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New Orleans Environmental Quality Test Results

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Sampling Results: Bywater/Marigny Including Agriculture Street Landfill

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MOLD

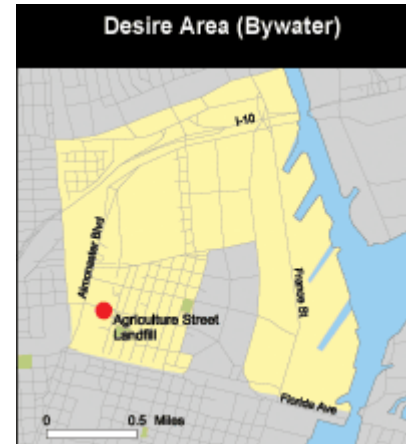
We collected one outdoor sample for mold in Bywater.

11/15/05

Bartholomew near North Claiborne, Florida Area (outdoor)

101,000 spores/m3 (daily estimated average based on 21 hours of continuous volumetric sampling)
 52% *Cladosporium*
 29% *Aspergillus/Penicillium*

Note: According to the National Allergy Bureau, outdoor air mold counts over 50,000 spores per cubic meter (spores/m3) are "Very High." *Cladosporium* and *Aspergillus/Penicillium* are known to cause health effects in humans, including respiratory disease.



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SEDIMENT CONTAMINATION

LEAN (Louisiana Environmental Action Network) sponsored one sample on September 16, 2005, at North Claiborne and St. Roch. The sample was collected by Altamont Environmental, Inc. and was analyzed by Pace Analytical Services in St. Rose, Louisiana. The arsenic level in the sample was 29.3 mg/kg, which is 75 times higher than the EPA soil cleanup standard. Numerous cancer-causing polyaromatic hydrocarbons (PAHs) were detected. One of these, a chemical known as benzo(a)

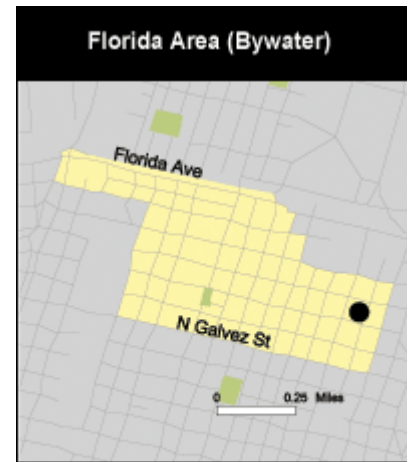
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pyrene, was found at a level more than threefold higher than the Region 6 EPA soil cleanup level. The LEAN sampling also detected a variety of industrial chemicals such as benzene, acetone, methylene chloride, and 2-butanone. The levels of these chemicals were below government cleanup standards.



- Point of Interest
- NRDC Sampling Location, Mold/Endotoxin
- Outside This Neighborhood
- Parks

Agriculture Street Landfill Superfund Site

Wilma Subra of Subra Company tested sediment at two sites near the Agriculture Street Landfill, a Superfund hazardous waste cleanup site, on October 1, 2005. In addition to the elevated arsenic levels that were found in most New Orleans sediment samples, the testing also revealed disturbingly high levels of polyaromatic hydrocarbons (PAHs) -- cancer-causing chemicals from soot and many petroleum-based products. The contamination in one sample, at Higgins Boulevard and St. Ferdinand Street at the local senior citizens' center, exceeded the Region 6 EPA and LDEQ soil cleanup standards for four PAHs. The level of benzo(a)anthracene exceeded the LDEQ and EPA standards by 50 percent, the benzo(a)fluoranthene contamination exceeded the agency standards by twofold, while the benzo(a)pyrene contamination exceeded the LDEQ standard by threefold, and the EPA standard by nearly twentyfold. These contaminants are likely due to leachate from the Agriculture Street Landfill Superfund site. On October 1 when the sample was collected, a thick, oily, iridescent wet sediment was leaking from the landfill and spreading across the street and to the grounds of the senior center. The leachate appeared to originate from the undeveloped land across from the senior center, and also appeared to well up from under ground near the steps of the senior center. In addition to the PAHs, the soil testing revealed significant bacterial contamination at this site, with elevated levels of total coliform bacteria, salmonella, and staphylococcus aureus. These bacteria are infectious to humans, and can cause gastrointestinal infections and skin infections.

LEAN (Louisiana Environmental Action Network) sponsored one sample on September 16, 2005, at Almonaster and Liberty Terrace, which is also located in the area of the Agriculture Street Landfill Superfund site. This sample was collected by Altamont Environmental, Inc. and was analyzed by Pace Analytical Services in St. Rose, Louisiana. The sample contained arsenic at 5.2 mg/kg, a level more than 13 times higher than the Region 6 EPA soil cleanup standard. Ten cancer-causing PAHs were detected, including benzo(a)pyrene at a level nearly threefold higher than the EPA cleanup standard. The LEAN sampling also detected a variety of industrial chemicals in that area, such as benzene, acetone, methylene chloride, and 2-butanone. The levels of these chemicals were below government cleanup standards.

Agriculture Street Landfill Results, Independent Sampling		
CONTAMINANTS	NUMBER OF DETECTIONS (3 sites tested)	SITES EXCEEDING EPA REGION 6 OR LDEQ CLEANUP STANDARD
<i>Metals</i>		
Arsenic	3	All sites tested
Barium	3	None
Lead	3	None
Cadmium	3	None
Chromium	3	None

Selenium	3	None
Mercury	3	None
PAHs		
Benzo[a]anthracene	2	Higgins Blvd. and St. Ferdinand
Benzo[k]fluoranthene	2	None
Benzo[b]fluoranthene	2	Higgins Blvd. and St. Ferdinand
Benzo[a]pyrene	2	Almonaster and Liberty Terrace Higgins Blvd. and St. Ferdinand
Chrysene	2	None
Fluoranthene	2	None
Indeno[1,2,3-cd]pyrene	2	Higgins Blvd. and St. Ferdinand
Phenanthrene	2	None
Naphthalene	1	None
Industrial Solvents		
Acetone	1	None
Benzene	1	None
2-Butanone	1	None
Methylene Chloride	1	None
Microbial Contaminants*		
Coliform bacteria	2*	N/A **
Staphylococcus aureus	2	N/A
Yeast	2	N/A
Salmonella	2	N/A
Microbial contamination was only assessed in two samples.		
** There are no regulatory standards for these contaminants in soil or sediment.		

NRDC also reviewed EPA sampling data from the area of the Agriculture Street Landfill Superfund site. The EPA took approximately 10 samples in the Desire neighborhood around the landfill. The EPA results show detections of a variety of heavy metals, petroleum chemicals, PAHs, pesticides, industrial solvents, and phthalates (chemicals in plastics). These contaminants could pose a significant long-term health risk to returning residents in this neighborhood.

- Cancer-causing PAHs were notably high compared to many other areas sampled and were above the level at which Region 6 EPA may require soil cleanup. The level of one of the most hazardous PAHs (benzo(a) pyrene) was more than 200 times higher than the EPA cleanup level at three locations in this area.
- Arsenic levels also were above EPA safety levels, in some cases up to 70 times higher. Arsenic is known to cause cancer in humans, and also has many other serious health effects. The EPA found an average arsenic level of 12 mg/kg in these samples. The levels in the agency's testing ranged from 3 mg/kg to 24 mg/kg. All of these samples exceeded the EPA Region 6 cleanup standard for arsenic of 0.39 mg/kg, which is based on cancer risk. Five of

the eight samples exceeded the LDEQ soil "background" level of arsenic of 7 mg/kg.

- The levels of DEHP (a chemical found in some plastics) were also higher in this area. DEHP is considered an endocrine disruptor and can interfere with the normal development of the male reproductive system.

Agriculture Street Landfill Results, EPA Sampling		
CONTAMINANTS	NUMBER OF DETECTIONS (13 sites tested)	SITES EXCEEDING EPA REGION 6 OR LDEQ CLEANUP STANDARD
<i>Metals</i>		
Arsenic	10	All sites
Lead	10	None
Cadmium	10	None
Chromium	10	None
Manganese	10	None
Mercury	10	None
<i>Petroleum</i>		
Gasoline range organics	1	None
<i>PAHs</i>		
Acenaphthene	3	None
Anthracene	3	None
Benzo[a]anthracene	8	Two sites near Gordon Plaza Apts. South end of middle school
Benzo[b]fluoranthene	5	Two sites near Gordon Plaza Apts. South end of middle school
Benzo[k]fluoranthene	4	Near Gordon Plaza Apts.
Benzo[a]pyrene	5	Two sites near Gordon Plaza Apts. South end of middle school Treasure St. West side of elementary school
Benzo[g,h,i]perylene	3	None
Chrysene	8	Two sites near Gordon Plaza Apts. South end of middle school
Dibenz[ah]anthracene	3	Near Hwy 90 & Michoud Blvd.
Fluoranthene	9	None
Indeno[1,2,3-cd]pyrene	3	Two sites near Gordon Plaza Apts. South end of middle school
Napthalene	3	None
Pyrene	9	None
<i>Pesticides</i>		
Methyl Iodide	3	None
<i>Phthalates</i>		

bis(2-ethylhexyl) phthalate (DEHP)	8	None
Dibutyl phthalate	1	None
Industrial Solvents		
Acetone	3	None

PARTICULATE POLLUTION

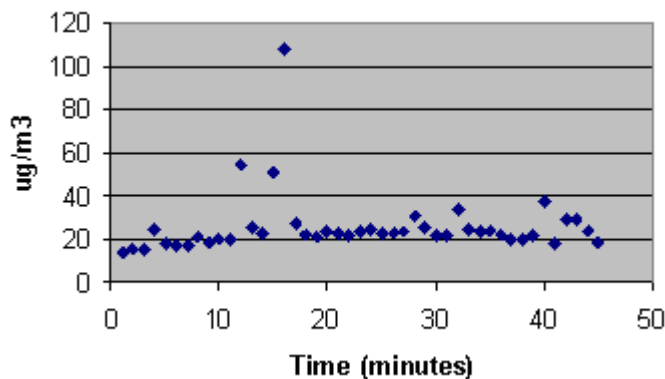
Bywater

NRDC sampled for particulate matter for nearly one hour on November 15, 2005, in the Bywater neighborhood of New Orleans. The weather was clear with very little wind, and there was no visible haze. Most streets had a residue of sediment on the pavement, and there was some dust when vehicles traveled down these streets. Overall the air quality was very good during the time we sampled. However, the levels peaked at potentially significant concentrations of over 100 ug/m3. People working in dusty areas, or engaged in cleanup or demolition activities, should wear respiratory protection.

Monitoring Results

	11/15/05
Average (overall)	26 ug/m3
Minimum	14 ug/m3
Maximum	108 ug/m3

Bywater PM 10, November 15, 2005



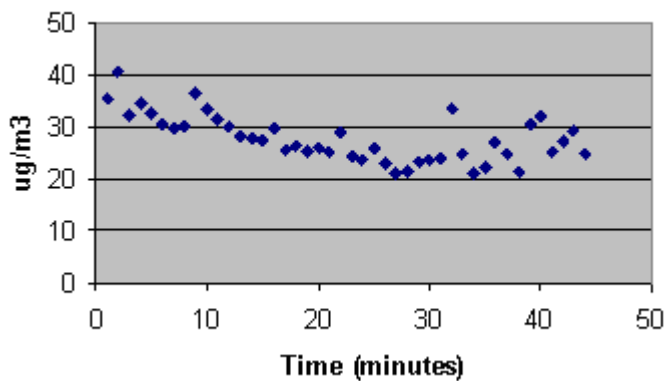
Marigny

NRDC sampled for particulate matter for nearly one hour on November 14, 2005, in the Marigny neighborhood in New Orleans. The weather was clear with very little wind, and there was no visible haze. There was no visible sediment on the streets; however, there was some construction work and building debris. Overall the air quality was very good during the time we sampled. Nonetheless, people working in dusty areas, or engaged in cleanup or demolition activities, should wear respiratory protection.

Monitoring Results

	11/14/05
Average (overall)	28 ug/m3
Minimum	21 ug/m3
Maximum	41 ug/m3

Marigny PM 10, November 14, 2005



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