

**UNDERGROUND STORAGE TANK**  
**CLOSURE/CHANGE-IN-SERVICE**  
**GUIDANCE DOCUMENT**

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY  
SURVEILLANCE DIVISION  
P. O. BOX 4312  
BATON ROUGE, LOUISIANA 70821-4312



**EFFECTIVE DATE – October 20, 2003**

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# INTRODUCTION

The purpose of this document is to provide guidance for conducting a **petroleum** Underground Storage Tank (UST) system closure or change-in-service that meets the requirements of Chapter 9 of the Louisiana Underground Storage Tank regulations (LAC 33:XI). This document is intended to be used in conjunction with the UST regulations and industry codes and standards. It is not intended to substitute for appropriate knowledge, experience and training in proper tank decommissioning practices. Appendix A contains a list of industry codes and standards pertaining to UST closure.

This document does not specifically address the closure of USTs which contain hazardous substances. These systems will be addressed on a site-by-site basis. ***Owners of hazardous substance USTs should contact the REGIONAL OFFICE for guidance prior to beginning any closure work.***

The UST regulations require that before permanent closure or change-in-service is completed, owners and operators must measure for the presence of a release where contamination is most likely to be present at a UST site. Proper procedures are crucial when assessing a site for the presence of contamination. An environmental site assessment plays an important role in demonstrating that a site does not pose a threat to human health or the environment. The Louisiana Department of Environmental Quality (DEQ) has prepared this document to explain the site assessment requirements for UST closure and change-in-service.

Questions regarding this document should be directed to the Regional Office responsible for the parish in which the UST is located, or the Surveillance Division in Baton Rouge. Appendix B contains the telephone number, address and parishes covered by each Regional Office, as well as the telephone number for the Surveillance Division.

The following definitions are provided for clarification purposes:

***Closure*** – to empty and clean a UST by removing all liquids and accumulated sludge and to either remove from the ground or fill with a solid inert material (e.g., sand, concrete slurry, etc.).

***Change-in-Service*** – to change the contents of a UST from a regulated substance (e.g., gasoline, diesel, etc.) to a non-regulated substance (e.g., cottonseed oil, etc.).

***Petroleum*** – crude oil or any fraction thereof that is liquid at standard conditions of temperature and pressure (60° Fahrenheit and 14.7 pounds per square inch absolute), including, but not limited to, motor fuels, jet fuels, distillate fuel oil, residual fuel oils, lubricants, petroleum solvents and used oils.

## **INTRODUCTION (continued)**

### **Other Agency Jurisdiction**

The State Fire Marshal's Office must be contacted prior to performing UST closure in unincorporated areas of the State. The local fire department must be contacted when performing closure of USTs located within a city's corporate limits. City or local demolition permits may also be required.

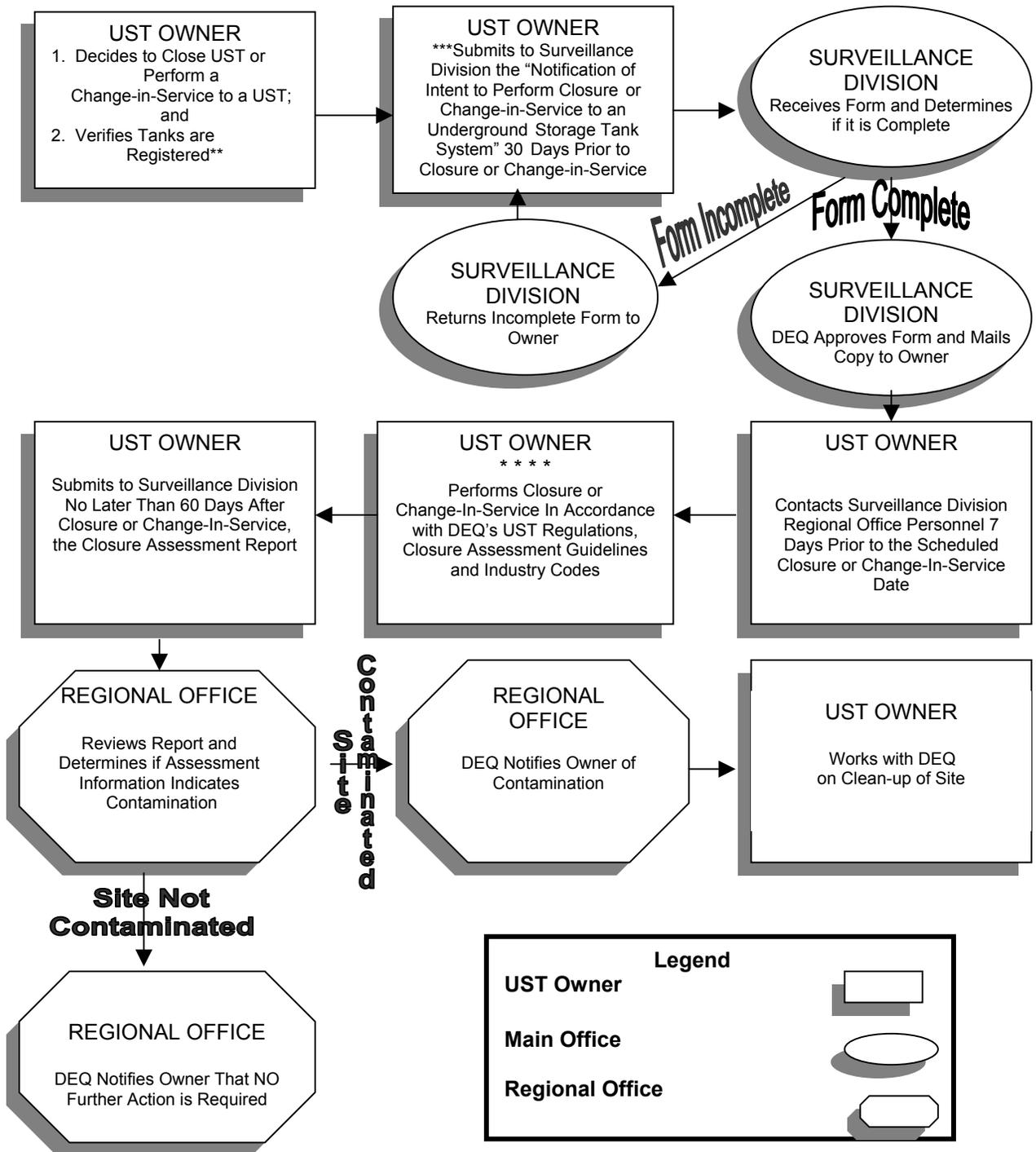
### **Only Louisiana DEQ Certified Workers May Supervise Closure/Change-in-Service**

Chapter 13 of the UST regulations requires that owners/operators ensure that the contractor chosen to perform the UST closure/change-in-service employs an individual who holds a current Louisiana DEQ certificate for closure. The certified individual must be present at the site and exercising responsible supervisory control during the closure process. A list of DEQ certified workers may be obtained from the Permits Division - Registrations and Certifications Section at (225) 219-3015 or from the DEQ web site at [www.deq.state.la.us/permits/ust\\_certified\\_workers.pdf](http://www.deq.state.la.us/permits/ust_certified_workers.pdf).

### **Closure Process Flowchart**

The flowchart on the following page is a graphical representation of the UST closure or change-in-service process. It is presented as an aid to UST owners and persons performing UST closure or change-in-service in understanding the closure process and the Louisiana Department of Environmental Quality requirements. Referral to the flowchart can assist UST owners/operators and contractors in determining where they stand in the process.

**CLOSURE/CHANGE-IN-SERVICE PROCESS FLOWCHART**  
What happens when a UST is closed or a UST Change-In-Service\* is Performed?



\*Change-In-Service – To continue to use a UST system to store a non-regulated substance.

\*\* If the tanks are not registered, the Owner must submit to DEQ the "Registration Of Underground Storage Tanks Form."

\*\*\*If the Owner knows there is a release and reports the release to the Surveillance Division within 24 hours, closure may begin immediately.

\*\*\*\*If closure/change-in-service does not begin within 90 days after DEQ approval then the form becomes invalid.

## REPORTING REQUIREMENTS

Prior to performing UST closure or change-in-service, the owner/operator must verify that the UST system has been registered with the Permits Division. Tank registration can be verified through contact with the DEQ Permits Section at (225) 219-3015. Please know the facility name and address, as well as the owner name and address at the time of the call. If the “**Registration of Underground Storage Tanks**” form (UST-Reg-01) has not been filed, then the owner/operator must do so.

### **Thirty (30) Days Prior to Closure or Change-in-Service**

The owner/operator must submit the “**Notification of Intent to Perform a Closure or Change-In-Service to an Underground Storage Tank System**” form (Appendix C). Copies of the three -part form can be obtained from the Surveillance Division or the Regional Office. The Regional Office will approve or reject the form and return a copy to the owner. ***Forms that do not contain the signature of the owner, name of the contractor, or the name of the laboratory chosen to analyze the samples will be rejected.*** Closure or change-in-service may proceed 30 days after the date of approval.

***Note: This form becomes invalid if the closure or change-in-service is not initiated within ninety (90) days after approval. A new form must be submitted if the owner/operator intends to perform a UST closure or change-in-service.***

### **Seven (7) Days Prior to Closure or Change-in-Service**

***The owner/operator or his representative must notify the appropriate Regional Office by fax, email, or telephone of the scheduled date and time for the UST closure or change-in-service.*** In the event that all regional personnel are in the field at the time the telephone call is made, the Regional Office will accept a notice provided on a completed “Telefax Transmittal” form – UST-ENF-05 (See Appendix D). If the regional office is not contacted, the sampling analysis may not be accepted. A function of the regional inspector is to monitor activities at the site during closure and change-in-service.

### **Sixty (60) Days Following Closure or Change-in-Service**

The owner/operator must submit a ***Closure/Assessment Report*** that follows the format described on the following pages in the level of detail indicated. Consistency in reporting will expedite DEQ’s review and its response to the owner/operator. ***Two separate copies of the information required in Sections B through D must be submitted in a format no larger than 8 ½”x14”.***

# REPORTING REQUIREMENTS (continued)

## The Closure/Assessment Report

### Section A "Underground Storage Tank Closure/Assessment Form"

The UST Closure/Assessment form (Appendix E) shall be filled out completely. If blocks do not apply, "N/A" and a brief explanation should be included. The owner/operator and the certified UST worker responsible for supervising the closure/change-in-service activities must sign the form. Copies of the four-part form can be obtained from the Regional Office or Surveillance Division Main Office.

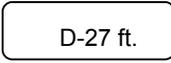
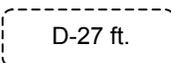
### Section B Site Drawing

A **site drawing**, using the symbols identified below and drawn to approximate scale, shall include the following information:

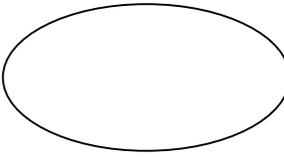
1. General site layout
2. Tank locations, sizes, and the substance(s) stored
3. Dispenser locations
4. Depth to groundwater (if encountered)
5. Dimensions of the excavation (when excavation occurs)
6. North arrow
7. Nearby structures such as buildings, landmarks, streets, etc.
8. Sample locations
  - a. Selected analytical result for each sample in the appropriate information box
  - b. Sample depths (from the natural ground surface)

**Note: Sample identification on the drawing must match the label on each sample container and chain-of-custody record.**

The following symbols are to be used in the site drawing. Sample site drawings can be found in Appendices F and G. A "Site Drawing Form" can be found in Appendix H.

	Indicates assigned sample number and Sample location if groundwater is encountered During sampling		Indicates a UST was <u>closed-in-place</u> , Contained diesel and was 27 ft. in Length
	Indicates assigned sample number and Sample location if groundwater is NOT Encountered during sampling		Indicates a UST was <u>removed</u> , Contained diesel fuel and was 27 ft. in Length

## REPORTING REQUIREMENTS (continued)

 <p style="font-size: 1.2em;">Tank Hold Area</p>	<p>ND – None Detectable</p>	<div style="border: 1px dashed black; display: inline-block; padding: 2px 5px;">G-27 ft.</div> <p style="font-size: 0.8em; margin-left: 10px;">Indicates a UST was <u>removed</u>, contained gasoline and was 27 ft. in length</p>							
	 <p style="font-size: 1.2em;">Dispenser Island</p>	<p style="text-align: center; font-weight: bold;">Soil Sample Information Box (gasoline)</p> <table border="1" style="width: 100%; border-collapse: collapse; font-size: 0.8em;"> <tr> <td style="width: 20%; text-align: center;">12.32</td> <td>Results of TPH-GRO analysis in ppm</td> </tr> <tr> <td style="text-align: center;">50 in.</td> <td>Depth of sample</td> </tr> <tr> <td style="text-align: center;">1.193</td> <td>Results of Benzene analysis in ppm</td> </tr> </table>		12.32	Results of TPH-GRO analysis in ppm	50 in.	Depth of sample	1.193	Results of Benzene analysis in ppm
	12.32	Results of TPH-GRO analysis in ppm							
50 in.	Depth of sample								
1.193	Results of Benzene analysis in ppm								
 <p style="font-size: 1.2em;">Dispenser</p>	<p style="text-align: center; font-weight: bold;">Soil Sample Information Box (diesel)</p> <table border="1" style="width: 100%; border-collapse: collapse; font-size: 0.8em;"> <tr> <td style="width: 20%; text-align: center;">.053</td> <td>Results of TPH-DRO analysis in ppm</td> </tr> <tr> <td style="text-align: center;">48 in.</td> <td>Depth of sample</td> </tr> </table>		.053	Results of TPH-DRO analysis in ppm	48 in.	Depth of sample			
.053	Results of TPH-DRO analysis in ppm								
48 in.	Depth of sample								
 <p style="font-size: 1.2em;">Excavated Soils</p>	<p style="text-align: center; font-weight: bold;">Soil Sample Information Box (oil)</p> <table border="1" style="width: 100%; border-collapse: collapse; font-size: 0.8em;"> <tr> <td style="width: 20%; text-align: center;">1.053</td> <td>Results of TPH-ORO analysis in ppm</td> </tr> <tr> <td style="text-align: center;">65 in.</td> <td>Depth of sample</td> </tr> </table>		1.053	Results of TPH-ORO analysis in ppm	65 in.	Depth of sample			
1.053	Results of TPH-ORO analysis in ppm								
65 in.	Depth of sample								

### Section C Analytical Results

Copies of the **analytical results** including the chain of custody record.

### Section D Manifests

Copies of **manifests, bills of lading or receipts** for the disposition of the tank(s), tank contents, contaminated soils, and contaminated waters.

## IF EVIDENCE OF A RELEASE IS FOUND

Any person having knowledge that evidence exists indicating that there has been a release from a UST must report the contamination to the LDEQ **within 24 hours of discovery**.

In cases where a release results in an emergency condition, the release must be reported to the Department **immediately**, but in no case later than one hour, regardless of the amount released. The Department’s **“Notification Regulations”** define “emergency condition” as “any condition which could reasonably be expected to endanger the health and safety of the public, cause significant adverse impact to the land, water or air environment, or cause severe damage to property.”

## SAMPLING AND ANALYSES PROCEDURES

The UST regulations require that owners/operators measure for the presence of a release at the time of permanent closure or change-in-service. To do this, soil samples must be collected as described herein and submitted to an accredited laboratory for analysis. A list of accredited laboratories is available on the DEQ web site at [www.deq.state.la.us/laboratory](http://www.deq.state.la.us/laboratory). The analytical results will be used to determine whether additional assessment and soil/groundwater cleanup are required. **Additional samples beyond those specified in this document may be required at the discretion of the Department in order to ensure protection of human health and the environment.**

### SAMPLE COLLECTION PROCEDURES

The importance of using good sampling procedures cannot be overstated. Good data depends on good field equipment and procedures. Sample handling should not result in cross-contamination or loss of contaminants. Since gasoline and some other petroleum products consist largely of volatile organic compounds, special care in the sample collection is required due to the high potential for loss of these volatile compounds from the sample.

All samples must be collected in the container specified by the protocol for the appropriate analytical method (page 14). **Samples should be received by the laboratory within 24 hours of collection to ensure that the recommended holding times are not exceeded.** Written documentation in the form of a chain-of-custody record shall accompany the sample from the time of collection to the time of delivery to the lab.

The possession or custody of samples must be traceable from the time of collection until the time the sample is submitted to the laboratory for analysis. Correct chain-of-custody procedures are being followed if:

- The sample container is secured to prevent tampering, or is placed in a designated, secured area;

or

- The sample is in actual physical possession of the sampler.

If chain-of-custody procedures are not followed, the integrity of the samples is compromised and the analysis invalidated.

### **Sample Labeling**

The sampler must label the sample container with a sample tag (usually an adhesive label) using waterproof ink at the time of sample collection. The sample tag must include the following information:

1. Sample identification;
2. Collection date and time;
3. Analysis required; and
4. Sampler's initials.

***Note: The sample identification on the site drawing must match the label on the sample container.***

### **Chain-of-Custody Record**

A chain-of-custody record must be completed for all samples that will be analyzed by the laboratory. This record must be filled out in the field at the time of sampling. Correct chain-of-custody must continue when the samples are transferred to the laboratory or to the person responsible for the delivery of the samples to the laboratory. Upon transfer of the samples, each person handling the samples must sign, date, and note on the record the time they received the samples.

***Each chain-of-custody record must include:***

1. Sample identification;
2. Name and address of the site;
3. Date and time of sample collection;
4. Location and depth of sample;
5. Number of samples;
6. Analysis to be performed;
7. Comments or remarks section (e.g., field conditions); and
8. Appropriate places for signatures of sampler and person(s) assuming custody of sample and the identification of common carriers.

Completed chain-of-custody records must be submitted for all samples and included with the UST Closure/Assessment report. A sample form can be found in Appendix I.

## UST Sampling Procedures

For tanks closed through excavation and removal, soil samples must be collected from **backfill** and **native soil** beneath the tank (Figures 1 & 3) immediately after tank removal, unless groundwater is encountered within the excavation. If groundwater is encountered, backfill samples should be collected from the stockpile and native soil samples should be collected from the excavation sidewall(s) at a location immediately above the encountered groundwater table (Figures 2 & 4). For tanks closed in-place, soil samples are required from the same locations previously described utilizing boring equipment capable of producing samples that meet the appropriate sampling protocol.

Samples must be collected from backfill and native soil as illustrated in Figures 1-4. Any areas of obvious contamination must be included in the sampling. **All analytical results from sample locations #1 and #2 will be used to determine if the closure samples are acceptable or if additional actions are required.** If the native soil sample collected at sample location #2 appears contaminated, an investigation soil sample should be collected at sample location #3 approximately two feet below #2. If the sample collected at #3 also appears contaminated, an additional investigation soil sample should be collected at location #4 approximately two feet below #3. The purpose of samples collected at locations #3 and #4 is to identify the vertical extent of contamination to determine if limited corrective action is appropriate.

Sample results must be compared to the UST Soil Screening Standards included in Appendix K. These standards are based on the LDEQ's Risk Evaluation/Corrective Action Program (RECAP). If **all** of the measured concentrations of the **constituents of concern** (COC) for samples collected at locations 1 and 2 are less than the screening standards, the UST Closure/Assessment Report should be submitted to the LDEQ. If **any** of the COC exceed the screening standards, notify the LDEQ's Single Point Of Contact (SPOC @ 1-225-342-1234) and the appropriate Regional Office **within twenty-four hours**.

## UST Sampling Locations

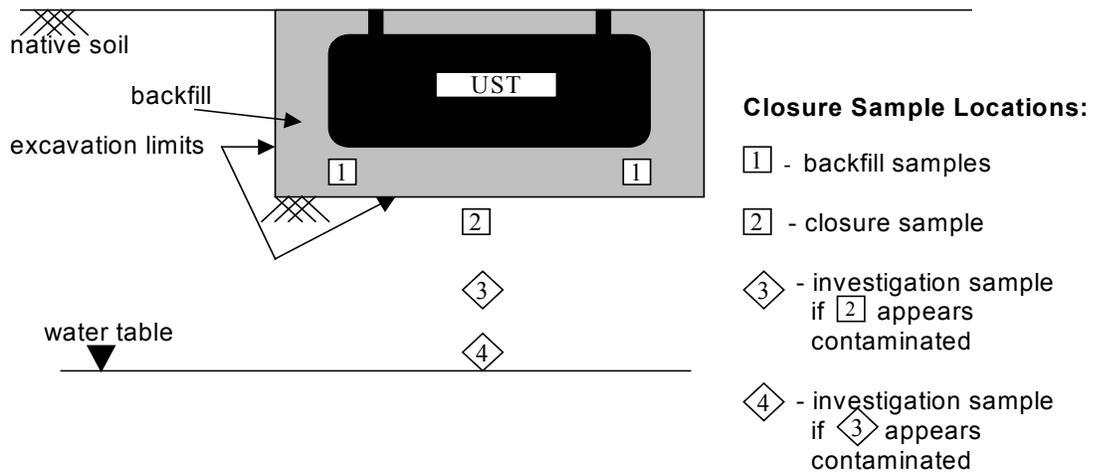
### Tanks 7 feet or less in length

When groundwater is below the excavation, backfill and native soil samples shall be collected as described in Figure 1.

**Tanks 7 feet or less in length (cont.)**

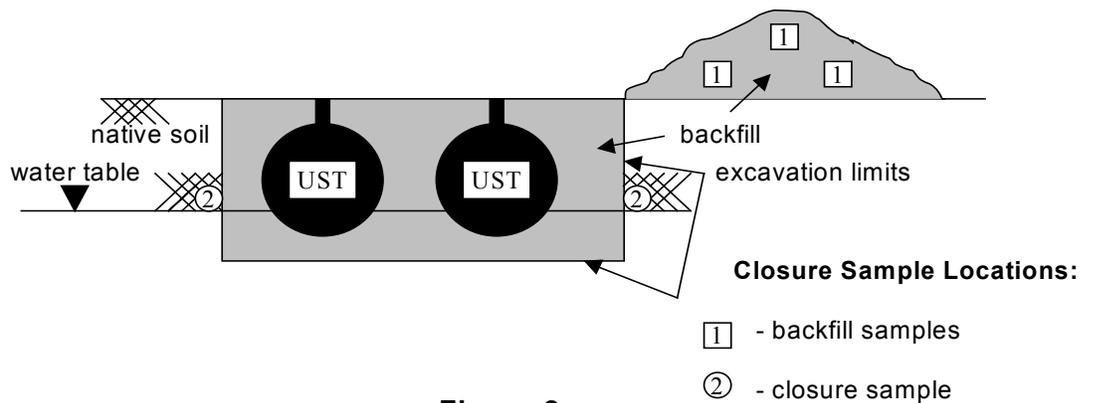
When groundwater is within the excavation, backfill and native soil samples shall be collected as described in Figure 2.

**Tanks 7 Feet in Length**  
**(When Groundwater is Below the Excavation)**



**Figure 1**

**(When Groundwater is Within the Excavation)**



**Figure 2**

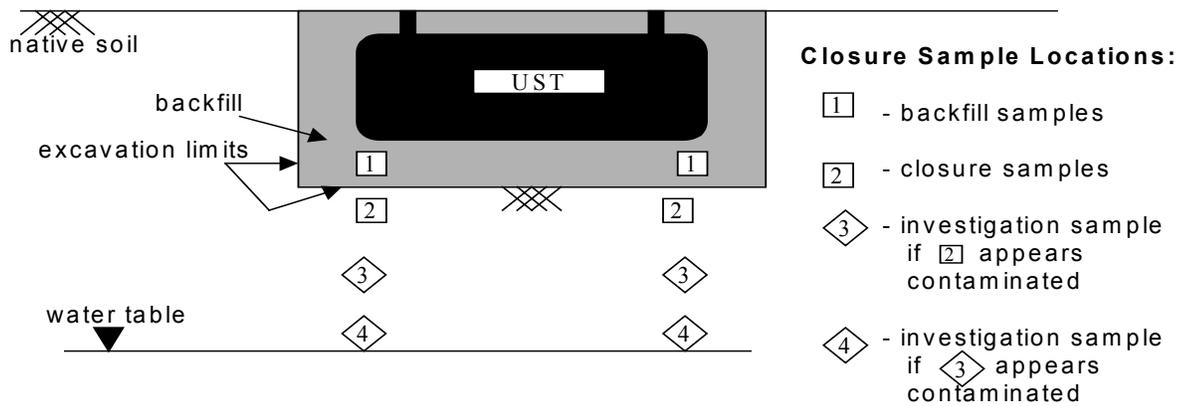
**no scale**

### Tanks greater than 7 to 35 feet in length

When groundwater is below the excavation, samples shall be collected as described in Figure 3.

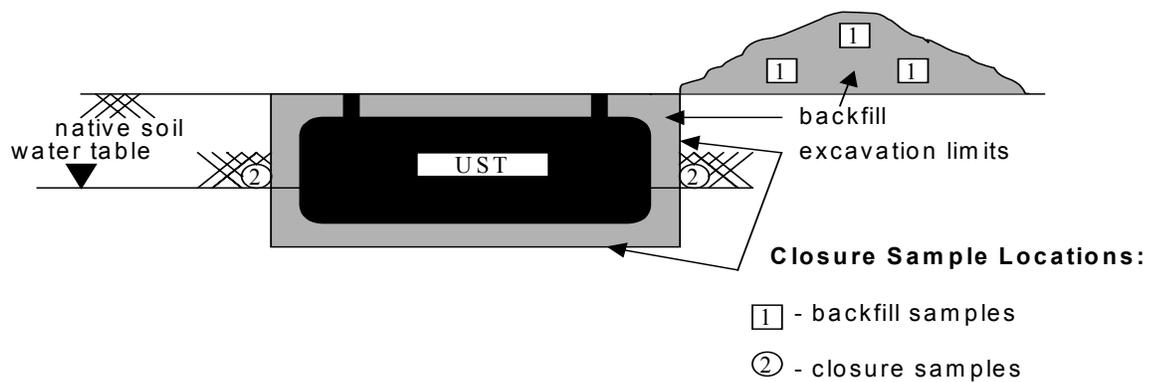
When groundwater is within the excavation, backfill and native soil samples shall be collected as described in Figure 4.

### Tanks >7 to 35 Feet in Length (When Groundwater is Below the Excavation)



**Figure 3**

### (When Groundwater is Within the Excavation)



**Figure 4**

**no scale**

### **Tanks greater than 35 feet in length**

These tanks will be addressed on a site-by-site basis. Proposed sampling locations should be submitted to the Surveillance Division for approval with the ***“Notification of Intent to Perform a Closure or Change-in-Service to a Underground Storage Tank System”*** form. Approval of the proposed sampling locations must be received from the appropriate Regional Office prior to initiation of closure activities.

### **Backfill Sampling Procedures/Locations**

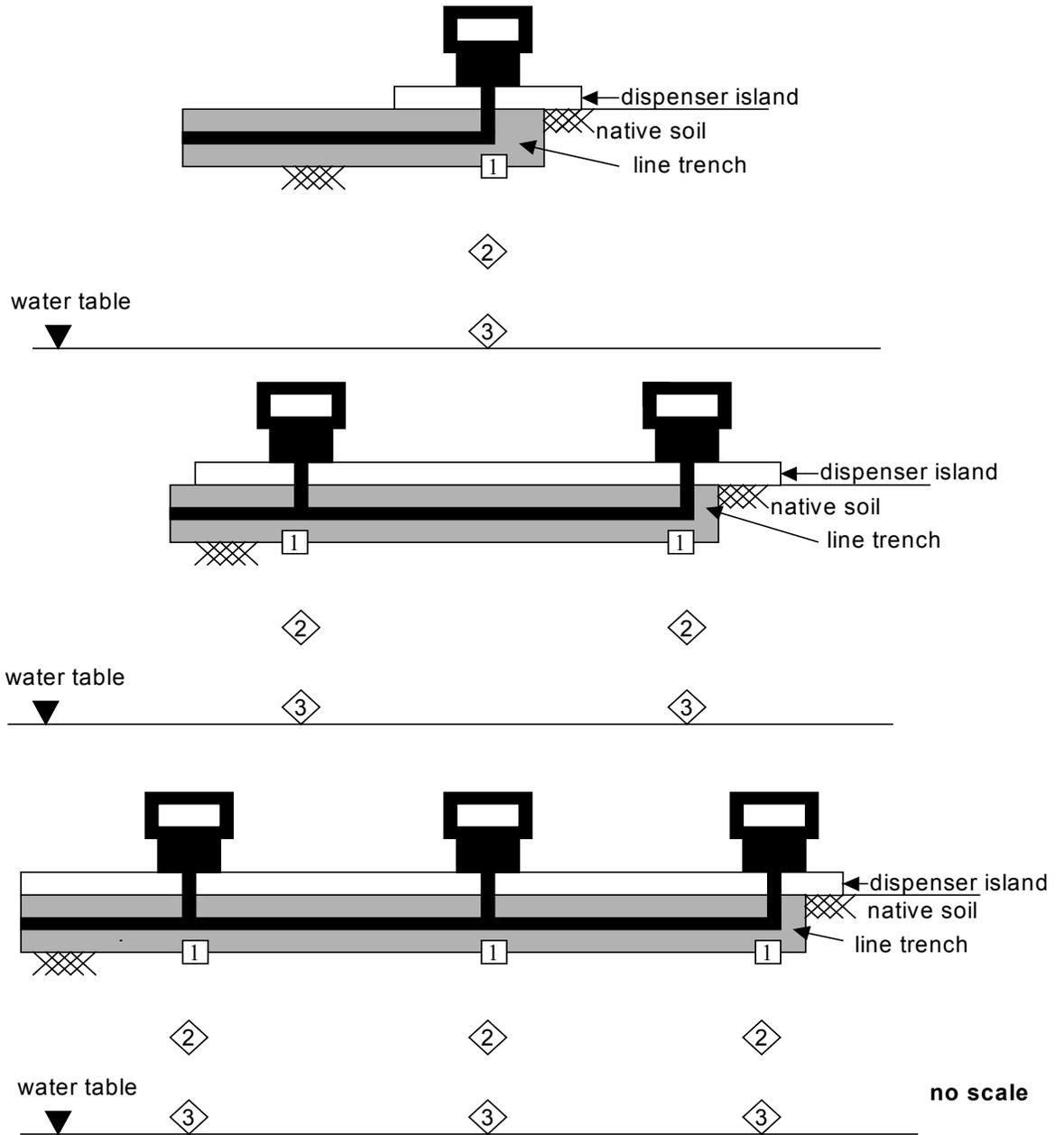
Backfill samples are required for all closures. If groundwater is not encountered, backfill samples must be collected as described in Figures 1 and 3. If groundwater is present in the excavation, then backfill samples must be collected as described in Figures 2 and 4. Samples shall be collected as soon as possible but no later than four hours after excavation activities are completed. Backfill stockpile samples should be collected at a point at least one foot into the stockpile.

All potentially contaminated soils stored on-site must be placed on and covered by an impervious material. Measures shall be taken to prevent any surface runoff from entering into or washing away from the stockpile. For safety reasons, all excavated areas should be filled or adequately secured from the public as soon as practicable.

### **Dispenser Island Sampling Procedures/Locations**

Soil samples shall be taken below dispensers that are taken out of service as described in Figure 5. If groundwater is encountered, samples must be collected immediately above the groundwater table. If the soil sample collected at sample location #1 appears contaminated, an investigation soil sample should be collected at sample location #2 approximately two feet below #1. If the sample collected at #2 also appears contaminated, a second investigation soil sample should be collected at location #3 approximately two feet below #2. The purpose of samples collected at locations #2 and #3 is to identify the vertical extent of contamination to determine if limited corrective action is appropriate.

## Dispenser Samples



**Closure samples:**

1 - closure samples

2 & 3 - investigation samples  
if 1 or 2 appears contaminated

**Figure 5**

## SAMPLE ANALYSES

Samples should be analyzed for the product last stored in the UST in the greatest quantity. However, if evidence of a leak from a previously stored product is suspected, the samples should be analyzed for that substance also. Any sample with analytical results greater than screening standards should also be analyzed using the Synthetic Precipitation Leaching Procedure (SPLP), SW-846 Method 1312.

PRODUCT STORED	SAMPLE MEDIA	ANALYSES REQUIRED	ANALYTICAL METHODS	MAXIMUM HOLDING TIME
Gasoline <sup>1</sup>	Soil	BTEX	SW-846, Methods 8021 B or 8260 B	2/14 days
	Soil	MTBE	SW-846, Method 8260 B	14 days
	Soil	Lead <sup>2</sup>	SW-846, Methods 6010B, 6020, 7420, 7421	180 days
	Soil	TPH-GRO (C <sub>6</sub> - C <sub>10</sub> )	SW-846, Method 8015 B	14 days
Diesel <sup>1</sup>	Soil	TPH-DRO (C <sub>10</sub> - C <sub>28</sub> )	SW-846, Method 8015 B	14 days
	Soil	PAHs	SW-846, Method 8100, 8270 C, or 8310	14/40 days
Used Oil <sup>1</sup>	Soil	TPH-ORO (C <sub>&gt;28</sub> )	SW-846, Method 8015 B	14/40 days
	Soil	Metals	SW-846, Method 6000/7000 Series	28/28 days <sup>3</sup>
	Soil	PAHs	SW-846, Methods 8100, 8270 C, or 8310	14/40 days
Kerosene, Jet Fuel <sup>1</sup>	Soil	TPH-GRO (C <sub>6</sub> - C <sub>10</sub> )	SW-846, Method 8015 B	14 days
	Soil	TPH-DRO (C <sub>10</sub> - C <sub>28</sub> )	SW-846, Method 8015 B	14 days
	Soil	TPH-ORO (C <sub>&gt;28</sub> )	SW-846, Method 8015 B	14/40 days
Hazardous or Other Substances	Soil	Analyze by approved method for the substance stored or primary constituent		

<sup>1</sup>Additional analysis by SW-846 Method 1312 should be provided if initial analytical results exceed screening standards.

<sup>2</sup>Required if facility dispensed gasoline prior to 1/1/86.

<sup>3</sup>Based on holding time for Mercury

BTEX - Benzene, Toluene, Ethylbenzene, and Xylenes

2/14 - Sampling alternatives for method 8260 B have either a 2 or 14 day holding time depending on the alternative used.

MTBE - Methyl tert-butyl ether should be analyzed by 8260 if tested in conjunction with BTEX

TPH - Total Petroleum Hydrocarbons (GRO-Gasoline Range Organics, DRO-Diesel Range Organics, ORO-Oil Range Organics)

14/40 - Samples extracted within 14 days and extracts analyzed within 40 days following extraction.

28/28 - Samples extracted within 28 days and extracts analyzed within 28 days following extraction.

TCLP - Toxicity Characteristic Leachate Procedure (Arsenic, Barium, Cadmium, Chromium, Lead, Mercury, Selenium, Silver)

PAHs - Polycyclic Aromatic Hydrocarbons (Acenaphthene, Anthracene, Benzo(a)anthracene, Benzo(a)pyrene,

Benzo(k)fluoranthene, Chrysene, Dibenz(a,h)anthracene, Fluoranthene, Fluorene, Indeno(1,2,3-cd)pyrene, Naphthalene, pyrene, Acenaphthylene, Benzo(b)fluoranthene, Phenanthrene

## **RE-USE OR DISPOSAL OF CONTAMINATED SOILS**

### **Re-use**

Re-use of contaminated soil must be completed in accordance with the latest edition of the LDEQ's Risk Evaluation/Corrective Action Program (RECAP).

### **Disposal**

Non-hazardous contaminated soils may be disposed of at solid waste disposal facilities permitted to receive industrial solid waste. A list of approved Louisiana facilities can be found in Appendix J. Soils, which have been determined to be hazardous, must be disposed of at an approved hazardous waste disposal facility.

## **DISCHARGE OR DISPOSAL OF CONTAMINATED WATER**

### **Discharge**

A permit from the DEQ Permits Division must be obtained prior to discharging ground or surface waters which have accumulated in the tank hold. Contact the Permits Division, Level 2 Industrial Permits at (225) 219-3113 for information regarding water permits.

### **Disposal**

Tank washwater – waters generated during tank cleaning operations can be recycled at a legitimate recycling facility. Tank washwaters not destined for recycling are subject to the Toxicity Characteristic Leaching Procedure (TCLP). If the washwaters fail the TCLP test, they will be considered a hazardous waste and must be treated as such. For information about hazardous waste accumulation time, transporters, disposal, and disposal facilities, contact the appropriate DEQ Regional Office.

## RECORD KEEPING

The owner and operator should document and **keep permanent records** of the UST closure. Permanent records include:

- DEQ approved *“Notification of Intent to Perform a Closure or Change-In-Service to an Underground Storage Tank”* form
- DEQ approved *“Underground Storage Tank Closure/Assessment Form”* and all accompanying documents/records, such as site drawings and analytical results
- all correspondence with the DEQ
- photographs of the tank closure activities (optional)

## APPENDIX A

### Industry Codes and Standards for Underground Storage Tank Closure or Change-in-Service

*“Removal and Disposal of Used Underground Storage Tanks”*  
American Petroleum Institute Recommended Practice 1604

*“Cleaning Petroleum Storage Tanks”*  
American Petroleum Institute Publication 2015

*“Interior Lining of Underground Storage Tanks”*  
American Petroleum Institute Publication 1631

American Petroleum Institute  
12220 L Street, Northwest,  
Washington, D. C. 20005  
(202) 682-8000

*“Criteria for a Recommended Standard...Working in Confined Space”*

The National Institute for Occupational Safety and Health  
Superintendent of Documents  
U.S. Government Printing Office  
Washington, D. C. 20402



# APPENDIX B

## Parishes Covered by Surveillance Regional Offices

Surveillance Division  
 P. O. Box 4312  
 Baton Rouge, Louisiana 70821-4312  
 (225) 219-3615  
 Fax (225) 219-4083

Southeast Regional Office  
 201 Evans Road, Bldg. 4, Suite 420  
 New Orleans, LA 70123  
 (504) 736-7701  
 Fax (504) 736-7702

Southwest Regional Office  
 1301 Gadwall St.  
 Lake Charles, LA 70615  
 (337) 491-2667  
 Fax (337) 491-2682

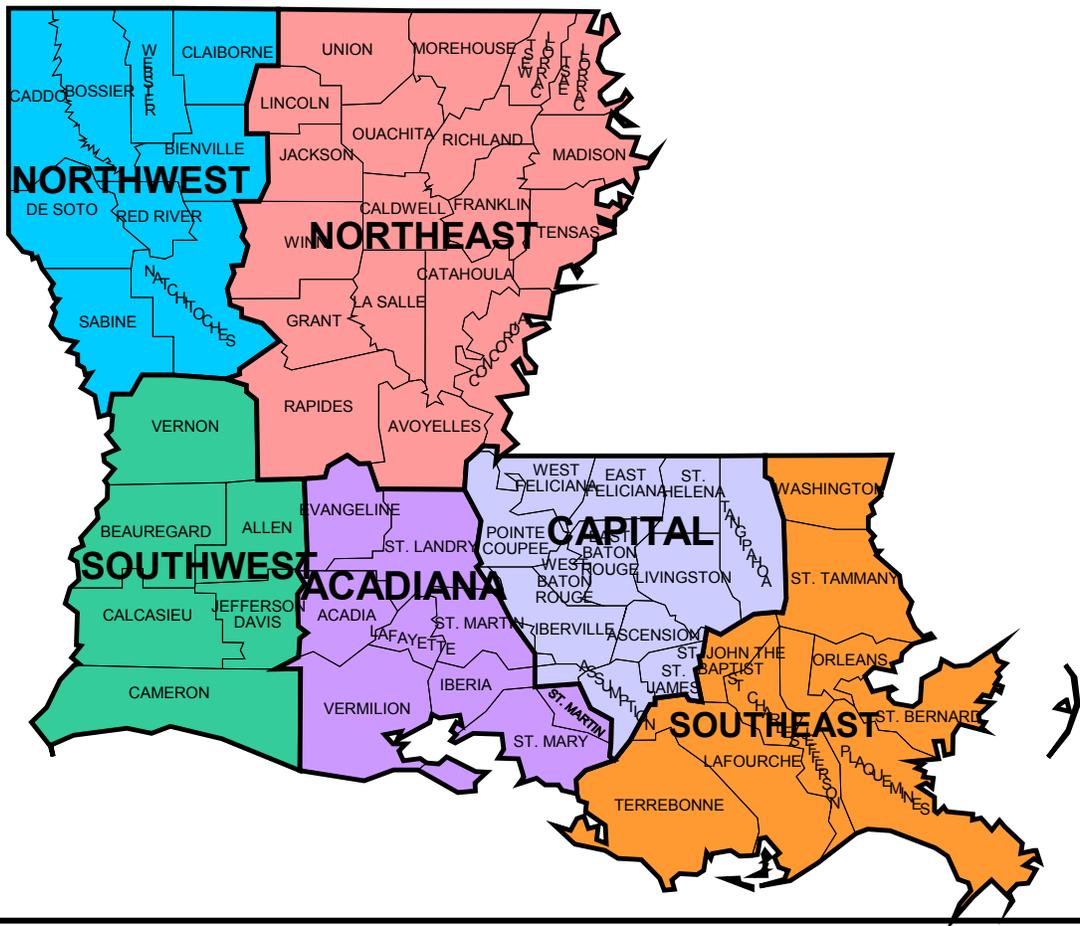
HQ Surveillance Group  
 602 N. Fifth St.  
 Baton Rouge, LA 70821  
 (225) 219-3600  
 Fax (225) 219-3695

Northwest Regional Office  
 1525 Fairfield Avenue, Room 520  
 Shreveport, LA 71101  
 (318) 676-7476  
 Fax (318) 676-5085

Acadiana Regional Office  
 111 New Center Drive  
 Lafayette, LA 70508  
 (337) 262-5584  
 Fax (337) 262-5593

Northeast Regional Office  
 1823 Hwy 546  
 West Monroe, LA  
 (318) 362-5439  
 Fax (318) 362-5448

\*Addresses subject to change. Check website for current addresses and phone numbers.



# APPENDIX C Notification Form

## STATE OF LOUISIANA NOTIFICATION OF INTENT TO PERFORM A CLOSURE OR CHANGE-IN-SERVICE TO A UNDERGROUND STORAGE TANK SYSTEM

Please complete and return thirty (30) days prior to permanent UST system closure or change-in-service

Return: LDEQ - UST DIVISION P. O. Box R217R Baton Rouge, LA 70894-217R		Questions: (504) 765-0243		DEQ Facility Number	
				DEQ Owner ID Number	
<b>I. OWNERSHIP OF TANKS</b>			<b>II. LOCATION OF TANKS</b>		
IF OWNER'S ADDRESS CHANGED, PLEASE CHECK <input type="checkbox"/>			IF SAME AS SECTION I, PLEASE CHECK <input type="checkbox"/>		
OWNER NAME (CORPORATION/INDIVIDUAL, ETC.)			FACILITY NAME OR COMPANY SITE IDENTIFIER		
MAILING ADDRESS			STREET ADDRESS (P. O. BOX <u>NOT</u> ACCEPTABLE)		
CITY	STATE	ZIP	CITY	STATE	ZIP
PARISH/COUNTY			PARISH		
( )			( )		
TELEPHONE (INCLUDE AREA CODE)			TELEPHONE (INCLUDE AREA CODE)		
NAME OF CONTACT			CONTACT PERSON AT THIS LOCATION		
<b>III. TANK INFORMATION</b>					
DATE SCHEDULED FOR CLOSURE/REMOVAL OR CHANGE-IN-SERVICE / /					
DEQ ASSIGNED TANK NUMBERS	SIZE OF TANK (GALLONS)	PRODUCT LAST STORED IN TANK	DEQ ASSIGNED TANK NUMBERS	SIZE OF TANK (GALLONS)	PRODUCT LAST STORED IN TANK
ATTACH CONTINUATION SHEETS IF NECESSARY					
<b>IV. TANK CLOSURE INFORMATION</b>					
A. If the tank(s) are to be closed in place, indicate cleaning method and the type of fill material to be used:					
B. Name of UST Certified Worker _____ Certificate No. _____					
C. Name of Contracting Company _____					
D. Name of Laboratory to conduct sample analysis _____					
<small>FORMS THAT INCLUDE "TO BE DETERMINED" OR "UNKNOWN" AS A RESPONSE WILL BE REJECTED</small>					
<b>V. CERTIFICATION</b>					
I certify that the above information is correct to the best of my knowledge and that the appropriate UST Regional Office will be contacted seven days prior to performing the UST system closure or change-in-service. I agree if closure or change-in-service of the UST system does not begin within 90 days after DEQ's approval, that this form becomes invalid. I also agree to submit the following information within 60 days after closure/change-in-service of the UST system:					
(1) the "UST Closure/Assessment Form" (UST-ENF-02);					
(2) two copies of a site drawing to include the information required by the "Underground Storage Tank Closure/Change-in-Service Assessment Guidelines";					
(3) two copies of analytical results with chain-of-custody documents; and					
(4) two copies of all manifests, bills of lading or receipts for the disposition of tank(s), tank contents, soil and waters.					
PRINT OR TYPE OWNER'S NAME		OWNER'S SIGNATURE		DATE	
<small>FORMS THAT DO NOT INCLUDE THE OWNER'S SIGNATURE WILL BE REJECTED</small>					
<b>LDEQ RESPONSE - DO NOT WRITE BELOW THIS LINE</b>					
<input type="checkbox"/> Approved for the indicated activity. <input type="checkbox"/> Rejected for the following reasons: <input type="checkbox"/> DEQ records indicate that the contractor you have selected is not a UST worker certified by DEQ for closure. You must select, from the enclosed list, a contractor that is a certified UST worker. <input type="checkbox"/> DEQ records indicate that the UST system has not been registered. You must complete the attached registration form and return it to this office <b>IMMEDIATELY</b> . <input type="checkbox"/> _____ <input type="checkbox"/> The noted highlighted section(s) of this form must be completed in order for LDEQ to process. <input type="checkbox"/> This form has not been signed by the owner. Please resubmit with the required signature.					
Signature of LDEQ Representative		Telephone No. (504) 765-0243		Date / /	

ORIGINAL DOCUMENT  
 NOT FOR REPRODUCTION

UST-ENF-01

\*\*\* INCOMPLETE FORMS MAY BE REJECTED \*\*\*

Revised 1/97

UST DIV. MAIN OFFICE FILE (ACTUALLY UNDER CLOSURE)



# APPENDIX E

## Underground Storage Tank Closure/Assessment Form

STATE OF LOUISIANA  
**UNDERGROUND STORAGE TANK CLOSURE/ASSESSMENT FORM – PLEASE TYPE**  
 Please complete and return within sixty (60) days after UST system closure or change-in-service.

Return to: LDEQ - UST DIVISION    Questions: (504) 765-0243 P. O. Box #2178 Baton Rouge, LA 70802-2178		DEQ Facility Number						
		DEQ Owner ID Number						
<b>I. OWNERSHIP OF TANKS</b>		<b>II. LOCATION OF TANKS</b>						
IF OWNER'S ADDRESS CHANGED, PLEASE CHECK <input type="checkbox"/>		IF SAME AS SECTION I, PLEASE CHECK <input type="checkbox"/>						
OWNER NAME (CORPORATION/INDIVIDUAL, ETC.)		FACILITY NAME OR COMPANY SITE IDENTIFIER						
MAILING ADDRESS		STREET ADDRESS (P. O. BOX NOT ACCEPTABLE)						
CITY	STATE	ZIP						
CITY		STATE	ZIP					
PARISH/COUNTY		PARISH						
( )		( )						
TELEPHONE (INCLUDE AREA CODE)		TELEPHONE (INCLUDE AREA CODE)						
NAME OF CONTACT PERSON		CONTACT PERSON AT THIS LOCATION						
<b>III. TANK INFORMATION (Attach Continuation Sheets If Necessary)</b>								
DEQ ASSIGNED TANK NUMBERS	SIZE OF TANKS (GALLONS)	PRODUCT LAST STORED IN TANK	CHOOSE ONE PER TANK		TANK PROPERLY LABELLED?	HIGHEST LFL OR OXYGEN READING?		DATE OF CLOSURE OR CHANGE-IN-SERVICE
			1 = Removed	2 = Closed-in Place		LFL	Oxygen	
			3 = Change-in-Service	4 = Removed & Replaced	CIRCLE			
					Y	N		/ /
					Y	N		/ /
					Y	N		/ /
					Y	N		/ /
					Y	N		/ /
1 - Indicate the non regulated substance to be stored in the tank.			3 - Highest reading recorded just before tank removed from excavation.					
2 - A registration form addressing the replacement tank must be completed.			4 - Lower Explosive Limit					
<b>IV. TANK</b>			<b>V. TANK SLUDGES</b>			<b>VI. TANK WATERS/WASHWATERS</b>		
A. Date cleaned / /			A. Date disposed/recycled / /			A. Date disposed/recycled / /		
B. Date disposed/recycled / /			B. Volume removed cu/yds			B. Volume removed gals		
C. Name of disposal site/recycling site			C. Name of disposal site			C. Name of disposal/recycling site		
<b>VII. CONTAMINATED SOIL</b>				<b>VIII. CONTAMINATED GROUNDWATER</b>				
A. Date removed / /		D. Date disposed / /		A. Date removed / /		D. Date disposed / /		
B. Volume of soil removed cu/yds				B. Volume of groundwater removed gals				
C. Name of disposal site				C. Name of disposal site/recycler				
<b>IX. CERTIFICATION</b>								
I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete.								
PRINT OR TYPE OWNER'S NAME			OWNER'S SIGNATURE			DATE		
PRINT OR TYPE NAME OF CERTIFIED WORKER			SIGNATURE OF CERTIFIED UST WORKER			CERTIFICATE NO.		DATE
<small>FORMS THAT DO NOT INCLUDE THE OWNER'S AND UST WORKER'S SIGNATURES WILL BE REJECTED.</small>								
<b>LDEQ RESPONSE - DO NOT WRITE BELOW THIS LINE</b>								
[ ] UST system removed from database; no further action required.								
[ ] UST system removed from database; additional information required.								
Reviewer's Signature			Telephone No. ( )			Date / /		
Signature of LDEQ Representative			Date / /			Supervisor's Initials		

UST CLOSURE FORM

UST-ENF-02

\*\*\*\* INCOMPLETE FORMS MAY BE REJECTED \*\*\*\*

Revised 12/94

UST DIV. MAIN OFFICE FILE

# APPENDIX F SURVEILLANCE DIVISION

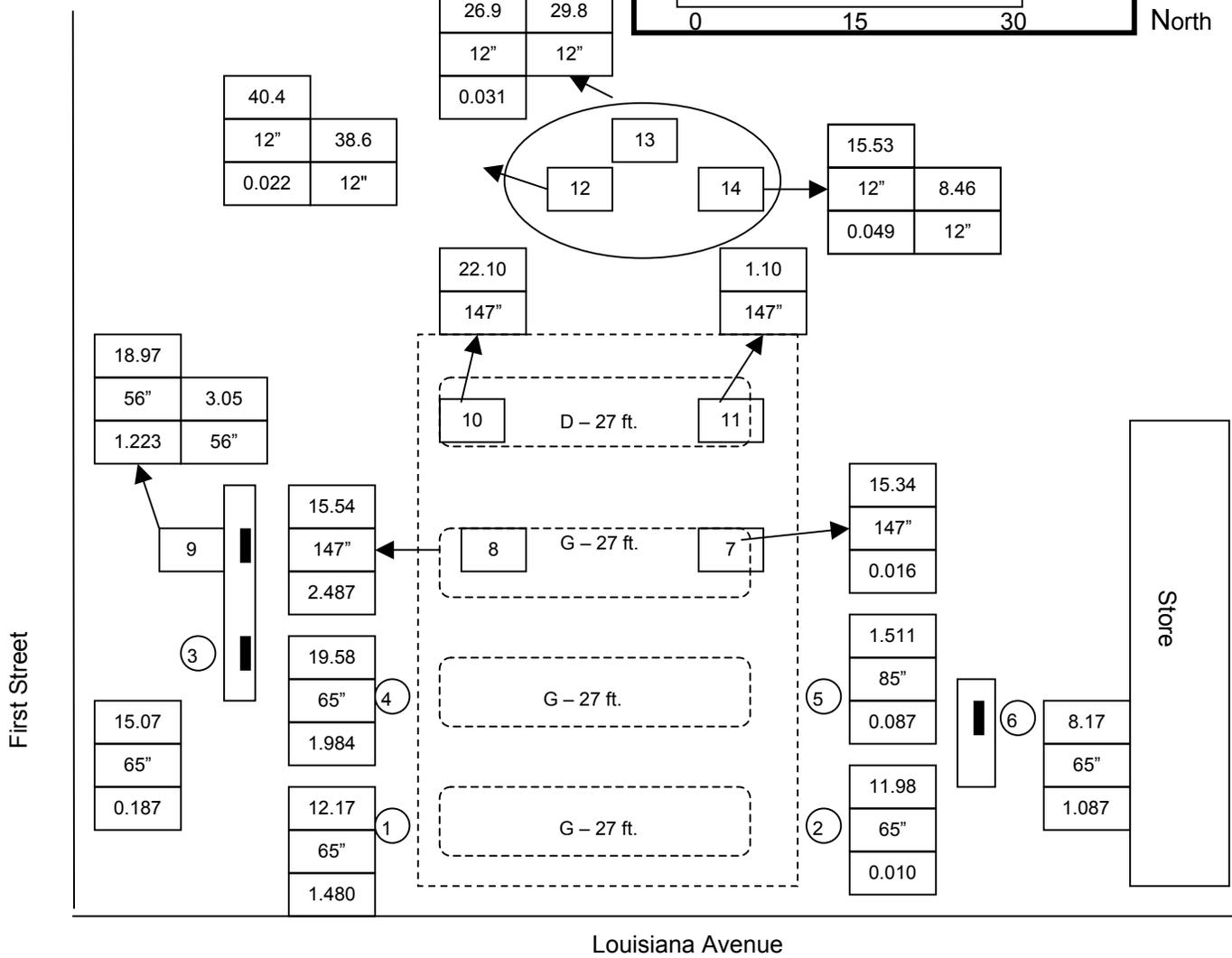
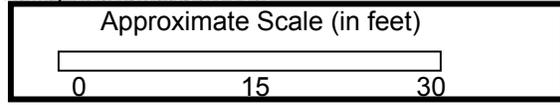
UST-ENF-06

## SAMPLE SITE DRAWING

Revised 02/01/99

Name of Facility: \_\_\_\_\_ Facility Identification No. \_\_\_\_\_

Total Number of Samples Collected: 14



<div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div>	Results of TPH-ORO (ppm)	<div style="border: 1px dashed black; width: 20px; height: 20px; display: inline-block;"></div>	Removed UST	<div style="border: 1px dashed black; width: 20px; height: 20px; display: inline-block;"></div>	<div style="width: 20px; height: 20px; display: inline-block;"></div>	Dispenser Island
<div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div>	Depth of Sample (inches)	<div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div>	Closed-In-Place UST	Tank Hold Area	<div style="width: 20px; height: 20px; display: inline-block;"></div>	Dispenser
<div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div>	Results of TPH-GRO (ppm)	<div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div>	D - ___ ft.	Tank Contained Diesel and Length of tank		
<div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div>	Depth of Sample (inches)	<div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div>	G - ___ ft.	Tank Contained Gasoline and Length of tank		
<div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div>	Results of Benzene (ppm)	<div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div>	UO - ___ ft.	Tank Contained Used Oil and Length of tank		
<div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div>	Results of TPH-DRO (ppm)	<div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div>	<div style="border: 1px solid black; border-radius: 50%; width: 20px; height: 20px; display: inline-block;"></div>	Excavated Soils to be Returned to Hole		
<div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div>	Depth of Sample (inches)	<div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div>	<div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div>	Indicates Assigned Sample Number and Sample Location Groundwater NOT Encountered During Sampling		
			<div style="border: 1px solid black; border-radius: 50%; width: 20px; height: 20px; display: inline-block;"></div>	Indicates Assigned Sample Number and Sample Location Groundwater Encountered During Sampling		

**APPENDIX G  
SURVEILLANCE DIVISION**

UST-ENF-06

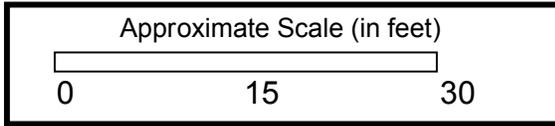
**SAMPLE SITE DRAWING**

Revised 02/01/99

Name of Facility: \_\_\_\_\_ Facility Identification No. \_\_\_\_\_



Total Number of Samples Collected: \_\_\_\_\_



North



	Results of TPH-ORO (ppm)		Removed UST			Dispenser Island	
	Depth of Sample (inches)		Closed-In-Place UST				
	Results of TPH-GRO (ppm)	D - ___ ft.	Tank Contained Diesel and Length of tank				
	Depth of Sample (inches)	G - ___ ft.	Tank Contained Gasoline and Length of tank				Dispenser
	Results of Benzene (ppm)	UO - ___ ft.	Tank Contained Used Oil and Length of tank				
	Results of TPH-DRO (ppm)		Excavated Soils to be Returned to Hole				
	Depth of Sample (inches)		Indicates Assigned Sample Number and Sample Location Groundwater NOT Encountered During Sampling				
			Indicates Assigned Sample Number and Sample Location Groundwater Encountered During Sampling				

**APPENDIX H  
SURVEILLANCE DIVISION**

**UST-ENF-06  
01/30/99**

**SITE DRAWING FORM**

**Revised**

Name of Facility: \_\_\_\_\_ Facility Identification No. \_\_\_\_\_ 

Total Number of Samples Collected: \_\_\_\_\_  
North

Approximate Scale (in feet)

<div style="border: 1px solid black; width: 40px; height: 20px; margin-bottom: 5px;"></div> <div style="border: 1px solid black; width: 40px; height: 20px; margin-bottom: 5px;"></div>	<p>Results of TPH-ORO (ppm)</p> <p>Depth of Sample</p>	<div style="border: 1px dashed black; width: 40px; height: 20px; margin-bottom: 5px;"></div> <div style="border: 1px solid black; width: 40px; height: 20px; margin-bottom: 5px;"></div>	<p>Removed UST</p> <p>Closed-In-Place UST</p>	<div style="border: 1px dashed black; width: 40px; height: 40px; margin-bottom: 5px;"></div> <div style="border: 1px solid black; width: 40px; height: 40px; margin-bottom: 5px;"></div>	<p>Tank Hold Area</p>	<div style="border: 1px solid black; width: 10px; height: 40px; margin-bottom: 5px;"></div> <div style="background-color: black; width: 10px; height: 10px; margin-bottom: 5px;"></div>	<p>Dispenser Island</p> <p>Dispenser</p>	
<div style="border: 1px solid black; width: 40px; height: 20px; margin-bottom: 5px;"></div> <div style="border: 1px solid black; width: 40px; height: 20px; margin-bottom: 5px;"></div> <div style="border: 1px solid black; width: 40px; height: 20px; margin-bottom: 5px;"></div>		<p>Results of TPH-GRO (ppm)</p> <p>Depth of Sample (inches)</p> <p>Results of Benzene (ppm)</p>		<p>D - __ ft. Tank Contained Diesel and Length of tank</p> <p>G - __ ft. Tank Contained Gasoline and Length of tank</p> <p>UO - __ ft. Tank Contained Used Oil and Length of tank</p>		<div style="border: 1px solid black; width: 40px; height: 20px; margin-bottom: 5px;"></div>		<p>Excavated Soils to be Returned to Hole</p>
<div style="border: 1px solid black; width: 40px; height: 20px; margin-bottom: 5px;"></div> <div style="border: 1px solid black; width: 40px; height: 20px; margin-bottom: 5px;"></div>		<p>Results of TPH-DRO (ppm)</p> <p>Depth of Sample (inches)</p>		<div style="border: 1px solid black; width: 40px; height: 20px; margin-bottom: 5px;"></div> <div style="border: 1px solid black; width: 40px; height: 20px; margin-bottom: 5px;"></div>		<p>Indicates Assigned Sample Number and Sample Location Groundwater NOT Encountered During Sampling</p> <p>Indicates Assigned Sample Number and Sample Location Groundwater Encountered During Sampling</p>		



## APPENDIX J

### List of Industrial Solid Waste Facilities

Facility Name	Contact	Address	Phone	Parish	Owner/ Operator
Woolworth Road Landfill, (City of Shreveport)	Fred Williams/Paul Marks	P.O. Box 31109, Shreveport, LA 71130,	318-673-6300 318-925-3500	Caddo	City/BFI
Webster Parish Landfill	Aubin Feazell/ Charles Walker	P.O. Box 389, Minden, LA 71058-0389	318-377-9193	Webster	Parish/WM
Jefferson Parish Landfill	Amanda Olsen	5800 Hwy 90, Avondale, LA 70094	504-436-0152	Jefferson	Parish/WM
Coast Guard Rd. Landfill	Kevin Guidry	P.O. Drawer 647, Venice, LA 70091-0647	504-534-7886	Plaquemines	Tidewater Landfill, Inc.
Reliable Landfill	Paul Bouchereau	P.O. Box 576, Livonia, LA 70755	225-637-3564	Pointe Coupee	WM
East Baton Rouge North Landfill	Jorge Ferrer	P.O. Box 1471, Baton Rouge, LA 70821	225-389-5476 225-389-5245 225-389-4813	E. Baton Rouge	Parish/BFI
Magnolia Landfill	Paul Bouchereau	P.O. Box 13467, Monroe, LA 71213	318-343-5636	Ouachita	WM
Tensas Parish Landfill	Bubba Winn	P.O. Box 598, St. Joseph, LA 71366	318-766-9219	Tensas	Parish/Twin Bridges
LaSalle/Grant Parish Landfill	Dorsel Cobb	P.O. Box 1180, Jena, LA 71342-1180	318-992-5571	LaSalle	Parish/WM
Sabine Parish Landfill	Richard Isgitt	P.O. Box 507, Many, LA 71458	318-256-6361	Sabine	WM
Jefferson Davis Parish Landfill	Daniel Hylton	P.O. Box 1207, Jennings, LA 70546	337-734-4135	Jefferson Davis	Parish/BFI
Woodside Landfill and Recycling Center, Livingston Parish	David Mason	29375 Woodside Dr., Walker, LA 70785	225-665-8225	Livingston	WM
Colonial Landfill (BFI)	Ricky Falgoust	P.O. Box 605, Sorrento, LA 70778	225-675-8021 225-778-3800	Ascension	BFI
River Birch Landfill	Pat Koloski/Ingrid Newton	P.O. Box 1938, Gretna, LA 70054	504-364-1140	Jefferson (Avondale)	River Birch, Inc.

## APPENDIX K

### UST SOIL SCREENING STANDARDS

Compounds	Screening Standards (mg/kg)
Benzene	0.051
Ethylbenzene	19
MTBE	0.077
Toluene	20
Xylenes	18
TPH-GRO	65
TPH-DRO	65
TPH-ORO	180

Polynuclear Aromatic Hydrocarbons (PAH)	Screening Standards (mg/kg)
Acenaphthene	220
Acenaphthylene	88
Anthracene	120
Benzo(a)anthracene	0.62
Benzo(a)pyrene	0.33
Benzo(b)fluoranthene	0.62
Benzo(k)fluroanthene	6.2
Chrysene	62
Dibenz(a,h)anthracene	0.33
Fluoranthene	220
Fluorene	230
Indeno(1,2,3-cd)pyrene	0.62
Naphthalene	1.5
2-Methylnaphthalene	1.7
Pyrene	230

Metals	Screening Standards (mg/kg)
Arsenic	12
Barium	550
Cadmium	3.9
Chromium(VI)	23
Lead	100
Mercury	2.3
Selenium	20
Silver	39