



United States
Environmental Protection
Agency

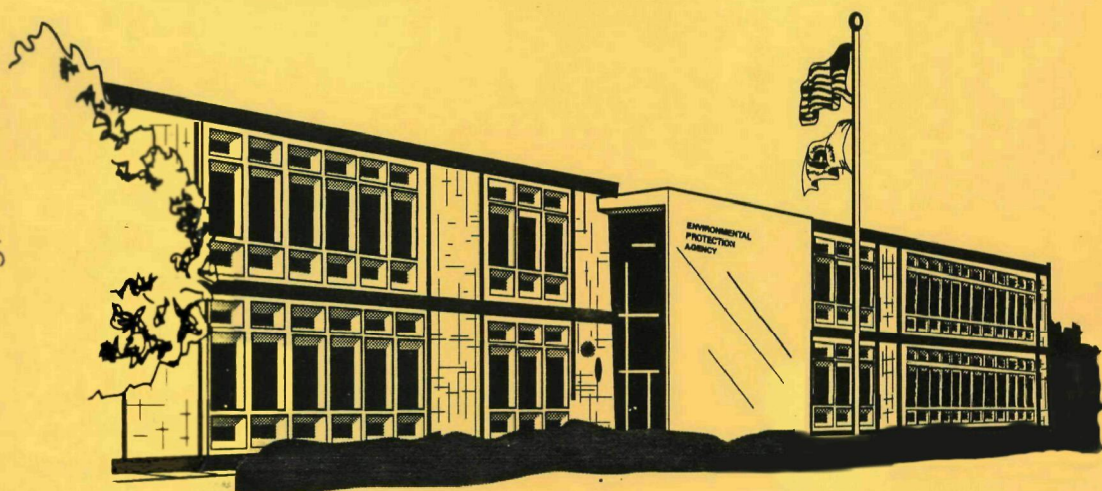
Office of Research and Development
National Exposure Research Laboratory
Characterization Research Division
P. O. Box 93478
Las Vegas, NV 89193-3478

June 1995

National Exposure Research Laboratory
Characterization Research
Division-Las Vegas
Superfund/RCRA Technology
Support Project

**Technology Support Center
for Monitoring and Site
Characterization FY95
Third Quarterly Report**

April - June 1995



U.S. Environmental Protection Agency, Characterization Research Division - Las Vegas



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

OFFICE OF RESEARCH AND DEVELOPMENT
NATIONAL EXPOSURE RESEARCH LABORATORY
P.O. BOX 93478
LAS VEGAS, NEVADA 89193-3478

Characterization Research Division

August 17, 1995

MEMORANDUM:

SUBJECT: National Exposure Research Laboratory
Characterization Research Division - Las Vegas
Third Quarterly Report

FROM: Kenneth W. Brown 
Director, Technology Support Center

TO: Richard Steimle (5120W)
Project Manager
Superfund Technology Support Project

David C. Bartenfelder (5303W)
RCRA Enforcement Division
Office of Work Program Enforcement

Attached is the third quarterly report for FY95 of the activities of the Characterization Research Division - Las Vegas, Technology Support Center (TSC). This quarterly report includes the months of April, May, and June 1995. The total superfund resources spent for those projects identified in the attached report was \$179,809. The resource distribution included \$172,414, TSC, \$4,500 PC&B, and Regional \$2,895. The total RCRA resources spent for those projects identified in the attached report was \$18,480.

The following Superfund projects have been completed and therefore deleted from this quarterly report: Olean Wellfield SF Site, Solvent Savers SF Site, Drake Chemical SF Site, Oak Ridge SF Site, Schuykill Metals SF Site, Allied Paper SF Site, Apache Powder SF Site, Ogden SF Site, Payson SF Site, and Verdese Carter Park SF Site.

The following RCRA projects have been completed and therefore deleted from this quarterly report: Southern California Chemical RCRA Facility, and TOSCO Refinery RCRA Facility.

If you need additional information, please call me at
(702)798-2270.

Attachment

cc:

Wayne N. Marchant, ODC
Margaret Kelly, EPA Hdqtrs
John M. Moore, ODC
J. Gareth Pearson, ASB
Christian G. Daughton, ASB/CHL
Paul J. Weeden, RSB/ROC603
Richard Garnas, MSB/MSL6
Jane Denne, ASB/CAP

Anders Denson, OPS/EXC125
Steve Hern, ASB/EXC210
Edward Kantor, OPS/EXC234
Phillip A. Malley, LESAT
Bob Breckenridge, INEL
Alan Crockett, INEL
Clare Gerlach, LESAT

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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:

Estimated Budget: \$5,000

Revised Budget: \$

Major Contaminants: Organics

Total Expenditures: \$3,988

Total FY95 Expenditures: \$3,988

Total 3rd Qtr. Expenditures: \$3,988

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.

- Project Name: Loring AFB Superfund Site
Site: Loring AFB SF Site
Site ID:

Job Order No: 224 10106

Type-Lead:

Requested by: Dick Willey (617) 573-9639

Lead Scientist: Dr. Karl Pohlmann (702) 895-0485

Start Date: January 1995

Expected Completion Date: September 1995

Revised Completion Date:



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
OFFICE OF RESEARCH AND DEVELOPMENT
NATIONAL EXPOSURE RESEARCH LABORATORY
P.O. BOX 93478
LAS VEGAS, NEVADA 89193-3478

CHARACTERIZATION RESEARCH DIVISION

September 15, 1995

SUBJECT: Support Activities addressed by the Characterization
Research Division, Las Vegas (CRD-LV) Technical Support
Center

FROM: Kenneth W. Brown *Ken Brown*
Director, Technology Support Center

TO: ~~Kim Hoang~~ *Jon Josephs*
Regional Scientist

Kim, please find attached the Third FY95 Quarterly Report by the CRD-LV TSC. I have been requested to provide the Regional Scientist's with information pertaining to the Regional Technical Support efforts addressed by the CRD-LV TSC. I hope the information in this quarterly report will be helpful to your program(s). Also, I will continue to send the quarterly reports to you for your information and use.

As you are aware, each TSC Director/Manager is required to provide the OSWER Program Office, on a quarterly basis, documentation of resources spent per site, activities/products, expenses incurred, expected completion dates, and budget requirements. The CRD-LV TSC also keeps the necessary budget information for Regional cost recovery actions.

If I can be of further assistance and/or if you need additional information or clarification pertaining to the attached report, please call me at (702)798-2270.

Attachment(s)

cc:w/o attachment: Richard Steimle
J. Gareth Pearson

Jon, if you

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

Total Expenditures: PC&B \$300
Total FY95 Expenditures: PC&B \$300
Total 3rd Qtr. Expenditures: PC&B \$300

The groundwater at Loring Air Force Base is currently being sampled to determine if contaminants have migrated from soil sources. A Regional Groundwater Forum member requested that the CRD-LV TSC review the sampling methods, statistical tests being utilized, and determine if the design (numbers of samples) is adequate. Specific questions that needed to be addressed by the CRD-LV TSC were:

- Is there sufficient data to draw meaningful conclusions?
- Is the quality of the data adequate?
- Was the data analyzed in an appropriate manner?
- Are the conclusions made by the Air Force supported by the data?

The TSC reviewed the document titled, "Field Data Validation Study Report for Debris Disposal Areas Operable Unit(OU3) Loring AFB, Maine", dated October, 1994. The TSC provided a letter report with the following summary conclusions:

The report is flawed due to the inadequate presentation of the data, the inconsistencies in the data and their interpretation, the apparent lack of adequate interpretation of all the available data, and the misuse of statistical analytical methods. These flaws may act to conceal differences between the methods or may emphasize differences that do not physically exist. In any case, the uncertainty in the results causes the conclusions to be questionable. Additional reviews of site documents may be required.

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

Job Order No: 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:

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

Total Expenditures: \$ 5,460
Total FY95 Expenditures: \$ 5,460
Total 3rd Qtr. Expenditures: \$ 2,778

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 analyses on 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.

- 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: M. Silverstein (702) 897-3291/D. Jackson (702)

Start Date: July 1994

Expected Completion Date: March 1995

Revised Completion Date: September 1995

Estimated Budget: \$25,000

Revised Budget: \$40,000

Major Contaminants: PAH

Total Expenditures: \$58,669, PC&B \$1600

Total FY95 Expenditures: \$42,245, PC&B \$1100

Total 3rd Qtr. Expenditures: \$3,707, PC&B \$400

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, and possibly 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 scientist(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. During this quarter numerous 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.

- Project Name: Pownal Tannery Sample Analysis
Site: Pownal Tannery SF Site
Site ID:

Job Order No: 226 10106

Type-Lead:
Requested by: Terrance Connelly (617) 573-9638
Lead Scientist: Neal Amick (702) 897-3231

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

Estimated Budget: \$15,000	Total Expenditures: \$142
Revised Budget: \$	Total FY95 Expenditures: \$142
Major Contaminants: Dioxins/Furans	Total 3rd Qtr. Expenditures: \$142

The Pownal Tannery Site is a pre-NPL Site that has been approved for inclusion in the SACM process. A removal action in 1993 documented the presence of metals, volatile and semi-volatile organics, and dioxins/furans. Developing a statistical evaluation of the risk posed by site contaminants required the analysis of a large number of samples. Obtaining the required data base required a cost and time effective analytical procedure. The RPM has requested the use of the Field-Portable Scanning Spectrofluorometer (FPSS) to measure dioxins/furans levels in site samples. To determine if the FPSS is a suitable measurement method, the RPM has sent site samples to the TSC for FPSS analysis. The analyses of these samples was initiated this quarter.

- 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:

Estimated Budget: \$5,000	Total Expenditures: \$1,424
Revised Budget: \$	Total FY95 Expenditures: \$1,424
Major Contaminants: Organics	Total 3rd Qtr. Expenditures: \$1,424

A number of years ago, the CRD-LV TSC provided statistical support to the RPM pertaining to the Wilcoxon Test to compare theoretical verses 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.

REGION 2

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

Job Order No: 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: September 1995

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

Total Expenditures: \$27,507
Total FY95 Expenditures: \$1,325
Total 3rd Qtr. Expenditures: \$713

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.

- Project Name: Lake Onondaga Sample Analysis
Site: Lake Onondaga SF Site
Site ID: NYD 986913580

Job Order No: 226 10106

Type-Lead:
Requested by: Herb King (212) 637-4268
Lead Scientist: Dave Dobb (702) 897-3273

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

Estimated Budget: \$15,000
Revised Budget: \$
Major Contaminants: Mercury

Total Expenditures: \$783
Total FY95 Expenditures: \$783
Total 3rd Qtr. Expenditures: \$783

This site is relatively small (4.5 square miles) that has been contaminated by discharging waste streams containing mercury and other heavy metals. The RPM was interested in having the CRD-LV TSC analyze a number of sediment and water samples for the presence of mercury. The analysis of these samples would include the determination of organic, water soluble, acid soluble, metallic and mercury sulfide fractions.

The CRD-LV TSC has not received any samples from the site at this point in time. A final decision concerning the analysis will be made by the RPM and State of New York personnel.

- Project Name: Mercury Refining Data Sample Analysis
Site: Mercury Refining SF Site
Site ID:

Job Order No: 226 10112

Type-Lead:
Requested by: Thomas Taccone (212) 264-9128
Lead Scientist: Dave Dobb (702) 897-3273

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

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

Total Expenditures: \$1,539
Total FY95 Expenditures: \$1,539
Total 3rd Qtr. Expenditures: \$1,539

The Region II RPM requested that the CRD-LV TSC analyze about ten (10) soil samples collected from the Mercury Refining Site for individual mercury species. The determination of various mercury species in these samples will allow the RPM and the State of New Jersey to determine the risk posed by bioavailable species. The following mercury species will be analyzed: organic (e.g. CH₃HgCl); water soluble (e.g. HgCl); and soluble (i.e. HgO and HgSO₄); metallic (HgO and amalgams); and mercury sulfide (HgS).

The samples were received and are currently being analyzed. A final report identifying the results will be provided to the RPM during the fourth quarter FY95.

- 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: September 1995

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

Total Expenditures: \$ 6,149, PC&B \$5,800
Total FY95 Expenditures: \$ 6,149, PC&B \$2,900
Total 3rd Qtr. Expenditures: \$ 0, PC&B \$1,200

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. Explanations were provided to the Region.

REGION 3

- Project Name: Atlantic Wood Industries (AWI) Superfund Site
Site: Atlantic Wood Industries SF Site
Site ID:

Job Order No: 226 01110

Type-Lead:
Requested by: David J. Iacono (215) 597-8485
Lead Scientist: Neal Amick (702) 897-3231

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

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

Total Expenditures: \$7,570
Total FY95 Expenditures: \$7,570
Total 3rd Qtr. Expenditures: \$7,570

The Atlantic Wood Industries (AWI) PRP's are planning to conduct an EPA-approved removal action that requires the excavation of about 520 cubic yards of contaminated sediments. PAH's are the primary contaminants in the sediment(s). The RPM was required to make decisions pertaining to the boundaries (width and depth) of the excavation as a function of the cleanup standards.

The RPM requested that the CRD-LV TSC assist in making on-site measurements of PAHs using the Field-Portable Scanning Spectrofluorometer (FPSS) during the removal phase. In support of this request on-site FPSS measurements were made. The data obtained from the FPSS was used to identify levels and the distribution of PAHs during the removal. A report identifying the measurements will be provided to the RPM.

- 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:

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

Total Expenditures: \$3,632
Total FY95 Expenditures: \$3,632
Total 3rd Qtr. Expenditures: \$3,632

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."

- 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: September 1995

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

Total Expenditures: \$4,785, PC&B \$400
Total FY95 Expenditures: PC&B \$400
Total 3rd Qtr. Expenditures: PC&B \$400

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 design approach reviews and geostatistical data assessments are anticipated.

- Project Name: Morgantown Ordnance Works NPL Superfund Site
Site: Morgantown Ordnance SF Site
Site ID:

Job Order No: 226 10106

Type-Lead:

Requested by: Melissa Whittington (215) 597-1286

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

Start Date: April 1995

Expected Completion Date: September 1995

Revised Completion Date:

Estimated Budget: \$7,000

Revised Budget: \$

Major Contaminants: Organics

Total Expenditures: \$4,130

Total FY95 Expenditures: \$4,130

Total 3rd Qtr. Expenditures: \$4,130

The Region III RPM requested assistance in the proper use of statistical tests pertaining to a biotreatability remedial study at the Morgantown site. The following issues were identified by the RPM:

- For a T-Test, when is the Paired T-Test used?
- When is a 2-tailed test used?
- When making the comparison using a T-Test, does n (number) have to be the same?, and
- When is it appropriate to pool data sets?

The TSC provided the RPM with the report titled, "Comments on Statistical Tests Pertaining to a Biotreatability Remedial Study for Morgantown Ordnance Works NPL Superfund Site." The questions asked by the RPM were addressed in the report. In addition, statistical calculations using site data was provided along with suggested recommendations.

TSC personnel also participated in discussions with the PRP's pertaining to the use of suggested statistical tests.

- 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:

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

Total Expenditures: \$6,880
Total FY95 Expenditures: \$6,880
Total 3rd 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 are anticipated.

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

Job Order No: 226 10106

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:

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

Total Expenditures: \$4,202
Total FY95 Expenditures: \$4,202
Total 3rd Qtr. Expenditures: \$4,202

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.

REGION 4

- Project Name: Aberdeen Pesticide Dumps NPL Superfund Site
Site: Aberdeen Pesticide SF Site
Site ID: Job Order No: 226 10106

Type-Lead:
Requested by: Kay Crane (404) 347-7791 Extension: 2079
Lead Scientist: A.K. Singh (702) 435-3731

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

Estimated Budget: \$10,000	Total Expenditures: \$0
Revised Budget: \$	Total FY95 Expenditures: \$0
Major Contaminants: Organics	Total 3rd Qtr. Expenditures: \$0

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

The TSC reviewed the documents and provided suggestions and recommendations for improving the suggested approach. The PRP's are currently reviewing the TSC recommendations.

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:

Estimated Budget: \$20,000	Total Expenditures: \$142
Revised Budget: \$	Total FY95 Expenditures: \$142
Major Contaminants: PAHs	Total 3rd Qtr. Expenditures: \$142

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 Spectrofluorometer (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 TSC is currently in the process of samples analysis. Following the analysis, an assessment of the FPSS performance will be completed.

- **Project Name: Byron Salvage Yard**

Site: Byron Salvage SF Site

Site ID:

Job Order No:

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:

Estimated Budget: \$10,000

Revised Budget: \$

Major Contaminants: VOCs

Total Expenditures: \$8,921

Total FY95 Expenditures: \$8,921

Total 3rd Qtr. Expenditures: \$8,686

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.

- **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 Site Location

Lead Scientist: Dave Atkinson (208) 526-9745 INEL

Start Date: April 1995

Expected Completion Date: November 1995

Revised Completion Date:

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

Total Expenditures: \$4,677
Total FY95 Expenditures: \$4,677
Total 3rd Qtr. Expenditures: \$4,677

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: North Drive Site
Site: North Drive SF Site
Site ID:

Job Order No: 224 10187

Type-Lead:

Requested by: Tim Prendiville (312) 886-5122

Lead Scientist: Ed Heithmar (702) 798-2626/D. Dobb (702) 897-3273

Start Date: November 1993

Expected Completion Date: July 1994

Revised Completion Date: September 1995

Estimated Budget: \$40,000

Total Expenditures: \$68,584, TSC \$54,770, Region \$13,814,
PC&B \$3,200

Revised Budget: \$70,000

Total FY95 Expenditures: TSC \$0, Region \$13,814, PC&B \$700

Major Contaminants: Cyanide

Total 3rd Qtr. Expenditures: TSC \$0, Region \$, PC&B \$400

The RPM requested that the TSC evaluate available cyanide analytical methods to determine which method should be used to quantify the amount of cyanide that is bioavailable. Because of the widespread contamination in the area, the region also requested technical support to assist in the development of a sampling plan. The TSC has been requested to provide input on sample numbers and the location of sampling sites that will characterize site contaminants. Site samples were collected and sent to CRD-LV. A QAPjP was written and sent to the Region. The samples were analyzed. The analytical results were provided to the Region in a document titled, "Determination of Total, Weak Acid Dissociable and Bioavailable Cyanide in North Drive Samples". Additional samples from the site were collected and sent to CRD-LV for analysis. Analysis of these samples was completed. A report of the analytical results was provided to the Region. Additional explanation of the results was provided to the Region.

- Project Name: North Drive Site/Oak Street Superfund Site

Site: North Drive/Oak Street SF Site

Site ID:

Job Order No: 224 10106

Type-Lead:

Requested by: Rose Ellison (312) 692-7269

Lead Scientist: Laurie Ottmar (702) 897-3473

Start Date: May 1995

Expected Completion Date: September 1995

Revised Completion Date:

Estimated Budget: \$15,000
Revised Budget: \$
Major Contaminants: Cyanide

Total Expenditures: \$ 2,895, TSC \$0, Region \$2,895, PC&B \$600
Total FY95 Expenditures: TSC \$0, Region \$2,895, PC&B \$600
Total 3rd Qtr. Expenditures: TSC \$0, Region \$2,895, PC&B \$600

The Regional OSC requested that the CRD-LV TSC evaluate available cyanide analytical methods to determine which method should be used to quantify the amount of cyanide that is bioavailable. Site samples were collected and sent to CRD-LV. Prior to sample analysis, a QAPjP and SOP were approved.

The samples were analyzed and the results provided to the Region in a document titled, "Determination of Total, Weak Acid Dissociable and Bioavailable Cyanide in North Drive/Oak Street Soil Samples." Because of the high levels of cyanide encountered, a number of modifications in the methods used were made. These modifications included reduced sample sizes for distillation and the use of ion chromatography rather than pyridine-barbituric acid derivitization/colorimetry for determination of Total, WAD and bioavailable cyanides.

- 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:

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

Total Expenditures: \$1,554
Total FY95 Expenditures: \$1,554
Total 3rd Qtr. Expenditures: \$156

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: RAB Valley Wood Preserving Superfund Site
Site: RAB Valley SF Site
Site ID:

Job Order No: 226 01107

Type-Lead:

Requested by: Lon Biasco (214) 665-6673

Lead Scientist: Neal Amick (702) 897-3231

Start Date: December 1994

Expected Completion Date: June 1995

Revised Completion Date: September 1995

Estimated Budget: \$25,000

Total Expenditures: \$29,802

Revised Budget: \$

Total FY95 Expenditures: \$29,802

Major Contaminants: PCP, PAHs, Dioxins

Total 3rd Qtr. Expenditures: \$12,655

The RAB Valley Wood Preserving Site covers approximately 30 acres in a predominately rural area southeast of Panama, LeFlore County, Oklahoma. The site was utilized as a wood preserving facility from the early 1900s until 1976, when the wood treatment operations were abandoned.

Hazardous substances associated with wood preserving operations (i.e., PCP and the PAH components of creosote) have been identified and quantified at locations within the boundaries of the RAB Site. Two site samples (one soil, one water), collected by the Oklahoma State Department of Health in 1989 for a Preliminary Assessment, indicated the presence of 617 mg/Kg (ppm) of lead, and five PAH compounds (total concentration of approximately 52,000 mg/kg) in the soil sample.

The TSC was requested by the RPM to provide Field Screening support utilizing the Field-Portable Scanning Spectrofluorometer (FPSS). The principle contaminants are PCPs, PAHs, and Dioxins.

On-Site FPSS measurements and samplings of site soils and sediments were conducted during the second quarter of 1995. The data obtained from the FPSS will be used to define the levels and distribution of the identified organic contaminants. A report identifying the measurement results is in process.

- 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: December 1995

Estimated Budget: \$7,000

Total Expenditures: \$16,311

Revised Budget: \$20,000

Total FY95 Expenditures: \$12,571

Major Contaminants: Organics

Total 3rd Qtr. Expenditures: \$813

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.

REGION 7

- **Project Name:**

Site: Kem-Pest Laboratories SF Site

Site ID: MOD980631113

Job Order No: 226 10189

Type-Lead: Fund

Requested by: C. Thigpen (913) 551-7414

Lead Scientist: P. Fitzpatrick (702) 897-3379

Start Date: December 1993

Expected Completion Date: May 1994

Revised Completion Date: December 1995

Estimated Budget: \$25,000

Revised Budget: \$50,000

Major Contaminants: Pesticides/Metals

Total Expenditures: \$40,349

Total FY95 Expenditures: \$10,056

Total 3rd Qtr. Expenditures: \$31

The RPM requested that the TSC develop a site specific S&A Plan, analytical approach, and a QAPjP to determine if site contaminants have penetrated the walls and floor of the Formulation Building. The TSC provided the Sampling/Monitoring QA plan titled, "Quality Assurance Project Plan and Sampling Plan for the Kem-Pest Superfund Site Cape Girardeau County, Missouri", to the RPM. The PRP's have reviewed the QAPjP/Sampling Plan. The Region has requested that the CRD-LV TSC provide on-site sampling support. Efforts to address this request are currently in process. A delay in the on-site sampling effort has occurred. This TSC project is currently on hold.

- **Project Name: Lindsay Manufacturing Soil Partitioning**

Site: Lindsay Manufacturing SF Site

Site ID:

Job Order No: 224 01108

Type-Lead: Fund

Requested by: Cecilia Tapia (913) 551-7733

Lead Scientist: Marti Minnich (702) 897-3258

Start Date: February 1995

Expected Completion Date: September 1995

Revised Completion Date:

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

Total Expenditures: \$7,979
Total FY95 Expenditures: \$7,979
Total 3rd Qtr. Expenditures: \$6,654

The Regional RPM requested assistance in the determination of site-specific soil-water partition coefficients for the Lindsay Manufacturing Superfund site located in Lindsay, Nebraska. The partition coefficients will be used in the calculation of subsurface soil cleanup levels for the site.

The CRD-LV TSC has selected a method that was specifically designed to measure soil-water partitioning of volatile organic compounds. Five (5) soil samples have been collected and received from the site for this analysis. Two of the samples were previously air-dried and sieved. Three of the samples were moist. The moist samples appeared very sticky and cohesive, indicating substantial clay contents. The soil sorption coefficient K_d for 1,1-dichloroethene (1,1-DCE), 1,1,1-trichloroethane (1,1,1-TCA), and tetrachloroethene (PCE) was determined on all five samples. A report titled, "Soil K_d Determination for Lindsay Manufacturing Site", and the "raw" data was provided to the Region.

REGION 8

- Project Name: Utah Power/Light-American Barrel Site
Site: Utah Power/Light-American Barrel SF Site
Site ID: Job Order No: 224 10186

Type-Lead:
Requested by: David Ostrander (303) 293-1530
Lead Scientist: Neal Amick(702) 897-3231

Start Date: November 1993
Expected Completion Date: June 1994
Revised Completion Date: December 1995

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

Total Expenditures: \$4,759
Total FY95 Expenditures: \$2,519
Total 3rd Qtr. Expenditures: \$67

The RPM requested that the TSC provide field measurements using the Field Portable Scanning Spectrofluorometer (FPSS). The measurements will be used relative to the excavation of contaminated soils and possibly for confirming sample analysis. A field test of the FPSS was completed at the American Creosote NPL Site. The results of this field test (instrument performance) will be used in the development of an analysis and QA Plan for the American Barrel Site. Site samples were sent to the CRD-LV TSC for instrument calibration purposes. Site samples have been analyzed and the data evaluated. It is anticipated that field measurements will take place during the fourth quarter 1995.

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: December 1995

Estimated Budget: \$30,000

Revised Budget: \$

Major Contaminants: Organics

Total Expenditures: \$25,970

Total FY95 Expenditures: \$7,265

Total 3rd Qtr. Expenditures: \$7,265

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.

- Project Name: Carson River Mercury
Site: Carson River Mercury SF Site
Site ID:

Job Order No: 224 10101

Type-Lead: Fund

Requested by: Sean P. Hogan (415) 744-2236

Lead Scientist: David Dobb (702) 897-3273

Start Date: September 1993
Expected Completion Date: February 1994
Revised Completion Date: September 1995

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

Total Expenditures: \$28,794, PC&B \$2,500
Total FY95 Expenditures:\$27,394, PC&B \$1300
Total 3rd Qtr. Expenditures: \$591, PC&B \$600

The Regional RPM requested support from the CRD-LV TSC to perform mercury speciation analyses on ten soil samples from the Carson River Mercury Site (CRMS). As part of EPA's effort to characterize mercury levels in soils at and around historic mill sites, the Region collected samples to measure the levels of different mercury species (i.e., elemental mercury, mercuric sulfide, methyl mercury and mercuric chloride) in the soil matrix. The purpose for acquiring these analytical data is to more accurately characterize the human health risks associated with soils that have different mercury species and different toxicity characteristics. The samples were analyzed and the results provided to the RPM. For confirmatory purposes, additional analyses was performed. The RPM requested additional support in developing a monitoring approach for the site. The results of additional analysis was provided to the RPM. In addition, a preliminary sampling/monitoring design approach was provided to the RPM. The CRD-LV TSC provided a geostatistical assessment of data collected near Dayton. A data assessment explanation was provided to the RPM.

- Project Name: Concord Navel 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:

Estimated Budget:\$12,000
Revised Budget:
Major Contaminants: Mercury (Heavy Metals)

Total Expenditures: \$3,320
Total FY95 Expenditures: \$3,320
Total 3rd Qtr. Expenditures: \$2,384

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.

- Project Name: King Tut Superfund Site
Site: King Tut SF Site
Site ID:

Job Order No: INEL

Type-Lead:

Requested by: Richard Lessler (415) 744-1063/Patti Collins (415) 744-2229

Lead Scientist: Alan Crockett (208) 526-1574/Richard Wells (208) 526-4561 INEL

Start Date: May 1995

Expected Completion Date: September 1995

Revised Completion Date:

Estimated Budget: \$2,000

Revised Budget: \$

Major Contaminants: Radionuclide

Total Expenditures: \$100

Total FY95 Expenditures: \$100

Total 3rd Qtr. Expenditures: \$100

This Regional request involved a review and making recommendations pertaining to analytical methods for the analysis of water, soils, and sediment samples for total thorium and uranium alpha particle activity. The requirements needed by the Region included a detailed standard operating procedure(s) explaining how the samples are to be handled and analyzed, and what quality control measurements and quality assurance procedures should be implemented.

The TSC reviewed the analytical methods and provided recommendations and suggestions to the Regional Project Officer.

- Project Name: Mare Island Data Audit
Site: Mare Island SF Site
Site ID:

Job Order No: 224 01103

Type-Lead:

Requested by: Stephen Remaley (415) 744-1496

Lead Scientist: Mary Wolf (702) 897-3384

Start Date: November 1994

Expected Completion Date: March 1995

Revised Completion Date: September 1995

Estimated Budget: \$10,000

Revised Budget: \$

Major Contaminants: Inorganics/Organics

Total Expenditures: \$3,931, PC&B \$300

Total FY95 Expenditures: \$3,931, PC&B \$300

Total 3rd Qtr. Expenditures: \$67, PC&B \$300

The TSC was requested to conduct an audit of raw data generated by the analysis of samples collected at the Mare Island Superfund Site. The audit of these data will focus on authenticating laboratory adherence to the principles of good laboratory practice in reporting results for compounds with contractual criteria. The audit will address laboratory results for calibrations (criteria compounds),

surrogates, internal standards areas, and tuning compound results. The audit was completed during the second quarter FY95. Additional data audit explanations were provided to the Region.

- Project Name: Mather AFB Data Audit

Site: Mather AFB SF Site

Site ID:

Job Order No: 226 10106

Type-Lead:

Requested by: Debbie Lowe (415) 744-1490/Matt Hagemann (415) 744-2326

Lead Scientist: C. Davis

Start Date: December 1994

Expected Completion Date: March 1995

Revised Completion Date: September 1995

Estimated Budget: \$5,000

Revised Budget: \$

Major Contaminants: Organics/Inorganics

Total Expenditures: \$510

Total FY95 Expenditures: \$510

Total 3rd Qtr. Expenditures: \$0

The Region's Hydrogeologist and the Remedial Project Manager requested that the TSC review Section 3.2 of the "Draft 1994 Groundwater Monitoring Program Evaluation Report, Mather Air Force Base California." The review and subsequent comments and suggestions will address the validity of the coefficient of variation test to determine the "statistical predictability" as proposed by the Air Force.

A report titled, "Review of Section 3.2 of the Draft 1994 Groundwater Program Monitoring Evaluation Report, Mather Air Force Base California" was prepared and submitted to the RPM. Additional reviews of PRPs suggested approaches are anticipated.

- Project Name: McCormick-Baxter Wood-Treating Plant

Site: McCormick-Baxter Wood-Treating SF Site

Site ID:

Job Order No: 222 01111

Type-Lead:

Requested by: Marie Lacy (415) 744-2234

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

Start Date: March 1995

Expected Completion Date: September 1995

Revised Completion Date:

Estimated Budget: \$10,000

Revised Budget: \$

Major Contaminants: Creosote

Total Expenditures: \$9,454

Total FY95 Expenditures: \$9,454

Total 3rd Qtr. Expenditures: \$8,910

The McCormick and Baxter Wood-Treating site is nine acres in size located in a light industrial area near the Port of Stockton. From 1942 to 1990, utility poles and railroad ties were treated with creosote,

pentachlorophenol (PCP), and arsenic compounds. Waste oils generated from the wood-treatment process were disposed of on site in unlined pools and concrete tanks.

The RREL Technical Support Center will test a remediation strategy in or after April 1995 at this site. The process involves thermal desorption at 800° followed by bicarbonate, carbonate, and/or oxide treatment of the organics to dechlorinate them. RREL will run a ten day test, with slightly different experimental conditions each day. The contaminants are expected to be creosotes, pentachlorophenols (PCPs), and trace-level dioxins. Chromium-copper-arsenic catalyst may also be present.

The TSC was requested by the RPM to provide Field Screening support utilizing the Field-Portable Scanning Spectrofluorometer (FPSS). The principle contaminants are PCPs, PAHs, and Dioxins.

On-Site FPSS measurements and samplings of site soil and sediments were conducted. The data obtained from the FPSS will be used to define the levels and distribution of the identified organic contaminants. A report identifying the measurement results is in process.

- 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: December 1995

Estimated Budget: \$50,000

Total Expenditures: \$42,453

Revised Budget: \$

Total FY95 Expenditures: \$42,453

Major Contaminants: Radionuclides/Organics

Total 3rd Qtr. Expenditures: \$45

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 is anticipated for the fourth quarter.

- Project Name: Montrose DDT Superfund Site
Site: Montrose SF Site
Site ID: Job Order No: 224 10106

Type-Lead:

Requested by: Dan Shane (415) 744-2286

Lead Scientist: Mobile Laboratory

Start Date: May 1995

Expected Completion Date: September 1995

Revised Completion Date:

Estimated Budget: \$1,000

Revised Budget: \$

Major Contaminants:

Total Expenditures: \$747

Total FY95 Expenditures: \$747

Total 3rd Qtr. Expenditures: \$747

The Regional On-Scene Coordinator requested that the CRD-LV TSC measure site contaminants using an on-site mobile laboratory. This request involved utilizing the T04 air sampling method(s) with GC ECD analysis. The TSC recommendation(s) was that this method was not suitable for an on-site mobile laboratory application. The rationale for this assessment was that the analytical method required a 12 hour soxhlet extraction, a 23 hour sample turn-a-round time could be expected, and this procedure requires the use of 5% ether in Hexane which is extremely flammable and required the use of a specialized laboratory hood. This information with analytical alternatives was provided to the Region.

- Project Name: Phelps Dodge Douglas Reduction Works ESI/RI
Site: Phelps Dodge SF Site
Site ID: Job Order No: 224 10199

Type-Lead:

Requested by: Michael E. Bellot (415) 744-2243/Kira Lynch (510) 412-2334

Lead Scientist: Conrad Kuharic (702) 897-3246/Danny Jackson

Start Date: October 1994

Expected Completion Date: September 1995

Revised Completion Date:

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

Total Expenditures: \$9,535
Total FY95 Expenditures: \$9,535
Total 3rd Qtr. Expenditures: \$0

The TSC was requested to review site documents (i.e., QAPjP, S&A Plan) and provide on-site support for measuring the levels and distribution of metal contamination. The sites ESI/RI was developed to determine if smelter emissions have impacted nearby communities. X-Ray Fluorescence will be used, if appropriate, to measure metal contaminants.

Specifically the TSC will provide:

- A quick turn-around review of the proposed XRF procedures,
- Identifying analytical methods that are capable of "fingerprinting" lead from specific sources,
- Review of suggested investigation plan approaches,
- Field support for XRF calibration and implementation,
- Remote sensing applications, and
- Monitoring design and data assessment.

A report that addresses the TSC review of available site documents was prepared and submitted to the Region. This project is currently on hold.

- 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:

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

Total Expenditures: PC&B, \$300
Total FY95 Expenditures: PC&B, \$300
Total 3rd Qtr. Expenditures: PC&B, \$300
(No TSC Resources were utilized)

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.

REGION 10

- Project Name: ASARCO Smelter Superfund Site
Site: ASARCO Smelter SF Site
Site ID: Job Order No: INEL

Type-Lead:

Requested by: Bernard Zavala (206) 553-1562

Lead Scientist: Glen Carpenter (208) 526-4166

Start Date: June 1995

Expected Completion Date: September 1995

Revised Completion Date:

Estimated Budget: \$2,000

Total Expenditures: \$100

Revised Budget: \$

Total FY95 Expenditures: \$100

Major Contaminants: Organics

Total 3rd Qtr. Expenditures: \$100 INEL

The Regional Groundwater Forum requested that the CRD-LV TSC review the adequacy of changing a proposed seismic velocity survey from a "cross-hole" configuration to a "surface to borehole" configuration. The TSC reviewed the geophysical approach(s) and provided recommendations to the region.

- 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: \$20,841
Total FY95 Expenditures: \$20,441
Total 3rd Qtr. Expenditures: \$6,360

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 hydrology/geology 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.

- Project Name: Lyman Mining
Site: Lyman Mining SF Site
Site ID:

Job Order No: 224 01100

Type-Lead:

Requested by: Harry Craig (503) 326-3689

Lead Scientist: Ed Heithmar (702) 798-2626/David Dobb (702) 897-3273

Start Date: October 1994

Expected Completion Date: February 1995

Revised Completion Date: September 1995

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

Total Expenditures: \$9,651
Total FY95 Expenditures: \$9,651
Total 3rd Qtr. Expenditures: \$13

The TSC was requested by the Regional RPM to analyze fourteen soil samples collected from the Lyman Mining site for individual mercury species. The determination of mercury species is via an analytical method developed by CRD-LV. The method separates mercury and mercury compounds into five difference species: Organic (e.g., CH_3HgCl), water soluble (e.g., HgCl_2), acid soluble (i.g., HgO and HgSO_4), metallic (HgO and amalgams), and mercury sulfide (HgS).

During November, the TSC received and analyzed the samples from the Lyman Mining site. Following the analysis and assessment of the resulting data, a report was written and provided to the requesting RPM. Oregon State employee's required additional explanation on a number of items in the data report. The TSC provided clarification of these items.

SUPERFUND SHORT-TERM REQUESTS

- Project Name: Short Term Requests

Site: Short Term Requests

Site ID:

Job Order No: 224 10106

Type-Lead:

Requested by: See Below

Lead Scientist: TSC/CRD-LV Staff Scientists

Start Date: October 1991

Expected Completion Date: September 1995

Revised Completion Date:

Estimated Budget: \$150,000

Revised Budget: \$200,000

Major Contaminants: Variable

Total Expenditures: \$225,112

Total FY95 Expenditures: \$25,454

Total 3rd Qtr. Expenditures: \$6,317

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

REGION STATE	DATE	SITE	REQUESTOR	TELEPHONE NUMBER	NATURE OF REQUEST
3	April	Issue Paper	F. Vavra	(215)597-0676	
	April		J. Holland	(515)294-5839	Sampling
9	April		B. Gore	736-5757	Immunoassay
1	May	Western Sand	A. Klinger	(617)573-9662	Sampling
3	June	Aberdeen Proving	D. Ioven	(215)597-1309	Data Assessment
2	May	Mercury Refining	M. O'Brian	(505)881-2338	Analysis
4	June	Aberdeen Dumps	K. Crane	(404)347-3555	Data Assessment
9	June	Allied Signal	D. Setter	(415)744-2260	Sampling
Hdq	May		R. Landy	(410)573-6855	RARE
8	June	Allied Signal	S. Sisk	(303)236-5136	Sampling
2	June	Koppers	L. Mareno	(215)597-0985	Sampling
2	May	Koppers	K. Kowalski	(215)619-4129	Sampling
3	April	Morgantown	M. Whittington	(215)597-1286	Data Assessment
1	April	Pownel	T. Connelly	(616)573-9638	Analysis
8	May	Amer. Barrel	D. Ostrander	(303)293-1530	Analysis

REGION STATE	DATE	SITE	REQUESTOR	TELEPHONE NUMBER	NATURE OF REQUEST
5	May	Ironton Coke	T. Alcamo	(312)886-7278	Analysis
2	April	Passaic River	J. Josephs	(212)637-4317	Dioxin
6	May		L. Ross	(214)665-6665	Sampling
9	May	Edwards AFB	R. Russell	(415)744-2406	Analysis
5	June	Ironton Coke	T. Alcamo	(312)886-7278	Analysis
1	May	W.R. Grace	L. Jennings	(617)573-9634	Data Assessment
3	May	Altantic Wood	D. Iacono	(215)597-8445	Analysis
9	May	Montrose	D. Shane	(415)744-2286	Analysis
5	May	Lorain County	S. Renninger	(216)323-9540	Analysis
9	April		M. Bellot	(415)744-2243	Sampling
9	May	Montrose	R. Randle	(310)435-6180	Analysis
5	May	Lorain County	M. Murphy	(216)322-7513	Analysis
9	June		J. Ricks	(415)744-2402	Sampling
1	May	O'Connor	J. Griswald	(603)224-7979	Data Assessment
1	April	O'Connor	R. Gilleland	(617)573-5766	Data Assessment
5	May	Brownfields	W. Messenger		Monitoring
4	May	Escambia	G.Linder	(904)488-0190	Analysis
4	May	Escambia	M Fite	(404)347-2643	Analysis
2	April	NARPM's	S. Jaffess	(212)637-4340	Conference
RREL	May	Brownfields	F. Freestone	(908)321-6632	Sampling
9	May		R. Simm	(415)744-2360	Analysis
USDOE	May		D. Page	(615)564-8922	Workshop
USDOE	June		G. Carpenter	(208)526-4166	Geophysics
3	April	Navy Ships	A. Sochanski	(215)597-3167	Monitoring
9	April	McCormick	M. Lacey	(415)744-2234	Analysis
5	April	No.Dr./Oak Street	R. Ellison	(313)692-7269	Analysis
9	May	Concord	B. Smith		
	April		S. Coulter	263-3136	Sampling

RCRA CORRECTIVE ACTION

REGION 1

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

Job Order No: 226 10602

Type-Lead:

Requested by: Ray Cody (617) 573-5769

Lead Scientist: Danny Jackson (702) 897-3245 (702) 897-3245

Start Date: May 1995

Expected Completion Date: September 1995

Revised Completion Date:

Estimated Budget: \$7,000

Revised Budget: \$

Major Contaminants: Synthetic Acid Precipitation

Total Expenditures: \$2,207

Total FY95 Expenditures: \$2,207

Total 3rd Qtr. Expenditures: \$2,207

The Regional RCRA Project Officer requested that the CRD-LV TSC evaluate using the Synthetic Precipitation Leaching Procedure (SPLP) in lieu of the Toxicity Characteristic Leaching Procedure (TCLP) to determine the capacity for landfilled sludges to leach contaminants. The SPLP is similar to the TCLP but the initial liquid-solid separation step had been eliminated and the acetate buffer extraction fluid has been replaced by a dilute nitric acid/sulfuric acid mixture.

In summary, the Region required information pertaining to the following:

- What is the specific chemical composition (topical) of the metal-hydroxide sludge? How are the metals bound to the inorganic matrix?
- What is the efficiency of the metal-hydroxide production process? Are there more than one species of a given metal?
- Does there happen to be literature which depicts the stability of the predominant form(s) of metal/binder species as a function of pH?

The TSC addressed the required issues and provided the Region with suggestions and recommendations.

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:

Estimated Budget: \$10,000
Revised Budget: \$18,000
Major Contaminants: Dioxin

Total Expenditures: \$13,533
Total FY95 Expenditures: \$13,533
Total 3rd Qtr. Expenditures: \$12,894

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 is in the process of designing a sampling/monitoring program and finalizing the quality assurance project plan.

- Project Name: Metalworking Lubricants (MWL)
Site: Metalworking Lubricants RCRA Facility
Site ID: IND 000 646 950

Job Order No: 224 10610

Type-Lead:

Requested by: Tamara Lamm (312) 886-0991

Lead Scientist: Danny Jackson (702) 897-3245 (702) 798-3295

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

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

Total Expenditures: \$479
Total FY95 Expenditures: \$479
Total 3rd Qtr. Expenditures: \$479

The Metalworking Lubricants facility is located in Indianapolis, Indiana. The facility currently processes waste oils from various metalworking, automotive, and steel mill manufacturing facilities. Waste oils are processed and blended using batch processes, and specification oils are returned to the client industries. RCRA regulated waste streams are not generated by any of the processing or blending operations. Land use surrounding the facility is largely industrial. To the west, the Indiana Railroad (formerly Illinois Central & Gulf) operates a rail siding area utilized as a locomotive and rail car scraping yard. Land to the south and east is undeveloped made land. An active filling operation is occurring on the property immediately to the south, and grades in this area have been raised several feet. Land to the north was formerly the site of a salvage yard.

Because of the types of materials that have been used at the facility, the Regional Project Manager believes that the target list for the RFI should include dioxins and furans. The CRD-LV TSC reviewed facility documents and data. An initial report with CRD-LV TSC recommendations was provided to the RCRA Project Officer.

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:

Estimated Budget: \$8,000

Revised Budget: \$

Major Contaminants: PAHs

Total Expenditures: \$0

Total FY95 Expenditures: \$0

Total 3rd 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 will be made during the fourth quarter of FY95. Following the on-site measurements, a report identifying the samples analyzed and the results obtained will be submitted.

REGION 9

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

Job Order No: 222 95611

Type-Lead:

Requested by: Frank Gardner (415) 744-2039

Lead Scientist: Dave Williams

Start Date: September 1994

Expected Completion Date: January 1995

Revised Completion Date: September 1995

Estimated Budget: \$7,000
Revised Budget: \$8,500
Major Contaminants: Organics/Inorganics

Total Expenditures: \$8,213
Total FY95 Expenditures: \$8,213
Total 3rd Qtr. Expenditures: \$339

The Region IX Project Officer requested that the CRD-LV TSC obtain available remote sensing (photographs) documentation, and provide an assessment of this information for identifying operations, determining waste management practices of the facility operators and to help locate contaminant sources. Only archival photography will be required. The existing photography will represent the years 1930's through the present.

The GTE facility is a manufacturer of communications equipment and has occupied an approximately 70 acre site in Silicone Valley since the early 1950's. Available photographs were received. Assessment of these photographs was completed. The remote sensing report titled, "Aerial Photographic Analysis of GTE Government Systems", was provided to the Region.

- Project Name: Gosford Lease/Former Magna Facility
Site: Magna RCRA Facility
Site ID:

Job Order No: 222 10608

Type-Lead: RCRA
Requested by: Ron Leach (415) 744-2031
Lead Scientist: D. Jackson (702) 897-3245

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

Estimated Budget: \$5,000
Revised Budget: \$
Major Contaminants: Petroleum Hydrocarbons

Total Expenditures: \$1,467
Total FY95 Expenditures: \$1,467
Total 3rd Qtr. Expenditures: \$207

The Magna Facility is a 1.5 acre site in Bakersfield, CA with soil contamination. The contamination is very acidic refinery waste containing petroleum hydrocarbons, VOCs, SVOCs and sulfur compounds. The waste was deposited in the 1940s by Agri-Chem, a now-defunct lessee of the current property owner, Southern Pacific Transportation Company. There is no current information pertaining to the business practices and processes at Agri-Chem in the 1940s.

A Corrective Measure Study (CMS) approach for the Magna facility has been prepared. The Regional Project Officer (RPO) has requested that the CRD-LV TSC review the CMS report to determine if the suggested approaches are appropriate. The TSC provided the Region a report titled, "Technical Support Review of Corrective Measures Study Gosford Lease/Former Magna Facility", dated February 14, 1995.

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

Job Order No: 222 95610

Type-Lead:

Requested by: Frank Gardner (415) 744-2039

Lead Scientist: Dave Williams (702) 897-3390

Start Date: September 1994

Expected Completion Date: January 1995

Revised Completion Date: September 1995

Estimated Budget: \$7,000

Revised Budget: \$9,000

Major Contaminants: Organics/Inorganics

Total Expenditures: \$8,707

Total FY95 Expenditures: \$8,707

Total 3rd Qtr. Expenditures: \$701

The Region IX Project Officer requested that the CRD-LV TSC obtain available remote sensing (photographs) documentation, and provide an assessment of this information for identifying operations, determining waste management practices of the facility operators and to help locate contaminant sources. Only archival photography will be required. Available photographs are currently being identified.

The Quemetco, Inc. facility is a secondary lead smelter that recycles lead-acid batteries and is located in the Los Angeles, California area. Historic facility operations such as outdoor slag piles, a surface impoundment, and a battery crusher have contaminated both on-site and off-site soils with lead. Recently, a former dry well was discovered, indicating that the Region may not yet have a complete data base as to past operations at this facility. Since the area has been used for industrial activities since the early 1950's and recent construction in the area have altered the site's layout. Available photographs dating back to the 1930's was required for this remote sensing assessment. Available photographs have been identified and received. Assessment of these photographs was completed. The final Quemetco remote sensing report was provided to the Region.

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: September 1995

Revised Completion Date:

Estimated Budget: \$8,000

Revised Budget: \$40,000

Major Contaminants:

Total Expenditures: \$40,140

Total FY95 Expenditures: \$1,439

Total 3rd Qtr. Expenditures: \$1,414

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

REGION	DATE	SITE	REQUESTOR	TELEPHONE NUMBER	NATURE OF REQUEST
8	May	Exxon	K. Canfield	(406)245-7600	Analysis
8	May	Exxon	S. Wallace	(406)449-5414	Tech Support
1	June	Envirite	R. Cody	(617)573-5769	Data Assessment
5	April	Columbus	C. Braverman	(312)886-2910	Sampling
5	April		T. Lamm	(312)886-0991	Sampling
1	April	Vermont	K. Jamison	(802)241-3831	Dioxin
4	April	General Compound	D. Gerard	(813)971-3882	GC-FTIMS
4	May		K. Wischkaemper	(404)347-3866	Tech Support

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 1995
Revised Completion Date:

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

Total Expenditures: \$25,594
Total FY95 Expenditures: \$978
Total 3rd Qtr. Expenditures: \$661

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
2	May		T. Bragalia	(617)536-1876	Photographs
9	June		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 1995
Revised Completion Date:

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

Total Expenditures: \$742
Total FY95 Expenditures: \$742
Total 3rd Qtr. Expenditures: \$232

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
4	June	Columbus WTE	C. Braverman	(312)886-2910	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: \$39,218

Total FY95 Expenditures: \$12,660

Total 3rd Qtr. Expenditures: \$13,258

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 is currently being finalized for publication.

ISSUE PAPER

- Project Name: Open Burn/Open Detonation Site Characterization
Site: Open Burn/Open Detonation
Site ID:

Type-Lead:
Requested by: Groundwater Forum/Federal Facilities
Lead Scientist: Alan Crockett (208) 526-1574

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

Estimated Budget: \$25,000
Revised Budget: \$0
Major Contaminants: Explosives

Total Expenditures: \$6,373
Total FY95 Expenditures: \$6,373
Total 3rd Qtr. Expenditures: \$3,133

There are over 100 RCRA Facilities that are regulated under Subpart X. These sites are required to have groundwater exposure assessments, and establish groundwater monitoring systems. Approximately 90% or more are Open Burning/Open Detonation (OB/OD) facilities. Besides RCRA facilities, there are CERCLA sites across the Nation that are currently being investigated, especially for base closure, that will also have similar explosive problems.

The EMSL-TSC is obtaining available information concerning the sampling methods, monitoring approaches and analytical protocols for addressing the characterization of these contaminants. Following the assessment of available data the CRD-LV TSC prepared a suggested outline that identifies the major elements that will be addressed in the Issue Paper. The Federal Facilities Forum has suggested that an Issue Paper addressing a different source of explosive contaminants be developed. The TSC will respond to this request when received.

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

Start Date: On-going October 1991
Expected Completion Date: September 1995
Revised Completion Date:

Estimated Budget: \$100,000
Revised Budget: \$
Major Contaminants: N/A

Total Expenditures: \$497,055
Total FY95 Expenditures: \$84,844
Total 3rd Qtr. Expenditures: \$28,773

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: Ken Brown
Requested by: Phil Malley
Lead Scientist:

Start Date: On-going October 1991
Expected Completion Date: September 1995
Revised Completion Date:

Estimated Budget: \$40,000
Revised Budget: \$100,000
Major Contaminants: N/A

Total Expenditures: \$57,710
Total FY95 Expenditures: \$5,116
Total 3rd Qtr. Expenditures: \$7

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

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

Estimated Budget: \$80,000
Revised Budget: \$
Major Contaminants:

Total Expenditures: \$ 70,690
Total FY95 Expenditures: \$ 70,690
Total 3rd Qtr. Expenditures: \$21,405

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 Oakridge was submitted for printing. In addition, several one-page fact sheets and two four-page fact sheets were developed. The two four-page fact sheets are titled, "EPA Training Programs Available Through the CRD-Las Vegas", and "Robust Statistical Intervals for Performance Evaluation."