

**Joint Housing and Environmental Committee meeting
April 11th, 2022**

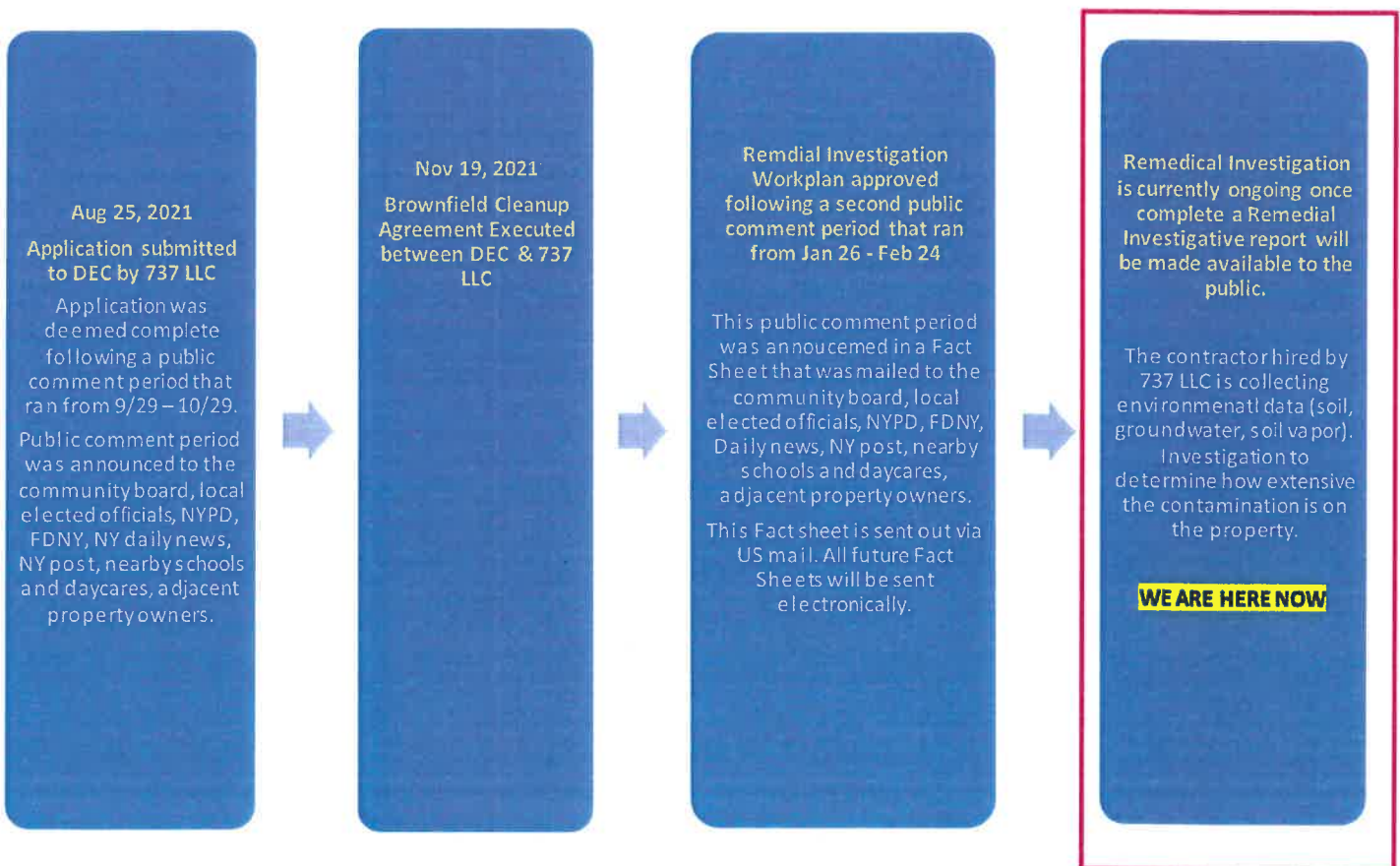
Re. submission of 737 4th Avenue, LLC's Brownfield Cleanup Program Application

- Ronnie Lee- Department of Environmental Conservation
- Sarah Quandt - Department of Environmental Conservation
- Rodney Rivera – Department of Environmental Conservation
- Jim Sullivan – Department of Health

Brownfield Cleanup Program Overview

- Program works to encourage private clean ups that are funded by private developers by providing tax incentives. Tax incentives get credits for cleanup costs, demolition, excavation, soil, disposal, sheeting, shoring.
- DEC is strictly concerned with just the remediation of the site and focuses on what's below ground (not above ground). There are various clean up levels depending on the site/use.
- Eligible program sites for the Brownfield Cleanup Program are properties that are difficult to reuse or develop because of the presence or potential presence of contamination.

Brownfield Cleanup Program Initial Process



Brownfield Cleanup Program Process Next Steps:

- Remedial Action Workplan to be developed by 737 LLC
 - To evaluate clean up alternatives and will be subject to a 45-day public comment period.
 - Remedy selection and Decision Document (once confirmed) will be placed in public repositories i.e., Public Library and Community Board
- Remedial Action
 - Public will be notified prior to work commencing. Notice will be sent electronically and posted to the Kings County List serve
 - Notice will be sent to the public when the Remedial action is complete
- Final Engineering Report (Documents all remedial activities)
- DEC will issue a Certificate of Completion (COC) issue. Public will be notified of COC.
- Site Management (Submittal of Periodic Review Reports to confirm the cleanup is still effective)

Brownfield Cleanup Program Citizen Participation Program Requirements

- Public notices (called Fact Sheets) are sent at critical milestones

Citizen Participation

- To receive future Fact Sheets
- Sign up for email notice through DEC Delivers: www.dec.ny.gov/chemicals/61092.html
- Search on DEC's website for "DEC Delivers"
- Access Fact Sheets, Work Plans, Reports and other project documents online through the DEC info Locator: www.dec.ny.gov/data/DecDocs/C224332

Document Repositories

- Brooklyn Community Board No. 7 - 4201 4th Avenue Brooklyn, NY 11233
- Brooklyn Public Library - Sunset Park 4201 4th Avenue Brooklyn, NY 11232

737 4th Avenue Site

- Involved parties: § Environmental Regulation: New York State Department of Environmental Conservation (DEC)
- Public Health Regulation: New York State Department of Health (DOH)
- Applicant / Property Owner: 737 4th Avenue, LLC
- Engineering Consultant: P.W. Grosser Consulting

Site Description:



- Site was previously used as a gasoline surface station, auto repair shop, metal manufacture, and junkyard. Any of these activities may have contaminated the site.
- [737 4th Avenue](#) (between 24th and 25th streets) was rezoned earlier this year from a Manufacturing to a Residential with Commercial on the ground level.

Remedial Investigation is currently ongoing

- In field collecting soil, ground water, soil vapor, and indoor and outdoor air samples
 - **There was an equipment issue that has prevented collection of outdoor air samples. DOH to determine is the developer needs to go back to collect outdoor air samples.**

Questions / Comments from the Public

1. 737 4th Avenue, LLC submitted Brownfield Cleanup Program application voluntarily.
 - a. Initial testing conducted revealed contamination of site.
2. 737 4th Avenue receives tax incentive benefits from participation of this program
3. At what point was it known that there were toxins in the ground or as far as the water table? Was that as far back as 2021? Or 2020? Response: Developers conduct initial testing to confirm if they are eligible to participate in the program/. Developer conducted testing on the site in 2018 and 2021.
4. How polluted does the site need to be to qualify for the program?
 - a. Soil cleans up objectives are set depending on the site use. For residence uses if there are any exceedents found the developer will most likely qualify for the program.
 - b. In NYC, most residential developers qualify for this program
5. How much does the tax rebate cover?
 - a. DEC has many reporting requirements that they'll need to do which may be costly to the developer. Tax rebates are also dependent on how clean the developer works to make the site. For example, the highest percentage is a 5% bump up which developers qualify for if the site is cleaned to track 1.
 - b. Where do materials go if contaminated materials are found?
 - i. The materials are tested and can be shipped to sites in facilities that accepted the specific materials. It can get costly to ship these materials, which the developer can use the tax rebate to help pay for.
6. Who makes the decision if there is an environmental threat?
 - a. DEC does an internal review, and this review moves up the chain of command within DEC and determined whether to be a significant threat. Once the developer is accepted into the program DEC has more control over framing how the developer collects data i.e., DEC can request collection of data for specific site locations, etc.
 - i. This Internal report is not presented to the public.
7. Clarification that this is a tax credit program. There are certain tax caps that apply to this program.
8. Recommendation – CB7 should work to request MIH housing for any site receiving DEC brownfield program tax incentives
9. **DEC to follow up and provide past Spill program reports to CB7**



**Department of
Environmental
Conservation**

737 4th Avenue Site Brownfield Cleanup Program (C224332)

Brooklyn, Kings County

Brooklyn Community Board #7 – Housing Committee & Sanitation/Environment Committee
April 11, 2022

Meeting Summary

- Brownfield Cleanup Program (BCP) Overview
- BCP Process
- Citizen Participation
- 737 4th Avenue Site
- Next Steps
- Questions/Comments



Brownfield Cleanup Program Overview

- New York’s Brownfield Cleanup Program (BCP) works with private developers to encourage the voluntary cleanup of contaminated properties known as “brownfields” so that they can be reused and developed.
- A *brownfield* is any real property that is difficult to reuse or develop because of the presence or potential presence of contamination.



BCP Process

- Application ✓
 - Public comment period Sept. 29 to Oct. 29, 2021 (*Public Notice*)
- Brownfield Cleanup Agreement (BCA) ✓
 - Executed Nov. 19, 2021
- Remedial Investigation Work Plan (RIWP) ✓
 - Public comment period Jan. 26 to Feb. 24, 2022 (*Fact Sheet*)
- Remedial Investigation (RI) (*ongoing*)
 - Collect environmental data (soil, groundwater, soil vapor)
 - Define nature and extent of contamination



BCP Process

- Remedial Investigation Report (RIR)
 - Made available to public (*Fact Sheet*)
- Remedial Action Work Plan (RAWP)
 - Evaluates remedial alternatives
 - 45-day public comment period (*Fact Sheet*)
- Remedy selection and Decision Document (DD)
 - Placed in repositories
- Remedial Action (RA)
 - Public notified prior to work commencing (*Fact Sheet*)



BCP Process

- Remedial Action complete
 - Public notified (*Fact Sheet*)
- Final Engineering Report (FER)
 - Documents all remedial activities
- Certificate of Completion (COC) issued
 - Public notified (*Fact Sheet*)
- Site Management (when applicable)
 - Submittal of Period Review Reports (PRRs)



Citizen Participation

NYSDEC involves the public to:

- improve the process of investigating and cleaning up contaminated sites
- enable citizens to participate more fully in decisions that affect their health, environment, and social well-being



Citizen Participation

Citizen Participation Program (CPP)

- provides information about how NYSDEC will inform and involve the public during the investigation and cleanup of the site identified above

Fact Sheets

- help the public to understand contamination issues related to a site, and the nature and progress of efforts to investigate and clean up a site



Citizen Participation Activities	Timing of CP Activity(ies)
Application Process:	
<ul style="list-style-type: none"> • Prepare site contact list • Establish document repository(ies) 	At time of preparation of application to participate in the BCP.
<ul style="list-style-type: none"> • Publish notice in Environmental Notice Bulletin (ENB) announcing receipt of application and 30-day public comment period • Publish above ENB content in local newspaper • Mail above ENB content to site contact list • Conduct 30-day public comment period 	When NYSDEC determines that BCP application is complete. The 30-day public comment period begins on date of publication of notice in ENB. End date of public comment period is as stated in ENB notice. Therefore, ENB notice, newspaper notice, and notice to the site contact list should be provided to the public at the same time.
After Execution of Brownfield Site Cleanup Agreement (BCA):	
<ul style="list-style-type: none"> • Prepare Citizen Participation (CP) Plan 	Before start of Remedial Investigation Note: Applicant must submit CP Plan to NYSDEC for review and approval within 20 days of the effective date of the BCA.
Before NYSDEC Approves Remedial Investigation (RI) Work Plan:	
<ul style="list-style-type: none"> • Distribute fact sheet to site contact list about proposed RI activities and announcing 30-day public comment period about draft RI Work Plan • Conduct 30-day public comment period 	Before NYSDEC approves RI Work Plan. If RI Work Plan is submitted with application, public comment periods will be combined and public notice will include fact sheet. Thirty-day public comment period begins/ends as per dates identified in fact sheet.
UP NEXT After Applicant Completes Remedial Investigation:	
<ul style="list-style-type: none"> • Distribute fact sheet to site contact list that describes RI results 	Before NYSDEC approves RI Report
Before NYSDEC Approves Remedial Work Plan (RWP):	
<ul style="list-style-type: none"> • Distribute fact sheet to site contact list about draft RWP and announcing 45-day public comment period • Public meeting by NYSDEC about proposed RWP (if requested by affected community or at discretion of NYSDEC project manager) • Conduct 45-day public comment period 	Before NYSDEC approves RWP. Forty-five day public comment period begins/ends as per dates identified in fact sheet. Public meeting would be held within the 45-day public comment period.
Before Applicant Starts Cleanup Action:	
<ul style="list-style-type: none"> • Distribute fact sheet to site contact list that describes upcoming cleanup action 	Before the start of cleanup action.
After Applicant Completes Cleanup Action:	
<ul style="list-style-type: none"> • Distribute fact sheet to site contact list that announces that cleanup action has been completed and that NYSDEC is reviewing the Final Engineering Report • Distribute fact sheet to site contact list announcing NYSDEC approval of Final Engineering Report and issuance of Certificate of Completion (COC) 	At the time the cleanup action has been completed. Note: The two fact sheets are combined when possible if there is not a delay in issuing the COC.

Citizen Participation

To receive future Fact Sheets

- Sign up for email notice through DEC Delivers: www.dec.ny.gov/chemicals/61092.html
- Search on DEC's website for "DEC Delivers"
- Access Fact Sheets, Work Plans, Reports and other project documents online through the DECinfo Locator: www.dec.ny.gov/data/DecDocs/C224332/



Document Repositories

Brooklyn Community Board No. 7
4201 4th Avenue
Brooklyn, NY 11323

Brooklyn Public Library – Sunset Park
4201 4th Avenue
Brooklyn, NY 11232



737 4th Avenue Site

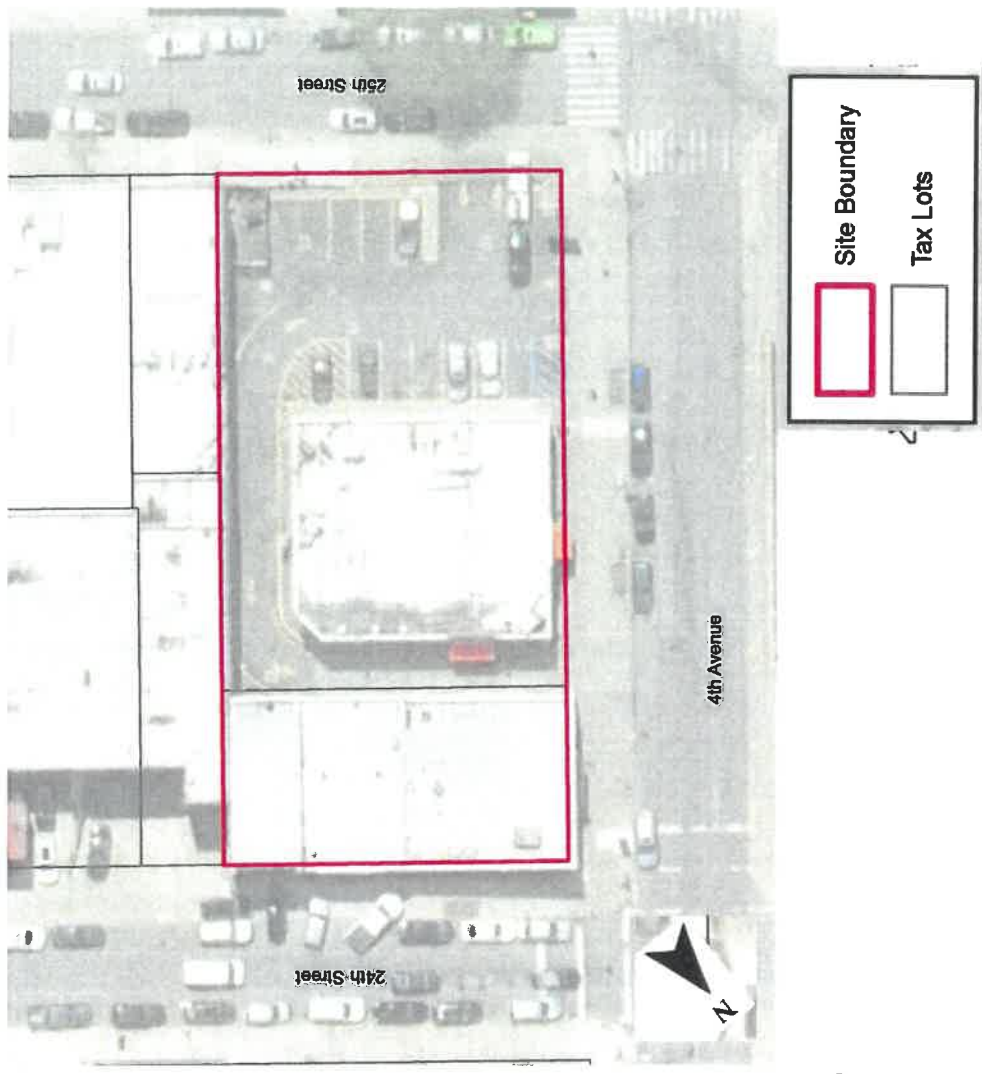
Involved parties:

- Environmental Regulation
 - **New York State Department of Environmental Conservation (DEC)**
- Public Health Regulation
 - **New York State Department of Health (DOH)**
- Applicant / Property Owner
 - **737 4th Avenue, LLC**
- Engineering Consultant
 - **P.W. Grosser Consulting**



Site Description

- **Location:** 0.46-acre property in Greenwood Heights neighborhood
- **Tax Map:** Tax Block 652, Lot 1
- **Current Use:** Deli and body shop
- **Historical Uses:** Gasoline service station, auto repair, metals manufacturer & junk yard
- **Zoned:** M1-1D light manufacturing with a C2-4 commercial overlay
- **Proposed Redevelopment:** mixed-use commercial / residential



737 4th Avenue Site

Remedial Investigation (RI) ongoing

- In field collecting soil, groundwater, soil vapor, and indoor and outdoor air samples
- Health and Safety Plan (HASP)
- Community Air Monitoring Plan (CAMP)



Next Steps

- Remedial Investigation Report (RIR) (*Fact Sheet*)
- Remedial Action Work Plan (RAWP) to evaluation remedies
 - 45-day public comment period (*Fact Sheet*)
- Remedy selection and Decision Document (DD)
- Remedial Action to implement remedy (*Fact Sheet*)
- Remedial Action complete (*Fact Sheet*)
- Monitor remedy in Site Management



Thank You

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Department of
Environmental
Conservation

NYSDEC SPILL REPORT FORM

DEC REGION: <u>2</u>	SPILL NUMBER: <u>1610374</u>	
SPILL NAME: <u>207 25TH STREET</u>	DEC LEAD: <u>AAOBLIGA</u>	
CALLER NAME: <u>ANDRE OBLIGADO</u>	NOTIFIER'S NAME: <u>ANDRE OBLIGADO</u>	
CLR'S AGENCY: <u>NYSDEC</u>	NOTIFIER'S AGENCY: <u>NYSDEC</u>	
CALLER'S PHONE: <u>(718) 482-6412</u>	NOTIFIER'S PHONE: <u>(718) 482-6412</u>	
SPILL DATE: <u>09/10/1993</u>	SPILL TIME: <u>9:30 am</u>	DISPATCHER: _____
CALL RECEIVED DATE: <u>02/16/2017</u>	RECEIVED TIME: <u>9:06 am</u>	_____

SPILL LOCATION

PLACE: <u>207 25TH STREET</u>	COUNTY: <u>Kings</u>
STREET: <u>207 25TH STREET</u>	TOWN/CITY: <u>New York City</u>
	COMMUNITY: <u>BROOKLYN</u>
CONTACT: <u>SANDI FUNG</u>	CONTACT PHONE: <u>(212) 810-0932</u>
CONT. FACTOR: <u>Tank Test Failure</u>	SPILL REPORTED BY: <u>DEC</u>
FACILITY TYPE: <u>Commercial/Industrial</u>	WATERBODY: _____

CALLER REMARKS:

Subsurface investigation identified soil and groundwater contamination.

MATERIAL	CLASS	SPILLED	RECOVERED	RESOURCES AFFECTED
#2 fuel oil	Petroleum			Soil, GW, Subway,

POTENTIAL SPILLERS

COMPANY	ADDRESS	CONTACT
PHONG KINH HUA	5744 157TH STREET FLUSHING NY 11355	

Tank No.	Tank Size	Material	Cause	Source	Test Method	Leak Rate	Gross Failure
1	550	#2 fuel oil (on-site)	Unknown	Tank	76	0.00	

DEC REMARKS:

2/16/17 - Obligado - As part of an off-site investigation into 4th and 25th Spill cases #9305122, I conducted a complete file review and identified a tank test failure report for 207 25th street. According to the file, this site had a 550 gallon #2 diesel UST which failed a tightness test on 9/10/1993. As a result of this file review, the DEC under PIN # 93256 conducted a subsurface investigation around the former suspected tank with the current owner's permission. 4 borings were advanced, 2 within the building, 1 in the sidewalk adjacent to the fill port and 1 down gradient on the 737 4th Avenue Duncan donuts property. Soil and groundwater contamination was identified in all 4 soil borings. Contamination was found as shallow as 8 ft bgs. The soil data and groundwater confirm that the 1993 tank test failure resulted in a petroleum discharge to soil and groundwater.

3/21/17 - Obligado - Final Phase II report received from Envirotrac. The report documents investigations at 3 properties - 207 25th Street, 213 25th Street, and 276 24th Street. The report concludes that "the former UST system at the 207 25th Street property was a contributing source to the over all Spill. However, based upon prior investigations, prior laboratory analysis of product samples, the overall extent of the impated area and the volume of

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SPILL NAME: 207 25TH STREET **DEC LEAD:** AAOBLIGA

free product observed in the wells over the years, it is EnviroTrac's professional opinion that the property at 207 25th Street was not the sole source for the petroleum release. "

4/4/17 - Obligado - I sent a letter to Sandi Fung of PSJC LLC, cc to DEC Vought, Austin, Urda and AOG Judith Karpen, requiring a UST assessment (via either geophysical or intrusive methods) in the vicinity of the suspected UST to determine if the source tank was still present beneath the site and acting as a continued source for soil and groundwater contamination. I required the report be submitted within 90 days of receipt of the correspondence.

4/5/17 - Obligado - I spoke with Sandi Fung. I provided her a list of tank contractors and the tank closure document from 1994.

5/19/17 - Obligado - Tom Gallanger, GEM (914) 382 8673. He has been hired by Sandi Fung to investigate the tank.

6/12/17 - Obligado - I got an email from Sandi requesting additional time to due the investigation as her contractor was not responsive. I told her that was fine.

8/21/17 - Obligado - I reviewed the UST Investigation Findings submitted by Gallinger Environmental on behalf of PSJC LLC. GEM installed three soil borings in the utility closet, using a jackhammer, shovel, and portable electroc hammer driven Geoprobe Soil sampler. The soil borings were targeted in the approximate location of the suspected former fuel oil access port observed in the 1993 photograph and immediately surrounding areas. Elevated field screening readings were detected in the soils collected from soil boring S2 starting at a depth of 7-9 feet below the surface. GEM found what appeared to be a UL listing tank tag and other debris (i.e. rags, paper and plastic) in the hand excavated soils at the location S3. The presence of these backfilled materials confirms past excavation work at this location that may be related to a previous tank removal. GEM concluded they did not encounter a UST beneath the site. Elevated field screenings and odors were observed at 7-9 ft, at a depth consisted with a tank grave for a small fuel oil UST. Evidence of possible former tank removal activities were observed. Based on the GEM report it appears the LUST at 207 25th St was previously removed by others.

7/2/18 - Obligado - After Project Review conference call with RSE Randall Austin and Kevin Hale, Chief of Spill Response and Coordination Section in Central Office on 6/26/18, it was determined that former LUST at 207 25th Street is a more likely source for the oil observed in the 4th and 25th Street Site monitoring wells. As such PIN #07960 has been opened and O&M activities will continue under this PIN/Spill number. Call out number 134930 has been issued to EAR.

1/28/19 - Obligado - I sent a letter of responsibility to Phong Kinh Hua and a Stipulation Agreement for signature within 30 days. CC to Robinson & Associates, P.C., Sandi Fung, and OAG.

4/30/19 - Obligado - Stipulation Agreement has been received on 4/12/19 and executed on 4/29/19.

7/30/19 - Obligado - RAWP submitted by Seacliff for continued gauging and product recovery approved.

1/13/22 - Obligado - I sent an email to Seacliff Jim Martinis requesting product gauging and recovery report.

2/10/22 - Obligado - Kenneth Robinson submits gauging sheet and waste manifest for product removal conducted on 1/17/22. 245 gallons of liquid removed. Report indicates oil is gasoline, not fuel oil. 3 inch of product in MW9 and 0.5 inch in MW8A. Requests closure.

3/11/22 - Obligado - According to Ronnie Lee of BCP program Central Office, the site 737 4th Avenue has entered the brownfields program. Investigation was performed by PWC Grosser. LNAPL detected in multiple wells. According to PWCG, the oil is fuel oil. 1/2 foot of product detected in MW8A.

NYSDEC SPILL REPORT FORM

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SPILL NAME: 207 25TH STREET DEC LEAD: AAOBLIGA

3/16/22 - Obligado - PWCG provided a picture was provided of a oil soaked absorbent sock with a red tinge.

4/6/22 - Obligado - I sent a letter to Kenneth Robinson rejecting closure and requiring continued product gauging and recovery on a quarterly basis.

PIN
07960

T & A

COST CENTER
90079601-18

CLASS: CLOSE DATE: MEETS STANDARDS: False

DEC REGION: 2 **SPILL NUMBER:** 9305122
SPILL NAME: SUBWAY R LINE -NYCT **DEC LEAD:** AAOBLIGA

11/12/10 - spill re-assigned from Tibbe to Joe O'Connell

9/29/11 - Raphael Ketani. Case transferred from O'Connell to Ketani.

12/21/11 - Raphael Ketani. I reactivated the spill/PIN case. There are 5 other associated cases, but only #9108033 has any documentation. All of these cases have been closed and referred back to this one. There are 3 full file draws with documentation. However, very little of it has been e-doc'd.

The case started when oil (diesel fuel) was found to be dripping onto the R Line subway platform under 4th Avenue and between 25th Street and 26th Street, Brooklyn. The oil had also drained from the platform and onto the tracks. The DEC was notified by the NYCTA about the spill. The FDNY responded and put down absorbent sand. The date of the spill is 7/19/93. However, it wasn't called in until 7/24/93.

A fingerprint analysis indicated that the oil was a mix of weathered diesel and/or #2 oil between 10 and 15 years old. The pool of oil was initially estimated to be greater than 100,000 gals. and was mostly being held in place by the subway wall. However, subsequent DEC contractors have indicated that the oil pool is much smaller. The recovery system was extensively damaged during the construction of the Dunkin Donuts. Mobile Hi-Vacs were used to collect the oil. Bright red #2 oil was detected entering the pool of oil from upgradient. So it is believed that there is an ongoing source of unknown origin. Recent excavation beneath the surface of the site revealed that the soil is free of diesel with only minor gasoline contamination. The sources of the #2 oil may be a warehouse that is directly upgradient or other locations. A knee wall was installed on the subway platform to catch the seepage, but is sometimes overwhelmed during rain events.

The source was eventually traced to the Eagle Service Station at 737 4th Avenue, Brooklyn, 11232. The site is owned by Ralph and Susan Guarino. Mr. Guarino bought the property during 1987. Though the new tanks that were installed by Mr. Guarino were not believed to be the source. The source was believed to be the old diesel tanks that were in existence when MOBIL owned the site up until 1987. Initially, Mr. Guarino was cooperative with the DEC contractors regarding the spill investigation.

According to an August 5, 2001 NY Daily News article, Ralph and Susan Guarino were determined to be the responsible parties. Mr. Guarino was an FBI informant. He twice turned off the recovery system, which resulted in diesel leaking onto the platform. He threatened to pour concrete down the monitoring wells and for 8 months prevented remediation staff from coming onto his property to do their work. Eventually in 1999, the Attorney General went to court to get an emergency injunction against Mr. Guarino to prevent him from interfering. In 1999, Mr. Guarino agreed to let the remediation staff onto his property. The gas station was demolished and the site is now a Dunkin Donuts.

According to the September 26, 2001 Second Demand Letter, Susan Guarino (128 Maitland Avenue, Altamonte Springs, FL, 32701-4902) is being held liable by the AG's office for \$1,924,150.68. Though, \$2,121,183 had been spent on the project by the DEC up to 2002.

One of the previous DEC case managers, Mark Tibbe, sent me an e-mail regarding the history of the spill case. He wrote that nothing significant happened between 2001 and 2011. The DEC contractors were monitoring and bailing wells because the recovery system wasn't working. It was too old to repair and replacing it was too expensive. The subway was being monitored to make sure that product wasn't showing up. In the early 2000s there wasn't much product, but it showed up again. It was believed that the former service station was the primary source and that there was a fresh source of #2 oil.

Later, I found the latest site report. It was written by Environmental Assessment and Remediations. The report was dated August 18, 2006 and covered the period from January 2006 to June 2006. Groundwater was generally found at

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SPILL NAME: SUBWAY R LINE -NYCT	DEC LEAD: AAOBLIGA

22 feet below grade. It was believed that the subway tunnel was affecting groundwater flow. The groundwater was moving through a layer of glacial till and outwash sediments. The outwash sediments contained sand and gravel. Discontinuous thin clay lenses were also present. During 2001, several wells showed increasing amounts of product. On 4/24/01, red oil appeared in well MW10A. Wells MW82, MW90, MW32B, and MW13A also had red oil at this time. At this time, MW9 showed signs of dark oil with sludge. There were several oil tanks in the neighborhood. The tank at 220 25th Street was a 2,500 gal. #2 oil UST. The system was tested and found to be sound. The property at 225 25th Street had a 10,000 gal. #6 oil AST. One private building at 228 25th Street had a 275 gal. oil tank, but nothing else was known. There was a 1,000 gal. UST at 217 25th Street, directly upgradient from the site, but it was never investigated. From 2002 and 2004, EAR continued to maintain the remediation system. In 2004, EAR received permission from the DEC to abandon 17 wells that weren't providing useful data. The wells were abandoned from April to June of 2004. Throughout 2005, EAR continued to maintain the remediation system. During August 2005, renovations were made to the subway oil containment system. Weekly visits were made and spent absorbent was removed and replaced. The wells continued to be monitored on a weekly basis. On April 20, 2006, the recovery system was shut down to see how much product would appear. The recovery system remained off during the reporting period. Wells MW9, MW10, MW13, MW13A, MW23, MW23A, MW31, MW32B and MW82 showed a rebound of product. From January to April, a total of 26.99 gals. of liquids were recovered from all of the wells during. Product thickness on 6/22/06 was much less than 1 foot in the wells that were exhibiting oil.

12/22/11 - Raphael Ketani. Today I spoke to Dave Lorthioir of EnviroTrac (631) 924-3001, the DEC's consultant, regarding the project. He said that they have been monitoring and bailing wells on a weekly basis. However, they only deal with the wells in and immediately around the site. The water table is high right now and they haven't seen any product. However, in the spring of 2011, there had been a good amount of product. Before EnviroTrac took over the project a few years ago, they spoke to the previous DEC consultants. These consultants told them that there hadn't been any oil in the subway for some time. Mr. Lorthioir said that EnviroTrac hadn't seen oil in the subway, either. A report will be sent to the DEC soon.

Later, Mr. Lorthioir sent me the 2011 groundwater monitoring data tables. Very few of the wells had shows of oil. Wells MW-8, MW-8A, MW-9 and MW-31 all had periods of from 2 to 7 consecutive months during which there were weekly shows of oil during 2011. A small number of other wells had sporadic shows of oil consisting of about several weeks during which oil was seen, but the weeks were not consecutive. Wells MW-8, MW-8A, MW-9 and MW-31 are all in the southern corner of the Dunkin Donuts property. MW-9 is directly over a rectangular figure in the well location diagram. Wells MW-40 and MW-41 were abandoned earlier. According to the case notes, seventeen wells were abandoned some time ago.

Mr. Lorthioir also included a DRAFT 10/29/10 Status Report for the site. The report covered the years 2009 to 2010. I reviewed the report. The data inside indicated that the same wells that had oil in 2011 had oil during 2009 and 2010. There were also some other wells that had oil shows in and around the Dunkin Donuts store.

1/4/12 - Raphael Ketani. I received CAP 31 for EnviroTrac. The bill is DC2023.01-32 for the period 10/31/11 to 11/27/11. The date of the invoice is 12/13/11. The work consisted of project management, project coordination, generate internal work order, revise internal work order, prepare for monitoring event, travel to and from site, calls to technician at site, gauge 36 wells, bail product by hand, update product recovery tables and enter data, use of low value equipment, light duty vehicle and sonic probe, purchase supplies. I found the pay package to be acceptable and notified Steve Karwiel by e-mail.

1/30/12 - Raphael Ketani. I received CAP 32 for EnviroTrac. The bill is DC2023.01-33 for the period 11/28/11 to 1/1/12. The date of the invoice is 1/16/12. The work consisted of project management, review data from last monitoring event, generate internal work order, revise internal work order, prepare for monitoring event, project management communication with DEC, calls to technician at site, decontaminate equipment, gauge 34 wells, bail product by hand, update product recovery tables and enter data, use of low value equipment, light duty vehicle and

DEC REGION: 2 **SPILL NUMBER:** 9305122
SPILL NAME: SUBWAY R LINE -NYCT **DEC LEAD:** AAOBLIGA

sonic probe, travel to and from site, purchase supplies. I found the pay package to be acceptable and notified Steve Karwiel by e-mail.

2/21/12 - Raphael Ketani. I received CAP 33 for EnviroTrac. The bill is DC2023.01-34 for the period 1/2/11 to 1/29/12. The date of the invoice is 2/13/12. The work consisted of project management and coordination, prepare internal work order, do budget projections, project management communication with DEC, travel to and from site, calls to technician at site, well gauging and product recovery, tabulate gauging data from December 30, 2011 field activities, review and tabulate gauging and product recovery data from field activities during January 12, 2012, use of low value equipment, light duty vehicle and sonic probe, purchase supplies. I found the pay package to be acceptable and notified Steve Karwiel by e-mail.

4/10/12 - Raphael Ketani. I received CAP 35 for EnviroTrac. The bill is DC2023.01-35 for the period 2/1/12 to 2/26/12. The date of the invoice is 3/15/12. The work consisted of project coordination. I found the pay package to be acceptable and notified Steve Karwiel by e-mail.

7/26/12 - Raphael Ketani. I received a request to abandon 16 wells at the site. I asked Mr. Lorthioir where the oil had appeared and what it had looked like. He said that it was NOT red oil, but looked weathered. He added that the oil sometimes appears in well MW-46, in the alleyway behind 753 4th Avenue. This is across the street and to the south (side gradient) of the site. Mr. Lorthioir said that it is hard to get to this well as the alleyway is usually locked and so he hadn't been back in a long time. Getting in involves getting ahold of the owner, which is difficult. One time he went through the back of a store in order to get to the well.

8/8/12 - Raphael Ketani. I sent an e-mail to Sandy Camacho of the NYFD requesting his help in finding any oil tanks at 751, 753 and 755 4th Avenue, and at 204, 214-216 and 220 25th Street.

10/1/12 - Raphael Ketani. I received CAP 41 for EnviroTrac. The bill is DC2023.01-36 for the period 7/30/12 to 8/26/12. The date of the invoice is 9/13/12. The work consisted of project management, produce work order, create monitoring schedule, review results of site inspection, obtain DOT permits for well abandonment, gauge wells, replace socks, product recovery, travel to and from site, use of low value equipment, sonic interface probe and light duty vehicles, purchase supplies. I found the pay package to be acceptable and notified Steve Karwiel by e-mail.

10/25/12 - Raphael Ketani. I received CAP 42 for EnviroTrac. The bill is DC2023.01-37 for the period 8/27/12 to 9/30/12. The date of the invoice is 10/12/12. The work consisted of project management, calls to technician in the field, produce work order, review results of site inspection, compile and review data, gauge 37 wells, 1 well product recovery, hand bail wells as required, travel to and from site, use of low value equipment, sonic interface probe and light duty vehicles, and purchase supplies. I found the pay package to be acceptable and notified Steve Karwiel by e-mail.

11/29/12 - Raphael Ketani. I received CAP 43 for EnviroTrac. The bill is DC2023.01-38 for the period 10/1/12 to 10/28/12. The date of the invoice is 11/15/12. The work consisted of project management, prepare work order, obtain NYC DOT permits, prepare for well abandonment, travel to and from site, well gauging, product recovery, review and tabulate gauging and product recovery data, review latest monitoring data, abandon 11 wells, sidewalk restoration, calls to crew at site, use of light and heavy duty vehicles, low value equipment, sonic interface probe, generator, jack hammer, concrete cutter, concrete mixer and purchase supplies. I found the pay package to be acceptable and notified Steve Karwiel by e-mail.

12/24/12 - Raphael Ketani. I received CAP 44 for EnviroTrac. The bill is DC2023.01-39 for the period 10/29/12 to 11/25/12. The date of the invoice is 12/11/12. The work consisted of project management, project coordination, tabulation of gauging data, review latest data from monitoring event, travel to and from site, well gauging, product recovery, use of light duty vehicle, low value equipment and sonic interface probe, and purchase supplies. I found the pay package to be acceptable and notified Steve Karwiel by e-mail.

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1/22/13 - Raphael Ketani. I received CAP 45 for EnviroTrac. The bill is DC2023.01-40 for the period 11/26/12 to 12/30/12. The date of the invoice is 1/14/13. The work consisted of project management, project coordination for upcoming activities, work order, generate internal work order, call to technician in the field, tabulation of gauging and product recovery data, review latest data from monitoring event, generate internal report, travel to and from site, gauging of 36 wells, product recovery from 3 wells, replaced 7 absorbent socks, use of light duty vehicle, low value equipment and sonic interface probe, and subcontractors and purchase supplies. I found the pay package to be acceptable and notified Steve Karwiel by e-mail.

2/27/13 - Raphael Ketani. I received CAP 46 for EnviroTrac. The bill is DC2023.01-41 for the period 12/31/12 to 1/31/13. The date of the invoice is 2/11/13. The work consisted of project management, call to technician in the field, well gauging and product recovery, tabulation of gauging and product recovery data, review latest data and data from last 3 monitoring events, generate internal work order, travel to and from site, gauging of 34 wells, product recovery from 2 wells, replaced 6 absorbent socks, use of light duty vehicle, low value equipment and sonic interface probe, and purchase supplies. I found the pay package to be acceptable and notified Steve Karwiel by e-mail.

3/22/13 - Raphael Ketani. I received CAP 47 for EnviroTrac. The bill is DC2023.01-42 for the period 2/1/13 to 2/24/13. The date of the invoice is 3/13/13. The work consisted of project management, prepare internal work order, calls to technician in the field, well gauging and product recovery, calls regarding full drums, calculate product thickness for wells during 2011 and 2012, review and tabulate gauging and product recovery data, review 2011 and 2012 data, edit and prepare site map, generate internal work order, load vehicle, travel to and from site, gauging of 37 wells, use of light duty vehicle, low value equipment and sonic interface probe, and purchase supplies. I found the pay package to be acceptable and notified Steve Karwiel by e-mail.

5/1/13 - Raphael Ketani. I received CAP 48 for EnviroTrac. The bill is DC2023.01-43 for the period 2/25/13 to 3/31/13. The date of the invoice is 4/15/13. The work consisted of project management, generate internal work order, well gauging, bailing wells, install socks, calls to technician in the field, review and tabulate gauging and product recovery data, respond to emergency call - leaking drum enclosure, calls for removal of drums, load vehicle, travel to and from site, use of light duty vehicle, low value equipment, sonic interface probe, 55 gallon drum and purchase supplies. I found the pay package to be acceptable and notified Steve Karwiel by e-mail.

5/23/13 - Raphael Ketani. I received CAP 49 for EnviroTrac. The bill is DC2023.01-44 for the period 4/1/13 to 4/28/13. The date of the invoice is 5/14/13. The work consisted of project management, generate internal work order, gauged 33 wells, bailed product from 3 wells, calls to technician in the field, calls to manager of Dunkin Donuts regarding possible garbage issue at the site, calls regarding drum removal, review and tabulate gauging and product recovery data, travel to and from site, use of light duty vehicle, low value equipment, sonic interface probe, and purchase supplies. I found the pay package to be acceptable and notified Steve Karwiel by e-mail.

6/27/13 - Raphael Ketani. I received CAP 50 for EnviroTrac. The bill is DC2023.01-45 for the period 4/29/13 to 5/26/13. The date of the invoice is 5/26/13. The work consisted of project management, generate internal work order, gauged wells, bailed product from wells, calls to technician in the field, call to Dunkin Donuts tenant, review and tabulate gauging and product recovery data, travel to and from site, use of light duty vehicle, low value equipment, sonic interface probe, use of AARCO Environmental subcontractor for product collection services, and purchase supplies. I found the pay package to be acceptable and notified Steve Karwiel by e-mail.

7/29/13 - Raphael Ketani. I received CAP 51 for EnviroTrac. The bill is DC2023.01-46 for the period 5/27/13 to 6/30/13. The date of the invoice is 7/15/13. The work consisted of project management, generate internal work order, gauged 33 wells, bailed product from wells, review and tabulate gauging and product recovery data, travel to and from site, calls to technician at site, use of light duty vehicle, low value equipment, sonic interface probe, PID meter, and purchase supplies. I found the pay package to be acceptable and notified Steve Karwiel by e-mail.

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8/29/13 - Raphael Ketani. I received CAP 52 for EnviroTrac. The bill is DC2023.01-47 for the period 7/1/13 to 7/28/13. The date of the invoice is 8/14/13. The work consisted of project management, generate internal work order, gauged 37 wells, bailed product from wells, review and tabulate gauging and product recovery data, travel to and from site, calls to technician at site, use of light duty vehicle, low value equipment, sonic interface probe, and purchase supplies. I found the pay package to be acceptable and notified Steve Karwiel by e-mail.

10/2/13 - Raphael Ketani. I received CAP 53 for EnviroTrac. The bill is DC2023.01-48 for the period 7/29/13 to 8/25/13. The date of the invoice is 9/13/13. The work consisted of project management, generate internal work order, gauged 39 wells, bailed product from wells, review and tabulate gauging and product recovery data, travel to and from site, calls to technician at site, use of light duty vehicle, low value equipment, sonic interface probe, and purchase supplies. I found the pay package to be acceptable and notified Steve Karwiel by e-mail.

10/28/13 - Raphael Ketani. I received CAP 54 for EnviroTrac. The bill is DC2023.01-49 for the period 8/26/13 to 9/29/13. The date of the invoice is 10/14/13. The work consisted of project management, generate internal work order, gauged 37 wells, bailed product from 3 wells, review and tabulate gauging and product recovery data, travel to and from site, calls to technician at site, use of light duty vehicle, low value equipment, sonic interface probe, and purchase supplies. I found the pay package to be acceptable and notified Steve Karwiel by e-mail.

12/4/13 - Raphael Ketani. I received CAP 55 for EnviroTrac. The bill is DC2023.01-50 for the period 9/30/13 to 10/27/13. The date of the invoice is 11/12/13. The work consisted of project management, generate internal work order, gauged 34 wells, bailed product from 1 well, review and tabulate gauging and product recovery data, travel to and from site, calls to technician at site, use of light duty vehicle, low value equipment, sonic interface probe, and purchase supplies. I found the pay package to be acceptable and notified Steve Karwiel by e-mail.

12/19/13 - Raphael Ketani. Mr. Lorthioir sent me two pictures of the cover for well MW-87. The cover had been damaged during the snow plowing of the Dunkin Donuts property. He wrote that he would like to fill in the void below ground which used to house equipment for the recovery system and then replace the large well cover with a small round one. I responded back that he should do this.

1/6/14 - Raphael Ketani. I received CAP 56 for EnviroTrac. The bill is DC2023.01-51 for the period 10/28/13 to 11/24/13. The date of the invoice is 12/13/13. The work consisted of project management, generate internal work order, gauged wells, bailed product from wells, review and tabulate gauging and product recovery data, travel to and from site, calls to technician at site, call to landlord, use of light duty vehicle, low value equipment, sonic interface probe, and purchase supplies. I found the pay package to be acceptable and notified Steve Karwiel by e-mail.

1/17/14 - Raphael Ketani. Donna Amoscato of EnviroTrac sent an e-mail with pictures describing and showing a leaking drum. Speedi Dri was applied to the liquid (combination of water and product) which leaked in the drum storage area and which had spread to the sidewalk outside. Ms. Amoscato wrote that the spill was contained. Two pictures show Speedi Dri on the ground. The drum had leaked because it had become frozen. In the future, Ms. Amoscato wrote, the drums will be removed during the winter months. Some of the liquid had entered a vault nearby. I sent an e-mail to Ms. Amoscato stating that the vault had to be opened if it is not a Con Ed vault and cleaned out. If it is a Con Ed vault, then Con Ed must be notified about the incident.

2/4/14 - Raphael Ketani. I received CAP 57 for EnviroTrac. The bill is DC2023.01-52 for the period 11/25/13 to 12/29/13. The date of the invoice is 1/15/14. The work consisted of project management, generate internal work order for monitoring event, gauged wells, bailed product from wells, replaced collection socks, review and tabulate gauging and product recovery data, travel to and from site, calls to technician at site, call to landlord, arrangements for repair of well cover, installed new well pad, cleaned up containment area, use of light duty vehicle, low value equipment, sonic interface probe, 55 gallon drum and purchase supplies. I found the pay package to be acceptable and notified Steve Karwiel by e-mail.

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2/11/14 - Raphael Ketani. I reviewed the EnviroTrac Project Status Report dated 2/10/14 for the year 2013. During 2013, the product impacts to the wells were as follows:

MW-8A - product during all but 3 weekly visits; product thickness from 0.02' to 1.31'; MOST IMPACTED well of the monitoring array

MW-8 - product during all but 11 weekly visits; product thickness 0.01' to 0.41'

MW-9 - product during 9 visits; 0.01' to 0.07'

MW-10A - product during 11 visits; 0.01' to 0.07'

MW-31 - product during 11 visits; 0.01' to 0.65'

MW-6A - product during 6 visits; 0.01' to 0.47'

MW-46 - product during 2 visits (due to locked gate); 0.08' to 0.09'

MW-82 - product during 1 visit; 0.02'

The other 29 wells never had product and MW-15 was always dry during the year.

Dur

ing 2013, gauging took place at 37 select wells. Wells MW-8A, MW-8 and MW-9 are located a little east of 4th Avenue and along the northern sidewalk for 25th Street. They are the main area for the occurrence of product. EnviroTrac recommends a trial period for EFRing wells MW-8A, MW-8 and MW-9. There would be EFR events every other week for 2 months (a total of 4 events). Then the wells would be gauged for the following 2 months and the data would be evaluated to see whether EFRing is effective in removing the product. Weekly gauging and product removal would continue for the other select wells.

3/4/14 - Raphael Ketani. I received CAP 58 for EnviroTrac. The bill is DC2023.01-53 for the period 12/30/13 to 1/31/14. The date of the invoice is 2/11/14. The work consisted of project management, project coordination, generate internal work order, gauged 33 wells, bailed product from wells, replaced collection socks, review and tabulate gauging and product recovery data, create data tables and enter data into them, update CADD figures, draft 2013 summary letter, draft portions of 2013 Annual Report, travel to and from site, calls to field staff at site, call to landlord, e-mail to DEC and upload pictures, cleaned up containment area, use of light duty vehicle, use of heavy duty vehicle, low value equipment, sonic interface probe, 55 gallon drum and purchase supplies. I found the pay package to be acceptable and notified Steve Karwiel by e-mail.

3/26/14 - Raphael Ketani. I received CAP 59 for EnviroTrac. The bill is DC2023.01-54 for the period 2/1/14 to 2/28/14. The date of the invoice is 3/13/14. The work consisted of project management, project coordination, generate internal work order, gauged wells, bailed product from wells, replaced collection socks, review and tabulate gauging and product recovery data, create data tables and enter data into them, complete 2013 Annual Report and submit for internal review, travel to and from site, calls to field staff at site, generate internal work order, use of light duty vehicle, low value equipment, sonic interface probe, and purchase supplies. I found the pay package to be acceptable and notified Steve Karwiel by e-mail.

5/5/14 - Raphael Ketani. I received CAP 60 for EnviroTrac. The bill is DC2023.01-55 for the period 3/1/14 to 3/31/14. The date of the invoice is 4/17/14. The work consisted of project management, project coordination, generate internal work order, gauged wells, bailed product from wells, replaced collection socks, review and tabulate gauging and product recovery data, create data tables and enter data into them, travel to and from site, calls to field staff at site, generate internal work order, use of light duty vehicle, low value equipment, sonic interface probe, and purchase supplies. I found the pay package to be acceptable and notified Steve Karwiel by e-mail.

5/21/14 - Raphael Ketani. I received an e-mail from Mr. Lorthioir regarding the sudden increase in the thickness of product in well MW-31. Mr. Lorthioir wrote:

The attached scan has three items. The first is a hydrograph showing product thickness in well MW-31 for 2013, the

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second for 2014 (to date). The last is a site plan showing the location of MW-31 and general groundwater flow direction. There was not much product observed in MW-31 in 2013. Only intermittently at the beginning of the year and a small amount (0.2 feet) in October. Since the beginning of 2014, however, and has twice been observed to be 10 inches or thicker. This re-appearance of product in MW-31 is what lead EnviroTrac to request the performance of EFR at the site. It is too early to tell if the EFR events have had the desired effect.

If you look at the site plan, you can see that MW-31 is located in a slightly upgradient part of the site. The other wells which have been exhibiting product are MW-8, MW-8A and MW-9. These wells are all located in the sidewalk along 25th Street. These wells, especially MW-8 and MW-8A, have been exhibiting varying amounts of product for the last several years. Wells MW-8, 8A and 9 were located near the former tank locations and, given this, I can understand why they might still exhibit product. But MW-31 is farther away from the former tanks and there was no product observed for quite a while. I know a rising and falling groundwater table can cause the re-appearance of free product, but to go from no product to over 10 inches is, in my opinion, fairly extreme. Also of note, the change in water table elevation has not caused the re-appearance of free product in any of the wells near MW-31. Some of these wells are less than 10 feet away and they should, in my opinion, also be exhibiting free product.

My concern is that there could be another site impacting upon the Dunkin Donuts property. I am proposing that we collect product samples from MW-31 and MW-8 and have them analyzed for composition and age.

We have been monitoring the upgradient wells on the street (MW-10, 10A and 11), and no product has been observed in them. The possibility exists, however, that petroleum is entering the site from underneath the building adjacent to the site, where there are no upgradient wells.

5/23/14 - Raphael Ketani. Mr. Lorthioir sent me an e-mail today. He stated that well VEFRing is taking place today. He remarked that well MW-31 had been free of product most of the year. So, it was surprising that 10 inches of product should suddenly appear. However, MW-8 (next to the subject well) has also often had some product. So Mr. Lorthioir does not believe this is a dumping incident. He added that his staff will knock on doors in order to find out whether someone has a fuel system problem nearby.

6/5/14 - Raphael Ketani. I received CAP 61 for EnviroTrac. The bill is DC2023.01-56 for the period 4/1/14 to 4/27/14. The date of the invoice is 5/13/14. The work consisted of project management, project coordination, generate internal work order, gauged wells, VEFR product from wells, review and tabulate gauging and product recovery data, create data tables and enter data into them, travel to and from site, calls to field staff at site, generate internal work order, use of light duty vehicle, low value equipment, sonic interface probe, and purchase supplies, contracting with Metro Environmental Contracting for providing a vacuum truck for VEFRing the wells. I found the pay package to be acceptable and notified Steve Karwiel by e-mail.

6/10/14 - Raphael Ketani. Mr. Lorthioir called again (631) 924-3001. He said that they checked the wells last week that had shown the presence of product and found thick product again in some of the wells. The product was bailed. Mr. Lorthioir commented that he wanted to do two things to help resolve the sudden appearance of the product. One is to contact Mr. Comacho from the NYFD and find out whether the commercial facilities next door have or had fuel oil tanks. The other is to do Kryzinski tests on the wells with product in order to find out how thick the product may be outside the well bores. This test involves bailing out the product from a well and then measuring it every 30 seconds or so to see how fast it comes back. The results are put into a formula and the outside the well thickness measurement is generated. I told Mr. Lorthioir to go ahead with both tasks.

Later, Mr. Lorthioir sent me an e-mail as a carbon copy. The e-mail was addressed to Mr. Camacho of the NYFD and asked for his assistance in locating any fuel oil tanks that may be in buildings next to the site.

6/12/14 - Raphael Ketani. Mr. Camacho responded to Mr. Lorthioir by e-mail with a list of other places that have

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tanks near the site.

Later, Mr. Lorthioir sent me an e-mail with an attached map highlighting the addresses that Mr. Camacho had included in his list. The highlighted map showed a location at 209 25th Street which was only two properties upgradient from the site. Mr. Lorthioir stated that he thought this property may be the source of the newly appeared product in well MW-31 and the others.

6/13/14 - Raphael Ketani. I researched the following properties that are on 25th Street via the Spills database in order to see whether they had or do have spills: 207; 209; 217; 220; and 225. None of these properties appeared in the Spills database. So, all I could assume was that they never had a spill or that they had a spill, but it was unknown to the DEC.

Next, I checked the PBS database. The location of 207 25th Street was not listed. As it was not listed on Mr. Camacho's list as ever having had a tank, I assumed that there was little likelihood of a spill coming from this location. I found that the tanks for the locations 220 and 225 25th Street were both registered in the PBS database. However, the tanks at the locations 209 and 217 25th Street had never been registered.

I sent an e-mail to Mr. Lorthioir stating that the DEC will knock on doors and see what we can find out about the tank systems at the unregistered properties. Presently, 209 and 217 25th Street are in violation of the PBS regulations. I let Lezek Zielinski, EE II and head of the PBS Unit, know about the unregistered tanks. He said that he will send someone out to inspect the properties in the very near future.

6/19/14 - Raphael Ketani. I spoke with Mr. Zielinski today. He stated that yesterday he had inspected the four facilities in question at 209, 217, 220 and 225 25th Street. He reported that the 220 and 225 25th Street facilities looked fine. Though, the 225 25th Street site may have more USTs than are listed on their PBS registration. So, he will have the owner come in for a meeting to settle this potential PBS violation.

However, he told me that the 209 and 217 25th Street facilities have just a complete concrete floor. Mr. Zielinski did not see any remote fill ports, nor any piping that would lead him to believe that USTs were present. The owners stated that they never knew of any USTs below their buildings (though the NYFD records show that tanks were present at least at some time). The DEC doesn't have any spill or PBS violations pertaining to the 209 and 217 locations. So, there doesn't appear to be any leverage that the DEC can use to get the owners to do GPR or electromagnetic surveys in order to possibly find any tanks. I sent an e-mail to Mr. Lorthioir with this information and told him to just continue to collect the product that appears.

7/1/14 - Raphael Ketani. Today I received a non-hazardous waste manifest for the disposal of oil contaminated debris at Republic Environmental Systems in Hatfield, Pennsylvania. The representative from the receiving facility signed the document on 6/10/14.

7/3/14 - Raphael Ketani. I received CAP 62 for EnviroTrac. The bill is DC2023.01-57 for the period 4/28/14 to 5/25/14. The date of the invoice is 6/11/14. The work consisted of project management, project coordination, generate internal work order, load vehicle, mobilization to site, gauged wells, VEFR product from wells, review and tabulate gauging, product recovery and EFR data, create data tables and enter data into them, create 2013 and 2014 hydrographs for select wells and complete hydrographs, travel to and from site, calls to field staff at site, call to lab regarding doing age dating, e-mail to DEC regarding proposed work, review old reports from DEC regarding product history, review proposal of Triassic Labs regarding age dating oil, e-mail to DEC regarding doing age dating of newly appeared product, generate internal work order and e-mail to DEC, coordinate drum pickup for full absorbent drums, use of light duty vehicle, low value equipment, sonic interface probe, and purchase supplies, contracting with Metro Environmental Contracting for providing a vacuum truck for VEFRing the wells. I found the pay package to be acceptable and notified Steve Karwiel by e-mail.

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7/15/14 - Austin - This PIN project is being transferred from Ketan i to Vought, for project consolidation and review purposes - end

8/5/14-Vought-Contract Payment Package (EnviroTrac)-(6/18/14 thru 6/29/14). Work performed included working on baildown test graphics/data entry and report writing, well monitoring and bailing, sock replacement, review and tabulation of gauging and EFR data, project coordination.

8/12/14-Vought-Called and spoke to NYSOAG Karpen and noted that DEC was performing full file review. NYSOAG noted a prior meeting with DEC where there was discussion of possible sources in addition to the Guarino site and the need for investigation of those possible additional sources. NYSOAG noted that Guarino still may be responsible for current onsite contamination if DEC still remediating that same contamination and as such no ISR was needed until additional responsible parties (if any) were found.

9/17/14-Vought-Contractor Application for Payment (EnviroTrac)-(6/30/14 thru 7/27/14). Gauged wells and bailed product, replaced absorbent socks, review and tabulation of gauging data, project coordination.

10/6/14-Vought-Contractor Application For Payment(EnviroTrac)- (7/28/14 thru 8/31/14). Work performed included: Site travel, monitoring and bailing of wells, review and tabulation of product recovery data, selecting and preparing files for submittal to NYSDEC, project coordination, File review by EnviroTrac at DEC offices from 8/11 thru 8/15, assembly of older data for submission to DEC, review of timeline generated by DEC, project management.

11/18/14-Vought-Contractor Application For Payment(EnviroTrac)- (9/1/14 thru 9/28/14). Work performed included: Site travel, monitoring and bailing of wells, review and tabulation of product recovery data, selecting and preparing files for submittal to NYSDEC, project coordination, project management.

12/9/14-Vought-Contractor Application For Payment(EnviroTrac)- (9/29/14 thru 10/26/14). Work performed included: Site travel, monitoring and bailing of wells, review and tabulation of product recovery data.

12/9/14-Vought-Contractor Application For Payment(EnviroTrac)- (10/27/14 thru 11/30/14). Work performed included: Site travel, monitoring and bailing of wells, review and tabulation of product recovery data, removing broken sock and other debris from MW8

1/26/15-Vought-Contractor Application For Payment(EnviroTrac)- (12/19/14 thru 1/31/15). Work performed included: Site travel, monitoring and bailing of wells, review and tabulation of product recovery data, project coordination.

3/10/15-Vought-Contractor Application For Payment(EnviroTrac)- (12/19/14 thru 1/31/15). Work performed included: Site travel, monitoring and bailing of wells, review and tabulation of product recovery data, project coordination.

4/7/15-Vought-Contractor Application For Payment(EnviroTrac)- (2/1/14 thru 2/28/15). Work performed included: Site travel, monitoring and bailing of wells, replaced socks, review and tabulation of product recovery data, project coordination.

4/30/15-Vought-Contractor Application For Payment(EnviroTrac)- (2/1/14 thru 2/28/15). Work performed included: Site travel, Replacing vault cover with manhole cover and cleaning enclosure area, filled vault with concrete, monitoring and bailing of wells, review and tabulation of product recovery data, project coordination.

5/28/15-Vought-Contractor Application For Payment(EnviroTrac)- (3/30/14 thru 4/26/15). Work performed included: Site travel, monitoring and bailing of wells,changing absorbent socks, project management and coordination.

6/19/15 - Obligado - Spill reassigned from Vought to Obligado.

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7/7/15-Vought-Contractor Application for Payment(EnviroTrac)- (4/27/15 thru 5/31/15). Work performed included: Site travel, monitoring and bailing of wells, bailed and drummed product , changing absorbent socks, project management and coordination.

8/5/15 - Obligado - Sent payment approval for CAP #75 for weekly monitoring and bailing of wells.

8/12/15 - Obliga

do - I spoke to Dave Lorthior and requested gauging and product bailing be reduced to biweekly, due to minimal product recovery.

9/15/15 - Obligado - I sent an email to David Lorthior requesting that based on minimal product thickness less than 0.03 ft, monitoring be reduced to monthly.

11/17/15 - Obligado - Email from David Lorthior on 11/16/15. Almost one foot of product found in MW31. Picture included. I called David and asked him to collect a product sample for forensics during the next visit.

11/20/15 - Obligado - Email to Lorthior approving the workplan for repair of 4 damaged on-site well vaults. Corroded 2x2 Steel Vault covers to be removed. The vaults are to be filled with cement and a circular 10 inch manhole to be installed around the well.

12/10/15 - Obligado - I inspected a potential source UST site at 276-280 24th Street. This site had a prior TTF failure, closed spill #0210214. According to the spill file, a 10k #2 fuel oil UST (empty since at least 1999) was abandoned in place in 2003. 3 soil samples were collected and below standards and the spill closed in 2006. The tank was never registered. I met Simon Liu, who is the current property owner. He runs a art supply warehouse/woodworking shop at the location. He recently purchased the property in 2013 and had no knowledge of any tanks at his property. Mr. Liu allowed me to inspect the basement, where I was able to discover an approx. 3 x 3 steel covered vault in the floor located towards the back of the basement of 276 24th St. MR. Liu had his workers open it for me with a crow bar. This vault was partially filled with concrete but contained piping which appeared to be remnants of a top of UST piping system. An apparent fill pipe was observed approximately 3 ft away from the sump. The fill pipe likely ran vertically to the ceiling than across the ceiling along the dividing/foundation wall between 276 and 280 24th St building parcels to the fill in the building wall. I informed Mr. Liu that the DEC would like to perform a geoprobe investigation in his basement around the suspect tank area. He had no objection and said the DEC could do whatever investigation we need to do. He signed a DEC access agreement form.

1/29/16 - Obligado - Conducted geoprobe investigation at 276-280 24th Street in vicinity of the 3 x 3 manhole. Prior to geoprobe a geophysical was done. Pipe runs which appeared to be related to fill piping were identified, however, no signal of the former tank was apparent in the basement. I inspected the vault and cleared out some of the debris in the vault and was able to more clearly see the piping components for the former tanks system. There were 2 transfer pumps inside the vault, which indicates that this 10k tank likely pumped product into 2 smaller tanks at some other location. No other tanks were identified on the premises. 4 geoprobe borings were conducted in the general area around the identified structures over the course of 2 days, however, no evidence of petroleum impact was encountered in the subsurface. All soils were free of any odors, staining, or PID readings. Due to the limited power of the small geoprobe rig we were using in the basement, all borings met with refusal due to very tight soils at approximately 10 ft bgs. However, absence of any apparent petroleum impacts in the shallow soil in this area of the basement suggest no spill occurred at this location.

4/25/16 - Obligado - I was provided with the Product Recovery and Gauging Results by EnviroTrack.

1/29 through 3/18/16 - Max LNAPL thickness

MW8 - 0.14 ft (bailed 1.5 gallons LNAPL, replaced sock)

MW8A - 0.32 ft (Bailed 1 gallon, replaced sock)

MW9 - 0.02 ft (Bailed 1 gallon, replaced sock)

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MW31 - 0.14 ft (Bailed 1.5 gallons)

6/17/16- Obligado - I was provided with an updated Product Recovery and Gauging Results table by Envirotrac:
April to May 2016 maximum LNAPL thickness

MW8 - 0.10 ft

MW8A - 0.74 ft

MW9 - 0.05 ft

MW31 - ND

6/24/16 - Obligado - I re-reviewed the file to identify other potential sources. According to the file, 207 25th Street also had a 550 gal UST which failed a tank tightness test on 9-10-93. I looked further into this issue and found the actual tank tightness test report by Tanknology which was included in the April 11, 1994 Unico Subsurface Investigation Report. According to the test report, both "bubble ingress" and "ullage ingress" were detected. Bubble ingress indicates there was a leak below the tank product level and is indicative of a leaking tank. I tried to find additional information regarding investigation into this tank failure and identified a letter from State Environmental Services dated February 5, 1994 stating "On February 5, 1994 State Environmental Services, Inc. permanently closed (1) 1000 gallon fuel oil storage tank. All work was done in accordance with DEC Regulations". No supporting documentation was included with the letter. It is not clear why this TTF was not investigated further. The file contained a correspondence between Unico and the DEC Project Manager proposing 3 monitoring wells around the suspect UST. No follow up to this correspondence could be found in the file. I also found photos of the 207 25th Street property taken on August 30, 1993 which show the location of the tank and 2 remote fills and 1 vent port. Red #2 heating oil spillage from overfills can be seen around and below the fill port on the wall and sidewalk. I searched the file for additional references to the 207 25th Street site and I found a Status Report dated May 1996-May 1997 prepared by F&N which documented an inspection performed by F&N personnel of up-gradient properties in search of potential sources. According to that report, "207 25th Street contained no UST on the property". I found another reference to 207 25th in a F&N Status Report dated December 28, 1999 which stated "An inspection performed on February 28, 1997 identified that the properties located at 205, 207, and 215 25th Street did not contain fuel oil tanks and are therefore also not contributors to the contamination". These reports are clearly incorrect based on the photo documentation of the UST system in the file. The presence of this historic failed tank on the property and absence of any tank closure assessment warrants further investigation. I sent a letter to the current property owner requiring a GPR survey to identify the tank location and a subsurface investigation consisting of a minimum of 4 soil borings around the abandoned tank. A work plan is due to the Department within 30 days. Letter sent to the property owner listed on Acris: PSJC LLC, 207 25th Street, Brooklyn, NY via Certified Mail Receipt #7001 0320 0003 7416 8275.

6/27/16 - Obligado - Per USPS website, the item was delivered to an individual at the address at 12:40 pm on June 27, 2016 in BROOKLYN, NY 11232.

6/28/16 - Obligado - I received a phone call from Sandi Fung of PSJC who is the property owner of 207 25th Street, Brooklyn, NY in response to my letter. She said they purchased the property in 2008 and they had a phase I and phase II reports. She said she was unaware of any tanks. She said she will send me the reports tomorrow. She inquired about the 30 day deadline. I told her I would review the reports and let her know if any thing else needed to be done.

6/29/16 - Obligado - I received an email from Sandi Fung. She will send me the Phase 1. She doesn't have a Phase II and she doesn't know if one was prepared.

I received Product Gauging Results from Envirotrac for June 2016

June 2016 LNAPL thickness

MW8 - 0.02 ft

MW8A - 0.03 ft

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7/1/16- Obligado - I reviewed the invoice for the May gauging and bailing event provided by Envirotrac and found billing errors, which I relayed to Steve Karwiel. They billed us for a Hydrogeologist when the work was performed by a tech. Steve will make the adjustment on the payment.

7/

13/16 - Obligado - I met Sandi Fung on the site. She provided me with access to the building. While the locations of the former fill ports were still apparent in the building exterior wall, no evidence of a UST could be seen inside the building. I provided her with the pictures of the tank and the failed tank tightness result from 1993. She said she had no knowledge of any tank when she purchased the property and the Phase 1 report did not identify any potential tanks or any need to do further investigation. We agree that she would provide access for the DEC to do a subsurface investigation around the former tank.

7/18/16 - Obligado - I met Dave Lorthioir at the site to discuss the planned investigation. 4 soil borings will be installed around the 550 UST area. 2 in the driveway, 1 in the sidewalk, and 1 downgradient on the D&D property. I provided Sandi with an access agreement.

7/25/16 - Obligado - I received the signed access agreement with Sandi.

7/26/16 - Obligado - Conference call with John Urda and Guarino's attorney Mr. Peterson. We requested access to put a well on the Guarino Property. Peterson said he saw no issues and would advise his client to sign and return the agreement. We discussed the status of the remediation and investigation. I told him there was residual free phase product in several wells in the southeast portion of the site which the DEC is removing via manual bailing once per month. He asked how long it would take to remove all the product, and I told him it would be impossible to know. He asked if it was ok if his client removed the former system enclosure. I told him the remedial system has been removed so there is no reason why they couldn't removed the fencing and the shed. I told him we just need a place to store one or two drums on the D&D property, which he said should not be a problem.

I made another site visit with Dave Lorthior and his markout sub contractor for the geophysical survey. According to the tech, it was not possible to survey the suspect UST area in the utility closet do to physical constraints. He marked out all the subsurface utility lines and we discuss proposed well locations.

8/10/16 - Obligado - I continue to investigate the other remaining potential source UST. I reviewed a Phase 1 Investigation Report and a Vapor Investigation Report for 213-219 25th Street. The reports were prepared by AKRF on behalf of NYCSCA who is planning to build a pre-K at the site. the reports document the presence of petroleum VOCs in soil vapor as well as TCE and recommends installation of a SSDS system. The phase 1 found no evidence of a tank at the site, which is not correct, based on DEC Records which document the presence of at least 1 1000 gal tank. I sent a property access letter request to the property owner Buono Enterprises to perform investigation of their former 1000 gallon #2 fuel oil UST. Sent via certified mail #7014287000006085169. I emailed NYCSCA and recommended they submit SSDS plans to the DEC/DOH for review prior to construction.

8/22/16 - Letter returned undelivered.

8/29/16 - Obligado - Field Work - Met Envirotrac and Associated on site to install 4 borings/wells at and around the abandoned UST at 207 25th street. I observed evidence of petroleum impacted soil (based on odors and elevated PID readings) in all soil borings as shallow as 10 ft below grade and extending to the water table at ~23 ft. Envirotrac will install the 4 wells on the following day

8/30/16 - Obligado - I spoke to dave who said one of the 3 borings the hit refusal at 13 ft when trying to install the well. They will try again tomorrow

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8/31/16 - Obligado - They hit refusal again at 13 ft. This well location will be abandoned.

9/8/16 - Obligado - Met Dave Lorthior on the site. Envirotrac was developing and sampling the 3 wells and repairing the sidewalk flag in front of 207 25th Street. Dave and I also met with Frank Buono at 217 25th Street. Representatives from SCA (MR. Ellis) were also at 217 25 to discuss issues related to their school construction. We looked at the former tank location went over potential boring locations. According to Frank, a tank closure assessment was performed in 1999 when he purchased the property, but he was unable to provide the soil boring results or the tank tightness testing results. He was only able to provide a tank closure affidavit and invoices of the work. Frank Buono signed the access agreement to allow DEC on site to perform soil boring investigation. I also requested SCA provide the SSDS plans.

9/9/16 - Obligado - I called Marisol at Riteway/PTC to inquire if they had any of the documentation of closure from 1999 for the 217 25th street site. They responded that all those files had been lost/purged when Riteway acquired PTC. I also sent an email to Frank Buono requesting the SSDS plans, at the request of SCA.

9/21/16 - Obligado - I met Envirotrac at 217 25th street site for the geoprobe investigation. At the time of the inspection, they were boring the location at the former UST. No evidence of contaminated soil (PID, odor, staining) was apparent in the vadose zone at B2 next to the tanks. Elevated PIDs and odors were apparent at the water table at 30 ft bgs. Based on the absence of contamination in the vicinity of the tank, this UST does not appear to be the source of Spill No. 9305122.

9/22/16 - Obligado - I sent an email to Frank Buono with cc to SCA notifying him that the UST at 217 25 this not the source of the spill. I still requested he provide the SSDS plans for the proposed school.

2/16/17 - Obligado - I completed my review of the data form the 207 25th street investigation. 4 borings were advanced, 2 within the building, 1 in the sidewalk adjacent to the fill port and 1 down gradient on the 737 4th Avenue Duncan donuts property. Soil contamination above Soil Clean UP Guidance was found in all borings. Soil contamination was found as shallow as 8 ft bgs. Groundwater contamination above TOGs was found in all wells. Free phase product was not encountered. The soil data and groundwater confirm that the 1993 tank test failure of the heating oil tank at 207 25th street resulted in a petroleum discharge to soil and groundwater. As such, a new spill was opened for the 207 25th street site - Spill No. 1610374.

2/17/17 - Obligado - I sent an email to Sandi Fung notifying him that based on the soil data, the tank at her property did leak and may have contributed to the spill.

3/21/17 - Obligado - Final Phase II report received from Envirotrac. The report documents investigations at 3 properties - 207 25th Street, 213 25th Street, and 276 24th Street. The report concludes that "the former UST system at the 207 25th Street property was a contributing source to the over all Spill. However, based upon prior investigations, prior laboratory analysis of product samples, the overall extent of the impated area and the volume of free product observed in the wells over the years, it is EnviroTrac's professional opinion that the property at 207 25th Street was not the sole source for the petroleum release. "

With regards to the 276 -280 24th street building the subsurface investigation was "inconclusive" because although no evidence of soil contamination was observed, the soil probes were not installed deep enough to confirm the absence of soil contamination below the suspect tank. This was because the investigaiton was done with a small geoprobe due to access limitations which could not penetrate the tight clay formation below 10-12 ft.

With regards to the 213th 25th Street site the report concludes that based on the absence of contamination in the shallow 213 B-1 boring, the abandoned 1000 gallon #2 fuel UST "had not leaked prior to its abandonment"

3/17/17 - Obligado - I received a DRAFT Remediation Alternatives Feasibility Study dated March 2017 which provides

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cost to closure esti
mates on various remedial alternatives to address the residual free product beneath the 4th and 25th Street site.

4/4/17 - Obligado - I sent a letter to Sandi Fung of PSJC LLC, cc to DEC Vought, Austin, Urda and AOG Judith Karpen, requiring a UST assessment (via either geophysical or intrusive methods) in the vicinity of the suspected UST to determine if the source tank was still present beneath the site and acting as a continued source for soil and groundwater contamination. I required the report be submitted within 90 days of receipt of the correspondence.

4/4/17 - Obligado - I sent an email to Erin Quell requesting EAR monitor and bail the product wells.

4/24/17 - Obligado - I received gauging results. Product thicknesses:

MW9 - 0.01
MW94 - 0.27
MW-31 - 1.53
MW-9 - 0.11
MW-8 - 1.73
MW-8a - 1.16

4/27/17 - Obligado - I got an email from Erin Quell that D&D complained of rats in the former equipment shed. After discussion with Randall Austin, DEC will remove the shed and fencing. I issued an amended callout to EAR with an increased budget to remove the system enclosure.

5/16/17 - Obligado - Erin Quell provided gauging results for May 5, 2017

MW-91 - 0.02
MW-94 - 0.31
MW-31 - 1.08
MW-9 - 0.08
MW-8 - 0.93
MW-8A - 1.23

Absorbent socks were placed in the wells.

6/18/17 - Obligado - Erin Quell provided Case Studies in support of the applicability of KAPSDIDS injection at this site.

8/21/17 - Obligado - 207 25th Street UST investigation findings submitted. The report concludes evidence of tank removal activities were found but no tank was found. The report concludes the tank was previously removed by others. See Spill #1610374.

8/25/17 - Obligado - I received an email from Erin Quell. The system shed, fence, coned disconnection, and sidewalk restoration has been completed.

9/7/17 - Obligado - I received an email with gauging summaries from Erin Quell from 8/28/17

MW-7 - 0.27 ft LNAPL
MW-8 - 0.61 ft LNAPL
MW-8A - No Data
MW-31 - 1.10 ft LNAPL
MW32-A - 0.02 ft LNAPL

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MW87 - 0.19 ft LNAPL
MW-82 - 0.02 ft LnAPL

9/27/17 - Obligado - I received an estimate for continuing site O&M bailing.

10/4/17 - Obligado - I sent an amended authorization for continued site monitoring and free product bailing. EAR will continue bailing product on a biweekly basis.

2/9/18 - Obligado - I reviewed a Field Activity Summary letter. The letter summarizes recent onsite activities, including gauging and recovery, system enclosure and well maintenance. The letter documents the removal of the former remediation system compound. All electrical service was disconnected and components removed. All remedial piping was cut below grade and capped. The vault for MW9 was replaced with 8" manhole.

9/24/18 - Obligado - Spill No. 9305122 is closed out. Remediation and monitoring to resume under Spill No. #1610374 / PIN #07960.

PIN
93256

T & A
P355

COST CENTER
90932566--93

CLASS: B3 **CLOSE DATE:** 09/24/2018 **MEETS STANDARDS:** True

Addendum to the April 11 joint committee report for Housing and Sanitation/Environment

In light of some of the questions that arose in response to the NYSDEC and NYSDOH presentations to the committee, recent developments, of which the committees were unaware of at the time, are pertinent. Recently New York State’s Brownfield Cleanup Program was renewed (it was set to expire at the end of the year) for another 10 years. It was amended to include some of the provisions advocated by committee members including coupling more generous tax credits to affordable housing and promoting development of sites for the use of building renewable energy. Also there is now a \$50,000 application fee.

From the Governor’s page of the NYS, Gov website:

“The Budget includes an extension and expansion of New York State's successful [Brownfield Cleanup Program](#) (BCP), which was set to expire in December 2022. The program is reauthorized for 10 years. The Budget improves the program by incentivizing cleanups in disadvantaged communities. Additionally, the program reaffirms Governor Hochul’s commitment to affordable housing development by expanding the universe of affordable housing programs eligible for BCP property tax credits, providing vital benefits to incentivize the redevelopment of brownfields as much-needed affordable housing. Further, the BCP now encourages the development of certain renewable energy facility sites, with new tax credits, to help focus BCP-driven redevelopment and meet the State's ambitious climate goals “

Moreover, some discussion by committee members focused on whether the program was a net win for the public or just a giveaway to developers given that participation is voluntary and most sites are not on any official lists of contaminated sites.

Proponents of the program claim:

“New York State’s Brownfield Cleanup Program (“BCP”) has proven to be one of the state’s most successful programs for spurring private-sector remediation and development of contaminated properties. As a quick overview, the state provides refundable tax credits that partially offset the costs of remediating and then developing brownfields in the state. By any economic measure, the program has delivered an excellent rate of return on the state’s tax-credit investment. Since the program’s inception in 2003, the numbers are compelling:

Costs Spent Remediating Brownfields (Site-Preparation and Onsite Groundwater Components)	\$2,366,629,466
Remediation Tax Credits:	\$722,351,753 (30.5%)

Costs Spent Developing Brownfields (Tangible Property Component)	\$15,249,091,485
Development Tax Credits:	\$2,048,767,391 (13.4%)
Total Costs Remediating and Developing Brownfields	\$17,615,720,951
Total Tax Credits:	\$2,771,119,165 (15.73%)

Numbers provided by NYS Department of Environmental Conservation ("DEC")."