REDACTED VERSION

FOURTH FIVE-YEAR REVIEW REPORT
FOR
AGRICULTURE STREET LANDFILL SUPERFUND SITE
NEW ORLEANS, ORLEANS PARISH, LOUISIANA

JULY 2018

Prepared by

U.S. Environmental Protection Agency
Region 6
Dallas, Texas

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FOURTH FIVE-YEAR REVIEW REPORT
AGRICULTURE STREET LANDFILL SUPERFUND SITE
EPA ID# LAD981056997
NEW ORLEANS, ORLEANS PARISH, LOUISIANA

This memorandum documents the U.S. Environmental Protection Agency's performance, determinations, and approval of the Agriculture Street Landfill Superfund Site fourth five-year review under Section 121(c) of the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S. Code Section 9621(c), as provided in the attached Fourth Five-Year Review Report.

Summary of the Fourth Five-Year Review Report

The time-critical and non-time critical removal actions performed at the site are protective of human health and the environment because contaminated soil was removed or contained and is protected from erosion, and a barrier has been constructed to prevent exposure to any remaining impacted soil. The soil barrier that covers the site is in place and expected to remain in place over time, restricting exposure to the remaining subsurface contaminants associated with the site. The City of New Orleans continues to comply with the Consent Decree issued to provide continued maintenance of the protective barriers where installed.

At one sub-slab soil sample location where polynuclear aromatic hydrocarbon compounds were detected, all available information supports a finding that no unacceptable exposure is occurring (a screening evaluation indicates that potential risk to these compounds via indoor air is within EPA's acceptable risk range). To be conservative, EPA recommends collection of air samples from inside the house to verify the findings of the risk evaluation.

Environmental Indicators

Human Exposure Status: Under Control Contaminated Groundwater Status: Under Control
Site-wide Ready for Reuse: Yes

Actions Needed

EPA will collect air samples from inside the home, to verify the findings of the risk evaluation.

Determination

I have determined that the remedy for the Agriculture Street Landfill Superfund Site, which consists of five operable units (OUs):

OU1 - Undeveloped Property
OU2 - Residential Properties (consists of the Gordon Plaza Apartments, Gordon Plaza subdivision, Press Park town homes and apartments, and retail businesses)
OU3 – Shirley Jefferson Community Center
OU4 – Moton Elementary School, which includes Mugrauer Playgroud
OU5 - Groundwater

is protective of human health and the environment.

for Ronald O Cumland
Carl E. Edlund, P.E.
Director, Superfund Division
U.S. Environmental Protection Agency Region 6

9/7/18
Date

CONCURRENCES

FOURTH FIVE-YEAR REVIEW REPORT
AGRICULTURE STREET LANFILL SUPERFUND SITE
EPA ID# LAD981056997
NEW ORLEANS, ORLEANS PARISH, LOUISIANA

Ursula Lennox
Remedial Project Manager

July 12, 2018
Date

Blake Atkins
Chief, LA/NM/OK Section

8/8/18
Date

John C. Meyer
Chief, Superfund Remedial Branch

8/21/18
Date

Pamela Travis
Practice Group Leader,
Office of Regional Counsel

08/30/2018
Date

Mark A. Peycke
Chief, Superfund Branch
Office of Regional Counsel

08/31/18
Date

for Pamela Phillips
Deputy Director, Superfund Division

9/7/18
Date

EXECUTIVE SUMMARY

The fourth five-year review of the Agriculture Street Landfill (ASL) Superfund Site, located in Orleans Parish, New Orleans, Louisiana, was completed in May 2018. The site is on the National Priorities List (NPL) and is a removal-only site, where a protective cover was placed over subsurface soil containing hazardous substances, pollutants, or contaminants above levels that would allow for unlimited use and unrestricted exposure. The U. S. Environmental Protection Agency (EPA) performed this fourth five-year review to confirm the site remains protective in accordance with the decisions defined in EPA's Records of Decision (ROD) for the site, signed in 1997 and 2002. This review has confirmed the removal actions performed continue to be effective and are protective of human health and the environment. The removal and follow-up actions performed are functioning as intended and maintenance is occurring in a sufficient manner to protect the permeable soil cover that covers the contaminants that remain in the subsurface soils. No deficiencies were noted that impact the protectiveness of the removal actions, although one follow-up action is recommended.

The site was used as a municipal landfill for the City of New Orleans from about 1909 until the landfill was closed in the late 1950s. The landfill was reopened in 1965 for approximately one year as a burning and disposal area for debris created by Hurricane Betsy. From the 1970s through the late 1980s, approximately 47 acres of the 95 acre site were developed for private and public uses; these areas supported single-family homes, multiple-family dwellings, retail businesses, an elementary school, community center, a recreation center, and an electrical substation. The remainder of the site remained undeveloped and heavily vegetated (EPA, 2003). EPA added the site to the NPL in 1994.

To address the contamination at the site, EPA defined the site into five operable units (OUs):

- Operable Unit 1 – Undeveloped Property
- Operable Unit 2 – Residential Properties
- Operable Unit 3 – Shirley Jefferson Community Center
- Operable Unit 4 – Moton Elementary School, including Mugrauer Playground (deleted from the NPL in June 2000; no further action needed)
- Operable Unit 5 – Groundwater (deleted from the NPL in June 2000; no further action needed)

During this fourth five-year review, soil sampling was conducted to support the evaluation of the current effectiveness of the removal actions performed. Soil samples were collected in October 2017 from 0 to 3 inches below ground surface at 32 surface soil locations across the site, including City rights-of-way and residential properties. One additional sample was collected in November 2017, at the request of a property owner, from the soil beneath the concrete slab of the residence, accessed through a vent space in the wall in the interior of the house. All samples were analyzed for lead, arsenic, and polynuclear aromatic hydrocarbons (PAHs). In the majority of the samples, concentrations were below the EPA Region 6 Residential Soil Screening Levels and Louisiana Risk Evaluation/Corrective Action Program (RECAP) screening levels for nonindustrial soil. The EPA and Louisiana screening levels were used for comparison because the site RODs do not define specific cleanup levels for the OUs.

At two surface soil sample locations, lead was detected (875-1500 mg/kg) above the residential screening levels (400 mg/kg EPA Region 6 and RECAP); at one of these locations arsenic was also detected (28.2 mg/kg) above the screening levels (0.68 mg/kg EPA Region 6 and 12 mg/kg RECAP). Both locations were in the City right-of-way located at the perimeter of the former Moton Elementary School property (OU4). The 1997 ROD determined that the property had been covered by three feet of

clean fill during construction of the school in 1985, and found that no further action was required because the fill material acted as a barrier and no risk attributable to site-related contaminants remained at the property. No erosion was observed to indicate the fill material had been disturbed, and as a result these detections are not expected to be related to the original OU4 contamination. Results will be communicated to the City of New Orleans.

The only detected PAH to exceed the residential screening levels in the 32 surface soil samples was benzo(a)pyrene, detected at three locations. One location is on the City right-of-way just outside of the OU1 boundary; in this sample 0.433 mg/kg was detected, which slightly exceeds the residential screening levels (0.11 mg/kg EPA Region 6 and 0.33 mg/kg RECAP). No significant erosion was observed to indicate the OU1 fill material had been disturbed, and as a result these detections are not expected to be related to the original OU1 contamination. These results will be communicated to the City.

The other two locations are on a residential property, where the homeowner requested, for this five-year review, two samples be collected. The detected concentrations (0.273 and 0.308 mg/kg) exceed only the EPA Region 6 screening level (0.11 mg/kg), but are below the RECAP screening level (0.33 mg/kg). These results will be communicated to the homeowner, but because the RECAP screening level is not exceeded, no further action is recommended.

The sub-slab soil sample collected in November 2017 was collected from beneath the base of the house, through an opening in the wall in the interior of the house. The vent opens up to the foundation of the home, where soil has subsided approximately 1 foot and 9 inches. A sample was collected of the soil, accessible through the opening in the wall. Lead and several PAH compounds were detected in the sub-slab soil sample at levels exceeding the action level for lead, as well as the EPA Region 6 and RECAP screening levels. Access to the space beneath the slab is limited, however, and risk of exposure to the detected compounds through the dermal absorption or ingestion exposure pathways is unlikely. EPA used a model to screen the detected PAH concentrations to evaluate the possibility of inhalation risk in the home.

The screening model showed that, based on the analytical results for the detected compounds in the single sub-slab soil sample, the excess lifetime cancer risk from exposure to indoor air was estimated to fall within EPA's generally acceptable excess cancer risk range of between 1×10^{-6} to 1×10^{-4}. For non-cancer effects, the risk from exposure to indoor air was estimated at a hazard quotient less than the EPA acceptable HI =1. As a result, no significant impacts on the health of people living in the house are expected, although the odor threshold for some of the compounds is low, and could be a nuisance. Because there are uncertainties associated with the estimated risk, however, including the lack of inhalation toxicity information for the detected organic compounds, the risk evaluation was inconclusive and indoor air sampling collected from inside the house is recommended to confirm the screening evaluation for inhalation exposure.

The five-year review also documented that construction activities related to the Southeast Louisiana Urban Flood Control Project are ongoing at the southeast corner of OU1, including the reroute of a rail track easement, in order to allow for the expansion of the Florida Avenue Canal. The United States Army Corps of Engineers (USACE) and the City of New Orleans have requested an area of 0.571 acres in the southwest corner of OU1, for permanent use as a rail track easement, and EPA is coordinating with the USACE and the City of New Orleans on this work.

EPA is also continuing to coordinate with the Housing Authority of New Orleans (HANO), as they work to address the remaining Press Park structures (located within OU2) that were damaged beyond repair by Hurricanes Katrina and Rita. HANO is pursuing plans to demolish the structures, although they may leave the units in place with engineering controls, as some of the townhomes are privately owned and are part of a class action lawsuit. Leaving the units in place will require continuous operation and maintenance to minimize safety hazards from unstable structures. Under either option, foundations would remain in place to serve as a barrier from subsurface waste.

The time-critical and non-time critical removal actions performed at the site are considered protective of human health and environment, because contaminated soil has been removed or contained and is protected from erosion, and a barrier has been constructed to prevent exposure to the remaining impacted soil. The soil barrier covering the site is in place and expected to remain in place over time, restricting exposure to the remaining subsurface contamination. The City of New Orleans continues to comply with the Consent Decree between the EPA and the City of New Orleans (Civil Action No. 02-3618, Section "E", Magistrate 2) signed on May 28, 2006, that requires maintenance of OU1 property and instructions for utility repair excavations to maintain continued integrity of the permeable barrier on those properties where it was installed. The completed response actions at the ASL site continue to prevent exposure to remaining site contamination in subsurface soil, and the remedy is protective of human health and the environment.

At one sub-slab soil sample location where polynuclear aromatic hydrocarbon compounds were detected, all available information supports a finding that no unacceptable exposure is occurring, and a screening evaluation indicates that potential risk to these compounds via indoor air is within EPA's acceptable risk range. To be conservative, EPA recommends collection of air samples from inside the house to verify the findings of the risk evaluation. With the measures described in the Consent Decree being accomplished by the City of New Orleans, and the findings from this review, EPA will resume efforts to delete the site from the NPL.

Protectiveness Statement

The time-critical and non-time critical removal actions performed at the site are protective of human health and the environment, because contaminated soil was removed or contained and is protected from erosion, and a barrier has been constructed to prevent exposure to any remaining impacted soil. The soil barrier that covers the entire site is in place and expected to remain in place over time, restricting exposure to the remaining subsurface contaminants associated with the site. The City of New Orleans continues to comply with the Consent Decree, issued to provide continued maintenance of the protective barriers where installed. Because the completed response actions for the ASL site prevent exposure to remaining site contamination, the remedy is considered protective of human health and the environment in the short- and long-term for each OU, and will continue to be protective if the recommendations identified in this five-year review are addressed.

Determination

The remedy for the ASL Superfund Site is protective of human health and the environment in the short- and long- term for each OU.

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ISSUES/RECOMMENDATIONS

FOURTH FIVE-YEAR REVIEW REPORT
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Issues/Recommendations
OU(s) without Issues/Recommendations Identified in the Five-Year Review:
OU1
OU2
OU3
OU4
OU5

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LIST OF ABBREVIATIONS AND ACRONYMS

ARAR	Applicable or Relevant and Appropriate Requirement
ASL	Agriculture Street Landfill
bgs	below ground surface
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
CIC	Community Involvement Coordinator
COPC	contaminants of potential concern
Corps	United States Army Corps of Engineers
cPAH	carcinogenic polynuclear aromatic hydrocarbons
EE/CA	engineering evaluation/cost analysis
EPA	United States Environmental Protection Agency
FEMA	Federal Emergency Management Agency
FYR	five-year review
gpd	gallons per day
HANO	Housing Authority of New Orleans
ICs	institutional controls
LDEQ	Louisiana Department of Environmental Quality
MCL	maximum contaminant level
M.C.S.	Mayor Council Series
msl	mean sea level
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NPL	National Priorities List
O&M	operation and maintenance
OU	operable unit
PAH	polynuclear aromatic hydrocarbons
RAO	remedial action objectives
RECAP	Risk Evaluation/Corrective Action Program
ROD	record of decision
RPM	remedial project manager
RRII	remedial/removal integrated investigation
SARA	Superfund Amendments and Reauthorization Act
TBC	to be considered
UU/UE	unlimited use and unrestricted exposure
µg/kg	micrograms per kilogram

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I. INTRODUCTION

The purpose of a five-year review (FYR) is to evaluate the implementation and performance of a remedy to determine if the remedy is and will continue to be protective of human health and the environment. The methods, findings, and conclusions of reviews are documented in FYR reports such as this one. In addition, FYR reports identify issues found during the review, if any, and document recommendations to address them.

The U.S. Environmental Protection Agency (EPA) is preparing this FYR pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Section 121, consistent with the National Contingency Plan (NCP)(40 CFR Section 300.430(f)(4)(ii)), and considering EPA policy.

This is the fourth FYR for the Agriculture Street Landfill (ASL) Superfund Site. The triggering action for this policy review is the last FYR completed in September 2013. EPA has chosen to perform this policy review because hazardous substances, pollutants, or contaminants remain at the site above levels that allow for unlimited use and unrestricted exposure (UU/UE).

EPA has defined five operable units (OUs) at the ASL site, as listed in Table 1.

Table 1. Summary of Operable Units

OU	Description	Status
OU1	Undeveloped Property	No further action required per the 2002 ROD
OU2	Residential Properties (consists of the Gordon Plaza Apartments, single-family dwellings in Gordon Plaza subdivision, the Press Court town homes, and retail businesses)	No further action required per the 2002 ROD
OU3	Shirley Jefferson Community Center	No further action required per the 2002 ROD
OU4	Moton Elementary School, which includes Mugrauer Playground	No further action required per the 1997 ROD Deleted from the NPL June 2000
OU5	Groundwater	No further action required per the 1997 ROD Deleted from the NPL June 2000

Each OU addressed the primary contaminant of concern (lead) and additional contaminants of potential concern (COPCs) including arsenic and carcinogenic polynuclear aromatic hydrocarbons (cPAHs). Due to actions already performed or conditions at the site, each OU was determined by EPA to pose no risk to human health and, therefore, required no further action.

This fourth FYR was led by Ms. Ursula Lennox, EPA Region 6 Remedial Project Manager (RPM). EPA was supported by CH2M under Response Action Contract No. EP-W-06-021. Other participants included:

- Ms. Janetta Coats, Community Involvement Coordinator (CIC)
- Mr. Edwin Akujobi, Louisiana Department of Environmental Quality (LDEQ)

The ASL site is located in the eastern section of the city of New Orleans, Orleans Parish, Louisiana. The approximate geographic coordinates for the center of the former landfill are 29° 59' 20" north latitude and 90° 02' 31" west longitude. The site consists of approximately 95 acres. As shown on Figure 1, the site is bounded on the north by Higgins Boulevard, on the northwest by Almonaster Boulevard, and on the south and west by the Southern Railroad rights-of-way. The eastern site boundary extends from the cul-de-sac at the southern end of Clouet Street (at the southeast corner of the site, near the railroad tracks) north to Higgins Boulevard between Press and Montegut Streets (EPA, 2002a).

Currently, the site is partially developed (see Figure 1). From the 1970s through the late 1980s, approximately 47 acres of the site were developed for private and public uses and currently support single-family homes, multiple-family dwellings, retail businesses, an elementary school (closed since 2005), a community center (closed since 2005), a recreation center (closed since 2005), and an electrical substation. The remainder of the site, approximately 48 acres, remains undeveloped and heavily vegetated (EPA, 2013).

Documents reviewed for this fourth five-year review are listed in Appendix A. Additional site background details, including geology, hydrogeology, land and resource use, and contamination history, are provided in Appendix B and may also be referenced in previous FYRs (e.g., EPA, 2013).

FIVE-YEAR REVIEW SUMMARY FORM

SITE IDENTIFICATION		
Site Name: Agriculture Street Landfill Superfund Site		
EPA ID: LAD981056997		
Region: 6	**State:** LA	**City/County:** New Orleans/Orleans Parish
SITE STATUS		
NPL Status: Final		
Multiple OUs? Yes	**Has the site achieved construction completion?** Yes	
REVIEW STATUS		
Lead agency: EPA *[If "Other Federal Agency", enter Agency name]:* N/A		
Author name (Federal or State Project Manager): Ursula Lennox		
Author affiliation: EPA Region 6		
Review period: 4/7/2017 - 12/31/2017		
Date of site inspection: 10/4/2017		
Type of review: Policy		
Review number: 4		
Triggering action date: 9/26/2013 (Date Third FYR Signed)		
Due date *(five years after triggering action date)*: 9/26/2018		

II. RESPONSE ACTION SUMMARY

Basis for Taking Action

The purpose of the response actions conducted at the ASL site was to protect public health and the environment from releases or threatened releases of hazardous substances from the site. The primary COPC at the ASL site was lead. Additional COPCs included arsenic and cPAHs. Exposure to affected soil, ground water, surface water, and sediment was determined to be associated with human health risks

higher than the acceptable range. The primary threats that the site posed to public health were: direct and indirect contact, ingestion, and inhalation of soil and waste that contain COPCs at concentrations that could pose unacceptable risks to a potentially exposed individual and ecological receptors; and the release of COPC-contaminated dust to the air at concentrations that could adversely affect human health and the environment. There was no identified pathway for exposure to impacted groundwater.

Initial Response

Prior to 1994, access to OU1, the undeveloped portion of the former landfill, was unrestricted, allowing unauthorized waste disposal and potential exposure to COPCs, such as lead, arsenic, and cPAHs found in the surface and subsurface soil. In a time-critical removal action, implemented concurrently with the Remedial/Removal Integrated Investigation (RRII), EPA installed an eight-foot high, chain link fence, topped with barbed wire, around the entire undeveloped portion of the former landfill (OU1). Fencing activities were conducted from March through May 1994. Several gates were installed to facilitate vehicular access by utility companies to electrical lines that traverse the site (EPA, 2003).

Response Actions

RRII fieldwork was conducted from April 4 through June 20, 1994. Samples of surface and subsurface soil, sediment, surface water, groundwater, indoor and outdoor air, dust, tap water, garden produce, and paint chips collected during the field investigation were submitted to laboratories for analysis (EPA, 2002a).

EPA conducted a second time-critical removal action at the site in February 1995, based on information presented in the RRII report. The removal action consisted of removing playground equipment and covering contaminated soil at OU3 with heavy grass sod. A third time-critical removal action was completed in March 1996 by the EPA to repair the fence surrounding OU1, which had been damaged by trespassers. Also, EPA conducted an Engineering Evaluation and Cost Analysis (EE/CA) to evaluate alternative removal actions for the site.

OU1, OU2, and OU3

An Action Memorandum authorizing a Non-Time Critical Removal Action for OU1, OU2, and OU3 was signed on September 2, 1997. The response action on OU1, OU2, and OU3 was performed in two phases; the first phase began October 15, 1998, and concluded February 2, 2000. The second phase began in August 2000 and concluded in April 2001. The removal actions, as described in more detail in the 1997 Action Memorandum and previous FYRs (e.g., EPA, 2013), are summarized in Table 2.

Table 2. Removal Action Summary

Operable Unit	Removal Action
OU1	• The undeveloped property (48 acres) was cleared of vegetation and graded to direct storm water runoff away from the residential area • A layer of geotextile filter fabric was placed on the subgrade and covered with 12 inches of clean fill. The purpose of the geotextile fabric was to create a physical barrier between clean cover soils and contaminated soils.
OU2 and OU3	• The top 24 inches of existing soil and waste material on the residential properties and community center were excavated and transported offsite for disposal. • Permeable geotextile filter fabric was placed on the subgrade and covered with 24 inches of clean fill.

The purpose of the geotextile fabric at OU1, OU2, and OU3 was to create a physical barrier between clean cover soils and the underlying contaminated soil. The geotextile mat does not act as a liner; it simply serves as a visible marker when the limit of clean fill has been reached. Vegetative layers were established on top of the clean backfill; OU2 and OU3 also have landscaping and yard restoration, driveway and sidewalk replacement, and final detailing.

After conclusion of the second phase response action, the EPA had implemented the removal action on 99% of the site (nine private homeowners elected not to participate in the removal action). At the conclusion of each phase of the response action, a Closeout Completion Package was provided to each owner of property in Operable Unit 1, 2, or 3 who participated in the removal action. The package contained a Closeout Letter, a Certificate of Completion, and instructions on how to maintain the permeable cap, including instructions for any necessary excavation below the geotextile mat/marker (EPA, 2013). Owners of properties that were not part of the response action received a letter and fact sheet from EPA, stating that maintaining the surface vegetation will minimize the potential exposure to contaminants in the subsurface soils and will prevent soil erosion. The letter also informed the residents that the contaminants of concern do not readily dissolve in water, but adhere to soil particles. Thus, in the event of a flood, the contaminants in the subsurface soil are expected to remain in place and not pose an additional risk of exposure to the residents (EPA, 2003).

EPA coordinated with the utility companies serving the communities within the site's boundary. The EPA developed Technical Abstract papers, providing instructions for utility repair excavations, which will ensure the continued integrity of the permeable barrier on those properties where it was installed. Instructions for excavation, both above and below the geotextile barrier, were included in the paper. Copies of the Technical Abstracts were provided to all of the utility companies and also made available at the repositories. The EPA also conducted a field demonstration of excavation and backfill procedures for utility companies at the site on December 1, 1999.

OU4 and OU5

OU4 (Moton Elementary School) was built on a three-foot layer of clean fill, which addressed all risks posed by this portion of the site. For OU5 (groundwater), residents in the site area were confirmed to be served by the municipal drinking water supply of the City of New Orleans, and information obtained from the LDEQ during site investigation activities confirmed that groundwater beneath the site is not used for any beneficial purpose and should not be considered a potential source of drinking water. In addition, site groundwater presents no other pathway of exposure (to surface water, for example).

Remedial Actions

The ROD for OU1, OU2, and OU3 was signed on April 4, 2002. No Further Action was the selected remedy to protect public health and the environment because previous actions (conducted under the 1997 Action Memorandum) addressed the unacceptable risks posed by site contaminants. No remedial action was performed.

The ROD for OU4 and OU5 was signed on September 2, 1997. The ROD required no further action as the selected remedy because there was no risk to human health, and recommended that both OUs be deleted from the NPL. After public notice and an opportunity for public comment, OU4 and OU5 were deleted from the NPL on June 15, 2000 (EPA, 2002).

Status of Implementation

The selected remedy at the ASL site was No Further Action as described in the RODs for OU1, OU2, OU3, OU4, and OU5. No remedial action has been performed, and the completed removal action discussed in the above section addressed the unacceptable risks posed by site contaminants.

Institutional Controls

Institutional controls (ICs) are non-engineered instruments, such as administrative and legal tools, that help minimize the potential for human exposure to contamination and/or protect the integrity of a remedy by limiting land use (EPA, 2005). The types of ICs in place at the ASL site are conveyance notifications and a city ordinance (Appendix C). A summary of the site ICs are included in Table 3.

Table 3. Summary of Implemented ICs

Media, engineered controls, and areas that do not support UU/UE based on current conditions	ICs Needed	ICs Called for in the Decision Documents	Impacted Parcel(s)	IC Objective	Title of IC Instrument Implemented and Date (or planned)
Soil	Yes	Yes	OU2 – nine properties that elected not to participate in the removal action	Notify the public that soil on these properties may contain contaminant levels that are unacceptable for non-industrial use of the property	Conveyance Notifications (filed at Orleans Parish Conveyance Office), December 2006
Soil	Yes	Yes	OU1, OU2, OU3, OU4	Permit requirement/zoning ordinance to require owners or lessees of land within ASL site who seek to excavate soil over 18" to provide notice to the City	City of New Orleans Ordinance No. 22,893 Mayor Council Series (M.C.S.), November 2007
Groundwater	No	No	OU5	Not applicable	Not applicable

Operation and Maintenance

Because hazardous materials remain onsite, following the time-critical and non-time-critical removal actions, certain Operation and Maintenance (O&M) activities are required to maintain the protectiveness of the remedy. O&M activities involve maintenance of the soil/geotextile and vegetative covers. These maintenance activities are the responsibility of each property owner. Post-closure care of the clean soil/geotextile and vegetative cover consists of routine activities to maintain the integrity of the surface soil and vegetation on each property. Surface maintenance includes filling holes above the geotextile barrier with clean soil and continued cultivation of vegetation to ensure a healthy cover over the clean fill. In the event that excavation below the geotextile barrier is required, EPA provided property owners with procedures for excavation of soil from below the barrier and restoration of the geotextile barrier (EPA, 2003).

Instructions for maintenance of the cover were provided for each OU property owner when the site work was completed, in the form of a Closeout Letter for OU1, OU2, and OU3 Property Owners. These instructions can be referenced as an attachment in the *Third Five Year Review Report* (EPA, 2013). A follow up letter was also sent to OU1, OU2, and OU3 property owners to provide supplemental information regarding the importance of the Certificate of Completion provided in the Closeout Letter, the potential impact a natural disaster might have on the properties, and the status of plans to review the soil removal action (EPA, 2002a).

As part of the Consent Decree, promulgated in January 2008 (Appendix D), EPA has coordinated with the utility companies serving the communities within the site's boundary. The EPA developed Technical Abstract papers, providing instructions for utility repair excavations, which will ensure the continued integrity of the permeable barrier on those properties where it was installed. Instructions for excavation, both above and below the geotextile barrier, were included in the paper. Copies of the Technical Abstracts were provided to all of the utility companies and also made available at the repositories. These abstracts are updated periodically and provided to LDEQ, the U.S. Army Corps of Engineers (USACE), the Housing Authority of New Orleans (HANO), and to the City to share with the utility companies. The City also joined the Louisiana OneCall system to ensure all contractors and utility companies performing work in the area will follow the excavation protocols dictated in the Technical Abstract papers. Prior to completing the response actions at the site, EPA conducted a field demonstration of excavation and backfill procedures for utility companies at the site (EPA, 2003).

Access to OU1 is currently restricted by an eight-foot high chain-link security fence with locked gates. Semiannual inspections of the fencing, gates, and the soil cover are performed by LDEQ personnel. The Action Memorandum called for removal of the fence around OU1 once the non-time-critical removal action was completed; however, at the request of OU1 property owners, EPA left the fence in place at the conclusion of the removal action. The Consent Decree stipulated maintenance by the City for the security fence around OU1 for a period of 10 years from the date of entry of the Decree, or until the Site is removed from the NPL, or EPA otherwise approves removal of the fence. Additionally, the Consent Decree specifies that vegetation at the site must be maintained by mowing the rights-of-way at OU1 at least twice a year, and requiring landowners to maintain mowing on their properties to protect the vegetative cover.

III. PROGRESS SINCE THE LAST REVIEW

A summary of the findings from the third FYR, submitted in 2013, is provided in Table 4. The protectiveness statement from the *Third Five Year-Review Report* (EPA, 2013) is provided as follows:

> "The time-critical and non-time critical removal actions performed at the ASL site are considered protective of human health and the environment because contaminated soil has been removed or contained and is protected from erosion, and a barrier has been constructed to prevent exposure to the remaining impacted soil. The soil barrier covering the site is in place and expected to remain intact, restricting exposure to remaining subsurface contamination. The EPA and the City of New Orleans have signed a Consent Decree that is addressing the issues and recommendations identified in the Second Five Year Review Report with an update provided in this report. Because the completed response actions for the ASL site currently prevent exposure to remaining site contamination, the remedy is considered protective of human health and the environment in the short-term and long-term—given that the remedy has been effective for over eleven years. The remedy will continue to be protective if the recommendations and follow-up actions identified in the five-year review continue."

Note, although the protectiveness statement does cite recommendations and follow-up actions, none were stipulated in the third FYR report. Therefore, no status updates are provided.

Table 4. Protectiveness Determinations/Statements from the 2013 FYR

OU #	Protectiveness Determination	Protectiveness Statement
1	Protective	Protective of human health and the environment in the short-term and long-term, and will continue to be protective if the recommendations and follow-up actions identified in the FYR are addressed
2	Protective	
3	Protective	
4	Protective	
5	Protective	

IV. FIVE-YEAR REVIEW PROCESS

Community Notification, Involvement and Site Interviews

A public notice was published in *The Times-Picayune* on July 19 and 23, 2017, stating that EPA was beginning the fourth FYR for the site and inviting the public to submit comments to the EPA. The results of the review and the report will be made available at the site information repository located at the LDEQ office in Baton Rouge, Louisiana. A copy of the public notice is provided in Appendix E. A public notice will also be published in *The Times-Picayune* to summarize the findings of the review and announce the availability of the report at the information repositories.

The Community Involvement Plan was updated in October 2014 (EPA, 2014). A copy of this plan is provided in Appendix F.

During the FYR process, interviews were conducted to document any perceived problems or successes with the remedy that has been implemented to date. Interviews were conducted with several local residents and property owners; Mr. Edwin Akujobi, LDEQ; Mr. Charles Allen III, Office of Resilience and Sustainability with the City of New Orleans; and HANO. Copies of the Interview Record Forms are provided in Appendix G and a summary of the discussions is as follows:

- The OU1 property is not being maintained as it should be by the City of New Orleans, as the area is heavily overgrown, unmowed, and portions of the fencing have fallen down. Illegal dumping continues to be a concern. The City of New Orleans maintains that monthly inspections are conducted, quarterly perimeter grass cuts at OU1 are performed, and debris is removed following reports of illegal dumping.

  LDEQ inspects the site twice a year and reports their findings to EPA via e-mail. EPA forwards the report to the city of New Orleans to address the observed concerns. Once the city has completed the work, an e-mail is sent to EPA with pictures, confirming the identified concerns have been addressed.

- Residents expressed disappointment that funds were spent remediating the site instead of purchasing the properties from owners so that they could move off of the site.

  As expressed to the residents over the years concerning the funds spent on remediating a site, the Superfund law does not authorize relocation at sites where a cleanup remedy can be implemented. Compensation for health issues or property losses, and provision of individual health care services are not provided under the EPA authorities. EPA has implemented a remedy that continues to be protective of human health and the environment. This fact is supported by Five Year Reviews and sampling that has been performed in the past.

- A resident noted various health concerns that were felt to be due to living on a Superfund site.

  EPA notified its Agency for Toxic Substances and Disease Registry (ATSDR) counterpart of this concern and requested a follow-up. No additional information has been provided at this time.

- Residents believe they were denied FEMA financial assistance/grants following Hurricane Katrina in 2005 because a Superfund site does not qualify for this funding.

  Residents were informed that questions related to the policies developed for the Road Home Program should be directed to the agency that is implementing the program. It was also expressed that EPA determined concrete foundations serve as a protective barrier from any possible waste that might exist in the subsurface soils. As a result, no additional actions were required.

  A resident objected to the redevelopment of the Gordon Plaza Senior Citizen Apartments that is currently ongoing; they believe the entire residential area should be bought out and no one allowed to move onto the site to live. The property owner of the apartments believes that the redevelopment will help restore the community.

  The property owner of the apartments contacted EPA in June 2016, of his intentions of purchasing the property for commercial and residential development. In a July 2016 letter, EPA provided the owner with site information and applicable federal Superfund statutory and regulatory provisions and Agency policies. The owner was informed of EPA's mission to protect human health and the environment from risks posed by contaminated or potentially contaminated lands, and EPA's intent to return lands to productive reuse. Based on the owner's plans to renovate existing buildings to maintain their original uses as residential in the apartment complex and commercial in the existing commercial building, which will be compatible with EPA cleanup actions, property restrictions, and excavation protocols for the site, EPA had no objections to the redevelopment. The owner has satisfied the "reasonable steps" criterion discussed in the "CERCLA's Bona Fide Prospective Purchaser Liability Protection" section of the comfort/status letter that was issued in July 2016, and development on the portion of the property is ongoing.

- The geotextile barrier is still in place at the Gordon Plaza Apartments as it was encountered during excavation for redevelopment.

  Though portions of the geotextile barrier were exposed along the northeast side of OU1's fenceline along Abundance Street, soil samples collected during the Fourth Five Year Review confirmed there is no exposure. The city of New Orleans was notified of the results and observation.

- Residents expressed that HANO has done an injustice to the property owners in the Press Park Community by not allowing them to return to or rebuild their homes, following Hurricane Katrina, nor to be compensated for their investment. Residents also stated that HANO is not communicating the available options to property owners.

  In 2014, HANO partnered with FEMA to distribute flyers throughout the community, announcing the demolition of Press Park housing units owned by the Agency. One hundred and fifty four structures were demolished in 2014, leaving all building slabs intact. In May 2015,

HANO and City leaders discussed demolition of the remaining privately owned units in Press Park. HANO maintains that security of the site continues.

- Residents called a meeting with the LDEQ in early summer of 2016, following reports of erosion at the corner of St. Ferdinand and Abundance streets, to press their case of property buy-outs.

  EPA attended this meeting and expressed that soil samples would be collected during the fourth Five Year Review, to confirm the remedy is still protective. Soil samples were collected and analyzed in October 2017. The results confirmed the 2002 remedy continues to be protective.

- The City of New Orleans reports that a new maintenance/management plan for the site is underway with the Office of Code Enforcement for maintenance activities.

  The EPA maintains good communication with the community, sending out information regarding what is happening at the site. It was suggested that more information regarding the site be made available on the EPA website.

  As new information develops on the site, EPA will continue to keep the community informed through fact sheets and postings on EPA's website.

Soil Sampling

Soil samples were collected for laboratory analysis to assess whether remedial actions continue to be successfully implemented for protection of human health and the environment. Sampling activities were conducted on October 2-3, 2017, and November 27, 2017, in accordance with the *Health and Safety Plan* (CH2M, 2017a) and the *Fourth Five-Year Review Sampling Analysis Plan* (CH2M, 2017b), using the streamlined version of the EPA QA/G4 guidance with a seven-step DQO process (EPA, 2006a).

Sample collection

In the October sampling event, samples were collected from 32 locations across the ASL site (Figure 2); 28 of the locations were collected at City rights-of-way and 4 locations were collected on residential properties, at the request of the respective property owners. Locations were recorded using global positioning system (GPS) units, to an accuracy of ±1 meter as depicted in Figure 2. Particulate monitoring was conducted throughout the sampling event and recorded approximately every hour. Readings on the monitor did not exceed 0.034 mg/m^3 during the event.

Samples were retrieved from the top 0 to 3 inches of soil using a hand auger. The hand auger was decontaminated between each sampling location. Clean nitrile gloves were used to extrude the soil from the sampling equipment and homogenize the soil before placing it into laboratory-provided, certified-clean sample jars. Jars were sealed with a custody seal, placed and sealed in individual sealable plastic bags, and placed on ice in a cooler. Sample locations were backfilled with any excess soil, followed by commercially-available topsoil that was compacted and made level with the surrounding ground surface.

On November 27, 2017, one additional sample was collected within a different residential property (not sampled in October), at the request of the property owner. The sample was collected from soil beneath the concrete slab of the house, through a vent space opening in the wall of the interior of the house. The vent opens up to the foundation of the home where soil has subsided approximately 1 foot and 9 inches. Due to access restrictions, the sample was collected using a clean stainless-steel ladle before homogenizing the soil and placing it into laboratory-provided, certified-clean sample jars. The same protocol described above was then followed.

Field quality control (QC) samples included field duplicates (FDs) and equipment rinsate blanks (EBs). Project-specific matrix spike/matrix spike duplicates (MS/MSDs) were also collected to monitor the

accuracy and precision ofl the sampling activity as well as the analytical process at the frequency specified in the sampling plan (CH2M, 2017b).

Soil samples were relinquished under proper chain-of-custody protocol and shipped overnight to the EPA Region 6 Laboratory in Houston, Texas, following EPA protocols. Samples were submitted for analysis of lead by Contract Laboratory Program (CLP) method ILM05.3. Ten percent of the samples were also collected and submitted for analysis of arsenic also by CLP method ILM05.3 and PAHs by CLP method OLM04.2. Laboratory data results are included in Appendix J.

Analytical Results

Analytical data were reviewed for quality based on criteria and limits presented in the EPA's *National Functional Guidelines* (EPA, 2008, 2010) to determine if the data meet project DQOs. Based on a comparison evaluation of the analytical data using these criteria, the data were determined to be usable and no data were rejected.

Detected concentrations of lead, arsenic, and PAHs were reported in the surface soil samples from rights-of-way and residential yards collected in October 2017 (Table 5). Detected concentrations of lead and several PAH compounds were reported in the sub-slab soil sample (Table 6); arsenic was not detected above the laboratory report limit.

The results were evaluated, based on comparison to the EPA Region 6 Residential Soil Screening Level and Louisiana Risk Evaluation/Corrective Action Program (RECAP) Soil Screening Standards for non-industrial land use. For the surface soil samples, a full list of the detected analytical results compared to the screening standards is provided in Appendix K (Table K-1). For the sub-slab soil sample, the full list of detected analytical results is presented in Appendix K (Table K-2).

Table 5. Surface Soil Sampling Reported Detections Exceeding Screening Values

Constituent	EPA Region 6 Residential Soil Screening Level[a] (mg/kg)	Louisiana RECAP Screening Standard[b] (mg/kg)	Sample Name	Sample Location	Result (mg/kg)
Lead	400	400	ASL-SS-02	City right-of-way	1500
			ASL-SS-16	City right-of-way	875
Arsenic	0.68	12	ASL-SS-02	City right-of-way	28.2
Benzo(a)pyrene	0.11	0.33	ASL-SS-01	City right-of-way	0.433
			ASL-SS-31	Residential property	0.273
			ASL-SS-32	Residential property	0.308

Notes:
[a] EPA Region 6 Residential Soil Screening Level represents the most conservative (lowest) value of Carcinogenic Target Risk and noncancer Child Hazard Index (EPA, 2017)
[b] Louisiana RECAP Soil Screening Standard for non-industrial land use (LDEQ, 2003)

Table 6. Subslab Soil Sampling Reported Detections Exceeding Screening Values

Constituent	EPA Region 6 Residential Soil Screening Level[a] (mg/kg)	Louisiana RECAP Screening Standard[b] (mg/kg)	Sample Name	Sample Location	Result (mg/kg)
Lead	400	400	ASL-SS-33	Residential Property	453
Benzo (a) anthracene	1.1	0.62			3.26
Benzo (a) pyrene	0.11	0.33			2.67
Benzo (b) fluoranthene	1.1	0.62			3.44
Dibenz (a,h) anthracene	0.11	0.33			0.665
Indeno (1,2,3-cd) pyrene	1.1	0.62			1.13

Notes:
[a] EPA Region 6 Residential Soil Screening Level represents the most conservative (lowest) value of Carcinogenic Target Risk and noncancer Child Hazard Index (EPA, 2017)
[b] Louisiana RECAP Soil Screening Standard for non-industrial land use (LDEQ, 2003)

Data Review

In the surface soil samples (excluding the sub-slab soil sample), exceedances of metal COCs were limited to two sampling locations for lead and one location for arsenic, both located in a City right-of-way on the perimeter of the former Moton Elementary School property (OU4) (Figure 3). No action was required at OU4, as determined in the 1997 ROD, because the area was built on a three-foot layer of clean fill. No erosion was observed to indicate the fill material had been disturbed, and as a result these detections are not expected to be related to the original OU4 contamination.

In these surface soil samples (excluding the sub-slab soil sample), benzo(a)pyrene was the only detected PAH to exceed its screening level; this COC exceeded one or both of the screening levels at three locations. One of the locations, ASL-SS-01, is located on the City right-of-way, just outside of the OU1 boundary (Figure 3), and the concentration of benzo(a)pyrene exceeded slightly both the EPA Region 6 and Louisiana screening levels. No erosion was observed to indicate the fill material had been disturbed, and as a result these detections are not expected to be related to the original OU1 contamination.

The other two surface soil sample locations where benzo(a)pyrene exceeded screening levels, ASL-SS-31 and ASL-33-32, are located on a residential property where the owner requested two samples to be collected as part of this five-year review. The results at this property exceed only the limiting (most conservative, or lowest, value) EPA Region 6 Residential Soil Screening Level, but are below the Louisiana RECAP Screening Standard for nonindustrial soil. No erosion or exposure of the barrier was observed to indicate the fill material had been disturbed. These results will be communicated to the homeowner, but because the RECAP screening level is not exceeded, no further action is recommended.

Constituents detected from the residential sub-slab soil sample, collected in November 2017, are provided also in Appendix K (Table K-2). It should be noted that variation in the PAH sample results was reported by the laboratory during QA/QC evaluation, and consequently the sample was reanalyzed at 10 times dilution. The initial sample results from the undiluted volume were significantly lower in

concentrations for all PAHs, compared to the reanalyzed volume. A conservative approach was taken when evaluating the two sets of results, due to the sample source being from a residential property, and therefore, the higher reanalyzed sample results are presented in Table 6 and Appendix K. The PAH results are estimated as biased high.

Lead and several PAH compounds were detected in the sub-slab soil sample. There is no risk of exposure to these compounds through the dermal absorption or ingestion exposure pathways because access to the subsurface beneath the concrete slab is limited and these exposure pathways are not complete. EPA screened the detected concentrations for the PAH compounds to evaluate inhalation risk. Based on the analytical results for the detected compounds in the single soil sample, the excess lifetime cancer risk from exposure to indoor air was estimated to fall within EPA's generally acceptable excess cancer risk range of between 1×10^{-6} to 1×10^{-4}. For non-cancer effects, the risk from exposure to indoor air was estimated at a hazard quotient less than the EPA acceptable HI =1. There are uncertainties associated with the estimated risk, including the lack of inhalation toxicity information for the detected organic compounds. There should be no significant impact on the health of people living in the house. However, the odor threshold for some of these compounds is low and could be a nuisance. To be conservative, EPA recommends collection of air samples from inside the house to verify the findings of the risk evaluation.

Site Inspection

The site inspection was conducted on October 2-4, 2017. In attendance were Ursula Lennox (RPM) and Janetta Coats (CIC) of EPA and Edwin Akujobi of LDEQ. The purpose of the inspection was to assess the protectiveness of the remedy. The completed site inspection checklist is provided in Appendix H. Photographs taken during the site inspection are provided in Appendix I.

Heavy rainfall occurred on the afternoon of October 2, 2017, and parts of the neighborhood experienced severe flooding. This was specifically observed on Almonaster and Higgins Avenues, and possibly other areas, but the entire site could not be traversed due to driving safety concerns. The floodwaters quickly receded and no adverse impacts to the clean soil cover were observed as a result of the heavy rainfall event.

General site conditions on OU1 remain similar to those reported in the third FYR. Illegal dumping has been hampered by the installation of gate locks, but continues at and around OU1. Dumping also still occurs in isolated areas, such as along Industry Street and streets that are not traveled frequently (Photographs 4 and 5 in Appendix I). Semiannual inspections are conducted by LDEQ, and issues are reported to the City of New Orleans to be addressed. The City reports quarterly grass cutting at the OU1 rights-of-way; however, during the site inspection, heavily overgrown vegetation and disrepair of the fencing at and around OU1 was observed (Photographs 1, 3, 6, and 7 in Appendix I). An updated maintenance/management plan for the site is being prepared by the City Office of Code Enforcement to more quickly and appropriately address these issues.

Minor erosion was observed at the corner of Saint Ferdinand and Abundance Streets, at OU1 (Photograph 2 in Appendix I). The geotextile barrier was not observed, indicating clean cover still remains atop of the contaminated soils.

During the inspection, construction activities related to the Southeast Louisiana Urban Flood Control Project, Phase IV Florida Avenue Canal Drainage Project, at the southeast corner of OU1, was observed. USACE and the City of New Orleans have coordinated with the EPA on this project since inception, as was noted in the third FYR (EPA, 2013). Activities related to this project that have occurred on the ASL site involve the construction to reroute a rail track easement by the Alabama Great Southern Railroad

Company (a subsidiary of Norfolk Southern Corporation) (AGS/NS), in order to allow for the expansion of the Florida Avenue Canal, required by the USACE. Structures on the OU1 property include pile caps for a structure protecting a City water main, new fencing along the utilized area, and a rail track easement (Photographs 13, 14, and 15 in Appendix I). AGS/NS requested that the temporary easement at the 0.571 acres in the very southwest corner of OU1 remain for permanent use.

For OU2, OU3, and OU4, vegetation is maintained on a regular basis, and the property managed by HANO is fenced and secured with locked gates (Photograph 8 in Appendix I), though some breaches in the fencing around OU2 were observed (Photograph 10 and 11 in Appendix I). The Gordon Plaza subdivision has recovered significantly, and yards are well manicured. Yards are also maintained on residential properties that are not occupied. Though heavy graffiti covers the Press Park units and Moton School (Photograph 9 and 11 in Appendix I), the vegetation is maintained. Active construction at the recently-purchased Gordon Plaza Senior Citizens apartments was observed during the site inspection, and renovations appeared to be nearing completion (Photograph 12 in Appendix I). The vegetation around these apartments is also maintained.

EPA has taken a proactive role in maintaining communications and coordinating with the City of New Orleans, USACE, FEMA, and HANO on projects that are being pursued near and on the site. HANO is pursuing plans to demolish the remaining Press Park structures that were damaged beyond repair by Hurricanes Katrina and Rita. Some of the townhomes are privately owned and are part of a class action lawsuit. As a result, HANO is evaluating plans that will possibly leave these units in place with engineering controls. This option will require continuous operation and maintenance, to minimize safety hazards from unstable structures. Foundations will remain in place to serve as a barrier from subsurface waste. FEMA will continue to keep all stakeholders up to date and engaged on plans as they develop.

V. TECHNICAL ASSESSMENT

QUESTION A: Is the remedy functioning as intended by the decision documents?

Question A Summary:
The decision documents for the site are:

1. The September 1997 Action Memorandum for Non-Time Critical Removal Action at OU1, OU2, and OU3
2. The September 1997 ROD for OU4 and OU5
3. The April 2000 ROD for OU1, OU2, and OU3

Based on the data review, site inspection, technical evaluation, and interviews, the selected remedy at the site (removal actions followed by a no further action ROD) is functioning as intended by the decision documents. EPA and LDEQ have concurred that the response actions for the site, defined by these documents, are complete. There are no early indicators related to the remedy that would suggest potential problems with the remedy at the site. Given that the worst case scenario has occurred at the site (i.e., Hurricane Katrina; EPA, 2006b) without impacting the selected remedy, EPA is confident that with the proper adherence to the ICs and Technical Abstract that the remedy will continue to be effective in years to come.

For the sub-slab soil sample, collected due to concerns expressed by the homeowner/resident, and where several PAH compounds were detected, no dermal or ingestion risk is expected, due to restricted access to this location beneath the slab, and the compounds detected are not typically associated with vapor intrusion risk. EPA did, however, perform a screening evaluation of the potential for vapor intrusion

risk, and the potential risk was found to be within EPA's acceptable risk range. To be conservative, EPA recommends collection of air samples from inside the house to verify the findings of the risk evaluation.

Operation and Maintenance

The O&M procedures are working to maintain the effectiveness of the remedy. The vegetative cover at the ASL site is well established and continues to protect the clean fill cover. While some repairs for the fencing around OU1 are needed, as documented during the October 2017 site inspection, it continues to help prevent exposure at the undeveloped property.

Implementation of Institutional Controls and Other Measures

The ICs in place at the ASL site continue to be effective in preventing exposure. The undeveloped property (OU1) is currently zoned as commercial/light industrial, preventing land development of the property for residential use. The City Ordinance No. 22,893 M.C.S. in place provides for notification to the City for excavations within the ASL area, to ensure activities are conducted in accordance with the established protocols for continued integrity of the geotextile barrier.

QUESTION B: Are the exposure assumptions, toxicity data, cleanup levels, and remedial action objectives (RAOs) used at the time of the remedy selection still valid?

Question B Summary:

Overall, the exposure assumptions used at the time of remedy selection are still valid. There are no changes in contaminant toxicity or other contaminant characteristics identified that affect the protectiveness of the remedy. No new laws or regulations have been promulgated or enacted that would call into question the effectiveness of the remedy to protect human health and the environment.

Changes in Standards and TBCs

There have been no changes to standards or toxicity data since the third FYR. No ARARs were identified in the RODs for the ASL site, as no further action was the selected remedy.

EPA Region 6 Risk Based Concentrations (RBCs) have been identified as TBC requirements. RBCs are not regulations and are screening levels; they are concentrations of chemicals in soil that correspond to an estimated excess cancer risk of $1x10^{-6}$ for an age-integrated residential receptor (exposure during childhood and adult years combined) using standard default exposure assumptions, and are intended to serve as a screening mechanism for COPCs at a site. If the concentrations of a COPC exceed its respective RBC, further action may be warranted at the site. No changes in Regional Screening Levels (RSLs), the current Region 6 RBCs, have occurred that would call into question the protection of human health.

Changes in Toxicity and Other Contaminant Characteristics

There have been no changes in toxicity factors or contaminant characteristics for COPCs at the site that would affect the remedy protectiveness.

Changes in Risk Assessment Methods

There have been no changes in EPA's standardized risk assessment methodologies or guidance that affect the protectiveness of the remedy at the ASL site.

Changes in Exposure Pathways

No new contaminants have been identified for the site as part of this FYR. Post-removal site conditions have eliminated or reduced human health exposure pathways present at the site.

HANO initiated demolition of the Press Park housing units on OU2 in 2014, but foundation slabs were left in place as additional protection, and the soil cover remains in place. The USACE is using a portion of OU1 for the Phase IV Florida Canal expansion project, but the small (~0.5 acre) area at the southeast corner remains secured with fencing, and subgrade excavations for the construction activities were completed under the direction of the Technical Abstract.

At the sub-slab sample location where PAH compounds were detected, all available information supports a finding that no unacceptable exposure is occurring (and a screening evaluation indicates that potential risk to these compounds via indoor air is within EPA's acceptable risk range). To be conservative, EPA recommends collection of air samples from inside the house to verify the findings of the risk evaluation.

No other information involving potential future land use within the site have been identified as part of this FYR that might call into question the protectiveness of the selected remedy.

Expected Progress Towards Meeting RAOs

No further action was the selected remedy at the ASL site, and therefore there are no RAOs.

QUESTION C: Has any other information come to light that could call into question the protectiveness of the remedy?

Other information that might call into question the protectiveness of the remedy include increased potential for flooding within New Orleans. Localized flooding during a heavy rain event observed during the site inspection for this FYR did not result in any apparent impacts to the geotextile barrier or increased exposure potential to the public or environment. Furthermore, given that the worst case scenario has occurred at the site (i.e., Hurricane Katrina; EPA, 2006b) without impacting the selected remedy, the selected remedy will continue to be effective in years to come, with proper adherence to the institutional controls and excavation protocols.

VI. ISSUES/RECOMMENDATIONS

Issues/Recommendations
OU(s) without Issues/Recommendations Identified in the Five-Year Review:
OU1 OU2 OU3 OU4 OU5

OTHER FINDINGS

Though no issues were identified that would affect the current or future protectiveness of the remedy at ASL, the following recommendations from the FYR process that may improve community acceptance and long-term performance of the remedy (but do not affect current and/or future protectiveness) are offered:

- At the sub-slab soil sample location where PAH compounds were detected, all available information supports a finding that no unacceptable exposure is occurring (a screening evaluation indicates that potential risk to these compounds via indoor air is within EPA's

acceptable risk range). To be conservative, EPA recommends collection of air samples from inside the house to verify the findings of the risk evaluation.

- Expedite implementation of the updated maintenance/management plan from the New Orleans Office of Code Enforcement to improve fencing and vegetation maintenance.
- OU4: The City of New Orleans will be notified of the sampling results with detections of site COCs that exceed residential screening levels on their rights-of-way.
- Complete the demolition of the remaining Press Park structures by HANO, or maintain the protective fencing more effectively.

VII. PROTECTIVENESS STATEMENT

Protectiveness Statement: OU1	
Operable Unit: OU1	*Protectiveness Determination:* Protective
Protectiveness Statement: The removal actions at OU1 continue to prevent exposure to the remaining site contamination and the remedy is considered protective of human health and the environment.	
Protectiveness Statement: OU2	
Operable Unit: OU2	*Protectiveness Determination:* Protective
Protectiveness Statement: The removal actions at OU2 continue to prevent exposure to the remaining site contamination and the remedy is considered protective of human health and the environment.	
Protectiveness Statement: OU3	
Operable Unit: OU3	*Protectiveness Determination:* Protective
Protectiveness Statement: The removal actions at OU3 continue to prevent exposure to the remaining site contamination and the remedy is considered protective of human health and the environment.	
Protectiveness Statement: OU4	
Operable Unit: OU4	*Protectiveness Determination:* Protective
Protectiveness Statement: Because OU4 was built on a three-foot layer of clean fill, exposure to the remaining site contamination is prevented and the remedy is considered protective of human health and the environment.	
Protectiveness Statement: OU5	
Operable Unit: OU5	*Protectiveness Determination:* Protective
Protectiveness Statement: Groundwater (OU5) beneath the site is not used for any beneficial purpose, should not be considered a potential source of drinking water, and exposure pathways are incomplete. The remedy is considered protective of human health and the environment.	
Sitewide Protectiveness Statement	
Protectiveness Determination:	

Protective
Protectiveness Statement: The completed response actions for the ASL site currently prevent exposure to remaining site contamination and the soil barrier covering the site is expected to remain intact; therefore, the remedy is considered protective of human health and the environment for each OU.

VIII. NEXT REVIEW

The next FYR report for the ASL Superfund Site is required five years from the completion date of this review.

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FIGURES

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Legend

Operable Unit

- OU-1
- OU-2
- OU-3
- OU-4

Notes:
Imagery Source: ESRI World Street Map online mapping service (April 2015)

OU = Operable Unit

N

0 125 250 500 Feet

Figure 1.
Site Map
Fourth Five-Year Review
Agriculture Street Landfill Superfund Site
New Orleans, Louisiana

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Legend

- Sample Identification

Operable Unit

- OU-1
- OU-2
- OU-3
- OU-4

Notes:
Imagery Source: ESRI World Street Map online mapping service (April 2015)

OU = Operable Unit

N

0 125 250 500 Feet

Figure 2.
Sample Identification Map
Fourth Five-Year Review
Agriculture Street Landfill Superfund Site
New Orleans, Louisiana

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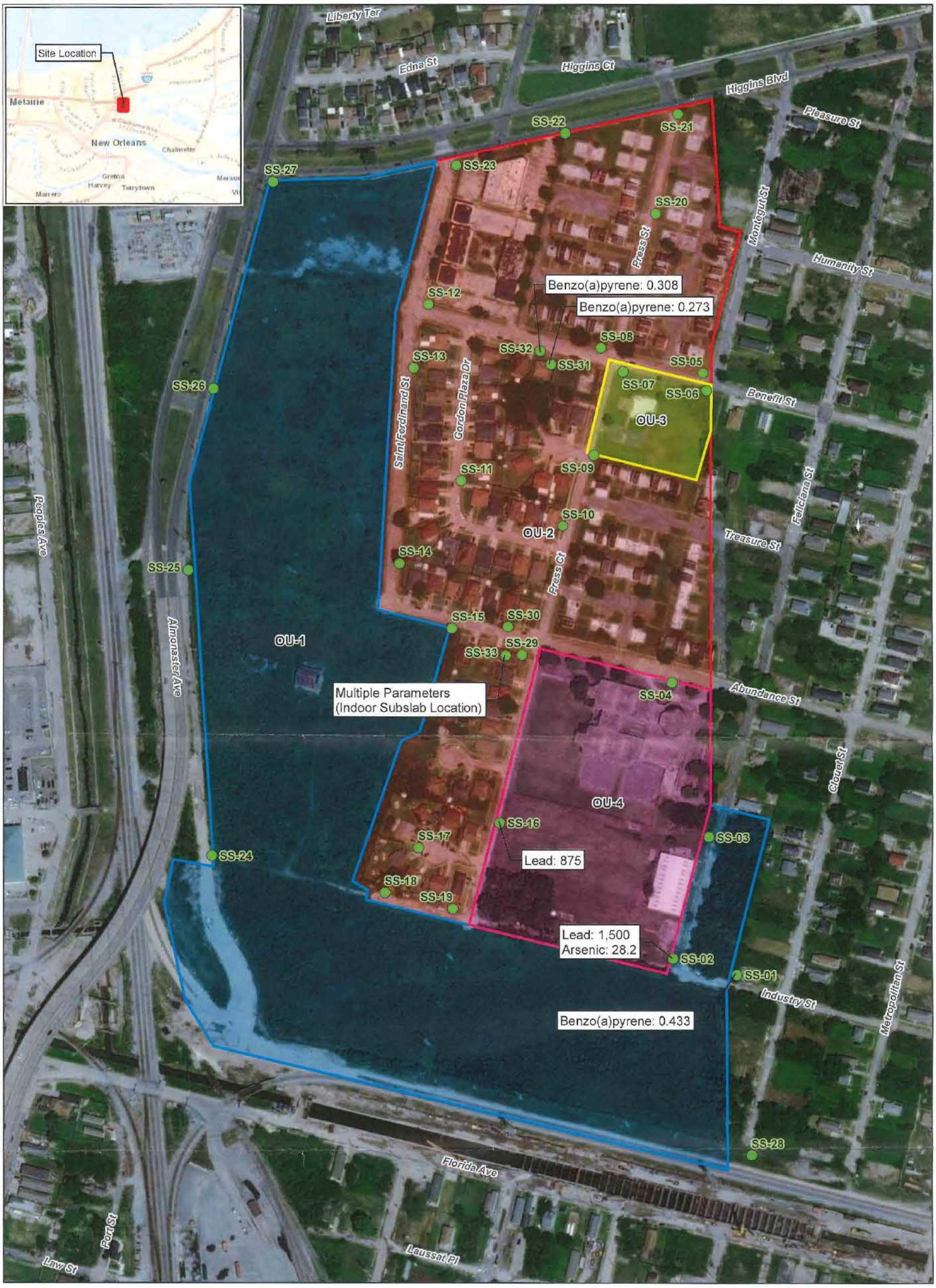

Legend

- Sample Identification

Operable Unit

- OU-1
- OU-2
- OU-3
- OU-4

Notes:
1. Soil results in milligrams per kilogram (mg/kg)
2. Imagery Source: ESRI World Imagery online mapping service (April 2015)

OU = Operable Unit

N

0 125 250 500 Feet

Figure 3.
Sample Results
Fourth Five-Year Review
Agriculture Street Landfill Superfund Site
New Orleans, Louisiana

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APPENDIX A
REFERENCE LIST

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APPENDIX A – REFERENCE LIST

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APPENDIX B
SITE BACKGROUND AND SETTING

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APPENDIX B

Site Background and Setting

The Agriculture Street Landfill (ASL) site is located in the eastern section of the city of New Orleans, Orleans Parish, Louisiana. The approximate geographic coordinates for the center of the former landfill are latitude 29°59'20" N, longitude 90°02'31" W. The site consists of approximately 95 acres. The site is bounded on the north by Higgins Boulevard, northwest by Almonaster Boulevard, and south and west by Southern Railroad rights-of-way. The eastern site boundary extends from the cul-de-sac at the southern end of Clouet Street (at the southeastern corner of the site, near the railroad tracks) north to Higgins Boulevard between Press and Montegut streets (EPA, 2002).

The site is partially developed. From the 1970s through the late 1980s, approximately 47 acres of the site were developed for private and public uses; this acreage currently supports single-family homes, multiple-family dwellings, retail businesses, an elementary school, a community center, a recreation center, and an electrical substation. The remainder of the site, approximately 48 acres, remains undeveloped and heavily vegetated (EPA, 2003).

Geology

The ASL site lies within the Pontchartrain Basin in the Mississippi River Deltaic Plain. The shallow subsurface geology (less than 100 feet below ground surface [bgs]) in the site area is a mixture of fine-grained materials, including peat, which is typical of a marsh/swamp depositional environment. Surficial soils are typically clayey silts or sandy silts, underlain by gray clay or organic clay that contains roots and other plant matter. A discontinuous peat layer may be encountered within this clay. The peat layer has been reported to be 5 to 10 feet thick in some areas of the site. A sequence of silty clays and sandy clays with interspersed silt and sand lenses is beneath the clay/peat unit. A fine-grained sand was encountered below a depth of 50 feet. Based on available data, this sand unit is more than 50 feet thick and is assumed to be part of the Pine Island Beach Trend (EPA, 2003).

Near-shore gulf deposits and late Pleistocene-age Prairie Formation sediments underlie the Pine Island Trend and overlie the sedimentary sequence that composes the New Orleans aquifer system. This aquifer system reportedly extends to a depth of approximately 850 feet bgs in the vicinity of the site. The late Pleistocene-age Prairie Formation consists of firm to stiff sandy and silty clays (EPA, 2003).

Hydrogeology

Below the site is a shallow hydrogeologic unit, which includes all water-bearing units above the Prairie Formation, and a deep hydrogeologic unit, which includes the four aquifers that compose the New Orleans aquifer system.

Shallow water-producing deposits (less than approximately 150 feet bgs) fall into two categories at the site: 1) small, isolated, near-surface sands that represent buried beaches and other locally deposited sands; and (2) point bar and tributary channel sands deposited by the Mississippi River and its tributaries. Locally, the small, isolated, near-surface sands are not known to contain potable water and are not extensive enough to supply large quantities of poor-quality water (EPA, 2003).

The deeper hydrogeology of the New Orleans area is characterized by a complex series of alternating beds of sand and clay that compose the New Orleans aquifer system. This system is normally defined as a series of four sand units, from land surface to the base of the 1,200-foot aquifer (EPA, 2003). The four major aquifers in this succession, in descending order, are the Gramercy, Norco, Gonzales-New Orleans, and 1,200-foot aquifers. The Gonzales-New Orleans aquifer is the only aquifer that contains significant quantities of fresh water beneath New Orleans. Because of its areal distribution, thickness, and

availability of fresh water content, it is the only practical choice for consideration as a public supply source (EPA, 2003).

Aquifers of the New Orleans aquifer system are recharged directly by precipitation, percolation downward through the overlying surficial sediments, and recharge from the Mississippi River. Recharge from precipitation is sufficient to maintain relatively constant, long-term water levels in the aquifers at the outcrop areas. Observations of water levels in shallow wells near the outcrop areas indicate that long-term water levels are not affected by groundwater pumping (EPA, 2003).

Land and Resource Use

The historical use of the site was as a municipal landfill for the City of New Orleans. Landfill activities began in approximately 1909 and continued until the landfill was closed in the late 1950s. The landfill was reopened in 1965, for approximately 1 year, for use as a burning and disposal area for debris created by Hurricane Betsy. Current land and resource uses (including surface water and groundwater) are described in the following paragraphs.

The approximately 95-acre ASL site includes 47 acres that were developed from the 1970s through the late 1980s; these acres support single-family homes, multiple-family dwellings, retail businesses, an elementary school, a community center, a recreation center, and an electrical substation. The remaining 48 acres of the former landfill is undeveloped and heavily vegetated.

Developed areas near and within the ASL site have historically been and remain predominantly residential, but some commercial, manufacturing, and retail/service businesses were established in the surrounding area. Prior to Hurricane Katrina, the Moton Elementary School yard and the Shirley Jefferson Community Center were used year-round for recreational purposes. An extensive railroad network is located west and south of the site, and Interstates 10 and 610 merge approximately 0.5 mile west of the site. The Southeast Louisiana Urban Flood Control Project, which is being implemented by the U.S. Army Corps of Engineers, is using a portion of Operable Unit (OU) 1 to temporarily relocate some of the railroad network and for a staging area during canal drainage. The U.S. Army Corps of Engineers will continue to coordinate with the U.S. Environmental Agency (EPA) during this effort to ensure that the integrity of the cap is maintained.

Currently, the Gordon Plaza Apartments, the Press Park town homes and apartments, and retail businesses are not occupied, and several single-family dwellings in the Gordon Plaza subdivision are not occupied or were demolished down to the concrete slab. However, new development of the apartment buildings is underway along Saint Ferdinand Street, north of Benefit Street, and a number of the other single-family dwellings have been restored or are nearing completion. One of the homes on Gordon Plaza Drive was sold. The previous owner informed the purchaser that the property was remediated and provided supporting documentation to confirm the property was remediated by EPA. The new owner is pleased with their home. The estimated population residing on the site prior to Hurricane Katrina was 1,137 people, with an average household occupancy of 3.05 people (EPA, 2003). As a result of the flooding left by Hurricane Katrina, a significant reduction in population occurred in the area; that reduction in population remains. Currently, the Shirley Jefferson Community Center, the Moton Elementary School, and retail businesses are closed to the public. The current population at the ASL site is unknown, but it is estimated that only a few hundred residents remain on the site. The Third Five-year Review Report indicated 374 households present on the ASL site, distributed as follows: 170 units owned and operated by the Housing Authority of New Orleans, 128 units of the Gordon Plaza Apartment complex, and 67 units of single-family dwellings (EPA, 2013). Since then, 154 of the units owned by the Housing Authority of New Orleans were demolished, in 2014.

The principal surface water bodies in the general site vicinity are Lake Pontchartrain, the Mississippi River, and surface water canals. The main surface water features in the immediate site vicinity are the

Peoples Avenue Canal to the west of the site and the Florida Avenue Canal to the south of the site. During periods of low flow, water from the Florida Avenue Canal is pumped into the Mississippi River. During periods of high flow, water is pumped into the Industrial Canal (also known as Inner Harbor Navigation Canal). The Industrial Canal flows north and eventually discharges into Lake Pontchartrain. During the removal action conducted at OU1, OU1 was graded to direct stormwater runoff away from the adjacent residential area. Stormwater runoff at the site is directed to the Peoples Avenue Canal and the Florida Avenue Canal, by way of a network of storm drains (EPA, 2003).

Lake Pontchartrain is used for recreational activities and fishing, on a limited basis. In addition, several municipalities in the area reportedly use Lake Pontchartrain for treated sewage disposal. The lake is not used as a drinking water source. The Mississippi River has been the primary source for municipal drinking water and other water requirements in the greater New Orleans area since approximately 1907. The Mississippi River and the Inner Harbor Navigation Canal are used extensively for commerce (EPA, 2003). Groundwater for commercial use is drawn primarily from the Gonzales-New Orleans aquifer. In 1986, the major pumping stations were located in proximity to the University of New Orleans, the Industrial Canal area north of U.S. Highway 90, the Michaud area, and downtown New Orleans. Although used for commercial purposes, 28 of the Gonzales-New Orleans aquifer wells are designated as emergency drinking water supply wells. Based on information provided in the Remedial/Removal Integrated Investigation report, prepared by Ecology and Environment, Inc., "...of these 28 wells, one well appears to be located within one mile of the site; five appear to be located within two miles of the site; four appear to be located within three miles of the site; and three appear to be located with four miles of the site" (EPA, 2003).

As of 1986, pumpage had declined to approximately 30 million gallons per day from a high of approximately 43 million gallons per day in 1969. No usage of shallow groundwater in the site area had been reported (EPA, 2003).

History of Contamination

The ASL site was first authorized for use as a dump in 1909, when the City of New Orleans was engaged in an effort to phase out the dumping of municipal wastes and trash into various canals in the vicinity and into the Mississippi River. In 1913, disinfectants were applied to the garbage at the dump, and starting in 1914, oil was used to burn all refuse received at the dump. Refuse was reportedly composed of household waste collected through city collection systems and commercial waste brought to this and other dumps by producers and private transporters (EPA, 2003).

A 1921 plan was approved by the city of New Orleans that established the ASL site as the receiving point for the city's refuse. In 1922, the 400 tons of refuse produced each day by the residents of New Orleans were primarily disposed of at this landfill. Throughout the 1920s and 1930s, the ASL site continued to be used as the primary waste disposal area for New Orleans (EPA, 2003).

In 1948, area residents complained about the smell and smoke from occasional dump fires. In response to uncontrolled fires and trespassers at the dump, the city transformed a portion of the dump into a sanitary landfill. Reportedly, during the 1940s and 1950s, the ASL site area was routinely sprayed with the pesticide dichlori-diphenyl-trichloroethane (4,4'-DDT) (EPA, 2003).

In October 1948, the city began excavation on the northern part of the site to create the sanitary landfill. Trenches were excavated, cleared with drag lines, and prepared to receive waste, which was to be covered with earth. Three cells were excavated to receive refuse. The landfill continued to receive increasing quantities of waste until the city constructed its Florida Avenue and Seventh Street incinerators in 1957 (EPA, 2003). Open burning continued at the landfill, and the public effort to close the facility intensified. According to the Mayor's annual report for 1950, a building was constructed as

part of the city's recycling effort. Salvageable materials were picked from the refuse and unsalvageable material was landfilled (EPA, 2003).

In 1965 and 1966, the ASL site was used on an emergency basis to accept debris and spoiled foodstuffs resulting from Hurricane Betsy, which occurred in September 1965. Records indicate that approximately 300 truckloads of wastes per day were disposed of in the ASL site for a 6-month period. Open fires were used to burn much of the debris. The landfill was officially closed in 1966; however, an aerial photograph from 1967 shows some type of operation continuing at the ASL site (EPA, 2003).

References

Ecology and Environment, Inc., 1995. Agriculture Street Landfill Final Remedial/Removal Integrated Investigation Report – Volumes 1-4. March 1995.

U. S. Environmental Protection Agency (EPA), 2002. Record of Decision, Agriculture Street

Landfill Superfund Site Operable Unit 1, Operable Unit 2, Operable Unit 3. April 2002.

U. S. Environmental Protection Agency (EPA), 2003. First Five-Year Review Report for Agriculture Street Landfill Superfund Site New Orleans, Orleans Parish, Louisiana. June 2003.

U. S. Environmental Protection Agency (EPA), 2013. Third Five-Year Review Report for the Agriculture Street Landfill Superfund Site New Orleans, Orleans Parish, Louisiana. September 2013.

APPENDIX C
CITY ORDINANCE

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ORDINANCE
(AS AMENDED)
CITY OF NEW ORLEANS

CITY HALL: October 18, 2007

CALENDAR NO. 26,751

NO. 22893 MAYOR COUNCIL SERIES

BY: COUNCILMEMBER WILLARD-LEWIS (BY REQUEST)

AN ORDINANCE to amend Article I of Chapter 26 of the Code of the City of New Orleans by adding a section thereto, to be designated Section 26-11, to require a permit for excavation within the area known as the Agriculture Street Landfill site, in order to ensure that any excavation is performed in accordance with the protocols established by the Environmental Protection Agency; and otherwise to provide with respect thereto.

SECTION 1. THE COUNCIL OF THE CITY OF NEW ORLEANS HEREBY ORDAINS, that Article I of Chapter 26 of the Code of the City of New Orleans, be and the same is amended and reordained to read as follows:

ARTICLE I. IN GENERAL

* * * *

Sec. 26-11. Excavation within the Agriculture Landfill Site.

(a) The requirements of this sub-Section, 26-11, shall be applicable to the Agriculture Street Landfill site located in Orleans Parish, City of New Orleans. The approximately 95-acre site is bounded by Higgins Boulevard on the north, the above-grade railroad rights-of-way on the south and west, and the cul-de-sac at the southern end of Clouet Street, near the railroad tracks, to Higgins Boulevard between Press and Montegut streets on the east.

(b) Upon application for an Excavation Permit within the boundaries of the Agriculture Street Landfill site, the Department of Safety and Permits shall provide the applicant with a copy of the

Protocol on Post-Removal Maintenance for Property Owners. Owners or lessees of land within the Agriculture Street Landfill Site who seek to excavate soil to a depth of greater than 18 inches shall provide notice to the Department of Safety and Permits and shall first apply for an Excavation Permit certifying in such Excavation Permit application their intent to excavate and to comply with the U.S. Environmental Protection Agency's Protocol on Post-Removal Maintenance for Property Owners for the handling of contaminated soils and repair of the soil/geotextile mat. In not less than three (3) days after applying for an Excavation Permit, an Excavation Permit may be issued to the applicant. No fees shall be charged for residential properties in connection with obtaining an Excavation Permit.

* * * *

ADOPTED BY THE COUNCIL OF THE CITY OF NEW ORLEANS NOVEMBER 15, 2007

ARNIE FIELKOW
PRESIDENT OF COUNCIL

DELIVERED TO THE MAYOR ON NOVEMBER 16, 2007

APPROVED:
~~DISAPPROVED~~: NOVEMBER 20, 2007

C. RAY NAGIN
MAYOR

RETURNED BY THE MAYOR ON NOVEMBER 21, 2007 AT 12:40 P.M.

PEGGY LEWIS
CLERK OF COUNCIL

ROLL CALL VOTE:
YEAS: Carter, Darnell, Fielkow, Head, Hedge-Morrell, Midura, Willard-Lewis - 7
NAYS: 0
ABSENT: 0

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THE FOREGOING IS CERTIFIED
TO BE A TRUE AND CORRECT COPY
CLERK OF COUNCIL

APPENDIX D
CONSENT DECREE

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IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF LOUISIANA

UNITED STATES OF AMERICA,	§	
	§	
Plaintiff,	§	
	§	
v.	§	Civil Action No. 02-3618
	§	Section "E"
CITY OF NEW ORLEANS; CFI INDUSTRIES, INC., formerly doing business as Letellier Phillips Paper Company; DELTA BY-PRODUCTS, INC.; EDWARD LEVY METALS, INC,	§	Magistrate 3
	§	
	§	
	§	
	§	
Defendants.	§	

NOTICE OF LODGING OF CONSENT DECREE

The United States is hereby lodging a Consent Decree with the Court that resolves the United States' claims against the City of New Orleans and the City's counter-claims against the United States in this matter. Pursuant to the provisions of Section 122(d)(2) of CERCLA, 42 U.S.C. § 9622(d)(2), and 28 C.F.R. § 50.7, the United States must publish a notice of the Consent Decree in the Federal Register upon lodging it with the Court and must allow 30 days for public comment on the Decree. Once the 30-day public notice and comment period has elapsed, and assuming that public comments have not caused the United States to reconsider the terms of the Consent Decree, the United States will move the Court for entry of the Decree or for other appropriate action. The Consent Decree provisions regarding this procedure are set forth in Section XX of the Decree.

The United States respectfully requests that the Court not sign and enter the Consent Decree until such time as the United States files a motion for entry of the Decree.

Respectfully submitted,

RONALD J. TENPAS
Assistant Attorney General
Environment and Natural Resources Division
U.S. Department of Justice
Washington, D.C. 20530

Date: 5/28/2008

/s/Kenneth G. Long (DC Bar No. 414791)
KENNETH G. LONG
JEFFREY M. PRIETO
Trial Attorneys
Environmental Enforcement Section
Environment and Natural Resources Division
U.S. Department of Justice
P.O. Box 7611
Ben Franklin Station
Washington, D.C. 20044
(202) 514-2840
(202) 616-6584 (fax)

JAMES LETTEN
U.S. Attorney
NEID FRANCIS
Assistant U.S. Attorney
Eastern District of Louisiana

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CERTIFICATE OF SERVICE

I hereby certify service of the Notice of Lodging of Consent Decree, unless otherwise noted, on this 28th day of May, 2008, upon:

PARTY	ATTORNEY IN CHARGE
Attorneys for City of New Orleans	Evelyn F. Pugh CITY OF NEW ORLEANS 1300 Perdido Street Room 5E03 New Orleans, LA 70112 (Via Facsimile, 504-658-9868)
Attorneys for Delta By-Products, Inc. and Edward Levy Metals, Inc.	Lawrence G. Pugh III PUGH, ACCARDO, HAAS & RADECKER, L.L.C. Energy Centre 1100 Poydras Street, Suite 2000 New Orleans, LA 70163-2000 (Via Facsimile, 504-799-4520)
Attorney for Board of Commissioners of the Port of New Orleans	Jeffrey Mark Lynch BOARD OF COMMISSIONERS OF THE PORT OF NEW ORLEANS Port of New Orleans 1350 Port of New Orleans Place P.O. Box 60046 New Orleans, Louisiana 70130 (Via Facsimile, 504-528-3209)

s/ Kenneth G. Long (DC Bar No. 414791)
Kenneth G. Long
Senior Attorney
Environmental Enforcement Section
Environment and Natural Resources Division

Date: May 28, 2008

IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF LOUISIANA

UNITED STATES OF AMERICA,	§	
	§	
Plaintiff,	§	
	§	
v.	§	Civil Action No. 02-3618
	§	Section "E"
CITY OF NEW ORLEANS; CFI INDUSTRIES, INC., formerly doing business as Letellier Phillips Paper Company; DELTA BY-PRODUCTS, INC.; EDWARD LEVY METALS, INC,	§	Magistrate 3
	§	
	§	
	§	
	§	
Defendants.	§	

CONSENT DECREE

TABLE OF CONTENTS

I. BACKGROUND

A. The United States of America ("United States"), on behalf of the Administrator of the United States Environmental Protection Agency ("EPA"), filed a complaint in this matter pursuant to Sections 104 and 107 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, 42 U.S.C. §§ 9604 and 9607, as amended ("CERCLA"), against, inter alia, the City of New Orleans ("City" or Settling Defendant"), seeking civil penalties for its failure to comply with an access order and reimbursement of response costs incurred or to be incurred for response actions taken at or in connection with the release or threatened release of hazardous substances at the Agriculture Street Landfill Superfund Site in New Orleans, LA ("the Site").

B. In entering into this Consent Decree, the City does not admit any liability to Plaintiff or any other party arising out of the transactions or occurrences alleged in the complaint.

C. On August 23, 1994, the Site was proposed for inclusion on the National Priorities List (NPL) as part of NPL update No. 17, and on December 16, 1994, EPA placed the site on the NPL.

D. EPA performed removal actions at the Site under a series of operable units. Operable Unit 1 ("OU1") addressed Undeveloped Property, Operable Unit 2 ("OU2") addressed Residential Properties, and Operable Unit 3 ("OU3") addressed the Shirley Jefferson Community Center. No actions by EPA were needed on Operable Unit 4 ("OU4") (Moton Elementary School) or Operable Unit 5 ("OU5") (Ground Water). The removal action on OU1 consisted of clearing the 48-acre area, grading it to direct storm water runoff away from the residential area, laying a permeable geotextile mat followed with orange fencing, covering the

mat/marker with twelve inches of clean fill, and re-establishing a vegetative layer on the clean fill. The removal actions on OU2 and OU3 consisted generally of preparing the property, removing driveways and sidewalks as needed, excavating 24 inches of soil, placing a permeable geotextile mat/marker on the subgrade, backfilling the excavated area with clean fill, covering the clean fill with grass sod, landscaping and yard restoration, driveway and sidewalk replacement, and final detailing. Because contaminants have been left in place beneath the geotextile mat, proper operation and maintenance practices and institutional controls are required to maintain the integrity of the cap.

F. Based on the information presently available to EPA, EPA believes that the Work will be properly and promptly conducted by the Settling Defendant if conducted in accordance with the requirements of this Consent Decree and its appendices.

G. The United States has reviewed the Financial Information submitted by Settling Defendant, as well as publicly available information, to determine whether the Settling Defendant is financially able to pay Past Response Costs and civil penalties incurred in connection with the Site. Based upon this information and in light of the extraordinary financial difficulties of the Settling Defendant due to Hurricane Katrina, the United States has determined that Settling Defendant is unable to make a cash payment toward Past Response Costs or civil penalties incurred in connection with the Site.

H. The United States and Settling Defendant agree, and this Court by entering this Consent Decree finds, that this Consent Decree has been negotiated by the Parties in good faith, that settlement on the terms herein will avoid prolonged and complicated litigation between the Parties, and that this Consent Decree is fair, reasonable, and in the public interest.

THEREFORE, with the consent of the Parties to this Decree, it is ORDERED, ADJUDGED, AND DECREED:

II. JURISDICTION

1. This Court has jurisdiction over the subject matter of this action pursuant to 28 U.S.C. §§ 1331 and 1345 and 42 U.S.C. §§ 9607 and 9613(b) and also has personal jurisdiction over Settling Defendants. Solely for the purposes of this Consent Decree and the underlying complaint, Settling Defendants waive all objections and defenses that they may have to jurisdiction of the Court or to venue in this District. Settling Defendants shall not challenge the terms of this Consent Decree or this Court's jurisdiction to enter and enforce this Consent Decree.

III. PARTIES BOUND

2. This Consent Decree is binding upon the United States, and upon Settling Defendants and its successors and assigns. Any change in ownership or corporate or other legal status, including but not limited to, any transfer of assets or real or personal property, shall in no way alter the status or responsibilities of Settling Defendants under this Consent Decree.

IV. DEFINITIONS

3. Unless otherwise expressly provided herein, terms used in this Consent Decree that are defined in CERCLA or in regulations promulgated under CERCLA shall have the meanings assigned to them in CERCLA or in such regulations. Whenever terms listed below are used in this Consent Decree, the following definitions shall apply:

a. "CERCLA" shall mean the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended, 42 U.S.C. §§ 9601, *et seq.*

b. "Consent Decree" shall mean this Consent Decree.

c. "Day" shall mean a calendar day. In computing any period of time under this Consent Decree, where the last day would fall on a Saturday, Sunday, or federal holiday, the period shall run until the close of business of the next working day.

d. "DOJ" shall mean the United States Department of Justice and any successor departments, agencies or instrumentalities of the United States.

e. "EPA" shall mean the United States Environmental Protection Agency and any successor departments, agencies or instrumentalities of the United States.

f. "EPA Hazardous Substance Superfund" shall mean the Hazardous Substance Superfund established by the Internal Revenue Code, 26 U.S.C. § 9507.

g. "Interest" shall mean interest at the rate specified for interest on investments of the EPA Hazardous Substance Superfund established by 26 U.S.C. § 9507, compounded annually on October 1 of each year, in accordance with 42 U.S.C. § 9607(a). The applicable rate of interest shall be the rate in effect at the time the interest accrues. The rate of interest is subject to change on October 1 of each year.

h. "Operable Unit 1" or "OU1" shall mean the approximately 48 acres of undeveloped property that was cleared, graded, overlaid with a geotextile mat and 12 inches of clean fill, replanted, and fenced by EPA during the first removal action in March 1994 and that was subsequently repaired in March 1996.

I. "Paragraph" shall mean a portion of this Consent Decree identified by an Arabic numeral or an upper or lower case letter.

j. "Parties" shall mean the United States and Settling Defendants.

k. "Past Response Costs" shall mean all costs, including, but not limited to direct and indirect costs that EPA or DOJ on behalf of EPA has paid at or in connection with response actions for the Site through the date of lodging of this Consent Decree, plus accrued Interest on all such costs.

l. "Plaintiff" shall mean the United States.

m. "Remedy" shall mean the placement of a permeable geotextile mat followed with orange fencing (to serve as a highly visible marker), covering the mat/marker with twelve inches of clean fill, and re-establishing a vegetative layer on the clean fill on OU1. For OU2 and OU3, the excavation of 24 inches of soil, placement of a permeable geotextile mat/marker on the subgrade, backfilling the excavated area with clean fill, covering the clean fill with grass sod, landscaping and yard restoration, driveway and sidewalk replacement, and final detailing.

n. "Section" shall mean a portion of this Consent Decree identified by a Roman numeral.

o. "Settling Defendant" shall mean the City of New Orleans.

p. "Site" shall mean the Agriculture Street Landfill Site located in Orleans Parish, City of New Orleans. The approximately 95-acre Site is bordered by Higgins Boulevard on the north, the above-grade railroad rights-of-way on the south and west, and the cul-de-sac at the southern end of Clouet Street, near the railroad tracks, to Higgins Boulevard between Press and Montegut streets on the east.

q. "United States" shall mean the United States of America, including its departments, agencies and instrumentalities.

r. "Work" shall mean the compliance requirements set forth in Section V of the

Decree.

4. Objectives of the Parties. The objectives of the Parties in entering into this Consent Decree are to protect the remedy on the Site and, thereby, the public health or welfare or the environment at the Site, by the implementation of the Work and institutional controls by Settling Defendant, and to resolve the claims of Plaintiff against Settling Defendant for Past Response Costs as provided in this Consent Decree.

V. PERFORMANCE OF THE WORK BY SETTLING DEFENDANT

5. The geotextile mat is covered by 12 inches of clean soil and a vegetative cover on the undeveloped properties (OU1), 18 inches of clean soil and a vegetative cover in the right of ways, and 24 inches of clean soil and a vegetative cover on residential properties and the community center. The vegetative cover is to prevent the erosion of the soil cap. The soil cap and geotextile mat covering the Site could be breached or degraded by excavation within the Site or by the failure to maintain the vegetative cover over the soil cap. Therefore, the City shall implement the following Work to maintain the cap and provide for appropriate restrictions on use and excavation of the property:

a. The Settling Defendant shall maintain and repair the security fence around the OU1 undeveloped property which is bordered by Higgins Boulevard to the north, Almonaster Boulavard to the west, by Industry Street to the north and above-grade railroad rights-of-way on the south, and by St. Ferdinand behind the homes located on Press Street and by the cul-de-sac at the southern end of Clouet Street, for a period of 10 years from the date of entry of the Decree, or until the Site is delisted from the NPL, or EPA otherwise approves the removal of the fence, whichever is sooner.

b. The Settling Defendant will mow vegetation at least twice per year, and otherwise maintain, its right of ways within OU1 in order to maintain a stable vegetative cover. Because lack of mowing/maintenance by private owners of land within the Site is likely to damage the subsurface geotextile mat, the City will use its available authorities to (a) require that landowners mow and otherwise maintain the grass vegetation on their properties, or (b) undertake the necessary maintenance directly.

c. Within 60 days from the date of entry of this Decree, the City will provide to all utilities operating within the Site area the Technical Abstract for Utilities Operating Within the Agriculture Street Landfill Superfund Site, attached as Appendix A.

d. Within 60 days from the date of entry of this Decree, the City will join and maintain its membership in the LAOne Call program and will designate an office within the City as the point of contact to provide the Technical Abstract for Utilities Operating Within the Agriculture Street Landfill Superfund Site, attached as Appendix A, to be followed when excavating beneath the geotextile mat at the Site.[1/]

e. Within 60 days from the date of entry of this Decree, Settling Defendant will direct that all of its agencies and departments, including the Sewerage and Water Board of New Orleans ("SWB"), incorporate the Technical Abstract for Utilities Operating Within the Agriculture Street Landfill Superfund Site, attached as Exhibit A, as standard operating procedures when working within the Site.

[1/]Ms. Thelma Latham (the General Manager of the Louisiana and Texas divisions of One Call Concepts, Inc. – 222-275-3700, ext 409). Louisiana's One Call website: http://www.laonecall.com/for_best_results_frame_page.htm LAOne Call's membership list includes Bell South, Entergy, and Cox Communications. The Sewerage and Water Board of New Orleans and the City of New Orleans are not members.

f. Annual Notice to Property Owners Within the Site. The Settling Defendant will ensure that, within 60 days of entry of this Decree and on an annual basis thereafter, the SWB includes in bills to customers owning or renting property at the Site the protocol for Post-Removal Maintenance for Property Owners, attached as Appendix B to this Decree. Alternatively, within 60 days of entry of this Decree and on an annual basis thereafter, the Settling Defendant will mail the Protocol to property owners and renters at the Site.

g. Designation of Disposal Facility: Within 45 days from the date of entry of this Decree, the Settling Defendant will designate an appropriate landfill facility for the disposal of soils excavated and removed from beneath the geotextile mat. This disposal facility shall be identified in the Technical Abstract for Utilities Operating Within the Agriculture Street Landfill Superfund Site and in the Protocol for Post-Removal Maintenance for Property Owners.

6. Within 30 days of entry of this Decree, the Settling Defendant will designate an official of the City as the Project Coordinator who will be responsible for ensuring the City's compliance with the requirements of the Decree. The Settling Defendant's performance of the Work obligations under Section V and obligations under Section VI of this Consent Decree shall be under the direction and supervision of the Project Coordinator, and that person shall be the lead point of contact for EPA with the City. If at any time thereafter, Settling Defendant proposes to change the Project Coordinator, Settling Defendant shall give notice to EPA before the new designee performs, directs, or supervises any Work under this Consent Decree.

VI. ACCESS AND INSTITUTIONAL CONTROLS

7. If the Site, or any other property where access and/or use restrictions are needed to implement this Consent Decree, is owned or controlled by the Settling Defendant, then the

Settling Defendant shall:

a. commencing on the date of lodging of this Consent Decree, provide the United States and its representatives, including EPA and its contractors, with access at all reasonable times to the Site, or such other property, for the purpose of conducting any activity related to this Consent Decree including, but not limited to, the following activities:

(1) Monitoring, investigation, removal, remedial or other activities at the Site, including 5-year reviews;

(2) Verifying any data or information submitted to the United States;

(3) Conducting investigations relating to contamination at or near the Site;

(4) Obtaining samples;

(5) Assessing the need for, planning, or implementing additional response actions at or near the Site;

(6) Inspecting and copying records, operating logs, contracts, or other documents maintained or generated by Settling Defendant or its agents, consistent with Section XV (Access to Information);

(7) Assessing Settling Defendant's compliance with this Consent Decree; and

(8) Determining whether the Site or other property is being used in a manner that is prohibited or restricted, or that may need to be prohibited or restricted, by or pursuant to this Consent Decree;

b. commencing on the date of lodging of this Consent Decree, refrain from

using the Site, or such other property, in any manner that would interfere with or adversely affect the implementation, integrity, or protectiveness of the remedy completed for the Site. Such restrictions include, but are not limited to disturbances to the surface or subsurface of the Site, including filling, drilling, excavation or construction on the Site, that is unrelated to the remedy measures implemented at the Site, unless such excavation is consistent with the Technical Abstract for Utilities attached hereto as Appendix A.

and

c. execute and record in the Recorder's Office [or Registry of Deeds or other appropriate land records office] of Orleans Parish, State of Louisiana, an easement, running with the land, that (I) grants a right of access for the purpose of conducting any activity related to this Consent Decree including, but not limited to, those activities listed in Paragraph 7(a) of this Consent Decree, and (ii) grants the right to enforce the land use restrictions listed in Paragraph 7(b) of this Consent Decree, or other restrictions that EPA determines are necessary to implement, ensure non-interference with, or ensure the protectiveness of the remedy completed for the Site. Settling Defendant shall grant the access rights and the rights to enforce the land use restrictions to the United States, on behalf of EPA, and its representatives, and (ii) the State and its representatives.

8. Settling Defendant shall, within 45 days of entry of this Consent Decree, submit to EPA for review and approval with respect to such property:

a. a draft easement, in substantially the form attached hereto as Appendix C, that is enforceable under the laws of the State of Louisiana, and

b. a current title insurance commitment or some other evidence of

title acceptable to EPA, which shows title to the land described in the easement to be free and clear of all prior liens and encumbrances (except when those liens or encumbrances are approved by EPA or when, despite best efforts, Settling Defendant is unable to obtain release or subordination of such prior liens or encumbrances). Within 15 days of EPA's approval and acceptance of the easement and the title evidence, Settling Defendant shall update the title search and, if it is determined that nothing has occurred since the effective date of the commitment to affect the title adversely, record the easement with the Recorder's Office [or Registry of Deeds or other appropriate office] of Orleans Parish. Within 30 days of recording the easement, Settling Defendant shall provide EPA with a final title insurance policy, or other final evidence of title acceptable to EPA, and a certified copy of the original recorded easement showing the clerk's recording stamps. If the easement is to be conveyed to the United States, the easement and title evidence (including final title evidence) shall be prepared in accordance with the U.S. Department of Justice Title Standards 2001, and approval of the sufficiency of title must be obtained as required by 40 U.S.C. § 255.

9. Conveyance Notice. If the Site, or any other property where access and or land use restrictions are needed to implement this Consent Decree, is owned or controlled by persons other than the Settling Defendant, then Settling Defendant shall, within 60 days of the entry of this Decree, make best efforts to execute and record in the Recorder's Office [or Registry of Deeds or other appropriate land records office] of Orleans Parish, State of Louisiana, an EPA approved conveyance notice, running with the land, to alert future transferees of the response action and waste in place, and to explain maintenance and excavation guidelines for the property. The conveyance notice will be substantially in the form of the Conveyance Notice set forth in

Appendix D.

10. Within 30 days of the recording of the Conveyance Notice, Settling Defendant shall provide EPA with a certified copy of the original recorded Conveyance Notice showing the clerk's recording stamps. If any access easement or conveyance notice required by Paragraph 9 of this Consent Decree is not recorded within 60 days of the date of entry of this Consent Decree, Settling Defendant shall promptly notify the United States in writing, and shall include in that notification a summary of the steps that Settling Defendant have taken to attempt to comply with Paragraphs 8 and 9 of this Consent Decree. The United States may, as it deems appropriate, assist Settling Defendant in obtaining access or land/water use restrictions, either in the form of contractual agreements or in the form of easements running with the land, or in obtaining the release or subordination of a prior lien or encumbrance. Settling Defendant shall reimburse the United States for all costs incurred, direct or indirect, by the United States in obtaining such access, land/water use restrictions, and/or the release/subordination of prior liens or encumbrances including, but not limited to, the cost of attorney time and the amount of monetary consideration paid or just compensation, in accordance with the payment procedures in Paragraph 28.

11. EPA has determined that additional restrictions on excavation within the Site in the form of a zoning ordinance and/or excavation permit requirement are needed to protect and ensure the integrity and protectiveness thereof, or ensure non-interference therewith, the remedy at the Site.

a. Therefore, within 60 days of the entry of this Decree, Settling Defendant shall submit to EPA for approval a proposed zoning ordinance and/or permit requirement that will

meet in substance the following objectives: (a) require that owners or lessees of land within the Site (b) who seek to excavate soil to a depth of greater than 18 inches (c) provide notice to the appropriate City department of their intent to excavate and to comply with the Protocol on Post-Removal Maintenance for Property Owners for the handling of contaminated soils and repair of the soil/geotextile mat (d) no less than 3 days prior to the proposed excavation, and (e) make available to those persons in a timely and readily accessible fashion the Protocol on Post-Removal Maintenance for Property Owners which is attached as Appendix B.

b. The Settling Defendant will make best efforts to submit the proposed ordinance/requirement to the appropriate City authority for approval and adoption within 60 days of EPA's approval of the proposal. If the proposed ordinance/requirement is rejected by the appropriate City authority, then the Settling Defendant will submit a revised proposal to EPA within 45 days for approval and, upon approval, resubmit to the appropriate City authority for approval and adoption. This process shall be followed by the Settling Defendant until such time as an EPA approved ordinance/requirement is adopted by the City. The schedule for review, approval, and resubmission to EPA and/or the City authority may be modified for cause upon written request to, and agreement by, EPA. The Settling Defendant will notify EPA within 30 days after the proposed ordinance/requirement becomes effective in accordance with Section XVII (Notice and Submissions).

12. If EPA determines that land/water use restrictions in the form of state or local laws, regulations, ordinances or other governmental controls are needed to implement the remedy selected in the ROD, ensure the integrity and protectiveness thereof, or ensure non-interference therewith, Settling Defendant shall cooperate with EPA's efforts to secure such

governmental controls.

13. Notwithstanding any provision of this Consent Decree, the United States retains all of its access authorities and rights, as well as all of its rights to require land/water use restrictions, including enforcement authorities related thereto, under CERCLA, RCRA and any other applicable statute or regulations.

VII. REPORTING REQUIREMENTS

14. In addition to any other requirement of this Consent Decree, Settling Defendant shall submit to EPA on an annual basis beginning one year from the effective date of the Decree a written progress report that describes the actions which have been taken to achieve compliance and the status of compliance with Section V of this Consent Decree during the previous year.

15. All reports and other documents submitted by Settling Defendant to EPA which purport to document Settling Defendant's compliance with the terms of this Consent Decree shall be signed by an authorized representative of the Settling Defendant.

VIII. FORCE MAJEURE

16. "Force majeure," for purposes of this Consent Decree, is defined as any event arising from causes beyond the control of the Settling Defendant, of any entity controlled by Settling Defendant, or of Settling Defendant's contractors, that delays or prevents the performance of any obligation under this Consent Decree despite Settling Defendant's best efforts to fulfill the obligation. The requirement that the Settling Defendant exercise "best efforts to fulfill the obligation" includes using best efforts to anticipate any potential force majeure event and best efforts to address the effects of any potential force majeure event (1) as it is occurring and (2) following the potential force majeure event, such that the delay is minimized to the

greatest extent possible. "Force Majeure" does not include financial inability to complete the Work.

17. If any event occurs or has occurred that may delay the performance of any obligation under this Consent Decree, whether or not caused by a force majeure event, the Settling Defendant shall notify orally EPA's Project Coordinator or, in his or her absence, EPA's Alternate Project Coordinator or, in the event both of EPA's designated representatives are unavailable, the Director of the Superfund Division, EPA Region 6, within 24 hours of when Settling Defendant first knew that the event might cause a delay. Within five (5) days thereafter, Settling Defendant shall provide in writing to EPA and the State an explanation and description of the reasons for the delay; the anticipated duration of the delay; all actions taken or to be taken to prevent or minimize the delay; a schedule for implementation of any measures to be taken to prevent or mitigate the delay or the effect of the delay; the Settling Defendant's rationale for attributing such delay to a force majeure event if they intend to assert such a claim; and a statement as to whether, in the opinion of the Settling Defendant, such event may cause or contribute to an endangerment to public health, welfare or the environment. The Settling Defendant shall include with any notice all available documentation supporting its claim that the delay was attributable to a force majeure. Failure to comply with the above requirements shall preclude Settling Defendant from asserting any claim of force majeure for that event for the period of time of such failure to comply, and for any additional delay caused by such failure. Settling Defendant shall be deemed to know of any circumstance of which Settling Defendant, any entity controlled by Settling Defendant, or Settling Defendant's contractors, knew or should have known.

18. If EPA, after a reasonable opportunity for review and comment by the State, agrees that the delay or anticipated delay is attributable to a force majeure event, the time for performance of the obligations under this Consent Decree that are affected by the force majeure event will be extended by EPA, after a reasonable opportunity for review and comment by the State, for such time as is necessary to complete those obligations. An extension of the time for performance of the obligations affected by the force majeure event shall not, of itself, extend the time for performance of any other obligation. If EPA, after a reasonable opportunity for review and comment by the State, does not agree that the delay or anticipated delay has been or will be caused by a force majeure event, EPA will notify the Settling Defendant in writing of its decision. If EPA, after a reasonable opportunity for review and comment by the State, agrees that the delay is attributable to a force majeure event, EPA will notify the Settling Defendant in writing of the length of the extension, if any, for performance of the obligations affected by the force majeure event.

19. If Settling Defendant elects to invoke the dispute resolution procedures set forth in Section IX (Dispute Resolution), they shall do so no later than 15 days after receipt of EPA's notice. In any such proceeding, Settling Defendant shall have the burden of demonstrating by a preponderance of the evidence that the delay or anticipated delay has been or will be caused by a force majeure event, that the duration of the delay or the extension sought was or will be warranted under the circumstances, that best efforts were exercised to avoid and mitigate the effects of the delay, and that Settling Defendant complied with the requirements of Paragraph 17, above. If Settling Defendant carries this burden, the delay at issue shall be deemed not to be a violation by Settling Defendant of the affected obligation of this Consent Decree identified to

EPA and the Court.

IX. DISPUTE RESOLUTION

20. Unless otherwise expressly provided for in this Consent Decree, the dispute resolution procedures of this Section shall be the exclusive mechanism to resolve disputes arising under or with respect to this Consent Decree. However, the procedures set forth in this Section shall not apply to actions by the United States to enforce obligations of the Settling Defendant that have not been disputed in accordance with this Section.

21. Any dispute which arises under or with respect to this Consent Decree shall in the first instance be the subject of informal negotiations between the parties to the dispute. The period for informal negotiations shall not exceed 20 days from the time the dispute arises, unless it is modified by written agreement of the parties to the dispute. The dispute shall be considered to have arisen when one party sends the other parties a written Notice of Dispute.

22. Statements of Position.

a. In the event that the parties cannot resolve a dispute by informal negotiations under the preceding Paragraph, then the position advanced by EPA shall be considered binding unless, within 14 days after the conclusion of the informal negotiation period, Settling Defendant invoke the formal dispute resolution procedures of this Section by serving on the United States and the State a written Statement of Position on the matter in dispute, including, but not limited to, any factual data, analysis or opinion supporting that position and any supporting documentation relied upon by the Settling Defendant. The Statement of Position shall specify the Settling Defendant's position as to whether formal dispute resolution should proceed under Paragraph 23 or Paragraph 24.

b. Within 30 days after receipt of Settling Defendant's Statement of Position, EPA will serve on Settling Defendant its Statement of Position, including, but not limited to, any factual data, analysis, or opinion supporting that position and all supporting documentation relied upon by EPA. EPA's Statement of Position shall include a statement as to whether formal dispute resolution should proceed under Paragraph 23 or 24. Within 7 days after receipt of EPA's Statement of Position, Settling Defendant may submit a Reply.

c. If there is disagreement between EPA and the Settling Defendant as to whether dispute resolution should proceed under Paragraph 23 or 24, the parties to the dispute shall follow the procedures set forth in the paragraph determined by EPA to be applicable. However, if the Settling Defendant ultimately appeals to the Court to resolve the dispute, the Court shall determine which paragraph is applicable in accordance with the standards of applicability set forth in Paragraphs 23 and 24, respectively.

23. Formal dispute resolution for disputes pertaining to the selection or adequacy of any response action and all other disputes that are accorded review on the administrative record under applicable principles of administrative law shall be conducted pursuant to the procedures set forth in this Paragraph. For purposes of this Paragraph, the adequacy of any response action includes, without limitation: (1) the adequacy or appropriateness of plans, procedures to implement plans, or any other items requiring approval by EPA under this Consent Decree; and (2) the adequacy of the performance of response actions taken pursuant to this Consent Decree. Nothing in this Consent Decree shall be construed to allow any dispute by Settling Defendant regarding the validity of the Action Memorandum's provisions.

a. An administrative record of the dispute shall be maintained by EPA and

shall contain all statements of position, including supporting documentation, submitted pursuant to this Section. Where appropriate, EPA may allow submission of supplemental statements of position by the parties to the dispute.

b. The Director of the Superfund Division, EPA Region 6, will issue a final administrative decision resolving the dispute based on the administrative record described in Paragraph 23.a. This decision shall be binding upon Settling Defendant, subject only to the right to seek judicial review pursuant to Paragraph 23c. and d.

c. Any administrative decision made by EPA pursuant to Paragraph 23.b shall be reviewable by this Court, provided that a motion for judicial review of the decision is filed by Settling Defendant with the Court and served on all Parties within 10 days of receipt of EPA's decision. The motion shall include a description of the matter in dispute, the efforts made by the parties to resolve it, the relief requested, and the schedule, if any, within which the dispute must be resolved to ensure orderly implementation of this Consent Decree. The United States may file a response to Settling Defendant's motion.

d. In proceedings on any dispute governed by this Paragraph, Settling Defendant shall have the burden of demonstrating that the decision of the Superfund Division Director is arbitrary and capricious or otherwise not in accordance with law. Judicial review of EPA's decision shall be on the administrative record compiled pursuant to Paragraph 23.a.

24. Formal dispute resolution for disputes that neither pertain to the selection or adequacy of any response action nor are otherwise accorded review on the administrative record under applicable principles of administrative law, shall be governed by this Paragraph.

a. Following receipt of Settling Defendant's Statement of Position submitted

pursuant to Paragraph 22, the Director of the Superfund Division, EPA Region 6, will issue a final decision resolving the dispute. The Superfund Division Director's decision shall be binding on the Settling Defendant unless, within 10 days of receipt of the decision, the Settling Defendant files with the Court and serve on the parties a motion for judicial review of the decision setting forth the matter in dispute, the efforts made by the parties to resolve it, the relief requested, and the schedule, if any, within which the dispute must be resolved to ensure orderly implementation of the Consent Decree. The United States may file a response to Settling Defendant's motion.

b. Judicial review of any dispute governed by this Paragraph shall be governed by applicable principles of law.

25. The invocation of formal dispute resolution procedures under this Section shall not extend, postpone or affect in any way any obligation of the Settling Defendant under this Consent Decree, not directly in dispute, unless EPA or the Court agrees otherwise. Stipulated penalties with respect to the disputed matter shall continue to accrue but payment shall be stayed pending resolution of the dispute as provided in Paragraph 29. Notwithstanding the stay of payment, stipulated penalties shall accrue from the first day of noncompliance with any applicable provision of this Consent Decree. In the event that the Settling Defendant does not prevail on the disputed issue, stipulated penalties shall be assessed and paid as provided in Section X (Failure to Comply with Consent Decree).

X. FAILURE TO COMPLY WITH CONSENT DECREE

26. Stipulated Penalty. Settling Defendant shall be liable for stipulated penalties in the amounts set forth below to the United States for failure to comply with the requirements of this Consent Decree, unless excused under Section VIII (Force Majeure). "Compliance" by

Settling Defendant shall include completion of the activities under Sections V or VI of this Consent Decree in accordance with all applicable requirements of law, this Consent Decree, and any plans or other documents approved by EPA pursuant to this Consent Decree and within the specified time schedules established by and approved under this Consent Decree.

27. Stipulated Penalty Amounts - Work.

a. The following stipulated penalties shall accrue per violation per day for any noncompliance identified in Subparagraph 27.b:

Penalty Per Violation Per Day	Period of Noncompliance
$100	1st through 14th day
$200	15th through 30th day
$300	31st day and beyond

b. Compliance Milestones.

The compliance milestones include the deadlines for compliance set forth in Paragraph 5 (c)-(g) and Paragraphs 7-9 and 12.

c. Settling Defendant's failure to comply with the requirements of Paragraphs 5(a) -(b) and 6 shall result in a stipulated penalty of $100 per violation per day of noncompliance after written notice by EPA and a grace period of 30 days to correct the noncompliance.

28. a. Stipulated penalties are due and payable within 30 days of the date of the demand for payment of the penalties by EPA. All payments to EPA under this Paragraph shall be identified as "stipulated penalties" and shall be made by certified or cashier's check made payable to "EPA Hazardous Substance Superfund." The check, or a letter accompanying the check, shall reference the name and address of the party making payment, the Site name, the EPA

Region and Site Spill ID Number 06D7, DOJ Case Number 90-11-3-1638/2, and the civil action number. Settling Defendant shall send the check (and any accompanying letter) to:

U.S. Environmental Protection Agency - Region VI
Attention: Superfund Accounting
P.O. Box 360582M
Pittsburgh, PA 15251

b. At the time of each payment, Settling Defendant shall also send notice that payment has been made to EPA and DOJ in accordance with Section XIII (Notices and Submissions). Such notice shall reference the EPA Region and Site/Spill ID Number 06D7, DOJ Case Number 90-11-3-1638/2, and the civil action number.

c. With the exception of penalties provided in Paragraph 15(c), penalties shall accrue as provided in this Paragraph regardless of whether EPA has notified Settling Defendant of the violation or made a demand for payment, but need only be paid upon demand. All penalties shall begin to accrue on the day after payment is due and shall continue to accrue through the date of payment. Nothing herein shall prevent the simultaneous accrual of separate penalties for separate violations of this Consent Decree.

29. Penalties shall continue to accrue as provided in Paragraph 28 during any dispute resolution period, but need not be paid until the following:

a. If the dispute is resolved by agreement or by a decision of EPA that is not appealed to this Court, accrued penalties determined to be owing shall be paid to EPA and the State within 15 days of the agreement or the receipt of EPA's decision or order;

b. If the dispute is appealed to this Court and the United States prevails in whole or in part, Settling Defendant shall pay all accrued penalties determined by the Court to be

owed to EPA within 60 days of receipt of the Court's decision or order, except as provided in Subparagraph c below;

c. If the District Court's decision is appealed by any Party, Settling Defendant shall pay all accrued penalties determined by the District Court to be owing to the United States into an interest-bearing escrow account within 60 days of receipt of the Court's decision or order. Penalties shall be paid into this account as they continue to accrue, at least every 60 days. Within 15 days of receipt of the final appellate court decision, the escrow agent shall pay the balance of the account to EPA or to Settling Defendant to the extent that they prevail.

30. If the United States brings an action to enforce this Consent Decree, Settling Defendant shall reimburse the United States for all costs of such action, including but not limited to costs of attorney time.

31. Payments made under this Section shall be in addition to any other remedies or sanctions available to Plaintiff by virtue of Settling Defendant's failure to comply with the requirements of this Consent Decree.

32. Notwithstanding any other provision of this Section, the United States may, in its unreviewable discretion, waive payment of any portion of the stipulated penalties that have accrued pursuant to this Consent Decree. Payment of stipulated penalties shall not excuse Settling Defendant from payment as required by Section V or from performance of any other requirements of this Consent Decree.

XI. COVENANT NOT TO SUE BY PLAINTIFF

33. Covenant Not to Sue Settling Defendant by United States. Except as specifically provided in Section VIII (Reservation of Rights by United States), the United States covenants

not to sue or to take administrative action against Settling Defendant pursuant to Sections 104(e), 106 and 107(a) of CERCLA, 42 U.S.C. §§ 9604(e), 9606, and 9607(a), to recover Past Response Costs, civil penalties related to the Settling Defendant's prior failure to provide access, or the Work. This covenant not to sue shall take effect upon Settling Defendant's recording of Conveyance Notices upon all properties at the Site as required by Section V and payment of any amount due under Section VI (Failure to Comply with Consent Decree). This covenant not to sue is conditioned upon the satisfactory performance by Settling Defendant of its obligations under this Consent Decree. This covenant not to sue extends only to Settling Defendant and does not extend to any other person.

XII. RESERVATIONS OF RIGHTS BY UNITED STATES

34. The United States reserves, and this Consent Decree is without prejudice to, all rights against Settling Defendant with respect to all matters not expressly included within the Covenant Not to Sue by Plaintiff in Paragraph 33. Notwithstanding any other provision of this Consent Decree, the United States reserves all rights against Setting Defendant with respect to:

a. liability for failure of Settling Defendant to meet a requirement of this Consent Decree;

b. liability for costs incurred or to be incurred by the United States that are not within the definition of Past Response Costs;

c. liability for injunctive relief or administrative order enforcement under Section 106 of CERCLA, 42 U.S.C. § 9606;

d. criminal liability; and

e. liability for damages for injury to, destruction of, or loss of natural resources, and for

the costs of any natural resource damage assessments.

XIII. COVENANT NOT TO SUE BY SETTLING DEFENDANT

35. Settling Defendant covenants not to sue and agree not to assert any claims or causes of action against the United States, or its contractors or employees, with respect to Past Response Costs, access, the Work, or this Consent Decree, including but not limited to:

a. any direct or indirect claim for reimbursement from the Hazardous Substance Superfund based on Sections 106(b)(2), 107, 111, 112, or 113 of CERCLA, 42 U.S.C. §§ 9606(b)(2), 9607, 9611, 9612, or 9613, or any other provision of law;

b. any claim arising out of the response actions at the Site for which the Past Response Costs were incurred, including any claim under the United States Constitution, the Tucker Act, 28 U.S.C. § 1491, the Equal Access to Justice Act, 28 U.S.C. § 2412, as amended, or at common law; or

c. any claim against the United States, including any department, agency or instrumentality of the United States pursuant to Sections 107 and 113 of CERCLA, 42 U.S.C. §§ 9607 and 9613, relating to Past Response Costs, access, or the Work.

36. Nothing in this Consent Decree shall be deemed to constitute approval or preauthorization of a claim within the meaning of Section 111 of CERCLA, 42 U.S.C. § 9611, or 40 C.F.R. 300.700(d).

37. Settling Defendant agrees not to assert any claims for Past Response Costs, access or the Work, and to waive and dismiss all claims or causes of action that it may have relating to Past Response Costs, access, or the Work, including for contribution, against any other person. This waiver shall not apply with respect to any defenses, claims or causes of action that Settling

Defendant may have against any person if such person asserts a claim or cause of action relating to Past Response Costs, access, or the Work against such Settling Defendant and that claim is not otherwise barred by the effect of this settlement.

XIV. EFFECT OF SETTLEMENT/CONTRIBUTION PROTECTION

38. Except as provided in Paragraph 33, nothing in this Consent Decree shall be construed to create any rights in, or grant any cause of action to, any person not a Party to this Consent Decree. Except as provided in Paragraph 37, the Parties expressly reserve any and all rights (including, but not limited to, any right to contribution), defenses, claims, demands, and causes of action that they may have with respect to any matter, transaction, or occurrence relating in any way to the Site against any person not a Party hereto.

39. The Parties agree, and by entering this Consent Decree this Court finds, that Settling Defendant is entitled, as of the date of entry of this Consent Decree, to protection from contribution actions or claims as provided by Section 113(f)(2) of CERCLA, 42 U.S.C. § 9613(f)(2), for "matters addressed" in this Consent Decree. The "matters addressed" in this Consent Decree are Past Response Costs and the Work.

40. In any subsequent administrative or judicial proceeding initiated by the United States for injunctive relief, recovery of response costs, or other relief relating to the Site, Settling Defendant shall not assert, and may not maintain, any defense or claim based upon the statute of limitations, principles of waiver, *res judicata*, collateral estoppel, issue preclusion, claim-splitting, or other defenses based upon any contention that the claims raised by the United States in the subsequent proceeding were or should have been brought in the instant case; provided, however, that nothing in this Paragraph affects the enforceability of the Covenant Not

to Sue by Plaintiff set forth in Section XI.

XV. ACCESS TO INFORMATION

41. Settling Defendant shall provide to EPA, upon request, copies of all records, reports, or information (hereinafter referred to as "records") within its possession or control or that of its contractors or agents relating to activities at the Site, including, but not limited to, correspondence, or other documents or information related to the Site.

42. Confidential Business Information and Privileged Documents.

a. Settling Defendant may assert business confidentiality claims covering part or all of the records submitted to Plaintiff under this Consent Decree to the extent permitted by and in accordance with Section 104(e)(7) of CERCLA, 42 U.S.C. § 9604(e)(7), and 40 C.F.R. 2.203(b). Records determined to be confidential by EPA will be accorded the protection specified in 40 C.F.R. Part 2, Subpart B. If no claim of confidentiality accompanies records when they are submitted to EPA, or if EPA has notified Settling Defendant that the records are not confidential under the standards of Section 104(e)(7) of CERCLA or 40 C.F.R. Part 2 Subpart B, the public may be given access to such records without further notice to Settling Defendant.

b. Settling Defendant may assert that certain records are privileged under the attorney-client privilege or any other privilege recognized by federal law. If Settling Defendant asserts such a privilege in lieu of providing records, it shall provide Plaintiff with the following: 1) the title of the record; 2) the date of the record; 3) the name, title, affiliation (*e.g.*, company or firm), and address of the author of the record; 4) the name and title of each addressee and recipient; 5) a description of the subject of the record; and 6) the privilege asserted. If a claim of

privilege applies only to a portion of a record, the record shall be provided to Plaintiff in redacted form to mask the privileged information only. Settling Defendant shall retain all records that it claims to be privileged until the United States has had a reasonable opportunity to dispute the privilege claim and any such dispute has been resolved in the Settling Defendant's favor. However, no records created or generated pursuant to the requirements of this or any other settlement with the EPA pertaining to the Site shall be withheld on the grounds that they are privileged.

43. No claim of confidentiality shall be made with respect to any data, including but not limited to any other documents or information evidencing conditions at or around the Site.

XVI. RETENTION OF RECORDS

44. Until 10 years after the entry of this Consent Decree, Settling Defendant shall preserve and retain all records now in its possession or control, or which come into its possession or control, that relate in any manner to response actions taken at the Site or the liability of any person under CERCLA with respect to the Site, regardless of any corporate retention policy to the contrary.

45. After the conclusion of the 10-year document retention period in the preceding paragraph, Settling Defendant shall notify EPA and DOJ at least 90 days prior to the destruction of any such records, and, upon request by EPA or DOJ, Settling Defendant shall deliver any such records to EPA. Settling Defendant may assert that certain records are privileged under the attorney-client privilege or any other privilege recognized by federal law. If Settling Defendant asserts such a privilege, they shall provide Plaintiff with the following: 1) the title of the record; 2) the date of the record; 3) the name, title, affiliation (*e.g.*, company or firm), and address of the

author of the record; 4) the name and title of each addressee and recipient; 5) a description of the subject of the record; and 6) the privilege asserted. If a claim of privilege applies only to a portion of a record, the record shall be provided to Plaintiff in redacted form to mask the privileged information only. Settling Defendant shall retain all records that it claims to be privileged until the United States has had a reasonable opportunity to dispute the privilege claim and any such dispute has been resolved in the Settling Defendant's favor. However, no records created or generated pursuant to the requirements of this or any other settlement with the EPA pertaining to the Site shall be withheld on the grounds that they are privileged.

46. Settling Defendant hereby certifies individually that, to the best of its knowledge and belief, after thorough inquiry, it has not altered, mutilated, discarded, destroyed or otherwise disposed of any records, reports, or information relating to its potential liability regarding the Site since notification of potential liability by the United States or the filing of suit against it regarding the Site and that it has fully complied with any and all EPA requests for information pursuant to Sections 104(e) and 122(e) of CERCLA, 42 U.S.C. §§ 9604(e)

XVII. NOTICES AND SUBMISSIONS

47. Whenever, under the terms of this Consent Decree, notice is required to be given or a document is required to be sent by one party to another, it shall be directed to the individuals at the addresses specified below, unless those individuals or their successors give notice of a change to the other Party in writing. Written notice as specified herein shall constitute complete satisfaction of any written notice requirement of the Consent Decree with respect to the United States, EPA, DOJ, and Settling Defendant, respectively.

As to the United States:

DOJ:

Chief, Environmental Enforcement Section
Environment and Natural Resources Division
U.S. Department of Justice (DJ # 90-11-3-1638/2)
P.O. Box 7611
Washington, D.C. 20044-7611

EPA:

Ursula Lennox
Remedial Project Manager
U.S. EPA (6SF-LP)
U. S. Environmental Protection Agency Region VI
1445 Ross Avenue
Dallas, TX 75202-2733

Joseph E. Compton, III
Assistant Regional Counsel
Office of Regional Counsel
U. S. Environmental Protection Agency Region VI
1445 Ross Avenue
Dallas, TX 75202-2733

Settling Defendant:

Penya M. Moses-Fields
City Attorney
City of New Orleans Law Department
1300 Perdido Street, 5th Floor East
New Orleans, LA 70112

Wynecta Fisher
Director, Mayor's Office of Environmental Affairs
1350 Poydras Street, Suite 1000
New Orleans, LA 70112

XVIII. RETENTION OF JURISDICTION

48. This Court shall retain jurisdiction over this matter for the purpose of

interpreting and enforcing the terms of this Consent Decree.

XIX. INTEGRATION

49. This Consent Decree constitutes the final, complete and exclusive agreement and understanding among the Parties with respect to the settlement embodied in this Consent Decree. The Parties acknowledge that there are no representations, agreements or understandings relating to the settlement other than those expressly contained in this Consent Decree.

XX. LODGING AND OPPORTUNITY FOR PUBLIC COMMENT

50. This Consent Decree shall be lodged with the Court for a period of not less than 30 days for public notice and comment. The United States reserves the right to withdraw or withhold its consent if the comments regarding the Consent Decree disclose facts or considerations which indicate that this Consent Decree is inappropriate, improper, or inadequate. Settling Defendant consents to the entry of this Consent Decree without further notice.

51. If for any reason this Court should decline to approve this Consent Decree in the form presented, this agreement is voidable at the sole discretion of any party and the terms of the agreement may not be used as evidence in any litigation between the Parties.

XXI. SIGNATORIES/SERVICE

52. Each undersigned representative of Settling Defendant to this Consent Decree and the Assistant Attorney General for the Environment and Natural Resources Division of the United States Department of Justice certifies that he or she is authorized to enter into the terms and conditions of this Consent Decree and to execute and bind legally such Party to this document.

53. Settling Defendant hereby agrees not to oppose entry of this Consent Decree by

this Court or to challenge any provision of this Consent Decree, unless the United States has notified Settling Defendant in writing that it no longer supports entry of the Consent Decree.

54. Settling Defendant shall identify, on the attached signature page, the name and address of an agent who is authorized to accept service of process by mail on behalf of that Party with respect to all matters arising under or relating to this Consent Decree. Settling Defendant hereby agrees to accept service in that manner and to waive the formal service requirements set forth in Rule 4 of the Federal Rules of Civil Procedure and any applicable local rules of this Court, including but not limited to, service of a summons.

XXII. APPENDIX

55. The following appendices are attached to and incorporated into this Consent Decree:

"Attachment A" is the Technical Abstract for Utilities Operating Within the Agriculture Street Landfill Superfund Site;

"Attachment B" is the protocol for Post-Removal Maintenance for Property Owners;

"Attachment C" is the draft Environmental Protection Easement and Declaration of Restrictive Covenants;

"Attachment D" is the Conveyance Notice.

XXIII. FINAL JUDGMENT

56. Upon approval and entry of this Consent Decree by the Court, this Consent Decree shall constitute the final judgment between and among the United States and the Settling

Defendant. The Court finds that there is no just reason for delay and therefore enters this judgment as a final judgment under Fed. R. Civ. P. 54 and 58.

SO ORDERED THIS ___ DAY OF _____, 2008.

_____
MARCEL LIVAUDAIS, JR.
Senior United States District Judge

THE UNDERSIGNED PARTIES enter into this Consent Decree in the matter of *United States v. City of New Orleans, et al, Civil Action No. 02-3618*, relating to the Agriculture Street Landfill Superfund Site.

FOR THE UNITED STATES OF AMERICA

UNITED STATES DEPARTMENT OF JUSTICE

Date: 4/3/08

RONALD J. TENPAS
Assistant Attorney General
Environment and Natural Resources Division
U.S. Department of Justice
Washington, D.C. 20530

Date: 3/12/2008

KENNETH G. LONG
JEFFREY M. PRIETO
Trial Attorneys
Environmental Enforcement Section
Environment and Natural Resources Division
U.S. Department of Justice
P.O. Box 7611
Ben Franklin Station
Washington, D.C. 20044
(202) 514-2840
(202) 616-6584 (fax)

JAMES LETTEN
U.S. Attorney
ENEID FRANCIS
Assistant U.S. Attorney
Eastern District of Louisiana

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Date: 5/7/08

Sam Phillips, Acting
SAMUEL COLEMAN, P.E.
Director
Superfund Division

Date: 5/19/08

Joseph C. Compton, III
JOSEPH E. COMPTON, III
Assistant Regional Counsel
Office of Regional Counsel
U. S. Environmental Protection Agency Region VI
1445 Ross Avenue
Dallas, TX 75202-2733

THE UNDERSIGNED PARTY enter into this Consent Decree in the matter of *United States v. City of New Orleans, et al; Civil Action No. 02-3618*, relating to the Agriculture Street Landfill Superfund Site.

FOR DEFENDANT CITY OF NEW ORLENAS

Date: January 28, 2008

PENYA MOSES-FIELDS
City Attorney
City of New Orleans Law Department
1300 Perdido Street
5th Floor East
New Orleans, LA 70112

APPENDIX A

UNITED STATED ENVIRONMENTAL PROTECTION AGENCY
REGION 6
DALLAS, TEXAS

AGRICULTURE STREET LANDFILL SUPERFUND SITE
NEW ORLEANS, LOUISIANA

TECHNICAL ABSTRACT UTILITIES

Updated September 2006

The remedy for subsurface contamination at the Agriculture Street Landfill Superfund Site includes a subsurface geotextile mat over contaminated material left in place. The geotextile mat is covered by 18 inches of clean soil and a vegetative cover in the right of ways and 24 inches of clean soil and a vegetative cover on the residential properties. The vegetative cover is to prevent the erosion of the soil cap. This Technical Abstract provides the protocol that utilities identified in the table below should follow to maintain the integrity of the permeable soil and geotextile mat implemented by the U.S. Environmental Protection Agency on the Agriculture Street Landfill Superfund Site. With the exception of nine residential properties, an EPA response action was implemented on the Site. Based on the best available information to date, the following utilities provide service in the area.

SERVICE	PROVIDER
Telephone	Bell South
Water	Sewage & Water Board
Sewage	Sewage & Water Board
Cable TV	Cox Communications
Electric	Entergy
Gas	Entergy

All properties will not have all of the above mentioned utilities present. However, the concerns and considerations for each utility will be the same for all properties.

EXCAVATION BELOW TWO FOOT EXCAVATION/BACKFILL LIMITS

In the event that a utility company finds it necessary to excavate below the limits of the geotextile mat, the following procedures are to be followed:

1) The utility company shall notify the city of New Orleans that excavation below and penetration of the geotextile mat is necessary.

2) Soils excavated within the top two feet of the excavation (above the geotextile) may be set aside and used as backfill in the same area.

3) The geotextile is to be cut to provide access below the mat.

4) Soil excavated from below the mat is considered to be landfill material. Each utility company is to determine, after consulting with a Certified Industrial Hygienist, the proper personal protective equipment required to accomplish the work.

5) After completion of the work, the excavated soil (that from below the mat) may be placed back into the excavation as backfill (to an elevation not to exceed the elevation of the adjacent geotextile mat) or may be tested by the utility company and disposed of properly at a facility designated by the City of New Orleans.

6) After completion of the backfill below the remedy area, the geotextile and marker is to be restored. The geotextile is to be patched by cutting a piece of new fabric so that there is an overlap of 3 feet on all sides. The fabric used as the patch shall be of the same quality and properties as the original fabric.

7) The soils excavated from the top two feet shall be used as backfill above the geotextile mat.

For additional information, you may contact the City ..... at .....

APPENDIX B

NOTICE

UNITED STATED ENVIRONMENTAL PROTECTION AGENCY
REGION 6
DALLAS, TEXAS

AGRICULTURE STREET LANDFILL SUPERFUND SITE
NEW ORLEANS, LOUISIANA

POST-REMOVAL MAINTENANCE FOR PROPERTY OWNERS

The remedy for subsurface contamination at the Agriculture Street Landfill Superfund Site includes a subsurface geotextile mat over contaminated material left in place. The geotextile mat is covered by 18 inches of clean soil and a vegetative cover in the right of ways and 24 inches of clean soil and a vegetative cover on residential properties. The vegetative cover is to prevent the erosion of the soil cap. Post-closure care of the clean soil cap and vegetative cover consists of routine activities to maintain the integrity of the soil cap and vegetation on your property. Surface maintenance includes simple measures such as filling in holes above the geotextile mat with clean soil and continued cultivation of the grass, shrubbery, trees, and other landscape features to assure a healthy vegetative cover over the clean fill.

If excavation below the geotextile mat is required, the procedures for excavation and restoration outlined below should be followed. In general:

1) Clean soils excavated within the top two feet of the excavation (above the geotextile) may be set aside and used as backfill in the same area.

2) The geotextile is to be cut to provide access below the mat.

3) Soil excavated from below the mat is considered to be contaminated landfill material and should be placed on a plastic sheet (away from the clean soil), to avoid contact with the surface soil. Also proper personal protective equipment (i.e. coveralls, gloves, etc.) may be required to accomplish the work.

4) After completing the work, the excavated soil (from below the mat) may be placed back into the excavation below the mat as backfill.

5) After completion of the backfill below the matted area, the geotextile and marker are to be restored, and the excavation equipment cleaned.

6) The soils excavated from the top two feet (or clean fill from another source) can be used as backfill above the geotextile mat. The area should be re-vegetated and maintained, to off-set the erosion of clean backfill.

For additional information, you may contact the City ..... at .....

APPENDIX C

ENVIRONMENTAL PROTECTION EASEMENT
AND
DECLARATION OF RESTRICTIVE COVENANTS

1. This Environmental Protection Easement and Declaration of Restrictive Covenants is made this ____ day of _____, 2008, by and between _____, ("Grantor"), having an address of _____, and, _____ _____("Grantee"), having an address of _____ _____.

WITNESSETH:

2. WHEREAS, Grantor is the owner of a parcel of land located in the Parish of _____, State of _____, more particularly described on **Exhibit A** attached hereto and made a part hereof (the "Property"); and

3. WHEREAS, the Property is part of the Agriculture Landfill Superfund Site ("Site"), which the U.S. Environmental Protection Agency ("EPA"), pursuant to Section 105 of the Comprehensive Environmental Response, Compensation and Liability Act ("CERCLA"), 42 U.S.C. § 9605, placed on the National Priorities List, set forth at 40 C.F.R. Part 300, Appendix B, by publication in the Federal Register on December 16, 1994; and

4. WHEREAS, EPA performed removal actions at the Site under a series of operable units. Operable Unit 1 ("OU1") addressed Undeveloped Property, Operable Unit 2 ("OU2") addressed Residential Properties, and Operable Unit 3 ("OU3") addressed the Shirley Jefferson Community Center. No actions by EPA were needed on Operable Unit 4 ("OU4") (Moton Elementary School) or Operable Unit 5 ("OU5") (Ground Water). The removal action on OU1 consisted of clearing the 48-acre area, grading it to direct storm water runoff away from the residential area, laying a permeable geotextile mat followed with orange fencing, covering the mat/marker with twelve inches of clean fill, and re-establishing a vegetative layer on the clean fill. The removal actions on OU2 and OU3 consisted generally of preparing the property, removing driveways and sidewalks as needed, excavating 24 inches of soil, placing a permeable geotextile mat/marker on the subgrade, backfilling the excavated area with clean fill, covering

the clean fill with grass sod, landscaping and yard restoration, driveway and sidewalk replacement, and final detailing. Because contaminants have been left in place beneath the geotextile mat, proper operation and maintenance practices and institutional controls are required to maintain the integrity of the cap.

5. WHEREAS, the parties hereto have agreed 1) to grant a permanent right of access over the Property to the Grantee for purposes of implementing, facilitating and monitoring the remedial action; and 2) to impose on the Property use restrictions as covenants that will run with the land for the purpose of protecting human health and the environment; and

6. WHEREAS, Grantor wishes to cooperate fully with the Grantee in the implementation of all response actions at the Site;

NOW, THEREFORE:

7. Grant: Grantor, on behalf of itself, its successors and assigns, in consideration of the terms of the Consent Decree in the case of United States v. City of New Orleans, et al., does hereby covenant and declare that the Property shall be subject to the restrictions on use set forth below, and does give, grant and convey to the Grantee, and its assigns, with general warranties of title, 1) the perpetual right to enforce said use restrictions, and 2) an environmental protection easement of the nature and character, and for the purposes hereinafter set forth, with respect to the Property.

8. Purpose: It is the purpose of this instrument to convey to the Grantee real property rights, which will run with the land, to facilitate the remediation of past environmental contamination and to protect human health and the environment by reducing the risk of exposure to contaminants.

9. Restrictions on use: The following covenants, conditions, and restrictions apply to the use of the Property, run with the land and are binding on the Grantor:

10. Modification of restrictions: The above restrictions may be modified, or terminated in whole or in part, in writing, by the Grantee. If requested by the Grantor, such writing will be executed by Grantee in recordable form.

11. Environmental Protection Easement: Grantor hereby grants to the Grantee an irrevocable, permanent and continuing right of access at all reasonable times to the Property for purposes of:

(a) Monitoring, investigation, removal, remedial or other activities at the Site, including 5-year reviews;

b) Verifying any data or information submitted to EPA;

c) Verifying that no action is being taken on the Property in violation of the terms of this instrument or of any federal or state environmental laws or regulations;

d) Monitoring response actions on the Site and conducting investigations relating to contamination on or near the Site, including, without limitation, sampling of air, water, sediments, soils, and specifically, without limitation, obtaining split or duplicate samples;

e) Conducting periodic reviews of the response action, including but not limited to, reviews required by applicable statutes and/or regulations; and

f) Implementing additional or new response actions if the Grantee, in its sole discretion, determines I) that such actions are necessary to protect the environment because either the original remedial action has proven to be ineffective or because new technology has been developed which will accomplish the purposes of the remedial action in a significantly more efficient or cost effective manner; and, ii) that the additional or new response actions will not impose any significantly greater burden on the Property or unduly interfere with the then existing uses of the Property.

12. Reserved rights of Grantor: Grantor hereby reserves unto itself, its successors, and assigns, all rights and privileges in and to the use of the Property which are not incompatible with the restrictions, rights and easements granted herein.

13. Nothing in this document shall limit or otherwise affect EPA's rights of entry and access or EPA's authority to take response actions under CERCLA, the NCP, or other federal law.

14. No Public Access and Use: No right of access or use by the general public to any portion of the Property is conveyed by this instrument.

15. Notice requirement: Grantor agrees to include in any instrument conveying any interest in any portion of the Property, including but not limited to deeds, leases and mortgages, a

notice which is in substantially the following form:

NOTICE: THE INTEREST CONVEYED HEREBY IS SUBJECT TO AN ENVIRONMENTAL PROTECTION EASEMENT AND DECLARATION OF RESTRICTIVE COVENANTS, DATED _____, 2008, RECORDED IN THE PUBLIC LAND RECORDS ON _____, 2008, IN BOOK _____, PAGE _____, IN FAVOR OF, AND ENFORCEABLE BY, THE UNITED STATES OF AMERICA.

Within thirty (30) days of the date any such instrument of conveyance is executed, Grantor must provide Grantee with a certified true copy of said instrument and, if it has been recorded in the public land records, its recording reference.

16. Administrative jurisdiction: The federal agency having administrative jurisdiction over the interests acquired by the United States by this instrument is the EPA.

17. Enforcement: The Grantee shall be entitled to enforce the terms of this instrument by resort to specific performance or legal process. All remedies available hereunder shall be in addition to any and all other remedies at law or in equity, including CERCLA. Enforcement of the terms of this instrument shall be at the discretion of the Grantee, and any forbearance, delay or omission to exercise its rights under this instrument in the event of a breach of any term of this instrument shall not be deemed to be a waiver by the Grantee of such term or of any subsequent breach of the same or any other term, or of any of the rights of the Grantee under this instrument.

18. Damages: Grantee shall be entitled to recover damages for violations of the terms of this instrument, or for any injury to the remedial action, to the public or to the environment protected by this instrument.

19. Waiver of certain defenses: Grantor hereby waives any defense of laches, estoppel, or prescription.

20. Covenants: Grantor hereby covenants to and with the United States and its assigns, that the Grantor is lawfully seized in fee simple of the Property, that the Grantor has a good and lawful right and power to sell and convey it or any interest therein, that the Property is free and clear of encumbrances, except those noted on **Exhibit D** attached hereto, and that the Grantor will forever warrant and defend the title thereto and the quiet possession thereof.

21. Notices: Any notice, demand, request, consent, approval, or communication that either party desires or is required to give to the other shall be in writing and shall either be served personally or sent by first class mail, postage prepaid, addressed as follows:

To Grantor: To Grantee:

_____ _____

_____ _____

_____ _____

22. General provisions:

a) Controlling law: The interpretation and performance of this instrument shall be governed by the laws of the United States or, if there are no applicable federal laws, by the law of the state where the Property is located.

b) Liberal construction: Any general rule of construction to the contrary notwithstanding, this instrument shall be liberally construed in favor of the grant to effect the purpose of this instrument and the policy and purpose of CERCLA. If any provision of this instrument is found to be ambiguous, an interpretation consistent with the purpose of this instrument that would render the provision valid shall be favored over any interpretation that would render it invalid.

c) Severability: If any provision of this instrument, or the application of it to any person or circumstance, is found to be invalid, the remainder of the provisions of this instrument, or the application of such provisions to persons or circumstances other than those to which it is found to be invalid, as the case may be, shall not be affected thereby.

d) Entire Agreement: This instrument sets forth the entire agreement of the parties with respect to rights and restrictions created hereby, and supersedes all prior discussions, negotiations, understandings, or agreements relating thereto, all of which are merged herein.

e) No Forfeiture: Nothing contained herein will result in a forfeiture or reversion of Grantor's title in any respect.

f) Joint Obligation: If there are two or more parties identified as Grantor herein, the obligations imposed by this instrument upon them shall be joint and several.

g) Successors: The covenants, terms, conditions, and restrictions of this instrument shall be binding upon, and inure to the benefit of, the parties hereto and their respective personal representatives, heirs, successors, and assigns and shall continue as a servitude running in perpetuity with the Property. The term "Grantor", wherever used herein, and any pronouns used in place thereof, shall include the persons and/or entities named at the beginning of this document, identified as "Grantor" and their personal representatives, heirs,

successors, and assigns. The term "Grantee", wherever used herein, and any pronouns used in place thereof, shall include the persons and/or entities named at the beginning of this document, identified as "Grantee" and their personal representatives, heirs, successors, and assigns. The rights of the Grantee and Grantor under this instrument are freely assignable, subject to the notice provisions hereof.

h) Termination of Rights and Obligations: A party's rights and obligations under this instrument terminate upon transfer of the party's interest in the Easement or Property, except that liability for acts or omissions occurring prior to transfer shall survive transfer.

I) Captions: The captions in this instrument have been inserted solely for convenience of reference and are not a part of this instrument and shall have no effect upon construction or interpretation.

j) Counterparts: The parties may execute this instrument in two or more counterparts, which shall, in the aggregate, be signed by both parties; each counterpart shall be deemed an original instrument as against any party who has signed it. In the event of any disparity between the counterparts produced, the recorded counterpart shall be controlling.

TO HAVE AND TO HOLD unto the United States and its assigns forever.

IN WITNESS WHEREOF, Grantor has caused this Agreement to be signed in its name.

Executed this _____ day of _____, 2008.

_____

By: _____

Its: _____

STATE OF _____)
) ss
COUNTY OF _____)

On this __ day of _____, 2008, before me, the undersigned, a Notary Public in and for the State of _____, duly commissioned and sworn, personally appeared _____; known to be the _____ of _____, the corporation that executed the foregoing instrument, and acknowledged the said instrument to be the free and voluntary act and deed of said corporation, for the uses and purposes therein mentioned, and on oath stated that they are authorized to execute said instrument.

Witness my hand and official seal hereto affixed the day and year written above.

_____
Notary Public in and for the
State of _____

My Commission Expires: _____.

This easement is accepted this ____ day of _____, 2008.

UNITED STATES OF AMERICA

the persons and/or entities named at the beginning of this document, identified as "Grantor" and their personal representatives, heirs, successors, and assigns.

U.S. ENVIRONMENTAL PROTECTION AGENCY

By: _____

_____

Attachments:	Exhibit A	-	legal description of the Property
	Exhibit B	-	identification of proposed uses and construction plans, for the Property
	Exhibit C	-	identification of existing uses of the Property
	Exhibit D	-	list of permitted title encumbrances

APPENDIX D

CONVEYANCE NOTICE FOR LAND RECORDS

Description: Track No._____. Common Description:

WHEREAS, the Property is part of the Agriculture Street Superfund Site ("Site"), which the U.S. Environmental Protection Agency ("EPA"), pursuant to Section 105 of the Comprehensive Environmental Response, Compensation and Liability Act ("CERCLA"), 42 U.S.C. § 9605, placed on the National Priorities List, set forth at 40 C.F.R. Part 300, Appendix B, by publication in the Federal Register on December 16, 1994; and

WHEREAS, in an Action Memorandum dated September 2, 1997, the EPA Region 6 Regional Administrator selected a "removal action" for the Site, which was successfully implemented and completed on April 27, 2001. The remedy for subsurface contamination at the Site included grading the undeveloped property, excavation of 18-24 inches of contaminated soil within the residential properties and community center, and a subsurface geotextile mat constructed over contaminated material left in place. The mat is covered by 12 inches of clean soil and a vegetative cover on the undeveloped properties, 18 inches of clean soil and a vegetative cover in the right of ways, and 24 inches of clean soil and a vegetative cover on residential properties and the community center. The vegetative cover is to prevent the erosion of the soil cap. The Agency for Toxic Substances and Disease Registry concurs with the response action and finds it sufficient to protect public health and the environment.

WHEREAS, maintenance activities, including maintenance of the cap and vegetative cover, should be continued by the property owner in accordance with the attached protocol for Post-Removal Maintenance for Property Owners.

WHEREAS, this property may be subject to specific City permit requirements or zoning restrictions pertaining to the excavation of soil.

APPENDIX E
PUBLIC NOTICE

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nola.com | The Times-Picayune
NOLA MEDIA GROUP

ONE CANAL PLACE, 365 CANAL ST., STE 3100, NEW ORLEANS, LOUISIANA 70130 TELEPHONE (504) 826-3201

Exhibit A Attached

State of Louisiana

Parish of Orleans

City of New Orleans

Personally appeared before me, a Notary in and for the parish of Orleans, Donna Laird who deposes and says that she is Administrative Assistant of NOLA Media Group, a division of The Times-Picayune, L.L.C., a Louisiana limited liability company, and Publishers of The Times-Picayune, Daily and Sunday, of general circulation; doing business in the City of New Orleans and the State of Louisiana, and that the attached

LEGAL

Re: AGRICULTURE STREET LANDFILL

Advertisement of CH2M

12750 MERIT DRIVE SUITE 1100
DALAS TX 75251

Was published in The Times Picayune

365 Canal Street, Suite 3100
New Orleans, LA 70130

On the following dates July 19, 23, 2017

I attest that the copy attached hereto as "Exhibit A" is a true and correct copy of the advertisement published in The Times-Picayune on these dates.

Donna Laird

Sworn to and subscribed before me this 24TH Day of JULY 2017

Notary Public

My commission expires at my death.

Charles A. Ferguson, Jr.

Notary identification number 23492

PUBLIC NOTICE
AGRICULTURE STREET LANDFILL SUPERFUND SITE
U.S. EPA Region 6 Begins its Fourth Five-Year Review of Site Remedy
July 2017

The U.S. Environmental Protection Agency Region 6 (EPA) will conduct two Availability Sessions at:

Sidney Collier Campus
Delgado Community College
Bldg. #3 115G
3727 Louisa Street
New Orleans, LA 70126
July 25 and July 26, 2017
4:00 pm until 7:00 pm

Each Availability Session will be conducted on an informal come-and-go basis. Community members can ask questions about the Five-Year Review, EPA's plans to collect soil samples, and how community members can be involved in the sampling effort. The sampling will occur at the end of August or early September 2017.

The Five-Year Review will evaluate the soil removal action that was completed at the site in 2001 that addressed contamination problems to protect public health and the environment. The review will also evaluate the collected soil samples to confirm the remedy continues to be protective. The site is located within the eastern city limits of New Orleans, Orleans Parish, Louisiana approximately 3 miles south of Lake Pontchartrain and 3 miles north-northeast of the city's central business district.

Once completed, the results of the fourth Five-Year Review will be made available to the public at the following information repository:

Louisiana Department of Environmental Quality
Public Records, Galvez Building, Room 127
602 N. Fifth Street
Baton Rouge, LA 70802
8:00 am to 4:30 pm, Monday-Friday
(225) 219 3172 or email publicrecords@la.gov

Information about the Agriculture Street Landfill Site is available also on the Internet at: http://www.epa.gov/region6/6sf/pdffiles/ag-street-la.pdf.

Questions or concerns about the Agriculture Street Landfill Site should be directed to Ursula Lennox/Remedial Project Manager at (214) 665 6743 or Janetta Coats/Community Involvement Coordinator at (214) 665-7308 or (800) 533 3508 toll-free.

NEW ORLEANS

Man, free on bond in murder case, accused of beating girlfriend, roommate

Laura McKnight
lmcknight@nola.com

A New Orleans man accused of murder in a May 15 fatal shooting in Mid-City was arrested Sunday in Slidell after police say he beat his girlfriend and her roommate, at one point taking out a gun and threatening to kill his girlfriend.

Brandon Alexander, 30, was booked May 26 with second-degree murder in the death of 31-year-old Dwayne Hitchens Jr., who was gunned down in the 200 block of North Rendon Street.

An Orleans Parish magistrate judge set Alexander's bond at $150,000, according to court records.

Monday night, it was not clear when Alexander bonded out of jail, but Slidell police say he was booked Sunday afternoon with aggravated assault with a firearm, simple battery, and simple battery by domestic violence.

Early Sunday, Slidell police responded to reports of a disturbance at an apartment complex in the 2700 block of Mary Street. According to the Slidell Police Department, witnesses said Alexander entered his girlfriend's apartment in a rage and beat her and her roommate.

At some point, Alexander took out a gun and pointed the weapon at his girlfriend, threatening to kill her, police said. The motive remains under investigation.

Alexander fled, but was caught by police a short while later.

Both victims received minor injuries and were treated on the scene by EMS, according to Slidell police.

In a news release, Slidell Police Chief Randy Fandal said he hopes the misdemeanor charges "will be enough" for Alexander's bond conditions to be revoked on the murder charge.

"We don't make the bonds and set the bond rules," Fandal said. "However, (we) are working closely with the judicial system to make sure this violent individual stays off our streets and behind bars, especially here in St. Tammany Parish."

As of Monday night, the Orleans Parish DA had not determined whether to pursue the murder charge against Alexander, according to court records.

According to a warrant for Alexander's arrest in the Mid-City shooting, Alexander was seen fighting with Hitchens at the House of Blues just hours before Hitchens was shot to death. The warrant also shows detectives linked Alexander to the crime because a car spotted leaving the scene of the murder matched the description of a car Alexander was known to drive.

Alexander hired private attorney John Fuller to represent him. In magistrate court May 26, Fuller said the evidence listed in the warrant was "largely circumstantial."

He noted the warrant makes no mention of any witness identifying Alexander as the shooter. Fuller acknowledged his client fought with Hitchens at the club hours before the murder. He said, though, that people associated with Hitchens might be blaming Alexander for murder based only on "word of mouth" or "a general assumption" that Alexander "had something to do with Hitchens' homicide."

In the days following his son's death, Dwayne Hitchens Sr. lamented the May 15 murder of Hitchens Jr. as the second time he has lost a son. In 2014, Hitchens Sr.'s son Deron Hitchens, 25, was fatally wounded in a shooting at Mardi Gras World on Fat Tuesday.

Emily Lane and Richard A. Webster contributed to this article.

PUBLIC NOTICE
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The Five-Year Review will evaluate the soil removal action that was completed at the site in 2001 that addressed contamination problems to protect public health and the environment. The review will also evaluate the collected soil samples to confirm the remedy continues to be protective. The site is located within the eastern city limits of New Orleans, Orleans Parish, Louisiana approximately 3 miles south of Lake Pontchartrain and 3 miles north-northeast of the city's central business district.

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Questions or concerns about the Agriculture Street Landfill Site should be directed to Ursula Lennox/Remedial Project Manager at (214) 665 6743 or Janetta Coats/Community Involvement Coordinator at (214) 665-7308 or (800) 533 3508 toll-free.

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the potential environmental impacts associated with the repair, replacement, or improvements of roads, drain lines, water lines, sewer lines, and water distribution line located in neighborhoods within the City of Slidell and to determine whether to prepare an Environmental Impact Statement (EIS) or Finding of No Significant Impact (FONSI). The draft FONSI is FEMA's finding that the preferred action will not have a significant effect on the human and natural environment.

The purpose of the PEA is to analyze the potential environmental impacts associated with the preferred action and two alternatives. The draft EA evaluates a No Action Alternative; the Preferred Action Alternative, which is to implement a ***comprehensive infrastructure repair and restoration program***; and an Alternative Action, which is to ***complete repairs, replacements or improvements using the standard FEMA PA grant proces***

Additional NEPA documents providing greater detail will follow this PEA once the plans and specifications for individual projects are developed beyond the preliminary design stage. These future reports for individual projects will be evaluated to determine whether to prepare a Record of Environmental Consideration (REC) for the project or a Stand-alone Environmental Assessment (SEA).

The draft PEA and draft FONSI are available for review at the following locations: St. Tammany Parish Library Slidell Branch located at 555 Robert Blvd. Slidell, LA 70458. The documents can also be downloaded from FEMA's website at http://www.fema.gov/media-library/search/ADD.

This public notice will run for three (3) days. The public notice is being published in the Times-Picayune, the journal of record for Orleans Parish, o Wednesday, July 19, 2017, Friday, July 21, 2017, and Sunday, July 23, 2017. This public notice is also being published in The Advocate-New Orleans Edition on Monday, July 17, 2017, Tuesday, July 18, 2017, and Wednesday, July 19, 2017; and in The St. Tammany Farmer on Wednesday, July 19, 2017 and Wednesday, July 26, 2017. The 30-day comment period will begin on July 17, 2017 and conclude on August 16, 2017. Written comments on the Notification or related matters can be faxed to FEMA's Louisiana Recovery Office at (225) 267-2962 or emailed to: fema-noma@dhs.gov; or mailed to FEMA Louisiana Recovery Office, Attn: FEMA EHP, 1500 Main Street, Baton Rouge, Louisiana 70802. Comments also may be e-mailed to fema-noma@dhs.gov or faxed to (225) 346-5848. Verbal comments will be accepted or recorded at 504-491-0399. If no substantive comments are received, the draft PEA and associated FONSI will become final.

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earch aims to unlock
million-year-old secret

ya Saltonova
The New York Times

is somewhere in her 40s or 50s, has than 120,000 followers on Twitter e she can sometimes be quite flirta-

"I think the name Mary Lee resonates," said Fischer, who named her after his mother. "It's a gentle name for such an ocean giant." (And no, he said, he does not run her Twitter account. "Mary Lee manages her own," he said. He surmised that her "matriarchal and clever personality" has enamored followers.)

Neil Hammerschlag, a research assistant professor in the Shark Research & Conservation Program at the University

APPENDIX F
COMMUNITY INVOLVEMENT PLAN

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COMMUNITY INVOLVEMENT PLAN

AGRICULTURE STREET LANDFILL
NEW ORLEANS, ORLEANS PARISH, LOUISIANA

October 2014

U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION 6

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U.S. Environmental Protection Agency
Superfund Community Involvement Program
Mission and Goals

The U. S. Environmental Protection Agency's (EPA) Superfund Community Involvement Program is committed to promoting communication between citizens and the Agency.

Active public involvement is crucial to the success of any public project. EPA's community involvement activities at the Agriculture Street Landfill site are designed to:

- Inform the public of the nature of the environmental issues associated with the site
- Involve the public in the decision-making process that will affect them
- Involve the public in the responses under consideration to remedy these issues
- Inform the public of the progress being made to maintain the remedy selected for the site and efforts to redevelop portions of the site and return them to productive use

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Figure

Appendices

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Section 1.0
Overview of the Community Involvement Plan

The U.S. Environmental Protection Agency (EPA) developed this Community Involvement Plan (CIP) to facilitate two-way communication between the community surrounding the Agriculture Street Landfill Superfund site (ASL site) and EPA and to encourage community involvement in site activities. EPA will use the community involvement activities outlined in this plan to ensure that residents are regularly informed and provided opportunities to be involved.

This CIP addresses the ASL site's relationship to the community and EPA (Section 2.0), provides a background and concerns and issues of importance to the community (Section 3.0), presents EPA's community involvement program (Section 4.0), and provides a listing of resources available (Appendices). EPA drew upon several information sources to develop this plan, including community interviews and site files. The information in this plan is based primarily on community interviews conducted in New Orleans, Louisiana. Participants included residents of the Agriculture Street Landfill area, members and associates of the Concerned Citizens of the Agriculture Street Landfill (CCASL), officials from the State of Louisiana Office of Public Health, the City of New Orleans Public Health Center, the City of New Orleans Sanitation Department, and the City of New Orleans Mayor's office. Interviews were conducted over the course of implementation of removal and remedial activities at the site, most recently during preparation for the third Five-Year Review of the site remedy. EPA's Regional Office oversees the implementation of the community involvement activities outlined in this CIP.

A list of important contacts, information about the Superfund program, and recent site photographs are provided in the appendices.

EPA has been the lead agency for removal and remedial activities at the Site and has been implementing the CIP. Other federal, state, and local agencies have assisted EPA as needed.

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Section 2.0
Capsule Site Description

2.1 Site History and Background

The site encompasses approximately 100 acres in New Orleans, Orleans Parish, Louisiana. The site is located approximately 3 miles south of Lake Pontchartrain and 2.5 to 3 miles north-northeast of the Vieux Carre and the Central Business District. The approximate geographic coordinates are 20° 59' 19" north latitude and 90° 02' 43" west longitude. The site currently consists of two areas: an undeveloped section and a residential section. The site boundaries are shown on **Figure 2-1**.

The ASL site was used as a municipal landfill as early as 1910. There was little information available regarding what was deposited in the landfill because waste disposal records were not available. Review of available file material suggested that the landfill received solid and liquid wastes. The landfill was used until 1950, when the advent of incinerators for ultimate disposal of wastes was instituted. Much of the small organic garbage and wastes were routed to incinerators for disposal. Larger, solid objects were still placed at the landfill. After the commissioning of the Florida Street Incineration Facility, combustible waste was incinerated and the ashes were disposed in the landfill. In approximately 1958, the operation at the landfill was interrupted. In 1965, the landfill reopened after Hurricane Betsy hit the City of New Orleans. Debris from destroyed buildings and furnishings was reportedly deposited at a rate of up to 300 truck loads per day. The debris was burned in the open dump, and the area was covered with ashes from the City incinerators and compacted with bulldozers.

Residential and commercial development of the area began in the mid-1970s and continued through the construction of the Moton Elementary School in 1986 and 1987. Approximately 247 residential dwellings, the Moton Elementary School, and the Gordon Plaza Apartments were constructed within the original boundaries of the landfill, which were identified from analysis of historical aerial photographs from 1952.

2.2 History of Site Cleanup Activities

The Agriculture Street Landfill was divided into five Operable Units (OU) by EPA (**Figure 2-1**):

- OU1 – Undeveloped property
- OU2 – The residential development, which at the time consisted of the Gordon Plaza Apartments, single-family dwellings in Gordon Plaza subdivision, the Press Court town homes, and retail businesses
- OU3 – Shirley Jefferson Community Center
- OU4 – Moton Elementary School, which included Mugrauer Playground
- OU5 – Groundwater

Prior to 1994, access to OU1, the undeveloped portion of the former landfill, was unrestricted, allowing unauthorized waste disposal and exposure to contaminants of potential concern. The primary contaminants of concern were lead, arsenic, and carcinogenic polynuclear aromatic hydrocarbons (cPAH). EPA implemented a number of actions to reduce the potential for community members to be exposed to site contaminants:

- Installing an 8-foot-high, chain-link fence topped with barbed wire around the entire undeveloped portion of the former landfill (OU1)
- Conducting a second time-critical removal action at the site in February 1995, removing playground equipment and covering contaminated soil at OU3 with heavy grass sod
- Completing, in March 1996, a third time critical removal action to repair the fence surrounding OU1, which had been damaged by trespassers
- Issuing, in September 1997, an Action Memorandum authorizing a Non-Time Critical Removal Action for OU1, OU2, and OU3; the removal action on OU1, consisted of clearing the 48-acre area, grading it to direct storm water runoff away from the residential area, laying a permeable geotextile mat followed with orange fencing, covering the mat/marker with 12 inches of clean fill, and re-establishing a vegetative layer on the clean fill; the removal action on OU2 and OU3 consisted generally of excavating 24 inches of soil, placing a permeable geotextile mat/marker on the subgrade, backfilling the excavated area with clean fill, covering the clean fill with grass sod, landscaping and yard restoration, replacing the driveway and sidewalk, and performing final detailing

The Record of Decision (ROD) for OU4 and OU5 was signed on September 2, 1997. The ROD for the Agriculture Street Landfill Superfund site OU1, OU2, and OU3 was signed in April 2002. Because previous removal actions were found to have addressed unacceptable risks posed by site contaminants, EPA has determined that No Further Action was the selected remedy necessary to protect public health or welfare or the environment at OU1, OU2, OU3, and OU4. No further action was also selected for OU5 (groundwater) because community members do not use groundwater for drinking, so they are not exposed to site groundwater. The Moton Elementary School - OU 4 and Groundwater - OU 5 were deleted from the site National Priorities List (NPL) on June 15, 2000.

A total of approximately 69,032 tons of material was excavated and disposed. Approximately 70,081 cubic yards of sand backfill, and 125,865 cubic yards of topsoil were used in backfill, capping, and restoration on the site. Also, 55,732 square yards of sod were installed. Fences, gates, asphalt and concrete roadways, driveways, and sidewalks that were removed or damaged during the removal action were replaced or repaired.

Hurricane Katrina made landfall on the cost of Louisiana, near the City of New Orleans, on August 25, 2005, resulting in severe damage from wind and flooding. Several of the flood-protection levees failed as a result of the hurricane, and most of the City of New Orleans, including the ASL site, was flooded. On September 24, 2005, Hurricane Rita made landfall west of New Orleans, and parts of New Orleans (not including the ASL site) were again flooded.

A site inspection, including soil sampling activities, was conducted October 1 and 2, 2005. A second sampling event occurred on October 28, 2005, to address two seeps that had developed at the edge of the landfill due to leaking water from a nearby apartment building. The results of these studies concluded that the remedy instituted for the landfill is still intact. No observable damage to the remedy at the site due to the hurricanes was noted.

On August 5, 2008, the court entered the consent decree with the City of New Orleans (under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980) matter (E.D. La. 02-cv-3618). The decree protects the remedy and thereby, the public health, welfare, and the environment at the site by implementing the work and institutional controls described in the decree.

EPA, in coordination with the Louisiana Department of Environmental Quality (LDEQ), inspected the site on September 25 and 29, 2008, to ensure the integrity of the remedy was not impacted by Hurricanes Gustav and Ike. No damage was observed.

EPA met with representatives for the City of New Orleans and the Housing Authority of New Orleans (HANO) on March 19, 2009, to discuss and view institutional controls (IC) that are being implemented by the city at the site, and future land uses envisioned by HANO. During the visit, it was observed that the vegetation on OU1 was mowed. EPA will continue to work with its stakeholders to ensure that the ICs are fully implemented and maintained.

Currently, the site is partially redeveloped. Prior to Hurricanes Rita and Katrina, the estimated population residing on the site was 1,137 people. From the 1970s through the late 1980s, approximately 47 acres of the site were developed for private and public uses that supported 67 single-family homes, multiple-family dwellings (170 units are owned and operated by Housing Authority of New Orleans, 128 units are part of the Gordon Plaza Apartment complex), retail businesses, an elementary school, a community center, a recreation center and an electrical substation. All that remains since the hurricanes are the single-family homes and the electrical substation. All other structures have been destroyed and are awaiting demolition or redevelopment. The population that remains in the community is several hundred. The rest of the site, approximately 48 acres, remains undeveloped and vegetated. Appendix A contains site photographs taken during the 2013 Five-Year-Review.

The LDEQ continues to perform bi-annual inspections of the site to ensure the integrity of the permeable cap is maintained and is intact. The comment period for the Notice of Intent to Delete the site from the NPL concluded on October 25, 2004. EPA has determined the ICs are functioning properly and are incorporated into the city's plans. EPA plans to resume the final stage to delete the site from the NPL. The target time frame to complete this activity is December 2014.

Appendix B provides information about cleanup technologies and approaches that EPA has implemented at the site.

2.3 Five-Year Reviews

First Five-Year Review 2003

The first Five-Year Review for this site was published in June 2003. This review concluded the removal action set forth in decision documents for this site had been implemented as planned and appeared to be functioning as designed; and the site had been maintained sufficiently to protect the cover over the remaining wastes. No deficiencies were noted that affected the protectiveness of the removal actions in the short term, although a few issues were identified that required further action to ensure the continued protectiveness of the removal actions. These issues related to certain maintenance instructions for property owners, and surface ruts observed in the northern portion of OU 1.

Second Five-Year Review 2008

The second five-year review of the ASL site was completed in February 2008. EPA performed this second five-year review to ensure continue protectiveness. The results of the second five-year review indicated that the removal actions completed at the Site were protective of human health and the environment. The removal and follow-up actions performed appeared to be functioning as designed, and the Site had been maintained sufficiently to protect the soil cover over the remaining waste. No deficiencies were noted that affected the protectiveness of the removal actions, although a few issues were identified that required further action to ensure the continued protectiveness of the removal actions.

Third Five-Year Review 2013

The third five-year review for the site was completed in September 2013. As with previous reviews, EPA performed this third five-year review to ensure that removal actions conducted at the site continued to be protective of human health and the environment. The results of the third five-year review found that the time-critical and non-time critical removal actions performed at the site are protective of human health and the environment because contaminated soil was removed or contained and is protected from erosion, and a barrier has been constructed to prevent exposure to any remaining impacted soil. The soil barrier that covers the site is in place and expected to remain in place over time, restricting exposure to the remaining subsurface contaminants.

A Consent Decree (Civil Action No. 02-3618, Section "E", Magistrate 2) between the EPA and the City of New Orleans was lodged May 28, 2006; and the issues and recommendations identified in the second Five-Year Review Report are being addressed. Because the completed response actions for the ASL site prevent exposure to remaining site contamination, the remedy is considered protective of human health and the environment in the short term, and will continue to be protective if the recommendations and follow-up actions identified in the five-year review are addressed. Appendix C contains additional information about the five-year review process. The Five-Year Review reports for all three reviews can be found on EPA's website.

FIGURE 2-1

Agriculture St. Landfill
Site Map
February, 2013
New Orleans, Louisiana

Section 3.0
Community Background

3.1 Community Profile

The approximately 95-acre ASL site includes 47 acres that were developed from the 1970s through the late 1980s and supported single-family homes, multiple-family dwellings, retail businesses, an elementary school, a community center, a recreation center, and an electrical substation. The remaining 48 acres of the former landfill are undeveloped, and portions are heavily vegetated. Portions of OU1 continue to be plagued by illegal dumping. However, the amount is significantly less with the City of New Orleans repairing the breaches in the fence around OU1 and replacing and securing the gates on OU1.

Developed areas near and within the ASL site have historically been and remain predominantly residential, but some commercial, manufacturing, and retail/service businesses were established in the surrounding area. Prior to Hurricane Katrina, the Moton Elementary School yard and the Shirley Jefferson Community Center were used year round for recreational purposes. An extensive railroad network is located west and south of the site, and Interstates 10 and 610 merge approximately 0.5 mile west of the site. The Southeast Louisiana Urban Flood Control Project, which is being implemented by the U.S Army Corps of Engineers, will require a portion of OU1 to be utilized to temporarily relocate some of the railroad network. The Corps will coordinate with EPA during this effort to ensure that the integrity of the cap is maintained.

On August 29, 2005, Hurricane Katrina made landfall on the southeast coast of Louisiana. Hurricane Katrina caused extensive damage and flooding in the area of the ASL site. Residents in the vicinity of the ASL site were evacuated because their homes were severely damaged due to the hurricane and flooding. Currently, the Gordon Plaza Apartments, the Press Park town homes and apartments, and retail businesses are not occupied, and several single-family dwellings in the Gordon Plaza subdivision are not occupied or demolished down to the concrete slab. However, a number of the other single family dwellings have been restored or are nearing completion. The estimated population residing on the site prior to Hurricane Katrina was 1,137 people, with an average household occupancy of 3.05 people. As a result of the flooding left by Hurricane Katrina, a significant reduction in population occurred in the area. Currently the Shirley Jefferson Community Center, the Moton Elementary School, and retail businesses are closed to the public. The current population at the ASL site is unknown, but it is estimated that only a few hundred residents remain on the site. Of the 374 households present on the ASL site, 170 units are owned and operated by HANO; 128 units are part of the Gordon Plaza Apartment complex; and 67 units are single-family dwellings.

3.2 History of Community Involvement

Residents, environmental activists, community leaders and public officials showed continued interest in the ASL site. The CCASL was the community group established to address issues of

concern for the residents in the area. The group had its own lawyer, and three members of the CCASL also served on the Community Advisory Panel (CAP) established by the LDEQ. The Site received periodic coverage from local news media. In 1994, EPA awarded a Technical Assistance Grant (TAG) to the group. The EPA's TAG program provides money to community groups so they can pay for technical advisors to interpret and explain technical reports, site conditions, and EPA's proposed cleanup proposals and decisions. See Appendix D for more information on the TAG program.

Since 1986, EPA was involved in community involvement efforts to keep the public informed about site activities, and provide the public with opportunities to become involved in the decision-making process. Public meetings were held in April and October 1986 to discuss the site sampling plan and, later, the sampling results. Related facts sheets were distributed in August and October.

In August 1993, EPA, LDEQ, Agency for Toxic Substances and Disease Registry (ATSDR), and City of New Orleans conducted an open house to involve the community in the Expanded Site Investigation (ESI) study and explain the Superfund process. Additionally, information repositories were established at the Moton Elementary School and the Lockett Elementary School. A second open house and a question-and-answer session were conducted in September 1993. At this meeting, a site update was distributed addressing the ESI and concerns expressed at the August meeting. In February 1994, an availability session was held to distribute the ESI sampling results to the community residents. The EPA participated in Citizen Assistance Program public meetings, continued to update information repositories near the site, designated an agency spokesperson to serve as a contact with the community, and distributed open house and site updates, as needed.

In response to public need, EPA opened a Community Outreach Center at the site in March 1994. The center was opened on established days until 2002. A community member was hired to staff the center, and EPA maintained a computer and copies of important documents for review by members of the public.

EPA also implemented the Superfund Job Training Initiative (SuperJTI) for the ASL site. The SuperJTI programs trained and employed local workers to assist with removal activities. See Appendix E for background on the SuperJTI program.

3.3 Key Community Concerns

Information in this section is based on EPA staff discussions with residents who lived in the study area, elected officials, and community leaders regarding community issues, concerns, and information needs related to the ASL site cleanup.

Hurricane Katrina Community Health Concerns

In the aftermath of the 2005 storm, residents of New Orleans who were eager to move back to their homes and begin the rebuilding process heard media reports about the post hurricane city

being a "toxic soup". This representation of the city's environmental condition gained widespread exposure. Residents were particularly worried about the possibility that the protective measures at the ASL site had been compromised. Citizens whose homes were near the site feared returning to an area where they believed floodwaters may not only have introduced new health hazards, but also may have caused old contamination to resurface. A health consultation was conducted by U.S. Department of Health and Human Services and the ATSDR, Division of Health Assessment and Consultation in Atlanta, Georgia, to address the community concerns about the status of the ASL site.

The majority of the contaminants detected in flood-deposited sediments and soils at the ASL site were compounds called polycyclic aromatic hydrocarbons. These contaminants result from the incomplete burning of coal, oil, gas, wood, garbage, or other organic substances. The results of the health consultation found that they posed no apparent public health hazard to residents at the site. The ATSDR health consultation can be found online at http://www.atsdr.cdc.gov/HAC/pha/AgricultureStreetLandfill/AgricultureStLandfill-NewOrleansHC082906.pdf

Current Community Concerns and Issues

Most recently, in January 2013, EPA's Community Involvement Coordinator (CIC) and Remedial Project Manager conducted in-person interviews with local residents and state and local officials to gather information for the third five-year review. Overall, interviewees were unaware of concerns in the community about Superfund program activities for the ASL site. One resident said, "EPA has made the community safer as it related to a safer environment to live in". The interviewees discussed the following major concerns and issues during the interviews:

- A very important issue for community members is ensuring that the undeveloped property and the abandoned Press Park structures owned by HANO are redeveloped and put to productive use.

  EPA takes an active role in site reuse efforts in local communities and provides a variety of programs to support productive reuse of remediated properties. EPA is committed to working with stakeholders interested in the reuse of sites in order to move forward with the identification of protective reuses. The following EPA websites contain comprehensive information on site reuse that can be applicable to efforts to redevelop the ASL site.

  Frequently Asked Questions about Superfund Redevelopment
  Return to Use Initiative
- Illegal dumping on the undeveloped property continues to be a problem in the community.
- Residents have difficulty getting service from some cable and telecommunications utilities.
- A lawsuit was brought by residents who were claiming physical and emotional health problems from living on the site.

- Some federal grant programs to help residents return to their homes after Katrina, or implement upgrades to their homes to protect against future natural disasters, will not accept residents whose homes are located on Superfund sites.

Section 4.0
EPA's Community Involvement Program

The overall goal of EPA's community involvement program is to promote two-way communication between citizens and the EPA, and to provide opportunities for meaningful and active involvement by the community in the cleanup process. EPA will implement the community involvement activities described below. The following plan is based on the results of the community interviews described earlier; it addresses each issue that was identified as being important to the community.

4.1 The Plan

EPA will maintain the Community Involvement Program as the Superfund process continues at the ASL site. The program' goals are to address concerns and issues of importance to community members and foster communication between the agency and those affected by the site. The Superfund program emphasizes the importance of community involvement; and the Community Involvement Program activities described below ensure that citizens have ample opportunity to voice opinions and receive answers to their questions.

Community and Public Meetings

EPA will conduct informal community meetings, as needed and when requested by interested parties. More formal public meetings will be conducted, if needed, to announce proposed plans and obtain public comments. The meetings will provide residents, agencies, local officials, civic leaders, and media with accurate, timely information about the technical and administrative aspects of the cleanup, and provide opportunities for community members to have meaningful input into the decision-making process. EPA technical and community involvement staff will attend to provide information, address concerns, and answer questions. Contact information for local, state, and federal officials can be found in Appendix F.

Designation of an EPA CIC

Since 1999, EPA Region 6 has designated a CIC to handle site inquiries and serve as a point of contact for community members. The CIC serves as a primary liaison between the community and the EPA to ensure prompt, accurate, and consistent responses and information dissemination about the site. Currently, Janetta Coats is the EPA CIC assigned to the site. She works closely with Ursula Lennox, EPA's Remedial Project Manager for the site. Their contact information can be found in Appendix F.

Fact Sheets

EPA will develop fact sheets, as needed, to provide citizens with current, accurate, easy-to-read, and easy-to-understand information about the ASL site. Fact sheets will be mailed to all parties on the site mailing list. In addition, copies will be available at the information repository and in various cooperating business locations in the community.

Toll Free Superfund Hotline

EPA's Superfund Hotline is available 24 hours a day to enable citizens to get the latest information available when they want it, rather than having to wait for a meeting or a fact sheet. The toll-free number is 1-800-533-3508. It is publicized on all community outreach materials.

Mailing List

EPA maintains a mailing list for the site that contains 373 entries. The mailing list includes residents and other individuals or groups interested in or affected by the site. EPA updates the mailing list periodically and adds new contacts via fact sheets, newspaper articles, and community meetings.

Information Repositories

Since Hurricane Katrina, all repositories have been closed, with the exception of repositories located the LDEQ Public Records Center, Galvez Building, Room 127, 602 N. 5th Street, Baton Rouge Louisiana, (225)219-3181; the New Orleans Mayor's Office of Environmental Affairs, 1300 Perdido Street 8th Floor Room 8E08, New Orleans, Louisiana 70112; and the EPA Region 6 library in Dallas, Texas.

Site and Superfund Information on the Internet

Resources for information about Superfund and hazardous waste issues and the ASL site in particular can be found on the Internet at these EPA websites:

Information about the ASL site can be found at the following links:

- Site Status Summary: http://www.epa.gov/earth1r6/6sf/6sf-la.htm
- Project Background, important documents, including proposed plans, RODs, five-year review reports, and other information about EPA activities at the site: http://www.epa.gov/region6/6sf/louisiana/ag_street/la_ag_street_index.html

Information about EPA and Superfund can be found at:

- EPA Headquarters: http://www.epa.gov
- EPA Region 6: http://www.epa.gov/earth1r6
- EPA Region 6 Superfund Division: http://www.epa.gov/earth1r6/6sf/6sf.htm

Establishment and Maintenance of the Administrative Record

EPA maintains two sets of the Administrative Record for the site, one in the EPA Region 6 offices (located at 1445 Ross Avenue, Dallas, Texas) and one located at the LDEQ Information Repository. The Administrative Record contains all information EPA used to make decisions on the selection of response actions under the Superfund program.

Informal Community Visits

Throughout the Superfund process at the ASL site, EPA will maintain a presence in the community through informal, often unscheduled, visits to talk spontaneously with local residents. This informative interaction can help keep community members informed about the site, while providing EPA with feedback about site activities and the community's opinions.

Public Comment Period

EPA will provide community members with opportunities to review and comment on various EPA documents, especially the Proposed Plan. These opportunities provide the citizens with meaningful involvement in the process and also provides the site team with valuable information for use in making decisions. Comment periods will be announced, if needed. A comment period is required in conjunction with the announcement of a Proposed Plan or Amendment to a ROD and will last a minimum of 30 days.

Responsiveness Summary

If needed, EPA will prepare a Responsiveness Summary as a section of a Proposed Plan or an amended ROD. The Responsiveness Summary will include four sections: 1. overview; 2. background on community involvement; 3. summary of comments received and agency responses; and 4. remedial design/remedial action concerns. All information, both technical and non-technical, will be conveyed in a manner that is easily understood. The Responsiveness Summary serves to summarize comments received during comment periods, to document how the EPA has considered those comments during the decision-making process, and to provide responses to major comments.

Revision of the CIP

EPA will update the information presented in this version of the CIP to address changes in community concerns and information needs as the Superfund process progresses. The CIP will be revised as community concern warrants or at least every 3 years until the site is closed out.

4.2 Time Frame Summary for Community Involvement Activities

ACTIVITY	TIME FRAME
Designate an EPA Community Involvement Coordinator (CIC)	Immediately/completed
Prepare and distribute site fact sheets	As needed
Provide a toll-free "800 number" for the community to contact EPA	Currently in operation
Maintain a mailing list for the site	Ongoing
Establish and maintain information repositories	Established; update as needed
Provide site and Superfund information on the Internet	Currently available; update as needed
Establish and maintain the administrative record	Established; update as needed
Hold community/public meetings	As needed and required
Make informal visits to community	As needed
Solicit comments during a public comment period	As needed and required
Prepare and issue a responsiveness summary	Following public comment periods
Revise the Community Involvement Plan (CIP)	As needed, at least every 3 years

Appendix A
Site Photos

Photo Taken 1.29.2013 Gordon Plaza Apartments Pic # 891
Gordon Plaza Apartments/Senior Citizens Residential Units

Photo Taken 1.29.2013 Pic # 892
Gordon Plaza Apartments/Senior Citizens Residential Units

Photo Taken 1.29.2013 Pic # 893
Gordon Plaza Residential Homes. Photo taken corner Benefit Street and Montegut Drive

Photo Taken 1.29.2013 Pic # 896
Illegal Dumping continues on the site and surrounding properties

Photo Taken 1.29.2013 # 899
Undeveloped property fence line near Gordon Plaza residential properties

Photo Taken 1.29.2013 *Undeveloped property fence line near bridge – Pic # 900*

Photo Taken 1.29.2013 Industry and Press Street near Residential Properties – Pic # 901
Looking west along Industry Street towards the Almonaster Boulevard overpass. OU 1 is on the left in the background. The backside of Gordon Plaza Residential Homes.

Photo Taken 1.29.2013 Shirley Jefferson Community Center – Pic # 902
Demolition efforts are being discussed with various stakeholders.

Photo Taken 1.29.2013 View of HANO Apartments from Benefit Street and Montegut Drive – Pic # 905

Demolition efforts are being discussed with various stakeholders.

Photo Taken 1.29.2013 Back view of HANO Apartments – Pic # 906
Demolition efforts are being discussed with various stakeholders.

Photo Taken 1.29.2013 Illegal Dumping Pic # 907

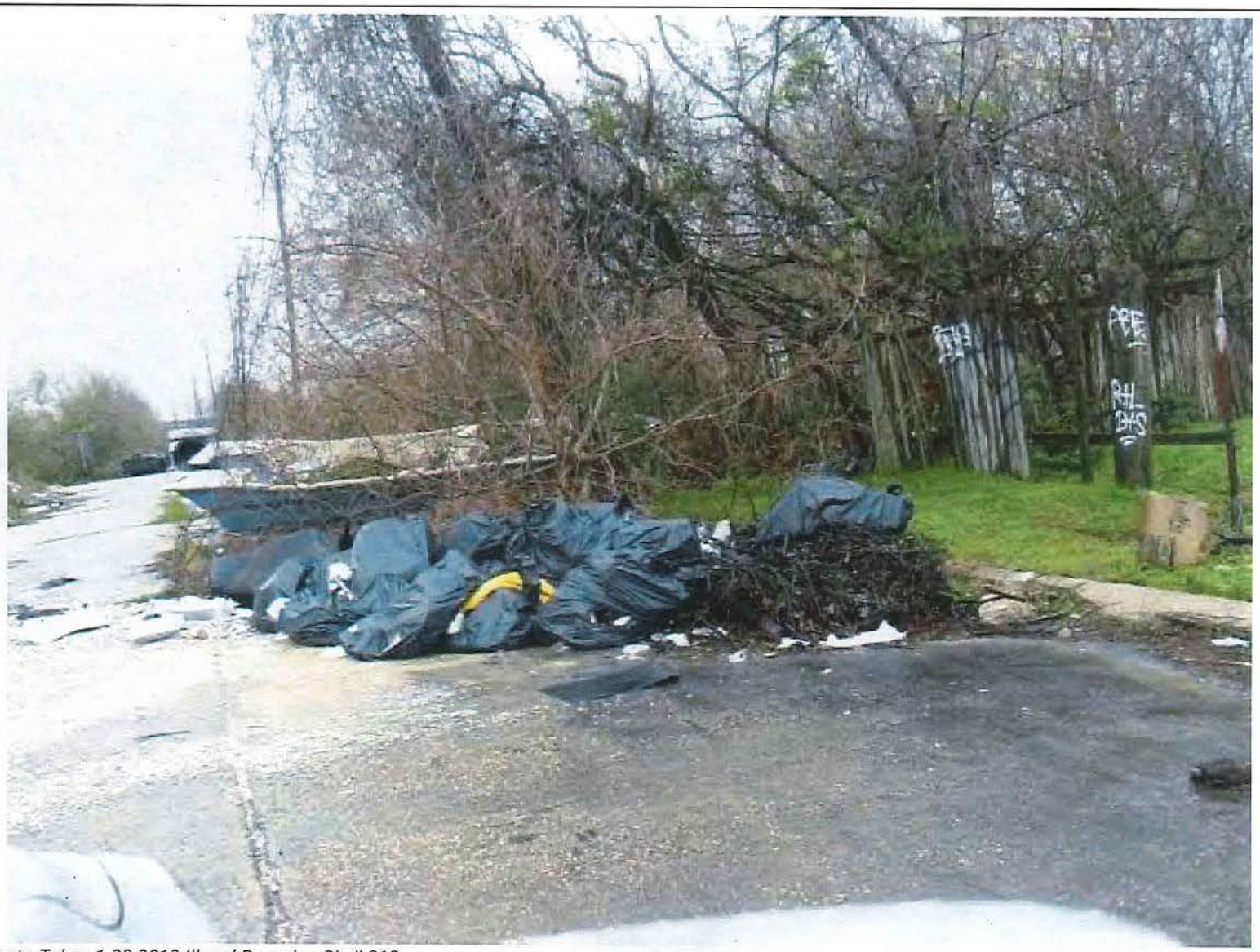

Photo Taken 1.29.2013 Illegal Dumping Pic # 910

Photo Taken 1.29.2013 Illegal Dumping Pic # 911

Photo Taken 1.29.2013 Illegal Dumping Pic # 912

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Appendix B
Site Cleanup Technologies and Approaches

A Citizen's Guide to Excavation of Contaminated Soil

EPA

What Is the Excavation of Contaminated Soil?

Excavation of contaminated soil from a site involves digging it up for "ex situ" (above-ground) treatment or for disposal in a landfill. Excavation also may involve removing old drums of chemicals and other buried debris that might be contaminated. Removing these potential sources of contamination keeps people from coming into contact with contamination and helps speed the cleanup of contaminated groundwater that may be present.

How Does It Work?

Before excavation can begin, the contaminated areas must be identified. This requires researching past activities at the site to identify what contaminants may have been released and where. The soil is then tested to better define where contaminants are present.

Contaminated soil is excavated using standard construction equipment, like backhoes and excavator trackhoes. The equipment chosen depends on how large and deep the contaminated area is, and whether access is limited by the presence of buildings or other structures that cannot be moved. Long-arm excavators can reach as deep as 100 feet below ground, but excavations are generally limited to much shallower depths due to safety concerns and difficulty keeping the hole open. Sometimes soil is excavated below the water table, which requires walling off the contaminated area and pumping out the water to keep dry during excavation.

Soil piles are covered with plastic tarps during excavation.

Worker collects soil samples to confirm that soil left onsite is clean.

If excavated soil will be disposed of in a landfill, it may be placed directly on a dump truck for transport. If it is to be disposed of elsewhere on the site or treated, it first may be stock piled on plastic tarps or in containers. The soil is then covered with tarps to prevent wind and rain from blowing or washing it away and to keep workers from coming into contact with contaminated soil. Excavation is complete when test results show that the remaining soil around the hole meets established cleanup levels.

The excavated soil may be cleaned using a mobile treatment facility brought to the site or disposed offsite. If the soil is treated onsite, treated soil may be used to fill in the excavated area. Clean soil obtained from other locations may be needed to fill in holes as well. After an excavation is filled in, the area may be landscaped to prevent soil erosion and make the site more attractive.

How Long Will It Take?

Excavating contaminated soil may take as little as one day or as long as several years. The actual time it takes to excavate will depend on several factors. For example, it may take longer where:

- The contaminated area is large, very deep, or below the water table.

- Contaminant concentrations are high, requiring extra safety precautions.
- The contaminated soil contains a lot of rocks or debris.
- Buildings or site activities limit the movement of equipment.
- The site is remote, or the treatment and disposal facilities are far away.

These factors vary from site to site.

Is Excavation Safe?

Handling contaminated soil requires precautions to ensure safety. Site workers are trained to follow safety procedures while excavating soil to avoid contact with contaminants and prevent the spread of contamination offsite. Site workers typically wear protective clothing such as rubber gloves, boots, hard hats, and coveralls. These items are either washed or disposed of before leaving the site to keep workers from carrying contaminated soil offsite on their shoes and clothing. The tires and exteriors of trucks and other earth-moving equipment are also washed before leaving the site so that the soil is not tracked through neighboring streets.

Workers monitor the air to make sure dust and contaminant vapors are not present at levels that may pose a breathing risk, and monitors may be placed around the site to ensure that dust or vapors are not leaving it. Site workers close to the excavation may need to wear "respirators," which are face masks equipped with filters that remove dust and contaminants from the air. Contaminated soil is usually covered until it can be treated or disposed of to prevent airborne dust or being washed away with rainwater. Contaminant vapors may be suppressed with foams or other materials.

How Might It Affect Me?

Nearby residents and businesses may notice increased truck traffic during soil excavation and the noise of earth-moving equipment. Excavations are fenced off to prevent entry to the area until it is backfilled and covered with clean soil.

Why Excavate Contaminated Soil?

Excavation is commonly used where in situ cleanup methods will not work quickly enough or will be too expensive. Offsite disposal and ex situ treatment are often the fastest ways to deal with high levels of contamination that pose an immediate risk to people or the environment. Excavation is also a cost-effective approach for small amounts of contaminated soil.

Example

Soil excavation for offsite treatment and disposal was used to clean up the Federal Creosote Superfund site in New Jersey. Residential housing and a shopping mall had been built on the 50-acre property after a wood-treating facility closed in the 1950s. Creosote and waste chemicals that had been stored in lagoons were buried during construction.

Contamination was discovered in the 1990s. Between 2002 and 2008, soil was excavated from as deep as 35 feet near 93 homes. Some residents were relocated, and 18 homes were demolished to reach the contaminated soil beneath. A total of 275,000 tons of soil from this area was transported offsite for treatment and disposal. Another 177,000 tons were excavated from the mall property. Clean soil was used to fill in the excavations.

Throughout the work, workers monitored the air. Soil was covered with foam and plastic sheets to reduce odors from the creosote. Trucks were cleaned prior to leaving the property.

For More Information

For more information on this and other technologies in the Citizen's Guide Series, contact:

U.S. EPA
Technology Innovation &
Field Services Division
Technology Assessment Branch
(703) 603-9910

United States
Environmental Protection
Agency

Office of Solid Waste and
Emergency Response
(5102G)

EPA 542-F-12-007
September 2012
www.epa.gov/superfund/sites
www.cluin.org

A Citizen's Guide to Greener Cleanups

What Are Greener Cleanups?

The process of cleaning up a hazardous waste site uses energy, water, and other natural or material resources. This process places demands on the environment and creates an environmental "footprint" of its own. A greener cleanup looks at this footprint closely and finds ways to reduce it throughout the life of a project, while achieving cleanup goals and preserving site reuse options. Early consideration of the environmental footprint of a cleanup can help lead to sustainable reuse or redevelopment of the site.

How Does It Work?

A project team working toward a greener cleanup considers many techniques to reduce the footprint and compares their environmental advantages and disadvantages.

Because site conditions vary widely, so do the approaches and methods used to make a cleanup greener. To help find ways to reduce a cleanup's environmental footprint, possible environmental impacts are grouped into five core elements shown in the graphic. Here are just a few of the examples of activities under each core element that promote greener cleanups:

- **Energy** use can be reduced by assuring all cleanup equipment runs efficiently and is properly sized for the task. For example, a less efficient pump might be replaced by one that is more efficient and uses less electricity. Using fuel-efficient trucks could reduce use of diesel fuel. Greener cleanups also can find ways to use solar, wind, or other renewable energy to power equipment. The use of renewable energy reduces the electricity or natural gas needed from local utilities.

The core elements of an environmental footprint.

Windmills power equipment to remove oil from contaminated groundwater.

- Impacts on the **air and atmosphere** can be reduced by using less energy from utilities that rely heavily on burning fossil fuels, such as coal or oil. Air pollutants from site activities can be reduced by adding filters to the exhaust systems of heavy machinery and replacing machine engines with newer, cleaner models.
- **Water** used during the cleanup process can be recirculated and reused instead of using fresh water. Water quality could be protected by building soil barriers around a construction area to prevent stormwater runoff, which can carry topsoil to nearby streams and harm fish and other wildlife.
- Taking precautions to protect **land and ecosystems** in the cleanup area could involve relocating animals to safer areas or landscaping with native plants. Restricting truck traffic to paved roads or to defined pathways in unpaved areas avoids unnecessary land disturbance and can protect soil and habitats.
- **Materials and waste** management maximizes material reuse or recycling and minimizes waste. For example, saving concrete, wood, or other demolition materials for later construction activities can significantly reduce a cleanup's environmental footprint.

How Long Will It Take?

Taking the steps to assure a greener cleanup does not need to delay cleanup progress. Simple changes in field procedures such as setting a "no-idling" policy for machinery engines can be made within days. In comparison, changes such as installing a solar energy system could take a year to plan and months to construct while cleanup progresses. Planning for a greener cleanup at the beginning instead of the middle of a project can lead to the biggest reductions in a project's environmental footprint.

Simple changes in field procedures can reduce a site's environmental footprint.

How Might It Affect Me?

All steps of a greener cleanup are meant to improve long-term health of a community by protecting the environment in which we live. Many steps may go unnoticed outside of the project team. Some may result in direct benefits to a community, such as reduced traffic and noise due to fewer waste-hauling trucks on the roads. Other greener cleanup methods could offer ways for individuals to become more involved, such as finding local uses for uncontaminated scrap metal, lumber, or demolition material.

Why Use A Greener Cleanup Strategy?

As a nation, we value land as a natural, cultural, and economic resource. Using a greener strategy is often a smarter way to clean up contaminated land. Greener cleanups can help decrease the use of fossil fuels such as oil and coal. A greener strategy also could lower cleanup costs by reducing the amount of electricity and materials that are used. In general, a greener strategy started during the early stages of a cleanup could set the stage for sustainable reuse or redevelopment of the site.

Heavy machinery used to remove contaminated soil can run on ultra-low sulfur diesel.

Example

Owners of the Apache Nitrogen Products, Inc., Superfund site in Arizona, cleaned up contaminated soil and groundwater with many green features.

- A wetland system was constructed to remove contaminants from groundwater through natural processes. The hillside location of the wetland allows water to flow through the system without using pumps.
- Renewable energy powers the equipment that recirculates water through the wetland.
- Treated groundwater is pumped back underground to replenish clean groundwater supplies rather than releasing it to creeks or ponds.
- Clay for the soil cap was obtained locally, minimizing transportation impacts.

These features help make a cleanup greener by avoiding chemicals sometimes used to treat contaminants, reducing the energy needed to operate cleanup equipment, and increasing the supply of clean groundwater.

For More Information

For more information on this and other technologies in the Citizen's Guide Series, contact:

U.S. EPA
Technology Innovation &
Field Services Division
Technology Assessment Branch
(703) 603-9910

Or visit:
www.cluin.org/greenremediation

United States
Environmental Protection
Agency

Office of Solid Waste and
Emergency Response
(5102G)

EPA 542-F-12-009
September 2012
www.epa.gov/superfund/sites
www.cluin.org

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Appendix C
Five-Year Review Process

EPA
United States
Environmental Protection
Agency

Superfund Today

FOCUS ON FIVE-YEAR REVIEWS INVOLVING THE COMMUNITY

Checking Up On Superfund Sites:
The Five-Year Review

The U.S. Environmental Protection Agency (EPA) conducts regular checkups, called five-year reviews, on certain Superfund sites. EPA looks at sites where cleanup left wastes that limit site use. For example, EPA will look at a landfill to make sure the protective cover is not damaged and is working properly. EPA will also review sites with cleanup activity still in progress after five-years.

The Five-Year Review is:

- a regular EPA checkup on a Superfund site that has been cleaned up—with waste left behind;
- where clean-up activities were initiated five years earlier;
- a way to make sure the cleanup continues to protect people and the environment; and
- a chance for you to tell EPA about site conditions and any concerns you have.

In both cases, EPA checks the site to make sure the cleanup continues to protect people and the environment. The EPA review team conducts the review and writes a report on its findings. At some sites, other federal agencies, a state agency, or an Indian tribe may do the review, but EPA stays in the process and approves the report.

During the review, EPA studies information on the site, including the cleanup and the laws that apply, and inspects the site to make sure it continues to be protective. EPA needs information from people who are familiar with the site. As someone living close to the site, you may know about things that can help the review team decide if the remedy is still protective. Here are some examples of things to tell EPA about:

- Broken fences, unusual odors, dead plants, materials leaving the site, or other problems
- Buildings or land around the site being used in new ways
- Any unusual activities at the site, such as dumping, vandalism, or trespassing
- Ways the cleanup at the site has affected the neighborhood.

For More Information...

... about a Superfund site in your neighborhood, please call the toll-free Superfund/TRI, EPCRA, RMP and Oil Information Center at 1-800-424-9346 or the Community Involvement Coordinator in the EPA regional office for your site. Your local EPA office can tell you where you can go to review files on every Superfund site in your area. Often, EPA holds community meetings to let people who live near a site know about site activities. You also may find useful information on the Superfund home page (www.epa.gov/superfund) by clicking on "Superfund Sites Where You Live." For more information on the review process, see "Comprehensive Five Year Review Guidance," EPA 540-R-01-007, OSWER 9355.7-03B-P, June 2001.

The Five-Year Review
Continuing to Protect You and the Environment

Step 1: Develop Plan

To plan a five-year review, the site manager forms a review team, which may include an EPA Community Involvement Coordinator, scientists, engineers, and others. The team members decide what they will do at the site and when they will do it. The Community Involvement Coordinator is the member of the team who works with your community during the review.

Your role: EPA will announce the start of the review, probably through a notice in a newspaper or a flyer. Review the notice to see when the review will start.

Step 2: Collect Information

The review team members collect information about site cleanup activities. They talk with people who have been working at the site over the past five years, as well as local officials, to see if changes in local policy or zoning might affect the original cleanup plan. The team usually visits the site to see if the cleanup equipment is working properly, take new samples, review monitoring data, and review records of activities during the past five years. They may give you a call or meet with you in person.

Your role: If you know anything about unusual site activities at or around the site, such as trespassing or odors,or have any other concerns, call the Community Involvement Coordinator at once.

Step 3: Announce Findings and Publish Report

The review team uses the information collected to decide if your community and the environment are still protected from the contaminated material left at the site or from the remediation still in progress. When cleanup goals are not being met, or when problems come up, the review team will call the cleanup activities "non-protective." If a Superfund site is determined to be non-protective, the regions will initiate the necessary actions to ultimately make the site protective. When the team finishes the five-year review, it writes a report about the information that includes background on the site and cleanup activities, describes the review, and explains the results. The review team also writes a summary and announces that the review is finished. They tell your community (via public notices, flyers, etc.) where to find copies of the report and summary—at a central place called the site repository—for anyone to see.

Your role: Read about the site and learn about the cleanup methods being reviewed. Review the report. Ask the Community Involvement Coordinator any questions you have about the site.

What Happens After The Review?

As long as contaminated materials at the site stop people from freely using the land, EPA will do a review every five years. EPA also regularly monitors the site based on an operations and maintenance plan it develops. For example, the site manager may visit the site and read reports about activities at the site. Also, the site workers may visit the site to cut the grass, take samples, or make sure equipment is working. If you see any problems or things that concern you—don't wait for the five-year review—let EPA know right away.

U. S. EPA
Office of Solid Waste and Emergency Response
5204P

EPA 540-F-01-011
9355.7-26
December 2009

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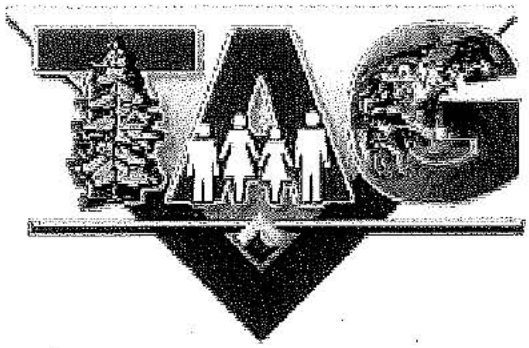
Appendix D
EPA's Technical Assistance Grant (TAG) Program

EPA United States Environmental Protection Agency

Technical Assistance Grant (TAG) Program: Fact Sheet



What Is a Technical Assistance Grant?

Often, there are many technical issues at Superfund sites that are hard for people to understand. The EPA's Technical Assistance Grant (TAG) program provides money to community groups so they can pay for technical advisors to interpret and explain technical reports, site conditions, and EPA's proposed cleanup proposals and decisions.

EPA's cleanup decisions depend on several different things, including what studies say about site conditions, the kinds of wastes found, and the cleanup methods that would work at a particular site. A technical advisor can help community members participate in decision making by helping them to better understand what is going on at the site.

Who May Apply for a TAG?

Your group may apply for a TAG if your members' health, economic well being, or enjoyment of the environment is, or may be, hurt by a Superfund site. Your group does not need to be incorporated to apply for a TAG; however, to receive a TAG, your group must incorporate for the purpose of participating in decision-making at the site. Groups that are already incorporated for other purposes may also be eligible under certain circumstances.

EPA encourages applications from groups that are interested in becoming more involved in the decision-making process for a nearby Superfund site, but need help understanding the technical issues and want to share

information with the whole community. Here are a few types of community groups that can apply for a TAG:

- A community group or citizens' association which was formed because of issues and concerns it had about the site.
- A group that has been actively involved at the site and that includes all the affected individuals and groups who joined in applying for the TAG.
- A group made up of several groups (like those described above) that came together to deal with community concerns about the site and its effects on the surrounding area.

Groups That Are Not Eligible for a TAG Are:

- Potentially responsible parties (PRPs), who are the individuals, cities/townships, or companies that may be responsible for, or may have contributed to, pollution problems at the Superfund site. PRPs can include facility owners, operators, transporters, or generators of hazardous waste.
- Groups representing or receiving money or services from a PRP.
- Academic institutions like colleges or universities.
- Groups affiliated with a national organization.
- Political subdivisions like states, counties, cities, townships or tribes.
- Groups created by, representing, or receiving money or services from any of the groups described above that are not eligible.

How Does My Group Apply for a TAG?

EPA may award only one TAG per Superfund site. To make sure that all eligible groups have an equal opportunity to apply for a single TAG, the application process follows these steps:

Step 1: Your group writes EPA a letter telling of its interest in a TAG. This "letter of intent" should include the name of the Superfund site or sites the TAG is for. It also should include the name, daytime telephone number, and address of your group's contact person. EPA will send you the TAG Application Package.

Step 2: EPA informs the rest of the community that your group is interested in a TAG. EPA usually notifies the community by publishing an ad in a local newspaper. The notice also explains that other groups interested in a TAG may contact your group and join with you or may submit their own Letter of Intent.

Step 3: Other interested groups in your community then have 30 days to get in touch with your group to talk about working together to submit one application to EPA. If your group and other interested groups decide they don't want to form a coalition, other groups that intend to apply for the TAG must write EPA a letter of intent within this 30-day period.

Step 4: After the initial 30-day period, interested groups will have another 30 days to submit applications. If EPA receives more than one application, it will rank each applicant based on whether the group represents the affected community, the group's plans for using a technical advisor, and the group's ability and plans to inform other community members about site-related information provided by the technical advisor. EPA is available to provide help to all groups preparing TAG applications.

How Much Money Can My Group Receive?

Initially, EPA will award a TAG for up to $50,000. Additional funds may be available. There can be only one TAG for each Superfund site.

To get a TAG, your group must contribute a matching share to the project. Your match must equal at least 20 percent of the total project costs. This match usually is not difficult to provide: most groups make their match by donating volunteer hours and other "in-kind" services. Sometimes, EPA can waive the matching-share requirement or require your group to contribute a smaller match. EPA will help your group determine what "in-kind" and donated services can be counted as match.

How Does My Group Get Its TAG Money?

EPA reimburses your group for its eligible costs. Reimbursement means that your group must first incur a cost and then ask EPA to pay for it. For the most part, your group may not get money up front. However, new recipients of TAGs may ask for a one-time advance payment of up to $5,000. To get an advance payment, you must explain in your TAG application how your group plans to spend the advance payment. Your group can use the advance payment to pay some of the costs for starting up your group. Start-up costs might include opening a bank account, buying or leasing office supplies and equipment, or advertising for a technical advisor. You cannot use an advance payment to pay for incorporating your group or to pay a technical advisor or for other contractor services. (Although your group cannot use the advance payment to pay incorporation costs, your group can be reimbursed for incorporation costs later.)

What Can My Group Do with a TAG?

Your group must use most of its TAG money to pay for one or more technical advisors to help you understand information about the site. For example, you may want someone to explain how the site affects the air or water in the site area and someone else to evaluate any health issues related to the site. The technical advisor reviews and explains existing information about the site developed as part of the Superfund cleanup process. Technical advisors

should produce reports that are easily understood by the community. Technical advisors cannot, however, conduct additional studies or generate any new data or information.

Here are some examples of what your group might pay a technical advisor to do:

- Review site-related documents from EPA or others.
- Meet with your group and other community members to explain site information.
- Make site visits, when appropriate and necessary, to learn more about site activities.
- Travel to meetings and hearings about the site.
- Evaluate plans for reusing the site after it is cleaned up.
- Interpret and explain health-related information.

Your group may use a small amount of its TAG funds to pay for supplies, office equipment, and rent. Your group also may pay someone to manage your TAG. If your group incorporates as a non-profit organization just so it can receive a TAG, the expenses for incorporation can also be charged to your TAG if your group is chosen to receive one. If EPA does not award a TAG to your group, however, you will not be reimbursed for the incorporation costs.

What Can't We Do with TAG Money?

There are several activities you cannot pay for with TAG money. Here are some examples:

- Travel expenses of group members (only technical advisor travel expenses can be paid).
- Lawsuits or other legal actions, including preparing testimony or hiring expert witnesses.
- Lobbying.
- Social activities, fund raising, or amusement.
- Tuition or training expenses for group members or technical advisors (except for one-time health and safety training for the advisor to gain access to the site).
- Collection of new health or primary data through, for example, medical testing or well drilling and testing.
- Reopening or challenging final EPA decisions.

How Does EPA Decide If Our Group Can Get a TAG?

The TAG application asks for information that will help EPA decide whether your group can manage a TAG. The application also asks your group to describe its history, goals, plans for using TAG funds, and how your group plans to share information learned from the technical advisor with the rest of your community. Your group must

include in the application to EPA a work plan and a budget that shows the time and resources the group will commit to TAG activities.

How Do We Find and Hire a Qualified Technical Advisor?

After EPA awards your TAG, your group needs to choose a qualified technical advisor. EPA has a list of sources where your group might find qualified advisors. You should choose a technical advisor who has the skills to address the specific issues and concerns at your site. A technical advisor must have these qualifications:

- Demonstrated knowledge of hazardous or toxic waste issues or relocation, redevelopment, or public health issues at your group's site.
- College or university training, and preferably a degree, in the relevant fields.
- The ability to explain technical information to your community in ways you understand.

Like all grants awarded by EPA, TAGs have certain regulatory requirements. Besides finding an advisor with the right background for your community's needs, you must also find and hire your technical advisor in accordance with EPA's grant regulations. The grant regulations require that you go through certain steps that make sure you find your advisor through a fair and competitive process.

How Does My Group Manage Its TAG?

Your group must keep track of how it spends TAG funds. This means your group must:

- Create a bookkeeping system and keep complete financial records of how TAG funds and your required matching funds or in-kind services are used.
- Ask EPA for reimbursement so you can pay your technical advisor on time and in full.
- Prepare and give quarterly progress reports and other reports to EPA.

Your group can use a small amount of TAG funds to pay a grant administrator to manage the TAG. But remember: Most TAG money must go toward your technical advisor, so the cost for a grant administrator should be both reasonable and necessary, and you must follow federal procurement regulations when hiring a grant administrator.

What If My Group Needs More Information?

Visit the TAG program web site at: http://www.epa.gov/superfund/community/tag/contacts.htm to contact the TAG coordinator for your region. The TAG coordinator will be available to further assist your group.

Appendix E
EPA's Superfund Job Training Initiative (SuperJTI)

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Where Can I Learn More About The SuperJTI Program?

For more detailed information, please visit the SuperJTI website at:

www.epa.gov/superfund/community/sfjti

Or contact the SuperJTI Program Managers:

EPA Regions 1-5
Melissa Friedland
(703) 603-8864
friedland.melissa@epa.gov

EPA Regions 6-10
Viola Cooper
(415) 972-3243
cooper.viola@epa.gov

Additional EPA Resources

EPA Home:
www.epa.gov

EPA Community Involvement Program:
www.epa.gov/superfund/community

EPA Community Advisory Groups (CAGs):
www.epa.gov/superfund/community/cag

EPA Technical Assistance Grants (TAGs):
www.epa.gov/superfund/community/tag

EPA Technical Assistance Services for Communities (TASC) Contract:
www.epa.gov/superfund/community/tasc

Successful SuperJTI Sites

ABEX Corp., Portsmouth, VA
Agriculture Street Landfill, New Orleans, LA
Douglas Roads, Mishawaka, MO
Dutch Boy, Chicago, IL
Fort Ord, Monterey, CA
Jacksonville Ash, Jacksonville, FL
Kerr-McGee, Chicago, IL
Many Diversified Interests, Inc., Houston, TX
North Denver, Denver, CO
RSR Smelter, Dallas, TX
Savannah River Site, Aiken and Allendale, SC
Tar Creek, Miami, OK
Taracorp, Granite City, MO
Tennessee Products, Chattanooga, TN
Washington Navy Yard, Washington D.C.
Young Community Developers, Inc., San Francisco, CA

EPA 540-FS-09-00

EPA
United States
Environmental Protection
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The Superfund Job Training Initiative

Does your community need jobs and job training?

If so, the Environmental Protection Agency's Superfund Job Training Initiative can help!

U.S. Environmental Protection Agency
Superfund Job Training Initiative

EPA

www.epa.gov

THE SUPERFUND JOB TRAINING INITIATIVE

Making a *Difference* in Communities

SUPERFUND JTI JOB TRAINING INITIATIVE





What Is The Superfund Job Training Initiative?

The Superfund Job Training Initiative (SuperJTI) is an environmental remediation job readiness program that provides free training and employment opportunities for citizens living in communities affected by Superfund sites.

The Superfund program uses its experience working with communities to create partnerships with local businesses, universities, labor unions, community and social service organizations, and other federal agencies to address local workforce issues. EPA's goal is to help communities develop job opportunities and partnerships that remain long after a Superfund site is cleaned up.

EPA offers SuperJTI training through its Technical Assistance Services for Communities (TASC) contract, which provides independent educational and technical assistance to communities affected by Superfund sites.

How Can SuperJTI Benefit My Community?

Through the SuperJTI program, EPA and its partners can make the most of resources and expertise to help citizens living in communities affected by Superfund sites.

SuperJTI benefits communities by:

- Increasing understanding of site conditions and cleanup efforts.
- Providing individuals with marketable skills that enhance employment potential.
- Enabling community members to play active roles in the protection and restoration of their neighborhoods.
- Providing assistance with job placement.

SuperJTI combines classroom instruction with hands-on training exercises for each participant. SuperJTI graduates have the technical skills to work on a broad range of projects in environmental remediation and construction as well as the cleanup of Superfund sites.

What Are SuperJTI's Accomplishments?

Approximately 400 trainees nationwide have participated in SuperJTI. Graduates of SuperJTI have been placed in a variety of jobs.

- Dump truck drivers
- Environmental technicians
- General production operators
- Heavy equipment operators
- Material handlers
- Radiological control inspectors

Approximately 80 percent of trainees from previous SuperJTI programs have been placed into jobs.

SUPERFUND JTI JOB TRAINING INITIATIVE

Visit the SuperJTI website at: www.epa.gov/superfund/community/sfjti

Appendix F
Key Contacts

EPA Regional Officials

Ursula Lennox
Remedial Project Manager
U.S. EPA, Region 6 (6SF-LP)
1445 Ross Avenue
Dallas, TX 75202-2733
Tel: (214) 665-6743
Fax: (214) 665-6660
E-mail:lennox.ursula@epa.gov

Janetta Coats
Community Involvement Coordinator
Technical Assistance Grant Project Officer
U.S. EPA, Region 6 (6SF-VO)
1445 Ross Avenue
Dallas, TX 75202-2733
Tel: (214) 665-7308
Fax: (214) 665-6660
E-mail: coats.janetta@epa.gov

Louisiana State Agencies

Erin Delaune, MPH
Public Health Epidemiologist
Office of Public Health
Infectious Disease Epidemiology Section
1450 Poydras St., Suite 2146
New Orleans, LA 70112
(504) 568-8316

Edwin Akujobi
Site Manager
Louisiana Department of Environmental Quality (LDEQ)
Inactive and Abandoned Sites Division
602 N. 5th Street
Baton Rouge, Louisiana 70802
(225)219-3686

Louisiana Elected State Officials

The Honorable Bobby Jindal
Governor of Louisiana
P.O. Box 94004
Baton Rouge, Louisiana 70804

Louisiana House District 96 – Terry C. Landry, Sr.
800 S. Lewis Street
Suite 201-B
New Iberia, Louisiana 70560
(337) 373-9380

Louisiana Senate District 4 – Edwin R. Murray
1540 N. Broad St.
New Orleans, Louisiana 70119
(504) 945-0042

City of New Orleans Officials

The Honorable Mitchell J. Landrieu
Mayor/New Orleans
1300 Perdido St
New Orleans, Louisiana 70112
(504)658-4900

City Council District D – Jared C. Brossett
City Hall, Room 2W20
1300 Perdido Street
New Orleans, Louisiana 70112
(504) 658-1040
City of New Orleans

Department of Sanitation
1300 Perdido St., Suite 1W03
New Orleans, LA 70112

Director of New Orleans Health Department
Charlotte Parent
1300 Perdido St., Suite 8E18
New Orleans, LA 70112
(504) 658-4000

Department of City Planning
Executive Director-Robert D. Rivers
1300 Perdido St., 7th Floor
New Orleans, LA 70112
(504) 659-7033

Federal Elected Officials

U.S. Senate
U.S. Senator Mary Landrieu
Hale Boggs Federal Building
500 Poydras Street/Room 1005
New Orleans, Louisiana 70112
(504) 589-2427

U.S. Senator David Vitter
2800 Veterans Blvd, Suite 201
Metairie, Louisiana 70002
(504)589-2753

U.S. Congressman/House of Representatives
U.S. Congressional District 2 – Cedric Richmond
2021 Lakeshore Dr, Suite 309
New Orleans, Louisiana 70122
(504) 288-4090

Media Contacts

Television Stations

Channel 4	(504) 529-4444 Action Hotline or News Room	1024 North Rampart New Orleans, Louisiana 70140
Channel 6	(504) 679-0600 Newsroom Or News Room	846 Howard Avenue New Orleans, Louisiana 70013
Channel 8	(504) 486-6161	1025 South Jefferson Davis Parkway New Orleans, Louisiana 70125
Channel 26	(504) 525-3838	1 Galleria Blvd. Suite 850 Metairie, Louisiana 70001

Newspaper

Times Picayune	1-800-925-0000	365 Canal Place, Suite 3100 New Orleans, Louisiana 70130

Radio Stations

FM 99.5 (WRNO)
(504) 620-0972
929 Howard Avenue
New Orleans, Louisiana 70113

AM 870 (WWL)
(504) 260-1870
(866) 889-0870
400 Poydras Street, Suite 800
New Orleans, Louisiana 70130

FM 870 (WWNO)
National Public Radio (NPR)
(504) 280-7004
200 Lakeshore Drive
New Orleans, Louisiana 70148

APPENDIX G
INTERVIEW RECORD FORMS

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U.S. Environmental Protection Agency – Region 6

SIGN-IN SHEET: AGRICULTURE STREET/4TH FIVE YEAR REVIEW AVAILABILITY SESSION Date: 7.26.2017

Page __ of __

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NAME/AGENCY/COMPANY	MAILING ADDRESS	✓ for Mailing List	PHONE/E-MAIL
Marion D. Theodore	STREET (b) (6) CITY/STATE/ZIP N.O. La. (b) (6)		(b) (6) E-MAIL
Peter Gardner	STREET (b) (6) CITY/STATE/ZIP NO LA (b) (6)		PHONE (b) (6) E-MAIL
Charles Allen City of New Orleans	STREET CITY/STATE/ZIP		PHONE (504)658-2215 E-MAIL callen@nola.gov
Present Marion Theodore	(b) (6) CITY/STATE/ZIP N.O. La. (b) (6)		PHONE (b) (6) E-MAIL
	STREET CITY/STATE/ZIP		PHONE E-MAIL

THIS INFORMATION MAY BE SHARED WITH LOCAL, STATE AND OTHER FEDERAL AGENCIES, MEMBERS OF THE PUBLIC AND POTENTIALLY RESPONSIBLE PARTIES

U.S. Environmental Protection Agency – Region 6

SIGN-IN SHEET: AGRICULTURE STREET/4TH FIVE YEAR REVIEW AVAILABILITY SESSION Date: 7.25.2017

Page __ of __

(Please Print)

NAME/AGENCY/COMPANY	MAILING ADDRESS	✓ for Mailing List	PHONE/E-MAIL
Darren Davis CHZM	STREET CITY/STATE/ZIP		PHONE 214-458-9667 E-MAIL darren.davis@chzm.com
Ursula Lennox US EPA	STREET CITY/STATE/ZIP		PHONE 214-665-6743 E-MAIL lennox.ursula@epa.gov
EARL A. SMOTHERS	STREET (b) (6) CITY/STATE/ZIP N. O. LA. (b) (6)		PHON (b) (6) (b) (6)
CORLETTA A. SMOTHERS	STREET (b) (6) (b) (6)		(b) (6)
Shannon Raney	STREET (b) (6) (b) (6)		

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U.S. Environmental Protection Agency – Region 6

SIGN-IN SHEET: AGRICULTURE STREET/4TH FIVE YEAR REVIEW AVAILABILITY SESSION Date: 7.25.2017

Page __ of __

(Please Print)

NAME/AGENCY/COMPANY	MAILING ADDRESS	✓ for Mailing List	PHONE/E-MAIL
Edwin Akujobi RD/LDEQ	STREET CITY/STATE/ZIP		PHONE 225-219-3654 E-MAIL Edwin.Akujobi@LA.GOV
Greg Langley LDEQ	STREET CITY/STATE/ZIP		PHONE 225-219-3964 E-MAIL Gregory.langley@LA.GOV
	STREET CITY/STATE/ZIP		PHONE E-MAIL
	STREET CITY/STATE/ZIP		PHONE E-MAIL
	STREET CITY/STATE/ZIP		PHONE E-MAIL

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Five-Year Review Interview Record *Agriculture Street Landfill Superfund Site* *New Orleans, Orleans Parish, Louisiana*	Interviewee: Charles Allen III Office of Resilience and Sustainability Affiliation: City of New Orleans Telephone: (504) 658-2215 Email address: ceallen@nola.gov

	EPA ID Number (No.)	Date of Interview	Interview Method
Agriculture Street Landfill Superfund Site	EPA ID No. LAD981056997		

Interview Contacts

Name	Organization	Phone	Email	Address
Ursula Lennox	EPA RPM	214-665-6743	Lennox.Ursula@epa.gov	1445 Ross Avenue Suite 1200 Dallas, TX 75202
Janetta Coats	EPA CIC	214-665-7308	Coats.Janetta@epa.gov	1445 Ross Avenue Suite 1200 Dallas, TX 75202
Darren Davis	CH2M, as representative of EPA	972-663-2253	darren.davis@ch2m.com	12750 Merit Drive Suite 1100 Dallas, TX 75251

Purpose of the Five-Year Review

The purpose of the five-year review is to evaluate the implementation and performance of the remedy and to confirm that human health and the environment continue to be protected by the actions performed. This interview is being conducted as a part of the fourth five-year review for the Agriculture Street Landfill site. The period covered by this five-year review is from completion of the third five-year review (September 2013) to the present.

Interview Questions

1. What is your overall impression of the site since the third five-year review (September 2013)?

Response: My impression of the site, since the last five-year review, is that the integrity of remediation work performed by the EPA several years ago is still intact.

2. Have there been routine communications or activities (site visits, inspections of the permeable cap, reporting activities, sampling, etc.) conducted by the City regarding the site? Please describe purpose, dates, and results.

Response: On a monthly basis, I drive over to the site to inspect it. I observe the overall grounds to see if there's been any major disruptions to site. In fact, my recent observations of the site were made on the afternoon of 6/29/17 as well as the afternoon of 7/25/17.

3. What measures have the City taken to be, or stay, in compliance with the Consent Decree (Civil Action No. 02-3618, Section: E, Magistrate 3 [such as fence repair and mowing on the undeveloped property [OU1], institutional controls that inform new or existing residents, owners, or parties excavating in the area of the measures required to maintain the integrity of the permeable cap, etc.])

Response: On approximately a quarterly basis, the City still has its remedial services contractor peform perimeter cuts of the grass at the undeveloped (OU1) parcel of land. The perimeter cuts to the property are on the sides facing Almonaster, Higgins and St. Ferdinand Streets.

Five-Year Review Interview Record *Agriculture Street Landfill Superfund Site* *New Orleans, Orleans Parish, Louisiana*	Interviewee: Affiliation: Telephone: Email address:	Charles Allen III Office of Resilience and Sustainability City of New Orleans (504) 658-2215 ceallen@nola.gov

Interview Questions

4. Does the City have any measures in place to track proposed development or redevelopment on the site, and to notify EPA if such development or redevelopment is proposed?

Response: In the event that there is a proposal for redevelopment of the OU1 parcel, it is standard practice that the City consults with the staff of the EPA Region 6 Superfund Office. Whenever necessary, we consult with the Superfund Office regarding the OU1 property. The EPA Superfund Staff is always most helpful and resourceful.

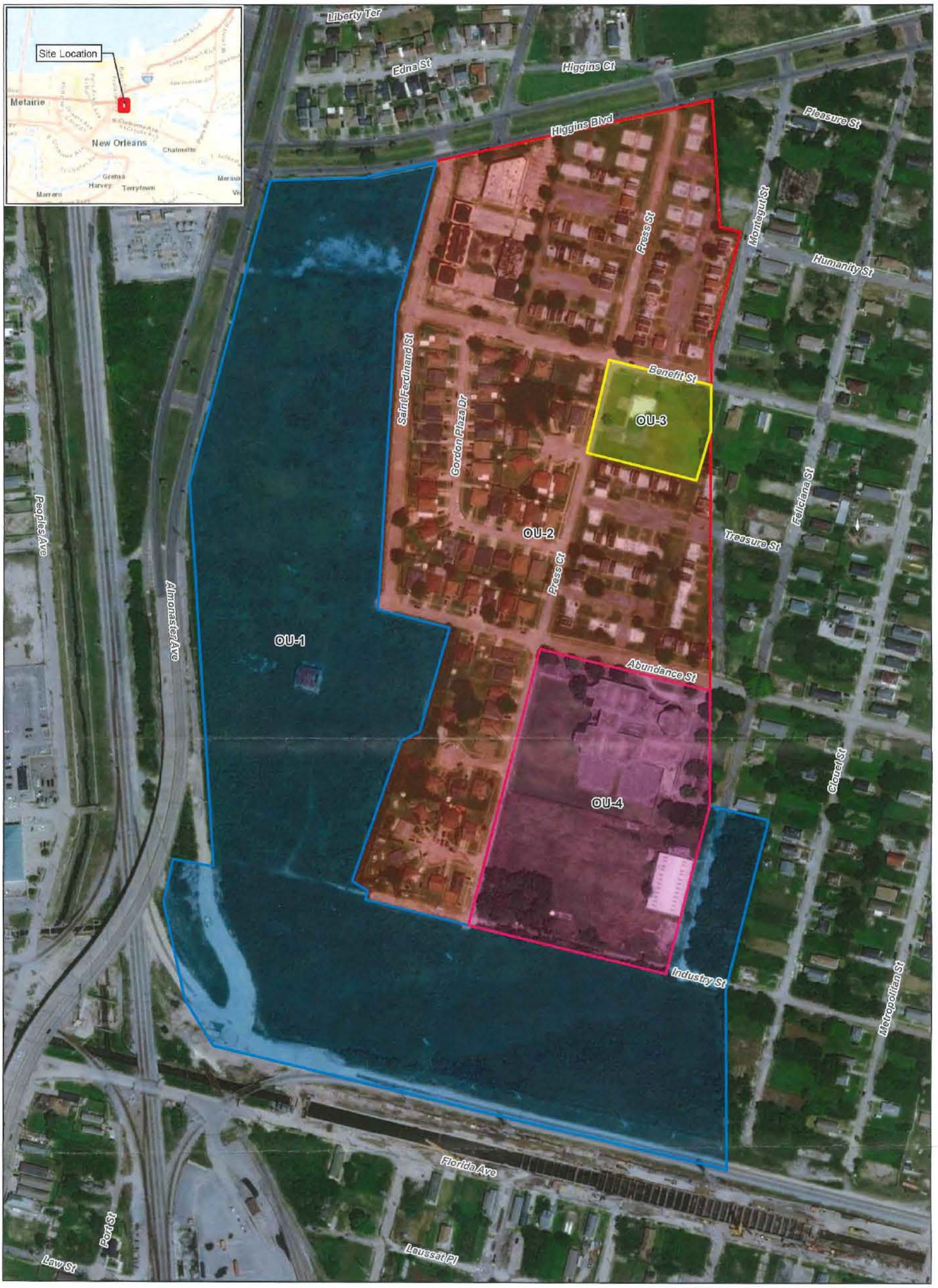
5. Have there been any complaints, violations, or other incidents related to the site that required a response by your office? If so, please summarize the events and results.

Response: From time to time, our office receives complaints regarding some illegal dumping that has occurred at or near the site. We then send a crew out to remove whatever debris has been placed at or near the site. Recently (7/20/17), we received an inquiry from the relevant city council rep's office regarding the site. And, we informed them that our office is working with the City's Office of Code Enforcement to develop a new maintenance/ management plan for this site with the next 60-90 days.

6. Do you have any comments, suggestions, or recommendations regarding the site or additional outreach efforts EPA should consider?

Response: I have no other suggestions or recommendations at this time. I simply want to say that Ursula Lennox and Janetta Coats are always most helpful to us in our regular consultations regarding the Agriculture Street Landfill site.

CH2M = CH2M HILL, Inc.
City = City of New Orleans
EPA = U.S. Environmental Protection Agency
ID = identification
OU = operable unit
RPM = Remedial Project Manager
CIC = Community Involvement Coordinator



Legend

Operable Unit

- OU-1
- OU-2
- OU-3
- OU-4

Notes:
Imagery Source: ESRI World Street Map online mapping service (April 2015)

OU = Operable Unit

N

0 125 250 500 Feet

Figure 1.
Site Map
Fourth Five-Year Review
Agriculture Street Landfill Superfund Site
New Orleans, Louisiana

Five-Year Review Interview Record *Agriculture Street Landfill Superfund Site* *New Orleans, Orleans Parish, Louisiana*	Interviewee: Edwin Akujobi Affiliation: Environmental Site Supervisor, Louisiana Department of Environmental Quality Telephone: (225) 219-3654 Email address: Edwin.Akujobi@la.gov

Site Name	EPA ID Number (No.)	Date of Interview	Interview Method
Agriculture Street Landfill Superfund Site	EPA ID No.# LAD981056997		

Interview Contacts

Name	Organization	Phone	Email	Address
Ursula Lennox	EPA RPM	214-665-6743	Lennox.Ursula@epa.gov	1445 Ross Avenue Suite 1200 Dallas, TX 75202
Janetta Coats	EPA CIC	214-665-7308	Coats.Janetta@epa.gov	1445 Ross Avenue Suite 1200 Dallas, TX 75202
Darren Davis	CH2M, as representative of EPA	972-663-2253	darren.davis@ch2m.com	12750 Merit Drive Suite 1100 Dallas, TX 75251

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Interview Questions

1. What is your overall impression of the site since the third five-year review (September 2013)?

Response:

The condition at the site (i.e., OU1 – OU3) has remained stable since 2013. Other than ~~occasional~~ on-going issue with the fence's gate at St. Ferdinand remaining open, no ongoing issues have surfaced

2. Have there been routine communications or activities (site visits, inspections of the permeable cap, reporting activities, sampling, etc.) conducted by your office regarding the site? Please describe purpose, dates, and results.

Response: There has been routine communications between DEQ and EPA, The DEQ conducts semi-annual to Annual inspections and relays report back to EPA in the for of Field Interview Form. The report is also made available to the City of N.O.

3. Have there been any complaints, violations, or other incidents related to the site that required a response by your office? If so, please summarize the events and results.

Response: During early Summer of 2016, the residents of Gordon Plaza complained that site has eroded at the corner of St. Ferdinand and Abundance and called a meeting to press their case of a buy-out.

Five-Year Review Interview Record	Interviewee:	Edwin Akujobi
Agriculture Street Landfill Superfund Site		Environmental Site Supervisor,
New Orleans, Orleans Parish, Louisiana	Affiliation:	Louisiana Department of Environmental Quality
	Telephone:	(225) 219-3654
	Email address:	Edwin.Akujobi@la.gov

Interview Questions

4. Has the State implemented institutional control measures on the nine residential properties that elected not to participate in EPA's response action? If so, what are the controls (for example, deed conveyance, notice, etc.), and when were they implemented?

Response: The state implemented the institutional control measure on Dec. 1, 2006, when all nine locations had legal instrument in of form of conveyance notice recorded at the Orleans Parish Clerk of Court.

5. Do you have any comments, suggestions, or recommendations regarding the site's management or operation?

Response:

Continue operation and Maintenance as proposed with the City and continued adherence of the Technical Directive by residents and utilities.

CH2M = CH2M HILL, Inc.
EPA = U.S. Environmental Protection Agency
ID = Identification
RPM = Remedial Project Manager
CIC = Community Involvement Coordinator
State = Louisiana Department of Environmental Quality

Five-Year Review Interview Record *Agriculture Street Landfill Superfund Site* *New Orleans, Orleans Parish, Louisiana*	Interviewee: Affiliation: Housing Authority of New Orleans Telephone: Email address:

Site Name	EPA ID Number (No.)	Date of Interview	Interview Method
Agriculture Street Landfill Superfund Site	EPA ID No. LAD981056997		

Interview Contacts

Name	Organization	Phone	Email	Address
Ursula Lennox	EPA RPM	214-665-6743	Lennox.Ursula@epa.gov	1445 Ross Avenue Suite 1200 Dallas, TX 75202
Janetta Coats	EPA CIC	214-665-7308	Coats.Janetta@epa.gov	1445 Ross Avenue Suite 1200 Dallas, TX 75202
Darren Davis	CH2M, as representative of EPA	972-663-2253	darren.davis@ch2m.com	12750 Merit Drive Suite 1100 Dallas, TX 75251

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Interview Questions

1. What is your overall impression of the site since the third five-year review (September 2013)?

Response:
Since the last Five Year Review, HANO has demolished all but 67 privately owned townhome structures at the site, eliminating a significant amount of blight. The site is relatively well maintained and secured with fencing to ameliorate the risks to the surrounding neighborhood.

2. Are you aware of any community concerns regarding the remedial actions EPA implemented at the site?

Response:
HANO is not aware of any additional community concerns specific to the remedial actions EPA implemented at the site since the last Five Year Review.

3. Have there been routine communications or activities (site visits, inspections of the permeable cap, reporting activities, sampling, etc.) conducted by your office regarding the site? Please describe purpose, dates, and results.

Response:
The Agricultural Street Landfill Superfund Site encompasses HANO's Press Park development as well as the Gordon Plaza subdivision. The Press Park site is completely vacant, however HANO has continuously engaged with residents in the community. In March of 2014 HANO partnered with FEMA to distribute flyers throughout the adjacent community announcing the start of demolition of Press Park housing units owned by the Agency. The HANO Administrative Receiver and staff periodically visited the site during the demolition process which was completed in July of 2014. In September of 2014 the Agency's current Executive Director also met with community members along with Mayor Mitchell J. Landrieu and City of New Orleans staff. HANO has joined the Mayor and all City agencies in budget hearings held yearly since 2014, to respond to and offer updates on the status of the Superfund Site. Members of the Gordon Plaza community were present at the budget hearings in Council District E, the district in which the property is located. In May of 2015 HANO participated in a roundtable with City leaders which included discussion on demolition of the remaining private homeowner units in Press Park.

Five-Year Review Interview Record *Agriculture Street Landfill Superfund Site* *New Orleans, Orleans Parish, Louisiana*	**Interviewee:** **Affiliation:** Housing Authority of New Orleans **Telephone:** **Email address:**

Interview Questions

4. What is current status of the demolition of the structures within the HANO Press Park development? Are provisions in place to consult EPA prior to and during the implementation of planned activities? If not, when will provisions be established?

Response:
HANO completed the demolition of 154 structures in 2014, leaving all building slabs intact. Sixty-seven (67) privately owned townhomes still remain on the site. EPA and FEMA, one of the demolition's funders, were consulted throughout the process.

5. What types of institutional controls are in place or will be established to restrict access to abandoned buildings and vacant land?

Response:
The entire perimeter of each block – including vacant land, foundation slabs, and townhome structures – is fenced in. HANO's grounds maintenance crew checks the fence perimeter regularly and makes any repairs needed to restrict access to the site.

6. Will the HANO property be redeveloped, and if so, what is the expected timeframe?

Response:
There is a possibility of redevelopment, but not until there is significant remediation work done to the site. There are no plans at this time, so there is no timeframe available.

7. Do you have any comments, suggestions, or recommendations regarding the site or additional outreach efforts EPA should consider?

Response:
Efforts are being made to complete the demolition of the remaining townhome structures at the site. HANO continues to maintain the property and the security of the site.

CH2M = CH2M HILL, Inc.
EPA = U.S. Environmental Protection Agency
HANO = Housing Authority of New Orleans
ID = identification
RPM = Remedial Project Manager
CIC = Community Involvement Coordinator

Five-Year Review Interview Record *Agriculture Street Landfill Superfund Site* *New Orleans, Orleans Parish, Louisiana*	**Interviewee:** Local Resident **Affiliation:** Local Resident and Property Owner **Telephone:** **Email address:**

Site Name	EPA ID Number (No.)	Date of Interview	Interview Method
Agriculture Street Landfill Superfund Site	EPA ID No. LAD981056997	25-Jul-17	In Person

Interview Contacts

Name	Organization	Phone	Email	Address
Ursula Lennox	EPA RPM	214-665-6743	Lennox.Ursula@epa.gov	1445 Ross Avenue Suite 1200 Dallas, TX 75202
Janetta Coats	EPA CIC	214-665-7308	coats.janetta@epa.gov	1445 Ross Avenue Suite 1200 Dallas, TX 75202
Darren Davis	CH2M, as representative of EPA	972-663-2253	darren.davis@ch2m.com	12750 Merit Drive Suite 1100 Dallas, TX 75251

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Interview Questions

1. What is your overall impression of the site since the third five-year review (September 2013)?

Response: The interviewee indicated their concern was their feeling that the money spent on the remedy would have been better spent buying out property owners. The interviewee noted various health concerns that were felt to be due to living on a Superfund site. The interviewee stated that there were areas where landfill material was present on the ground surface and that a hole had opened up underneath the interviewee's house.

2. From your perspective, are you aware of any ongoing community concerns regarding the remedial actions EPA implemented at the site? If so, please give details.

Response: See response to Question 1. Also, the interviewee reported their belief that after Hurricane Katrina, residents of the site were prevented from receiving FEMA financial assistance/grants because they lived on a Superfund site. They also indicated a concern that the OU1 property is not being maintained as it should be. The property is not mowed, is heavily overgrown, and the fence has fallen down in places. The interviewee also added that HANO has not allowed the residents in Press Park to return to their homes after Hurricane Katrina, and that the school was not going to reopen. This causes the general impression that the neighborhood has been abandoned.

3. Are you aware of any events, incidents, or activities at the site such as vandalism, trespassing, or emergency responses from local authorities? If so, please give details.

Response: The interviewee indicated an ongoing concern with dumping on the vacant OU1 property, and rodents coming into their yards, from that area. They object to the redevelopment of the Gordon Plaza Senior Citizen Apartments that is ongoing. It is believed that no development should occur and that the entire residential area should be bought out (i.e. Gordon Plaza Subdivision). It was expressed that HANO has done a grave injustice to the owners of townhomes in the Press Park Community. They are not allowed to rebuild their homes, nor be compensated for their investment. They are frustrated that HANO will not communicate with them on the options that are available to them.

4. Do you feel well informed about the activities being performed at the site and the progress of those activities? Response: The interviewee indicated they had observed no activities recently at the site. The interviewee stated that the EPA had done a good job over the years at communicating with them and sending out information regarding what is happening at the site. The interviewee felt well informed as to what has and is going on at the site.
Interview Questions
5. Do you have any comments, suggestions, or recommendations regarding the site or additional outreach efforts EPA should consider? Response: The interviewee's primary comment was that they should be bought out so that they can move off of the site. The resident also expressed concerns that the Gordon Plaza Apartments were being rebuilt and that no one should be allowed to move onto the site to live.

CH2M = CH2M HILL, Inc.
EPA = U.S. Environmental Protection Agency
ID = identification
RPM = Remedial Project Manager

Five-Year Review Interview Record *Agriculture Street Landfill Superfund Site* *New Orleans, Orleans Parish, Louisiana*	**Interviewee:** Local Resident **Affiliation:** Local Residents and Property Owners **Telephone:** **Email address:**

Site Name	EPA ID Number (No.)	Date of Interview	Interview Method
Agriculture Street Landfill Superfund Site	EPA ID No. LAD981056997	25-Jul-17	In Person

Interview Contacts

Name	Organization	Phone	Email	Address
Ursula Lennox	EPA RPM	214-665-6743	Lennox.Ursula@epa.gov	1445 Ross Avenue Suite 1200 Dallas, TX 75202
Janetta Coats	EPA CIC	214-665-7308	coats.janetta@epa.gov	1445 Ross Avenue Suite 1200 Dallas, TX 75202
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Interview Questions

1. What is your overall impression of the site since the third five-year review (September 2013)?

Response: The interviewees indicated their primary concern was their feeling that the money spent on the remedy would have been better spent buying out the property owners.

2. From your perspective, are you aware of any ongoing community concerns regarding the remedial actions EPA implemented at the site? If so, please give details.

Response: See response to Question 1. Also, the interviewees reported their belief that after Hurricane Katrina, residents of the site were prevented from receiving FEMA financial assistance/grants because they lived on a Superfund Site. They also indicated a concern that the OU1 property is not being maintained as it should be. The property is not mowed, is heavily overgrown, and the fence has fallen down in places.

3. Are you aware of any events, incidents, or activities at the site such as vandalism, trespassing, or emergency responses from local authorities? If so, please give details.

Response: The interviewees indicated an ongoing concern with dumping on the vacant OU1 property.

Five-Year Review Interview Record *Agriculture Street Landfill Superfund Site* *New Orleans, Orleans Parish, Louisiana*	**Interviewee:** Local Resident **Affiliation:** Local Residents and Property Owners **Telephone:** **Email address:**

4. Do you feel well informed about the activities being performed at the site and the progress of those activities?

Response: The interviewees indicated they had observed no activities recently at the site. They stated that the EPA had done a good job over the years at communicating with them and sending out information regarding what is happening at the site.

Interview Questions

5. Do you have any comments, suggestions, or recommendations regarding the site or additional outreach efforts EPA should consider?

Response: The interviewees primary comment was that they should be bought out so that they can move off of the site.

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EPA = U.S. Environmental Protection Agency
ID = identification
RPM = Remedial Project Manager

Five-Year Review Interview Record *Agriculture Street Landfill Superfund Site* *New Orleans, Orleans Parish, Louisiana*	**Interviewee:** Local Resident **Affiliation:** Area Resident and Property Owner **Telephone:** **Email address:**

Site Name	EPA ID Number (No.)	Date of Interview	Interview Method
Agriculture Street Landfill Superfund Site	EPA ID No. LAD981056997	26-Jul-17	In Person

Interview Contacts

Name	Organization	Phone	Email	Address
Ursula Lennox	EPA RPM	214-665-6743	Lennox.Ursula@epa.gov	1445 Ross Avenue Suite 1200 Dallas, TX 75202
Janetta Coats	EPA CIC	214-665-7308	coats.janetta@epa.gov	1445 Ross Avenue Suite 1200 Dallas, TX 75202
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Interview Questions

1. What is your overall impression of the site since the third five-year review (September 2013)?

Response: The interviewee indicated their primary concern was their feeling that the money spent on the remedy would have been better spent buying out the property owners.

2. From your perspective, are you aware of any ongoing community concerns regarding the remedial actions EPA implemented at the site? If so, please give details.

Response: See response to Question 1. Also, the interviewee added that HANO was not allowing the residents in Press Park to return to their homes. The resident owned one of the town homes and could do nothing with the property because HANO had fenced the entire development off and would not allow anyone access.

3. Are you aware of any events, incidents, or activities at the site such as vandalism, trespassing, or emergency responses from local authorities? If so, please give details.

Response: The interviewee indicated that dumping on the OU1 property has been an ongoing concern in the neighborhood.

4. Do you feel well informed about the activities being performed at the site and the progress of those activities? Response: The interviewee indicated they no longer live at the site, but is somewhat aware of what is going on due to community ties through church.
Interview Questions
5. Do you have any comments, suggestions, or recommendations regarding the site or additional outreach efforts EPA should consider? Response: The interviewee's primary comment was that access to property the interviewee owned at Press Park was being denied by HANO.

CH2M = CH2M HILL, Inc.
EPA = U.S. Environmental Protection Agency
ID = identification
RPM = Remedial Project Manager

Five-Year Review Interview Record *Agriculture Street Landfill Superfund Site* *New Orleans, Orleans Parish, Louisiana*	**Interviewee:** Area Property Owner **Affiliation:** Property Owner **Telephone:** **Email address:**

Site Name	EPA ID Number (No.)	Date of Interview	Interview Method
Agriculture Street Landfill Superfund Site	EPA ID No. LAD981056997	26-Jul-17	In Person

Interview Contacts

Name	Organization	Phone	Email	Address
Ursula Lennox	EPA RPM	214-665-6743	Lennox.Ursula@epa.gov	1445 Ross Avenue Suite 1200 Dallas, TX 75202
Janetta Coats	EPA CIC	214-665-7308	coats.janetta@epa.gov	1445 Ross Avenue Suite 1200 Dallas, TX 75202
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Interview Questions

1. What is your overall impression of the site since the third five-year review (September 2013)?

Response: The interviewee recently purchased the Gordon Plaza Apartments and is in the process of restoring the property to lease the apartments. The interviewee also owns the adjacent commercial property to the north of the apartments, and is planning to redevelop that site as well. Overall, the interviewee stated that the remedy for the site had positive impacts. The interviewee was aware of the restrictions placed on the site. The interviewee noted that the barrier placed in the subsurface was still present, as it had been encountered while workers were doing some excavating at the site.

2. From your perspective, are you aware of any ongoing community concerns regarding the remedial actions EPA implemented at the site? If so, please give details.

Response: See response to Question 1. The interviewee stated that there had been resistance from the residents to restoring the apartments so that they could be rented. The interviewee was interested in restoring the community, and believed that renovating the apartments to allow tenants to move back into them was helpful in this regard.

3. Are you aware of any events, incidents, or activities at the site such as vandalism, trespassing, or emergency responses from local authorities? If so, please give details.

Response: There is ongoing concern with dumping on the vacant OU1 property. The interviewee believed that the City was not doing enough to maintain the site and that it was detrimental to the landowners at the site and their property values.

4. Do you feel well informed about the activities being performed at the site and the progress of those activities? Response: The interviewee was well informed about the site and its history. The interviewee indicated he had done a lot of research prior to buying the apartments and commercial property. The interviewee was aware of the remedy and restrictions placed on the property with regards to maintaining the integrity of the remedy.
Interview Questions
5. Do you have any comments, suggestions, or recommendations regarding the site or additional outreach efforts EPA should consider? Response: The interviewee stated that EPA should make more information available on the website regarding the site and use the website as a tool to communicate upcoming activities for the site. The interviewee was present with the City of New Orleans representative during the availability session, and discussed ways to partner with the City and to get involved with the vacant property (OU1) to put it into use or to better maintain the property.

CH2M = CH2M HILL, Inc.
EPA = U.S. Environmental Protection Agency
ID = identification
RPM = Remedial Project Manager

APPENDIX H
SITE INSPECTION CHECKLIST

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Five-Year Review Site Inspection Checklist

I. SITE INFORMATION	
Site name: Agricultural Street Landfill Superfund Site	**Date of inspection:** October 2-4, 2017
Location and Region: New Orleans, Louisiana. Region 6	**EPA ID:** LAD981056997
Agency, office, or company leading the five-year review: EPA	**Weather/temperature: 10/4/17:** high 70s, sunny, humid

Remedy Includes: (Check all that apply)

- ☒ Landfill cover containment
- ☐ Access controls
- ☒ Institutional controls
- ☐ Groundwater pump and treatment
- ☐ Surface water collection and treatment
- ☐ Other _____
- ☐ Monitored natural attenuation
- ☐ Groundwater containment
- ☐ Vertical barrier walls

Attachments: ☒ Inspection team roster attached ☒ Site map attached (as Figure 1)

II. INTERVIEWS (Check all that apply)

1. **O&M site manager** _____ _____ _____
   Name Title Date
   Interviewed ☐ at site ☐ at office ☐ by phone no. _____
   Problems, suggestions; ☐ Report attached _____

2. **O&M staff** _____ _____ _____
   Name Title Date
   Interviewed ☐ at site ☐ at office ☐ by phone no. _____
   Problems, suggestions; ☐ Report attached _____

3. **Local regulatory authorities and response agencies** (i.e., State and Tribal offices, emergency response office, police department, office of public health or environmental health, zoning office, recorder of deeds, or other city and county offices, etc.) Fill in all that apply.

Agency: LDEQ

Contact: Mr. Edwin Akujobi (Name) Environmental Scientist (Title) 7/25/2017 (Date) 225-219-3654 (Phone no.)
Problems; suggestions; ☒ Report attached See Appendix G for Interview Record Forms

Agency: _____

Contact: _____ (Name) _____ (Title) _____ (Date) _____ (Phone no.)
Problems; suggestions; ☒ Report attached _____

Agency: _____

Contact: _____ (Name) _____ (Title) _____ (Date) _____ (Phone no.)
Problems; suggestions; ☒ Report attached _____

Agency: _____

Contact: _____ (Name) _____ (Title) _____ (Date) _____ (Phone no.)
Problems; suggestions; ☒ Report attached _____

4. **Other interviews** (optional) ☐ Report attached.

See Appendix G for Interview Record Forms.

Additional interviews conducted with Mr. Charles Allen III, Office of Resilience and Sustainability, with the City of New Orleans; Housing Authority of New Orleans; and area residents and/or property owners.

III. ON-SITE DOCUMENTS & RECORDS VERIFIED (Check all that apply)				
1.	**O&M Documents**			
	☐ O&M manual	☐ Readily available	☐ Up to date	☒ N/A
	☐ As-built drawings	☐ Readily available	☐ Up to date	☒ N/A
	☐ Maintenance logs	☐ Readily available	☐ Up to date	☒ N/A
	Remarks			
2.	**Site-Specific Health and Safety Plan**	☐ Readily available	☐ Up to date	☒ N/A
	☐ Contingency plan/emergency response plan	☐ Readily available	☐ Up to date	☒ N/A
	Remarks			
3.	**O&M and OSHA Training Records**	☐ Readily available	☐ Up to date	☒ N/A
	Remarks			
4.	**Permits and Service Agreements**			
	☐ Air discharge permit	☐ Readily available	☐ Up to date	☒ N/A
	☐ Effluent discharge	☐ Readily available	☐ Up to date	☒ N/A
	☐ Waste disposal, POTW	☐ Readily available	☐ Up to date	☒ N/A
	☐ Other permits	☐ Readily available	☐ Up to date	☒ N/A
	Remarks			
5.	**Gas Generation Records**	☐ Readily available	☐ Up to date	☒ N/A
	Remarks			
6.	**Settlement Monument Records**	☐ Readily available	☐ Up to date	☒ N/A
	Remarks			
7.	**Groundwater Monitoring Records**	☐ Readily available	☐ Up to date	☒ N/A
	Remarks			
8.	**Leachate Extraction Records**	☐ Readily available	☐ Up to date	☒ N/A
	Remarks			
9.	**Discharge Compliance Records**			
	☐ Air	☐ Readily available	☐ Up to date	☒ N/A
	☐ Water (effluent)	☐ Readily available	☐ Up to date	☒ N/A
	Remarks			
10.	**Daily Access/Security Logs**	☐ Readily available	☐ Up to date	☒ N/A
	Remarks			

IV. O&M COSTS ☐ Applicable ☒ N/A

1. **O&M Organization**
   - ☐ State in-house
   - ☐ PRP in-house
   - ☐ Federal Facility in-house
   - ☐ Contractor for State
   - ☐ Contractor for PRP
   - ☐ Contractor for Federal Facility
   - ☐ Other _____

2. **O&M Cost Records**
   - ☐ Readily available ☐ Up to date
   - ☐ Funding mechanism/agreement in place
   - Original O&M cost estimate _____ ☐ Breakdown attached

   Total annual cost by year for review period if available

   From _____ (Date) To _____ (Date) _____ (Total cost) ☐ Breakdown attached
   From _____ (Date) To _____ (Date) _____ (Total cost) ☐ Breakdown attached
   From _____ (Date) To _____ (Date) _____ (Total cost) ☐ Breakdown attached
   From _____ (Date) To _____ (Date) _____ (Total cost) ☐ Breakdown attached
   From _____ (Date) To _____ (Date) _____ (Total cost) ☐ Breakdown attached

3. **Unanticipated or Unusually High O&M Costs During Review Period**
   Describe costs and reasons: _____

V. ACCESS AND INSTITUTIONAL CONTROLS ☒ Applicable ☐ N/A

A. Fencing

1. **Fencing damaged** ☐ Location shown on site map ☐ Gates secured ☐ N/A
   Remarks: Sections of fencing and gates in disrepair; see photographs in Appendix I. Gate entrance off of Almonaster Ave. is unlocked for use during construction activities by the Alabama Great Southern Railroad Company (a subsidiary of Norfolk Southern Corporation), as part of the Florida Avenue Canal Drainage Project.

B. Other Access Restrictions

1. **Signs and other security measures** ☐ Location shown on site map ☐ N/A
   Remarks: Access restrictions and no dumping signs observed in place during site inspection.

C. Institutional Controls (ICs)

1. **Implementation and enforcement**

Site conditions imply ICs not properly implemented ☐ Yes ☒ No ☐ N/A

Site conditions imply ICs not being fully enforced ☐ Yes ☒ No ☐ N/A

Type of monitoring (*e.g.*, self-reporting, drive by) _____

Frequency Semi-annual

Responsible party/agency: LDEQ/City of New Orleans

Contact Edwin Akujobi/Charles Allen III Supervisor /Director of Coastal and Environmental Affairs

Name Title

Phone No. 225-219-3654 / 504-658-2215

Reporting is up-to-date ☒ Yes ☐ No ☐ N/A

Reports are verified by the lead agency ☒ Yes ☐ No ☐ N/A

Specific requirements in deed or decision documents have been met ☒ Yes ☐ No ☐ N/A

Violations have been reported ☒ Yes ☐ No ☐ N/A

Other problems or suggestions: ☐ Report attached

2. **Adequacy** ☒ ICs are adequate ☐ ICs are inadequate ☐ N/A

Remarks: The City of New Orleans is a member of OneCall Center. If any digging by a contractor is needed onsite, the contractor must notify the city first, before work commences according to Louisiana Underground Utilities and Facilities Damage Prevention Law (Part VII of Chapter 8 of Title 40, Sections R.S. 1749.1 to 1749.27). This approach aids in maintaining the integrity of the cap. The city also works with the utility companies to confirm that the protocol for excavating in the area is part of the standard operating procedures and that reminders involving vegetation maintenance are sent to the residents. Also, the state has placed deed notices on the 9 properties that did not participate in the removal action. HANO is also maintaining its properties and will continue to do so once the demolition of the structures on their property is complete.

D. General

1. **Vandalism/trespassing** ☐ Location shown on site map ☐ No vandalism evident

Remarks: Illegal dumping at the site was observed during the site inspection at and around OU1. The OU1 area and right-of-way is overgrown with heavy vegetation. The overall condition of the fence is poor. There is heavy graffiti on abandoned structures at OU2 and OU4. See photographs in Appendix I.

2. **Land use changes on site** ☒ N/A

Remarks

3. **Land use changes off site** ☒ N/A

Remarks

VI. GENERAL SITE CONDITIONS

A. Roads ☒ Applicable ☐ N/A

1. **Roads damaged** ☐ Location shown on site map ☒ Roads adequate ☐ N/A

Remarks

B. Other Site Conditions

Remarks: Interior and rights-of-way at OU1 are heavily overgrown with vegetation, but there is no evidence that the geotextile fabric is compromised. Fencing at OU1 and OU2 is in poor condition. Illegal dumping is occurring inside and outside of OU1. There is heavy graffiti on abandoned structures at OU2 and OU4.

VII. LANDFILL COVERS ☒ Applicable ☐ N/A

A. Landfill Surface

1. **Settlement** (Low spots) ☐ Location shown on site map ☒ Settlement not evident
   Areal extent Depth
   Remarks

2. **Cracks** ☐ Location shown on site map ☒ Cracking not evident
   Lengths Widths Depths
   Remarks

3. **Erosion** ☐ Location shown on site map ☐ Erosion not evident
   Areal extent: <10' Depth: Approximately 6"
   Remarks: There is limited erosion along the OU1 fence, at the corner of Saint Ferdinand and Abundance Streets; fencing is not flush with ground surface, but no evidence of landfill surface (geotextile mat marker) is observed. See photographs in Appendix I.

4. **Holes** ☐ Location shown on site map ☐ Holes not evident
   Areal extent: Depth
   Remarks

5. **Vegetative Cover** ☐ Grass ☒ Cover properly established ☐ No signs of stress
   ☒ Trees/Shrubs
   Remarks: Entirety of OU1 is heavily vegetated with trees and shrubs.

6. **Alternative Cover (armored rock, concrete, etc.)** ☒ N/A
   Remarks

7. **Bulges** ☐ Location shown on site map ☒ Bulges not evident
   Areal extent Height
   Remarks

8. **Wet Areas/Water Damage** ☒ Wet areas/water damage not evident
   ☐ Wet areas ☐ Location shown on site map Areal extent
   ☐ Ponding ☐ Location shown on site map Areal extent
   ☐ Seeps ☐ Location shown on site map Areal extent
   ☐ Soft subgrade ☐ Location shown on site map Areal extent
   Remarks

9. **Slope Instability** ☐ Slides ☐ Location shown on site map ☒ No evidence of slope instability
   Areal extent
   Remarks

B. Benches ☐ Applicable ☒ N/A

(Horizontally constructed mounds of earth have been placed across a steep landfill side slope to interrupt the slope in order to slow down the velocity of surface runoff and intercept and convey the runoff to a lined channel.)

1. **Flows Bypass Bench** ☐ Location shown on site map ☐ N/A or okay
   Remarks_____

2. **Bench Breached** ☐ Location shown on site map ☐ N/A or okay
   Remarks_____

3. **Bench Overtopped** ☐ Location shown on site map ☐ N/A or okay
   Remarks_____

C. Letdown Channels ☐ Applicable ☒ N/A

(Channel is lined with erosion-control mats, riprap, grout bags, or gabions that descend down the steep side slope of the cover and allow the runoff water collected by the benches to move off the landfill cover without creating erosion gullies.)

1. **Settlement** ☐ Location shown on site map ☐ No evidence of settlement
   Areal extent_____ Depth_____
   Remarks_____

2. **Material Degradation** ☐ Location shown on site map ☐ No evidence of degradation
   Material type_____ Areal extent_____
   Remarks_____

3. **Erosion** ☐ Location shown on site map ☐ No evidence of erosion
   Areal extent_____ Depth_____
   Remarks_____

4. **Undercutting** ☐ Location shown on site map ☐ No evidence of undercutting
Areal extent_____ Depth_____
Remarks_____

5. **Obstructions** Type_____ ☐ No obstructions
☐ Location shown on site map Areal extent_____
Size_____
Remarks_____

6. **Excessive Vegetative Growth** Type_____
☐ No evidence of excessive growth
☐ Vegetation in channels does not obstruct flow
☐ Location shown on site map Areal extent_____
Remarks_____

D. Cover Penetrations ☐ Applicable ☒ N/A

1. **Gas Vents** ☐ Active ☐ Passive
☐ Properly secured/locked ☐ Functioning ☐ Routinely sampled ☐ Good condition
☐ Evidence of leakage at penetration ☐ Needs Maintenance
☐ N/A
Remarks_____

2. **Gas Monitoring Probes**
☐ Properly secured/locked ☐ Functioning ☐ Routinely sampled ☐ Good condition
☐ Evidence of leakage at penetration ☐ Needs Maintenance ☐ N/A
Remarks_____

3. **Monitoring Wells** (within surface area of landfill)
☐ Properly secured/locked ☐ Functioning ☐ Routinely sampled ☐ Good condition
☐ Evidence of leakage at penetration ☐ Needs Maintenance ☐ N/A
Remarks_____

4. **Leachate Extraction Wells**
☐ Properly secured/locked ☐ Functioning ☐ Routinely sampled ☐ Good condition
☐ Evidence of leakage at penetration ☐ Needs Maintenance ☐ N/A
Remarks_____

5. **Settlement Monuments** ☐ Located ☐ Routinely surveyed ☐ N/A
Remarks_____

E. Gas Collection and Treatment ☐ Applicable ☒ N/A

1. **Gas Treatment Facilities**
   ☐ Flaring ☐ Thermal destruction ☐ Collection for reuse
   ☐ Good condition ☐ Needs Maintenance
   Remarks_____

2. **Gas Collection Wells, Manifolds and Piping**
   ☐ Good condition ☐ Needs Maintenance
   Remarks_____

3. **Gas Monitoring Facilities** (*e.g.*, gas monitoring of adjacent homes or buildings)
   ☐ Good condition ☐ Needs Maintenance ☐ N/A
   Remarks_____

F. Cover Drainage Layer ☐ Applicable ☒ N/A

1. **Outlet Pipes Inspected** ☐ Functioning ☐ N/A
   Remarks_____

2. **Outlet Rock Inspected** ☐ Functioning ☐ N/A
   Remarks_____

G. Detention/Sedimentation Ponds ☐ Applicable ☒ N/A

1. **Siltation** Areal extent_____ Depth_____ ☐ N/A
   ☐ Siltation not evident
   Remarks_____

2. **Erosion** Areal extent_____ Depth_____
   ☐ Erosion not evident
   Remarks_____

3. **Outlet Works** ☐ Functioning ☐ N/A
   Remarks_____

4. **Dam** ☐ Functioning ☐ N/A
   Remarks_____

H. Retaining Walls ☐ Applicable ☒ N/A

1. **Deformations** ☐ Location shown on site map ☐ Deformation not evident
   Horizontal displacement_____ Vertical displacement_____
   Rotational displacement_____
   Remarks_____

2. **Degradation** ☐ Location shown on site map ☐ Degradation not evident
   Remarks_____

I. Perimeter Ditches/Off-Site Discharge ☐ Applicable ☒ N/A

1. **Siltation** ☐ Location shown on site map ☐ Siltation not evident
   Areal extent_____ Depth_____
   Remarks_____

2. **Vegetative Growth** ☐ Location shown on site map ☐ N/A
   ☐ Vegetation does not impede flow
   Areal extent_____ Type_____
   Remarks_____

3. **Erosion** ☐ Location shown on site map ☐ Erosion not evident
   Areal extent_____ Depth_____
   Remarks_____

4. **Discharge Structure** ☐ Functioning ☐ N/A
   Remarks_____

VIII. VERTICAL BARRIER WALLS ☐ Applicable ☒ N/A

1. **Settlement** ☐ Location shown on site map ☐ Settlement not evident
   Areal extent_____ Depth_____
   Remarks_____

2. **Performance Monitoring** Type of monitoring_____
   ☐ Performance not monitored
   Frequency_____ ☐ Evidence of breaching
   Head differential_____
   Remarks_____

IX. GROUNDWATER/SURFACE WATER REMEDIES ☐ Applicable ☒ N/A	
A. Groundwater Extraction Wells, Pumps, and Pipelines ☐ Applicable ☐ N/A	
1.	**Pumps, Wellhead Plumbing, and Electrical** ☐ Good condition ☐ All required wells properly operating ☐ Needs Maintenance ☐ N/A Remarks
2.	**Extraction System Pipelines, Valves, Valve Boxes, and Other Appurtenances** ☐ Good condition ☐ Needs Maintenance Remarks
3.	**Spare Parts and Equipment** ☐ Readily available ☐ Good condition ☐ Requires upgrade ☐ Needs to be provided Remarks
B. Surface Water Collection Structures, Pumps, and Pipelines ☐ Applicable ☐ N/A	
1.	**Collection Structures, Pumps, and Electrical** ☐ Good condition ☐ Needs Maintenance Remarks
2.	**Surface Water Collection System Pipelines, Valves, Valve Boxes, and Other Appurtenances** ☐ Good condition ☐ Needs Maintenance Remarks
3.	**Spare Parts and Equipment** ☐ Readily available ☐ Good condition ☐ Requires upgrade ☐ Needs to be provided Remarks

C. Treatment System ☐ Applicable ☐ N/A

1. **Treatment Train** (Check components that apply)
   ☐ Metals removal ☐ Oil/water separation ☐ Bioremediation
   ☐ Air stripping ☐ Carbon adsorbers
   ☐ Filters_____
   ☐ Additive (*e.g.*, chelation agent, flocculent)_____
   ☐ Others_____
   ☐ Good condition ☐ Needs Maintenance
   ☐ Sampling ports properly marked and functional
   ☐ Sampling/maintenance log displayed and up to date
   ☐ Equipment properly identified
   ☐ Quantity of groundwater treated annually_____
   ☐ Quantity of surface water treated annually_____
   Remarks_____

2. **Electrical Enclosures and Panels** (properly rated and functional)
   ☐ N/A ☐ Good condition ☐ Needs Maintenance
   Remarks_____

3. **Tanks, Vaults, Storage Vessels**
   ☐ N/A ☐ Good condition ☐ Proper secondary containment ☐ Needs Maintenance
   Remarks_____

4. **Discharge Structure and Appurtenances**
   ☐ N/A ☐ Good condition ☐ Needs Maintenance
   Remarks_____

5. **Treatment Building(s)**
   ☐ N/A ☐ Good condition (esp. roof and doorways) ☐ Needs repair
   ☐ Chemicals and equipment properly stored
   Remarks_____

6. **Monitoring Wells** (pump and treatment remedy)
   ☐ Properly secured/locked ☐ Functioning ☐ Routinely sampled ☐ Good condition
   ☐ All required wells located ☐ Needs Maintenance ☐ N/A
   Remarks_____

D. Monitoring Data

1. Monitoring Data
   ☐ Is routinely submitted on time ☐ Is of acceptable quality

2. Monitoring data suggests:
   ☐ Groundwater plume is effectively contained ☐ Contaminant concentrations are declining

D. Monitored Natural Attenuation

1. **Monitoring Wells** (natural attenuation remedy)
☐ Properly secured/locked ☐ Functioning ☐ Routinely sampled ☐ Good condition
☐ All required wells located ☐ Needs Maintenance ☐ N/A
Remarks _____

X. OTHER REMEDIES ☒ N/A

If there are remedies applied at the site which are not covered above, attach an inspection sheet describing the physical nature and condition of any facility associated with the remedy. An example would be soil vapor extraction.

XI. OVERALL OBSERVATIONS

A. Implementation of the Remedy

Describe issues and observations relating to whether the remedy is effective and functioning as designed. Begin with a brief statement of what the remedy is to accomplish (i.e., to contain contaminant plume, minimize infiltration and gas emission, etc.).

Remarks: While no further action was the selected remedy for the ASL site, the purpose of the response actions was to protect public health and the environment from releases or threatened releases of hazardous substances from the site. Based on the visual inspection conducted at OU1, OU2, and OU3, where removal actions were completed, the placement of the geotextile barrier as a physical barrier between clean cover soils and contaminated landfill material was not observed and, therefore, appears to be effectively maintained.

B. Adequacy of O&M

Describe issues and observations related to the implementation and scope of O&M procedures. In particular, discuss their relationship to the current and long-term protectiveness of the remedy.

Remarks: The fencing around OU1 is in poor condition. Proper maintenance of the fence is recommended to help prevent access and minor illegal dumping activities that appear to be ongoing. The instructions for maintenance of the cover provided to each OU property owner, along with excavation procedures for utility companies, appear to be adequately addressing the OU remedies. The OU1 area is overgrown with vegetation, but does not seem to be influencing the effectiveness of the geotextile mat. The city reports that they are working with the Office of Code Enforcement to update the maintenance/management plan to better address the O&M at the site.

C.	**Early Indicators of Potential Remedy Problems**
	Describe issues and observations such as unexpected changes in the cost or scope of O&M or a high frequency of unscheduled repairs, that suggest that the protectiveness of the remedy may be compromised in the future. Remarks: Based on the ongoing semiannual inspections performed by the LDEQ and the FYR inspections, there are no indicators of potential remedy failure. The implemented remedy shows that it can withstand major and localized flooding (e.g., Hurricanes Rita, Katrina, and Ike).
D.	**Opportunities for Optimization**
	Describe possible opportunities for optimization in monitoring tasks or the operation of the remedy. Remarks: HANO, in coordination with the City of New Orleans, is pursuing plans to demolish the remaining Press Park housing structures after 154 of the units were demolished in 2014. The southwest corner of OU1 is currently used by The Alabama Great Southern Railroad Company (a subsidiary of Norfolk Southern Corporation) as a rail track easement; they have requested permanent use of the 0.571-acre area. They have committed to continue to involve EPA on construction and restoration plans.

ATTACHMENTS

Inspection Team Roster
Date of Site Inspection: January 30 – 31, 2013

Name	Organization	Title
Edwin Akujobi	LDEQ	Environmental Scientist/Supervisor
Ursula Lennox	EPA	Remedial Project Manager
Janetta Coats	EPA	Community Involvement Coordinator

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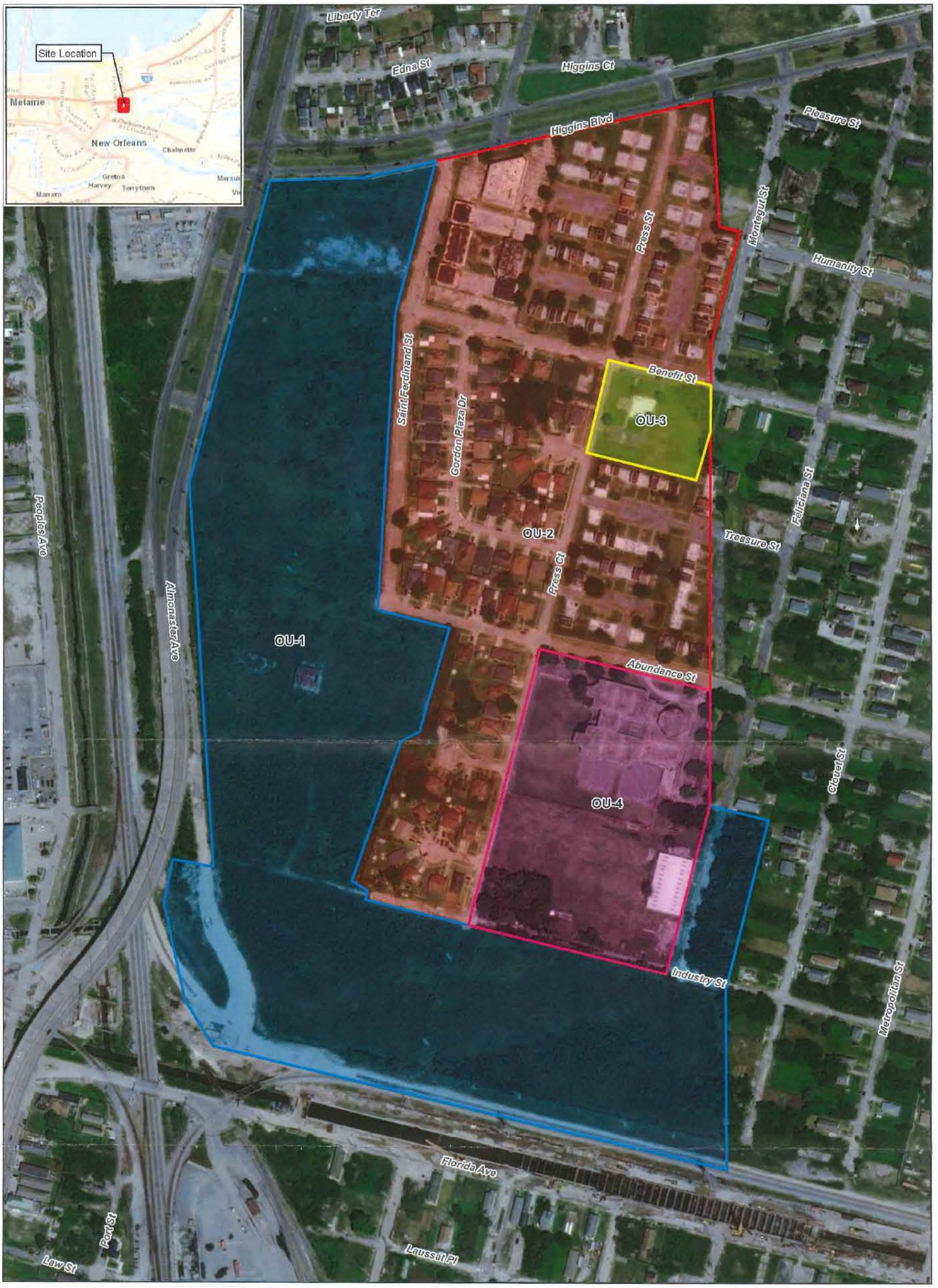

Legend

Operable Unit

- OU-1
- OU-2
- OU-3
- OU-4

Notes:
Imagery Source: ESRI World Street Map online mapping service (April 2015)

OU = Operable Unit

N

0 125 250 500 Feet

Figure 1.
Site Map
Fourth Five-Year Review
Agriculture Street Landfill Superfund Site
New Orleans, Louisiana

APPENDIX I
PHOTOGRAPH LOG

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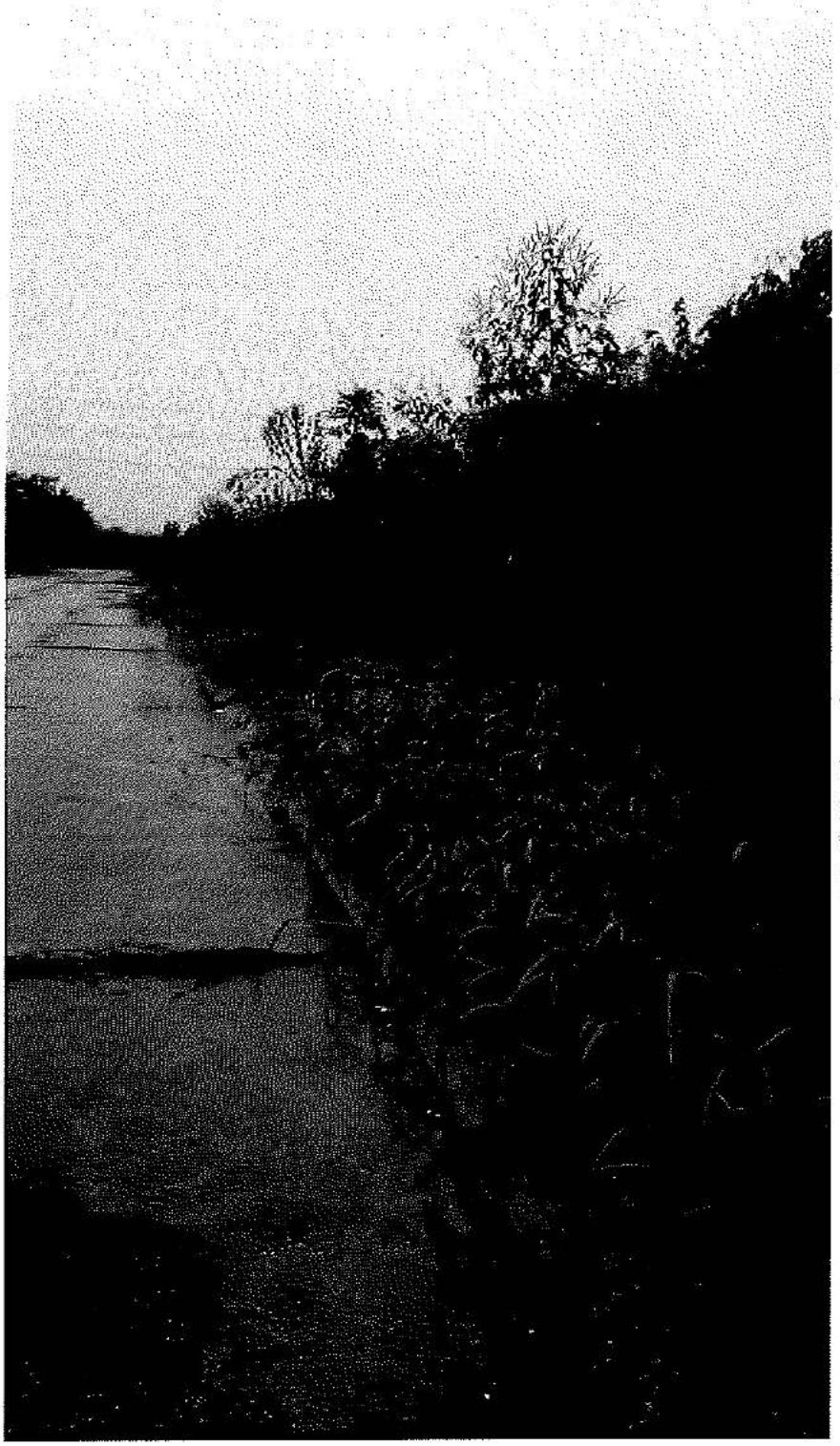
Photograph 1. Operable Unit (OU) 1 perimeter fence; sag occurring because there is no upper support pole; portions are missing razor wire. Corner of Benefit and Saint Ferdinand Street;
Photograph taken October 2, 2017; facing west

Photograph 2. Limited soil erosion observed along OU1 perimeter fencing at corner of Benefit and Saint Ferdinand Street;
Photograph taken October 2, 2017; facing south



Photograph 3. Vegetation overgrown along right-of-way adjacent to Saint Ferdinand Street; Photograph taken October 2, 2017; facing south

Photograph 4. Apparent illegal dumping of 5-gallon buckets and other assorted trash behind OU1 fence;
Photograph taken October 4, 2017; facing west

Photograph 5. Apparent illegal dumping of tires and other debris along Feliciana Street outside the OU1 perimeter fence;
Photograph taken October 2, 2017; facing east

Photograph 6. Minor fencing damage and heavy vegetation overgrowth at the OU1 perimeter fence along Almonaster Avenue;
Photograph taken October 4, 2017; facing east

Photograph 7. Entrance to OU1 at the western end of Industry Street; gate locked but not secured because of the large space between the double gate; Photograph taken October 2, 2017; facing west

Photograph 8. Northern end of OU3 on Benefit Street, showing former community center foundation and abandoned townhomes in background behind fence, and access prevention signage on fence;
Photograph taken October 4, 2017; facing south

Photograph 9. Former recreation center within OU4 from Feliciana Street;
Photograph taken October 4, 2017; facing southwest

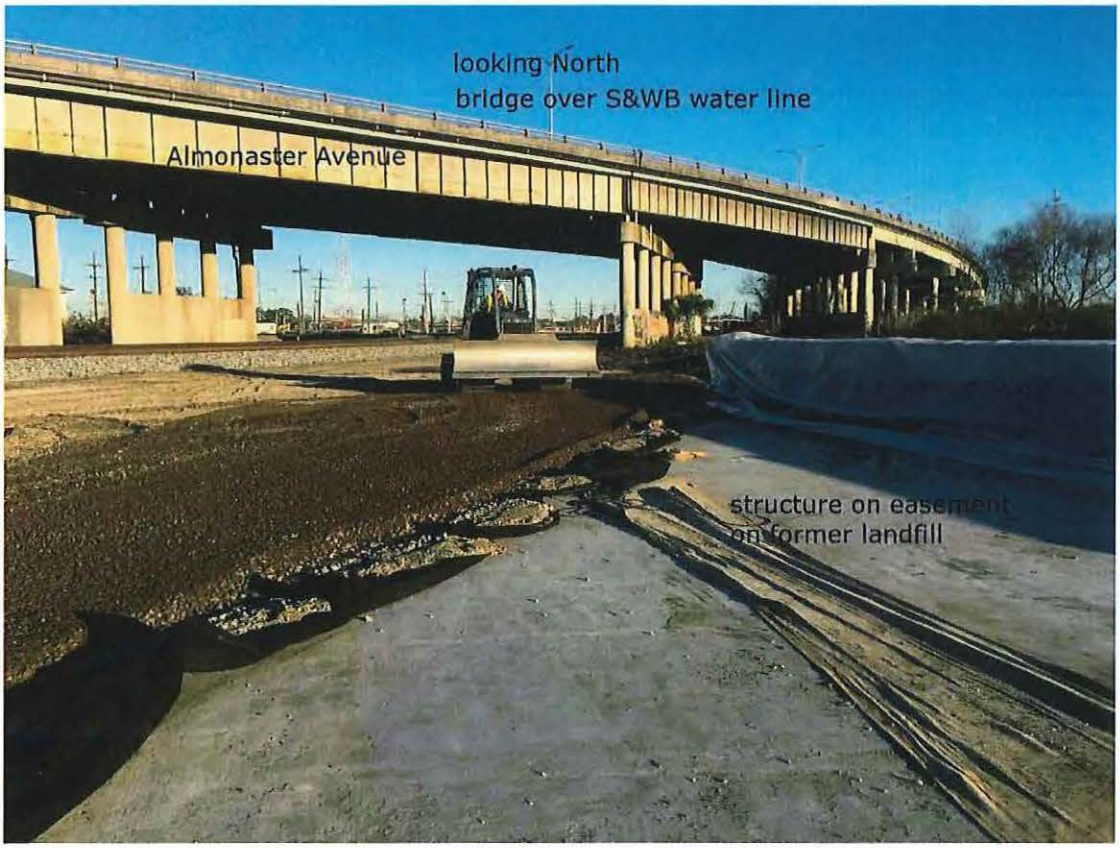
Photograph 10. Large opening in the fence at OU2 along Press Street; Photograph taken October 4, 2017; facing east

Photograph 11. Large opening in the fence at OU2 with deteriorating and vandalized townhomes along Press Street; Photograph taken October 4, 2017; facing west

Photograph 12. Construction of renovated Gordon Plaza Apartments along Benefit Street at OU2; Photograph taken October 4, 2017; facing northwest

Photograph 13. Overview from Almonaster Overpass, showing extreme vegetation overgrowth at OU1; former Moton School Structures visible in background; new fencing at southwestern corner of OU1 from the Alabama Great Southern Railroad Company (a subsidiary of Norfolk Southern Corporation) in foreground; Photograph taken October 4, 2017; facing east

Photograph 14. Overview from Almonaster Overpass of New Fencing at Southwestern Corner of OU1 from The Alabama Great Southern Railroad Company (a subsidiary of Norfolk Southern Corporation) in foreground; Photograph taken October 4, 2017; facing east



Photograph 15. Construction activities at southwestern corner of OU1, from The Alabama Great Southern (AGS) Railroad Company (a subsidiary of Norfolk Southern Corporation [NSC]); Photograph provided by AGS and NSS; undated. S&WB = Sewerage and Water Board

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APPENDIX J
LABORATORY DATA

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 6 Laboratory
Environmental Services Branch
10625 Fallstone Road, Houston, TX 77099
Phone: (281)983-2100 Fax: (281)983-2248

Final Analytical Report

Site Name ----------	Agriculture Street Landfill
Sample Collection Date(s)--	10/02/17 - 10/03/17
Contact----------	Ursula Lennox (6SF-LP)
Report Date----------	02/22/18
Project #----------	18SF001
Work Order(s)----------	1710001

Analyses included in this report:

ABN CLP Low Level

Metals ICP CLP

Report Narrative

Semi-volatiles:

bis(2-Ethylhexyl)phthalate is qualified as blank related in samples 1710001-11 and 1710001-33 due to presence of this analyte in the associated preparation blank. Concentrations >10X are not qualified.

Fluoranthene, where reported, is qualified as estimated due to failure of this analyte in the second source verification for the initial calibration.

Benzo(b)fluoranthene and Benzo(k)fluoranthene are qualified as estimated, where reported, due to insufficient chromatographic resolution between isomers.

Batch B7J0502: There are no matrix spikes. The only sample is an equipment blank.

Batch B7J1005: 4-Nitrophenol fails high in the MS/MSD but should not affect the data. Pyrene fails high in the MSD and the RPD fails. This analyte is qualified as estimated in the source sample 1710001-01. Naphthalene, Phenanthrene, and Anthracene are also qualified as estimated in the source sample due to inconsistencies with MS/MSD.

Metals ICP:

Report Narrative (cont'd)

Batch B7J1603:

MS1/MSD1 (Source Sample 1710001-01): Lead spike recovery was outside lower acceptance limit. Source results are qualified and are an estimate.

Batch B7K2201:

MSD2 (Source Sample 1710001-35RE): Lead spike recovery was outside lower acceptance limit. Source results are qualified and are an estimate.

Standard procedures for quality assurance and quality control were followed in the analysis and reporting of the sample results. The results apply only to the samples tested. This final report should only be reproduced in full.

The reporting limit (sometimes referred to as a quantitation limit) is defined as the lowest concentration at which an analyte can be reliably measured and reported without qualification. Reporting limits are adjusted for sample size, dilution, and matrix interference. Concentrations below the reporting limit are reported as non-detects or <RL.

For a list of ISO 17025 accredited methods go to:
http://region6a.epa.gov/intranet/6md/lab/labisocertification2018.pdf

Report Approvals:

Richard McMillin
Region 6 Laboratory Technical Manager

David W. McQuiddy
Region 6 Laboratory Branch Chief

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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10625 Fallstone Road
Houston, Texas 77099

Sample Receipt and Disposal

Site Name: Agriculture Street Landfill Project Number: 18SF001

Data Management Coordinator: Christy Warren

_____ / /

Data Management Coordinator Signature Date

Date Transmitted: ____/____/_____

Please have the U.S. EPA Project Manager/Officer call the Data Management Coordinator at 3-2137 for any comments or questions.

Please sign and date this form below and return it with any comments to:

Christy Warren
Data Management Coordinator
Region 6 Laboratory
6MD-HS

_____ /___/_____

Received by and Date

Comments:

The laboratory routinely disposes of samples 90 days after all analyses have been completed. If you have a need to hold these samples in custody longer than 90 days, please sign below.

_____ _____

Signature Date

Please provide a reason for holding:

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ANALYTICAL REPORT FOR SAMPLES

Station ID	Laboratory ID	Sample Type	Date Collected	Date Received
ASL-SS-01	1710001-01	Solid	10/2/17 17:10	10/04/17 11:45
ASL-SS-02	1710001-02	Solid	10/2/17 17:30	10/04/17 11:45
ASL-SS-03	1710001-03	Solid	10/2/17 17:50	10/04/17 11:45
ASL-SS-04	1710001-04	Solid	10/2/17 18:00	10/04/17 11:45
ASL-SS-05	1710001-05	Solid	10/3/17 8:10	10/04/17 11:45
ASL-SS-05-FD	1710001-06	Solid	10/3/17 8:10	10/04/17 11:45
ASL-SS-06	1710001-07	Solid	10/3/17 8:25	10/04/17 11:45
ASL-SS-07	1710001-08	Solid	10/3/17 8:50	10/04/17 11:45
ASL-SS-08	1710001-09	Solid	10/3/17 9:00	10/04/17 11:45
ASL-SS-09	1710001-10	Solid	10/3/17 9:40	10/04/17 11:45
ASL-SS-10	1710001-11	Solid	10/3/17 10:00	10/04/17 11:45
ASL-SS-10-FD	1710001-12	Solid	10/3/17 10:00	10/04/17 11:45
ASL-SS-11	1710001-13	Solid	10/3/17 10:10	10/04/17 11:45
ASL-SS-12	1710001-14	Solid	10/3/17 10:20	10/04/17 11:45
ASL-SS-13	1710001-15	Solid	10/3/17 10:30	10/04/17 11:45
ASL-SS-14	1710001-16	Solid	10/3/17 10:40	10/04/17 11:45
ASL-SS-15	1710001-17	Solid	10/3/17 11:00	10/04/17 11:45
ASL-SS-16	1710001-18	Solid	10/3/17 11:10	10/04/17 11:45
ASL-SS-17	1710001-19	Solid	10/3/17 11:25	10/04/17 11:45
ASL-SS-18	1710001-20	Solid	10/3/17 11:35	10/04/17 11:45
ASL-SS-19	1710001-21	Solid	10/3/17 11:45	10/04/17 11:45
ASL-SS-20	1710001-22	Solid	10/3/17 13:00	10/04/17 11:45
ASL-SS-20-FD	1710001-23	Solid	10/3/17 13:00	10/04/17 11:45
ASL-SS-21	1710001-24	Solid	10/3/17 13:15	10/04/17 11:45
ASL-SS-22	1710001-25	Solid	10/3/17 13:30	10/04/17 11:45
ASL-SS-23	1710001-26	Solid	10/3/17 13:40	10/04/17 11:45
ASL-SS-24	1710001-27	Solid	10/3/17 14:00	10/04/17 11:45
ASL-SS-25	1710001-28	Solid	10/3/17 14:10	10/04/17 11:45
ASL-SS-26	1710001-29	Solid	10/3/17 14:20	10/04/17 11:45
ASL-SS-27	1710001-30	Solid	10/3/17 14:35	10/04/17 11:45
ASL-SS-28	1710001-31	Solid	10/3/17 14:50	10/04/17 11:45
ASL-SS-29	1710001-32	Solid	10/2/17 18:50	10/04/17 11:45
ASL-SS-30	1710001-33	Solid	10/3/17 15:10	10/04/17 11:45
ASL-SS-31	1710001-34	Solid	10/3/17 15:30	10/04/17 11:45
ASL-SS-32	1710001-35	Solid	10/3/17 15:35	10/04/17 11:45
EB-001	1710001-36	Liquid	10/3/17 17:45	10/04/17 11:45

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QC SUMMARY REPORT

ABN CLP Low Level

B7J0502

Liquid

Samples: 1 **ReExts: 0**

LAB NUMBER	SOURCE
B7J0502-BLK1	
B7J0502-BS1	

B7J1005

Solid

Samples: 8 **ReExts: 0**

LAB NUMBER	SOURCE
B7J1005-BLK1	
B7J1005-BLK2	
B7J1005-BS1	
B7J1005-BS2	
B7J1005-MS1	1710001-01
B7J1005-MSD1	1710001-01

Metals ICP CLP

B7J1602

Liquid

Samples: 1 **ReExts: 0**

LAB NUMBER	SOURCE
B7J1602-BLK1	
B7J1602-BS1	

B7J1603

Solid

Samples: 20 **ReExts: 0**

LAB NUMBER	SOURCE
B7J1603-BLK1	
B7J1603-BS1	
B7J1603-MS1	1710001-01
B7J1603-MS2	1710001-09
B7J1603-MS3	1710001-17
B7J1603-MSD1	1710001-01
B7J1603-MSD2	1710001-09
B7J1603-MSD3	1710001-17
B7J1603-SRM1	

B7J1604

Solid

Samples: 15 **ReExts: 0**

LAB NUMBER	SOURCE
B7J1604-BLK1	
B7J1604-BS1	
B7J1604-MS1	1710001-28
B7J1604-MS2	1710001-35
B7J1604-MSD1	1710001-28
B7J1604-MSD2	1710001-35

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B7J1604-SRM1	

B7K2201

Solid

Samples: 0 **ReExts: 15**

LAB NUMBER	SOURCE
B7K2201-BLK1	
B7K2201-BS1	
B7K2201-MS1	1710001-28RE1
B7K2201-MS2	1710001-35RE1
B7K2201-MSD1	1710001-28RE1
B7K2201-MSD2	1710001-35RE1
B7K2201-SRM1	

Solids, Dry Weight

B7J0402

Solid

Samples: 8 **ReExts: 0**

LAB NUMBER	SOURCE
B7J0402-DUP1	1710001-35

B7J1103

Solid

Samples: 27 **ReExts: 0**

LAB NUMBER	SOURCE
B7J1103-DUP1	1710001-09
B7J1103-DUP2	1710001-28

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Semivolatiles by CLP OLM04.2 - GC/MS (Low Level)

Lab ID: 1710001-01 **Station ID: ASL-SS-01**

Batch: B7J1005
Sample Type: Solid

Date Collected: 10/02/17
Sample Wt: 16.002g
%Solids: 77.79

Sample Qualifiers:

Surrogates

Analyte	Result µg/kg (dry)	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed
2-Fluorophenol	427		70.9	29-100	10/10/17	10/11/17
Phenol-d5	474		78.7	37-100	"	"
2-Chlorophenol-d4	464		77.1	33-100	"	"
1,2-Dichlorobenzene-d4	221		55.0	28-100	"	"
Nitrobenzene-d5	276		68.6	28-100	"	"
2-Fluorobiphenyl	330		82.2	37-110	"	"
2,4,6-Tribromophenol	583		96.8	41-137	"	"
Terphenyl-d14	429		107	46-138	"	"

Targets

Analyte (CAS Number)	Result µg/kg (dry)	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Benzaldehyde (100-52-7)	U		161	1	10/10/17	10/11/17
Phenol (108-95-2)	U		161	"	"	"
Bis(2-chloroethyl)ether (111-44-4)	U		161	"	"	"
2-Chlorophenol (95-57-8)	U		161	"	"	"
1,3-Dichlorobenzene (541-73-1)	U		161	"	"	"
1,4-Dichlorobenzene (106-46-7)	U		161	"	"	"
Benzyl alcohol (100-51-6)	U		161	"	"	"
1,2-Dichlorobenzene (95-50-1)	U		161	"	"	"
2-Methylphenol (95-48-7)	U		161	"	"	"
Bis(2-chloro-1-methylethyl)ether (108-60-1)	U		161	"	"	"
Acetophenone (98-86-2)	U		161	"	"	"
3 &/or 4-Methylphenol (108-39-4/106-44-5)	U		161	"	"	"
N-Nitrosodi-n-propylamine (621-64-7)	U		161	"	"	"
Hexachloroethane (67-72-1)	U		161	"	"	"
Nitrobenzene (98-95-3)	U		161	"	"	"
Isophorone (78-59-1)	U		161	"	"	"
2-Nitrophenol (88-75-5)	U		161	"	"	"
2,4-Dimethylphenol (105-67-9)	U		161	"	"	"
Bis(2-chloroethoxy)methane (111-91-1)	U		161	"	"	"
2,4-Dichlorophenol (120-83-2)	U		161	"	"	"
1,2,4-Trichlorobenzene (120-82-1)	U		161	"	"	"
Naphthalene (91-20-3)	**71.5**	**J**	40.2	"	"	"

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Semivolatiles by CLP OLM04.2 - GC/MS (Low Level)

Lab ID: 1710001-01 **Station ID: ASL-SS-01**

Batch: B7J1005
Sample Type: Solid

Date Collected: 10/02/17
Sample Wt: 16.002g
%Solids: 77.79

Sample Qualifiers:

Targets (Continued)

Analyte (CAS Number)	Result µg/kg (dry)	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
4-Chloroaniline (106-47-8)	U		161	1	10/10/17	10/11/17
Hexachlorobutadiene (87-68-3)	U		161	"	"	"
Caprolactam (105-60-2)	U		161	"	"	"
4-Chloro-3-methylphenol (59-50-7)	U		161	"	"	"
2-Methylnaphthalene (91-57-6)	**56.2**		40.2	"	"	"
1-Methylnaphthalene (90-12-0)	**49.0**		40.2	"	"	"
Hexachlorocyclopentadiene (77-47-4)	U		161	"	"	"
2,4,6-Trichlorophenol (88-06-2)	U		161	"	"	"
2,4,5-Trichlorophenol (95-95-4)	U		161	"	"	"
2-Chloronaphthalene (91-58-7)	U		161	"	"	"
1,1'-Biphenyl (92-52-4)	U		161	"	"	"
2-Nitroaniline (88-74-4)	U		321	"	"	"
Dimethyl phthalate (131-11-3)	U		161	"	"	"
Acenaphthylene (208-96-8)	U		40.2	"	"	"
2,6-Dinitrotoluene (606-20-2)	U		161	"	"	"
3-Nitroaniline (99-09-2)	U		321	"	"	"
Acenaphthene (83-32-9)	U		40.2	"	"	"
2,4-Dinitrophenol (51-28-5)	U		803	"	"	"
4-Nitrophenol (100-02-7)	U		482	"	"	"
Dibenzofuran (132-64-9)	U		161	"	"	"
2,4-Dinitrotoluene (121-14-2)	U		161	"	"	"
Fluorene (86-73-7)	U		40.2	"	"	"
Diethyl phthalate (84-66-2)	U		161	"	"	"
4-Chlorophenyl phenyl ether (7005-72-3)	U		161	"	"	"
4-Nitroaniline (100-01-6)	U		321	"	"	"
4,6-Dinitro-2-methylphenol (534-52-1)	U		803	"	"	"
N-Nitrosodiphenylamine/Diphenylamine (86-30-6/122-39-4)	U		161	"	"	"
4-Bromophenyl phenyl ether (101-55-3)	U		161	"	"	"
Hexachlorobenzene (118-74-1)	U		80.3	"	"	"
Atrazine (1912-24-9)	U		161	"	"	"
Pentachlorophenol (87-86-5)	U		80.3	"	"	"
Phenanthrene (85-01-8)	**308**	**J**	40.2	"	"	"
Anthracene (120-12-7)	**49.8**	**J**	40.2	"	"	"
Carbazole (86-74-8)	U		161	"	"	"

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Semivolatiles by CLP OLM04.2 - GC/MS (Low Level)

Lab ID: 1710001-01 **Station ID: ASL-SS-01**

Batch: B7J1005
Sample Type: Solid

Date Collected: 10/02/17
Sample Wt: 16.002g
%Solids: 77.79

Sample Qualifiers:

Targets (Continued)

Analyte (CAS Number)	Result µg/kg (dry)	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Di-n-butyl phthalate (84-74-2)	U		161	1	10/10/17	10/11/17
Fluoranthene (206-44-0)	**629**	**J**	40.2	"	"	"
Pyrene (129-00-0)	**635**	**J**	40.2	"	"	"
Butyl benzyl phthalate (85-68-7)	U		161	"	"	"
Benzo (a) anthracene (56-55-3)	**402**		161	"	"	"
3,3'-Dichlorobenzidine (91-94-1)	U		161	"	"	"
Chrysene (218-01-9)	**399**		161	"	"	"
Bis(2-ethylhexyl)phthalate (117-81-7)	U		161	"	"	"
Di-n-octyl phthalate (117-84-0)	U		161	"	"	"
Benzo (b) fluoranthene (205-99-2)	**439**	**J**	161	"	"	"
Benzo (k) fluoranthene (207-08-9)	**481**	**J**	161	"	"	"
Benzo (a) pyrene (50-32-8)	**433**		161	"	"	"
Indeno (1,2,3-cd) pyrene (193-39-5)	**326**		161	"	"	"
Dibenz (a,h) anthracene (53-70-3)	U		161	"	"	"
Benzo (g,h,i) perylene (191-24-2)	**371**		161	"	"	"

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Metals by CLP ILMO5.3 - ICP

Lab ID: 1710001-01 **Station ID: ASL-SS-01**

Batch: B7J1603
Sample Type: Solid

Date Collected: 10/02/17
Sample Wt: 0.566g
%Solids: 77.79

Sample Qualifiers:

Targets

Analyte (CAS Number)	Result mg/Kg dry	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Arsenic (7440-38-2)	U		11.4	1	10/16/17	11/07/17
Lead (7439-92-1)	**169**	**J**	3.4	"	"	"

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Metals by CLP ILMO5.3 - ICP

Lab ID: 1710001-02

Station ID: ASL-SS-02

Batch: B7J1603
Sample Type: Solid

Date Collected: 10/02/17
Sample Wt: 0.555g
%Solids: 74.16

Sample Qualifiers:

Targets

Analyte (CAS Number)	Result mg/Kg dry	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Arsenic (7440-38-2)	**28.2**		12.1	1	10/16/17	11/07/17
Lead (7439-92-1)	**1,500**		3.6	"	"	"

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Metals by CLP ILMO5.3 - ICP

Lab ID: 1710001-03 **Station ID: ASL-SS-03**

Batch: B7J1603
Sample Type: Solid

Date Collected: 10/02/17
Sample Wt: 0.57g
%Solids: 80.13

Sample Qualifiers:

Targets

Analyte (CAS Number)	Result mg/Kg dry	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Arsenic (7440-38-2)	U		10.9	1	10/16/17	11/07/17
Lead (7439-92-1)	**30.3**		3.3	"	"	"

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Metals by CLP ILMO5.3 - ICP

Lab ID: 1710001-04 **Station ID: ASL-SS-04**

Batch: B7J1603
Sample Type: Solid

Date Collected: 10/02/17
Sample Wt: 0.554g
%Solids: 84.52

Sample Qualifiers:

Targets

Analyte (CAS Number)	Result mg/Kg dry	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Arsenic (7440-38-2)	U		10.7	1	10/16/17	11/07/17
Lead (7439-92-1)	**67.8**		3.2	"	"	"

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Metals by CLP ILMO5.3 - ICP

Lab ID: 1710001-05 **Station ID: ASL-SS-05**

Batch: B7J1603
Sample Type: Solid

Date Collected: 10/03/17
Sample Wt: 0.56g
%Solids: 79.34

Sample Qualifiers:

Targets

Analyte (CAS Number)	Result mg/Kg dry	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Arsenic (7440-38-2)	U		11.3	1	10/16/17	11/07/17
Lead (7439-92-1)	**27.8**		3.4	"	"	"

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Metals by CLP ILMO5.3 - ICP

Lab ID: 1710001-06

Station ID: ASL-SS-05-FD

Batch: B7J1603
Sample Type: Solid

Date Collected: 10/03/17
Sample Wt: 0.542g
%Solids: 79.05

Sample Qualifiers:

Targets

Analyte (CAS Number)	Result mg/Kg dry	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Arsenic (7440-38-2)	U		11.7	1	10/16/17	11/07/17
Lead (7439-92-1)	**23.0**		3.5	"	"	"

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Metals by CLP ILMO5.3 - ICP

Lab ID: 1710001-07 **Station ID: ASL-SS-06**

Batch: B7J1603
Sample Type: Solid

Date Collected: 10/03/17
Sample Wt: 0.562g
%Solids: 83.73

Sample Qualifiers:

Targets

Analyte (CAS Number)	Result mg/Kg dry	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Arsenic (7440-38-2)	U		10.6	1	10/16/17	11/07/17
Lead (7439-92-1)	**21.7**		3.2	"	"	"

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Metals by CLP ILMO5.3 - ICP

Lab ID: 1710001-08 **Station ID: ASL-SS-07**

Batch: B7J1603
Sample Type: Solid

Date Collected: 10/03/17
Sample Wt: 0.552g
%Solids: 77.85

Sample Qualifiers:

Targets

Analyte (CAS Number)	Result mg/Kg dry	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Arsenic (7440-38-2)	U		11.6	1	10/16/17	11/07/17
Lead (7439-92-1)	**19.8**		3.5	"	"	"

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Metals by CLP ILMO5.3 - ICP

Lab ID: 1710001-09 **Station ID: ASL-SS-08**

Batch: B7J1603
Sample Type: Solid

Date Collected: 10/03/17
Sample Wt: 0.531g
%Solids: 91.88

Sample Qualifiers:

Targets

Analyte (CAS Number)	Result mg/Kg dry	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Arsenic (7440-38-2)	U		10.2	1	10/16/17	11/07/17
Lead (7439-92-1)	**6.7**		3.1	"	"	"

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Metals by CLP ILMO5.3 - ICP

Lab ID: 1710001-10 **Station ID: ASL-SS-09**

Batch: B7J1603
Sample Type: Solid

Date Collected: 10/03/17
Sample Wt: 0.545g
%Solids: 83.04

Sample Qualifiers:

Targets

Analyte (CAS Number)	Result mg/Kg dry	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Arsenic (7440-38-2)	U		11.0	1	10/16/17	11/07/17
Lead (7439-92-1)	**18.7**		3.3	"	"	"

Environmental Protection Agency

Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099
Phone:(281)983-2100 Fax:(281)983-2248

Semivolatiles by CLP OLM04.2 - GC/MS (Low Level)

Lab ID: 1710001-11 **Station ID: ASL-SS-10**

Batch: B7J1005
Sample Type: Solid

Date Collected: 10/03/17
Sample Wt: 16.009g
%Solids: 83.12

Sample Qualifiers:

Surrogates

Analyte	Result µg/kg (dry)	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed
2-Fluorophenol	486		86.3	29-100	10/10/17	10/11/17
Phenol-d5	499		88.5	37-100	"	"
2-Chlorophenol-d4	486		86.3	33-100	"	"
1,2-Dichlorobenzene-d4	269		71.6	28-100	"	"
Nitrobenzene-d5	312		83.0	28-100	"	"
2-Fluorobiphenyl	349		92.8	37-110	"	"
2,4,6-Tribromophenol	594		105	41-137	"	"
Terphenyl-d14	443		118	46-138	"	"

Targets

Analyte (CAS Number)	Result µg/kg (dry)	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Benzaldehyde (100-52-7)	U		150	1	10/10/17	10/11/17
Phenol (108-95-2)	U		150	"	"	"
Bis(2-chloroethyl)ether (111-44-4)	U		150	"	"	"
2-Chlorophenol (95-57-8)	U		150	"	"	"
1,3-Dichlorobenzene (541-73-1)	U		150	"	"	"
1,4-Dichlorobenzene (106-46-7)	U		150	"	"	"
Benzyl alcohol (100-51-6)	U		150	"	"	"
1,2-Dichlorobenzene (95-50-1)	U		150	"	"	"
2-Methylphenol (95-48-7)	U		150	"	"	"
Bis(2-chloro-1-methylethyl)ether (108-60-1)	U		150	"	"	"
Acetophenone (98-86-2)	U		150	"	"	"
3 &/or 4-Methylphenol (108-39-4/106-44-5)	U		150	"	"	"
N-Nitrosodi-n-propylamine (621-64-7)	U		150	"	"	"
Hexachloroethane (67-72-1)	U		150	"	"	"
Nitrobenzene (98-95-3)	U		150	"	"	"
Isophorone (78-59-1)	U		150	"	"	"
2-Nitrophenol (88-75-5)	U		150	"	"	"
2,4-Dimethylphenol (105-67-9)	U		150	"	"	"
Bis(2-chloroethoxy)methane (111-91-1)	U		150	"	"	"
2,4-Dichlorophenol (120-83-2)	U		150	"	"	"
1,2,4-Trichlorobenzene (120-82-1)	U		150	"	"	"
Naphthalene (91-20-3)	**79.7**		37.6	"	"	"
4-Chloroaniline (106-47-8)	U		150	"	"	"

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Semivolatiles by CLP OLM04.2 - GC/MS (Low Level)

Lab ID: 1710001-11 **Station ID: ASL-SS-10**

Batch: B7J1005
Sample Type: Solid

Date Collected: 10/03/17
Sample Wt: 16.009g
%Solids: 83.12

Sample Qualifiers:

Targets (Continued)

Analyte (CAS Number)	Result µg/kg (dry)	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Hexachlorobutadiene (87-68-3)	U		150	1	10/10/17	10/11/17
Caprolactam (105-60-2)	U		150	"	"	"
4-Chloro-3-methylphenol (59-50-7)	U		150	"	"	"
2-Methylnaphthalene (91-57-6)	**42.1**		37.6	"	"	"
1-Methylnaphthalene (90-12-0)	U		37.6	"	"	"
Hexachlorocyclopentadiene (77-47-4)	U		150	"	"	"
2,4,6-Trichlorophenol (88-06-2)	U		150	"	"	"
2,4,5-Trichlorophenol (95-95-4)	U		150	"	"	"
2-Chloronaphthalene (91-58-7)	U		150	"	"	"
1,1'-Biphenyl (92-52-4)	U		150	"	"	"
2-Nitroaniline (88-74-4)	U		301	"	"	"
Dimethyl phthalate (131-11-3)	U		150	"	"	"
Acenaphthylene (208-96-8)	U		37.6	"	"	"
2,6-Dinitrotoluene (606-20-2)	U		150	"	"	"
3-Nitroaniline (99-09-2)	U		301	"	"	"
Acenaphthene (83-32-9)	U		37.6	"	"	"
2,4-Dinitrophenol (51-28-5)	U		751	"	"	"
4-Nitrophenol (100-02-7)	U		451	"	"	"
Dibenzofuran (132-64-9)	U		150	"	"	"
2,4-Dinitrotoluene (121-14-2)	U		150	"	"	"
Fluorene (86-73-7)	U		37.6	"	"	"
Diethyl phthalate (84-66-2)	U		150	"	"	"
4-Chlorophenyl phenyl ether (7005-72-3)	U		150	"	"	"
4-Nitroaniline (100-01-6)	U		301	"	"	"
4,6-Dinitro-2-methylphenol (534-52-1)	U		751	"	"	"
N-Nitrosodiphenylamine/Diphenylamine (86-30-6/122-39-4)	U		150	"	"	"
4-Bromophenyl phenyl ether (101-55-3)	U		150	"	"	"
Hexachlorobenzene (118-74-1)	U		75.1	"	"	"
Atrazine (1912-24-9)	U		150	"	"	"
Pentachlorophenol (87-86-5)	U		75.1	"	"	"
Phenanthrene (85-01-8)	**75.9**		37.6	"	"	"
Anthracene (120-12-7)	U		37.6	"	"	"
Carbazole (86-74-8)	U		150	"	"	"
Di-n-butyl phthalate (84-74-2)	U		150	"	"	"

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Semivolatiles by CLP OLM04.2 - GC/MS (Low Level)

Lab ID: 1710001-11 **Station ID: ASL-SS-10**

Batch: B7J1005
Sample Type: Solid

Date Collected: 10/03/17
Sample Wt: 16.009g
%Solids: 83.12

Sample Qualifiers:

Targets (Continued)

Analyte (CAS Number)	Result µg/kg (dry)	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Fluoranthene (206-44-0)	**191**	**J**	37.6	1	10/10/17	10/11/17
Pyrene (129-00-0)	**165**		37.6	"	"	"
Butyl benzyl phthalate (85-68-7)	U		150	"	"	"
Benzo (a) anthracene (56-55-3)	U		150	"	"	"
3,3'-Dichlorobenzidine (91-94-1)	U		150	"	"	"
Chrysene (218-01-9)	U		150	"	"	"
Bis(2-ethylhexyl)phthalate (117-81-7)	**288**	**B**	150	"	"	"
Di-n-octyl phthalate (117-84-0)	U		150	"	"	"
Benzo (b) fluoranthene (205-99-2)	U		150	"	"	"
Benzo (k) fluoranthene (207-08-9)	U		150	"	"	"
Benzo (a) pyrene (50-32-8)	U		150	"	"	"
Indeno (1,2,3-cd) pyrene (193-39-5)	U		150	"	"	"
Dibenz (a,h) anthracene (53-70-3)	U		150	"	"	"
Benzo (g,h,i) perylene (191-24-2)	U		150	"	"	"

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Metals by CLP ILMO5.3 - ICP

Lab ID: 1710001-11 **Station ID: ASL-SS-10**

Batch: B7J1603
Sample Type: Solid

Date Collected: 10/03/17
Sample Wt: 0.539g
%Solids: 83.12

Sample Qualifiers:

Targets

Analyte (CAS Number)	Result mg/Kg dry	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Arsenic (7440-38-2)	U		11.2	1	10/16/17	11/07/17
Lead (7439-92-1)	**21.3**		3.3	"	"	"

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Semivolatiles by CLP OLM04.2 - GC/MS (Low Level)

Lab ID: 1710001-12 **Station ID: ASL-SS-10-FD**

Batch: B7J1005
Sample Type: Solid

Date Collected: 10/03/17
Sample Wt: 16.031g
%Solids: 81.61

Sample Qualifiers:

Surrogates

Analyte	Result µg/kg (dry)	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed
2-Fluorophenol	377		65.7	29-100	10/10/17	10/11/17
Phenol-d5	465		81.1	37-100	"	"
2-Chlorophenol-d4	446		77.9	33-100	"	"
1,2-Dichlorobenzene-d4	238		62.2	28-100	"	"
Nitrobenzene-d5	277		72.4	28-100	"	"
2-Fluorobiphenyl	335		87.6	37-110	"	"
2,4,6-Tribromophenol	495		86.4	41-137	"	"
Terphenyl-d14	481		126	46-138	"	"

Targets

Analyte (CAS Number)	Result µg/kg (dry)	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Benzaldehyde (100-52-7)	U		153	1	10/10/17	10/11/17
Phenol (108-95-2)	U		153	"	"	"
Bis(2-chloroethyl)ether (111-44-4)	U		153	"	"	"
2-Chlorophenol (95-57-8)	U		153	"	"	"
1,3-Dichlorobenzene (541-73-1)	U		153	"	"	"
1,4-Dichlorobenzene (106-46-7)	U		153	"	"	"
Benzyl alcohol (100-51-6)	U		153	"	"	"
1,2-Dichlorobenzene (95-50-1)	U		153	"	"	"
2-Methylphenol (95-48-7)	U		153	"	"	"
Bis(2-chloro-1-methylethyl)ether (108-60-1)	U		153	"	"	"
Acetophenone (98-86-2)	U		153	"	"	"
3 &/or 4-Methylphenol (108-39-4/106-44-5)	U		153	"	"	"
N-Nitrosodi-n-propylamine (621-64-7)	U		153	"	"	"
Hexachloroethane (67-72-1)	U		153	"	"	"
Nitrobenzene (98-95-3)	U		153	"	"	"
Isophorone (78-59-1)	U		153	"	"	"
2-Nitrophenol (88-75-5)	U		153	"	"	"
2,4-Dimethylphenol (105-67-9)	U		153	"	"	"
Bis(2-chloroethoxy)methane (111-91-1)	U		153	"	"	"
2,4-Dichlorophenol (120-83-2)	U		153	"	"	"
1,2,4-Trichlorobenzene (120-82-1)	U		153	"	"	"
Naphthalene (91-20-3)	U		38.2	"	"	"

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Semivolatiles by CLP OLM04.2 - GC/MS (Low Level)

Lab ID: 1710001-12 **Station ID: ASL-SS-10-FD**

Batch: B7J1005
Sample Type: Solid

Date Collected: 10/03/17
Sample Wt: 16.031g
%Solids: 81.61

Sample Qualifiers:

Targets (Continued)

Analyte (CAS Number)	Result µg/kg (dry)	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
4-Chloroaniline (106-47-8)	U		153	1	10/10/17	10/11/17
Hexachlorobutadiene (87-68-3)	U		153	"	"	"
Caprolactam (105-60-2)	U		153	"	"	"
4-Chloro-3-methylphenol (59-50-7)	U		153	"	"	"
2-Methylnaphthalene (91-57-6)	U		38.2	"	"	"
1-Methylnaphthalene (90-12-0)	U		38.2	"	"	"
Hexachlorocyclopentadiene (77-47-4)	U		153	"	"	"
2,4,6-Trichlorophenol (88-06-2)	U		153	"	"	"
2,4,5-Trichlorophenol (95-95-4)	U		153	"	"	"
2-Chloronaphthalene (91-58-7)	U		153	"	"	"
1,1'-Biphenyl (92-52-4)	U		153	"	"	"
2-Nitroaniline (88-74-4)	U		306	"	"	"
Dimethyl phthalate (131-11-3)	U		153	"	"	"
Acenaphthylene (208-96-8)	U		38.2	"	"	"
2,6-Dinitrotoluene (606-20-2)	U		153	"	"	"
3-Nitroaniline (99-09-2)	U		306	"	"	"
Acenaphthene (83-32-9)	U		38.2	"	"	"
2,4-Dinitrophenol (51-28-5)	U		764	"	"	"
4-Nitrophenol (100-02-7)	U		459	"	"	"
Dibenzofuran (132-64-9)	U		153	"	"	"
2,4-Dinitrotoluene (121-14-2)	U		153	"	"	"
Fluorene (86-73-7)	U		38.2	"	"	"
Diethyl phthalate (84-66-2)	U		153	"	"	"
4-Chlorophenyl phenyl ether (7005-72-3)	U		153	"	"	"
4-Nitroaniline (100-01-6)	U		306	"	"	"
4,6-Dinitro-2-methylphenol (534-52-1)	U		764	"	"	"
N-Nitrosodiphenylamine/Diphenylamine (86-30-6/122-39-4)	U		153	"	"	"
4-Bromophenyl phenyl ether (101-55-3)	U		153	"	"	"
Hexachlorobenzene (118-74-1)	U		76.4	"	"	"
Atrazine (1912-24-9)	U		153	"	"	"
Pentachlorophenol (87-86-5)	U		76.4	"	"	"
Phenanthrene (85-01-8)	U		38.2	"	"	"
Anthracene (120-12-7)	U		38.2	"	"	"
Carbazole (86-74-8)	U		153	"	"	"

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Semivolatiles by CLP OLM04.2 - GC/MS (Low Level)

Lab ID: 1710001-12 **Station ID: ASL-SS-10-FD**

Batch: B7J1005
Sample Type: Solid

Date Collected: 10/03/17
Sample Wt: 16.031g
%Solids: 81.61

Sample Qualifiers:

Targets (Continued)

Analyte (CAS Number)	Result µg/kg (dry)	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Di-n-butyl phthalate (84-74-2)	U		153	1	10/10/17	10/11/17
Fluoranthene (206-44-0)	**60.4**	**J**	38.2	"	"	"
Pyrene (129-00-0)	**62.7**		38.2	"	"	"
Butyl benzyl phthalate (85-68-7)	U		153	"	"	"
Benzo (a) anthracene (56-55-3)	U		153	"	"	"
3,3'-Dichlorobenzidine (91-94-1)	U		153	"	"	"
Chrysene (218-01-9)	U		153	"	"	"
Bis(2-ethylhexyl)phthalate (117-81-7)	U		153	"	"	"
Di-n-octyl phthalate (117-84-0)	U		153	"	"	"
Benzo (b) fluoranthene (205-99-2)	U		153	"	"	"
Benzo (k) fluoranthene (207-08-9)	U		153	"	"	"
Benzo (a) pyrene (50-32-8)	U		153	"	"	"
Indeno (1,2,3-cd) pyrene (193-39-5)	U		153	"	"	"
Dibenz (a,h) anthracene (53-70-3)	U		153	"	"	"
Benzo (g,h,i) perylene (191-24-2)	U		153	"	"	"

Environmental Protection Agency

Region 6 Laboratory

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Metals by CLP ILMO5.3 - ICP

Lab ID: 1710001-12

Station ID: ASL-SS-10-FD

Batch: B7J1603
Sample Type: Solid

Date Collected: 10/03/17
Sample Wt: 0.539g
%Solids: 81.61

Sample Qualifiers:

Targets

Analyte (CAS Number)	Result mg/Kg dry	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Arsenic (7440-38-2)	U		11.4	1	10/16/17	11/07/17
Lead (7439-92-1)	**23.0**		3.4	"	"	"

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Metals by CLP ILMO5.3 - ICP

Lab ID: 1710001-13 **Station ID: ASL-SS-11**

Batch: B7J1603
Sample Type: Solid

Date Collected: 10/03/17
Sample Wt: 0.548g
%Solids: 82.09

Sample Qualifiers:

Targets

Analyte (CAS Number)	Result mg/Kg dry	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Arsenic (7440-38-2)	U		11.1	1	10/16/17	11/07/17
Lead (7439-92-1)	**39.9**		3.3	"	"	"

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Metals by CLP ILMO5.3 - ICP

Lab ID: 1710001-14

Station ID: ASL-SS-12

Batch: B7J1603
Sample Type: Solid

Date Collected: 10/03/17
Sample Wt: 0.551g
%Solids: 88.11

Sample Qualifiers:

Targets

Analyte (CAS Number)	Result mg/Kg dry	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Arsenic (7440-38-2)	U		10.3	1	10/16/17	11/07/17
Lead (7439-92-1)	**16.1**		3.1	"	"	"

Environmental Protection Agency

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Metals by CLP ILMO5.3 - ICP

Lab ID: 1710001-15 **Station ID: ASL-SS-13**

Batch: B7J1603
Sample Type: Solid

Date Collected: 10/03/17
Sample Wt: 0.547g
%Solids: 76.45

Sample Qualifiers:

Targets

Analyte (CAS Number)	Result mg/Kg dry	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Arsenic (7440-38-2)	U		12.0	1	10/16/17	11/07/17
Lead (7439-92-1)	**20.3**		3.6	"	"	"

Environmental Protection Agency

Region 6 Laboratory

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Metals by CLP ILMO5.3 - ICP

Lab ID: 1710001-16

Station ID: ASL-SS-14

Batch: B7J1603
Sample Type: Solid

Date Collected: 10/03/17
Sample Wt: 0.546g
%Solids: 88.56

Sample Qualifiers:

Targets

Analyte (CAS Number)	Result mg/Kg dry	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Arsenic (7440-38-2)	U		10.3	1	10/16/17	11/07/17
Lead (7439-92-1)	**9.2**		3.1	"	"	"

Environmental Protection Agency

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Metals by CLP ILMO5.3 - ICP

Lab ID: 1710001-17 **Station ID: ASL-SS-15**

Batch: B7J1603
Sample Type: Solid

Date Collected: 10/03/17
Sample Wt: 0.572g
%Solids: 80.59

Sample Qualifiers:

Targets

Analyte (CAS Number)	Result mg/Kg dry	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Arsenic (7440-38-2)	U		10.8	1	10/16/17	11/07/17
Lead (7439-92-1)	**23.9**		3.3	"	"	"

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Metals by CLP ILMO5.3 - ICP

Lab ID: 1710001-18 **Station ID: ASL-SS-16**

Batch: B7J1603
Sample Type: Solid

Date Collected: 10/03/17
Sample Wt: 0.577g
%Solids: 77.21

Sample Qualifiers:

Targets

Analyte (CAS Number)	Result mg/Kg dry	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Arsenic (7440-38-2)	U		11.2	1	10/16/17	11/07/17
Lead (7439-92-1)	**875**		3.4	"	"	"

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Region 6 Laboratory

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Metals by CLP ILMO5.3 - ICP

Lab ID: 1710001-19 **Station ID: ASL-SS-17**

Batch: B7J1603
Sample Type: Solid

Date Collected: 10/03/17
Sample Wt: 0.543g
%Solids: 82.74

Sample Qualifiers:

Targets

Analyte (CAS Number)	Result mg/Kg dry	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Arsenic (7440-38-2)	U		11.1	1	10/16/17	11/07/17
Lead (7439-92-1)	**19.5**		3.3	"	"	"

Environmental Protection Agency

Region 6 Laboratory

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Phone:(281)983-2100 Fax:(281)983-2248

Metals by CLP ILMO5.3 - ICP

Lab ID: 1710001-20 **Station ID: ASL-SS-18**

Batch: B7J1603
Sample Type: Solid

Date Collected: 10/03/17
Sample Wt: 0.537g
%Solids: 81.15

Sample Qualifiers:

Targets

Analyte (CAS Number)	Result mg/Kg dry	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Arsenic (7440-38-2)	U		11.5	1	10/16/17	11/07/17
Lead (7439-92-1)	**25.1**		3.4	"	"	"

Environmental Protection Agency

Region 6 Laboratory

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Phone:(281)983-2100 Fax:(281)983-2248

Metals by CLP ILMO5.3 - ICP

Lab ID: 1710001-21RE1 **Station ID: ASL-SS-19**

Batch: B7K2201
Sample Type: Solid

Date Collected: 10/03/17
Sample Wt: 0.559g
%Solids: 81.45

Sample Qualifiers:

Targets

Analyte (CAS Number)	Result mg/Kg dry	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Arsenic (7440-38-2)	U		11.0	1	11/22/17	12/01/17
Lead (7439-92-1)	**12.4**		3.3	"	"	"

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Metals by CLP ILMO5.3 - ICP

Lab ID: 1710001-22RE1 **Station ID: ASL-SS-20**

Batch: B7K2201
Sample Type: Solid

Date Collected: 10/03/17
Sample Wt: 0.546g
%Solids: 86.07

Sample Qualifiers:

Targets

Analyte (CAS Number)	Result mg/Kg dry	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Arsenic (7440-38-2)	U		10.6	1	11/22/17	12/01/17
Lead (7439-92-1)	**26.8**		3.2	"	"	"

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Metals by CLP ILMO5.3 - ICP

Lab ID: 1710001-23RE1 **Station ID: ASL-SS-20-FD**

Batch: B7K2201
Sample Type: Solid

Date Collected: 10/03/17
Sample Wt: 0.54g
%Solids: 85.90

Sample Qualifiers:

Targets

Analyte (CAS Number)	Result mg/Kg dry	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Arsenic (7440-38-2)	U		10.8	1	11/22/17	12/01/17
Lead (7439-92-1)	**30.9**		3.2	"	"	"

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Metals by CLP ILMO5.3 - ICP

Lab ID: 1710001-24RE1

Station ID: ASL-SS-21

Batch: B7K2201
Sample Type: Solid

Date Collected: 10/03/17
Sample Wt: 0.553g
%Solids: 75.25

Sample Qualifiers:

Targets

Analyte (CAS Number)	Result mg/Kg dry	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Arsenic (7440-38-2)	U		12.0	1	11/22/17	12/01/17
Lead (7439-92-1)	**26.9**		3.6	"	"	"

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Metals by CLP ILMO5.3 - ICP

Lab ID: 1710001-25RE1 **Station ID: ASL-SS-22**

Batch: B7K2201
Sample Type: Solid

Date Collected: 10/03/17
Sample Wt: 0.568g
%Solids: 74.77

Sample Qualifiers:

Targets

Analyte (CAS Number)	Result mg/Kg dry	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Arsenic (7440-38-2)	U		11.8	1	11/22/17	12/01/17
Lead (7439-92-1)	**17.7**		3.5	"	"	"

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Metals by CLP ILMO5.3 - ICP

Lab ID: 1710001-26RE1 **Station ID: ASL-SS-23**

Batch: B7K2201
Sample Type: Solid

Date Collected: 10/03/17
Sample Wt: 0.546g
%Solids: 81.98

Sample Qualifiers:

Targets

Analyte (CAS Number)	Result mg/Kg dry	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Arsenic (7440-38-2)	U		11.2	1	11/22/17	12/01/17
Lead (7439-92-1)	**10.2**		3.4	"	"	"

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Metals by CLP ILMO5.3 - ICP

Lab ID: 1710001-27RE1 **Station ID: ASL-SS-24**

Batch: B7K2201
Sample Type: Solid

Date Collected: 10/03/17
Sample Wt: 0.583g
%Solids: 62.07

Sample Qualifiers:

Targets

Analyte (CAS Number)	Result mg/Kg dry	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Arsenic (7440-38-2)	U		13.8	1	11/22/17	12/01/17
Lead (7439-92-1)	**96.0**		4.1	"	"	"

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Metals by CLP ILMO5.3 - ICP

Lab ID: 1710001-28RE1 **Station ID: ASL-SS-25**

Batch: B7K2201
Sample Type: Solid

Date Collected: 10/03/17
Sample Wt: 0.551g
%Solids: 80.46

Sample Qualifiers:

Targets

Analyte (CAS Number)	Result mg/Kg dry	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Arsenic (7440-38-2)	U		11.3	1	11/22/17	12/01/17
Lead (7439-92-1)	**18.8**		3.4	"	"	"

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Semivolatiles by CLP OLM04.2 - GC/MS (Low Level)

Lab ID: 1710001-29 **Station ID: ASL-SS-26**

Batch: B7J1005
Sample Type: Solid

Date Collected: 10/03/17
Sample Wt: 16.03g
%Solids: 84.72

Sample Qualifiers:

Surrogates

Analyte	Result µg/kg (dry)	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed
2-Fluorophenol	455		82.4	29-100	10/10/17	10/11/17
Phenol-d5	472		85.5	37-100	"	"
2-Chlorophenol-d4	453		82.0	33-100	"	"
1,2-Dichlorobenzene-d4	258		70.0	28-100	"	"
Nitrobenzene-d5	294		79.8	28-100	"	"
2-Fluorobiphenyl	304		82.6	37-110	"	"
2,4,6-Tribromophenol	510		92.3	41-137	"	"
Terphenyl-d14	423		115	46-138	"	"

Targets

Analyte (CAS Number)	Result µg/kg (dry)	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Benzaldehyde (100-52-7)	U		147	1	10/10/17	10/11/17
Phenol (108-95-2)	U		147	"	"	"
Bis(2-chloroethyl)ether (111-44-4)	U		147	"	"	"
2-Chlorophenol (95-57-8)	U		147	"	"	"
1,3-Dichlorobenzene (541-73-1)	U		147	"	"	"
1,4-Dichlorobenzene (106-46-7)	U		147	"	"	"
Benzyl alcohol (100-51-6)	U		147	"	"	"
1,2-Dichlorobenzene (95-50-1)	U		147	"	"	"
2-Methylphenol (95-48-7)	U		147	"	"	"
Bis(2-chloro-1-methylethyl)ether (108-60-1)	U		147	"	"	"
Acetophenone (98-86-2)	U		147	"	"	"
3 &/or 4-Methylphenol (108-39-4/106-44-5)	U		147	"	"	"
N-Nitrosodi-n-propylamine (621-64-7)	U		147	"	"	"
Hexachloroethane (67-72-1)	U		147	"	"	"
Nitrobenzene (98-95-3)	U		147	"	"	"
Isophorone (78-59-1)	U		147	"	"	"
2-Nitrophenol (88-75-5)	U		147	"	"	"
2,4-Dimethylphenol (105-67-9)	U		147	"	"	"
Bis(2-chloroethoxy)methane (111-91-1)	U		147	"	"	"
2,4-Dichlorophenol (120-83-2)	U		147	"	"	"
1,2,4-Trichlorobenzene (120-82-1)	U		147	"	"	"
Naphthalene (91-20-3)	U		36.8	"	"	"

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Semivolatiles by CLP OLM04.2 - GC/MS (Low Level)

Lab ID: 1710001-29 **Station ID: ASL-SS-26**

Batch: B7J1005
Sample Type: Solid

Date Collected: 10/03/17
Sample Wt: 16.03g
%Solids: 84.72

Sample Qualifiers:

Targets (Continued)

Analyte (CAS Number)	Result µg/kg (dry)	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
4-Chloroaniline (106-47-8)	U		147	1	10/10/17	10/11/17
Hexachlorobutadiene (87-68-3)	U		147	"	"	"
Caprolactam (105-60-2)	U		147	"	"	"
4-Chloro-3-methylphenol (59-50-7)	U		147	"	"	"
2-Methylnaphthalene (91-57-6)	U		36.8	"	"	"
1-Methylnaphthalene (90-12-0)	U		36.8	"	"	"
Hexachlorocyclopentadiene (77-47-4)	U		147	"	"	"
2,4,6-Trichlorophenol (88-06-2)	U		147	"	"	"
2,4,5-Trichlorophenol (95-95-4)	U		147	"	"	"
2-Chloronaphthalene (91-58-7)	U		147	"	"	"
1,1'-Biphenyl (92-52-4)	U		147	"	"	"
2-Nitroaniline (88-74-4)	U		295	"	"	"
Dimethyl phthalate (131-11-3)	U		147	"	"	"
Acenaphthylene (208-96-8)	U		36.8	"	"	"
2,6-Dinitrotoluene (606-20-2)	U		147	"	"	"
3-Nitroaniline (99-09-2)	U		295	"	"	"
Acenaphthene (83-32-9)	U		36.8	"	"	"
2,4-Dinitrophenol (51-28-5)	U		736	"	"	"
4-Nitrophenol (100-02-7)	U		442	"	"	"
Dibenzofuran (132-64-9)	U		147	"	"	"
2,4-Dinitrotoluene (121-14-2)	U		147	"	"	"
Fluorene (86-73-7)	U		36.8	"	"	"
Diethyl phthalate (84-66-2)	U		147	"	"	"
4-Chlorophenyl phenyl ether (7005-72-3)	U		147	"	"	"
4-Nitroaniline (100-01-6)	U		295	"	"	"
4,6-Dinitro-2-methylphenol (534-52-1)	U		736	"	"	"
N-Nitrosodiphenylamine/Diphenylamine (86-30-6/122-39-4)	U		147	"	"	"
4-Bromophenyl phenyl ether (101-55-3)	U		147	"	"	"
Hexachlorobenzene (118-74-1)	U		73.6	"	"	"
Atrazine (1912-24-9)	U		147	"	"	"
Pentachlorophenol (87-86-5)	U		73.6	"	"	"
Phenanthrene (85-01-8)	**39.8**		36.8	"	"	"
Anthracene (120-12-7)	U		36.8	"	"	"
Carbazole (86-74-8)	U		147	"	"	"

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Semivolatiles by CLP OLM04.2 - GC/MS (Low Level)

Lab ID: 1710001-29 **Station ID: ASL-SS-26**

Batch: B7J1005
Sample Type: Solid

Date Collected: 10/03/17
Sample Wt: 16.03g
%Solids: 84.72

Sample Qualifiers:

Targets (Continued)

Analyte (CAS Number)	Result µg/kg (dry)	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Di-n-butyl phthalate (84-74-2)	U		147	1	10/10/17	10/11/17
Fluoranthene (206-44-0)	**119**	**J**	36.8	"	"	"
Pyrene (129-00-0)	**117**		36.8	"	"	"
Butyl benzyl phthalate (85-68-7)	U		147	"	"	"
Benzo (a) anthracene (56-55-3)	U		147	"	"	"
3,3'-Dichlorobenzidine (91-94-1)	U		147	"	"	"
Chrysene (218-01-9)	U		147	"	"	"
Bis(2-ethylhexyl)phthalate (117-81-7)	U		147	"	"	"
Di-n-octyl phthalate (117-84-0)	U		147	"	"	"
Benzo (b) fluoranthene (205-99-2)	U		147	"	"	"
Benzo (k) fluoranthene (207-08-9)	U		147	"	"	"
Benzo (a) pyrene (50-32-8)	U		147	"	"	"
Indeno (1,2,3-cd) pyrene (193-39-5)	U		147	"	"	"
Dibenz (a,h) anthracene (53-70-3)	U		147	"	"	"
Benzo (g,h,i) perylene (191-24-2)	U		147	"	"	"

Environmental Protection Agency

Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099
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Metals by CLP ILMO5.3 - ICP

Lab ID: 1710001-29RE1 **Station ID: ASL-SS-26**

Batch: B7K2201
Sample Type: Solid

Date Collected: 10/03/17
Sample Wt: 0.565g
%Solids: 84.72

Sample Qualifiers:

Targets

Analyte (CAS Number)	Result mg/Kg dry	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Arsenic (7440-38-2)	U		10.4	1	11/22/17	12/01/17
Lead (7439-92-1)	**10.4**		3.1	"	"	"

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Metals by CLP ILMO5.3 - ICP

Lab ID: 1710001-30RE1 **Station ID: ASL-SS-27**

Batch: B7K2201
Sample Type: Solid

Date Collected: 10/03/17
Sample Wt: 0.549g
%Solids: 81.62

Sample Qualifiers:

Targets

Analyte (CAS Number)	Result mg/Kg dry	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Arsenic (7440-38-2)	U		11.2	1	11/22/17	12/01/17
Lead (7439-92-1)	**10.7**		3.3	"	"	"

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Metals by CLP ILMO5.3 - ICP

Lab ID: 1710001-31RE1 **Station ID: ASL-SS-28**

Batch: B7K2201
Sample Type: Solid

Date Collected: 10/03/17
Sample Wt: 0.541g
%Solids: 80.46

Sample Qualifiers:

Targets

Analyte (CAS Number)	Result mg/Kg dry	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Arsenic (7440-38-2)	U		11.5	1	11/22/17	12/01/17
Lead (7439-92-1)	**179**		3.4	"	"	"

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Semivolatiles by CLP OLM04.2 - GC/MS (Low Level)

Lab ID: 1710001-32 **Station ID: ASL-SS-29**

Batch: B7J1005
Sample Type: Solid

Date Collected: 10/02/17
Sample Wt: 16.011g
%Solids: 77.68

Sample Qualifiers:

Surrogates

Analyte	Result µg/kg (dry)	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed
2-Fluorophenol	445		73.7	29-100	10/10/17	10/11/17
Phenol-d5	421		69.7	37-100	"	"
2-Chlorophenol-d4	441		73.1	33-100	"	"
1,2-Dichlorobenzene-d4	248		61.6	28-100	"	"
Nitrobenzene-d5	283		70.4	28-100	"	"
2-Fluorobiphenyl	325		80.8	37-110	"	"
2,4,6-Tribromophenol	681		113	41-137	"	"
Terphenyl-d14	451		112	46-138	"	"

Targets

Analyte (CAS Number)	Result µg/kg (dry)	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Benzaldehyde (100-52-7)	U		161	1	10/10/17	10/11/17
Phenol (108-95-2)	U		161	"	"	"
Bis(2-chloroethyl)ether (111-44-4)	U		161	"	"	"
2-Chlorophenol (95-57-8)	U		161	"	"	"
1,3-Dichlorobenzene (541-73-1)	U		161	"	"	"
1,4-Dichlorobenzene (106-46-7)	U		161	"	"	"
Benzyl alcohol (100-51-6)	U		161	"	"	"
1,2-Dichlorobenzene (95-50-1)	U		161	"	"	"
2-Methylphenol (95-48-7)	U		161	"	"	"
Bis(2-chloro-1-methylethyl)ether (108-60-1)	U		161	"	"	"
Acetophenone (98-86-2)	U		161	"	"	"
3 &/or 4-Methylphenol (108-39-4/106-44-5)	U		161	"	"	"
N-Nitrosodi-n-propylamine (621-64-7)	U		161	"	"	"
Hexachloroethane (67-72-1)	U		161	"	"	"
Nitrobenzene (98-95-3)	U		161	"	"	"
Isophorone (78-59-1)	U		161	"	"	"
2-Nitrophenol (88-75-5)	U		161	"	"	"
2,4-Dimethylphenol (105-67-9)	U		161	"	"	"
Bis(2-chloroethoxy)methane (111-91-1)	U		161	"	"	"
2,4-Dichlorophenol (120-83-2)	U		161	"	"	"
1,2,4-Trichlorobenzene (120-82-1)	U		161	"	"	"
Naphthalene (91-20-3)	U		40.2	"	"	"

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Semivolatiles by CLP OLM04.2 - GC/MS (Low Level)

Lab ID: 1710001-32 **Station ID: ASL-SS-29**

Batch: B7J1005
Sample Type: Solid

Date Collected: 10/02/17
Sample Wt: 16.011g
%Solids: 77.68

Sample Qualifiers:

Targets (Continued)

Analyte (CAS Number)	Result µg/kg (dry)	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
4-Chloroaniline (106-47-8)	U		161	1	10/10/17	10/11/17
Hexachlorobutadiene (87-68-3)	U		161	"	"	"
Caprolactam (105-60-2)	U		161	"	"	"
4-Chloro-3-methylphenol (59-50-7)	U		161	"	"	"
2-Methylnaphthalene (91-57-6)	U		40.2	"	"	"
1-Methylnaphthalene (90-12-0)	U		40.2	"	"	"
Hexachlorocyclopentadiene (77-47-4)	U		161	"	"	"
2,4,6-Trichlorophenol (88-06-2)	U		161	"	"	"
2,4,5-Trichlorophenol (95-95-4)	U		161	"	"	"
2-Chloronaphthalene (91-58-7)	U		161	"	"	"
1,1'-Biphenyl (92-52-4)	U		161	"	"	"
2-Nitroaniline (88-74-4)	U		322	"	"	"
Dimethyl phthalate (131-11-3)	U		161	"	"	"
Acenaphthylene (208-96-8)	U		40.2	"	"	"
2,6-Dinitrotoluene (606-20-2)	U		161	"	"	"
3-Nitroaniline (99-09-2)	U		322	"	"	"
Acenaphthene (83-32-9)	U		40.2	"	"	"
2,4-Dinitrophenol (51-28-5)	U		804	"	"	"
4-Nitrophenol (100-02-7)	U		482	"	"	"
Dibenzofuran (132-64-9)	U		161	"	"	"
2,4-Dinitrotoluene (121-14-2)	U		161	"	"	"
Fluorene (86-73-7)	U		40.2	"	"	"
Diethyl phthalate (84-66-2)	U		161	"	"	"
4-Chlorophenyl phenyl ether (7005-72-3)	U		161	"	"	"
4-Nitroaniline (100-01-6)	U		322	"	"	"
4,6-Dinitro-2-methylphenol (534-52-1)	U		804	"	"	"
N-Nitrosodiphenylamine/Diphenylamine (86-30-6/122-39-4)	U		161	"	"	"
4-Bromophenyl phenyl ether (101-55-3)	U		161	"	"	"
Hexachlorobenzene (118-74-1)	U		80.4	"	"	"
Atrazine (1912-24-9)	U		161	"	"	"
Pentachlorophenol (87-86-5)	U		80.4	"	"	"
Phenanthrene (85-01-8)	U		40.2	"	"	"
Anthracene (120-12-7)	U		40.2	"	"	"
Carbazole (86-74-8)	U		161	"	"	"

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Semivolatiles by CLP OLM04.2 - GC/MS (Low Level)

Lab ID: 1710001-32 **Station ID: ASL-SS-29**

Batch: B7J1005
Sample Type: Solid

Date Collected: 10/02/17
Sample Wt: 16.011g
%Solids: 77.68

Sample Qualifiers:

Targets (Continued)

Analyte (CAS Number)	Result µg/kg (dry)	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Di-n-butyl phthalate (84-74-2)	U		161	1	10/10/17	10/11/17
Fluoranthene (206-44-0)	**72.4**	**J**	40.2	"	"	"
Pyrene (129-00-0)	**56.3**		40.2	"	"	"
Butyl benzyl phthalate (85-68-7)	U		161	"	"	"
Benzo (a) anthracene (56-55-3)	U		161	"	"	"
3,3'-Dichlorobenzidine (91-94-1)	U		161	"	"	"
Chrysene (218-01-9)	U		161	"	"	"
Bis(2-ethylhexyl)phthalate (117-81-7)	U		161	"	"	"
Di-n-octyl phthalate (117-84-0)	U		161	"	"	"
Benzo (b) fluoranthene (205-99-2)	U		161	"	"	"
Benzo (k) fluoranthene (207-08-9)	U		161	"	"	"
Benzo (a) pyrene (50-32-8)	U		161	"	"	"
Indeno (1,2,3-cd) pyrene (193-39-5)	U		161	"	"	"
Dibenz (a,h) anthracene (53-70-3)	U		161	"	"	"
Benzo (g,h,i) perylene (191-24-2)	U		161	"	"	"

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Metals by CLP ILMO5.3 - ICP

Lab ID: 1710001-32RE1 **Station ID: ASL-SS-29**

Batch: B7K2201
Sample Type: Solid

Date Collected: 10/02/17
Sample Wt: 0.545g
%Solids: 77.68

Sample Qualifiers:

Targets

Analyte (CAS Number)	Result mg/Kg dry	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Arsenic (7440-38-2)	U		11.8	1	11/22/17	12/01/17
Lead (7439-92-1)	**14.8**		3.5	"	"	"

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Region 6 Laboratory

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Semivolatiles by CLP OLM04.2 - GC/MS (Low Level)

Lab ID: 1710001-33 **Station ID: ASL-SS-30**

Batch: B7J1005
Sample Type: Solid

Date Collected: 10/03/17
Sample Wt: 16.015g
%Solids: 76.13

Sample Qualifiers:

Surrogates

Analyte	Result µg/kg (dry)	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed
2-Fluorophenol	522		84.8	29-100	10/10/17	10/11/17
Phenol-d5	531		86.4	37-100	"	"
2-Chlorophenol-d4	545		88.5	33-100	"	"
1,2-Dichlorobenzene-d4	296		72.2	28-100	"	"
Nitrobenzene-d5	330		80.4	28-100	"	"
2-Fluorobiphenyl	376		91.6	37-110	"	"
2,4,6-Tribromophenol	658		107	41-137	"	"
Terphenyl-d14	428		104	46-138	"	"

Targets

Analyte (CAS Number)	Result µg/kg (dry)	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Benzaldehyde (100-52-7)	U		164	1	10/10/17	10/11/17
Phenol (108-95-2)	U		164	"	"	"
Bis(2-chloroethyl)ether (111-44-4)	U		164	"	"	"
2-Chlorophenol (95-57-8)	U		164	"	"	"
1,3-Dichlorobenzene (541-73-1)	U		164	"	"	"
1,4-Dichlorobenzene (106-46-7)	U		164	"	"	"
Benzyl alcohol (100-51-6)	U		164	"	"	"
1,2-Dichlorobenzene (95-50-1)	U		164	"	"	"
2-Methylphenol (95-48-7)	U		164	"	"	"
Bis(2-chloro-1-methylethyl)ether (108-60-1)	U		164	"	"	"
Acetophenone (98-86-2)	U		164	"	"	"
3 &/or 4-Methylphenol (108-39-4/106-44-5)	U		164	"	"	"
N-Nitrosodi-n-propylamine (621-64-7)	U		164	"	"	"
Hexachloroethane (67-72-1)	U		164	"	"	"
Nitrobenzene (98-95-3)	U		164	"	"	"
Isophorone (78-59-1)	U		164	"	"	"
2-Nitrophenol (88-75-5)	U		164	"	"	"
2,4-Dimethylphenol (105-67-9)	U		164	"	"	"
Bis(2-chloroethoxy)methane (111-91-1)	U		164	"	"	"
2,4-Dichlorophenol (120-83-2)	U		164	"	"	"
1,2,4-Trichlorobenzene (120-82-1)	U		164	"	"	"
Naphthalene (91-20-3)	**69.7**		41.0	"	"	"
4-Chloroaniline (106-47-8)	U		164	"	"	"

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Semivolatiles by CLP OLM04.2 - GC/MS (Low Level)

Lab ID: 1710001-33 **Station ID: ASL-SS-30**

Batch: B7J1005
Sample Type: Solid

Date Collected: 10/03/17
Sample Wt: 16.015g
%Solids: 76.13

Sample Qualifiers:

Targets (Continued)

Analyte (CAS Number)	Result µg/kg (dry)	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Hexachlorobutadiene (87-68-3)	U		164	1	10/10/17	10/11/17
Caprolactam (105-60-2)	U		164	"	"	"
4-Chloro-3-methylphenol (59-50-7)	U		164	"	"	"
2-Methylnaphthalene (91-57-6)	U		41.0	"	"	"
1-Methylnaphthalene (90-12-0)	U		41.0	"	"	"
Hexachlorocyclopentadiene (77-47-4)	U		164	"	"	"
2,4,6-Trichlorophenol (88-06-2)	U		164	"	"	"
2,4,5-Trichlorophenol (95-95-4)	U		164	"	"	"
2-Chloronaphthalene (91-58-7)	U		164	"	"	"
1,1'-Biphenyl (92-52-4)	U		164	"	"	"
2-Nitroaniline (88-74-4)	U		328	"	"	"
Dimethyl phthalate (131-11-3)	U		164	"	"	"
Acenaphthylene (208-96-8)	U		41.0	"	"	"
2,6-Dinitrotoluene (606-20-2)	U		164	"	"	"
3-Nitroaniline (99-09-2)	U		328	"	"	"
Acenaphthene (83-32-9)	U		41.0	"	"	"
2,4-Dinitrophenol (51-28-5)	U		820	"	"	"
4-Nitrophenol (100-02-7)	U		492	"	"	"
Dibenzofuran (132-64-9)	U		164	"	"	"
2,4-Dinitrotoluene (121-14-2)	U		164	"	"	"
Fluorene (86-73-7)	U		41.0	"	"	"
Diethyl phthalate (84-66-2)	U		164	"	"	"
4-Chlorophenyl phenyl ether (7005-72-3)	U		164	"	"	"
4-Nitroaniline (100-01-6)	U		328	"	"	"
4,6-Dinitro-2-methylphenol (534-52-1)	U		820	"	"	"
N-Nitrosodiphenylamine/Diphenylamine (86-30-6/122-39-4)	U		164	"	"	"
4-Bromophenyl phenyl ether (101-55-3)	U		164	"	"	"
Hexachlorobenzene (118-74-1)	U		82.0	"	"	"
Atrazine (1912-24-9)	U		164	"	"	"
Pentachlorophenol (87-86-5)	U		82.0	"	"	"
Phenanthrene (85-01-8)	**123**		41.0	"	"	"
Anthracene (120-12-7)	U		41.0	"	"	"
Carbazole (86-74-8)	U		164	"	"	"
Di-n-butyl phthalate (84-74-2)	U		164	"	"	"

Environmental Protection Agency

Region 6 Laboratory

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Semivolatiles by CLP OLM04.2 - GC/MS (Low Level)

Lab ID: 1710001-33 **Station ID: ASL-SS-30**

Batch: B7J1005
Sample Type: Solid

Date Collected: 10/03/17
Sample Wt: 16.015g
%Solids: 76.13

Sample Qualifiers:

Targets (Continued)

Analyte (CAS Number)	Result µg/kg (dry)	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Fluoranthene (206-44-0)	**222**	**J**	41.0	1	10/10/17	10/11/17
Pyrene (129-00-0)	**135**		41.0	"	"	"
Butyl benzyl phthalate (85-68-7)	U		164	"	"	"
Benzo (a) anthracene (56-55-3)	U		164	"	"	"
3,3'-Dichlorobenzidine (91-94-1)	U		164	"	"	"
Chrysene (218-01-9)	U		164	"	"	"
Bis(2-ethylhexyl)phthalate (117-81-7)	**251**	**B**	164	"	"	"
Di-n-octyl phthalate (117-84-0)	U		164	"	"	"
Benzo (b) fluoranthene (205-99-2)	**216**	**J**	164	"	"	"
Benzo (k) fluoranthene (207-08-9)	U		164	"	"	"
Benzo (a) pyrene (50-32-8)	U		164	"	"	"
Indeno (1,2,3-cd) pyrene (193-39-5)	U		164	"	"	"
Dibenz (a,h) anthracene (53-70-3)	U		164	"	"	"
Benzo (g,h,i) perylene (191-24-2)	U		164	"	"	"

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Metals by CLP ILMO5.3 - ICP

Lab ID: 1710001-33RE1 **Station ID: ASL-SS-30**

Batch: B7K2201
Sample Type: Solid

Date Collected: 10/03/17
Sample Wt: 0.55g
%Solids: 76.13

Sample Qualifiers:

Targets

Analyte (CAS Number)	Result mg/Kg dry	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Arsenic (7440-38-2)	U		11.9	1	11/22/17	12/01/17
Lead (7439-92-1)	**73.5**		3.6	"	"	"

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Semivolatiles by CLP OLM04.2 - GC/MS (Low Level)

Lab ID: 1710001-34 **Station ID: ASL-SS-31**

Batch: B7J1005
Sample Type: Solid

Date Collected: 10/03/17
Sample Wt: 16.035g
%Solids: 83.61

Sample Qualifiers:

Surrogates

Analyte	Result µg/kg (dry)	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed
2-Fluorophenol	338		60.4	29-100	10/10/17	10/11/17
Phenol-d5	392		70.0	37-100	"	"
2-Chlorophenol-d4	389		69.6	33-100	"	"
1,2-Dichlorobenzene-d4	162		43.4	28-100	"	"
Nitrobenzene-d5	245		65.8	28-100	"	"
2-Fluorobiphenyl	283		75.8	37-110	"	"
2,4,6-Tribromophenol	470		84.0	41-137	"	"
Terphenyl-d14	376		101	46-138	"	"

Targets

Analyte (CAS Number)	Result µg/kg (dry)	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Benzaldehyde (100-52-7)	U		149	1	10/10/17	10/11/17
Phenol (108-95-2)	U		149	"	"	"
Bis(2-chloroethyl)ether (111-44-4)	U		149	"	"	"
2-Chlorophenol (95-57-8)	U		149	"	"	"
1,3-Dichlorobenzene (541-73-1)	U		149	"	"	"
1,4-Dichlorobenzene (106-46-7)	U		149	"	"	"
Benzyl alcohol (100-51-6)	U		149	"	"	"
1,2-Dichlorobenzene (95-50-1)	U		149	"	"	"
2-Methylphenol (95-48-7)	U		149	"	"	"
Bis(2-chloro-1-methylethyl)ether (108-60-1)	U		149	"	"	"
Acetophenone (98-86-2)	**283**		149	"	"	"
3 &/or 4-Methylphenol (108-39-4/106-44-5)	U		149	"	"	"
N-Nitrosodi-n-propylamine (621-64-7)	U		149	"	"	"
Hexachloroethane (67-72-1)	U		149	"	"	"
Nitrobenzene (98-95-3)	U		149	"	"	"
Isophorone (78-59-1)	U		149	"	"	"
2-Nitrophenol (88-75-5)	U		149	"	"	"
2,4-Dimethylphenol (105-67-9)	U		149	"	"	"
Bis(2-chloroethoxy)methane (111-91-1)	U		149	"	"	"
2,4-Dichlorophenol (120-83-2)	U		149	"	"	"
1,2,4-Trichlorobenzene (120-82-1)	U		149	"	"	"
Naphthalene (91-20-3)	**79.8**		37.3	"	"	"
4-Chloroaniline (106-47-8)	U		149	"	"	"

Environmental Protection Agency

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Semivolatiles by CLP OLM04.2 - GC/MS (Low Level)

Lab ID: 1710001-34 **Station ID: ASL-SS-31**

Batch: B7J1005
Sample Type: Solid

Date Collected: 10/03/17
Sample Wt: 16.035g
%Solids: 83.61

Sample Qualifiers:

Targets (Continued)

Analyte (CAS Number)	Result µg/kg (dry)	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Hexachlorobutadiene (87-68-3)	U		149	1	10/10/17	10/11/17
Caprolactam (105-60-2)	U		149	"	"	"
4-Chloro-3-methylphenol (59-50-7)	U		149	"	"	"
2-Methylnaphthalene (91-57-6)	U		37.3	"	"	"
1-Methylnaphthalene (90-12-0)	U		37.3	"	"	"
Hexachlorocyclopentadiene (77-47-4)	U		149	"	"	"
2,4,6-Trichlorophenol (88-06-2)	U		149	"	"	"
2,4,5-Trichlorophenol (95-95-4)	U		149	"	"	"
2-Chloronaphthalene (91-58-7)	U		149	"	"	"
1,1'-Biphenyl (92-52-4)	U		149	"	"	"
2-Nitroaniline (88-74-4)	U		298	"	"	"
Dimethyl phthalate (131-11-3)	U		149	"	"	"
Acenaphthylene (208-96-8)	U		37.3	"	"	"
2,6-Dinitrotoluene (606-20-2)	U		149	"	"	"
3-Nitroaniline (99-09-2)	U		298	"	"	"
Acenaphthene (83-32-9)	U		37.3	"	"	"
2,4-Dinitrophenol (51-28-5)	U		746	"	"	"
4-Nitrophenol (100-02-7)	U		448	"	"	"
Dibenzofuran (132-64-9)	U		149	"	"	"
2,4-Dinitrotoluene (121-14-2)	U		149	"	"	"
Fluorene (86-73-7)	U		37.3	"	"	"
Diethyl phthalate (84-66-2)	U		149	"	"	"
4-Chlorophenyl phenyl ether (7005-72-3)	U		149	"	"	"
4-Nitroaniline (100-01-6)	U		298	"	"	"
4,6-Dinitro-2-methylphenol (534-52-1)	U		746	"	"	"
N-Nitrosodiphenylamine/Diphenylamine (86-30-6/122-39-4)	U		149	"	"	"
4-Bromophenyl phenyl ether (101-55-3)	U		149	"	"	"
Hexachlorobenzene (118-74-1)	U		74.6	"	"	"
Atrazine (1912-24-9)	U		149	"	"	"
Pentachlorophenol (87-86-5)	U		74.6	"	"	"
Phenanthrene (85-01-8)	**109**		37.3	"	"	"
Anthracene (120-12-7)	U		37.3	"	"	"
Carbazole (86-74-8)	U		149	"	"	"
Di-n-butyl phthalate (84-74-2)	U		149	"	"	"

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Semivolatiles by CLP OLM04.2 - GC/MS (Low Level)

Lab ID: 1710001-34 **Station ID: ASL-SS-31**

Batch: B7J1005
Sample Type: Solid

Date Collected: 10/03/17
Sample Wt: 16.035g
%Solids: 83.61

Sample Qualifiers:

Targets (Continued)

Analyte (CAS Number)	Result µg/kg (dry)	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Fluoranthene (206-44-0)	**308**	**J**	37.3	1	10/10/17	10/11/17
Pyrene (129-00-0)	**292**		37.3	"	"	"
Butyl benzyl phthalate (85-68-7)	**163**		149	"	"	"
Benzo (a) anthracene (56-55-3)	**254**		149	"	"	"
3,3'-Dichlorobenzidine (91-94-1)	U		149	"	"	"
Chrysene (218-01-9)	**241**		149	"	"	"
Bis(2-ethylhexyl)phthalate (117-81-7)	**495**		149	"	"	"
Di-n-octyl phthalate (117-84-0)	U		149	"	"	"
Benzo (b) fluoranthene (205-99-2)	**340**	**J**	149	"	"	"
Benzo (k) fluoranthene (207-08-9)	**204**	**J**	149	"	"	"
Benzo (a) pyrene (50-32-8)	**273**		149	"	"	"
Indeno (1,2,3-cd) pyrene (193-39-5)	**177**		149	"	"	"
Dibenz (a,h) anthracene (53-70-3)	U		149	"	"	"
Benzo (g,h,i) perylene (191-24-2)	**244**		149	"	"	"

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Metals by CLP ILMO5.3 - ICP

Lab ID: 1710001-34RE1 **Station ID: ASL-SS-31**

Batch: B7K2201
Sample Type: Solid

Date Collected: 10/03/17
Sample Wt: 0.552g
%Solids: 83.61

Sample Qualifiers:

Targets

Analyte (CAS Number)	Result mg/Kg dry	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Arsenic (7440-38-2)	U		10.8	1	11/22/17	12/01/17
Lead (7439-92-1)	**236**		3.2	"	"	"

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Semivolatiles by CLP OLM04.2 - GC/MS (Low Level)

Lab ID: 1710001-35 **Station ID: ASL-SS-32**

Batch: B7J1005
Sample Type: Solid

Date Collected: 10/03/17
Sample Wt: 16.003g
%Solids: 79.74

Sample Qualifiers:

Surrogates

Analyte	Result µg/kg (dry)	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed
2-Fluorophenol	409		69.6	29-100	10/10/17	10/11/17
Phenol-d5	427		72.7	37-100	"	"
2-Chlorophenol-d4	453		77.1	33-100	"	"
1,2-Dichlorobenzene-d4	263		67.0	28-100	"	"
Nitrobenzene-d5	346		88.4	28-100	"	"
2-Fluorobiphenyl	326		83.2	37-110	"	"
2,4,6-Tribromophenol	514		87.5	41-137	"	"
Terphenyl-d14	398		102	46-138	"	"

Targets

Analyte (CAS Number)	Result µg/kg (dry)	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Benzaldehyde (100-52-7)	U		157	1	10/10/17	10/11/17
Phenol (108-95-2)	U		157	"	"	"
Bis(2-chloroethyl)ether (111-44-4)	U		157	"	"	"
2-Chlorophenol (95-57-8)	U		157	"	"	"
1,3-Dichlorobenzene (541-73-1)	U		157	"	"	"
1,4-Dichlorobenzene (106-46-7)	U		157	"	"	"
Benzyl alcohol (100-51-6)	U		157	"	"	"
1,2-Dichlorobenzene (95-50-1)	U		157	"	"	"
2-Methylphenol (95-48-7)	U		157	"	"	"
Bis(2-chloro-1-methylethyl)ether (108-60-1)	U		157	"	"	"
Acetophenone (98-86-2)	U		157	"	"	"
3 &/or 4-Methylphenol (108-39-4/106-44-5)	U		157	"	"	"
N-Nitrosodi-n-propylamine (621-64-7)	U		157	"	"	"
Hexachloroethane (67-72-1)	U		157	"	"	"
Nitrobenzene (98-95-3)	U		157	"	"	"
Isophorone (78-59-1)	U		157	"	"	"
2-Nitrophenol (88-75-5)	U		157	"	"	"
2,4-Dimethylphenol (105-67-9)	U		157	"	"	"
Bis(2-chloroethoxy)methane (111-91-1)	U		157	"	"	"
2,4-Dichlorophenol (120-83-2)	U		157	"	"	"
1,2,4-Trichlorobenzene (120-82-1)	U		157	"	"	"
Naphthalene (91-20-3)	U		39.2	"	"	"

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Semivolatiles by CLP OLM04.2 - GC/MS (Low Level)

Lab ID: 1710001-35 **Station ID: ASL-SS-32**

Batch: B7J1005
Sample Type: Solid

Date Collected: 10/03/17
Sample Wt: 16.003g
%Solids: 79.74

Sample Qualifiers:

Targets (Continued)

Analyte (CAS Number)	Result µg/kg (dry)	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
4-Chloroaniline (106-47-8)	U		157	1	10/10/17	10/11/17
Hexachlorobutadiene (87-68-3)	U		157	"	"	"
Caprolactam (105-60-2)	U		157	"	"	"
4-Chloro-3-methylphenol (59-50-7)	U		157	"	"	"
2-Methylnaphthalene (91-57-6)	U		39.2	"	"	"
1-Methylnaphthalene (90-12-0)	U		39.2	"	"	"
Hexachlorocyclopentadiene (77-47-4)	U		157	"	"	"
2,4,6-Trichlorophenol (88-06-2)	U		157	"	"	"
2,4,5-Trichlorophenol (95-95-4)	U		157	"	"	"
2-Chloronaphthalene (91-58-7)	U		157	"	"	"
1,1'-Biphenyl (92-52-4)	U		157	"	"	"
2-Nitroaniline (88-74-4)	U		313	"	"	"
Dimethyl phthalate (131-11-3)	U		157	"	"	"
Acenaphthylene (208-96-8)	U		39.2	"	"	"
2,6-Dinitrotoluene (606-20-2)	U		157	"	"	"
3-Nitroaniline (99-09-2)	U		313	"	"	"
Acenaphthene (83-32-9)	U		39.2	"	"	"
2,4-Dinitrophenol (51-28-5)	U		784	"	"	"
4-Nitrophenol (100-02-7)	U		470	"	"	"
Dibenzofuran (132-64-9)	U		157	"	"	"
2,4-Dinitrotoluene (121-14-2)	U		157	"	"	"
Fluorene (86-73-7)	U		39.2	"	"	"
Diethyl phthalate (84-66-2)	U		157	"	"	"
4-Chlorophenyl phenyl ether (7005-72-3)	U		157	"	"	"
4-Nitroaniline (100-01-6)	U		313	"	"	"
4,6-Dinitro-2-methylphenol (534-52-1)	U		784	"	"	"
N-Nitrosodiphenylamine/Diphenylamine (86-30-6/122-39-4)	U		157	"	"	"
4-Bromophenyl phenyl ether (101-55-3)	U		157	"	"	"
Hexachlorobenzene (118-74-1)	U		78.4	"	"	"
Atrazine (1912-24-9)	U		157	"	"	"
Pentachlorophenol (87-86-5)	U		78.4	"	"	"
Phenanthrene (85-01-8)	**201**		39.2	"	"	"
Anthracene (120-12-7)	U		39.2	"	"	"
Carbazole (86-74-8)	U		157	"	"	"

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Semivolatiles by CLP OLM04.2 - GC/MS (Low Level)

Lab ID: 1710001-35 **Station ID: ASL-SS-32**

Batch: B7J1005
Sample Type: Solid

Date Collected: 10/03/17
Sample Wt: 16.003g
%Solids: 79.74

Sample Qualifiers:

Targets (Continued)

Analyte (CAS Number)	Result µg/kg (dry)	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Di-n-butyl phthalate (84-74-2)	U		157	1	10/10/17	10/11/17
Fluoranthene (206-44-0)	**565**	**J**	39.2	"	"	"
Pyrene (129-00-0)	**413**		39.2	"	"	"
Butyl benzyl phthalate (85-68-7)	U		157	"	"	"
Benzo (a) anthracene (56-55-3)	**285**		157	"	"	"
3,3'-Dichlorobenzidine (91-94-1)	U		157	"	"	"
Chrysene (218-01-9)	**302**		157	"	"	"
Bis(2-ethylhexyl)phthalate (117-81-7)	**465**		157	"	"	"
Di-n-octyl phthalate (117-84-0)	U		157	"	"	"
Benzo (b) fluoranthene (205-99-2)	**357**	**J**	157	"	"	"
Benzo (k) fluoranthene (207-08-9)	**234**	**J**	157	"	"	"
Benzo (a) pyrene (50-32-8)	**308**		157	"	"	"
Indeno (1,2,3-cd) pyrene (193-39-5)	**259**		157	"	"	"
Dibenz (a,h) anthracene (53-70-3)	U		157	"	"	"
Benzo (g,h,i) perylene (191-24-2)	**288**		157	"	"	"

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Metals by CLP ILMO5.3 - ICP

Lab ID: 1710001-35RE1

Station ID: ASL-SS-32

Batch: B7K2201
Sample Type: Solid

Date Collected: 10/03/17
Sample Wt: 0.548g
%Solids: 79.74

Sample Qualifiers:

Targets

Analyte (CAS Number)	Result mg/Kg dry	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Arsenic (7440-38-2)	U		11.4	1	11/22/17	12/01/17
Lead (7439-92-1)	**56.2**	**J**	3.4	"	"	"

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Semivolatiles by CLP OLM04.2 - GC/MS (Low Level)

Lab ID: 1710001-36 **Station ID: EB-001**

Batch: B7J0502 Date Collected: 10/03/17
Sample Type: Liquid Sample Vol: 962ml Sample Qualifiers: A

Surrogates

Analyte	Result µg/L	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed
2-Fluorophenol	6.29		80.7	42-109	10/05/17	10/05/17
Phenol-d5	6.25		80.1	46-110	"	"
2-Chlorophenol-d4	6.28		80.5	47-103	"	"
1,2-Dichlorobenzene-d4	3.71		71.4	33-100	"	"
Nitrobenzene-d5	4.06		78.2	42-126	"	"
2-Fluorobiphenyl	3.57		68.6	50-104	"	"
2,4,6-Tribromophenol	7.56		96.9	59-142	"	"
Terphenyl-d14	5.68		109	61-125	"	"

Targets

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Benzaldehyde (100-52-7)	U		2.1	1	10/05/17	10/05/17
Phenol (108-95-2)	U		2.1	"	"	"
Bis(2-chloroethyl)ether (111-44-4)	U		2.1	"	"	"
2-Chlorophenol (95-57-8)	U		2.1	"	"	"
1,3-Dichlorobenzene (541-73-1)	U		2.1	"	"	"
1,4-Dichlorobenzene (106-46-7)	U		2.1	"	"	"
Benzyl alcohol (100-51-6)	U		2.1	"	"	"
1,2-Dichlorobenzene (95-50-1)	U		2.1	"	"	"
2-Methylphenol (95-48-7)	U		2.1	"	"	"
Bis(2-chloro-1-methylethyl)ether (108-60-1)	U		2.1	"	"	"
Acetophenone (98-86-2)	U		2.1	"	"	"
3 &/or 4-Methylphenol (108-39-4/106-44-5)	U		2.1	"	"	"
N-Nitrosodi-n-propylamine (621-64-7)	U		2.1	"	"	"
Hexachloroethane (67-72-1)	U		2.1	"	"	"
Nitrobenzene (98-95-3)	U		2.1	"	"	"
Isophorone (78-59-1)	U		2.1	"	"	"
2-Nitrophenol (88-75-5)	U		2.1	"	"	"
2,4-Dimethylphenol (105-67-9)	U		2.1	"	"	"
Bis(2-chloroethoxy)methane (111-91-1)	U		2.1	"	"	"
2,4-Dichlorophenol (120-83-2)	U		2.1	"	"	"
1,2,4-Trichlorobenzene (120-82-1)	U		2.1	"	"	"
Naphthalene (91-20-3)	U		0.5	"	"	"

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Semivolatiles by CLP OLM04.2 - GC/MS (Low Level)

Lab ID: 1710001-36 **Station ID: EB-001**

Batch: B7J0502 Date Collected: 10/03/17
Sample Type: Liquid Sample Vol: 962ml Sample Qualifiers: A

Targets (Continued)

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
4-Chloroaniline (106-47-8)	U		2.1	1	10/05/17	10/05/17
Hexachlorobutadiene (87-68-3)	U		2.1	"	"	"
Caprolactam (105-60-2)	U		2.1	"	"	"
4-Chloro-3-methylphenol (59-50-7)	U		2.1	"	"	"
2-Methylnaphthalene (91-57-6)	U		0.5	"	"	"
1-Methylnaphthalene (90-12-0)	U		0.5	"	"	"
Hexachlorocyclopentadiene (77-47-4)	U		2.1	"	"	"
2,4,6-Trichlorophenol (88-06-2)	U		2.1	"	"	"
2,4,5-Trichlorophenol (95-95-4)	U		2.1	"	"	"
2-Chloronaphthalene (91-58-7)	U		2.1	"	"	"
1,1'-Biphenyl (92-52-4)	U		2.1	"	"	"
2-Nitroaniline (88-74-4)	U		4.2	"	"	"
Dimethyl phthalate (131-11-3)	U		2.1	"	"	"
Acenaphthylene (208-96-8)	U		0.5	"	"	"
2,6-Dinitrotoluene (606-20-2)	U		2.1	"	"	"
3-Nitroaniline (99-09-2)	U		4.2	"	"	"
Acenaphthene (83-32-9)	U		0.5	"	"	"
2,4-Dinitrophenol (51-28-5)	U		10.4	"	"	"
4-Nitrophenol (100-02-7)	U		6.2	"	"	"
Dibenzofuran (132-64-9)	U		2.1	"	"	"
2,4-Dinitrotoluene (121-14-2)	U		2.1	"	"	"
Fluorene (86-73-7)	U		0.5	"	"	"
Diethyl phthalate (84-66-2)	U		2.1	"	"	"
4 Chlorophenyl phenyl ether (7005-72-3)	U		2.1	"	"	"
4-Nitroaniline (100-01-6)	U		4.2	"	"	"
4,6-Dinitro-2-methylphenol (534-52-1)	U		10.4	"	"	"
N-Nitrosodiphenylamine/Diphenylamine (86-30-6/122-39-4)	U		2.1	"	"	"
4-Bromophenyl phenyl ether (101-55-3)	U		2.1	"	"	"
Hexachlorobenzene (118-74-1)	U		1.0	"	"	"
Atrazine (1912-24-9)	U		2.1	"	"	"
Pentachlorophenol (87-86-5)	U		1.0	"	"	"
Phenanthrene (85-01-8)	U		0.5	"	"	"
Anthracene (120-12-7)	U		0.5	"	"	"
Carbazole (86-74-8)	U		2.1	"	"	"

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Semivolatiles by CLP OLM04.2 - GC/MS (Low Level)

Lab ID: 1710001-36 **Station ID: EB-001**

Batch: B7J0502 Date Collected: 10/03/17
Sample Type: Liquid Sample Vol: 962ml Sample Qualifiers: A

Targets (Continued)

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Di-n-butyl phthalate (84-74-2)	U		2.1	1	10/05/17	10/05/17
Fluoranthene (206-44-0)	U		0.5	"	"	"
Pyrene (129-00-0)	U		0.5	"	"	"
Butyl benzyl phthalate (85-68-7)	U		2.1	"	"	"
Benzo (a) anthracene (56-55-3)	U		2.1	"	"	"
3,3'-Dichlorobenzidine (91-94-1)	U		2.1	"	"	"
Chrysene (218-01-9)	U		2.1	"	"	"
Bis(2-ethylhexyl)phthalate (117-81-7)	U		2.1	"	"	"
Di-n-octyl phthalate (117-84-0)	U		2.1	"	"	"
Benzo (b) fluoranthene (205-99-2)	U		2.1	"	"	"
Benzo (k) fluoranthene (207-08-9)	U		2.1	"	"	"
Benzo (a) pyrene (50-32-8)	U		0.2	"	"	"
Indeno (1,2,3-cd) pyrene (193-39-5)	U		2.1	"	"	"
Dibenz (a,h) anthracene (53-70-3)	U		2.1	"	"	"
Benzo (g,h,i) perylene (191-24-2)	U		2.1	"	"	"

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Metals by CLP ILMO5.3 - ICP

Lab ID: 1710001-36 **Station ID: EB-001**

Batch: B7J1602 Date Collected: 10/03/17
Sample Type: Liquid Sample Vol: 50ml Sample Qualifiers:

Targets

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Arsenic (7440-38-2)	U		100	1	10/16/17	11/08/17
Lead (7439-92-1)	U		30.0	"	"	"

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Percent Solids - Quality Control

Duplicate (B7J0402-DUP1)

Source: 1710001-35 Prepared: 10/4/2017 Analyzed: 10/5/2017

Targets

ANALYTE	Result %	Analyte Qualifiers	Reporting Limit	Spike Level	Source Result	RPD	RPD Limit
% Solids	78.50				79.74	1.57	20

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Percent Solids - Quality Control

Duplicate (B7J1103-DUP1)

Source: 1710001-09 Prepared: 10/11/2017 Analyzed: 10/12/2017

Targets

ANALYTE	Result %	Analyte Qualifiers	Reporting Limit	Spike Level	Source Result	RPD	RPD Limit
% Solids	91.90				91.88	0.03	20

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Percent Solids - Quality Control

Duplicate (B7J1103-DUP2)

Source: 1710001-28 Prepared: 10/11/2017 Analyzed: 10/12/2017

Targets

ANALYTE	Result %	Analyte Qualifiers	Reporting Limit	Spike Level	Source Result	RPD	RPD Limit
% Solids	80.15				80.46	0.39	20

Semivolatiles by CLP OLM04.2 - GC/MS (Low Level) - Quality Control

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Semivolatiles by CLP OLM04.2 - GC/MS (Low Level) - Quality Control

Batch: B7J0502 **Sample Type: Liquid**

Blank (B7J0502-BLK1)

Prepared: 10/5/2017 Analyzed: 10/5/2017

Surrogates

ANALYTE	Result µg/L	Analyte Qualifier	Spike Level	%REC	%REC Limits
2-Fluorophenol	6.06		7.50	80.8	42-109
Phenol-d5	6.00		7.50	80.0	46-110
2-Chlorophenol-d4	6.04		7.50	80.5	47-103
1,2-Dichlorobenzene-d4	3.49		5.00	69.8	33-100
Nitrobenzene-d5	3.86		5.00	77.2	42-126
2-Fluorobiphenyl	3.60		5.00	72.0	50-104
2,4,6-Tribromophenol	7.61		7.50	101	59-142
Terphenyl-d14	5.62		5.00	112	61-125

Targets

ANALYTE	Result µg/L	Analyte Qualifiers	Reporting Limit
Benzaldehyde	U		2.0
Phenol	U		2.0
Bis(2-chloroethyl)ether	U		2.0
2-Chlorophenol	U		2.0
1,3-Dichlorobenzene	U		2.0
1,4-Dichlorobenzene	U		2.0
Benzyl alcohol	U		2.0
1,2-Dichlorobenzene	U		2.0
2-Methylphenol	U		2.0
Bis(2-chloro-1-methylethyl)ether	U		2.0
Acetophenone	U		2.0
3 &/or 4-Methylphenol	U		2.0
N-Nitrosodi-n-propylamine	U		2.0
Hexachloroethane	U		2.0
Nitrobenzene	U		2.0
Isophorone	U		2.0
2-Nitrophenol	U		2.0
2,4-Dimethylphenol	U		2.0
Bis(2-chloroethoxy)methane	U		2.0
2,4-Dichlorophenol	U		2.0
1,2,4-Trichlorobenzene	U		2.0

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Semivolatiles by CLP OLM04.2 - GC/MS (Low Level) - Quality Control

Batch: B7J0502 **Sample Type: Liquid**

Blank (B7J0502-BLK1)

Prepared: 10/5/2017 Analyzed: 10/5/2017

Targets (Continued)

ANALYTE	Result µg/L	Analyte Qualifiers	Reporting Limit
Naphthalene	U		0.5
4-Chloroaniline	U		2.0
Hexachlorobutadiene	U		2.0
Caprolactam	U		2.0
4-Chloro-3-methylphenol	U		2.0
2-Methylnaphthalene	U		0.5
1-Methylnaphthalene	U		0.5
Hexachlorocyclopentadiene	U		2.0
2,4,6-Trichlorophenol	U		2.0
2,4,5-Trichlorophenol	U		2.0
2-Chloronaphthalene	U		2.0
1,1'-Biphenyl	U		2.0
2-Nitroaniline	U		4.0
Dimethyl phthalate	U		2.0
Acenaphthylene	U		0.5
2,6-Dinitrotoluene	U		2.0
3-Nitroaniline	U		4.0
Acenaphthene	U		0.5
2,4-Dinitrophenol	U		10.0
4-Nitrophenol	U		6.0
Dibenzofuran	U		2.0
2,4-Dinitrotoluene	U		2.0
Fluorene	U		0.5
Diethyl phthalate	U		2.0
4-Chlorophenyl phenyl ether	U		2.0
4-Nitroaniline	U		4.0
4,6-Dinitro-2-methylphenol	U		10.0
N-Nitrosodiphenylamine/Diphenylamine	U		2.0
4-Bromophenyl phenyl ether	U		2.0
Hexachlorobenzene	U		1.0
Atrazine	U		2.0
Pentachlorophenol	U		1.0

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Semivolatiles by CLP OLM04.2 - GC/MS (Low Level) - Quality Control

Batch: B7J0502 **Sample Type: Liquid**

Blank (B7J0502-BLK1)

Prepared: 10/5/2017 Analyzed: 10/5/2017

Targets (Continued)

ANALYTE	Result µg/L	Analyte Qualifiers	Reporting Limit
Phenanthrene	U		0.5
Anthracene	U		0.5
Carbazole	U		2.0
Di-n-butyl phthalate	U		2.0
Fluoranthene	U		0.5
Pyrene	U		0.5
Butyl benzyl phthalate	U		2.0
Benzo (a) anthracene	U		2.0
3,3′-Dichlorobenzidine	U		2.0
Chrysene	U		2.0
Bis(2-ethylhexyl)phthalate	U		2.0
Di-n-octyl phthalate	U		2.0
Benzo (b) fluoranthene	U		2.0
Benzo (k) fluoranthene	U		2.0
Benzo (a) pyrene	U		0.2
Indeno (1,2,3-cd) pyrene	U		2.0
Dibenz (a,h) anthracene	U		2.0
Benzo (g,h,i) perylene	U		2.0

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Semivolatiles by CLP OLM04.2 - GC/MS (Low Level) - Quality Control

Batch: B7J0502 **Sample Type: Liquid**

LCS (B7J0502-BS1)

Prepared: 10/5/2017 Analyzed: 10/5/2017

Surrogates

ANALYTE	Result µg/L	Analyte Qualifier	Spike Level	%REC	%REC Limits
2-Fluorophenol	6.69		7.50	89.2	42-109
Phenol-d5	7.46		7.50	99.5	46-110
2-Chlorophenol-d4	7.53		7.50	100	47-103
1,2-Dichlorobenzene-d4	3.91		5.00	78.2	33-100
Nitrobenzene-d5	4.57		5.00	91.4	42-126
2-Fluorobiphenyl	4.05		5.00	81.0	50-104
2,4,6-Tribromophenol	7.16		7.50	95.5	59-142
Terphenyl-d14	5.64		5.00	113	61-125

Targets

ANALYTE	Result µg/L	Analyte Qualifiers	Reporting Limit	Spike Level	%REC	%REC Limits
Phenol	7.4		2.0	7.50	99.2	60-116
2-Chlorophenol	7.3		2.0	7.50	96.9	64-116
1,4-Dichlorobenzene	3.3		2.0	5.00	66.0	35-100
N-Nitrosodi-n-propylamine	4.6		2.0	5.00	91.0	65-118
1,2,4-Trichlorobenzene	3.6		2.0	5.00	73.0	42-103
4-Chloro-3-methylphenol	6.8		2.0	7.50	90.7	63-117
Acenaphthene	4.1		0.5	5.00	81.8	63-112
4-Nitrophenol	8.5		6.0	7.50	114	49-137
2,4-Dinitrotoluene	4.8		2.0	5.00	95.6	59-120
Pentachlorophenol	6.8		1.0	7.50	90.0	46-133
Pyrene	4.4		0.5	5.00	88.4	59-131

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Semivolatiles by CLP OLM04.2 - GC/MS (Low Level) - Quality Control

Batch: B7J1005 **Sample Type: Solid**

Blank (B7J1005-BLK1)

Prepared: 10/10/2017 Analyzed: 10/11/2017

Surrogates

ANALYTE	Result µg/kg dry	Analyte Qualifier	Spike Level	%REC	%REC Limits
2-Fluorophenol	343		468	73.3	29-100
Phenol-d5	371		468	79.2	37-100
2-Chlorophenol-d4	370		468	78.9	33-100
1,2-Dichlorobenzene-d4	227		312	72.6	28-100
Nitrobenzene-d5	232		312	74.4	28-100
2-Fluorobiphenyl	245		312	78.6	37-110
2,4,6-Tribromophenol	385		468	82.1	41-137
Terphenyl-d14	322		312	103	46-138

Targets

ANALYTE	Result µg/kg dry	Analyte Qualifiers	Reporting Limit
Benzaldehyde	U		125
Phenol	U		125
Bis(2-chloroethyl)ether	U		125
2-Chlorophenol	U		125
1,3-Dichlorobenzene	U		125
1,4-Dichlorobenzene	U		125
Benzyl alcohol	U		125
1,2-Dichlorobenzene	U		125
2-Methylphenol	U		125
Bis(2-chloro-1-methylethyl)ether	U		125
Acetophenone	U		125
3 &/or 4-Methylphenol	U		125
N-Nitrosodi-n-propylamine	U		125
Hexachloroethane	U		125
Nitrobenzene	U		125
Isophorone	U		125
2-Nitrophenol	U		125
2,4-Dimethylphenol	U		125
Bis(2-chloroethoxy)methane	U		125
2,4-Dichlorophenol	U		125
1,2,4-Trichlorobenzene	U		125

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Semivolatiles by CLP OLM04.2 - GC/MS (Low Level) - Quality Control

Batch: B7J1005 **Sample Type: Solid**

Blank (B7J1005-BLK1)

Prepared: 10/10/2017 Analyzed: 10/11/2017

Targets (Continued)

ANALYTE	Result µg/kg dry	Analyte Qualifiers	Reporting Limit
Naphthalene	U		31.2
4-Chloroaniline	U		125
Hexachlorobutadiene	U		125
Caprolactam	U		125
4-Chloro-3-methylphenol	U		125
2-Methylnaphthalene	U		31.2
1-Methylnaphthalene	U		31.2
Hexachlorocyclopentadiene	U		125
2,4,6-Trichlorophenol	U		125
2,4,5-Trichlorophenol	U		125
2-Chloronaphthalene	U		125
1,1'-Biphenyl	U		125
2-Nitroaniline	U		250
Dimethyl phthalate	U		125
Acenaphthylene	U		31.2
2,6-Dinitrotoluene	U		125
3-Nitroaniline	U		250
Acenaphthene	U		31.2
2,4-Dinitrophenol	U		624
4-Nitrophenol	U		375
Dibenzofuran	U		125
2,4-Dinitrotoluene	U		125
Fluorene	U		31.2
Diethyl phthalate	U		125
4-Chlorophenyl phenyl ether	U		125
4-Nitroaniline	U		250
4,6-Dinitro-2-methylphenol	U		624
N-Nitrosodiphenylamine/Diphenylamine	U		125
4-Bromophenyl phenyl ether	U		125
Hexachlorobenzene	U		62.4
Atrazine	U		125
Pentachlorophenol	U		62.4

Environmental Protection Agency

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Semivolatiles by CLP OLM04.2 - GC/MS (Low Level) - Quality Control

Batch: B7J1005 **Sample Type: Solid**

Blank (B7J1005-BLK1)

Prepared: 10/10/2017 Analyzed: 10/11/2017

Targets (Continued)

ANALYTE	Result µg/kg dry	Analyte Qualifiers	Reporting Limit
Phenanthrene	U		31.2
Anthracene	U		31.2
Carbazole	U		125
Di-n-butyl phthalate	U		125
Fluoranthene	U		31.2
Pyrene	U		31.2
Butyl benzyl phthalate	U		125
Benzo (a) anthracene	U		125
3,3'-Dichlorobenzidine	U		125
Chrysene	U		125
Bis(2-ethylhexyl)phthalate	U		125
Di-n-octyl phthalate	U		125
Benzo (b) fluoranthene	U		125
Benzo (k) fluoranthene	U		125
Benzo (a) pyrene	U		125
Indeno (1,2,3-cd) pyrene	U		125
Dibenz (a,h) anthracene	U		125
Benzo (g,h,i) perylene	U		125

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Semivolatiles by CLP OLM04.2 - GC/MS (Low Level) - Quality Control

Batch: B7J1005 **Sample Type: Solid**

LCS (B7J1005-BS1)

Prepared: 10/10/2017 Analyzed: 10/11/2017

Surrogates

ANALYTE	Result µg/kg dry	Analyte Qualifier	Spike Level	%REC	%REC Limits
2-Fluorophenol	340		469	72.5	29-100
Phenol-d5	371		469	79.1	37-100
2-Chlorophenol-d4	361		469	77.1	33-100
1,2-Dichlorobenzene-d4	212		312	68.0	28-100
Nitrobenzene-d5	232		312	74.2	28-100
2-Fluorobiphenyl	244		312	78.2	37-110
2,4,6-Tribromophenol	375		469	80.0	41-137
Terphenyl-d14	355		312	114	46-138

Targets

ANALYTE	Result µg/kg dry	Analyte Qualifiers	Reporting Limit	Spike Level	%REC	%REC Limits
Phenol	366		125	469	78.1	43-105
2-Chlorophenol	334		125	469	71.3	44-101
1,4-Dichlorobenzene	185		125	312	59.2	35-100
N-Nitrosodi-n-propylamine	247		125	312	79.2	44-105
1,2,4-Trichlorobenzene	226		125	312	72.2	43-102
4-Chloro-3-methylphenol	367		125	469	78.4	49-116
Acenaphthene	249		31.2	312	79.8	52-103
4-Nitrophenol	501		375	469	107	43-139
2,4-Dinitrotoluene	248		125	312	79.4	51-120
Pentachlorophenol	355		62.5	469	75.7	28-121
Pyrene	279		31.2	312	89.4	57-121

Environmental Protection Agency

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Semivolatiles by CLP OLM04.2 - GC/MS (Low Level) - Quality Control

Batch: B7J1005 **Sample Type: Solid**

Matrix Spike (B7J1005-MS1)

Source: 1710001-01 Prepared: 10/10/2017 Analyzed: 10/11/2017

Surrogates

ANALYTE	Result µg/kg dry	Analyte Qualifier	Spike Level	%REC	%REC Limits
2-Fluorophenol	496		602	82.4	29-100
Phenol-d5	524		602	87.1	37-100
2-Chlorophenol-d4	505		602	83.9	33-100
1,2-Dichlorobenzene-d4	268		402	66.8	28-100
Nitrobenzene-d5	314		402	78.2	28-100
2-Fluorobiphenyl	356		402	88.6	37-110
2,4,6-Tribromophenol	633		602	105	41-137
Terphenyl-d14	475		402	118	46-138

Targets

ANALYTE	Result µg/kg dry	Analyte Qualifiers	Reporting Limit	Spike Level	Source Result	%REC	%REC Limits
Phenol	511		161	602	5.6	83.9	37-102
2-Chlorophenol	461		161	602		76.5	33-100
1,4-Dichlorobenzene	227		161	402		56.6	26-100
N-Nitrosodi-n-propylamine	351		161	402		87.4	34-103
1,2,4-Trichlorobenzene	302		161	402		75.2	33-100
4-Chloro-3-methylphenol	635		161	602		105	45-122
Acenaphthene	398		40.2	402	37.0	90.0	37-119
4-Nitrophenol	944		482	602		157 #	47-141
2,4-Dinitrotoluene	421		161	402		105	44-125
Pentachlorophenol	550		80.3	602	32.9	85.9	16-134
Pyrene	829		40.2	402	635	48.2	42-138

Environmental Protection Agency

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Semivolatiles by CLP OLM04.2 - GC/MS (Low Level) - Quality Control

Batch: B7J1005 **Sample Type: Solid**

Matrix Spike Dup (B7J1005-MSD1)

Source: 1710001-01 Prepared: 10/10/2017 Analyzed: 10/11/2017

Surrogates

ANALYTE	Result µg/kg dry	Analyte Qualifier	Spike Level	%REC	%REC Limits
2-Fluorophenol	494		602	82.0	29-100
Phenol-d5	521		602	86.5	37-100
2-Chlorophenol-d4	500		602	83.1	33-100
1,2-Dichlorobenzene-d4	276		402	68.8	28-100
Nitrobenzene-d5	324		402	80.6	28-100
2-Fluorobiphenyl	352		402	87.6	37-110
2,4,6-Tribromophenol	557		602	92.5	41-137
Terphenyl-d14	488		402	121	46-138

Targets

ANALYTE	Result µg/kg dry	Analyte Qualifiers	Reporting Limit	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Phenol	504		161	602	5.6	82.8	37-102	1.28	36
2-Chlorophenol	463		161	602		76.9	33-100	0.52	37
1,4-Dichlorobenzene	235		161	402		58.6	26-100	3.47	34
N-Nitrosodi-n-propylamine	346		161	402		86.2	34-103	1.38	32
1,2,4-Trichlorobenzene	299		161	402		74.4	33-100	1.07	33
4-Chloro-3-methylphenol	583		161	602		96.8	45-122	8.57	26
Acenaphthene	413		40.2	402	37.0	93.6	37-119	3.92	30
4-Nitrophenol	950		482	602		158 #	47-141	0.68	30
2,4-Dinitrotoluene	439		161	402		109	44-125	4.30	20
Pentachlorophenol	439		80.3	602	32.9	67.5	16-134	24.0	35
Pyrene	1,240		40.2	402	635	150 #	42-138	103 #	32

Metals by CLP ILMO5.3 - ICP - Quality Control

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Metals by CLP ILMO5.3 - ICP - Quality Control

Batch: B7J1602 **Sample Type: Liquid**

Blank (B7J1602-BLK1)

Prepared: 10/16/2017 Analyzed: 11/8/2017

Targets

ANALYTE	Result µg/L	Analyte Qualifiers	Reporting Limit
Arsenic	U		100
Lead	U		30.0

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Metals by CLP ILMO5.3 - ICP - Quality Control

Batch: B7J1602 **Sample Type: Liquid**

LCS (B7J1602-BS1)

Prepared: 10/16/2017 Analyzed: 11/8/2017

Targets

ANALYTE	Result µg/L	Analyte Qualifiers	Reporting Limit	Spike Level	%REC	%REC Limits
Arsenic	1,900		100	2,000	95.0	75-125
Lead	364		30.0	400	90.9	75-125

Environmental Protection Agency

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Metals by CLP ILMO5.3 - ICP - Quality Control

Batch: B7J1603 **Sample Type: Solid**

Blank (B7J1603-BLK1)

Prepared: 10/16/2017 Analyzed: 11/8/2017

Targets

ANALYTE	Result mg/Kg wet	Analyte Qualifiers	Reporting Limit
Arsenic	U		10.0
Lead	U		3.0

Environmental Protection Agency

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Metals by CLP ILMO5.3 - ICP - Quality Control

Batch: B7J1603 **Sample Type: Solid**

LCS (B7J1603-BS1)

Prepared: 10/16/2017 Analyzed: 11/8/2017

Targets

ANALYTE	Result mg/Kg wet	Analyte Qualifiers	Reporting Limit	Spike Level	%REC	%REC Limits
Arsenic	185		10.0	200	92.4	75-125
Lead	34.1		3.0	40.0	85.3	75-125

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Metals by CLP ILMO5.3 - ICP - Quality Control

Batch: B7J1603 **Sample Type: Solid**

Reference (B7J1603-SRM1)

Prepared: 10/16/2017 Analyzed: 11/8/2017

Targets

ANALYTE	Result mg/Kg wet	Analyte Qualifiers	Reporting Limit	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Arsenic	179		9.8	253		70.7	60.8-139		
Lead	42.0		2.9	56.9		73.7	72.7-127.2		

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Metals by CLP ILMO5.3 - ICP - Quality Control

Batch: B7J1603 **Sample Type: Solid**

Matrix Spike (B7J1603-MS1)

Source: 1710001-01 Prepared: 10/16/2017 Analyzed: 11/8/2017

Targets

ANALYTE	Result mg/Kg dry	Analyte Qualifiers	Reporting Limit	Spike Level	Source Result	%REC	%REC Limits
Arsenic	216		11.5	230	1.7	93.3	75-125
Lead	200		3.4	45.9	169	66.3 #	75-125

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Metals by CLP ILMO5.3 - ICP - Quality Control

Batch: B7J1603 **Sample Type: Solid**

Matrix Spike Dup (B7J1603-MSD1)

Source: 1710001-01 Prepared: 10/16/2017 Analyzed: 11/8/2017

Targets

ANALYTE	Result mg/Kg dry	Analyte Qualifiers	Reporting Limit	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Arsenic	211		11.4	229	1.7	91.6	75-125	2.19	20
Lead	201		3.4	45.8	169	69.3 #	75-125	0.65	20

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Metals by CLP ILMO5.3 - ICP - Quality Control

Batch: B7J1603 **Sample Type: Solid**

Matrix Spike (B7J1603-MS2)

Source: 1710001-09 Prepared: 10/16/2017 Analyzed: 11/8/2017

Targets

ANALYTE	Result mg/Kg dry	Analyte Qualifiers	Reporting Limit	Spike Level	Source Result	%REC	%REC Limits
Arsenic	190		10.3	205		92.7	75-125
Lead	41.2		3.1	41.1	6.7	84.0	75-125

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Metals by CLP ILMO5.3 - ICP - Quality Control

Batch: B7J1603 **Sample Type: Solid**

Matrix Spike Dup (B7J1603-MSD2)

Source: 1710001-09 Prepared: 10/16/2017 Analyzed: 11/8/2017

Targets

ANALYTE	Result mg/Kg dry	Analyte Qualifiers	Reporting Limit	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Arsenic	191		10.3	207		92.2	75-125	0.18	20
Lead	40.4		3.1	41.4	6.7	81.4	75-125	1.96	20

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Metals by CLP ILMO5.3 - ICP - Quality Control

Batch: B7J1603 **Sample Type: Solid**

Matrix Spike (B7J1603-MS3)

Source: 1710001-17 Prepared: 10/16/2017 Analyzed: 11/8/2017

Targets

ANALYTE	Result mg/Kg dry	Analyte Qualifiers	Reporting Limit	Spike Level	Source Result	%REC	%REC Limits
Arsenic	206		10.8	215		95.7	75-125
Lead	57.6		3.2	43.1	23.9	78.2	75-125

Environmental Protection Agency

Region 6 Laboratory

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Metals by CLP ILMO5.3 - ICP - Quality Control

Batch: B7J1603 **Sample Type: Solid**

Matrix Spike Dup (B7J1603-MSD3)

Source: 1710001-17 Prepared: 10/16/2017 Analyzed: 11/8/2017

Targets

ANALYTE	Result mg/Kg dry	Analyte Qualifiers	Reporting Limit	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Arsenic	199		10.8	217		91.8	75-125	3.44	20
Lead	57.2		3.3	43.4	23.9	76.9	75-125	0.58	20

Environmental Protection Agency

Region 6 Laboratory

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Phone:(281)983-2100 Fax:(281)983-2248

Metals by CLP ILMO5.3 - ICP - Quality Control

Batch: B7K2201 **Sample Type: Solid**

Blank (B7K2201-BLK1)

Prepared: 11/22/2017 Analyzed: 12/1/2017

Targets

ANALYTE	Result mg/Kg wet	Analyte Qualifiers	Reporting Limit
Arsenic	U		10.0
Lead	U		3.0

Environmental Protection Agency

Region 6 Laboratory

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Phone:(281)983-2100 Fax:(281)983-2248

Metals by CLP ILMO5.3 - ICP - Quality Control

Batch: B7K2201 **Sample Type: Solid**

LCS (B7K2201-BS1)

Prepared: 11/22/2017 Analyzed: 12/1/2017

Targets

ANALYTE	Result mg/Kg wet	Analyte Qualifiers	Reporting Limit	Spike Level	%REC	%REC Limits
Arsenic	181		10.0	200	90.5	75-125
Lead	34.7		3.0	40.0	86.6	75-125

Environmental Protection Agency

Region 6 Laboratory

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Phone:(281)983-2100 Fax:(281)983-2248

Metals by CLP ILMO5.3 - ICP - Quality Control

Batch: B7K2201 **Sample Type: Solid**

Reference (B7K2201-SRM1)

Prepared: 11/22/2017 Analyzed: 12/1/2017

Targets

ANALYTE	Result mg/Kg wet	Analyte Qualifiers	Reporting Limit	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Arsenic	240		9.7	253		94.8	60.8-139		
Lead	54.0		2.9	56.9		94.9	72.7-127.2		

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Metals by CLP ILMO5.3 - ICP - Quality Control

Batch: B7K2201 **Sample Type: Solid**

Matrix Spike (B7K2201-MS1)

Source: 1710001-28RE1 Prepared: 11/22/2017 Analyzed: 12/1/2017

Targets

ANALYTE	Result mg/Kg dry	Analyte Qualifiers	Reporting Limit	Spike Level	Source Result	%REC	%REC Limits
Arsenic	194		11.3	226	0.3	85.6	75-125
Lead	57.8		3.4	45.3	18.8	86.0	75-125

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Metals by CLP ILMO5.3 - ICP - Quality Control

Batch: B7K2201 **Sample Type: Solid**

Matrix Spike Dup (B7K2201-MSD1)

Source: 1710001-28RE1 Prepared: 11/22/2017 Analyzed: 12/1/2017

Targets

ANALYTE	Result mg/Kg dry	Analyte Qualifiers	Reporting Limit	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Arsenic	192		11.2	224	0.3	85.6	75-125	1.28	20
Lead	55.2		3.4	44.7	18.8	81.4	75-125	4.54	20

Environmental Protection Agency

Region 6 Laboratory

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Metals by CLP ILMO5.3 - ICP - Quality Control

Batch: B7K2201 **Sample Type: Solid**

Matrix Spike (B7K2201-MS2)

Source: 1710001-35RE1 Prepared: 11/22/2017 Analyzed: 12/1/2017

Targets

ANALYTE	Result mg/Kg dry	Analyte Qualifiers	Reporting Limit	Spike Level	Source Result	%REC	%REC Limits
Arsenic	197		11.2	223		88.4	75-125
Lead	94.0		3.3	44.7	56.2	84.6	75-125

Environmental Protection Agency

Region 6 Laboratory

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Metals by CLP ILMO5.3 - ICP - Quality Control

Batch: B7K2201 **Sample Type: Solid**

Matrix Spike Dup (B7K2201-MSD2)

Source: 1710001-35RE1 Prepared: 11/22/2017 Analyzed: 12/1/2017

Targets

ANALYTE	Result mg/Kg dry	Analyte Qualifiers	Reporting Limit	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Arsenic	204		11.1	223		91.7	75-125	3.53	20
Lead	89.4		3.3	44.6	56.2	74.4 #	75-125	5.04	20

Environmental Protection Agency

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SURROGATE SUMMARY REPORT

ABN CLP Low Level

Liquid

LAB NUMBER	2-FP	PH-d5	2-CP-d4	1,2-DCB-d4	NB-d5	2-FBP	2,4,6-TBP	TP-d14
1710001-36	80.7	80.1	80.5	71.4	78.2	68.6	96.9	109
B7J0502-BLK1	80.8	80.0	80.5	69.8	77.2	72.0	101	112
B7J0502-BS1	89.2	99.5	100	78.2	91.4	81.0	95.5	113

			QC LIMITS
2-FP	=	2-Fluorophenol	42 - 109
PH-d5	=	Phenol-d5	46 - 110
2-CP-d4	=	2-Chlorophenol-d4	47 - 103
1,2-DCB-d4	=	1,2-Dichlorobenzene-d4	33 - 100
NB-d5	=	Nitrobenzene-d5	42 - 126
2-FBP	=	2-Fluorobiphenyl	50 - 104
2,4,6-TBP	=	2,4,6-Tribromophenol	59 - 142
TP-d14	=	Terphenyl-d14	61 - 125

Solid

LAB NUMBER	2-FP	PH-d5	2-CP-d4	1,2-DCB-d4	NB-d5	2-FBP	2,4,6-TBP	TP-d14
1710001-01	70.9	78.7	77.1	55.0	68.6	82.2	96.8	107
1710001-11	86.3	88.5	86.3	71.6	83.0	92.8	105	118
1710001-12	65.7	81.1	77.9	62.2	72.4	87.6	86.4	126
1710001-29	82.4	85.5	82.0	70.0	79.8	82.6	92.3	115
1710001-32	73.7	69.7	73.1	61.6	70.4	80.8	113	112
1710001-33	84.8	86.4	88.5	72.2	80.4	91.6	107	104
1710001-34	60.4	70.0	69.6	43.4	65.8	75.8	84.0	101
1710001-35	69.6	72.7	77.1	67.0	88.4	83.2	87.5	102
B7J1005-BLK1	73.3	79.2	78.9	72.6	74.4	78.6	82.1	103
B7J1005-BS1	72.5	79.1	77.1	68.0	74.2	78.2	80.0	114
B7J1005-MS1	82.4	87.1	83.9	66.8	78.2	88.6	105	118
B7J1005-MSD1	82.0	86.5	83.1	68.8	80.6	87.6	92.5	121

			QC LIMITS
2-FP	=	2-Fluorophenol	29 - 100
PH-d5	=	Phenol-d5	37 - 100
2-CP-d4	=	2-Chlorophenol-d4	33 - 100
1,2-DCB-d4	=	1,2-Dichlorobenzene-d4	28 - 100
NB-d5	=	Nitrobenzene-d5	28 - 100
2-FBP	=	2-Fluorobiphenyl	37 - 110
2,4,6-TBP	=	2,4,6-Tribromophenol	41 - 137
TP-d14	=	Terphenyl-d14	46 - 138

Environmental Protection Agency

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Notes and Definitions

J	The identification of the analyte is acceptable; the reported value is an estimate.
B	Blank Related - The concentration found in the sample was less than 10X the concentration found in the associated extraction, digestion and/or analysis blank. Presence in the sample is therefore suspect.
A	This sample was extracted at a single acid pH.
HTS	Sample was prepared and/or analyzed past recommended holding time. Concentrations should be considered minimum values.
ABN	Acid Base Neutrals (Semivolatile Compounds)
AES	Atomic Emission Spectrometer
BS	Blank Spike
CVAA	Cold Vapor Atomic Absorption
DCB	Decachlorobiphenyl
ECD	Electron Capture Detector
GC	Gas Chromatograph
ICP	Inductively Coupled Plasma
ISTD	Internal Standard
LCS	Laboratory Control Sample
MS	Mass Spectrometer
MS/MSD	Matrix Spike/Matrix Spike Duplicate
NA	Not Applicable
NPD	Nitrogen Phosphorous Detector
NR	Not Reported
PCB	Polychlorinatedbiphenyl
RL	Reporting Limit
RT	Retention Time

Environmental Protection Agency

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RPD	Relative Percent Difference
TCLP	Toxicity Characteristic Leaching Procedure
TCMX	Tetrachloro-meta-xylene
U	Undetected
VOA	Volatile Organic Analysis
#	Out of QC limits
>LR	The result was greater than the linear range.

Initial pressure in air analyses is the pressure at which the canister was received in psia (pounds *per* square inch absolute pressure).

The pH reported for Volatile liquid samples was tested using a 0-14 pH indicator strip for the purpose of verifying chemical preservation.

The statistical software used for the reporting of toxicity data is ToxCalc 5.0.32, Environmental Toxicity Data Analysis System 1994-2007 Tidepool Scientific Software.

USEPA CLP COC (LAB COPY)

CHAIN OF CUSTODY RECORD

No: 6-100317-174016-0001

DateShipped: 10/3/2017
CarrierName: FedEx
AirbillNo: 787950688303

Case #:
Cooler #: 1

Lab: US EPA Region 6 Laboratory
Lab Contact: Christy Warren
Lab Phone: 281-983-2137

Sample Identifier	CLP Sample No.	Matrix/Sampler	Coll. Method	Analysis/Turnaround (Days)	Tag/Preservative/Bottles	Location	Collection Date/Time	For Lab Use Only
ASL-SS-01	ASL-SS-01	Soil/ KW/JY		Pb(35), PAHs(35)	1 (Ice to 4°C), 2 (Ice to 4°C), 3 (Ice to 4°C), 4 (Ice to 4°C) (4)	ASL-SS-01	10/02/2017 17:10	
ASL-SS-02	ASL-SS-02	Soil/ KW/JY		Pb(35)	5 (Ice to 4°C) (1)	ASL-SS-02	10/02/2017 17:30	
ASL-SS-03	ASL-SS-03	Soil/ KW/JY		Pb(35)	6 (Ice to 4°C) (1)	ASL-SS-03	10/02/2017 17:50	
ASL-SS-04	ASL-SS-04	Soil/ KW/JY		Pb(35)	7 (Ice to 4°C) (1)	ASL-SS-04	10/02/2017 18:00	
ASL-SS-05	ASL-SS-05	Soil/ KW/JY		Lead and Arsenic(35)	8 (Ice to 4°C) (1)	ASL-SS-05	10/03/2017 08:10	
ASL-SS-05-FD	ASL-SS-05-FD	Soil/ KW/JY		Lead and Arsenic(35)	9 (Ice to 4°C) (1)	ASL-SS-05-FD	10/03/2017 08:10	
ASL-SS-06	ASL-SS-06	Soil/ KW/JY		Pb(35)	10 (Ice to 4°C) (1)	ASL-SS-06	10/03/2017 08:25	
ASL-SS-07	ASL-SS-07	Soil/ KW/JY		Pb(35)	11 (Ice to 4°C) (1)	ASL-SS-07	10/03/2017 08:50	
ASL-SS-08	ASL-SS-08	Soil/ KW/JY		Lead and Arsenic(35)	12 (Ice to 4°C), 13 (Ice to 4°C) (2)	ASL-SS-08	10/03/2017 09:00	
ASL-SS-09	ASL-SS-09	Soil/ KW/JY		Pb(35)	14 (Ice to 4°C) (1)	ASL-SS-09	10/03/2017 09:40	
ASL-SS-10	ASL-SS-10	Soil/ KW/JY		Pb(35), PAHs(35)	15 (Ice to 4°C), 16 (Ice to 4°C) (2)	ASL-SS-10	10/03/2017 10:00	
ASL-SS-10-FD	ASL-SS-10-FD	Soil/ KW/JY		Pb(35), PAHs(35)	17 (Ice to 4°C), 18 (Ice to 4°C) (2)	ASL-SS-10-FD	10/03/2017 10:00	
ASL-SS-11	ASL-SS-11	Soil/ KW/JY		Pb(35)	19 (Ice to 4°C) (1)	ASL-SS-11	10/03/2017 10:10	
ASL-SS-12	ASL-SS-12	Soil/ KW/JY		Pb(35)	20 (Ice to 4°C) (1)	ASL-SS-12	10/03/2017 10:20	
ASL-SS-13	ASL-SS-13	Soil/ KW/JY		Pb(35)	21 (Ice to 4°C) (1)	ASL-SS-13	10/03/2017 10:30	

Sample(s) to be used for Lab QC: ASL-SS-01 Tag 3, ASL-SS-01 Tag 4, ASL-SS-08 Tag 13	**Shipment for Case Complete? N**
	Samples Transferred From Chain of Custody #

Analysis Key: Pb=Lead, PAHs=PAH

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
Ship to Lab	[signature] / Cham	10/3/17 1900	[signature]	10/4/17 / 11:45	

Spl. Temp 7°C

USEPA CLP COC (LAB COPY)
DateShipped: 10/3/2017
CarrierName: FedEx
AirbillNo: 787950688303

CHAIN OF CUSTODY RECORD

Case #:
Cooler #: 1

No: 6-100317-174016-0001
Lab: US EPA Region 6 Laboratory
Lab Contact: Christy Warren
Lab Phone: 281-983-2137

Sample Identifier	CLP Sample No.	Matrix/Sampler	Coll. Method	Analysis/Turnaround (Days)	Tag/Preservative/Bottles	Location	Collection Date/Time	For Lab Use Only
ASL-SS-14	ASL-SS-14	Soil/ KW/JY		Pb(35)	22 (Ice to 4°C) (1)	ASL-SS-14	10/03/2017 10:40	
ASL-SS-15	ASL-SS-15	Soil/ KW/JY		Pb(35)	23 (Ice to 4°C), 24 (Ice to 4°C) (2)	ASL-SS-15	10/03/2017 11:00	
ASL-SS-16	ASL-SS-16	Soil/ KW/JY		Pb(35)	25 (Ice to 4°C) (1)	ASL-SS-16	10/03/2017 11:10	
ASL-SS-17	ASL-SS-17	Soil/ KW/JY		Pb(35)	26 (Ice to 4°C) (1)	ASL-SS-17	10/03/2017 11:25	
ASL-SS-18	ASL-SS-18	Soil/ KW/JY		Pb(35)	27 (Ice to 4°C) (1)	ASL-SS-18	10/03/2017 11:35	
ASL-SS-19	ASL-SS-19	Soil/ KW/JY		Pb(35)	28 (Ice to 4°C) (1)	ASL-SS-19	10/03/2017 11:45	
ASL-SS-20	ASL-SS-20	Soil/ KW/JY		Pb(35)	29 (Ice to 4°C) (1)	ASL-SS-20	10/03/2017 13:00	
ASL-SS-20-FD	ASL-SS-20-FD	Soil/ KW/JY		Pb(35)	30 (Ice to 4°C) (1)	ASL-SS-20-FD	10/03/2017 13:00	
ASL-SS-21	ASL-SS-21	Soil/ KW/JY		Lead and Arsenic(35)	31 (Ice to 4°C) (1)	ASL-SS-21	10/03/2017 13:15	
ASL-SS-22	ASL-SS-22	Soil/ KW/JY		Pb(35)	32 (Ice to 4°C) (1)	ASL-SS-22	10/03/2017 13:30	
ASL-SS-23	ASL-SS-23	Soil/ KW/JY		Pb(35)	33 (Ice to 4°C) (1)	ASL-SS-23	10/03/2017 13:40	
ASL-SS-24	ASL-SS-24	Soil/ KW/JY		Pb(35)	34 (Ice to 4°C) (1)	ASL-SS-24	10/03/2017 14:00	
ASL-SS-25	ASL-SS-25	Soil/ KW/JY		Pb(35)	35 (Ice to 4°C), 36 (Ice to 4°C) (2)	ASL-SS-25	10/03/2017 14:10	

Sample(s) to be used for Lab QC: ASL-SS-15 Tag 24, ASL-SS-25 Tag 36	**Shipment for Case Complete? N** **Samples Transferred From Chain of Custody #**
Analysis Key: Pb=Lead, PAHs=PAH	

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
Ship to Lab	[signature] Icham	10/3/17 1900	[signature]	10/4/17/11:45	

Spl. Temp 7°

USEPA
DateShipped: 10/3/2017
CarrierName: FedEx
AirbillNo: 787950624129

CHAIN OF CUSTODY RECORD
Site #: ##
Contact Name: Josh Yount
Contact Phone: 936-676-9528

No: 6-100317-174518-0002
Cooler #: 2
Lab: US EPA Region 6 Laboratory
Lab Phone: 281-983-2137

Lab #	Sample #	Location	Analyses	Matrix	Sample Date	Sample Time	Numb Cont	Container	Preservative	Lab QC
	ASL-SS-26	ASL-SS-26	Lead	Soil	10/3/2017	14:20	1	4oz Glass Jar	Ice to 4°C	
	ASL-SS-26	ASL-SS-26	PAH	Soil	10/3/2017	14:20	1	4oz Glass Jar	Ice to 4°C	
	ASL-SS-27	ASL-SS-27	Lead	Soil	10/3/2017	14:35	1	8oz Glass Jar	Ice to 4°C	
	ASL-SS-28	ASL-SS-28	Lead	Soil	10/3/2017	14:50	1	8oz Glass Jar	Ice to 4°C	
	ASL-SS-29	ASL-SS-29	Lead and Arsenic	Soil	10/2/2017	18:50	1	8oz Glass Jar	Ice to 4°C	
	ASL-SS-29	ASL-SS-29	PAH	Soil	10/2/2017	18:50	1	4oz Glass Jar	Ice to 4°C	
	ASL-SS-30	ASL-SS-30	Lead and Arsenic	Soil	10/3/2017	15:10	1	8oz Glass Jar	Ice to 4°C	
	ASL-SS-30	ASL-SS-30	PAH	Soil	10/3/2017	15:10	1	4oz Glass Jar	Ice to 4°C	
	ASL-SS-31	ASL-SS-31	Lead and Arsenic	Soil	10/3/2017	15:30	1	8oz Glass Jar	Ice to 4°C	
	ASL-SS-31	ASL-SS-31	PAH	Soil	10/3/2017	15:30	1	4oz Glass Jar	Ice to 4°C	
	ASL-SS-32	ASL-SS-32	Lead and Arsenic	Soil	10/3/2017	15:35	1	8oz Glass Jar	Ice to 4°C	
	ASL-SS-32	ASL-SS-32	PAH	Soil	10/3/2017	15:35	1	4oz Glass Jar	Ice to 4°C	
	EB-001	EB-001	PAH	Water	10/3/2017	17:45	1	1L Amber	Ice to 4°C	
	EB-001	EB-001	PAH	Water	10/3/2017	17:45	1	1L Amber	Ice to 4°C	
	EB-001	EB-001	Lead and Arsenic	Water	10/3/2017	17:45	1	1L HDPE	pH<2 HNO3, Ice to 4°C	

Special Instructions:	SAMPLES TRANSFERRED FROM CHAIN OF CUSTODY #

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
Ship to Lab	CH2M	10/3/2017 1900	Fed Ex	10/3/2017 1900	
				10/4/17 11:45	

Spl. Temp = 7°C

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 6 Laboratory
Environmental Services Branch
10625 Fallstone Road, Houston, TX 77099
Phone: (281)983-2100 Fax: (281)983-2248

Final Analytical Report

Site Name ----------	Agriculture Street Landfill
Sample Collection Date(s)--	11/27/17
Contact----------	Ursula Lennox (6SF-LP)
Report Date----------	03/26/18
Project #----------	18SF026
Work Order(s)----------	1711018

Analyses included in this report:

ABN CLP Low Level

Metals ICP CLP

Report Narrative

Semi-volatiles:

Sample 1711018-01 was re-extracted due to inconsistent concentrations of target compounds found among source sample, MS and MSD (source sample concentrations were lower than MS/MSD concentrations). The sample was re-extracted taking extra care to get homogenous aliquots. The re-extraction has similar inconsistencies with concentrations much higher than the original extraction (and lower than associated re-extracted MS/MSD). Due to the large inconsistencies in concentrations, both extraction results are being reported. All targets are qualified as estimated due to the inconsistencies in concentrations. Reporting limits for non-detects in the original extraction are also qualified as estimated if the analyte was reported in the re-extraction. The difficulty in obtaining homogenous aliquots of sample was also noted in the last project from this site. The following QC failures are due to the inconsistencies.

Batch B7K3001 (Original): Pyrene fails very high in the MS and the RPD fails. This analyte is qualified as estimated in the source. The RPD for 4-Chloro-3-methylphenol fails but was not found in the sample.

Batch B7L1104 (Re-extraction): Pyrene has no recovery in the MS/MSD and RPD is not reportable. This analyte is qualified as estimated in the source.

Per customer request, 4,4'-DDT is being reported as a tentatively identified compound; the

Report Narrative (cont'd)

concentrations are estimated:

1711018-01: 23,000 ug/Kg
1711018-01RE1: 40,000 ug/Kg

ICP Metals:

Batch B8A0201: (MS1/MSD1) Spike recovery for lead is outside acceptance limits. Source results are four or more times greater than the spike added concentration. Spike recovery cannot be reliably calculated.

Batch B8A0201: (SRM1) Arsenic recovery is outside lower acceptance limit. Sample results are qualified and are an estimate.

Standard procedures for quality assurance and quality control were followed in the analysis and reporting of the sample results. The results apply only to the samples tested. This final report should only be reproduced in full.

The reporting limit (sometimes referred to as a quantitation limit) is defined as the lowest concentration at which an analyte can be reliably measured and reported without qualification. Reporting limits are adjusted for sample size, dilution, and matrix interference. Concentrations below the reporting limit are reported as non-detects or <RL.

For a list of ISO 17025 accredited methods go to:
http://region6a.epa.gov/intranet/6md/lab/labisocertification2018.pdf

Report Approvals:

Richard McMillin
Region 6 Laboratory Technical Manager

David W. McQuiddy
Region 6 Laboratory Branch Chief

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 6 Environmental Services Branch Laboratory

10625 Fallstone Road
Houston, Texas 77099

Sample Receipt and Disposal

Site Name: Agriculture Street Landfill Project Number: 18SF026

Data Management Coordinator: Christy Warren

_____ / / _____

Data Management Coordinator Signature Date

Date Transmitted: ____/____/_____

Please have the U.S. EPA Project Manager/Officer call the Data Management Coordinator at 3-2137 for any comments or questions.

Please sign and date this form below and return it with any comments to:

Christy Warren
Data Management Coordinator
Region 6 Laboratory
6MD-HS

_____ / ____/_____

Received by and Date

Comments:

The laboratory routinely disposes of samples 90 days after all analyses have been completed. If you have a need to hold these samples in custody longer than 90 days, please sign below.

_____ _____

Signature Date

Please provide a reason for holding:

Environmental Protection Agency

Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099
Phone:(281)983-2100 Fax:(281)983-2248

ANALYTICAL REPORT FOR SAMPLES

Station ID	Laboratory ID	Sample Type	Date Collected	Date Received
ASL-SS-33	1711018-01	Solid	11/27/17 16:32	11/29/17 09:40

Environmental Protection Agency

Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099
Phone:(281)983-2100 Fax:(281)983-2248

QC SUMMARY REPORT

ABN CLP Low Level
B7K3001
Solid

Samples: 1	ReExts: 0
LAB NUMBER	SOURCE
B7K3001-BLK1	
B7K3001-BS1	
B7K3001-BS2	
B7K3001-MS1	1711018-01
B7K3001-MSD1	1711018-01

B7L1104
Solid

Samples: 0	ReExts: 1
LAB NUMBER	SOURCE
B7L1104-BLK1	
B7L1104-BS1	
B7L1104-BS2	
B7L1104-MS1	1711018-01RE1
B7L1104-MSD1	1711018-01RE1

Metals ICP CLP
B8A0201
Solid

Samples: 1	ReExts: 0
LAB NUMBER	SOURCE
B8A0201-BLK1	
B8A0201-BS1	
B8A0201-MS1	1711018-01
B8A0201-MSD1	1711018-01
B8A0201-SRM1	

Solids, Dry Weight
B7K2904
Solid

Samples: 1	ReExts: 0
LAB NUMBER	SOURCE
B7K2904-DUP1	1711018-01

Environmental Protection Agency

Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099
Phone:(281)983-2100 Fax:(281)983-2248

Semivolatiles by CLP OLM04.2 - GC/MS (Low Level)

Lab ID: 1711018-01 **Station ID: ASL-SS-33**

Batch: B7K3001
Sample Type: Solid

Date Collected: 11/27/17
Sample Wt: 16.009g
%Solids: 92.53

Sample Qualifiers:

Surrogates

Analyte	Result µg/kg (dry)	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed
2-Fluorophenol	286		56.4	29-100	11/30/17	12/01/17
Phenol-d5	375		74.0	37-100	"	"
2-Chlorophenol-d4	340		67.1	33-100	"	"
1,2-Dichlorobenzene-d4	191		56.6	28-100	"	"
Nitrobenzene-d5	224		66.4	28-100	"	"
2-Fluorobiphenyl	271		80.2	37-110	"	"
2,4,6-Tribromophenol	506		100	41-137	"	"
Terphenyl-d14	325		96.2	46-138	"	"

Targets

Analyte (CAS Number)	Result µg/kg (dry)	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Benzaldehyde (100-52-7)	U		135	1	11/30/17	12/01/17
Phenol (108-95-2)	U		135	"	"	"
Bis(2-chloroethyl)ether (111-44-4)	U		135	"	"	"
2-Chlorophenol (95-57-8)	U		135	"	"	"
1,3-Dichlorobenzene (541-73-1)	U		135	"	"	"
1,4-Dichlorobenzene (106-46-7)	U		135	"	"	"
Benzyl alcohol (100-51-6)	U		135	"	"	"
1,2-Dichlorobenzene (95-50-1)	U		135	"	"	"
2-Methylphenol (95-48-7)	U		135	"	"	"
Bis(2-chloro-1-methylethyl)ether (108-60-1)	U		135	"	"	"
Acetophenone (98-86-2)	U		135	"	"	"
3 &/or 4-Methylphenol (108-39-4/106-44-5)	U		135	"	"	"
N-Nitrosodi-n-propylamine (621-64-7)	U		135	"	"	"
Hexachloroethane (67-72-1)	U		135	"	"	"
Nitrobenzene (98-95-3)	U		135	"	"	"
Isophorone (78-59-1)	U		135	"	"	"
2-Nitrophenol (88-75-5)	U		135	"	"	"
2,4-Dimethylphenol (105-67-9)	U		135	"	"	"
Bis(2-chloroethoxy)methane (111-91-1)	U		135	"	"	"
2,4-Dichlorophenol (120-83-2)	U		135	"	"	"
1,2,4-Trichlorobenzene (120-82-1)	U		135	"	"	"
Naphthalene (91-20-3)	**35.1**	**J**	33.8	"	"	"

Environmental Protection Agency

Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099
Phone:(281)983-2100 Fax:(281)983-2248

Semivolatiles by CLP OLM04.2 - GC/MS (Low Level)

Lab ID: 1711018-01 **Station ID: ASL-SS-33**

Batch: B7K3001
Sample Type: Solid

Date Collected: 11/27/17
Sample Wt: 16.009g
%Solids: 92.53

Sample Qualifiers:

Targets (Continued)

Analyte (CAS Number)	Result µg/kg (dry)	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
4-Chloroaniline (106-47-8)	U		135	1	11/30/17	12/01/17
Hexachlorobutadiene (87-68-3)	U		135	"	"	"
Caprolactam (105-60-2)	U		135	"	"	"
4-Chloro-3-methylphenol (59-50-7)	U		135	"	"	"
2-Methylnaphthalene (91-57-6)	U		33.8	"	"	"
1-Methylnaphthalene (90-12-0)	U		33.8	"	"	"
Hexachlorocyclopentadiene (77-47-4)	U		135	"	"	"
2,4,6-Trichlorophenol (88-06-2)	U		135	"	"	"
2,4,5-Trichlorophenol (95-95-4)	U		135	"	"	"
2-Chloronaphthalene (91-58-7)	U		135	"	"	"
1,1'-Biphenyl (92-52-4)	U		135	"	"	"
2-Nitroaniline (88-74-4)	U		270	"	"	"
Dimethyl phthalate (131-11-3)	U		135	"	"	"
Acenaphthylene (208-96-8)	U		33.8	"	"	"
2,6-Dinitrotoluene (606-20-2)	U		135	"	"	"
3-Nitroaniline (99-09-2)	U		270	"	"	"
Acenaphthene (83-32-9)	U	J	33.8	"	"	"
2,4-Dinitrophenol (51-28-5)	U		675	"	"	"
4-Nitrophenol (100-02-7)	U		405	"	"	"
Dibenzofuran (132-64-9)	U		135	"	"	"
2,4-Dinitrotoluene (121-14-2)	U		135	"	"	"
Fluorene (86-73-7)	U	J	33.8	"	"	"
Diethyl phthalate (84-66-2)	U		135	"	"	"
4-Chlorophenyl phenyl ether (7005-72-3)	U		135	"	"	"
4-Nitroaniline (100-01-6)	U		270	"	"	"
4,6-Dinitro-2-methylphenol (534-52-1)	U		675	"	"	"
N-Nitrosodiphenylamine/Diphenylamine (86-30-6/122-39-4)	U		135	"	"	"
4-Bromophenyl phenyl ether (101-55-3)	U		135	"	"	"
Hexachlorobenzene (118-74-1)	U		67.5	"	"	"
Atrazine (1912-24-9)	U		135	"	"	"
Pentachlorophenol (87-86-5)	U		67.5	"	"	"
Phenanthrene (85-01-8)	**97.2**	**J**	33.8	"	"	"
Anthracene (120-12-7)	U	J	33.8	"	"	"
Carbazole (86-74-8)	U		135	"	"	"

Environmental Protection Agency

Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099
Phone:(281)983-2100 Fax:(281)983-2248

Semivolatiles by CLP OLM04.2 - GC/MS (Low Level)

Lab ID: 1711018-01 **Station ID: ASL-SS-33**

Batch: B7K3001
Sample Type: Solid

Date Collected: 11/27/17
Sample Wt: 16.009g
%Solids: 92.53

Sample Qualifiers:

Targets (Continued)

Analyte (CAS Number)	Result µg/kg (dry)	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Di-n-butyl phthalate (84-74-2)	U		135	1	11/30/17	12/01/17
Fluoranthene (206-44-0)	**255**	**J**	33.8	"	"	"
Pyrene (129-00-0)	**272**	**J**	33.8	"	"	"
Butyl benzyl phthalate (85-68-7)	U		135	"	"	"
Benzo (a) anthracene (56-55-3)	**277**	**J**	135	"	"	"
3,3'-Dichlorobenzidine (91-94-1)	U		135	"	"	"
Chrysene (218-01-9)	**316**	**J**	135	"	"	"
Bis(2-ethylhexyl)phthalate (117-81-7)	**267**	**J**	135	"	"	"
Di-n-octyl phthalate (117-84-0)	U		135	"	"	"
Benzo (b) fluoranthene (205-99-2)	**367**	**J**	135	"	"	"
Benzo (k) fluoranthene (207-08-9)	**354**	**J**	135	"	"	"
Benzo (a) pyrene (50-32-8)	**379**	**J**	135	"	"	"
Indeno (1,2,3-cd) pyrene (193-39-5)	**222**	**J**	135	"	"	"
Dibenz (a,h) anthracene (53-70-3)	U	J	135	"	"	"
Benzo (g,h,i) perylene (191-24-2)	**254**	**J**	135	"	"	"

Environmental Protection Agency

Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099
Phone:(281)983-2100 Fax:(281)983-2248

Metals by CLP ILMO5.3 - ICP

Lab ID: 1711018-01 **Station ID: ASL-SS-33**

Batch: B8A0201
Sample Type: Solid

Date Collected: 11/27/17
Sample Wt: 0.5064g
%Solids: 92.53

Sample Qualifiers:

Targets

Analyte (CAS Number)	Result mg/Kg dry	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Arsenic (7440-38-2)	U	UJ	10.7	1	01/02/18	02/26/18
Lead (7439-92-1)	**453**		3.2	"	"	"

Environmental Protection Agency

Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099
Phone:(281)983-2100 Fax:(281)983-2248

Semivolatiles by CLP OLM04.2 - GC/MS (Low Level)

Lab ID: 1711018-01RE1 **Station ID: ASL-SS-33**

Batch: B7L1104
Sample Type: Solid

Date Collected: 11/27/17
Sample Wt: 16.001g
%Solids: 92.53

Sample Qualifiers:

Surrogates

Analyte	Result µg/kg (dry)	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed
2-Fluorophenol	313		61.7	29-100	12/11/17	12/12/17
Phenol-d5	384		75.9	37-100	"	"
2-Chlorophenol-d4	352		69.5	33-100	"	"
1,2-Dichlorobenzene-d4	202		59.8	28-100	"	"
Nitrobenzene-d5	230		68.2	28-100	"	"
2-Fluorobiphenyl	259		76.6	37-110	"	"
2,4,6-Tribromophenol	485		95.7	41-137	"	"
Terphenyl-d14	305		90.2	46-138	"	"

Targets

Analyte (CAS Number)	Result µg/kg (dry)	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Benzaldehyde (100-52-7)	U		135	1	12/11/17	12/12/17
Phenol (108-95-2)	U		135	"	"	"
Bis(2-chloroethyl)ether (111-44-4)	U		135	"	"	"
2-Chlorophenol (95-57-8)	U		135	"	"	"
1,3-Dichlorobenzene (541-73-1)	U		135	"	"	"
1,4-Dichlorobenzene (106-46-7)	U		135	"	"	"
Benzyl alcohol (100-51-6)	U		135	"	"	"
1,2-Dichlorobenzene (95-50-1)	U		135	"	"	"
2-Methylphenol (95-48-7)	U		135	"	"	"
Bis(2-chloro-1-methylethyl)ether (108-60-1)	U		135	"	"	"
Acetophenone (98-86-2)	U		135	"	"	"
3 &/or 4-Methylphenol (108-39-4/106-44-5)	U		135	"	"	"
N-Nitrosodi-n-propylamine (621-64-7)	U		135	"	"	"
Hexachloroethane (67-72-1)	U		135	"	"	"
Nitrobenzene (98-95-3)	U		135	"	"	"
Isophorone (78-59-1)	U		135	"	"	"
2-Nitrophenol (88-75-5)	U		135	"	"	"
2,4-Dimethylphenol (105-67-9)	U		135	"	"	"
Bis(2-chloroethoxy)methane (111-91-1)	U		135	"	"	"
2,4-Dichlorophenol (120-83-2)	U		135	"	"	"
1,2,4-Trichlorobenzene (120-82-1)	U		135	"	"	"
Naphthalene (91-20-3)	U		33.8	"	"	"

Environmental Protection Agency

Region 6 Laboratory

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Phone:(281)983-2100 Fax:(281)983-2248

Semivolatiles by CLP OLM04.2 - GC/MS (Low Level)

Lab ID: 1711018-01RE1 **Station ID: ASL-SS-33**

Batch: B7L1104
Sample Type: Solid

Date Collected: 11/27/17
Sample Wt: 16.001g
%Solids: 92.53

Sample Qualifiers:

Targets (Continued)

Analyte (CAS Number)	Result µg/kg (dry)	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
4-Chloroaniline (106-47-8)	U		135	1	12/11/17	12/12/17
Hexachlorobutadiene (87-68-3)	U		135	"	"	"
Caprolactam (105-60-2)	U		135	"	"	"
4-Chloro-3-methylphenol (59-50-7)	U		135	"	"	"
2-Methylnaphthalene (91-57-6)	U		33.8	"	"	"
1-Methylnaphthalene (90-12-0)	U		33.8	"	"	"
Hexachlorocyclopentadiene (77-47-4)	U		135	"	"	"
2,4,6-Trichlorophenol (88-06-2)	U		135	"	"	"
2,4,5-Trichlorophenol (95-95-4)	U		135	"	"	"
2-Chloronaphthalene (91-58-7)	U		135	"	"	"
1,1'-Biphenyl (92-52-4)	U		135	"	"	"
2-Nitroaniline (88-74-4)	U		270	"	"	"
Dimethyl phthalate (131-11-3)	U		135	"	"	"
Acenaphthylene (208-96-8)	U		33.8	"	"	"
2,6-Dinitrotoluene (606-20-2)	U		135	"	"	"
3-Nitroaniline (99-09-2)	U		270	"	"	"
Acenaphthene (83-32-9)	**108**	**J**	33.8	"	"	"
2,4-Dinitrophenol (51-28-5)	U		675	"	"	"
4-Nitrophenol (100-02-7)	U		405	"	"	"
Dibenzofuran (132-64-9)	U		135	"	"	"
2,4-Dinitrotoluene (121-14-2)	U		135	"	"	"
Fluorene (86-73-7)	**197**	**J**	33.8	"	"	"
Diethyl phthalate (84-66-2)	U		135	"	"	"
4-Chlorophenyl phenyl ether (7005-72-3)	U		135	"	"	"
4-Nitroaniline (100-01-6)	U		270	"	"	"
4,6-Dinitro-2-methylphenol (534-52-1)	U		675	"	"	"
N-Nitrosodiphenylamine/Diphenylamine (86-30-6/122-39-4)	U		135	"	"	"
4-Bromophenyl phenyl ether (101-55-3)	U		135	"	"	"
Hexachlorobenzene (118-74-1)	U		67.5	"	"	"
Atrazine (1912-24-9)	U		135	"	"	"
Pentachlorophenol (87-86-5)	U		67.5	"	"	"
Phenanthrene (85-01-8)	**3,260**	**J**	338	10	"	12/12/17
Anthracene (120-12-7)	**680**	**J**	33.8	1	"	12/12/17
Carbazole (86-74-8)	U		135	"	"	"

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Region 6 Laboratory

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Semivolatiles by CLP OLM04.2 - GC/MS (Low Level)

Lab ID: 1711018-01RE1 **Station ID: ASL-SS-33**

Batch: B7L1104
Sample Type: Solid

Date Collected: 11/27/17
Sample Wt: 16.001g
%Solids: 92.53

Sample Qualifiers:

Targets (Continued)

Analyte (CAS Number)	Result µg/kg (dry)	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Di-n-butyl phthalate (84-74-2)	U		135	1	12/11/17	12/12/17
Fluoranthene (206-44-0)	**6,610**	**J**	338	10	"	12/12/17
Pyrene (129-00-0)	**4,570**	**J**	338	"	"	"
Butyl benzyl phthalate (85-68-7)	U		135	1	"	12/12/17
Benzo (a) anthracene (56-55-3)	**3,260**	**J**	1,350	10	"	12/12/17
3,3'-Dichlorobenzidine (91-94-1)	U		135	1	"	12/12/17
Chrysene (218-01-9)	**3,280**	**J**	1,350	10	"	12/12/17
Bis(2-ethylhexyl)phthalate (117-81-7)	**1,000**	**J**	135	1	"	12/12/17
Di-n-octyl phthalate (117-84-0)	U		135	"	"	"
Benzo (b) fluoranthene (205-99-2)	**3,440**	**J**	1,350	10	"	12/12/17
Benzo (k) fluoranthene (207-08-9)	**2,300**	**J**	1,350	"	"	"
Benzo (a) pyrene (50-32-8)	**2,670**	**J**	1,350	"	"	"
Indeno (1,2,3-cd) pyrene (193-39-5)	**1,130**	**J**	135	1	"	12/12/17
Dibenz (a,h) anthracene (53-70-3)	**665**	**J**	135	"	"	"
Benzo (g,h,i) perylene (191-24-2)	**1,020**	**J**	135	"	"	"

mwc

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Percent Solids - Quality Control

Duplicate (B7K2904-DUP1)

Source: 1711018-01 Prepared: 11/29/2017 Analyzed: 11/30/2017

Targets

ANALYTE	Result %	Analyte Qualifiers	Reporting Limit	Spike Level	Source Result	RPD	RPD Limit
% Solids	92.28				92.53	0.26	20

Semivolatiles by CLP OLM04.2 - GC/MS (Low Level) - Quality Control

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Semivolatiles by CLP OLM04.2 - GC/MS (Low Level) - Quality Control

Batch: B7K3001 **Sample Type: Solid**

Blank (B7K3001-BLK1)

Prepared: 11/30/2017 Analyzed: 12/1/2017

Surrogates

ANALYTE	Result µg/kg dry	Analyte Qualifier	Spike Level	%REC	%REC Limits
2-Fluorophenol	318		468	68.0	29-100
Phenol-d5	375		468	80.3	37-100
2-Chlorophenol-d4	348		468	74.4	33-100
1,2-Dichlorobenzene-d4	209		312	67.0	28-100
Nitrobenzene-d5	214		312	68.6	28-100
2-Fluorobiphenyl	236		312	75.6	37-110
2,4,6-Tribromophenol	395		468	84.5	41-137
Terphenyl-d14	281		312	90.2	46-138

Targets

ANALYTE	Result µg/kg dry	Analyte Qualifiers	Reporting Limit
Benzaldehyde	U		125
Phenol	U		125
Bis(2-chloroethyl)ether	U		125
2-Chlorophenol	U		125
1,3-Dichlorobenzene	U		125
1,4-Dichlorobenzene	U		125
Benzyl alcohol	U		125
1,2-Dichlorobenzene	U		125
2-Methylphenol	U		125
Bis(2-chloro-1-methylethyl)ether	U		125
Acetophenone	U		125
3 &/or 4-Methylphenol	U		125
N-Nitrosodi-n-propylamine	U		125
Hexachloroethane	U		125
Nitrobenzene	U		125
Isophorone	U		125
2-Nitrophenol	U		125
2,4-Dimethylphenol	U		125
Bis(2-chloroethoxy)methane	U		125
2,4-Dichlorophenol	U		125
1,2,4-Trichlorobenzene	U		125

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Semivolatiles by CLP OLM04.2 - GC/MS (Low Level) - Quality Control

Batch: B7K3001 **Sample Type: Solid**

Blank (B7K3001-BLK1)

Prepared: 11/30/2017 Analyzed: 12/1/2017

Targets (Continued)

ANALYTE	Result µg/kg dry	Analyte Qualifiers	Reporting Limit
Naphthalene	U		31.2
4-Chloroaniline	U		125
Hexachlorobutadiene	U		125
Caprolactam	U		125
4-Chloro-3-methylphenol	U		125
2-Methylnaphthalene	U		31.2
1-Methylnaphthalene	U		31.2
Hexachlorocyclopentadiene	U		125
2,4,6-Trichlorophenol	U		125
2,4,5-Trichlorophenol	U		125
2-Chloronaphthalene	U		125
1,1'-Biphenyl	U		125
2-Nitroaniline	U		249
Dimethyl phthalate	U		125
Acenaphthylene	U		31.2
2,6-Dinitrotoluene	U		125
3-Nitroaniline	U		249
Acenaphthene	U		31.2
2,4-Dinitrophenol	U		624
4-Nitrophenol	U		374
Dibenzofuran	U		125
2,4-Dinitrotoluene	U		125
Fluorene	U		31.2
Diethyl phthalate	U		125
4-Chlorophenyl phenyl ether	U		125
4-Nitroaniline	U		249
4,6-Dinitro-2-methylphenol	U		624
N-Nitrosodiphenylamine/Diphenylamine	U		125
4-Bromophenyl phenyl ether	U		125
Hexachlorobenzene	U		62.4
Atrazine	U		125
Pentachlorophenol	U		62.4

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Semivolatiles by CLP OLM04.2 - GC/MS (Low Level) - Quality Control

Batch: B7K3001 **Sample Type: Solid**

Blank (B7K3001-BLK1)

Prepared: 11/30/2017 Analyzed: 12/1/2017

Targets (Continued)

ANALYTE	Result µg/kg dry	Analyte Qualifiers	Reporting Limit
Phenanthrene	U		31.2
Anthracene	U		31.2
Carbazole	U		125
Di-n-butyl phthalate	U		125
Fluoranthene	U		31.2
Pyrene	U		31.2
Butyl benzyl phthalate	U		125
Benzo (a) anthracene	U		125
3,3'-Dichlorobenzidine	U		125
Chrysene	U		125
Bis(2-ethylhexyl)phthalate	U		125
Di-n-octyl phthalate	U		125
Benzo (b) fluoranthene	U		125
Benzo (k) fluoranthene	U		125
Benzo (a) pyrene	U		125
Indeno (1,2,3-cd) pyrene	U		125
Dibenz (a,h) anthracene	U		125
Benzo (g,h,i) perylene	U		125

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Semivolatiles by CLP OLM04.2 - GC/MS (Low Level) - Quality Control

Batch: B7K3001 **Sample Type: Solid**

LCS (B7K3001-BS1)

Prepared: 11/30/2017 Analyzed: 12/1/2017

Surrogates

ANALYTE	Result µg/kg dry	Analyte Qualifier	Spike Level	%REC	%REC Limits
2-Fluorophenol	315		469	67.2	29-100
Phenol-d5	376		469	80.1	37-100
2-Chlorophenol-d4	349		469	74.5	33-100
1,2-Dichlorobenzene-d4	207		312	66.4	28-100
Nitrobenzene-d5	213		312	68.2	28-100
2-Fluorobiphenyl	230		312	73.6	37-110
2,4,6-Tribromophenol	443		469	94.5	41-137
Terphenyl-d14	348		312	111	46-138

Targets

ANALYTE	Result µg/kg dry	Analyte Qualifiers	Reporting Limit	Spike Level	%REC	%REC Limits
Phenol	352		125	469	75.2	43-105
2-Chlorophenol	314		125	469	66.9	44-101
1,4-Dichlorobenzene	168		125	312	53.8	35-100
N-Nitrosodi-n-propylamine	219		125	312	70.0	44-105
1,2,4-Trichlorobenzene	199		125	312	63.8	43-102
4-Chloro-3-methylphenol	369		125	469	78.8	49-116
Acenaphthene	229		31.2	312	73.2	52-103
4-Nitrophenol	406		375	469	86.7	43-139
2,4-Dinitrotoluene	264		125	312	84.4	51-120
Pentachlorophenol	347		62.5	469	74.1	28-121
Pyrene	276		31.2	312	88.4	57-121

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Semivolatiles by CLP OLM04.2 - GC/MS (Low Level) - Quality Control

Batch: B7K3001 **Sample Type: Solid**

Matrix Spike (B7K3001-MS1)

Source: 1711018-01 Prepared: 11/30/2017 Analyzed: 12/1/2017

Surrogates

ANALYTE	Result µg/kg dry	Analyte Qualifier	Spike Level	%REC	%REC Limits
2-Fluorophenol	295		506	58.3	29-100
Phenol-d5	390		506	77.1	37-100
2-Chlorophenol-d4	359		506	70.9	33-100
1,2-Dichlorobenzene-d4	217		338	64.2	28-100
Nitrobenzene-d5	236		338	69.8	28-100
2-Fluorobiphenyl	280		338	83.0	37-110
2,4,6-Tribromophenol	478		506	94.4	41-137
Terphenyl-d14	325		338	96.4	46-138

Targets

ANALYTE	Result µg/kg dry	Analyte Qualifiers	Reporting Limit	Spike Level	Source Result	%REC	%REC Limits
Phenol	380		135	506	11.5	72.8	37-102
2-Chlorophenol	323		135	506		63.7	33-100
1,4-Dichlorobenzene	209		135	338	33.1	52.2	26-100
N-Nitrosodi-n-propylamine	250		135	338		74.2	34-103
1,2,4-Trichlorobenzene	225		135	338		66.8	33-100
4-Chloro-3-methylphenol	417		135	506		82.4	45-122
Acenaphthene	343		33.8	338	5.4	100	37-119
4-Nitrophenol	501		405	506		98.9	47-141
2,4-Dinitrotoluene	339		135	338		100	44-125
Pentachlorophenol	424		67.5	506	27.0	78.4	16-134
Pyrene	2,110		338	338	272	543 #	42-138

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Semivolatiles by CLP OLM04.2 - GC/MS (Low Level) - Quality Control

Batch: B7K3001 **Sample Type: Solid**

Matrix Spike Dup (B7K3001-MSD1)

Source: 1711018-01 Prepared: 11/30/2017 Analyzed: 12/1/2017

Surrogates

ANALYTE	Result µg/kg dry	Analyte Qualifier	Spike Level	%REC	%REC Limits
2-Fluorophenol	195		506	38.5	29-100
Phenol-d5	317		506	62.7	37-100
2-Chlorophenol-d4	268		506	52.9	33-100
1,2-Dichlorobenzene-d4	178		338	52.6	28-100
Nitrobenzene-d5	211		338	62.4	28-100
2-Fluorobiphenyl	261		338	77.4	37-110
2,4,6-Tribromophenol	304		506	60.0	41-137
Terphenyl-d14	298		338	88.2	46-138

Targets

ANALYTE	Result µg/kg dry	Analyte Qualifiers	Reporting Limit	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Phenol	305		135	506	11.5	57.9	37-102	22.9	36
2-Chlorophenol	244		135	506		48.1	33-100	27.9	37
1,4-Dichlorobenzene	172		135	338	33.1	41.2	26-100	23.5	34
N-Nitrosodi-n-propylamine	224		135	338		66.4	34-103	11.1	32
1,2,4-Trichlorobenzene	205		135	338		60.6	33-100	9.73	33
4-Chloro-3-methylphenol	289		135	506		57.1	45-122	36.3 #	26
Acenaphthene	271		33.8	338	5.4	78.6	37-119	24.0	30
4-Nitrophenol	456		405	506		90.1	47-141	9.31	30
2,4-Dinitrotoluene	313		135	338		92.6	44-125	8.08	20
Pentachlorophenol	370		67.5	506	27.0	67.7	16-134	14.6	35
Pyrene	542		33.8	338	272	80.0	42-138	149 #	32

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Semivolatiles by CLP OLM04.2 - GC/MS (Low Level) - Quality Control

Batch: B7L1104 **Sample Type: Solid**

Blank (B7L1104-BLK1)

Prepared: 12/11/2017 Analyzed: 12/12/2017

Surrogates

ANALYTE	Result µg/kg dry	Analyte Qualifier	Spike Level	%REC	%REC Limits
2-Fluorophenol	304		469	64.9	29-100
Phenol-d5	359		469	76.5	37-100
2-Chlorophenol-d4	331		469	70.5	33-100
1,2-Dichlorobenzene-d4	194		312	62.0	28-100
Nitrobenzene-d5	216		312	69.0	28-100
2-Fluorobiphenyl	224		312	71.8	37-110
2,4,6-Tribromophenol	327		469	69.9	41-137
Terphenyl-d14	264		312	84.6	46-138

Targets

ANALYTE	Result µg/kg dry	Analyte Qualifiers	Reporting Limit
Benzaldehyde	U		125
Phenol	U		125
Bis(2-chloroethyl)ether	U		125
2-Chlorophenol	U		125
1,3-Dichlorobenzene	U		125
1,4-Dichlorobenzene	U		125
Benzyl alcohol	U		125
1,2-Dichlorobenzene	U		125
2-Methylphenol	U		125
Bis(2-chloro-1-methylethyl)ether	U		125
Acetophenone	U		125
3 &/or 4-Methylphenol	U		125
N-Nitrosodi-n-propylamine	U		125
Hexachloroethane	U		125
Nitrobenzene	U		125
Isophorone	U		125
2-Nitrophenol	U		125
2,4-Dimethylphenol	U		125
Bis(2-chloroethoxy)methane	U		125
2,4-Dichlorophenol	U		125
1,2,4-Trichlorobenzene	U		125

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Semivolatiles by CLP OLM04.2 - GC/MS (Low Level) - Quality Control

Batch: B7L1104 **Sample Type: Solid**

Blank (B7L1104-BLK1)

Prepared: 12/11/2017 Analyzed: 12/12/2017

Targets (Continued)

ANALYTE	Result µg/kg dry	Analyte Qualifiers	Reporting Limit
Naphthalene	U		31.2
4-Chloroaniline	U		125
Hexachlorobutadiene	U		125
Caprolactam	U		125
4-Chloro-3-methylphenol	U		125
2-Methylnaphthalene	U		31.2
1-Methylnaphthalene	U		31.2
Hexachlorocyclopentadiene	U		125
2,4,6-Trichlorophenol	U		125
2,4,5-Trichlorophenol	U		125
2-Chloronaphthalene	U		125
1,1'-Biphenyl	U		125
2-Nitroaniline	U		250
Dimethyl phthalate	U		125
Acenaphthylene	U		31.2
2,6-Dinitrotoluene	U		125
3-Nitroaniline	U		250
Acenaphthene	U		31.2
2,4-Dinitrophenol	U		625
4-Nitrophenol	U		375
Dibenzofuran	U		125
2,4-Dinitrotoluene	U		125
Fluorene	U		31.2
Diethyl phthalate	U		125
4-Chlorophenyl phenyl ether	U		125
4-Nitroaniline	U		250
4,6-Dinitro-2-methylphenol	U		625
N-Nitrosodiphenylamine/Diphenylamine	U		125
4-Bromophenyl phenyl ether	U		125
Hexachlorobenzene	U		62.5
Atrazine	U		125
Pentachlorophenol	U		62.5

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Semivolatiles by CLP OLM04.2 - GC/MS (Low Level) - Quality Control

Batch: B7L1104 **Sample Type: Solid**

Blank (B7L1104-BLK1)

Prepared: 12/11/2017 Analyzed: 12/12/2017

Targets (Continued)

ANALYTE	Result µg/kg dry	Analyte Qualifiers	Reporting Limit
Phenanthrene	U		31.2
Anthracene	U		31.2
Carbazole	U		125
Di-n-butyl phthalate	U		125
Fluoranthene	U		31.2
Pyrene	U		31.2
Butyl benzyl phthalate	U		125
Benzo (a) anthracene	U		125
3,3′-Dichlorobenzidine	U		125
Chrysene	U		125
Bis(2-ethylhexyl)phthalate	U		125
Di-n-octyl phthalate	U		125
Benzo (b) fluoranthene	U		125
Benzo (k) fluoranthene	U		125
Benzo (a) pyrene	U		125
Indeno (1,2,3-cd) pyrene	U		125
Dibenz (a,h) anthracene	U		125
Benzo (g,h,i) perylene	U		125

Environmental Protection Agency

Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099
Phone:(281)983-2100 Fax:(281)983-2248

Semivolatiles by CLP OLM04.2 - GC/MS (Low Level) - Quality Control

Batch: B7L1104 **Sample Type: Solid**

LCS (B7L1104-BS1)

Prepared: 12/11/2017 Analyzed: 12/12/2017

Surrogates

ANALYTE	Result µg/kg dry	Analyte Qualifier	Spike Level	%REC	%REC Limits
2-Fluorophenol	299		469	63.7	29-100
Phenol-d5	380		469	81.1	37-100
2-Chlorophenol-d4	354		469	75.6	33-100
1,2-Dichlorobenzene-d4	208		312	66.6	28-100
Nitrobenzene-d5	234		312	75.0	28-100
2-Fluorobiphenyl	237		312	75.8	37-110
2,4,6-Tribromophenol	380		469	81.1	41-137
Terphenyl-d14	273		312	87.4	46-138

Targets

ANALYTE	Result µg/kg dry	Analyte Qualifiers	Reporting Limit	Spike Level	%REC	%REC Limits
Phenol	383		125	469	81.7	43-105
2-Chlorophenol	351		125	469	74.9	44-101
1,4-Dichlorobenzene	185		125	312	59.2	35-100
N-Nitrosodi-n-propylamine	250		125	312	80.0	44-105
1,2,4-Trichlorobenzene	231		125	312	74.0	43-102
4-Chloro-3-methylphenol	420		125	469	89.6	49-116
Acenaphthene	242		31.2	312	77.4	52-103
4-Nitrophenol	436		375	469	92.9	43-139
2,4-Dinitrotoluene	261		125	312	83.6	51-120
Pentachlorophenol	319		62.5	469	68.0	28-121
Pyrene	232		31.2	312	74.2	57-121

Environmental Protection Agency

Region 6 Laboratory

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Phone:(281)983-2100 Fax:(281)983-2248

Semivolatiles by CLP OLM04.2 - GC/MS (Low Level) - Quality Control

Batch: B7L1104 **Sample Type: Solid**

Matrix Spike (B7L1104-MS1)

Source: 1711018-01RE1 Prepared: 12/11/2017 Analyzed: 12/12/2017

Surrogates

ANALYTE	Result µg/kg dry	Analyte Qualifier	Spike Level	%REC	%REC Limits
2-Fluorophenol	280		506	55.3	29-100
Phenol-d5	373		506	73.7	37-100
2-Chlorophenol-d4	338		506	66.8	33-100
1,2-Dichlorobenzene-d4	207		338	61.2	28-100
Nitrobenzene-d5	234		338	69.2	28-100
2-Fluorobiphenyl	272		338	80.6	37-110
2,4,6-Tribromophenol	417		506	82.3	41-137
Terphenyl-d14	328		338	97.2	46-138

Targets

ANALYTE	Result µg/kg dry	Analyte Qualifiers	Reporting Limit	Spike Level	Source Result	%REC	%REC Limits
Phenol	386		135	506	15.5	73.2	37-102
2-Chlorophenol	337		135	506		66.5	33-100
1,4-Dichlorobenzene	213		135	338	35.8	52.6	26-100
N-Nitrosodi-n-propylamine	270		135	338		80.0	34-103
1,2,4-Trichlorobenzene	242		135	338		71.6	33-100
4-Chloro-3-methylphenol	419		135	506		82.8	45-122
Acenaphthene	297		33.8	338	108	56.0	37-119
4-Nitrophenol	560		405	506		111	47-141
2,4-Dinitrotoluene	298		135	338		88.4	44-125
Pentachlorophenol	325		67.5	506	26.3	59.1	16-134
Pyrene	606		33.8	338	4,570	NR #	42-138

Environmental Protection Agency

Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099
Phone:(281)983-2100 Fax:(281)983-2248

Semivolatiles by CLP OLM04.2 - GC/MS (Low Level) - Quality Control

Batch: B7L1104 **Sample Type: Solid**

Matrix Spike Dup (B7L1104-MSD1)

Source: 1711018-01RE1 Prepared: 12/11/2017 Analyzed: 12/12/2017

Surrogates

ANALYTE	Result µg/kg dry	Analyte Qualifier	Spike Level	%REC	%REC Limits
2-Fluorophenol	215		507	42.5	29-100
Phenol-d5	315		507	62.3	37-100
2-Chlorophenol-d4	278		507	54.9	33-100
1,2-Dichlorobenzene-d4	163		338	48.2	28-100
Nitrobenzene-d5	205		338	60.6	28-100
2-Fluorobiphenyl	250		338	74.0	37-110
2,4,6-Tribromophenol	388		507	76.7	41-137
Terphenyl-d14	311		338	92.0	46-138

Targets

ANALYTE	Result µg/kg dry	Analyte Qualifiers	Reporting Limit	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Phenol	344		135	507	15.5	64.9	37-102	12.0	36
2-Chlorophenol	286		135	507		56.5	33-100	16.3	37
1,4-Dichlorobenzene	180		135	338	35.8	42.6	26-100	21.0	34
N-Nitrosodi-n-propylamine	234		135	338		69.2	34-103	14.5	32
1,2,4-Trichlorobenzene	212		135	338		62.8	33-100	13.1	33
4-Chloro-3-methylphenol	386		135	507		76.3	45-122	8.21	26
Acenaphthene	297		33.8	338	108	55.8	37-119	0.35	30
4-Nitrophenol	575		405	507		114	47-141	2.74	30
2,4-Dinitrotoluene	303		135	338		89.8	44-125	1.57	20
Pentachlorophenol	294		67.5	507	26.3	52.8	16-134	11.2	35
Pyrene	752		33.8	338	4,570	NR #	42-138	NR #	32

Metals by CLP ILMO5.3 - ICP - Quality Control

Environmental Protection Agency

Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099
Phone:(281)983-2100 Fax:(281)983-2248

Metals by CLP ILMO5.3 - ICP - Quality Control

Batch: B8A0201 **Sample Type: Solid**

Blank (B8A0201-BLK1)

Prepared: 1/2/2018 Analyzed: 2/26/2018

Targets

ANALYTE	Result mg/Kg wet	Analyte Qualifiers	Reporting Limit
Arsenic	U		10.0
Lead	U		3.0

Environmental Protection Agency

Region 6 Laboratory

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Phone:(281)983-2100 Fax:(281)983-2248

Metals by CLP ILMO5.3 - ICP - Quality Control

Batch: B8A0201 **Sample Type: Solid**

LCS (B8A0201-BS1)

Prepared: 1/2/2018 Analyzed: 2/26/2018

Targets

ANALYTE	Result mg/Kg wet	Analyte Qualifiers	Reporting Limit	Spike Level	%REC	%REC Limits
Arsenic	186		10.0	200	93.2	75-125
Lead	36.1		3.0	40.0	90.2	75-125

Environmental Protection Agency

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Metals by CLP ILMO5.3 - ICP - Quality Control

Batch: B8A0201 **Sample Type: Solid**

Reference (B8A0201-SRM1)

Prepared: 1/2/2018 Analyzed: 2/26/2018

Targets

ANALYTE	Result mg/Kg wet	Analyte Qualifiers	Reporting Limit	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Arsenic	118	J	9.8	253		46.8	# 60.8-139		
Lead	49.1		2.9	56.9		86.2	72.7-127.2		

Environmental Protection Agency

Region 6 Laboratory

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Metals by CLP ILMO5.3 - ICP - Quality Control

Batch: B8A0201 **Sample Type: Solid**

Matrix Spike (B8A0201-MS1)

Source: 1711018-01 Prepared: 1/2/2018 Analyzed: 2/26/2018

Targets

ANALYTE	Result mg/Kg dry	Analyte Qualifiers	Reporting Limit	Spike Level	Source Result	%REC	%REC Limits
Arsenic	191		10.7	214	1.4	88.4	75-125
Lead	415		3.2	42.8	453	NR #	75-125

Environmental Protection Agency

Region 6 Laboratory

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Metals by CLP ILMO5.3 - ICP - Quality Control

Batch: B8A0201 **Sample Type: Solid**

Matrix Spike Dup (B8A0201-MSD1)

Source: 1711018-01 Prepared: 1/2/2018 Analyzed: 2/26/2018

Targets

ANALYTE	Result mg/Kg dry	Analyte Qualifiers	Reporting Limit	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Arsenic	194		10.7	213	1.4	90.5	75-125	1.94	20
Lead	419		3.2	42.6	453	NR #	75-125	0.98	20

Environmental Protection Agency

Region 6 Laboratory

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SURROGATE SUMMARY REPORT

ABN CLP Low Level

Solid

LAB NUMBER	2-FP	PH-d5	2-CP-d4	1,2-DCB-d4	NB-d5	2-FBP	2,4,6-TBP	TP-d14
1711018-01	56.4	74.0	67.1	56.6	66.4	80.2	100	96.2
1711018-01RE1	61.7	75.9	69.5	59.8	68.2	76.6	95.7	90.2
B7K3001-BLK1	68.0	80.3	74.4	67.0	68.6	75.6	84.5	90.2
B7K3001-BS1	67.2	80.1	74.5	66.4	68.2	73.6	94.5	111
B7K3001-MS1	58.3	77.1	70.9	64.2	69.8	83.0	94.4	96.4
B7K3001-MSD1	38.5	62.7	52.9	52.6	62.4	77.4	60.0	88.2
B7L1104-BLK1	64.9	76.5	70.5	62.0	69.0	71.8	69.9	84.6
B7L1104-BS1	63.7	81.1	75.6	66.6	75.0	75.8	81.1	87.4
B7L1104-MS1	55.3	73.7	66.8	61.2	69.2	80.6	82.3	97.2
B7L1104-MSD1	42.5	62.3	54.9	48.2	60.6	74.0	76.7	92.0

			QC LIMITS
2-FP	=	2-Fluorophenol	29 - 100
PH-d5	=	Phenol-d5	37 - 100
2-CP-d4	=	2-Chlorophenol-d4	33 - 100
1,2-DCB-d4	=	1,2-Dichlorobenzene-d4	28 - 100
NB-d5	=	Nitrobenzene-d5	28 - 100
2-FBP	=	2-Fluorobiphenyl	37 - 110
2,4,6-TBP	=	2,4,6-Tribromophenol	41 - 137
TP-d14	=	Terphenyl-d14	46 - 138

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Notes and Definitions

UJ	The analyte was not detected at or above the reported value. The reported value is an estimate.
J	The identification of the analyte is acceptable; the reported value is an estimate.
A	This sample was extracted at a single acid pH.
HTS	Sample was prepared and/or analyzed past recommended holding time. Concentrations should be considered minimum values.
ABN	Acid Base Neutrals (Semivolatile Compounds)
AES	Atomic Emission Spectrometer
BS	Blank Spike
CVAA	Cold Vapor Atomic Absorption
DCB	Decachlorobiphenyl
ECD	Electron Capture Detector
GC	Gas Chromatograph
ICP	Inductively Coupled Plasma
ISTD	Internal Standard
LCS	Laboratory Control Sample
MS	Mass Spectrometer
MS/MSD	Matrix Spike/Matrix Spike Duplicate
NA	Not Applicable
NPD	Nitrogen Phosphorous Detector
NR	Not Reported
PCB	Polychlorinatedbiphenyl
RL	Reporting Limit
RT	Retention Time

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RPD	Relative Percent Difference
TCLP	Toxicity Characteristic Leaching Procedure
TCMX	Tetrachloro-meta-xylene
U	Undetected
VOA	Volatile Organic Analysis
#	Out of QC limits
>LR	The result was greater than the linear range.

Initial pressure in air analyses is the pressure at which the canister was received in psia (pounds *per* square inch absolute pressure).

The pH reported for Volatile liquid samples was tested using a 0-14 pH indicator strip for the purpose of verifying chemical preservation.

The statistical software used for the reporting of toxicity data is ToxCalc 5.0.32, Environmental Toxicity Data Analysis System 1994-2007 Tidepool Scientific Software.

USEPA CLP COC (REGION COPY)
DateShipped: 11/28/2017
CarrierName: FedEx
AirbillNo: 788633775805

CHAIN OF CUSTODY RECORD
Ag Street Landfill Nov2017
Case #: 113
Cooler #: 1

No: 6-112717-152411-0001
Lab: USEPA Region 6 Laboratory
Lab Contact: Christy Warren
Lab Phone: 281-983-2137

Sample Identifier	CLP Sample No.	Matrix/Sampler	Coll. Method	Analysis/Turnaround (Days)	Tag/Preservative/Bottles	Location	Collection Date/Time	Sample Type
ASL-SS-33		Soil/ Cassie Kerrin	Grab	Pb and As(35), PAH(35)	1 (Ice to 4oC), 2 (Ice to 4oC) (2)	ASL-SS-33	11/27/2017 16:32	Lab QC

Sample(s) to be used for Lab QC: ASL-SS-33 Tag 1, ASL-SS-33 Tag 2

Shipment for Case Complete? Y
Samples Transferred From Chain of Custody #

Analysis Key: Pb and As=Lead and Arsenic, PAH=PAHs

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
Ship FedEx	[signature] / chem	11/28/17 1630	[signature]	11/29/17 9:40	

spl. Temp = 2°C

APPENDIX K
2017 SOIL SAMPLING REPORTED DETECTIONS

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Table K-1. October 2017 Soil Sampling Reported Detections
Fourth Five-Year Review
Agriculture Street Landfill Superfund Site

Constituent	EPA Region 6 Residential Soil Screening Level[a] (mg/kg)	Louisiana RECAP Screening Standard[b] (mg/kg)	Sample Location	Result (mg/kg)
Lead	400	400	ASL-SS-01	169
			ASL-SS-02	1500
			ASL-SS-03	30.3
			ASL-SS-04	67.8
			ASL-SS-05	27.8
			ASL-SS-06	21.7
			ASL-SS-07	19.8
			ASL-SS-08	6.7
			ASL-SS-09	18.7
			ASL-SS-10	23
			ASL-SS-11	39.9
			ASL-SS-12	16.1
			ASL-SS-13	20.3
			ASL-SS-14	9.2
			ASL-SS-15	23.9
			ASL-SS-16	875
			ASL-SS-17	19.5
			ASL-SS-18	25.1
			ASL-SS-19	12.4
			ASL-SS-20	30.9
			ASL-SS-21	26.9
			ASL-SS-22	17.7
			ASL-SS-23	10.2
			ASL-SS-24	96
			ASL-SS-25	18.8
			ASL-SS-26	10.4
			ASL-SS-27	10.7
			ASL-SS-28	179
			ASL-SS-29	14.8
			ASL-SS-30	73.5
			ASL-SS-31	236
			ASL-SS-32	56.2

Table K-1. October 2017 Soil Sampling Reported Detections
Fourth Five-Year Review
Agriculture Street Landfill Superfund Site

Constituent	EPA Region 6 Residential Soil Screening Level[a] (mg/kg)	Louisiana RECAP Screening Standard[b] (mg/kg)	Sample Location	Result (mg/kg)
Arsenic	0.68	12	ASL-SS-02	28.2
1-Methylnapthalene	18	NA	ASL-SS-01	0.049
2-Methylnaphthalene	240	22	ASL-SS-01	0.0562
			ASL-SS-10	0.0421
Acetophenone	7800	NA	ASL-SS-31	0.283
Anthracene	18000	2200	ASL-SS-01	0.0498
Benzo (a) anthracene	1.1	0.62	ASL-SS-01	0.402
			ASL-SS-31	0.254
			ASL-SS-32	0.285
Benzo (a) pyrene	0.11	0.33	ASL-SS-01	0.433
			ASL-SS-31	0.273
			ASL-SS-32	0.308
Benzo (b) fluoranthene	1.1	0.62	ASL-SS-01	0.439
			ASL-SS-30	0.216
			ASL-SS-31	0.34
			ASL-SS-32	0.357
Benzo (g,h,i) perylene	NA	NA	ASL-SS-01	0.371
			ASL-SS-31	0.244
			ASL-SS-32	0.288
Benzo (k) fluoranthene	11	6.2	ASL-SS-01	0.481
			ASL-SS-31	0.204
			ASL-SS-32	0.234
Bis (2-ethylhexyl) phthalate	39	35	ASL-SS-10	0.288
			ASL-SS-30	0.251
			ASL-SS-31	0.495
			ASL-SS-32	0.465
Butyl benzyl phthalate	290	220	ASL-SS-31	0.163
Chrysene	110	62	ASL-SS-01	0.399
			ASL-SS-31	0.241
			ASL-SS-32	0.302

Table K-1. October 2017 Soil Sampling Reported Detections
Fourth Five-Year Review
Agriculture Street Landfill Superfund Site

Constituent	EPA Region 6 Residential Soil Screening Level[a] (mg/kg)	Louisiana RECAP Screening Standard[b] (mg/kg)	Sample Location	Result (mg/kg)
Fluoranthene	2400	220	ASL-SS-01	0.629
			ASL-SS-10	0.191
			ASL-SS-26	0.119
			ASL-SS-29	0.0724
			ASL-SS-30	0.222
			ASL-SS-31	0.308
			ASL-SS-32	0.565
Indeno (1,2,3-cd) pyrene	1.1	0.62	ASL-SS-01	0.326
			ASL-SS-31	0.177
			ASL-SS-32	0.259
Naphthalene	3.8	6.2	ASL-SS-01	0.0715
			ASL-SS-10	0.0797
			ASL-SS-30	0.0697
			ASL-SS-31	0.0798
Phenanthrene	NA	2100	ASL-SS-01	0.308
			ASL-SS-10	0.0759
			ASL-SS-26	0.0398
			ASL-SS-30	0.123
			ASL-SS-31	0.109
			ASL-SS-32	0.201
Pyrene	1800	230	ASL-SS-01	0.635
			ASL-SS-10	0.165
			ASL-SS-26	0.117
			ASL-SS-29	0.0563
			ASL-SS-30	0.135
			ASL-SS-31	0.292
			ASL-SS-32	0.413

Notes:

[a] EPA Region 6 Residential Soil Screening Level represents the most conservative (lowest) value of Carcinogenic Target Risk and noncancer Child Hazard Index (EPA, November 2017)

[b] Louisiana Risk Evaluation/Corrective Action Program (RECAP) Soil Screening Standard for non-industrial land use (LDEQ, 2003)
mg/kg = milligram per kilogram
ASL = Agriculture Street Landfill
EPA = U.S. Environmental Protection Agency
NA = not available
Nondetect results not shown
Shaded results exceed the limiting standard

Table K-2. November 2017 Residential Sub-slab soil Sampling Reported Detections
Fourth Five-Year Review
Agriculture Street Landfill Superfund Site

Constituent	EPA Region 6 Residential Soil Screening Level[a] (mg/kg)	Louisiana RECAP Screening Standard[b] (mg/kg)	Sample Location	Result (mg/kg)
Lead	400	400	ASL-SS-33	453
Acenaphthene	3600	370	ASL-SS-33	0.108
Anthracene	18000	2200	ASL-SS-33	0.68
Benzo (a) anthracene	1.1	0.62	ASL-SS-33	3.26
Benzo (a) pyrene	0.11	0.33	ASL-SS-33	2.67
Benzo (b) fluoranthene	1.1	0.62	ASL-SS-33	3.44
Benzo (g,h,i) perylene	NA	NA	ASL-SS-33	1.02
Benzo (k) fluoranthene	11	6.2	ASL-SS-33	2.3
Bis (2-ethylhexyl) phthalate	39	35	ASL-SS-33	1.0
Chrysene	110	62	ASL-SS-33	3.28
Dibenz (a,h) anthracene	0.11	0.33	ASL-SS-33	0.665
Fluoranthene	2400	220	ASL-SS-33	6.61
Fluorene	2400	280	ASL-SS-33	0.197
Indeno (1,2,3-cd) pyrene	1.1	0.62	ASL-SS-33	1.13
Naphthalene	3.8	6.2	ASL-SS-33	0.035
Phenanthrene	NA	2100	ASL-SS-33	3.26
Pyrene	1800	230	ASL-SS-33	4.57

Notes:

[a] EPA Region 6 Residential Soil Screening Level represents the most conservative (lowest) value of Carcinogenic Target Risk and noncancer Child Hazard Index (EPA, November 2017)

[b] Louisiana Risk Evaluation/Corrective Action Program (RECAP) Screening Standard for nonindustrial soil (LDEQ, 2003)

ASL = Agriculture Street Landfill
EPA = U.S. Environmental Protection Agency
mg/kg = milligram per kilogram
NA = not available
Nondetect results not shown
Shaded results exceed the limiting standard