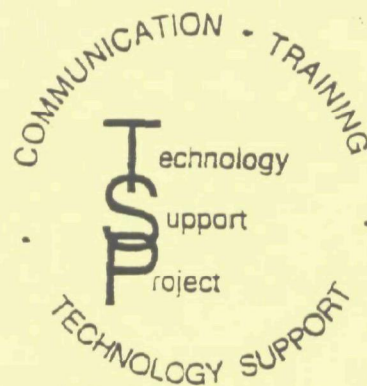




Superfund/RCRA
Technology Support
Project

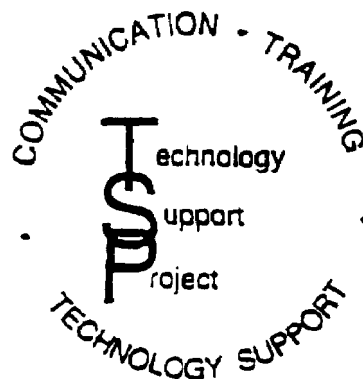


**CRD-LV
TECHNOLOGY SUPPORT CENTER FOR
MONITORING AND SITE
CHARACTERIZATION
FY96 FIRST QUARTERLY REPORT
OCTOBER-DECEMBER 1995**

December 30, 1995



Superfund/RCRA
Technology Support
Project



**CRD-LV
TECHNOLOGY SUPPORT CENTER FOR
MONITORING AND SITE
CHARACTERIZATION
FY96 FIRST QUARTERLY REPORT
OCTOBER-DECEMBER 1995**

December 30, 1995

TABLE OF CONTENTS

(Indexed by Site Name)

SUPERFUND	1
REGION 1	1
Grace, W.R. SF Site	1
Norwood SF Site	1
O'Connor, F. SF Site	2
Ottati & Goss/Kingston Steel Drum S.F. Site	3
Pine Street Canal SF Site	3
Western Sand & Gravel SF Site	4
REGION 2	5
Diamond Alkali SF Site	5
Warwick Landfill SF Site	5
REGION 3	6
Aberdeen Proving Ground SF Site	6
Chem-Solv SF Site	6
Elrama School SF Site	7
Fort George Meade SF Site	8
METCOA Superfund Site	8
Naval Air Warfare SF Site	9
Naval Ships Control Center SF Site	9
Navy Training Center-Bainbridge SF Site	10
Philadelphia Naval Complex (PNC) SF Site	10
Saegertown Industrial Area SF Site	11
REGION 4	12
Aberdeen Pesticide Area SF Site	12
Marzone Inc. SF Site	12
REGION 5	13
Allied Chemical/Ironton Coke SF Site	13
Byron Salvage SF Site	13
Site: Lorain County SF Site:	14
Ottawa S.F. Site	14
Petoskey Municipal SF Site	15
REGION 6	15
South Cavalcade SF Site	15
REGION 7	16
Cherokee SF Site	16
Oronogo-Duenweg SF Site	16
REGION 8	17
REGION 9	17
Allied Signal SF Site	17
Concord Naval SF Site	18
Hawker Pacific SF Site	19
Luke AFB SF Site	19
Marine Corps Air Station Yuma SF Site	20
Modesto SF Site	20
San Fernando SF Site	21
REGION 10	22
Bunker Hill SF Site	22

SUPERFUND SHORT-TERM REQUESTS	23
Short Term Requests	23
RCRA CORRECTIVE ACTION	25
REGION 1	25
REGION 5	25
Columbus Waste-To-Energy RCRA Facility	25
REGION 8	25
EXXON Refinery RCRA Facility	25
REGION 9	26
Greenfield Environmental of Arizona RCRA Facility ..	26
REGION 10	27
Georgetown RCRA Facility	27
RCRA SHORT TERM REQUEST	28
Short Term RCRA Technical Support	28
SUPERFUND REMOTE SENSING SHORT TERM REQUEST	29
Superfund Short Term Remote Sensing Technical Support	29
RCRA REMOTE SENSING SHORT TERM REQUEST	30
RCRA Short Term Remote Sensing Technical Support	30
ISSUE PAPER	31
Identifying Background	31
ISSUE PAPER	32
Explosives in Soil	32
COORDINATION	33
Superfund Coordination	33
RCRA Coordination	33
TECHNOLOGY TRANSFER	34
Superfund Technology Transfer	34

SUPERFUND

REGION 1

- Project Name: W.R. Grace Superfund Site
Site: Grace, W.R. SF Site
Site ID:

Job Order No: 226 10106

Type-Lead:
Requested by: Lynn Jennings (617) 573-9634
Lead Scientist: A.K. Singh (702) 435-3731

Start Date: May 1995
Expected Completion Date: September 1995
Revised Completion Date: March 1996

Estimated Budget: \$5,000
Revised Budget: \$
Major Contaminants: Organics

Total Expenditures: \$3,988
Total FY96 Expenditures: \$0
Total 1st Qtr. Expenditures: \$0

The Region I Remedial Project Manager (RPM) requested that the Characterization Research Division Las Vegas (CRD-LV), Technology Support Center (TSC) examine the use of a formula for an **upper one-sided 100(1- α) percent confidence limit**, for assessing site sampling/monitoring data. Three data sets were sent to the TSC for assessment. The following statistical tests were performed on the data sets:

- Summary statistics and sample histograms of concentration data and log-transformed concentration data were computed using the software package GEO-EAS.
- Kolmogorov-Smirnov test was used to test normality and log-normality of the data using the software package SCOUT.
- Tests for outliers were performed on the data using the Software SCOUT.

A report that provided the statistical assessment and recommendations titled "Statistical Analysis of Battery Separation Lagoon Post Excavation Sampling Data for W.R. Grace Superfund Site" was provided to the RPM. Additional review of site documents is recommended.

- Project Name: Norwood Superfund Site
Site: Norwood SF Site
Site ID:

Job Order:

Type Lead:
Requested by: Anne Marie Burke: (617) 223-5528
Lead Scientist: A.K. Singh (702) 435-3731

Start Date: December 1995
Expected Completion Date: April 1996
Revised Completion Date:

Estimated Budget: \$6,000
Revised Budget: \$
Major Contaminants: Organics

Total Expenditures: \$3,600
Total FY96 Expenditures: \$3,600
Total 1st. Qtr. Expenditures: \$3,600

The Regional Remedial Project Manager (RPM) requested that the CRD-LV, TSC evaluate the statistical analysis performed by Cambridge Environmental Inc. for the Norwood site. The hard copy of the data was provided. The data included five contaminants of concern (Benzo(a)-pyrene, Benzo (a)-anthracene, Benzo(b)-fluoranthene, Benzo(k)-fluoranthene, and Chrysene from six (6) areas. The TSC examined the available data and provided a report titled "Statistical Analysis of Data from the Norwood PCD site, MA. Additional assessments of site data are anticipated.

- Project Name: F. O'Connor Company
Site: O'Connor, F. SF Site
Site ID:

Job Order: 224 01109

Type-Lead:
Requested by: Ross Gilleland (617) 573-9662
Lead Scientist: A.K. Singh (702) 435-3731

Start Date: February 1995
Expected Completion Date: September 1995
Revised Completion Date: February 1996

Estimated Budget: \$10,000
Revised Budget: \$
Major Contaminants: PCBs

Total Expenditures: \$ 6,480
Total FY96 Expenditures: \$ 0
Total 1st Qtr. Expenditures: \$ 0

A geostatistical analysis of the distribution of soil contaminated with polychlorinated biphenyls (PCBs) was conducted to develop the sampling plan for the F. O'Connor Superfund Site in Augusta, Maine. The analysis was designed to support attainment of target cleanup goals as specified in the U.S. Environmental Protection Agency (EPA) Record of Decision (ROD) for the Site. Over 450 soil samples were collected during Remedial Investigation and pre-design phases of the study. Chemical analysis of these samples were performed for PCBs using both laboratory and field screening methods. Samples were initially collected at grid locations, while subsequent samples were collected to define areas of higher concentrations and to determine the clean boundaries of the site.

Analysis of the comprehensive data set as well as data subsets indicated a log-normal distribution of the data. Data subsets were developed based on knowledge of waste disposal and contaminant distributions. Variogram analysis was conducted using indicator parameters corresponding to the ROD specified threshold limits of 1 and 10 ppm PCBs.

The RPM has requested that the CRD-LV TSC evaluate the geostatistical model used by the PRP, the use of the geometric mean to establish compliance with the cleanup criteria, and to comment on the use of composite samples. CRD-LV personnel reviewed the provided data and submitted an initial response. Additional reviews of the utilized statistical procedures are in process.

Following the review and acceptance of the Work Plan, providing on-site oversight and field audit for the "Preliminary Soil/Sediment Screening/Sampling" of the Phase I ARI activities conducted by the PRPs was required. Field audit oversight included observing and documenting the field activities, and analyzing split samples using fix-lab analysis. Reviews of site documents were completed. Split samples were collected and sent

to CRD-LV for analysis. The analysis was completed during this quarter. In addition, a field on-site audit was completed. The results of the audit with suggestions and recommendations were sent to the RPM. The initial draft of the data validation report was provided to the RPM. Additional technical support is anticipated.

- Project Name: Ottati & Goss
Site: Ottati & Goss/Kingston Steel Drum S.F. Site
Site ID:

Job Order No: 207 S1170

Type-Lead:
Requested by: Richard Goehlert (617) 573-5742
Lead Scientist: Mark Silverstein (702) 897-3291

Start Date: October 1995
Expected Completion Date: March 1996
Revised Completion Date:

Estimated Budget: \$6,000
Revised Budget: \$
Major Contaminants: PCBs, Pesticides

Total Expenditures: \$3,345.
Total FY96 Expenditures: \$3,345.
Total 1st Qtr. Expenditures: \$3,345.

The Regions Remedial Project Manager (RPM) requested that the Characterization Research Division Las Vegas (CRD-LV), Technology Support Center (TSC) provide assistance in field measurements and monitoring design. The site is in design and of particular concern is the potential remediation of a wetland area contaminated with PCBs and pesticides. The Eco risk has been completed in draft form. There is still some work to be done to complete the Eco risk. The remaining work is dependent upon knowing, or being able to extrapolate from existing data, the PCB concentrations in the area of the wetland that has not been characterized. It has been determined that the extrapolation is not possible with remaining wetland has been decided upon. It has been decided to use field analysis methods (Immunoassay) to determine the extent of contamination and to complete the Eco Risk.

The TSC provided an assessment of available data and suggested a possible design approach. The RPM decided to utilize another approach for measuring PCBs. As such, the involvement of the TSC may be limited.

- Project Name: Pine Street Canal
Site: Pine Street Canal SF Site
Site ID: 01NHG1

Job Order No: 224 10196

Type-Lead:
Requested by: Ross Gilleland (617) 573-5766
Lead Scientist: Mark Silverstein (702) 897-3291/D. Jackson (702)

Start Date: July 1994
Expected Completion Date: March 1996
Revised Completion Date:

Estimated Budget: \$25,000
Revised Budget: \$40,000
Major Contaminants: PAHs

Total Expenditures: \$59,454 PC&B \$2,400.
Total FY96 Expenditures: \$0 PC&B \$ 500
Total 1st Qtr. Expenditures: \$0 PC&B \$500

The Region 1 Project Officer requested that approaches be examined to determine whether the Pine Street Canal site characterization techniques are addressed sufficiently. A sampling/monitoring approach for confirming the vertical and lateral extent of soil/sediment contamination, procedures for identifying levels of soil/sediment

contamination, procedures for identifying levels of soil, sediment and possible water contamination, the quality assurance/quality control (QA/QC) plan, the S&A plan and all other methods being proposed to fully characterize the site for remedial purposes. In addition, an assessment of data needs necessary to satisfy the characterization objectives was required. This data assessment involved data interpretation and recommendations involving statistical and other tests necessary for making decisions concerning the extent of site contaminants.

To characterize site contaminants, the selection of an appropriate immunoassay kit was an important factor in successfully completing the site characterization objectives. Addressing this effort required CRD-LV scientists(s) to identify critical elements that must be implemented by the PRPs to validate the immunoassay technology. In addition, TSC scientist(s) will be required to assess the validation process/procedures and the data obtained.

Following the review and acceptance of the Work Plan, providing on-site oversight and field audit for the "Preliminary Soil/Sediment Screening/Sampling" of the Phase I ARI activities conducted by the PRPs was required. Field audit oversight included observing and documenting the field activities, and analyzing split samples using fix-lab analysis. Numerous reviews of site documents were completed. Split samples were collected and sent to CRD-LV for analysis. The analysis was completed. In addition, a field on-site audit was completed. The results of the audit with suggestions and recommendations were sent to the RPM. The initial draft of the data validation report was provided to the RPM. The CRD-LV TSC provided additional recommendations and comments pertaining to the data validation report. Additional data assessment may be required.

- Project Name: Western Sand & Gravel Data Review
Site: Western Sand & Gravel SF Site
Site ID:

Job Order No: 226 10106

Type-Lead:

Requested by: Al Klinger (617) 573-9662

Lead Scientist: A.K. Singh (702) 435-3731

Start Date: June 1995

Expected Completion Date: September 1995

Revised Completion Date: March 1996

Estimated Budget: \$5,000

Revised Budget: \$

Major Contaminants: Organics

Total Expenditures: \$1,424

Total FY96 Expenditures: \$0

Total 1st Qtr. Expenditures: \$0

A number of years ago, the CRD-LV TSC provided statistical support to the RPM pertaining to the Wilcoxon Test to compare theoretical versus observed data. This effort was in support of completing the ROD. Relative to the Wilcoxon Test, the RPM provided the TSC with some site data (benzene levels in groundwater) for assessing "Outliers". The TSC provided the RPM with an assessment of the data that included:

- An assessment pertaining to the normal data distribution, and
- Statistical tests for Outliers using the following two options: (a) classical, and (b) Huber's Robust Procedure. In addition to the statistical assessment, recommendations and conclusions pertaining to the data analysis were provided. Additional reviews of site documents is anticipated.

REGION 2

- Project Name: Diamond Alkali
Site: Diamond Alkali SF Site
Site ID:

Job Order: 224 10179

Type-Lead: Fund

Requested by: Lance Richman (214) 264-6695

Lead Scientist: A.K. Singh (702) 435-3731, J.R. Donnelly

Start Date: July 1993

Expected Completion Date: February 1994

Revised Completion Date: April 1996

Estimated Budget: \$30,000

Revised Budget: \$

Major Contaminants: Organics, PCBs

Total Expenditures: \$27,607, PC&B \$800

Total FY96 Expenditures: \$100 PC&B \$300

Total 1st Qtr. Expenditures: \$100 PC&B \$300

The RPM requested that the TSC provide a quality assurance and RI review. In addition, a review of the suggested monitoring design approach was requested. CRD-LV provided a report that addressed QA aspects and provided a number of suggestions that would enhance the identity of the geographical distribution of PCBs in sediments in the Passaic River. CRD-LV has assisted the RPM in negotiations with the PRPs and assisted in the development of a definitive monitoring design approach. CRD-LV scientists received the final S&A Plan developed by the PRPs. Comments and suggestions pertaining to the final S&A Plan were provided to the RPM. Recommendations and comments pertaining to suggested statistical tests were provided to the RPM. A request to assess available dioxin analytical methods was received. Recommended analytical procedures were provided to the Region. The CRD-LV TSC provided additional dioxin analysis recommendations to the RPM. The RPM and TSC personnel are in the process of writing a paper describing the monitoring design approach.

- Project Name: Warwick Landfill
Site: Warwick Landfill SF Site
Site ID: NYD980506679

Job Order No: 226-10106

Type-Lead: Remedial

Requested by: Damion Duda (212) 264-9589

Lead Scientist: Steve Pyle (702) 798-2529

Start Date: January 1994

Expected Completion Date: September 1993

Revised Completion Date: January 1996

Estimated Budget: \$10,000

Revised Budget: \$

Major Contaminants: Organics

Total Expenditures: \$ 6,149, PC&B \$6,100

Total FY96 Expenditures: \$ 0

Total 1st Qtr. Expenditures: \$ 0

The RPM requested that CRD-LV provide technical assistance in finding an analytical method to analyze cellosolves in environmental samples. The CRD-LV ASB tested the feasibility of using a quick-turn-around method using direct aqueous injection (DAI) by analyzing five test compounds. The results of these tests were provided to the RPM. The TSC has requested from the RPM samples from the site be sent to CRD-LV to definitively test the DAI method. The Region sent samples to CRD-LV for analysis. The samples were analyzed, and a report titled, "Report on Warwick Sample Analysis Using Direct Aqueous Injection GC/MS Methodology" was sent to the RPM. The RPM requested additional explanation of the reported results. Additional explanations of the provided data may be requested.

REGION 3

- Project Name: Aberdeen Proving Grounds
Site: Aberdeen Proving Ground SF Site
Site ID:

Job Order No: 226-01115

Type-Lead: Remedial

Requested by: Dawn Ioven (215) 597-1309

Lead Scientist: A.K. Singh (702) 435-3731

Start Date: July 1995

Expected Completion Date: September 1995

Revised Completion Date: September 1996

Estimated Budget: \$20,000

Revised Budget: \$

Major Contaminants: Organics

Total Expenditures: \$ 7,570

Total FY96 Expenditures: \$0

Total 1st Qtr. Expenditures: \$0

The Aberdeen Proving Ground (APG) occupies 79,000 acres of land and water near the head of the Chesapeake Bay. The APG consists of two areas that are listed separately on the NPL: the Edgewood area and the Michaelsville area. The Edgewood area is 13,000 acres and includes Gunpowder Neck, Pooles Island, Carroll Island, and Graces Quarters.

Preliminary on-site groundwater sampling has identified various metals, phosphorus, and volatile organic compounds (VOCs) including chloroform and benzene. Preliminary on-site soil contamination sampling has identified various VOCs, metals, and unexploded ordnance in surface and subsurface soil.

To address some risk assessment issues, the RPM requested that the CRD-LV TSC review the report, "*Installation Restoration Program Carroll Island/Graces Quarters, Aberdeen Proving Ground Risk Assessment Framework, Draft, May 1995.*" Based upon the data in the report, the RPM requested that the CRD-LV TSC address the following questions:

- Is it appropriate to use non-parametric methods to determine site-wide concentrations when contaminants were detected in <50% of samples?
- If yes, how should non-detects be handled?
- Is it appropriate to use the UTL to define background concentrations in inorganics (for comparison to on-site levels)?

The TSC provided a report to the RPM that addressed the above three issues. Additional support is anticipated.

- Project Name: Chem-Solv Superfund Site
Site: Chem-Solv SF Site
Site ID:

Job Order No: 226 10106

Type-Lead:

Requested by: Debra Rossi (215) 597-9238

Lead Scientist: A.K. Singh (702) 435-3731

Start Date: June 1995
Expected Completion Date: September 1995
Revised Completion Date: February 1996

Estimated Budget: \$6,000
Revised Budget: \$
Major Contaminants: Organics

Total Expenditures: \$3,632
Total FY96 Expenditures: \$0
Total 1st Qtr. Expenditures: \$0

The PRP's developed and have proposed to use a statistical procedure for assessing and identifying trends in groundwater contaminants at this site. Based on the trends analysis, the PRP's will identify the time period required to attain and meet the specified cleanup standards.

The RPM requested that the CRD-LV TSC review the proposed procedure and determine if this method would be acceptable in satisfying the sites cleanup objectives. The TSC assessed the suggested approach and provided the RPM with comments and suggestions in a report titled, "Some Recommendations for Statistical Analysis of VOC Concentrations in Groundwater from the Chem-Solv, Inc. Superfund Site." Additional review of site data may be required.

- Project Name: Elrama School Superfund Site
Site: Elrama School SF Site
Site ID:

Job Order No: 226 10106

Type-Lead: Fund
Requested by: Glen S. Lapsley (215) 597-6684
Lead Scientist: A.K. Singh (702) 435-3731

Start Date: July 1995
Expected Completion Date: September 1995
Revised Completion Date: June 1996

Estimated Budget: \$12,000
Revised Budget: \$
Major Contaminants: Lead

Total Expenditures: \$6,466
Total FY96 Expenditures: \$3,600
Total 1st Qtr. Expenditures: \$3,600

This site is located in Elrama Township, Washington County, Pennsylvania. Disposal of waste, including filter cake residue, solvents, and acid clay catalysts from the production of hydrocarbon resins, has occurred in a ravine located on the site.

Currently, the EPA Region III Removal Enforcement Section is overseeing actions taken at the site by the Potentially Responsible Party (PRP), in accordance with an EPA Administrative Order. The PRP has submitted a

The current agreement is that the representative concentration (statistically determined at 95% of the U.C.L. on the mean) of the chemicals remaining in each excavated area shall meet the target risks specified by the EPA.

The CRD-LV TSC was requested by the OSC to evaluate the statistical tests and procedures that the PRP's have suggested to use for calculating and identifying soil cleanup concentrations. The CRD-LV TSC provided a number of suggestions and recommendations pertaining to the PRP's suggested approaches. The TSC has provided additional data assessment and recommendation.

- Project Name: Fort George Meade
Site: Fort George Meade SF Site
Site ID:

Job Order No: 224 10106

Type-Lead:
Requested by: Drew Lausch (215) 597-3161
Lead Scientist: A.K. Singh (702) 435-3731

Start Date: January 1994
Expected Completion Date: April 1995
Revised Completion Date: April 1996

Estimated Budget: \$6,000
Revised Budget: \$
Major Contaminants: Inorganics/Organics

Total Expenditures: \$4,785, PC&B \$800
Total FY96 Expenditures: PC&B \$800
Total 1st. Qtr. Expenditures: PC&B \$200

The objective of this Region III request is to determine the extent of which two completed UXO surveys have attained a more stringent detection/removal requirement specified in the DOD-DOI transfer agreement. In order to ascertain the effectiveness of the previous UXO surveys, DOD outlined the following technical approach: (1) develop a UXO sampling plan; (2) conduct a UXO survey; (3) perform a statistical analysis on data obtained from the UXO survey and (4) evaluate potential impacts to human health from UXO by employing a probabilistic risk assessment. The TSC provided an initial assessment of the past surveys. Based on the TSC comments and recommendations, a meeting with the RPM, DOD, and CRD-LV scientist(s) was held at CRD-LV. The TSC is involved with the statistical design approach and data assessment. Additional data reviews and data assessments may be provided. The RPM is interested in determining if a geostatistical assessment of the monitoring data would be beneficial.

- Project Name: METCOA Radiation Superfund Site
Site: METCOA Superfund Site
Site ID:

Job Order No: 226 10106,
207-S0060, 207S1116

Type-Lead: Fund
Requested by: Jeffery Dodd (303) 234-0254, Kathleen Root (215) 597-8920
Lead Scientist: A.K. Singh (702) 435-3731

Start Date: August 1995
Expected Completion Date: March 1996
Revised Completion Date:

Estimated Budget: \$20,000
Revised Budget: \$
Major Contaminants: Lead

Total Expenditures: \$17,462
Total FY96 Expenditures: \$9,869
Total 1st. Qtr. Expenditures: \$9,869

The Metcoa site located in Pulaski, Pennsylvania is contaminated with a number of inorganic contaminants including nickel, cadmium, and thorium. The PRP's at this site have suggested that a "CRG" statistical data assessment approach is appropriate to use for determining if soil remedial actions are necessary. The OSC has requested that the CRD-LV TSC evaluate the "CRG" approach. CRD-LV TSC personnel have provided a number of assessments of the Metcoa data, provided a preliminary geostatistical analysis, participated in numerous conference calls with the Department of Justice, Regional Council, the OSC and the PRP's and has evaluated the "CRG" approach. This assessment was submitted to the OSC.

- Project Name: Naval Air Warfare Center (NAWC)
Site: Naval Air Warfare SF Site
Site ID:

Job Order No: 224 01102

Type-Lead:
Requested by: Darius Ostrauskas (215) 597-0549
Lead Scientist: D. Jackson/Glen Carpenter (208) 526-4166

Start Date: November 1994
Expected Completion Date: September 1995
Revised Completion Date: January 1996

Estimated Budget: \$10,000
Revised Budget: \$
Major Contaminants: Organics

Total Expenditures: \$7,200
Total FY96 Expenditures: \$0
Total 1st. Qtr. Expenditures: \$0

The TSC was requested by the Region III RPM to examine suggested site characterization approaches to determine if these approaches would be adequate to define the levels and geographical extent of site contaminants. The initial effort of this review focused on the following two areas: The *first* was to review and comment on the results of the Phase I RI Soil Gas and Geophysical surveys. The *second* was to review and comment on the additional Soil Gas and Geophysical survey work being proposed in the Draft Phase III work plan. Additional efforts may focus on all suggested sampling/monitoring contamination, procedures for identifying levels of soil, sediment, and possible water contamination, the quality assurance/quality control (QA/QC) plan, the S&A plan and all other methods that are being proposed to fully characterize the site for remedial purposes. In addition, an assessment of data needs necessary to satisfy the characterization objectives may be required if past characterization efforts have not adequately characterized the sites contaminants. This data assessment could involve data interpretation and recommendations involving statistical and other tests necessary for making decisions concerning the extent of site contaminants. The design of additional sampling/monitoring approaches may be required.

The TSC completed a review of the Phase I RI Soil-Gas and Geophysical Survey Report. Comments and suggestions were provided to the RPM. Additional data assessments and site document reviews may be required.

- Project Name: Naval Ships Parts Control Center (SPCC) Superfund Site
Site: Naval Ships Control Center SF Site
Site ID:

Job Order No: 226 10106, 207-S0060

Type-Lead:
Requested by: Andrew Sochanski (215) 597-3167
Lead Scientist: A.K. Singh (702) 435-3731

Start Date: May 1995
Expected Completion Date: September 1995
Revised Completion Date: March 1996

Estimated Budget: \$8,000
Revised Budget: \$15,000
Major Contaminants: Dioxins

Total Expenditures: \$10,666
Total FY96 Expenditures: \$3,300
Total 1st. Qtr. Expenditures: \$3,300

The Region III RPM requested technical assistance in developing a monitoring design for sampling a biopile to determine the levels and distribution of dioxin contamination. The biopile consisting of about 15,000 cubic yards of contaminated soil excavated from burn pits is six (6) feet deep, 240 feet in width and 390 feet long.

The TSC provided the report titled, "Design for Dioxin Sampling - Navy Ships Parts Control Center, Burn Pits (Site 3), Mechanicsburg, PA". This report identifies the number of samples required to characterize the dioxin contamination and also provides various statistical tests that can be used to assess the resultant data. The site has been sampled and the samples analyzed. The CRD-LV TSC evaluated and assessed the available dioxin data. A report entitled "Statistical Analysis of Dioxin Data Navy Ships Parts Control Center, Mechanicsburg, PA" was provided to the RPM.

- Project Name: Navy Training Center-Bainbridge (NTCB) Superfund Site
Site: Navy Training Center-Bainbridge SF Site
Site ID: MDD985397256

Job Order No: 226 10106, 207-S0060

Type-Lead:

Requested by: Drew Lausch (215) 597-3161

Lead Scientist: A.K. Singh (702) 435-3731

Start Date: September 1995

Expected Completion Date: March 1996

Revised Completion Date:

Estimated Budget: \$10,000

Revised Budget: \$

Major Contaminants: Asbestos

Total Expenditures: \$3,600

Total FY96 Expenditures: \$3,600

Total 1st. Qtr. Expenditures: \$3,600

The Naval Training Center-Bainbridge (NTCB) occupies approximately 1250 acres of land near Port Deposit, MD and was constructed in 1941 as a World War II training facility. A majority of NTCB was deactivated in 1976, although a portion of this installation was used by the Department of Labor for a job training program until 1990. This federally-owned facility is listed on the Federal Agency Hazardous Waste Compliance Docket, which was established pursuant to Section 120(c) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended (CERCLA).

The EPA has determined that previous sampling efforts developed by the U.S. Navy have been inadequate in terms of characterizing asbestos contaminated soils. To assist in characterizing site contaminants, the CRD-LV TSC was requested to review and provide comments on the proposed sampling/monitoring approach. The TSC provided comments and recommendations pertaining to the suggested approach.

- Project Name: Philadelphia Naval Complex
Site: Philadelphia Naval Complex (PNC) SF Site
Site ID:

Job Order No:

Type-Lead:

Requested by: Lorie Baker (215) 597-3165

Lead Scientist: A.K. Singh (702) 435-3731

Start Date:

Expected Completion Date: March 1996

Revised Completion Date:

Estimated Budget: \$6,000
Revised Budget: \$
Major Contaminants: Organics/Inorganics

Total Expenditures: \$3,280
Total FY96 Expenditures: \$3,280
Total 1st. Qtr. Expenditures: \$3,280

The Regional RPM requested assistance in assessing background levels on and near the Philadelphia Naval Complex. The Navy has completed a statistical analysis of background samples that were taken both on- and off-base in order to develop background concentrations for the entire base. The results are compiled in the draft document entitled, "Background Soil Sampling and Analysis at Philadelphia Naval Complex, Philadelphia, PA", dated 13 September 1995.

The PNB was recommended for closure under the Base Realignment and Closure Act of 1990. The Navy, EPA, and the Pennsylvania Department of Environmental Protection (PADEP) have been working to ensure that the entire property is "clean" prior to its transfer to the City of Philadelphia. As part of the clean-up effort, it was determined that a background study was necessary to characterize background or ambient soil constituent concentrations in the area.

The TSC reviewed and assessed the available data and provided a report to the RPM titled "Review Comments on the Statistical Analysis Performed on the Background Data from the Philadelphia Naval Complex, Philadelphia, PA".

- Project Name: Saegertown Industrial Area Superfund Site
Site: Saegertown Industrial Area SF Site
Site ID:

Job Order No:207-S0060

Type-Lead:
Requested by: Steven Donohue (215) 597-3166
Lead Scientist: A. K. Singh (702) 435-3731

Start Date: November 1995
Expected Completion Date: April 1996
Revised Completion Date:

Estimated Budget:\$6,000
Revised Budget:
Major Contaminants: VOCs

Total Expenditures: \$3,600
Total FY96 Expenditures: \$3,600
Total 1st. Qtr. Expenditures: \$3,600

The Saegertown site covers about 100 acres that contain several industrial operations. In 1980, State analysts discovered volatile organic compounds (VOCs) in the Saegertown Municipal Water Authority's Well #2. Several potential sources of VOCs and lead contamination have been identified on site. GATX cleaned and repaired railroad tank cars here from the mid-1950s to 1965 disposing of wash water, sludge, and tanker waste on site. EPA tests in 1984 found VOCs and polycyclic aromatic hydrocarbons (PAHs) in on-site pond sediments and soil. On-site monitoring wells also revealed contamination from lead and other heavy metals. Region III has completed the RI/FS and ROD at the site and are proceeding with pre-design efforts to delineate the extent of the ground water plume. The CRD-LV TSC was requested to statistically assess if the contaminant levels in groundwater were increasing or decreasing. An assessment of the site data was completed. A report titled "Trend Analysis for Total VOCs: Saegertown Site" was provided to the Region.

REGION 4

- Project Name: Aberdeen Pesticide Dumps NPL Superfund Site
Site: Aberdeen Pesticide Area SF Site
Site ID:

Job Order No: 226 10106

Type-Lead:

Requested by: Kay Crane (404) 347-7791

Lead Scientist: A.K. Singh (702) 435-3731

Start Date: November 1995

Expected Completion Date: April 1996

Revised Completion Date:

Estimated Budget: \$10,000

Revised Budget: \$

Major Contaminants: Organics

Total Expenditures: \$5,190

Total FY96 Expenditures: \$300

Total 1st Qtr. Expenditures: \$300

The Region IV RPM requested that the CRD-LV TSC review a soil remedial design that was proposed by the PRPs. The design and the statistical tests required to assess cleanup attainment were provided in a "Data Acquisition Report/Preliminary Outline Document and a Design Criteria Report".

The TSC reviewed these documents and provided suggestions and recommendations for improving the suggested approach. The PRP's reviewed the TSC recommendations and requested further explanations. The RPM requested a review of "APDS Committee Responses to Technical Review Comments on the Farm Chemicals, Twin Sites, Fairway Six Avon Preliminary Soil Remedial Design (3070RD)". The TSC reviewed this document and provided comments and recommendations

- Project Name: Marzone
Site: Marzone Inc. SF Site
Site ID:

Type-Lead:

Requested by: Annie Godfrey (404) 347-3555 x6250

Lead Scientist: A.K. Singh (702) 435-3731

Start Date: November 1995

Expected Completion Date: April 1996

Revised Completion Date:

Estimated Budget: \$10,000

Revised Budget: \$

Major Contaminants: Organics

Total Expenditures: \$5,190

Total FY96 Expenditures: \$300

Total 1st. Qtr. Expenditures: \$300

The Marzone, Inc. Pesticide plant was established in 1950 on a 1 ½ acre site in Tifton, Georgia. The facility operated until 1982, when a new owner began using its warehouse as a distribution center. Chevron Chemical Co. Started blending dry powders at the site in the 1950s and constructed a building for formulating liquids some time during 1963 through 1964. The owners added a drum storage facility, three 10,000-gallon solvent tanks, one 12,000-gallon toxaphene (insecticide) tank, and a wastewater pond. The site has changed ownership five times since 1970; four of these owners were agricultural chemical companies.

The groundwater and soils are contaminated with pesticides including toxaphene, lindane, and endrin from the site disposal areas. Discoloration of the soil and numerous dead birds on the site indicated the spread of contamination.

The PRP has proposed utilizing a geostatistical approach to determine excavation boundaries and for the confirmation of attainment of clean-up standards. The TSC has reviewed a number of PRP suggested approaches met with the PRPs and have provided a number of suggestions and recommendations. The TSC will provide assessment of the resulting data.

REGION 5

- Project Name: Allied Chemical/Ironton Coke Superfund Site
Site: Allied Chemical/Ironton Coke SF Site
Site ID:

Job Order No: 226 10106

Type-Lead:

Requested by: Thomas Alcamo (312) 886-7278

Lead Scientist: Neal Amick (702) 897-3231

Start Date: May 1995

Expected Completion Date: September 1995

Revised Completion Date: May 1996

Estimated Budget: \$20,000

Revised Budget: \$

Major Contaminants: PAHs

Total Expenditures: \$142 PC&B: \$500

Total FY96 Expenditures: PC&B: \$500

Total 1st. Qtr. Expenditures: PC&B: \$500

The Allied Chemical site is a former coke plant that has five lagoons that were used for wastewater treatment and disposal. The site remedy consists of incineration of approximately 122,000 cubic yards of lagoon five wastes along with other contaminated materials having contaminant concentrations greater than 1000 ppm. The primary contaminants are four carcinogenic PAHs (benzo (a) pyrene), chrysene, benz (a) anthracene and dibenz (a,h) anthracene).

The remedial approach requires that the contaminated materials be screened and segregated prior to incineration. To address this screening requirement, the RPM has requested that the CRD-LV TSC provide on-site PAH measurements using the Field Portable Scanning Spectrofluormeter (FPSS).

Because of the uncertainty pertaining to the FPSS's performance in adequately measuring these PAHs, the RPM sent samples from the site to Las Vegas for analysis. The samples were analyzed and the data provided to the RPM. Initial response from the Region pertaining to the analyzed data indicates that the FPSS may be utilized at this site.

- Project Name: Byron Salvage Yard
Site: Byron Salvage SF Site
Site ID:

Job Order:

Type-Lead:

Requested by: Doug Yeskis (312) 886-0408

Lead Scientist: Alan Crockett (208) 526-0603/Bob Starr INEL

Start Date: March 1995
Expected Completion Date: September 1995
Revised Completion Date: February 1996

Estimated Budget: \$10,000
Revised Budget: \$
Major Contaminants: VOCs

Total Expenditures: \$8,921
Total FY96 Expenditures: \$0
Total 1st. Qtr. Expenditures: \$0

A Regional Groundwater Forum member requested CRD-LV TSC's assistance in reviewing soil-gas work completed on the Byron Salvage Yard Superfund site. The Byron Salvage Yard site is located in Byron, Illinois in an area with fractured dolomite/limestone overlain by approximately 10 feet of glacial till. The till is mainly composed of sandy loam. The depth to groundwater is approximately 65-70 feet below ground surface.

The specific issues which require TSC's attention are related to whether soil-gas concentrations are related to volatilization for the groundwater, or indicative of a source of VOCs directly from a nearby disposal area. An initial assessment of the data was completed and provided to the Region. Additional support may be required.

- Project Name: Lorain County Pesticide Superfund Site
Site: Lorain County SF Site:
Site ID: 95-5T-05F-TFA-050B8

Job Order No: 226 10106

Type-Lead:
Requested by: Steve Renninger (216) 835-5200/Mike Murphy (216) 323-9540
Lead Scientist: Dave Atkinson (208) 526-9745 INEL

Start Date: April 1995
Expected Completion Date: November 1995
Revised Completion Date: January 1996

Estimated Budget: \$15,000
Revised Budget: \$
Major Contaminants: Methyl Parathion

Total Expenditures: \$5,682
Total FY96 Expenditures: \$1,005
Total 1st Qtr. Expenditures: \$1,005

The Regional On-Scene Coordinator requested that CRD-LV assist in measuring levels of methyl parathion that was sprayed in a number of homes in Lorain County, Ohio. This request will involve on-site measurements using the innovative technology, "Ion Mobility Spectrometry." Problems using this measurement technology were identified prior to the on-site effort. At this time, efforts to solve the measurement problem(s) are being addressed.

- Project Name: Ottawa
Site: Ottawa S.F. Site
Site ID:

Job Order No:

Type-Lead:
Requested by: Verneta Simon (312) 886-3601
Lead Scientist:

Start Date: October 1995
Expected Completion Date: December 1995
Revised Completion Date:

Estimated Budget: \$3,000
Revised Budget: \$
Major Contaminants: Radionuclides

Total Expenditures: PC&B: \$1,000
Total FY96 Expenditures: PC&B: \$1,000
Total 1st. Qtr. Expenditures PC&B: \$1,000

The OSC requested the TSC to evaluate the current methods to measure Ra 226 in soils at the Ottawa site. This effort involved recommendations and/or suggestions pertaining to identifying possible alternatives for measuring Ra 226 in the field at a reasonable cost. The TSC responded by providing suggestions and recommendations.

- Project Name: Petoskey Municipal Well Field
Site: Petoskey Municipal SF Site
Site ID: MID006013049

Job Order No: 224 10197

Type-Lead:

Requested by: Terese Van Donsel (312) 353-6564

Lead Scientist: Joe Donnelly (208) 897-3387/Wayne Sovocool (702) 798-2212

Start Date: October 1994

Expected Completion Date: December 1995

Revised Completion Date: May 1996

Estimated Budget: \$25,000
Revised Budget: \$
Major Contaminants: Organics

Total Expenditures: \$1,716
Total FY96 Expenditures: \$0
Total 1st. Qtr. Expenditures: \$0

The TSC was requested by the Regional RPM to provide analytical support. A number of site matrices are involved. For example, nearby wells contain volatile organic compounds such as trichloroethylene. In addition, because of the use and disposal of spent solvents and/or paint sludges, the soils are contaminated with high levels of VOCs and SVOCs and elevated levels of metals. A hydraulic fluid release also complicated the contaminant profile of both soils and groundwaters.

Because of the large number of tentatively identified compounds (TICs) in the site matrices, the CRD-LV will receive samples for analysis. The TICs fingerprinting analysis is currently on hold.

REGION 6

- Project Name: South Cavalcade
Site: South Cavalcade SF Site
Site ID: TXD980810386

Job Order No: 226 01106

Type-Lead:

Requested by: Glenn Celerier (214) 665-8523

Lead Scientist: A.K. Singh (702) 435-3731

Start Date: July 1994

Expected Completion Date: January 1995

Revised Completion Date: April 1996

Estimated Budget: \$7,000
Revised Budget: \$35,000
Major Contaminants: Organics

Total Expenditures: \$30,224, PC&B \$1,600
Total FY96 Expenditures: PC&B \$100
Total 1st. Qtr. Expenditures: PC&B \$100

Beazer East, Inc. (BEI) representing the PRP(s) is implementing a Record of Decision issued for the South Cavalcade Superfund Site in Houston, Texas. In July, the RPM requested a review of these statistical methods as described in Section 2.0 and Section 4.0 of "*Draft Confirmational Sampling Plan (Dames & Moore, June 1994, REV 1)*" for the South Cavalcade Superfund Site.

The confirmational sampling plan outlines the overall sampling strategy and specific sampling and analysis procedures for the confirmation of the clean perimeter of the impacted areas, and for verification that impacted soils have been remediated in accordance with EPA guidance.

CRD-LV TSC scientist(s) reviewed the appropriate sampling plan sections and provided the Regional RPM with suggestions and recommendations. CRD-LV TSC scientists participated in a negotiation meeting with the PRPs during the second and third quarters to discuss monitoring/sampling design approaches. The CRD-LV TSC completed two data audits during the fourth quarter. The results were provided to the RPM. Additional audits are anticipated.

REGION 7

- Project Name: Cherokee County Kansas
Site: Cherokee SF Site
Site ID:

Job Order No: 226 10106

Type-Lead: Fund
Requested by: David P. Williams (913) 551-5030
Lead Scientist: Bill Cole (702) 897-3226

Start Date: July 1995
Expected Completion Date: March 1996
Revised Completion Date:

Estimated Budget: \$10,000
Revised Budget: \$
Major Contaminants: Heavy Metals

Total Expenditures: \$2,879 PC&B \$1,000
Total FY96 Expenditures: PC&B \$1,000
Total 1st. Qtr. Expenditures: PC&B \$1,000

The Cherokee County site is a mining area covering about 110 square miles. It is part of a larger area sometimes called the Tri-State Mining District, which encompasses Cherokee County in Kansas, Jasper County in Missouri, and Ottawa County in Oklahoma. One hundred years of widespread lead and zinc mining created piles of mine tailings, covering 4000 acres in southeastern Cherokee County alone. The mine tailings containing lead, zinc, and cadmium, have leached into the shallow groundwater. Runoff from the waste piles also has moved contaminants into nearby streams. The Regional OSC requested the use of CRD-LV TSC's X-Ray Fluorescence technology and equipment to measure site contaminants.

- Project Name: Oronogo-Duenweg
Site: Oronogo-Duenweg SF Site
Site ID:

Job Order No: 226 10106

Type-Lead: Fund
Requested by: David P. Williams (913) 551-5030
Lead Scientist: Bill Cole (702) 897-3226

Start Date: July 1995
Expected Completion Date: March 1996
Revised Completion Date:

Estimated Budget: \$10,000
Revised Budget: \$
Major Contaminants: Heavy Metals

Total Expenditures: PC&B \$1,000
Total FY96 Expenditures: PC&B \$1,000
Total 1st. Qtr. Expenditures: PC&B \$1,000

The Oronogo-Duenweg Mining Belt site, which covers 6,400 acres, is considered part of the Tri-State Mining District of Missouri, Kansas, and Oklahoma. Two other sites in the district, Cherokee County in Kansas, and Tar Creek in Oklahoma, were placed on the NPL in 1983. Lead and zinc ores, as well as some cadmium ores, were mined from 1848 to the late 1960's. The site is honeycombed with underground workings, pits, shafts, (open, closed, and collapsed), mine tailings, waste piles, and ponds holding tailing waters. An estimated 10 million tons of wastes or tailings are on the site.

The OSC has requested the assistance of the CRD-LV TSC to provide FPXRF support in characterizing soils for heavy metal contamination.

REGION 8

There are no sites in Region VIII

REGION 9

- Project Name: Allied Signal North Hollywood
Site: Allied Signal SF Site
Site ID:

Job Order No:

Type-Lead:
Requested by: Dave Setter (415) 744-2260
Lead Scientist: Alan Crockett (208) 526-1574/Jeff Sondrup (208) 526-8396

Start Date: June 1994
Expected Completion Date: March 1995
Revised Completion Date: June 1996

Estimated Budget: \$30,000
Revised Budget: \$100,000
Major Contaminants: Organics

Total Expenditures: \$108,452
Total FY96 Expenditures: \$36,472
Total 1st. Qtr. Expenditures: \$36,472

The Region IX RPM requested that the TSC provide assistance in evaluating the Allied Signal site as a source of ground water contamination within the North Hollywood Operable Unit. Specifically, the TSC evaluation will focus on the following:

- Determine if Allied's soil gas investigation was performed using appropriate field and analytical methodology,
- Perform an independent assessment of the data, and compare these findings with those made by Allied's contractor,

- Determine whether the placement of probes was adequate to characterize source area, and
- Identify data gaps and make recommendations as to whether additional work is necessary.

In addition, the TSC will provide assistance in determining if Allied's soil boring investigation was performed using appropriate field and analytical methodology, determine whether the placement of borings was adequate to characterize source areas, attempt to determine whether the findings of the soil boring study are consistent or inconsistent with the soil gas results, comment on the soil matrix data in light of the subsurface conditions found, particularly address the likelihood that contaminant releases would have a 'wandering' pattern through the subsurface, and identify data gaps and make recommendations as to whether additional work is necessary.

In support of this effort, TSC scientist(s) provided the document titled, "*Review of Environmental Characterization Data concerning the Allied Signal, Inc., North Hollywood Site, San Fernando Operable Unit, San Fernando Valley, California.*" A Conflict of Interest (COI) problem as identified was resolved during the second quarter of FY95. A meeting between Region 9, NEIC, INEL and CRD-LV personnel was held to address and identify further assessment needs. These needs included additional assessment of site data and to testify in court concerning sources of contaminants. This project is on-going.

- Project Name: Concord Naval Weapons Station NPL Site

Site: Concord Naval SF Site

Site ID:

Job Order No:

Type-Lead:Fund

Requested by: Richard Freitas (415) 744-2315/Barbara M. Smith (415) 744-2366

Lead Scientist: Alan Crockett (208) 526-1574/Bob Starr (208) 526-5687

Start Date: March 1995

Expected Completion Date: December 1995

Revised Completion Date: April 1996

Estimated Budget:\$12,000

Revised Budget:

Major Contaminants: Mercury (Heavy Metals)

Total Expenditures: \$3,820

Total FY96 Expenditures: \$0

Total 1st. Qtr. Expenditures: \$0

The Naval Weapons Station Concord is in the north-central portion of Contra Costa County, approximately 30 miles northwest of San Francisco, California. The station operated an ocean terminal facility to transship ordnance from trucks or railcars to ships and vice versa. The base realignment and closure activities at other facilities in the west have made Concord a significant military ordnance and transshipment facility on the west coast. The station encompasses nearly 13,000 acres.

At the present time, RI work plans and field sampling plans for Tidal and Inland Areas have been submitted and approved by the Navy, State, and EPA. Work will commence on these sites in April, 1995. The work plan for an Ecological Assessment of the Litigation Sites has been approved to evaluate the remaining effects of hazardous levels of heavy metals not previously removed by the Navy. This work is also scheduled to begin in April, 1995. Investigations of groundwater as a contaminant transport pathway into the Tidal Area Sites and Litigation Sites has been postponed, pending data from soils, sediments, and surface water, and input from the CRD-LV TSC technical experts.

The evaluation and implementation of better approaches to address the question of groundwater as a transport pathway for organic and inorganic contaminants in wetland soils and sediments is a significant technologic gap in the investigation of wetland sites at Concord. The CRD-LV TSC is currently reviewing available site data. A recommended sampling approach was provided to the Region. This project is currently on-going.

- **Project Name:** Hawker Pacific Superfund Site
Site: Hawker Pacific SF Site
Site ID:

Job Order No:

Type-Lead:
Requested by: Dave Seter (415) 744-2260
Lead Scientist: Greg Stormberg (208) 526-1241

Start Date: December 1995
Expected Completion Date: June 1996
Revised Completion Date:

Estimated Budget: \$150,000
Revised Budget: \$
Major Contaminants: Organics

Total Expenditures: \$1,846
Total FY96 Expenditures: \$1,846
Total 1st. Qtr. Expenditures: \$1,846

The Hawker Pacific Site is located in North Hollywood, CA. Operations at Hawker have consisted of the overhaul, repair, and manufacture of aircraft landing gear and flight control equipment. Processes include alkaline and acid cleaning, vapor degreasing, etching, chroming, and electro-plating of cadmium, nickel and functional chrome. Additional supporting processes include grinding, painting, and baking of parts, as well as testing of finished parts using a water-based dye.

EPA believes that the Hawker Pacific Site has been inadequately characterized, especially with respect to the storage tank release. No soil gas data exists at the site. No groundwater exists at the site. EPA's regional groundwater monitoring program has interpreted the presence of PCE in groundwater beneath the site. In order to evaluate the areal and vertical extent of source areas, and to assess the site's contribution to groundwater contamination, additional data needs to be collected and analyzed.

The TSC is preparing the necessary sampling and data quality plans, specifications, and health and safety plans, to conduct site characterization requirements.

- **Project Name:** Luke AFB Audit
Site: Luke AFB SF Site
Site ID:

Job Order No: 224 01113

Type-Lead:
Requested by: Stephen Remaley (415) 744-1496
Lead Scientist: Mary Wolf (702) 897-3384

Start Date: August 1994
Expected Completion Date: October 1995
Revised Completion Date: April 1996

Estimated Budget: \$25,000
Revised Budget: \$
Major Contaminants: Inorganics/Organics

Total Expenditures: \$15,584
Total FY96 Expenditures: \$0
Total 1st. Qtr. Expenditures: \$0

The TSC was requested to conduct an audit of raw data generated by the analysis of samples collected at the Luke AFB Superfund Site. The audit of these data focused on authenticating laboratory adherence to the principles of good laboratory practice in reporting results for compounds with contractual criteria. The audit addressed laboratory results for calibrations (criteria compounds), surrogates, internal standards areas, and tuning compound

results. The audit was completed during the fourth quarter FY95. Additional data audit explanations were provided to the Region. Possible field analysis may be required.

- Project Name: Marine Corps Air Station Yuma (MCASY) Superfund Site

Site: Marine Corps Air Station Yuma SF Site

Site ID:

Job Order No: 246 10106

Type-Lead: Fund

Requested by: Rachel Simons (415) 744-2383

Lead Scientist: Mary Wolf (702) 897-3384

Start Date: September 1995

Expected Completion Date: December 1995

Revised Completion Date: March 1996

Estimated Budget: \$10,000

Revised Budget: \$

Major Contaminants: Organics

Total Expenditures: \$3,500 PC&B \$300

Total FY96 Expenditures: \$3,500 PC&B \$300

Total 1st Qtr. Expenditures: \$3,500 PC&B \$300

The TSC was requested to audit raw data generated by a commercial laboratory from samples collected from the MCASY Superfund Site. The audit of these data utilizing magnetic tapes will address authenticating laboratory adherence to principles of good laboratory practice in reporting results for compounds with contractual criteria. This audit will include laboratory results for calibrations, (criteria compounds), surrogates, internal standards and tuning compound results.

- Project Name: Modesto Groundwater Superfund Site

Site: Modesto SF Site

Site ID:

Job Order No:

Type-Lead:

Requested by: John Lucey (415) 744-2222

Lead Scientist: Alan Crockett (208) 526-1574, Bob Starr (208) 526-5687 Greg Hulet (208) 526-0283

Start Date: December 1994

Expected Completion Date: September 1995

Revised Completion Date: March 1996

Estimated Budget: \$50,000

Revised Budget: \$

Major Contaminants: Radionuclides/Organics

Total Expenditures: \$45,953

Total FY96 Expenditures: \$0

Total 1st. Qtr. Expenditures: \$0

The Regional RPM requested technical support for the Modesto Groundwater Contamination Superfund Site located in Modesto, California. The Site consists of a dry cleaner facility which leaked PCE contamination into the soil and groundwater. It was recently discovered that the groundwater is also contaminated with naturally occurring uranium. EPA has performed an RI/FS at the site and selected a preferred cleanup alternative which consists of pump and treat with GAC for groundwater contamination, and SVE for soil contamination. The FS will now have to be revised to evaluate remedial technologies for the cleanup of radiation related to the naturally occurring uranium.

The objective of this technical support effort is to assist the RPM in selecting the most reliable, efficient and cost effective remedial technologies to clean up the site. The following three areas are being addressed by the CRD-LV TSC:

- Identify data gaps in existing data and recommend additional data requirements. The groundwater, soil, and soil gas, were tested for many different parameters during the RI. Besides uranium the groundwater was also tested for gross alpha, gross beta, and radium. The soil-soil gas was not analyzed for radiation.
- Identify potential radiation remedial technologies. There are several remedial technologies (or combination of technologies) which could be utilized for groundwater remediation at the site. Potential technologies including reverse osmosis, ion exchange, air stripping, and granular activated carbon (GAC).
- Prepare site cleanup cost estimate for each appropriate technology. After the appropriate technologies are identified a cost estimate will be prepared.

In support of this effort the CRD-LV TSC has provided, "Recommended Data Acquisition for the Modesto Groundwater Contamination Site" and the report, "Treatment Alternatives Report Modesto Groundwater Contamination Site." The RPM is currently reviewing these documents. A site visit to audit sampling procedures was made during the fourth quarter. This effort is still on-going.

- Project Name: San Fernando Valley Basin (SFV)
Site: San Fernando SF Site
Site ID:

Job Order No:

Type-Lead:

Requested by: Ned Black (415) 744-2253

Lead Scientist A.K. Singh (702) 435-3731

Start Date: October 1994

Expected Completion Date: September 1995

Revised Completion Date: March 1996

Estimated Budget: \$5,000

Revised Budget: \$

Major Contaminants: Organics

Total Expenditures: PC&B: \$600

Total FY96 Expenditures: PC&B: \$100

Total 1st. Qtr. Expenditures: PC&B: \$100

Four sites are within the San Fernando Vally (SFV) for inclusion on the National Priority List (NPL): North Hollywood, Crystal Springs, Pollock, and Verdugo. Currently, EPA is managing the four areas as one large site referred to as the SFV Superfund Site. This site includes the four NPL sites and adjacent areas where groundwater contamination is known or presumed to have migrated. There are currently a total of 87 RI monitoring wells located inland adjacent to the four NPL sites. Three of the shallow water table wells are screened in bedrock and do not have pumps installed. Trichloroethylene (TCE) and tetrachloroethylene (PCE) data were used to separate the 84 RI wells into two categories: those recommended to be sampled quarterly, and those recommended to be sampled annually. All 84 of the RI wells were originally included in the annual monitoring program. Of these 84 wells, 41 historically having concentrations of TCE and/or PCE in excess of federal and state maximum contaminant levels (MCLs) were placed into the quarterly monitoring program.

The Region is concerned with both PCE and TCE as contaminants in the groundwater. It has been suggested that krieging using plume maps might be a good way to access changes in contaminant concentrations over time. In addition, the Region is interested in any other means of characterizing migration of the contaminant plumes or changes in contaminant concentrations over time which seem pertinent.

The CRD-LV TSC reviewed the provided data and identified a number of data assessment methods that could be used to assess contaminant behavior over time. The TSC provided some additional recommendations to the RPM. This project is still on-going.

REGION 10

- Project Name: Bunker Hill
Site: Bunker Hill SF Site
Site ID: IDD048340921

Job Order No: 224 10198

Type-Lead:

Requested by: Greg Gervais (206)553-1906/Danny Jackson (702) 897-3245

Lead Scientist: Russ Plumb (702) 897-3265

Start Date: September 1994

Expected Completion Date: September 1995

Revised Completion Date: January 1996

Estimated Budget: \$25,000

Revised Budget: \$35,000

Major Contaminants: Inorganics

Total Expenditures: \$25,182

Total FY96 Expenditures: \$0

Total 1st. Qtr. Expenditures: \$0

The Region X Project Officer requested that approaches be examined to determine whether the Bunker Hill site characterization techniques have been addressed sufficiently: A sampling/monitoring approach for confirming the vertical and lateral extent of soil/sediment contamination, procedures for identifying levels of soil, sediment, and possibly water contamination, the quality assurance/quality control (QA/QC) plan, the S&A plan and all other methods that have been used to fully characterize the site for remedial purposes. In addition, an assessment of data needs necessary to satisfy the characterization objectives will be required if past characterization efforts have not adequately characterized the sites contaminants. This data assessment will involve data interpretation and recommendations involving statistical and other tests necessary for making decisions concerning the extent of site contaminants.

This technical support project will increase the knowledge of how to assess impacts on local hydrologygeology for the tailings. This effort is critical not only to site characterization and to development of monitoring strategies for detecting pollution, but also for contributing to appropriate corrective action programs. Also, this effort will integrate saturated and unsaturated zone monitoring, and site characterization methods used in developing a monitoring well and sampling network design at mine sites. Assessing site documents and data is in process. A number of recommendations pertaining to the monitoring design and data assessment was provided to the Region. This project is still on-going.

SUPERFUND SHORT-TERM REQUESTS

- Project Name: Short Term Requests
Site: Short Term Requests
Site ID:

Job Order No: 224 10106, 207 S0060

Type-Lead:
Requested by: See Below
Lead Scientist: TSC/CRD-LV Staff Scientists

Start Date: October 1991
Expected Completion Date: December 1995
Revised Completion Date:

Estimated Budget: \$150,000
Revised Budget: \$200,000
Major Contaminants: Variable

Total Expenditures: \$238,173
Total FY96 Expenditures: \$2,399
Total 1st. Qtr. Expenditures: \$2,399

TSC requests that can be completed within a 40-hour period:

REGION STATE	DATE	SITE	REQUESTOR	TELEPHONE NUMBER	NATURE OF REQUEST
9	Nov.		K. Shimmin	(415)744-1257	Emergency Res.
7	Nov.		S. Marques	(913)551-7131	Issue Paper
9	Nov.	Yuma	S. Remaley	(415)744-1496	Audit
3	Oct.	Elrama School	G. Lapsley	(215)597-6684	Data Assessment
9	Oct.		K. Lynch	(206)553-8316	Analysis
TIO	Nov.		R. Steimle	(703)308-8846	Issue Paper
9	Dec.	Hawker Pacific	D. Setter	(415)744-2260	Data Assessment
4	Oct.		K. Malley	(404)347-7791	Sampling
10	Oct.		D. Green	(206)553-8582	Sampling
2	Dec.		J. Josephs	(212)637-4317	Workshop
9	Nov.	Saegertown	J. Harney	(709)963-0320	Sampling
9	Nov.		S. Donohue	(215)597-3166	Data Assessment
CALIF	Nov.		M. Woods	(916)255-3666	Analysis
4	Oct.	Marzone	A. Godfrey	(404)347-3555	Data Assessment
	Oct.		D. Porter	(908)225-6116	Sampling

4	Oct.	Oak Ridge	D. Combs	(615)481-8002	Report
10	Nov.	Wycolf	P. Rubenstein	(206)553-1067	Analysis
4	Dec.		R. Jackson	(404)349-3555	Fact Sheets
9	Dec.		K. Erickson	(415)744-2324	Issue Paper
3	Oct.	Ft. Geo. Meade	D. Lausch	(215)597-9890	Sampling
9	Oct.		D. Shane	(415)744-2286	Sampling
5	Nov.		V. Simon	(312)353-9176	R&D Monitoring
5	Nov.	Allied Signal	O. Thompson	(312)886-4843	Analysis
3	Dec.	Navy Ships	A. Sochanski	(215)597-3167	Data Assessment
9	Dec.	Modesto	J. Lucey	(415)744-2222	Data Assessment
	Dec.	Metcoa	D. Merrial	(617)576-1555	CRG
2	Nov.	Brown Fields	F. Freestone	(908)321-6632	Samples
3	Nov.		F. Vavra	(215)597-0676	Issue Paper
	Dec.		R. Bolding	(812)336-8396	Analysis
3	Oct.		P. Leonard	(215)597-3163	Issue Paper
INEL	Oct.	INEL	G. Carpenter	(208)522-5049	Geophysics
3	Oct.	Mining Sites	S. Baget	(610)558-1730	Analysis
4	Nov.		G. Santi	(813)744-6100	XRF

RCRA CORRECTIVE ACTION

REGION 1

REGION 5

- Project Name: Columbus Solid Waste Reduction
Site: Columbus Waste-To-Energy RCRA Facility
Site ID:

Job Order No: 222 10609

Type-Lead:

Requested by: Carole T. Braverman (312) 886-2910

Lead Scientist: A. K. Singh (702) 435-3731/Vicki Ecker (702) 897-3223

Start Date: March 1995

Expected Completion Date: September 1995

Revised Completion Date: June 1996

Estimated Budget: \$10,000

Revised Budget: \$75,000

Major Contaminants:Dioxin

Total Expenditures: \$26,293 PC&B \$3,000

Total FY96 Expenditures: \$0 PC&B \$3,000

Total 1st Qtr Expenditures:\$0 PC&B \$3,000

The Columbus municipal Electric Utility Boiler, also known as the Columbus Municipal Electric Plant (CMEP), is located south of downtown Columbus, Ohio. The facility is a power generating plant fueled by coal and refuse. It has been in operation since 1983 and is owned and operated by the City of Columbus.

In 1987, the US EPA initiated a study of the incinerator ash at CMEP because of the presence of dioxin and furan isomers associated with incinerator ash. The special study report indicated that incinerator ash contains dioxin and furan isomers, lead and cadmium. Concentrations of dioxin and furan isomers range from 0.33 ppb to 2.13 ppb. The highest concentrations were found in top ash from a conveyor belt. A relatively high concentration (0.84 ppb) was found from a stack scape sample. Dioxins (up to 0.38 ppb) were also found in two areas in the soil where ash was allowed to accumulate. Lead in the ash was found to exceed EP toxicity limits.

The Regional Risk Assessor has requested that the CRD-LV TSC design a sampling/monitoring strategy and a quality assurance project plan that would identify the concentration of soil dioxins. The soil dioxin concentrations that are of interest are 20, 40, 70 and 100 ppt. The CRD-LV TSC designed a sampling/monitoring program and finalizing the quality assurance project plan. This project is in process.

REGION 8

- Project Name: EXXON Billings Refinery
Site: EXXON Refinery RCRA Facility
Site ID:

Job Order No: 226 10611

Type-Lead:

Requested by: Stephanie Wallace (406) 449-5414 Ext 227
Lead Scientist: Neal Amick (702) 897-3231

Start Date: June 1995
Expected Completion Date: September 1995
Revised Completion Date: March 1996

Estimated Budget: \$8,000
Revised Budget: \$
Major Contaminants: PAHs

Total Expenditures: \$2,607
Total FY96 Expenditures: \$0
Total 1st. Qtr. Expenditures: \$0

The Region is currently over-seeing a facility investigation at the EXXON Refinery. The objective(s) of this investigation are to identify and determine if waste constituents have affected soil or groundwater quality and to summarize the nature and geophysical extent of any affected soils and/or groundwater.

The CRD-LV has been requested to assist in this effort by measuring the levels of PAHs in sampled media using the Field-Portable Scanning Spectrofluorometer. The measurements were made during the fourth quarter of FY95. After receiving the confirming results, a report identifying the samples analyzed and the results obtained will be submitted.

REGION 9

- Project Name: Greenfield
Site: Greenfield Environmental of Arizona RCRA Facility
Site ID: EPA ID AZD980892731

Job Order No: 2026R010

Type-Lead:
Requested by: Ron Leach (415)744-1044
Lead Scientist: Phil Arberg (702)798-2545

Start Date: December 1995
Expected Completion Date: April 1996
Revised Completion Date:

Estimated Budget: \$4,500
Revised Budget:
Major Contaminants: Solvents & Pesticides

Total Expenditures: \$1,809
Total FY96 Expenditures: \$1,809
Total 1st Qtr. Expenditures: \$1,809

The Regional RCRA Project Manager (RPM) requested that the Characterization Research Division Las Vegas (CRD-LV) Technology Support Center (TSC) provided an analysis of historical aerial photographs for the Greenfield Environmental of Arizona facility. Greenfield is a commercial hazardous waste storage, treatment and recycling facility located in Phoenix, Arizona. Past operations at Greenfield include a storage and distribution center for solvents and pesticides as well as solvent recycling.

The photographic analysis will focus on the detection of potential releases of hazardous materials to soil, air, groundwater, and surface water. If possible, the analysis will also evaluate overall waste management practices at the facility from about 1940 to the present with emphasis on years after 1960. This effort is currently in process.

REGION 10

- Project Name: Georgetown RCRA Facility
Site: Georgetown RCRA Facility
Site ID:

Job Order No: 207-R0020

Type-Lead: RCRA
Requested by: David Domingo (206) 553-8582
Lead Scientist: Anita Singh (702) 897-3422

Start Date: November 1995
Expected Completion Date: February 1996
Revised Completion Date:

Estimated Budget: \$5,000
Revised Budget: \$
Major Contaminants: VOCs

Total Expenditures: \$3,000
Total FY96 Expenditures: \$3,000
Total 1st. Qtr. Expenditures: \$3,000

The RCRA Regional Project Officer requested that the CRD-LV TSC evaluate statistical approaches that were being used to identify trends in groundwater contamination. The Mann-Kendall test was used to make this trend evaluation.

The TSC evaluated the available data and provided a report that addressed the proper use of this test for examining trends. Additional data evaluations are anticipated.

RCRA SHORT TERM REQUEST

- Project Name: Short-term RCRA Technical Support
Site: Short Term RCRA Technical Support
Site ID:

Job Order No: 226 10602

Type-Lead:
Requested by: See below
Lead Scientist: CRD-LV/TSC Staff Scientists

Start Date: October 1, 1991
Expected Completion Date: December 1995
Revised Completion Date: September 1996

Estimated Budget: \$8,000
Revised Budget: \$40,000
Major Contaminants:

Total Expenditures: \$42,556
Total FY96 Expenditures: \$2,190
Total 1st. Qtr. Expenditures: \$2,190

TSC requests that can be completed within a 40-hour period. See request below:

REGION	DATE	SITE	REQUESTOR	TELEPHONE NUMBER	NATURE OF REQUEST
5	Nov.	Columbus	P. Gehring	(216)522-7260	Analysis
5	Nov.	Columbus	C. Braverman	(312)886-2910	Analysis
5	Dec.	Columbus	S. Mangion	(312)353-7499	Tech Support
5	Nov.	Columbus	R. Winklhofer	(216)522-7260	Tech Support
5	Nov.		C. Tsang		
Hd. Qtrs.	Nov.	Columbus	M. Lorber	(202)260-8927	
5		Columbus	J. Schneider	(312)886-0880	

SUPERFUND REMOTE SENSING SHORT TERM REQUEST

- Project Name: Remote Sensing
Site: Superfund Short Term Remote Sensing Technical Support
Site ID:

Job Order No: 221 95755

Type-Lead:
Requested by: See below
Lead Scientist: CRD-LV/TSC Staff Scientists

Start Date: 1993
Expected Completion Date: September 1996
Revised Completion Date:

Estimated Budget: \$20,000
Revised Budget: \$30,000
Major Contaminants:

Total Expenditures: \$28,470
Total FY96 Expenditures: \$2,952
Total 1st. Qtr. Expenditures: \$2,952

TSC Remote Sensing requests that can be completed within a 40-hour period. The CRD-LV TSC is requested to provide Remote Sensing support that requires a quick-turn-around time. Projects that may be addressed within this 40 hour time frame include:

- The use of Geographic Information Systems (GIS) for site characterization.
- Providing plots of geostatistical related data for site characterization.
- Review of RI/FS reports and workplans, pertaining to the use of multi-spectral scanner, remote sensing and GIS technologies.
- Review of identification and technological techniques and methods used in remote sensing site assessment.
- Providing expert testimony, coordinating and/or contributing to the validity and authenticity of "remote sensing" data used in cost recovery cases.

REGION	DATE	SITE	REQUESTOR	TELEPHONE NUMBER	NATURE OF REQUEST
9	Nov.		R. Freitas	(415)744-2315	Photographs
9	Dec.		S. Hogan	(415)744-2236	Photographs

RCRA REMOTE SENSING SHORT TERM REQUEST

- Project Name: Remote Sensing
Site: RCRA Short Term Remote Sensing Technical Support
Site ID:

Job Order No: 221 95615

Type-Lead:
Requested by: See below
Lead Scientist: CRD-LV/TSC Staff Scientists

Start Date: 1993
Expected Completion Date: September 1996
Revised Completion Date:

Estimated Budget: \$20,000
Revised Budget: \$30,000
Major Contaminants:

Total Expenditures: \$842
Total FY96 Expenditures: \$100
Total 1st. Qtr. Expenditures: \$100

TSC Remote Sensing requests that can be completed within a 40-hour period. The CRD-LV TSC is requested to provide Remote Sensing support that requires a quick-turn-around time. Projects that may be addressed within this 40 hour time frame include:

- The use of Geographic Information Systems (GIS) for site characterization.
- Providing plots of geostatistical related data for site characterization.
- Review of RI/FS reports and workplans, pertaining to the use of multi-spectral scanner, remote sensing and GIS technologies.
- Review of identification and technological techniques and methods used in remote sensing site assessment.
- Providing expert testimony, coordinating and/or contributing to the validity and authenticity of "remote sensing" data used in cost recovery cases.

REGION	DATE	SITE	REQUESTOR	TELEPHONE NUMBER	NATURE OF REQUEST
9	Nov.	Greenfield	R. Leach	(415)744-2031	Photographs
9	Dec.		S. Hogan	(415)744-2236	Photographs

ISSUE PAPER

- Project Name: Identifying Background
Site: Identifying Background
Site ID:

Type-Lead: Frank Vavra (215) 597-0676
Requested by: Engineering Forum
Lead Scientist: Bob Breckenridge (208) 526-0757, Alan Crockett (208) 526-1574

Start Date: March 1993
Expected Completion Date: July 1994
Revised Completion Date: September 1995

Estimated Budget: \$25,000
Revised Budget: \$30,000
Major Contaminants: Metals

Total Expenditures: \$68,901
Total FY96 Expenditures: \$9,485
Total 1st. Qtr. Expenditures: \$9,485

Background: Many states have developed requirements for cleanups that are more stringent than risk based levels and sometimes to background levels. The variability of naturally occurring inorganics may lead Federal/state representatives to conclude that an area of a site has elevated metals just because of this variability. Establishment of background based both on site specific sampling and comparison to normal background ranges can help resolve this issue. Additionally, Natural Resource Trustees may request/require remediation of streams to levels below typical background levels of man-made substances in developed areas. Areas near roads usually have elevated levels of lead from leaded gasoline, elevated levels of PAHs from exhaust and asphalt road material, elevated levels of zinc from oxidation of car metals and elevated levels of inorganics from road salt/ashes. These contaminants are washed into ditches near the road and accumulate with time. Sites that were used as farmland may have elevated levels of pesticides and inorganics from fertilizers and pesticides. For example, lead arsenate was the pesticide of choice for orchards at one time in the past and fertilizers often contain lead which can accumulate in soils. Identification of representative background levels is often difficult and is complicated by the presence of roads, farms or other land use.

The CRD-LV TSC was requested by the Engineering Forum to develop a standard process/procedure to identify background levels of naturally occurring inorganics and typical levels of man-made substances in soils and sediments that may also be site contaminants. The goal is to produce an issue paper that identifies critical elements that must be taken to obtain representative background levels and the available processes that can assist in this determination. Existing documents and sources of information will be reviewed and appropriate material will be referenced. A planning meeting was held to scope out and generate an outline identifying elements that will be addressed in the Issue Paper. This outline was completed and reviewed by the Engineering Forum. During the 1st Quarter, FY 94 an initial draft of the issue paper was completed. The draft issue paper was provided to the Engineering Forum for review. The TSC addressed the Forum's comments, and prepared the document for peer review. The document has been peer reviewed and was finalized for publication.

ISSUE PAPER

- Project Name: On-Site Analytical Methods and Field Sampling for Exploring in Soil
Site: Explosives in Soil
Site ID:

Type-Lead:

Requested by: Federal Facilities Forum

Lead Scientist: Alan Crockett (208) 526-1574

Start Date: November 1995

Expected Completion Date: June 1996

Revised Completion Date:

Estimated Budget: \$30,000

Revised Budget: \$

Major Contaminants: Explosives

Total Expenditures: \$18,433

Total FY96 Expenditures: \$12,060

Total 1st. Qtr. Expenditures: \$12,060

The Federal Facilities Forum requested the CRD-LV TSC to prepare an Issue Paper addressing the current "State of Technology" with regards to "On-Site Analytical Methods" for identifying explosive contaminants in soils. In addition, this issue paper will discuss appropriate sampling/monitoring approaches that may be implemented to characterize these types of contaminants.

An outline that identifies the elements and scope that will be addressed in this paper was finalized. An initial draft is scheduled for February.

COORDINATION

- Project Name: Superfund Coordination
Site: Superfund Coordination
Site ID:

JOB: Order No: 226 10101

Type-Lead:

Requested by: Ken Brown

Lead Scientist: Phil Malley (702)897-6644/Alan Crockett (208)526-1574

Start Date: On-going October 1991

Expected Completion Date: September 1996

Revised Completion Date:

Estimated Budget: \$100,000

Revised Budget: \$106,000

Major Contaminants: N/A

Total Expenditures: \$21,751

Total FY96 Expenditures: \$21,751

Total 1st. Qtr. Expenditures: \$21,751

This project provides for Superfund coordination of requests received by the Technology Support Center and implemented when assigned to the off-site contractor. Activities include preparation of reports and tracking of projects, and documenting costs.

- Project Name: RCRA Coordination
Site: RCRA Coordination
Site ID:

Job Order No: 226 10601

Type-Lead:

Requested by:

Lead Scientist: Phil Malley, LESAT

Start Date: On-going October 1991

Expected Completion Date: September 1995

Revised Completion Date:

Estimated Budget: \$40,000

Revised Budget: \$7,000

Major Contaminants: N/A

Total Expenditures: \$0

Total FY96 Expenditures: \$0

Total 1st. Qtr. Expenditures: \$0

This project provides for RCRA coordination of requests received by the Technology Support Center and implemented when assigned to the off-site contractor. Activities include preparation of reports, tracking of projects, and documenting costs.

TECHNOLOGY TRANSFER

- Project Name: Superfund Technology Transfer
Site: Superfund Technology Transfer
Site ID:

Job Order No: 224 10020

Type-Lead:

Requested by: Director TSC

Lead Scientist: Clare Gerlach (702)897-3321

Start Date:

Expected Completion Date: September 1996

Revised Completion Date:

Estimated Budget: \$80,000

Revised Budget: \$

Major Contaminants:

Total Expenditures: \$9,231

Total FY96 Expenditures: \$9,231

Total 1st. Qtr. Expenditures: \$9,231

One of the objectives of the CRD-LV TSC is to identify and make available CRD-LV measurement technologies that are applicable for characterizing contaminants. Documenting the adequacy of these technologies, the application and their identity requires the development of case studies, fact sheets, demonstrations and workshops. During this quarter a case study identifying the sampling/monitoring and analytical methods that were used to characterize mercury contamination at Oak Ridge was printed. In addition, one four-page fact sheet was developed.