Center for Toxicology and Environmental Health, L.L.C.

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Summary of CTEH's Air Monitoring Activities for the Community In Response to the MC 252 Oil Spill

Daily Summary for June 5, 2010

Air monitoring was conducted between Port Arthur, TX and Apalachee Bay, FL to address public concern for crude oil vapors. The results of air monitoring for June 4, 2010 18:00 – June 5, 18:00 are shown in Tables 1 and 2 below and the locations where monitoring was conducted are shown in the map below (Figure 1).

Table 1 Summary of Air Monitoring In Residential and Commercial Areas Along the Gulf Coast

Crude Oil Chemicals of Interest	Number of Measurements	Average Concentration (ppm)	Maximum Concentration (ppm)
Volatile Organic Compounds including benzene (VOCs)	1440	<0.1	0.6
Hydrogen sulfide	1440	<1.0	<1.0
Sulfur dioxide	1440	<0.1	<0.1
Benzene*	106	<0.05	<0.05
Total	4426		

*Benzene measured with detector tubes

Table 2

Particulates	Number of Measurements	Average Concentration (mg/m^3)	Maximum Concentration (mg/m^3)
Particulate Matter (PM2.5)*	1431	0.018**	0.09**

*PM2.5 – is particulate matter less than 2.5 microns

**Real-time particulate monitors are affected by humidity. The table below indicates the overestimation of particulate concentrations in air that result at higher relative humidity.

Relative Humidity	Percentage Instrument Reading is Above Actual Particulate Concentration
60%	23%
70%	41%
80%	80%
90%	203%

Air monitoring results show that crude oil vapors were not detected throughout residential and commercial areas between Port Arthur, TX and Apalachee Bay, FL. There was one VOC reading in Cocodrie, Louisiana. This reading was taken near a large construction site with diesel equipment running. This detect was not considered to be related to crude oil or associated with the spill response activities. Testing teams trained in odor detection also

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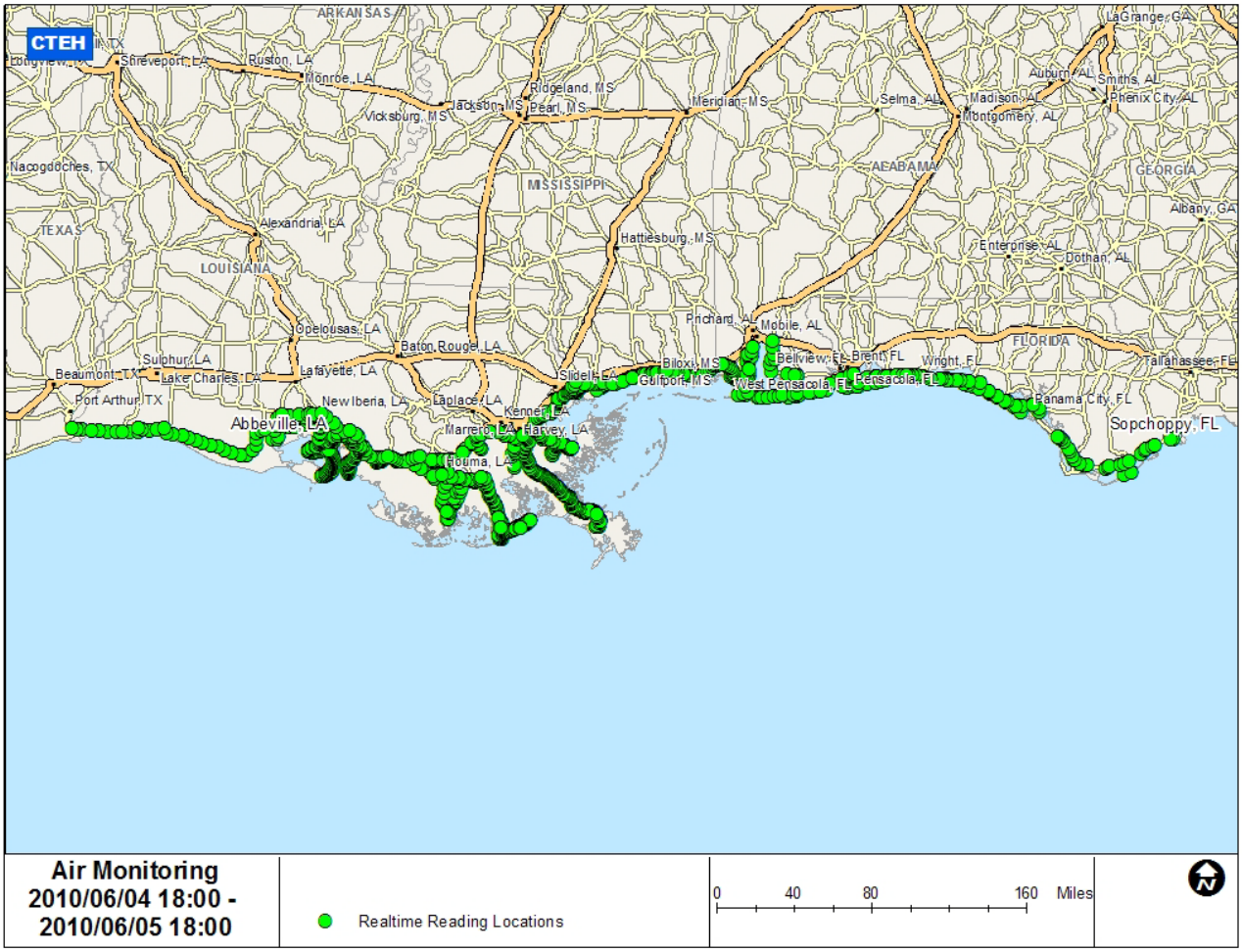
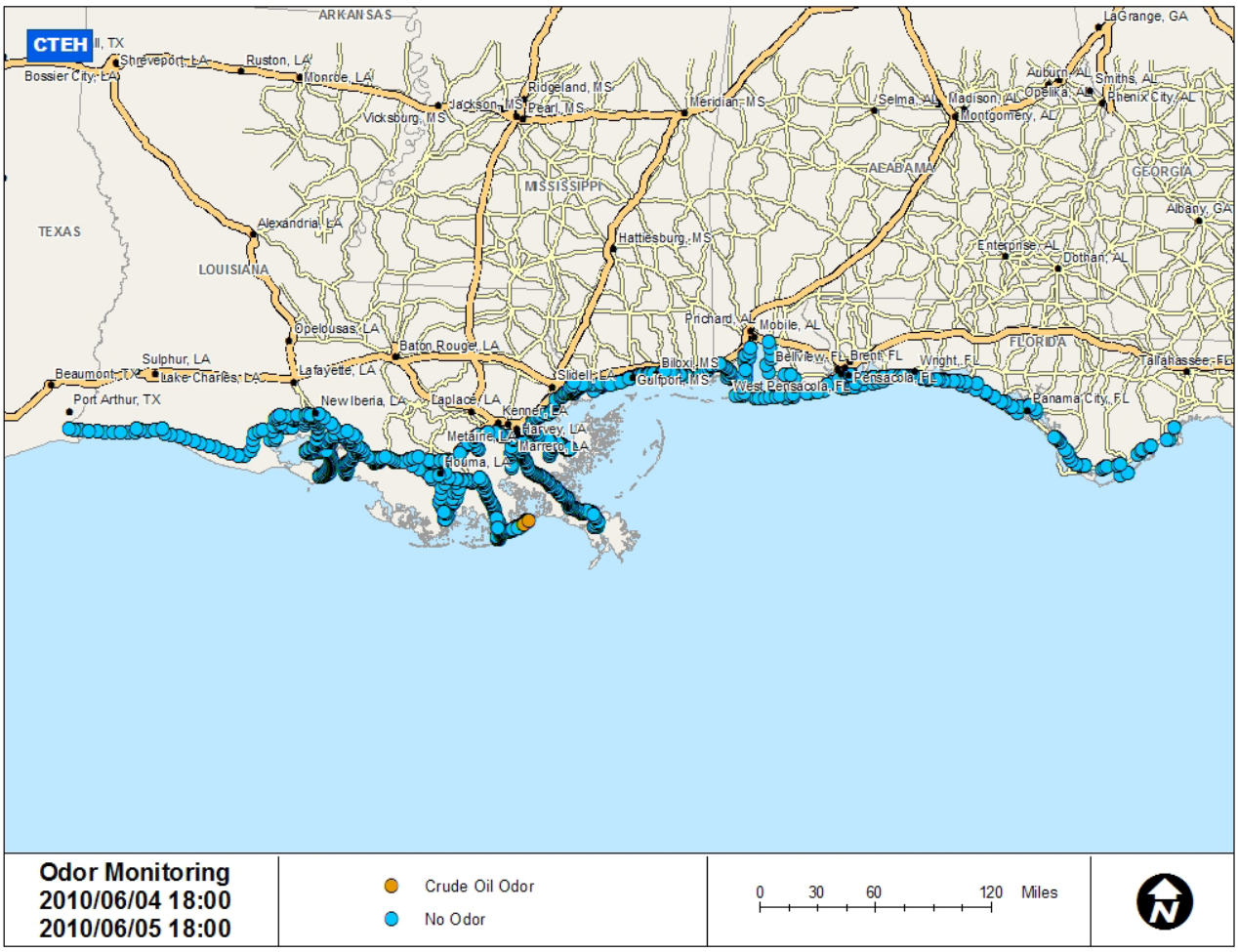
noted the presence or absence of crude oil vapors (Figure 2). Crude oil odors were detected in several locations in Louisiana near where oil has been sighted.

Figure 1 Map Showing Where Air Monitoring is Being Conducted Throughout the Gulf Coast States



Note – green dot shows the locations of air monitoring

Figure 2 – Odor Investigation Results



Note – blue dot means no odor detected, orange dot indicates that crude oil odors were detected.