

ExxonMobil Progress Greenpoint Community News

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New recovery wells dramatically increase rate of product recovery

The Greenpoint Remediation Project made significant progress last year: after comprehensive planning and field construction, 10 new recovery wells began recovery operations. As final permits necessary for full operation were under review with various governmental agencies, some of the wells were put into passive recovery operation with existing permits, which increased the total amount of product recovered last year by double of previous year. Now that the 10 additional wells are operating in dual-pump recovery mode, the average daily rate of petroleum product recovered has nearly tripled.

"We are extremely pleased by the strong performance of these 10 new wells," said Steve Trifiletti, Greenpoint Remediation Project Manager. "The rate of recovery confirms that we were able to strategically place the new wells for optimal recovery."

The dual-pump recovery wells bring to 20 the total number of recovery wells in use at the Greenpoint site. Over the span of the recovery project about 40 different wells have been operational. As wells stop to recover optimally because of the plume shrinking, engineers are constantly evaluating how to keep recovery rates at an optimal level and adjust the recovery system which at times includes additional recovery wells. Last year, ExxonMobil recovered 826,172 gallons of product from the subsurface and treated and discharged 226,472,627 gallons of groundwater.

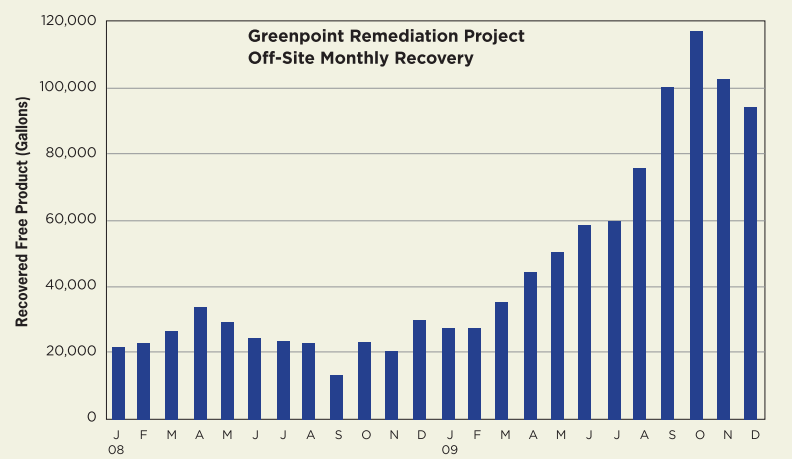
The dual-pump recovery system used in almost all of ExxonMobil's product recovery wells operates by depressing an area of the water table to create a "cone of depression" that draws petroleum products and groundwater into the wells. This type of system recovers significantly more product than is possible without groundwater depression.

The recovered product is pumped directly to tanks where it is stored until it is transported off-site and recycled. The groundwater is pumped to one of two ExxonMobil's treatment facilities, where it is treated by various processes to remove remaining petroleum contaminants, as well as some metals found naturally in groundwater. The treated water is then discharged into Newtown Creek. ExxonMobil has a SPDES permit from the state's Department of Environmental Conservation (NYSDEC) that authorizes it to treat and then discharge pumped groundwater into the creek.

To meet the treatment requirements associated with increased volume of water from the operation of the 10 new recovery wells, ExxonMobil conducted upgrades to the off-site and on-site groundwater treatment systems. Upgrades to the off-site system were completed in 2009. Upgrades to the onsite system are expected to be completed in the second quarter of 2010. Currently, the onsite system can operate at full capacity to support all the recovery wells; the upgrades will improve the onsite facility to provide flexibility and maximize how the system runs.

Other 2009 highlights include:

- > The installation of soil vapor extraction points at the intersection of Bridgewater Street and Apollo Street along with the pipe manifolds were completed in August 2009 and an interim soil vapor extraction system was put into operation. Construction continued in 2010 on the soil vapor treatment facility. The new soil vapor system will be fully operational by the end of second quarter 2010; the structure



itself is expected to be significantly completed by the third quarter of 2010. (See page 3 for more information)

- > ExxonMobil completed phase 1 of a pilot study of Primawave™, a promising new technology designed to increase the volume of groundwater that can flow toward the recovery wells, thereby increasing the migration and recovery of petroleum product. The technology and tool was developed by Wavefront Energy and Environmental Services, Inc. ExxonMobil expects to begin phase 2 of the pilot study during the second quarter of 2010.
- > ExxonMobil met all milestones laid out by the NYSDEC schedule for the Greenpoint Remediation Project.
- > ExxonMobil submitted quarterly progress reports to the NYSDEC and one annual report covering progress on all technical aspects of the remediation project.
- > In March 2009, ExxonMobil submitted to NYSDEC the Comprehensive Remedial Investigation Report on the former terminal property.
- > ExxonMobil reported to the state data pertaining to its monthly outfall testing of the treated groundwater that is discharged in accordance with ExxonMobil's SPDES permit.

All of ExxonMobil's reports can be found on the state website, <http://www.nysdecgreenpoint.com/PublicDocuments.aspx>

2009 Accomplishments

- > 10 new dual-pump recovery wells up and running
- > Recovered 826,000 gallons of product
- > Removed 83,000 linear feet of abandoned piping
- > Upgraded water treatment facilities
- > Completed successful phase 1 of a pilot study of a new technology to enhance product recovery process
- > Construction of a new soil vapor treatment plant

Open Letter to Residents

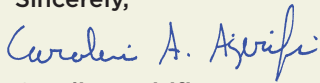
Welcome to the third issue of the *ExxonMobil Progress*, a newsletter designed to regularly update you—our Greenpoint neighbor—of ExxonMobil's activities.

In particular, we encourage you to read about the significant progress achieved in 2009 in the ongoing Greenpoint Remediation Project with the addition of 10 new recovery wells, which more than doubled the rate of recovery of product.

We also are pleased to announce that we recently launched a Web site about the Greenpoint Remediation Project at www.ourgreenpointcommitment.com. At this Web site, you can learn about our community activities, especially our partnership with Greenpoint's elementary school, P.S. 110. Look for the story in this issue that reports on our new Teacher's Grant Program, designed to fund unique and enhanced opportunities for learning and growth.

We invite you to flip through this newsletter to learn more about how ExxonMobil is working hard to make positive impacts in the Greenpoint community, both through our community involvement initiatives and the ongoing remediation project.

Sincerely,



Carolina Asirifi
COMMUNITY LIAISON

Study reconfirms no soil vapor intrusion

A thorough review of a previous study once again confirmed that unhealthy vapors are not seeping into homes near or over the Greenpoint petroleum plume.

"The data from the investigation show that soil vapor intrusion related to the petroleum contamination is not occurring and is unlikely to occur because on the concentrations of site-related chemicals found in sub-slab vapor samples collected from other area homes," Dawn E. Hettrick, a senior sanitary engineer with New York State Department of Health (NYSDOH), wrote in a September 2009 letter to the New York State Department of Environmental Conservation (NYSDEC).

"Petroleum-related compounds in the ExxonMobil Greenpoint Off-site free product plume area are not expected to harm people's health via the soil vapor intrusion pathway," she concluded.

Hettrick said DOH, in cooperation with the Agency for Toxic Substances and Disease Registry, did a comprehensive review of

DEC's study, which was conducted during the 2006/2007 heating season. A primary purpose of the DEC "soil vapor intrusion investigation was to evaluate whether petroleum vapors were migrating into residential structures surrounding and overlying the free-product plume."

The DOH report evaluated the health implications of the indoor air, sub-slab soil vapor and ambient air data collected from 52 area homes. Staff compared "the concentrations of petroleum-related chemicals found in the sub-slab soil vapor and indoor air at each home taking into account specific conditions of each house, potential sources of indoor air contamination, outdoor air results and any other known information included on the questionnaire completed for each home." The complete Health Consultation can be accessed at: <http://www.atsdr.cdc.gov/HAC/pha/ExxonMobilGreenpointOff-sitePlume/ExxonMobilGreenpointOff-SitePlume8-22-2009b.pdf>

Father Rob Picken of Church of the Ascension and Herman Lessey of Roux Associates, an environmental services company working with ExxonMobil, collect food donations for the church's Thanksgiving Dinner and the Food Pantry and Soup Kitchen. Roux recently donated \$500 to the Greenpoint Reform Church Food Pantry.



In the Community...

ExxonMobil Adopts Greenpoint Library

As a part of Brooklyn Public Library's Support Our Shelves fundraising campaign, ExxonMobil has "adopted" the Greenpoint Branch to ensure the library can continue to build its collection during these difficult economic times.

"The demand for BPL's free resources has been at an all-time high, especially with more and more Brooklynites turning to their neighborhood libraries during this increasingly tough economy," said Dionne Mack-Harvin, executive director of Brooklyn Public Library. "In just the past two months, we've set back-to-back circulation records, and we're pleased that ExxonMobil is stepping forward to help us buy more books with a \$10,000 gift to our Greenpoint Library.

"We're also very excited that ExxonMobil employees are interested in volunteering their time for our summer reading program. Increased community involvement at



Brooklyn Public Library librarian Megan Kilgallen reads to children during preschool story time.

BPL, exactly like ExxonMobil's additional commitment, is another aim of Support Our Shelves."

Last year's Support Our Shelves fundraising campaign raised more than \$315,000 which enabled the Brooklyn Public Library system to purchase more than 27,000 books, DVDs and CDs. The 2010 goal is \$500,000.

ExxonMobil Strengthens Community Partnerships

In addition to our partnership with the Greenpoint Library, ExxonMobil is active in a variety of community projects and events. A few highlights from 2009 include:

- > ExxonMobil was a proud sponsor of the Kent Avenue Fair.
- > ExxonMobil participated in the P.S. 110 Community Breakfast last fall, which celebrated the opening of the school's new playground, which was funded through a private-public partnership with community organizations.
- > ExxonMobil helped to organize and sponsor the Onderdonk House "Raise the Roof" benefit, which raised \$40,000 to help replace the dilapidated roof of New York City's oldest Dutch Colonial stone house. More than 250 community members were involved in the fundraising effort.

Employee Snapshot: **Robin Smith**



One could say Robin Smith's past, present and future are greatly influenced by his daily efforts as a civil engineer at the Greenpoint Remediation Project. The opportunity of employment is what originally drew Robin and his family to Greenpoint three years ago. And now, the opportunity to envision, plan and prepare for the rejuvenation of the Greenpoint site is what drives Robin everyday as an onsite engineer and father of two young daughters. Often spending time outdoors in Greenpoint's parks, Robin and his family value a healthy and clean environment in which to work and play.

"I deeply care about restoring and regenerating this site to full health and livability from a professional standpoint, but I also get really excited to know that I'm helping to create a better community for my daughters and their friends to grow up in," said Robin, who moved to Greenpoint from Jacksonville Beach, Florida. Robin is a civil engineer with Roux Associates, an environmental services company working with ExxonMobil.

Robin, who lives with his wife and two daughters about a mile from the remediation site, also has put his professional engineering skills to use as a volunteer in the Greenpoint community. Last year when his 4-year-old daughter's three-room nursery school needed help acquiring a Certificate of Occupancy from the City, Robin stepped in with his expertise to make sure the nursery could remain up and running and the youngsters still had a place to go every day.

As someone who sees the Greenpoint Remediation Project progress every day, Robin considers himself fortunate to be able to share his experiences with fellow neighbors. For example, Robin helped to staff ExxonMobil's booth during Town Square's Earth Day event. He spent the day conversing with interested community members, talking through their questions, listening to their hopes and visions of the future of the site.

Robin said he looks forward to continuing to contribute to the Greenpoint community as a resident, parent and engineer. "For me personally, it's a great experience to know that I'm working on a daily basis to make a difference in the community and ensuring my neighbors can enjoy a future of a clean and revitalized Greenpoint."

Soil Vapor Treatment Facility Nearly Complete

When constructing its new soil vapor treatment facility, ExxonMobil paid specific attention to use of recycled and locally sourced construction materials as part of the company's commitment to operating in an environmentally sustainable manner. The construction project has created about 100 local jobs.

Several features have been incorporated into the building design and construction in order to reduce the building's impact on the environment:

- > A 30-watt solar panel system will be installed, which is expected to generate enough electricity to support the needs of the facility's office.
- > Skylights and large clerestory windows will increase natural day lighting to the interior areas, thereby improving indoor environmental quality while reducing electrical consumption.
- > High-efficiency insulated glazing is used throughout the building and all aluminum frames are thermally broken.
- > Fully insulated masonry work was employed to reduce energy consumption and maintenance.
- > Insulated exterior doors and windows as well as high-energy efficient fluorescent lighting systems were installed to reduce energy consumption.
- > Low water consumption plumbing fixtures were installed.
- > ASHRAE compliant HVAC system will provide for improved indoor air quality.
- > An employee bike rack and on-site showers and locker rooms were installed to encourage biking to work.

ExxonMobil also invested in site improvements including:

- > Storm water management that incorporates six landscaped rain gardens to reduce impervious coverage and collect both roof drainage and site runoff.



Engineers and contractors installed and finalized some of the connections of the Flame oxidizer unit—the principal treatment for the soil vapor extraction system.

- > Indigenous planting was used throughout the site, providing low maintenance landscaping and shade trees were utilized to reduce the heat sink affect of paved surfaces.
- > Clean up of existing site, including the removal of existing structures.

Construction of the facility, which is being built at the intersection of Bridgewater and Varick Streets, is scheduled for completion by the third quarter of 2010, with the facility fully operational by year's end. In the meanwhile, the interim soil vapor treatment system is proving highly effective in addressing soil vapor found in isolated locations in Greenpoint's industrial/commercial area, according to recent soil vapor monitoring conducted to evaluate the effectiveness of the interim system. Those findings indicated that the interim system was able to significantly reduce soil vapor concentrations in the area. ExxonMobil anticipates that the full scale system will be even more effective once it becomes operational in the end of second quarter 2010.

In the Community...

P.S. 110 teachers think “out of the box”

They were told to let their imaginations soar. The result: 14 innovative ideas for how to enrich the educational experience for students attending Greenpoint’s elementary school, P.S. 110. Teachers submitted grant applications for tools, programs, events and ideas that normally couldn’t fit in the school’s budget.

Of these, five projects are being funded through ExxonMobil’s Teacher’s Grant Program, following an evaluation of all 14 grants by a five-member panel. The panel included school parents, community members, and ExxonMobil team members.

“ExxonMobil has become a big part of our P.S. 110 community,” said Principal Anna Cano Amato. In 2008, ExxonMobil helped upgrade the school’s computer lab, which now has 19 state-of-the-art computers, providing students the opportunity to build strong computer skills.

“We were delighted when Carolina (Asirifi, ExxonMobil community liaison,) presented yet another opportunity for our teachers and students to approach, pursue and experience things we’d otherwise never be able to,” said Amato.

ExxonMobil’s Teacher’s Grant Program is intended to aid in the development of innovative educational projects at P.S. 110 by providing funding for teachers to enhance their classroom curriculum. ExxonMobil’s partnership with the community’s elementary school is part of a larger corporate initiative to support educational programs. The company believes education is key to the progress, development and economic growth of our nation and local communities.

“P.S. 110 is truly a community-focused school dedicated to creating an optimal place for learning and collaboration for the students and Greenpoint neighborhood,” said Jennifer Rose, a chief community officer with the City’s Department of Education who has been involved with P.S. 110 for more than two years and helped in the grant writing. “I really believe this grant process offered by ExxonMobil created the opportunity to further build upon the



Three of the P.S. 110 teachers receiving grants (from left to right): Genevieve LaRiva, Michelle Mangiaracina and Marie Gallo.

strong values and vision of P.S. 110’s team. It’s been a truly special partnership.”

Programs funded included a second-grade field trip to the Museum of Modern Art to enhance understanding of fine arts; a display board for the third grade to serve as both a teaching aid and a focal point for learning; a digital document reader for the fifth grade to allow for visual examples of lesson materials; a performance by the Ballet Fiesta Mexicana Ybarra as part of the fifth grade’s multicultural curriculum, and additional books for the school library.



As part of its ongoing support of the Greenpoint YMCA, ExxonMobil recently supported its Youth and Family Staff Training Academy. Here, Troy Calhoun, Center Director, conducts a class on drug and gang prevention, one of 23 topics offered.

New Web site for community

Perhaps you have already seen the local advertisements or even found your way online to ExxonMobil’s recently launched Web site dedicated to keeping neighbors fully informed and up-to-date with our progress in Greenpoint. The Web site is part of the company’s commitment to provide residents with relevant information about the Greenpoint Remediation Project as well as information about its community engagement.

OurGreenpointCommitment.com acts as a one-stop shop for you to learn about our history in Greenpoint, stay in tune with the progress of our remediation efforts and see how ExxonMobil continues its involvement with the community.

We encourage you to visit the site at www.ourgreenpointcommitment.com to read and experience the various offerings which include videos about our remediation, health facts sheets, snapshots of our community engagement and even digital copies of this newsletter.



For comments or inquiries contact Carolina Asirifi, Community Liason, at (718) 389-8987 or carolina.a.asirifi@exxonmobil.com.