

**40365 Braithwaite, LA
Stolthaven Terminal Facility
Onsite Summary of Air Monitoring and Sampling Results
September 27, 2012
PO# 12-H0408-MR**

This data report discusses real-time air monitoring data collected within the work area between September 26th 00:00 and September 26th 23:59 in support of mitigation and remediation operations conducted near Stolthaven's facility near Braithwaite, LA.

Real-time air monitoring conducted within the work area resulted in reports of detections exceeding the action level required for the donning of respiratory protection. If workers were present at the time of the action level exceedence, they donned respiratory protection. While stationary AreaRAE results indicate reported detections of VOCs at 11 locations within the work area, these results are preliminary and include drift in the instrument's chemical sensors. If VOC detections were noted, CTEH[®] personnel were dispatched to the AreaRAE location for further evaluation. AreaRAE Unit 17 reported 9 detections of LEL ranging from 3.5-4.1%; CTEH[®] confirmed the presence of a forklift in the vicinity at the time of the detections. AreaRAE unit 18 reported a single detection of LEL at 35.2%; LEL sensor was deemed faulty and changed by CTEH[®] employee. No detections of amines, chlorobenzene, formic acid, or methyl acrylate were noted.

Real-time air monitoring for VOCs, LEL, formic acid, methyl acrylate, amines, and chlorobenzene was conducted using stationary AreaRAEs and/or hand-held instruments such as the MultiRAE and colorimetric detector tubes. In addition to colorimetric detector tubes, a Multi-Rae (11.7 eV lamp) was utilized to monitor for formic acid in areas located near the formic acid scrubber. A detection of chlorobenzene was recorded in the work area at 10 ppm via hand-held instrument; all workers donned respiratory protection. At 09:04, CTEH observed a 2% LEL detection at the base of the H30-6 octene tank accompanied with a VOC detection of 113 ppm using the MultiRAE; both detections were not representative of breathing zone concentrations. Table 1 and Table 2 display data summaries for hand-held instruments and AreaRAEs respectively. Table 3 highlights analytical sample counts collected in onsite air, soil and waste characterization. Appendix 1 shows incident site maps.

**Table 1
Hand-held Real-time Summary – September 26th 00:00 – 23:59**

Work Area				
Analyte	Number of Readings	Number of Detections	Average Concentration of Detections	Highest Concentration
Amines	9	0	NA	<0.5 ppm
Chlorobenzene	2	1	10.0 ppm	10.0 ppm
Formic Acid	18	0	NA	<0.52 ppm
LEL	1084	1	2.0 %	2.0 %
Methyl Acrylate	15	0	NA	< 2.0 ppm
VOC	1295	17	8.1 ppm	113.0 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 2
AreaRAE Summary – September 26th 00:00 – 23:59**

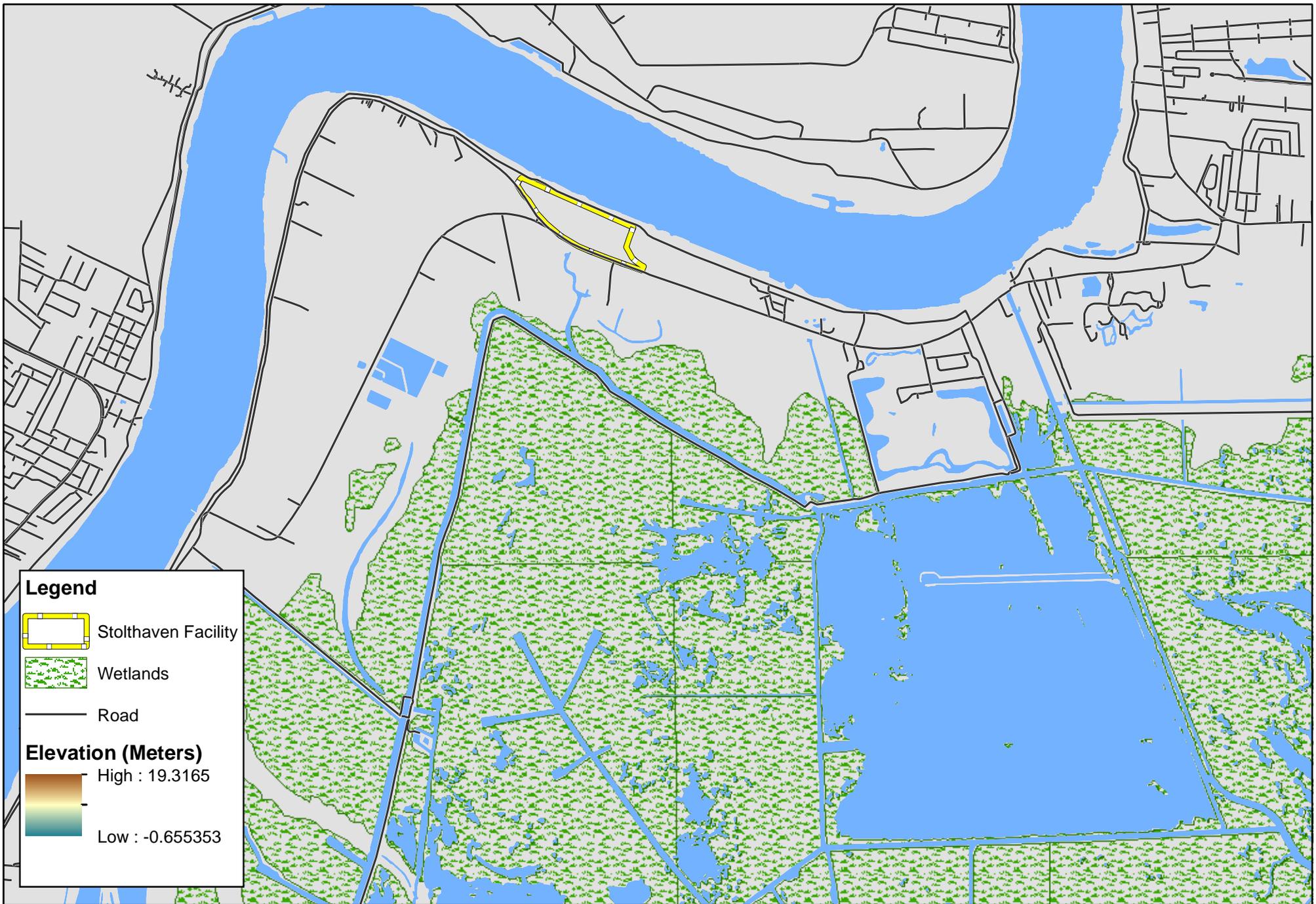
Unit	Analyte	Number of Readings	Number Of Detections	Concentration Range
Unit 14	LEL	5520	0	0 - 0 %
	VOC	5520	8	0.2 - 2 ppm
Unit 15	LEL	5540	0	0 - 0 %
	VOC	5540	296	0.1 - 0.7 ppm
Unit 16	LEL	5526	0	0 - 0 %
	VOC	5526	100	0.1 - 0.2 ppm
Unit 17	LEL	5005	9	3.5 - 4.1 %
	VOC	5005	247	0.1 - 0.5 ppm
Unit 18	LEL	5408	1	35.2 - 35.2 %
	VOC	5408	0	0 - 0 ppm
Unit 19	LEL	5533	0	0 - 0 %
	VOC	5533	551	0.1 - 3.8 ppm
Unit 20	LEL	5519	0	0 - 0 %
	VOC	5519	652	0.1 - 2.2 ppm
Unit 21	LEL	3817	0	0 - 0 %
	VOC	3817	385	0.1 - 9.9 ppm
Unit 22	LEL	5050	0	0 - 0 %
	VOC	5050	5	0.1 - 0.1 ppm
Unit 23	LEL	4752	0	0 - 0 %
	VOC	4752	559	0.1 - 2.1 ppm
Unit 24	LEL	5314	0	0 - 0 %
	VOC	5314	1191	0.1 - 2.2 ppm
Unit 25	LEL	5173	0	0 - 0 %
	VOC	5173	13	0.2 - 12.7 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.

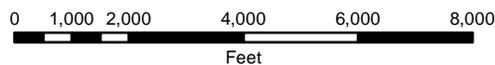
Table 3
Analytical Sample Counts – September 26th 00:00 – 22:59

Matrix	Number of Samples
Air	4
Soil	14
Waste Characterization	4
Product Quality	7

Appendix 1: Incident Maps

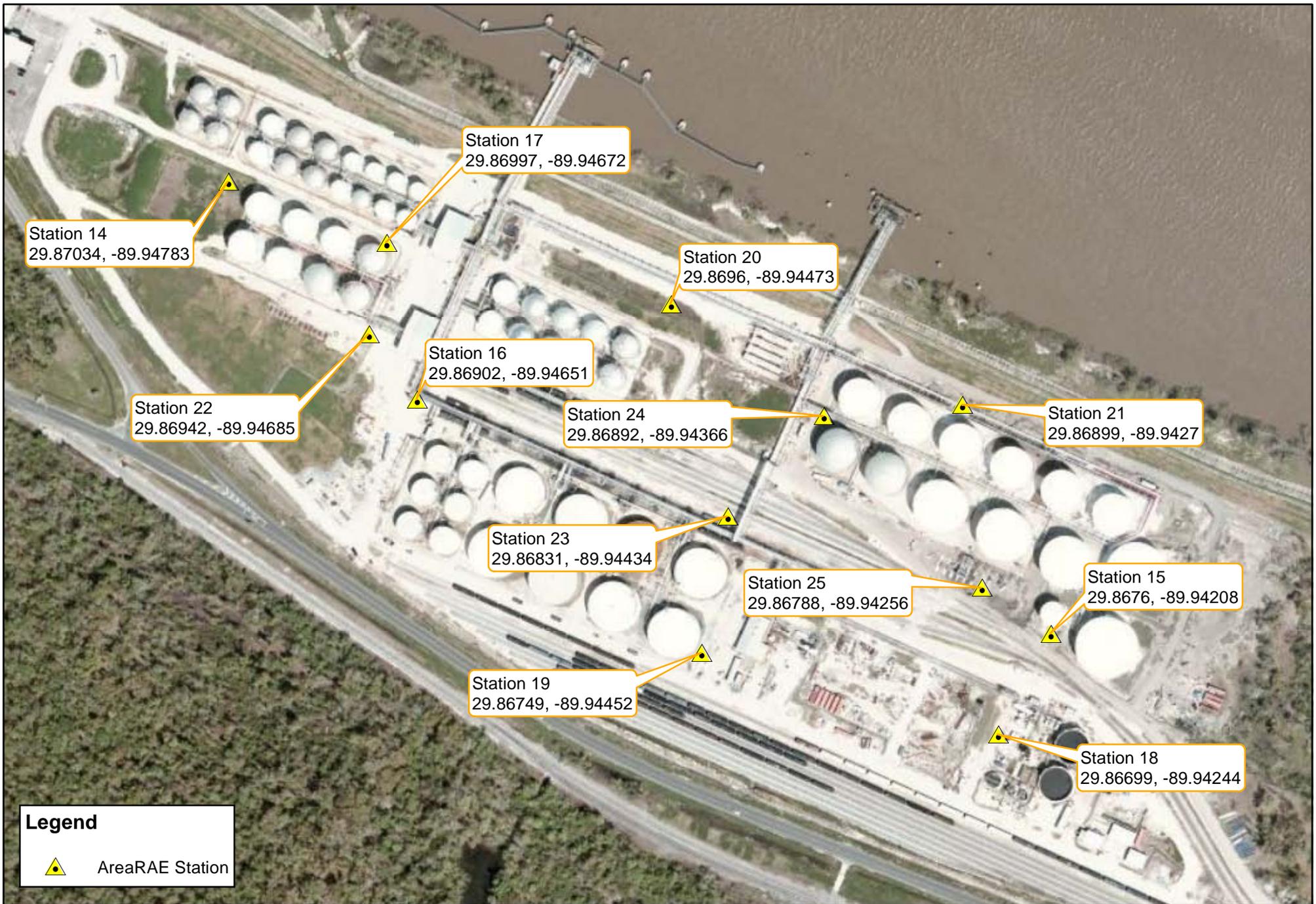


**Stolthaven Facility
Shaded Relief of Elevation**



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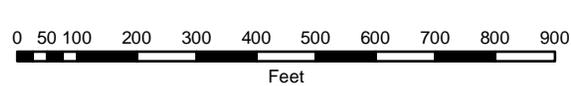
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Braithwaite, LA**
Plaquemines Parish
Print Date: 9/26/2012



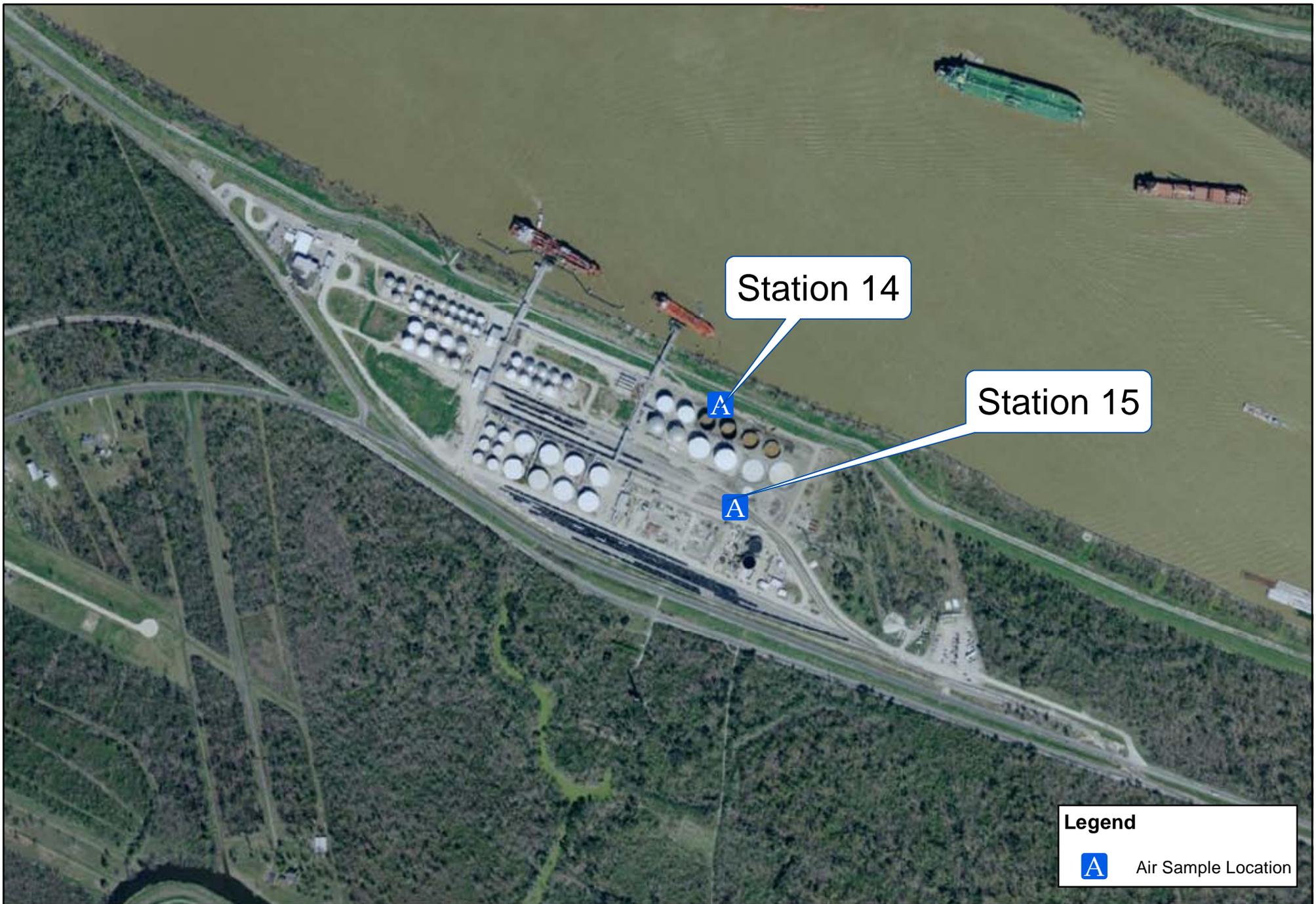
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 AreaRAE Station

Work Area
AreaRAE Station Locations
 September 21, 2012



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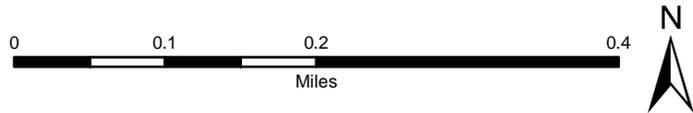
Station 14

Station 15

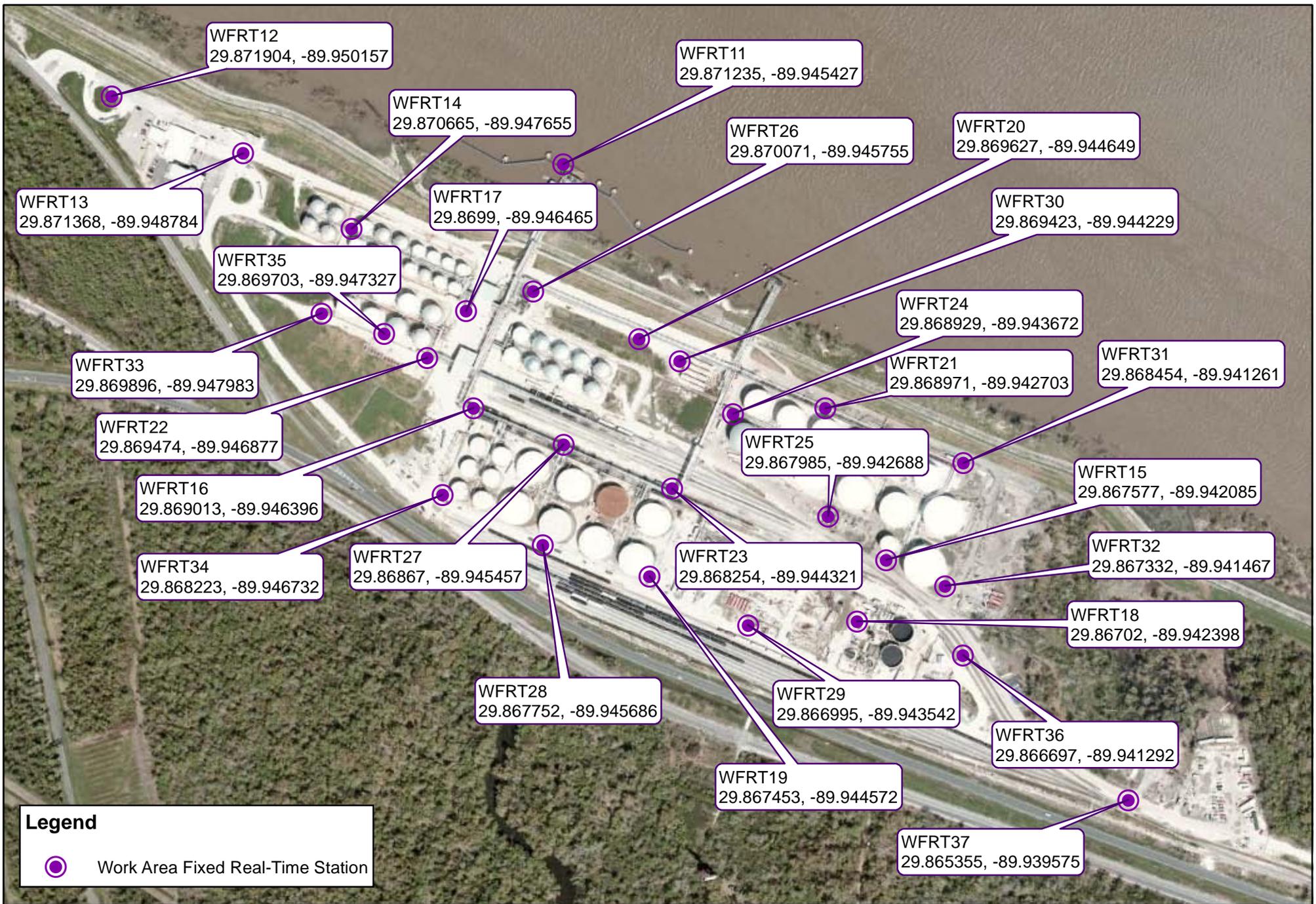
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 Air Sample Location

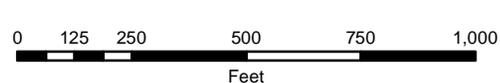
**Ambient Air
Analytical Sampling Locations**



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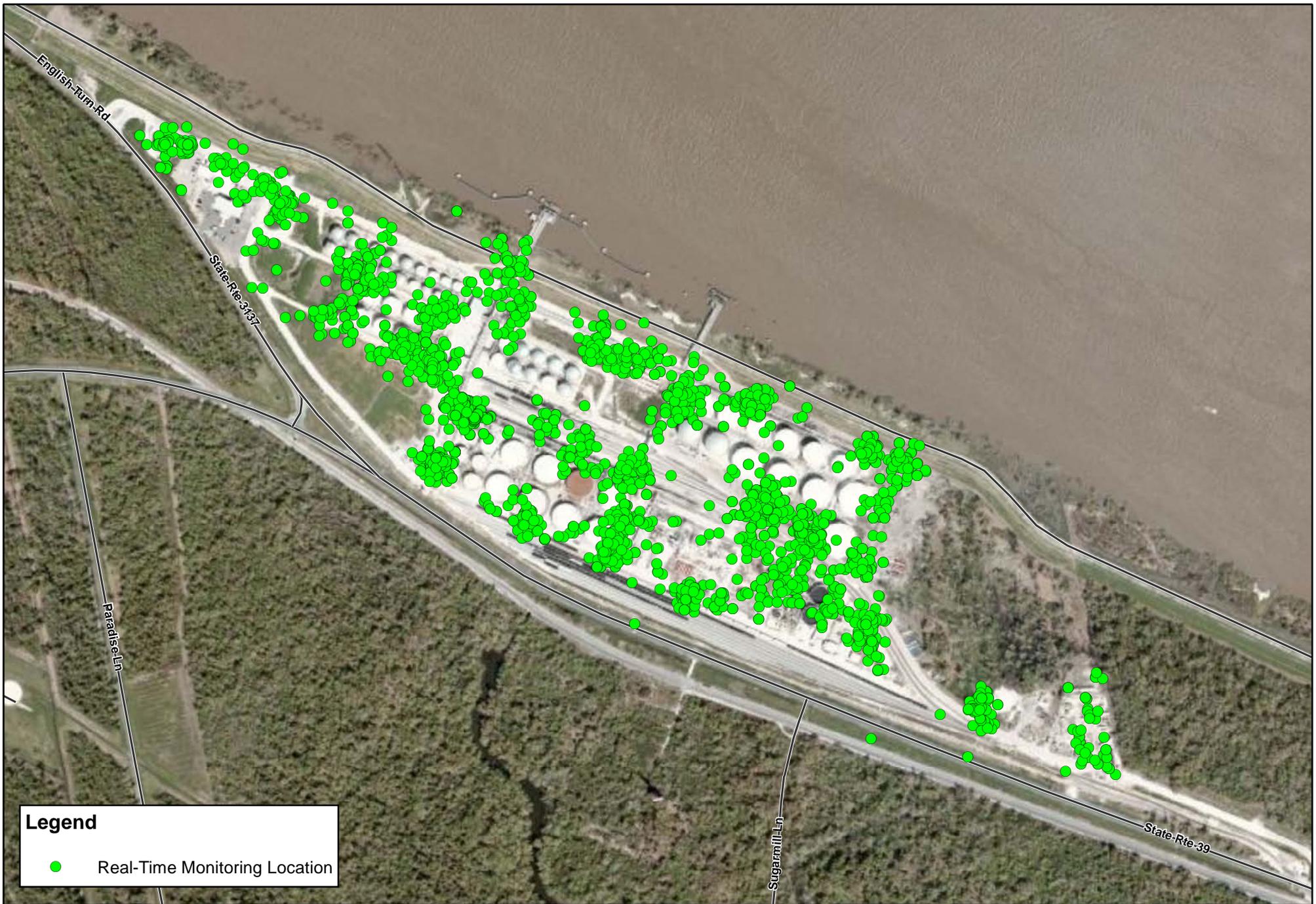


**Work Area
Fixed Real-Time Station**
September 21, 2012



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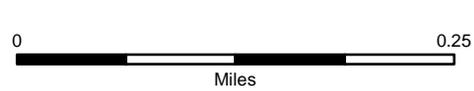
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Legend

- Real-Time Monitoring Location

Work Area
Real-Time Monitoring Locations
 9/26/2012



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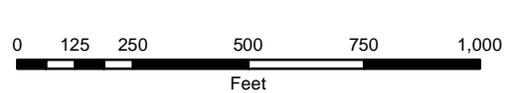


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VOC Concentration

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

**Manually-Logged
Work Area VOC Concentrations**
9/26/2012



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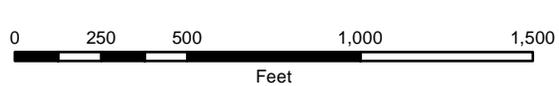
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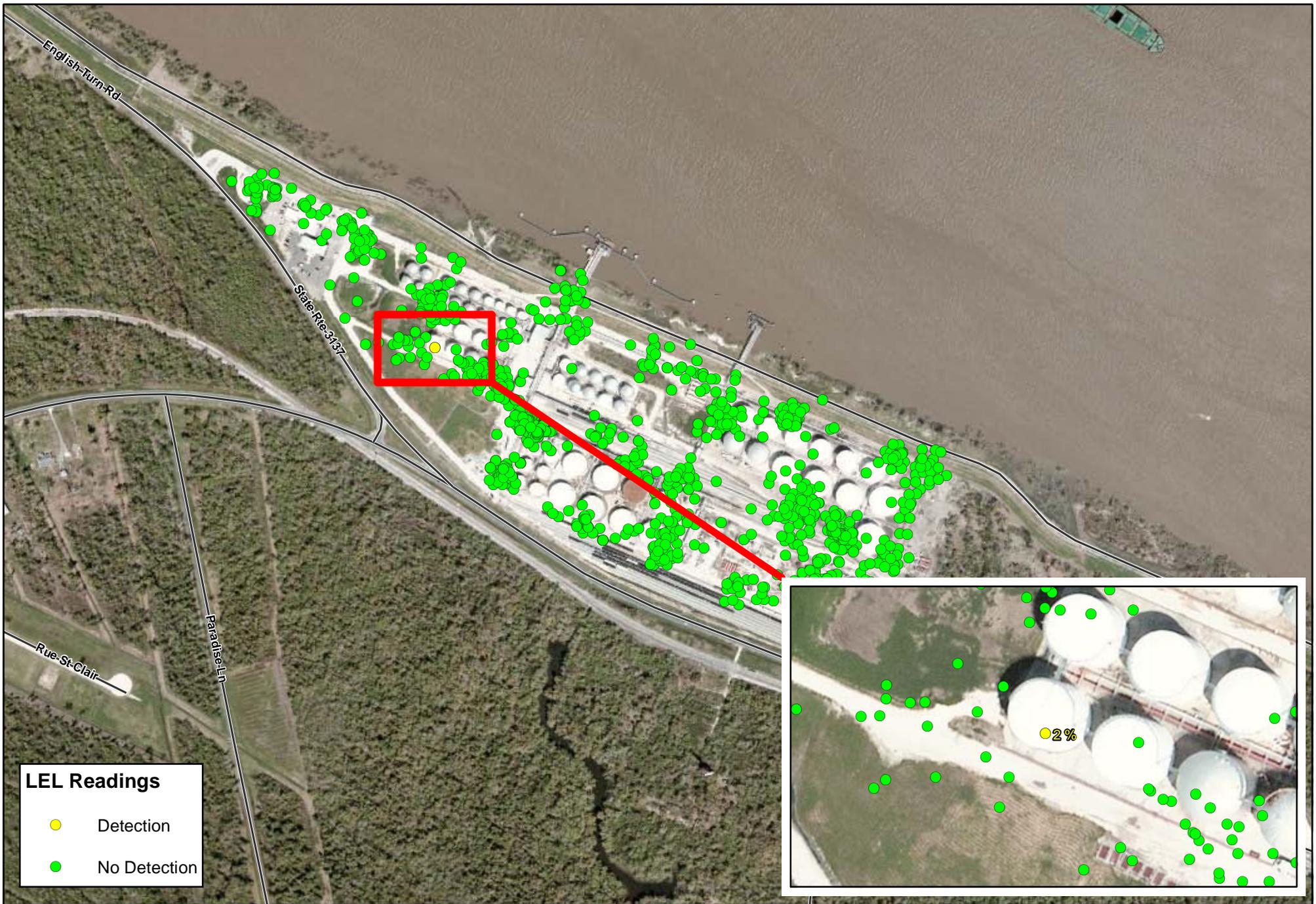
Chlorobenzene Readings

- Detection
- No Detection

**Chlorobenzene
Reading Locations**
9/26/2012



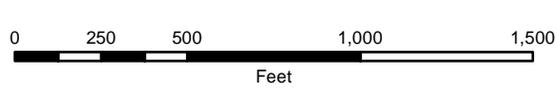
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LEL Readings

- Detection
- No Detection

**LEL
Reading Locations**
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