

REQUEST FOR RECORDS DISPOSITION AUTHORITY				LEAVE BLANK (NARA use only)	
TO NATIONAL ARCHIVES and RECORDS ADMINISTRATION (NIR) WASHINGTON, DC 20408				JOB NUMBER <i>NI-142-97-16</i>	
1 FROM (Agency or establishment)  Tennessee Valley Authority				DATE RECEIVED <i>6-18-97</i>	
2 MAJOR SUBDIVISION Resource Group				NOTIFICATION TO AGENCY  In accordance with the provision of 44 U.S.C. 3303a the disposition request, including amendments, is approved except for may items that be marked "disposition not approved" or "withdrawn" in column 10.	
3 MINOR SUBDIVISION Water Mgmt / Environmental Chemistry					
4 NAME OF PERSON WITH WHOM TO CONFER Donna S Howard		5 TELEPHONE (423) 751-8888			
6 AGENCY CERTIFICATION I hereby certify that I am authorized to act for this agency in matters pertaining to the disposition of its records and that the records proposed on the attached (pages) page(s) are not now needed for the business of this agency or will not be needed after the retention periods specified, and that written concurrence from the General Accounting Office, under the provisions of Title 8 of the GAO Manual for Guidance of Federal Agencies, <input checked="" type="checkbox"/> is not required, <input type="checkbox"/> is attached, or <input type="checkbox"/> has been requested					
DATE <i>5/21/97</i>		SIGNATURE OF AGENCY REPRESENTATIVE <i>Georgia S. Greene</i>		TITLE <i>Manager, Records Management</i>	
7. ITEM NO.	8. DESCRIPTION OF ITEM AND PROPOSED DISPOSITION			9. GRS OR SUPERSEDED JOB CITATION	10. ACTION TAKEN (NARA USE ONLY)
1	See attached jobs as follows				
2	Environmental Chemistry Laboratory Procedures and Analysis Records				
3	LABSAM Sample Management and Tracking System				
4	LAS GC/HPLC Computer Instrument Monitoring System				
5	Gas Chromatography and Mass Spectrometry (GC/MS) Instrument Monitoring System				
6	ICP AES Instrument Monitoring System				
	LATCHET Instrument Monitoring System				
	<i>All changes to this schedule approved by TVA via e-mail from Georgia Greene on 2/17/00 by Elter</i>				

*Agency, NR, NRC*

1 ENVIRONMENTAL CHEMISTRY LABORATORY PROCEDURES AND ANALYSIS RECORDS

This series contains the records of the Environmental Chemistry Laboratory in Chattanooga. The laboratory maintains a procedures file containing its quality assurance plan for operation and analytical methods that dates from the early 1960's and continuing. Laboratory analyses records coded by a numeric system are also maintained. The procedures and analyses records are both QA records and are subject to audit by TVA's Environmental Management System (EMS), Environmental Protection Agency (EPA), and U S Geological Survey. All official correspondence for the laboratory is filed in the Water Quality and Aquatic Biology official file.

The laboratory's internal customers are Fossil Hydro, and TVA Nuclear, Industrial Hygiene, Water Quality Department, Aquatic Biology Department, Environmental Services Engineering Laboratory, and Land Between the Lakes. The external customers are Corps of Engineers, U S Geological Survey, Department of Energy, and U S Forestry Service. The outside-TVA work is handled by contract. The report to the client (internal and external to TVA) requesting an analysis consists of a computer-generated letter transmitting the computer-generated report of the analysis.

Laboratory analyses of ambient environmental samples and workplace environmental samples are documented by printouts and laboratory worksheets generated by the laboratory instruments and the laboratory technicians. The hard copy records maintained to document the raw data associated with all analyses include information such as analytical methodology, lab sample number, weights, volumes, instrument readings, and sample identification information. Records are filed by analytical techniques, then by date, and then by sample number. Gas chromatography records are filed by analytical techniques, then by parameter, then by sample number.

All analysis samples arrive at the laboratory accompanied by form TVA 30488, Water Quality Department Environmental Chemistry Analysis Request and Custody Record, or some communication containing the information requested on TVA 30488. This information is keyed into LABSAM, and the sample is forwarded to the respective analytical area for the analysis. An appropriate analysis/test is scheduled. Depending on what type testing is required, there are six possible routes an analysis can take. These are listed below.

- (1) LAS (HP 10000) System If the analysis involves gas chromatography (GC) and high performance liquid chromatography, testing is accomplished by instruments attached to analog readings that convert to digital and into the LAS computer system. When the testing is complete, the end result only is unloaded to LABSAM. The raw test data is archived off the system onto magnetic tape once each month.
- (2) GC/MS (HP 1000 System)—If the analysis involves gas chromatography and mass spectrography (MS), testing is accomplished by the same procedure as shown above for the LAS system. When the testing is complete, the end result only is uploaded to LABSAM. The raw test data is archived off the system onto magnetic tape once each month.

ENVIRONMENTAL CHEMISTRY LABORATORY PROCEDURES AND  
ANALYSIS RECORDS (continued)

- (3) ICP AES System—This computer system is used to record data for tests which involve analyzing metals. The end results are copied onto a digital tape and uploaded into LABSAM.
- (4) LATCHET System—This computer system is used to record data for tests which involve analyzing nutrients (ammonia, nitrogen, phosphorus, etc.) The end results are copied onto a computer disk and uploaded into LABSAM.
- (5) Personal Computer Analysis Tests—Manually performed analyses are entered onto PC data storage disks. The end results of these analyses are manually entered into LABSAM.
- (6) Manually Performed Analysis. Certain water quality analyses are performed manually. The raw data information is recorded into GBC-bound laboratory notebooks. Laboratory technicians use the notebooks to record sample numbers, methods, QA/QC procedures, and results. Sample numbers and results information are manually input into LABSAM, but the methodology information necessary to validate and replicate the results is not. Each notebook contains a specific type of analysis for a specific time period and all analytical information is stored within.

DISPOSITION

A Procedures File

Destroy when water quality analysis program is discontinued or when no longer needed for reference, whichever is sooner.

B Laboratory Notebooks

<sup>1</sup> Paper copy  
If not filmed, destroy when 5 years old.  
If filmed, Destroy when microfiche is verified

2 Microfiche

a Silver original

5 years old unless needed longer for reference not to exceed  
Destroy when water quality analysis program is discontinued or <sup>Program</sup> longer needed for reference, <sup>termination.</sup> whichever is sooner.

b Diazo duplicates

5 years old unless  
Destroy when ~~no longer~~ needed for reference not to exceed program <sup>termination.</sup>

ENVIRONMENTAL CHEMISTRY LABORATORY PROCEDURES AND  
ANALYSIS RECORDS (continued)

C Paper records documenting raw data analyses

Destroy five year after completion

2 LABSAM SAMPLE MANAGEMENT AND TRACKING SYSTEM

The Environmental Chemistry Laboratory uses an electronic Hewlett Packard 1000 sample management and tracking system called LABSAM. When the laboratory receives a sample, it is accompanied by form TVA 30488, TVA Water Quality Department Environmental Chemistry Analysis Request and Custody Record. Approximately 20 fields of information contained on form 30488 are input into LABSAM. LABSAM assigns the sample number and records other information for later identification. There are approximately 1,500 tests that could be run, with the analyses results later entered into LABSAM.

After information for a sample is input in LABSAM, the sample is forwarded to the respective analytical area for analysis. Some analyses are performed by instruments that are electronically monitored and the analyses results are uploaded to LABSAM. Other analyses are performed manually with the results being input into LABSAM either manually or from computer disk. The report to the client (internal and external to TVA) who requested an analysis consist of a computer-generated letter from LABSAM transmitting the computer-generated report of the analysis, accompanied by a copy of form TVA 30488 or equivalent. A copy of form TVA 30488 is kept by the project leader and is filed by year, by project. The information contained in LABSAM is archived off onto magnetic tape approximately once each year.

DISPOSITION

A ~~Paper Copy of~~ Client Reports of Laboratory Analysis (LABSAM) ~~or~~  
~~LSIMS~~

Destroy ~~without filing~~ <sup>delete</sup> ~~erase~~ when 5 years old unless needed longer for reference, not to exceed program termination.

B Magnetic Tape of LABSAM ~~OR LSIMS~~ Data

~~Destroy~~ <sup>erase</sup> when 5 years old unless needed longer for reference, not to exceed ~~program termination.~~  
~~when water quality analysis program is discontinued or when no longer~~  
~~needed for reference, whichever is sooner~~

C Form 30488 or equivalent kept by project leader

Destroy when no longer needed for reference, not to exceed five years

3 LAS GC/HPLC COMPUTER INSTRUMENT MONITORING SYSTEM

The Environmental Chemistry Laboratory uses LAS, a Hewlett Packard 1000 electronic instrument monitoring system, to control and monitor laboratory analyses involving gas chromatography (GC) high performance liquid chromatography (HPLC) LAS gathers data files containing raw data information for each analysis Las instruments are attached to analog readings and the results, but not the raw data, are converted to digital and uploaded into LABSAM (see Item 2) The raw data information is printed and maintained in hard copy for six years to meet Environmental Protection Agency (EPA) requirements The raw data is archived off onto magnetic tape once each month or as needed, as dictated by available disk space

DISPOSITION

A Computer-generated Paper Records

Destroy five years after completion

B Analysis Data Tapes

*erase when 5 years old unless needed longer for reference not to exceed*  
Destroy ~~when water quality analysis program is discontinued, or when~~  
~~no longer needed for reference, whichever is sooner~~

4 GAS CHROMATOGRAPHY AND MASS SPECTROMETRY (GC/MS) INSTRUMENT MONITORING SYSTEM

The Environmental Chemistry Laboratory uses GC/MS, a Hewlett Packard 1000 electronic instrument monitoring system, to control and monitor laboratory analyses involving mass spectrometry (MS) GC/MS gathers data files containing raw data information for each analysis GC/MS instruments are attached to analog readings and the results, but not the raw data, are converted to digital and uploaded into LABSAM (see Item 2) The raw data information is archived off onto magnetic tape once each month, or as needed (determined by available disk space)

DISPOSITION

A Computer-generated Paper Records

Destroy five years after completion

B Analysis Data Tapes

*erase when 5 years old unless needed longer for reference not to exceed*  
Destroy ~~when water quality analysis program is discontinued, or when~~  
~~no longer needed for reference, whichever is sooner~~

5 ICP AES INSTRUMENT MONITORING SYSTEM

The Environmental Chemistry Laboratory uses the ICP AES electronic instrument monitoring system to control and monitor laboratory analyses which involve analyzing metals. Analyses results from ICP AES are copied onto digital tape and dumped into LABSAM (see Item 2)

DISPOSITION

A Computer-generated Paper Records

Destroy five years after completion

B Analysis Data Tapes

*erase when 5 years old unless needed longer for reference not to exceed*  
Destroy ~~when water quality analysis program is discontinued, or when~~  
~~no longer needed for reference, whichever is sooner~~

6 LATCHET INSTRUMENT MONITORING SYSTEM

The Environmental Chemistry Laboratory uses the LATCHET electronic instrument monitoring system to run laboratory analyses which involve analyzing nutrients (ammonia, nitrogen, phosphorus, ect ) Analyses results, but not the raw data, from LATCHET is copied onto computer disks and dumped into LABSAM (see Item 2) The raw data information is archived off onto magnetic tape once each month

DISPOSITION

A Computer-generated Paper Records

Destroy five years after completion

B Analysis Data Tapes

*erase when 5 years old unless needed longer for reference not to exceed*  
Destroy ~~when water quality analysis program is discontinued, or when~~  
~~no longer needed for reference, whichever is sooner~~