# QUALITY ASSURANCE PROJECT PLAN

for

SOIL SAMPLING FOR THE REMOVAL ACTION

at the

**DON V. DAVIS SITE** 

St. Louis, Missouri

#### **Prepared For:**

U.S. Environmental Protection Agency Region 7 Superfund Division

**Prepared By:** 

Ecology and Environment, Inc. Superfund Technical Assessment and Response Team

June 5, 2000

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Date

Date

Date

Rreak: Other: -2000

# TABLE OF CONTENTS

Section		Pa	lge
1.0	PRO	ECT MANAGEMENT	1-1
	1.1	DISTRIBUTION LIST	1-1
	1.2	PROJECT/TASK ORGANIZATION	1-1
	1.3	PROBLEM DEFINITION/BACKGROUND	1-2
		1.3.1 Site Description	1-2
		1.3.2 Previous Investigations and Summary of Findings	1-2
		1.3.3 Hydrologic, Hydrogeologic and Geologic Settings	1-3
	1.4	PROJECT/TASK DESCRIPTION	1-4
	1.5	QUALITY OBJECTIVES AND CRITERIA FOR MEASUREMENT DATA	1-4
	1. <b>6</b>	SPECIAL TRAINING REQUIREMENTS/CERTIFICATION	1-5
	1.7	DOCUMENTATION AND RECORDS	1-5
2.0	MEA	SUREMENT/DATA ACQUISITION	2-1
	2.1	SAMPLING PROCESS DESIGN AND METHODS REQUIREMENTS	2-1
	2.2	SAMPLING METHOD REQUIREMENTS	2-3
	2.3	SAMPLE HANDLING AND CUSTODY REQUIREMENTS	2-3
	2.4	ANALYTICAL METHODS REQUIREMENTS	2-3
	2.5	QUALITY CONTROL REQUIREMENTS	2-4
	2.6	INSTRUMENT/EQUIPMENT TESTING, INSPECTION, AND MAINTENANCE REQUIREMENTS	2-4
	2.7	INSTRUMENT CALIBRATION AND FREQUENCY	
	2.8	INSPECTION/ACCEPTANCE REQUIREMENTS FOR SUPPLIES AND CONSUMABLES	
	2.9	DATA ACQUISITION REQUIREMENTS	
		DATA MANAGEMENT	
3.0	ASSI	ESSMENT/OVERSIGHT	3-1
	3.1	ASSESSMENTS AND RESPONSE ACTIONS	3-1
	3.2	REPORTS TO MANAGEMENT	3-1
4.0	DAT	A VALIDATION AND USABILITY	4-1
	4.1	DATA REVIEW, VALIDATION, AND VERIFICATION REQUIREMENTS	4-1
	4.2	VALIDATION AND VERIFICATION METHODS	4-1
	4.3	RECONCILIATION WITH USER REQUIREMENTS	4-1

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# **TABLE OF CONTENTS (Continued)**

## **ATTACHMENTS:**

Table

<b>A</b> .	Figures
	Figure 1. Site Location Map A-1
	Figure 2, Site Map with Defined Excavation/Sampling Cells A-2
В.	Subcontracted Analytical Services Request Form B

# LIST OF TABLES

# 1 Contaminant Action Levels 1-4 2 Contaminated Cell Summary 2-2 3 Sample Total per Analyte 2-4

Page

#### **1.0 PROJECT MANAGEMENT**

#### **1.1 DISTRIBUTION LIST**

The Ecology and Environment, Inc. (E & E), Superfund Technical Assessment and Response Team (START) was tasked by the U.S. Environmental Protection Agency (EPA) Region 7 Superfund Division, under Technical Direction Document (TDD) S07-0005-022, to prepare and implement a Quality Assurance Project Plan (QAPP) for the Don V. Davis site in St. Louis, Missouri. Copies of the QAPP have been provided to the following:

EPA-Region 7	Roy Crossiand, START PO
	Jim Silver, EPA OSC
	Robert B. Dona, Superfund QA Coordinator
Ecology and Environment, Inc./START	Joseph M. Parish, Project Manager
	Randy Schademann, QA Manager
	Robert C. Overfelt, Program Manager

#### **1.2 PROJECT/TASK ORGANIZATION**

Jim Silver, on-scene coordinator (OSC) for the EPA, will serve as the site manager for the activities described in this QAPP. He will be responsible for overall coordination of site activities, ensuring implementation of the QAPP, and providing periodic updates to EPA regional management concerning status of the project, as needed. Samples collected during this effort will be analyzed by American Testing and Analytical Services, Inc. (ATAS) in St. Louis, Missouri, through a subcontract with START.

The field team will be composed of one primary START member and others as needed. Joe Parish will serve as the project manager and field sampler, and Dave Kinroth, Ryan Schuler, and Andrea Fletcher will assist with field sampling as needed. The START will be responsible for calibration of sampling equipment, sample collection, field documentation, submittal of samples to ATAS laboratories in St. Louis, Missouri, and preparation of a final letter report. Randy Schademann, E & E QA manager, will provide technical assistance, as needed, to ensure QA issues are adequately addressed.

#### **1.3 PROBLEM DEFINITION/BACKGROUND**

#### **1.3.1 Site Description**

The Don V. Davis site is located at 4200 North Second Street in St. Louis, Missouri, in Section 35, Township 46N, Range 7E (Attachment 2: Site Location Map). The geographic coordinates of the site are: latitude 38.66° and longitude 90.19°. The site is located in an industrial/commercial area, with residential housing within 200 feet of the site. To the north of the site is an empty lot that was formerly known as East Texas Motor Freight Superfund site, from which mud reportedly migrated in 1993. The East Texas Motor Freight site was a facility where surface soil contaminated with dioxin existed. EPA completed a removal action at the site in 1996. Residential houses are located to the west, railroad tracks to the east, and a waste transfer station to the southeast. No school or day-care centers are located within 200 feet of the property. The 1.6-acre site is flat and has several structures, most notable being a warehouse and a lab area, and is secured by a fence that is padlocked. The buildings are kept locked, so the site is not accessible to the public.

The Don V. Davis company was a manufacturer of industrial coatings. Their product line included clear and pigmented lacquers, resins, and both water-based coatings and solvent-based coatings. The manufacturing process consisted of blending of pigments, resins, solvents, and additives, and packaging of the product for marketing. Solvents used in the coatings included toluene, methyl isobutyl ketone, xylene, butyl acetate and isopropyl alcohol. The company operated from its present location from 1945 until closure in 1998. During its operational history, the site was issued many Notices of Violation (NOVs) by the Missouri Department of Natural Resources (MDNR) for such practices as not labeling waste, storing waste for too long, improperly containerizing hazardous wastes, having faulty containment systems, lacking proper spill controls, and having untrained personnel on-site. In 1998, the facility was posted for sale or lease. It was abandoned by the owner in 1999. The facility was a generator of hazardous waste, having generated approximately 750 gallons per month. It was known that hazardous substances remained on the site after the facility was abandoned.

#### 1.3.2 Previous Investigations and Summary of Findings

The site was brought to the attention of EPA by the Missouri Department of Natural Resources (MDNR). MDNR site sampling performed at the Don V. Davis site in 1998 and 1999. The purpose of these investigations were to determine whether the site was eligible for entry into the Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS), EPA's inventory

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potential hazardous substance sites that are evaluated under the Comprehensive Environmental sponse, Compensation and Liability Act of 1980 (CERCLA). A site investigation was initiated by as a result of the owner's statements that he was abandoning the facility.

Analytical results from a June 1998 sampling event, by MDNR, documented the presence of aracteristic ignitable and toxic hazardous waste. A more recent visit by MDNR confirmed that hundreds small containers and 55-gallon drums are still present on-site, including some of those sampled eviously by the MDNR. It is likely that all of the previously sampled drums are still present onsite. Intaminants were also found in the soil. Ground water has been historically contaminated, as verified the recent investigation. An MDNR site visit on July 16, 1999, confirmed that hundreds of small ntainers and 55-gallon drums were still present on the site, including some of those previously sampled the MDNR. The site was referred to the EPA by MDNR in 1999 for assistance with the iracterization of the wastes present.

EPA Region 7 subsequently tasked START to perform a removal assessment of the site. The essment was performed in October and November 1999 with followup sampling performed in March 0. The assessment included Geoprobe<sup>m</sup> sampling, surface sampling and a geophysical survey. The ultraf the assessment showed levels of polychlorinated biphenyls (PCBs), heavy metals, and volatile uncompounds (VOCs) above the Region 9 Preliminary Remediation Goals (PRG) and Missouri Any Soil Levels (ASLs) at the surface and subsurface of the site. Contamination was also identified in the .nd water, and an alleged UST and drum burial area were located.

#### .3.3 Hydrologic, Hydrogeologic and Geologic Settings

The site is located on the edge of the Mississippi River flood plain, and hence may be underlain by a .derable thickness of alluvial deposits. This area is characterized by fill material over loess-based soil, residual soil expected immediately above the bedrock. The bedrock underlying the site is the St. vieve formation. This Mississippian-aged rock formation is approximately 30 feet thick in this area s characterized by white, massive bedded, sandy and clastic limestone. It is generally coarsely lline and oolitic. There are a few beds of finely crystalline limestone within this formation and a one characterized by lenses and clusters of algal material at the base. Underlying the St. Genevieve ubiquitous St. Louis formation, with a thickness of approximately 80 feet.



A removal action will be conducted that will include excavation of soil contaminated with metals, VOCs, and PCBs that were determined to be above the action levels detailed in Table 1 during the removal assessment. The removal action will require screening with a Niton x-ray fluorescence spectrometer (XRF) and a Foxboro 128 Organic Vapor Analyzer (OVA) to guide the excavation and subsequent sampling to verify those XRF and VOC results.

Table 1CONTAMINANT ACTION LEVELS—DON V. DAVIS SITE—ST. LOUIS, MISSOURITDD: S07-0005-022PAN: 1562DVRAXX								
Contaminant Surface Soil (0-12") Depths Beyond 1 Foot (mg/kg) (mg/kg)								
Antimony	23	23						
Arsenic	11	11						
Ethyl benzene	380	380						
Lead	1.000	1,000						
Polychlorinated biphenyls (PCBs)	10	50						
Toluene	490	490						
Xylene	480	480						

Removal activities are scheduled to begin the week of June 5, 2000, and anticipated to take 60 days to complete. Procurement of supplies and equipment that are necessary to complete the sampling activities will be coordinated by START personnel.

#### 1.5 QUALITY OBJECTIVES AND CRITERIA FOR MEASUREMENT DATA

The data quality objective is to provide valid data of known and documented quality to determine whether any of the aforementioned hazardous substances/parameters exist on the site at levels that exceed the action levels.

Goals for analytical precision and accuracy will be addressed in ATAS' quality assurance manual (QAM). Representativeness will be addressed by collecting all samples as described in this QAPP. Comparability will be addressed by collecting, analyzing, and reporting all data as described in this QAPP. A completeness goal of 100 percent has been defined for this activity as valid data is required to assess the extent of contamination and to verify the cleanup goal has been attained. A decision to collect additional samples due to invalidated data will be made by EPA regional management after the validated data are reviewed. Field precision, as determined by the collection and statistical analysis of duplicate samples, will

not be evaluated for this project, because an evaluation of spatial variability of the contaminants will not be required for appropriate decisions regarding cleanup of the site.

#### **1.6 SPECIAL TRAINING REQUIREMENTS/CERTIFICATION**

The required formal training of site personnel will be the completion of a basic 40-hour health and safety training course [Hazardous Waste Operations and Emergency Response (HAZWOPER)] and annual refreshers of the same. Familiarization with Geoprobe<sup>m</sup> sampling equipment, Niton XRF, and OVA operation will be necessary for the START sampling team.

#### **1.7 DOCUMENTATION AND RECORDS**

START personnel will maintain a field logbook to record all pertinent activities associated with the sampling event. Appropriate documentation pertaining to photographs taken by START will be also be recorded in the field logbook. Information pertaining to soil samples (i.e., sampling dates/times, location, etc.) collected during this event will be recorded on field sheets. Labels identifying sample number, dates collected, and requested analyses will be affixed to sample containers. Field sheets and labels will be generated and provided by START personnel.

Analytical information will be handled according to ATAS' QAM.

#### 2.0 MEASUREMENT/DATA ACQUISITION

#### 2.1 SAMPLING PROCESS DESIGN AND METHODS REQUIREMENTS

The 1.6-acre site will be staked in a 20-foot by 20-foot grid over the areas of concern for a total of 52 sampling and excavation cells, as shown in the attached site map (Attachment A: Figure 2: Site Map). This grid concentration is based on the site assessment findings and was agreed upon by START and the OSC based on professional judgement to provide a balance between cost and benefit. The sampling elements discussed below will be based on this site-specific grid.

A previous site assessment has identified 38 of the 52 cells as having surface contamination or subsurface contamination exceeding the site action levels. The types and depths of the contamination are identified in Table 2 below. Cells 42 through 52 have not been sampled yet. These will be sampled during the removal as time permits with the Geoprobe<sup>TM</sup> hydraulic sampler in the same manner as described in the Quality Assurance Project Plan (QAPP) for the Integrated Site Assessment under TDD S07-9909-002.

Excavation will be performed in 6-inch lifts to address the majority of the surface contamination across the site. Cells with subsurface contamination will be excavated initially to the depths indicated in Table 2. Any subsequent excavation of these cells will be excavated in lifts of 6-inches until the cell is verified clean by confirmation sampling. Non-contaminated soil (i.e., clean cap) above the contaminated zone will be stockpiled separately. Nine-aliquot soil samples will be collected from the bottom of each lift using dedicated stainless-steel spoons to place the soil into a disposable pie pan. The soil will then be homogenized and placed into the proper sample containers. For cells excavated greater than 4-feet in depth, samples will be collected directly from the excavator bucket so as to comply with OSHA regulations as specified in 29 CFR Part 126, Subpart F.

If the cell from which the sample was collected had been proven through previous analysis to contain lead and/or VOCs contamination only, the sample will undergo XRF screening (using a Niton XRF) and/or OVA screening. Samples will be collected in four- or eight-ounce jars. OVA screening will be performed by sampling the headspace of the jar after it has been vigorously shaken. An action level of 100 ppm headspace will be used for the VOC screening. This is based on results from a similar site, and may be modified as the site progresses depending upon the correlation between headspace readings and on going analytical results from verification sampling. XRF screening will be performed as described in the users manual of the instrument. An action level of 1,000 ppm lead will be used for the XRF screening. If the results of this screening indicate lead and/or VOC levels exceed the site action levels, the sample will not submitted for laboratory analysis. Sampled material will be returned to the cell, and the cell will be excavated 6 inches. If the screening process reveals lead levels below the action level, the cell will be resampled, and the sample will be submitted for analysis for all contaminants present within the cell.

If the cell was analytically proven to contain PCB levels above the action levels indicated in Table 1, the sample will be submitted for confirmation analysis for all contaminants present within the cell (e.g., no screening will be conducted). If laboratory analysis reveals any contaminant of interest to be above its respective action level, another 6-inch lift will be excavated, and another sample taken and submitted for the same process. Refer to Table 1 (Section 1.4) for individual contaminant action levels.

Excavated soil will be stockpiled, either on Visqueen<sup>m</sup> or another contaminated cell, according to the type of contamination. A multi-aliquot sample will be collected from each stockpile, and submitted for analysis to determine disposal options. The type of analysis performed will be dependant upon the types of contamination contained within each stockpile. Toxicity characteristic leachate procedure (TCLP) analysis will be performed on metals, VOCs, and PCBs. The TCLP data will be used to determine cost and method of disposal of the contaminated soil. In addition, PCBs will be analyzed for total concentrations.

Soil brought onsite for backfill purposes will be sampled and submitted for analysis for all contaminants found on site (PCB, VOCs and metals).

	Table 2										
	CONTAMINATED CELL SUMMARY										
Cell		Sample Point		Parameters Contaminant Depth Interval			Sample Point		Parameters Contaminent Depth Interval		
	Nov	March	Metals	PCBs	VOC		Nov	March	Metals	PCBs	VOC
1	(3)	21	2'-4'			· 14		3	2'-4'		2'-14'
2		23				15		2			6'-12'
3	(1)	的流畅	2'-4'	0-2*		16		8		ALL .	8'-14'
4	(6)	18,19	2000	<u>本</u> 一神		17	他沿海	9			12'-16'
5		20		0-2'		18	(15)	31		0-2*	
6		26				19	(15)	31		0-2"	
7	無害能能	26		2'-4'		20	(14)	32		0-2*	
8	(11)	27		0-2"		21	(14)	32		0-2"	
9	(11)	27		0-2"	建新规范	22	(14)	32		0-2"	
10	(10)	28		0-2"		23		33			
11	(10)	28		0-2"		24		33			
12	(10, 9)	28.29	A CONTRACTOR	0-2"		25	(19)	36		0-2'	
13	ത	29	्रम श्रेषम्	0-2*	-	26	(19)	36		0-2'	

	Table 2—(Continued)         CONTAMINATED CELL SUMMARY															
Cell	Cell Sample Peint Parameters Contaminant Cell Sample Point Parameters Contaminant Depth Interval											Sample Point				
	Nov	March	Metals	PCBs	VOC		Nov	March	Metals	PCBs	VOC					
. 27	(18)	35		0-2'		33	(20)	37		0-2*						
28	(18)	35		0-2'		34	(19)	36		0-2'						
29	(18)	35		0-2'		39		34		0-2'						
30	3	34		0-2'		40		34		0-2'						
31	(17)	14	0-2'	0-2"	12'-14'	41	(25)		2'-4'		2722					
32	(20)	37		0-2"	-	42										

#### 2.2 SAMPLING METHOD REQUIREMENTS

Collection of soil for analysis of total metals, PCBs, VOCs will follow Region 7 EPA/ENSV SOP #2231.12A: ERT #2012; "Soil Sampling". Dedicated stainless steel spoons will be used to collect the soil samples. Each of the samples will be transferred directly into the appropriate container for analysis.

Disposal of investigation-derived wastes and procedures for equipment/personnel decontamination will be addressed in a site-specific health and safety plan that is being prepared by START.

#### 2.3 SAMPLE HANDLING AND CUSTODY REQUIREMENTS

Samples will be collected in accordance with procedures defined in Region 7 EPA/ENSV SOP #2130.4B: "Sample Container Selection, Preservation and Holding Times". Chain of custody will be maintained for the collected samples, as directed by Region 7 EPA/ENSV SOP #2130.2A: "Field Chain of Custody for Environmental Samples". ATAS will handle the samples according to its QAM.

#### 2.4 ANALYTICAL METHODS REQUIREMENTS

The soil samples analyzed for total metals and TCLP metals will follow EPA Methods 6010 and 7417. Soil samples analyzed for PCBs will follow EPA Method 8082. Soil samples analyzed for VOCs and TCLP VOCs will follow EPA Method 8260. Laboratory analysis will follow ATAS' Quality Assurance Plan for the analysis of total metals, PCBs, and VOCs. Action levels for this activity are detailed in Table 1 with detection limits generally a magnitude lower. An estimated 135 samples will be submitted for analysis. For information pertaining to the specific number of samples per analyte see Table 3 below.

Table 3         SAMPLE TOTAL PER ANALYTE—DON V. DAVIS SITE—ST. LOUIS, MISSOURI         TDD: S07-0005-022         PAN: 1562DVRAXX								
No. Of Samples	Matrix	Parameter Name	EPA METHOD					
20	Soil	TAL Metais	SW 846 Method #6010/7417					
60	Soil	PCB	SW 846 Method #8082					
20	Soil	VOC	SW 846 Method #8260					
5	Soil	TCLP PCB	SW 846 Method #8082					
20	Soil	TCLP Metals	SW 846 Method #6010/7417					
10	Soil	TCLP VOC	SW 846 Method #8260					

#### 2.5 QUALITY CONTROL REQUIREMENTS

Because dedicated supplies will be used for the soil samples (i.e., stainless steel spoons), no rinsate samples will be required to assess the potential for cross-contamination. Analytical error (precision and accuracy) will be determined by the analysis of laboratory-prepared duplicates and spike samples. These criteria, along with other laboratory QC elements, will be performed in accordance with the contract laboratory's quality assurance plan.

#### 2.6 INSTRUMENT/EQUIPMENT TESTING, INSPECTION, AND MAINTENANCE REQUIREMENTS

For the health and safety monitoring instrumentation, the testing, inspection, and maintenance will be performed in accordance with manufacturers' recommendations.

#### 2.7 INSTRUMENT CALIBRATION AND FREQUENCY

Calibration of the field screening and laboratory analytical instrumentation will be in accordance with the referenced SOPs and manufacturers' recommendations.

#### 2.8 INSPECTION/ACCEPTANCE REQUIREMENTS FOR SUPPLIES AND CONSUMABLES

All sample containers will meet EPA criteria for chemical cleaning procedures for low-level chemical analysis. Sample containers shall have a Level II Certification from the manufacturer as meeting precleaning criteria established by EPA in "Specifications and Guidance for Contaminant-Free Sample Containers". Procedures for inspection and acceptance of sample containers shall be in accordance with

Section 2.8, Inspection/Acceptance Requirements for Supplies and Consumables, of the START Contract Quality Assurance Project Plan, dated July 1996.

#### 2.9 DATA ACQUISITION REQUIREMENTS

Data has been obtained from the Removal Assessment conducted in November 1999 and March 2000 to guide removal activities. Samples from the November 1999 investigation were analyzed and the data validated by the Region 7 EPA laboratory. Samples from the March 2000 investigation were analyzed by the contract laboratory and the data was validated by START.

#### 2.10 DATA MANAGEMENT

All laboratory data will be managed as specified in ATAS' QAM. Preliminary data will be received by the project manager on site. The final data package will be sent to the project manager and conveyed to a START chemist, trained in data validation, to complete the validation process. The results will be summarized and included in the report submitted to EPA.

#### 3.0 ASSESSMENT/OVERSIGHT

#### 3.1 ASSESSMENT AND RESPONSE ACTIONS

Because of the short duration of this sampling event, no field audits of sampling procedures are planned. Assessments and response actions pertaining to analytical phases of the project are addressed in the contract laboratory's quality assurance plan, the referenced analytical methods, and in E & E's SOP for review of subcontracted laboratories. Those documents identify out-of-control conditions, who is responsible for initiating corrective actions, and what corrective steps should be taken.

## 3.2 REPORTS TO MANAGEMENT

A letter report describing the sampling techniques, locations, problems encountered (with resolutions to those problems), and interpretation of analytical results will be prepared by the START project manager and submitted to EPA, following completion of the field activities described herein and receipt of validated laboratory data.

#### 4.0 DATA VALIDATION AND USABILITY

#### 4.1 DATA REVIEW, VALIDATION, AND VERIFICATION REQUIREMENTS

Data review and verification will be performed as specified in the selected laboratory's quality assurance pan and following E & E's SOP "Review of Data Packages from E & E Subcontracted Laboratories".

#### 4.2 VALIDATION AND VERIFICATION METHODS

The data will be reviewed by START, according to E & E SOP "Review of Data Packages from E & E Subcontracted Laboratories", to ensure that laboratory spikes, duplicates, blanks, etc., meet acceptable criteria. Any anomalies in the data will be appropriately documented. The EPA OSC will inspect the data to provide a final review.

#### **4.3 RECONCILIATION WITH USER REQUIREMENTS**

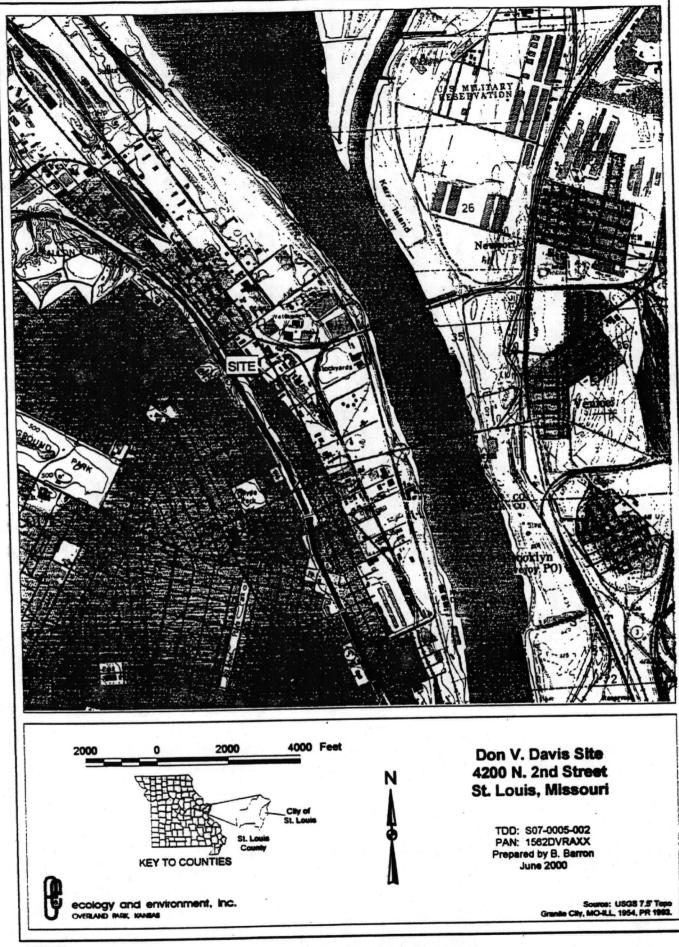
Once the data is received, results will be compared to the action levels being used for this site. If data quality indicators do not meet the project's requirements as outlined in this QAPP, the data may be discarded, and resampling and/or reanalysis may occur (as determined by the EPA site manager).

# ATTACHMENT A

Figure 1: Site Location Map Figure 2: Site Map with Defined Excavation/Sampling Cells

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Figure 1: Site Location Map

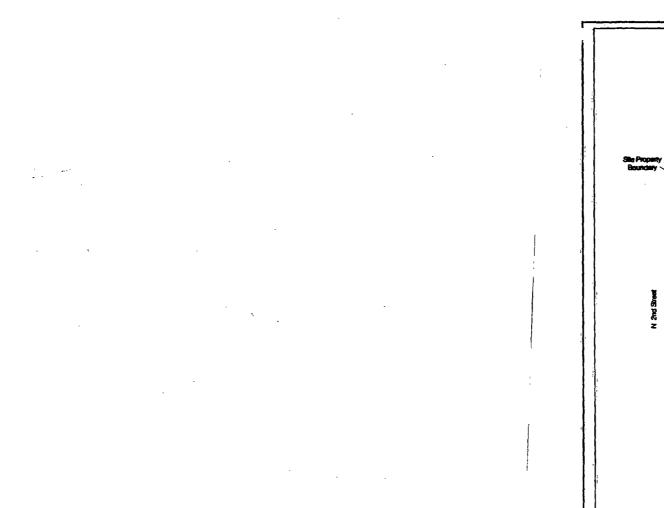
# ATTACHMENT B

# Subcontracted Analytical Services Request Form

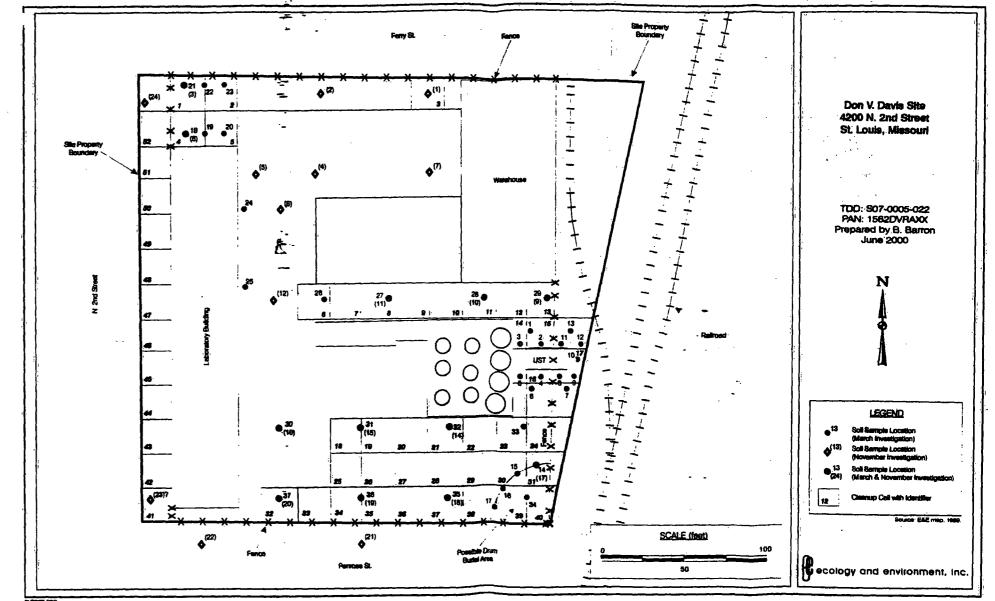
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Figure 2: Site Map Showing Proposed Cleanup Cells

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# REGION 7 START SUBCONTRACTED ANALYTICAL SERVICES REQUEST FORM

#### I. SITE INFORMATION

Site Name, City, & State:	
DONV. DAVIS	
Date of Request;	Activity Type (e.g removal, ER, RA, PA/SI, CID):
5/30/00	RA
Project TDD/PAN:	Analytical TDD/PAN:
EPA Site Manager:	Signature/Date:*
JIM SILVER	James / Silver 5-30-00
START Project Manager:	Signature/Date:
JOE PARISH	4 Dan L

\*If site manager signature not available, please sign with date and time of conversation of EPA approval.

Semple Group	No. Of Samples	Matrix	Parameter Name <sup>2</sup> / EPA Method	Simple. Delivery Date(s) <sup>1</sup>	Turnaround Time'.
TAL	20	SOIL	METALS / TOTAL	TBD	Zday
TCLP	20	SOIL	METALS /TCLP	TBD	2 day
TAL	30	SOIL	PCB	<u>†BD</u>	2day
TCLP	5	SOIL	PLB/TCLP .	TBD	Zday
TAL	20	SOIL	VOCS	TBD	2 day
TCLP	10	SOIL	VUCS/TELP	TBD	Iday
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#### II. REQUEST SUMMARY'

<sup>1</sup>If applicable, designate sample groups with different special requirements and submit multiple copies of sections III & IV.

<sup>2</sup>For metals, a specific group must be named, i.e. RCRA, PP, CLP-TAL, SPFD

<sup>3</sup> Laboratory must be contacted on day of shipment to make sure samples are expected and turnaround confirmed.

<sup>4</sup> Measured in work days from sample receipt at lab. Assume fax/verbal for 1-7 day RUSH. Please list sampling events with different turnaround requirements as separate analyses.

# **REGION 7 START** SUBCONTRACTED ANALYTICAL SERVICES REQUEST FORM

# **III. QC REQUIREMENTS**

Sample Group

Site-specific QC Sampler	s:	Commercial PES
Project Specific Audit R	equested: 🛛 Yes 🗆 No	
Deliverables:	□ Full (CLP-style) Package (raw ★ Standard Package (summary +	data and quant reports) QC)
Other QC Requirements	:	

#### **IV. SPECIAL REQUIREMENTS**

Sample Group

A REAL PROPERTY OF A REAL PROPER	وبالارتفاد والمتحال والمتحاذ والمتحاد والمتحاد والمتحاد والمتحاد والمتحاد	
Levels Of Interest Are Specified:	In QAPP (attach relevant sections)	On attached table(s)
*	Standard EPA SW846 method det	ection limits are adequate

Binchmarke. And Angel	Volatiles	Semi- Volatiles	PCB	Pisticides.	Mitals	Other
Region 3 Risk-Based Screening - Industrial Soil						
Region 3 Risk-Based Screening- Residential Soil						
Missouri Any-Use Soil Leveis	X				X	
EPA MCL (Drinking Water)						
Other: (SCDM, Surface Water Standards, etc.)	¢		TSCA 761.120		LEAD RTX PR6	

Please indicate if action levels below are to be applied with an "X" in the appropriate column.

EPA Site Manager Initials/Date

# REGION 7 START SUBCONTRACTED ANALYTICAL SERVICES REQUEST FORM

#### **IV. SPECIAL REQUIREMENTS (Continued)**

Sample Group \_\_\_\_\_

#### **Compound Specific Requirements**

Matrix	Level of Interest (Action Level)	Required Detection Limit
SOIL	1000 prus	leam
	23 ppm	
	10ppm	
	3500mm	
	490 ppm	
SOIL	460 ppm	
	SOIL SOIL SOIL	SOIL       1000 pp m         23 ppm         10 ppm         350 ppm         490 ppm         SOIL         490 ppm         SOIL         460 ppm         Depth         □ Level 2 - Plus_% Raw Data Verification

\*Data review levels and procedures defined in Region 7 START SOP for Review of Data Deliverables Packages from Subcontracted Laboratories

**Transport of Samples:** 

Lab Pick-up
 Airborne/Fedex

Hand Deliver

Geographic Proximity Requested: X1-2 hour drive from site (must justify) 🗆 up to 4 hour drive

in o preference (will ship samples)

form around is receivery; Justification:

Laboratory Certifications Required (list state and parameter):

EPA Site Manager Initials/Date