

**40355 Braithwaite, LA
Stolthaven Terminal Facility
Summary of Community Air Monitoring and Sampling Results
September 20, 2012
PO# 12-H0408-MR**

This data report discusses community real-time air monitoring data collected between September 19th 00:00 and September 19th 23:59 in support of mitigation and remediation operations conducted near Stolthaven’s facility near Braithwaite, LA.

Community real-time air monitoring was conducted for VOCs, LEL, hydrogen sulfide (H₂S), and formic acid using stationary AreaRAEs and/or hand-held instruments such as the MultiRAE and colorimetric detector tubes. Table 1 and Table 2 below display data summaries for AreaRAE and hand-held instrument data, respectively. While stationary AreaRAE results indicate six VOC detections at two locations outside of the facility perimeter, these results are preliminary and may include drift in the instrument’s electrochemical sensor. Additionally, these AreaRAE instruments are located adjacent to roads and are subject to detecting products of combustion due to vehicular emissions. No detections of VOC, LEL, H₂S, or formic acid were observed in the community using real-time handheld instruments. Table 3 highlights analytical sample counts collected within offsite air and soil. Appendix 1 shows incident site maps.

**Table 1
AreaRAE Summary – September 19th 00:00 – 23:59**

| Unit | Analyte | Number of Readings | Number Of Detections | Concentration Range |
|---------|---------|--------------------|----------------------|---------------------|
| Unit 1 | LEL | 4401 | 0 | 0 - 0 % |
| | VOC | 4401 | 0 | 0 - 0 ppm |
| Unit 2 | LEL | 4393 | 0 | 0 - 0 % |
| | VOC | 4393 | 0 | 0 - 0 ppm |
| Unit 3 | LEL | 4462 | 0 | 0 - 0 % |
| | VOC | 4462 | 0 | 0 - 0 ppm |
| Unit 4 | LEL | 4365 | 0 | 0 - 0 % |
| | VOC | 4365 | 0 | 0 - 0 ppm |
| Unit 9 | LEL | 4506 | 0 | 0 - 0 % |
| | VOC | 4506 | 0 | 0 - 0 ppm |
| Unit 10 | LEL | 3374 | 0 | 0 - 0 % |
| | VOC | 3374 | 5 | 0.1 - 0.1 ppm |
| Unit 11 | LEL | 4104 | 0 | 0 - 0 % |
| | VOC | 4104 | 0 | 0 - 0 ppm |
| Unit 12 | LEL | 4233 | 0 | 0 - 0 % |
| | VOC | 4233 | 0 | 0 - 0 ppm |
| Unit 13 | LEL | 4293 | 0 | 0 - 0 % |
| | VOC | 4293 | 1 | 0.1 - 0.1 ppm |

***Detections may include drift events** - Drift is defined as any interference in the electrochemical sensor’s ability to accurately report the concentration of a chemical in the atmosphere. Humidity and temperature changes throughout the monitoring period are typical sources of drift.

**Table 2
Hand-held Real-time Summary – September 19th 00:00 – 23:59**

| Community | | | | |
|------------------|---------------------------|-----------------------------|--|------------------------------|
| Analyte | Number of Readings | Number of Detections | Average Concentration of Detections | Highest Concentration |
| Formic Acid | 4 | 0 | NA | < 0.52 ppm |
| H2S | 264 | 0 | NA | < 1.0 ppm |
| LEL | 265 | 0 | NA | < 1.0 % |
| VOC | 266 | 0 | NA | < 0.1 ppm |

NA = not applicable

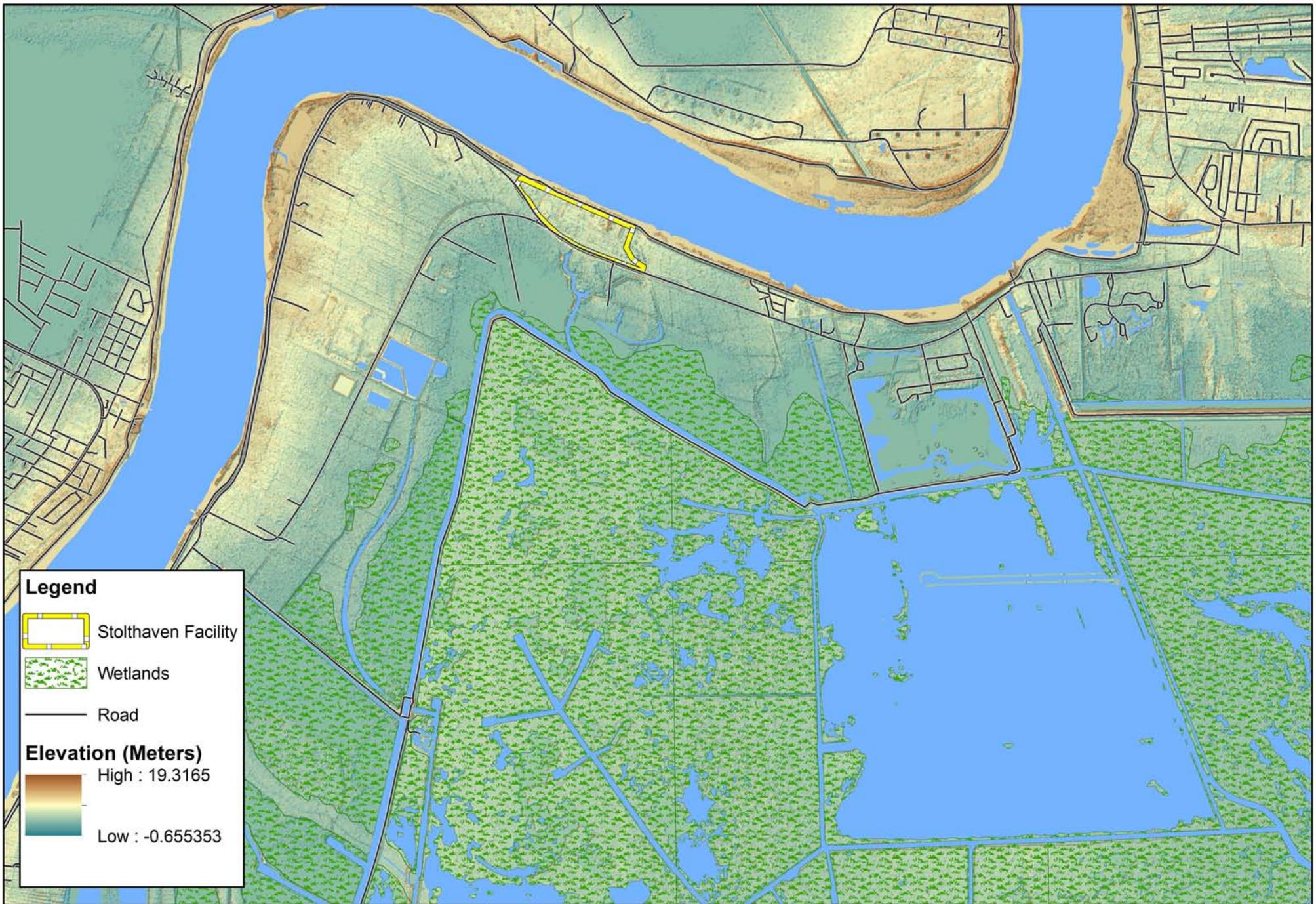
* In addition to the tabulated real-time data, additional air monitoring for the purpose of worker protection was performed throughout the work area. These data are used for task-specific decision-making, but may not be recorded in the tabulated data represented above.

**Table 3
Analytical Sample Counts – September 19th 00:00 – 23:59**

| Matrix | Number of Samples |
|---------------|--------------------------|
| Air | 44 |
| Soil | 16 |

References: LDEQ. Title 33: Environmental Quality. Part III. Air. Baton Rouge, LA: Louisiana Department of Environmental Quality; 2007 Jun.

Appendix 1: Incident Maps



Legend

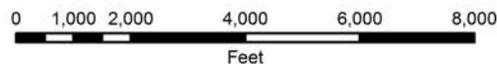
-  Stolthaven Facility
-  Wetlands
-  Road

Elevation (Meters)

High : 19.3165

Low : -0.655353

**Stolthaven Facility
Shaded Relief of Elevation**



Project No.
40355

**Stolthaven
Braithwaite, LA**

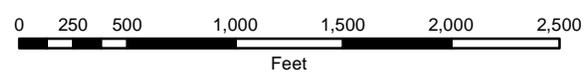
**Plaquemines Parish
Print Date: 9/17/2012**



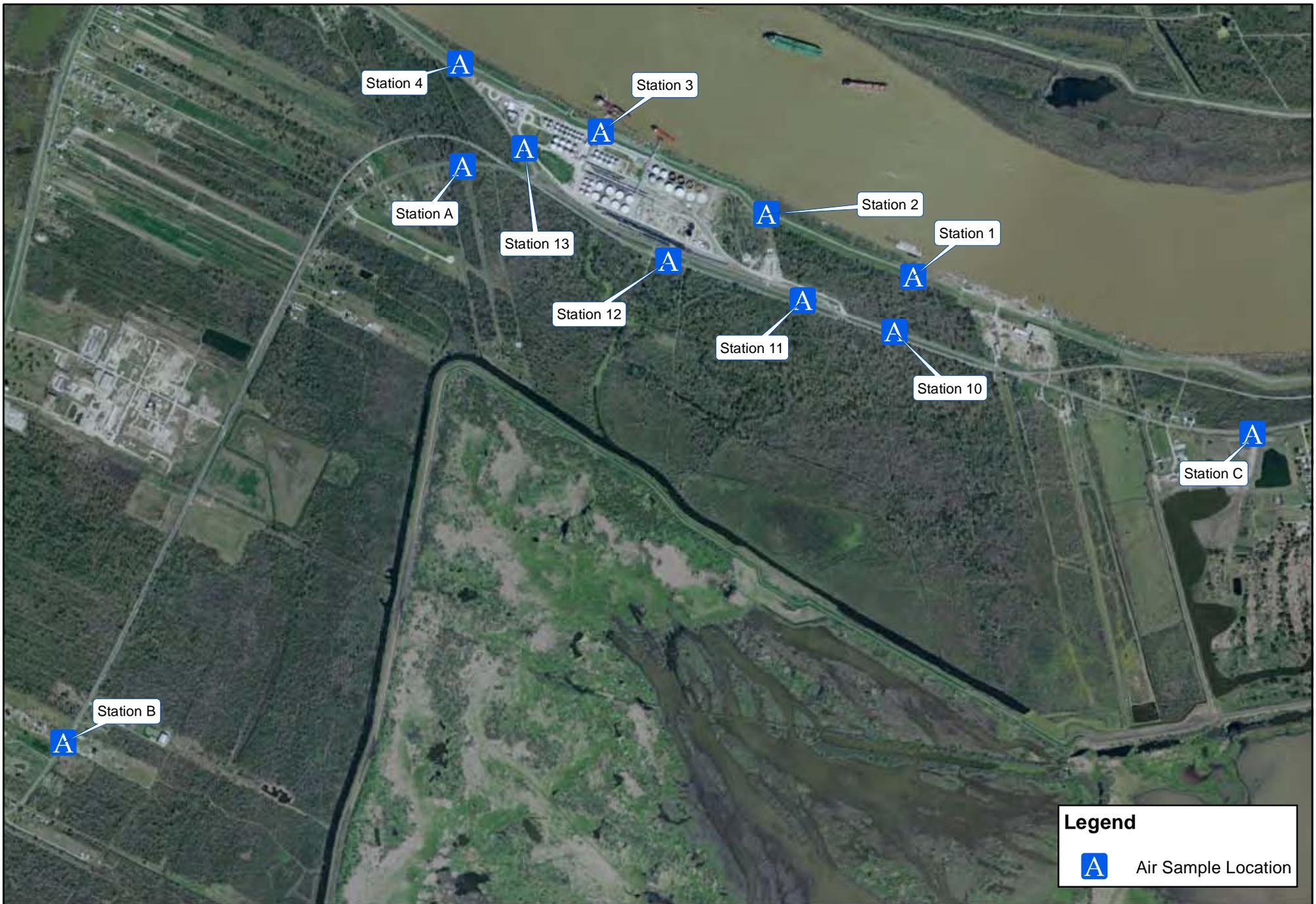
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 AreaRAE Station

AreaRAE Station Locations
September 15, 2012



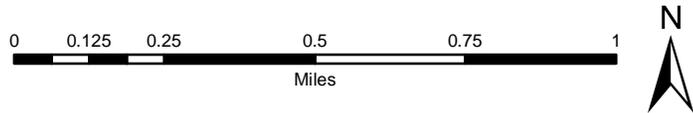
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|--|---|
|  Project No. 40355 | Stolthaven Braithwaite, LA |
| | Plaquemines Parish Print Date: 9/19/2012 |



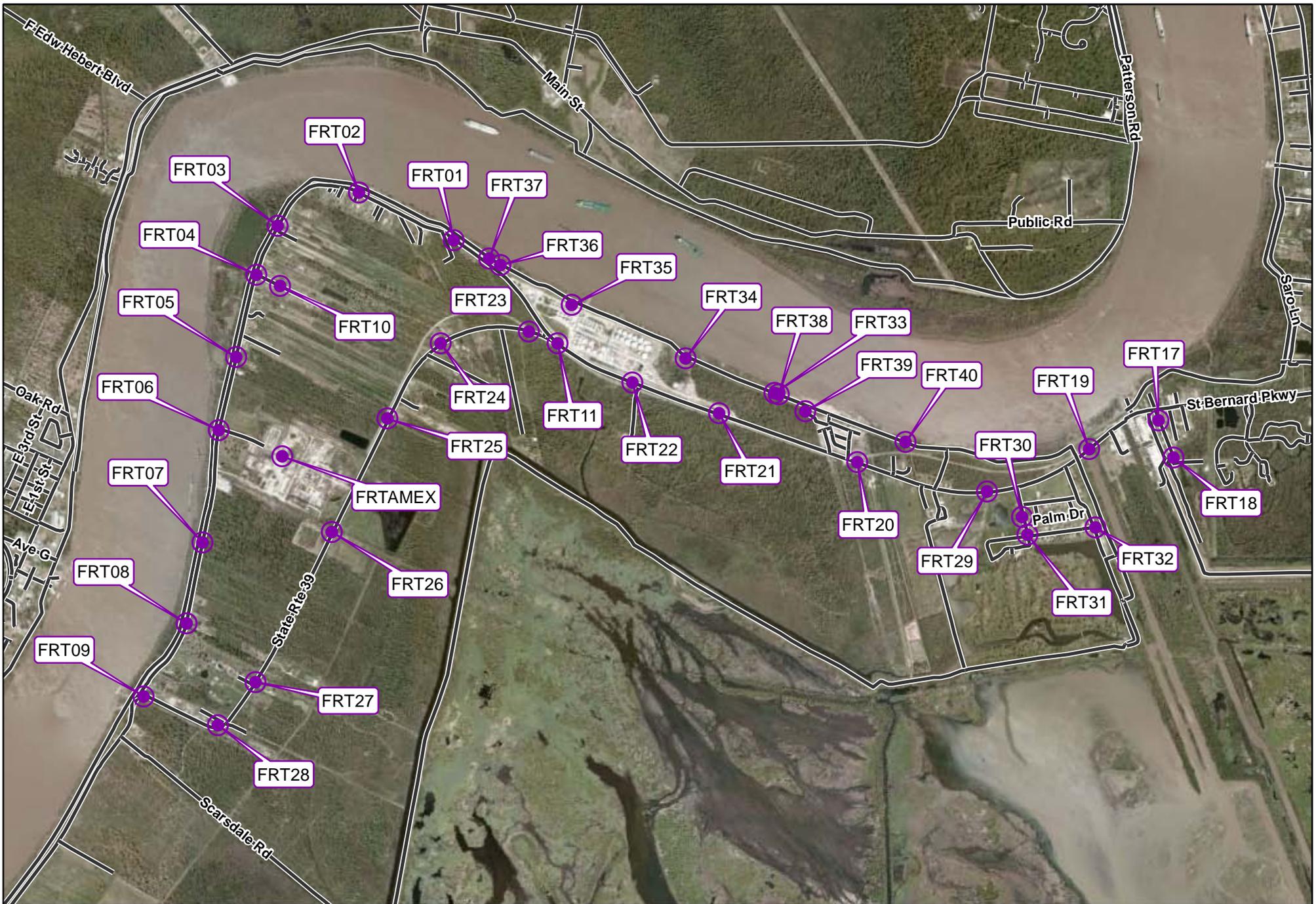
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 Air Sample Location

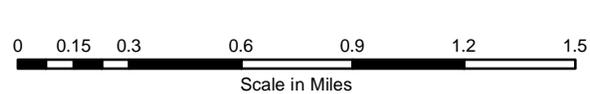
Community Ambient Air Analytical Sampling Locations



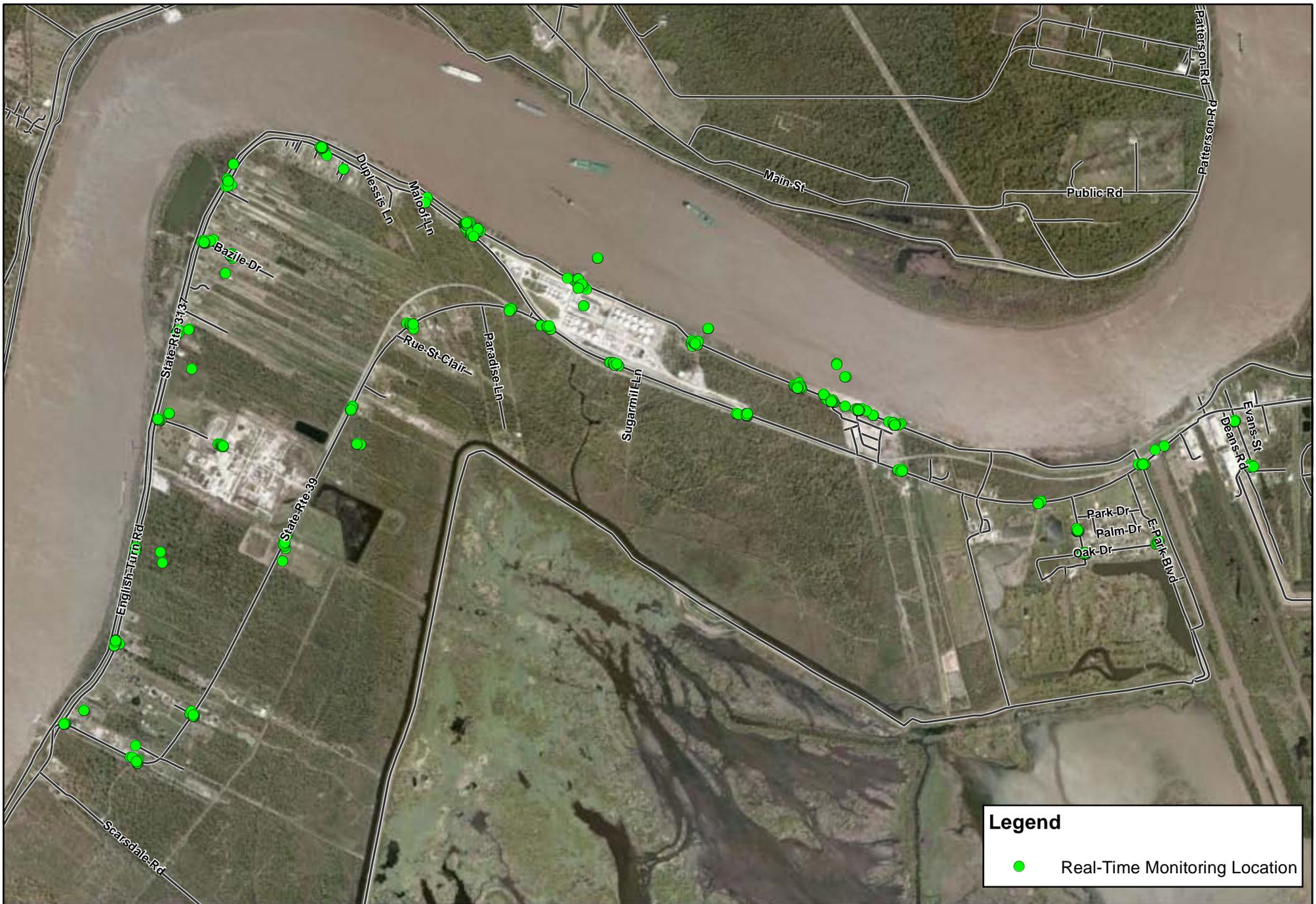
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|--|------------------------------|
|  Project No. 40355 | Stolthaven |
| | Braithwaite, LA |
| | Plaquemines Parish |
| | Print Date: 9/18/2012 |



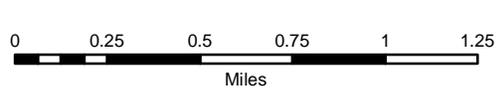
Community Fixed Real-Time Monitoring Locations



| | |
|-----------------------------|-----------------------|
| | Stolthaven |
| | Braithwaite, LA |
| Project No. 40355 | Plaquemines Parish |
| | Print Date: 9/18/2012 |



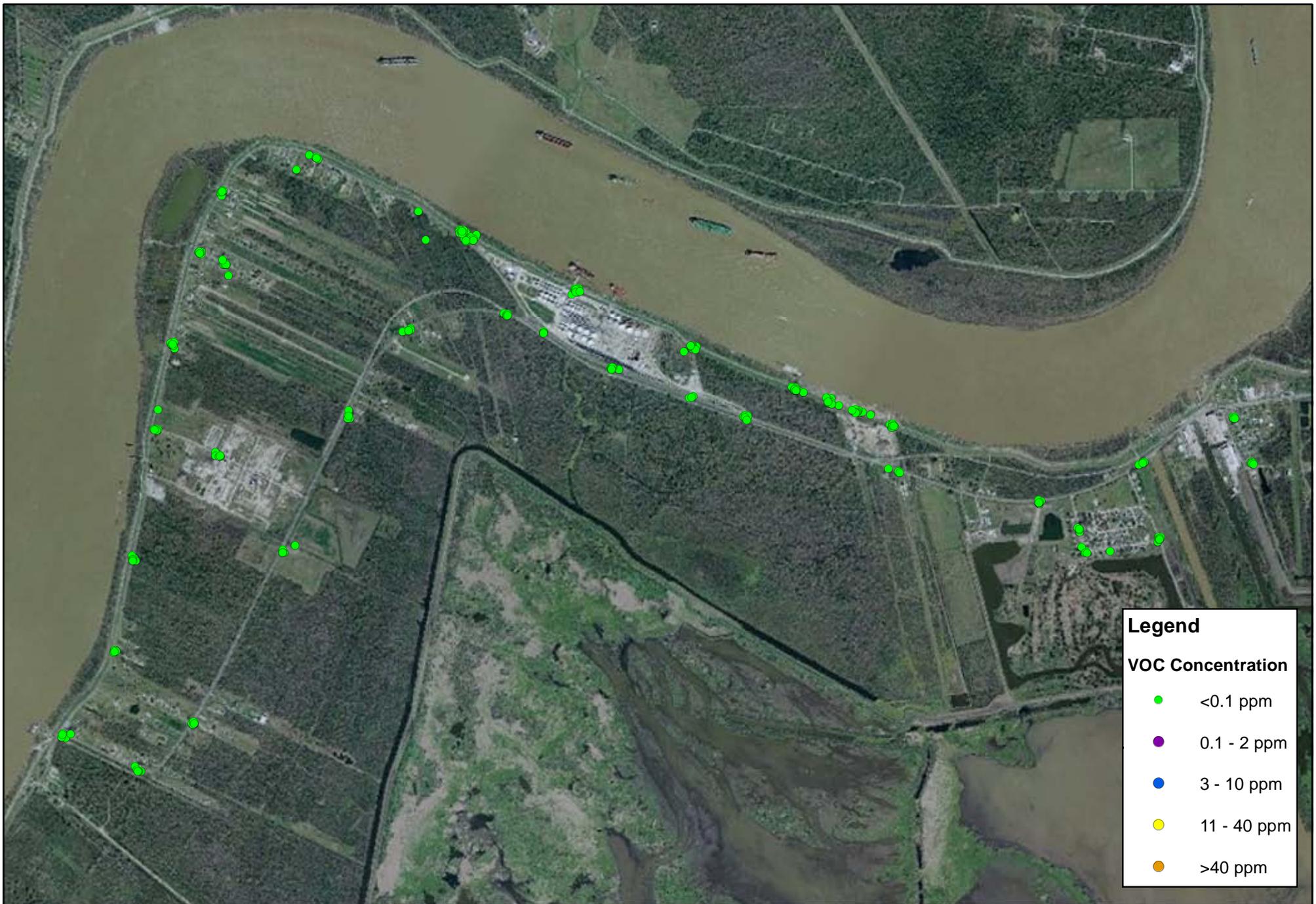
Community Real-Time Monitoring Locations
9/19/2012



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- Real-Time Monitoring Location

| | |
|--|---|
|  Project No. 40355 | Stolthaven Braithwaite, LA |
| | Plaquemines Parish Print Date: 9/20/2012 |

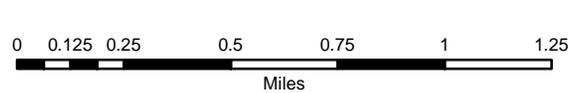


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VOC Concentration

- <0.1 ppm
- 0.1 - 2 ppm
- 3 - 10 ppm
- 11 - 40 ppm
- >40 ppm

**Manually-Logged
Community VOC Concentrations**
9/19/2012



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Braithwaite, LA
Plaquemines Parish
Print Date: 9/20/2012**