

## **Appendix G**

**ADEM Closure Assessment Report for Parcel 140(7),  
Former Gas Station,  
Building 1294, at Former Decontamination Complex,  
Parcel 93(7), Anomaly A-1(2)**

## ADEM UST CLOSURE SITE ASSESSMENT REPORT

(Use a Separate form for a group of tanks in each tank pit)

FACILITY I.D. NO.:	NA	DATE OF THIS REPORT:	7/31/00
INCIDENT NO. (If applicable):	UST ___ - ___ - ___	UST OWNER:	U.S. Army
FACILITY COUNTY:	Calhoun	ADDRESS:	Ft. McClellan Anniston, AL
FACILITY NAME:	Parcel 140	CONTACT NAME:	
LOCATION:	A-1(2)	CONTACT PHONE #:	
ADDRESS:	Ft. McClellan Anniston, AL		

NAME OF CONTRACTOR USED TO CLOSE (REMOVE)	IT Corporation
NAME OF CONSULTANT CONDUCTING ASSESSMENT:	IT Corporation
NAME OF LABORATORY USED:	Severn Trent Laboratories

**PRIOR TO BEGINNING CLOSURE, THE CONTRACTOR SHOULD BECOME FAMILIAR WITH ALL CLOSURE PROCEDURES IN AMERICAN PETROLEUM INSTITUTE (API) BULLETIN 1604, "REMOVAL AND DISPOSAL OF USED UNDERGROUND PETROLEUM STORAGE TANKS" AND API BULLETIN 2015 "CLEANING PETROLEUM STORAGE TANKS". THESE API BULLETINS ARE AVAILABLE FROM THE AMERICAN PETROLEUM INSTITUTE.**

NUMBER OF TANKS CLOSED:	<u>NONE (none present)(previously removed; no record)</u>
NUMBER OF TANKS REMAINING AT SITE:	<u>NONE</u>
CLOSURE DATE:	<u>7/31/00 Piping</u>

UNIQUE TANK #:	<u>UNK</u>	<u>UNK</u>			
TANK SIZE:	<u>UNK</u>	<u>UNK</u>			
TANK CAPACITY:	<u>10,000 gal</u>	<u>10,000 gal</u>			
TANK AGE:	<u>UNK</u>	<u>UNK</u>			
DATE TANK LAST USED:	<u>UNK</u>	<u>UNK</u>			
SUBSTANCE STORED:	<u>Gasoline</u>	<u>Diesel</u>			
TYPE OF PRODUCT PIPING:	<u>STEEL</u>	<u>STEEL</u>			
(Pressurized/Suction)	<u>UNK</u>	<u>UNK</u>			
FARM TANK:	<input type="checkbox"/>				
HEATING OIL TANK:	<input type="checkbox"/>				

**1. COMPLETE THE FOLLOWING SECTION FOR ALL CLOSURES:**

a. Provide the results of a 500 ft. survey for domestic water supply wells in the following table and place their locations on the attached site map:

Name of Owner of Domestic Water Supply Well	Distance from UST Site	Depth of Well	Status: Active or Inactive?
NONE	NA	NA	NA

b. Provide the results of a 1,000 ft. survey for public water supply wells in the following table and place their locations on the attached site map:

Name of Owner of Public Water Supply Well	Distance from UST Site	Depth of Well	Status: Active or Inactive?
NONE	NA	NA	NA

c. Is the UST site located in a delineated wellhead protection or source water area?  
 YES  NO

d. Are there any public water supply surface water intakes within 500 ft. of the UST site?  
 YES  NO

If yes, locate the intake on the attached site map.

**NOTE: If an active domestic water supply well or an active public water supply well is located within 500 ft. or 1,000 ft. respectively of the UST site, or if the answer to 1c. or 1d. is Yes, the Department may require groundwater sampling to occur at the UST site. If the groundwater sampling is not performed by the owner/operator during the closure site assessment, the Department may require that groundwater sampling occur as part of a Preliminary Investigation.**

Groundwater sampling remains a requirement of the closure site assessment when shallow groundwater is present or when performing an in-place closure site assessment.

e. Indicate the current on-site land use and the most likely future land use:

Current On-Site Land Use		Most Likely Future On-Site Land Use	
Residential	<input type="checkbox"/>	Residential	<input type="checkbox"/>
Commercial	<input type="checkbox"/>	Commercial	<input type="checkbox"/>
Other	<input checked="" type="checkbox"/>	Other	<input checked="" type="checkbox"/>
Describe: Military Installation (being closed)		Describe: Passive Recreational	

f. Describe the current off-site land use within 500 ft of the UST site. State whether the area, in general, is residential, commercial, mixed residential/commercial or other:

North:	Commercial type and unimproved land associated with the military installation
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	Northeast:	
	Northwest:	
South:	Commercial type and unimproved land associated with the military installation	
	Southeast:	
	Southwest:	
West:	Commercial type and unimproved land associated with the military installation	
East:	Commercial type and unimproved land associated with the military installation	

**COMPLETE THE FOLLOWING SECTIONS AS APPROPRIATE BASED ON THE TYPE OF CLOSURE CONDUCTED:**

**2. TANK CLOSURE BY REMOVAL: Tanks previously removed, not found during investigative dig based on geophysical information.**

- a. Attach a topographic map showing the location of the facility and a general site map showing the area surrounding the UST site.
- b. Attach plan and sectional views of the excavation and include the following:
  - 1. All appropriate excavation dimensions.
  - 2. All soil sample locations and depths using an appropriate method of identification.
  - 3. Location of areas of visible contamination.
  - 4. Former location of tank(s), including depth, with tank Identification Number.

c. Is the groundwater more than 5 feet below the bottom of the excavation? YES  NO   
 If no, provide the depth from the ground surface to the groundwater table. Feet: \_\_\_\_\_

Indicate method used to determine water table depth: YES  NO

- 1. Excavation extended 5 feet below base of pit:
- 2. Boring or monitoring well:
- 3. Topographic features (Method must be approved by ADEM prior to use):

d. Was there a notable odor found in the excavation? YES  NO

If yes,  
 (1) The odor strength was (mild) (strong) (other) describe: \_\_\_\_\_  
 (2) The odor indicates what type of product: (gasoline)(diesel) (waste oil) (kerosene) (other) describe: \_\_\_\_\_

e. Was there water in the excavation? YES  NO

If yes, how was it handled? YES  NO

- 1. One time discharge to sanitary sewer with local approval?
- 2. Hauled to facility capable of treating constituents of petroleum products in water?
- 3. Hauled to local POTW with local approval?
- 4. Treated on-site with NPDES approved discharge?
- 5. Other? Explain: \_\_\_\_\_

f. Was free product found in the excavation? YES  NO

If yes,  
 1. How was free product handled? Describe:

2. What was the measured thickness of free product? \_\_\_\_\_

g. Were visible holes noted in the tank(s)? YES NO  
  NA

If yes,  
 Indicate which tanks(s) by the Unique Tank Number: \_\_\_\_\_

Also, describe the location(s) and provide general description as to the size and number of holes for above noted tanks, (Example: 3 square feet of pinholes or 3 inch diameter hole):  
 No tank found. The Anomalies investigated (suspected as potential UST) were determined to be  
 Rebar reinforced concrete, old piping, and debris/backfill from previous tank removal activities.  
 PID readings for exploratory excavated soils were noted as 0.0 ppm.

h. Describe the soil type and thickness of all soil layers encountered in the excavation:  
 Brownish-red silty, sandy, gravelly, CLAYS (backfill).  
 Excavation dimensions approx. 8' wide X 4' deep X 14' long to expose majority of identified anomaly.

i. Was the excavation backfilled? YES NO

If yes, provide the date of backfilling: 7/24/00. Due to no visual or PID indications or tanks.

**DO NOT BACKFILL WITH MATERIAL THAT HAS OR POTENTIALLY HAS A TPH OF GREATER THAN 100 PPM!**

**3. TANK CLOSURE WITHOUT REMOVAL(CLOSED IN-PLACE): N/A**

a. Attach a topographic map showing the location of the facility and a general site map showing the area surrounding the UST site.

b. Attach plan and sectional views of the site and include the following:

1. Location of the tank(s) including depth,
2. Location of tank(s) with respect to other tanks, if applicable,
3. Soil boring locations and depths at which soil samples were taken,
4. Boring logs.

c. Attach groundwater sampling data, if required based on depth to groundwater.

d. Is the groundwater more than 5 feet below the bottom of the tank? YES NO

Provide the depth from the ground surface to the groundwater table. Feet: \_\_\_\_\_

*Refer to Closure Site Assessment Guidance (page 11) for further details regarding requirements for determining groundwater elevation.*

e. Was there a notable odor found in the bore holes? YES NO

ADEM UST CLOSURE SITE ASSESSMENT FORM

If yes,

(1) The odor strength was (mild) (strong) (other) describe: \_\_\_\_\_

(2) The odor indicates what type of product: (gasoline) (diesel) (waste oil) (kerosene) (other) describe: \_\_\_\_\_

f. Was free product found in the bore holes? YES  NO

If yes,

1. How was free product handled? Describe: \_\_\_\_\_

2. What was the measured thickness of free product? \_\_\_\_\_

g. Describe the soil type and thickness of all soil layers encountered in the bore holes and provide boring logs:

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

h. Specify the inert solid material used to fill the tank(s):

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

i. Provide the date the tank(s) were filled: \_\_\_\_\_

j. Were the bore holes properly sealed with bentonite/soil? YES  NO

If yes, provide the date: \_\_\_\_\_

**4. PRODUCT PIPING CLOSURE BY REMOVAL:**

a. Attach a topographic map showing the location of the facility and a general site map showing the area surrounding the UST site.

b. If the piping was longer than 10 feet, attach plan and sectional views of the piping trench and include the following:

- 1. All appropriate excavation dimensions and length of piping,
- 2. All soil sample locations and depths using an appropriate method of identification.
- 3. Location of areas of visible contamination.

c. Was the piping purged of product prior to closure? YES  NO   
If yes, was the product properly disposed of?

ADEM UST CLOSURE SITE ASSESSMENT FORM

d. Is the groundwater more than 5 feet below the bottom of the piping trench? YES  NO   
 If no, provide the depth from the ground surface to the groundwater table. Feet: \_\_\_\_\_

Indicate method used to determine water table depth: YES NO  
 1. Excavation extended 5 feet below base of trench:    
 2. Boring or monitoring well:    
 3. Topographic features ( Method must be approved by ADEM prior to use):

e. Was there a notable odor found in the piping trench? YES  NO

If yes,  
 (1) The odor strength was (mild) (strong) (other) describe: \_\_\_\_\_  
 (2) The odor indicates what type of product: (gasoline) (diesel) (waste oil) (kerosene) (other) describe: \_\_\_\_\_

f. Was there water in the piping trench? YES  NO

If yes, how was it handled? YES NO  
 1. One time discharge to sanitary sewer with local approval?    
 2. Hauled to facility capable of treating constituents of petroleum products in water?    
 3. Hauled to local POTW with local approval?    
 4. Treated on-site with NPDES approved discharge?    
 5. Other? Explain: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

g. Was free product found in the piping trench? YES  NO

If yes,  
 1. How was free product handled? Describe: \_\_\_\_\_  
 2. What was the measured thickness of free product? \_\_\_\_\_

h. Were visible holes noted in the piping? YES  NO

If yes, indicate the location(s) and provide a general description as to the size and number of holes:  
Approx. 2"-diameter, 3' long piping extending from southeast corner of pad; capped.  
Approx. 2"-diameter, 3' long piping extending from northeast corner of pad; was cut and not capped (hole).

i. Describe the soil type and thickness of all soil layers encountered in the piping trench:

Brownish-red silty, gravelly, clayey SAND (backfill)

Two excavations, each approx. 3' wide X 4' deep X 6' long to expose entire length of pipe in both areas.

Excavated material in both were stockpiled together (based on 0.0 ppm PID readings) and sampled as such.

j. Was the piping trench backfilled? YES  NO

If yes, provide the date of backfilling: 8/3/00 due to no visual or PID indications and lab results <100 ppm.

**DO NOT BACKFILL WITH MATERIAL THAT HAS OR POTENTIALLY HAS A TPH OF GREATER THAN 100 PPM!**

**5. PRODUCT PIPING CLOSURE WITHOUT REMOVAL (CLOSED IN-PLACE): N/A**

a. Attach a topographic map showing the location of the facility and a general site map showing the area surrounding the UST site.

b. Attach plan and sectional views of the site and include the following:

1. Location of the piping including depth,
2. Location of piping with respect to tank(s), if applicable.
3. Soil boring locations and depth at which soil samples were taken,
4. Boring logs.

c. Attach groundwater sampling data, if required based on depth to groundwater. Refer to Closure Site Assessment Guidance for further details regarding requirements for groundwater sampling.

d. Was the piping purged of product prior to closure? YES  NO   
If yes, was product properly disposed of?

e. Was the piping capped? YES  NO

f. Is the groundwater more than 5 feet below the bottom of the excavation? YES  NO

Provide the depth from the ground surface to the groundwater table. Feet: \_\_\_\_\_

Refer to Closure Site Assessment Guidance (page 11) for further details regarding requirements for determining groundwater elevation.

g. Was there a notable odor found in the bore holes? YES  NO

If yes,  
(1) The odor strength was (mild) (strong) (other) describe: \_\_\_\_\_

(2) The odor indicates what type of product: (gasoline) (diesel) (waste oil) (kerosene) (other) describe: \_\_\_\_\_

h. Was free product found in the bore holes? YES  NO

If yes,

1. How was free product handled? Describe: \_\_\_\_\_
2. What was the measured thickness of free product? \_\_\_\_\_

i. Describe the soil type and thickness of all soil layers encountered in the bore holes and provide boring logs:

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- j. Were the bore holes properly sealed with bentonite/soil? YES  NO   
If yes, provide the date: \_\_\_\_\_

**6. GROUNDWATER SAMPLING (If required by attached closure guidelines): Not required.**

a. Indicate the following on the plan and section views required by Section 2.b., 3.b, 4.b, or 5.b. above:

1. The location and depth of the 1 up-gradient and 3 down-gradient borings or monitoring wells. (Monitoring wells in lieu of borings are not required, but may be desirable in certain situations.)
2. The most probable direction of groundwater flow. State basis for determining direction:

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- b. Was a monitoring well used? YES  NO

If yes, attach a schematic drawing of the well(s) and all boring logs.

c. SUMMARY OF GROUNDWATER SAMPLING RESULTS: N/A

Date of Sampling: \_\_\_\_\_

Boring or MW #:							
	mg/l						
Benzene							
Ethylbenzene							
Toluene							
Xylenes							
MTBE							
Anthracene							
Benzo(a)anthracene							
Benzo(a)pyrene							
Benzo(b) fluoranthene							
Benzo(k)fluoranthene							
Benzo(g,h,i)perylene							
Chrysene							
Fluoranthene							
Fluorene							
Naphthalene							
Phenanthrene							
Pyrene							
Lead							

*Note: Attach additional tables as needed based on number of groundwater samples or variations in sampling dates.*

- d. Attach the original chain of custody record (**copies are not acceptable**) and the original laboratory data sheet (**copies are not acceptable**) for each sample.

**7. SUMMARY OF SOIL ANALYTICAL DATA**

a. Provide the analytical data obtained from the site in the following tables:

TANK PIT SAMPLES: N/A

Date of Sampling: \_\_\_\_\_

Sample #:							
	mg/kg						
<b><u>TPH OPTION:</u></b>							
TPH							
Lead							
<b><u>COC OPTION:</u></b>							
Benzene							
Ethylbenzene							
Toluene							
Xylenes							
MTBE							
Anthracene							
Benzo(a)anthracene							
Benzo(a)pyrene							
Benzo(b) fluoranthene							
Benzo(k)fluoranthene							
Benzo(g,h,i)perylene							
Chrysene							
Fluoranthene							
Fluorene							
Naphthalene							
Phenanthrene							
Pyrene							
Lead							

*Note: Attach additional tables as needed based on number of soil samples or variations in sampling dates.*

**PIPING & DISPENSER SAMPLES:**

Date of Sampling: 7/24/00

Sample #:	LL0006	LL0007					
	SE corner of pad	NE corner of pad					
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
<b>TPH OPTION:</b>							
TPH							
Lead							
<b>COC OPTION:</b>							
Benzene	ND	ND					
Ethylbenzene	ND	ND					
Toluene	ND	ND					
Xylenes	ND	ND					
MTBE							
Acenaphthene	ND	ND					
Acenaphthylene	ND	ND					
Anthracene	ND	0.031J					
Benzo(a)anthracene	0.0021J	0.049					
Benzo(a)pyrene	ND	0.34					
Benzo(b) fluoranthene	ND	0.16					
Benzo(k)fluoranthene	ND	0.12					
Benzo(g,h,i)perylene	ND	0.21					
Chrysene	0.0025J	0.098					
Fluoranthene	ND	0.13					
Fluorene	ND	ND					
Indeno(1,2,3-cd)pyrene	ND	0.2					
Naphthalene	ND	ND					
Phenanthrene	ND	ND					
Pyrene	0.0099	0.11					
Lead	20.9	14.0					

J – Estimated Result. Result is less than reporting limit.  
 ND – Analyte not detected above the method detection limit.

*Note: Attach additional tables as needed based on number of soil samples or variations in sampling dates.*

- b. Attach the original chain of custody record (**copies are not acceptable**) and the original laboratory data sheet (**copies are not acceptable**) for each sample.



e. Indicate current method and location of soil management and/or treatment prior to final disposal:

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f. Check the method of soil disposal used or to be used:

- Return to the excavation pit only when TPH is less than or equal to 100 ppm and depth of groundwater is greater than 5 feet from the base of the pit.
- Spread in a thin layer (6" or less) on site only when TPH is less than or equal to 100 ppm
- Disposal in a landfill ( See attached "Guidelines for the Disposal of Non-Hazardous Petroleum Contaminated Wastes").
- Incineration.
- Thermal volatilization.
- Recycling facility
- Other \_\_\_\_\_

g. If soil was disposed of prior to the submittal of this form, indicate the final destination below and attach copies of invoices, receipts, and "certificate of burn" (if soil was incinerated):

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**9. TANK CLEANING: N/A**

	YES	NO
a. The tank(s) were cleaned in accordance with American Petroleum Institute (API) Bulletin 2015 "Cleaning Petroleum Storage Tanks"?	<input type="checkbox"/>	NA

If no, describe how tank(s) were cleaned:  
 No tanks were identified during investigative dig.

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b. Provide an estimate of the volume of sludge removed from the tank: NA Gallons

c. Indicate the final destination of the sludge and attach invoices or receipts:

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**10. ATTACHMENTS**

Attach the following to the closure form in the following order as applicable to the type of closure site assessment performed. Check each box to indicate that a particular map or information is attached to the closure site assessment form. The section of the closure site assessment form that indicates the required attachment is shown.

<input checked="" type="checkbox"/>	Topographic Map showing location of site (Section 2.a., 3.a., 4.a., & 5.a.)
<input checked="" type="checkbox"/>	Area map showing general location of the site. Include land use on-site and within 500' of site. (Section 1)
<input type="checkbox"/>	Include locations of domestic and public water supply wells, and surface water intakes (Section 1)
<input checked="" type="checkbox"/>	Plan and sectional views of the site including the following: (Section 2.b., 3.b., 4.b., & 5.b.)
<input type="checkbox"/>	Location of the closed tanks and piping including depth. Include any remaining tanks or piping at site. Include tank identification numbers.
<input type="checkbox"/>	Excavation dimensions of the tank system
<input checked="" type="checkbox"/>	Locations of soil samples taken for piping and tank which includes the analytical results.
<input type="checkbox"/>	Location of areas of visible contamination
<input type="checkbox"/>	Location of any stockpiled excavated soil
<input type="checkbox"/>	Location of soil borings for an in-place closure
<input type="checkbox"/>	The location and depth of the one up-gradient and 3 down-gradient borings or monitoring wells (Section 6.a.)
<input type="checkbox"/>	Map illustrating the most probable direction of groundwater flow (Section 6.a.)
<input type="checkbox"/>	Schematic diagrams of the monitoring wells installed (Section 6.b.)
<input type="checkbox"/>	Boring logs of soil borings (Section 3.b., 5.b. & 6.b.)
<input type="checkbox"/>	Site Classification Checklist
<input type="checkbox"/>	<b>Invoices and/or receipts for sludge disposal (Section 9.c.)</b>
<input type="checkbox"/>	Invoices, manifests and certificates of burn or disposal for soil disposal (Section 8.f.)
<input checked="" type="checkbox"/>	Attach the <b>original</b> chain of custody record (copies are not acceptable) for each sample which includes at least the following: (Sections 6.d., 7.b., & 8.c.)
<input checked="" type="checkbox"/>	Sample identification number,
<input checked="" type="checkbox"/>	Date and time sample was taken,
<input checked="" type="checkbox"/>	Name and title of person collecting sample (see certification requirement on page 15 of this form),
<input checked="" type="checkbox"/>	Type of sample (soil or water),
<input checked="" type="checkbox"/>	Type of sample container,
<input checked="" type="checkbox"/>	Method of preservation,
<input checked="" type="checkbox"/>	Date and time sample was relinquished,
<input checked="" type="checkbox"/>	Person relinquishing sample,
<input checked="" type="checkbox"/>	Date and time sample was received by lab,
<input checked="" type="checkbox"/>	Person receiving sample at lab.
<input checked="" type="checkbox"/>	Attach the <b>original</b> laboratory data sheet ( <b>copies are not acceptable</b> ) which includes at least the following: (Sections 6.d., 7.b., & 8.c.)
<input checked="" type="checkbox"/>	A sample identification number which can be cross referenced with the soil sample locations indicated on the plan and sectional views required by Section 2.b., 3.b., 4.b., or 5.b. above
<input checked="" type="checkbox"/>	The sample analytical results with appropriate units,
<input checked="" type="checkbox"/>	The method used to analyze each sample,
<input checked="" type="checkbox"/>	The date and time the sample was analyzed,
<input checked="" type="checkbox"/>	The person analyzing the sample.

**11. SIGNATURES**

**This form should be completed, signed, and returned, along with any other pertinent information, to the following address:**

The Alabama Department of Environmental Management  
Groundwater Branch  
Post Office Box 301463  
Montgomery, AL 36130-1463  
(334) 270-5655

**INCOMPLETE FORMS WILL BE RETURNED FOR CORRECTION.**

Name of person taking soil and/or groundwater samples: James R. Messer

Company: IT Corporation

Telephone Number: 256-848-3499

*I certify under penalty of law that I have obtained representative soil and/or groundwater samples using accepted sampling procedures.*

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**Either a Geologist or an Alabama Registered Professional Engineer must sign this form:**

*I certify under penalty of law that I have performed this closure site assessment in accordance with accepted soil and groundwater investigation practices; I am either a Geologist or an Alabama Registered Professional Engineer; I am experienced in soil and groundwater investigations; and the information I have submitted, to the best of my knowledge and belief, is true, accurate, and complete.*

Signature of Geologist: \_\_\_\_\_ Date: \_\_\_\_\_

Signature of Alabama Registered Professional Engineer: David B. Tester, P.E. Date: 10/19/01

Alabama P.E. Registration Number: 23633

*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 those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete.*

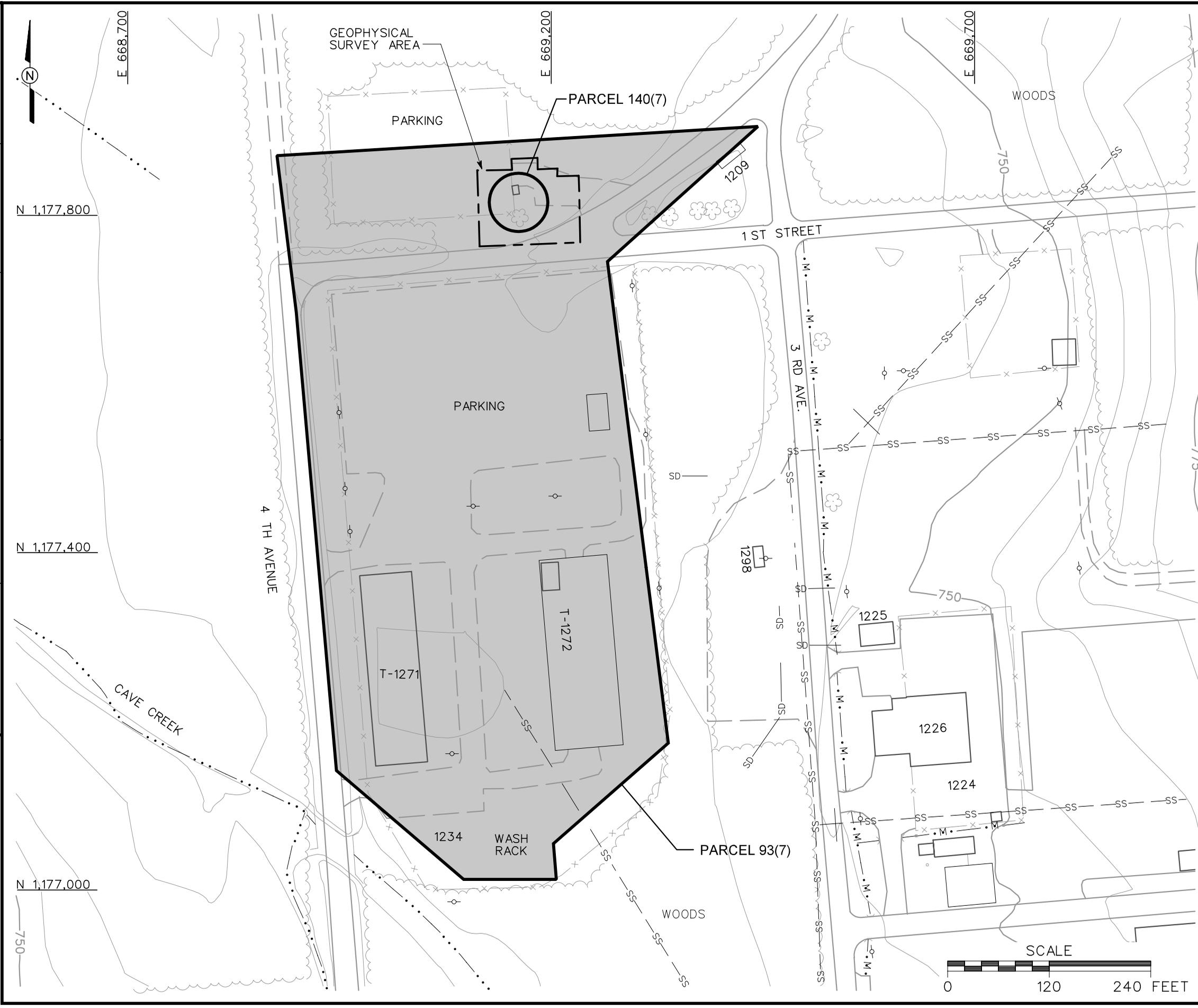
Signature of Tank Owner: \_\_\_\_\_ Date: \_\_\_\_\_





## **FIGURES**

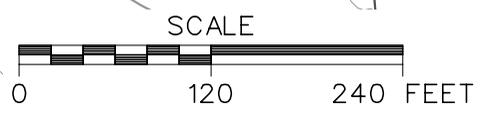
DWG. NO.: ...783149.es.169  
 PROJ. NO.: 783149  
 INITIATOR: J. BOND  
 PROJ. MGR.: J. YACOUB  
 DRAFT. CHCK. BY:  
 ENGR. CHCK. BY: J. JENKINS  
 DATE LAST REV.:  
 DRAWN BY:  
 STARTING DATE: 02/13/01  
 DRAWN BY: D. BOMAR  
 02/13/01  
 01:48:51  
 DBILLING  
 c:\cadd\design\783149.es.169



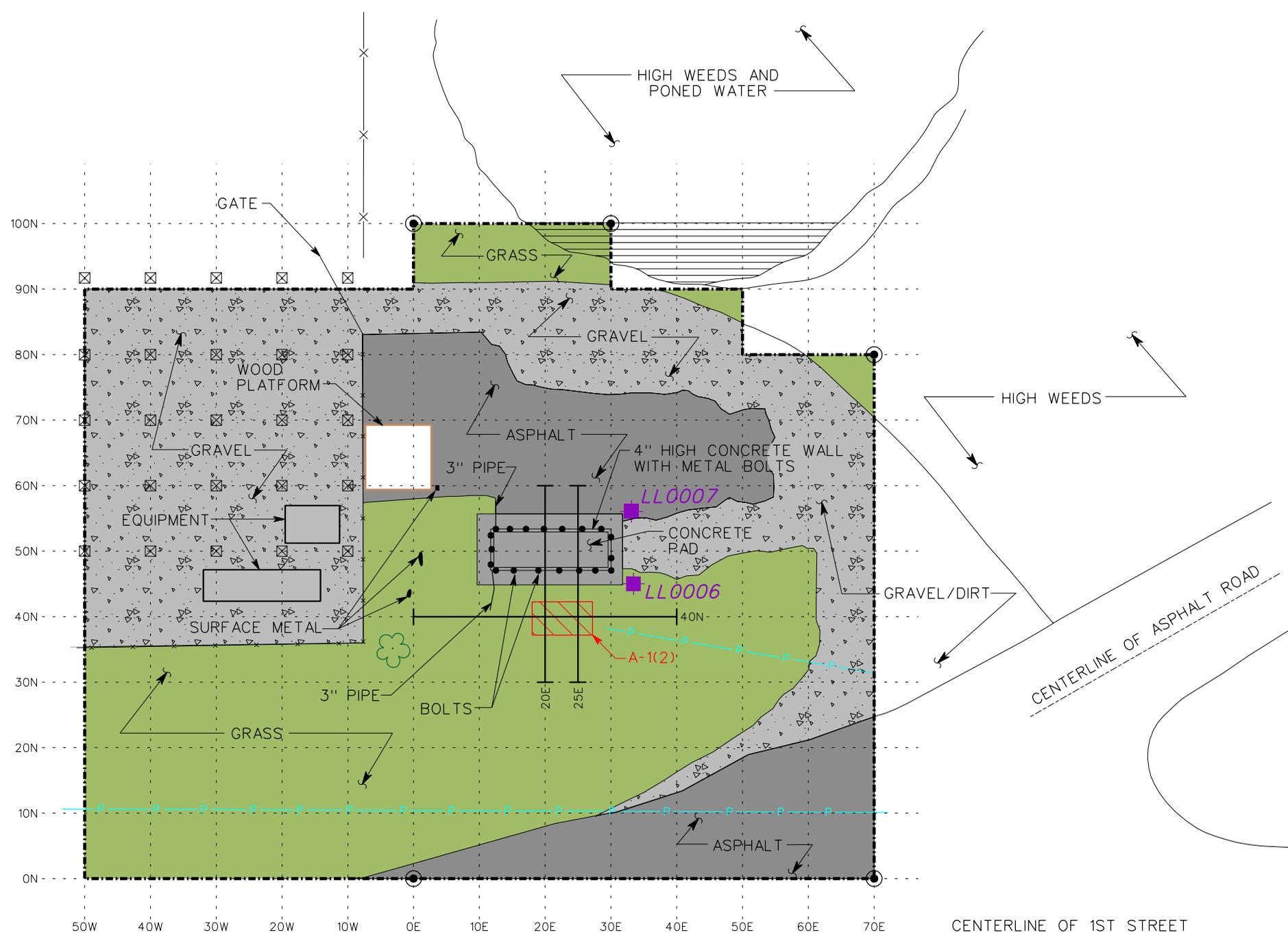
- LEGEND**
- UNIMPROVED ROADS AND PARKING
  - PAVED ROADS AND PARKING
  - BUILDING
  - TOPOGRAPHIC CONTOURS (CONTOUR INTERVAL - 5 FOOT)
  - TREES / TREELINE
  - PARCEL BOUNDARY
  - EXTENT OF GEOPHYSICAL SURVEY AREA
  - SURFACE DRAINAGE / CREEK
  - FENCE
  - UTILITY POLE
  - SANITARY SEWER LINE
  - STORM DRAINAGE LINE

**FIGURE G-1**  
 SITE MAP, PARCEL 140(7)  
 FORMER GAS STATION,  
 BUILDING 1294, AT FORMER  
 DECONTAMINATION COMPLEX  
 PARCEL 93(7)

U. S. ARMY CORPS OF ENGINEERS  
 MOBILE DISTRICT  
 FORT McCLELLAN  
 CALHOUN COUNTY, ALABAMA  
 Contract No. DACA21-96-D-0018



DWG. NO.: ...783149es.170  
 PROJ. NO.: 783149  
 INITIATOR: J. BOND  
 PROJ. MGR.: J. YACOUB  
 DRAFT. CHK. BY:  
 ENGR. CHK. BY: J. JENKINS  
 DATE LAST REV.:  
 DRAWN BY:  
 STARTING DATE: 02/13/01  
 DRAWN BY: D. BOMAR  
 02/14/01  
 03:54:54 PM  
 c:\cadd\design\783149es.170



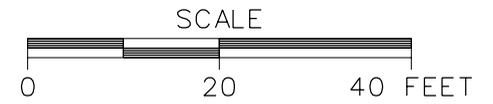
**LEGEND**

- GEOPHYSICAL SURVEY BOUNDARY
- CIVIL SURVEY STAKE LOCATION
- 40N ——— GPR PROFILES PRESENTED
- GEOPHYSICAL ANOMALY  
A-1(2)
- ⊠ 5" x 8" CONCRETE FOOTINGS SOME WITH BOLTS AND METAL FLANGES
- P— PIPE/BURIED UTILITY
- X— FENCE
- 🌳 TREES / TREELINE
- SOIL SAMPLE LOCATION

NAD 83 SPHEROID, ALABAMA EAST STATE PLANE DATUM		
LOCAL GRID COORDINATES	STATE PLANE COORDINATES	
0N,0E	1177760.814N	669163.674E
0N,70E	1177766.546N	669233.003E
80N,70E	1177845.893N	669227.028E
100N,30E	1177861.635N	669185.484E
100N,0E	1177861.320N	669154.980E

**NOTE:**

1. THIS FIGURE REPRESENTS CONDITIONS AT THE SITE IN 1999 WHEN THE GEOPHYSICAL SURVEY WAS CONDUCTED. THE EQUIPMENT HAS BEEN REMOVED.



**FIGURE G-2**  
 SITE MAP WITH SAMPLE LOCATIONS AND GEOPHYSICAL INTERPRETATION  
 PARCEL 140(7) FORMER GAS STATION BUILDING 1294 AT FORMER DECONTAMINATION COMPLEX, PARCEL 93(7)

U. S. ARMY CORPS OF ENGINEERS  
 MOBILE DISTRICT  
 FORT McCLELLAN  
 CALHOUN COUNTY, ALABAMA  
 Contract No. DACA21-96-D-0018



# **UST INVESTIGATION PHOTOGRAPHS**

**UST INVESTIGATION**

**Former Gas Station Building 1294, Parcel 140(7) at Former Decontamination Complex, Parcel 93(7)  
Project No. 783149; Task Order CK08; Modification No. 2; Contract Number DACA21-96-D-0018**



**Photo 1: Anomaly A-1(2). Beginning excavation. Facing east.**



**Photo 2: Anomaly A-1(2). Concrete slab with rebar (source of anomaly).**

**UST INVESTIGATION**

**Former Gas Station Building 1294, Parcel 140(7) at Former Decontamination Complex, Parcel 93(7)  
Project No. 783149; Task Order CK08; Modification No. 2; Contract Number DACA21-96-D-0018**



**Photo 3: Anomaly A-1(2). Uncapped piping below southeast corner of concrete pad.**



**Photo 4: Anomaly A-1(2). Capped piping below northeast corner of concrete pad.**

## **ANALYTICAL RESULTS**

<b>H0G250140 / UST14001 Analytical Report .....</b>	<b>1</b>
<b>Sample Receipt Documentation.....</b>	<b>32</b>
<b>Invoice .....</b>	<b>39</b>
<b>Total # of Pages .....</b>	<b>39</b>



**STL Knoxville**  
5815 Middlebrook Pike  
Knoxville, TN 37921-5947

Tel: 865-291-3000  
Fax: 865-584-4315  
[www.stl-inc.com](http://www.stl-inc.com)

## **ANALYTICAL REPORT**

PROJECT NO. 783149

FTMC

Lot #: H0G250140

Duane Nielsen

IT Corp - Ft. McClellan  
312 Directors Drive  
Knoxville, TN 37923

**SEVERN TRENT LABORATORIES, INC.**

A handwritten signature in black ink, appearing to read "John Reynolds". The signature is fluid and cursive, written over a white background.

**John Reynolds**  
Project Manager

**August 7, 2000**

# SAMPLE SUMMARY

HOG250140

<u>WO #</u>	<u>SAMPLE#</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
DGQ3M	001	LL0006	07/24/00	13:45
DGQ3R	002	LL0007	07/24/00	13:30
DGQ3W	003	LL8001	07/24/00	14:00

**NOTE (S) :**

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

# ANALYTICAL METHODS SUMMARY

H0G250140

<u>PARAMETER</u>	<u>ANALYTICAL METHOD</u>
Extractable Petroleum Hydrocarbons	SW846 8015B
Paint Filter Test	SW846 9095
Percent Moisture	MCAWW 160.3 MOD
Polynuclear Aromatic Hydrocarbons by HPLC	SW846 8310
Trace Inductively Coupled Plasma (ICP) Metals	SW846 6010B
Volatile Petroleum Hydrocarbons	SW846 8015B
Volatiles by GC	SW846 8021B

## References:

- MCAWW "Methods for Chemical Analysis of Water and Wastes",  
EPA-600/4-79-020, March 1983 and subsequent revisions.
- SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical  
Methods", Third Edition, November 1986 and its updates.

## **PROJECT NARRATIVE**

### **HOG250140**

The results reported herein are applicable to the samples submitted for analysis only.

**The original chain of custody documentation is included with this report.**

#### **Sample Receipt**

There were no problems with the condition of the samples received.

#### **Subcontract**

The following analyses were performed by STL Tampa East, 5910 Breckenridge Parkway, Tampa, FL 33601: Gasoline and Diesel Range Organics (SW846 8015B), Paint Filter Test (SW846 9095), Polynuclear Aromatic Hydrocarbons (SW846 8310) and BTEX (SW846 8021B).

#### **Quality Control**

All holding times and QC criteria were met.

**This report shall not be reproduced except in full, without the written approval of the laboratory.**

STL Knoxville (formerly Quanterra Incorporated), Knoxville Laboratory maintains the following certifications, approvals and accreditations: California ELAP Cert. #2100, Connecticut DPH Cert. #PH-0233, Florida DOH SDWA Cert. #87293, Florida DOH Environmental Water Cert. #E87177, Florida DEP CompQAP #880566, Georgia EPD by US EPA Region IV, Hawaii DOH, Kentucky DEP Lab ID #90101, Maryland DHMH Cert. #277, Massachusetts Cert. #M-TN009, New York DOH Lab #10781, North Carolina DEHNR Cert. #64, North Dakota DOHCL Cert. #R-134, Ohio EPA VAP #CL0059, Oklahoma DEQ ID #9415, South Carolina DHEC Lab ID #84001, Tennessee DOH Lab ID #02014, Tennessee DEC UST, Utah DOH Cust. ID QUAN#, Virginia DGS Lab ID #00165, Washington DOE Lab #C120, Wisconsin DNR Lab ID #998044300, AALA Cert. #486.01, US Army Corps of Engineers, Naval Facilities Engineering Service Center, and USDA Soil Permit #S-3929. This list of approvals is subject to change and does not imply that laboratory certification is available for all parameters reported in this environmental sample data report.

IT CORP - FT. MCCLELLAN

Client Sample ID: LL8001

## GC Semivolatiles

Lot-Sample #...: HOG250140-003    Work Order #...: DGQ3W101    Matrix.....: SOLID  
 Date Sampled...: 07/24/00    Date Received...: 07/25/00  
 Prep Date.....: 07/25/00    Analysis Date...: 07/28/00  
 Prep Batch #...: 0207367  
 Dilution Factor: 1  
 % Moisture.....: 11    Method.....: SW846 8015B

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>MDL</u>
Diesel Range Organics	29	11	mg/kg	3.2
<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>		
Tetratriacontane	60	(25 - 113)		

NOTE(S) :

Results and reporting limits have been adjusted for dry weight.

## METHOD BLANK REPORT

## GC Semivolatiles

Client Lot #...: H0G250140  
 MB Lot-Sample #: B0G250000-367

Work Order #...: DGQWC101

Matrix.....: SOLID

Prep Date.....: 07/25/00

Analysis Date...: 07/28/00

Prep Batch #...: 0207367

Dilution Factor: 1

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>
Diesel Range Organics	3.3 J	10	mg/kg	SW846 8015B
<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>		
Tetratriacontane	96	(25 - 113)		

**NOTE(S) :**

Calculations are performed before rounding to avoid round-off errors in calculated results.

J Estimated result. Result is less than RL.

## LABORATORY CONTROL SAMPLE DATA REPORT

## GC Semivolatiles

Client Lot #...: H0G250140      Work Order #...: DGQWC102-LCS      Matrix.....: SOLID  
 LCS Lot-Sample#: B0G250000-367      DGQWC103-LCSD  
 Prep Date.....: 07/25/00      Analysis Date...: 07/27/00  
 Prep Batch #...: 0207367  
 Dilution Factor: 1

<u>PARAMETER</u>	<u>SPIKE</u> <u>AMOUNT</u>	<u>MEASURED</u> <u>AMOUNT</u>	<u>UNITS</u>	<u>PERCENT</u> <u>RECOVERY</u>	<u>RPD</u>	<u>METHOD</u>
Diesel Range Organics	59.2	66.7	mg/kg	113		SW846 8015B
	59.2	65.3	mg/kg	110	2.1	SW846 8015B
<u>SURROGATE</u>				<u>PERCENT</u> <u>RECOVERY</u>		<u>RECOVERY</u> <u>LIMITS</u>
Tetratriacontane				86		(25 - 113)
				96		(25 - 113)

**NOTE(S):**

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

## LABORATORY CONTROL SAMPLE EVALUATION REPORT

## GC Semivolatiles

Client Lot #...: H0G250140      Work Order #...: DGQWC102-LCS      Matrix.....: SOLID  
 LCS Lot-Sample#: B0G250000-367      DGQWC103-LCSD  
 Prep Date.....: 07/25/00      Analysis Date...: 07/27/00  
 Prep Batch #...: 0207367  
 Dilution Factor: 1

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>RPD</u>	<u>RPD LIMITS</u>	<u>METHOD</u>
Diesel Range Organics	<b>113</b>	(35 - 115)			<b>SW846 8015B</b>
	<b>110</b>	(35 - 115)	2.1	(0-34)	<b>SW846 8015B</b>

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
Tetratriacontane	86	(25 - 113)
	96	(25 - 113)

**NOTE(S) :**

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

IT CORP - FT. MCCLELLAN

Client Sample ID: LL8001

## GC Volatiles

Lot-Sample #...: H0G250140-003    Work Order #...: DGQ3W102    Matrix.....: SOLID  
 Date Sampled...: 07/24/00    Date Received...: 07/25/00  
 Prep Date.....: 07/26/00    Analysis Date...: 07/26/00  
 Prep Batch #...: 0209248  
 Dilution Factor: 1  
 % Moisture.....: 11    Method.....: SW846 8015B

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>MDL</u>
Gasoline Range Organics	0.82 J	5.6	mg/kg	0.48
<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>		
4-Bromofluorobenzene	82	(39 - 163)		

**NOTE(S) :**

J Estimated result. Result is less than RL.

Results and reporting limits have been adjusted for dry weight.

## METHOD BLANK REPORT

## GC Volatiles

Client Lot #...: H0G250140      Work Order #...: DGWCN101      Matrix.....: SOLID  
 MB Lot-Sample #: B0G270000-248  
 Prep Date.....: 07/26/00  
 Analysis Date...: 07/26/00      Prep Batch #...: 0209248  
 Dilution Factor: 1

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>
Gasoline Range Organics	ND	5.0	mg/kg	SW846 8015B
<u>SURROGATE</u>	<u>PERCENT</u> <u>RECOVERY</u>	<u>RECOVERY</u> <u>LIMITS</u>		
4-Bromofluorobenzene	77	(39 - 163)		

**NOTE(S) :**


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Calculations are performed before rounding to avoid round-off errors in calculated results.

## LABORATORY CONTROL SAMPLE DATA REPORT

## GC Volatiles

Client Lot #....: HOG250140      Work Order #....: DGWCN102-LCS      Matrix.....: SOLID  
 LCS Lot-Sample#: B0G270000-248      DGWCN103-LCSD  
 Prep Date.....: 07/26/00      Analysis Date...: 07/26/00  
 Prep Batch #....: 0209248  
 Dilution Factor: 1

<u>PARAMETER</u>	<u>SPIKE</u>	<u>MEASURED</u>		<u>PERCENT</u>		<u>METHOD</u>
	<u>AMOUNT</u>	<u>AMOUNT</u>	<u>UNITS</u>	<u>RECOVERY</u>	<u>RPD</u>	
<b>Gasoline Range Organics</b>	<b>20.0</b>	<b>16.9</b>	<b>mg/kg</b>	<b>85</b>		<b>SW846 8015B</b>
	<b>20.0</b>	<b>17.8</b>	<b>mg/kg</b>	<b>89</b>	<b>5.3</b>	<b>SW846 8015B</b>
<u>SURROGATE</u>				<u>PERCENT</u>		<u>RECOVERY</u>
				<u>RECOVERY</u>		<u>LIMITS</u>
4-Bromofluorobenzene				90		(39 - 163)
				86		(39 - 163)

**NOTE(S) :**

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

## LABORATORY CONTROL SAMPLE EVALUATION REPORT

## GC Volatiles

Client Lot #...: HOG250140      Work Order #...: DGWCN102-LCS      Matrix.....: SOLID  
 LCS Lot-Sample#: B0G270000-248      DGWCN103-LCSD  
 Prep Date.....: 07/26/00      Analysis Date...: 07/26/00  
 Prep Batch #...: 0209248  
 Dilution Factor: 1

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>RPD</u>	<u>RPD LIMITS</u>	<u>METHOD</u>
Gasoline Range Organics	85	(26 - 115)			SW846 8015B
	89	(26 - 115)	5.3	(0-25)	SW846 8015B

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
4-Bromofluorobenzene	90	(39 - 163)
	86	(39 - 163)

**NOTE(S) :**

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

IT CORP - FT. MCCLELLAN

Client Sample ID: LL0006

## GC Volatiles

Lot-Sample #....: H0G250140-001    Work Order #....: DGQ3M107    Matrix.....: SOLID  
 Date Sampled....: 07/24/00    Date Received...: 07/25/00  
 Prep Date.....: 07/26/00    Analysis Date...: 07/26/00  
 Prep Batch #....: 0209451  
 Dilution Factor: 1  
 % Moisture.....: 21    Method.....: SW846 8021B

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	MDL
Benzene	ND	64	ug/kg	23
Ethylbenzene	ND	64	ug/kg	28
Toluene	ND	64	ug/kg	18
Xylenes (total)	ND	64	ug/kg	60
	PERCENT	RECOVERY		
<u>SURROGATE</u>	<u>RECOVERY</u>	<u>LIMITS</u>		
4-Bromofluorobenzene	95	(46 - 143)		

**NOTE(S) :**


---

 Results and reporting limits have been adjusted for dry weight.

IT CORP - FT. MCCLELLAN

Client Sample ID: LL0007

## GC Volatiles

Lot-Sample #....: H0G250140-002    Work Order #....: DGQ3R105    Matrix.....: SOLID  
 Date Sampled....: 07/24/00    Date Received...: 07/25/00  
 Prep Date.....: 07/26/00    Analysis Date...: 07/26/00  
 Prep Batch #....: 0209451  
 Dilution Factor: 1  
 % Moisture.....: 18    Method.....: SW846 8021B

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>		
		<u>LIMIT</u>	<u>UNITS</u>	<u>MDL</u>
Benzene	ND	61	ug/kg	22
Ethylbenzene	ND	61	ug/kg	27
Toluene	ND	61	ug/kg	17
Xylenes (total)	ND	61	ug/kg	58
<u>SURROGATE</u>	<u>PERCENT</u>	<u>RECOVERY</u>		
	<u>RECOVERY</u>	<u>LIMITS</u>		
4-Bromofluorobenzene	114	(46 - 143)		

**NOTE (S) :**


---

Results and reporting limits have been adjusted for dry weight.

## METHOD BLANK REPORT

## GC Volatiles

Client Lot #...: H0G250140  
 MB Lot-Sample #: B0G270000-451

Work Order #...: DGXA9101

Matrix.....: SOLID

Analysis Date...: 07/26/00

Prep Date.....: 07/26/00

Dilution Factor: 1

Prep Batch #...: 0209451

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>		
		<u>LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>
Benzene	ND	50	ug/kg	SW846 8021B
Ethylbenzene	ND	50	ug/kg	SW846 8021B
Toluene	ND	50	ug/kg	SW846 8021B
Xylenes (total)	ND	50	ug/kg	SW846 8021B

<u>SURROGATE</u>	<u>PERCENT</u>	<u>RECOVERY</u>
	<u>RECOVERY</u>	<u>LIMITS</u>
4-Bromofluorobenzene	100	(46 - 143)

**NOTE (S) :**

Calculations are performed before rounding to avoid round-off errors in calculated results.

## LABORATORY CONTROL SAMPLE DATA REPORT

## GC Volatiles

Client Lot #...: H0G250140      Work Order #...: DGXA9102-LCS      Matrix.....: SOLID  
 LCS Lot-Sample#: B0G270000-451      DGXA9103-LCSD  
 Prep Date.....: 07/26/00      Analysis Date...: 07/26/00  
 Prep Batch #...: 0209451  
 Dilution Factor: 1

PARAMETER	SPIKE	MEASURED		PERCENT		METHOD
	AMOUNT	AMOUNT	UNITS	RECOVERY	RPD	
Benzene	1000	952	ug/kg	95		SW846 8021B
	1000	997	ug/kg	100	4.6	SW846 8021B
Ethylbenzene	1000	1060	ug/kg	106		SW846 8021B
	1000	1050	ug/kg	105	1.0	SW846 8021B
Toluene	1000	996	ug/kg	100		SW846 8021B
	1000	1010	ug/kg	101	1.7	SW846 8021B
m-Xylene & p-Xylene	2000	2130	ug/kg	107		SW846 8021B
	2000	2140	ug/kg	107	0.39	SW846 8021B
o-Xylene	1000	1040	ug/kg	104		SW846 8021B
	1000	1050	ug/kg	105	1.2	SW846 8021B

SURROGATE	PERCENT		RECOVERY
	RECOVERY	LIMITS	
4-Bromofluorobenzene	109	(46 - 143)	
	110	(46 - 143)	

**NOTE(S) :**

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

## LABORATORY CONTROL SAMPLE EVALUATION REPORT

## GC Volatiles

Client Lot #...: HOG250140      Work Order #...: DGXA9102-LCS      Matrix.....: SOLID  
 LCS Lot-Sample#: BOG270000-451      DGXA9103-LCSD  
 Prep Date.....: 07/26/00      Analysis Date...: 07/26/00  
 Prep Batch #...: 0209451  
 Dilution Factor: 1

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>RPD</u>	<u>RPD LIMITS</u>	<u>METHOD</u>
Benzene	95	(62 - 128)			SW846 8021B
	100	(62 - 128)	4.6	(0-30)	SW846 8021B
Ethylbenzene	106	(66 - 119)			SW846 8021B
	105	(66 - 119)	1.0	(0-20)	SW846 8021B
Toluene	100	(73 - 123)			SW846 8021B
	101	(73 - 123)	1.7	(0-20)	SW846 8021B
m-Xylene & p-Xylene	107	(70 - 130)			SW846 8021B
	107	(70 - 130)	0.39	(0-20)	SW846 8021B
o-Xylene	104	(70 - 130)			SW846 8021B
	105	(70 - 130)	1.2	(0-20)	SW846 8021B
<u>SURROGATE</u>		<u>PERCENT RECOVERY</u>		<u>RECOVERY LIMITS</u>	
4-Bromofluorobenzene		109		(46 - 143)	
		110		(46 - 143)	

**NOTE (S) :**

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

## IT CORP - FT. MCCLELLAN

Client Sample ID: LL0006

## HPLC

Lot-Sample #....: H0G250140-001    Work Order #....: DGQ3M101    Matrix.....: SOLID  
 Date Sampled....: 07/24/00    Date Received...: 07/25/00  
 Prep Date.....: 07/25/00    Analysis Date...: 07/26/00  
 Prep Batch #....: 0207366  
 Dilution Factor: 1  
 % Moisture.....: 21    Method.....: SW846 8310

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	MDL
Acenaphthene	ND	64	ug/kg	6.4
Acenaphthylene	ND	64	ug/kg	8.1
Anthracene	ND	64	ug/kg	4.2
<b>Benzo (a) anthracene</b>	<b>2.1 J</b>	<b>6.4</b>	<b>ug/kg</b>	<b>1.3</b>
Benzo (a) pyrene	ND	6.4	ug/kg	1.1
Benzo (b) fluoranthene	ND	6.4	ug/kg	0.99
Benzo (ghi) perylene	ND	6.4	ug/kg	1.4
Benzo (k) fluoranthene	ND	6.4	ug/kg	0.64
<b>Chrysene</b>	<b>2.5 J</b>	<b>6.4</b>	<b>ug/kg</b>	<b>1.1</b>
Dibenz (a, h) anthracene	ND	6.4	ug/kg	1.1
Fluoranthene	ND	6.4	ug/kg	1.1
Fluorene	ND	64	ug/kg	12
Indeno (1, 2, 3-cd) pyrene	ND	6.4	ug/kg	0.89
Naphthalene	ND	64	ug/kg	22
Phenanthrene	ND	64	ug/kg	12
<b>Pyrene</b>	<b>9.9</b>	<b>6.4</b>	<b>ug/kg</b>	<b>1.1</b>
	PERCENT	RECOVERY		
<u>SURROGATE</u>	<u>RECOVERY</u>	<u>LIMITS</u>		
Carbazole	39	(17 - 115)		

**NOTE (S) :**

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

IT CORP - FT. MCCLELLAN

Client Sample ID: LL0007

## HPLC

Lot-Sample #....: HOG250140-002    Work Order #....: DGQ3R101    Matrix.....: SOLID  
 Date Sampled....: 07/24/00    Date Received...: 07/25/00  
 Prep Date.....: 07/25/00    Analysis Date...: 07/27/00  
 Prep Batch #....: 0207366  
 Dilution Factor: 2  
 % Moisture.....: 18    Method.....: SW846 8310

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	MDL
Acenaphthene	ND	120	ug/kg	12
Acenaphthylene	ND	120	ug/kg	16
<b>Anthracene</b>	<b>31 J</b>	<b>120</b>	<b>ug/kg</b>	<b>8.1</b>
Benzo (a) anthracene	49	12	ug/kg	2.5
Benzo (a) pyrene	340	12	ug/kg	2.1
Benzo (b) fluoranthene	160	12	ug/kg	1.9
Benzo (ghi) perylene	210	12	ug/kg	2.7
Benzo (k) fluoranthene	120	12	ug/kg	1.2
Chrysene	98	12	ug/kg	2.2
Dibenz (a, h) anthracene	13	12	ug/kg	2.0
Fluoranthene	130	12	ug/kg	2.2
Fluorene	ND	120	ug/kg	22
Indeno (1,2,3-cd) pyrene	200	12	ug/kg	1.7
Naphthalene	ND	120	ug/kg	42
Phenanthrene	ND	120	ug/kg	24
Pyrene	110	12	ug/kg	2.2
	PERCENT	RECOVERY		
<u>SURROGATE</u>	<u>RECOVERY</u>	<u>LIMITS</u>		
Carbazole	35	(17 - 115)		

**NOTE (S) :**

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

## METHOD BLANK REPORT

## HPLC

Client Lot #...: H0G250140  
 MB Lot-Sample #: B0G250000-366

Work Order #...: DGQW6101

Matrix.....: SOLID

Analysis Date...: 07/26/00  
 Dilution Factor: 1

Prep Date.....: 07/25/00

Prep Batch #...: 0207366

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>		
		<u>LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>
Acenaphthene	ND	50	ug/kg	SW846 8310
Acenaphthylene	ND	50	ug/kg	SW846 8310
Anthracene	ND	50	ug/kg	SW846 8310
Benzo (a) anthracene	ND	5.0	ug/kg	SW846 8310
Benzo (a) pyrene	ND	5.0	ug/kg	SW846 8310
Benzo (b) fluoranthene	ND	5.0	ug/kg	SW846 8310
Benzo (ghi) perylene	ND	5.0	ug/kg	SW846 8310
Benzo (k) fluoranthene	ND	5.0	ug/kg	SW846 8310
Chrysene	ND	5.0	ug/kg	SW846 8310
Dibenz (a, h) anthracene	ND	5.0	ug/kg	SW846 8310
Fluoranthene	ND	5.0	ug/kg	SW846 8310
Fluorene	ND	50	ug/kg	SW846 8310
Indeno (1, 2, 3-cd) pyrene	ND	5.0	ug/kg	SW846 8310
Naphthalene	ND	50	ug/kg	SW846 8310
Phenanthrene	ND	50	ug/kg	SW846 8310
Pyrene	ND	5.0	ug/kg	SW846 8310
	<u>PERCENT</u>	<u>RECOVERY</u>		
<u>SURROGATE</u>	<u>RECOVERY</u>	<u>LIMITS</u>		
Carbazole	77	(17 - 115)		

**NOTE (S) :**

Calculations are performed before rounding to avoid round-off errors in calculated results.

## LABORATORY CONTROL SAMPLE DATA REPORT

## HPLC

Client Lot #...: H0G250140      Work Order #...: DGQW6102-LCS      Matrix.....: SOLID  
 LCS Lot-Sample#: B0G250000-366      DGQW6103-LCSD  
 Prep Date.....: 07/25/00      Analysis Date...: 07/26/00  
 Prep Batch #...: 0207366  
 Dilution Factor: 1

<u>PARAMETER</u>	<u>SPIKE</u> <u>AMOUNT</u>	<u>MEASURED</u> <u>AMOUNT</u>	<u>UNITS</u>	<u>PERCENT</u> <u>RECOVERY</u>	<u>RPD</u>	<u>METHOD</u>
Acenaphthene	333	183	ug/kg	55		SW846 8310
	333	205	ug/kg	62	11	SW846 8310
1-Methylnaphthalene	333	170	ug/kg	51		SW846 8310
	333	200	ug/kg	60	16	SW846 8310
Chrysene	33.3	23.9	ug/kg	72		SW846 8310
	33.3	25.9	ug/kg	78	8.2	SW846 8310
Fluorene	333	202	ug/kg	61		SW846 8310
	333	217	ug/kg	65	6.9	SW846 8310
Naphthalene	333	153	ug/kg	46		SW846 8310
	333	177	ug/kg	53	15	SW846 8310
Pyrene	33.3	23.4	ug/kg	70		SW846 8310
	33.3	22.9	ug/kg	69	2.0	SW846 8310

<u>SURROGATE</u>	<u>PERCENT</u> <u>RECOVERY</u>	<u>RECOVERY</u> <u>LIMITS</u>
Carbazole	73	(17 - 115)
	71	(17 - 115)

**NOTE (S) :**

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

## LABORATORY CONTROL SAMPLE EVALUATION REPORT

## HPLC

Client Lot #...: H0G250140      Work Order #...: DGQW6102-LCS      Matrix.....: SOLID  
 LCS Lot-Sample#: B0G250000-366      DGQW6103-LCSD  
 Prep Date.....: 07/25/00      Analysis Date...: 07/26/00  
 Prep Batch #...: 0207366  
 Dilution Factor: 1

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>RPD</u>	<u>RPD LIMITS</u>	<u>METHOD</u>
<b>Acenaphthene</b>	<b>55</b>	<b>(41 - 115)</b>			<b>SW846 8310</b>
	<b>62</b>	<b>(41 - 115)</b>	<b>11</b>	<b>(0-30)</b>	<b>SW846 8310</b>
<b>1-Methylnaphthalene</b>	<b>51</b>	<b>(45 - 115)</b>			<b>SW846 8310</b>
	<b>60</b>	<b>(45 - 115)</b>	<b>16</b>	<b>(0-27)</b>	<b>SW846 8310</b>
<b>Chrysene</b>	<b>72</b>	<b>(45 - 115)</b>			<b>SW846 8310</b>
	<b>78</b>	<b>(45 - 115)</b>	<b>8.2</b>	<b>(0-27)</b>	<b>SW846 8310</b>
<b>Fluorene</b>	<b>61</b>	<b>(42 - 115)</b>			<b>SW846 8310</b>
	<b>65</b>	<b>(42 - 115)</b>	<b>6.9</b>	<b>(0-28)</b>	<b>SW846 8310</b>
<b>Naphthalene</b>	<b>46</b>	<b>(28 - 116)</b>			<b>SW846 8310</b>
	<b>53</b>	<b>(28 - 116)</b>	<b>15</b>	<b>(0-26)</b>	<b>SW846 8310</b>
<b>Pyrene</b>	<b>70</b>	<b>(46 - 115)</b>			<b>SW846 8310</b>
	<b>69</b>	<b>(46 - 115)</b>	<b>2.0</b>	<b>(0-50)</b>	<b>SW846 8310</b>

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
<b>Carbazole</b>	<b>73</b>	<b>(17 - 115)</b>
	<b>71</b>	<b>(17 - 115)</b>

**NOTE (S) :**

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

IT CORP - FT. MCCLELLAN

Client Sample ID: LL0006

## TOTAL Metals

Lot-Sample #....: H0G250140-001

Matrix.....: SOLID

Date Sampled....: 07/24/00

Date Received...: 07/25/00

% Moisture.....: 21

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
Prep Batch #....: 0207283						
Lead	20.9	0.38	mg/kg	SW846 6010B	07/25-07/26/00	DGQ3M104
		Dilution Factor: 1		Analysis Time...: 10:37	MDL.....: 0.15	

NOTE(S) :

Results and reporting limits have been adjusted for dry weight.

IT CORP - FT. MCCLELLAN

Client Sample ID: LL0007

TOTAL Metals

Lot-Sample #...: HOG250140-002

Matrix.....: SOLID

Date Sampled...: 07/24/00

Date Received...: 07/25/00

% Moisture.....: 18

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
-----------	--------	--------------------	-------	--------	-------------------------------	-----------------

Prep Batch #...: 0207283

Lead	14.0	0.37	mg/kg	SW846 6010B	07/25-07/26/00	DGQ3R104
------	------	------	-------	-------------	----------------	----------

Dilution Factor: 1

Analysis Time...: 10:55

MDL.....: 0.15

**NOTE (S) :**

Results and reporting limits have been adjusted for dry weight.

IT CORP - FT. MCCLELLAN

Client Sample ID: LL8001

## TOTAL Metals

Lot-Sample #...: H0G250140-003

Matrix.....: SOLID

Date Sampled...: 07/24/00

Date Received...: 07/25/00

% Moisture.....: 11

PARAMETER	RESULT	REPORTING		METHOD	PREPARATION-	WORK
		LIMIT	UNITS		ANALYSIS DATE	ORDER #
Prep Batch #...:	0207283					
Lead	3.6	0.34	mg/kg	SW846 6010B	07/25-07/26/00	DGQ3W104
		Dilution Factor: 1		Analysis Time..: 11:00	MDL.....: 0.14	

NOTE(S) :

Results and reporting limits have been adjusted for dry weight.

## METHOD BLANK REPORT

## TOTAL Metals

Client Lot #...: H0G250140

Matrix.....: SOLID

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>WORK</u> <u>ORDER #</u>
MB Lot-Sample #:	H0G250000-283	Prep Batch #...:	0207283			
Lead	ND	0.30	mg/kg	SW846 6010B	07/25-07/26/00	DGQFX101
		Dilution Factor:	1			
		Analysis Time...:	10:28			

**NOTE (S) :**

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Calculations are performed before rounding to avoid round-off errors in calculated results.

## LABORATORY CONTROL SAMPLE DATA REPORT

## TOTAL Metals

Client Lot #...: H0G250140

Matrix.....: SOLID

<u>PARAMETER</u>	<u>SPIKE AMOUNT</u>	<u>MEASURED AMOUNT</u>	<u>UNITS</u>	<u>PERCNT RECVRY</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
------------------	---------------------	------------------------	--------------	----------------------	---------------	-----------------------------------	---------------------

LCS Lot-Sample#: H0G250000-283 Prep Batch #...: 0207283

Lead	50.0	50.0	mg/kg	100	SW846 6010B	07/25-07/26/00	DGQFX102
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Dilution Factor: 1

Analysis Time..: 10:32

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

## LABORATORY CONTROL SAMPLE EVALUATION REPORT

## TOTAL Metals

Client Lot #...: H0G250140

Matrix.....: SOLID

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
------------------	-----------------------------	----------------------------	---------------	---------------------------------------	---------------------

LCS Lot-Sample#: H0G250000-283 Prep Batch #...: 0207283

Lead 100 (80 - 120) SW846 6010B 07/25-07/26/00 DGQFX102

Dilution Factor: 1

Analysis Time...: 10:32

**NOTE (S) :**

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Calculations are performed before rounding to avoid round-off errors in calculated results.

IT CORP - FT. MCCLELLAN

Client Sample ID: LL0006

General Chemistry

Lot-Sample #...: H0G250140-001    Work Order #...: DGQ3M    Matrix.....: SOLID  
 Date Sampled...: 07/24/00    Date Received...: 07/25/00  
 % Moisture.....: 21

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Percent Moisture	21.4	0.10	%	MCAWW 160.3 MOD	07/26-07/27/00	0208135
		Dilution Factor: 1		MDL.....:		

IT CORP - FT. MCCLELLAN

Client Sample ID: LL0007

## General Chemistry

Lot-Sample #...: H0G250140-002

Work Order #...: DGQ3R

Matrix.....: SOLID

Date Sampled...: 07/24/00

Date Received...: 07/25/00

% Moisture.....: 18

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Percent Moisture	18.5	0.10	%	MCAWW 160.3 MOD	07/26-07/27/00	0208135
		Dilution Factor: 1		MDL.....:		

IT CORP - FT. MCCLELLAN

Client Sample ID: LL8001

General Chemistry

Lot-Sample #...: HOG250140-003      Work Order #...: DGQ3W      Matrix.....: SOLID  
 Date Sampled...: 07/24/00      Date Received...: 07/25/00  
 % Moisture.....: 11

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Paint Filter Test	NO		No Units	SW846 9095	07/26/00	0209111
			Dilution Factor: 1	MDL.....:		
Percent Moisture	11.2	0.10	%	MCAWW 160.3 MOD	07/26-07/27/00	0208135
			Dilution Factor: 1	MDL.....:		

Sample Delivery Group  
Assignment Form

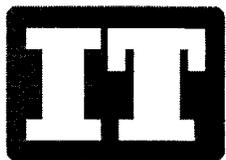
SDG# UST14001

*	DATE REC'D	LOT#	CLIENT ID	VOA	PAH	PEST	EXP	MET	PCB	PH	DRO	GRO	PAINT
				8021B	8310	8081A	8330	6010B	8082	9045	8015	8015	FILTER
1	7/25/00	H0G250140	LL0006	T	T			X					
2			LL0007	T	T			X					
3			LL8001					X			T	T	T
4													
5													
6													
7													
8													
9													
10													
11													
12													
13													
14													
15													
16													
17													
18													
19													
20													

NC = NORTH CANTON  
T = STL TAMPA  
D = STL DENVER  
WS = STL WEST SACRAMENTO  
P = PITTSBURGH  
IT = IT CORP KNOX

MATRIX: SOIL  
ANALYTICAL DUE: 7-27-00  
REPORT DUE: 8-3-00  
CLOSED? YES

8/11/008:04 AM



IT CORPORATION

A Member of The IT Group

# ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

1406250140

Reference Document No: 140A1-072400-QSK

Page 1 of 1

Project Number: 783149

Samples Shipment Date: 25 JUL 2000

Bill To: Duane Nielsen

Project Name: Fort McClellan, SAD TERC

Lab Destination: Quanterra Environmental Services - Knoxville

312 Directors Drive

Knoxville

TN 37923

Sample Coordinator: Oliver Allen

Lab Contact: John Reynolds

Report To: Duane Nielsen

312 Directors Drive

Knoxville

TN 37923

Turnaround Time: *48 hour Turn*

Project Contact: Randy McBride

Carrier/Waybill No.: Quality Express/Courier

Special Instructions: None

Possible Hazard Identification:  
 Non-hazard  Flammable  Skin Irritant  Poison B  Unknown

Sample Disposal:  
 Return to Client  Disposal by Lab  Archive (mos.)

1. Relinquished By (Signature/Affiliation) <i>Oliver Allen</i>	Date: <i>25 July 2000</i> Time: <i>0800</i>	1. Received By (Signature/Affiliation) <i>Robert E Myers</i>	Date: <i>25 Jul 2000</i> Time: <i>0800</i>
2. Relinquished By (Signature/Affiliation) <i>Robert E Myers</i>	Date: <i>25 Jul 2000</i> Time: <i>12:50</i>	2. Received By (Signature/Affiliation) <i>David D. Flann</i>	Date: <i>7-25-00</i> Time: <i>1250</i>
3. Relinquished By (Signature/Affiliation)	Date: Time:	3. Received By (Signature/Affiliation)	Date: Time:

Comments: None

*Rec'd Temp 2°C  
Custody seals intact  
DF- 7-25-00  
Hand Del.*

Sample No	Sample Name	Sample Date	Sample Time	Container	Ctr Qty	Preservative	Requested Testing Program	File CID	Condition On Receipt
LL0006	JUST-140A1-CS06-CS-LL0006-REG	24 JUL 2000	13:45	8 oz CWM	1	None except cool to 4 C	Lead by 6010B	N	
LL0007	JUST-140A1-CS07-CS-LL0007-REG	24 JUL 2000	13:30	8 oz CWM	1	None except cool to 4 C	Lead by 6010B	N	
LL8001	JUST-140A1-SP01-SP-LL8001-REG	24 JUL 2000	14:00	8 oz CWM	1	None except cool to 4 C	Lead by 6010B, Paint Filter	N	



ITT CORPORATION

A Member of The IT Group

25476  
COA

7-27 FAX  
8-28-3

HOC 230140

# ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Reference Document No: 140A1-072400-QST

Page 1 of 1

Project Number: 783149

Samples Shipment Date: 24 JUL 2000

Bill To: Duane Nielsen

Project Name: Fort McClellan, SAD TERC

Lab Destination: QUANTERRA - TAMPA

312 Directors Drive

Knoxville

TN 37923

Sample Coordinator: Oliver Allen

Lab Contact: Michelle Lersch

Report To: Duane Nielsen

Turnaround Time:

Project Contact: Randy McBride

312 Directors Drive

Knoxville

TN 37923

48 hour

Carrier/Waybill No.: Fed Ex/79086552957

Special Instructions: none	
Possible Hazard Identification: Non-hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/>	Sample Disposal: Return to Client <input type="checkbox"/> Disposal by Lab <input type="checkbox"/> Archive (mos.)
1. Relinquished By (Signature/Affiliation) <i>Dr. K. Allen IT</i> Date: 24 July 00 Time: 1630	1. Received By (Signature/Affiliation) Date: Time:
2. Relinquished By (Signature/Affiliation) Date: Time:	2. Received By (Signature/Affiliation) Date: Time:
3. Relinquished By (Signature/Affiliation) Date: Time:	3. Received By (Signature/Affiliation) Date: Time:
Comments: none  48 hour Turn	

Sample No	Sample Name	Sample Date	Sample Time	Container	Ctr Qty	Preservative	Requested Testing Program	File CID	Condition On Receipt
LL0006	UST-140A1-CS06-CS-LL0006-REG	24 JUL 2000	13:45	5 g EnCore	3	None except cool to 4 C	BTEX by 8021B	N	
LL0006	UST-140A1-CS06-CS-LL0006-REG	24 JUL 2000	13:45	8 oz CWM	1	None except cool to 4 C	PAH's by 8310	N	
LL0007	UST-140A1-CS07-CS-LL0007-REG	24 JUL 2000	13:30	5 g EnCore	3	None except cool to 4 C	BTEX by 8021B	N	
LL0007	UST-140A1-CS07-CS-LL0007-REG	24 JUL 2000	13:30	8 oz CWM	1	None except cool to 4 C	PAH's by 8310	N	
LL8001	UST-140A1-SP01-SP-LL8001-REG	24 JUL 2000	14:00	8 oz CWM	1	None except cool to 4 C	Diesel Range Organics by 8015B	N	
LL8001	UST-140A1-SP01-SP-LL8001-REG	24 JUL 2000	14:00	5 g EnCore	3	None except cool to 4 C	Gasoline Range Organics by 8015B	N	



# ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Reference Document No: 140A1-072400-QST  
Page 1 of 1

Project Number: 783149

Samples Shipment Date: 24 JUL 2000

Bill To: Duane Nielsen  
312 Directors Drive  
Knoxville TN 37923

Project Name: Fort McClellan, SAD TERC

Lab Destination: QUANTERRA - TAMPA

Report To: Duane Nielsen  
312 Directors Drive  
Knoxville TN 37923

Sample Coordinator: Oliver Allen

Lab Contact: Michelle Lersch

Turnaround Time:

*48 hour*

Project Contact: Randy McBride

Carrier/Waybill No.: Fed Ex/790865552957

Special Instructions: none	
Possible Hazard Identification: Non-hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/>	Sample Disposal: Return to Client <input type="checkbox"/> Disposal by Lab <input type="checkbox"/> Archive (mos.)
1. Relinquished By (Signature/Affiliation) <i>Oliver Allen IT</i> Date: <i>24 July 00</i> Time: <i>1630</i>	1. Received By (Signature/Affiliation) <i>Michelle Lersch STL</i> Date: <i>07/25/00</i> Time: <i>1030</i>
2. Relinquished By (Signature/Affiliation) Date: Time:	2. Received By (Signature/Affiliation) Date: Time:
3. Relinquished By (Signature/Affiliation) Date: Time:	3. Received By (Signature/Affiliation) Date: Time:
Comments: none	
<i>48 hour Turn</i>	

Sample No	Sample Name	Sample Date	Sample Time	Container	Ctr Qty	Preservative	Requested Testing Program	File CID	Condition On Receipt
LL0006	UST-140A1-CS06-CS-LL0006-REG	24 JUL 2000	13:45	5 g EnCore	3	None except cool to 4 C	BTEX by 8021B	N	<i>4°C</i> ↓ ✓
LL0006	UST-140A1-CS06-CS-LL0006-REG	24 JUL 2000	13:45	8 oz CWM	1	None except cool to 4 C	PAH's by 8310	N	
LL0007	UST-140A1-CS07-CS-LL0007-REG	24 JUL 2000	13:30	5 g EnCore	3	None except cool to 4 C	BTEX by 8021B	N	
LL0007	UST-140A1-CS07-CS-LL0007-REG	24 JUL 2000	13:30	8 oz CWM	1	None except cool to 4 C	PAH's by 8310	N	
LL8001	UST-140A1-SP01-SP-LL8001-REG	24 JUL 2000	14:00	8 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N	
LL8001	UST-140A1-SP01-SP-LL8001-REG	24 JUL 2000	14:00	5 g EnCore	3	None except cool to 4 C	Gasoline Range Organics by 8015B	N	

STL KNOXVILLE

SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST

Page 1 of 2

CLIENT: IT Corp PROJECT: Ft McKellon Lot No.: H06250140

TO BE COMPLETED BY SAMPLE RECEIPT ASSOCIATE:

- |  |                                     |                          |                                     |
|--|-------------------------------------|--------------------------|-------------------------------------|
| 1. Sample Receipt:   | YES                                 | NO                       | NA                                  |
| a. Do sample container labels match COC? (IDs, Dates, Times)           | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |
| b. Is the cooler temperature within acceptance limits?                 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |
| c. Were samples received with correct preservative (excluding Encore)? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |
| d. Were custody seals present/intact on cooler and/or containers?      | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |
| e. Were all of the samples listed on the COC received?                 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |
| f. Were all of the sample containers received intact?                  | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |
| g. Were containers received for VOAs received without headspace?       | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| h. Were samples received in the appropriate containers?                | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |
| i. Did you check for residual chlorine, if necessary?                  | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| j. Were samples received within 1/2 of the (QAMP) holding time?        | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |
| k. Were samples screened for radioactivity?                            | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| l. Were client's sample documents (RFA/COC) received?                  | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |
| m. Has the RFA/COC been relinquished? (Signed, Dated, Timed)           | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |
| n. Are test/parameters listed for each sample?                         | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |
| o. Is the matrix of the samples noted?                                 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |
| p. Is the date/time of sample collection noted?                        | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |
| q. Is the client and project name/No. identified?                      | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |

SAMPLE RECEIVING ASSOCIATE: David D. Floue DATE: 7-25-00

TO BE COMPLETED BY PROJECT MANAGER :

- |   |                                     |                          |                                     |
|---|-------------------------------------|--------------------------|-------------------------------------|
| 1. Project manager "Sample Greet":  | YES                                 | NO                       | NA                                  |
| a. Quote number to be logged-in under <u>25476</u>                            | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |
| b. Informed Login associates of special instructions?<br><u>fax done 7/27</u> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |
| 2. If custody seals were missing/not intact, was client notified?             | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

PROJECT MANAGER : [Signature] DATE: 7/25/00

Client Sample ID	Analysis Requested	Condition (see legend)	Comments/Action

- Client informed on \_\_\_\_\_ by \_\_\_\_\_. Person contacted: \_\_\_\_\_
  - Noted actions in comments section above.
  - No action necessary; process as is.
- Project Manager: \_\_\_\_\_ Date: \_\_\_\_\_

STL KNOXVILLE

SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST  
LEGEND

Item	Condition
Cooler:	1a Not received, COC available 1b Leaking 1c Other: _____
Temperature:	2a Temp Blank = _____ 2b Cooler Temp = _____ (cooler temp should be used only if there is no temp blank)
Container:	3a Leaking 3b Broken 3c Extra 3d No labels 3e Headspace (VOA only) 3f Other: _____
Samples:	4a Samples received but not on COC 4b Samples not received but on COC 4c Holding time expired 4d Sample received with < 1/2 holding time remaining 4e Sample preservative: _____ 4f Other: _____
Custody Seals:	5a None 5b Not intact 5c Other: _____
Chain of Custody (COC):	6a Not relinquished by client 6b Incomplete information 6c Other: _____
Container Labels:	7a Doesn't match COC 7b Incomplete information 7c Marking smeared 7d Label torn 7e Other: _____
Other (8):	_____
	_____
	_____
	_____

**STL KNOXVILLE**  
**SAMPLE LOG-IN (LOT SUMMARY) REVIEW CHECKLIST**

CLIENT: ITKmp PROJECT: ETMC Lot No.: HOG 250170

**TO BE COMPETED BY PROJECT MANAGER:**

- |   |                                     |                                     |                                     |
|---|-------------------------------------|-------------------------------------|-------------------------------------|
| 1. Client Documents (Request for Analysis/Chain of Custody):          | YES                                 | NO                                  | NA                                  |
| a. Was QuanTIMS lot number documented on all paperwork?               | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| b. Was RFA/COC signed upon receipt, including date/time?              | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| c. Is preservative check (pH) noted on RFA/COC?                       | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| d. Is cooler temperature & custody seal condition noted on COC?       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| 2. Log-in (Lot Folder) Review:  | YES                                 | NO                                  | NA                                  |
| a. Do client IDs on Client Summaries match RFA/COC?                   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| b. Were tests/parameters assigned correctly?                          | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| c. Were correct analytical and report due dates assigned?             | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| d. Has the correct fax due date been assigned to the lot?             | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| e. Is the correct report format noted in the lot summary?             | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| f. Is percent moisture logged for samples requiring this analysis?    | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| g. Are client assigned QC samples properly defined?                   | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 3. Contract/Subcontract Review:                                       | YES                                 | NO                                  | NA                                  |
| a. Is there a contract number or PO for this work?                    | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| b. If the purchase order number is given, is it noted in Lot header?  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| c. If samples were subcontracted, was copy of COC in folder?          | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| 4. SDG Review:  | YES                                 | NO                                  | NA                                  |
| a. If SDG is required, is SDG form in Lot folder?                     | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| b. Is SDG number noted in Lot header & sample comments?               | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| c. If SDG is complete, has the due date been revised & marked closed? | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| 5. Checklist Review:  | YES                                 | NO                                  | NA                                  |
| a. Has Sample Receipt Checklist been filled-out?                      | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| b. Was there a CUR?   | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| c. Were all issues resolved?  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

LOT FOLDER REVIEWED BY:  DATE: 7/26/00