



# REQUEST FOR PROPOSALS

## ITEM DESCRIPTION: Remediation of the Louttit Site

**DEADLINE:** Bids must be submitted by **12:00 p.m.** on July 11, 2016 to the **Providence Redevelopment Agency, 444 Westminster Street, 3<sup>rd</sup> Floor, Providence, RI 02903.**

All properly submitted bids for the remediation of the Louttit Site will be opened at 12:15 on July 11, 2016 in the Department of Planning and Development, 444 Westminster Street, 3<sup>rd</sup> Floor, Providence, RI 02903.

## INSTRUCTIONS

- Vendors must submit sealed bids in an envelope that is clearly labeled – Louttit Remediation
- Communications to the Providence Redevelopment Agency are not competitive sealed bids (i.e. product information/samples) should have “**NOT A BID**” written on the envelope or wrapper.
- The bid envelope and information relative to the bid must be addressed to:

**Providence Redevelopment Agency**  
**444 Westminster Street, 3<sup>rd</sup> Floor**  
**Providence, RI 02903**

- Properly submitted bids will be reviewed by the Providence Redevelopment Agency and the remediation project manager from Cherenzia & Associates, Ltd.

## Bid Package Checklist

Required Bid Forms are enclosed here as Enclosure A, available in the City of Providence Department of Planning and Development, and available online at <http://providenceri.com/public-property/vendor-center/forms>. The Site Remediation Task List is attached to this Request for Proposal as Enclosure B.

The bid package must include the following, in order:

- Required:** Bid Form 1: Bidder's Blank as the cover page/ 1<sup>st</sup> page
- Required:** Bid Form 2: Certification of Bidder as 2<sup>nd</sup> page
- Required:** Minority and Women Business Enterprise Program Forms, based on Bidder Category information available at <http://providenceri.com/public-property/vendor->



[center/forms](#)

- Required: Site Remediation Task List**
- Optional: Bidder's Proposal/Packet, including additional pricing information and details related to the good(s) or service(s) being provided, if Bidder's Blank (Bid Form 1) is not adequate**
- Required: Financial Assurance as indicated under Bid Terms on Page 4 of this RFP**



## **NOTICE TO VENDORS**

1. The Providence Redevelopment Agency will make the award to the lowest responsible eligible bidder.
2. No proposal will be accepted if made in collusion with any other bidder.
3. A bidder who is an out-of-state corporation shall qualify or register to transact business in this State, in accordance with R.I. General Laws (as amended) in the Rhode Island Business Corporation Act, RIGL Section 7-1.2-1401, et seq.
4. The Providence Redevelopment Agency reserves the right to reject any and all bids.
5. In determining the lowest responsible bidder, cash discounts based on preferable payment terms will not be considered.
6. Where prices are the same, the Providence Redevelopment Agency reserves the right to award to one bidder, or to split the award.
7. Competing bids may be viewed in person at the Department of Planning and Development, immediately upon the conclusion of the unsealing/opening of the bids.
8. Prices quoted should include Federal Excise Taxes and Rhode Island Sales Tax.
9. In case of error in the extension of prices quoted, the unit price will govern.
10. The contractor will **NOT** be permitted to: a) assign or underlet the contract, b) assign either legally or equitably any monies hereunder or its claim thereto without the previous written consent of the Executive Director.
11. Delivery dates must be shown in your bid. Subject to events of force majeure, all work must be substantially completed by August 15, 2016.
12. A certificate of insurance is required of a successful vendor.
13. Bids may be submitted on an “equal” in quality basis. We reserve the right to decide equality.
14. No goods should be delivered or work started without written consent from the Providence Redevelopment Agency. Bidder should be prepared to commence work promptly following the bid award.
15. **Submit an ORIGINAL and three (3) copies of your bid to the Providence Redevelopment Agency, unless the specification section of this document indicates otherwise.**
16. Vendor must certify that it does not unlawfully discriminate on the basis of race, color, national origin, gender, sexual orientation and/or religion in its business and hiring practices and that all of its employees are lawfully employed under all applicable federal, state and local laws, rules and regulations.



**BID TERMS**

1. Financial assurances will be required in order to be a successful bidder for Construction and Service contracts. A certified check for \$4,000.00 must be deposited with the Providence Redevelopment Agency as a guarantee that the Contract will be signed and delivered by the bidder, or the bid will not be considered by the Providence Redevelopment Agency.
2. It is hereby mutually understood and agreed that no payment for extra work shall or will be claimed or made unless ordered in writing by the Providence Redevelopment Agency.
3. Awards will be made within thirty (30) days of bid opening. All bid prices will be considered firm, unless qualified otherwise. Requests for price increases will not be honored.
4. Failure to deliver within the time quoted or failure to meet specifications may result in default action in accordance with the general specifications. It is agreed that deliveries and/or completion are subject to strikes, lockouts, accidents and Acts of God.
5. Only one shipping charge will be applied in the event of partial deliveries for blanket or term contracts.
6. The successful bidder shall, prior to commencing performance under the contract, attach and submit evidence that they have complied with the provisions of the Rhode Island Worker's Compensation Act Title 28, Chapter 29, Section 1, et seq. (R.I.G.L.). If the successful bidder is exempt from compliance under the Worker's Compensation Act, an officer of the successful bidder shall so state by way of sworn Affidavit, which shall accompany the signed contract.
7. The successful bidder shall, prior to commencing performance under the contract, attach and submit a certificate of insurance, in a form and in the amount satisfactory to the Providence Redevelopment Agency by which the successful bidder will indemnify and hold harmless the Providence Redevelopment Agency and City of Providence during the term of the contract from and against all loss or damages arising from the performance under the contract including all claims for personal injury or damages to property sustained by third persons, or their agents, servants and/or those claimed under them.
8. The Bidder will agree to use good faith efforts to utilize Minority Business Enterprise (MBE) and Women's Business Enterprise (WBE) subcontractors at the percentage rates set forth in City of Providence Code of Ordinances, Chapter 21, Article II, Sec. 21-52, and Rhode Island General Laws (as amended), Chapter 31-14, et seq.



**DESCRIPTION AND / OR SPECIFICATIONS**

A general overview of the necessary work is as follows:

*A petroleum release from the former UST Nos. 1 and 2 at the former Louttit Laundry property in Providence, Rhode Island has impacted the soil in the vicinity of the tank grave. Impacted soils exist at depths ranging from 15 feet below ground surface in the former tank grave to approximately 30 feet below ground surface around the former tank grave which is the approximate depth of the water table. The proposed impacted soil removal area is depicted on Figure 2 in Appendix A of the attached Corrective Action Plan. Excavation activities will include the following:*

*Unimpacted soils will be removed to a depth of approximately 12 – 15 feet below ground surface to allow removal of the approximately 300 tons of heavily impacted soils.*

*Soils found to be impacted with petroleum based on visual observation and soil screening activities will then be excavated and live loaded into trucks for off-site recycling (approximately 300 tons of impacted soil are to be removed).*

*The excavation will be backfilled with unimpacted fill from the upper layers of soil and approximately 300 tons of imported fill to restore to the grade existing before excavation.*

Specific Remediation Tasks, Site Specifications, and the Site Plans detailing the work that the Bidder will perform are attached to this Request for Proposal as **Enclosure B.**

Bidder agrees to enter into a modified AIA A107-2007 Standard Form of Agreement between Owner and Contractor which is attached to this Request for Proposal as **Enclosure C.**

**Enclosure A**  
**Bid Forms 1 and 2**



Providence Redevelopment Agency  
Jorge O. Elorza, Mayor | Don Gralnek, Executive Director

1. Bids must meet the attached specifications. Any exceptions or modifications must be noted and fully explained.
2. Bidder's responses must be in ink or typewritten, and all blanks on the bid form should be completed.
3. The price or prices proposed should be stated both in WRITING and in FIGURES, and any proposal not so stated may be rejected. Contracts exceeding twelve months must specify annual costs for each year.
4. Bids **SHOULD BE TOTALED** so that the final cost is clearly stated, however each item should be priced individually. Do not group items. Awards may be made on the basis of total bid or by individual items.
5. Each bidder is required to state in their proposal their full name and address and must state the names of all persons or firms with whom they are submitting a joint bid. All bids **SHOULD BE SIGNED IN INK.**

Name of Bidder (Firm or Individual): \_\_\_\_\_

Contact Name: \_\_\_\_\_

Address: \_\_\_\_\_

Phone # \_\_\_\_\_:

Agrees to bid on (Items(s) to be bid): \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

Delivery Date (when not immediate): \_\_\_\_\_

Name of Surety Company (if applicable): \_\_\_\_\_

Total Amount in Writing: \_\_\_\_\_

Total Amount in Figures: \_\_\_\_\_

Additional Bidding Details (Use Additional Pages if Necessary)

Signature of Representative \_\_\_\_\_

Title \_\_\_\_\_



Providence Redevelopment Agency  
Jorge O. Elorza, Mayor | Don Gralnek, Executive Director

**BID FORM 2: CERTIFICATION OF BIDDER**  
(Non-Discrimination/Hiring)

Upon behalf of \_\_\_\_\_ (Bidder's Name),

I, \_\_\_\_\_ (Name of Person Making Certification),

being its \_\_\_\_\_ (Title or "Self"), hereby certify that:

1. Bidder does not unlawfully discriminate on the basis of race, color, national origin, gender, sexual orientation and/or religion in its business and hiring practices.
2. All of Bidder's employees have been hired in compliance with all applicable federal, state and local laws, rules and regulations.

I affirm by signing below that I am duly authorized on behalf of Bidder,

on this \_\_\_\_ day of \_\_\_\_\_ 20\_\_.

Signature of Representative \_\_\_\_\_

Printed Name \_\_\_\_\_

# **Enclosure B**

Specific Remediation Tasks, Site Specifications, and the Site Plans

**SITE REMEDIATION  
93 CRANSTON STREET  
PROVIDENCE, RHODE ISLAND**

**Please fill out the following sections and refer to the approved Corrective Action (CAP) for details for each task (Attachment A). All work must be conducted according to the provisions and specifications provided in the approved CAP, any additional requirements contained in the Corrective Action Plan approval letter for this project (Attachment B) and the Remediation Site Plan (Attachment C).**

**Task 1 - UTILITY CLEARANCE/HEALTH & SAFETY PLAN**

This item includes all labor, materials, equipment and incidentals required to obtain utility clearance and prepare a site-specific Health & Safety Plan prior to commencing site activities.

\_\_\_\_\_ \$ \_\_\_\_\_  
(Price written in words) (Dollars)

**Task 2 – PRE-REMEDIAL ACTIVITIES**

This item includes all labor, materials, equipment and incidentals required to provide site layout of the excavation area, install perimeter erosion and sedimentation controls and construct a vehicle tracking pad in accordance with the approved CAP and Remediation Site Plan prior to commencing site activities.

\_\_\_\_\_ \$ \_\_\_\_\_  
(Price written in words) (Dollars)

**Task 3 – FENCING**

This item includes all labor, materials, equipment, and incidentals required to install 6 foot chain link fence mounted on driven poles and secure the existing Cranston Street entrance gate in accordance with the Remediation Site Plan prior to commencing site activities.

\_\_\_\_\_ \$ \_\_\_\_\_  
(Price written in words) (Dollars)

**Task 4 – EXISTING MATERIAL EXCAVATION/STOCKPILE**

This item includes all labor, materials, equipment and incidentals required to excavate and stockpile approximately 1,600 cubic yards of fill material in accordance with the approved CAP and Remediation Site Plan.

\_\_\_\_\_ \$ \_\_\_\_\_  
(Price written in words) (Dollars)

**Task 5 – CONTAMINATED SOIL EXCAVATION**

This item includes all labor, materials, equipment and incidentals required to excavate approximately 300 tons of petroleum impacted soils and live load into trucks for transportation and recycling in accordance with the approved CAP and Remediation Site Plan.

\_\_\_\_\_ \$ \_\_\_\_\_  
(Price written in words) (Dollars)

**Task 6 – CONTAMINATED SOIL TRANSPORTATION & DISPOSAL**

This item includes all labor, materials, equipment, and incidentals required to prepare necessary waste profile reports and shipping documents for facility acceptance pre-approval, transport contaminated soil off-site to a licensed disposal/recycling facility and provide documentation of the disposal facility in the form of certified weight slips in accordance with the approved CAP. An analytical data package for the contaminated soil is included as Attachment D.

\_\_\_\_\_ \$ \_\_\_\_\_  
(Price written in words) (Dollars)

**Task 7 – BACKFILL EXCAVATED FILL MATERIAL**

This item includes all labor, materials, equipment and incidentals required to backfill the previously excavated fill material in accordance with the approved CAP and Remediation Site Plan. Any large structural debris (concrete foundations, walls, etc.) should be stockpiled separately and not backfilled if it cannot be broken up into pieces less than 12 inches in diameter. Development plans for this area call for a paved parking lot; therefore the minimum compaction requirement for this area is 95% as determined by ASTM Test D1557 Method C.

\_\_\_\_\_ \$ \_\_\_\_\_  
(Price written in words) (Dollars)

**Task 8 – SITE RESTORATION**

This item includes all labor, materials, equipment and incidentals required to backfill the excavation area with gravel and restore the area to its original grade. Development plans for this area call for a paved parking lot; therefore the minimum compaction requirement for this area is 95% as determined by ASTM Test D1557 Method C. It is expected that approximately 350 tons of gravel will be required to restore the excavation area to its original grade.

\_\_\_\_\_ \$ \_\_\_\_\_  
(Price written in words) (Dollars)

**Task 9 – DUST CONTROL**

This item includes all labor, materials, equipment, and incidentals required to provide dust control during remediation activities in accordance with The Dust Control Plan included as Attachment E.

\_\_\_\_\_ \$ \_\_\_\_\_  
(Price written in words) (Dollars)

**UNIT PRICING (furnish and install complete, each item noted)**

The total cost of the project as stated by the Bidder above is for comparison purposes. In addition to stating the Base Bid price, the bidder shall state prices for the various unit items of work listed below. The unit prices as quoted are for computing adjustments such as Add/Deduct, to the Base Bid prior to Contract Award, as well as additions or deletions during the course of construction, based upon work ordered by the Owner. Unit prices are to be complete price to be added or deducted on the basis of quantities or work involved.

<u>ITEM</u>		<u>PRICE</u>	
A. Erosion Controls	/LF	\$ _____	/LF
B. Chain Link Fencing	/LF	\$ _____	/LF
C. Contaminated Soil Excavation	/TON	\$ _____	/TON
D. Contaminated Soil Transportation/Disposal	/TON	\$ _____	/TON
E. Gravel Import/Placement/Compaction	/TON	\$ _____	/TON

**ATTACHMENT A**  
**CORRECTIVE ACTION PLAN**

# REVISED CORRECTIVE ACTION PLAN

## Former Louttit Laundry Property 93 Cranston Street Providence, Rhode Island

*Prepared for*

Bourne Avenue Capital Partners LLC  
293 Bourne Avenue  
Rumford, RI 02916

*Prepared by*

Cherenzia & Associates, Ltd  
P.O. Box 513  
Westerly, RI 02891



**CHERENZIA**  
& ASSOCIATES, LTD.

Civil Engineers • Land Surveyors  
Land Use Planners • Environmental Engineers  
Raymond F. Cherenzia, P.E., L.S., Founder

Revised December 2015

Project No. 215057

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## 1. INTRODUCTION AND BACKGROUND

Cherenzia & Associates, Ltd. (Cherenzia) has prepared this Corrective Action Plan in accordance with Section 6.0 of the Rhode Island Department of Environmental Management (RIDEM) Leaking Underground Storage Tank (UST) Program Guidance Document (October 2000) for the former Louttit Laundry property at 93 Cranston Street, Providence, Rhode Island. This Corrective Action Plan has been prepared on behalf of Bourne Avenue Capital Partners LLC. Petroleum contamination was first noted at this location in 1999 during a Remedial Evaluation Report (December 1999) conducted by Fuss & O'Neill on behalf of RIDEM. Through this assessment and a subsequent UST Closure Assessment prepared by EA Engineering, Science & Technology, Inc. (EA), dated October 2004, four unregistered USTs were discovered at the site. Two USTs, designated as UST Nos. 1 and 2, were 20,000-gal steel USTs containing No. 6 fuel oil. UST Nos. 3 and 4 were 12,000-gal and 8,000-gal steel USTs, respectively, also containing No. 6 fuel oil. EA supervised the removal of these USTs in September 2004. During the UST closure, it was discovered that a release of petroleum had occurred from UST Nos. 1 and 2.

### 1.1. SITE DESCRIPTION

The site is located to the northeast of the intersection of Cranston and Burgess Streets in the City of Providence, Providence County, Rhode Island (see Figure 1 in Appendix A). The site is identified on the City of Providence Tax Assessor's Map as Plat 29, Lots 193, 194, 504, and 505, an area of approximately 1.3 acres. The site is owned by the City of Providence, operated as a dry cleaner from approximately 1903 through 1990 and has been vacant since 1990.

Adjacent properties include: parking for Citizens Bank to the north and east, with the bank building located further to the east and northeast; Hudson Furs, a storage and dry cleaning company to the west across Burgess Street; the John Hope Settlement House, to the northwest across Burgess Street; and the athletic fields for the Central/Classical high schools across Cranston Street to the south. The nearest residential land use is to the west, which is City-owned public housing (Wiggin Manor) adjacent to the Hudson Furs building along Cranston Street. The site is not currently serviced by any utilities and is partially secured with a chain-link fence and locking gate on Cranston Street.

Groundwater resources are not used by the site or adjacent properties for domestic, fire suppression, or production purposes. Groundwater is characterized as GB by RIDEM, indicating that it is not suitable for consumption without treatment. No public water supply wells are registered within 1 mi of the site. Surface water flows via infiltration to the groundwater table. Based upon previous environmental investigations, groundwater is located approximately 28-33 feet below ground surface (bgs). The site is topographically flat, and groundwater is expected to flow to the northwest, toward the Woonasquatucket River. The nearest surface water body, the Woonasquatucket River, is located approximately 4,500 feet to the northwest of the site. Soils are characterized as urban land and outwash deposits. Bedrock at the site is at a depth greater than 80 feet bgs and is characterized as Rhode Island Formation, a meta-sedimentary sequence.

Due to the depth of the water table and the lack of underground utilities and storm drains/catch basins at the site, no receptors of potential contamination were noted during any previous environmental investigations. There is little to no risk of adverse impact to surface water, public or private wells, visitors to the site or adjacent sites, or environmentally sensitive areas.

## **1.2. PREVIOUS ENVIRONMENTAL INVESTIGATIONS**

### **1.2.1. Remedial Evaluation Report (Fuss & O'Neill, December 1999)**

On behalf of RIDEM, Fuss & O'Neill conducted an environmental investigation at the former Louttit Laundry in 1998-1999 based upon areas of concern noted in the environmental site assessment conducted by GZA GeoEnvironmental, Inc., dated June 1993. Soil, soil gas, and groundwater were observed and sampled during this investigation. Although this investigation revealed two contaminants of concern, petroleum and chlorinated solvents, this Corrective Action Plan will only summarize the petroleum-related data.

Test pits were advanced in the vicinity of UST Nos. 1 and 2 and UST Nos. 3 and 4, although UST No. 4 was not discovered during this investigation and was found during the subsequent UST closure performed by EA. UST Nos. 1 and 2 were found to be in poor condition during test pitting activities. Elevated levels of total petroleum hydrocarbons (TPH) were noted in the test pits advanced in the vicinity of the USTs. In addition, elevated levels of TPH and associated volatile organic compounds (VOCs) (i.e., benzene, ethylbenzene, and xylene) within the subsurface soils were observed at two soil boring locations adjacent to UST Nos. 1 and 2. Groundwater in this area was found to contain light, non-aqueous phase liquid (LNAPL) at the monitoring wells in the immediate vicinity of UST Nos. 1 and 2. This investigation concluded that this No. 6 fuel oil LNAPL plume covered an area of 1,256 square feet, centered on the area containing UST Nos. 1 and 2.

### **1.2.2. Closure Assessment Report (EA, October 2004)**

EA supervised the removal of the four onsite USTs in September 2004. All closure activities were conducted in accordance with the RIDEM Rules and Regulations for Underground Storage Facilities Used for Petroleum Products and Hazardous Materials (October 2002). Each UST was found to contain various volumes of No. 6 fuel oil, water, and soil/sludge. Soils from the sidewalls of each tank grave were screened with a flame ionization detector and submitted for laboratory analysis of TPH by the U.S. Environmental Protection Agency (EPA) Method 8100. As UST Nos. 1 and 2 and UST Nos. 3 and 4 were located adjacent to each other in two separate areas, the tank graves were addressed separately as pairs, not individual tanks, when it came to screening and sampling. At the UST Nos. 1 and 2 graves, elevated screening results were noted beneath each UST and along the north sidewall. Two samples were found to contain TPH concentrations above the RIDEM GB Leachability Criteria: the eastern bottom sample below UST No. 1 and the western bottom sample below UST No. 2. Therefore, it was determined that a release of petroleum had occurred from both UST Nos. 1 and 2. At the UST Nos. 3 and 4 graves, no elevated screening results or TPH exceedances of the RIDEM GB Leachability Criteria were identified.

Due to the depth of the groundwater interface/smear zone at this site (i.e., approximately 30 feet bgs), the proximity of the UST Nos. 1 and 2 grave to the adjacent property, and the potential presence of chlorinated solvents in soils, the impacted soil was not removed at the time of UST closure.

### **1.2.3. Site Investigation Report (EA, 2006)**

To determine the lateral and vertical extent of the petroleum contamination noted during the previous investigations, EA conducted several phases of a subsurface investigation at the site during Fall 2005 and Winter 2006. As petroleum contamination had been previously noted within the graves of UST Nos. 1 and 2, the investigation centered on this area, and the investigation scope was increased laterally based on field observations. Soil borings were advanced using a Geoprobe 6600, and soils

were sampled with 5-ft long, dedicated acetate sleeves. Soils were examined for evidence of contamination, logged using the Unified Soil Classification System, and screened using a flame ionization detector where appropriate.

A total of 16 soil borings were advanced to delineate the petroleum contamination at the site. The lateral placement of soil borings was determined based upon observations and field screening results. One boring was advanced in each of the UST graves: SB-EA-6 was advanced within the grave of the former UST Nos. 3 and 4, located adjacent to the former boiler room on the eastern portion of the site, and SB-EA-7 was advanced within the grave of the former UST Nos. 1 and 2, located to the north of the former building along the eastern fence line. Significant petroleum contamination was noted at SB-EA-7, and the subsequent soil borings were advanced radially from this location to determine the extent of the petroleum impact.

Results identified significant soil contamination centered on the graves of UST Nos. 1 and 2, as approximately 14 feet of heavily impacted soil was noted at SB-EA-7. This thickness decreased with increasing distance from the tank grave. The grave from UST Nos. 3 and 4 was not found to be impacted with petroleum. An area of approximately 4,500 square feet was found to be significantly impacted with petroleum during this investigation. The greatest extent of petroleum occurs to the east/southeast of the UST Nos. 1 and 2 graves, which is inconsistent with the direction of groundwater flow and may be associated with a documented basement spill of No. 6 fuel oil that occurred during facility operations. In addition, given the heterogeneity of the subsurface stratigraphy at the site, it is possible that the petroleum migrated preferentially along certain soil layers.

As part of this investigation, temporary monitoring wells were used at three locations downgradient of this petroleum area of concern, and three previously installed permanent monitoring wells were also sampled. Locations were chosen to determine whether petroleum and related compounds have migrated offsite. The temporary monitoring wells consisted of 1-in. diameter steel rods with 5 feet of steel slotted screen at the bottom interval driven by a Geoprobe 6600. Groundwater samples were collected from each of three depths within the temporary monitoring wells: 35-40 feet, 45-50 feet, and 55-60 feet bgs. The points were purged using a Watera tube, and samples were collected for laboratory analysis of VOCs by EPA Method 8260B. The purge water was observed for signs of contamination, including sheens, odors, or other evidence of LNAPL. Groundwater samples from the previously installed permanent monitoring wells were collected using dedicated polyethylene bailers, and submitted for laboratory analysis of VOCs by EPA Method 8260B. Prior to sample collection, these wells were gauged using an oil/water interface probe to determine whether measurable LNAPL was present, and the purge water was observed for evidence of contamination during purging and sample collection. The monitoring wells sampled during this investigation (MW-3, MW-9, and MW-11) were installed by Fuss & O'Neill during the 1998-1999 investigation. Attempts were made to locate the remaining eight monitoring wells previously installed, but they are presumed to have been destroyed during building demolition activities.

No evidence of LNAPL was noted during the gauging of each of the permanent monitoring wells. No odors or sheens were noted on the purge water from the temporary or permanent monitoring wells. Results of the VOC analysis did not indicate the presence of any VOCs above the RIDEM GB Groundwater Objectives. The only petroleum-related compound detected among these locations was methyl tert-butyl ether (MTBE), a gasoline additive, at one of the depth intervals in one temporary monitoring well location (45-50 feet bgs at GW-5), and in the shallow well installed by Fuss & O'Neill on the John Hope Settlement House property (MW-11). The MTBE concentrations are laboratory estimates, as they were detected above the laboratory Method Reporting Limit but were below the RIDEM GB Groundwater Objectives. MTBE cannot be attributed to the leaking UST Nos. 1 and 2.

EA also installed three new permanent groundwater monitoring wells in the downgradient direction of the petroleum area of concern in February 2006, including two along the western fence line and one across Burgess Street at the adjacent property to the west. Although these deep (80 feet bgs) wells were installed primarily to provide information on the extent of chlorinated solvents, they were also gauged with an oil/water interface probe and no evidence of LNAPL was noted in any of these wells. Groundwater samples analyzed for VOCs did not indicate detectable concentrations of petroleum-related compounds.

To update the information on groundwater elevation and flow direction from the 1998-1999 investigation, the four permanent monitoring wells remaining from the Fuss & O'Neill investigation and the three new permanent monitoring wells installed by EA were surveyed and gauged in February 2006. Figure 4 from this investigation has been included in Appendix B which shows the location of each monitoring well and the groundwater flow direction. The well gauging results are summarized in the table below. Based on these measurements, the groundwater flow direction was determined to flow toward the west/northwest.

<b>Well Gauging Results – 7 February 2006</b>				
Well ID	Depth to Bottom (ft. below top of casing)	Depth to Water Table (ft. below top of casing)	Elevation of Top of Casing (ft.)	Relative Elevation of Groundwater Table (ft.)
MW-8 <sup>(a)</sup>	43.24	27.61	100.72	73.11
MW-3 <sup>(a)</sup>	34.72	31.74	103.40	71.66
MW-9 <sup>(a)</sup>	42.46	29.27	101.35	72.08
MW-11 <sup>(a)</sup>	38.95	32.54	103.61	71.07
MW-EA-1	80.30	34.67	105.98 <sup>(b)</sup>	71.31
MW-EA-2	75.00	32.85	104.54 <sup>(b)</sup>	71.69
MW-EA-3	76.30	31.11	102.32	71.21
(a) Fuss & O'Neill.				
(b) Monitoring wells finished above grade (approximately 2.5 ft.).				

## 2. FIELD INVESTIGATION

On September 4-9, 2013, Cherenzia supervised the excavation of eleven deep test pits at the property. The first test pit (TP-1) was excavated in the location of former UST Nos. 3 and 4, and the remaining ten test pits focused on the location of former UST Nos. 1 and 2. At most test pit locations, demolition debris and foundation walls were encountered from the former Louttit Laundry facility that was previously demolished at the site. The former UST Nos. 1 and 2 tank grave was located and exhibited heavily impacted soils at a depth beginning at 15 . 18 feet bgs. A sample was collected of the impacted soils and submitted to ESS Laboratories in Cranston, Rhode Island for the purpose of determining a cost effective disposal/recycling option for the excavated materials. The chain of custody and analytical results for this sample are included in Appendix C.

Test pits excavated laterally outward from the tank grave exhibited either clean moist sandy gravel or heavy oil at the groundwater elevation of approximately 28 feet bgs. Figure 2 in Appendix A depicts test pit locations and provides a complete summary of what materials were encountered at each test pit location.

### 3. PROPOSED REMEDIATION

A petroleum release from the former UST Nos. 1 and 2 at the former Louttit Laundry property in Providence, Rhode Island has impacted the soil in the vicinity of the tank grave. The long-term remedy proposed for the property involves the following elements:

- Excavation of the accessible impacted soils (approximately 300 tons) from the former UST Nos. 1 and 2 tank grave identified at the property during recent test pitting activities and depicted on Figure 2 in Appendix A;
- Installation of four groundwater monitoring wells to a depth of approximately 35 feet below ground surface downgradient of the former UST Nos. 1 and 2 tank grave following excavation of the accessible impacted soils; and
- Initiate groundwater monitoring to determine if contaminants are migrating from the property.

This long-term remedy will monitor for any spread of the contamination to determine if additional actions are required.

#### 3.1. EXCAVATION

Impacted soils exist at depths ranging from 15 feet below ground surface in the former tank grave to approximately 30 feet below ground surface around the former tank grave which is the approximate depth of the water table. Excavation at this depth will require soil stabilization for the sidewalls, particularly in this urban setting with surrounding structures and City sidewalks and streets. The proposed impacted soil removal area is depicted on Figure 2 in Appendix A.

Excavation activities will begin by removing unimpacted soils to a depth of approximately 12 . 15 feet below ground surface. Soils will be continuously screened using a flame ionization detector during excavation activities. Soils found to be impacted with petroleum based on visual observation and soil screening activities will then be excavated and stockpiled on polyethylene sheeting separate from the excavation area. At the end of each workday, these soils will be covered to prevent wind or water spreading the soil beyond the stockpile area. Excavation activities will continue until all accessible soils that exhibit signs of significant petroleum impact have been removed from the former tank grave. The excavation will be backfilled with unimpacted fill from the upper layers of soil and imported fill, as necessary to restore to the grade existing before excavation.

#### 3.2. GROUNDWATER MONITORING

Four groundwater monitoring wells shall be installed to a depth of approximately 35 feet below ground surface adjacent to and downgradient of the former UST Nos. 1 and 2 tank grave following excavation of the accessible impacted soils. Refer to Figure 3 for the proposed well locations. The monitoring wells shall be gauged for separate phase product on a quarterly frequency for the first two years and annually thereafter. A monitoring report shall be submitted to RIDEM with the results of each monitoring event within 30 days of each event.

#### 4. PROPOSED SCHEDULE

The activities outlined in this Corrective Action Plan are expected to begin in 2016, and continue in accordance with the following estimated timeframe:

<b>Activity</b>	<b>Approximate Duration</b>
Excavation of Impacted Soils	2 weeks
Installation of Monitoring Wells	1 week
Site Restoration	2 weeks
Total Remediation	5 weeks

As the corrective action at the site is expected to be completed in five weeks, it is not expected that any status reports will be submitted during site activities. However, a Corrective Action Report will be submitted within 45 days detailing all actions conducted at the site, including photographs, soil screening results and soil disposal slips.

**5. CERTIFICATIONS**

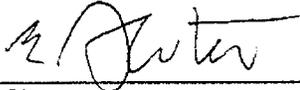
The undersigned certify that this Corrective Action Plan is a complete and accurate representation of the contaminated site and contains all known facts to the best of their knowledge.



Timothy C. Regan, P.E.  
Cherenzia & Associates, Ltd.

12/21/15

Date



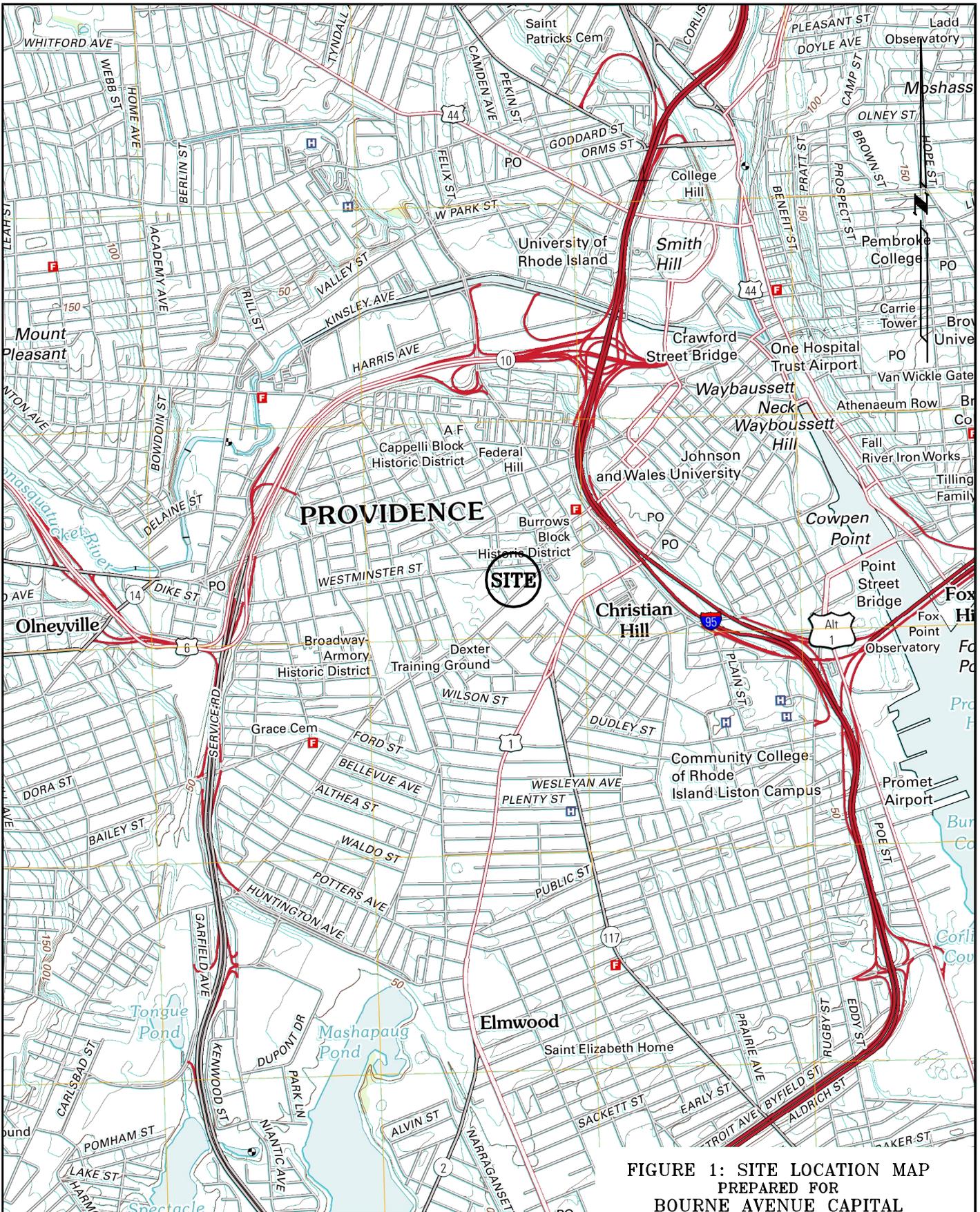
Ethan Sluter  
Bourne Avenue Capital Partners LLC

12/18/15

Date

**APPENDIX A:**  
**FIGURES**

**Figure 1:**  
**Site Location Map**



**FIGURE 1: SITE LOCATION MAP  
 PREPARED FOR  
 BOURNE AVENUE CAPITAL  
 PARTNERS LLC  
 93 CRANSTON STREET  
 PROVIDENCE, RHODE ISLAND**

SCALE: 1"=2,000' DRAWN BY: AKG  
 NOVEMBER 20, 2015 CHECK BY: TCR

1,000 0 1,000 2,000 3,000 Feet

SHEET: FIGURE 1

JOB #: 215057

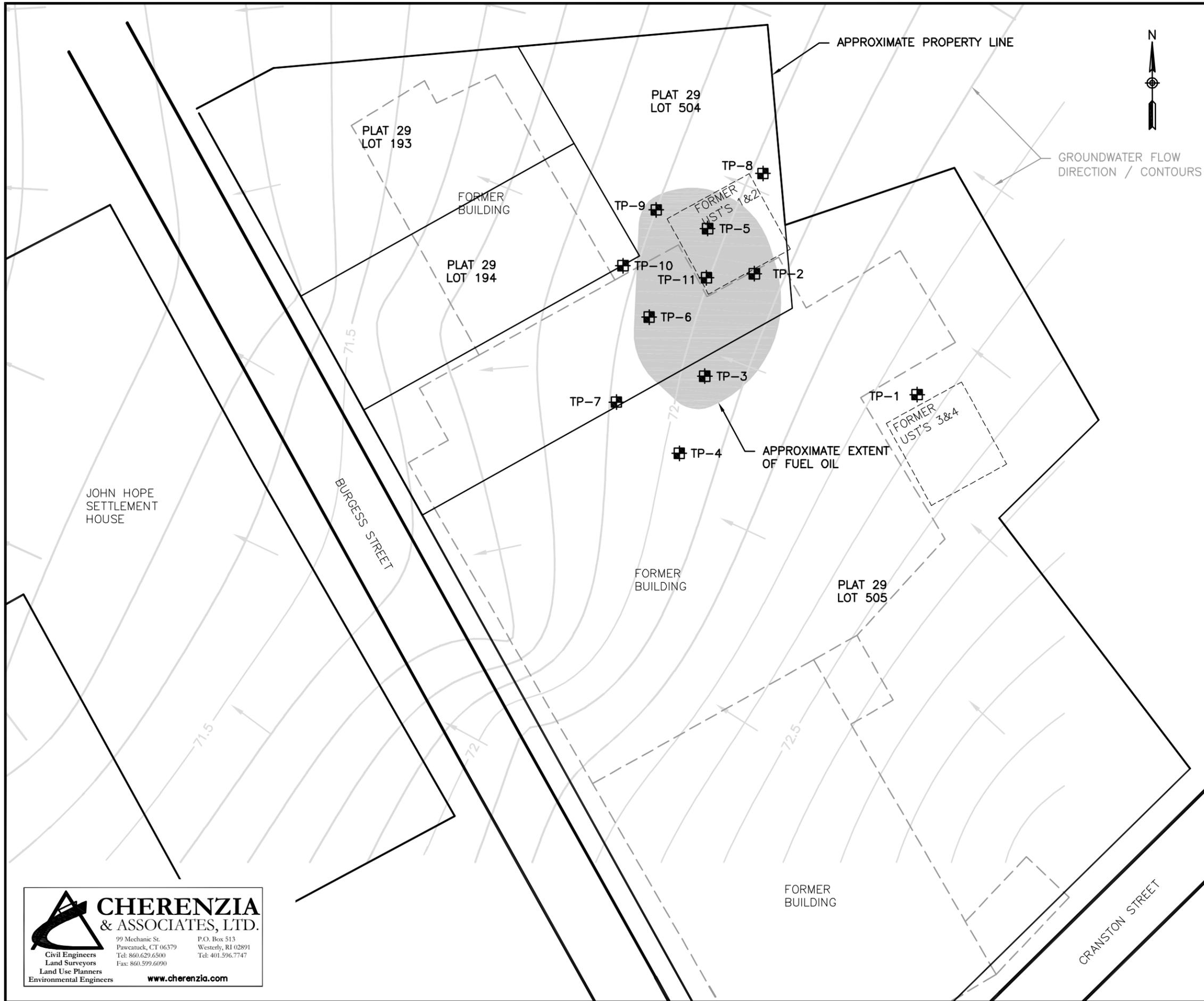
**CHERENZIA  
& ASSOCIATES, LTD.**

99 Mechanic St. P.O. Box 513  
 Pawcatuck, CT 06379 Westerly, RI 02891  
 Tel: 860.629.6500 Tel: 401.596.7747  
 Fax: 860.599.6090

Civil Engineers  
 Land Surveyors  
 Land Use Planners  
 Environmental Engineers

www.cherenzia.com

**Figure 2:**  
**Test Pit Location Plan**



**Test Pit Notes:**

- TP-1: 0 - 8 ft. - Loam/Gravel/Foundation Walls  
8 - 12 ft. - Demolition Debris  
12 - 28 ft. - Sandy Gravel  
28 ft. - Water Table/No Fuel Oil
- TP-2: 0 - 6 ft. - Loam/Gravel/Foundation Walls  
6 - 12 ft. - Demolition Debris  
12 - 28 ft. - Sandy Gravel  
28 ft. - Water Table/Fuel Oil
- TP-3: 0 - 12 ft. - Demolition Debris  
12 ft. - Basement Slab  
12 - 28 ft. - Sandy Gravel  
28 ft. - Water Table/Fuel Oil
- TP-4: 0 - 12 ft. - Demolition Debris  
12 ft. - Basement Slab  
12 - 28 ft. - Sandy Gravel  
28 ft. - Water Table/No Fuel Oil
- TP-5: 0 - 6 ft. - Urban Fill/Demolition Debris  
6 - 18 ft. - Sandy Gravel  
18 ft. - Fuel Oil
- TP-6: 0 - 8 ft. - Urban Fill/ Demolition Debris  
8 - 24 ft. - Sandy Gravel  
28 ft. - Fuel Oil
- TP-7: 0 - 10 ft. - Urban Fill/ Demolition Debris  
10 - 28 ft. - Sandy Gravel  
28 ft. - Water Table/No Fuel Oil
- TP-8: 0 - 3 ft. - Urban Fill/ Demolition Debris  
3 - 28 ft. - Sandy Gravel  
28 ft. - Water Table/No Fuel Oil
- TP-9: 0 - 6 ft. - Urban Fill/ Demolition Debris  
6 - 24 ft. - Sandy Gravel  
28 ft. - Fuel Oil
- TP-10: 0 - 6 ft. - Urban Fill/ Demolition Debris  
6 - 28 ft. - Sandy Gravel  
28 ft. - Water Table/No Fuel Oil
- TP-11: 0 - 6 ft. - Urban Fill/ Demolition Debris  
6 - 15 ft. - Sandy Gravel  
15 ft. - Fuel Oil

NOTE: BASE PLAN PROVIDED BY OTHERS.

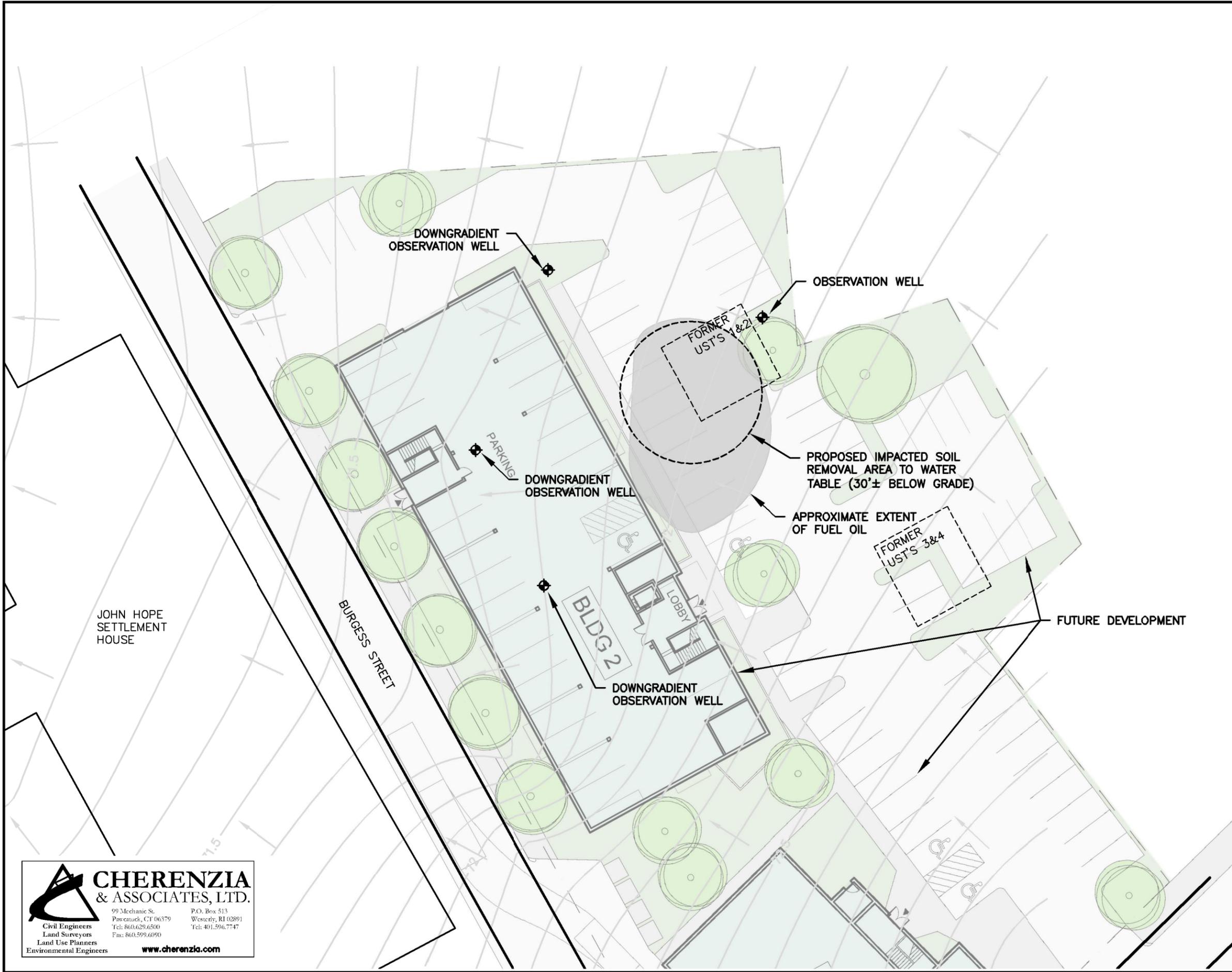
☒ TEST PIT

**CHERENZIA & ASSOCIATES, LTD.**  
 99 Mechanic St. P.O. Box 513  
 Pawcatuck, CT 06379 Westerly, RI 02891  
 Tel: 860.629.6500 Tel: 401.596.7747  
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 Land Surveyors  
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 Environmental Engineers  
 www.cherenzia.com

**FIGURE 2**  
**TEST PIT LOCATION PLAN**  
 PREPARED FOR  
**BOURNE AVENUE CAPITAL PARTNERS LLC**  
 93 CRANSTON STREET  
 PROVIDENCE, RHODE ISLAND  
 SCALE: 1"=30'  
 DEC. 9, 2013  
 DRAWN BY: AKG  
 CHECK BY: TCR  
 15' 0 15' 30' 45'  
 JOB NO.: 215057

**Figure 3:**

**Proposed Remediation & Monitoring Plan**



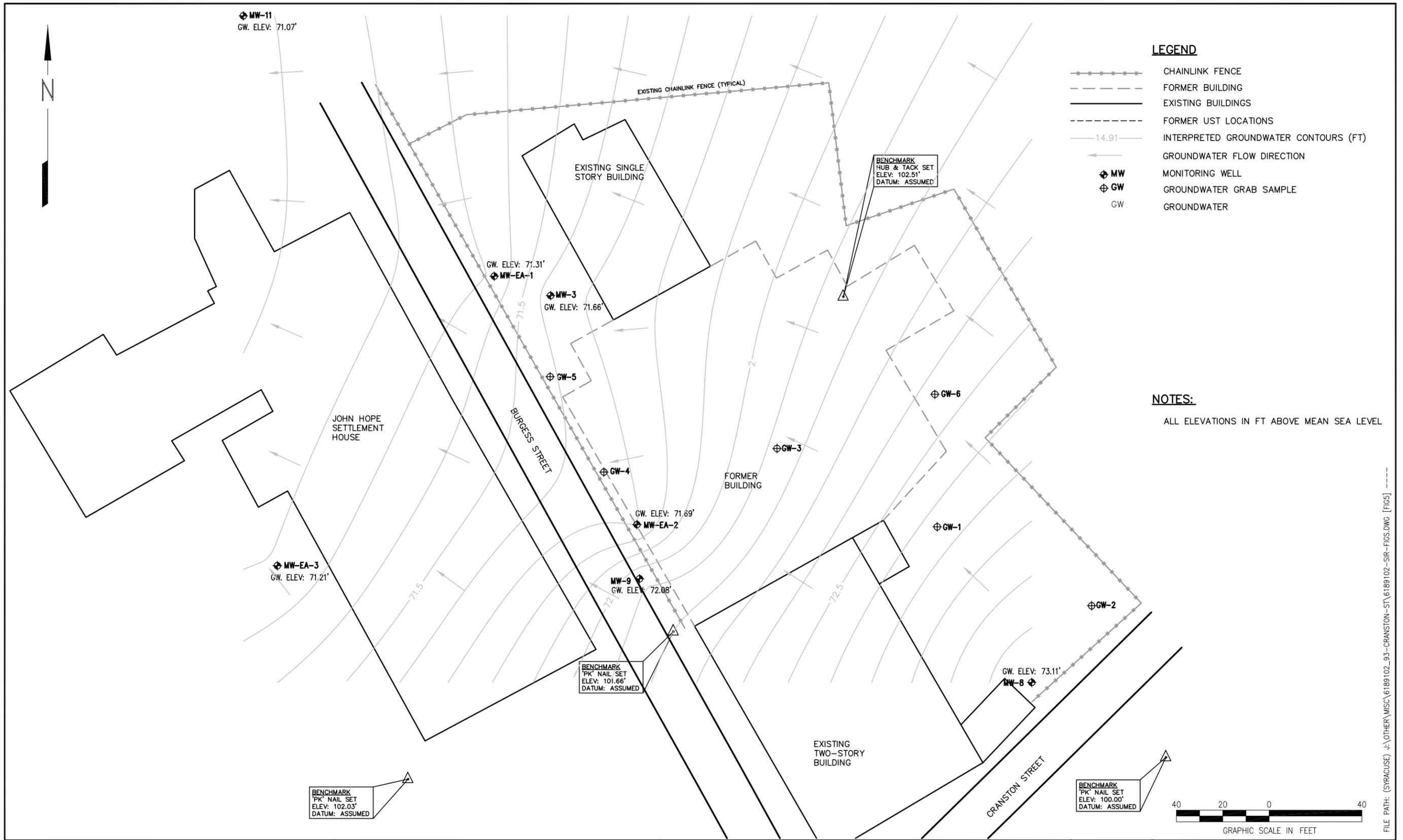
**FIGURE 3**  
**PROPOSED REMEDIATION & MONITORING PLAN**  
PREPARED FOR  
**BOURNE AVENUE CAPITAL PARTNERS LLC**  
93 CRANSTON STREET  
PROVIDENCE, RHODE ISLAND  
SCALE: 1"=30'  
NOVEMBER 30, 2015  
DRAWN BY: AKG  
CHECK BY: TCR  
15' 0 30' 60' 90'  
JOB NO.: 215057

**CHERENZIA & ASSOCIATES, LTD.**  
Civil Engineers  
Land Surveyors  
Land Use Planners  
Environmental Engineers  
99 Mechanic St.  
Pawcatuck, CT 06379  
Tel: 860.629.6500  
Fax: 860.599.6090  
P.O. Box 513  
Westley, RI 02891  
Tel: 401.596.7747  
[www.cherenzia.com](http://www.cherenzia.com)

**APPENDIX B:**  
**FIGURES BY OTHERS**

**Appendix B.1:**

**Figure 4: MW Locations and Estimated Groundwater Flow Direction Plan  
(Site Investigation Report – EA 2006)**



FILE PATH: (SYRACUSE) J:\OTHER\MISC\6189102\_93-CRANSTON-ST\6189102-SIR-FIGS.DWG [Figs] -----



SITE INVESTIGATION REPORT  
FORMER LOUITT LAUNDRY  
93 CRANSTON STREET  
PROVIDENCE, RHODE ISLAND

MONITORING WELL LOCATIONS  
ESTIMATED GROUNDWATER FLOW DIRECTION  
PLAN

DESIGNED BY JP	DRAWN BY WEL	DATE 3-1-06	PROJECT NO. 61891.02	FILE NAME 6189102-FIGS
CHECKED BY JP	PROJECT MGR. JP	SCALE AS SHOWN	DRAWING NO. -	FIGURE 4

**APPENDIX C:**  
**SOIL ANALYTICAL RESULTS FOR DISPOSAL**



*CERTIFICATE OF ANALYSIS*

Tim Regan  
Cherenzia & Associates, Ltd  
99 Mechanic Street  
Pawcatuck, CT 06379

**RE: Louttit Laundry - 93 Cranston Street (213030)**  
**ESS Laboratory Work Order Number: 1309052**

This signed Certificate of Analysis is our approved release of your analytical results. These results are only representative of sample aliquots received at the laboratory. ESS Laboratory expects its clients to follow all regulatory sampling guidelines. Beginning with this page, the entire report has been paginated. This report should not be copied except in full without the approval of the laboratory. Samples will be disposed of thirty days after the final report has been delivered. If you have any questions or concerns, please feel free to call our Customer Service Department.

Laurel Stoddard  
Laboratory Director

**REVIEWED**  
*By ESS Laboratory at 11:38 am, Sep 11, 2013*

**Analytical Summary**

The project as described above has been analyzed in accordance with the ESS Quality Assurance Plan. This plan utilizes the following methodologies: US EPA SW-846, US EPA Methods for Chemical Analysis of Water and Wastes per 40 CFR Part 136, APHA Standard Methods for the Examination of Water and Wastewater, American Society for Testing and Materials (ASTM), and other recognized methodologies. The analyses with these noted observations are in conformance to the Quality Assurance Plan. In chromatographic analysis, manual integration is frequently used instead of automated integration because it produces more accurate results.

The test results present in this report are in compliance with NELAC Standards, A2LA and/or client Quality Assurance Project Plans (QAPP). The laboratory has reviewed the following: Sample Preservations, Hold Times, Initial Calibrations, Continuing Calibrations, Method Blanks, Blank Spikes, Blank Spike Duplicates, Duplicates, Matrix Spikes, Matrix Spike Duplicates, Surrogates and Internal Standards. Any results which were found to be outside of the recommended ranges stated in our SOPs will be noted in the Project Narrative.



*CERTIFICATE OF ANALYSIS*

Client Name: Cherenzia & Associates, Ltd  
Client Project ID: Louttit Laundry - 93 Cranston Street

ESS Laboratory Work Order: 1309052

**SAMPLE RECEIPT**

The following samples were received on September 04, 2013 for the analyses specified on the enclosed Chain of Custody Record.

<b>Lab Number</b>	<b>SampleName</b>	<b>Matrix</b>	<b>Analysis</b>
1309052-01	Disposal 1	Soil	1010, 6010B, 7.3.3.2, 7.3.4.1, 7471A, 8082A, 8100M, 8260B, 8270C, 9045
1309052-02	Trip Blank	Solid	8260B



*CERTIFICATE OF ANALYSIS*

Client Name: Cherenzia & Associates, Ltd  
Client Project ID: Louttit Laundry - 93 Cranston Street

ESS Laboratory Work Order: 1309052

**PROJECT NARRATIVE**

**5035/8260B Volatile Organic Compounds / Methanol**

CWI0087-CCV1 [Continuing Calibration recovery is below lower control limit \(C-\).](#)  
1,4-Dioxane - Screen (19% @ 70-130%)

**8270C Semi-Volatile Organic Compounds**

1309052-01 [Elevated Method Reporting Limits due to sample matrix \(EL\).](#)

1309052-01 [Surrogate recovery\(ies\) above upper control limit \(S+\).](#)  
2,4,6-Tribromophenol (132% @ 30-130%)

CWI0060-CCV1 [Calibration required quadratic regression \(Q\).](#)

Benzoic Acid (159% @ 70-130%), Hexachlorocyclopentadiene (84% @ 70-130%), Pentachlorophenol (105% @ 80-120%)

CWI0060-CCV1 [Continuing Calibration recovery is above upper control limit \(C+\).](#)

Benzoic Acid (159% @ 70-130%)

CWI0060-CCV1 [Initial Calibration Verification recovery is outside of control limit \(ICV\).](#)

Benzoic Acid

**Total Metals Solid**

CI30432-BS1 [Blank Spike recovery is above upper control limit \(B+\).](#)

Mercury (138% @ 80-120%)

CI30432-BSD1 [Relative percent difference for duplicate is outside of criteria \(D+\).](#)

Mercury (35%)

**No other observations noted.**

**End of Project Narrative.**

**DATA USABILITY LINKS**

[Definitions of Quality Control Parameters](#)

[Semivolatile Organics Internal Standard Information](#)

[Semivolatile Organics Surrogate Information](#)

[Volatile Organics Internal Standard Information](#)

[Volatile Organics Surrogate Information](#)

[EPH and VPH Alkane Lists](#)



*CERTIFICATE OF ANALYSIS*

Client Name: Cherenzia & Associates, Ltd  
Client Project ID: Louttit Laundry - 93 Cranston Street

ESS Laboratory Work Order: 1309052

**CURRENT SW-846 METHODOLOGY VERSIONS**

**Analytical Methods**

- 1010A - Flashpoint
- 6010C - ICP
- 6020A - ICP MS
- 7010 - Graphite Furnace
- 7196A - Hexavalent Chromium
- 7470A - Aqueous Mercury
- 7471B - Solid Mercury
- 8011 - EDB/DBCP/TCP
- 8015C - GRO/DRO
- 8081B - Pesticides
- 8082A - PCB
- 8100M - TPH
- 8151A - Herbicides
- 8260B - VOA
- 8270D - SVOA
- 8270D SIM - SVOA Low Level
- 9014 - Cyanide
- 9038 - Sulfate
- 9040C - Aqueous pH
- 9045D - Solid pH (Corrosivity)
- 9050A - Specific Conductance
- 9056A - Anions (IC)
- 9060A - TOC
- 9095B - Paint Filter
- MADEP 04-1.1 - EPH / VPH

**Prep Methods**

- 3005A - Aqueous ICP Digestion
- 3020A - Aqueous Graphite Furnace / ICP MS Digestion
- 3050B - Solid ICP / Graphite Furnace / ICP MS Digestion
- 3060A - Solid Hexavalent Chromium Digestion
- 3510C - Separatory Funnel Extraction
- 3520C - Liquid / Liquid Extraction
- 3540C - Manual Soxhlet Extraction
- 3541 - Automated Soxhlet Extraction
- 3580A - Waste Dilution
- 5030B - Aqueous Purge and Trap
- 5035 - Solid Purge and Trap



*CERTIFICATE OF ANALYSIS*

Client Name: Cherenzia & Associates, Ltd  
Client Project ID: Louttit Laundry - 93 Cranston Street  
Client Sample ID: Disposal 1  
Date Sampled: 09/03/13 14:00  
Percent Solids: 95

ESS Laboratory Work Order: 1309052  
ESS Laboratory Sample ID: 1309052-01  
Sample Matrix: Soil  
Units: mg/kg dry

Extraction Method: 3050B

**Total Metals Solid**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>MDL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>	<u>Batch</u>
Arsenic	ND (2.2)		6010B		1	SVD	09/05/13 16:22	2.41	100	CI30433
Cadmium	ND (0.44)		6010B		1	SVD	09/05/13 16:22	2.41	100	CI30433
<b>Chromium</b>	<b>1.7 (0.9)</b>		6010B		1	SVD	09/05/13 16:22	2.41	100	CI30433
Lead	ND (4.4)		6010B		1	SVD	09/05/13 16:22	2.41	100	CI30433
Mercury	ND (0.034)		7471A		1	JP	09/05/13 17:52	0.62	40	CI30432



*CERTIFICATE OF ANALYSIS*

Client Name: Cherenzia & Associates, Ltd  
Client Project ID: Louttit Laundry - 93 Cranston Street  
Client Sample ID: Disposal 1  
Date Sampled: 09/03/13 14:00  
Percent Solids: 95  
Initial Volume: 41.2  
Final Volume: 15  
Extraction Method: 5035

ESS Laboratory Work Order: 1309052  
ESS Laboratory Sample ID: 1309052-01  
Sample Matrix: Soil  
Units: mg/kg dry  
Analyst: NMS

**5035/8260B Volatile Organic Compounds / Methanol**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>MDL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
1,1,1,2-Tetrachloroethane	ND (0.0432)	0.0038	8260B		1	09/06/13 19:40	CWI0087	CI30906
1,1,1-Trichloroethane	ND (0.0216)	0.0038	8260B		1	09/06/13 19:40	CWI0087	CI30906
1,1,2,2-Tetrachloroethane	ND (0.0216)	0.0059	8260B		1	09/06/13 19:40	CWI0087	CI30906
1,1,2-Trichloroethane	ND (0.0216)	0.0054	8260B		1	09/06/13 19:40	CWI0087	CI30906
1,1-Dichloroethane	ND (0.0216)	0.0035	8260B		1	09/06/13 19:40	CWI0087	CI30906
1,1-Dichloroethene	ND (0.0216)	0.0053	8260B		1	09/06/13 19:40	CWI0087	CI30906
1,1-Dichloropropene	ND (0.0216)	0.0033	8260B		1	09/06/13 19:40	CWI0087	CI30906
1,2,3-Trichlorobenzene	ND (0.0216)	0.0072	8260B		1	09/06/13 19:40	CWI0087	CI30906
1,2,3-Trichloropropane	ND (0.0216)	0.0054	8260B		1	09/06/13 19:40	CWI0087	CI30906
1,2,4-Trichlorobenzene	ND (0.0216)	0.0048	8260B		1	09/06/13 19:40	CWI0087	CI30906
<b>1,2,4-Trimethylbenzene</b>	<b>0.522</b> (0.0216)	0.0042	8260B		1	09/06/13 19:40	CWI0087	CI30906
1,2-Dibromo-3-Chloropropane	ND (0.130)	0.0432	8260B		1	09/06/13 19:40	CWI0087	CI30906
1,2-Dibromoethane	ND (0.0216)	0.0055	8260B		1	09/06/13 19:40	CWI0087	CI30906
1,2-Dichlorobenzene	ND (0.0216)	0.0031	8260B		1	09/06/13 19:40	CWI0087	CI30906
1,2-Dichloroethane	ND (0.0216)	0.0058	8260B		1	09/06/13 19:40	CWI0087	CI30906
1,2-Dichloropropane	ND (0.0216)	0.0057	8260B		1	09/06/13 19:40	CWI0087	CI30906
1,3,5-Trimethylbenzene	ND (0.0216)	0.0038	8260B		1	09/06/13 19:40	CWI0087	CI30906
1,3-Dichlorobenzene	ND (0.0216)	0.0027	8260B		1	09/06/13 19:40	CWI0087	CI30906
1,3-Dichloropropane	ND (0.0216)	0.0048	8260B		1	09/06/13 19:40	CWI0087	CI30906
1,4-Dichlorobenzene	ND (0.0216)	0.0058	8260B		1	09/06/13 19:40	CWI0087	CI30906
1,4-Dioxane - Screen	ND (2.16)	0.722	8260B		1	09/06/13 19:40	CWI0087	CI30906
1-Chlorohexane	ND (0.0216)	0.0041	8260B		1	09/06/13 19:40	CWI0087	CI30906
2,2-Dichloropropane	ND (0.0432)	0.0074	8260B		1	09/06/13 19:40	CWI0087	CI30906
2-Butanone	ND (0.540)	0.125	8260B		1	09/06/13 19:40	CWI0087	CI30906
2-Chlorotoluene	ND (0.0216)	0.0061	8260B		1	09/06/13 19:40	CWI0087	CI30906
2-Hexanone	ND (0.216)	0.0372	8260B		1	09/06/13 19:40	CWI0087	CI30906
4-Chlorotoluene	ND (0.0216)	0.0028	8260B		1	09/06/13 19:40	CWI0087	CI30906
<b>4-Isopropyltoluene</b>	<b>0.0804</b> (0.0216)	0.0038	8260B		1	09/06/13 19:40	CWI0087	CI30906
4-Methyl-2-Pentanone	ND (0.216)	0.0260	8260B		1	09/06/13 19:40	CWI0087	CI30906
Acetone	ND (0.540)	0.160	8260B		1	09/06/13 19:40	CWI0087	CI30906
<b>Benzene</b>	<b>J 0.0061</b> (0.0216)	0.0035	8260B		1	09/06/13 19:40	CWI0087	CI30906



*CERTIFICATE OF ANALYSIS*

Client Name: Cherenzia & Associates, Ltd  
Client Project ID: Louttit Laundry - 93 Cranston Street  
Client Sample ID: Disposal 1  
Date Sampled: 09/03/13 14:00  
Percent Solids: 95  
Initial Volume: 41.2  
Final Volume: 15  
Extraction Method: 5035

ESS Laboratory Work Order: 1309052  
ESS Laboratory Sample ID: 1309052-01  
Sample Matrix: Soil  
Units: mg/kg dry  
Analyst: NMS

**5035/8260B Volatile Organic Compounds / Methanol**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>MDL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
Bromobenzene	ND (0.0216)	0.0059	8260B		1	09/06/13 19:40	CWI0087	CI30906
Bromochloromethane	ND (0.0216)	0.0070	8260B		1	09/06/13 19:40	CWI0087	CI30906
Bromodichloromethane	ND (0.0216)	0.0030	8260B		1	09/06/13 19:40	CWI0087	CI30906
Bromoform	ND (0.0216)	0.0062	8260B		1	09/06/13 19:40	CWI0087	CI30906
Bromomethane	ND (0.0432)	0.0144	8260B		1	09/06/13 19:40	CWI0087	CI30906
Carbon Disulfide	ND (0.0216)	0.0032	8260B		1	09/06/13 19:40	CWI0087	CI30906
Carbon Tetrachloride	ND (0.0216)	0.0038	8260B		1	09/06/13 19:40	CWI0087	CI30906
Chlorobenzene	ND (0.0216)	0.0034	8260B		1	09/06/13 19:40	CWI0087	CI30906
Chloroethane	ND (0.0432)	0.0144	8260B		1	09/06/13 19:40	CWI0087	CI30906
Chloroform	ND (0.0216)	0.0045	8260B		1	09/06/13 19:40	CWI0087	CI30906
Chloromethane	ND (0.0432)	0.0055	8260B		1	09/06/13 19:40	CWI0087	CI30906
cis-1,2-Dichloroethene	ND (0.0216)	0.0054	8260B		1	09/06/13 19:40	CWI0087	CI30906
cis-1,3-Dichloropropene	ND (0.0216)	0.0049	8260B		1	09/06/13 19:40	CWI0087	CI30906
Dibromochloromethane	ND (0.0216)	0.0054	8260B		1	09/06/13 19:40	CWI0087	CI30906
Dibromomethane	ND (0.0216)	0.0068	8260B		1	09/06/13 19:40	CWI0087	CI30906
Dichlorodifluoromethane	ND (0.0216)	0.0038	8260B		1	09/06/13 19:40	CWI0087	CI30906
Diethyl Ether	ND (0.0216)	0.0055	8260B		1	09/06/13 19:40	CWI0087	CI30906
Di-isopropyl ether	ND (0.0216)	0.0041	8260B		1	09/06/13 19:40	CWI0087	CI30906
Ethyl tertiary-butyl ether	ND (0.0216)	0.0054	8260B		1	09/06/13 19:40	CWI0087	CI30906
<b>Ethylbenzene</b>	<b>0.0497</b> (0.0216)	0.0028	8260B		1	09/06/13 19:40	CWI0087	CI30906
Hexachlorobutadiene	ND (0.0216)	0.0072	8260B		1	09/06/13 19:40	CWI0087	CI30906
<b>Isopropylbenzene</b>	<b>0.0653</b> (0.0216)	0.0038	8260B		1	09/06/13 19:40	CWI0087	CI30906
Methyl tert-Butyl Ether	ND (0.0216)	0.0035	8260B		1	09/06/13 19:40	CWI0087	CI30906
Methylene Chloride	ND (0.108)	0.0057	8260B		1	09/06/13 19:40	CWI0087	CI30906
Naphthalene	ND (0.0216)	0.0057	8260B		1	09/06/13 19:40	CWI0087	CI30906
<b>n-Butylbenzene</b>	<b>0.289</b> (0.0216)	0.0053	8260B		1	09/06/13 19:40	CWI0087	CI30906
<b>n-Propylbenzene</b>	<b>0.140</b> (0.0216)	0.0053	8260B		1	09/06/13 19:40	CWI0087	CI30906
<b>sec-Butylbenzene</b>	<b>0.106</b> (0.0216)	0.0029	8260B		1	09/06/13 19:40	CWI0087	CI30906
Styrene	ND (0.0216)	0.0029	8260B		1	09/06/13 19:40	CWI0087	CI30906
tert-Butylbenzene	ND (0.0216)	0.0051	8260B		1	09/06/13 19:40	CWI0087	CI30906
Tertiary-amyl methyl ether	ND (0.0216)	0.0031	8260B		1	09/06/13 19:40	CWI0087	CI30906



*CERTIFICATE OF ANALYSIS*

Client Name: Cherenzia & Associates, Ltd  
 Client Project ID: Louttit Laundry - 93 Cranston Street  
 Client Sample ID: Disposal 1  
 Date Sampled: 09/03/13 14:00  
 Percent Solids: 95  
 Initial Volume: 41.2  
 Final Volume: 15  
 Extraction Method: 5035

ESS Laboratory Work Order: 1309052  
 ESS Laboratory Sample ID: 1309052-01  
 Sample Matrix: Soil  
 Units: mg/kg dry  
 Analyst: NMS

**5035/8260B Volatile Organic Compounds / Methanol**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>MDL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
Tetrachloroethene	ND (0.0216)	0.0072	8260B		1	09/06/13 19:40	CWI0087	CI30906
Tetrahydrofuran	ND (0.216)	0.0558	8260B		1	09/06/13 19:40	CWI0087	CI30906
Toluene	ND (0.0216)	0.0055	8260B		1	09/06/13 19:40	CWI0087	CI30906
trans-1,2-Dichloroethene	ND (0.0216)	0.0071	8260B		1	09/06/13 19:40	CWI0087	CI30906
trans-1,3-Dichloropropene	ND (0.0216)	0.0067	8260B		1	09/06/13 19:40	CWI0087	CI30906
Trichloroethene	ND (0.0216)	0.0045	8260B		1	09/06/13 19:40	CWI0087	CI30906
Trichlorofluoromethane	ND (0.0216)	0.0057	8260B		1	09/06/13 19:40	CWI0087	CI30906
Vinyl Acetate	ND (0.108)	0.0045	8260B		1	09/06/13 19:40	CWI0087	CI30906
Vinyl Chloride	ND (0.0216)	0.0071	8260B		1	09/06/13 19:40	CWI0087	CI30906
<b>Xylene O</b>	<b>J 0.0195</b> (0.0216)	0.0042	8260B		1	09/06/13 19:40	CWI0087	CI30906
<b>Xylene P,M</b>	<b>J 0.0086</b> (0.0432)	0.0084	8260B		1	09/06/13 19:40	CWI0087	CI30906
Xylenes (Total)	ND (0.0432)		8260B		1	09/06/13 19:40		[CALC]

	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
<i>Surrogate: 1,2-Dichloroethane-d4</i>	112 %		70-130
<i>Surrogate: 4-Bromofluorobenzene</i>	110 %		70-130
<i>Surrogate: Dibromofluoromethane</i>	116 %		70-130
<i>Surrogate: Toluene-d8</i>	110 %		70-130



*CERTIFICATE OF ANALYSIS*

Client Name: Cherenzia & Associates, Ltd  
 Client Project ID: Louttit Laundry - 93 Cranston Street  
 Client Sample ID: Disposal 1  
 Date Sampled: 09/03/13 14:00  
 Percent Solids: 95  
 Initial Volume: 19.7  
 Final Volume: 10  
 Extraction Method: 3540

ESS Laboratory Work Order: 1309052  
 ESS Laboratory Sample ID: 1309052-01  
 Sample Matrix: Soil  
 Units: mg/kg dry  
 Analyst: TAJ  
 Prepared: 9/5/13 17:00

**8082 Polychlorinated Biphenyls (PCB)**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>MDL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
Aroclor 1016	ND (0.0533)		8082A		1	09/09/13 17:01		CI31020
Aroclor 1221	ND (0.0533)		8082A		1	09/09/13 17:01		CI31020
Aroclor 1232	ND (0.0533)		8082A		1	09/09/13 17:01		CI31020
Aroclor 1242	ND (0.0533)		8082A		1	09/09/13 17:01		CI31020
Aroclor 1248	ND (0.0533)		8082A		1	09/09/13 17:01		CI31020
Aroclor 1254	ND (0.0533)		8082A		1	09/09/13 17:01		CI31020
Aroclor 1260	ND (0.0533)		8082A		1	09/09/13 17:01		CI31020
Aroclor 1262	ND (0.0533)		8082A		1	09/09/13 17:01		CI31020
Aroclor 1268	ND (0.0533)		8082A		1	09/09/13 17:01		CI31020

	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
<i>Surrogate: Decachlorobiphenyl</i>	71 %		30-150
<i>Surrogate: Decachlorobiphenyl [2C]</i>	70 %		30-150
<i>Surrogate: Tetrachloro-m-xylene</i>	69 %		30-150
<i>Surrogate: Tetrachloro-m-xylene [2C]</i>	68 %		30-150



*CERTIFICATE OF ANALYSIS*

Client Name: Cherenzia & Associates, Ltd  
Client Project ID: Louttit Laundry - 93 Cranston Street  
Client Sample ID: Disposal 1  
Date Sampled: 09/03/13 14:00  
Percent Solids: 95  
Initial Volume: 19.7  
Final Volume: 1  
Extraction Method: 3546

ESS Laboratory Work Order: 1309052  
ESS Laboratory Sample ID: 1309052-01  
Sample Matrix: Soil  
Units: mg/kg dry  
Analyst: DPS  
Prepared: 9/5/13 15:13

**8100M Total Petroleum Hydrocarbons**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>MDL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
Total Petroleum Hydrocarbons	5920 (40.0)		8100M		1	09/10/13 9:22	CWI0101	CI30519
		<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>				
<i>Surrogate: O-Terphenyl</i>		138 %		40-140				



*CERTIFICATE OF ANALYSIS*

Client Name: Cherenzia & Associates, Ltd  
Client Project ID: Louttit Laundry - 93 Cranston Street  
Client Sample ID: Disposal 1  
Date Sampled: 09/03/13 14:00  
Percent Solids: 95  
Initial Volume: 14.7  
Final Volume: 1  
Extraction Method: 3546

ESS Laboratory Work Order: 1309052  
ESS Laboratory Sample ID: 1309052-01  
Sample Matrix: Soil  
Units: mg/kg dry  
Analyst: IBM  
Prepared: 9/5/13 15:13

**8270C Semi-Volatile Organic Compounds**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>MDL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
1,1-Biphenyl	ND (3.57)		8270C		5	09/06/13 19:39	CWI0060	CI30518
1,2,4-Trichlorobenzene	ND (3.57)		8270C		5	09/06/13 19:39	CWI0060	CI30518
1,2-Dichlorobenzene	ND (3.57)		8270C		5	09/06/13 19:39	CWI0060	CI30518
1,3-Dichlorobenzene	ND (3.57)		8270C		5	09/06/13 19:39	CWI0060	CI30518
1,4-Dichlorobenzene	ND (3.57)		8270C		5	09/06/13 19:39	CWI0060	CI30518
2,3,4,6-Tetrachlorophenol	ND (17.9)		8270C		5	09/06/13 19:39	CWI0060	CI30518
2,4,5-Trichlorophenol	ND (3.57)		8270C		5	09/06/13 19:39	CWI0060	CI30518
2,4,6-Trichlorophenol	ND (3.57)		8270C		5	09/06/13 19:39	CWI0060	CI30518
2,4-Dichlorophenol	ND (3.57)		8270C		5	09/06/13 19:39	CWI0060	CI30518
2,4-Dimethylphenol	ND (3.57)		8270C		5	09/06/13 19:39	CWI0060	CI30518
2,4-Dinitrophenol	ND (17.9)		8270C		5	09/06/13 19:39	CWI0060	CI30518
2,4-Dinitrotoluene	ND (3.57)		8270C		5	09/06/13 19:39	CWI0060	CI30518
2,6-Dinitrotoluene	ND (3.57)		8270C		5	09/06/13 19:39	CWI0060	CI30518
2-Chloronaphthalene	ND (3.57)		8270C		5	09/06/13 19:39	CWI0060	CI30518
2-Chlorophenol	ND (3.57)		8270C		5	09/06/13 19:39	CWI0060	CI30518
2-Methylnaphthalene	ND (3.57)		8270C		5	09/06/13 19:39	CWI0060	CI30518
2-Methylphenol	ND (3.57)		8270C		5	09/06/13 19:39	CWI0060	CI30518
2-Nitroaniline	ND (3.57)		8270C		5	09/06/13 19:39	CWI0060	CI30518
2-Nitrophenol	ND (3.57)		8270C		5	09/06/13 19:39	CWI0060	CI30518
3,3'-Dichlorobenzidine	ND (7.15)		8270C		5	09/06/13 19:39	CWI0060	CI30518
3+4-Methylphenol	ND (7.15)		8270C		5	09/06/13 19:39	CWI0060	CI30518
3-Nitroaniline	ND (3.57)		8270C		5	09/06/13 19:39	CWI0060	CI30518
4,6-Dinitro-2-Methylphenol	ND (17.9)		8270C		5	09/06/13 19:39	CWI0060	CI30518
4-Bromophenyl-phenylether	ND (3.57)		8270C		5	09/06/13 19:39	CWI0060	CI30518
4-Chloro-3-Methylphenol	ND (3.57)		8270C		5	09/06/13 19:39	CWI0060	CI30518
4-Chloroaniline	ND (7.15)		8270C		5	09/06/13 19:39	CWI0060	CI30518
4-Chloro-phenyl-phenyl ether	ND (3.57)		8270C		5	09/06/13 19:39	CWI0060	CI30518
4-Nitroaniline	ND (3.57)		8270C		5	09/06/13 19:39	CWI0060	CI30518
4-Nitrophenol	ND (17.9)		8270C		5	09/06/13 19:39	CWI0060	CI30518
Acenaphthene	ND (3.57)		8270C		5	09/06/13 19:39	CWI0060	CI30518
Acenaphthylene	ND (3.57)		8270C		5	09/06/13 19:39	CWI0060	CI30518



*CERTIFICATE OF ANALYSIS*

Client Name: Cherenzia & Associates, Ltd  
Client Project ID: Louttit Laundry - 93 Cranston Street  
Client Sample ID: Disposal 1  
Date Sampled: 09/03/13 14:00  
Percent Solids: 95  
Initial Volume: 14.7  
Final Volume: 1  
Extraction Method: 3546

ESS Laboratory Work Order: 1309052  
ESS Laboratory Sample ID: 1309052-01  
Sample Matrix: Soil  
Units: mg/kg dry  
Analyst: IBM  
Prepared: 9/5/13 15:13

**8270C Semi-Volatile Organic Compounds**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>MDL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
Acetophenone	ND (7.15)		8270C		5	09/06/13 19:39	CWI0060	CI30518
Aniline	ND (7.15)		8270C		5	09/06/13 19:39	CWI0060	CI30518
Anthracene	ND (3.57)		8270C		5	09/06/13 19:39	CWI0060	CI30518
Azobenzene	ND (3.57)		8270C		5	09/06/13 19:39	CWI0060	CI30518
Benzo(a)anthracene	ND (3.57)		8270C		5	09/06/13 19:39	CWI0060	CI30518
Benzo(a)pyrene	ND (1.79)		8270C		5	09/06/13 19:39	CWI0060	CI30518
Benzo(b)fluoranthene	ND (3.57)		8270C		5	09/06/13 19:39	CWI0060	CI30518
Benzo(g,h,i)perylene	ND (3.57)		8270C		5	09/06/13 19:39	CWI0060	CI30518
Benzo(k)fluoranthene	ND (3.57)		8270C		5	09/06/13 19:39	CWI0060	CI30518
Benzoic Acid	ND (17.9)		8270C		5	09/06/13 19:39	CWI0060	CI30518
Benzyl Alcohol	ND (3.57)		8270C		5	09/06/13 19:39	CWI0060	CI30518
bis(2-Chloroethoxy)methane	ND (3.57)		8270C		5	09/06/13 19:39	CWI0060	CI30518
bis(2-Chloroethyl)ether	ND (3.57)		8270C		5	09/06/13 19:39	CWI0060	CI30518
bis(2-chloroisopropyl)Ether	ND (3.57)		8270C		5	09/06/13 19:39	CWI0060	CI30518
bis(2-Ethylhexyl)phthalate	ND (3.57)		8270C		5	09/06/13 19:39	CWI0060	CI30518
Butylbenzylphthalate	ND (3.57)		8270C		5	09/06/13 19:39	CWI0060	CI30518
Carbazole	ND (3.57)		8270C		5	09/06/13 19:39	CWI0060	CI30518
Chrysene	ND (1.79)		8270C		5	09/06/13 19:39	CWI0060	CI30518
Dibenzo(a,h)Anthracene	ND (1.79)		8270C		5	09/06/13 19:39	CWI0060	CI30518
Dibenzofuran	ND (3.57)		8270C		5	09/06/13 19:39	CWI0060	CI30518
Diethylphthalate	ND (3.57)		8270C		5	09/06/13 19:39	CWI0060	CI30518
Dimethylphthalate	ND (3.57)		8270C		5	09/06/13 19:39	CWI0060	CI30518
Di-n-butylphthalate	ND (3.57)		8270C		5	09/06/13 19:39	CWI0060	CI30518
Di-n-octylphthalate	ND (3.57)		8270C		5	09/06/13 19:39	CWI0060	CI30518
Fluoranthene	ND (3.57)		8270C		5	09/06/13 19:39	CWI0060	CI30518
Fluorene	ND (3.57)		8270C		5	09/06/13 19:39	CWI0060	CI30518
Hexachlorobenzene	ND (1.79)		8270C		5	09/06/13 19:39	CWI0060	CI30518
Hexachlorobutadiene	ND (3.57)		8270C		5	09/06/13 19:39	CWI0060	CI30518
Hexachlorocyclopentadiene	ND (17.9)		8270C		5	09/06/13 19:39	CWI0060	CI30518
Hexachloroethane	ND (3.57)		8270C		5	09/06/13 19:39	CWI0060	CI30518
Indeno(1,2,3-cd)Pyrene	ND (3.57)		8270C		5	09/06/13 19:39	CWI0060	CI30518



*CERTIFICATE OF ANALYSIS*

Client Name: Cherenzia & Associates, Ltd  
Client Project ID: Louttit Laundry - 93 Cranston Street  
Client Sample ID: Disposal 1  
Date Sampled: 09/03/13 14:00  
Percent Solids: 95  
Initial Volume: 14.7  
Final Volume: 1  
Extraction Method: 3546

ESS Laboratory Work Order: 1309052  
ESS Laboratory Sample ID: 1309052-01  
Sample Matrix: Soil  
Units: mg/kg dry  
Analyst: IBM  
Prepared: 9/5/13 15:13

**8270C Semi-Volatile Organic Compounds**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>MDL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
Isophorone	ND (3.57)		8270C		5	09/06/13 19:39	CWI0060	CI30518
Naphthalene	ND (3.57)		8270C		5	09/06/13 19:39	CWI0060	CI30518
Nitrobenzene	ND (3.57)		8270C		5	09/06/13 19:39	CWI0060	CI30518
N-Nitrosodimethylamine	ND (3.57)		8270C		5	09/06/13 19:39	CWI0060	CI30518
N-Nitroso-Di-n-Propylamine	ND (3.57)		8270C		5	09/06/13 19:39	CWI0060	CI30518
N-nitrosodiphenylamine	ND (3.57)		8270C		5	09/06/13 19:39	CWI0060	CI30518
Pentachlorophenol	ND (17.9)		8270C		5	09/06/13 19:39	CWI0060	CI30518
Phenanthrene	ND (3.57)		8270C		5	09/06/13 19:39	CWI0060	CI30518
Phenol	ND (3.57)		8270C		5	09/06/13 19:39	CWI0060	CI30518
Pyrene	ND (3.57)		8270C		5	09/06/13 19:39	CWI0060	CI30518
Pyridine	ND (17.9)		8270C		5	09/06/13 19:39	CWI0060	CI30518

	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	68 %		30-130
<i>Surrogate: 2,4,6-Tribromophenol</i>	132 %	S+	30-130
<i>Surrogate: 2-Chlorophenol-d4</i>	69 %		30-130
<i>Surrogate: 2-Fluorobiphenyl</i>	77 %		30-130
<i>Surrogate: 2-Fluorophenol</i>	62 %		30-130
<i>Surrogate: Nitrobenzene-d5</i>	81 %		30-130
<i>Surrogate: Phenol-d6</i>	73 %		30-130
<i>Surrogate: p-Terphenyl-d14</i>	92 %		30-130



*CERTIFICATE OF ANALYSIS*

Client Name: Cherenzia & Associates, Ltd  
Client Project ID: Louttit Laundry - 93 Cranston Street  
Client Sample ID: Disposal 1  
Date Sampled: 09/03/13 14:00  
Percent Solids: 95

ESS Laboratory Work Order: 1309052  
ESS Laboratory Sample ID: 1309052-01  
Sample Matrix: Soil

**Classical Chemistry**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>MDL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>Units</u>	<u>Batch</u>
Corrosivity (pH)	7.57 (N/A)		9045		1	EEM	09/04/13 17:25	S.U.	CI30418
Corrosivity (pH) Sample Temp	Soil pH measured in water at 23.4 °C.								
Flashpoint	> 200 (N/A)		1010		1	EEM	09/06/13 13:30	°F	CI30621
Reactive Cyanide	ND (2.0)		7.3.3.2		1	EEM	09/06/13 12:08	mg/kg	CI30624
Reactive Sulfide	ND (2.0)		7.3.4.1		1	EEM	09/06/13 12:00	mg/kg	CI30624



*CERTIFICATE OF ANALYSIS*

Client Name: Cherenzia & Associates, Ltd  
Client Project ID: Louttit Laundry - 93 Cranston Street  
Client Sample ID: Trip Blank  
Date Sampled: 09/04/13 00:00  
Percent Solids: N/A  
Initial Volume: 15  
Final Volume: 15  
Extraction Method: 5035

ESS Laboratory Work Order: 1309052  
ESS Laboratory Sample ID: 1309052-02  
Sample Matrix: Solid  
Units: mg/kg  
Analyst: NMS

**5035/8260B Volatile Organic Compounds / Methanol**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>MDL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
1,1,1,2-Tetrachloroethane	ND (0.100)	0.0087	8260B		1	09/06/13 19:11	CWI0087	CI30906
1,1,1-Trichloroethane	ND (0.0500)	0.0088	8260B		1	09/06/13 19:11	CWI0087	CI30906
1,1,2,2-Tetrachloroethane	ND (0.0500)	0.0136	8260B		1	09/06/13 19:11	CWI0087	CI30906
1,1,2-Trichloroethane	ND (0.0500)	0.0125	8260B		1	09/06/13 19:11	CWI0087	CI30906
1,1-Dichloroethane	ND (0.0500)	0.0080	8260B		1	09/06/13 19:11	CWI0087	CI30906
1,1-Dichloroethene	ND (0.0500)	0.0123	8260B		1	09/06/13 19:11	CWI0087	CI30906
1,1-Dichloropropene	ND (0.0500)	0.0077	8260B		1	09/06/13 19:11	CWI0087	CI30906
1,2,3-Trichlorobenzene	ND (0.0500)	0.0167	8260B		1	09/06/13 19:11	CWI0087	CI30906
1,2,3-Trichloropropane	ND (0.0500)	0.0124	8260B		1	09/06/13 19:11	CWI0087	CI30906
1,2,4-Trichlorobenzene	ND (0.0500)	0.0110	8260B		1	09/06/13 19:11	CWI0087	CI30906
1,2,4-Trimethylbenzene	ND (0.0500)	0.0096	8260B		1	09/06/13 19:11	CWI0087	CI30906
1,2-Dibromo-3-Chloropropane	ND (0.300)	0.100	8260B		1	09/06/13 19:11	CWI0087	CI30906
1,2-Dibromoethane	ND (0.0500)	0.0127	8260B		1	09/06/13 19:11	CWI0087	CI30906
1,2-Dichlorobenzene	ND (0.0500)	0.0071	8260B		1	09/06/13 19:11	CWI0087	CI30906
1,2-Dichloroethane	ND (0.0500)	0.0134	8260B		1	09/06/13 19:11	CWI0087	CI30906
1,2-Dichloropropane	ND (0.0500)	0.0131	8260B		1	09/06/13 19:11	CWI0087	CI30906
1,3,5-Trimethylbenzene	ND (0.0500)	0.0088	8260B		1	09/06/13 19:11	CWI0087	CI30906
1,3-Dichlorobenzene	ND (0.0500)	0.0063	8260B		1	09/06/13 19:11	CWI0087	CI30906
1,3-Dichloropropane	ND (0.0500)	0.0112	8260B		1	09/06/13 19:11	CWI0087	CI30906
1,4-Dichlorobenzene	ND (0.0500)	0.0133	8260B		1	09/06/13 19:11	CWI0087	CI30906
1,4-Dioxane - Screen	ND (5.00)	1.67	8260B		1	09/06/13 19:11	CWI0087	CI30906
1-Chlorohexane	ND (0.0500)	0.0095	8260B		1	09/06/13 19:11	CWI0087	CI30906
2,2-Dichloropropane	ND (0.100)	0.0171	8260B		1	09/06/13 19:11	CWI0087	CI30906
2-Butanone	ND (1.25)	0.289	8260B		1	09/06/13 19:11	CWI0087	CI30906
2-Chlorotoluene	ND (0.0500)	0.0141	8260B		1	09/06/13 19:11	CWI0087	CI30906
2-Hexanone	ND (0.500)	0.0861	8260B		1	09/06/13 19:11	CWI0087	CI30906
4-Chlorotoluene	ND (0.0500)	0.0065	8260B		1	09/06/13 19:11	CWI0087	CI30906
4-Isopropyltoluene	ND (0.0500)	0.0089	8260B		1	09/06/13 19:11	CWI0087	CI30906
4-Methyl-2-Pentanone	ND (0.500)	0.0602	8260B		1	09/06/13 19:11	CWI0087	CI30906
Acetone	ND (1.25)	0.370	8260B		1	09/06/13 19:11	CWI0087	CI30906
Benzene	ND (0.0500)	0.0081	8260B		1	09/06/13 19:11	CWI0087	CI30906



*CERTIFICATE OF ANALYSIS*

Client Name: Cherenzia & Associates, Ltd  
Client Project ID: Louttit Laundry - 93 Cranston Street  
Client Sample ID: Trip Blank  
Date Sampled: 09/04/13 00:00  
Percent Solids: N/A  
Initial Volume: 15  
Final Volume: 15  
Extraction Method: 5035

ESS Laboratory Work Order: 1309052  
ESS Laboratory Sample ID: 1309052-02  
Sample Matrix: Solid  
Units: mg/kg  
Analyst: NMS

**5035/8260B Volatile Organic Compounds / Methanol**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>MDL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
Bromobenzene	ND (0.0500)	0.0137	8260B		1	09/06/13 19:11	CWI0087	CI30906
Bromochloromethane	ND (0.0500)	0.0162	8260B		1	09/06/13 19:11	CWI0087	CI30906
Bromodichloromethane	ND (0.0500)	0.0069	8260B		1	09/06/13 19:11	CWI0087	CI30906
Bromoform	ND (0.0500)	0.0144	8260B		1	09/06/13 19:11	CWI0087	CI30906
Bromomethane	ND (0.100)	0.0334	8260B		1	09/06/13 19:11	CWI0087	CI30906
Carbon Disulfide	ND (0.0500)	0.0074	8260B		1	09/06/13 19:11	CWI0087	CI30906
Carbon Tetrachloride	ND (0.0500)	0.0087	8260B		1	09/06/13 19:11	CWI0087	CI30906
Chlorobenzene	ND (0.0500)	0.0079	8260B		1	09/06/13 19:11	CWI0087	CI30906
Chloroethane	ND (0.100)	0.0333	8260B		1	09/06/13 19:11	CWI0087	CI30906
Chloroform	ND (0.0500)	0.0103	8260B		1	09/06/13 19:11	CWI0087	CI30906
Chloromethane	ND (0.100)	0.0127	8260B		1	09/06/13 19:11	CWI0087	CI30906
cis-1,2-Dichloroethene	ND (0.0500)	0.0124	8260B		1	09/06/13 19:11	CWI0087	CI30906
cis-1,3-Dichloropropene	ND (0.0500)	0.0113	8260B		1	09/06/13 19:11	CWI0087	CI30906
Dibromochloromethane	ND (0.0500)	0.0126	8260B		1	09/06/13 19:11	CWI0087	CI30906
Dibromomethane	ND (0.0500)	0.0158	8260B		1	09/06/13 19:11	CWI0087	CI30906
Dichlorodifluoromethane	ND (0.0500)	0.0087	8260B		1	09/06/13 19:11	CWI0087	CI30906
Diethyl Ether	ND (0.0500)	0.0127	8260B		1	09/06/13 19:11	CWI0087	CI30906
Di-isopropyl ether	ND (0.0500)	0.0094	8260B		1	09/06/13 19:11	CWI0087	CI30906
Ethyl tertiary-butyl ether	ND (0.0500)	0.0126	8260B		1	09/06/13 19:11	CWI0087	CI30906
Ethylbenzene	ND (0.0500)	0.0065	8260B		1	09/06/13 19:11	CWI0087	CI30906
Hexachlorobutadiene	ND (0.0500)	0.0167	8260B		1	09/06/13 19:11	CWI0087	CI30906
Isopropylbenzene	ND (0.0500)	0.0088	8260B		1	09/06/13 19:11	CWI0087	CI30906
Methyl tert-Butyl Ether	ND (0.0500)	0.0080	8260B		1	09/06/13 19:11	CWI0087	CI30906
Methylene Chloride	ND (0.250)	0.0131	8260B		1	09/06/13 19:11	CWI0087	CI30906
Naphthalene	ND (0.0500)	0.0131	8260B		1	09/06/13 19:11	CWI0087	CI30906
n-Butylbenzene	ND (0.0500)	0.0123	8260B		1	09/06/13 19:11	CWI0087	CI30906
n-Propylbenzene	ND (0.0500)	0.0122	8260B		1	09/06/13 19:11	CWI0087	CI30906
sec-Butylbenzene	ND (0.0500)	0.0067	8260B		1	09/06/13 19:11	CWI0087	CI30906
Styrene	ND (0.0500)	0.0066	8260B		1	09/06/13 19:11	CWI0087	CI30906
tert-Butylbenzene	ND (0.0500)	0.0117	8260B		1	09/06/13 19:11	CWI0087	CI30906
Tertiary-amyl methyl ether	ND (0.0500)	0.0072	8260B		1	09/06/13 19:11	CWI0087	CI30906



*CERTIFICATE OF ANALYSIS*

Client Name: Cherenzia & Associates, Ltd  
 Client Project ID: Louttit Laundry - 93 Cranston Street  
 Client Sample ID: Trip Blank  
 Date Sampled: 09/04/13 00:00  
 Percent Solids: N/A  
 Initial Volume: 15  
 Final Volume: 15  
 Extraction Method: 5035

ESS Laboratory Work Order: 1309052  
 ESS Laboratory Sample ID: 1309052-02  
 Sample Matrix: Solid  
 Units: mg/kg  
 Analyst: NMS

**5035/8260B Volatile Organic Compounds / Methanol**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>MDL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
Tetrachloroethene	ND (0.0500)	0.0167	8260B		1	09/06/13 19:11	CWI0087	CI30906
Tetrahydrofuran	ND (0.500)	0.129	8260B		1	09/06/13 19:11	CWI0087	CI30906
Toluene	ND (0.0500)	0.0127	8260B		1	09/06/13 19:11	CWI0087	CI30906
trans-1,2-Dichloroethene	ND (0.0500)	0.0164	8260B		1	09/06/13 19:11	CWI0087	CI30906
trans-1,3-Dichloropropene	ND (0.0500)	0.0154	8260B		1	09/06/13 19:11	CWI0087	CI30906
Trichloroethene	ND (0.0500)	0.0103	8260B		1	09/06/13 19:11	CWI0087	CI30906
Trichlorofluoromethane	ND (0.0500)	0.0132	8260B		1	09/06/13 19:11	CWI0087	CI30906
Vinyl Acetate	ND (0.250)	0.0103	8260B		1	09/06/13 19:11	CWI0087	CI30906
Vinyl Chloride	ND (0.0500)	0.0165	8260B		1	09/06/13 19:11	CWI0087	CI30906
Xylene O	ND (0.0500)	0.0096	8260B		1	09/06/13 19:11	CWI0087	CI30906
Xylene P,M	ND (0.100)	0.0194	8260B		1	09/06/13 19:11	CWI0087	CI30906
Xylenes (Total)	ND (0.300)	0.0310	8260B		0	09/06/13 19:11	CWI0087	CI30906

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: 1,2-Dichloroethane-d4	104 %		70-130
Surrogate: 4-Bromofluorobenzene	104 %		70-130
Surrogate: Dibromofluoromethane	104 %		70-130
Surrogate: Toluene-d8	103 %		70-130



*CERTIFICATE OF ANALYSIS*

Client Name: Cherenzia & Associates, Ltd  
Client Project ID: Louttit Laundry - 93 Cranston Street

ESS Laboratory Work Order: 1309052

**Quality Control Data**

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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**Total Metals Solid**

**Batch CI30432 - 7471A**

**Blank**

Mercury	ND	0.033	mg/kg wet							
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**LCS**

Mercury	29.6	1.62	mg/kg wet	21.50		138	80-120			B+
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**LCS Dup**

Mercury	20.8	1.57	mg/kg wet	21.50		97	80-120	35	20	D+
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**Batch CI30433 - 3050B**

**Blank**

Arsenic	ND	2.5	mg/kg wet							
Cadmium	ND	0.50	mg/kg wet							
Chromium	ND	1.0	mg/kg wet							
Lead	ND	5.0	mg/kg wet							

**LCS**

Arsenic	87.7	9.8	mg/kg wet	113.0		78	61-115			
Cadmium	159	1.97	mg/kg wet	207.0		77	65-111			
Chromium	124	3.9	mg/kg wet	152.0		81	80-120			
Lead	105	19.6	mg/kg wet	128.0		82	80-120			

**LCS Dup**

Arsenic	93.0	8.8	mg/kg wet	113.0		82	61-115	6	20	
Cadmium	174	1.76	mg/kg wet	207.0		84	65-111	9	20	
Chromium	130	3.5	mg/kg wet	152.0		86	80-120	5	20	
Lead	108	17.6	mg/kg wet	128.0		84	80-120	3	20	

**5035/8260B Volatile Organic Compounds / Methanol**

**Batch CI30906 - 5035**

**Blank**

1,1,1,2-Tetrachloroethane	ND	0.100	mg/kg wet							
1,1,1-Trichloroethane	ND	0.0500	mg/kg wet							
1,1,2,2-Tetrachloroethane	ND	0.0500	mg/kg wet							
1,1,2-Trichloroethane	ND	0.0500	mg/kg wet							
1,1-Dichloroethane	ND	0.0500	mg/kg wet							
1,1-Dichloroethene	ND	0.0500	mg/kg wet							
1,1-Dichloropropene	ND	0.0500	mg/kg wet							
1,2,3-Trichlorobenzene	ND	0.0500	mg/kg wet							
1,2,3-Trichloropropane	ND	0.0500	mg/kg wet							
1,2,4-Trichlorobenzene	ND	0.0500	mg/kg wet							
1,2,4-Trimethylbenzene	ND	0.0500	mg/kg wet							
1,2-Dibromo-3-Chloropropane	ND	0.300	mg/kg wet							
1,2-Dibromoethane	ND	0.0500	mg/kg wet							
1,2-Dichlorobenzene	ND	0.0500	mg/kg wet							
1,2-Dichloroethane	ND	0.0500	mg/kg wet							
1,2-Dichloropropane	ND	0.0500	mg/kg wet							
1,3,5-Trimethylbenzene	ND	0.0500	mg/kg wet							



*CERTIFICATE OF ANALYSIS*

Client Name: Cherenzia & Associates, Ltd  
Client Project ID: Louttit Laundry - 93 Cranston Street

ESS Laboratory Work Order: 1309052

**Quality Control Data**

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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5035/8260B Volatile Organic Compounds / Methanol

**Batch C130906 - 5035**

1,3-Dichlorobenzene	ND	0.0500	mg/kg wet							
1,3-Dichloropropane	ND	0.0500	mg/kg wet							
1,4-Dichlorobenzene	ND	0.0500	mg/kg wet							
1,4-Dioxane - Screen	ND	5.00	mg/kg wet							
1-Chlorohexane	ND	0.0500	mg/kg wet							
2,2-Dichloropropane	ND	0.100	mg/kg wet							
2-Butanone	ND	1.25	mg/kg wet							
2-Chlorotoluene	ND	0.0500	mg/kg wet							
2-Hexanone	ND	0.500	mg/kg wet							
4-Chlorotoluene	ND	0.0500	mg/kg wet							
4-Isopropyltoluene	ND	0.0500	mg/kg wet							
4-Methyl-2-Pentanone	ND	0.500	mg/kg wet							
Acetone	ND	1.25	mg/kg wet							
Benzene	ND	0.0500	mg/kg wet							
Bromobenzene	ND	0.0500	mg/kg wet							
Bromochloromethane	ND	0.0500	mg/kg wet							
Bromodichloromethane	ND	0.0500	mg/kg wet							
Bromoform	ND	0.0500	mg/kg wet							
Bromomethane	ND	0.100	mg/kg wet							
Carbon Disulfide	ND	0.0500	mg/kg wet							
Carbon Tetrachloride	ND	0.0500	mg/kg wet							
Chlorobenzene	ND	0.0500	mg/kg wet							
Chloroethane	ND	0.100	mg/kg wet							
Chloroform	ND	0.0500	mg/kg wet							
Chloromethane	ND	0.100	mg/kg wet							
cis-1,2-Dichloroethene	ND	0.0500	mg/kg wet							
cis-1,3-Dichloropropene	ND	0.0500	mg/kg wet							
Dibromochloromethane	ND	0.0500	mg/kg wet							
Dibromomethane	ND	0.0500	mg/kg wet							
Dichlorodifluoromethane	ND	0.0500	mg/kg wet							
Diethyl Ether	ND	0.0500	mg/kg wet							
Di-isopropyl ether	ND	0.0500	mg/kg wet							
Ethyl tertiary-butyl ether	ND	0.0500	mg/kg wet							
Ethylbenzene	ND	0.0500	mg/kg wet							
Hexachlorobutadiene	0.0350	0.0500	mg/kg wet							J
Isopropylbenzene	ND	0.0500	mg/kg wet							
Methyl tert-Butyl Ether	ND	0.0500	mg/kg wet							
Methylene Chloride	ND	0.250	mg/kg wet							
Naphthalene	0.0180	0.0500	mg/kg wet							J
n-Butylbenzene	ND	0.0500	mg/kg wet							
n-Propylbenzene	ND	0.0500	mg/kg wet							
sec-Butylbenzene	ND	0.0500	mg/kg wet							
Styrene	ND	0.0500	mg/kg wet							
tert-Butylbenzene	ND	0.0500	mg/kg wet							
Tertiary-amyl methyl ether	ND	0.0500	mg/kg wet							



*CERTIFICATE OF ANALYSIS*

Client Name: Cherenzia & Associates, Ltd  
Client Project ID: Louttit Laundry - 93 Cranston Street

ESS Laboratory Work Order: 1309052

**Quality Control Data**

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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5035/8260B Volatile Organic Compounds / Methanol

**Batch C130906 - 5035**

Tetrachloroethene	ND	0.0500	mg/kg wet							
Tetrahydrofuran	ND	0.500	mg/kg wet							
Toluene	ND	0.0500	mg/kg wet							
trans-1,2-Dichloroethene	ND	0.0500	mg/kg wet							
trans-1,3-Dichloropropene	ND	0.0500	mg/kg wet							
Trichloroethene	ND	0.0500	mg/kg wet							
Vinyl Acetate	ND	0.250	mg/kg wet							
Vinyl Chloride	ND	0.0500	mg/kg wet							
Xylene O	ND	0.0500	mg/kg wet							
Xylene P,M	ND	0.100	mg/kg wet							
<i>Surrogate: 1,2-Dichloroethane-d4</i>	2.27		mg/kg wet	2.500		91	70-130			
<i>Surrogate: 4-Bromofluorobenzene</i>	2.21		mg/kg wet	2.500		88	70-130			
<i>Surrogate: Dibromofluoromethane</i>	2.28		mg/kg wet	2.500		91	70-130			
<i>Surrogate: Toluene-d8</i>	2.24		mg/kg wet	2.500		89	70-130			

**LCS**

1,1,1,2-Tetrachloroethane	2.42	0.100	mg/kg wet	2.500		97	70-130			
1,1,1-Trichloroethane	2.44	0.0500	mg/kg wet	2.500		98	70-130			
1,1,2,2-Tetrachloroethane	2.66	0.0500	mg/kg wet	2.500		106	70-130			
1,1,2-Trichloroethane	2.64	0.0500	mg/kg wet	2.500		106	70-130			
1,1-Dichloroethane	2.43	0.0500	mg/kg wet	2.500		97	70-130			
1,1-Dichloroethene	2.57	0.0500	mg/kg wet	2.500		103	70-130			
1,1-Dichloropropene	2.57	0.0500	mg/kg wet	2.500		103	70-130			
1,2,3-Trichlorobenzene	2.54	0.0500	mg/kg wet	2.500		102	70-130			
1,2,3-Trichloropropane	2.42	0.0500	mg/kg wet	2.500		97	70-130			
1,2,4-Trichlorobenzene	2.60	0.0500	mg/kg wet	2.500		104	70-130			
1,2,4-Trimethylbenzene	2.63	0.0500	mg/kg wet	2.500		105	70-130			
1,2-Dibromo-3-Chloropropane	2.51	0.300	mg/kg wet	2.500		100	70-130			
1,2-Dibromoethane	2.51	0.0500	mg/kg wet	2.500		101	70-130			
1,2-Dichlorobenzene	2.63	0.0500	mg/kg wet	2.500		105	70-130			
1,2-Dichloroethane	2.54	0.0500	mg/kg wet	2.500		101	70-130			
1,2-Dichloropropane	2.47	0.0500	mg/kg wet	2.500		99	70-130			
1,3,5-Trimethylbenzene	2.65	0.0500	mg/kg wet	2.500		106	70-130			
1,3-Dichlorobenzene	2.58	0.0500	mg/kg wet	2.500		103	70-130			
1,3-Dichloropropane	2.52	0.0500	mg/kg wet	2.500		101	70-130			
1,4-Dichlorobenzene	2.49	0.0500	mg/kg wet	2.500		100	70-130			
1,4-Dioxane - Screen	56.9	5.00	mg/kg wet	50.00		114	44-241			
1-Chlorohexane	2.50	0.0500	mg/kg wet	2.500		100	70-130			
2,2-Dichloropropane	2.56	0.100	mg/kg wet	2.500		102	70-130			
2-Butanone	13.1	1.25	mg/kg wet	12.50		105	70-130			
2-Chlorotoluene	2.67	0.0500	mg/kg wet	2.500		107	70-130			
2-Hexanone	13.0	0.500	mg/kg wet	12.50		104	70-130			
4-Chlorotoluene	2.61	0.0500	mg/kg wet	2.500		104	70-130			
4-Isopropyltoluene	2.52	0.0500	mg/kg wet	2.500		101	70-130			
4-Methyl-2-Pentanone	13.2	0.500	mg/kg wet	12.50		106	70-130			
Acetone	12.1	1.25	mg/kg wet	12.50		97	70-130			



*CERTIFICATE OF ANALYSIS*

Client Name: Cherenzia & Associates, Ltd  
Client Project ID: Louttit Laundry - 93 Cranston Street

ESS Laboratory Work Order: 1309052

**Quality Control Data**

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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5035/8260B Volatile Organic Compounds / Methanol

**Batch C130906 - 5035**

Benzene	2.65	0.0500	mg/kg wet	2.500		106	70-130			
Bromobenzene	2.61	0.0500	mg/kg wet	2.500		105	70-130			
Bromochloromethane	2.52	0.0500	mg/kg wet	2.500		101	70-130			
Bromodichloromethane	2.57	0.0500	mg/kg wet	2.500		103	70-130			
Bromoform	2.63	0.0500	mg/kg wet	2.500		105	70-130			
Bromomethane	2.20	0.100	mg/kg wet	2.500		88	70-130			
Carbon Disulfide	2.67	0.0500	mg/kg wet	2.500		107	70-130			
Carbon Tetrachloride	2.62	0.0500	mg/kg wet	2.500		105	70-130			
Chlorobenzene	2.57	0.0500	mg/kg wet	2.500		103	70-130			
Chloroethane	2.35	0.100	mg/kg wet	2.500		94	70-130			
Chloroform	2.49	0.0500	mg/kg wet	2.500		100	70-130			
Chloromethane	2.24	0.100	mg/kg wet	2.500		90	70-130			
cis-1,2-Dichloroethene	2.52	0.0500	mg/kg wet	2.500		101	70-130			
cis-1,3-Dichloropropene	2.72	0.0500	mg/kg wet	2.500		109	70-130			
Dibromochloromethane	2.42	0.0500	mg/kg wet	2.500		97	70-130			
Dibromomethane	2.52	0.0500	mg/kg wet	2.500		101	70-130			
Dichlorodifluoromethane	1.90	0.0500	mg/kg wet	2.500		76	70-130			
Diethyl Ether	2.57	0.0500	mg/kg wet	2.500		103	70-130			
Di-isopropyl ether	2.56	0.0500	mg/kg wet	2.500		103	70-130			
Ethyl tertiary-butyl ether	2.58	0.0500	mg/kg wet	2.500		103	70-130			
Ethylbenzene	2.64	0.0500	mg/kg wet	2.500		106	70-130			
Hexachlorobutadiene	2.56	0.0500	mg/kg wet	2.500		102	70-130			
Isopropylbenzene	2.60	0.0500	mg/kg wet	2.500		104	70-130			
Methyl tert-Butyl Ether	2.62	0.0500	mg/kg wet	2.500		105	70-130			
Methylene Chloride	2.51	0.250	mg/kg wet	2.500		101	70-130			
Naphthalene	2.42	0.0500	mg/kg wet	2.500		97	70-130			
n-Butylbenzene	2.73	0.0500	mg/kg wet	2.500		109	70-130			
n-Propylbenzene	2.59	0.0500	mg/kg wet	2.500		104	70-130			
sec-Butylbenzene	2.70	0.0500	mg/kg wet	2.500		108	70-130			
Styrene	2.50	0.0500	mg/kg wet	2.500		100	70-130			
tert-Butylbenzene	2.72	0.0500	mg/kg wet	2.500		109	70-130			
Tertiary-amyl methyl ether	2.53	0.0500	mg/kg wet	2.500		101	70-130			
Tetrachloroethene	2.09	0.0500	mg/kg wet	2.500		83	70-130			
Tetrahydrofuran	2.71	0.500	mg/kg wet	2.500		108	70-130			
Toluene	2.66	0.0500	mg/kg wet	2.500		107	70-130			
trans-1,2-Dichloroethene	2.46	0.0500	mg/kg wet	2.500		99	70-130			
trans-1,3-Dichloropropene	2.45	0.0500	mg/kg wet	2.500		98	70-130			
Trichloroethene	2.59	0.0500	mg/kg wet	2.500		104	70-130			
Vinyl Acetate	2.75	0.250	mg/kg wet	2.500		110	70-130			
Vinyl Chloride	2.84	0.0500	mg/kg wet	2.500		113	70-130			
Xylene O	2.61	0.0500	mg/kg wet	2.500		104	70-130			
Xylene P,M	5.25	0.100	mg/kg wet	5.000		105	70-130			
Surrogate: 1,2-Dichloroethane-d4	2.40		mg/kg wet	2.500		96	70-130			
Surrogate: 4-Bromofluorobenzene	2.31		mg/kg wet	2.500		92	70-130			
Surrogate: Dibromofluoromethane	2.27		mg/kg wet	2.500		91	70-130			



*CERTIFICATE OF ANALYSIS*

Client Name: Cherenzia & Associates, Ltd  
Client Project ID: Louttit Laundry - 93 Cranston Street

ESS Laboratory Work Order: 1309052

**Quality Control Data**

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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5035/8260B Volatile Organic Compounds / Methanol

**Batch C130906 - 5035**

<i>Surrogate: Toluene-d8</i>	2.34		mg/kg wet	2.500		93	70-130			
<b>LCS Dup</b>										
1,1,1,2-Tetrachloroethane	2.40	0.100	mg/kg wet	2.500		96	70-130	0.8	25	
1,1,1-Trichloroethane	2.45	0.0500	mg/kg wet	2.500		98	70-130	0.4	25	
1,1,2,2-Tetrachloroethane	2.56	0.0500	mg/kg wet	2.500		102	70-130	4	25	
1,1,2-Trichloroethane	2.62	0.0500	mg/kg wet	2.500		105	70-130	0.9	25	
1,1-Dichloroethane	2.40	0.0500	mg/kg wet	2.500		96	70-130	1	25	
1,1-Dichloroethene	2.60	0.0500	mg/kg wet	2.500		104	70-130	1	25	
1,1-Dichloropropene	2.65	0.0500	mg/kg wet	2.500		106	70-130	3	25	
1,2,3-Trichlorobenzene	2.52	0.0500	mg/kg wet	2.500		101	70-130	1	25	
1,2,3-Trichloropropane	2.49	0.0500	mg/kg wet	2.500		100	70-130	3	25	
1,2,4-Trichlorobenzene	2.58	0.0500	mg/kg wet	2.500		103	70-130	0.5	25	
1,2,4-Trimethylbenzene	2.63	0.0500	mg/kg wet	2.500		105	70-130	0.08	25	
1,2-Dibromo-3-Chloropropane	2.47	0.300	mg/kg wet	2.500		99	70-130	2	25	
1,2-Dibromoethane	2.45	0.0500	mg/kg wet	2.500		98	70-130	3	25	
1,2-Dichlorobenzene	2.62	0.0500	mg/kg wet	2.500		105	70-130	0.2	25	
1,2-Dichloroethane	2.49	0.0500	mg/kg wet	2.500		100	70-130	2	25	
1,2-Dichloropropane	2.48	0.0500	mg/kg wet	2.500		99	70-130	0.5	25	
1,3,5-Trimethylbenzene	2.66	0.0500	mg/kg wet	2.500		106	70-130	0.04	25	
1,3-Dichlorobenzene	2.59	0.0500	mg/kg wet	2.500		103	70-130	0.2	25	
1,3-Dichloropropane	2.42	0.0500	mg/kg wet	2.500		97	70-130	4	25	
1,4-Dichlorobenzene	2.47	0.0500	mg/kg wet	2.500		99	70-130	1	25	
1,4-Dioxane - Screen	58.5	5.00	mg/kg wet	50.00		117	44-241	3	200	
1-Chlorohexane	2.49	0.0500	mg/kg wet	2.500		100	70-130	0.6	25	
2,2-Dichloropropane	2.52	0.100	mg/kg wet	2.500		101	70-130	2	25	
2-Butanone	12.4	1.25	mg/kg wet	12.50		99	70-130	5	25	
2-Chlorotoluene	2.67	0.0500	mg/kg wet	2.500		107	70-130	0.07	25	
2-Hexanone	12.4	0.500	mg/kg wet	12.50		99	70-130	5	25	
4-Chlorotoluene	2.58	0.0500	mg/kg wet	2.500		103	70-130	1	25	
4-Isopropyltoluene	2.52	0.0500	mg/kg wet	2.500		101	70-130	0.08	25	
4-Methyl-2-Pentanone	12.6	0.500	mg/kg wet	12.50		101	70-130	5	25	
Acetone	11.5	1.25	mg/kg wet	12.50		92	70-130	5	25	
Benzene	2.64	0.0500	mg/kg wet	2.500		106	70-130	0.2	25	
Bromobenzene	2.58	0.0500	mg/kg wet	2.500		103	70-130	1	25	
Bromochloromethane	2.53	0.0500	mg/kg wet	2.500		101	70-130	0.3	25	
Bromodichloromethane	2.55	0.0500	mg/kg wet	2.500		102	70-130	0.7	25	
Bromoform	2.56	0.0500	mg/kg wet	2.500		103	70-130	2	25	
Bromomethane	2.30	0.100	mg/kg wet	2.500		92	70-130	5	25	
Carbon Disulfide	2.70	0.0500	mg/kg wet	2.500		108	70-130	1	25	
Carbon Tetrachloride	2.65	0.0500	mg/kg wet	2.500		106	70-130	1	25	
Chlorobenzene	2.57	0.0500	mg/kg wet	2.500		103	70-130	0.08	25	
Chloroethane	2.42	0.100	mg/kg wet	2.500		97	70-130	3	25	
Chloroform	2.49	0.0500	mg/kg wet	2.500		100	70-130	0.2	25	
Chloromethane	2.27	0.100	mg/kg wet	2.500		91	70-130	1	25	



*CERTIFICATE OF ANALYSIS*

Client Name: Cherenzia & Associates, Ltd  
Client Project ID: Louttit Laundry - 93 Cranston Street

ESS Laboratory Work Order: 1309052

**Quality Control Data**

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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5035/8260B Volatile Organic Compounds / Methanol

**Batch C130906 - 5035**

cis-1,2-Dichloroethene	2.52	0.0500	mg/kg wet	2.500		101	70-130	0.04	25	
cis-1,3-Dichloropropene	2.71	0.0500	mg/kg wet	2.500		108	70-130	0.1	25	
Dibromochloromethane	2.40	0.0500	mg/kg wet	2.500		96	70-130	1	25	
Dibromomethane	2.49	0.0500	mg/kg wet	2.500		100	70-130	1	25	
Dichlorodifluoromethane	1.90	0.0500	mg/kg wet	2.500		76	70-130	0.2	25	
Diethyl Ether	2.58	0.0500	mg/kg wet	2.500		103	70-130	0.5	25	
Di-isopropyl ether	2.56	0.0500	mg/kg wet	2.500		102	70-130	0.1	25	
Ethyl tertiary-butyl ether	2.55	0.0500	mg/kg wet	2.500		102	70-130	1	25	
Ethylbenzene	2.61	0.0500	mg/kg wet	2.500		104	70-130	1	25	
Hexachlorobutadiene	2.58	0.0500	mg/kg wet	2.500		103	70-130	1	25	
Isopropylbenzene	2.62	0.0500	mg/kg wet	2.500		105	70-130	0.4	25	
Methyl tert-Butyl Ether	2.58	0.0500	mg/kg wet	2.500		103	70-130	1	25	
Methylene Chloride	2.47	0.250	mg/kg wet	2.500		99	70-130	2	25	
Naphthalene	2.38	0.0500	mg/kg wet	2.500		95	70-130	1	25	
n-Butylbenzene	2.74	0.0500	mg/kg wet	2.500		110	70-130	0.3	25	
n-Propylbenzene	2.56	0.0500	mg/kg wet	2.500		103	70-130	1	25	
sec-Butylbenzene	2.68	0.0500	mg/kg wet	2.500		107	70-130	0.5	25	
Styrene	2.47	0.0500	mg/kg wet	2.500		99	70-130	1	25	
tert-Butylbenzene	2.71	0.0500	mg/kg wet	2.500		108	70-130	0.4	25	
Tertiary-amyl methyl ether	2.46	0.0500	mg/kg wet	2.500		99	70-130	3	25	
Tetrachloroethene	2.08	0.0500	mg/kg wet	2.500		83	70-130	0.2	25	
Tetrahydrofuran	2.62	0.500	mg/kg wet	2.500		105	70-130	3	25	
Toluene	2.69	0.0500	mg/kg wet	2.500		108	70-130	0.9	25	
trans-1,2-Dichloroethene	2.48	0.0500	mg/kg wet	2.500		99	70-130	0.8	25	
trans-1,3-Dichloropropene	2.43	0.0500	mg/kg wet	2.500		97	70-130	0.9	25	
Trichloroethene	2.56	0.0500	mg/kg wet	2.500		102	70-130	1	25	
Vinyl Acetate	2.71	0.250	mg/kg wet	2.500		109	70-130	1	25	
Vinyl Chloride	2.88	0.0500	mg/kg wet	2.500		115	70-130	1	25	
Xylene O	2.60	0.0500	mg/kg wet	2.500		104	70-130	0.4	25	
Xylene P,M	5.22	0.100	mg/kg wet	5.000		104	70-130	0.6	25	
Surrogate: 1,2-Dichloroethane-d4	2.41		mg/kg wet	2.500		96	70-130			
Surrogate: 4-Bromofluorobenzene	2.29		mg/kg wet	2.500		92	70-130			
Surrogate: Dibromofluoromethane	2.28		mg/kg wet	2.500		91	70-130			
Surrogate: Toluene-d8	2.35		mg/kg wet	2.500		94	70-130			

8082 Polychlorinated Biphenyls (PCB)

**Batch C131020 - 3540**

<b>Blank</b>										
Aroclor 1016	ND	0.0500	mg/kg wet							
Aroclor 1221	ND	0.0500	mg/kg wet							
Aroclor 1232	ND	0.0500	mg/kg wet							
Aroclor 1242	ND	0.0500	mg/kg wet							
Aroclor 1248	ND	0.0500	mg/kg wet							
Aroclor 1254	ND	0.0500	mg/kg wet							
Aroclor 1260	ND	0.0500	mg/kg wet							



*CERTIFICATE OF ANALYSIS*

Client Name: Cherenzia & Associates, Ltd  
Client Project ID: Louttit Laundry - 93 Cranston Street

ESS Laboratory Work Order: 1309052

**Quality Control Data**

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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**8082 Polychlorinated Biphenyls (PCB)**

**Batch CI31020 - 3540**

Aroclor 1262	ND	0.0500	mg/kg wet							
Aroclor 1268	ND	0.0500	mg/kg wet							
Surrogate: Decachlorobiphenyl	0.0217		mg/kg wet	0.02500		87	30-150			
Surrogate: Decachlorobiphenyl [2C]	0.0234		mg/kg wet	0.02500		94	30-150			
Surrogate: Tetrachloro-m-xylene	0.0211		mg/kg wet	0.02500		84	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	0.0217		mg/kg wet	0.02500		87	30-150			

**LCS**

Aroclor 1016	0.503	0.0500	mg/kg wet	0.5000		101	40-140			
Aroclor 1260	0.508	0.0500	mg/kg wet	0.5000		102	40-140			
Surrogate: Decachlorobiphenyl	0.0235		mg/kg wet	0.02500		94	30-150			
Surrogate: Decachlorobiphenyl [2C]	0.0251		mg/kg wet	0.02500		100	30-150			
Surrogate: Tetrachloro-m-xylene	0.0218		mg/kg wet	0.02500		87	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	0.0213		mg/kg wet	0.02500		85	30-150			

**LCS Dup**

Aroclor 1016	0.520	0.0500	mg/kg wet	0.5000		104	40-140	3	50	
Aroclor 1260	0.508	0.0500	mg/kg wet	0.5000		102	40-140	0.02	50	
Surrogate: Decachlorobiphenyl	0.0231		mg/kg wet	0.02500		92	30-150			
Surrogate: Decachlorobiphenyl [2C]	0.0252		mg/kg wet	0.02500		101	30-150			
Surrogate: Tetrachloro-m-xylene	0.0224		mg/kg wet	0.02500		89	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	0.0219		mg/kg wet	0.02500		88	30-150			

**8100M Total Petroleum Hydrocarbons**

**Batch CI30519 - 3546**

**Blank**

Decane (C10)	ND	0.2	mg/kg wet							
Docosane (C22)	ND	0.2	mg/kg wet							
Dodecane (C12)	ND	0.2	mg/kg wet							
Eicosane (C20)	ND	0.2	mg/kg wet							
Hexacosane (C26)	ND	0.2	mg/kg wet							
Hexadecane (C16)	ND	0.2	mg/kg wet							
Nonadecane (C19)	ND	0.2	mg/kg wet							
Nonane (C9)	ND	0.2	mg/kg wet							
Octacosane (C28)	ND	0.2	mg/kg wet							
Octadecane (C18)	ND	0.2	mg/kg wet							
Tetracosane (C24)	ND	0.2	mg/kg wet							
Tetradecane (C14)	ND	0.2	mg/kg wet							
Total Petroleum Hydrocarbons	ND	37.5	mg/kg wet							
Triacotane (C30)	ND	0.2	mg/kg wet							

Surrogate: O-Terphenyl	3.81		mg/kg wet	5.000		76	40-140			
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**LCS**

Decane (C10)	1.5	0.2	mg/kg wet	2.500		61	40-140			
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*CERTIFICATE OF ANALYSIS*

Client Name: Cherenzia & Associates, Ltd  
Client Project ID: Louttit Laundry - 93 Cranston Street

ESS Laboratory Work Order: 1309052

**Quality Control Data**

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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**8100M Total Petroleum Hydrocarbons**

**Batch CI30519 - 3546**

Docosane (C22)	1.7	0.2	mg/kg wet	2.500		67	40-140			
Dodecane (C12)	1.5	0.2	mg/kg wet	2.500		60	40-140			
Eicosane (C20)	1.7	0.2	mg/kg wet	2.500		67	40-140			
Hexacosane (C26)	1.6	0.2	mg/kg wet	2.500		66	40-140			
Hexadecane (C16)	1.6	0.2	mg/kg wet	2.500		65	40-140			
Nonadecane (C19)	1.6	0.2	mg/kg wet	2.500		66	40-140			
Nonane (C9)	1.3	0.2	mg/kg wet	2.500		52	30-140			
Octacosane (C28)	1.7	0.2	mg/kg wet	2.500		66	40-140			
Octadecane (C18)	1.7	0.2	mg/kg wet	2.500		67	40-140			
Tetracosane (C24)	1.7	0.2	mg/kg wet	2.500		68	40-140			
Tetradecane (C14)	1.6	0.2	mg/kg wet	2.500		65	40-140			
Total Petroleum Hydrocarbons	23.7	37.5	mg/kg wet	35.00		68	40-140			
Triacontane (C30)	1.6	0.2	mg/kg wet	2.500		66	40-140			

<i>Surrogate: O-Terphenyl</i>	<i>3.38</i>		mg/kg wet	<i>5.000</i>		<i>68</i>	<i>40-140</i>			
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**LCS Dup**

Decane (C10)	1.5	0.2	mg/kg wet	2.500		60	40-140	0.6	50	
Docosane (C22)	1.7	0.2	mg/kg wet	2.500		66	40-140	2	50	
Dodecane (C12)	1.5	0.2	mg/kg wet	2.500		60	40-140	1	50	
Eicosane (C20)	1.6	0.2	mg/kg wet	2.500		66	40-140	1	50	
Hexacosane (C26)	1.6	0.2	mg/kg wet	2.500		64	40-140	2	50	
Hexadecane (C16)	1.6	0.2	mg/kg wet	2.500		64	40-140	1	50	
Nonadecane (C19)	1.6	0.2	mg/kg wet	2.500		65	40-140	1	50	
Nonane (C9)	1.3	0.2	mg/kg wet	2.500		51	30-140	1	50	
Octacosane (C28)	1.6	0.2	mg/kg wet	2.500		64	40-140	2	50	
Octadecane (C18)	1.6	0.2	mg/kg wet	2.500		66	40-140	1	50	
Tetracosane (C24)	1.7	0.2	mg/kg wet	2.500		66	40-140	2	50	
Tetradecane (C14)	1.6	0.2	mg/kg wet	2.500		64	40-140	2	50	
Total Petroleum Hydrocarbons	23.7	37.5	mg/kg wet	35.00		68	40-140	0.05	50	
Triacontane (C30)	1.6	0.2	mg/kg wet	2.500		65	40-140	2	50	

<i>Surrogate: O-Terphenyl</i>	<i>3.23</i>		mg/kg wet	<i>5.000</i>		<i>65</i>	<i>40-140</i>			
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**8270C Semi-Volatile Organic Compounds**

**Batch CI30518 - 3546**

**Blank**

1,1-Biphenyl	ND	0.333	mg/kg wet							
1,2,4-Trichlorobenzene	ND	0.333	mg/kg wet							
1,2-Dichlorobenzene	ND	0.333	mg/kg wet							
1,3-Dichlorobenzene	ND	0.333	mg/kg wet							
1,4-Dichlorobenzene	ND	0.333	mg/kg wet							
2,3,4,6-Tetrachlorophenol	ND	1.67	mg/kg wet							
2,4,5-Trichlorophenol	ND	0.333	mg/kg wet							
2,4,6-Trichlorophenol	ND	0.333	mg/kg wet							
2,4-Dichlorophenol	ND	0.333	mg/kg wet							



*CERTIFICATE OF ANALYSIS*

Client Name: Cherenzia & Associates, Ltd  
Client Project ID: Louttit Laundry - 93 Cranston Street

ESS Laboratory Work Order: 1309052

**Quality Control Data**

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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8270C Semi-Volatile Organic Compounds

**Batch CI30518 - 3546**

2,4-Dimethylphenol	ND	0.333	mg/kg wet
2,4-Dinitrophenol	ND	1.67	mg/kg wet
2,4-Dinitrotoluene	ND	0.333	mg/kg wet
2,6-Dinitrotoluene	ND	0.333	mg/kg wet
2-Chloronaphthalene	ND	0.333	mg/kg wet
2-Chlorophenol	ND	0.333	mg/kg wet
2-Methylnaphthalene	ND	0.333	mg/kg wet
2-Methylphenol	ND	0.333	mg/kg wet
2-Nitroaniline	ND	0.333	mg/kg wet
2-Nitrophenol	ND	0.333	mg/kg wet
3,3'-Dichlorobenzidine	ND	0.667	mg/kg wet
3+4-Methylphenol	ND	0.667	mg/kg wet
3-Nitroaniline	ND	0.333	mg/kg wet
4,6-Dinitro-2-Methylphenol	ND	1.67	mg/kg wet
4-Bromophenyl-phenylether	ND	0.333	mg/kg wet
4-Chloro-3-Methylphenol	ND	0.333	mg/kg wet
4-Chloroaniline	ND	0.667	mg/kg wet
4-Chloro-phenyl-phenyl ether	ND	0.333	mg/kg wet
4-Nitroaniline	ND	0.333	mg/kg wet
4-Nitrophenol	ND	1.67	mg/kg wet
Acenaphthene	ND	0.333	mg/kg wet
Acenaphthylene	ND	0.333	mg/kg wet
Acetophenone	ND	0.667	mg/kg wet
Aniline	ND	0.667	mg/kg wet
Anthracene	ND	0.333	mg/kg wet
Azobenzene	ND	0.333	mg/kg wet
Benzo(a)anthracene	ND	0.333	mg/kg wet
Benzo(a)pyrene	ND	0.167	mg/kg wet
Benzo(b)fluoranthene	ND	0.333	mg/kg wet
Benzo(g,h,i)perylene	ND	0.333	mg/kg wet
Benzo(k)fluoranthene	ND	0.333	mg/kg wet
Benzoic Acid	ND	1.67	mg/kg wet
Benzyl Alcohol	ND	0.333	mg/kg wet
bis(2-Chloroethoxy)methane	ND	0.333	mg/kg wet
bis(2-Chloroethyl)ether	ND	0.333	mg/kg wet
bis(2-chloroisopropyl)Ether	ND	0.333	mg/kg wet
bis(2-Ethylhexyl)phthalate	ND	0.333	mg/kg wet
Butylbenzylphthalate	ND	0.333	mg/kg wet
Carbazole	ND	0.333	mg/kg wet
Chrysene	ND	0.167	mg/kg wet
Dibenzo(a,h)Anthracene	ND	0.167	mg/kg wet
Dibenzofuran	ND	0.333	mg/kg wet
Diethylphthalate	ND	0.333	mg/kg wet
Dimethylphthalate	ND	0.333	mg/kg wet
Di-n-butylphthalate	ND	0.333	mg/kg wet



*CERTIFICATE OF ANALYSIS*

Client Name: Cherenzia & Associates, Ltd  
Client Project ID: Louttit Laundry - 93 Cranston Street

ESS Laboratory Work Order: 1309052

**Quality Control Data**

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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8270C Semi-Volatile Organic Compounds

**Batch CI30518 - 3546**

Di-n-octylphthalate	ND	0.333	mg/kg wet							
Fluoranthene	ND	0.333	mg/kg wet							
Fluorene	ND	0.333	mg/kg wet							
Hexachlorobenzene	ND	0.167	mg/kg wet							
Hexachlorobutadiene	ND	0.333	mg/kg wet							
Hexachlorocyclopentadiene	ND	1.67	mg/kg wet							
Hexachloroethane	ND	0.333	mg/kg wet							
Indeno(1,2,3-cd)Pyrene	ND	0.333	mg/kg wet							
Isophorone	ND	0.333	mg/kg wet							
Naphthalene	ND	0.333	mg/kg wet							
Nitrobenzene	ND	0.333	mg/kg wet							
N-Nitrosodimethylamine	ND	0.333	mg/kg wet							
N-Nitroso-Di-n-Propylamine	ND	0.333	mg/kg wet							
N-nitrosodiphenylamine	ND	0.333	mg/kg wet							
Pentachlorophenol	ND	1.67	mg/kg wet							
Phenanthrene	ND	0.333	mg/kg wet							
Phenol	ND	0.333	mg/kg wet							
Pyrene	ND	0.333	mg/kg wet							
Pyridine	ND	1.67	mg/kg wet							
Surrogate: 1,2-Dichlorobenzene-d4	2.81		mg/kg wet	3.333		84	30-130			
Surrogate: 2,4,6-Tribromophenol	4.66		mg/kg wet	5.000		93	30-130			
Surrogate: 2-Chlorophenol-d4	4.30		mg/kg wet	5.000		86	30-130			
Surrogate: 2-Fluorobiphenyl	2.98		mg/kg wet	3.333		89	30-130			
Surrogate: 2-Fluorophenol	4.07		mg/kg wet	5.000		81	30-130			
Surrogate: Nitrobenzene-d5	2.98		mg/kg wet	3.333		89	30-130			
Surrogate: Phenol-d6	4.51		mg/kg wet	5.000		90	30-130			
Surrogate: p-Terphenyl-d14	3.18		mg/kg wet	3.333		95	30-130			

**LCS**

1,1-Biphenyl	2.76	0.333	mg/kg wet	3.333		83	40-140			
1,2,4-Trichlorobenzene	2.81	0.333	mg/kg wet	3.333		84	40-140			
1,2-Dichlorobenzene	2.65	0.333	mg/kg wet	3.333		80	40-140			
1,3-Dichlorobenzene	2.63	0.333	mg/kg wet	3.333		79	40-140			
1,4-Dichlorobenzene	2.73	0.333	mg/kg wet	3.333		82	40-140			
2,3,4,6-Tetrachlorophenol	2.88	1.67	mg/kg wet	3.333		86	30-130			
2,4,5-Trichlorophenol	3.22	0.333	mg/kg wet	3.333		96	30-130			
2,4,6-Trichlorophenol	3.17	0.333	mg/kg wet	3.333		95	30-130			
2,4-Dichlorophenol	2.97	0.333	mg/kg wet	3.333		89	30-130			
2,4-Dimethylphenol	3.00	0.333	mg/kg wet	3.333		90	30-130			
2,4-Dinitrophenol	2.59	1.67	mg/kg wet	3.333		78	30-130			
2,4-Dinitrotoluene	2.95	0.333	mg/kg wet	3.333		88	40-140			
2,6-Dinitrotoluene	2.90	0.333	mg/kg wet	3.333		87	40-140			
2-Chloronaphthalene	2.61	0.333	mg/kg wet	3.333		78	40-140			
2-Chlorophenol	2.76	0.333	mg/kg wet	3.333		83	30-130			
2-Methylnaphthalene	2.94	0.333	mg/kg wet	3.333		88	40-140			
2-Methylphenol	2.70	0.333	mg/kg wet	3.333		81	30-130			



*CERTIFICATE OF ANALYSIS*

Client Name: Cherenzia & Associates, Ltd  
Client Project ID: Louttit Laundry - 93 Cranston Street

ESS Laboratory Work Order: 1309052

**Quality Control Data**

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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8270C Semi-Volatile Organic Compounds

**Batch CI30518 - 3546**

2-Nitroaniline	2.40	0.333	mg/kg wet	3.333		72	40-140			
2-Nitrophenol	2.95	0.333	mg/kg wet	3.333		88	30-130			
3,3'-Dichlorobenzidine	2.53	0.667	mg/kg wet	3.333		76	40-140			
3+4-Methylphenol	5.56	0.667	mg/kg wet	6.667		83	30-130			
3-Nitroaniline	2.74	0.333	mg/kg wet	3.333		82	40-140			
4,6-Dinitro-2-Methylphenol	2.81	1.67	mg/kg wet	3.333		84	30-130			
4-Bromophenyl-phenylether	3.04	0.333	mg/kg wet	3.333		91	40-140			
4-Chloro-3-Methylphenol	3.09	0.333	mg/kg wet	3.333		93	30-130			
4-Chloroaniline	2.04	0.667	mg/kg wet	3.333		61	40-140			
4-Chloro-phenyl-phenyl ether	2.91	0.333	mg/kg wet	3.333		87	40-140			
4-Nitroaniline	2.95	0.333	mg/kg wet	3.333		89	40-140			
4-Nitrophenol	3.03	1.67	mg/kg wet	3.333		91	30-130			
Acenaphthene	2.82	0.333	mg/kg wet	3.333		84	40-140			
Acenaphthylene	2.68	0.333	mg/kg wet	3.333		80	40-140			
Acetophenone	2.84	0.667	mg/kg wet	3.333		85	40-140			
Aniline	2.13	0.667	mg/kg wet	3.333		64	40-140			
Anthracene	2.97	0.333	mg/kg wet	3.333		89	40-140			
Azobenzene	2.70	0.333	mg/kg wet	3.333		81	40-140			
Benzo(a)anthracene	3.06	0.333	mg/kg wet	3.333		92	40-140			
Benzo(a)pyrene	2.82	0.167	mg/kg wet	3.333		85	40-140			
Benzo(b)fluoranthene	2.97	0.333	mg/kg wet	3.333		89	40-140			
Benzo(g,h,i)perylene	2.90	0.333	mg/kg wet	3.333		87	40-140			
Benzo(k)fluoranthene	3.01	0.333	mg/kg wet	3.333		90	40-140			
Benzoic Acid	3.72	1.67	mg/kg wet	3.333		111	40-140			
Benzyl Alcohol	2.71	0.333	mg/kg wet	3.333		81	40-140			
bis(2-Chloroethoxy)methane	2.72	0.333	mg/kg wet	3.333		81	40-140			
bis(2-Chloroethyl)ether	2.67	0.333	mg/kg wet	3.333		80	40-140			
bis(2-chloroisopropyl)Ether	2.67	0.333	mg/kg wet	3.333		80	40-140			
bis(2-Ethylhexyl)phthalate	2.92	0.333	mg/kg wet	3.333		87	40-140			
Butylbenzylphthalate	3.17	0.333	mg/kg wet	3.333		95	40-140			
Carbazole	2.90	0.333	mg/kg wet	3.333		87	40-140			
Chrysene	3.26	0.167	mg/kg wet	3.333		98	40-140			
Dibenzo(a,h)Anthracene	2.78	0.167	mg/kg wet	3.333		83	40-140			
Dibenzofuran	2.83	0.333	mg/kg wet	3.333		85	40-140			
Diethylphthalate	2.97	0.333	mg/kg wet	3.333		89	40-140			
Dimethylphthalate	2.89	0.333	mg/kg wet	3.333		87	40-140			
Di-n-butylphthalate	3.04	0.333	mg/kg wet	3.333		91	40-140			
Di-n-octylphthalate	3.20	0.333	mg/kg wet	3.333		96	40-140			
Fluoranthene	2.89	0.333	mg/kg wet	3.333		87	40-140			
Fluorene	2.92	0.333	mg/kg wet	3.333		88	40-140			
Hexachlorobenzene	3.00	0.167	mg/kg wet	3.333		90	40-140			
Hexachlorobutadiene	3.06	0.333	mg/kg wet	3.333		92	40-140			
Hexachlorocyclopentadiene	2.06	1.67	mg/kg wet	3.333		62	40-140			
Hexachloroethane	2.76	0.333	mg/kg wet	3.333		83	40-140			
Indeno(1,2,3-cd)Pyrene	2.84	0.333	mg/kg wet	3.333		85	40-140			



*CERTIFICATE OF ANALYSIS*

Client Name: Cherenzia & Associates, Ltd  
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ESS Laboratory Work Order: 1309052

**Quality Control Data**

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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8270C Semi-Volatile Organic Compounds

**Batch CI30518 - 3546**

Isophorone	2.76	0.333	mg/kg wet	3.333		83	40-140			
Naphthalene	2.91	0.333	mg/kg wet	3.333		87	40-140			
Nitrobenzene	2.78	0.333	mg/kg wet	3.333		83	40-140			
N-Nitrosodimethylamine	3.40	0.333	mg/kg wet	3.333		102	40-140			
N-Nitroso-Di-n-Propylamine	2.70	0.333	mg/kg wet	3.333		81	40-140			
N-nitrosodiphenylamine	2.91	0.333	mg/kg wet	3.333		87	40-140			
Pentachlorophenol	2.91	1.67	mg/kg wet	3.333		87	30-130			
Phenanthrene	2.99	0.333	mg/kg wet	3.333		90	40-140			
Phenol	2.68	0.333	mg/kg wet	3.333		80	30-130			
Pyrene	3.27	0.333	mg/kg wet	3.333		98	40-140			
Pyridine	2.13	1.67	mg/kg wet	3.333		64	40-140			
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	2.74		mg/kg wet	3.333		82	30-130			
<i>Surrogate: 2,4,6-Tribromophenol</i>	4.58		mg/kg wet	5.000		92	30-130			
<i>Surrogate: 2-Chlorophenol-d4</i>	4.15		mg/kg wet	5.000		83	30-130			
<i>Surrogate: 2-Fluorobiphenyl</i>	2.87		mg/kg wet	3.333		86	30-130			
<i>Surrogate: 2-Fluorophenol</i>	3.99		mg/kg wet	5.000		80	30-130			
<i>Surrogate: Nitrobenzene-d5</i>	2.84		mg/kg wet	3.333		85	30-130			
<i>Surrogate: Phenol-d6</i>	4.16		mg/kg wet	5.000		83	30-130			
<i>Surrogate: p-Terphenyl-d14</i>	3.11		mg/kg wet	3.333		93	30-130			

**LCS Dup**

1,1-Biphenyl	3.07	0.333	mg/kg wet	3.333		92	40-140	11	30	
1,2,4-Trichlorobenzene	3.19	0.333	mg/kg wet	3.333		96	40-140	13	30	
1,2-Dichlorobenzene	2.98	0.333	mg/kg wet	3.333		89	40-140	12	30	
1,3-Dichlorobenzene	2.94	0.333	mg/kg wet	3.333		88	40-140	11	30	
1,4-Dichlorobenzene	2.98	0.333	mg/kg wet	3.333		89	40-140	9	30	
2,3,4,6-Tetrachlorophenol	3.34	1.67	mg/kg wet	3.333		100	30-130	15	30	
2,4,5-Trichlorophenol	3.70	0.333	mg/kg wet	3.333		111	30-130	14	30	
2,4,6-Trichlorophenol	3.63	0.333	mg/kg wet	3.333		109	30-130	14	30	
2,4-Dichlorophenol	3.35	0.333	mg/kg wet	3.333		101	30-130	12	30	
2,4-Dimethylphenol	3.37	0.333	mg/kg wet	3.333		101	30-130	12	30	
2,4-Dinitrophenol	3.04	1.67	mg/kg wet	3.333		91	30-130	16	30	
2,4-Dinitrotoluene	3.43	0.333	mg/kg wet	3.333		103	40-140	15	30	
2,6-Dinitrotoluene	3.33	0.333	mg/kg wet	3.333		100	40-140	14	30	
2-Chloronaphthalene	2.89	0.333	mg/kg wet	3.333		87	40-140	10	30	
2-Chlorophenol	3.06	0.333	mg/kg wet	3.333		92	30-130	10	30	
2-Methylnaphthalene	3.38	0.333	mg/kg wet	3.333		101	40-140	14	30	
2-Methylphenol	3.01	0.333	mg/kg wet	3.333		90	30-130	11	30	
2-Nitroaniline	2.75	0.333	mg/kg wet	3.333		82	40-140	13	30	
2-Nitrophenol	3.40	0.333	mg/kg wet	3.333		102	30-130	14	30	
3,3'-Dichlorobenzidine	3.08	0.667	mg/kg wet	3.333		93	40-140	20	30	
3+4-Methylphenol	6.20	0.667	mg/kg wet	6.667		93	30-130	11	30	
3-Nitroaniline	3.22	0.333	mg/kg wet	3.333		96	40-140	16	30	
4,6-Dinitro-2-Methylphenol	3.22	1.67	mg/kg wet	3.333		97	30-130	14	30	
4-Bromophenyl-phenylether	3.41	0.333	mg/kg wet	3.333		102	40-140	12	30	
4-Chloro-3-Methylphenol	3.54	0.333	mg/kg wet	3.333		106	30-130	14	30	



*CERTIFICATE OF ANALYSIS*

Client Name: Cherenzia & Associates, Ltd  
Client Project ID: Louttit Laundry - 93 Cranston Street

ESS Laboratory Work Order: 1309052

**Quality Control Data**

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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8270C Semi-Volatile Organic Compounds

**Batch CI30518 - 3546**

4-Chloroaniline	2.57	0.667	mg/kg wet	3.333		77	40-140	23	30	
4-Chloro-phenyl-phenyl ether	3.29	0.333	mg/kg wet	3.333		99	40-140	12	30	
4-Nitroaniline	3.38	0.333	mg/kg wet	3.333		101	40-140	13	30	
4-Nitrophenol	3.54	1.67	mg/kg wet	3.333		106	30-130	15	30	
Acenaphthene	3.20	0.333	mg/kg wet	3.333		96	40-140	13	30	
Acenaphthylene	3.02	0.333	mg/kg wet	3.333		91	40-140	12	30	
Acetophenone	3.13	0.667	mg/kg wet	3.333		94	40-140	10	30	
Aniline	2.56	0.667	mg/kg wet	3.333		77	40-140	18	30	
Anthracene	3.33	0.333	mg/kg wet	3.333		100	40-140	11	30	
Azobenzene	2.99	0.333	mg/kg wet	3.333		90	40-140	10	30	
Benzo(a)anthracene	3.46	0.333	mg/kg wet	3.333		104	40-140	13	30	
Benzo(a)pyrene	3.28	0.167	mg/kg wet	3.333		98	40-140	15	30	
Benzo(b)fluoranthene	3.23	0.333	mg/kg wet	3.333		97	40-140	8	30	
Benzo(g,h,i)perylene	3.29	0.333	mg/kg wet	3.333		99	40-140	13	30	
Benzo(k)fluoranthene	3.44	0.333	mg/kg wet	3.333		103	40-140	13	30	
Benzoic Acid	4.26	1.67	mg/kg wet	3.333		128	40-140	14	30	
Benzyl Alcohol	3.22	0.333	mg/kg wet	3.333		97	40-140	17	30	
bis(2-Chloroethoxy)methane	3.13	0.333	mg/kg wet	3.333		94	40-140	14	30	
bis(2-Chloroethyl)ether	2.92	0.333	mg/kg wet	3.333		88	40-140	9	30	
bis(2-chloroisopropyl)Ether	3.01	0.333	mg/kg wet	3.333		90	40-140	12	30	
bis(2-Ethylhexyl)phthalate	3.34	0.333	mg/kg wet	3.333		100	40-140	14	30	
Butylbenzylphthalate	3.60	0.333	mg/kg wet	3.333		108	40-140	13	30	
Carbazole	3.24	0.333	mg/kg wet	3.333		97	40-140	11	30	
Chrysene	3.53	0.167	mg/kg wet	3.333		106	40-140	8	30	
Dibenzo(a,h)Anthracene	3.06	0.167	mg/kg wet	3.333		92	40-140	10	30	
Dibenzofuran	3.24	0.333	mg/kg wet	3.333		97	40-140	13	30	
Diethylphthalate	3.39	0.333	mg/kg wet	3.333		102	40-140	13	30	
Dimethylphthalate	3.26	0.333	mg/kg wet	3.333		98	40-140	12	30	
Di-n-butylphthalate	3.41	0.333	mg/kg wet	3.333		102	40-140	12	30	
Di-n-octylphthalate	3.64	0.333	mg/kg wet	3.333		109	40-140	13	30	
Fluoranthene	3.29	0.333	mg/kg wet	3.333		99	40-140	13	30	
Fluorene	3.30	0.333	mg/kg wet	3.333		99	40-140	12	30	
Hexachlorobenzene	3.37	0.167	mg/kg wet	3.333		101	40-140	12	30	
Hexachlorobutadiene	3.43	0.333	mg/kg wet	3.333		103	40-140	11	30	
Hexachlorocyclopentadiene	2.27	1.67	mg/kg wet	3.333		68	40-140	10	30	
Hexachloroethane	2.99	0.333	mg/kg wet	3.333		90	40-140	8	30	
Indeno(1,2,3-cd)Pyrene	3.24	0.333	mg/kg wet	3.333		97	40-140	13	30	
Isophorone	3.12	0.333	mg/kg wet	3.333		94	40-140	12	30	
Naphthalene	3.30	0.333	mg/kg wet	3.333		99	40-140	12	30	
Nitrobenzene	3.13	0.333	mg/kg wet	3.333		94	40-140	12	30	
N-Nitrosodimethylamine	3.87	0.333	mg/kg wet	3.333		116	40-140	13	30	
N-Nitroso-Di-n-Propylamine	2.95	0.333	mg/kg wet	3.333		88	40-140	9	30	
N-nitrosodiphenylamine	3.24	0.333	mg/kg wet	3.333		97	40-140	11	30	
Pentachlorophenol	3.33	1.67	mg/kg wet	3.333		100	30-130	13	30	
Phenanthrene	3.36	0.333	mg/kg wet	3.333		101	40-140	12	30	



*CERTIFICATE OF ANALYSIS*

Client Name: Cherenzia & Associates, Ltd  
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ESS Laboratory Work Order: 1309052

**Quality Control Data**

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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8270C Semi-Volatile Organic Compounds

**Batch CI30518 - 3546**

Phenol	3.05	0.333	mg/kg wet	3.333		91	30-130	13	30	
Pyrene	3.62	0.333	mg/kg wet	3.333		108	40-140	10	30	
Pyridine	2.41	1.67	mg/kg wet	3.333		72	40-140	12	30	
Surrogate: 1,2-Dichlorobenzene-d4	2.92		mg/kg wet	3.333		87	30-130			
Surrogate: 2,4,6-Tribromophenol	5.03		mg/kg wet	5.000		101	30-130			
Surrogate: 2-Chlorophenol-d4	4.36		mg/kg wet	5.000		87	30-130			
Surrogate: 2-Fluorobiphenyl	3.13		mg/kg wet	3.333		94	30-130			
Surrogate: 2-Fluorophenol	4.28		mg/kg wet	5.000		86	30-130			
Surrogate: Nitrobenzene-d5	3.19		mg/kg wet	3.333		96	30-130			
Surrogate: Phenol-d6	4.53		mg/kg wet	5.000		91	30-130			
Surrogate: p-Terphenyl-d14	3.33		mg/kg wet	3.333		100	30-130			

Classical Chemistry

**Batch CI30621 - General Preparation**

<b>Reference</b>										
Flashpoint	82		°F	81.00		101	98.15-101.85			

**Batch CI30624 - General Preparation**

<b>Blank</b>										
Reactive Cyanide	ND	2.0	mg/kg							
Reactive Sulfide	ND	2.0	mg/kg							

<b>LCS</b>										
Reactive Cyanide	3.8	2.0	mg/kg	100.3		4	0.68-5.41			
Reactive Sulfide	0.1	2.0	mg/kg	10.00		1	0-44			



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ESS Laboratory Work Order: 1309052

**Notes and Definitions**

- Z-10 Soil pH measured in water at 23.4 °C.
- U Analyte included in the analysis, but not detected
- S+ Surrogate recovery(ies) above upper control limit (S+).
- Q Calibration required quadratic regression (Q).
- J Reported between MDL and MRL; Estimated value.
- ICV Initial Calibration Verification recovery is outside of control limit (ICV).
- EL Elevated Method Reporting Limits due to sample matrix (EL).
- D+ Relative percent difference for duplicate is outside of criteria (D+).
- D Diluted.
- C+ Continuing Calibration recovery is above upper control limit (C+).
- C- Continuing Calibration recovery is below lower control limit (C-).
- B+ Blank Spike recovery is above upper control limit (B+).
- > Greater than.
- ND Analyte NOT DETECTED at or above the MRL (LOQ), LOD for DoD Reports, MDL for J-Flagged Analytes
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference
- MDL Method Detection Limit
- MRL Method Reporting Limit
- LOD Limit of Detection
- LOQ Limit of Quantitation
- DL Detection Limit
- I/V Initial Volume
- F/V Final Volume
- § Subcontracted analysis; see attached report
- 1 Range result excludes concentrations of surrogates and/or internal standards eluting in that range.
- 2 Range result excludes concentrations of target analytes eluting in that range.
- 3 Range result excludes the concentration of the C9-C10 aromatic range.
- Avg Results reported as a mathematical average.
- NR No Recovery
- [CALC] Calculated Analyte
- SUB Subcontracted analysis; see attached report



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ESS Laboratory Work Order: 1309052

**ESS LABORATORY CERTIFICATIONS AND ACCREDITATIONS**

**ENVIRONMENTAL**

Department of Defense (DoD) Environmental Laboratory Accreditation Program (ELAP)

A2LA Accredited: Testing Cert# 2864.01  
<http://www.a2la.org/scopepdf/2864-01.pdf>

Rhode Island Potable and Non Potable Water: LAI00179  
<http://www.health.ri.gov/labs/waterlabs-instate.php>

Connecticut Potable and Non Potable Water, Solid and Hazardous Waste: PH-0750  
[http://www.ct.gov/dph/lib/dph/environmental\\_health/environmental\\_laboratories/pdf/OutofStateCommercialLaboratories.pdf](http://www.ct.gov/dph/lib/dph/environmental_health/environmental_laboratories/pdf/OutofStateCommercialLaboratories.pdf)

Maine Potable and Non Potable Water, and Solid and Hazardous Waste: RI0002  
[http://www.maine.gov/dep/blwq/topic/vessel/lab\\_list.pdf](http://www.maine.gov/dep/blwq/topic/vessel/lab_list.pdf)

Massachusetts Potable and Non Potable Water: M-RI002  
<http://public.dep.state.ma.us/labcert/labcert.aspx>

New Hampshire (NELAP accredited) Potable and Non Potable Water, Solid and Hazardous Waste: 2424  
<http://www4.egov.nh.gov/des/nhelap/namesearch.asp>

New York (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: 11313  
<http://www.wadsworth.org/labcert/elap/comm.html>

New Jersey (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: RI006  
[http://datamine2.state.nj.us/dep/DEP\\_OPRA/](http://datamine2.state.nj.us/dep/DEP_OPRA/)

United States Department of Agriculture Soil Permit: S-54210

Maryland Potable Water: 301  
[http://www.mde.state.md.us/assets/document/WSP\\_labs-2009apr20.pdf](http://www.mde.state.md.us/assets/document/WSP_labs-2009apr20.pdf)

**CHEMISTRY**

A2LA Accredited: Testing Cert # 2864.01  
Lead in Paint, Phthalates, Lead in Children's Metals Products (Including Jewelry)  
<http://www.A2LA.org/dirsearchnew/newsearch.cfm>

CPSC ID# 1141  
Lead Paint, Lead in Children's Metals Jewelry  
<http://www.cpsc.gov/cgi-bin/labapplist.aspx>

**Sample and Cooler Receipt Checklist**

Client: Cherenzia And Associates LTD  
 Client Project ID: \_\_\_\_\_  
 Shipped/Delivered Via: ESS Courier

ESS Project ID: 13090052  
 Date Project Due: 9/11/13  
 Days For Project: 5 Day

**Items to be checked upon receipt:**

- 1. Air Bill Manifest Present?  \* No
- Air No.: \_\_\_\_\_
- 2. Were Custody Seals Present?  No
- 3. Were Custody Seals Intact?  N/A
- 4. Is Radiation count < 100 CPM?  Yes
- 5. Is a cooler present?  Yes
- Cooler Temp: 5.9
- Iced With: Ice
- 6. Was COC included with samples?  Yes
- 7. Was COC signed and dated by client?  Yes
- 8. Does the COC match the sample?  Yes
- 9. Is COC complete and correct?  Yes
- 10. Are the samples properly preserved?  Yes
- 11. Proper sample containers used?  Yes
- 12. Any air bubbles in the VOA vials?  N/A
- 13. Holding times exceeded?  No
- 14. Sufficient sample volumes?  Yes
- 15. Any Subcontracting needed?  No
- 16. Are ESS labels on correct containers?  Yes  No
- 17. Were samples received intact?  Yes  No
- ESS Sample IDs: \_\_\_\_\_
- Sub Lab: \_\_\_\_\_
- Analysis: \_\_\_\_\_
- TAT: \_\_\_\_\_
- 18. Was there need to call project manager to discuss status? If yes, please explain.

Who was called?: \_\_\_\_\_ By whom? \_\_\_\_\_

Sample Number	Properly Preserved	Container Type	# of Containers	Preservative
1	Yes	40 ml - VOA	1	MeOH
1	Yes	8 oz Soil Jar	2	NP
2	Yes	40 ml - VOA	1	MeOH

Completed By: [Signature]  
 Reviewed By: [Signature]

Date/Time: 9/4/13 1502  
 Date/Time: 9/4/13 13:02



**ATTACHMENT B**

**CORRECTIVE ACTION PLAN APPROVAL LETTER**



RHODE ISLAND  
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

235 Promenade Street, Providence, RI 02908-5767

TDD 401-222-4462

February 11, 2016

Don Gralnek, Executive Director  
Providence Redevelopment Agency  
444 Westminster Street, Suite 3A  
Providence, RI 02903

RE: Former Louttit Laundry Property, 93 Cranston Street, Providence (ST-28254)

Dear Mr. Gralnek:

This office has received and reviewed a Corrective Action Plan (CAP) for the above-referenced property. The CAP was prepared by Cherenzia & Associates and received on December 23, 2015. The CAP is approved with the following conditions:

1. This office be notified within 72 hours of the start of any excavation activities outline in the CAP.
2. Contaminated soils are to be properly managed if stored onsite before disposal. This includes being stored on and covered with poly sheeting and runoff controls. Since this location is near a school, fencing should be considered.
3. Contaminated soils cannot remain stockpiled any longer than 30 days after excavation.
4. A summary report of the CAP excavation activities, including proper soil disposal is to be submitted within 30 days after excavation is complete.
5. This office be notified within 72 hours of any transfer of property title for this property.
6. This approval expires on February 11 2017.

All subsequent reports **must** include this site's leaking tank identification number to assist with efficient review: ST-28254.

Please feel free to contact me with any questions at 222-2797, ext 7118.

Sincerely,

Michael Cote

Digital copy: T. Regan, Cherenzia & Associates

**ATTACHMENT C**  
**REMEDIATION SITE PLAN**

**CONSTRUCTION NOTES:**

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE APPROVED PLANS, THE R.I. DEPARTMENT OF TRANSPORTATION AND THE CITY OF PROVIDENCE DETAILS AND STANDARD SPECIFICATIONS.
- PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND BONDS AND PAYING ALL LOCAL/STATE FEES RELATED TO THE PROPOSED CONSTRUCTION.
- ANY WORK NOT MEETING THE APPROVED STANDARDS SHALL BE IMMEDIATELY REMOVED AND REPLACED AT THE FULL RESPONSIBILITY AND COST/EXPENSE OF THE CONTRACTOR. WHERE A DISCREPANCY EXISTS BETWEEN THE STATE AND LOCAL SPECIFICATIONS, THE MORE RESTRICTIVE STANDARD SHALL BE APPLIED.
- NO EXCAVATION SHALL TAKE PLACE WITHOUT NOTIFYING "DIG SAFE" AT 1-888-344-7233.
- CONTRACTOR SHALL ASSUME THE RESPONSIBILITY FOR ANY DAMAGE TO THE UTILITY LINES, WHETHER OR NOT SHOWN ON THESE PLANS THROUGHOUT WORK ON THIS PROJECT.
- ALL CONSTRUCTION ACTIVITIES SHALL CONFORM TO THE RULES AND REGULATIONS OF THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA).
- CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE AND PROTECTION OF PEDESTRIAN AND VEHICULAR TRAFFIC INCLUDING ANY REQUIRED POLICE PROTECTION. ALL TEMPORARY CONSTRUCTION SIGNS, BARRICADES AND LANE CLOSURES SHALL BE IN CONFORMANCE WITH THE LATEST "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD).
- THE LIMITS-OF-WORK SHALL BE AS SHOWN ON THE PLANS. AREAS OUTSIDE THE LIMITS OF PROPOSED WORK DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED BY THE CONTRACTOR TO THEIR ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE.
- REFERENCE MADE TO "STATE STANDARDS", "STATE STANDARD SPECIFICATIONS", "STANDARD SPECIFICATIONS" AND "R.I. DOT. STANDARDS" SHALL MEAN AND BE DEFINED AS THE "RHODE ISLAND DEPARTMENT OF TRANSPORTATION - STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION".

**LAYOUT AND MATERIALS NOTES:**

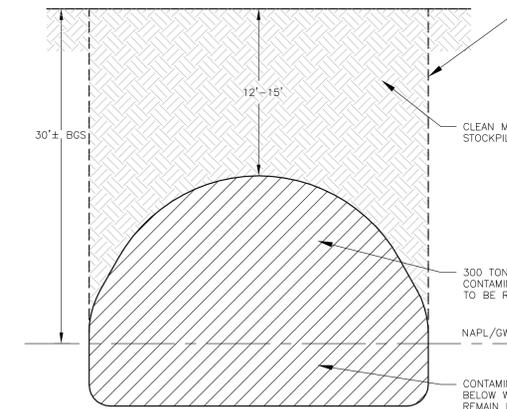
- PROPOSED BOUNDS AND ANY OTHER EXISTING PROPERTY LINE MONUMENTATION DISTURBED DURING CONSTRUCTION SHALL BE SET OR RESET BY A PROFESSIONAL LICENSED SURVEYOR.
- SYMBOLS AND LEGENDS OF PROJECT FEATURES ARE GRAPHIC REPRESENTATIONS AND ARE NOT NECESSARILY SCALED TO THE ACTUAL DIMENSIONS OR LOCATIONS ON THE DRAWINGS. THE CONTRACTOR SHALL REFER TO THE DETAIL SHEET DIMENSIONS, MANUFACTURERS' LITERATURE, SHOP DRAWINGS AND FIELD MEASUREMENTS OF SUPPLIED PRODUCTS FOR LAYOUT OF THE PROJECT FEATURES.
- CONTRACTOR SHALL NOT RELY SOLELY ON ELECTRONIC VERSIONS OF PLANS, SPECIFICATIONS, AND DATA FILES THAT ARE OBTAINED FROM THE DESIGNERS, BUT SHALL VERIFY LOCATION OF PROJECT FEATURES IN ACCORDANCE WITH PAPER COPIES OF THE PLANS AND SPECIFICATIONS THAT ARE SUPPLIED AS PART OF THE CONTRACT DOCUMENTS.

**EROSION AND SEDIMENTATION CONTROL NOTES:**

- CONSTRUCT ALL EROSION AND SEDIMENTATION (E&S) CONTROL MEASURES SHOWN ON THE PLAN SET IN ACCORDANCE WITH THE MOST RECENT EDITION OF THE "RHODE ISLAND SOIL EROSION AND SEDIMENT CONTROL HANDBOOK." ALL MEASURES SHALL BE MAINTAINED AND/OR UPGRADED, AS NECESSARY THROUGHOUT CONSTRUCTION, TO MEET THE REQUIREMENTS OF THE PERMIT.
- E&S MEASURES SHALL BE INSTALLED PRIOR TO ANY OTHER CONSTRUCTION.
- CONSTRUCTION ENTRANCE SHALL BE INSTALLED BEFORE CONSTRUCTION TRAFFIC INTO AND OUT OF THE PROJECT AREA BEGINS.
- THE CONTRACTOR SHALL INSTALL A STRAW WATTLE AROUND ALL EARTH STOCKPILES.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING EXISTING MEASURES AS DEEMED NECESSARY DURING CONSTRUCTION. INSPECTIONS SHALL BE CONDUCTED WEEKLY AND/OR WITHIN 24 HOURS OF THE END OF A STORM HAVING A RAINFALL AMOUNT OF 1/4 INCH OR GREATER. MONTHLY WRITTEN REPORTS SHALL BE PREPARED INFORMING QUONSET DEVELOPMENT CORP. OF OBSERVATIONS, MAINTENANCE, AND CORRECTIVE ACTIONS.

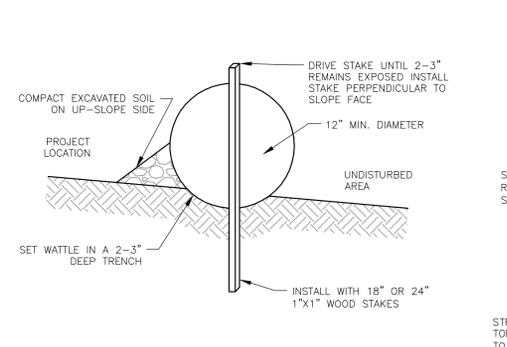
**CONSTRUCTION SEQUENCING:**

- CONDUCT PRE-CONSTRUCTION CONFERENCE.
- INSTALL EROSION CONTROL MEASURES (CONSTRUCTION ENTRANCE, STRAW WATTLE, ETC.)
- REPAIR/REPLACE CHAIN LINK FENCE AND GATE.
- EXCAVATE CLEAN MATERIAL AND STOCKPILE ON SITE.\*
- EXCAVATE CONTAMINATED MATERIAL AND LIVE LOAD ONTO TRUCKS TO EXPORT FROM THE SITE. NO CONTAMINATED MATERIAL SHALL BE STOCKPILED ON SITE. CONTAMINATED MATERIAL SHALL BE DISPOSED OF AT AN APPROVED DISPOSAL FACILITY.
- BACKFILL EXISTING STOCKPILED MATERIAL AND CLEAN GRAVEL.
- CONTRACTOR TO CONFORM TO OSHA EXCAVATION REQUIREMENTS. EXCAVATION METHOD MAY BE REQUIRED TO BE DESIGNED BY A PROFESSIONAL ENGINEER DUE TO THE DEPTH OF THE EXCAVATION.



**CONTAMINATED MATERIAL SECTION VIEW**

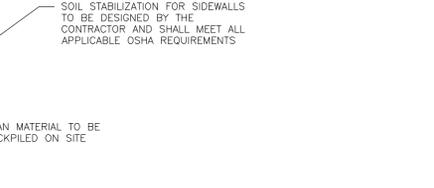
NTS



- NOTES:**
- BEGIN AT THE LOCATION WHERE THE WATTLE IS TO BE INSTALLED BY EXCAVATING A 2-3" DEEP X 9" WIDE TRENCH ALONG THE CONTOUR OF THE SLOPE. EXCAVATED SOIL SHALL BE PLACED UP-SLOPE FROM THE ANCHOR TRENCH.
  - PLACE THE WATTLE IN THE TRENCH SO THAT IT CONTOURS TO THE SOIL SURFACE. COMPACT THE SOIL FROM THE EXCAVATED TRENCH AGAINST THE WATTLE ON THE UP-HILL SIDE. ADJACENT WATTLES SHOULD TIGHTLY ABUT.
  - SECURE THE WATTLE WITH 18-24" STAKES EVERY 3-4' WITH A STAKE ON EACH END. STAKES SHALL BE DRIVEN THROUGH THE MIDDLE OF THE WATTLES LEAVING AT LEAST 2-3" OF STAKE EXTENDING ABOVE. THE WATTLE STAKES SHALL BE DRIVEN PERPENDICULAR TO SLOPE FACE.

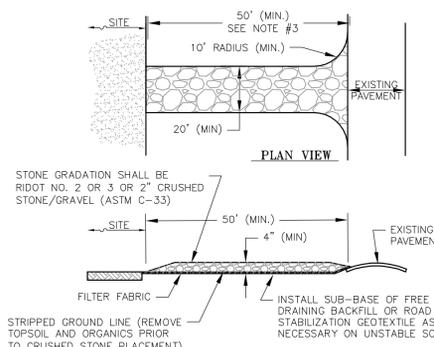
**STRAW WATTLE**

NTS REV CA-BC-002



**EXCAVATION NOTES:**

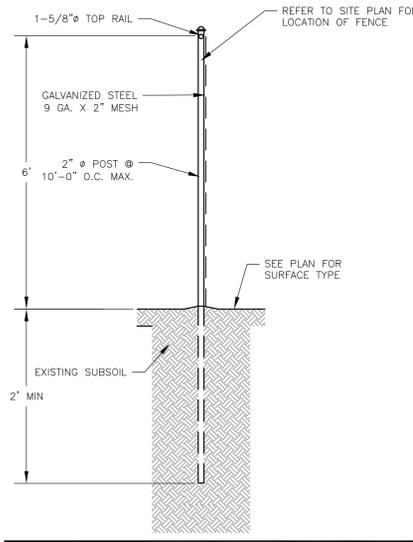
- EXCAVATION SHALL CONSIST OF APPROXIMATELY 15' OF CLEAN SOIL (0'-15' DEPTH), STOCKPILED ON SITE AND 300 TONS OF CONTAMINATED SOIL (15'-30' DEPTH), LIVE LOADED AND REMOVED FROM THE PROJECT ENGINEER.
- CONTRACTOR SHALL CONFIRM THAT THE EXCAVATION MEETS ALL APPLICABLE OSHA REQUIREMENTS.
- EXCAVATION AREA SHALL BE BACKFILLED WITH THE INTENT TO SUPPORT A PARKING LOT IN THE FUTURE. THE EXCAVATED AREA SHALL BE BACKFILLED TO MEET EXISTING GRADES. ALL BACKFILL SHALL MEET 95% COMPACTION AND IMPORTED MATERIAL SHALL CONFORM WITH RIDOT GRAVEL BORROW REQUIREMENTS.



- NOTES:**
- ENTRANCE WIDTH SHALL BE TWENTY (20) FEET WIDE MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.
  - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PAVED SURFACES. PROVIDE PERIODIC TOP DRESSING WITH ADDITIONAL STONE OR ADDITIONAL LENGTH AS CONDITIONS DEMAND. REPAIR ANY MEASURES USED TO TRAP SEDIMENT AS NEEDED. IMMEDIATELY REMOVE ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PAVED SURFACES. ROADS ADJACENT TO A CONSTRUCTION SITE SHALL BE LEFT CLEAN AT THE END OF EACH DAY.
  - 50 FEET MINIMUM WHERE THE SOILS ARE SANDS OR GRAVELS OR 100 FEET MINIMUM WHERE SOILS ARE CLAYS OR SILTS, EXCEPT WHERE THE TRAVELED LENGTH IS LESS THAN 50 OR 100 FEET RESPECTIVELY.

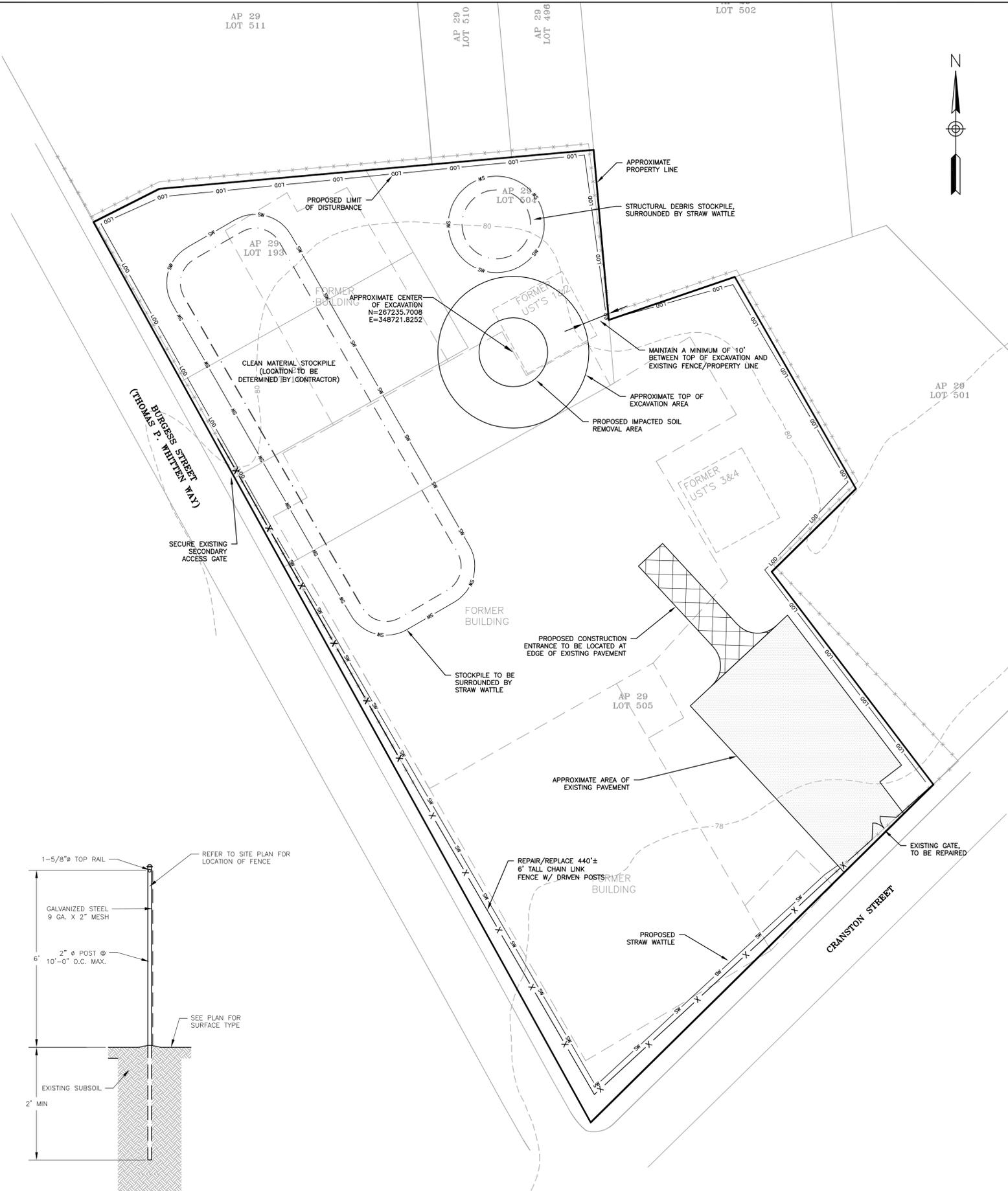
**TEMPORARY CONSTRUCTION EXIT**

NTS REV CA-BC-005



**CHAIN LINK FENCE**

NTS REV CA-M-004



**CHERENZIA & ASSOCIATES, LTD.**  
 Civil Engineers  
 Land Surveyors  
 Land Use Planners  
 Environmental Engineers  
 99 Mechanic St.  
 Pawcatuck, CT 06379  
 Tel: 860.629.6590  
 Fax: 860.599.6090  
 P.O. Box 513  
 Westerly, RI 02891  
 Tel: 401.596.7747  
 www.cherenzia.com

**PLAN REVISIONS**

REV. NO.	DATE	DESCRIPTION	DWN BY	CHK BY

SCALE: 1"=20'  
 JOB NO. 215057  
 DATE: 06-27-2016  
 DRAWN BY: AKG  
 CHECK BY: TCR

**ISSUED FOR BID**

**REMEDIATION SITE PLAN**

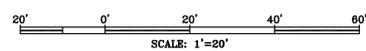
**FORMER LOUITT LAUNDRY  
 SITE REMEDIATION PLAN**  
 93 CRANSTON STREET  
 PROVIDENCE, RHODE ISLAND  
 A.P. 29 LOTS 193, 194, 504, & 505

PREPARED FOR  
**THE CITY OF PROVIDENCE  
 REDEVELOPMENT AGENCY**

**C-1**

SHEET 1 OF 1

CHERENZIA & ASSOCIATES, LTD.



**ATTACHMENT D**

**[Intentionally Removed]**

**ATTACHMENT E**  
**DUST CONTROL PLAN**

## DUST CONTROL PLAN

Dust control will be considered an important part of the overall remediation project. Contractor will utilize a water truck and/or fire hose attached to a local hydrant during site work. Contractor will direct a localized fine water spray to the source of dust emissions, as required, thereby reducing airborne dust particles. To minimize the run-off of water, the water supply will be used only when necessary. A proper backflow device will be installed at the hydrant location(s), if utilized. Dust emissions may result from activities during excavation and material handling and from wind erosion. These sources are most effectively controlled using wet suppression. Stockpiles will be covered unless being loaded, and water will be sprayed on areas that have been disturbed and are subject to wind erosion.

The main mechanism for the control of fugitive dust emissions from construction activities and wind erosion is by watering, which leads to the formation of a surface crust to reduce the available reservoir of dust. In addition to water, a wide variety of chemical dust suppressants are available to enhance the formation of a surface crust. The effectiveness of wet suppression is dependent upon the type of activities occurring, the frequency of watering, and the meteorological conditions. The watering schedule will be determined by an evaluation of site conditions and scheduled site activities. The following methods will be implemented to help prevent dust generation and suppress dust should it occur:

- A vehicle tracking pad will be provided at the site entrance from Cranston Street to keep adjacent areas clean and act as a contaminant reduction zone.
- Adjacent paved areas and roads used for construction traffic will be maintained free of tracked soil or fill materials via manual sweeping as necessary throughout remediation operations.
- Exposed excavations, disturbed ground surfaces, and unpaved traffic areas will be maintained in a moist condition. At a minimum, water shall be applied immediately to any cleared or excavated surfaces that generate visible dust during implementation of remedial action activities.
- Cover all on-site material hauling trucks or maintain at least 2 feet of freeboard.
- Provide temporary cover and daily maintenance for soil or fill stockpiles and keep active surfaces moist at all times.
- If high winds are evident at the close of a business day (or immediately prior to a weekend, holiday, etc.), site personnel will evaluate vulnerable areas and implement controls, as appropriate, to minimize off-hours emissions.
- During non-working hours, the site will be left in a condition that will prevent dust from being generated, and at the end of each work day, disturbed areas will be wetted down and site fencing will be secured to prevent access and additional disturbance.
- Limit traffic speeds on any unpaved roads to 15 mph.
- Suspend excavation and grading activity when winds (instantaneous gusts) exceed 25 mph.

The Contractor shall designate an air quality coordinator for the project. The coordinator will respond to and remedy any complaints about dust, exhaust, or other air quality concerns. A log shall be kept of all complaints and how and when the problem was remedied.

# **Enclosure C**

AIA A107-2007 Standard Form of Agreement



**AIA**<sup>®</sup>

# Document A107™ – 2007

## **Standard Form of Agreement Between Owner and Contractor** for a Project of Limited Scope

AGREEMENT made as of the \_\_\_\_\_ day of \_\_\_\_\_ in the year \_\_\_\_\_  
*(In words, indicate day, month and year.)*

**BETWEEN** the Owner:  
*(Name, address and other information)*

Providence Redevelopment Agency  
444 Westminster Street, Suite 3A  
Providence, RI 02903

and the Contractor:  
*(Name, address and other information)*

for the following Project:  
*(Name, location and detailed description)*

Remediation of Louttit Site  
93 Cranston Street  
Providence, RI 02907

The Architect (Engineer):  
*(Name, address and other information)*

Cherenzia & Associates, Ltd  
275 Promenade Street, Suite 120  
Providence, RI 02908

The Owner and Contractor agree as follows.

**ADDITIONS AND DELETIONS:**  
The author of this document has added information needed for its completion. The author may also have revised the text of the original AIA standard form. An *Additions and Deletions Report* that notes added information as well as revisions to the standard form text is available from the author and should be reviewed. A vertical line in the left margin of this document indicates where the author has added necessary information and where the author has added to or deleted from the original AIA text.

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

Init.

TABLE OF ARTICLES

1	THE WORK OF THIS CONTRACT
2	DATE OF COMMENCEMENT AND SUBSTANTIAL COMPLETION
3	CONTRACT SUM
4	PAYMENT
5	DISPUTE RESOLUTION
6	ENUMERATION OF CONTRACT DOCUMENTS
7	GENERAL PROVISIONS
8	OWNER
9	CONTRACTOR
10	ARCHITECT
11	SUBCONTRACTORS
12	CONSTRUCTION BY OWNER OR BY SEPARATE CONTRACTORS
13	CHANGES IN THE WORK
14	TIME
15	PAYMENTS AND COMPLETION
16	PROTECTION OF PERSONS AND PROPERTY
17	INSURANCE & BONDS
18	CORRECTION OF WORK
19	MISCELLANEOUS PROVISIONS
20	TERMINATION OF THE CONTRACT
21	CLAIMS AND DISPUTES

ARTICLE 1 THE WORK OF THIS CONTRACT

The Contractor shall execute the Work described in the Contract Documents, except as specifically indicated in the Contract Documents to be the responsibility of others.

ARTICLE 2 DATE OF COMMENCEMENT AND SUBSTANTIAL COMPLETION

§ 2.1 The date of commencement of the Work shall be the date of this Agreement unless a different date is stated below or provision is made for the date to be fixed in a notice to proceed issued by the Owner.

*(Insert the date of commencement, if it differs from the date of this Agreement or, if applicable, state that the date will be fixed in a notice to proceed.)*

Init.

§ 2.2 The Contract Time shall be measured from the date of commencement.

§ 2.3 The Contractor shall achieve Substantial Completion of the entire Work not later than ( ) days from the date of commencement, or as follows:  
*(Insert number of calendar days. Alternatively, a calendar date may be used when coordinated with the date of commencement. If appropriate, insert requirements for earlier Substantial Completion of certain portions of the Work.)*

The Work shall be Substantially Completed by August 15, 2016

*(Table deleted)*

, subject to adjustments of this Contract Time as provided in the Contract Documents.

*(Insert provisions, if any, for liquidated damages relating to failure to achieve Substantial Completion on time or for bonus payments for early completion of the Work.)*

### ARTICLE 3 CONTRACT SUM

§ 3.1 The Owner shall pay the Contractor the Contract Sum in current funds for the Contractor's performance of the Contract. The Contract Sum shall be one of the following:  
*(Check the appropriate box.)*

Stipulated Sum, in accordance with Section 3.2 below

Cost of the Work plus the Contractor's Fee, in accordance with Section 3.3 below

Cost of the Work plus the Contractor's Fee with a Guaranteed Maximum Price, in accordance with Section 3.4 below

*(Based on the selection above, complete Section 3.2, 3.3 or 3.4 below.)*

§ 3.2 The Stipulated Sum shall be (\$ ), subject to additions and deductions as provided in the Contract Documents.

§ 3.2.1 The Stipulated Sum is based upon the following alternates, if any, which are described in the Contract Documents and are hereby accepted by the Owner:

*(State the numbers or other identification of accepted alternates. If the bidding or proposal documents permit the Owner to accept other alternates subsequent to the execution of this Agreement, attach a schedule of such other alternates showing the amount for each and the date when that amount expires.)*

#### § 3.2.2

*(Paragraphs deleted)*

[Not applicable]

#### § 3.2.3

*(Paragraphs deleted)*

[Not applicable]

*(Paragraphs deleted)*

*(Table deleted)*

*(Paragraphs deleted)*

*(Table deleted)*

*(Paragraphs deleted)*

## ARTICLE 4 PAYMENTS

### § 4.1 PROGRESS PAYMENTS

§ 4.1.1 Based upon Applications for Payment submitted to the Architect by the Contractor and Certificates for Payment issued by the Architect, the Owner shall make progress payments on account of the Contract Sum to the Contractor as provided below and elsewhere in the Contract Documents. Pursuant to applicable federal regulations, certified payrolls must be submitted in connection with any application for payment in conformance with all applicable requirements.

§ 4.1.2 The period covered by each Application for Payment shall be one calendar month ending on the last day of the month, or as follows:

§ 4.1.3 Provided that an Application for Payment is received by the Architect not later than the first day of a month, the Owner shall make payment of the certified amount to the Contractor not later than the last calendar day of the same month. If an Application for Payment is received by the Architect after the date fixed above, payment shall be made by the Owner not later than thirty ( 30 ) days after the Architect receives the Application for Payment.

*(Federal, state or local laws may require payment within a certain period of time.)*

§ 4.1.4 Retainage, if any, shall be withheld as follows:

Ten (10%) percent

§ 4.1.5 Payments due and unpaid under the Contract shall bear interest from the date payment is due at the rate stated below, or in the absence thereof, at the legal rate prevailing from time to time at the place where the Project is located.

*(Insert rate of interest agreed upon, if any.)*

per annum

### § 4.2 FINAL PAYMENT

§ 4.2.1 Final payment, constituting the entire unpaid balance of the Contract Sum, shall be made by the Owner to the Contractor when

- .1 the Contractor has fully performed the Contract except for the Contractor's responsibility to correct Work as provided in Section 18.2, and to satisfy other requirements, if any, which extend beyond final payment;
- .2 the contractor has submitted a final accounting for the Cost of the Work, where payment is on the basis of the Cost of the Work with or without a guaranteed maximum price; and
- .3 a final Certificate for Payment has been issued by the Architect.

§ 4.2.2 The Owner's final payment to the Contractor shall be made no later than 30 days after the issuance of the Architect's final Certificate for Payment, or as follows:

## ARTICLE 5 DISPUTE RESOLUTION

### § 5.1 BINDING DISPUTE RESOLUTION

For any claim subject to, but not resolved by, mediation pursuant to Section 21.3, the method of binding dispute resolution shall be as follows:

*(Check the appropriate box. If the Owner and Contractor do not select a method of binding dispute resolution below, or do not subsequently agree in writing to a binding dispute resolution method other than litigation, claims will be resolved in a court of competent jurisdiction.)*

Arbitration pursuant to Section 21.4 of this Agreement

Litigation in a court of competent jurisdiction

Init.

[ ] Other (Specify)

## ARTICLE 6 ENUMERATION OF CONTRACT DOCUMENTS

§ 6.1 The Contract Documents are defined in Article 7 and, except for Modifications issued after execution of this Agreement, are enumerated in the sections below.

§ 6.1.1 The Agreement is this executed AIA Document A107–2007, Standard Form of Agreement Between Owner and Contractor for a Project of Limited Scope.

§ 6.1.2 The Supplementary and other Conditions of the Contract:

Document	Title	Date	Pages
----------	-------	------	-------

§ 6.1.3 The Specifications:

(Either list the Specifications here or refer to an exhibit attached to this Agreement.)

Title of Specifications exhibit: Site Specifications; Louttit Property

(Table deleted)

(Table deleted)

(Paragraphs deleted)

§ 6.1.5 The Addenda, if any:

Number	Date	Pages
--------	------	-------

Portions of Addenda relating to bidding requirements are not part of the Contract Documents unless the bidding requirements are enumerated in this Article 6.

§ 6.1.6 Additional documents, if any, forming part of the Contract Documents:

- .1 Exhibit A, Determination of the Cost of the Work, if applicable.
- .2 AIA Document E201™–2007, Digital Data Protocol Exhibit, if completed, or the following:
- .3 Other documents:  
(List here any additional documents that are intended to form part of the Contract Documents.)  
  
Request for Proposals

## ARTICLE 7 GENERAL PROVISIONS

### § 7.1 THE CONTRACT DOCUMENTS

The Contract Documents are enumerated in Article 6 and consist of this Agreement (including, if applicable, Supplementary and other Conditions of the Contract), Drawings, Specifications, Addenda issued prior to the execution of this Agreement, other documents listed in this Agreement and Modifications issued after execution of this Agreement. A Modification is (1) a written amendment to the Contract signed by both parties, (2) a Change Order, (3) a Construction Change Directive or (4) a written order for a minor change in the Work issued by the Architect. The intent of the Contract Documents is to include all items necessary for the proper execution and completion of the Work by the Contractor. The Contract Documents are complementary, and what is required by one shall be as binding as if required by all; performance by the Contractor shall be required to the extent consistent with the Contract Documents and reasonably inferable from them as being necessary to produce the indicated results.

Init.

**§ 7.2 THE CONTRACT**

The Contract Documents form the Contract for Construction. The Contract represents the entire and integrated agreement between the parties hereto and supersedes prior negotiations, representations or agreements, either written or oral. The Contract may be amended or modified only by a Modification. The Contract Documents shall not be construed to create a contractual relationship of any kind between any persons or entities other than the Owner and the Contractor.

**§ 7.3 THE WORK**

The term "Work" means the construction and services required by the Contract Documents, whether completed or partially completed, and includes all other labor, materials, equipment and services provided or to be provided by the Contractor to fulfill the Contractor's obligations. The Work may constitute the whole or a part of the Project.

**§ 7.4 INSTRUMENTS OF SERVICE**

Instruments of Service are representations, in any medium of expression now known or later developed, of the tangible and intangible creative work performed by the Architect and the Architect's consultants under their respective professional services agreements. Instruments of Service may include, without limitation, studies, surveys, models, sketches, drawings, specifications, and other similar materials.

**§ 7.5 OWNERSHIP AND USE OF DRAWINGS, SPECIFICATIONS AND OTHER INSTRUMENTS OF SERVICE**

**§ 7.5.1** The Architect and the Architect's consultants shall be deemed the authors and owners of their respective Instruments of Service, including the Drawings and Specifications, and will retain all common law, statutory and other reserved rights, including copyrights. The Contractor, Subcontractors, Sub-subcontractors, and material or equipment suppliers shall not own or claim a copyright in the Instruments of Service. Submittal or distribution to meet official regulatory requirements or for other purposes in connection with this Project is not to be construed as publication in derogation of the Architect's or Architect's consultants' reserved rights.

**§ 7.5.2** The Contractor, Subcontractors, Sub-subcontractors and material or equipment suppliers are authorized to use and reproduce the Instruments of Service provided to them solely and exclusively for execution of the Work. All copies made under this authorization shall bear the copyright notice, if any, shown on the Instruments of Service. The Contractor, Subcontractors, Sub-subcontractors, and material or equipment suppliers may not use the Instruments of Service on other projects or for additions to this Project outside the scope of the Work without the specific written consent of the Owner, Architect and the Architect's consultants.

**§ 7.6 TRANSMISSION OF DATA IN DIGITAL FORM**

If the parties intend to transmit Instruments of Service or any other information or documentation in digital form, they shall endeavor to establish necessary protocols governing such transmission, unless otherwise provided in the Agreement or in the Contract Documents.

**ARTICLE 8 OWNER**

**§ 8.1 INFORMATION AND SERVICES REQUIRED OF THE OWNER**

**§ 8.1.1** The Owner shall furnish all necessary surveys and a legal description of the site.

**§ 8.1.2** The Contractor shall be entitled to rely on the accuracy of information furnished by the Owner but shall exercise proper precautions relating to the safe performance of the Work.

**§ 8.1.3** Except for permits and fees that are the responsibility of the Contractor under the Contract Documents, including those required under Section 9.6.1, the Owner shall secure and pay for other necessary approvals, easements, assessments and charges required for the construction, use or occupancy of permanent structures or for permanent changes in existing facilities.

**§ 8.2 OWNER'S RIGHT TO STOP THE WORK**

If the Contractor fails to correct Work which is not in accordance with the requirements of the Contract Documents, or repeatedly fails to carry out the Work in accordance with the Contract Documents, the Owner may issue a written order to the Contractor to stop the Work, or any portion thereof, until the cause for such order is eliminated; however, the right of the Owner to stop the Work shall not give rise to a duty on the part of the Owner to exercise this right for the benefit of the Contractor or any other person or entity.

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### § 8.3 OWNER'S RIGHT TO CARRY OUT THE WORK

If the Contractor defaults or neglects to carry out the Work in accordance with the Contract Documents, and fails within a ten-day period after receipt of written notice from the Owner to commence and continue correction of such default or neglect with diligence and promptness, the Owner, without prejudice to any other remedy the Owner may have, may correct such deficiencies and may deduct the reasonable cost thereof, including Owner's expenses and compensation for the Architect's services made necessary thereby, from the payment then or thereafter due the Contractor.

## ARTICLE 9 CONTRACTOR

### § 9.1 REVIEW OF CONTRACT DOCUMENTS AND FIELD CONDITIONS BY CONTRACTOR

§ 9.1.1 Execution of the Contract by the Contractor is a representation that the Contractor has visited the site, become generally familiar with local conditions under which the Work is to be performed and correlated personal observations with requirements of the Contract Documents.

§ 9.1.2 Because the Contract Documents are complementary, the Contractor shall, before starting each portion of the Work, carefully study and compare the various Contract Documents relative to that portion of the Work, as well as the information furnished by the Owner pursuant to Section 8.1.1, shall take field measurements of any existing conditions related to that portion of the Work and shall observe any conditions at the site affecting it. These obligations are for the purpose of facilitating coordination and construction by the Contractor and are not for the purpose of discovering errors, omissions, or inconsistencies in the Contract Documents; however, the Contractor shall promptly report to the Architect any errors, inconsistencies, or omissions discovered by or made known to the Contractor as a request for information in such form as the Architect may require. It is recognized that the Contractor's review is made in the Contractor's capacity as a contractor and not as a licensed design professional unless otherwise specifically provided in the Contract Documents.

§ 9.1.3 The Contractor is not required to ascertain that the Contract Documents are in accordance with applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities, but the Contractor shall promptly report to the Architect any nonconformity discovered by or made known to the Contractor as a request for information in such form as the Architect may require.

### § 9.2 SUPERVISION AND CONSTRUCTION PROCEDURES

§ 9.2.1 The Contractor shall supervise and direct the Work, using the Contractor's best skill and attention. The Contractor shall be solely responsible for and have control over construction means, methods, techniques, sequences and procedures, and for coordinating all portions of the Work under the Contract, unless the Contract Documents give other specific instructions concerning these matters.

§ 9.2.2 The Contractor shall be responsible to the Owner for acts and omissions of the Contractor's employees, Subcontractors and their agents and employees, and other persons or entities performing portions of the Work for or on behalf of the Contractor or any of its Subcontractors.

### § 9.3 LABOR AND MATERIALS

§ 9.3.1 Unless otherwise provided in the Contract Documents, the Contractor shall provide and pay for labor, materials, equipment, tools, construction equipment and machinery, water, heat, utilities, transportation, and other facilities and services necessary for proper execution and completion of the Work whether temporary or permanent and whether or not incorporated or to be incorporated in the Work.

§ 9.3.2 The Contractor shall enforce strict discipline and good order among the Contractor's employees and other persons carrying out the Work. The Contractor shall not permit employment of unfit persons or persons not skilled in tasks assigned to them.

§ 9.3.3 The Contractor may make a substitution only with the consent of the Owner, after evaluation by the Architect and in accordance with a Modification.

### § 9.4 WARRANTY

The Contractor warrants to the Owner and Architect that materials and equipment furnished under the Contract will be of good quality and new unless the Contract Documents require or permit otherwise. The Contractor further warrants that the Work will conform to the requirements of the Contract Documents and will be free from defects,

except for those inherent in the quality of the Work the Contract Documents require or permit. Work, materials, or equipment not conforming to these requirements may be considered defective. The Contractor's warranty excludes remedy for damage or defect caused by abuse, alterations to the Work not executed by the Contractor, improper or insufficient maintenance, improper operation or normal wear and tear under normal usage.

#### § 9.5 TAXES

The Contractor shall pay sales, consumer, use and other similar taxes that are legally enacted when bids are received or negotiations concluded, whether or not yet effective or merely scheduled to go into effect.

#### § 9.6 PERMITS, FEES, NOTICES, AND COMPLIANCE WITH LAWS

§ 9.6.1 Unless otherwise provided in the Contract Documents, the Contractor shall secure and pay for the building permit as well as other permits, fees, licenses and inspections by government agencies necessary for proper execution and completion of the Work that are customarily secured after execution of the Contract and legally required at the time bids are received or negotiations concluded.

§ 9.6.2 The Contractor shall comply with and give notices required by applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities applicable to performance of the Work, including without limitation (i) any applicable regulations pertaining to the alteration and restoration of wetlands or any other environmental matters, and (ii) any requirements concerning the qualifications of individuals performing and monitoring the Work. Further, Contractor agrees to use good faith efforts to utilize Minority Business Enterprise (MBE) and Women's Business Enterprise (WBE) subcontractors at the percentage rates set forth in the City of Providence Code of Ordinances, Chapter 21, Article II, Sec. 21-52, and Rhode Island General Laws (as amended), Chapter 31-14, et seq. If the Contractor performs Work knowing it to be contrary to applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities, the Contractor shall assume appropriate responsibility for such Work and shall bear the costs attributable to correction.

#### § 9.7 ALLOWANCES

The Contractor shall include in the Contract Sum all allowances stated in the Contract Documents. The Owner shall select materials and equipment under allowances with reasonable promptness. Allowance amounts shall include the costs to the Contractor of materials and equipment delivered at the site and all required taxes, less applicable trade discounts. Allowance amounts shall not include the Contractor's costs for unloading and handling at the site, labor, installation, overhead, and profit.

#### § 9.8 CONTRACTOR'S CONSTRUCTION SCHEDULES

§ 9.8.1 The Contractor, promptly after being awarded the Contract, shall prepare and submit for the Owner's and Architect's information a Contractor's construction schedule for the Work. The schedule shall not exceed time limits current under the Contract Documents, shall be revised at appropriate intervals as required by the conditions of the Work and Project, shall be related to the entire Project to the extent required by the Contract Documents, and shall provide for expeditious and practicable execution of the Work.

§ 9.8.2 The Contractor shall perform the Work in general accordance with the most recent schedule submitted to the Owner and Architect.

#### § 9.9 SUBMITTALS

§ 9.9.1 The Contractor shall review for compliance with the Contract Documents and submit to the Architect Shop Drawings, Product Data, Samples and similar submittals required by the Contract Documents in coordination with the Contractor's construction schedule and in such sequence as to allow the Architect reasonable time for review. By submitting Shop Drawings, Product Data, Samples and similar submittals, the Contractor represents to the Owner and Architect that the Contractor has (1) reviewed and approved them; (2) determined and verified materials, field measurements and field construction criteria related thereto, or will do so; and (3) checked and coordinated the information contained within such submittals with the requirements of the Work and of the Contract Documents. The Work shall be in accordance with approved submittals.

§ 9.9.2 Shop Drawings, Product Data, Samples and similar submittals are not Contract Documents.

#### § 9.10 USE OF SITE

The Contractor shall confine operations at the site to areas permitted by applicable laws, statutes, ordinances, codes, rules and regulations, lawful orders of public authorities, and the Contract Documents and shall not unreasonably encumber the site with materials or equipment.

#### § 9.11 CUTTING AND PATCHING

The Contractor shall be responsible for cutting, fitting or patching required to complete the Work or to make its parts fit together properly.

#### § 9.12 CLEANING UP

The Contractor shall keep the premises and surrounding area free from accumulation of waste materials or rubbish caused by operations under the Contract. At completion of the Work, the Contractor shall remove waste materials, rubbish, the Contractor's tools, construction equipment, machinery and surplus material from and about the Project.

#### § 9.13 ROYALTIES, PATENTS AND COPYRIGHTS

The Contractor shall pay all royalties and license fees. The Contractor shall defend suits or claims for infringement of copyrights and patent rights and shall hold the Owner and Architect harmless from loss on account thereof, but shall not be responsible for such defense or loss when a particular design, process or product of a particular manufacturer or manufacturers is required by the Contract Documents or where the copyright violations are contained in Drawings, Specifications or other documents prepared by the Owner or Architect. However, if the Contractor has reason to believe that the required design, process or product is an infringement of a copyright or a patent, the Contractor shall be responsible for such loss unless such information is promptly furnished to the Architect.

#### § 9.14 ACCESS TO WORK

The Contractor shall provide the Owner and Architect access to the Work in preparation and progress wherever located.

#### § 9.15 INDEMNIFICATION

§ 9.15.1 To the fullest extent permitted by law, the Contractor shall indemnify and hold harmless the Owner, City of Providence, Architect, Architect's consultants and agents and employees of any of them from and against claims, damages, losses and expenses, including but not limited to attorneys' fees, arising out of or resulting from performance of the Work, provided that such claim, damage, loss or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself), but only to the extent caused by the negligent acts or omissions of the Contractor, a Subcontractor, anyone directly or indirectly employed by them or anyone for whose acts they may be liable, regardless of whether or not such claim, damage, loss or expense is caused in part by a party indemnified hereunder. Such obligation shall not be construed to negate, abridge, or reduce other rights or obligations of indemnity which would otherwise exist as to a party or person described in this Section 9.15.1.

§ 9.15.2 In claims against any person or entity indemnified under this Section 9.15 by an employee of the Contractor, a Subcontractor, anyone directly or indirectly employed by them or anyone for whose acts they may be liable, the indemnification obligation under Section 9.15.1 shall not be limited by a limitation on amount or type of damages, compensation or benefits payable by or for the Contractor or Subcontractor under workers' compensation acts, disability benefit acts or other employee benefit acts.

### ARTICLE 10 ARCHITECT

§ 10.1 The Architect will provide administration of the Contract and will be an Owner's representative during construction, until the date the Architect issues the final Certificate for Payment. The Architect will have authority to act on behalf of the Owner only to the extent provided in the Contract Documents, unless otherwise modified in writing in accordance with other provisions of the Contract.

§ 10.2 The Architect will visit the site at intervals appropriate to the stage of the construction to become generally familiar with the progress and quality of the portion of the Work completed, and to determine in general, if the Work observed is being performed in a manner indicating that the Work, when fully completed, will be in accordance with the Contract Documents. However, the Architect will not be required to make exhaustive or continuous on-site inspections to check the quality or quantity of the Work. The Architect will not have control over, charge of, or

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responsibility for, the construction means, methods, techniques, sequences or procedures, or for safety precautions and programs in connection with the Work, since these are solely the Contractor's rights and responsibilities under the Contract Documents.

§ 10.3 On the basis of the site visits, the Architect will keep the Owner reasonably informed about the progress and quality of the portion of the Work completed, and report to the Owner (1) known deviations from the Contract Documents and from the most recent construction schedule submitted by the Contractor, and (2) defects and deficiencies observed in the Work. The Architect will not be responsible for the Contractor's failure to perform the Work in accordance with the requirements of the Contract Documents. The Architect will not have control over or charge of and will not be responsible for acts or omissions of the Contractor, Subcontractors, or their agents or employees, or any other persons or entities performing portions of the Work.

§ 10.4 Based on the Architect's evaluations of the Work and of the Contractor's Applications for Payment, the Architect will review and certify the amounts due the Contractor and will issue Certificates for Payment in such amounts.

§ 10.5 The Architect has authority to reject Work that does not conform to the Contract Documents and to require inspection or testing of the Work.

§ 10.6 The Architect will review and approve or take other appropriate action upon the Contractor's submittals such as Shop Drawings, Product Data and Samples, but only for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents.

§ 10.7 The Architect will interpret and decide matters concerning performance under, and requirements of, the Contract Documents on written request of either the Owner or Contractor. The Architect will make initial decisions on all claims, disputes and other matters in question between the Owner and Contractor but will not be liable for results of any interpretations or decisions rendered in good faith.

§ 10.8 The Architect's decisions on matters relating to aesthetic effect will be final if consistent with the intent expressed in the Contract Documents.

§ 10.9 Duties, responsibilities and limitations of authority of the Architect as set forth in the Contract Documents shall not be restricted, modified or extended without written consent of the Owner, Contractor and Architect. Consent shall not be unreasonably withheld.

## ARTICLE 11 SUBCONTRACTORS

§ 11.1 A Subcontractor is a person or entity who has a direct contract with the Contractor to perform a portion of the Work at the site.

§ 11.2 Unless otherwise stated in the Contract Documents or the bidding requirements, the Contractor, as soon as practicable after award of the Contract, shall furnish in writing to the Owner through the Architect the names of the Subcontractors or suppliers for each of the principal portions of the Work. The Contractor shall not contract with any Subcontractor or supplier to whom the Owner or Architect has made reasonable written objection within ten days after receipt of the Contractor's list of Subcontractors and suppliers. If the proposed but rejected Subcontractor was reasonably capable of performing the Work, the Contract Sum and Contract Time shall be increased or decreased by the difference, if any, occasioned by such change, and an appropriate Change Order shall be issued before commencement of the substitute Subcontractor's Work. The Contractor shall not be required to contract with anyone to whom the Contractor has made reasonable objection.

§ 11.3 Contracts between the Contractor and Subcontractors shall (1) require each Subcontractor, to the extent of the Work to be performed by the Subcontractor, to be bound to the Contractor by the terms of the Contract Documents, and to assume toward the Contractor all the obligations and responsibilities, including the responsibility for safety of the Subcontractor's Work, which the Contractor, by the Contract Documents, assumes toward the Owner and Architect, and (2) allow the Subcontractor the benefit of all rights, remedies and redress against the Contractor that the Contractor, by these Contract Documents, has against the Owner.

## ARTICLE 12 CONSTRUCTION BY OWNER OR BY SEPARATE CONTRACTORS

§ 12.1 The Owner reserves the right to perform construction or operations related to the Project with the Owner's own forces, and to award separate contracts in connection with other portions of the Project or other construction or operations on the site under conditions of the contract identical or substantially similar to these, including those portions related to insurance and waiver of subrogation. If the Contractor claims that delay or additional cost is involved because of such action by the Owner, the Contractor shall make such claim as provided in Article 21.

§ 12.2 The Contractor shall afford the Owner and separate contractors reasonable opportunity for introduction and storage of their materials and equipment and performance of their activities, and shall connect and coordinate the Contractor's activities with theirs as required by the Contract Documents.

§ 12.3 The Owner shall be reimbursed by the Contractor for costs incurred by the Owner which are payable to a separate contractor because of delays, improperly timed activities or defective construction of the Contractor. The Owner shall be responsible to the Contractor for costs incurred by the Contractor because of delays, improperly timed activities, damage to the Work or defective construction of a separate contractor.

## ARTICLE 13 CHANGES IN THE WORK

§ 13.1 By appropriate Modification, changes in the Work may be accomplished after execution of the Contract. The Owner, without invalidating the Contract, may order changes in the Work within the general scope of the Contract consisting of additions, deletions or other revisions, with the Contract Sum and Contract Time being adjusted accordingly. Such changes in the Work shall be authorized by written Change Order signed by the Owner, Contractor and Architect, or by written Construction Change Directive signed by the Owner and Architect.

§ 13.2 Adjustments in the Contract Sum and Contract Time resulting from a change in the Work shall be determined by mutual agreement of the parties or, in the case of a Construction Change Directive signed only by the Owner and Architect, by the Contractor's cost of labor, material, equipment, and reasonable overhead and profit, unless the parties agree on another method for determining the cost or credit. Pending final determination of the total cost of a Construction Change Directive, the Contractor may request payment for Work completed pursuant to the Construction Change Directive. The Architect will make an interim determination of the amount of payment due for purposes of certifying the Contractor's monthly Application for Payment. When the Owner and Contractor agree on adjustments to the Contract Sum and Contract Time arising from a Construction Change Directive, the Architect will prepare a Change Order. In no event shall any dispute over the appropriate adjustment to the Contract Sum or Contract Time as a result of a Change Order or Construction Change Directive result in any delay in the progress of completing the Work, and all such disputes shall be resolved in accordance with the provisions of Article 21 below.

§ 13.3 The Architect will have authority to order minor changes in the Work not involving adjustment in the Contract Sum or extension of the Contract Time and not inconsistent with the intent of the Contract Documents. Such changes shall be effected by written order and shall be binding on the Owner and Contractor. The Contractor shall carry out such written orders promptly.

§ 13.4 If concealed or unknown physical conditions are encountered at the site that differ materially from those indicated in the Contract Documents or from those conditions ordinarily found to exist, the Contract Sum and Contract Time shall be equitably adjusted as mutually agreed between the Owner and Contractor; provided that the Contractor provides notice to the Owner and Architect promptly and before conditions are disturbed.

## ARTICLE 14 TIME

§ 14.1 Time limits stated in the Contract Documents are of the essence of the Contract. By executing the Agreement the Contractor confirms that the Contract Time is a reasonable period for performing the Work.

§ 14.2 Unless otherwise provided, Contract Time is the period of time, including authorized adjustments, allotted in the Contract Documents for Substantial Completion of the Work.

§ 14.3 The term "day" as used in the Contract Documents shall mean calendar day unless otherwise specifically defined.

§ 14.4 The date of Substantial Completion is the date certified by the Architect in accordance with Section 15.4.3.

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§ 14.5 If the Contractor is delayed at any time in the commencement or progress of the Work by changes ordered in the Work, by labor disputes, fire, unusual delay in deliveries, abnormal adverse weather conditions not reasonably anticipatable, unavoidable casualties or any causes beyond the Contractor's control, or by other causes which the Architect determines may justify delay, then the Contract Time shall be extended by Change Order for such reasonable time as the Architect may determine, subject to the provisions of Article 21.

## ARTICLE 15 PAYMENTS AND COMPLETION

### § 15.1 APPLICATIONS FOR PAYMENT

§ 15.1.1 Where the Contract is based on a Stipulated Sum or the Cost of the Work with a Guaranteed Maximum Price, the Contractor shall submit to the Architect, before the first Application for Payment, a schedule of values, allocating the entire Contract Sum to the various portions of the Work, prepared in such form and supported by such data to substantiate its accuracy as the Architect may require. This schedule, unless objected to by the Architect, shall be used in reviewing the Contractor's Applications for Payment.

§ 15.1.2 With each Application for Payment where the Contract Sum is based upon the Cost of the Work, or the Cost of the Work with a Guaranteed Maximum Price, the Contractor shall submit payrolls, petty cash accounts, receipted invoices or invoices with check vouchers attached, and any other evidence required by the Owner to demonstrate that cash disbursements already made by the Contractor on account of the Cost of the Work equal or exceed (1) progress payments already received by the Contractor, less (2) that portion of those payments attributable to the Contractor's Fee; plus (3) payrolls for the period covered by the present Application for Payment.

§ 15.1.3 Payments shall be made on account of materials and equipment delivered and suitably stored at the site for subsequent incorporation in the Work. If approved in advance by the Owner, payment may similarly be made for materials and equipment stored, and protected from damage, off the site at a location agreed upon in writing.

§ 15.1.4 The Contractor warrants that title to all Work covered by an Application for Payment will pass to the Owner no later than the time of payment. The Contractor further warrants that upon submittal of an Application for Payment all Work for which Certificates for Payment have been previously issued and payments received from the Owner shall, to the best of the Contractor's knowledge, information and belief, be free and clear of liens, claims, security interests or other encumbrances adverse to the Owner's interests.

### § 15.2 CERTIFICATES FOR PAYMENT

§ 15.2.1 The Architect will, within seven days after receipt of the Contractor's Application for Payment, either issue to the Owner a Certificate for Payment, with a copy to the Contractor, for such amount as the Architect determines is properly due, or notify the Contractor and Owner in writing of the Architect's reasons for withholding certification in whole or in part as provided in Section 15.2.3.

§ 15.2.2 The issuance of a Certificate for Payment will constitute a representation by the Architect to the Owner, based on the Architect's evaluations of the Work and the data comprising the Application for Payment, that, to the best of the Architect's knowledge, information and belief, the Work has progressed to the point indicated and that the quality of the Work is in accordance with the Contract Documents. The foregoing representations are subject to an evaluation of the Work for conformance with the Contract Documents upon Substantial Completion, to results of subsequent tests and inspections, to correction of minor deviations from the Contract Documents prior to completion and to specific qualifications expressed by the Architect. The issuance of a Certificate for Payment will further constitute a representation that the Contractor is entitled to payment in the amount certified. However, the issuance of a Certificate for Payment will not be a representation that the Architect has (1) made exhaustive or continuous on-site inspections to check the quality or quantity of the Work, (2) reviewed construction means, methods, techniques, sequences or procedures, (3) reviewed copies of requisitions received from Subcontractors and material suppliers and other data requested by the Owner to substantiate the Contractor's right to payment, or (4) made examination to ascertain how or for what purpose the Contractor has used money previously paid on account of the Contract Sum.

§ 15.2.3 The Architect may withhold a Certificate for Payment in whole or in part, to the extent reasonably necessary to protect the Owner, if in the Architect's opinion the representations to the Owner required by Section 15.2.2 cannot be made. If the Architect is unable to certify payment in the amount of the Application, the Architect will notify the Contractor and Owner as provided in Section 15.2.1. If the Contractor and the Architect cannot agree on a revised amount, the Architect will promptly issue a Certificate for Payment for the amount for which the

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Architect is able to make such representations to the Owner. The Architect may also withhold a Certificate for Payment or, because of subsequently discovered evidence, may nullify the whole or a part of a Certificate for Payment previously issued, to such extent as may be necessary in the Architect's opinion to protect the Owner from loss for which the Contractor is responsible, including loss resulting from acts and omissions described in Section 9.2.2, because of

- .1 defective Work not remedied;
- .2 third party claims filed or reasonable evidence indicating probable filing of such claims unless security acceptable to the Owner is provided by the Contractor;
- .3 failure of the Contractor to make payments properly to Subcontractors or for labor, materials or equipment;
- .4 reasonable evidence that the Work cannot be completed for the unpaid balance of the Contract Sum;
- .5 damage to the Owner or a separate contractor;
- .6 reasonable evidence that the Work will not be completed within the Contract Time and that the unpaid balance would not be adequate to cover actual or liquidated damages for the anticipated delay;  
or
- .7 repeated failure to carry out the Work in accordance with the Contract Documents.

§ 15.2.4 When the above reasons for withholding certification are removed, certification will be made for amounts previously withheld.

### § 15.3 PROGRESS PAYMENTS

§ 15.3.1 The Contractor shall pay each Subcontractor, no later than seven days after receipt of payment, the amount to which the Subcontractor is entitled, reflecting percentages actually retained from payments to the Contractor on account of the Subcontractor's portion of the Work. The Contractor shall, by appropriate agreement with each Subcontractor, require each Subcontractor to make payments to sub-subcontractors in similar manner.

§ 15.3.2 Neither the Owner nor Architect shall have an obligation to pay or see to the payment of money to a Subcontractor except as may otherwise be required by law.

§ 15.3.3 A Certificate for Payment, a progress payment, or partial or entire use or occupancy of the Project by the Owner shall not constitute acceptance of Work not in accordance with the Contract Documents.

### § 15.4 SUBSTANTIAL COMPLETION

§ 15.4.1 Substantial Completion is the stage in the progress of the Work when the Work or designated portion thereof is sufficiently complete in accordance with the Contract Documents so that the Owner can occupy or utilize the Work for its intended use.

§ 15.4.2 When the Contractor considers that the Work, or a portion thereof which the Owner agrees to accept separately, is substantially complete, the Contractor shall prepare and submit to the Architect a comprehensive list of items to be completed or corrected prior to final payment. Failure to include an item on such list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents.

§ 15.4.3 Upon receipt of the Contractor's list, the Architect will make an inspection to determine whether the Work or designated portion thereof is substantially complete. When the Architect determines that the Work or designated portion thereof is substantially complete, the Architect will issue a Certificate of Substantial Completion which shall establish the date of Substantial Completion, establish responsibilities of the Owner and Contractor for security, maintenance, heat, utilities, damage to the Work and insurance, and fix the time within which the Contractor shall finish all items on the list accompanying the Certificate. Warranties required by the Contract Documents shall commence on the date of Substantial Completion of the Work or designated portion thereof unless otherwise provided in the Certificate of Substantial Completion.

§ 15.4.4 The Certificate of Substantial Completion shall be submitted to the Owner and Contractor for their written acceptance of responsibilities assigned to them in such Certificate. Upon such acceptance and consent of surety, if any, the Owner shall make payment of retainage applying to such Work or designated portion thereof. Such payment shall be adjusted for Work that is incomplete or not in accordance with the requirements of the Contract Documents.

## § 15.5 FINAL COMPLETION AND FINAL PAYMENT

§ 15.5.1 Upon receipt of the Contractor's written notice that the Work is ready for final inspection and acceptance and upon receipt of a final Application for Payment, the Architect will promptly make such inspection and, when the Architect finds the Work acceptable under the Contract Documents and the Contract fully performed, the Architect will promptly issue a final Certificate for Payment stating that to the best of the Architect's knowledge, information and belief, and on the basis of the Architect's on-site visits and inspections, the Work has been completed in accordance with terms and conditions of the Contract Documents and that the entire balance found to be due the Contractor and noted in the final Certificate is due and payable. The Architect's final Certificate for Payment will constitute a further representation that conditions stated in Section 15.5.2 as precedent to the Contractor's being entitled to final payment have been fulfilled.

§ 15.5.2 Final payment shall not become due until the Contractor has delivered to the Owner a complete release of all liens arising out of this Contract or receipts in full covering all labor, materials and equipment for which a lien could be filed, or a bond satisfactory to the Owner to indemnify the Owner against such lien. If such lien remains unsatisfied after payments are made, the Contractor shall refund to the Owner all money that the Owner may be compelled to pay in discharging such lien, including costs and reasonable attorneys' fees.

§ 15.5.3 The making of final payment shall constitute a waiver of claims by the Owner except those arising from

- .1 liens, claims, security interests or encumbrances arising out of the Contract and unsettled;
- .2 failure of the Work to comply with the requirements of the Contract Documents; or
- .3 terms of special warranties required by the Contract Documents.

§ 15.5.4 Acceptance of final payment by the Contractor, a Subcontractor or material supplier shall constitute a waiver of claims by that payee except those previously made in writing and identified by that payee as unsettled at the time of final Application for Payment.

## ARTICLE 16 PROTECTION OF PERSONS AND PROPERTY

### § 16.1 SAFETY PRECAUTIONS AND PROGRAMS

The Contractor shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the performance of the Contract. The Contractor shall take reasonable precautions for safety of, and shall provide reasonable protection to prevent damage, injury or loss to

- .1 employees on the Work and other persons who may be affected thereby;
- .2 the Work and materials and equipment to be incorporated therein, whether in storage on or off the site, under care, custody or control of the Contractor or the Contractor's Subcontractors or Sub-subcontractors; and
- .3 other property at the site or adjacent thereto, such as trees, shrubs, lawns, walks, pavements, roadways, structures and utilities not designated for removal, relocation or replacement in the course of construction.

The Contractor shall comply with and give notices required by applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities bearing on safety of persons and property and their protection from damage, injury or loss. The Contractor shall promptly remedy damage and loss to property caused in whole or in part by the Contractor, a Subcontractor, a sub-subcontractor, or anyone directly or indirectly employed by any of them, or by anyone for whose acts they may be liable and for which the Contractor is responsible under Sections 16.1.2 and 16.1.3, except for damage or loss attributable to acts or omissions of the Owner or Architect or by anyone for whose acts either of them may be liable, and not attributable to the fault or negligence of the Contractor. The foregoing obligations of the Contractor are in addition to the Contractor's obligations under Section 9.15.

### § 16.2 HAZARDOUS MATERIALS

§ 16.2.1 The Contractor is responsible for compliance with the requirements of the Contract Documents regarding hazardous materials. If the Contractor encounters a hazardous material or substance not addressed in the Contract Documents, and if reasonable precautions will be inadequate to prevent foreseeable bodily injury or death to persons resulting from a material or substance, including but not limited to asbestos or polychlorinated biphenyl (PCB), encountered on the site by the Contractor, the Contractor shall, upon recognizing the condition, immediately stop Work in the affected area and report the condition to the Owner and Architect in writing. When the material or substance has been rendered harmless, Work in the affected area shall resume upon written agreement of the Owner

and Contractor. By Change Order, the Contract Time shall be extended appropriately and the Contract Sum shall be increased in the amount of the Contractor's reasonable additional costs of shutdown, delay and start-up.

**§ 16.2.2** To the fullest extent permitted by law, the Owner shall indemnify and hold harmless the Contractor, Subcontractors, Architect, Architect's consultants and agents and employees of any of them from and against claims, damages, losses and expenses, including but not limited to attorneys' fees, arising out of or resulting from performance of the Work in the affected area, if in fact, the material or substance presents the risk of bodily injury or death as described in Section 16.2.1 and has not been rendered harmless, provided that such claim, damage, loss or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself), except to the extent that such damage, loss or expense is due to the fault or negligence of the party seeking indemnity.

**§ 16.2.3** If, without negligence on the part of the Contractor, the Contractor is held liable by a government agency for the cost of remediation of a hazardous material or substance solely by reason of performing Work as required by the Contract Documents, the Owner shall indemnify the Contractor for all cost and expense thereby incurred.

## ARTICLE 17 INSURANCE AND BONDS

**§ 17.1** The Contractor shall purchase from, and maintain in a company or companies lawfully authorized to do business in the jurisdiction in which the Project is located, insurance for protection from claims under workers' compensation acts and other employee benefit acts which are applicable, claims for damages because of bodily injury, including death, and claims for damages, other than to the Work itself, to property which may arise out of or result from the Contractor's operations and completed operations under the Contract, whether such operations be by the Contractor or by a Subcontractor or anyone directly or indirectly employed by any of them. This insurance shall be written for not less than limits of liability set forth below or required by law, whichever coverage is greater, and shall include contractual liability insurance applicable to the Contractor's obligations under Section 9.15. Certificates of Insurance acceptable to the Owner shall be filed with the Owner prior to commencement of the Work. Each policy shall contain a provision that the policy will not be canceled or allowed to expire until at least 30 days' prior written notice has been given to the Owner. The Contractor shall cause the commercial liability coverage required by the Contract Documents to include: (1) the Owner, City of Providence, the Architect and the Architect's Consultants as additional insureds for claims caused in whole or in part by the Contractor's negligent acts or omissions during the Contractor's operations; and (2) the Owner as an additional insured for claims caused in whole or in part by the Contractor's negligent acts or omissions during the Contractor's completed operations.

Contractor shall obtain and carry insurance for the duration of this project for coverage in the following areas and amounts:

- General Liability - \$1,000,000 per occurrence; \$2,000,000 aggregate
- Automobile Liability – \$250,000 bodily injury per person, \$500,000 bodily injury per accident, \$250,000 property damage per accident
- Worker's Compensation - \$1,000,000

### § 17.2 OWNER'S LIABILITY INSURANCE

The parties acknowledge that Owner is not required to carry any insurance pursuant to the terms of this Contract.

### § 17.3 WAIVER OF SUBROGATION

**§ 17.3** The Owner and Contractor waive all rights against (1) each other and any of their subcontractors, sub-subcontractors, agents and employees, each of the other, and (2) the Architect, Architect's consultants, separate contractors described in Article 12, if any, and any of their subcontractors, sub-subcontractors, agents and employees for damages caused by fire or other causes of loss to the extent covered by property insurance obtained pursuant to Section 17.3 or other property insurance applicable to the Work, except such rights as they have to proceeds of such insurance held by the Owner as fiduciary. The Owner or Contractor, as appropriate, shall require of the Architect, Architect's consultants, separate contractors described in Article 12, if any, and the subcontractors, sub-subcontractors, agents and employees of any of them, by appropriate agreements, written where legally required

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for validity, similar waivers each in favor of other parties enumerated herein. The policies shall provide such waivers of subrogation by endorsement or otherwise. A waiver of subrogation shall be effective as to a person or entity even though that person or entity would otherwise have a duty of indemnification, contractual or otherwise, did not pay the insurance premium directly or indirectly, and whether or not the person or entity had an insurable interest in the property damaged.

*(Paragraphs deleted)*

§ 17.4 A loss insured under the Owner's property insurance shall be adjusted by the Owner as fiduciary and made payable to the Owner as fiduciary for the insureds, as their interests may appear, subject to requirements of any applicable mortgage clause. The Contractor shall pay Subcontractors their just shares of insurance proceeds received by the Contractor, and by appropriate agreements, written where legally required for validity, shall require Subcontractors to make payments to their sub-subcontractors in similar manner.

#### § 17.4 PERFORMANCE BOND AND PAYMENT BOND

§ 17.4.1 The Owner shall have the right to require the Contractor to furnish bonds covering faithful performance of the Contract and payment of obligations arising thereunder as stipulated in bidding requirements or specifically required in the Contract Documents on the date of execution of the Contract.

§ 17.4.2 Upon the request of any person or entity appearing to be a potential beneficiary of bonds covering payment of obligations arising under the Contract, the Contractor shall promptly furnish a copy of the bonds or shall authorize a copy to be furnished.

#### ARTICLE 18 CORRECTION OF WORK

§ 18.1 The Contractor shall promptly correct Work rejected by the Architect or failing to conform to the requirements of the Contract Documents, whether discovered before or after Substantial Completion and whether or not fabricated, installed or completed. Costs of correcting such rejected Work, including additional testing and inspections, the cost of uncovering and replacement, and compensation for the Architect's services and expenses made necessary thereby, shall be at the Contractor's expense, unless compensable under Section A.2.7.3 in Exhibit A, Determination of the Cost of the Work.

§ 18.2 In addition to the Contractor's obligations under Section 9.4, if, within one year after the date of Substantial Completion of the Work or designated portion thereof or after the date for commencement of warranties established under Section 15.4.3, or by terms of an applicable special warranty required by the Contract Documents, any of the Work is found to be not in accordance with the requirements of the Contract Documents, the Contractor shall correct it promptly after receipt of written notice from the Owner to do so unless the Owner has previously given the Contractor a written acceptance of such condition. The Owner shall give such notice promptly after discovery of the condition. During the one-year period for correction of Work, if the Owner fails to notify the Contractor and give the Contractor an opportunity to make the correction, the Owner waives the rights to require correction by the Contractor and to make a claim for breach of warranty.

§ 18.3 If the Contractor fails to correct nonconforming Work within a reasonable time, the Owner may correct it in accordance with Section 8.3.

§ 18.4 The one-year period for correction of Work shall be extended with respect to portions of Work first performed after Substantial Completion by the period of time between Substantial Completion and the actual completion of that portion of the Work.

§ 18.5 The one-year period for correction of Work shall not be extended by corrective Work performed by the Contractor pursuant to this Article 18.

#### ARTICLE 19 MISCELLANEOUS PROVISIONS

##### § 19.1 ASSIGNMENT OF CONTRACT

Neither party to the Contract shall assign the Contract without written consent of the other, except that the Owner may, without consent of the Contractor, assign the Contract to a lender providing construction financing for the Project if the lender assumes the Owner's rights and obligations under the Contract Documents. The Contractor shall execute all consents reasonably required to facilitate such assignment.

## § 19.2 GOVERNING LAW

The Contract shall be governed by the law of the place where the Project is located, except, that if the parties have selected arbitration as the method of binding dispute resolution, the Federal Arbitration Act shall govern Section 21.4.

## § 19.3 TESTS AND INSPECTIONS

Tests, inspections and approvals of portions of the Work required by the Contract Documents or by applicable laws, statutes, ordinances, codes, rules and regulations or lawful orders of public authorities shall be made at an appropriate time. Unless otherwise provided, the Contractor shall make arrangements for such tests, inspections and approvals with an independent testing laboratory or entity acceptable to the Owner, or with the appropriate public authority, and shall bear all related costs of tests, inspections and approvals. The Contractor shall give the Architect timely notice of when and where tests and inspections are to be made so that the Architect may be present for such procedures. The Owner shall bear costs of (1) tests, inspections or approvals that do not become requirements until after bids are received or negotiations concluded, and (2) tests, inspections or approvals where building codes or applicable laws or regulations prohibit the Owner from delegating the costs to the Contractor.

## § 19.4 COMMENCEMENT OF STATUTORY LIMITATION PERIOD

The Owner and Contractor shall commence all claims and causes of action, whether in contract, tort, breach of warranty or otherwise, against the other arising out of or related to the Contract in accordance with the requirements of the final dispute resolution method selected in the Agreement within the period specified by applicable law, but in any case not more than 10 years after the date of Substantial Completion of the Work. The Owner and Contractor waive all claims and causes of action not commenced in accordance with this Section 19.4.

## ARTICLE 20 TERMINATION OF THE CONTRACT

### § 20.1 TERMINATION BY THE CONTRACTOR

If the Architect fails to certify payment as provided in Section 15.2.1 for a period of 30 days through no fault of the Contractor, or if the Owner fails to make payment as provided in Section 4.1.3 for a period of 30 days, the Contractor may, upon seven additional days' written notice to the Owner and the Architect, terminate the Contract and recover from the Owner payment for Work executed, including reasonable overhead and profit, costs incurred by reason of such termination, and damages.

### § 20.2 TERMINATION BY THE OWNER FOR CAUSE

#### § 20.2.1 The Owner may terminate the Contract if the Contractor

- .1 repeatedly refuses or fails to supply enough properly skilled workers or proper materials;
- .2 fails to make payment to Subcontractors for materials or labor in accordance with the respective agreements between the Contractor and the Subcontractors;
- .3 repeatedly disregards applicable laws, statutes, ordinances, codes, rules and regulations or lawful orders of a public authority; or
- .4 otherwise is guilty of substantial breach of a provision of the Contract Documents.

§ 20.2.2 When any of the above reasons exists, the Owner, upon certification by the Architect that sufficient cause exists to justify such action, may, without prejudice to any other remedy the Owner may have and after giving the Contractor seven days' written notice, terminate the Contract and take possession of the site and of all materials, equipment, tools, and construction equipment and machinery thereon owned by the Contractor and may finish the Work by whatever reasonable method the Owner may deem expedient. Upon request of the Contractor, the Owner shall furnish to the Contractor a detailed accounting of the costs incurred by the Owner in finishing the Work.

§ 20.2.3 When the Owner terminates the Contract for one of the reasons stated in Section 20.2.1, the Contractor shall not be entitled to receive further payment until the Work is finished.

§ 20.2.4 If the unpaid balance of the Contract Sum exceeds costs of finishing the Work, including compensation for the Architect's services and expenses made necessary thereby, and other damages incurred by the Owner and not expressly waived, such excess shall be paid to the Contractor. If such costs and damages exceed the unpaid balance, the Contractor shall pay the difference to the Owner. The amount to be paid to the Contractor or Owner, as the case may be, shall be certified by the Architect, upon application, and this obligation for payment shall survive termination of the Contract.

### § 20.3 TERMINATION BY THE OWNER FOR CONVENIENCE

The Owner may, at any time, terminate the Contract for the Owner's convenience and without cause. The Contractor shall be entitled to receive payment for Work executed, and costs incurred by reason of such termination, along with reasonable overhead and profit on the Work not executed.

## ARTICLE 21 CLAIMS AND DISPUTES

§ 21.1 Claims, disputes and other matters in question arising out of or relating to this Contract, including those alleging an error or omission by the Architect but excluding those arising under Section 16.2, shall be referred initially to the Architect for decision. Such matters, except those waived as provided for in Section 21.8 and Sections 15.5.3 and 15.5.4, shall, after initial decision by the Architect or 30 days after submission of the matter to the Architect, be subject to mediation as a condition precedent to binding dispute resolution.

§ 21.2 If a claim, dispute or other matter in question relates to or is the subject of a mechanic's lien, the party asserting such matter may proceed in accordance with applicable law to comply with the lien notice or filing deadlines.

§ 21.3 The parties shall endeavor to resolve their disputes by mediation which, unless the parties mutually agree otherwise, shall be administered by the American Arbitration Association in accordance with their Construction Industry Mediation Procedures in effect on the date of the Agreement. A request for mediation shall be made in writing, delivered to the other party to this Agreement, and filed with the person or entity administering the mediation. The request may be made concurrently with the binding dispute resolution but, in such event, mediation shall proceed in advance of binding dispute resolution proceedings, which shall be stayed pending mediation for a period of 60 days from the date of filing, unless stayed for a longer period by agreement of the parties or court order. If an arbitration is stayed pursuant to this Section, the parties may nonetheless proceed to the selection of the arbitrator(s) and agree upon a schedule for later proceedings.

§ 21.4 If the parties have selected arbitration as the method for binding dispute resolution in the Agreement, any claim, subject to, but not resolved by, mediation shall be subject to arbitration which, unless the parties mutually agree otherwise, shall be administered by the American Arbitration Association, in accordance with the Construction Industry Arbitration Rules in effect on the date of this Agreement. Demand for arbitration shall be made in writing, delivered to the other party to the Contract, and filed with the person or entity administering the arbitration. The award rendered by the arbitrator or arbitrators shall be final, and judgment may be entered upon it in accordance with applicable law in any court having jurisdiction thereof.

§ 21.5 Either party, at its sole discretion, may consolidate an arbitration conducted under this Agreement with any other arbitration to which it is a party provided that (1) the arbitration agreement governing the other arbitration permits consolidation; (2) the arbitrations to be consolidated substantially involve common questions of law or fact; and (3) the arbitrations employ materially similar procedural rules and methods for selecting arbitrator(s).

§ 21.6 Any party to an arbitration may include by joinder persons or entities substantially involved in a common question of law or fact whose presence is required if complete relief is to be accorded in arbitration provided that the party sought to be joined consents in writing to such joinder. Consent to arbitration involving an additional person or entity shall not constitute consent to arbitration of a Claim not described in the written Consent.

§ 21.7 The foregoing agreement to arbitrate and other agreements to arbitrate with an additional person or entity duly consented to by parties to the Agreement shall be specifically enforceable under applicable law in any court having jurisdiction thereof.

### § 21.8 CLAIMS FOR CONSEQUENTIAL DAMAGES

The Contractor and Owner waive claims against each other for consequential damages arising out of or relating to this Contract. This mutual waiver includes

- .1 damages incurred by the Owner for rental expenses, for losses of use, income, profit, financing, business and reputation, and for loss of management or employee productivity or of the services of such persons; and
- .2 damages incurred by the Contractor for principal office expenses including the compensation of personnel stationed there, for losses of financing, business and reputation, and for loss of profit except anticipated profit arising directly from the Work.

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This mutual waiver is applicable, without limitation, to all consequential damages due to either party's termination in accordance with Article 20. Nothing contained in this Section 21.8 shall be deemed to preclude an award of liquidated damages, when applicable, in accordance with the requirements of the Contract Documents.

This Agreement entered into as of the day and year first written above.

\_\_\_\_\_  
OWNER (Signature)

\_\_\_\_\_  
CONTRACTOR (Signature)

\_\_\_\_\_  
(Printed name and title)

\_\_\_\_\_  
(Printed name and title)

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