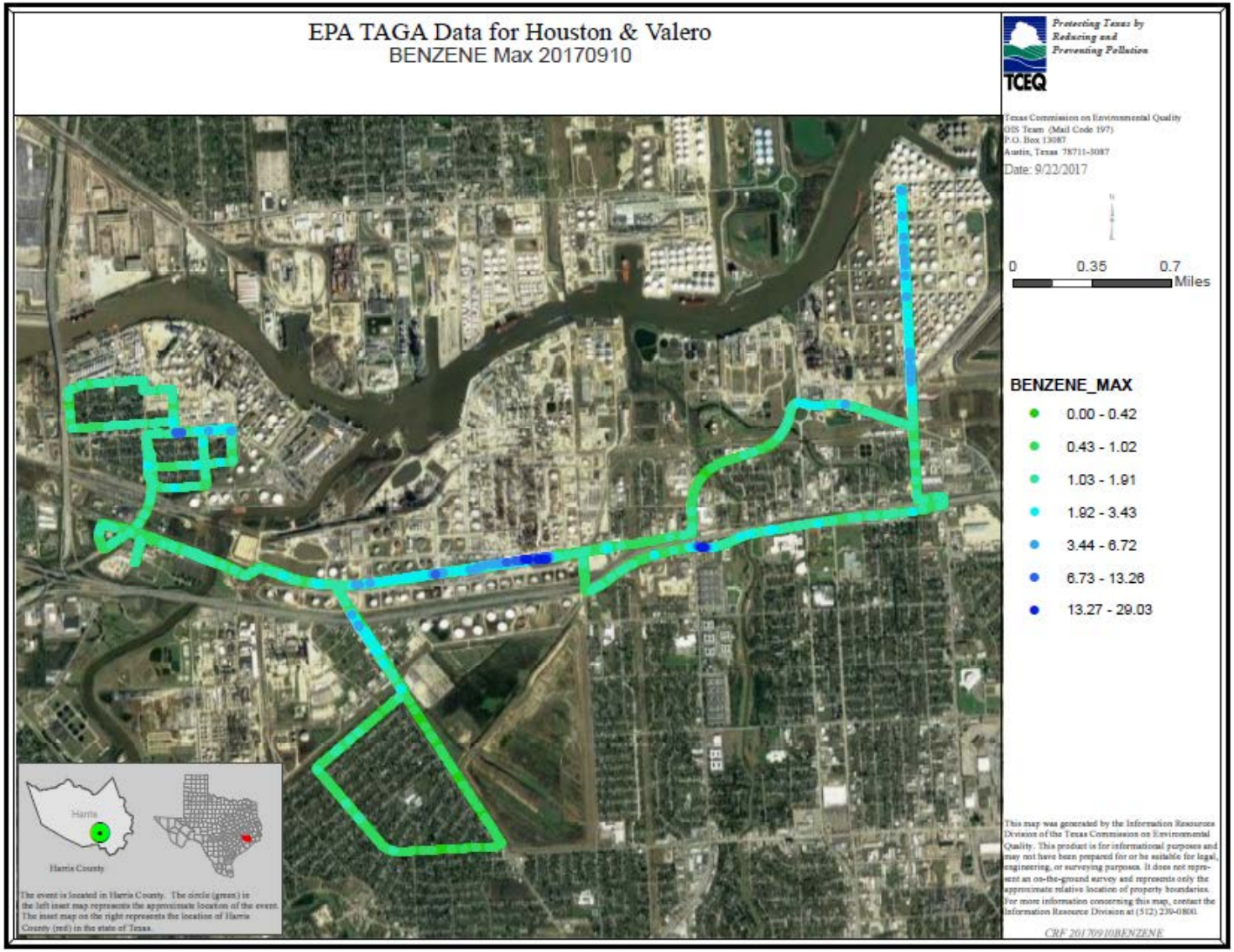
CRF 20170907XYLENE


EPA TAGA Data for Houston & Valero
BENZENE Max 20170910
Protecting Texas by Reducing and Preventing Pollution
TCEQ
Texas Commission on Environmental Quality
GIS Team (Mail Code 197)
P.O. Box 13087
Austin, Texas 78711-3087
Date: 9/22/2017
0
0.35
0.7
Miles
BENZENE_MAX
0.00 - 0.42
0.43 - 1.02
1.03 - 1.91
1.92 - 3.43
3.44 - 6.72
6.73 - 13.26
13.27 - 29.03
Harris
Harris County
The event is located in Harris County. The circle (green) in the left inset map represents the approximate location of the event. The inset map on the right represents the location of Harris County (red) in the state of Texas.
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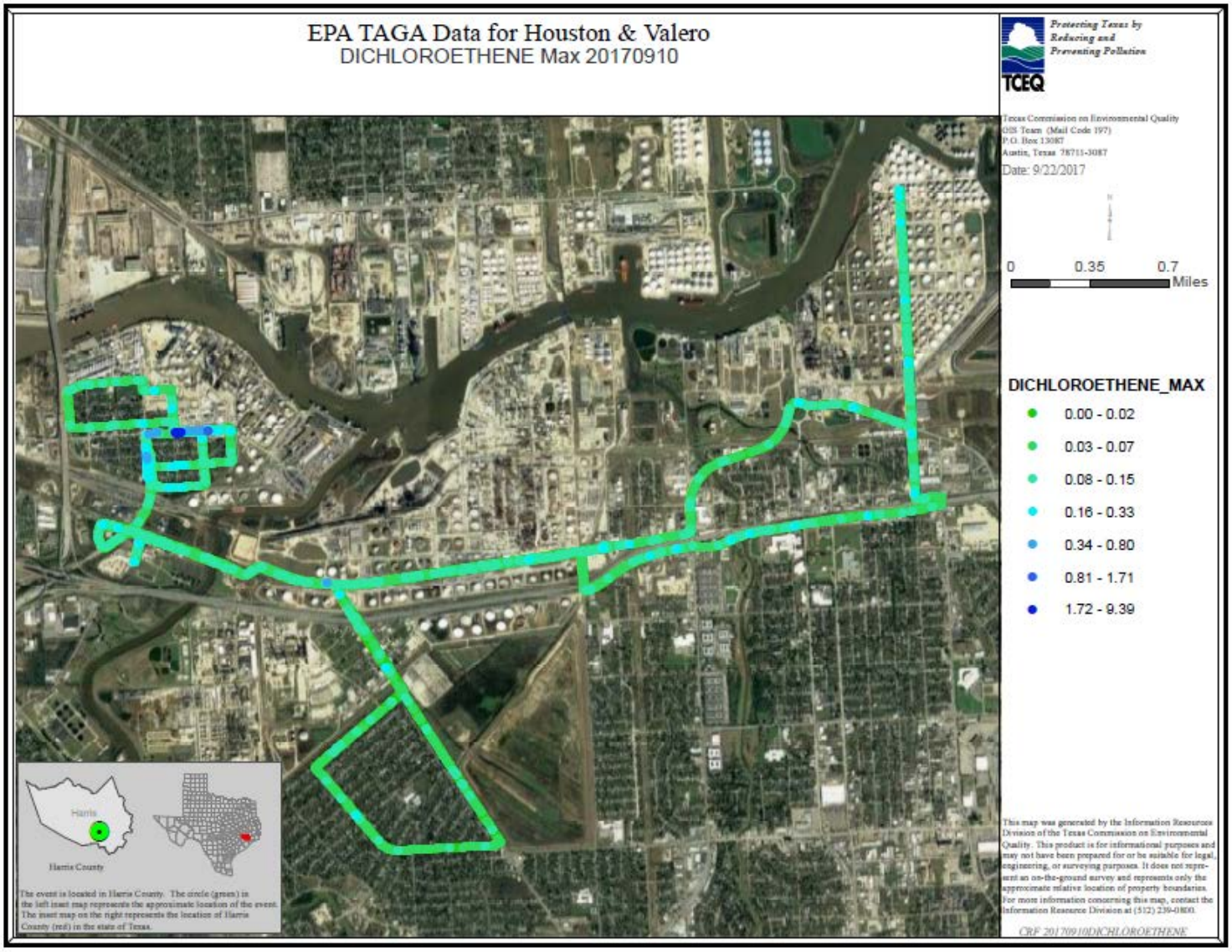
CRF 20170910BENZENE


EPA TAGA Data for Houston & Valero
DICHLOROETHENE Max 20170910
Protecting Texas by Reducing and Preventing Pollution
TCEQ
Texas Commission on Environmental Quality
GIS Team (Mail Code 197)
P.O. Box 13087
Austin, Texas 78711-3087
Date: 9/22/2017
0
0.35
0.7
Miles
DICHLOROETHENE_MAX
0.00 - 0.02
0.03 - 0.07
0.08 - 0.15
0.16 - 0.33
0.34 - 0.80
0.81 - 1.71
1.72 - 9.39
Harris
Harris County
The event is located in Harris County. The circle (green) in the left inset map represents the approximate location of the event. The inset map on the right represents the location of Harris County (red) in the state of Texas.
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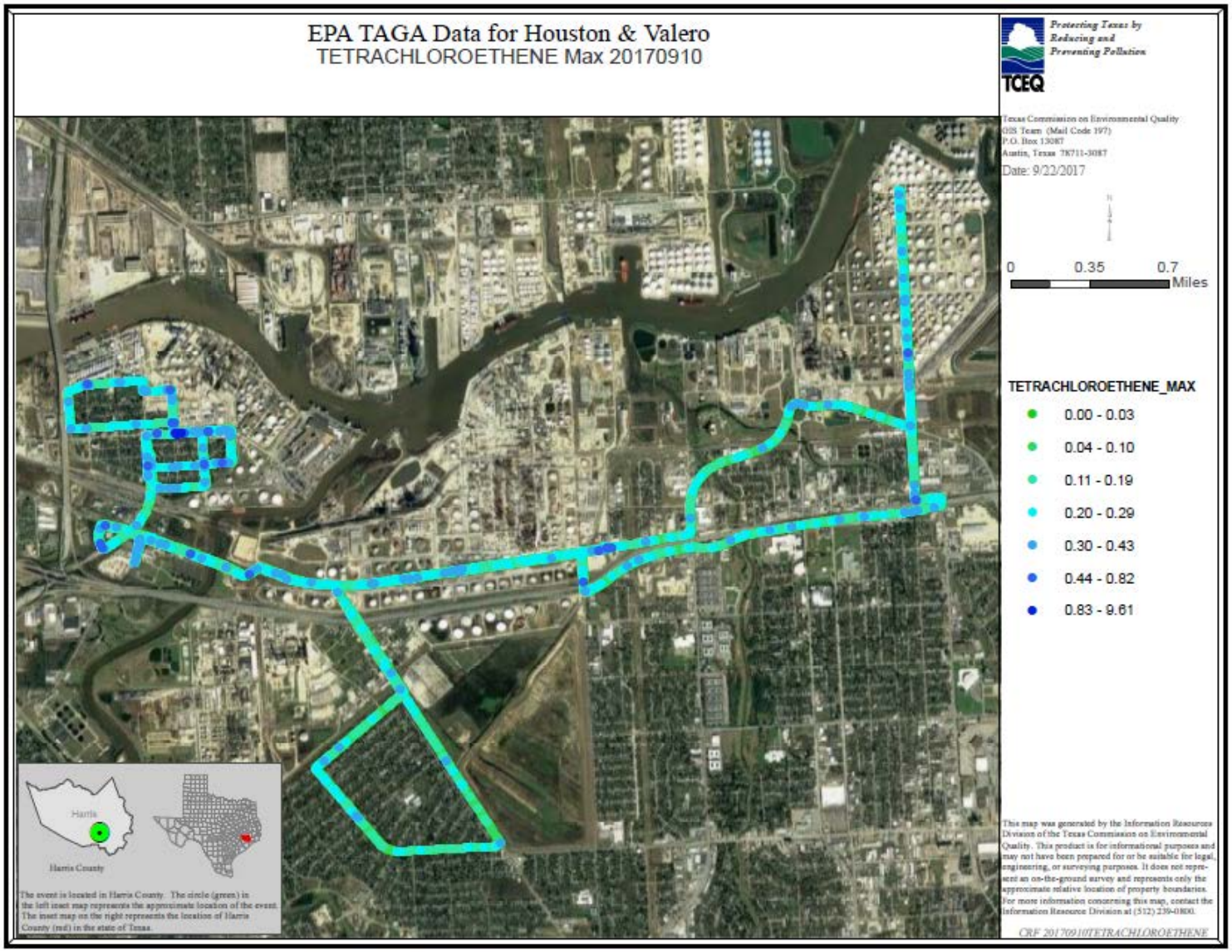
CRF 20170910DICHLOROETHENE


EPA TAGA Data for Houston & Valero
TETRACHLOROETHENE Max 20170910
Protecting Texas by Reducing and Preventing Pollution
TCEQ
Texas Commission on Environmental Quality
GIS Team (Mail Code 197)
P.O. Box 13087
Austin, Texas 78711-3087
Date: 9/22/2017
0
0.35
0.7
Miles
TETRACHLOROETHENE_MAX
0.00 - 0.03
0.04 - 0.10
0.11 - 0.19
0.20 - 0.29
0.30 - 0.43
0.44 - 0.82
0.83 - 9.61
Harris
Harris County
The event is located in Harris County. The circle (green) in the left inset map represents the approximate location of the event. The inset map on the right represents the location of Harris County (red) in the state of Texas.
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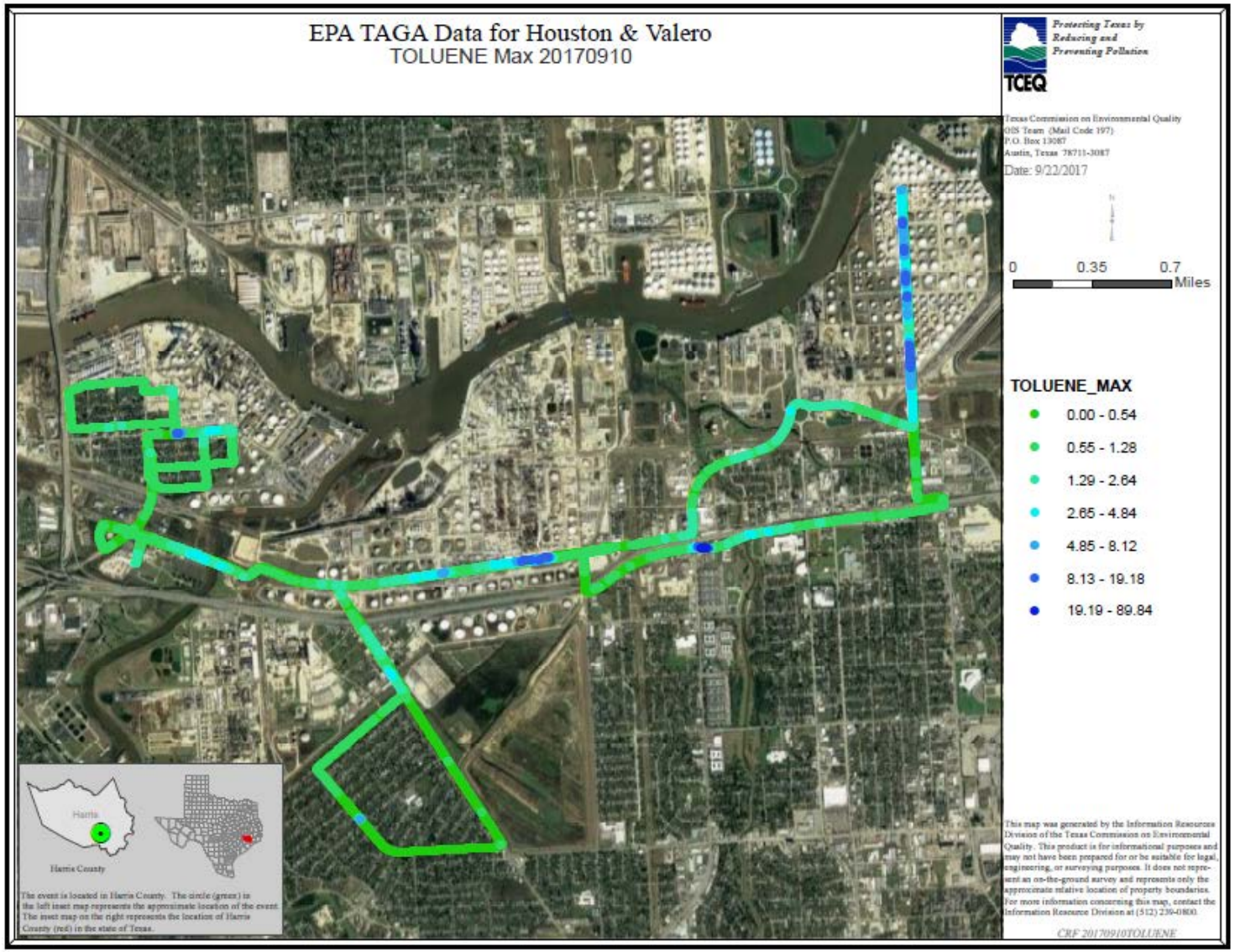
ORF 20170910TETRACHLOROETHENE


EPA TAGA Data for Houston & Valero
TOLUENE Max 20170910
Protecting Texas by Reducing and Preventing Pollution
TCEQ
Texas Commission on Environmental Quality
GIS Team (Mail Code 197)
P.O. Box 13087
Austin, Texas 78711-3087
Date: 9/22/2017
0
0.35
0.7
Miles
TOLUENE_MAX
0.00 - 0.54
0.55 - 1.28
1.29 - 2.64
2.65 - 4.84
4.85 - 8.12
8.13 - 19.18
19.19 - 89.84
Harris
Harris County
The event is located in Harris County. The circle (green) in the left inset map represents the approximate location of the event. The inset map on the right represents the location of Harris County (red) in the state of Texas.
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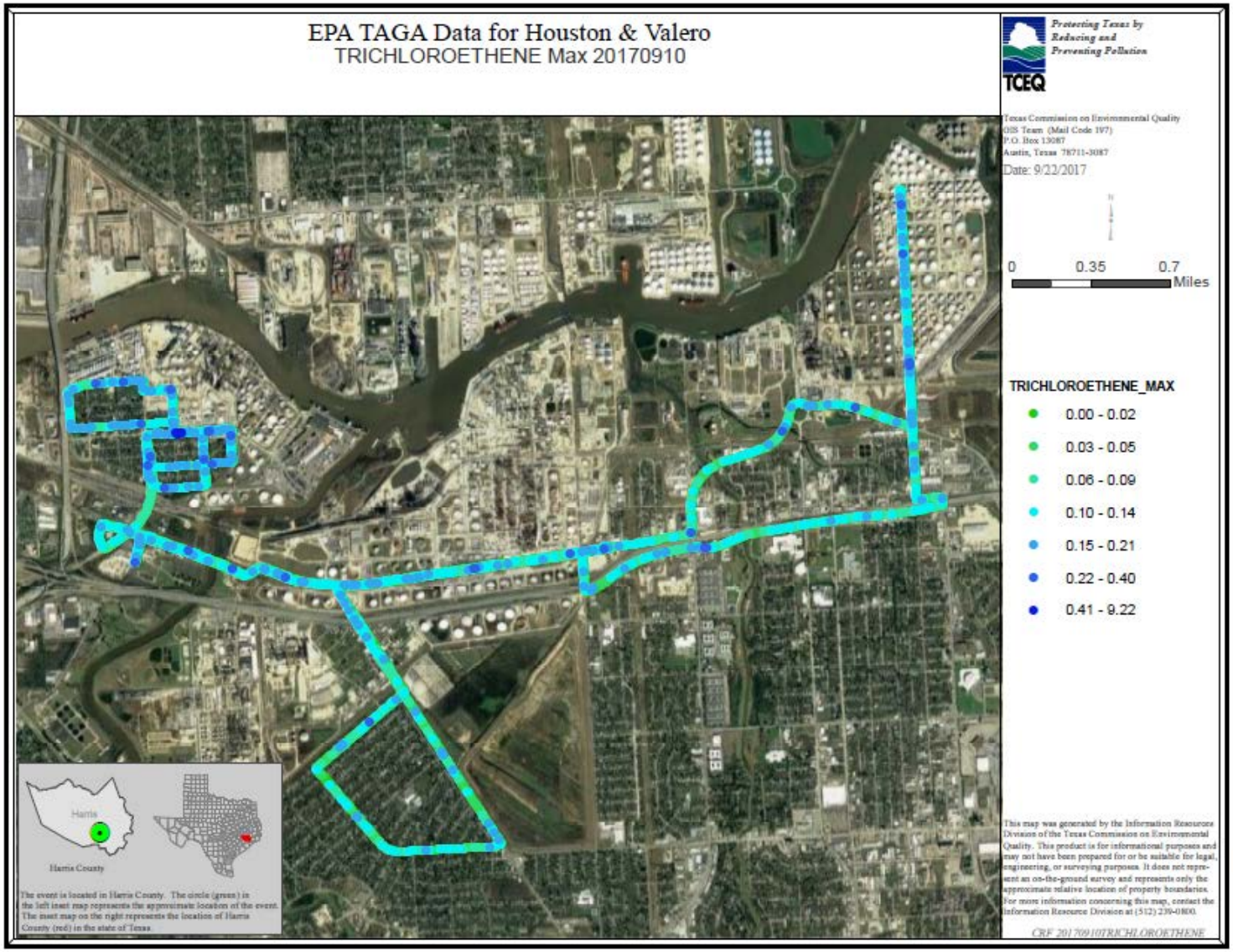
CRF 20170910TOLUENE


EPA TAGA Data for Houston & Valero
TRICHLOROETHENE Max 20170910
Protecting Texas by Reducing and Preventing Pollution
TCEQ
Texas Commission on Environmental Quality
GIS Team (Mail Code 197)
P.O. Box 13087
Austin, Texas 78711-3087
Date: 9/22/2017
0
0.35
0.7
Miles
TRICHLOROETHENE_MAX
0.00 - 0.02
0.03 - 0.05
0.06 - 0.09
0.10 - 0.14
0.15 - 0.21
0.22 - 0.40
0.41 - 9.22
Harris
Harris County
The event is located in Harris County. The circle (green) in the left inset map represents the approximate location of the event. The inset map on the right represents the location of Harris County (red) in the state of Texas.
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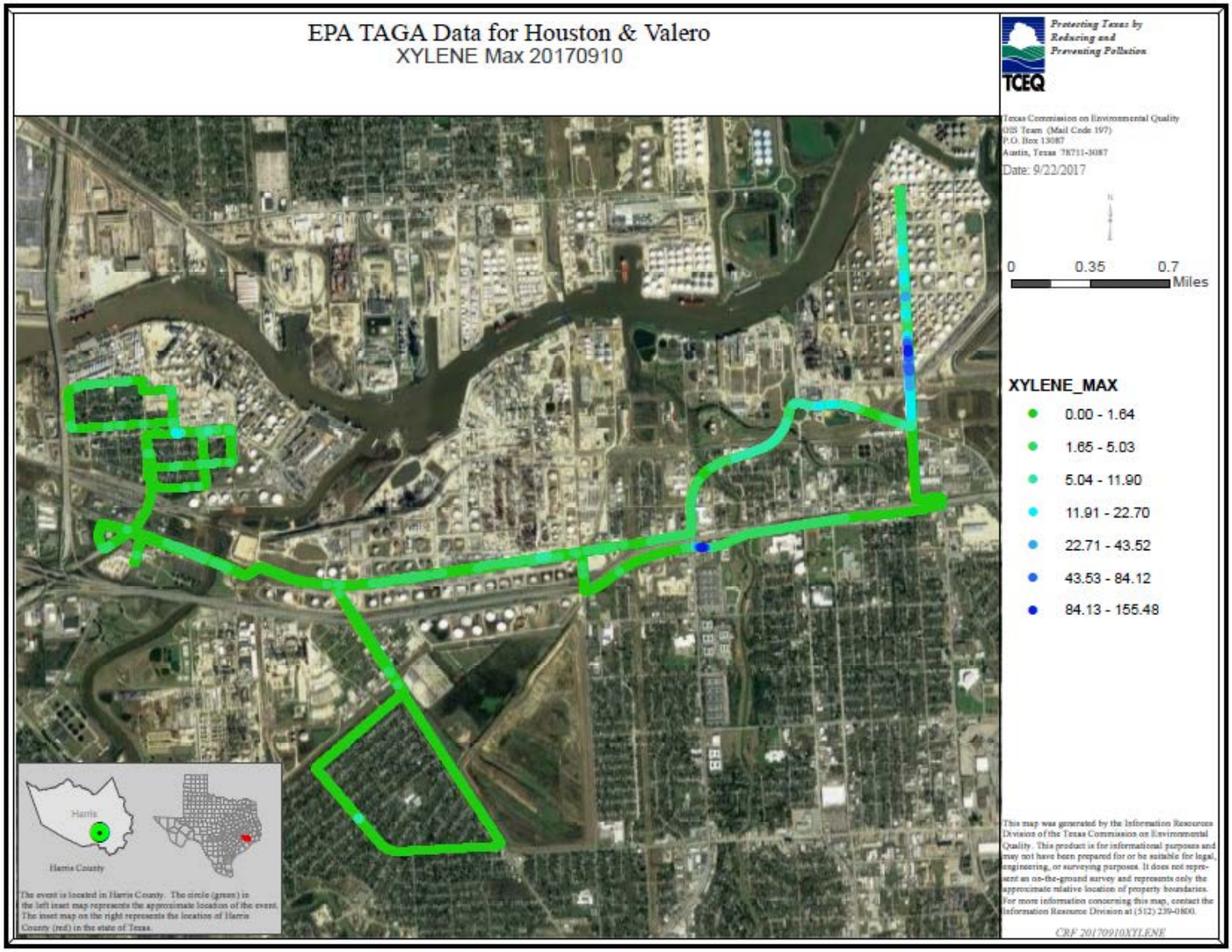
CRF 20170910TRICHLOROETHENE


EPA TAGA Data for Houston & Valero
XYLENE Max 20170910
Protecting Texas by Reducing and Preventing Pollution
TCEQ
Texas Commission on Environmental Quality
GIS Team (Mail Code 197)
P.O. Box 13087
Austin, Texas 78711-3087
Date: 9/22/2017
0
0.35
0.7
Miles
XYLENE_MAX
0.00 - 1.64
1.65 - 5.03
5.04 - 11.90
11.91 - 22.70
22.71 - 43.52
43.53 - 84.12
84.13 - 155.48
Harris
Harris County
The event is located in Harris County. The circle (green) in the left inset map represents the approximate location of the event. The inset map on the right represents the location of Harris County (red) in the state of Texas.
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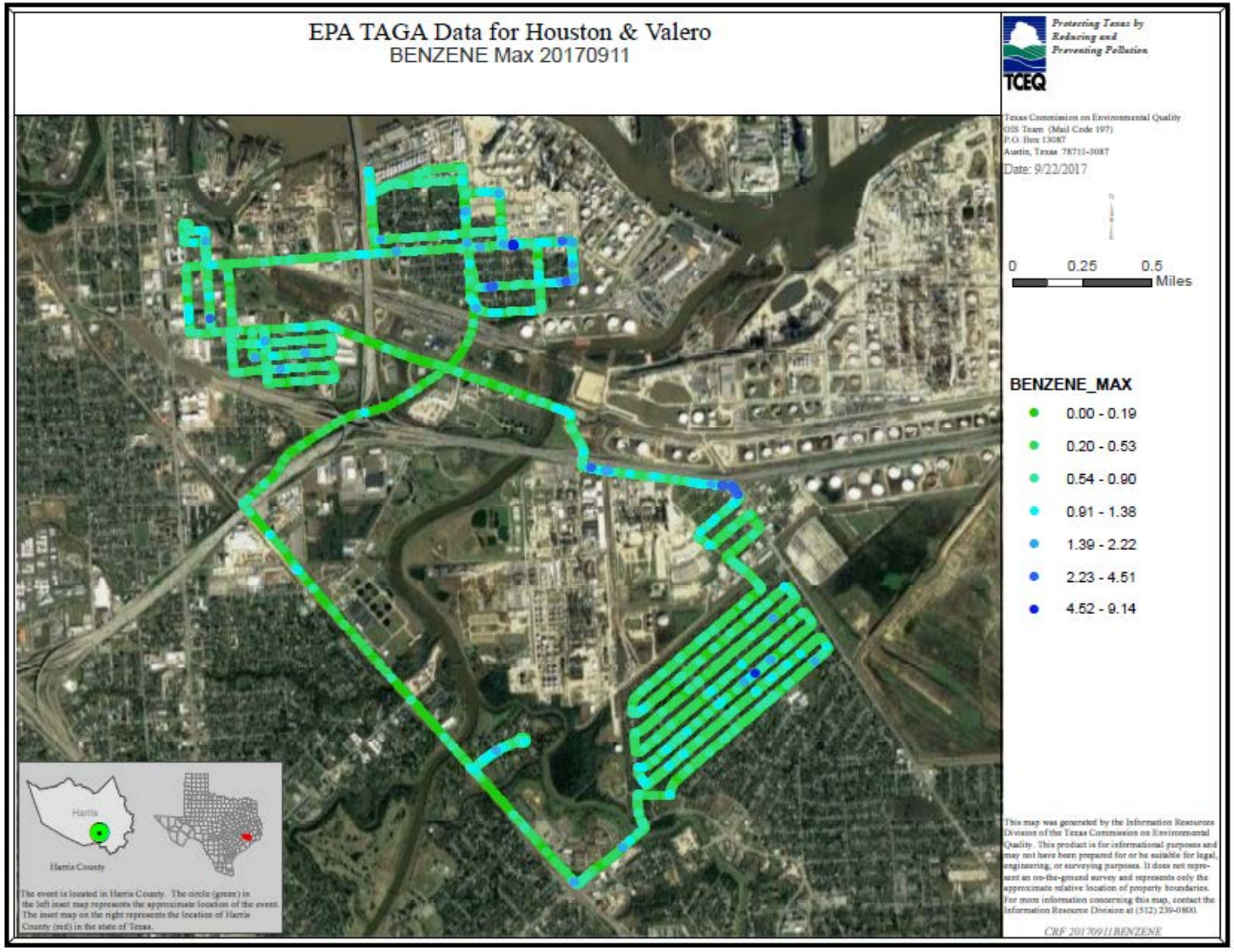
CRF 20170910XYLENE


EPA TAGA Data for Houston & Valero
BENZENE Max 20170911
Protecting Texas by Reducing and Preventing Pollution
TCEQ
Texas Commission on Environmental Quality
GIS Team (Mail Code 197)
P.O. Box 13087
Austin, Texas 78711-3087
Date: 9/22/2017
0 0.25 0.5
Miles
BENZENE_MAX
0.00 - 0.19
0.20 - 0.53
0.54 - 0.90
0.91 - 1.38
1.39 - 2.22
2.23 - 4.51
4.52 - 9.14
Harris
Harris County
The event is located in Harris County. The circle (green) in the left inset map represents the approximate location of the event. The inset map on the right represents the location of Harris County (red) in the state of Texas.
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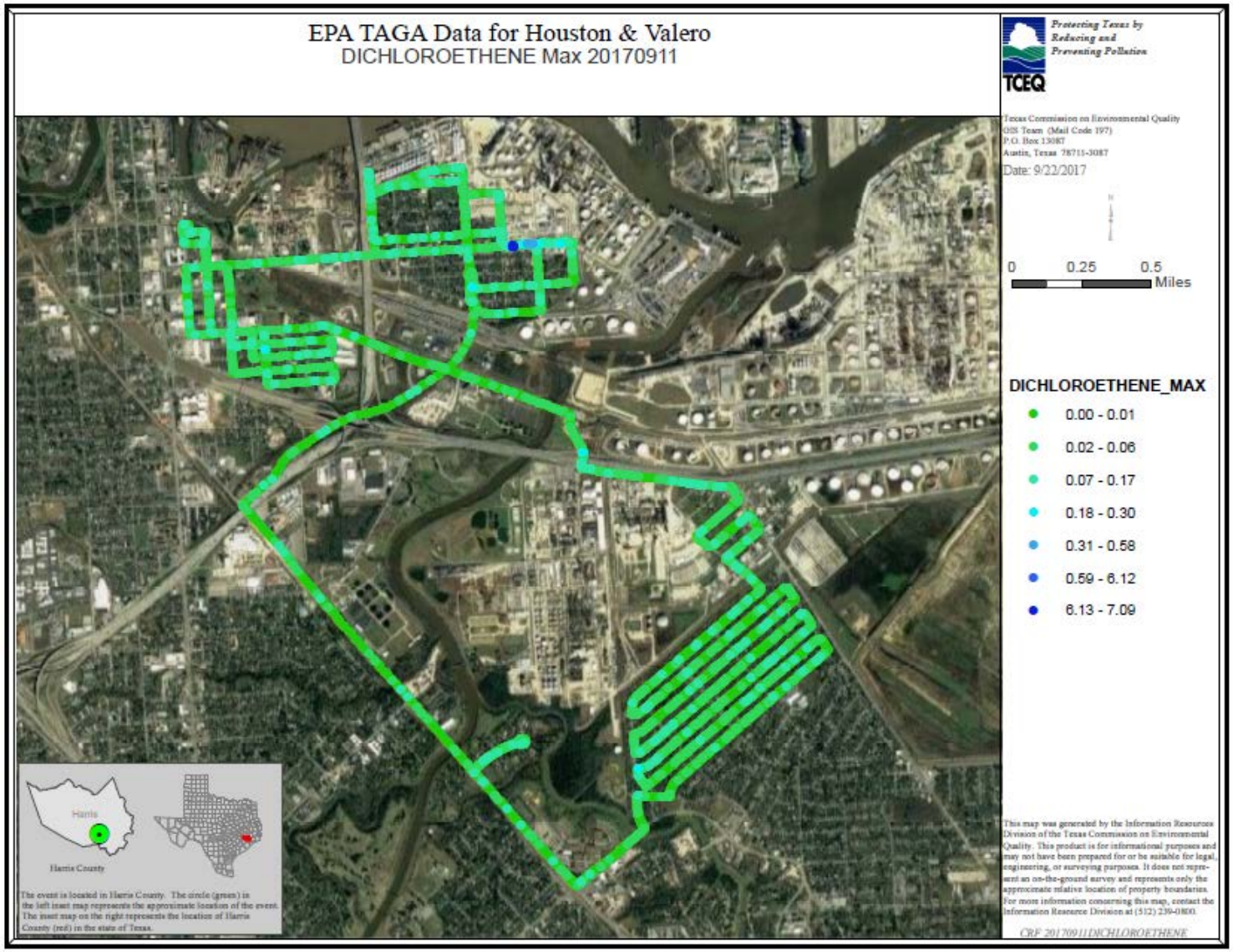
CRF 20170911BENZENE


EPA TAGA Data for Houston & Valero
DICHLOROETHENE Max 20170911
Protecting Texas by Reducing and Preventing Pollution
TCEQ
Texas Commission on Environmental Quality
GIS Team (Mail Code 197)
P.O. Box 13087
Austin, Texas 78711-3087
Date: 9/22/2017
0 0.25 0.5
Miles
DICHLOROETHENE_MAX
0.00 - 0.01
0.02 - 0.06
0.07 - 0.17
0.18 - 0.30
0.31 - 0.58
0.59 - 6.12
6.13 - 7.09
Harris
Harris County
The event is located in Harris County. The circle (green) in the left inset map represents the approximate location of the event. The inset map on the right represents the location of Harris County (red) in the state of Texas.
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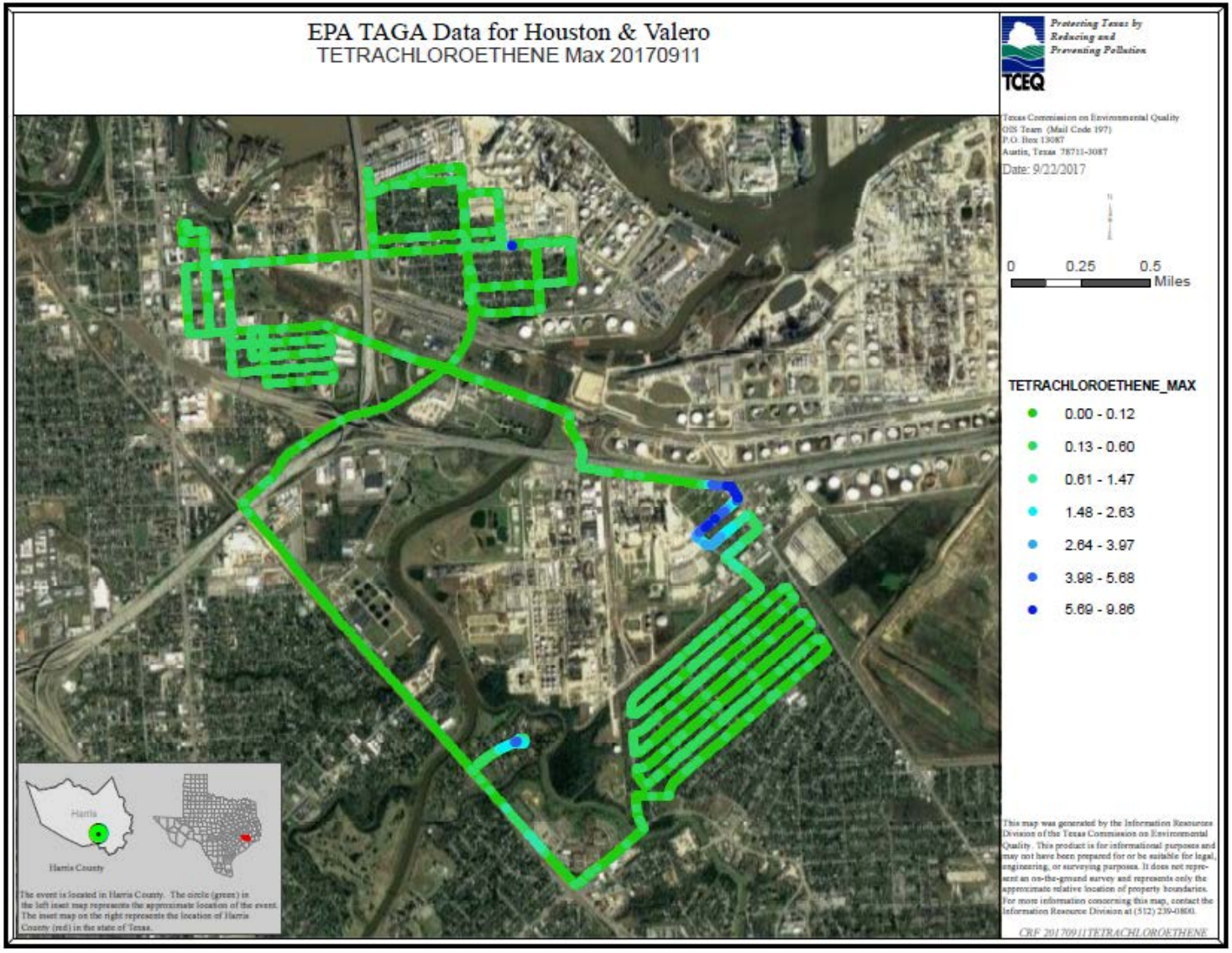
CRF 20170911DICHLOROETHENE


EPA TAGA Data for Houston & Valero
TETRACHLOROETHENE Max 20170911
Protecting Texas by Reducing and Preventing Pollution
TCEQ
Texas Commission on Environmental Quality
GIS Team (Mail Code 197)
P.O. Box 13087
Austin, Texas 78711-3087
Date: 9/22/2017
0 0.25 0.5
Miles
TETRACHLOROETHENE_MAX
0.00 - 0.12
0.13 - 0.60
0.61 - 1.47
1.48 - 2.63
2.64 - 3.97
3.98 - 5.68
5.69 - 9.86
Harris
Harris County
The event is located in Harris County. The circle (green) in the left inset map represents the approximate location of the event. The inset map on the right represents the location of Harris County (red) in the state of Texas.
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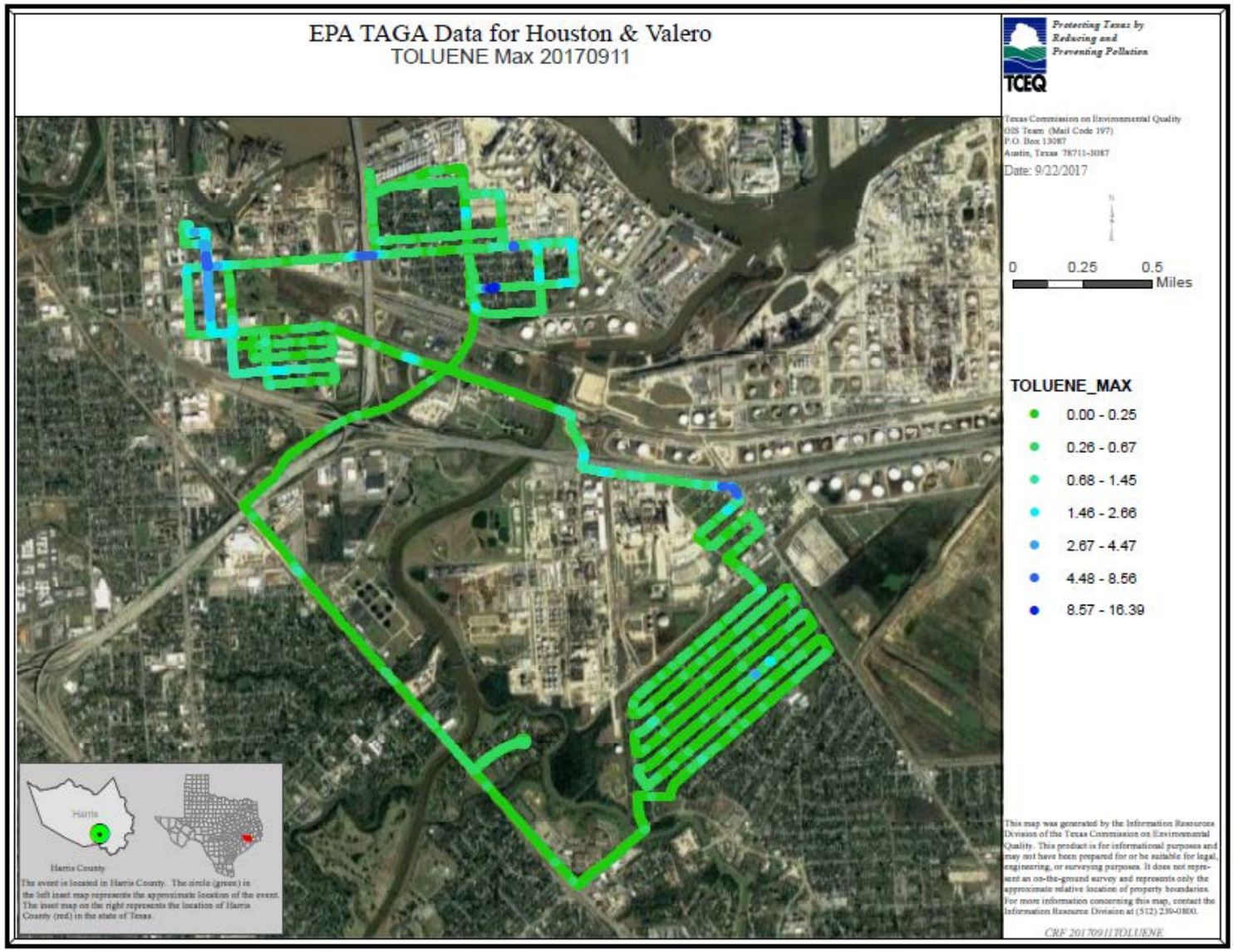
CRF 20170911TETRACHLOROETHENE


EPA TAGA Data for Houston & Valero
TOLUENE Max 20170911
Protecting Texas by Reducing and Preventing Pollution
TCEQ
Texas Commission on Environmental Quality
OIS Team (Mail Code 197)
P.O. Box 13087
Austin, Texas 78711-3087
Date: 9/22/2017
0
0.25
0.5
Miles
TOLUENE_MAX
0.00 - 0.25
0.26 - 0.67
0.68 - 1.45
1.46 - 2.66
2.67 - 4.47
4.48 - 8.56
8.57 - 16.39
Harris
Harris County
The event is located in Harris County. The circle (green) in the left inset map represents the approximate location of the event. The inset map on the right represents the location of Harris County (red) in the state of Texas.
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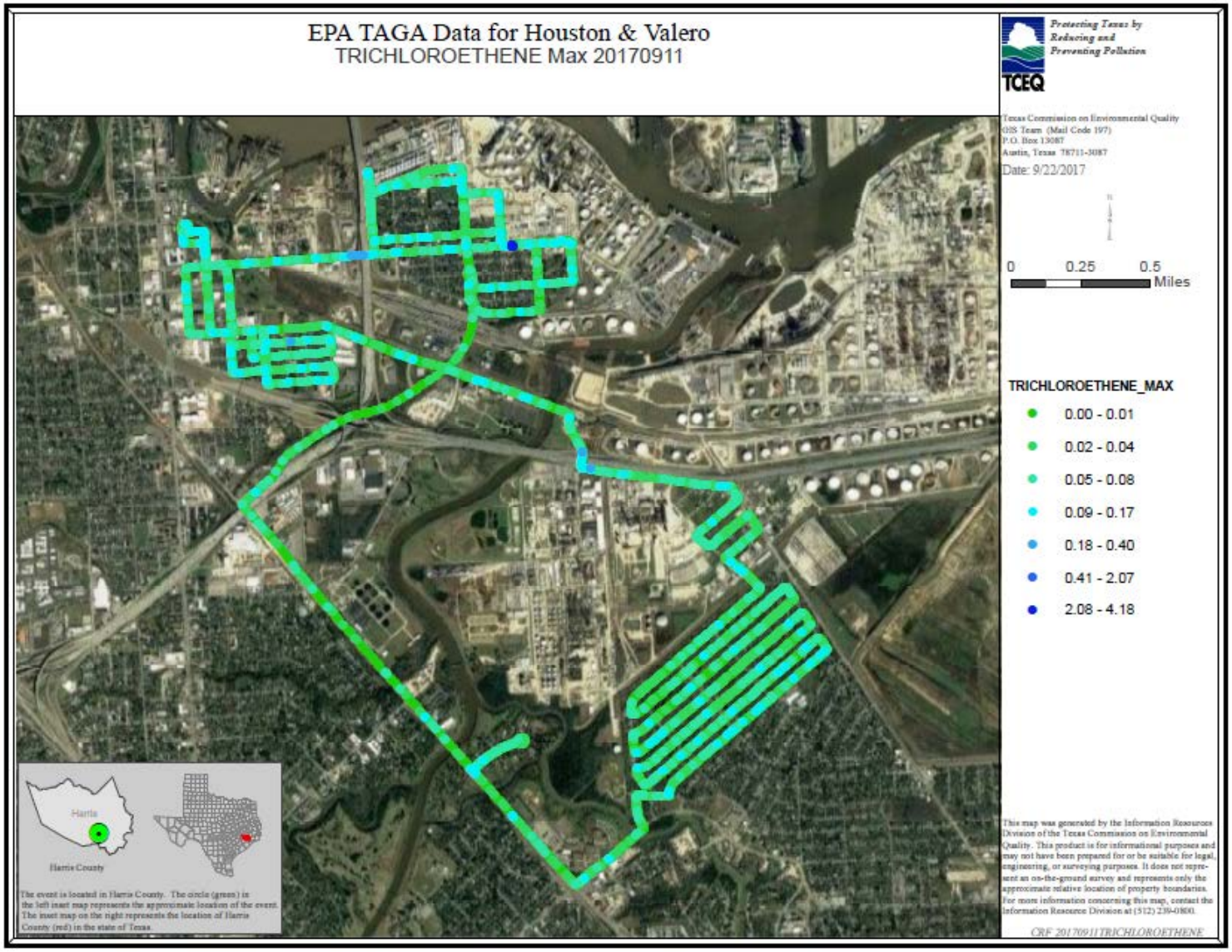
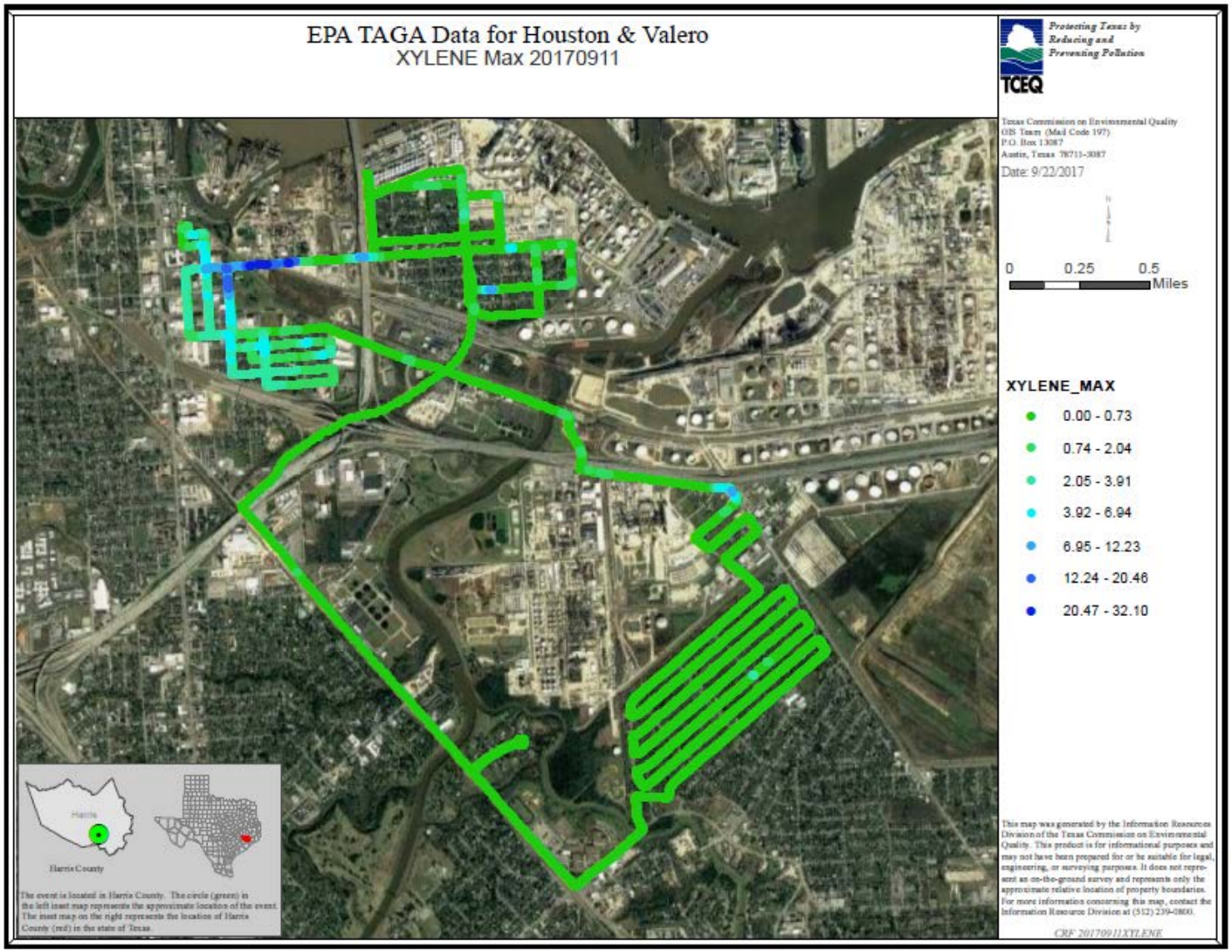
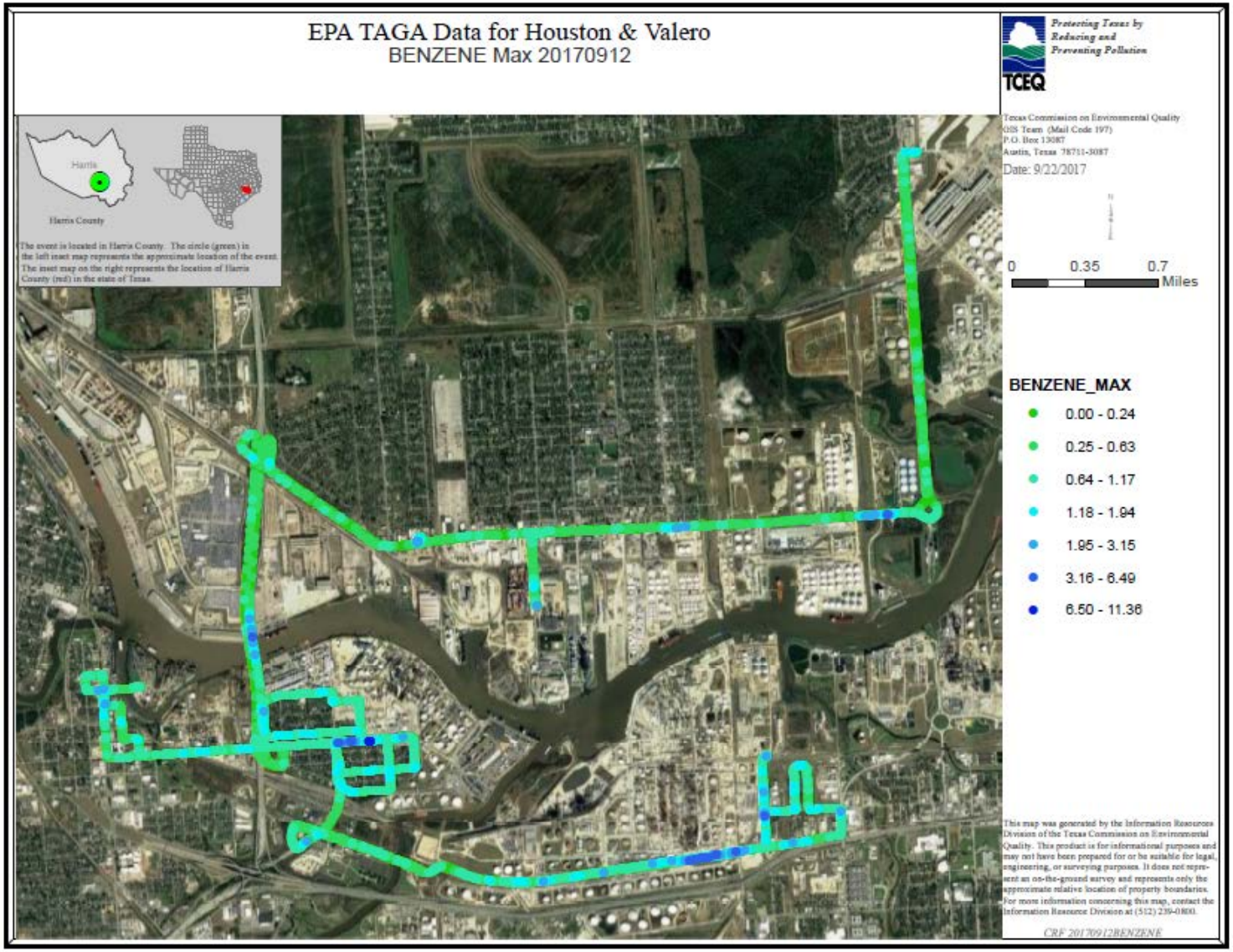
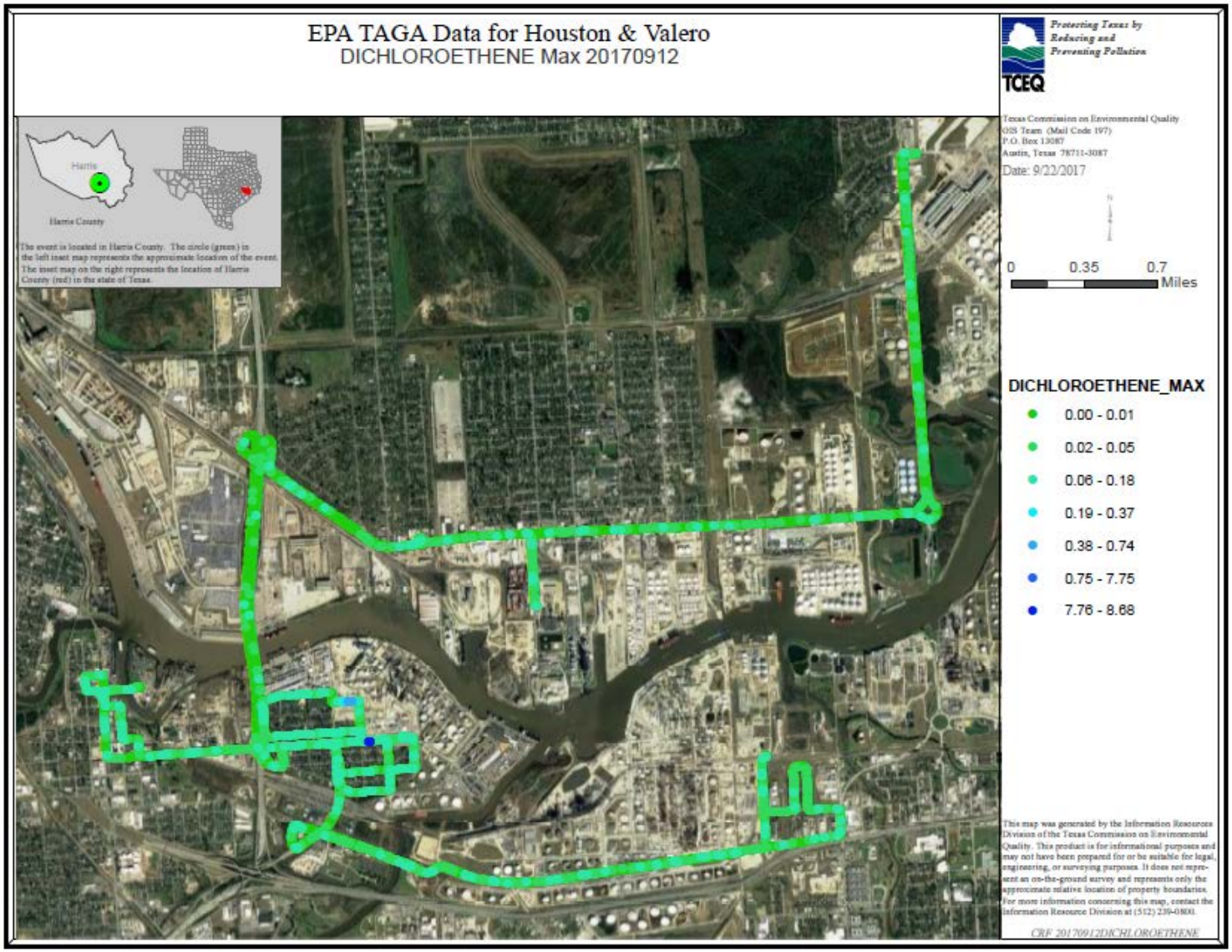
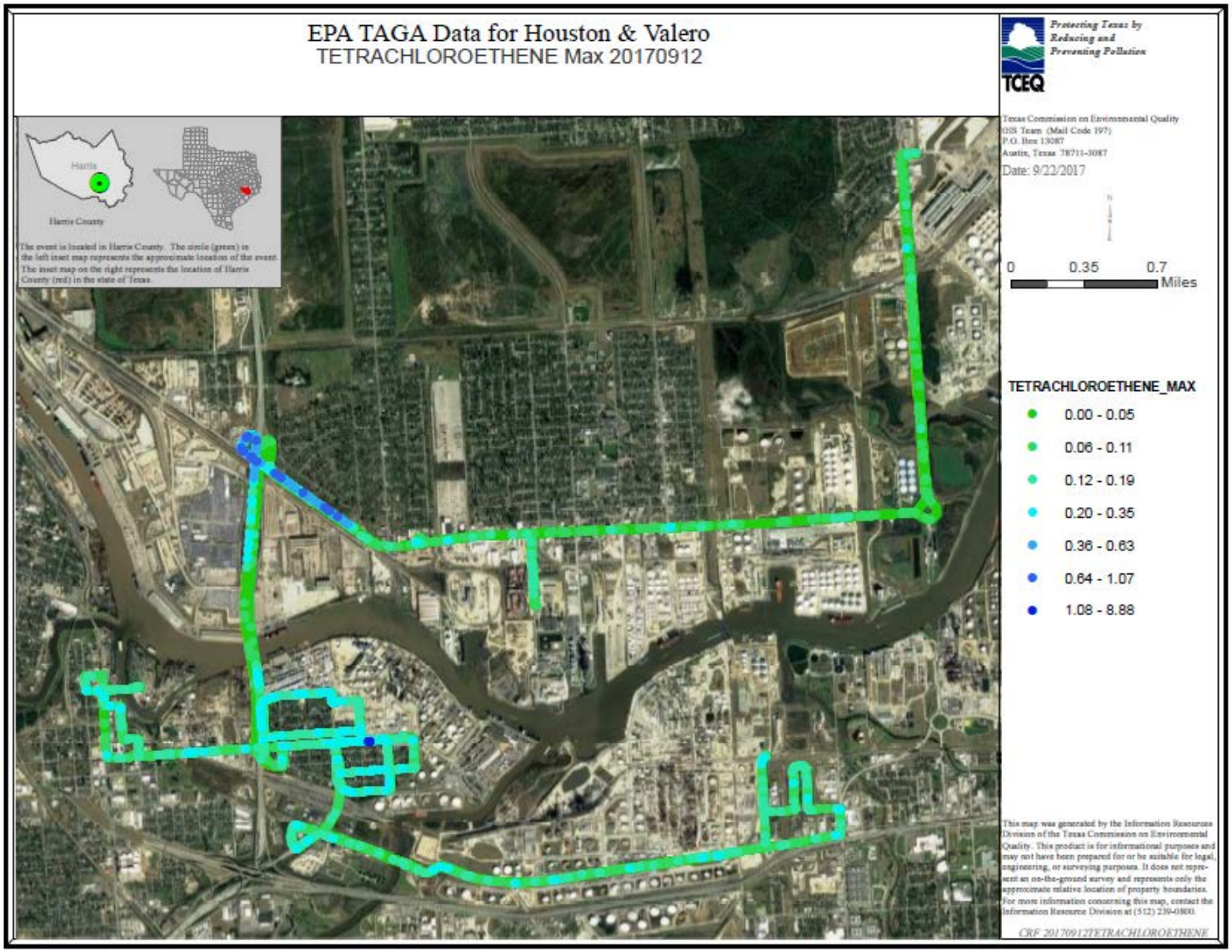
CRF 20170911TOLUENE

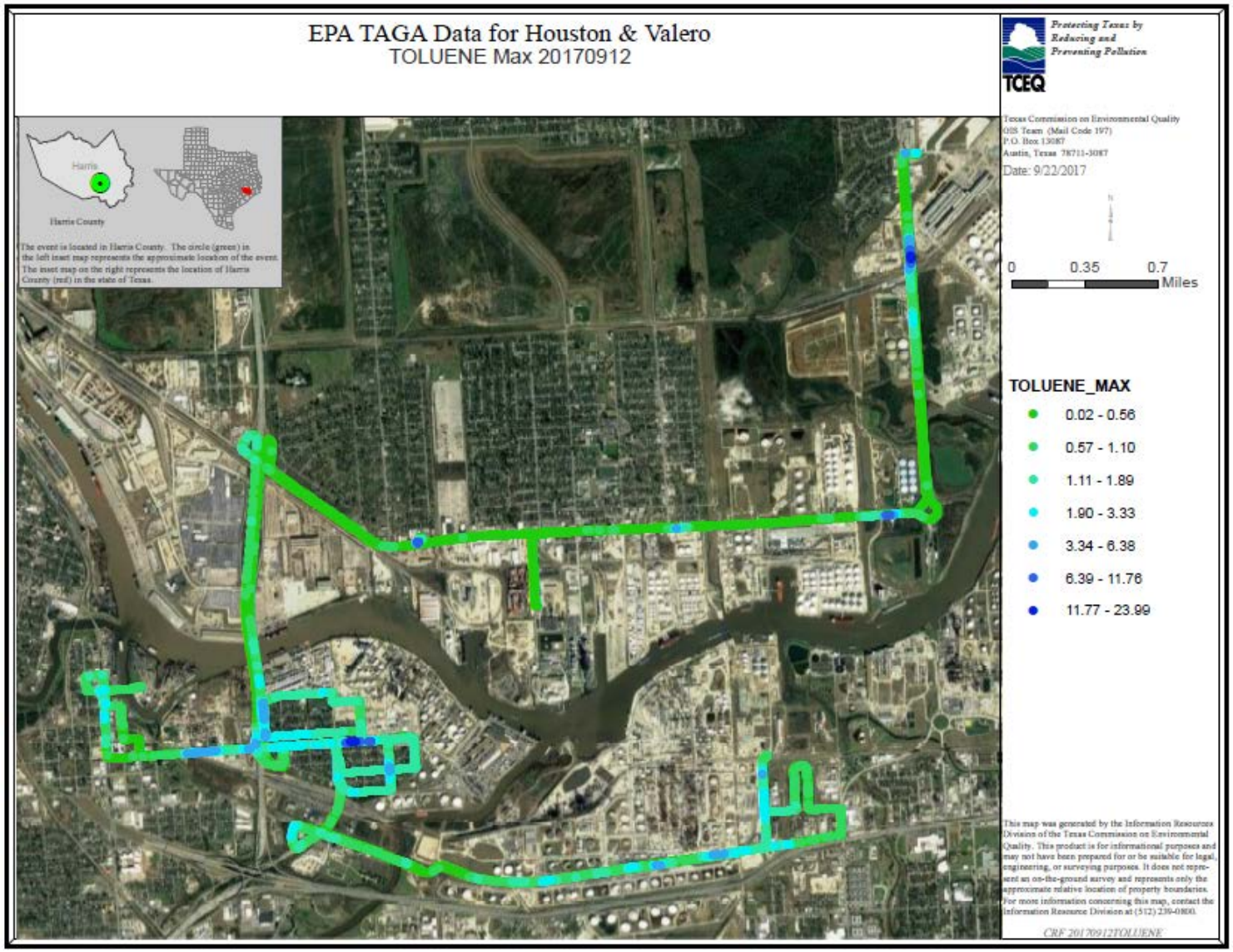

EPA TAGA Data for Houston & Valero
TRICHLOROETHENE Max 20170911
Protecting Texas by Reducing and Preventing Pollution
TCEQ
Texas Commission on Environmental Quality
(105 Team (Mail Code 197)
P.O. Box 13087
Austin, Texas 78711-3087
Date: 9/22/2017
0 0.25 0.5
Miles
TRICHLOROETHENE_MAX
0.00 - 0.01
0.02 - 0.04
0.05 - 0.08
0.09 - 0.17
0.18 - 0.40
0.41 - 2.07
2.08 - 4.18
Harris
Harris County
The event is located in Harris County. The circle (green) in the left inset map represents the approximate location of the event. The inset map on the right represents the location of Harris County (red) in the state of Texas.
This map was generated by the Information Resources Division of the Texas Commission on Environmental Quality. This product is for informational purposes and may not have been prepared for or be suitable for legal, engineering, or surveying purposes. It does not represent an on-the-ground survey and represents only the approximate relative location of property boundaries. For more information concerning this map, contact the Information Resource Division at (512) 239-0800.
CRF 20170911TRICHLOROETHENE

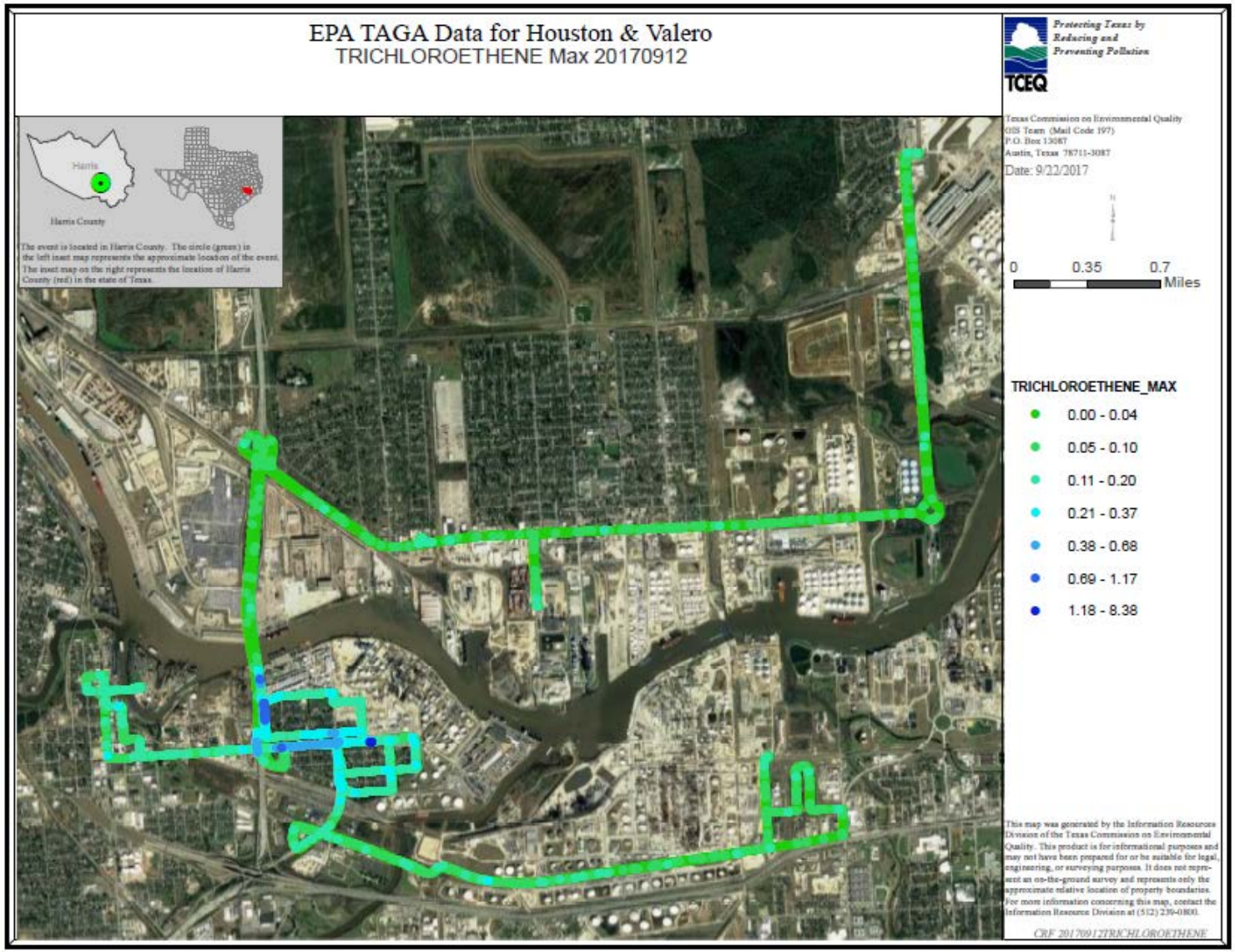

EPA TAGA Data for Houston & Valero
XYLENE Max 20170911
Protecting Texas by Reducing and Preventing Pollution
TCEQ
Texas Commission on Environmental Quality
GIS Team (Mail Code 197)
P.O. Box 13087
Austin, Texas 78711-3087
Date: 9/22/2017
N
0 0.25 0.5 Miles
XYLENE_MAX
0.00 - 0.73
0.74 - 2.04
2.05 - 3.91
3.92 - 6.94
6.95 - 12.23
12.24 - 20.46
20.47 - 32.10
Harris
Harris County
The event is located in Harris County. The circle (green) in the left inset map represents the approximate location of the event. The inset map on the right represents the location of Harris County (red) in the state of Texas.
This map was generated by the Information Resources Division of the Texas Commission on Environmental Quality. This product is for informational purposes and may not have been prepared for or be suitable for legal, engineering, or surveying purposes. It does not represent an on-the-ground survey and represents only the approximate relative location of property boundaries. For more information concerning this map, contact the Information Resource Division at (512) 239-0800.
CRF 20170911XYLENE

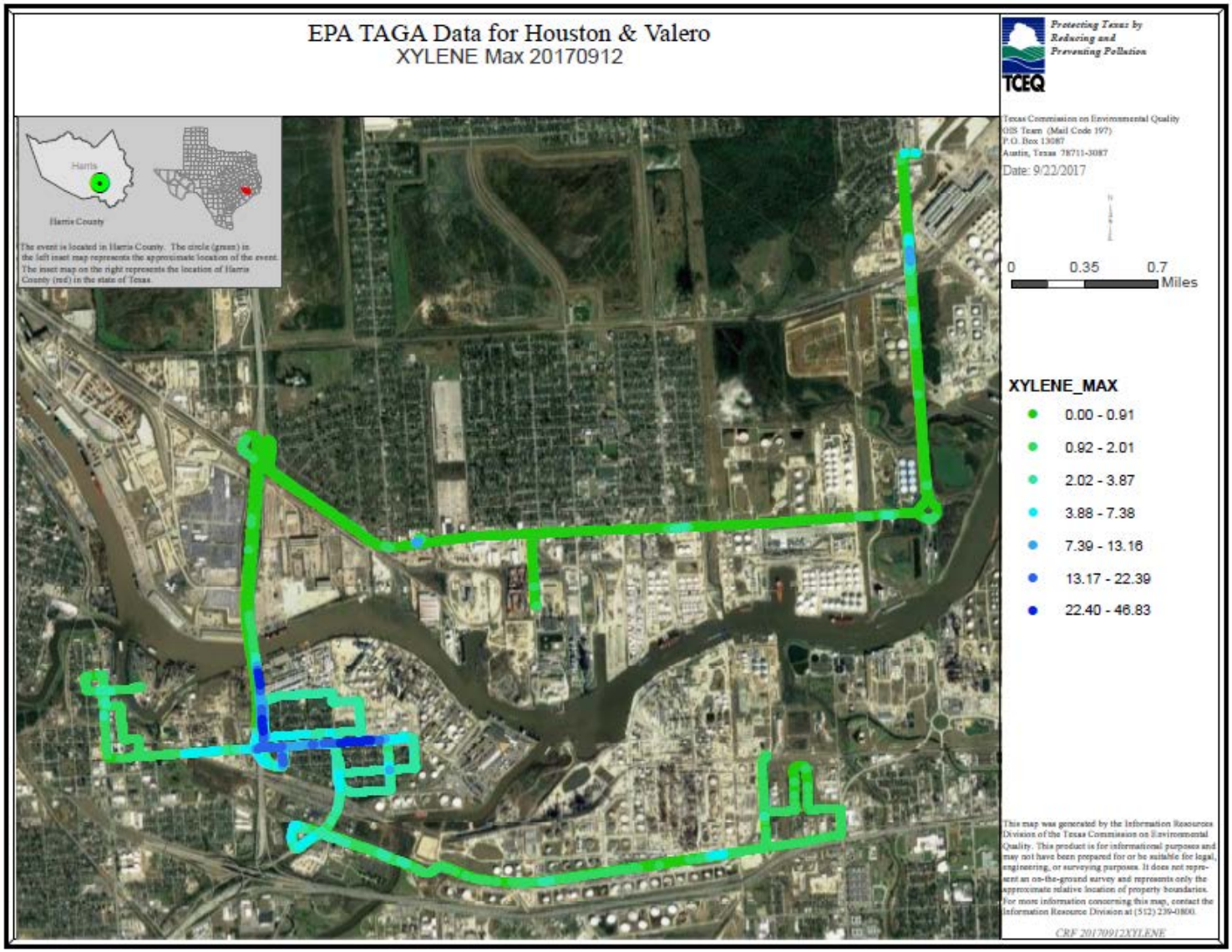

EPA TAGA Data for Houston & Valero
BENZENE Max 20170912
Harris
Harris County
The event is located in Harris County. The circle (green) in the left inset map represents the approximate location of the event. The inset map on the right represents the location of Harris County (red) in the state of Texas.
Protecting Texas by Reducing and Preventing Pollution
TCEQ
Texas Commission on Environmental Quality
GIS Team (Mail Code 197)
P.O. Box 13087
Austin, Texas 78711-3087
Date: 9/22/2017
0
0.35
0.7
Miles
BENZENE_MAX
0.00 - 0.24
0.25 - 0.63
0.64 - 1.17
1.18 - 1.94
1.95 - 3.15
3.16 - 6.49
6.50 - 11.36
This map was generated by the Information Resources Division of the Texas Commission on Environmental Quality. This product is for informational purposes and may not have been prepared for or be suitable for legal, engineering, or surveying purposes. It does not represent an on-the-ground survey and represents only the approximate relative location of property boundaries. For more information concerning this map, contact the Information Resource Division at (512) 239-0800.
CRF 20170912BENZENE


EPA TAGA Data for Houston & Valero
DICHLOROETHENE Max 20170912
Harris
Harris County
The event is located in Harris County. The circle (green) in the left inset map represents the approximate location of the event. The inset map on the right represents the location of Harris County (red) in the state of Texas.
Protecting Texas by Reducing and Preventing Pollution
TCEQ
Texas Commission on Environmental Quality
GIS Team (Mail Code 197)
P.O. Box 13087
Austin, Texas 78711-3087
Date: 9/22/2017
N
0 0.35 0.7
Miles
DICHLOROETHENE_MAX
0.00 - 0.01
0.02 - 0.05
0.06 - 0.18
0.19 - 0.37
0.38 - 0.74
0.75 - 7.75
7.76 - 8.68
This map was generated by the Information Resources Division of the Texas Commission on Environmental Quality. This product is for informational purposes and may not have been prepared for or be suitable for legal, engineering, or surveying purposes. It does not represent an on-the-ground survey and represents only the approximate relative location of property boundaries. For more information concerning this map, contact the Information Resource Division at (512) 239-0800.
CRF 20170912DICHLOROETHENE

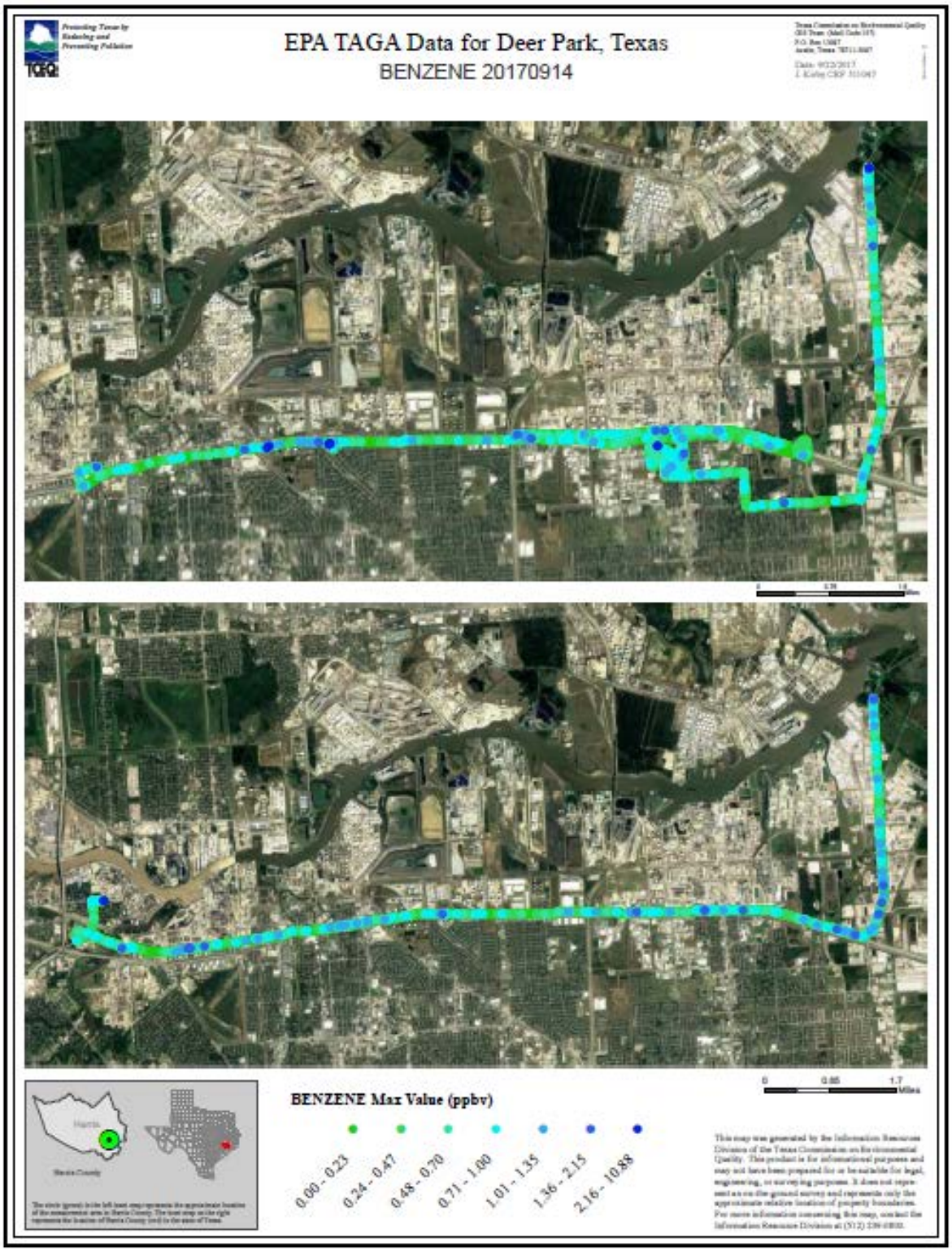

EPA TAGA Data for Houston & Valero
TETRACHLOROETHENE Max 20170912
Harris
Harris County
The event is located in Harris County. The circle (green) in the left inset map represents the approximate location of the event. The inset map on the right represents the location of Harris County (red) in the state of Texas.
Protecting Texas by Reducing and Preventing Pollution
TCEQ
Texas Commission on Environmental Quality
GIS Team (Mail Code 197)
P.O. Box 13087
Austin, Texas 78711-3087
Date: 9/22/2017
0
0.35
0.7
Miles
TETRACHLOROETHENE_MAX
0.00 - 0.05
0.06 - 0.11
0.12 - 0.19
0.20 - 0.35
0.36 - 0.63
0.64 - 1.07
1.08 - 8.88
This map was generated by the Information Resources Division of the Texas Commission on Environmental Quality. This product is for informational purposes and may not have been prepared for or be suitable for legal, engineering, or surveying purposes. It does not represent an on-the-ground survey and represents only the approximate relative location of property boundaries. For more information concerning this map, contact the Information Resource Division at (512) 239-0800.
CRF 20170912TETRACHLOROETHENE


EPA TAGA Data for Houston & Valero
TOLUENE Max 20170912
Harris
Harris County
The event is located in Harris County. The circle (green) in the left inset map represents the approximate location of the event. The inset map on the right represents the location of Harris County (red) in the state of Texas.
Protecting Texas by Reducing and Preventing Pollution
TCEQ
Texas Commission on Environmental Quality
GIS Team (Mail Code 197)
P.O. Box 13087
Austin, Texas 78711-3087
Date: 9/22/2017
0
0.35
0.7
Miles
TOLUENE_MAX
0.02 - 0.56
0.57 - 1.10
1.11 - 1.89
1.90 - 3.33
3.34 - 6.38
6.39 - 11.76
11.77 - 23.99
This map was generated by the Information Resources Division of the Texas Commission on Environmental Quality. This product is for informational purposes and may not have been prepared for or be suitable for legal, engineering, or surveying purposes. It does not represent an on-the-ground survey and represents only the approximate relative location of property boundaries. For more information concerning this map, contact the Information Resource Division at (512) 239-0800.
CRF 20170912TOLUENE


EPA TAGA Data for Houston & Valero
TRICHLOROETHENE Max 20170912
Harris
Harris County
The event is located in Harris County. The circle (green) in the left inset map represents the approximate location of the event. The inset map on the right represents the location of Harris County (red) in the state of Texas.
Protecting Texas by Reducing and Preventing Pollution
TCEQ
Texas Commission on Environmental Quality
GIS Team (Mail Code 197)
P.O. Box 13087
Austin, Texas 78711-3087
Date: 9/22/2017
0
0.35
0.7
Miles
TRICHLOROETHENE_MAX
0.00 - 0.04
0.05 - 0.10
0.11 - 0.20
0.21 - 0.37
0.38 - 0.68
0.69 - 1.17
1.18 - 8.38
This map was generated by the Information Resources Division of the Texas Commission on Environmental Quality. This product is for informational purposes and may not have been prepared for or be suitable for legal, engineering, or surveying purposes. It does not represent an on-the-ground survey and represents only the approximate relative location of property boundaries. For more information concerning this map, contact the Information Resource Division at (512) 239-0800.
ORF 20170912TRICHLOROETHENE


EPA TAGA Data for Houston & Valero
XYLENE Max 20170912
Harris
Harris County
The event is located in Harris County. The circle (green) in the left inset map represents the approximate location of the event. The inset map on the right represents the location of Harris County (red) in the state of Texas.
Protecting Texas by Reducing and Preventing Pollution
TCEQ
Texas Commission on Environmental Quality
GIS Team (Mail Code 197)
P.O. Box 13087
Austin, Texas 78711-3087
Date: 9/22/2017
0
0.35
0.7
Miles
XYLENE_MAX
0.00 - 0.91
0.92 - 2.01
2.02 - 3.87
3.88 - 7.38
7.39 - 13.16
13.17 - 22.39
22.40 - 46.83
This map was generated by the Information Resources Division of the Texas Commission on Environmental Quality. This product is for informational purposes and may not have been prepared for or be suitable for legal, engineering, or surveying purposes. It does not represent an on-the-ground survey and represents only the approximate relative location of property boundaries. For more information concerning this map, contact the Information Resource Division at (512) 239-0800.
CRF 20170912XYLENE

Deer Park Monitoring Study – Sept. 14, 2017

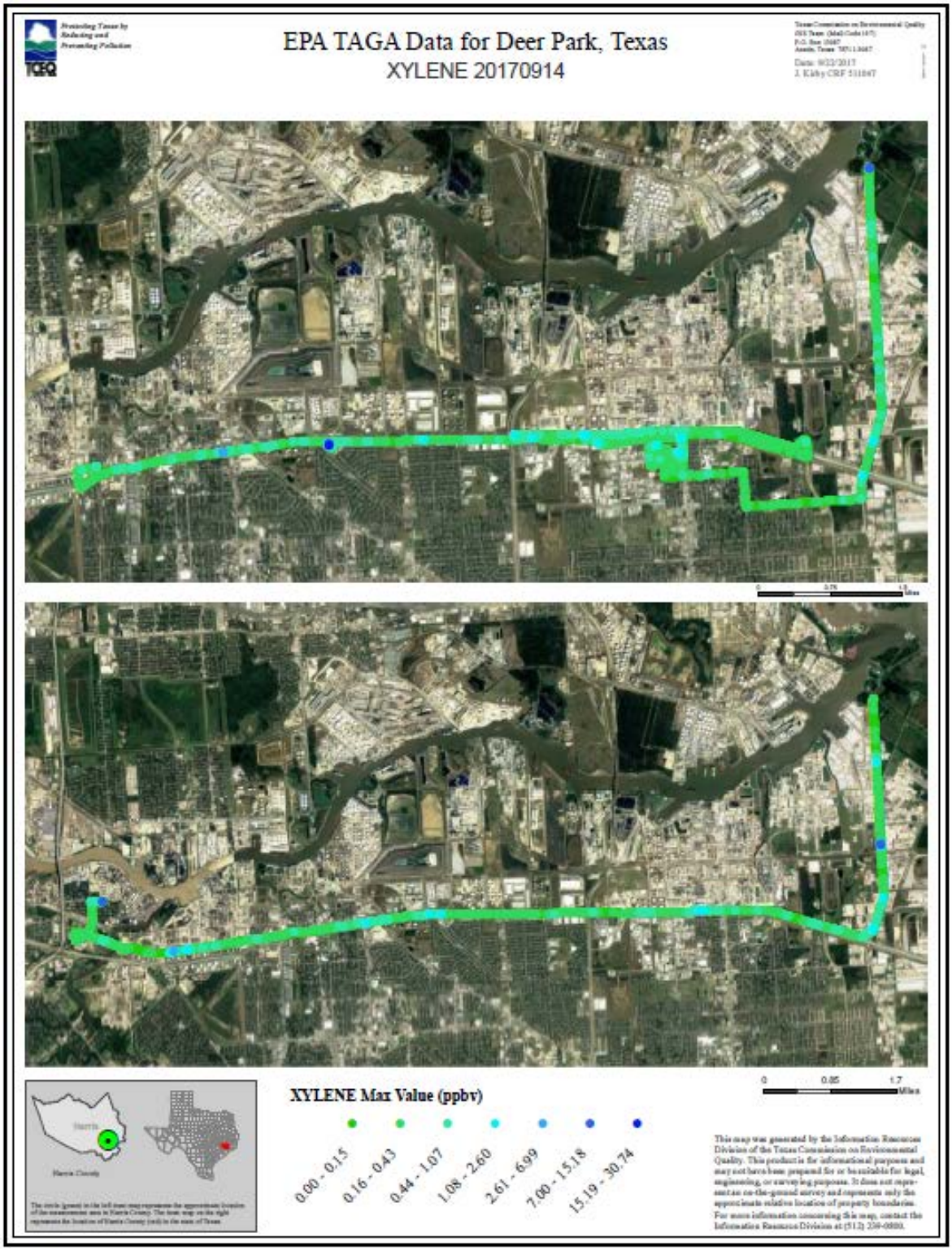



Protecting Texas by Reducing and Preventing Pollution
TCEQ
EPA TAGA Data for Deer Park, Texas
DICHLOROETHENE 20170914
Texas Commission on Environmental Quality
Date: 9/22/2017
J. Kirby CRF 511847
0 0.75 1.5 Miles
0 0.85 1.7 Miles
DICHLOROETHENE Max Value (ppbv)
0.00 - 0.02
0.03 - 0.07
0.08 - 0.10
0.11 - 0.14
0.15 - 0.26
0.27 - 0.43
0.44 - 8.51
This map was generated by the Information Resources Division of the Texas Commission on Environmental Quality. This product is for informational purposes and may not have been prepared for or be suitable for legal, engineering, or surveying purposes. It does not represent an on-the-ground survey and represents only the approximate relative location of property boundaries.
For more information concerning this map, contact the Information Resource Division at (512) 239-0800.

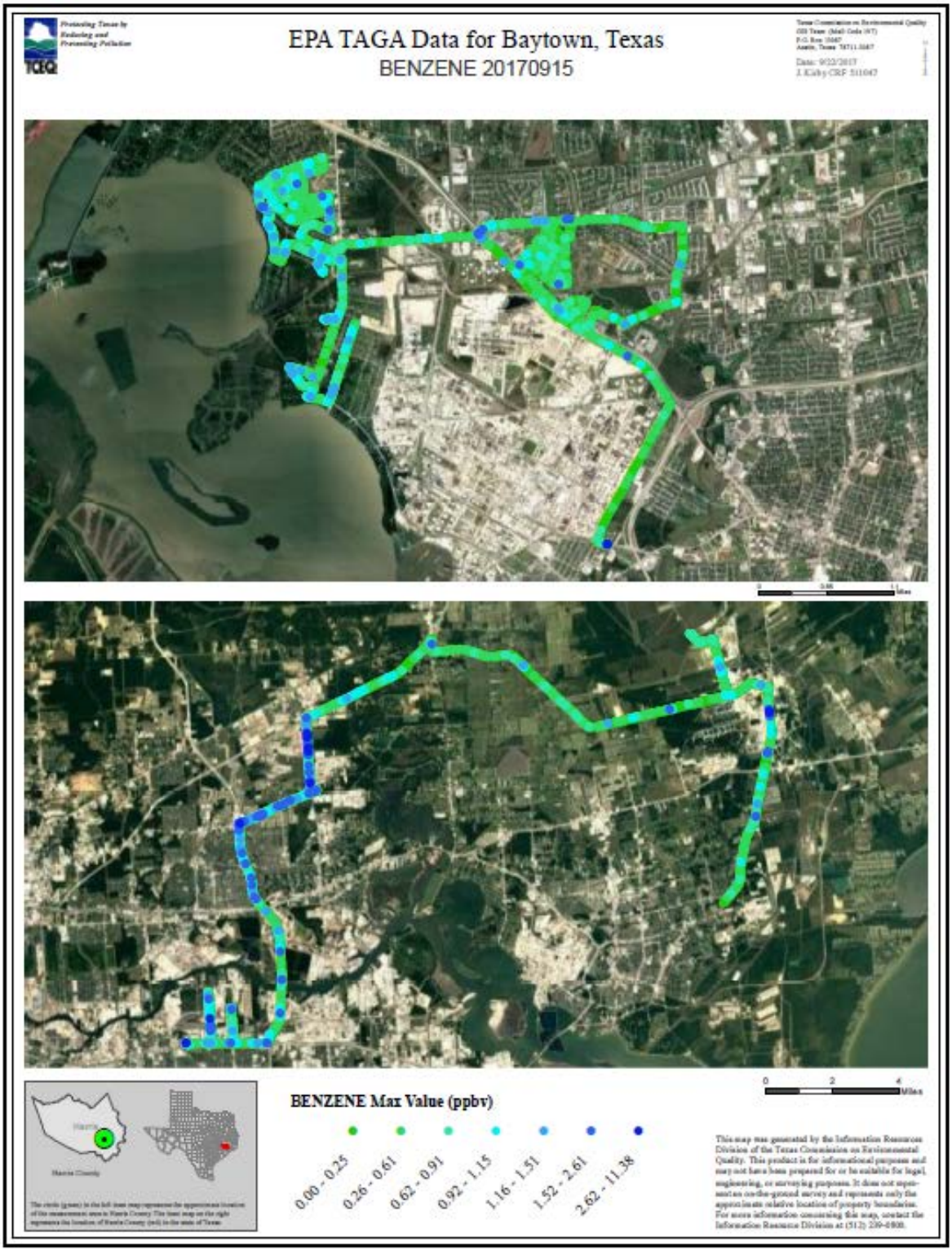

EPA TAGA Data for Deer Park, Texas
TETRACHLOROETHENE 20170914
TETRACHLOROETHENE Max Value (ppbv)
0.00 - 0.02
0.03 - 0.08
0.09 - 0.20
0.21 - 0.45
0.46 - 1.03
1.04 - 1.90
1.91 - 6.61
0
0.85
1.7
Miles

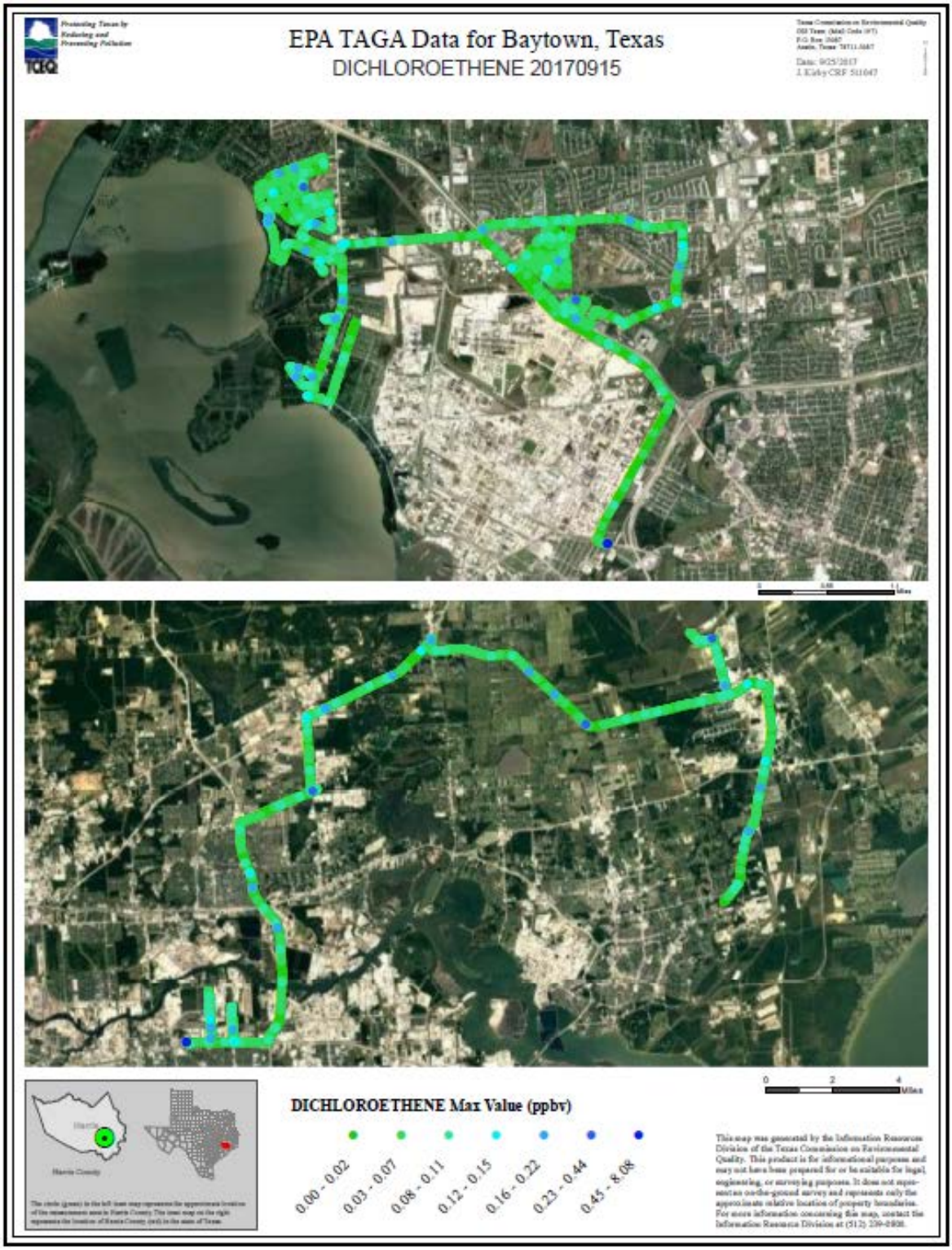

EPA TAGA Data for Deer Park, Texas
TOLUENE 20170914
TOLUENE Max Value (ppbv)
0.00 - 0.28
0.29 - 0.65
0.66 - 1.47
1.48 - 3.67
3.68 - 7.13
7.14 - 14.36
14.37 - 26.07
0
0.85
1.7
Miles

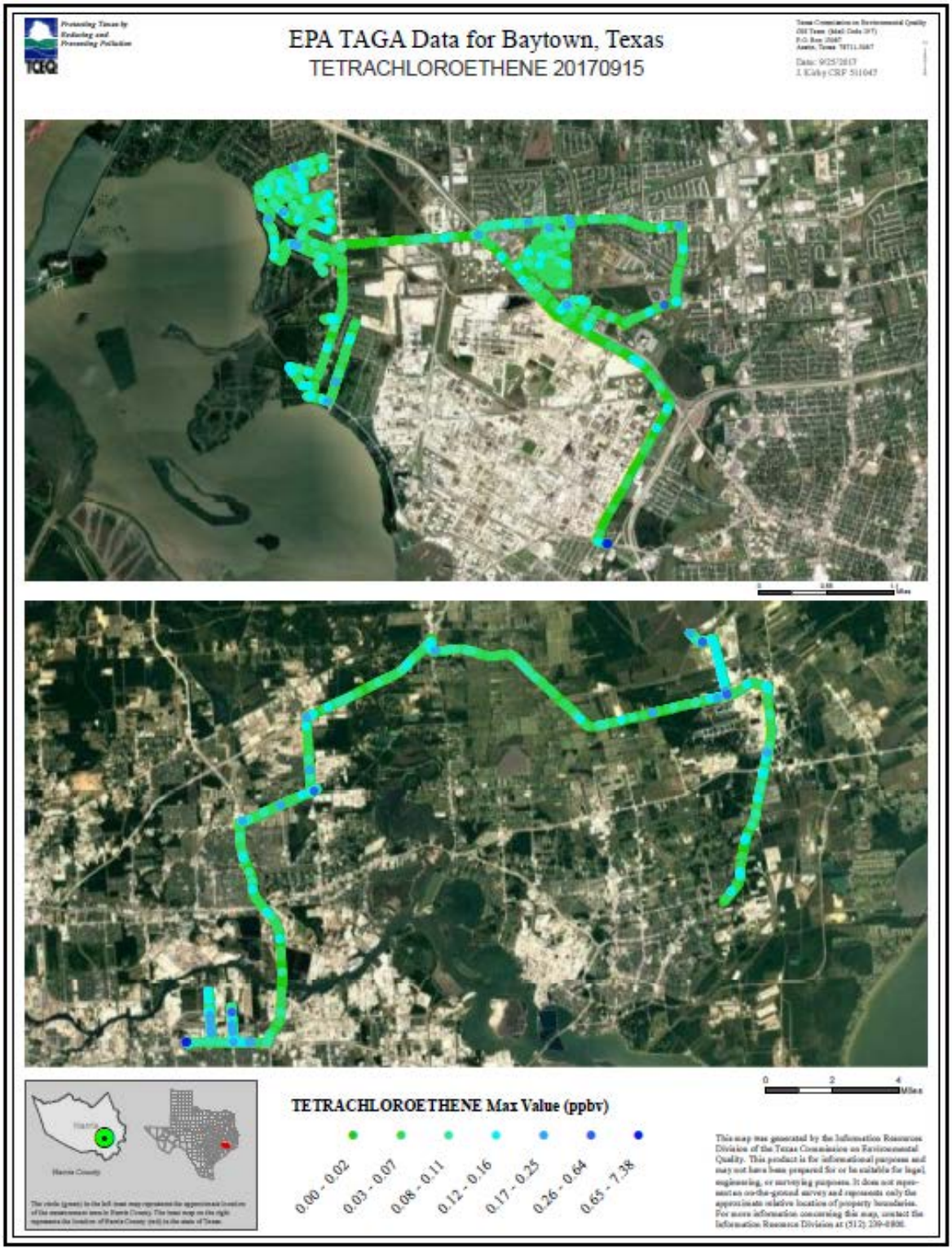

EPA TAGA Data for Deer Park, Texas
TRICHLOROETHENE 20170914
TRICHLOROETHENE Max Value (ppbv)
0.00 - 0.02
0.03 - 0.05
0.06 - 0.08
0.09 - 0.11
0.12 - 0.22
0.23 - 0.43
0.44 - 6.91
0
0.85
1.7
Miles

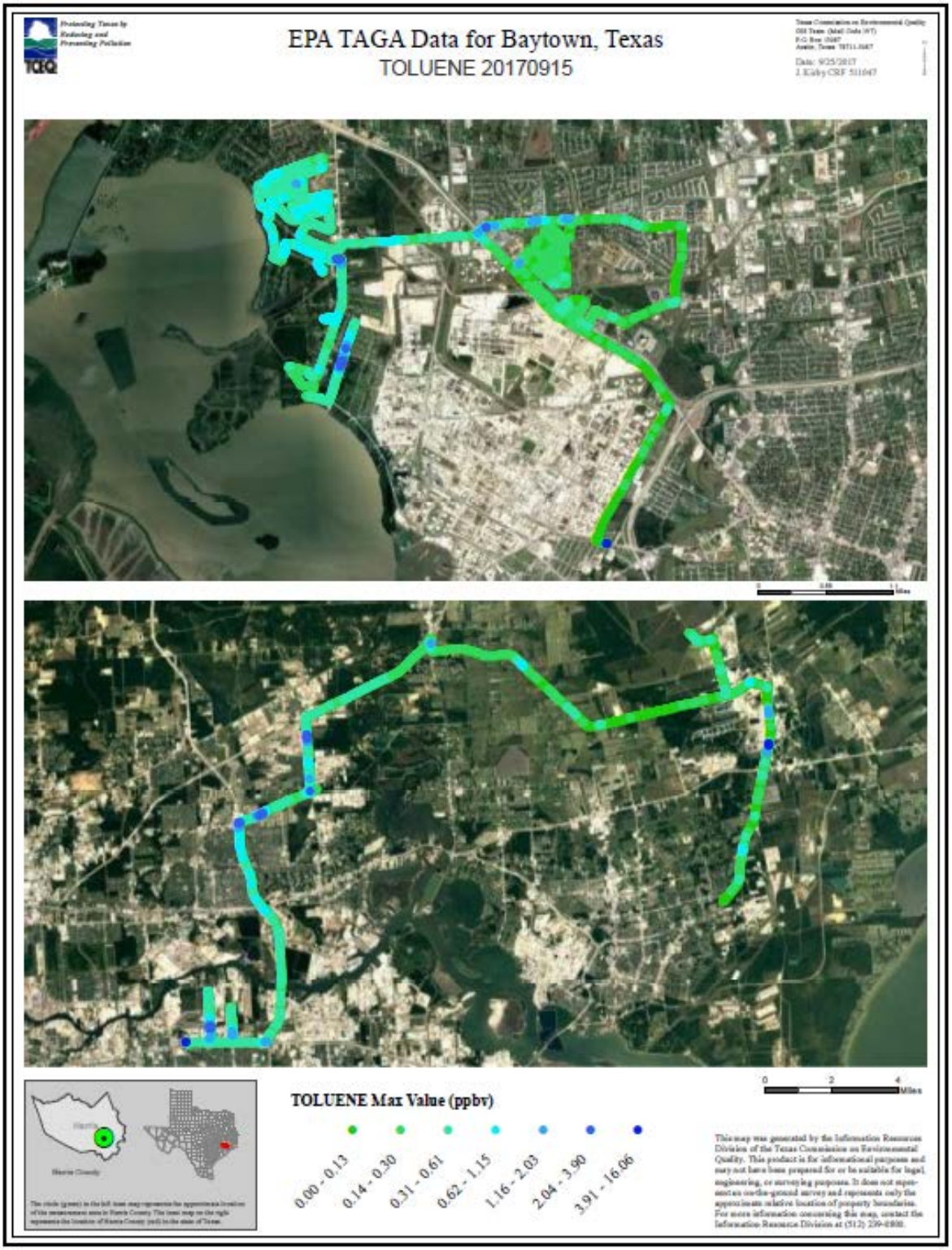

EPA TAGA Data for Deer Park, Texas
XYLENE 20170914
XYLENE Max Value (ppbv)
0.00 - 0.15
0.16 - 0.43
0.44 - 1.07
1.08 - 2.60
2.61 - 6.99
7.00 - 15.18
15.19 - 30.74
0
0.85
1.7
Miles

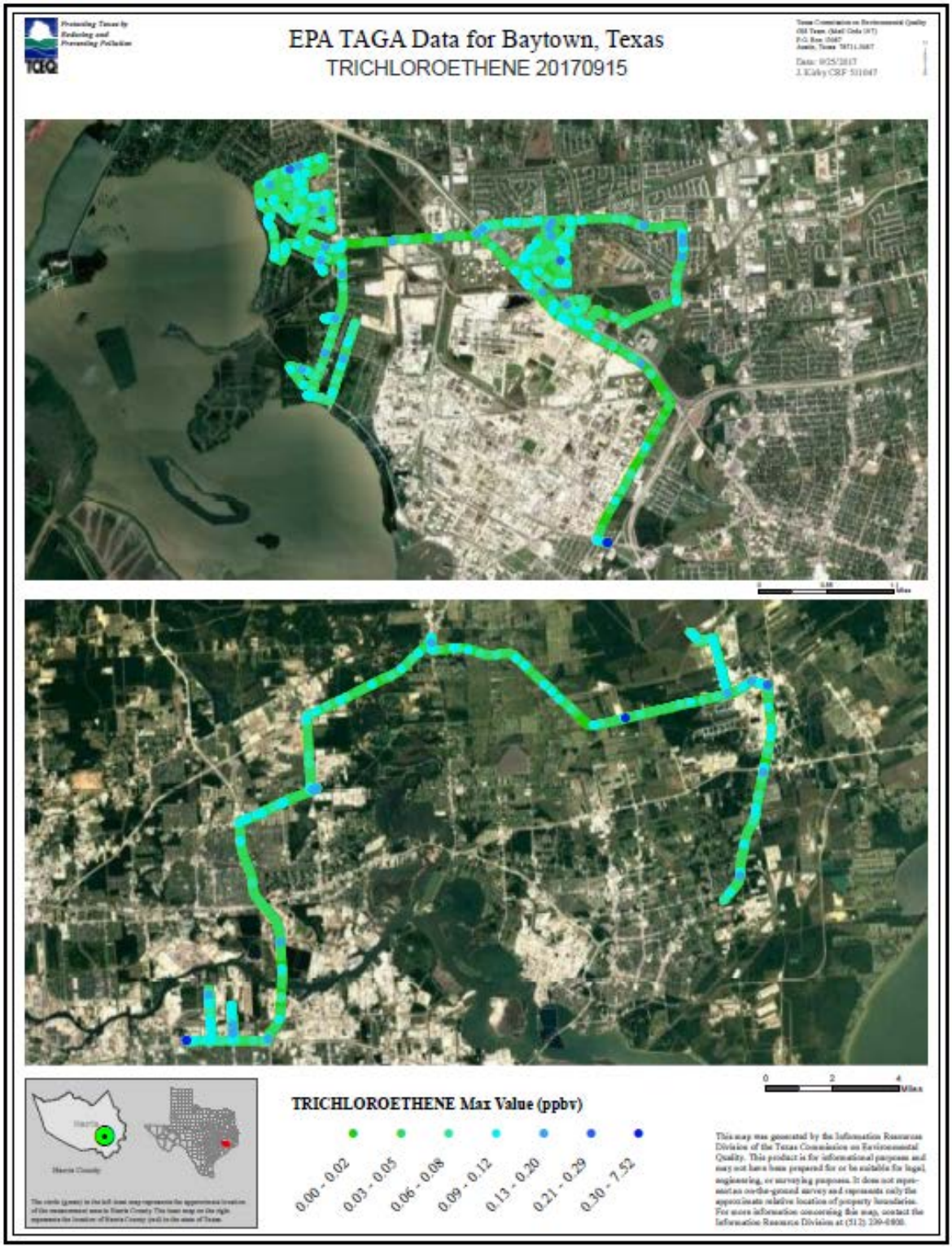
Baytown Monitoring Study – Sept. 15, 2017

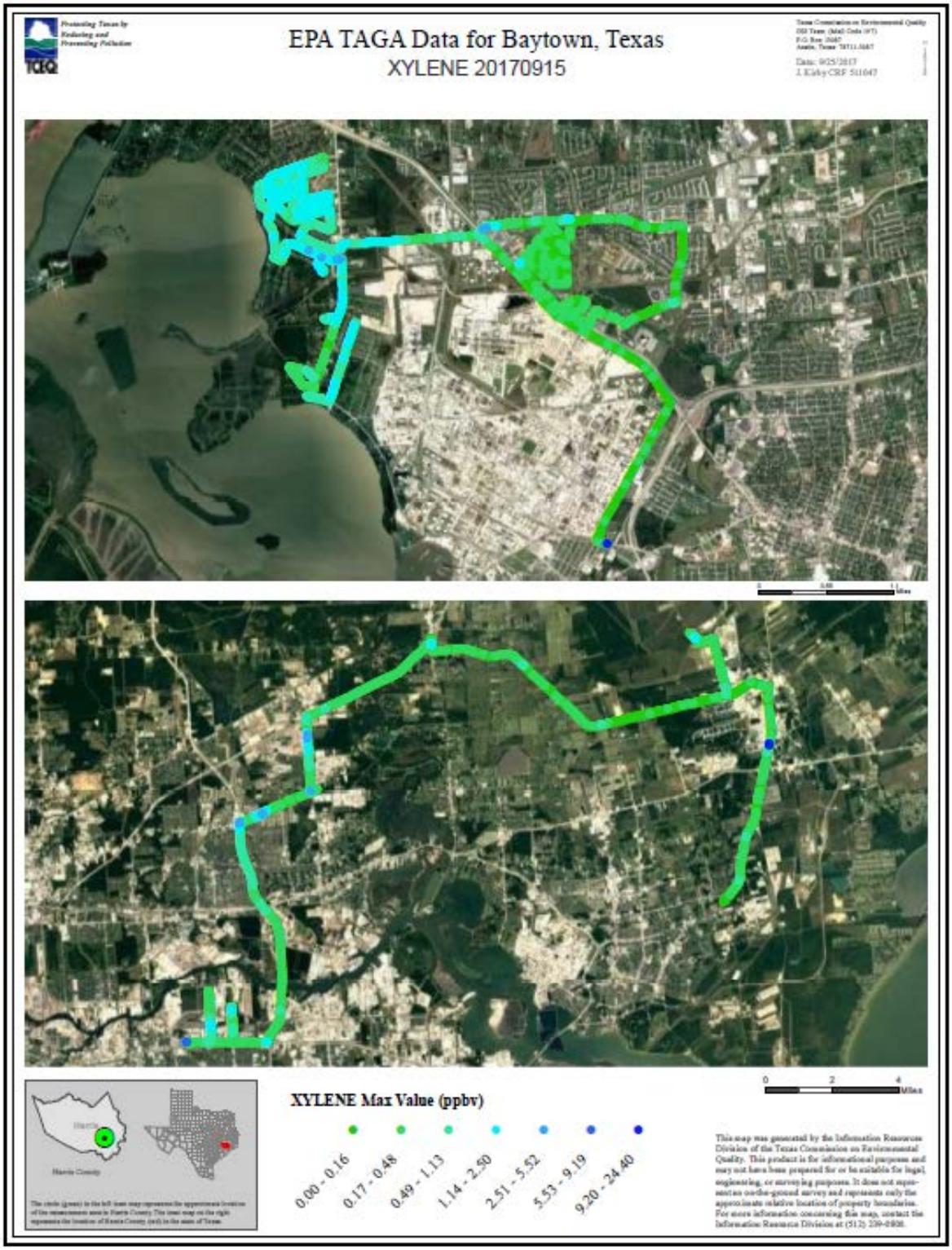



EPA TAGA Data for Baytown, Texas
DICHLOROETHENE 20170915
DICHLOROETHENE Max Value (ppbv)
0.00 - 0.02
0.03 - 0.07
0.08 - 0.11
0.12 - 0.15
0.16 - 0.22
0.23 - 0.44
0.45 - 8.08
0 2 4
Miles

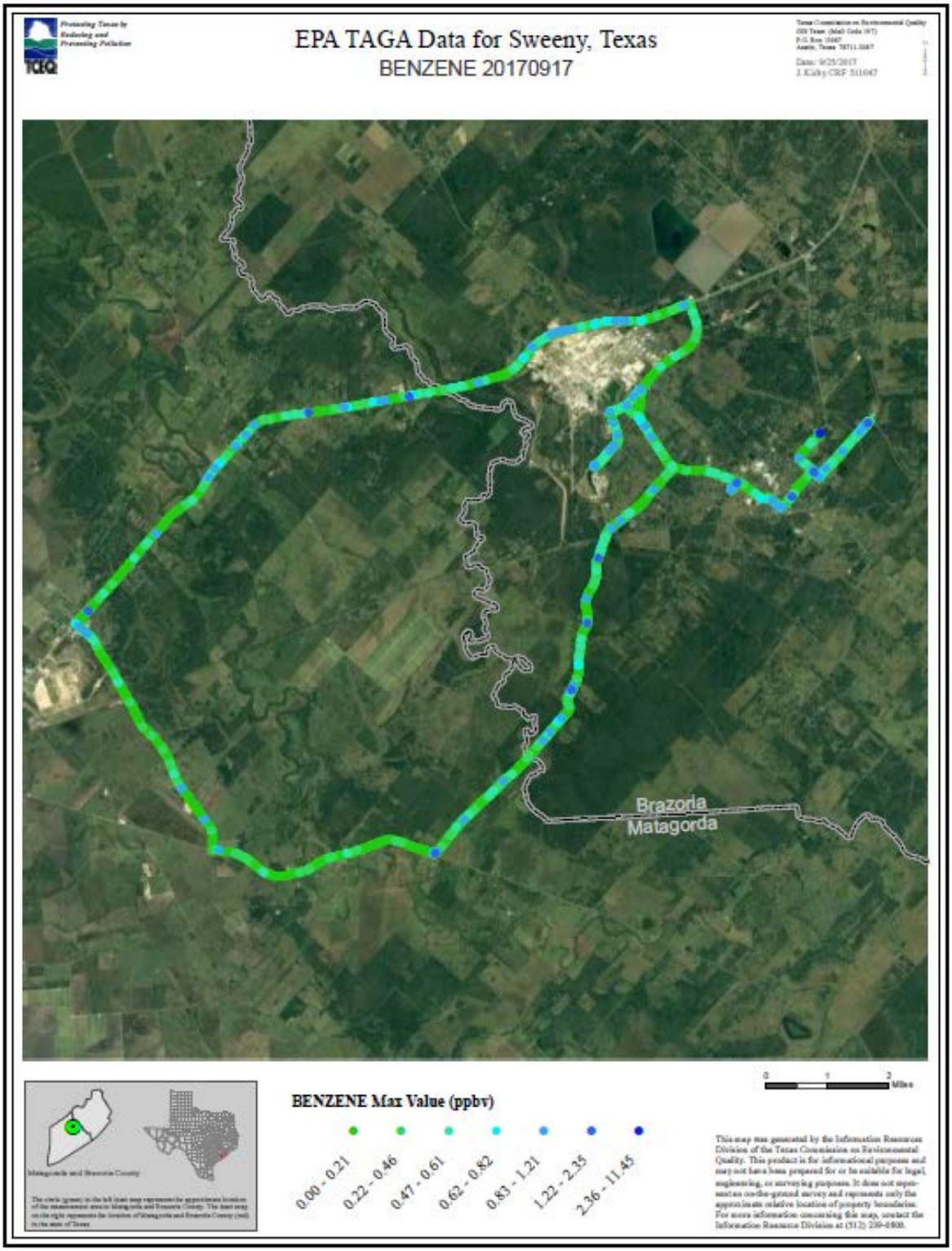

EPA TAGA Data for Baytown, Texas
TETRACHLOROETHENE 20170915
TCEQ
0 0.88 1.75 Miles
0 2 4 Miles
TETRACHLOROETHENE Max Value (ppbv)
0.00 - 0.02
0.03 - 0.07
0.08 - 0.11
0.12 - 0.16
0.17 - 0.25
0.26 - 0.64
0.65 - 7.38
Harris County

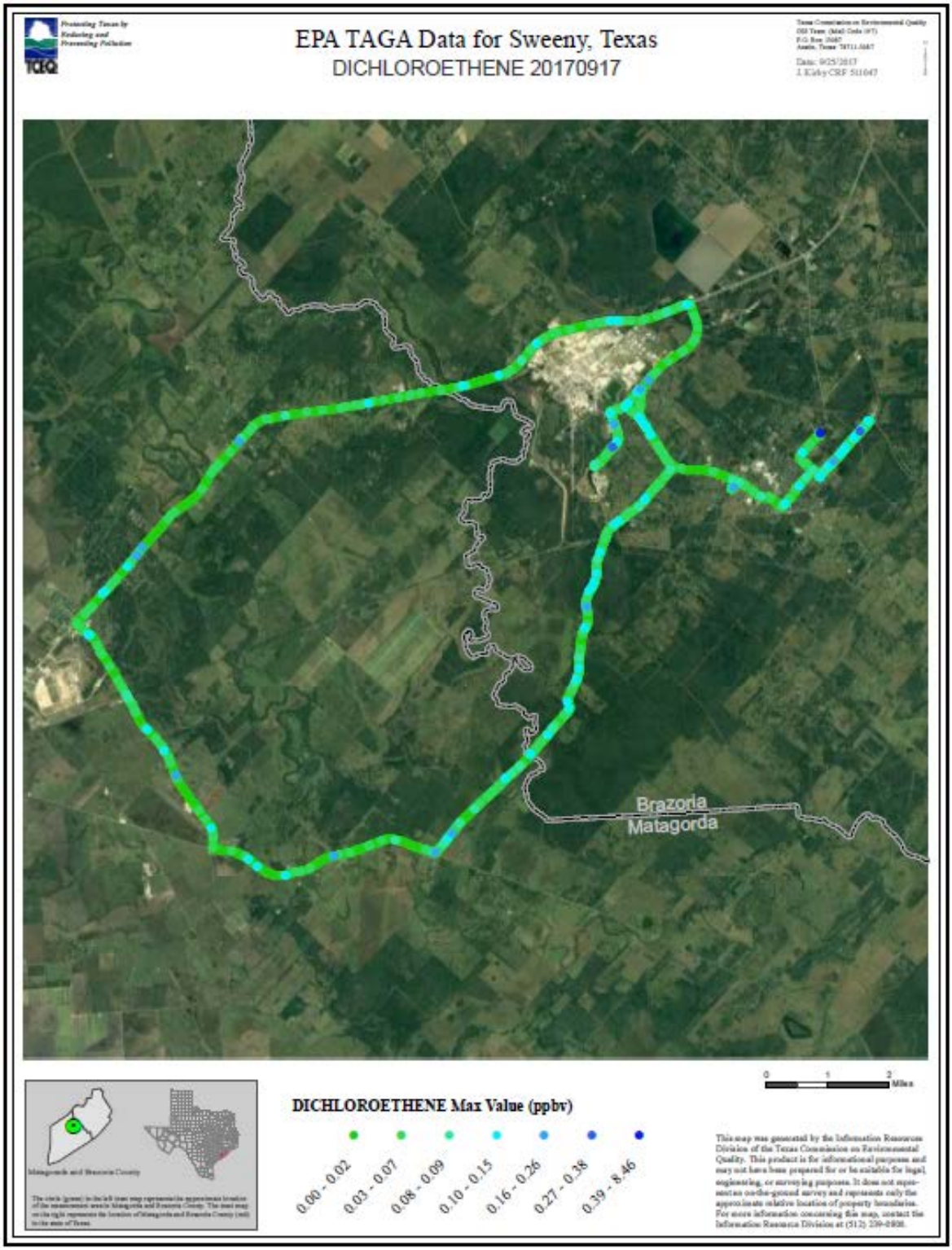

EPA TAGA Data for Baytown, Texas
TOLUENE 20170915
TOLUENE Max Value (ppbv)
0.00 - 0.13
0.14 - 0.30
0.31 - 0.61
0.62 - 1.15
1.16 - 2.03
2.04 - 3.90
3.91 - 16.06
0
2
4
Miles

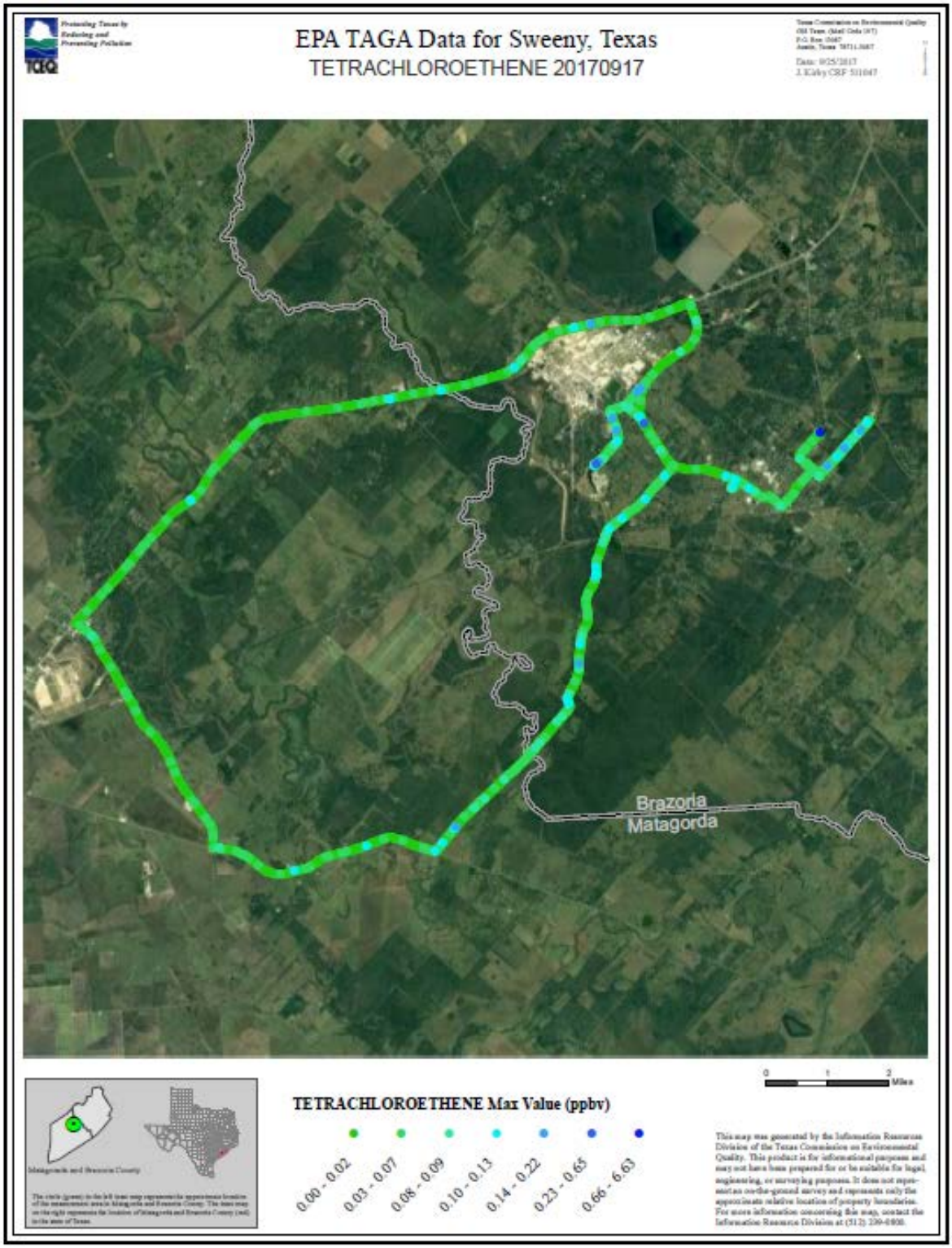

EPA TAGA Data for Baytown, Texas
TRICHLOROETHENE 20170915
TRICHLOROETHENE Max Value (ppbv)
0.00 - 0.02
0.03 - 0.05
0.06 - 0.08
0.09 - 0.12
0.13 - 0.20
0.21 - 0.29
0.30 - 7.52
0 2 4
Miles

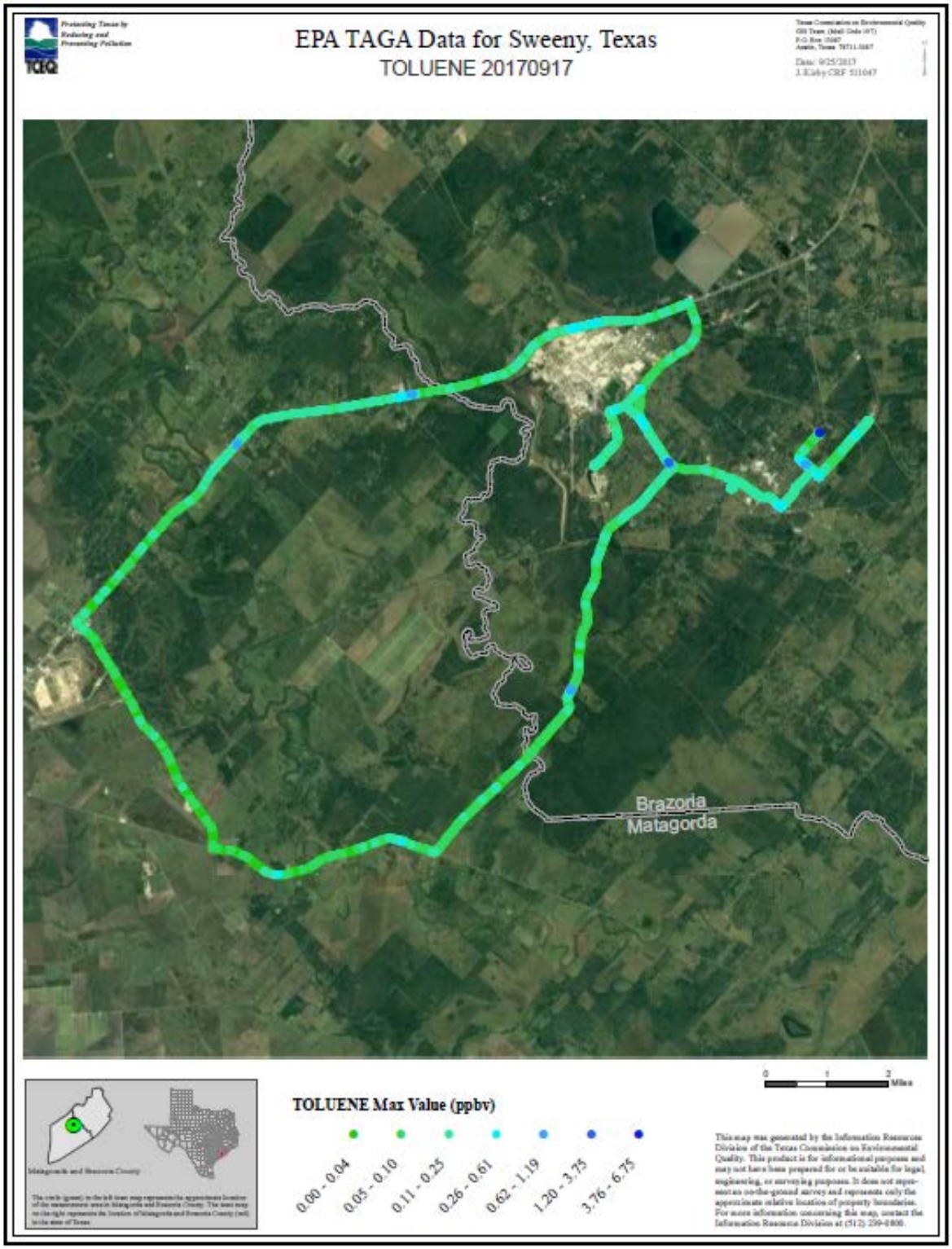

EPA TAGA Data for Baytown, Texas
XYLENE 20170915
XYLENE Max Value (ppbv)
0.00 - 0.16
0.17 - 0.48
0.49 - 1.13
1.14 - 2.50
2.51 - 5.52
5.53 - 9.19
9.20 - 24.40
0 2 4 Miles

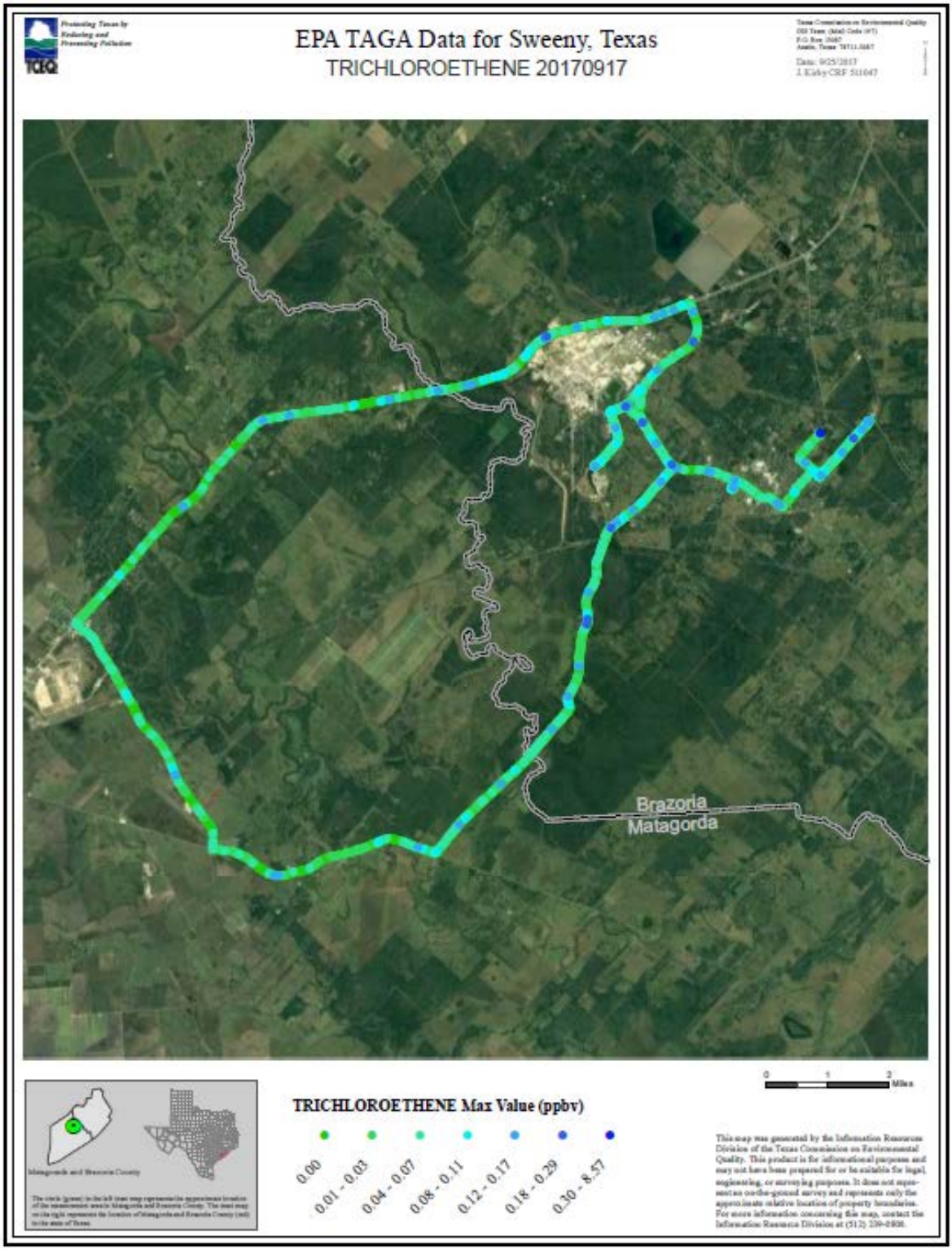
Sweeny Monitoring Study – Sept. 17, 2017

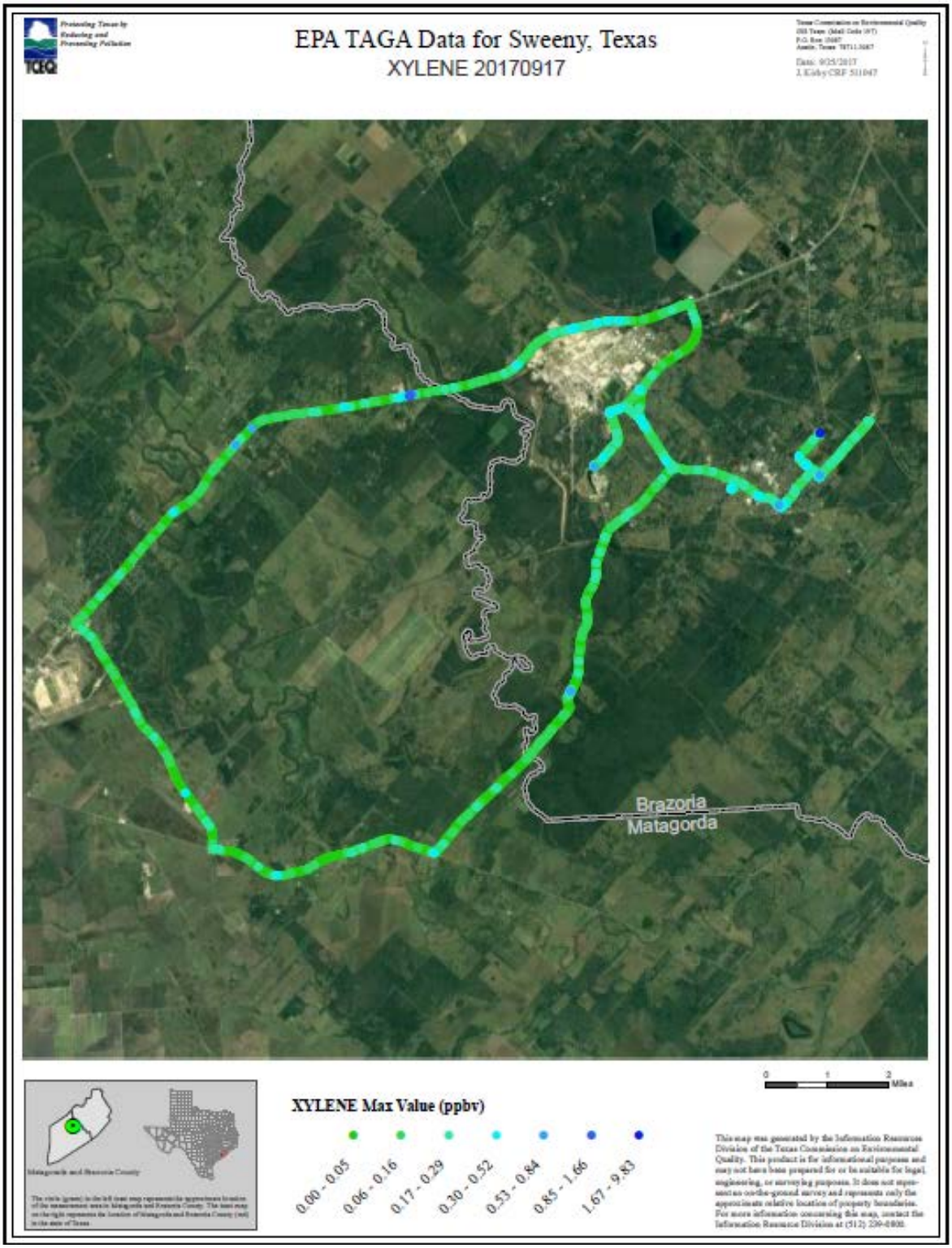



EPA TAGA Data for Sweeny, Texas
DICHLOROETHENE 20170917
Brazoria
Matagorda
DICHLOROETHENE Max Value (ppbv)
0.00 - 0.02
0.03 - 0.07
0.08 - 0.09
0.10 - 0.15
0.16 - 0.26
0.27 - 0.38
0.39 - 8.46
0
1
2
Miles


EPA TAGA Data for Sweeny, Texas
TETRACHLOROETHENE 20170917
Brazoria
Matagorda
TETRACHLOROETHENE Max Value (ppbv)
0.00 - 0.02
0.03 - 0.07
0.08 - 0.09
0.10 - 0.13
0.14 - 0.22
0.23 - 0.65
0.66 - 6.63
0
1
2
Miles


EPA TAGA Data for Sweeny, Texas
TOLUENE 20170917
Brazoria
Matagorda
TOLUENE Max Value (ppbv)
0.00 - 0.04
0.05 - 0.10
0.11 - 0.25
0.26 - 0.61
0.62 - 1.19
1.20 - 3.75
3.76 - 6.75
0
1
2
Miles


EPA TAGA Data for Sweeny, Texas
TRICHLOROETHENE 20170917
Brazoria
Matagorda
TRICHLOROETHENE Max Value (ppbv)
0.00
0.01 - 0.03
0.04 - 0.07
0.08 - 0.11
0.12 - 0.17
0.18 - 0.29
0.30 - 8.57
0 1 2
Miles


EPA TAGA Data for Sweeny, Texas
XYLENE 20170917
Brazoria
Matagorda
XYLENE Max Value (ppbv)
0.00 - 0.05
0.06 - 0.16
0.17 - 0.29
0.30 - 0.52
0.53 - 0.84
0.85 - 1.66
1.67 - 9.83
0
1
2
Miles

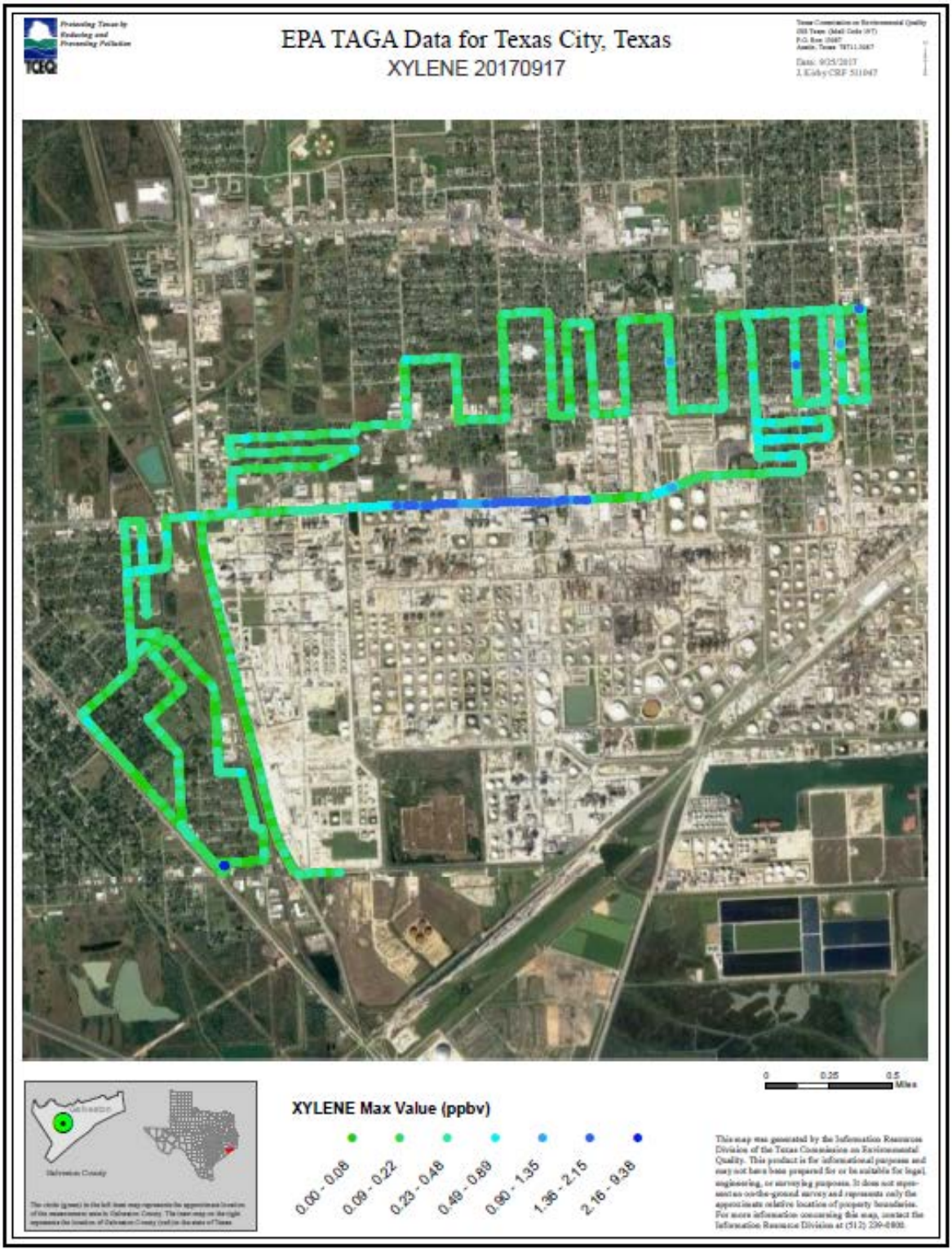
Texas City Monitoring Study – Sept. 17, 2017


EPA TAGA Data for Texas City, Texas
DICHLOROETHENE 20170917
DICHLOROETHENE Max Value (ppbv)
0.00 - 0.02
0.03 - 0.09
0.10 - 0.15
0.16 - 0.26
0.27 - 0.38
0.39 - 5.23
5.24 - 7.76
0
0.25
0.5
Miles


EPA TAGA Data for Texas City, Texas
TETRACHLOROETHENE 20170917
TETRACHLOROETHENE Max Value (ppbv)
0.00 - 0.02
0.03 - 0.07
0.08 - 0.09
0.10 - 0.13
0.14 - 0.20
0.21 - 0.35
0.36 - 6.64
0
0.25
0.5
Miles


EPA TAGA Data for Texas City, Texas
TOLUENE 20170917
TOLUENE Max Value (ppbv)
0.00 - 0.10
0.11 - 0.23
0.24 - 0.45
0.46 - 0.83
0.84 - 1.36
1.37 - 2.44
2.45 - 6.66
0
0.25
0.5
Miles


EPA TAGA Data for Texas City, Texas
TRICHLOROETHENE 20170917
TRICHLOROETHENE Max Value (ppbv)
0.00
0.01 - 0.05
0.06 - 0.10
0.11 - 0.15
0.16 - 0.20
0.21 - 0.53
0.54 - 7.40
0
0.25
0.5
Miles


EPA TAGA Data for Texas City, Texas
XYLENE 20170917
0 0.25 0.5
Miles
XYLENE Max Value (ppbv)
0.00 - 0.08
0.09 - 0.22
0.23 - 0.48
0.49 - 0.89
0.90 - 1.35
1.36 - 2.15
2.16 - 9.38

Port Arthur Monitoring Study 1 – Sept. 18, 2017


EPA TAGA Data for Port Arthur, Texas
DICHLOROETHENE 20170918
DICHLOROETHENE Max Value (ppbv)
0.00 - 0.03
0.04 - 0.12
0.13 - 0.23
0.24 - 0.46
0.47 - 0.94
0.95 - 4.00
4.01 - 7.86
0
1.5
3
Miles

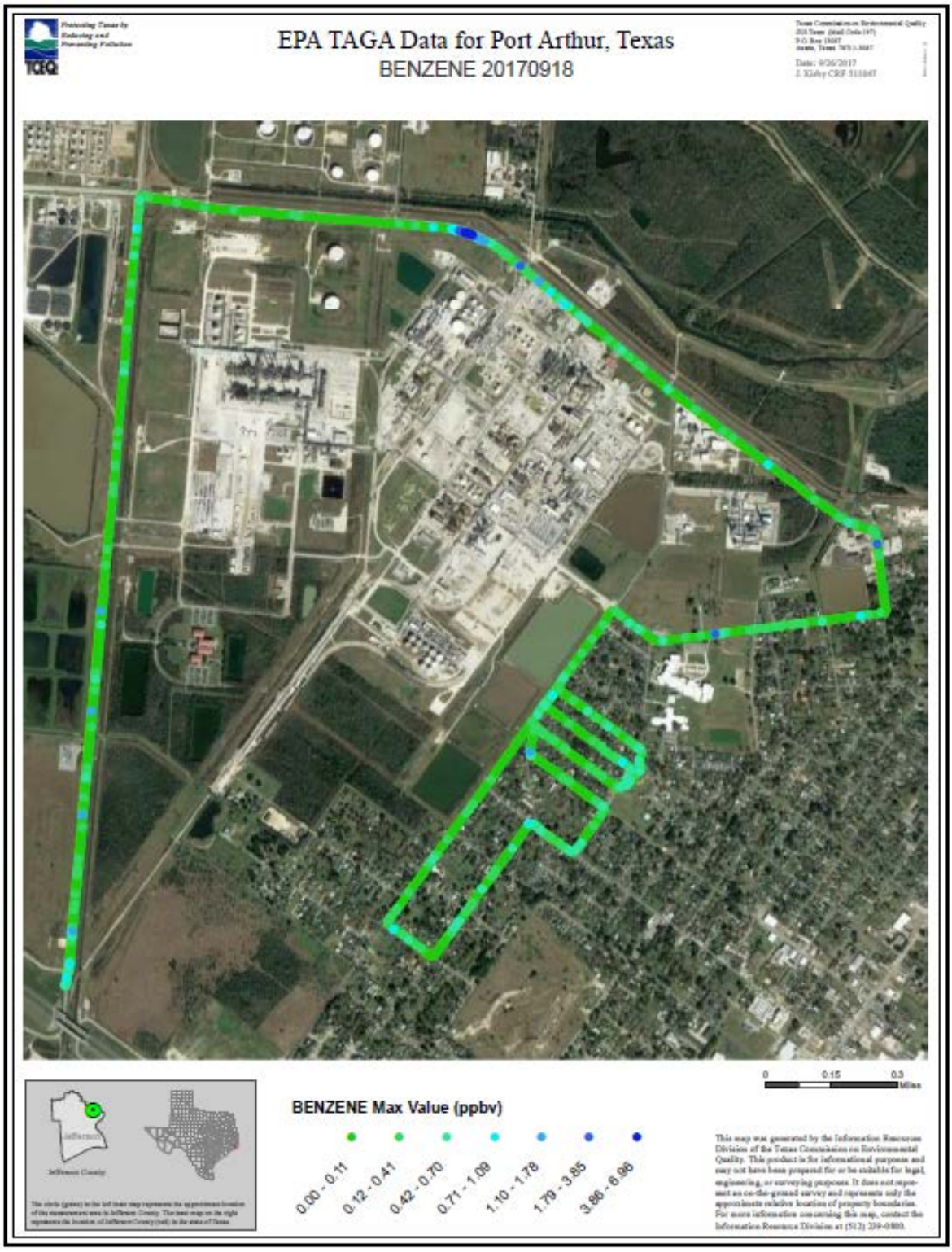

EPA TAGA Data for Port Arthur, Texas
TETRACHLOROETHENE 20170918
TETRACHLOROETHENE Max Value (ppbv)
0.00 - 0.01
0.02 - 0.03
0.04 - 0.07
0.08 - 0.14
0.15 - 0.29
0.30 - 0.63
0.64 - 6.66
0 1.5 3
Miles


EPA TAGA Data for Port Arthur, Texas
TOLUENE 20170918
TOLUENE Max Value (ppbv)
0.00 - 0.18
0.19 - 0.51
0.52 - 1.16
1.17 - 2.57
2.58 - 4.61
4.62 - 7.07
7.08 - 12.56
Miles


EPA TAGA Data for Port Arthur, Texas
TRICHLOROETHENE 20170918
TRICHLOROETHENE Max Value (ppbv)
0.00 - 0.01
0.02 - 0.03
0.04 - 0.07
0.08 - 0.15
0.16 - 0.31
0.32 - 0.65
0.66 - 6.58
0 1.5 3
Miles

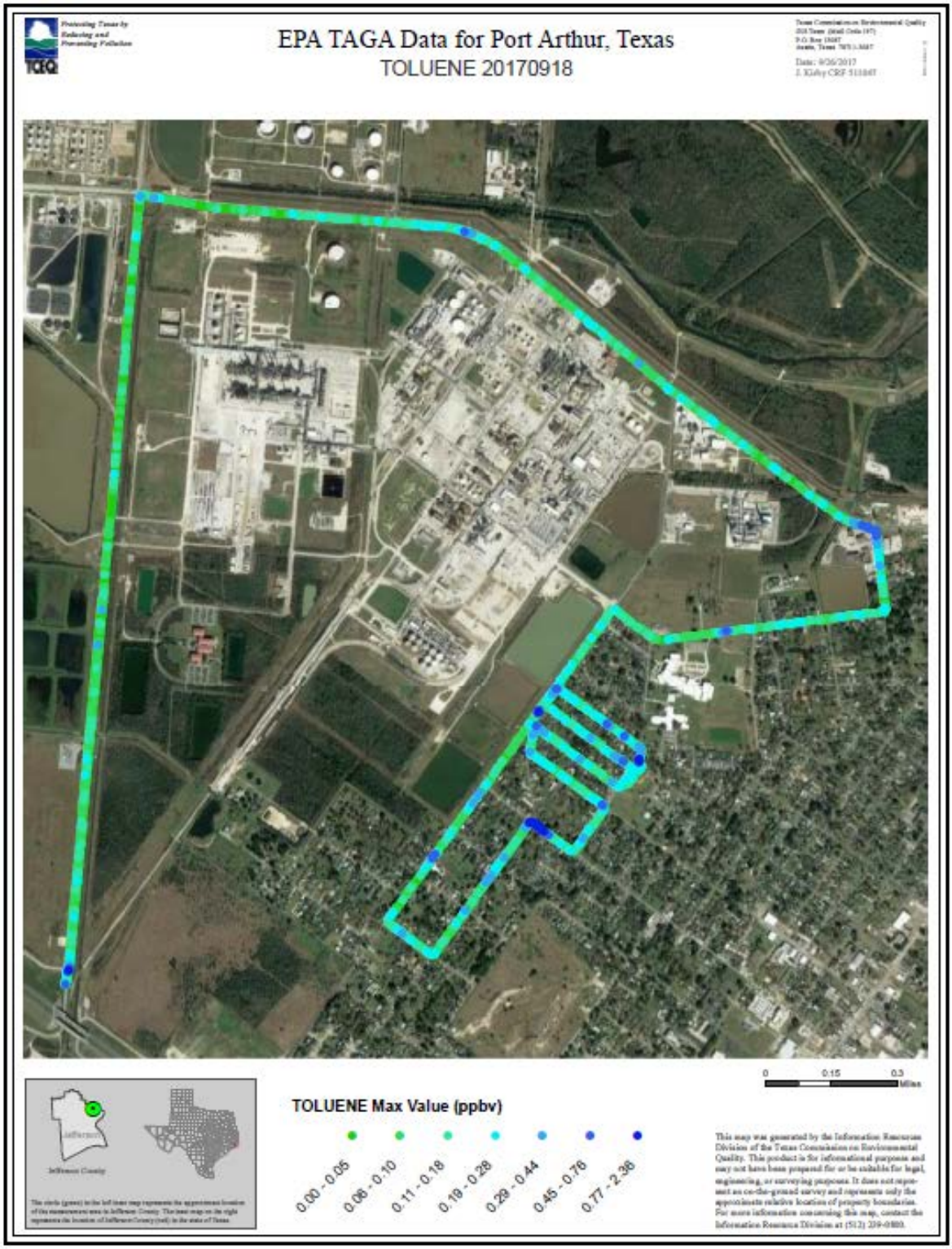

EPA TAGA Data for Port Arthur, Texas
XYLENE 20170918
XYLENE Max Value (ppbv)
0.00 - 0.23
0.24 - 0.68
0.69 - 1.56
1.57 - 3.22
3.23 - 6.26
6.27 - 14.44
14.45 - 24.55
0
1.5
3
Miles

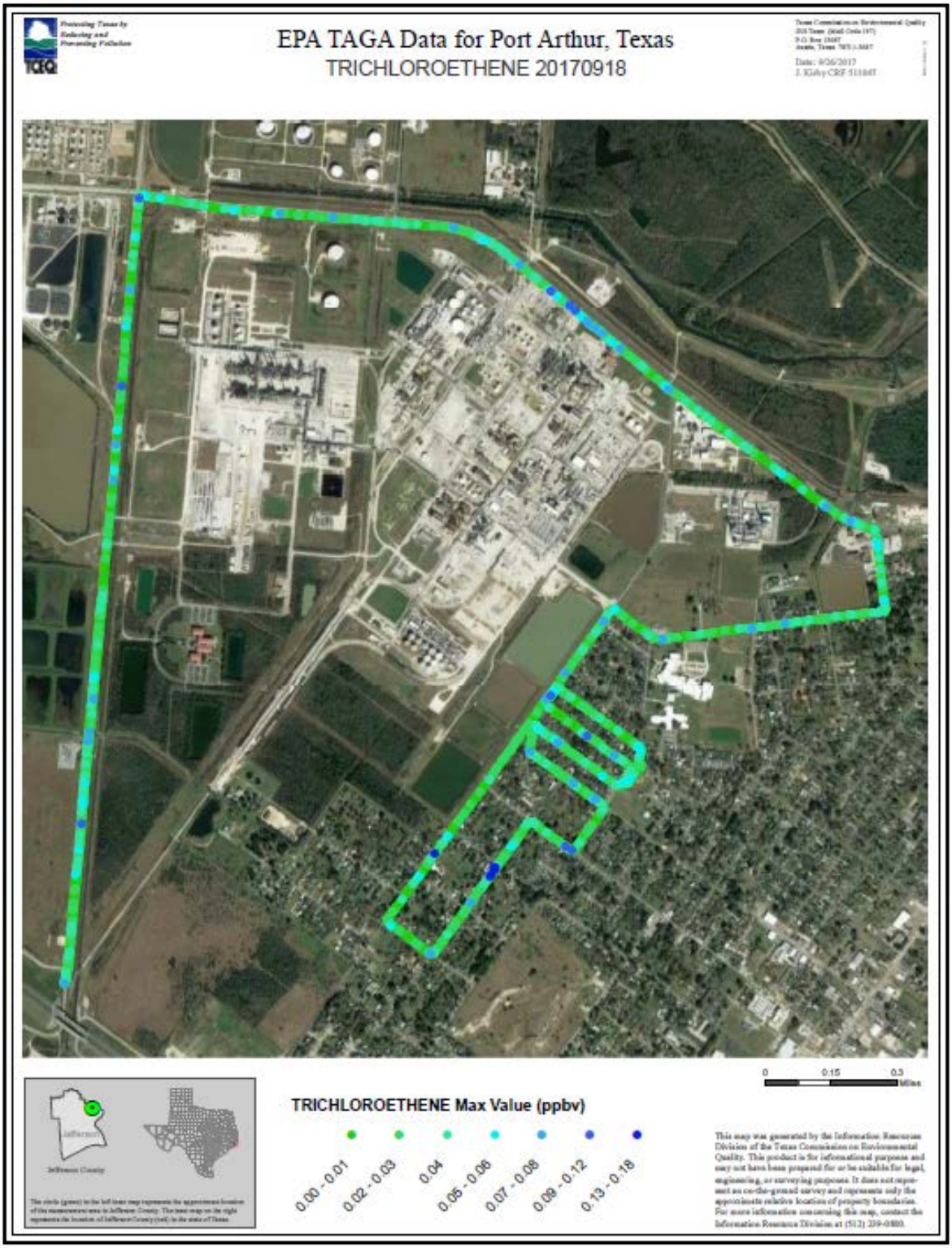
Port Arthur Monitoring Study 2 – Sept. 18, 2017

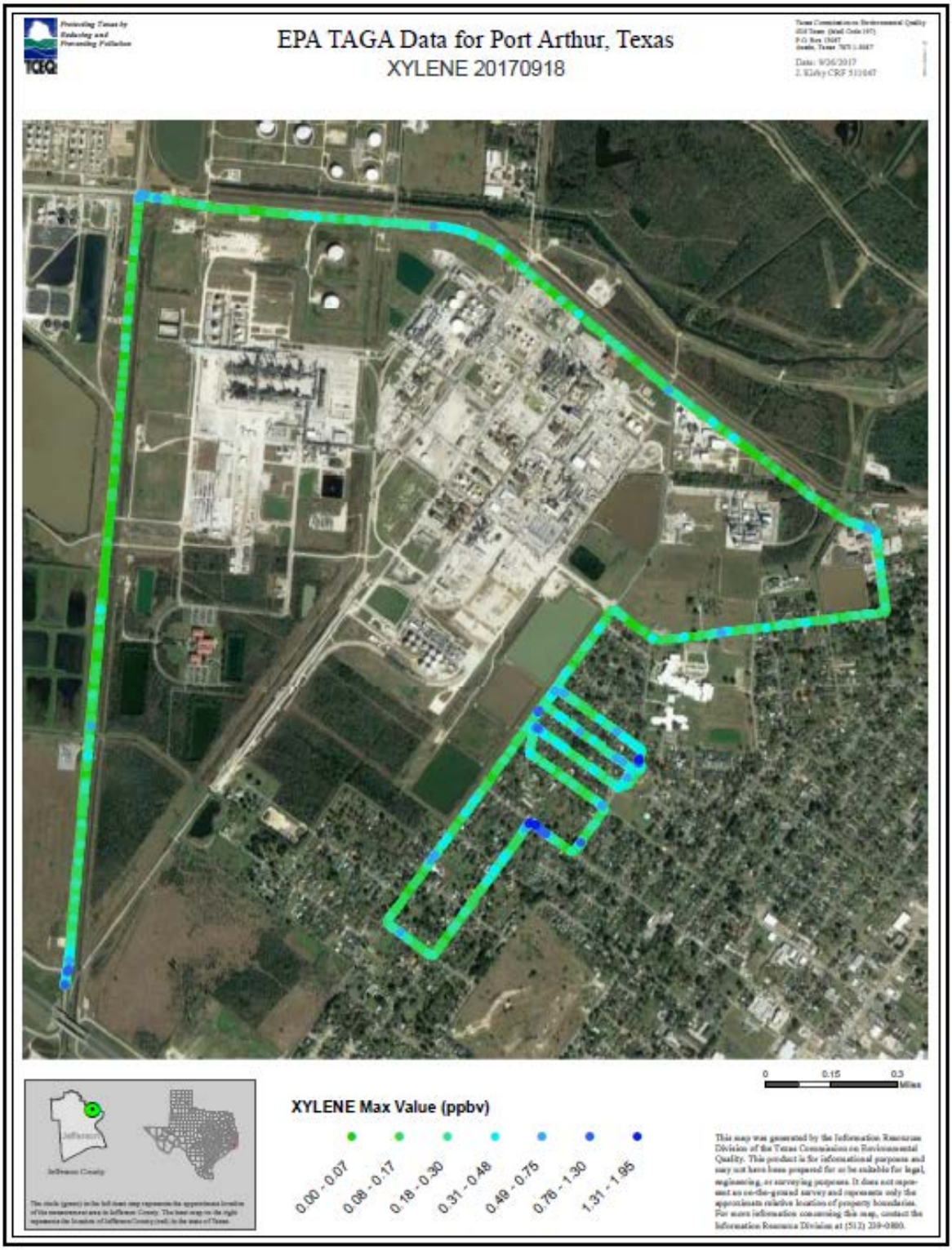



EPA TAGA Data for Port Arthur, Texas
DICHLOROETHENE 20170918
0
0.15
0.3
Miles
DICHLOROETHENE Max Value (ppbv)
0.00 - 0.03
0.04 - 0.09
0.10 - 0.12
0.13 - 0.20
0.21 - 0.26
0.27 - 0.34
0.35 - 0.77

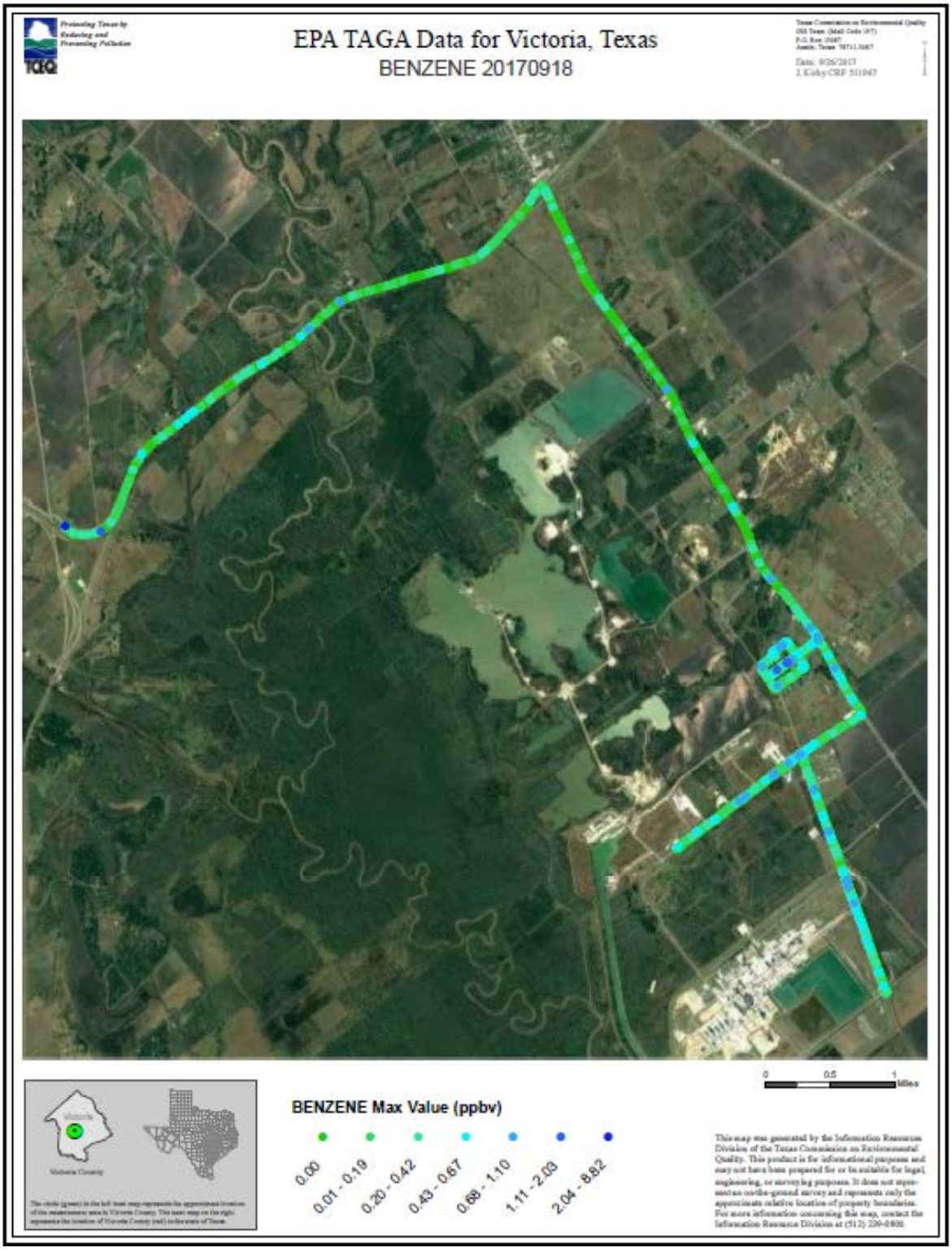

EPA TAGA Data for Port Arthur, Texas
TETRACHLOROETHENE 20170918
TETRACHLOROETHENE Max Value (ppbv)
0.00 - 0.01
0.02
0.03
0.04
0.05
0.06 - 0.08
0.09 - 0.19
0
0.15
0.3
Miles
Jefferson
Jefferson County

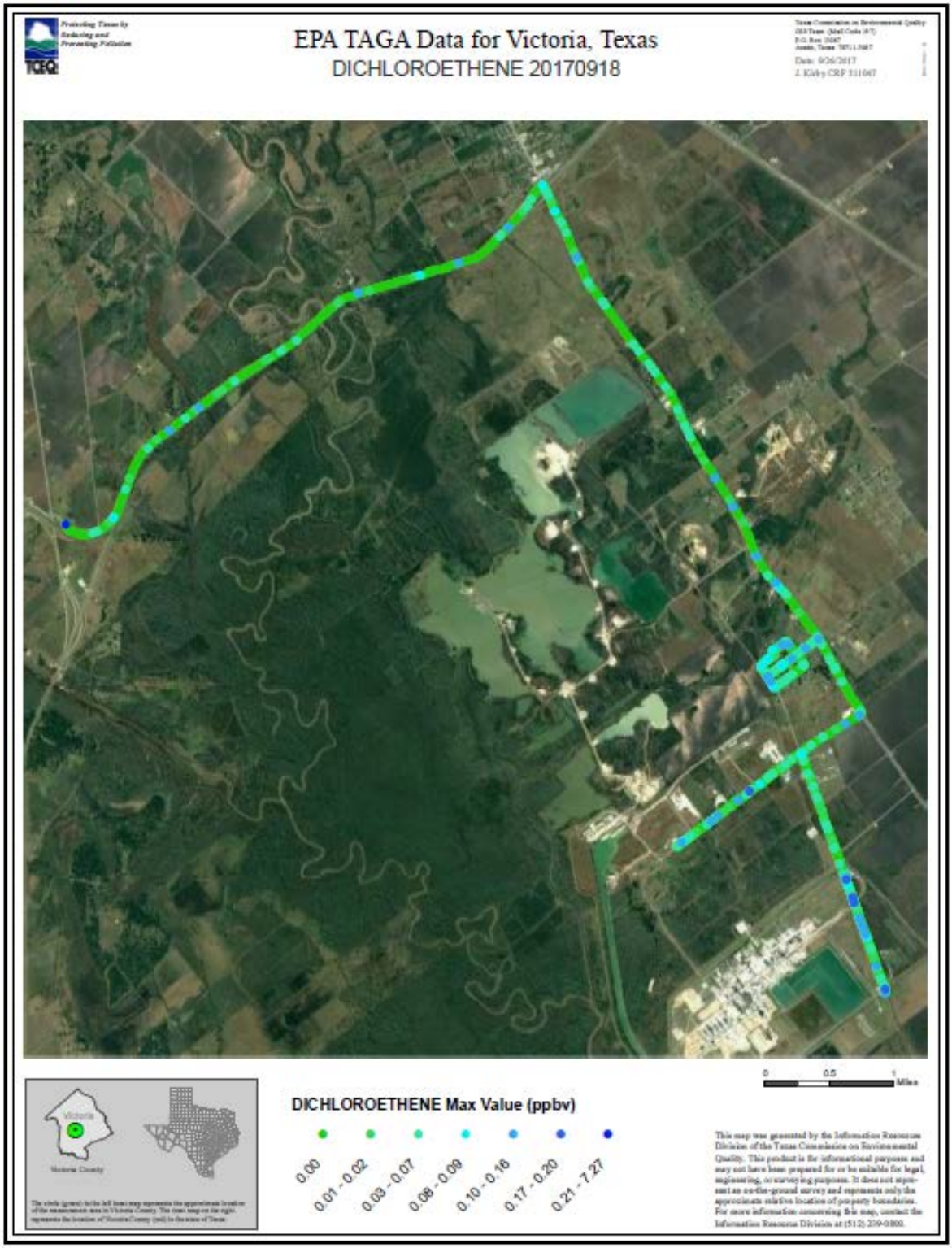

EPA TAGA Data for Port Arthur, Texas
TOLUENE 20170918
0
0.15
0.3
Miles
TOLUENE Max Value (ppbv)
0.00 - 0.05
0.06 - 0.10
0.11 - 0.18
0.19 - 0.28
0.29 - 0.44
0.45 - 0.76
0.77 - 2.36

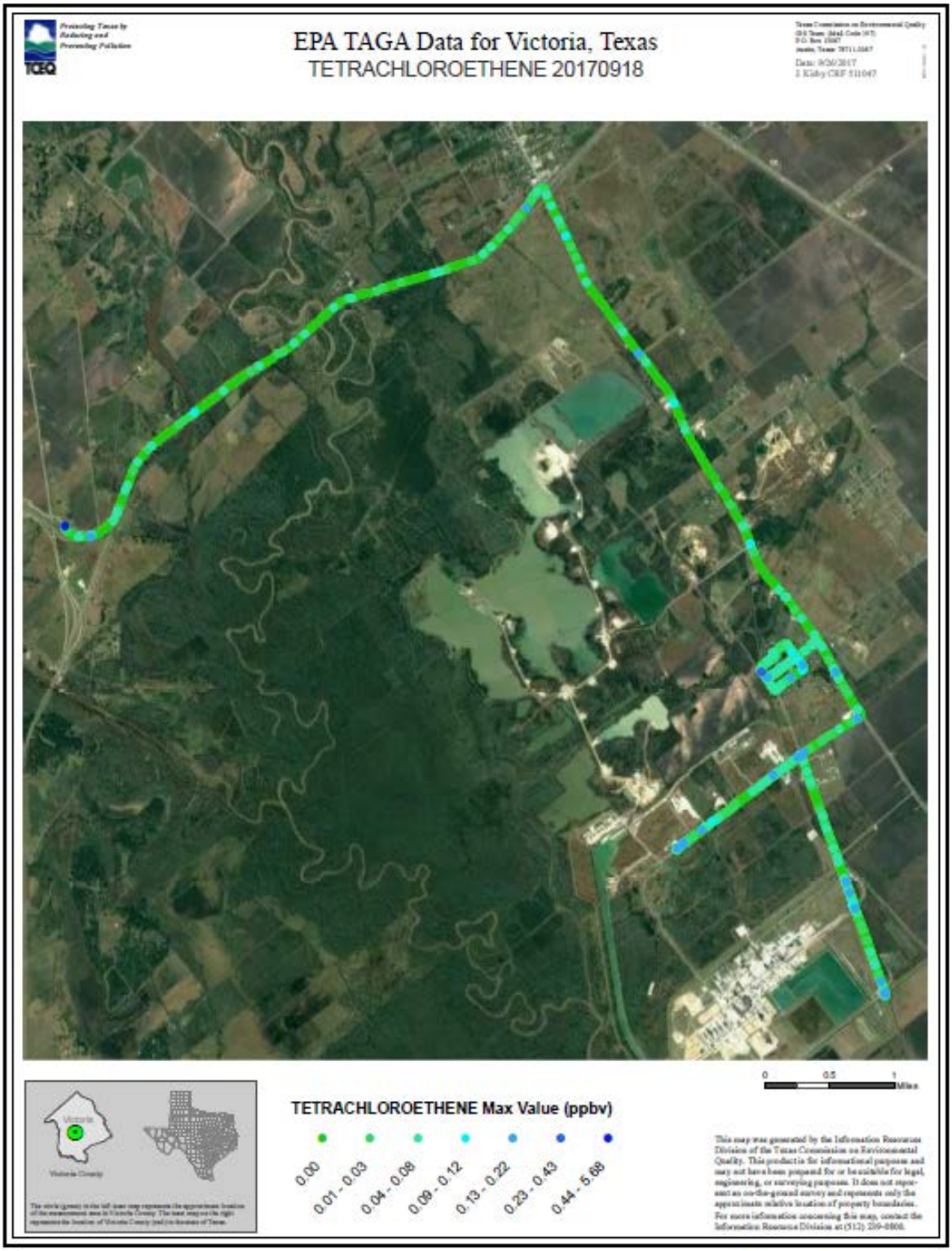

EPA TAGA Data for Port Arthur, Texas
TRICHLOROETHENE 20170918
0
0.15
0.3
Miles
TRICHLOROETHENE Max Value (ppbv)
0.00 - 0.01
0.02 - 0.03
0.04
0.05 - 0.06
0.07 - 0.08
0.09 - 0.12
0.13 - 0.18

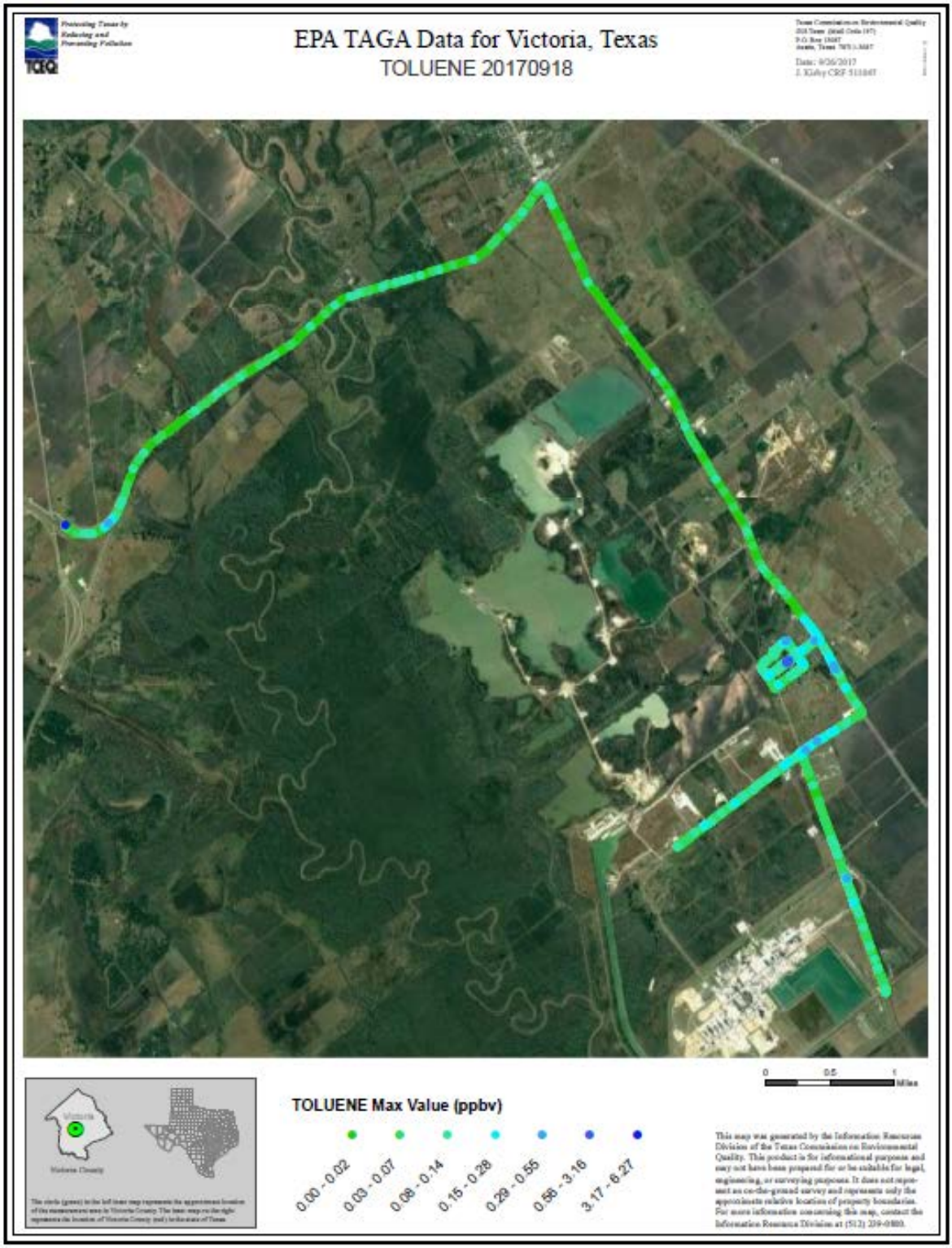

EPA TAGA Data for Port Arthur, Texas
XYLENE 20170918
XYLENE Max Value (ppbv)
0.00 - 0.07
0.08 - 0.17
0.18 - 0.30
0.31 - 0.48
0.49 - 0.75
0.76 - 1.30
1.31 - 1.95
0
0.15
0.3
Miles

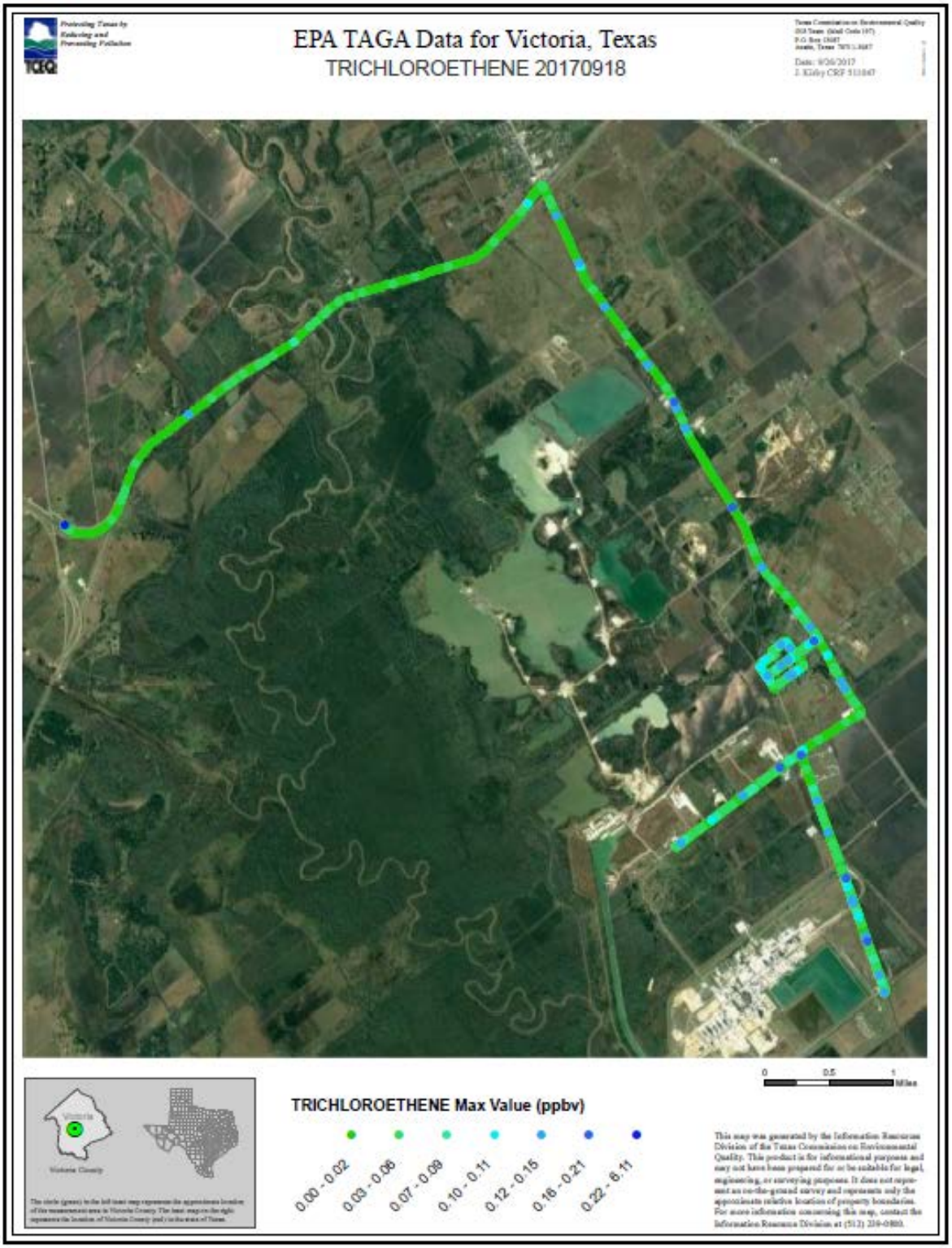
Victoria Monitoring Study – Sept. 18, 2017

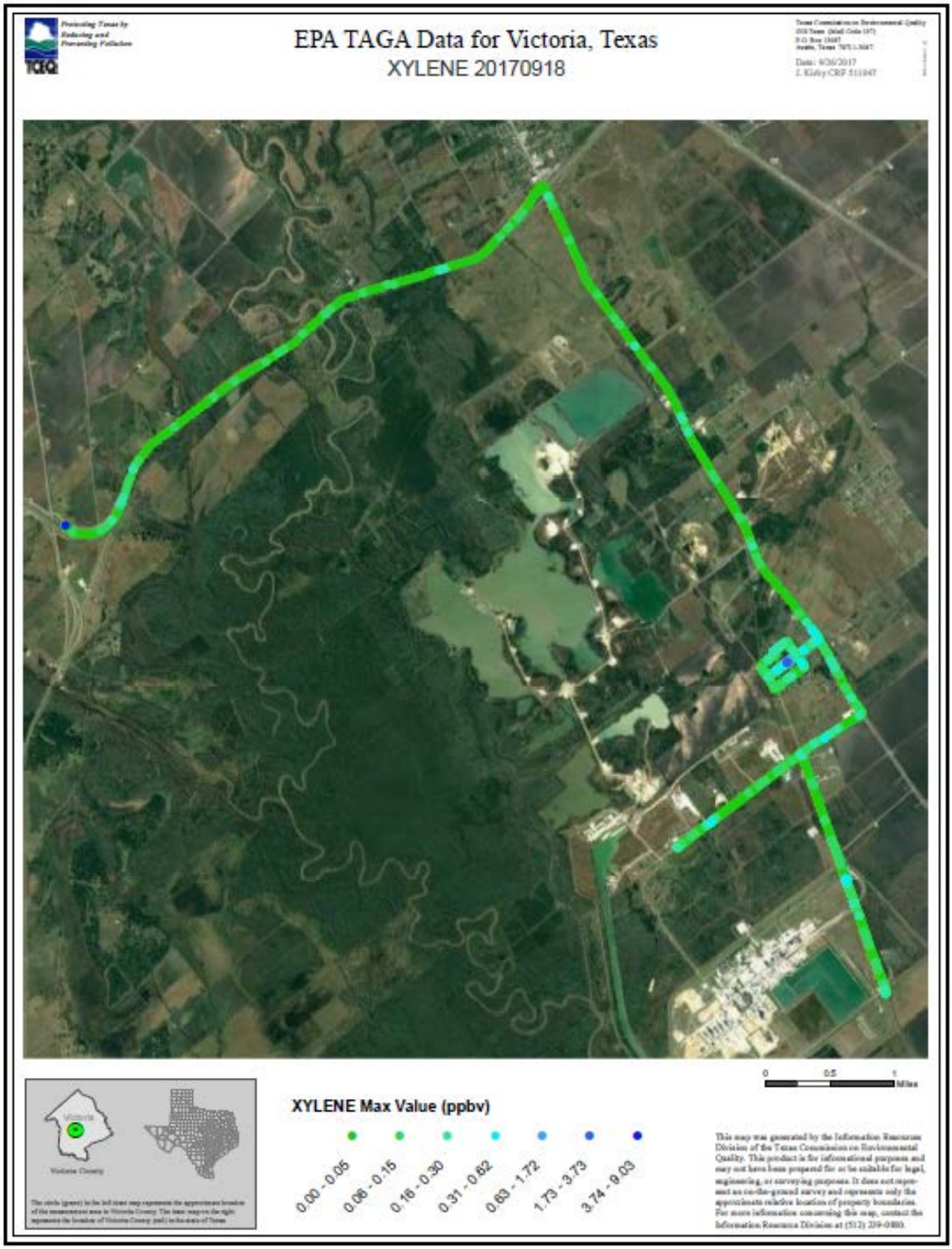



EPA TAGA Data for Victoria, Texas
DICHLOROETHENE 20170918
DICHLOROETHENE Max Value (ppbv)
0.00
0.01 - 0.02
0.03 - 0.07
0.08 - 0.09
0.10 - 0.16
0.17 - 0.20
0.21 - 7.27
0
0.5
1
Miles

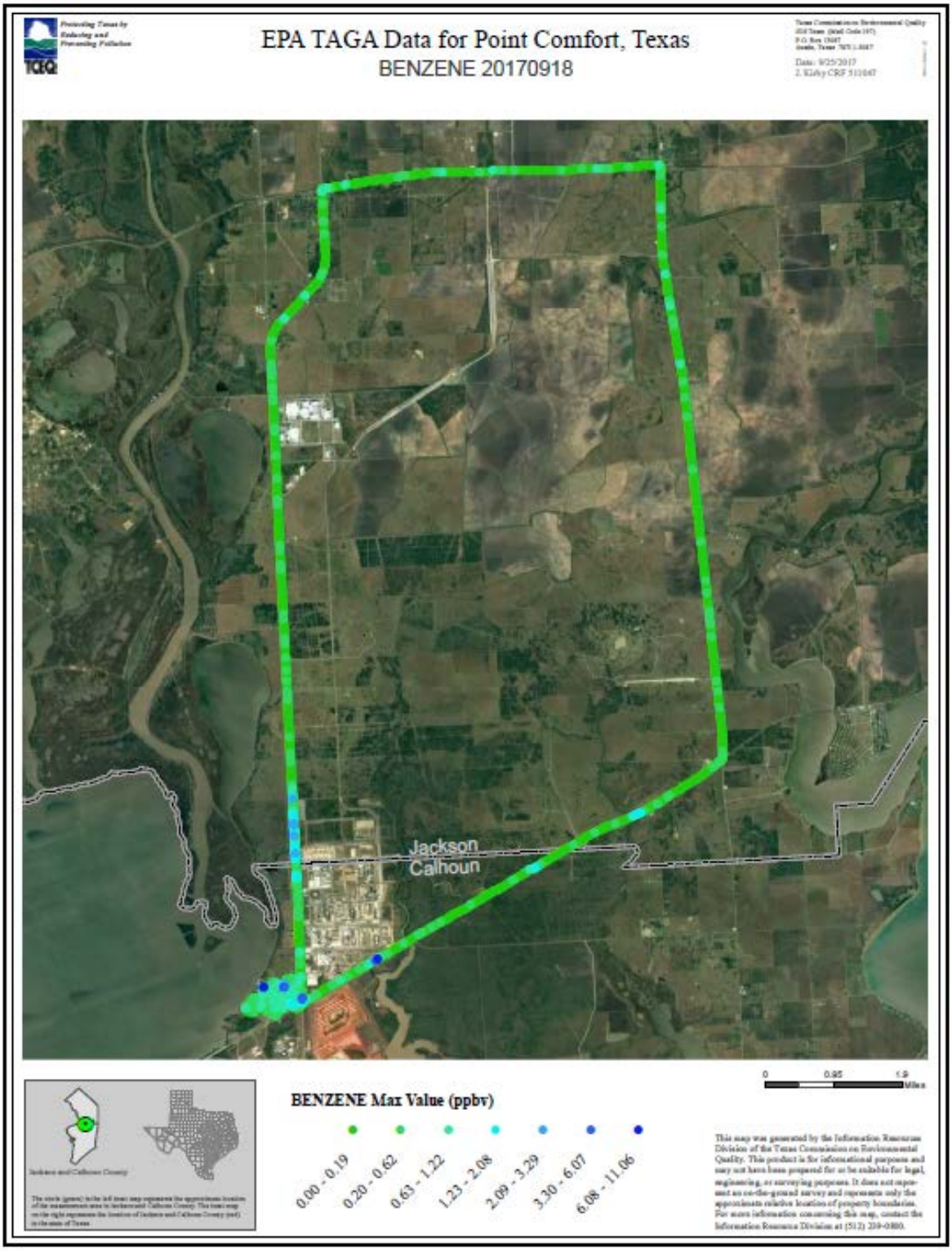

EPA TAGA Data for Victoria, Texas
TETRACHLOROETHENE 20170918
TETRACHLOROETHENE Max Value (ppbv)
0.00
0.01 - 0.03
0.04 - 0.08
0.09 - 0.12
0.13 - 0.22
0.23 - 0.43
0.44 - 5.68
0
0.5
1
Miles

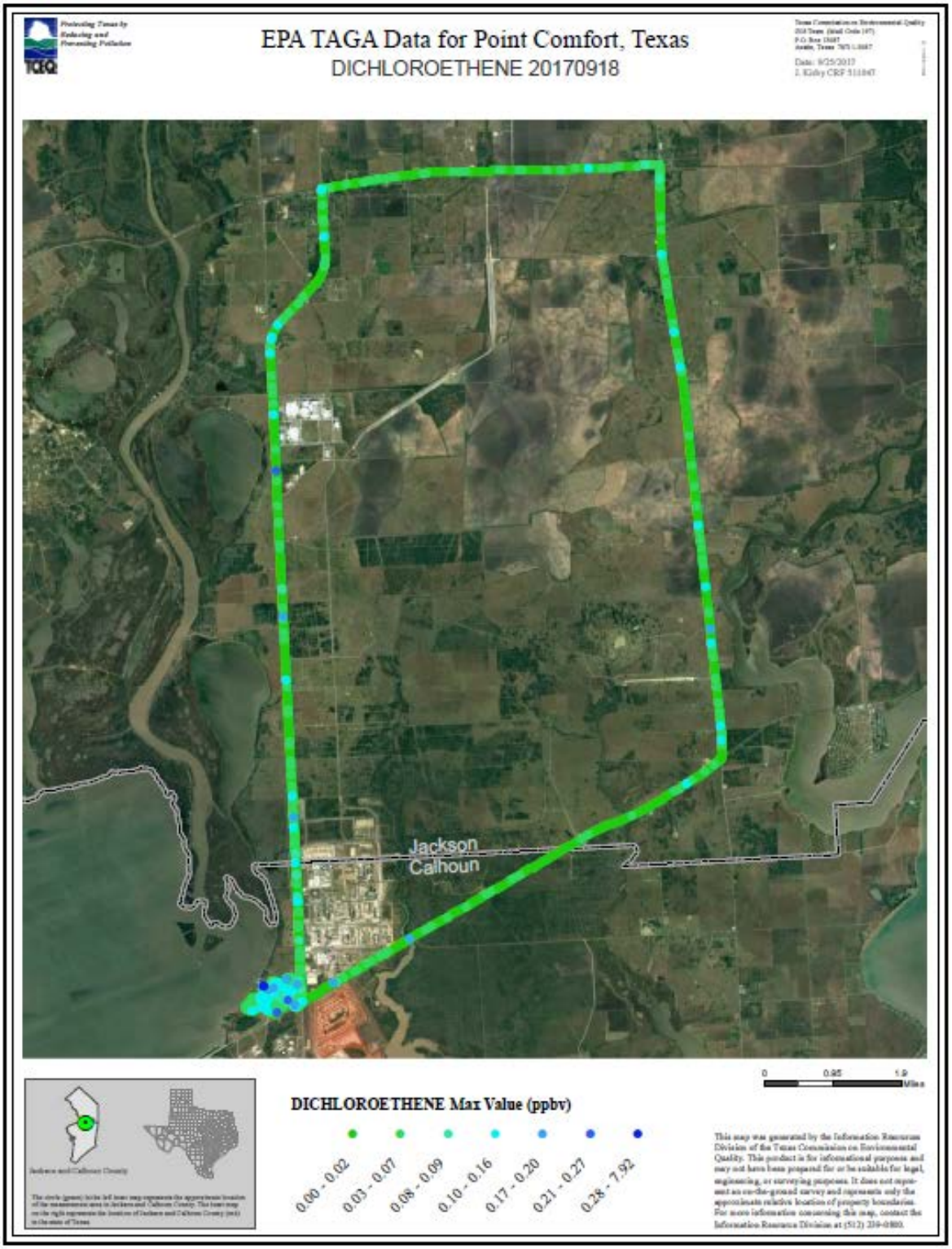

EPA TAGA Data for Victoria, Texas
TOLUENE 20170918
TOLUENE Max Value (ppbv)
0.00 - 0.02
0.03 - 0.07
0.08 - 0.14
0.15 - 0.28
0.29 - 0.55
0.56 - 3.16
3.17 - 6.27

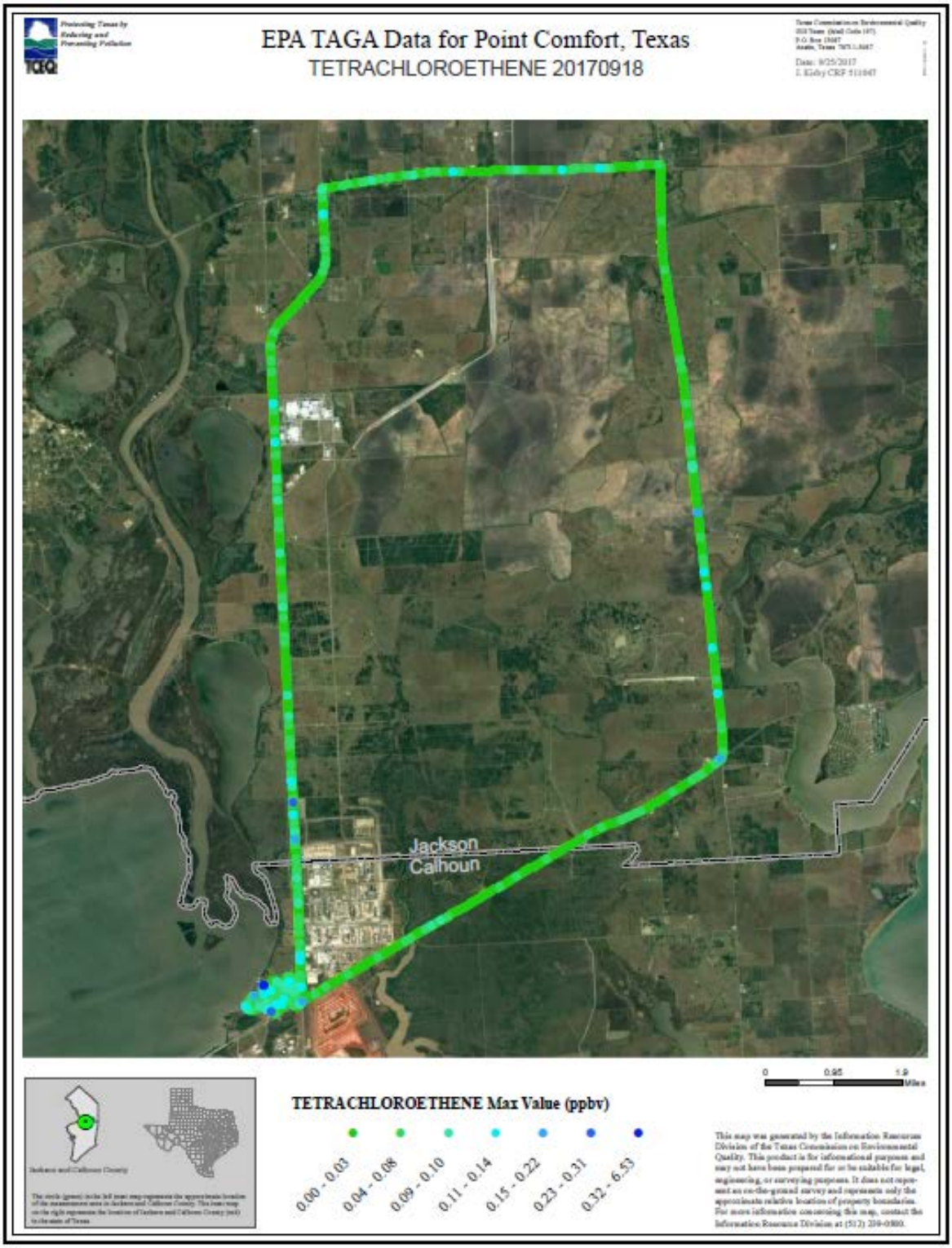

EPA TAGA Data for Victoria, Texas
TRICHLOROETHENE 20170918
TRICHLOROETHENE Max Value (ppbv)
0.00 - 0.02
0.03 - 0.06
0.07 - 0.09
0.10 - 0.11
0.12 - 0.15
0.16 - 0.21
0.22 - 6.11
0
0.5
1
Miles

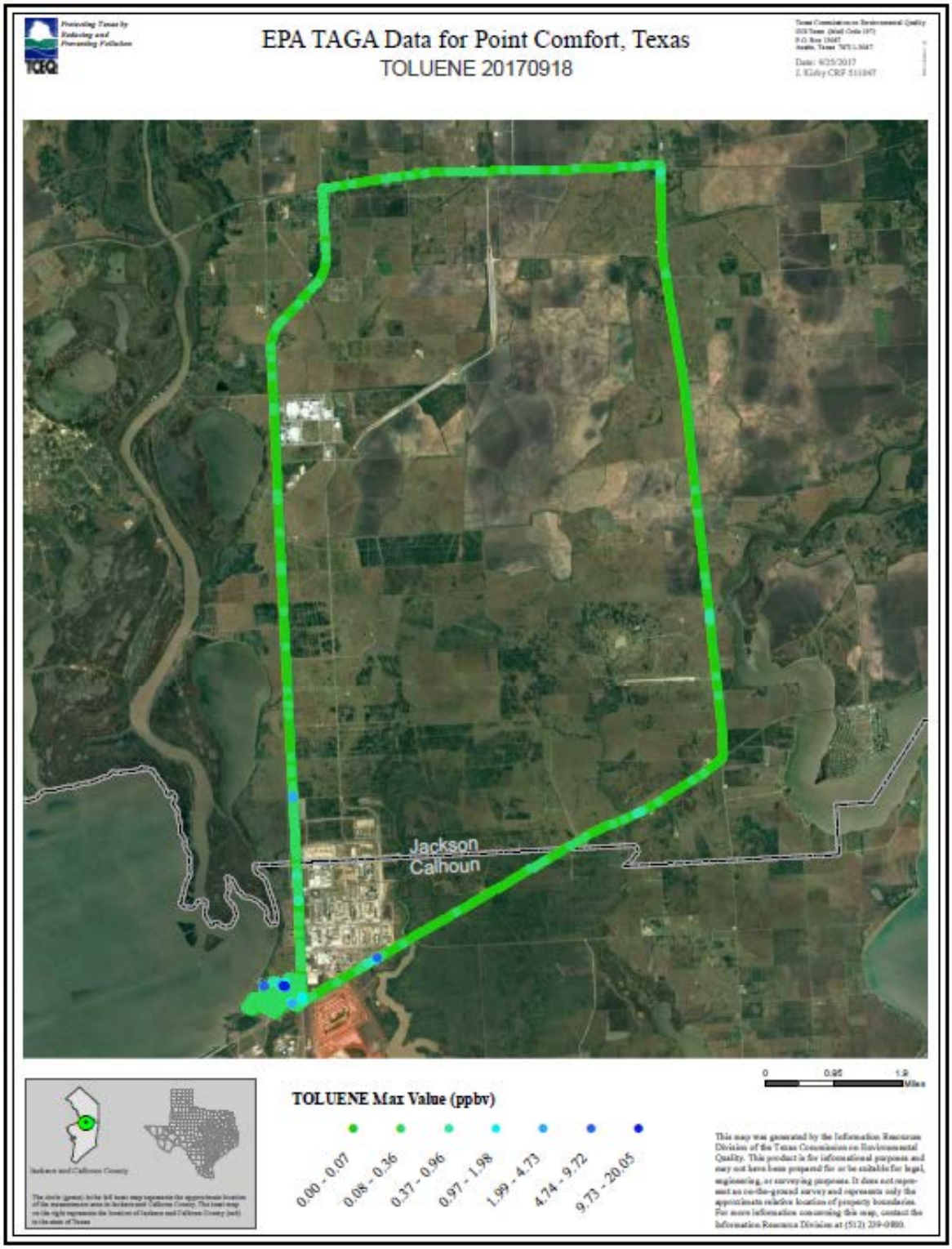

EPA TAGA Data for Victoria, Texas
XYLENE 20170918
XYLENE Max Value (ppbv)
0.00 - 0.05
0.06 - 0.15
0.16 - 0.30
0.31 - 0.62
0.63 - 1.72
1.73 - 3.73
3.74 - 9.03

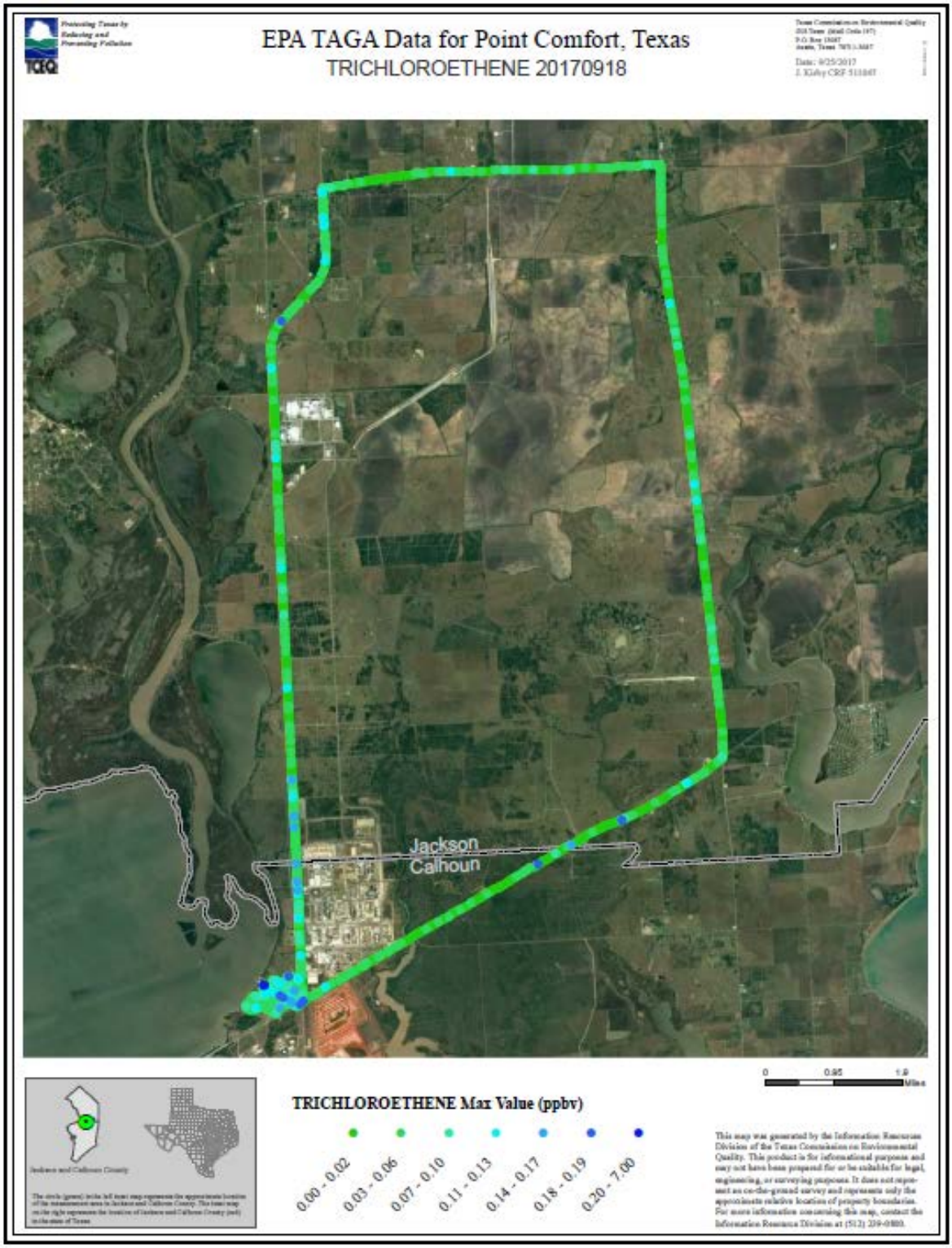
Point Comfort Monitoring Study – Sept. 18, 2017

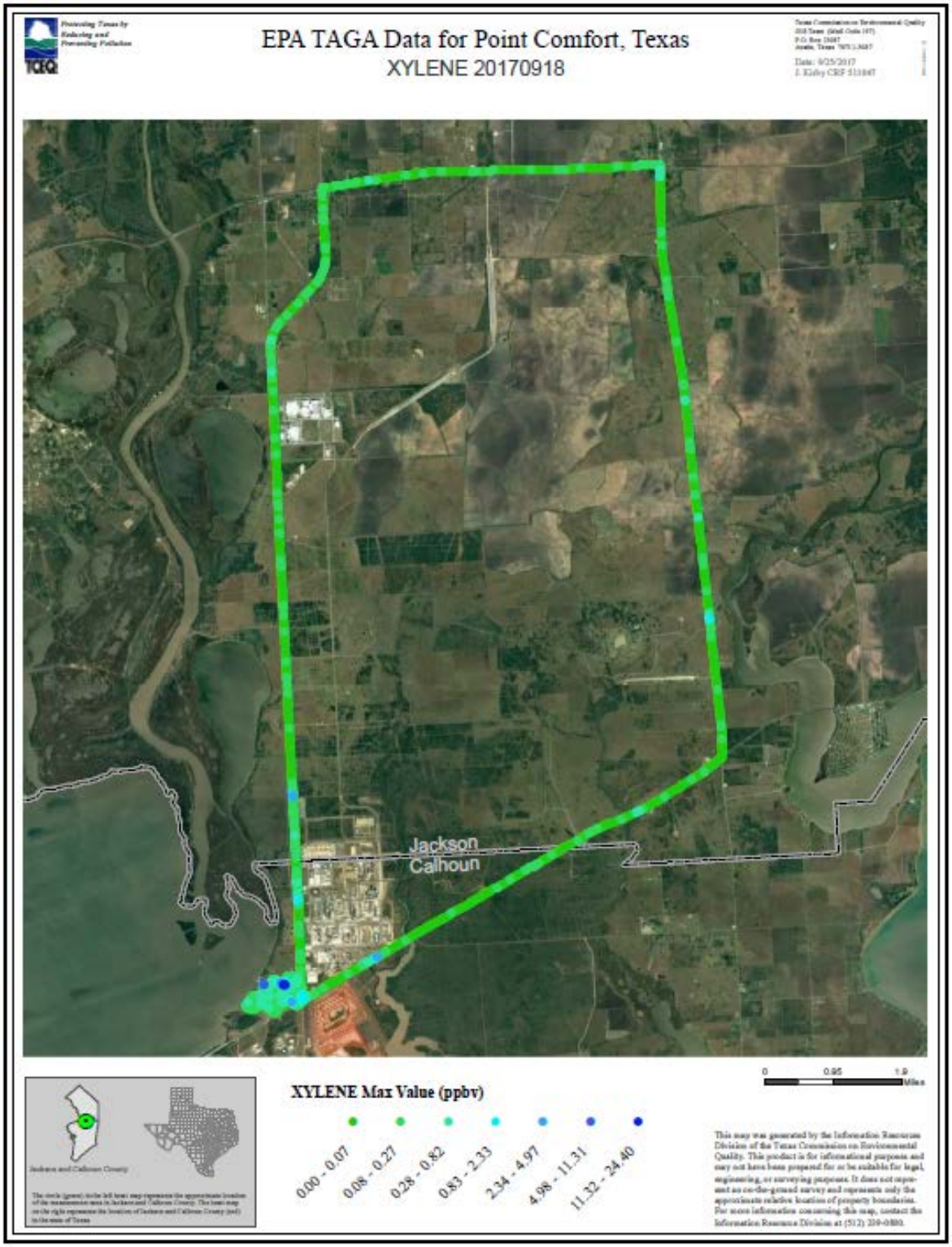



EPA TAGA Data for Point Comfort, Texas
DICHLOROETHENE 20170918
Jackson
Calhoun
DICHLOROETHENE Max Value (ppbv)
0.00 - 0.02
0.03 - 0.07
0.08 - 0.09
0.10 - 0.16
0.17 - 0.20
0.21 - 0.27
0.28 - 7.92

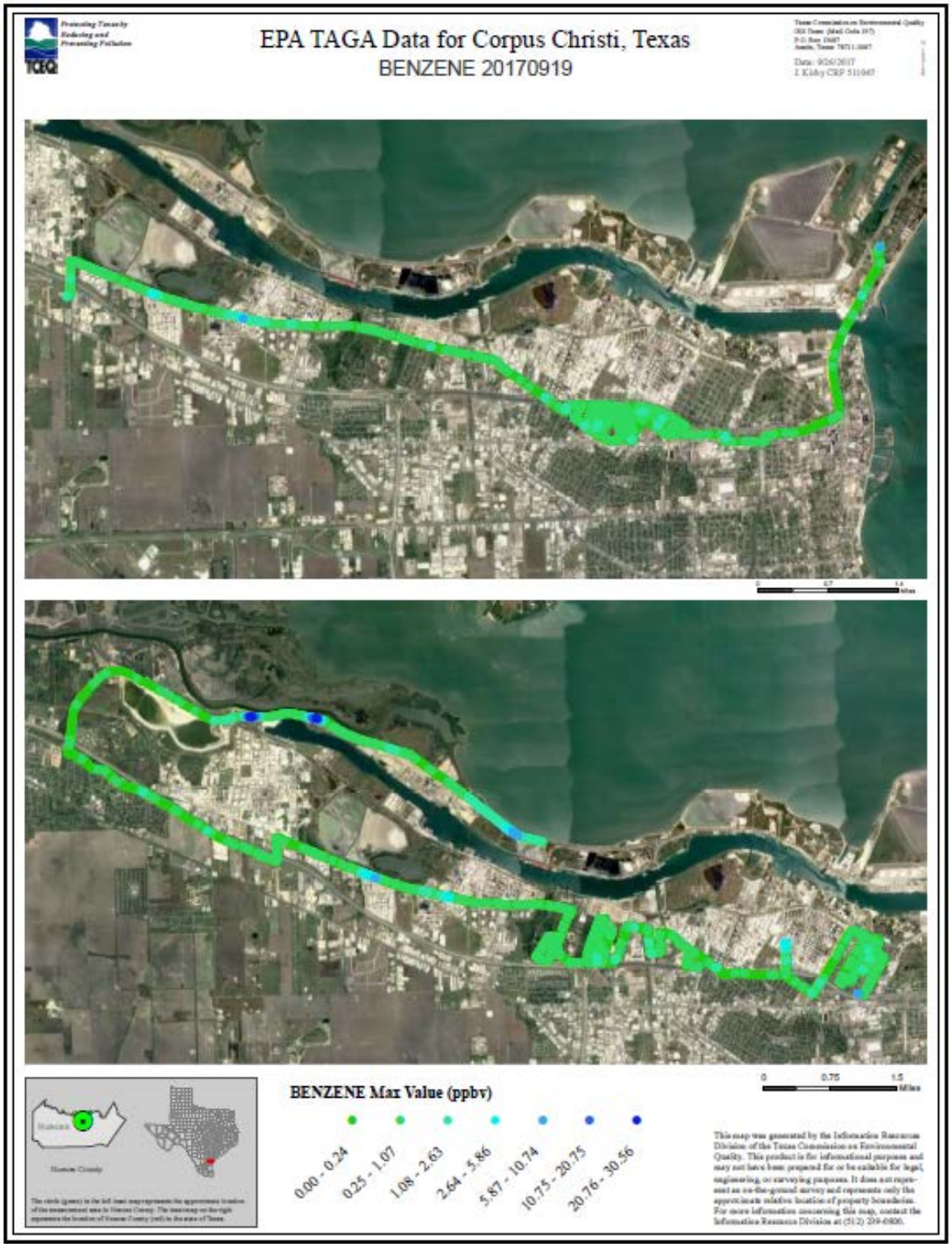

EPA TAGA Data for Point Comfort, Texas
TETRACHLOROETHENE 20170918
Jackson
Calhoun
TETRACHLOROETHENE Max Value (ppbv)
0.00 - 0.03
0.04 - 0.08
0.09 - 0.10
0.11 - 0.14
0.15 - 0.22
0.23 - 0.31
0.32 - 6.53

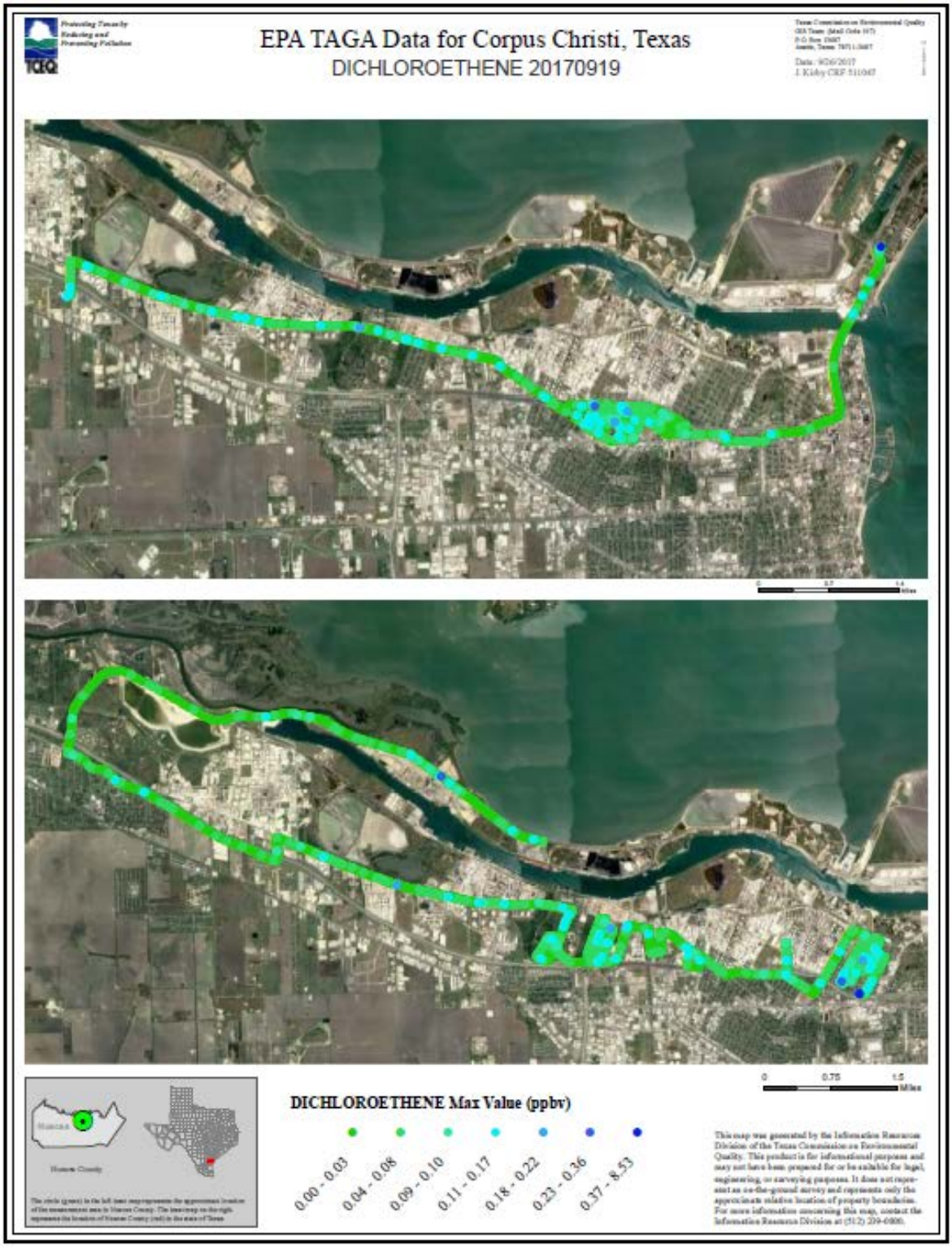

EPA TAGA Data for Point Comfort, Texas
TOLUENE 20170918
Jackson
Calhoun
TOLUENE Max Value (ppbv)
0.00 - 0.07
0.08 - 0.36
0.37 - 0.96
0.97 - 1.98
1.99 - 4.73
4.74 - 9.72
9.73 - 20.05
0
0.95
1.9
Miles


EPA TAGA Data for Point Comfort, Texas
TRICHLOROETHENE 20170918
Jackson
Calhoun
TRICHLOROETHENE Max Value (ppbv)
0.00 - 0.02
0.03 - 0.06
0.07 - 0.10
0.11 - 0.13
0.14 - 0.17
0.18 - 0.19
0.20 - 7.00


EPA TAGA Data for Point Comfort, Texas
XYLENE 20170918
Jackson
Calhoun
XYLENE Max Value (ppbv)
0.00 - 0.07
0.08 - 0.27
0.28 - 0.82
0.83 - 2.33
2.34 - 4.97
4.98 - 11.31
11.32 - 24.40
0
0.95
1.9
Miles

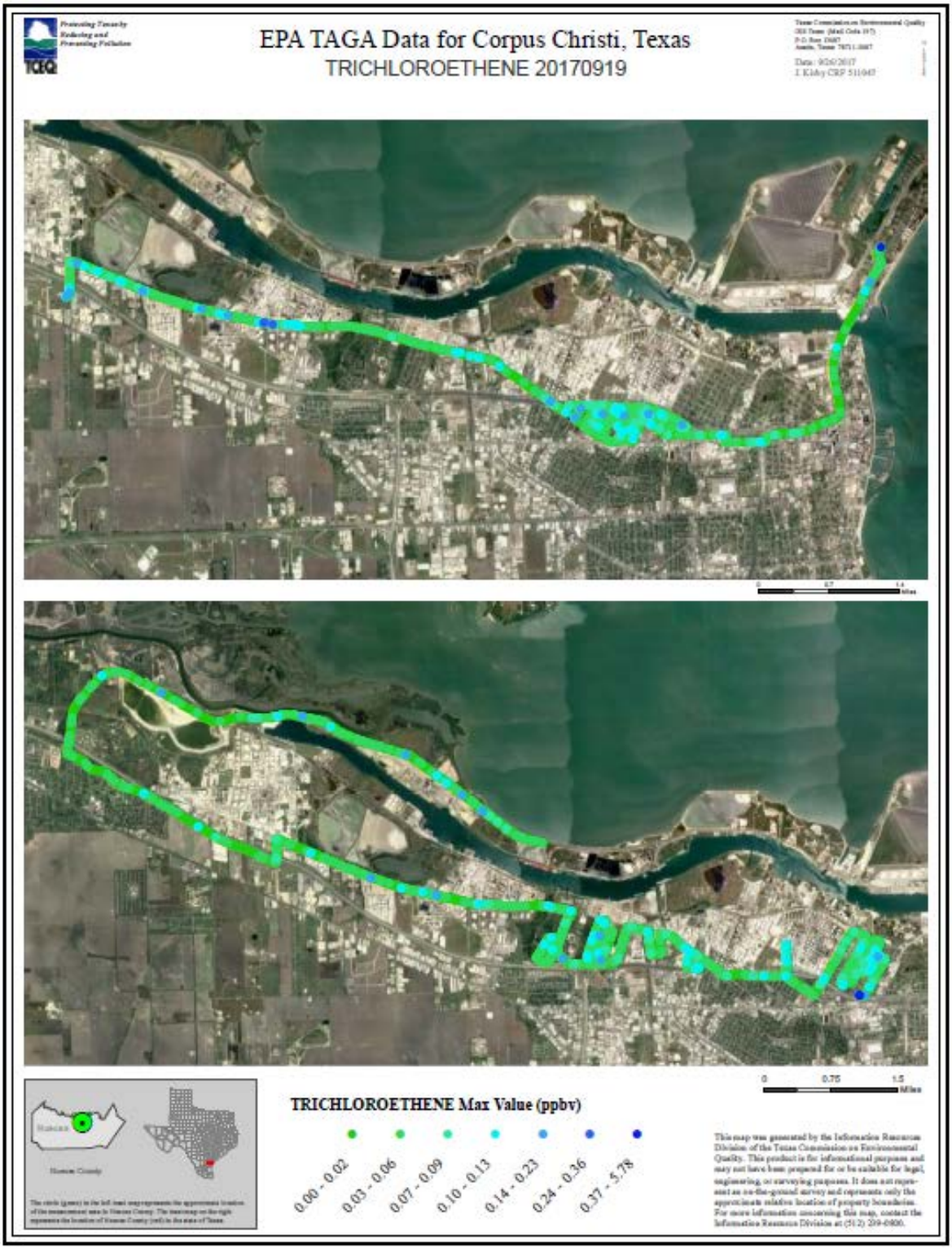
Corpus Christi Monitoring Study 1 – Sept. 19, 2017

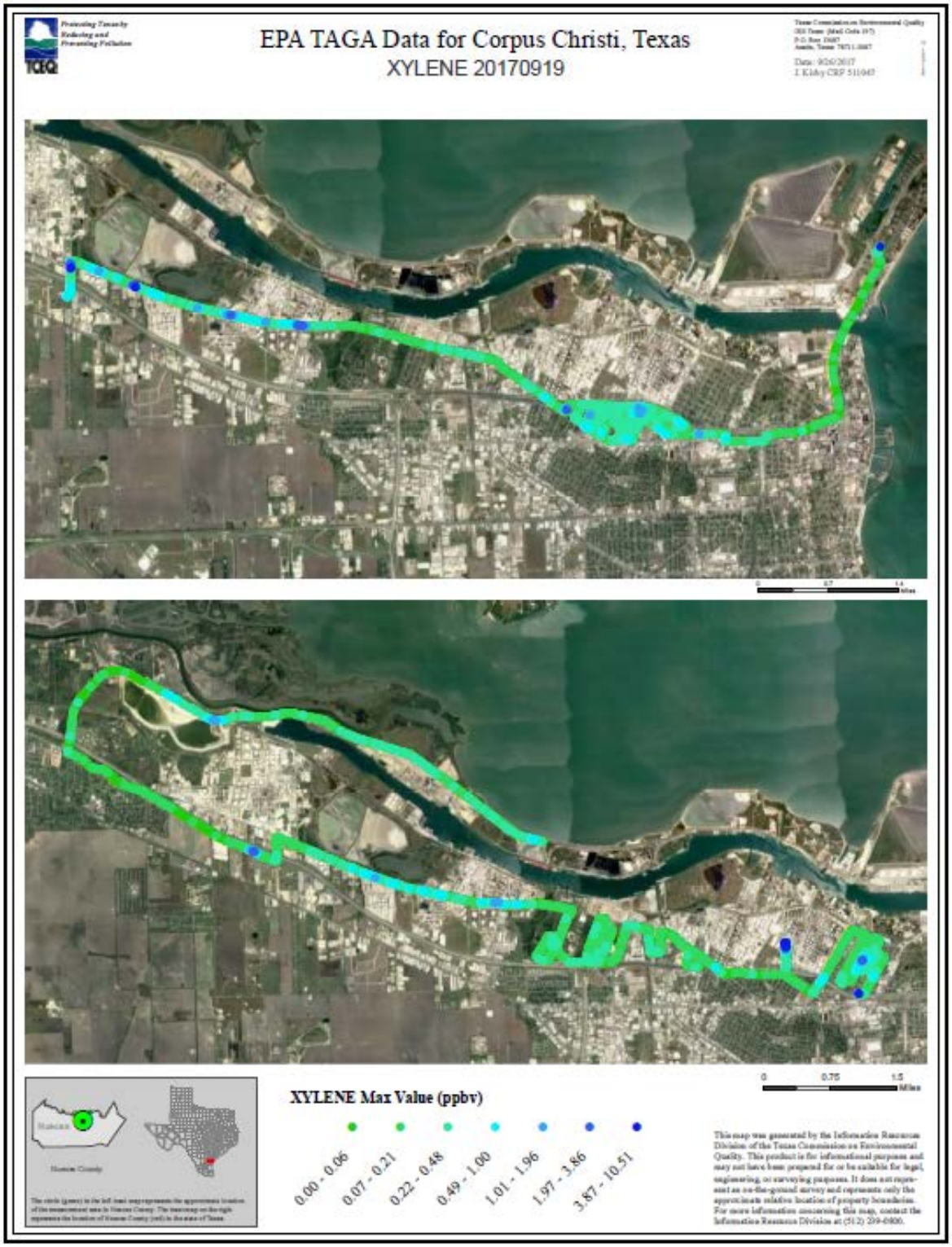



EPA TAGA Data for Corpus Christi, Texas
DICHLOROETHENE 20170919
DICHLOROETHENE Max Value (ppbv)
0.00 - 0.03
0.04 - 0.08
0.09 - 0.10
0.11 - 0.17
0.18 - 0.22
0.23 - 0.36
0.37 - 8.53
Miles

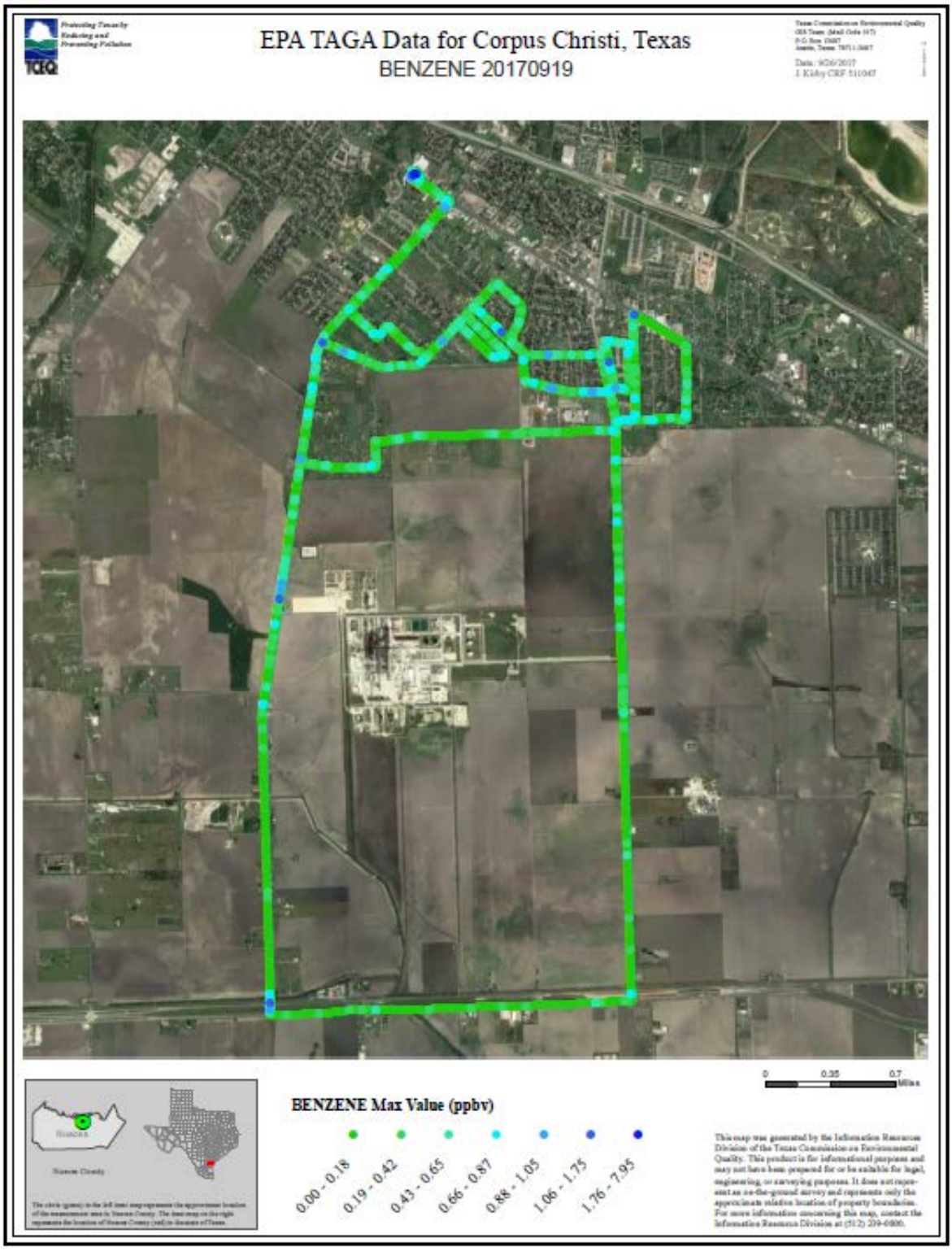

EPA TAGA Data for Corpus Christi, Texas
TETRACHLOROETHENE 20170919
TETRACHLOROETHENE Max Value (ppbv)
0.00 - 0.03
0.04 - 0.08
0.09 - 0.10
0.11 - 0.15
0.16 - 0.22
0.23 - 0.34
0.35 - 4.62
0 0.75 1.5
Miles

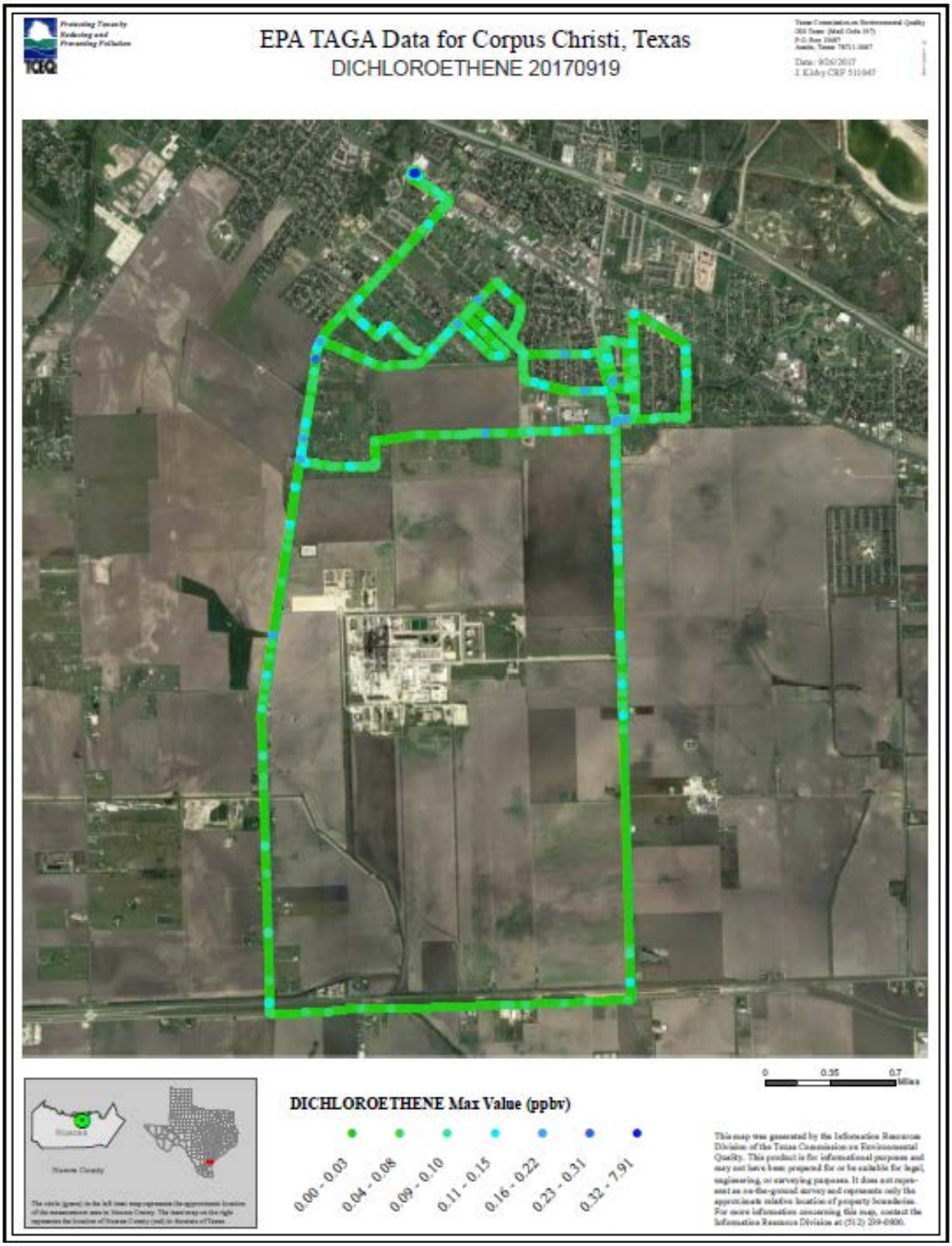

EPA TAGA Data for Corpus Christi, Texas
TOLUENE 20170919
TOLUENE Max Value (ppbv)
0.00 - 0.08
0.09 - 0.24
0.25 - 0.56
0.57 - 1.30
1.31 - 2.70
2.71 - 5.97
5.98 - 11.66
0 0.75 1.5
Miles

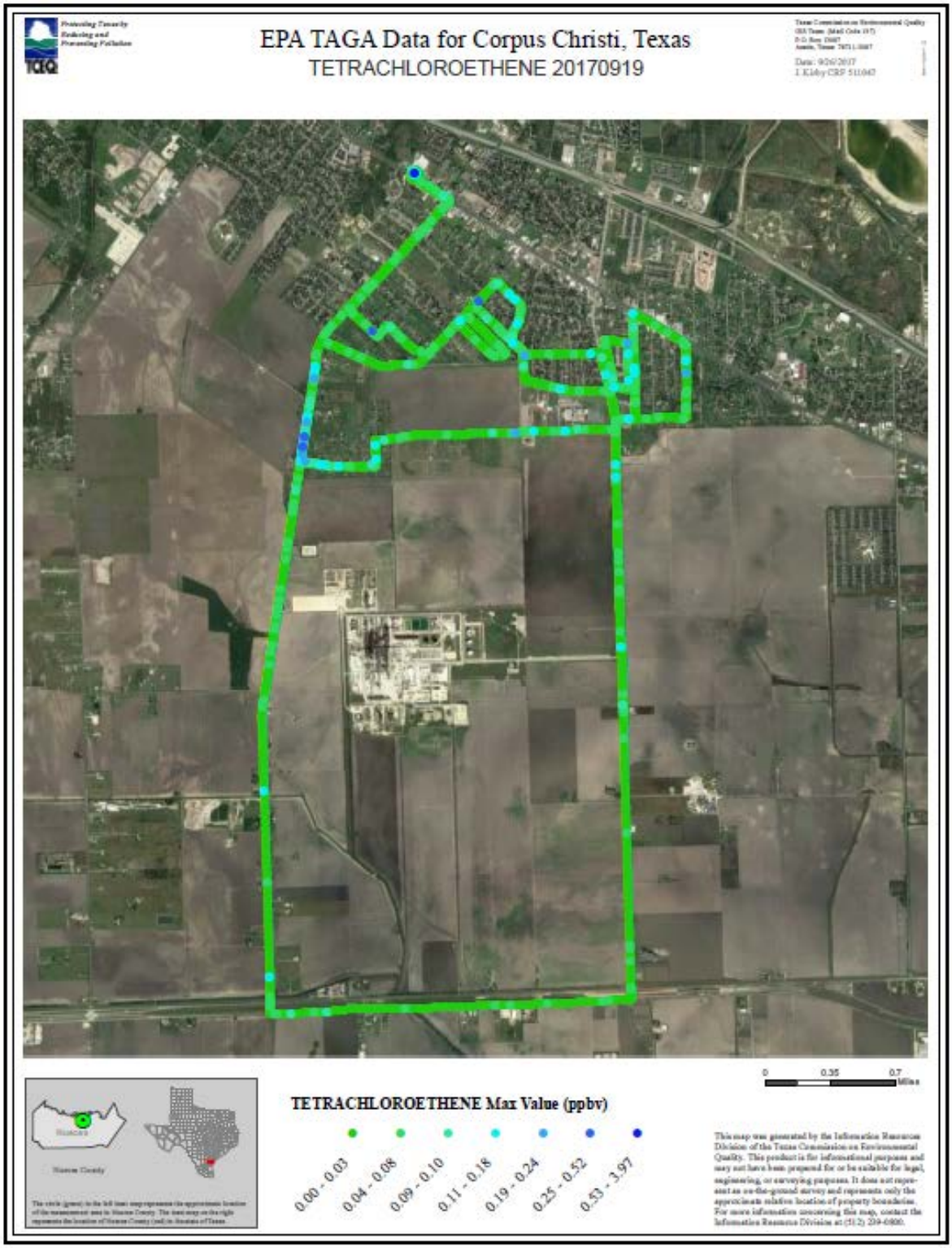

EPA TAGA Data for Corpus Christi, Texas
TRICHLOROETHENE 20170919
TRICHLOROETHENE Max Value (ppbv)
0.00 - 0.02
0.03 - 0.06
0.07 - 0.09
0.10 - 0.13
0.14 - 0.23
0.24 - 0.36
0.37 - 5.78
0
0.75
1.5
Miles

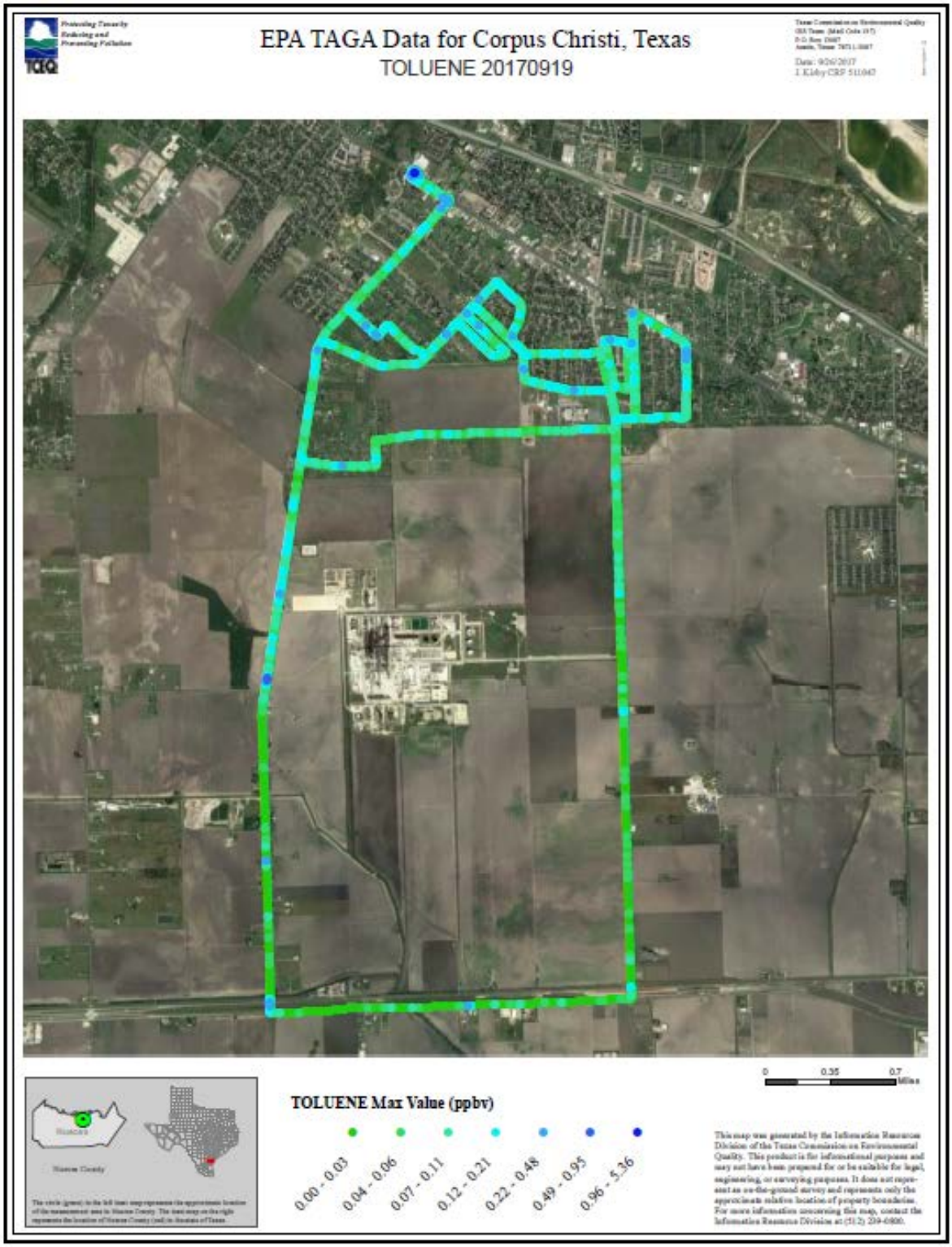

EPA TAGA Data for Corpus Christi, Texas
XYLENE 20170919
XYLENE Max Value (ppbv)
0.00 - 0.06
0.07 - 0.21
0.22 - 0.48
0.49 - 1.00
1.01 - 1.96
1.97 - 3.86
3.87 - 10.51
0
0.75
1.5
Miles

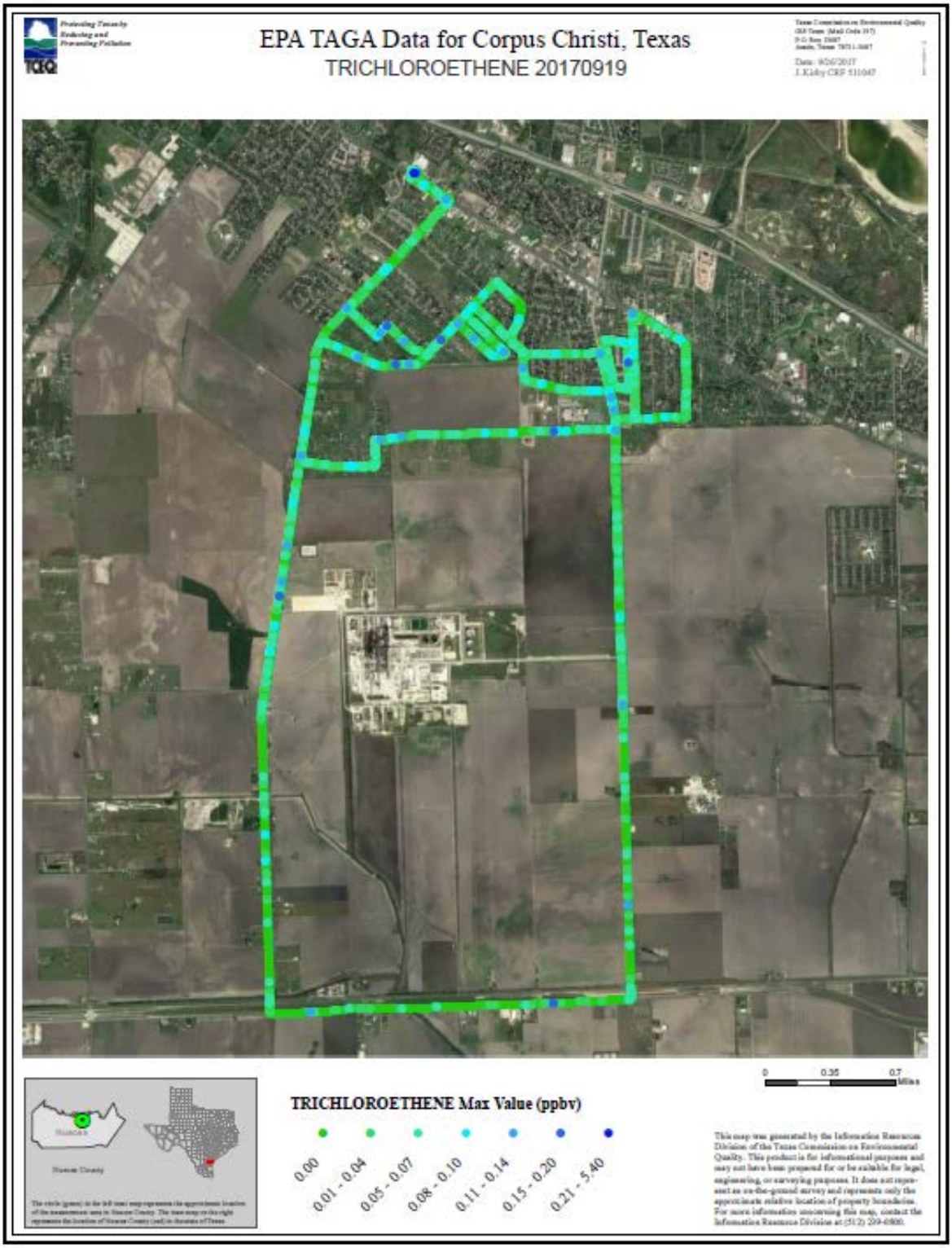
Corpus Christi Monitoring Study 2 – Sept. 19, 2017

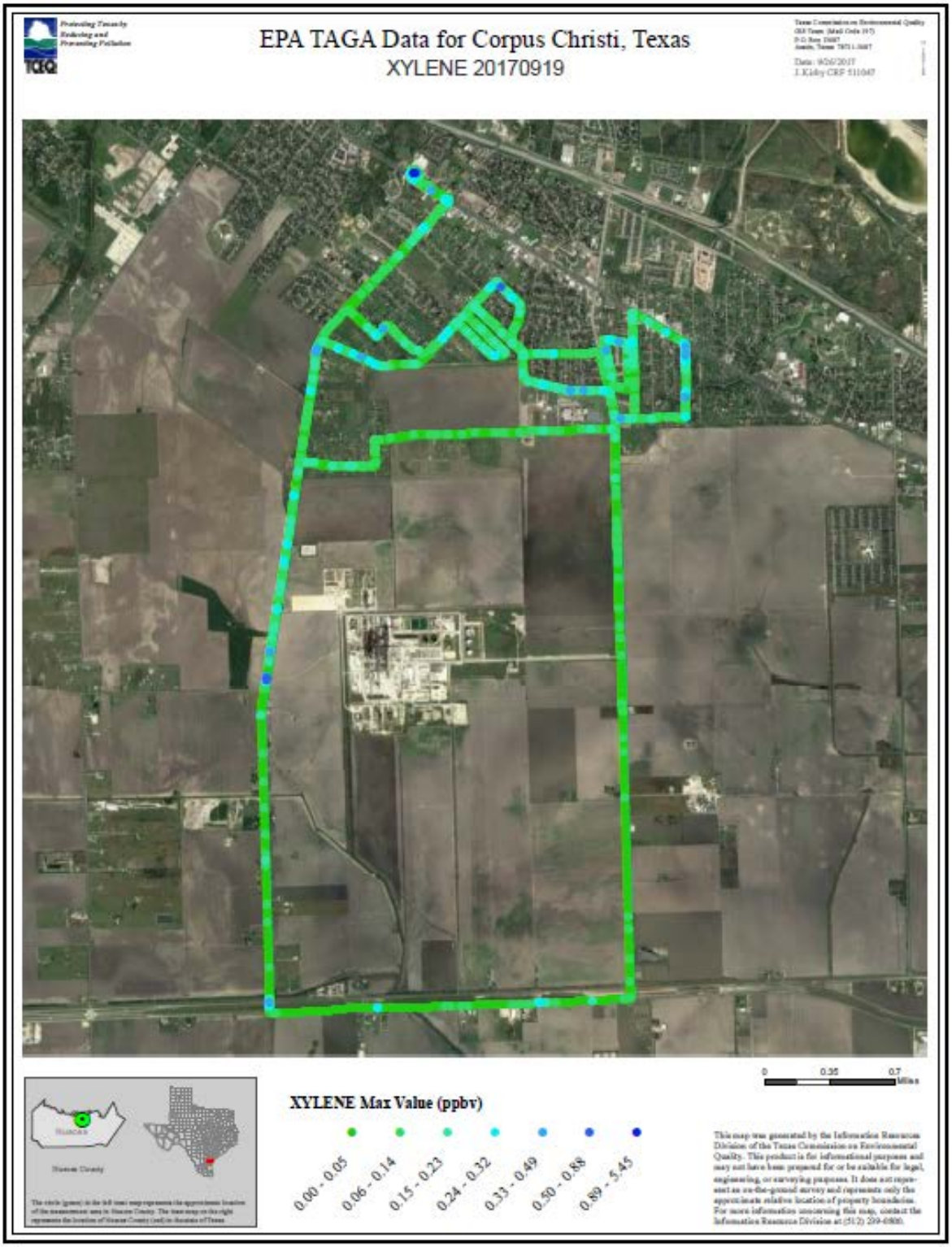



EPA TAGA Data for Corpus Christi, Texas
DICHLOROETHENE 20170919
DICHLOROETHENE Max Value (ppbv)
0.00 - 0.03
0.04 - 0.08
0.09 - 0.10
0.11 - 0.15
0.16 - 0.22
0.23 - 0.31
0.32 - 7.91
0
0.35
0.7
Miles
Nueces County


EPA TAGA Data for Corpus Christi, Texas
TETRACHLOROETHENE 20170919
0 0.35 0.7
Miles
TETRACHLOROETHENE Max Value (ppbv)
0.00 - 0.03
0.04 - 0.08
0.09 - 0.10
0.11 - 0.18
0.19 - 0.24
0.25 - 0.52
0.53 - 3.97


EPA TAGA Data for Corpus Christi, Texas
TOLUENE 20170919
TOLUENE Max Value (ppbv)
0.00 - 0.03
0.04 - 0.06
0.07 - 0.11
0.12 - 0.21
0.22 - 0.48
0.49 - 0.95
0.96 - 5.36
0
0.35
0.7
Miles


EPA TAGA Data for Corpus Christi, Texas
TRICHLOROETHENE 20170919
TRICHLOROETHENE Max Value (ppbv)
0.00
0.01 - 0.04
0.05 - 0.07
0.08 - 0.10
0.11 - 0.14
0.15 - 0.20
0.21 - 5.40
0
0.35
0.7
Miles


EPA TAGA Data for Corpus Christi, Texas
XYLENE 20170919
XYLENE Max Value (ppbv)
0.00 - 0.05
0.06 - 0.14
0.15 - 0.23
0.24 - 0.32
0.33 - 0.49
0.50 - 0.88
0.89 - 5.45
0
0.35
0.7
Miles