

**40365 Braithwaite, LA
Stolthaven Terminal Facility
Summary of Community Air Monitoring and Sampling Results
September 24, 2012
PO# 12-H0408-MR**

This data report discusses community real-time air monitoring data collected between September 23rd 00:00 and September 23rd 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. While real-time monitoring for hydrogen sulfide (H₂S) began on September 15th, 2012; this analyte is unrelated to events at the Stolthaven facility and has been incorporated into real-time community monitoring to examine H₂S generated by the natural decomposition of organic matter. Table 1 and Table 2 below display data summaries for AreaRAEs and hand-held instrument data, respectively. While stationary AreaRAE results indicate elevated VOC levels at seven AreaRAE Units, 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 VOC, H₂S, formic acid, or LEL detections were observed within the community using real-time handheld or colorimetric tubes. Table 3 highlights analytical sample counts collected within air, residential soil, offsite soil, and offsite surface water. Appendix 1 shows incident site maps.

**Table 1
AreaRAE Summary – September 23nd 00:00 – 23:59**

Unit	Analyte	Number of Readings	Number Of Detections	Concentration Range
Unit 1	VOC	4993	3	0.1 – 0.1 ppm
Unit 2	VOC	4808	654	0.1 – 43.3 ppm
Unit 3	VOC	5338	62	0.1 - 13.5 ppm
Unit 4	VOC	5103	293	0.1 – 3.5 ppm
Unit 10	VOC	2817	0	0 - 0 ppm
Unit 11	VOC	4311	889	0.1 – 22.1 ppm
Unit 12	VOC	3812	5	0.1 – 0.2 ppm
Unit 13	VOC	5227	444	0.1 – 1.6 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 23rd 00:00 – 23:59**

Community				
Analyte	Number of Readings	Number of Detections	Average Concentration of Detections	Highest Concentration
Formic Acid	2	0	NA	< 0.52 ppm
H ₂ S**	239	0	NA	< 1.0 ppm
LEL	240	0	NA	< 1.0 %
VOC	240	0	NA	< 0.1 ppm

NA = not applicable

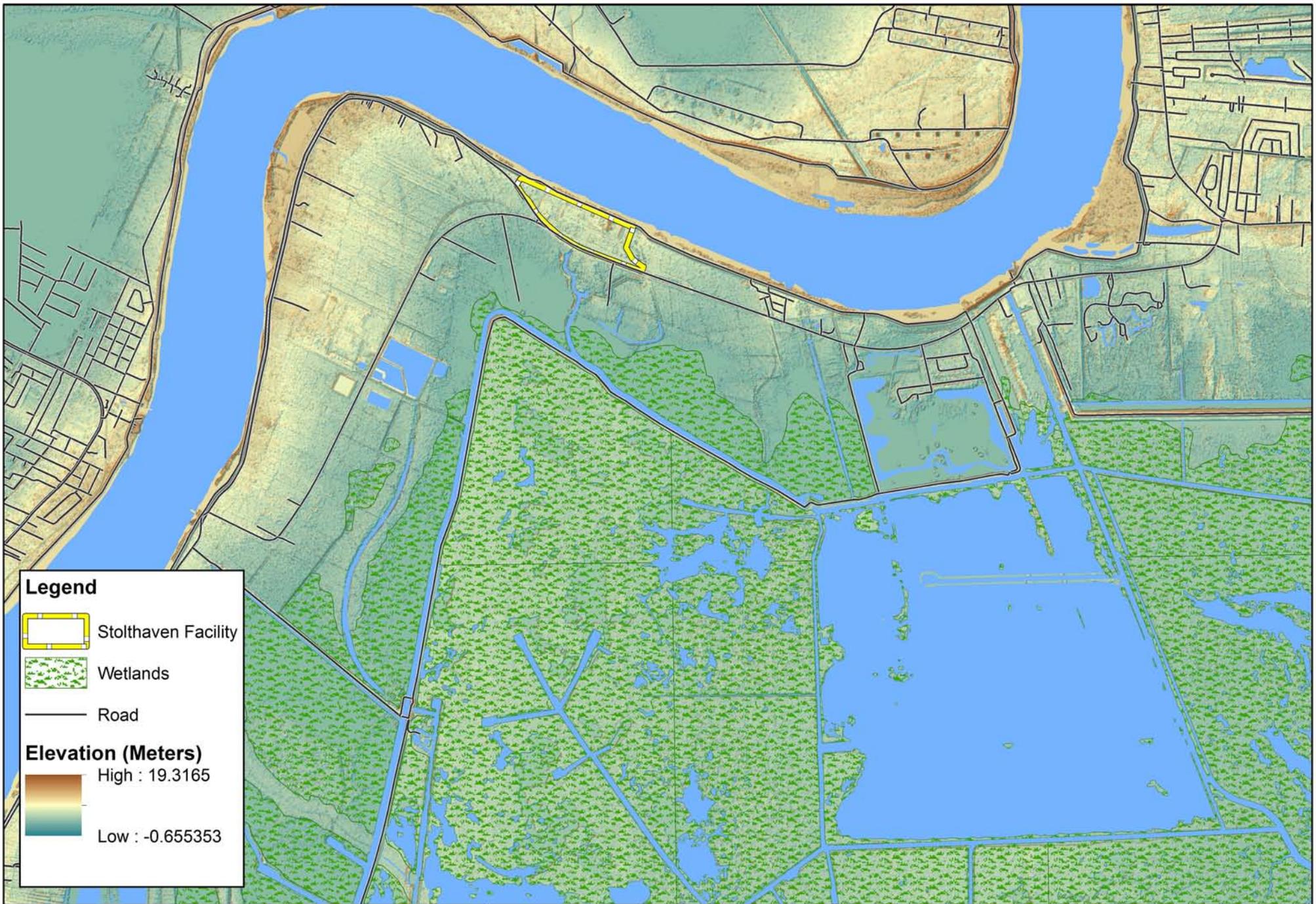
* In addition to the tabulated real-time data, additional air monitoring for the purpose of worker protection was performed throughout the work area. These data are used for task-specific decision-making, but may not be recorded in the tabulated data represented above.

** H₂S is a natural product of organic matter decomposition and is unrelated to events at the Stolthaven Facility

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

Matrix	Number of Samples
Air	44
Residential Soil	14
Offsite Soil	3
Offsite Surface Water	3

Appendix 1: Incident Maps



Legend

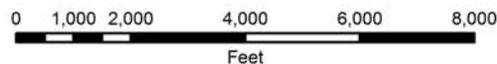
-  Stolthaven Facility
-  Wetlands
-  Road

Elevation (Meters)

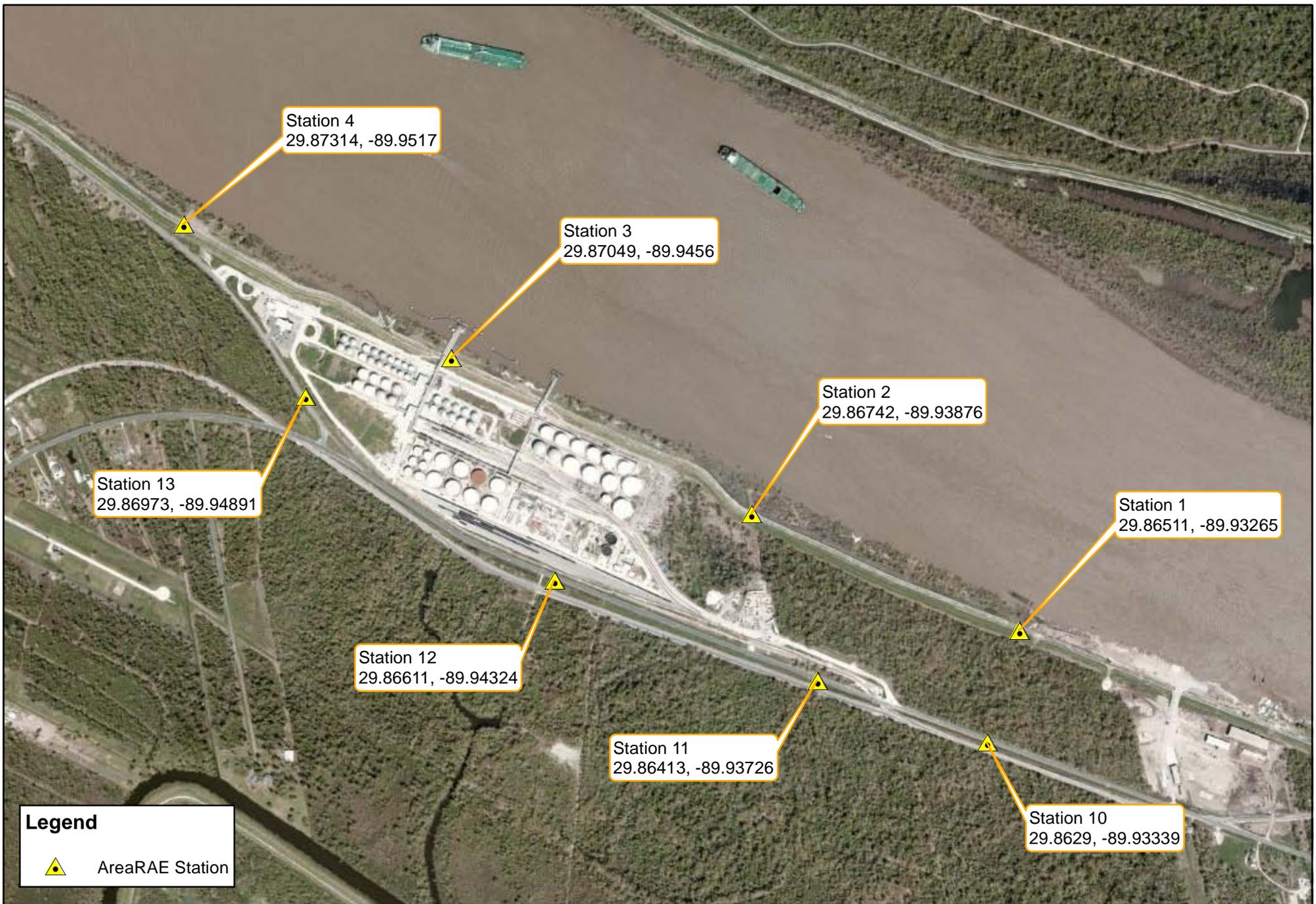
High : 19.3165

Low : -0.655353

**Stolthaven Facility
Shaded Relief of Elevation**



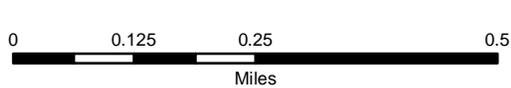
CTEH <small>Project No. 40355</small>	Stolthaven
	Braithwaite, LA
	Plaquemines Parish
Print Date: 9/17/2012	



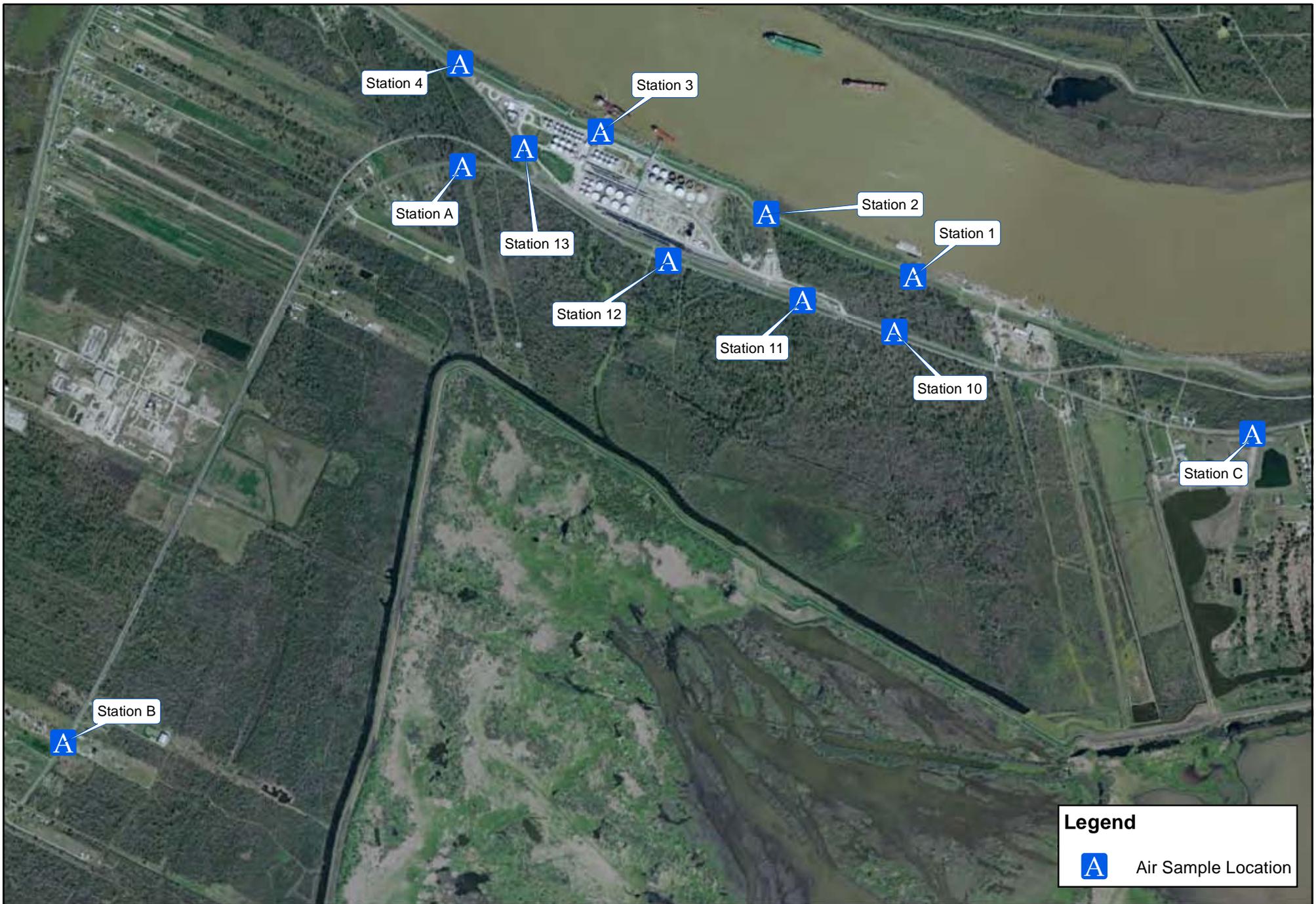
Legend

 AreaRAE Station

**Community
AreaRAE Station Locations**
September 21, 2012



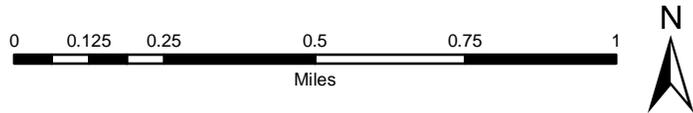
 Project No. 40355	Stolthaven Braithwaite, LA
	Plaquemines Parish Print Date: 9/24/2012



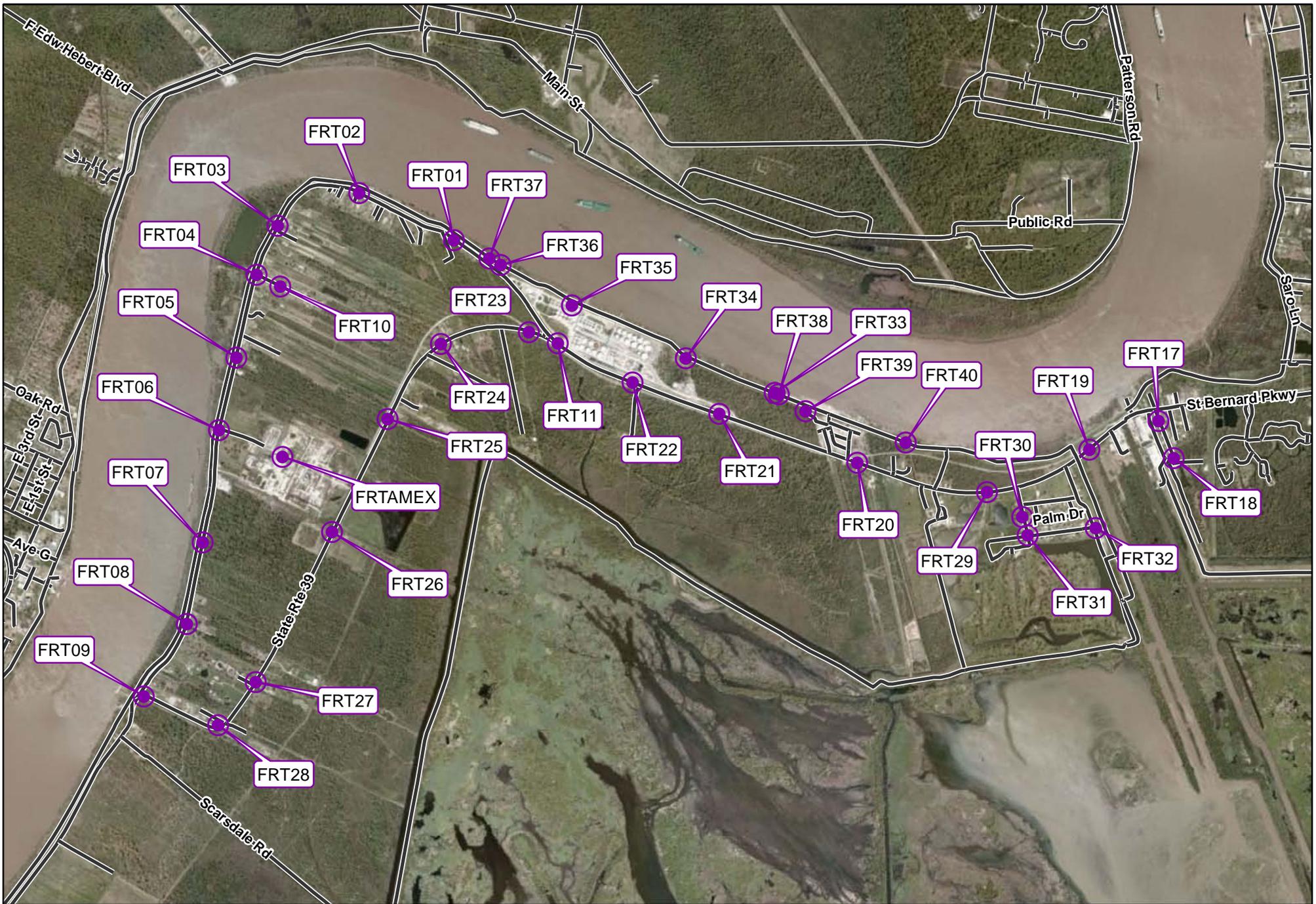
Legend

 Air Sample Location

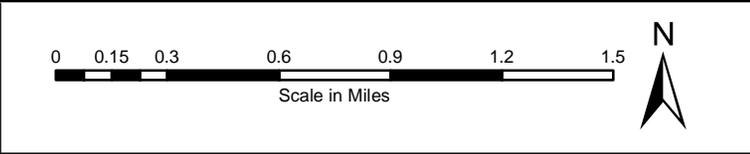
Community Ambient Air Analytical Sampling Locations



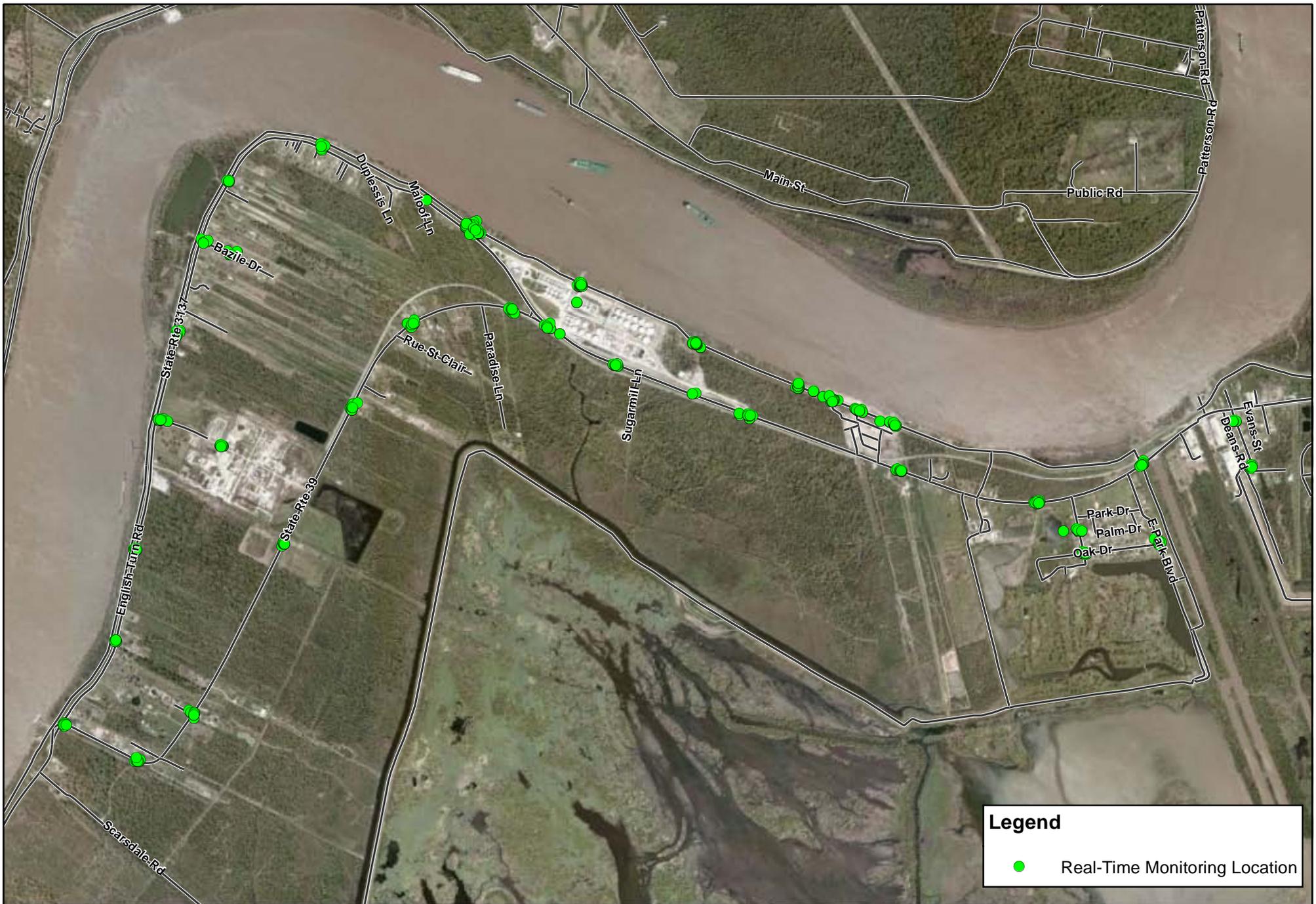
 Project No. 40355	Stolthaven
	Braithwaite, LA
	Plaquemines Parish
	Print Date: 9/18/2012



Community Fixed Real-Time Monitoring Locations



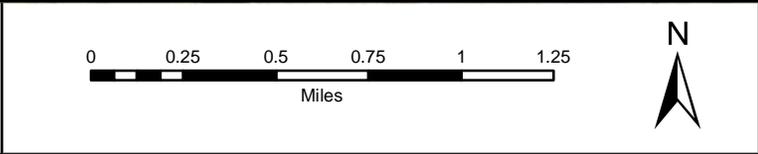
	Stolthaven
	Braithwaite, LA
Project No. 40355	Plaquemines Parish
	Print Date: 9/23/2012



Legend

- Real-Time Monitoring Location

Community Real-Time Monitoring Locations
 9/23/2012



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	Print Date: 9/24/2012

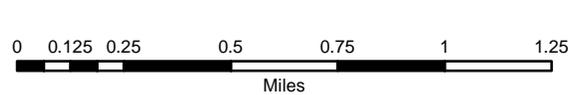


Legend

VOC Concentration

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

**Manually-Logged
Community VOC Concentrations**
9/23/2012



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