United States
Environmental Protection
Agency

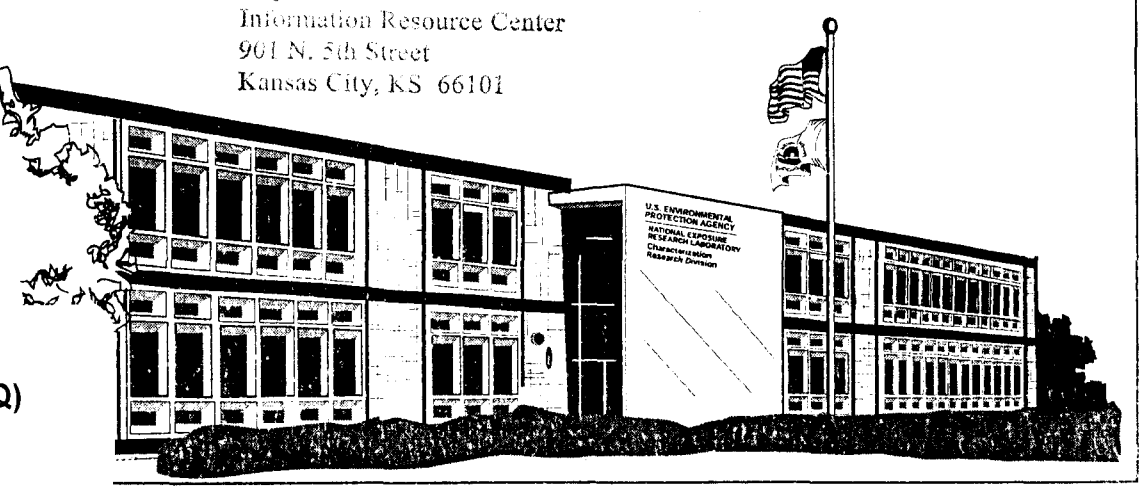
Office of Research and Development
National Exposure Research Laboratory
Environmental Sciences Division
P. O. Box 93478
Las Vegas, NV 89193-3478

March 2001

National Exposure Research Laboratory
Environmental Sciences Division
Superfund Technology
Support Project

Technology Support Center for Monitoring and Site Characterization FY01 Second Quarter Report

January - March 2001



T • COMMUNICATION • TRAINING • T
TSP Technology Support Project

EPA-ORD-NERL-FY01(2Q)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
NATIONAL EXPOSURE RESEARCH LABORATORY
P.O. BOX 93478 • LAS VEGAS, NV 89193-3478

APR 30 2001

OFFICE OF
RESEARCH AND DEVELOPMENT

MEMORANDUM

SUBJECT: National Exposure Research Laboratory
Environmental Sciences Division
FY01 Second Quarter Report

FROM: Kenneth W. Brown, Director, Technology Support Center (TSC)
Characterization and Monitoring Branch, ESD

TO: Richard Steimle, Project Manager (5102W)
Superfund Technology Support Project

Dan Powell (5102W)
Technology Innovation Office

Attached is the FY01 Second Quarter Report pertaining to the activities of the Environmental Sciences Division-Las Vegas, (ESD) Technology Support Center, (TSC). This quarterly report includes the months of January, February and March 2001. The total Superfund resources spent for those projects identified in the attached report were $300,407 TSC and $8,000 PC&B.

A total of thirteen new projects were started this quarter. The following projects were completed during the second quarter of FY01 and are, therefore, deleted from this quarterly report. Loring AFB, Naval Construction Battalion Center, Yaworski Lagoon, Fort Ritchie, F.C.X. Washington, Florida Petroleum Reprocessors, Taylor Road Landfill, Petro Processors, McClellan AFB and West Virginia Ordnance Works.

If you have any questions about this report, please give me a call at (702) 798-2270.

Attachment

cc: John G. Lyon, ODC
J. Gareth Pearson, ODC
Kathie Stephens-Landers, ODC
Jane Denne, NERL-ESD-LV
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SUPERFUND

REGION 1

- Project Name: Camp Edwards (Otis AFB)
  Site: Military Reservation (Massachusetts) S. F. Site
  Site ID:

  Type Lead:
  Requested by: Mike Jasinski (617) 918-1352, Paul Marchessault (617) 918-1388 T. Borci (617) 918-1358
  Lead Scientist: Bob Starr (208) 526-0174, Lance Peterson (208) 526-9738, Ron Arnett (208) 526-8005

  Start Date: July 1998
  Expected Completion Date: April 1999
  Revised Completion Date: August 2001

  Estimated Budget: $40,000 — Total Expenditures:$72,967 PC&B:$3,000
  Revised Budget: $80,000 — Total FY01 Exps:$9,084 PC&B:$1,600
  Major Contaminants: Organics — Total 2nd Qtr. Exps $1,461 PC&B:$ 800

  The Regional RPM requested that the ESD-LV TSC provide assistance in evaluating the feasibility of implementing natural attenuation as the remedial remedy for groundwater contamination at this site.

  The Otis Air National Guard Base (NGB) and Camp Edwards covers approximately 3,900 acres on a 22,000-acre parcel of land, today known as the Massachusetts Military Reservation (MMR).

  In 1984, the U. S. Geological Survey detected contaminants in the monitoring wells downgradient of the plant. In 1983 and 1984, the Air Force detected volatile organic compounds (VOCs) in on-site monitoring wells near the Base Landfill and Current Fire Training Area. Monitoring by the Air National Guard and the State Department of Environmental Quality has detected VOCs in more than 200 private wells.

  TSC reviewed the Focused Feasibility Study for Landfill-1 (draft) to address several issues including evaluating the evidence that: natural attenuation of chlorinated ethenes was occurring in the aquifer downgradient of Landfill-1, natural attenuation would be sufficient as a sole remedy for managing the plume of contaminated groundwater emanating from Landfill-1, active remedial measures (such as pump-and-treat) would inhibit biodegradation of chlorinated ethenes, decreasing concentration trends are the result of installation of a landfill cap instead of natural attenuation, and finally, reviewed the cost estimates of various remedial alternatives. In spite of the extremely short review period, the TSC (INEEL) participated in two meetings at the site with regulators and the Air Force, as well as numerous tele conferences in which natural attenuation and other remedial alternatives were discussed. At the request of Region I, a series of documents was provided that describe a groundwater remediation program at the INEEL Test Area North facility. The TSC reviewed the addendum to the focused feasability study for Landfill-1 and participated in a number of tele-conferences and attended a meeting to discuss TSC comments and suggestions. The RPM will provide the TSC with extraction/treatment system data for review. The TSC received a request to assist in the establishment of conservative soil concentration for explosive residues and other contaminants based on leaching to groundwater. An evaluation of the SESOIL Model was completed. In addition, a data report titled "Soil Action Levels for Massachusetts Military Reserve Northern Impact Area" was provided to the Region.

  The TSC was requested to review DoD's site specific fate and transport measurement Task 2000. The TSC completed a review of the modeling portion of the RI for the chemical spill-19 (CS-19) area. The TSC

calculated some additional soil screening concentrations that were provided to the Region. TSC reviewed "Contaminant of Concern Identification Demolition Area 1" and the "Draft Modeling Strategy for the Camp Edwards Impact Area Groundwater Quality Study

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

  Type Lead:
  Requested by: Dick Goehlert (617) 918-1335
  Lead Scientist: Kent Snyder (360) 546-0687

  Start Date: August 1999
  Expected Completion Date: March 2000
  Revised Completion Date: May 2001

  Estimated Budget: $12,000
  Revised Budget:$95,000
  Major Contaminants: PCB's

  Total Expenditures:$57,438.
  Total FY01 Exps: $ 1,100.
  Total 2nd Qtr. Exps:$ 1,000.

  The RPM requested that the ESD, TSC provide assistance in designing and identifying sampling methodologies for sampling hummocks.

  The Ottati & Goss/Kingston Steel Drum site in Kingston, N.H. is situated on 35 acres, contains a 1-acre parcel in the southwest portion that was leased and known as the Ottati & Goss (O&G) site and a 6-acre Great Lakes Container Corporation (GLCC) site consisting of a rectangular parcel bordered on the east by Route 125. From the late 1950s through 1967, Conway Barrel & Drum Company (CBD) owned the site and performed drum reconditioning operations on the parcel of land later owned by the Great Lakes Container Corporation. The reconditioning operations included caustic rinsing of drums and disposal of the rinse water in a dry well nearby.

  The groundwater, surface water, and soils are contaminated with volatile organic compounds (VOCs). The on-site soil also contains polychlorinated biphenyls (PCBs), metal, and acids and base/neutral compounds.

  The TSC participated in a conference call and provided comments and recommendations pertaining to a proposed sampling plan. The TSC reviewed and provided comments pertaining to the sampling plan and quality control sections of the 90% design contract specifications. In addition, a report titled "Assessment of Arsenic Distribution in Ottati and Goss Soils" was completed and provided to the Region.

  The TSC reviewed the sampling quality control and wetland restoration sectors of the 100% design contract specifications document. A number of letter reports on this review was provided to the Region. Also, several issues, including the arsenic report, were discussed with the RPM. The TSC reviewed and provided comments to the RPM on the "Compendium of Quality Assurance Project Plan Requirements and Guidance." The TSC participated with the Region and USACE in discussions on the "Sampling Procedures and Laboratory Services" of the Ottati & Goss 100% design document. The "100% Design Document" was reviewed by the TSC. The report titled "Review of Ottati and Gas Soil Remediation 100% Design" was provided to the Region. Additional support is anticipated.

- Project Name: Savage Well
  Site: Savage Well Municipal Water Supply OU-2 S. F. Site
  Site ID:

Type Lead:
Requested by: Richard Goehlert (617) 918-1335
Lead Scientist: Lance Peterson (208) 526-9738

Start Date: May 1999
Expected Completion Date: December 1999
Revised Completion Date: April 2001

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

Total Expenditures:$22,051.
Total FY01 Expenditures:$610.
Total 2nd Qtr. Expenditures:$110.

The RPM requested that the ESD-LV TSC provide assistance in reviewing aquifer models that are and/or will be used to determine appropriate remedial approaches.

The Savage Well site covers about 30 acres west of the center of Milford, NH and consists of a municipal well. The underlying aquifer, the water-bearing layer of rock and gravel from which the Town of Milford gets its water. The Savage Municipal Well site operated form 1960 to 1983, during which time it supplied 40% to 45% of Milford's water. The remainder of the water came from the Keyes and Kokko Wells. During Savage's years of operation, several metal industries opened plants near the well along the Souhegan River. Investigations at the site identified the source of contaminants, which also were present in water samples taken at the nearby industries.

The groundwater is contaminated with VOCs, including TCE and vinyl chloride and heavy metals, including lead, chromium, and mercury. The soil is contaminated with VOCs. The stream on site is contaminated with VOCs and lead. As previously identified the TSC has been involved at OU-1 with the "Surfactant-Enhances Aquifer Remediation of PCE at Neutral Buoyancy" Project.

The PRPs have modeled the Savage Well aquifer and evaluated several remedial scenarios. They have come to the conclusion that monitored natural attenuation remedy will result in a clean aquifer in about the same time as an engineered remedy. This does not seem to make sense given the complexity of the aquifer and the broad extent of contamination in OU-2. OU-1 is a fund lead slurry wall, with pump and treatment system, SVE air sparging, and air stripping. OU-2 is a dissolved plume downgradient from the OU-1 area.

Numerous reports were received on hydrologic modeling of Savage Well OU-2 site. The hydrologic site conceptual model review is in progress and will be followed by a numerical model review. Questions and comments are being formulated as review progresses. The TSC has performed an initial review on the QST Draft Modeling report and the Remedial Design Report. The modeling review was completed and the report titled "Comments Regarding Modeling and Interpretations on the OU-2 Savage Well Site" was provided to the Region. The TSC received the 1999 USGS groundwater modeling report. The report was reviewed and was considered satisfactory. Discussion with the RPM pertaining to the transport models "ModFlow" and ModFlow/MTSD occurred.

The TSC reviewed the document "An Evaluation of June and August 2000 Sampling Results: Biotic Transformation of Chlorinated Organic Compounds Within the Extended Plume, Savage Well ESE." A number of conference calls pertaining to modeling questions were held with the RPM.

- Project Name: South Weymouth
  Site: South Weymouth Naval Air Station S. F. Site
  Site ID:

Type-Lead:
Requested by: Cynthia Hanna (617) 918-1446 Patty Whittemore (617) 223-5583
Lead Scientist: Anita Singh (702) 897-3234

Start Date: July 1998
Expected Completion Date: March 1999
Revised Completion Date: March 2001

Estimated Budget: $10,000
Revised Budget:$38,000
Major Contaminants: Metals/Acids

Total Expenditures:$30,851.
Total FY01 Exp:$400.
Total 2nd Qtr. Exp:$300.

The Regional Remedial Project Manager (RPM) requested that the Environmental Sciences Division-Las Vegas (ESD) Technology Support Center (TSC) provide assistance in a statistical assessment of false positive and false negative data as defined and used in the site's QAPP. South Weymouth Naval Air Station (SWNAS) is located at the southern end of Weymouth, Norfolk County, Massachusetts. SWNAS is approximately 1,500 acres in size. Station generated wastes is disposed of in three onsite landfills. The West Gate landfill operated from 1969 to 1972. The Rubble Disposal area and the Small landfill operated from 1972 until the mid-1980's. Flammable liquid wastes were reportedly burned in the onsite fire fighting training area. Small amounts of waste battery acid, possibly containing lead, may have been disposed of in a site leach field.

The TSC reviewed the QAPP and site data. Following the review and site documents assessment the TSC provided the Region the report titled "Review of Statistical Approaches Proposed for South Weymouth Superfund Site". Following a review of additional data, the TSC provided the Region with two reports titled "Review of statistical approaches Proposed for South Weymouth Naval Air Station NPL site and "Review Comments on the Approach Proposed by the Navy for Background and Review Action Item Concentration Comparison, South Weymouth NPL Site". Following a PRP/EPA conference call an additional assessment of site data the report titled "Review of Statistical Approaches Proposed for South Weymouth Naval Air Station NPL Site, 5-19-99" was provided to the Region. In July the TSC was provided a Phase II EBS-Data Analysis Update-RTN#3-2621, dated July 7, 1999. Following a review of additional site data and documents, the TSC provided the following reports to the Region: "Use of SWNAS Background Data Set for Evaluation of the Environmental Base Line Study Review Item Area Data" dated December 8, 1999, and "Background Data Set Development for NAS South Weymouth Revision No. 2". A number of letter reports were provided to the Region. These reports included comments on the draft human health risk assessment work plan, background UPL computations and the issue of outliers. The TSC is currently reviewing the PRP's approach for the background screening comparison used for the "small landfill."

The TSC completed the review of the "PRP's Background Screening Approach". The RPM had a number of questions pertaining to the Phase II RI. These questions were addressed by the TSC. Additional support is anticipated.

REGION 2

- Project Name: Diamond
  Site: Diamond Alkali S. F. Site
  Site ID:

  Type Lead:
  Requested by: Marian Olsen (212)637-4313
  Lead Scientist: Anita Singh (702) 897-3234

Start Date: March 2001
Expected Completion Date: June 2001
Revised Completion Date:

Estimated Budget: $12,000	Total Exps:$41,735.	PC&B:$800
Revised Budget: $	Total FY01 Exps:$300.	PC&B:$800
Major Contaminants: Organics	Total 2nd Qtr. $300.	PC&B:$800

The RPM requested that the ESD-LV TSC provide assistance in reviewing a suggested Creel/Angler survey.

The Diamond Alkali Company site covers 3-acres in Newark, New Jersey adjacent to the Passaic River. The site has been used for chemical manufacturing by numerous companies for more than 100 years. The mid-1940s marked the beginning of the manufacturing operations related to the current site conditions, including the production of DDT and phenoxy herbicides. The Diamond Sheetrock Company acquired the property in 1951 and produced various chemicals and pesticides until 1969, when it was shut down.

Dioxin has been detected in on-site monitoring wells. Other contaminants detected in groundwater included volatile organic compounds (VOCs) including benzene, acetone, and toluene and herbicides. Individuals accidentally ingesting contaminated soil or surface water may be at risk, as may those using contaminated groundwater for other uses. The Passaic River and fish and shellfish from the river may be threatened by runoff from the site.

The TSC is currently reviewing provided site information and documents.

- Project Name: Hooker
  Site: Hooker Chemical/Ruco Polymer S. F. Site
  Site ID:

  Type-Lead:
  Requested By: Syed Quadri (212) 637-4233
  Lead Scientist: Kent Sorenson (208) 526-9597

  Start Date: February 1999
  Expected Completion Date: September 1999
  Revised Completion Date: April 2001

Estimated Budget: $ 35,000	Total Expenditures:$31,401.
Revised Budget: $50,000	Total FY01 Expenditures:$1,131.
Major Contaminants: Organics	Total 2nd Qtr. Expenditures:$131.

  The RPM requested that the ESD-LV TSC provide assistance in reviewing a number of site documents i.e., treatability study work plan, Remedial Investigation Report for Operable Unit 3 and the Feasibility Study Report for Operable Unit 3.

  The site is located on a 14-acre tract of land in Hicksville, New York. The site includes two main production plants, a pilot plant located between these plants, a warehouse building, an administration and laboratory building, numerous above-ground chemical storage tanks and associated pipping, and several recharge basins. Since 1946, the facility was used for the production of various polymers, including polyvinyl chloride (PCV), styrene/butadiene latex, vinyl chloride/vinyl acetate copolymer, and polyurethane, as well as ester plasticizers. The facility is currently active, and manufactures such products as polyester, polyols and powder coating resins. During site operations, industrial wastewater from the facility was discharged to six (6) on-site recharge

basins or sumps. The wastewater contained, among other things, vinyl chloride, trichloroethylene, barium and cadmium soap. Vinyl acetate, organic acids, and styrene condensate as a result of these releases, groundwater downgradient from the site has been contaminated.

The TSC reviewed the Predesign Work Plan for Operable Unit I with a specific focus on the Treatability Study Work Plan (Appendix C). Comments were provided within two days of receipt of the document. Significant deficiencies were noted in the Treatability Study Work Plan. Recommendations for resolution of the deficiencies were made in the review comments and discussed on a conference call with EPA Region II and the PRPs. An additional review was completed on the Remedial Investigation Report Operable Unit-3. The report summarized existing data and the reviewers agreed with recommendations for additional monitoring of wells. The reviewers did not agree with the conclusion that the existing data was adequate for a section of a final remedy and recommendations were made for additional data needs to fully evaluate remediation alternatives.

The TSC reviewed and provided comments pertaining to the report "Feasibility Study for Operable Unit-3 Vinyl Chloride Sub-Plume in the Vicinity of MW-S2 Hicksville, New York-KS-0599 and LMP-05-99". The TSC supplied comments to the RPM on an Interim Remedial Measures plan that calls for additional characterizing and preliminary tests to support biosparging at the Hooker/Ruco site. This work would be performed concurrently with finalization of the RI/FS and drafting of the ROD. A review of the comment responses provided by OXY for the Hooker/Ruco site RI and FS reports was completed and provided. At the request of Mr. Quadri the groundwater treatability study report was reviewed and the TSC completed a review of the comment responses on the RI and FS reports provided to the EPA by OXY for the Hooker/Ruco site. TSC transmitted written comments on the Groundwater Treatability Study Report and the In Situ Chemical Oxidation Work Plan as well as a summary of the reviews of comment responses on the RI/FS documents. A number of conference calls between the TSC scientists, the RPM and the PRP's were completed. The TSC provided input into the sampling methods that will be performed during installation of wells for the pre-design activities associated with OU-3. The TSC reviewed and provided comments to the RPM on the remedial investigation report OU-3. Following the PRP's revision of the "Feasibility Study Document for OU-3" the TSC reviewed the revised version and provided some additional recommendations.

The TSC was requested to review public comments and Northrop Grumman responses. The following two reports were provided to the Region: "Responses to Public Comments on the Proposed Plan for the Vinyl Chloride Sub-plume at the Hooker Chemical/Ruco Polymer Plant in Hicksville, New York" dated September 13, 2000, and "Proposed Response to Northrop Grumman Corporation Comments dated August 28, 2000 on the Operable Unit-3 Proposed Remedial Action Plan for the Hooker/Ruco Site, Hicksville, New York" dated September 18, 2000. A number of conversations with the RPM occurred pertaining to TSC comments and suggestions. A workshop on fractured rock was attended by a TSC representative. The TSC provided comments and suggestions on the OU-3 proposed remedial action plan. The TSC participated in a number of conference calls with the RPM.

- Project Name: Hudson
  Site: Hudson Technologies S. F. Site
  Site ID:

  Type Lead:
  Requested by: Dean Maraldo (212) 637-4271
  Lead Scientist: Tim Ehli (702) 897-3239 Marti Minnich (360) 546-0687

  Start Date: June 2000
  Expected Completion Date: November 2000
  Revised Completion Date: April 2001

Estimated Budget: $14,000
Revised Budget: $
Major Contaminants: Freon 11

Total Expenditures:$9,994.
Total FY01 Expenditures:$1,023.
Total 2nd Qtr. Expenditures:$0

The RPM requested that the ESD-LV TSC provide assistance in identifying the fate and transport of Freon 11 in subsurface (i.e., soil and groundwater) environments and to review the sampling/sample handling and analytical methods that will be used by the PRP's to characterize Freon 11 at this site.

The Hudson Technologies Inc. (HTI) site is an active freon recycling facility located at 25 Torne Valley Road in Hillburn, Rockland County, New York. Activities conducted by HTI at the facility include purifying spent refrigerant and returning it to customers. HTI began operations at the site in June 1994. The site property is approximately 3.01 acres in size.

On April 1, 1999, a failed connection hose to one of HTI's outdoor storage tanks resulted in a spill of approximately 7,797 pounds of Freon 11 to the ground surface. HTI immediately commenced excavation of soil impacted by the spill. Over a 10 day period, approximately 400 to 500 cubic yards of contaminated soil were excavated from the area. Analytical results from soil samples collected from the excavation on April 2 and April 7, 1999, indicated the presence of Freon 11 at elevated concentrations. Freon has also been detected in a number of wells in the area. The TSC reviewed available information pertaining to the fate and transport of Freon. The TSC completed a literature review and provided the following:

- Sample Preservation Techniques for VOC's (Freon 11)
- Screening Criteria for Freon 11
- Public Health Goal for Trichlorofluormethane (FC-11) in drinking water
- Ground-water Screening Criteria for Trichlorofluoromethane (Freon 11) and,
- Bio Trichlorofluoromethane Freon 11).

Additional support is anticipated.

- Project Name: Liberty
  Site: Liberty Industrial S. F. Site
  Site ID:

  Type-Lead:
  Requested By: Damian Duda (212) 637-4269, Lorenzo Thantu (212) 637-4240
  Lead Scientist: Robert Starr (208) 526-0184

  Start Date: July 2000
  Expected Completion Date: January 2001
  Revised Completion Date: June 2001

  Estimated Budget:$40,000
  Revised Budget:$75,000
  Major Contaminants: Volatile Organics

  Total Expenditures:$26,529.
  Total FY01 Expenditures:$5,522.
  Total 2nd Qtr. Expenditures:$4,238.

  The RPM requested that the ESD-LV TSC provide assistance in the measurement of chlorinated organic isotopes in groundwater to determine possible sources of Volatile Organic Compounds (VOC's) in the groundwater system.

  Liberty Industrial Finishing site located in Farmingdale, NY is an abandoned site covering less than an acre on a 7 ½-acre tract of land in an industrial park. From 1948 to 1978, the company carried out electroplating,

dyeing, and painting operations at the site. The contaminated areas consist of three acid vats, a sludge drying lagoon, two leaching basins, a number of finishing vats, and a basin for holding storm water. In 1977, the State found Liberty in violation of the discharge limits of its permit. Liberty was ordered to clean up the site in 1978, but did not do so. As an initial action, the company, under State supervision, removed contaminated soils and sledges from the leaching basins, the storm water basin, and the sludge lagoon. Groundwater and soils are contaminated with heavy metals including cadmium and chromium. People who drink water from contaminated wells may be at risk.

Following a number of conference calls with the RPM the TSC provided information on "isotopic signatures" via the document titled "Literature Review: Stable Isotopic Signatures for Chloroethane Source and Progress Identification." The TSC also arranged with the Environmental Isotope Laboratory at the University of Waterloo to analyze site samples. The TSC prepared the QAPjP which was provided to the Region for review.

- Project Name: Reich Farms
  Site: Reich Farms S. F. Site
  Site ID:

  Type Lead:
  Requested by: Jon Gorin (212) 637-4361
  Lead Scientist: A. K. Singh (702) 895-0364

  Start Date: June 2000
  Expected Completion Date: October 2000
  Revised Completion Date: May 2001

Estimated Budget: $15,000	Total Expenditures:$64,295.	PC&B:$400
Revised Budget: $85,000	Total FY01Exps:$7,072.	PC&B:$400
Major Contaminants: Organics	Total 2nd Qtr. Exps:$6,672	PC&B:$400

  The RPM requested that the ESD-LV TSC provide assistance in determining the numbers and locations of sampling locations that are necessary to characterize site contaminants. Previous support by the TSP included special analytical analysis of site samples.

  The Reich Farm site is an open, relatively flat, sandy area covering approximately 3 acres in Dover Township, New Jersey. The site is surrounded by commercial facilities and wooded area. During a 5 month period, the site was leased from the Reich Farm owners by an independent waste hauler and used illegally for the disposal of drums containing organic solvents, still bottoms, and residues from the manufacturing of organic chemicals, plastics and resins. In December 1971, the owners of the property discovered approximately 4,500 drums containing wastes on a portion of land that they had rented out. These drums bore labels indicating that they belonged to the Union Carbide Corporation. The TSC has been requested to assist in developing a sampling plan for soils using "Punch Technology."

  The TSC completed a review of site reports and held a conference call with the RPM to clarify the specific goals of the soil sampling effort. The RPM stated that he wanted a sampling plan that would generate the appropriate data to determine if the concentrations of "SAN trimer" in the soil column were low enough to delist the soil at the site. The sampling plan will be completed in six weeks.

- Project Name: Stanton
  Site: Stanton Cleaners S. F. Site
  Site ID:

Type-Lead:
Requested By: Damian Duda (212) 637-4269, Lou DiGuardia (732) 906-6927
Lead Scientist: Robert Starr (208) 526-0174

Start Date: July 2000
Expected Completion Date: January 2001
Revised Completion Date:May 2001

Estimated Budget: $45.000
Revised Budget:$
Major Contaminants: Volatile Organics

Total Expenditures:$28,765.
Total FY01 Expenditures:$7,759.
Total 2nd Qtr. Expenditures:$2,515.

The RPM requested that the ESD-LV TSC provide assistance in the measurement of chlorinated organic compounds (VOC's) in the groundwater system.

The Stanton Cleaners area groundwater contamination site is located in the area of Stanton Cleaners, which is an active dry cleaning facility located at 110 Cutter Mill Road in a commercial area of Great Neck, Nassau County, New York. The facility is bordered to the west by Cutter Mill Road, to the north and east by indoor tennis courts, and to the south by a gasoline station. Due to elevated groundwater levels of PCE, NCDH ordered Stanton Cleaners to conduct a subsurface soil and groundwater investigation at the site. The site was referred to NYSDEC in January 1984. As a result of the subsequent investigations conducted at the site, a plume of contaminated groundwater, consisting primarily of PCE, had been documented to be migrating from the site. PCE was detected in groundwater samples at concentration exceeding the State and Federal maximum contaminant level (MCL) of 5 micrograms per liter (ug/L).

Following a number of conference calls with the RPM the TSC provided information on "isotopic signatures" via the document titled "Literature Review: Stable Isotopic Signatures for Chloroethane Source and Progress Identification." The TSC also arranged with the Environmental Isotope Laboratory at the University of Waterloo to analyze site samples. The TSC prepared the QAPjP for the analysis and the data assessment protocol. The QAPjP's was provided to the Region for review.

- Project Name: Vestal
  Site: Vestal Well 1-1 S. F. Site
  Site ID:

  Type Lead:
  Requested by: Dean Maraldo (212) 637-4271
  Lead Scientist: Russell Plumb (702) 798-3265

  Start Date: June 2000
  Expected Completion Date: October 2000
  Revised Completion Date: May 2001

  Estimated Budget: $15,000
  Revised Budget:$
  Major Contaminants: Diesel Fuel

  Total Expenditures:$8,146.
  Total FY01 Expenditures:$860.
  Total 2nd Qtr. Expenditures:$0

  The RPM requested that the ESD-LV TSC provide assistance in finger printing diesel fuel product in soils and groundwater. The Vestal Well Superfund Site is located in the vicinity of the Stage Road Industrial Park in Vesatal, New York. An active petroleum pipeline runs just north of the old real line along the southern edge of the site. The pipeline is buried underground from three to seven feet below grade.

Chlorinated solvent contamination was discovered in Municipal Supply Well 1-1 for the town of Vestal in the late 1970's. EPA Region II conducted a Preliminary Assessment shortly after the contamination of Water-Supply 1-1 was discovered. The site scored high enough on the Hazard Ranking System to warrant placement on the National Priorities List (NPL). Due to the "diesel-like" odor of the liquid phase product, the petroleum pipeline that the SVE well field straddles was suspected of being a potential source.

Following the review and assessment of provided analytical data the TSC provided the report titled "Assessment of Chemical Fingerprinting at the Vestal Well 1-1 Superfund Site to the Region. In this report the TSC suggested that additional samples be collected and analyzed. The TSC is waiting for the results of the S&A effort. The TSC received a copy of the report titled "Technical Review of Historical Remedial Investigation and Remedial Action Reports for the Hudson Technologies Inc. Site" for informational purposes. Additional support is anticipated.

- Project Name: Vieques
  Site: Vieques Puerto Rico S. F. Site
  Site ID:

  Type Lead:
  Requested by: Marian Olsen (212) 637-4313
  Lead Scientist: Robert Gerlach (702) 897-3222

  Start Date: February 2001
  Expected Completion Date: July 2001
  Revised Completion Date:

Estimated Budget: $8,000	Total Exps:$1,843.	PC&B:$300
Revised Budget: $	Total FY01 Exps:$1,843.	PC&B:$300
Major Contaminants: Inorganics/metals	Total 2nd Qtr Exps:$1,843.	PC&B:$300

  The Region II Risk Assessor requested the ESD-LV provide assistance in reviewing the data assessment and statistical procedures that will be utilized for assessing site data. The specific goal of the sampling effort at NASD is to establish background concentrations of metals in surface and subsurface soil, groundwater, surface water, ans sediment The background analyses will be statistically evaluated to determine the range in concentrations of naturally metals and to statistically compare the data to site contaminants.

  Following a review of site data the TSC provided the Region the report titled "Comments on Vieques, Puerto Rico, Background study and Statistical Analysis". Additional support is anticipated.

- Project Name: White
  Site: White Chemical Company S. F. Site
  Site ID:

  Type-Lead:
  Requested By: Ellen Belk (212) 637-4427, Mike Sivak (212) 637-4310
  Lead Scientist: Anita Singh (702) 897-3234

  Start Date: September 2000
  Expected Completion Date: May 2001
  Revised Completion Date:

Estimated Budget:$ 10,000
Revised Budget:$18,000
Major Contaminants: Organics/Inorganics

Total Expenditures:$12,661.
Total FY01 Expenditures:$12,161.
Total 2nd Qtr. Expenditures:$398.

The RPM requested that the ESD-LV TSC provide assistance in conducting risk assessments. The White Chemical Company is a former manufacturer of acid chlorides and flame retardant compounds in a heavily populated and industrial section of Newark, NJ. The site contains over 9,000 55-gallon drums, several hundred cylinders, tanks and vats, carboys, boxes and two laboratories containing thousands of lab pack size materials. Since serious conditions still existed at the site, and the operations facility ceased in July 1990, the NJDEP requested the USEPA to conduct an emergency surface removal of drums. The funds for this action were approved by USEPA in September 1990. Since the conditions at the site continue to pose a serious health threat and the company is in Chapter 11 bankruptcy proceedings, the site was placed on the National Priorities List in September 1991.

The TSC has participated in a number of conference calls and completed a statistical assessment of provided data and provided the Region with the report titled "Computation of 95% Upper Confidence Limit of Population Mean for contaminants of Potential Concern at the White Chemical Corporation Superfund Site." The TSC was requested to calculate the 95% UCL for total dioxin. This effort is in progress.

REGION 3

- Project Name: Abex
  Site: Abex Corporation S. F. Site
  Site ID:

  Type Lead:
  Requested by: Randi Sturgeon (215) 814-3227 Monica Jones (410) 305-2747
  Lead Scientist: Anita Singh (702) 798-3234

  Start Date: June 2000
  Expected Completion Date: December 2000
  Revised Completion Date:March 2001

  Estimated Budget: $15,000
  Revised Budget:$
  Major Contaminants: Inorganics

  Total Expenditures:$3,194.
  Total FY01 Exps:$2,814.
  Total 2nd Qtr. Exps:$200.

  The RPM requested that the ESD-LV TSC provide assistance in determining if lead contamination found in a residential area (i.e., 2020 Chestnut Street site) can be from emissions form the Abex site and/or the nearby industrial sites.

  The Abex Corp. site covers 2 acres in Portsmouth, Virginia. The company operated a brass and bronze foundry from 1928 to 1978. Abex produced parts such as brake shoes and ball bearings for railroad card, The EPA estimates that the lead was released into the air at a rate of 10 pounds per day from a 1-acre process area and that 3,500 cubic yards of lead-laden furnace sands were dumped into an adjoining 1-acre area. In 1984, the EPA identified elevated levels of lead in the fill area and in residential lots next to the fill area. Abex has found significant soil contamination around both the landfill and the old process areas. Approximately 10,000 people live or work within 1 mile of the site. A number of those residents live either on or immediately adjacent to the lead-contaminated soils. The site also is adjacent to an elementary school.

The document titled "Statistical analysis 2020 Chestnut Street Site Portsmouth, Virginia" dated March 29, 2000 was received by the TSC. Following the review the TSC provided comments and suggestions to the Region in the report titled "Review of the Statistical analysis for 2020 Chestnut Street Site Portsmouth, Virginia, March 2000." Following a review of the statistical analysis performed on the confirmatory lead data collected from OU-1, the TSC provided comments and recommendations in the report titled "Review of the Statistical Data Analysis for Abex NPL Site Operable Unit 1 Data, Portsmouth, Virginia". The TSC participated in a number of conference calls with the Region pertaining to TSC suggestions and recommendations. Additional support is anticipated.

- Project Name: Chem Solve
  Site: Chem Solve Inc. S. F. Site
  Site ID:

  Type Lead:
  Requested by: Debra Rossi
  Lead Scientist: A. K. Singh (702) 895-1439

  Start Date: February 1999
  Expected Completion Date: August 2001
  Revised Completion Date:

Estimated Budget: $10,000	Total Exps: $7,500.	PC&B:$500
Revised Budget: $	Total FY01 Exps:$2,200.	PC&B:$500
Major Contaminants: Organics	Total 2nd Qtr. $2,200.	PC&B:$500

  The RPM requested that the ESD-LV provide assistance in assessing the attainment of cleanup goals for a number of organic contaminants in site groundwater.

  This site located in Dover, Delaware served as a solvent distillation facility beginning in 1982. The facility recycled waste solvents by placing a drum on an electric coil heater, which distilled the solvents into a second drum. The contents of the second drum were filtered into a third drum, and the distilled residues stored on-site. In 1984, an explosion and fire at the site destroyed the entire distillation facility. The groundwater, soil, and one residential well is contaminated with VOCs from site waste disposal practices. The primary threat to human health is drinking the contaminated groundwater.

  After receiving the data the TSC completed initial data assessment calculations and provided the Region with a report addressing the attainment of cleanup goals. The TSC completed additional statistical assessments of site data. A letter report identifying the statistical approaches and results obtained was provided to the RPM. The TSC was asked to review and respond to some data assessment approaches that will be implemented. The TSC reviewed the suggested approaches and provided comments and suggestions to the RPM. A number of conference calls pertaining to statistical tests were completed and explanations pertaining to trend analysis was provided to the RPM.

- Project Name: Crossley
  Site: Crossley Farms S. F. Site
  Site ID:

  Type Lead:
  Requested by: Nancy Rios-Jafolla (215) 814-3324
  Lead Scientist: Anita Singh (702) 798-3234

Start Date: April 2000
Expected Completion Date: January 2001
Revised Completion Date: April 2001

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

Total Expenditures:$3,761.
Total FY01 Expenditures:$392.
Total 1st Qtr. Expenditures:$200.

The RPM requested that the ESD-LV TSC provide assistance in the statistical assessment of site data for risk assessment purposes.

The Crossley Farm site covers approximately 24 acres along Huffs Church Road in Hereford Township in a rural part of Berks County, Pennsylvania. The site is on top of Blackhead Hill and consists of several excavations. Between the mid-1960s and the mid-1970s, an estimated 300 drums (possibly more) containing mostly liquid waste were obtained from the local plant of Bally Case and Cooler Co. and were disposed in a pit on the Crossley Farm property. In response to citizens complaints, EPA conducted sampling that confirmed contamination in the spring of 1987, identified a large plume of TCE-contaminated groundwater, with the source near the crest of Blackhead Hill. The plume continues to spread and affect more private wells.

A number of suggestions such as the computation of the 95% UCL and the use of the "Chebychev Inequality" was provided to the Region. Additional comments and suggestions pertaining to statistical data assessment approaches that could be implemented at this site was provided to the RPM. Additional support is anticipated.

- Project Name: Langley
  Site: Langley AFB S. F. Site
  Site ID:

  Type Lead:
  Requested by: Stacie Driscill (215) 814-3368 Kathy Davies (215) 814-3315
  Lead Scientist: Robert Gerlach (702) 897-3293

  Start Date:November 2000
  Expected Completion Date: March 2001
  Revised Completion Date:

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

  Total Expenditures:$10,226.
  Total FY01 Expenditures:$10,226
  Total 2nd Qtr. Expenditures:$7,845.

  The RPM requested that the ESD-LV TSC provide assistance in reviewing a regression analysis that was completed by the PRP's contractor for determining the relationship between contaminant concentrations in site surface waters and sediments.

  Langley AFB (LAFB) located in Hampton, VA has been an airfield and aeronautical research center since 1917 and is the home base for the First Tactical Fighter Wing. NASA Langley us a research facility that conducts 270 operations in 191 buildings and operated 40 wind tunnels. Wastes generated at LAFB and NASA Langley include waste oild, solvents, paint wastes, pesticide containers and rinse waters, photographic wastes, scrap metals, used batteries and printed circuit board plating wastes. PCBs and polychlorinated terphenyls (PCT) were used in hydraulic systems, electrical equipment, compressors, and casting operations.

Following the review of available data the TSC provided the RPM a report titled "Review of Regression Analysis for Surface Water vs Sediment Contaminants and Human Health Risk Assessment for Langley Air Force Base IRP Site OT-56 Arsenic and Old Waste. The TSC reviewed a conceptual work plan and provided the Region with the report titled "Review Comments on Conceptual Work Plan for the Evaluation of Groundwater Data, Langley Air Force Base, Virginia."

- Project Name: Letterkenny
  Site: Letterkenny Army Depot S. F. Site
  Site ID:

  Type Lead:
  Requested by: Nancy Rios-JaFolla (215) 814-3324
  Lead Scientist: Anita Singh (702) 798-3234

  Start Date: August 1999
  Expected Completion Date: February 2000
  Revised Completion Date: May 2001

  Estimated Budget: $10,000
  Revised Budget:$19,000
  Major Contaminants:Organics

  Total Expenditures: $16,927.
  Total FY01 Expenditures: $6,733.
  Total 2nd Qtr. Expenditures:$5,733.

  The RPM requested that the ESD, TSC provide assistance in statistical data assessment.

  The Letterkenny Army Depot site, near Chambersburg, PA, covers 250 acres. From 1947 to the present, operations at the site have included the maintenance, overhaul, and rebuilding of wheeled and tracked vehicles and missiles. These operations have involved the use of large quantities of chlorinated organic solvents and cleaning agents. Some wastes from these operations have been stored and disposed of in the property Disposal Office Area (PDO) by land filling and spreading wastes on open ground areas. Other areas of suspected contamination are the drum storage area, oil burn pit, trash burning pits on the site, and possible adjacent landfills. An estimated 17,000 people reside within 5 miles of the site.

  Groundwater beneath the PDO area and surface water, including Rocky Spring Lake, are contaminated with chlorinated organic chemicals including chloroform and trichloroethylene (TCE), according to tests conducted by the Army. Soils have been contaminated by xylene, heavy metals, chloroform, and organic compounds.

  The Region had four questions pertaining to the proper use of the W-Test, T-Test and the Mann-Whitney Test. The TSC provided recommendations as to the appropriate use for each of the statistical test procedures for assessing site data. The PRP's have responded to comments on the Draft RI and RA report for SE OU8. The TSC reviewed these comments and participated in a conference call with the Region and PRP's. The TSC provided a statistical review of a proposal to use the UCL for risk assessment purposes. The TSC also provided guidance on how the 95% UCL of the mean should be calculated. The TSC responded to a number of statistical questions and provided the report titled "Computation of the Screening Levels for Letterkenny Army Depot, Chambersburg, PA." The following procedures and comments were provided to the region:

  - Computation of an UCL for Screening Purposes dated July 21, 2000, and
  - A Much Simplified Procedure to Compute an UCL of Authentic Means dated July 26, 2000.

  A number of conference calls with the Region were conducted to address questions pertaining to TSC suggestions and recommendations. The TSC received, and reviewed, a focused feasibility study and supporting documentation pertaining to enhanced biodegradation. The report titled "Review of Letterkenny Army Deport

Southeastern Area Southeast Operable Unit Number 10 (On-Post Groundwater) Southeast Industrial Area Draft Focused Feasibility Study" was provided to the Region. The Region participated in a conference call and provided comments on the "Geospatial Averaging Approach Proposed for the Oil Burn Pit."

- Project Name: Maryland
  Site: Maryland Sand, Gravel and Stone S. F. Site
  Site ID:

  Type Lead:
  Requested by: Debra Rossi (215) 814-3228
  Lead Scientist: Kent Snyder (360) 546-0687

  Start Date: March 2000
  Expected Completion Date: September 2000
  Revised Completion Date: June 2001

  Estimated Budget: $19,000
  Revised Budget:$30,000
  Major Contaminants: Organics/Inorganics

  Total Expenditures:$30,364.
  Total FY01 Expenditures:$6,973.
  Total 2nd Qtr. Expenditures:$4,491.

  The RPM requested that the ESD-LV TSC provide assistance in determining if the site has been adequately characterized. For example, Is the combination of soil sampling conducted for past operable units (OU1 and OU2) and the combination of site characterization techniques for the current operable unit (OU3), e.g., surface geophysical methods, soil gas surveys, soil boring program, chemical analysis of surface and subsurface soils, sufficient to conclude that: 1) portions of the so-called Eastern Excavation Area are uncontaminated (suitable for unlimited use and unrestricted access); 2) all so-called "principal threat" areas, or hot spots, have been identified (and their volumes appropriately estimated).

  The site is located in Elkton, Cecil County, Maryland. The site consists of approximately 200 acres and is bounded to the south by a telephone transmission line right-of-way, to the north and west by Marley Road, and to the east by a property line approximately parallel to Ephrarta Lane. The site was previously operated as a sand and gravel quarry. According to the Record of Decision (ROD) for OU2 at the site (i.e., the deeper water-bearing units below the shallow, Upper Sand Unit), about three acres in the Eastern Excavated Area of the site were reportedly used for the disposal of waste processing water, still bottoms, sludge and drums of solid and semi-solid waste between 1969 and 1974.

  The TSC reviewed available site data and reports and provided comments on the following: "Soil Investigation", "Supplemental Soil delineation and Treatability", "Focused Feasibility Study", and "Cost Estimates for the Revised Draft Feasibility Study". A number of conversations with the RPM pertaining to TSC recommendations were completed. Following a review of provided documents the TSC delivered the report titled "Review of Maryland, Sand, Gravel and Stone Site Work Plan for Chemical Oxidation Technology Study." The TSC provided the Region comments and suggestions is a report titled "Review of Maryland Sand, Gravel and Stone Site Remediation Technology Screening Investigation-February 2001." The TSC received a revised "Focused Feasibility Study." Review of this document is in process.

- Project Name: Occidental
  Site: Occidental Chemical S. F. Site
  Site ID:

  Type Lead:
  Requested by: Maria Garcia (215) 814-3199

Lead Scientist: Russell Plumb (702) 897-3265

Start Date: June 2000
Expected Completion Date: December 2000
Revised Completion Date: May 2001

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

Total Expenditures:$7,045.
Total FY01 Expenditures:$3,283.
Total 2nd Qtr. Expenditures:$2,783.

The RPM requested that the ESD-LV TSC provide assistance in reviewing the Sampling and Analysis Plan and QAPjP.

Three consecutive owners disposed of industrial wastes at the Pottstown, PA 30-acre Occidental Chemical Corp/Firestone Tire & Rubber Co. site. The groundwater is contaminated with volatile organic compounds (VOCs), including PVCs from former site manufacturing activities. Possible health threats include drinking the contaminated groundwater. Local agricultural lands depend on water from the Schuylkill River for irrigation; contaminated water use may therefore, threaten crops and livestock. Also, nearby wildlife and wetlands are threatened by the contamination from the site.

The TSC reviewed the "Draft Sampling Plan - Revision 3 dated June 19, 2000. Following this review comments and suggestions were provided to the Region. The TSC also reviewed the "Draft Sampling & Analysis Plan" and provided comments to the RPM in a July 7, 2000 letter report. The TSC participated in a number of conversations with the Region pertaining to TSC comments and suggestions.

- Project Name: Palmerton
  Site: Palmerton Zinc Pile S. F. Site
  Site ID:

  Type Lead:
  Requested by: Dawn Ioven (215) 814-3320
  Lead Scientist:

  Start Date: March 2001
  Expected Completion Date: August 2001
  Revised Completion Date:

  Estimated Budget: $18,000
  Revised Budget: $25,000:
  Major Contaminants: Inorganics

  Total Exps:$7,596. PC&B:$400
  Total FY01 Exps:$7,596. PC&B:$400
  Total 2nd Qtr. $7,596. PC&B:$400

  The RPM requested that the ESD-LV TSC provide assistance in reviewing available soil and house dust data and then conducting statistical tests that could correlate the relationship between outdoor soil metal levels and interior house dust metal levels (i.e. track in rates) for the purpose of establishing remediation goals.

  The Palmerton Zinc site in Palmerton, Pennsylvania is composed of two locations. Smelting operations have been conducted at two locations, a west smelter and an east smelter. Smelting operations were conducted in the west plat from 1911 to present. Primary smelting of concentrated zinc sulfide ores, conducted until December 1980, resulted in the emission of large quantities of zinc, cadmium, and sulfur dioxide. This air pollution caused defoliation of over 2,000 acres of vegetation in the vicinity of the east smelter.

Following the review of site data and completing a number of statistical tests the TSC provided the Region with the reports titled "General Comments Lead Isotopic and Chalcophile Element Composition in the Environment Near a Zinc Recovery Facility, Palmerton, PA." , "Review of Regression Models and Track-in-Rates Palmerton Superfund Site" and "Computation of Dust to Soil Concentration Ratios Palmerton Superfund Site". The TSC also participated in a number of conference calls with the Region.

- Project Name: Sharon
  Site: Sharon Steel (Farrell Works) S. F. Site
  Site ID:

  Type Lead:
  Requested by: Rashi Mathur (215) 814-5234 Jennifer Hubbard (215) 814-3328
  Lead Scientist: Anita Singh (702) 897-3234

  Start Date: June 2000
  Expected Completion Date: September 2000
  Revised Completion Date: July 2001

  Estimated Budget: $20,000
  Revised Budget: $95,000
  Major Contaminants: Organics

  Total Expenditures:$80,088.
  Total FY01 Expenditures:$32,855.
  Total 2nd Qtr. Expenditures:$27,850.

  The RPM requested that the ESD-LV TSC provide assistance in providing a systemic and standardized approach for computing the UCL-concentration term for risk assessments.

  The Sharon Steel Corporation Farrell Works Disposal Area (the "site") is an area of about 400 acres located in Mercer County in Western Pennsylvania, within a few hundred feet of the Ohio/Pennsylvania border. The site is southwest of the former Sharon Steel Corporation Farrell Works, and is bordered on the east by the Shenango River. The Sharon Steel Corporation used the area to dispose of blast furnace slag, electric arc furnace slag, basic oxygen furnace slag, and sludge beginning about 1900. From 1949 to 1981, millions of gallons of spent pickle liquor acid were dumped over the slag. It was thought that the acid would partially evaporate and then be neutralized by the carbonates in the slag. In actuality, ground water contamination resulted. The site is located in the flood plain of the Shenango River, and there are several wetland areas on site.

  This on-going effort involves the updating of the PROUCL program such as:

  - including test of normal and lognormality
  - Small samples - Shapiro Wilk's test/normal probability plot
  - Large sample - Kolmogrov-Smirnov's test/normal probability plot, and
  - for lognormally distributed data sets, include a 99% Chebychev inequality based upon minimum variance unbiased estimates. This program plus the "User's Guide Program PROUCL", "Background and a Brief Description of the Program PROUCL", and the "Installation Guide Program PROUCL" were provided to the Region.

  The TSC sent CD Rom's and copies of the documents to selected individuals for review. A number of reviewers comments were received by the TSC. The TSC addressed a number of questions by the reviewers and is currently finalizing the PROUCL Program.

- Project Name: Spring Valley
  Site: Spring Valley Army Munitions S. F. Site

Site ID:

Type Lead:
Requested by: Paul Leonard (215) 814-3350 Harry Harbaugh (215) 814-3203
Lead Scientist: Anita Singh (702) 897-3234

Start Date: March 2001
Expected Completion Date: April 2001
Revised Completion Date:

Estimated Budget: $15,000.	Total Exps:$11,445.	PC&B:$900
Revised Budget: $	Total FY01 Exps:$11,445.	PC&B:$900
Major Contaminants: Arsenic	Total 2nd Qtr. $11,445.	PC&B:$900

The Region requested that the ESD-LV TSC provide assistance in designing a sampling/monitoring approach that would identify areas contaminated with arsenic.

The Spring Valley site, located in Washington, D. C. , is principally occupied by residential neighborhoods and the American University campus, and covers an area of approximately 600 acres. The entire site roughly has 1500 residential and government properties. Historical records document the location of specific areas more likely to be contaminated due to activities associated with the site's previous functin as a munitions site. Currently, the entire site is being evaluated for signs of elevated levels of arsenic concentrations. The presence of high arsenic levels within the boundaries of the site has been confirmed at isolated locations and related back to military activities.

The TSC responded with the following "Soil Sampling Approaches and Protocols for the Spring Valley Site" and "Sampling for Hot Spots." The tSC participated in a number of conference calls and discussions with the Region.

- Project Name: Washington
  Site: Washington Navy Yard S. F. Site
  Site ID:

  Type Lead: Anita Singh (702) 897-3234
  Requested by: Linda Watson (215) 814-3116
  Lead Scientist:

  Start Date: November 2000
  Expected Completion Date: April 2001
  Revised Completion Date:

Estimated Budget: $10,000	Total Expenditures:$3,504.
Revised Budget:	Total FY01 Expenditures:$3,504.
Major Contaminants: Semi-volatile Organics/Inorganics	Total 2nd Qtr. Expenditures:$1,889.

The RPM requested that the ESD-LV TSC provide assistance in evaluating the statistical assessment(s) and approaches that were completed to determine the extent that soil sites were impacted (contaminated) by site activities.

The Washington D.C. Navy Yard is the oldest continuously operated Navy facility in the United States. The storm water system draining the facility is contaminated with metals and PCB's, which can be attributed to the

industrial production that historically occurred at the facility. The storm water system leads to nine outfalls into the Anacostia River. Sediment sampling of the Anacostia River in the area of the WNY shows metals and PCB contamination. In addition, volatile and semi-volatile contaminants have been found in soils throughout the facility.

Following a review of available data, the TSC provided the Region with the report titled "Review Comments on Background Statistical Analysis Washington Navy Yard, Washington, D.C." The TSC participated in a number of discussions with the Region pertaining to TSC's comments and suggestions.

REGION 4

- Project Name: Columbia
  Site: Columbia Nitrogen S. F. Site
  Site ID:

  Type Lead:
  Requested by: Craig Zeller
  Lead Scientist: A. K. Singh (702) 895-0364

  Start Date: July 2000
  Expected Completion Date: January 2001
  Revised Completion Date:April 2001

  Estimated Budget: $12,000
  Revised Budget:
  Major Contaminants: Arsenic/Lead

  Total Expenditures:$3,645.
  Total FY01 Expenditures:$800.
  Total 2nd Qtr. Expenditures:$400.

  The RPM requested that the ESD-LV TSC provide assistance in developing a statistically-based sampling strategy for the Phase II soil investigation. The purpose of this additional soil work is to refine soil areas/volumes that will be addressed during the Feasibility Study. The Phase II approach will fully utilize results obtained from the Phase I effort and incorporate an acceptable level of confidence using statistics.

  The Columbia Nitrogen site was the location of a phosphate fertilizer plant. The site is located in Charleston, Charleston County, South Carolina. The site is approximately 43 acres in size and borders the Ashley River. The site is bordered to the north by South Carolina Electric and Gas (SCE&G) Hagood Station; this property was the former location of Atlantic Phosphate Works, a producer of phosphate fertilizer. The property located south of the site is the location of a former wood-preserving plant, Koppers Co., Inc., and is currently listed on the National Priorities List (NPL). The area east of the site is used for industrial purposes.

  At the present time, EPA and the South Carolina Department of Health and Environmental Control (SCDHEC) are evaluating appropriate cleanup goals for soil arsenic and lead levels that are based on the results of a Human Health Baseline Risk Assessment. The concentration range for lead should be 895 to1,150 mg/kg; and the concentration range for arsenic should be 10 to 37 mg/kg. Once the recommended Phase II soil sampling strategy has been approved, it will be incorporated into the Phase II Field Sampling Addendum.

  The TSC completed and provided to the RPM statistical analysis results for lead and arsenic in site sediments and soils. A sampling/monitoring approach was developed titled "Statistical Sampling Plan for Phase II Sampling at Columbia Nitrogen Site Charleston, S.C." that was provided to the Region. The TSC participated in a number of conversations with the Region pertaining to the Sampling Plan and TSC comments and suggestions.

- Project Name: Distler
  Site: Distler Brickyard S. F. Site
  Site ID:

  Type Lead:
  Requested by: Femi Akindele (404) 562-8809
  Lead Scientist: Lance Peterson (208) 526-9738 Jennifer Martin (208) 526-1888

  Start Date: April 1999
  Expected Completion Date: December 1999
  Revised Completion: August 2001

  Estimated Budget: $25,000 | Total Exps:$69,302. | PC&B:$2,700
  Revised Budget:$80,000 | Total FY01 Exps:$20,886. | PC&B:$ 500
  Major Contaminants: Organics/Heavy Metals | Total 2nd Qtr. Exps:$8,643. | PC&B:$ 200

  The Regional Remedial Project Manager (RPM) requested that the Environmental Sciences Division (ESD-Las Vegas (ESD-LV) Technology Support Center (TSC) provide assistance in reviewing the PRP's suggested hydrogeological groundwater remediation approaches.

  The 3-acre Distler Brickyard site in West Point, Kentucky is located on a 70-acre abandoned brick manufacturing plant property that operated from the late 1800s until the mid-1970s. In 1976 the property was leased by Kentucky Liquid Recycling Inc., which began transporting waste to the brickyard property. Waste disposal was contained at the site until 1979. There were approximately 2,300 drums on the site, 1,550 of which contained various liquids, sludges, and solids. Spillage from the deteriorated drums killed grass, trees, and birds on the site. A contaminated groundwater plume is located beneath the site and could threaten the city drinking water wells and the Ohio River.

  Specific contaminants detected in groundwater and on-site soils include various volatile organic compounds (VOCs) and heavy metals including lead from waste disposal activities. Potential health threats include direct contact with, or accidental ingestion of, contaminated soils and groundwater.

  The TSC received, and reviewed, three documents pertaining to groundwater remediation. Comments and recommendations were provided to the RPM. The lead scientist participated in a technical meeting with the RPM, USGS, and Kentucky State personnel in June. It was agreed at the meeting that additional field data are required to fully evaluate potential biodegradation at the site. The TSC is to prepare the FSP, and the USGS will lead the collection of additional field data. TSC will interpret the new field data and make a recommendation for further remedial action at the site. Distler Brickyard support is expected to continue into FY 2000 and may include a cooperative effort with USGS, EPA, State of Kentucky for design, construction and operation of an "enhancement" to the existing remedy. Several conferences calls were conducted with USGS and the Region to iron out the details of a schedule for the sampling event. Sampling activities at the Distler site to be conducted by the USGS are scheduled for October 18-22 and will include 11 wells. Samples will be sent to the EPA Water Quality Laboratory in Athens, Georgia for analysis. Data analysis will be performed by TSC staff.

  The TSC and USGS completed the draft "Field Sampling Plan for the Distler Brickyard". TSC and USGS prepared a status update on field activities for the RPM. The update discusses the sampling activities conducted, problems encountered in the field, recommendations for improving site conditions, and a preliminary schedule for completion of the final report. A conference call was held to finalize this report with Femi Akindele. The TSC completed and delivered the report titled "October 1999 Groundwater Sampling and Data Analysis Distler's Brickyard, Hardin County, Kentrucky".

The TSC provided the following documents to the Region: "Final Field Sampling Plan" and "Proposed Activities for Fine Grained Alluvium (FGA) Sampling." Following the collection and analysis of site samples and data the TSC provided the report titled "Summary of Groundwater and Soil Gas Collected June-August, 2000 Distler Brickyard Superfund Site, Kentucky." A meeting with the RPM occurred on October 11, 2000 at the Regional Office and at this meeting presented the results obtained from groundwater and soil gas sampling activities conducted at the site June-August 2000. Possible final remedial response actions were presented to EPA, however, a final decision for the site was deferred pending completion of the final report.

The report titled "June-August 2000 Groundwater and Soil Gas Data Analysis, Distler Brickyard Site, Hardin County, Kentucky" was completed on November 30, 2000. This report recommended the investigation of an innovative enhanced bio-remediation technology for remediation of remaining chloroethene contamination at the site. Conference calls were conducted in January and March 2001 with USGS, EPA, and the State of Kentucky to discuss TSC recommendations.

- Project Name: Distler
  Site: Distler Farm S. F. Site
  Site ID:

  Type Lead:
  Requested by: Femi Akindele (404) 562-8809
  Lead Scientist: Lance Peterson (208) 526-9738

  Start Date: March 2001
  Expected Completion Date: August 2001
  Revised Completion Date:

  Estimated Budget: $18,000 — Total Exps:$800.
  Revised Budget: $ — Total FY01 Exps:$800.
  Major Contaminants: Volatiles- TCE and PCE — Total 2nd Qtr. Exps:$800.

  The RPM requested that the ESD-LV provide assistance in identifying and implementing appropriate remedial measures to remove groundwater contaminants. This effort will involve evaluating sire data and recommending an improved remedial strategy.

  The 9-acre Distler Farm site in Louisville, Kentucky was discovered in 1977 when the EPA launched a search for sites previously used to store industrial wastes. In 1978, flood waters scattered drums of industrial waste stored at the site along the flood plain of Stump Gap Creek. In an emergency cleanup action, the EPA recovered and repacked 832 drums containing chemicals characteristic of the paint and varnish industry and then moved them to higher ground. The primary contaminants of concern affecting groundwater and soils are VOCs including TCE and PCE, metals and inorganics.

- Project Name: Roanoke River
  Site: Roanoke River Study S. F. Site
  Site ID:

  Type Lead:
  Requested by: Beth Walden (404) 562-8814
  Lead Scientist: John Zimmerman (702) 897-3379

  Start Date: February 2001
  Expected Completion Date: July 2001

Revised Completion Date:

ESTIMATED BUDGET: $15,000
REVISED BUDGET: $
MAJOR CONTAMINANTS: ORGANICS

TOTAL EXPENDITURES:$858.
TOTAL FY01 EXPENDITURES:$858.
TOTAL 2ND QTR.EXPS: $858.

Project Name: Roanoke
Site: Weyerhaeuser OU2
Site ID:

Total Expenditures:$400.
Total FY01 Expenditures:$400.
Total 2nd Qtr. Expenditures:$400.

Project Name: Roanoke
Site: Georgia Pacific
Site ID:

Total Expenditures:$458.
Total FY01 Expenditures:$458.
Total 2nd Qtr. Expenditures:$458.

The RPM requested that the ESD-LV TSC provide assistance in reviewing site analytical data and provide the following:

- Identify tentatively unidentified compounds TIC's
- Determine and/or identify detection limits for Phenols and PAH's and
- Perform dioxin fingerprint analysis.

The Georgia-Pacific Hardwood Sawmill site is defined as the 24-acre area located on Plywood Drive within the city limits of Plymouth, North Carolina. Contaminants consisting primarily of diozins/furans, polynuclear aromatic hydrocarbons, pentachlorophenol, pesticides, polychlorinated biphenyls, and a few heavy metals released into the environment during past sawmill wood treating operations. Having been placed on the National Priorities List in 1999, a remedial investigation and feasibility study of the Georgia-Pacific site is required. Analysis of soil and water samples collected indicate extensive contamination by dioxina/furnas, polynuclear aromatic hydrocarbons, polychlorinated biphenyls, and inorganics, arsenic, lead and zinc.

The TSC is currently reviewing site data.

- Project Name: Shuron
  Site: Shuron Inc. S. F. Site
  Site ID:

  Type Lead:
  Requested by: Ralph Howard (404) 562-8829
  Lead Scientist: Lance Peterson (208) 526-9738 Heidi Bullock (208) 526-1278

  Start Date: March 2000
  Expected Completion Date: April 2000
  Revised Completion Date: July 2001

  Estimated Budget: $18,000
  Revised Budget:
  Major Contaminants: Organics

  Total Expenditures:$9,965.
  Total FY01 Expenditures:$4,472.
  Total 2nd Qtr. Expenditures:$4,022.

  The RPM requested that the ESD-LV TSC provide assistance by providing an oversight of the remedial design/remedial action activities that are being planned for the site. The following three tasks were identified by the RPM in which the TSC would participate:

1. Review of the initial groundwater data and the groundwater monitoring plan.

2. Review of the PRPs's proposal for MNA and

3. Review groundwater data reports.

The Shuron Inc. Superfund Site is located in Barnwell County, South Carolina. The site property consists of 85 acres, and slopes slightly from north to the southeast. The main building, from which lens manufacturing operations were conducted, is situated on a 34-acre portion of the site property. Approximately fifty-one additional acres, designated primarily as wetlands, lie to the east and southeast of the main building. The site was used by Textron, Inc. (from 1960 until 1985) and Shuron, Inc. (1995 until 1991) as an ocular lens manufacturing facility.

Wastewater generated from manufacturing processes conducted on the site contained volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs) and metals. Wastewater was discharged from the main building to the wastewater settling lagoons, which lie east of the building. Wastewater from the settling lagoons was discharged to the northern drainage ditch, which drained to the wetland, east of the main building. Sediment from the lagoons was transferred to the solids ponds located south of the settling lagoons.

At the request of the RPM, two TSC scientists met at the site in April 2000. The TSC reviewed the RI report, the ROD, and the baseline groundwater report and provided comments in the letter report titled "Review of the Groundwater Sampling Plan for the Shuron Superfund Site, Branwell, South Carolina." The TSC received, and is currently reviewing, the document titled "Arsenic Source Characterization Plan Southern Wetlands Remediation Area, Shuron S. F. Site."

- Project Name: THAN
  Site: THAN RA S. F. Site
  Site ID:

  Type Lead:
  Requested by: Brian Farrier (404) 562-8952
  Lead Scientist: Erick Neher (208) 526-5479

  Start Date: April 2000
  Expected Completion Date: August 2000
  Revised Completion Date: April 2001

  Estimated Budget: $16,000
  Revised Budget: $
  Major Contaminants: Organics

  Total Expenditures:$3,556.
  Total FY01 Expenditures:$1,200.
  Total 2nd Qtr. Expenditures:$900.

  The RPM requested that the ESD-LV TSC provide assistance in reviewing "THAN Superfund Site, Operable Unit 1, Remedial Action Report" dated September 1999.

  The T. H. Agriculture & Nutrition (THAN) Company, located in Montgomery, AL. was previously used to distribute pesticide. During the 1970s and possibly the late 1960s, the company operated under the name of Thomson-Hayward Chemical Company, but this company closed in 1980. The company changed its name to THAN in 1981. When the plant operated, insecticides, herbicides, and possibly other chemical wastes were buried in pits and trenches covering 1 acre of the plant site.

The TSC reviewed the submitted report and provided the Region with comments and suggestions in the report titled "Comments Regarding THAN Superfund site Operable Unit 1 Remedial Action Report." dated June 1, 2000. The TSC participated in a number of discussions with the Region pertaining to TSC comments and suggestions.

- Project Name: Tower
  Site: Tower Chemical Company S. F. Site
  Site ID:

  Type Lead:
  Requested by: Galo Jackson (404) 562-8937
  Lead Scientist: John Zimmerman (702) 897-3379

  Start Date: March 2001
  Expected Completion Date: August 2001
  Revised Completion Date:

  Estimated Budget: $12,000
  Revised Budget: $
  Major Contaminants: Volatiles/Semi-Volatiles

  Total Expenditures:$400.
  Total FY01 Expenditures:$400.
  Total 2nd Qtr. Expenditures:$400.

  The RPM requested that the ESD-LV provide assistance in identifying and determining the concentration of unknown volatile and semi-volatile compounds (TICs) in ground water samples.

  The 30-acre Tower Chemical Company site located in Clermont, Florida is an abandoned chemical manufacturing facility. During its operation, TCC owned and used two separate parcels of land; a main facility and an irrigation field. From 1957 to 1981, TCC manufactured, produced, and stored various pesticides. TCC discharged acidic waste waters produced in the main facility into a ½-acre, unlined percolation/evaporation pond where contaminants were solidified. TCC burned and buried the waste on a 1 ½- acre plot located at the main facility. In 1980, the waste eater pond at the main facility overflowed into an adjacent swamp and entered an unnamed stream north of the site.

  The TSC is currently reviewing site analytical data.

- Project Name: Wingate Road
  Site: Wingate Road Municipal Incinerator Dump S. F. Site
  Site ID:

  Type Lead:
  Requested by: Pam Scully (404) 562-8935
  Lead Scientist: Dick Smith (208) 526-9896

  Start Date: January 1999
  Expected Completion Date: June 1999
  Revised Completion Date: April 2001

  Estimated Budget: $12,000
  Revised Budget: $60,000
  Major Contaminants: Organics

  Total Expenditures:$39,633.
  Total FY01 Expenditures:$12,501.
  Total 2nd Qtr. Exps:$2,724.

The RPM requested that the ESD-LV TSC provide assistance in identifying geophysical techniques that could be used to identify the location and magnitude of buried drums in a landfill.

The Wingate Road Municipal Incinerator Dump covers 61 acres in Fort Lauderdale. The site includes an incinerator, office, and a 40-acre disposal area, all owned and operated by the City of Fort Lauderdale. The incinerator and disposal areas were used from 1955 to 1978. Residential waste, commercial waste, and incinerator residue were disposed of at the dump. The facility received 480 tons of waste a day and operated 7 days a week. The soil and subsurface soil are contaminated with pesticides including DDT, aldrin, and chlordane from former waste disposal practices at the site. Direct contact with, or accidental ingestion of the contaminated soil from the area of the hazardous substances could pose a potential health threat.

Following an assessment of provided site data the TSC prepared the report titled "Recommendations for Non-Invasive Investigation to Search for Buried Drums". The PRP's have settled all issues at the Wingate site and are now ready to begin closure of the landfill. The TSC provided additional recommendations for a non-invasive drum search involving geophysics. A site visit by the TSC was completed. The geophysical survey was conducted by Glen Carpenter of Sage Earth Sciences Corporation. A geophysical report titled "Magnetic Field Survey Wingate Landfill Fort Lauderdale, Florida" was prepared and provided to the Region.

REGION 5

- Project Name: Detroit Tanks
  Site: Detroit Arsenal Tank Plant S. F. Site
  Site ID:

  Type Lead:
  Requested by: Owen Thompson (312) 886-4843
  Lead Scientist: Jeff Sondrup (208) 526-8396

  Start Date: July 1999
  Expected Completion Date: July 2000
  Revised Completion Date: April 2001

Estimated Budget: $ 35,000	Total Exps:$17,669.	PC&B:$2,800
Revised Budget:	Total FY01 Exps:$3,829.	PC&B:$500
Major Contaminants: Organics	Total 2nd Qtr. Exps:$1,000.	PC&B:$200

The RPM requested that the ESD, TSC provide assistance in evaluating the use of the USEPA VLEACH model in determining the amount of soil that should be removed.

The Detroit Arsenal Tank Plant (DATP) site is a 153-acre industrial section of the Detroit Arsenal in Warren, MI. Originally built by the Army and owned by Chrysler in 1940, the "Arsenal of Democracy" was one of the two government-owned, contractor-operated battle tank manufacturing plants in the U. S. DATP was operated by General Dynamics Corp.(GD) until December 1996; GD still operates another tank plant in Lima, Ohio. The remaining non-BRAC part of the Arsenal is occupied by the Tank-Automotive Command (TACOM), the R&D command for all army land vehicles.

The most significant response action at DATP is a time-critical removal, started over one year ago, of a former solvent and paint waste dump in the West Test Track infield (in Army vernacular, the "Metal Debris Disposal Area) although the only metal found so far has been several hundred 55-gallon drums). To date over 15,000 cubic yards of TCE-contaminated soil have been removed and hauled off-site for treatment and disposal.

Although the original waste source has been removed, considerable TCE and vinyl chloride contamination remains, which threatens a potable sand aquifer located 80 feet BLS.

A preliminary review of the documentation for the DATP, Metal Debris Disposal Area (MDDA) was performed to answer questions regarding the appropriateness of using the EPA VLEACH model for determining a preliminary remediation goal (PRG). Preliminary indications are that the model is not appropriate. The model is a vadose zone model and is being applied in what appears to be a saturated environment. In addition, substantive concerns have been identified regarding proper application of the model. This information was communicated during several telephone calls this week with the RPM along with requests for additional information. The Army is currently in the middle of a final removal action based on the model results and expects to be done before a possible final Base Closing Team (BCT) meeting scheduled for late September. A more thorough review of the model/modeling was completed with formal comments transmitted to the RPM. The comments were then forwarded to the Army BRAC Environmental Coordinator. The TSC responded to a number of comments and recommendations that were suggested by the PRP's. The TSC received a work plan addendum from DoD. The TSC reviewed the work plan addendum and provided comments to the Region.

The TSC reviewed the "Draft Closure Report" and the "Technical Memorandum: Calculation of PRG's for Soil at the MDDA Detroit Arsenal Tank Plant, Warren, Michigan" and sent comments to the Region. This review utilized the following provided documents as reference material: 1) Draft Remedial Action Work Plam, Rev 2, West Infield Disposal Areas, 2) Site-Wide Decision Document/Remedial Action Plan, and 3) Draft Closure Plan, Metal Debris Disposal Area (2 volumes). The TSC participated in a number of discussions with the Region pertaining to the future and status of this site. It appears that this site may come under the RCRA Program.

- Project Name: Joliet
  Site: Joliet Army Ammunition Plant S. F. Site
  Site ID:

  Type Lead:
  Requested by: Diana Mally (312) 886-7275
  Lead Scientist: Cory Radke (208) 526-5186 Dave Dobb (360) 871-8750

  Start Date: December 2000
  Expected Completion Date: April 2001
  Revised Completion Date:

  Estimated Budget: $15,000
  Revised Budget:
  Major Contaminants:Explosives

  Total Expenditures:$10,177.
  Total FY01 Expenditures:$10,177.
  Total 2nd Qtr. Expenditures:$8,677.

  The RPM requested that the ESD-LV TSC provide assistance in reviewing a proposed modification to SW-846 Method 8330 for explosives analysis.

  The Joliet Army Ammunition Plant covers 14 square miles of an inactive munitions facility in Joliet, IL. The site consists of two areas: the manufacturing area that produced constituent chemicals and explosive materials, and the Load-Assembly-Packing Area, which is listed as a separate site on the National Priorities List. More than 4 billion pounds of explosives were produced in the manufacturing area from the early 1940's until 1977. During the manufacturing process, contaminated process waters and chemical spills were routinely discharged without treatment into constructed drainage ditches, where they flowed into Jackson Creek and Grant Creek.

Unlined piles of incinerator ash and a leak in the liner of one of several wastewater lagoons have also contributed to contamination of groundwater and surface water.

The TSC reviewed the proposed modification and supporting laboratory data and provided the Region with the reports titled "Review and Recommendations for Proposed Modifications to Method 8330" and "Review of Modified SOP for Explosives Analysis, Joliet Army Ammunition Plant."

- Project Name: Marina
  Site:Marina Cliffs/Northwest Barrel S. F. Site
  Site ID:

  Type Lead:
  Requested by: Mike Ribordy (312) 886-4592
  Lead Scientist: Kent Snyder (360) 546-0687

  Start Date: March 2000
  Expected Completion Date: September 2000
  Revised Completion Date: April 2001

  Estimated Budget: $21,000
  Revised Budget:
  Major Contaminants: Organics

  Total Expenditures:$13,999
  Total FY01 Expenditures:$300
  Total 2nd Qtr. Expenditures:$200

  The RPM requested that the ESD-LV TSC provide assistance in designing a sampling/monitoring plan for a residential area near the site.

  This 13-acre site(formerly known as Northwestern Barrel) is located in South Milwaukee, Milwaukee County, Wisconsin. The site is a former drum recycling facility which operated from 1941 to 1964. While in operation, residual wastes from the drum cleaning operation were placed in disposal pits on the eastern portion of the property. These wastes included paints, oils, grease, dyes, and other chemicals. The lake bluff on the eastern side of the property and the ravine on the northern side of the property were also impacted during drum cleaning activities.

  In late 1964, U.S. EPA conducted a site assessment which revealed the presence of metals, polychlorinated biphenyls (PCBs), and the volatile organic compounds (VOCs) on the site. In 1955, U.S. EPA issued an order to numerous companies suspected of sending drums to the site and to Towne Realty, as the owner of the site. The order required the removal of the contents in the on-site disposal pits and additional testing.

  Following the review of site data and documents the TSC provided the Region with a sampling/monitoring design for the site. Following a review of the "Sampling/Monitoring Design" report by the RPM, the TSC provided the Region with a revised approach titled "Sampling Approach for Residential Properties Associated with the Marina Cliffs/Northwest Barrel Site." The TSC participated in a number of conference calls with the Region pertaining to TSC comments and suggestions.

- Project Name: PCB Landfill Belleville
  Site: Wayne Disposal S. F. Site
  Site ID:

  Type Lead:
  Requested by: Mike Milulka (312) 886-6750 Joe Dlugosz (218) 529-5215

Lead Scientist: Bob Smith (208) 526-9345

Start Date: December 2000
Expected Completion Date: May 2001
Revised Completion Date:

Estimated Budget: $18,000
Revised Budget:
Major Contaminants, Organics/Inorganics

Total Expenditures:$8,619.
Total FY01 Expenditures:$8,619.
Total 2nd Qtr. Expenditures:$8,519.

The RPM requested that the ESD-LV TSC provide assistance in reviewing a request by the PRP's to expand the capacity of the chemical waste landfill.

The Wayne Disposal site in Wayne County, MI. has been accepting wastes for a number of years. The currently operating disposal cell contains both a leak detection and leachate removal system as well as primary and secondary barriers/liners. The cell is constructed within a clay pan (glacial till) formation. Underlying the clay pan is a silt aquitard which is underlain by a sand aquifer of considerable extent.

During the permit application process, questions arose relating to the site hydrology. Specifically, questions arose regarding the role of an underlying clay layer in the hydrologic isolation of the disposal unit in question, and whether the area around the disposal site constitutes a ground-water recharge zone.

The TSC previously participated in a technical peer review panel to address various issues. The TSC received a number of documents to review. The review of provided data and information was completed. The TSC provided the Region with the report titled "Assessment of the Natural Clay Beneath Master Cell V and the Campsite Liner System for the Proposed Expansion of Master Cell VI."

REGION 6

- Project Name: Holloman
  Site: Holloman AFB S. F. Site
  Site ID:

  Type Lead:
  Requested by: Allen Meyers (478) 926-6628
  Lead Scientist: Ron Mizia, Ken Moor (208) 526-8810

  Start Date: January 2001
  Expected Completion Date: June 2001
  Revised Completion Date:

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

  Total Expenditures:$1,662.
  Total FY01 Expenditures:$1,662.
  Total 2nd Qtr. Expenditures:$1,662.

  The Project Officer requested that the ESD-LV TSC provide assistance in reviewing data and aluminum structures to determine why these structures are corroding.

The TSC received data and pictures of corroded structures. Following a review of this information, the TSC provided a number of possible causes. These included dust suppressants containing MGC12 and various salts that may have come into contact with the aluminum.

The TSC would like to review available soil analytical data including soil moisture, cations and anions that are present. A request for this data was made, however, the TSC has not received this data.

- Project Name :RSR Dallas Lead
  Site: RSR Corporation S. F. Site
  Site ID:

  Type Lead:
  Requested by: Carlos Sanchez (214) 655-8507
  Lead Scientist: Anita Singh (702) 897-3234

  Start Date: October 2000
  Expected Completion Date: April 2001
  Revised Completion Date:

  Estimated Budget:$10,000
  Revised Budget:$
  Major Contaminants: Lead

  Total Expenditures:$4,746.
  Total FY01 Expenditures:$4,746.
  Total 2nd Qtr. Expenditures:$4,746.

  The Regional RPM requested that the ESD-LV TSC provide assistance in identifying a statistical approach for determining the number of homes that should be sampled in a given manner.

  The RSR Corporation site is on the west side of Dallas in Dallas County, Texas. The site consists of areas of contaminated soil located south of the Trinity River, between Norwich and Hampton Roads, and north of the Missouri Pacific Railroad tracks. RSR's secondary lead smelter, located on West Mockingbird Street at the corner of Westmoreland Road and Singleton Boulevard, emitted lead into the atmosphere.

  Utilizing residential RSR soil lead data, the TSC is computing a number of sample size (i.e., number of homes) scenarios that could be implemented by the Region. The sample size scenarios will be calculated as a function of error rates and soil lead concentration action levels. The statistical approaches and the suggested sample size scenarios were provided to the Region.

- Project Name: Sol Lynn
  Site: Sol Lynn/Industrial Transformers S.F. Site
  Site ID:

  Type Lead:
  Requested by: Ernest Franke (214) 665-8521
  Lead Scientist: Lance Peterson (208)526-9738, R. Arnett (208) 526-8005, B. Starr (208) 526-0174

  Start Date: October 1999
  Expected Completion Date: July 2000
  Revised Completion Date: August 2001

  Estimated Budget:$38,000

  Total Exps:$45,632. PC&B:$2,600

Revised Budget:$60,000 Total FY01 Exps:$19,325 PC&B:$1,100
Major Contaminants: Organics Total 2nd Qtr. Exps:$9,032. PC&B:$600

The RPM requested that the ESD, TSC provide assistance in reviewing site documents and possible modeling subsurface contaminants.

The area around this 0.75-acre site, located in Houston, Texas, is a mix of residential, commercial, and light industrial facilities. Approximately 2,000 residents and 100,000 other people move within a one-mile radius of the site on a daily basis due to recreational activities associated with the area. The site operated as an electrical transformer salvage and recycling company between 1971 and 1978, and as a chemical recycling and supply company from 1979 through 1980. The first documented investigation of this site took place during the fall of 1971 when the City of Houston Water Pollution Control Division noted that the workers at Industrial Transformers poured oil out of electrical transformers onto the ground during transformer dismantling.

A technical assessment of the site, commencing in January 1986, indicated the presence of PCB contamination has been confined to the top two feet of soil. The highest concentrations of PCBs were found in the middle of the site. TCE has migrated deeper than the PCBs and away from the site. Residual TCE remaining in the surface soil will be remediated along with the PCB contaminated soils.

The TSC reviewed a number of documents and provided initial comments and recommendations to the RPM. TSC personnel met with the RPM, and the State of Texas staff in Houston, TX for a site visit and a more definitive discussion as to what assistance the TSC will provide. Following the site visit, the TSC provided a list of technologies that may be useful at the Sol Lynn site and provided information about dissolved oxygen (DO) measurements. The TSC reviewed and provided comments on the amended work plan in particular to the fate and transport modeling issues. The TSC reviewed and provided comments and suggestions pertaining to the "Supplemental RI/FS Study" and provided information on the required groundwater modeling parameters. In addition, the TSC received, and reviewed, the "Field Sampling and the Data Management Plans." The TSC is currently doing the sub-surface modeling for the Region. Additional data (i.e., well survey and water level data) was received by the TSC and is being used to update the preliminary groundwater flow model.

- Project Name: South Cavalcade
  Site: South Cavalcade S. F. Site
  Site ID:

  Type Lead:
  Requested by: Camille Hueni (214) 665-2231
  Lead Scientist:Robert Starr (208) 526-0174, John Keck (208) 526-5458

  Start Date: March 2000
  Expected Completion Date: August 2000
  Revised Completion Date: January 2001

  Estimated Budget: $10,000 Total Expenditures:$9,207.
  Revised Budget: Total FY01 Expenditures:$4,707.
  Major Contaminants: Organics Total 2nd Qtr. Expenditures:$480.

  The RPM requested that the ESD-LV TSC provide assistance in reviewing a natural attenuation report.

  This 66-acre site located in Houston, Texas is a mixture of residential, commercial, and industrial properties. The site was used as a wood preserving and coal tar distillation facility from 1910 to 1962. The wood

preserving facility consisted of an operation area, a drip track, and treated and untreated wood storage areas. The operation area included wood-treating cylinders, chemical storage tanks, and a waste water lagoon. Creosote and metallic salts were used in the operation.

The primary contaminants of concern affecting the groundwater, soil and sediment are VOCs including benzene, toluene, and xylene, other organics including PAHs; and metals including arsenic, chromium and lead.

The TSC received, and is currently reviewing, the report "Verification of Groundwater Fate and Transport Evaluation" dated July 2000. The TSC is also reviewing comments by Roger Lee on the "verification" report. In November the TSC provided the Region with a report titled "Review of Verification of Groundwater Fate and Transport Evaluation-South Cavalcade Superfund Site, Houston, Texas." In summary, source control or removal is usually a prerequisite for selection of MNA. Creosote present as a DNAPL at this site would be expected to persist for decades or longer. Therefore, the plans for removal or long term management of this material are an important part of a remedy, but are not addressed in this document. The TSC participated in a number of conference calls with the Region pertaining to TSC comments and recommendations.

REGION 7

- Project Name: Alcoa
  Site: Alcoa Davenport Works S. F. Site
  Site ID:

  Type Lead:
  Requested by: Mike Beringer (913) 551-7351 Jim Colbert (913) 551-7489
  Lead Scientist: Anita Singh (702) 897-3234

  Start Date: January 2001
  Expected Completion Date: June 2001
  Revised Completion Date:

  Estimated Budget: $10,000
  Revised Budget: $
  Major Contaminants: Metals/Organics

  Total Expenditures:$3,044.
  Total FY01 Expenditures:$3,044.
  Total 2nd Qtr. Expenditures:$3,044.

  The RPM requested that the ESD-LV TSC provide assistance in reviewing the data assessment and statistical procedures that are being proposed to assess site data for remedial and risk assessment objectives.

  The Aluminum Company of America (Alcoa)-Davenport Works (Alcoa site) is located in Riverdale, Iowa, which is near the Quad Cities and adjacent to Mississippi River Pool #15 (MPR15 site). The MPR15 and Alcoa sites are interrelated. The Alcoa facility has been in operation since 1948, producing rolled aluminum plate, sheet, and foil. As a result of past operations and disposal practices, groundwater, soils and sediments contain elevated concentrations of PCBs, chlorinated solvents, PAHs, and metals.

  Following the review of site documents, the TSC provided the Region with the report titled "Review of Statistical Procedures for Evaluating Data Sets used in Risk Assessments for Alcoa Sites." Additional support is anticipated.

- Project Name: Asarco
  Site: Asarco Omaha Facility S. F. Site

Site ID:

Type Lead:
Requested by: Don Bahnke (913) 551-7747
Lead Scientist: Mike Abbott (208) 526-8596 A. K. Singh (702) 895-0364 Bill Cole (702) 897-3255

Start Date: September 1998
Expected Completion Date: February 1999
Revised Completion Date: April 2001

Estimated Budget: $18,000	Total Exps:$49,949.	PC&B:$300
Revised Budget:$60,000	Total FY01 Exps:$11,436.	PC&B:$300
Major Contaminants: Lead	Total 2nd Qtr. Exps:$6,604.	PC&B:$300

The RPM requested that the ESD-LV TSC provide assistance in modeling ground deposition rates relative to air contaminant concentrations

The Asarco Omaha facility refined lead bullion and lead drosses. Refinement was achieved using traditional pyrometallurgical processes including addition of metallic and non-metallic compounds to molten lead to remove impurities. The Omaha plant produces refined lead and speciality metal by-products including antimony-rich lead, bismuth, dore' (silver-rich material) and antimony oxide. Although fundamentally classified as a primary lead refinery (not lead smelter), the Omaha plant is the only facility in the United States, and one of only a few such facilities in the world, designed to process lead bullion containing recoverable amounts of several different metals. As a result, the facility employs a complex array of both traditional and unique pyrometallurgical processes which are carried out as batch operations. This facility was constructed in the early 1870s and is currently closed.

The TSC review of site and metallurgical data deposition was completed. Following this review an initial model was completed. This model included plots of relative annual wet and dry deposition rates from the 180' "Black Stack" covering the periods 1984 through 1990. Deposition modeling runs have been completed for the 180' stack. A 310' stack is soon to be evaluated. Once all the modeling is completed, a report will be written and provided to the Region. The final report "Dispersion Modeling of Atmospheric Deposition Patters Around the Asarco Omaha Lead Refinery" was completed and sent to the RPM. This report details the methods and results of lead fallout modeling for both the 180-ft. Black Stack and an old 310-ft. Stack. There was some follow-up work completed comparing the modeling results with a map of actual soil concentrations. Comments pertaining to the comparison of soil concentration with the modeling results were provided to the RPM. The TSC was requested to provide geostatistical support by kriging soil lead concentrations on and in the vicinity of the smelter. The TSC completed the kriging and provided maps and associated overlays. In addition, the TSC provided recommendations for additional sampling locations that would improve the kriged results. Based on these maps the RPM requested assistance in identifying specific sampling locations. The TSC provided the Region an "all properties kriged map identifying six locations where additional samples should be collected." The TSC provided the Region with a table identifying properties on and near the site that exceeded 400 mg/kg of soil lead at one mile increments. Also provided were maps showing actual property locations.

- Project Name: Big River
  Site: Big River Mine Tailing S. F. Site
  Site ID:

  Type Lead:
  Requested by: Bruce Morrison (913) 551-7755

Lead Scientist: Mike Abbott (208) 526-8596

Start Date: April 1997
Expected Completion Date: October 1997
Revised Completion Date: April 2001

Estimated Budget: $30,000
Revised Budget:$100,000
Major Contaminants: Inorganics

Total Expenditures:$99,297.
Total FY01 Expenditures:$2,800
Total 2nd Qtr. Expenditures:$2,000

The Big River Mine Tailings site in Desolge, St. Francois County, Missouri, was used for disposal of lead mine tailings during 1929-58. The site a former mining region about 70 miles south of St. Louis is often referred to as the "Old Lead Belt". The region (approximately 110 square miles) contains numerous tailings ponds and piles.

St. Joe Minerals Corporation operated the site. There is disposed lead, cadmium, and zinc rich mine tailings over approximately 600 acres in rural areas bordered on three sides by Big River. In 1972, the company donated 502 acres of the land to St. Francois County, which then leased the land to St. Francois County Environmental Corp. (SFCEC). Since 1973, SFCEC has operated a sanitary landfill on approximately 60 acres of the southern section of the tailings pile.

EPA learned of the site in 1977, when an estimated 50,000 cubic yards of tailings slumped into the Big River during a heavy rain storm. After the collapse, the Missouri Department of Conservation detected elevated lead levels in bottom-feeding fish and advised local residents.

The RPM requested the TSC to evaluate and identify air deposition of lead-containing particulates in the vicinity of mine waste piles. The deposition of particulates were modeled to determine if additional sampling is required to characterize lead contamination. In addition, samples from this site will be analyzed to determine the amount of total and bioavailable lead for risk assessment purposes.

Source emission modeling was completed for 34 chat pile and tailings flat sources utilizing over six years of hourly wind data. These emission rates accounted for source-specific particle size, surface roughness, pile height, and lead concentration. Air dispersion modeling using the Fugitive Dust Model has been completed for all sources over a coarse receptor grid of the entire 225 km 2 region. All deposition modeling has been completed and the report "Air Dispersion Modeling of Mine Waste in the Southeast Missouri Old Lead Belt" was given to the Region. The report was reviewed by the Region and the Agency for Toxic Substances and Disease Registry. The report was finalized and developed into an external report and a journal manuscript. The final publications will include a comparison of the modeling results with surface soil sampling data recently obtained. Initial examination of these sampling results indicate very good agreement with model predictions. Finalization of the modeling report was completed, after receiving review comments from the RPM. Review comments were received. The report was finalized. The RPM requested that the TSC provide assistance as needed to the PRP sub-contractor (TRC, Inc.) in using modeling results for the PRP's current site assessment. This benefits EPA by promoting consistency and coordination between the PRP and EPA's site assessment methods and assumptions. On September 29th, Gayle Hoffnagle of TRC Inc., was sent a zipped file containing the six 1-year St. Louis FDM met files that were used in the Big River site modeling and an Excel file containing Desloge air monitoring (lead only) data that was built from hard copies of Shell monitoring reports. The TSC Task Lead and the TRC Inc. personnel have had a number of discussions pertaining to a number of modeling issues.

The TSC received a request to review a Deposition Sampling Protocol developed by the PRP subcontractor, TRC. That protocol proposed that downwind deposition of wind suspended lead be measured using oil-coated filters in samplers located downwind of two tailing sites. The TSC completed the review of the deposition sampling protocol and provided comments to the Region. In December the TSC was requested to review a new air sampling plan submitted by TRC. The plan was reviewed with comments and suggestions provided to the Region. The TSC completed some lead/soil analysis and provided the Region with the report titled "Big River Superfund Site In Vitro Soil Extraction."

- Project Name: Cherokee County Kansas
  Site: Cherokee S. F. Site
  Site ID:

  Type-Lead: Fund
  Requested by: Dave Drake (913) 551-7626
  Lead Scientist: John Zimmerman (702) 897-3379

  Start Date: July 1995
  Expected Completion Date: March 1996
  Revised Completion Date: May 2001

  Estimated Budget: $10,000
  Revised Budget: $120,000
  Major Contaminants: Heavy Metals

  Total Expnditures:$106,149.
  Total FY01 Expenditures:$14,751
  Total 2nd Qtr. Expenditures:$4,608.

  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, Jaspar 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 ESD TSC's X-Ray Fluorescence technology and equipment to measure site contaminants. The ESD TSC supported this effort. The RPM requested special analytical support. The TSC analyzed a number of samples collected from this site to determine the amount of total and bioavailable lead for risk assessment purposes. A data report was provided to the RPM.

  The TSC also reviewed the "In Vitro Analytical Method" and provided comments to the Region. The TSC participated in the "Vitro Bioaccessibility Method Validation Study". The analytical results of this effort were provided to the Region. In addition, the report titled "In-Vitro Test Method -Addendum Level IV Report" was finalized. The TSC prepared for the second round of "In-Vitro Analysis" which consisted of approximately 80 samples. Following sample preparation, the sample extracts were submitted for laboratory analysis. The samples were analyzed. The resultant data was evaluated for data quality and provided to the RPM and Ms. Goldade of ISSI. The TSC is waiting for the final report. The TSC was requested to extract and analyze some additional samples. The samples were extracted and sent to a laboratory for analysis. Laboratory analysis was completed and the results were provided to the Region in the report "Big River Superfund Site In Vitro Soil Extractions."

- Project Name: Oronogo-Duenweg
  Site: Oronogo-Duenweg Mining Belt S. F. Site
  Site ID:

Type Lead:
Requested by: Mark Doolan (913) 551-7196 Jay Cornish (406) 494-7329
Lead Scientist: John Zimmerman (702) 897-3379

Start Date: December 1999
Expected Completion Date: July 2000
Revised Completion Date: May 2001

Estimated Budget: $27,000
Revised Budget:
Major Contaminants: Lead

Total Expenditures:$13,000
Total FY01 Expenditures:$3,932.
Total 2nd Qtr. Expenditures:$2,245.

The RPM requested that the ESD, TSC provide assistance in the in-vitro analysis of soil samples that are part of a treatability study being conducted by the Region.

The Oronog-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 1948, to the late 1960's, with the greatest activity occurring in an area between Oronogo and Duenweg northeast of Joplin.

Mining efforts were originally performed by independent operations that, in later years, were organized by several area mining companies. 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.

Tests conducted in 1977 by the U. S. Geological Survey found On-site groundwater and surface water to be contaminated with heavy metals including lead, zinc, and cadmium from the mining operations. Potential risks may exist through drinking contaminated surface water and groundwater or coming into direct contact with contaminated water.

The TSC received and reviewed the work plan titled "Phosphate Stabilization of Heavy Metals-Contaminated Mine Waste Yard Soils, Joplin, Missouri NPL Site". Comments were provided to the RPM. The analytical QAPjP was reviewed. Comments were provided to the RPM. The samples for this in-vitro analysis are currently being prepared and will be provided to the TSC in April 2001.

- Project Name: Schilling
  Site: Schilling AFB S. F. Site
  Site ID:

  Type Lead:
  Requested by: Diana Bailey (913) 552-7717
  Lead Scientist: John Zimmerman (702) 897-3379

  Start Date: April 2000
  Expected Completion Date: September 2000
  Revised Completion Date: March 2001

  Estimated Budget :$14,000
  Revised Budget:$

  Total Expenditures:$6,189.
  Total FY01 Expenditures:$300.

Major Contaminants: Organics Total 1st Qtr. Expenditures:$200

The RPM requested that the ESD-LV TSC provide assistance in reviewing a QAPjP that will be utilized by DoD for characterizing site contaminants.

The Schilling (SAFB) site is located in Salina, Kansas and is the former location of a military air base that encompassed over 4,000 acres and operated from 1942 to 1967. Previous analyses of surface soil, subsurface soil, ground water, surface water and sediment samples have shown elevated concentrations of various contaminants, including volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), and metals at numerous locations throughout the former SAFB. Results of past investigations indicate that the greatest threat to human health and the environment is posed by VOC contamination in ground water. An on-going remedial investigation (RI) by the Unites States Army Corps of Engineers (USACE) is focused primarily on an extensive trichloroethyene (TSE) plume that appears to be situated in the northeastern portion of the former base property.

The TSC completed the review of the QAPjP and provided the Region comments and recommendations in the report titled "Review of the Draft Quality Assurance Project Plan for Expanded Site Inspection at the Schilling (EX) Air Force Base Site." Additional support is anticipated.

REGION 8

- Project Name: Lowry
  Site: Lowry Field S. F. Site
  Site ID:

  Type Lead:
  Requested by: Douglas Bell (202) 260-8716
  Lead Scientist: Max Englehardt (208) 526-2100 A. K. Singh (702) 895-0364

  Start Date: November 1999
  Expected Completion Date: August 2000
  Revised Completion Date: July 2001

  Estimated Budget: $30,000 Total Exps:$93,042. PC&B:$5,700
  Revised Budget:$95,000 Total FY01 Exps:$18,998. PC&B:$2,600
  Major Contaminants: UXO Ttl 2nd Qtr. Exps:$6,647. PC&B:$ 400

Mr. D. Bell, Federal Facilities Restoration and Reuse Office (FFRRO), EPA requested the TSC, NERL, ESD-LV assistance of statisticians in reviewing the Unexploded Ordnance (UXO) Statistical Sampling (SiteStats/Grid Stats) and Risk Assessment (OE*Cert)* Methodology developed by QuantiTech, Inc., for the U. S. Army Engineering and Support Center, Huntsville (USAESCH), Alabama. These procedures were developed for conducting engineering evaluation/cost analysis (EE/CA), and UXO investigations for various ordnance and explosives (OE) located on Formerly Used Defense Sites (FUDS). Three statisticians, Dr's Max Englehardt. Ashok K. Singh, and Anita Singh, were asked by the TSC to review and assess provided documents and computer programs.

Lowry Field included an airfield and a bombing and gunnery ranges comprising 65,547 acres of Arapahoe County, CO near the town of Aurora. The airfield and bombing range were used by the Army during World War II for bombing practice and high explosive bombs, and fixed and flexible gunnery targets. After World War II, the airfield became a Naval Air Station; the bombing range came under the custody of Lowry Air Force

Base, and was known subsequently as the Lowry Bombing and Gunnery Range. The Air Force continued to use the bombing range, and added a demolition range at the west end of the bombing range, and later also created the Lowry Training Annex. Ordnance found at the site indicated that Lowry Air Force Base used the range in support of its air photography mission. A portion of the range was used for training support during the Vietnam War. Four Titan missile sites were also constructed on the bombing range. The TSC reviewed the provided site documents and data and then developed a data base for unexploded (UXO) data assessment(s). The report titled "Interim Evaluation of U.S. Army Corps of Engineers Statistical UXO Sampling and Characterization Methodologies" was provided to the Region and Program Office. The draft report titled "Evaluation of U. S. Army Corps of Engineers Statistical UXO Sampling and Characterization Methodologies" dated July 2000 was prepared and distributed for comments. TSC personnel met with the USACE in Las Vegas for discussions pertaining to the USACE developed UXO Program. The discussions primarily focused on the TSC's review comments of the UXO Programs. A summary of the tests for homogeneity and an outlier-based tests was completed. The results of these assessments were provided to the Region in the report titled "Summary of Recent Results on Site Stats Evaluation Performed After the August 9–10, 2000 Partnership Meeting Between USACE and NERL-Las Vegas."

- Project Name: Lowry
  Site: Lowry Landfill S. F. Site
  Site ID:

  Type Lead:
  Requested by: Gwendolyn Hooten (303) 312-6646
  Lead Scientist: Ken Moor (208) 524-8810

  Start Date: March 2000
  Expected Completion Date: September 2000
  Revised Completion Date: April 2000

  Estimated Budget: $21,000
  Revised Budget:
  Major Contaminants:Radionuclides

  Total Expenditures:$21,718.
  Total FY01 Expenditures:$1,476.
  Total 2nd Qtr. Expenditures:$1,300.

  The RPM requested that the ESD-LV TSC provide assistance in plutonium and americium performance evaluation standards.

  This site is located about 20 miles southeast of downtown Denver, Colorado, in unincorporated Arapahoe County. From the mid-1960s until 1980, the site was operated as an industrial liquid waste and municipal solid waste landfill. Liquid wastes disposed of at the site included hazardous substances such as VOCs and heavy metals. In 1980, waste disposal was restricted to municipal solid waste. In 1984, the site was placed on the National Priorities List (NPL). From 1984 to 1993, studies were performed to define the nature and extent of contamination, to estimate potential health and environmental risks, and to evaluate cleanup alternatives for the site.

  The TSC reviewed site data and the proposed sampling/analysis plan. Information concerning descriptive laboratory detection levels were also received and reviewed. The TSC discussed the proposed PE sampling plan with the RPM. The analytical labs sent sample bottles. The TSC spiked the bottles with AM-241 and plutonium -238 and -239. The spiked samples were sent to the Colorado State laboratory. The TSC responded to a number of questions from the Region pertaining to the prepared P. E. samples.

REGION 9

- Project Name: Aerojet
  Site: Aerojet General Corp. S. F. Site
  Site ID:

  Type Lead:
  Requested by: Steve Remaley (415) 744-1496 Charles Berry (415) 744-2223
  Lead Scientist: Tim Ehli (702) 897-3359

  Start Date: May 1999
  Expected Completion Date: October 1999
  Revised Completion Date: July 2001

  Estimated Budget: $19,000
  Revised Budget: $85,000
  Major Contaminants: Organics

  Total Expenditures:$55,537.
  Total FY01 Expenditures:$19,654.
  Total 2nd Qtr. Expenditures:$16,876.

  The Regional TPO requested that the ESD-LV TSC provide assistance in auditing GC and GC/MS laboratory data, and to provide analytical protocol assessments.

  The Aerojet General Corp. covers 8,500 acres near Rancho Cordova, 15 miles east of Sacramento. Since 1953, Aerojet and its subsidiaries have manufactured liquid and solid propellant rocket engines for military and commercial applications and have formulated a number of chemicals, including rocket propellant agents, agricultural, pharmaceutical, and other industrial chemicals. In addition, the Cordova Chemical Company operated a chemical manufacturing facility on the Aerojet complex from 1973 to 1979. Both companies disposed of unknown quantities of hazardous waste chemicals, including TCE and other chemicals associated with rocket propellants, as well as various chemical processing wastes.

  The initial effort by the TSC was to identify the contents of the provided tapes and disks. Following an assessment of the tapes and disks a letter report describing the contents was provided to the Region. Due to missing data the data audit was discontinued. The TPO then requested the TSC to provide available information pertaining to hydrazine in water. The TSC provided the Region with a report titled "Considerations on the Handling and Storage of Aqueous Samples to be Analyzed for Hydrazine". Additional assessment of Aerojet analytical protocols was accomplished. A report providing an assessment of perchlorate, hydrazine, and NDMA analytical protocols was provided to the Region. The TSC provided the RPM an assessment of 49 analytical SOPs that are being used to analyze samples. The TSC reviewed a revised SOP for hydrazine to identify inadequacies, determine if appropriate methods are being used, and to verify consistency with EPA and state guidance. Following the finalization of all SOP's by the PRP, the RPM requested the TSC to review them and identify any deficiencies. The TSC completed the review and provided comments and suggestions to the Region. The TSC received, reviewed, and provided the Region comments and suggestions pertaining to the analytical protocol titled "Determination of Base/Neutrals and Acids Revision 3."

- Project Name:Anaconda
  Site: Anaconda Copper Mine S. F. Site
  Site ID:

  Type Lead:
  Requested by: Bonnie Arthur (415) 744-2368
  Lead Scientist: Mike Abbott (208) 526-8596

Start Date: October 2000
Expected Completion Date: May 2001
Revised Completion Date:

Estimated Budget: $18,000
Revised Budget:$
Major Contaminants: Inorganics

Total Expenditures:$1,200
Total FY01 Expenditures:$1,200
Total 2nd Qtr. Expenditures:$1,200

The Regional RPM requested that the ESD-LV TSC provide assistance in evaluating and identifying appropriate air sampling methods that could be implemented that would provide data to determine the exposure of contaminants to off-site residents.

The site, located in Yerington, NV, was undeveloped before 1951. Mining operations started at the site in 1953. In 1978, Anaconda (owned by ARCO) closed down the mining and milling operation. In 1978, portions of the site were sold to Unison, a transformer salvaging company. In 1988 the entire property was sold to Arimetco Inc. who operated at the site until early 1999.

During a conference call with the RPM the TSC described potential modeling approaches and described similar modeling work done for a Superfund site in Region VII (Desloge, Old Lead Belt, Missouri). The TSC provided background document references to the RPM and mailed a copy of the INEEL report on Old Lead Belt Modeling. The TSC also provided information pertaining to sampling to determine whether a particle size analysis (mode of the aggregate size distribution) of existing soil samples from the site would be useful for determining modeling input (threshold friction velocity for particle suspension.) The TSC has had a number of discussions with the RPM pertaining to available data, maps and laboratory analytical methods. The TSC is planning to meet with the RPM and State Officials.

- Casmalia
  Site: Casmalia Disposal S. F. Site
  Site ID:

  Type Lead:
  Requested by: Craig Cooper (415) 744-2370
  Lead Scientist: Jeff Sondrup (208) 526-8396 Bob Starr (208) 526-0174

  Start Date: November 2000
  Expected Completion Date: May 2001
  Revised Completion Date:

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

  Total Expenditures:$700.
  Total FY01 Expenditures:$700.
  Total 2nd Qtr. Expenditures:$300.

  The Regional RPM requested that the ESD-LV TSC provide assistance in determining flow paths of contaminated groundwater on and near the Casmalia site.

  The Casmalia Disposal Site is a 252-acre inactive commercial hazardous waste treatment, storage, and disposal facility located in Santa Barbara County, California, 10 miles southwest of the City of Santa Maria and four miles from the pacific Ocean. Between 1973 and 1989, the site accepted approximately 4.5 billion pounds of waste. Facing multiple enforcement actions, the site's owners and operators stopped taking shipments of waste material in 1989. In the early 1990s. The owners and operators abandoned efforts to properly close and clean

up the site. Conditions at the site presented imminent and substantial endangerment to human health and environment.

The TSC had a conference call with the RPM and sent information to the Region pertaining to the qualifications of the INEEL staff that will participate on this project. Additional support is anticipated.

- Project Name: City of Phoenix
  Site: City of Phoenix 19th Avenue Landfill S. F. Site
  Site ID:

  Type Lead:
  Requested by: Nadia Hollan (415) 744-2363
  Lead Scientist: Mike Abbott (208) 526-8596

  Start Date: May 2000
  Expected Completion Date: November 2000
  Revised Completion Date: July 2001

  Estimated Budget: $18,000
  Revised Budget: $
  Major Contaminants: Organics

  Total Expenditures:$20,521.
  Total FY01 Expenditures:$14,318.
  Total 2nd Qtr. Expenditures:$13,318.

  The RPM requested that the ESD-LV TSC provide assistance in reviewing ambient air monitoring and monitoring plans.

  This 213-acre site operated as a landfill between 1957 and 1979, during which about 9 million cubic yards of municipal refuse, solid and liquid industrial wastes, and some medical wastes were deposited. However, the site was closed in 1979 due to the threat of flooding from the Salt River Channel. This remedial action is designed to mitigate threats resulting from flooding. The primary contaminants of concern in the soil/refuse include VOCs such as toluene and xylenes.

  The TSC received three documents for review: The Ambient Air Monitoring Plan and two Ambient Air Monitoring reports. Following the review it was felt that the four landfill air sampling tests were well conducted and that the results showed differential concentrations that were well below levels of concern. However, the number of samples (total of 8 events per cell) was not adequate to draw the conclusion that long-term VOC emissions from the landfill are of no concern. The sampling experimental design (discrete 4-hour upwind/downwind samples) has two inherent and compounding limitations that cannot be overcome with a limited number of samples: 1) the inability to distinguish source emissions from the relatively high background concentrations in the area and 2) the dilution of source emissions to below instrument detection limits because of air transport/dispersion to the downwind samplers. Some additional sampling was recommended.

  The TSC received a request from the RPM in early August for information on Open Path Fourier Transform Infrared Spectrometry (FTR), and whether it could be a useful tool at the landfill. The TSC responded on August 17 with some background information on the technology and some experience at the INEEL using this technology. The TSC believes that this technology would be a useful tool to address the landfill issues. The TSC received volumes 1 and 2 of the Ambient Air Monitoring Program Report and the Ambient Air Monitoring Plan for review. The review of these documents was completed and the report titled "INEEL Review Comments on the Ambient Air Monitoring Program Report for Nineteenth (19th) Avenue Landfill-Phase II." A number of conference calls with the RPM were completed.

- Project Name: Fort Ord
  Site: Fort Ord S. F. Site
  Site ID:

  Type-Lead:
  Requested By: John Chestnut (415) 744-2324
  Lead Scientist: Anita Singh (702) 798-3234

  Start Date: September 2000
  Expected Completion Date: March 2001
  Revised Completion Date: July 2001

  Estimated Budget:$35,000
  Revised Budget:$
  Major Contaminants:UXO

  Total Expenditures:$21,353.
  Total FY01 Expenditures:$20,000.
  Total 2nd Qtr. Expenditures:$1,840.

  The RPM requested that the ESD-LV TSC provide assistance in reviewing the Unexploded Ordnance (UXO) Statistical Sampling (SiteStats/GridStats) and Risk Assessment (OE*Cert)* Methodology. These programs were developed for conducting engineering evaluation/cost analysis (EE/CA), and UXO investigation for various ordnance and explosives (OE) located on Formerly Used Defense Sites (FUDS). Three statisticians, Dr's Max Engelhardt, Ashok K. Singh, and Anita Singh, were asked by the TSC to review and assess provided document and computer programs.

  The Fort Ord site, located in Marina, CA., was established by the U. S. Army as a maneuver area and field artillery target zone. Chemicals and hazardous wastes are stored at on-site facilities before they are transported and disposed of off-site. There are several areas of contamination on sites. One of these areas includes three inactive landfills that once were used to dispose of residential and commercial waste, In addition to UXO the facility has leaking hazardous waste tanks, containers of waste oil and various automotive chemicals and chemical storage areas.

  The primary focus of this evaluation will be to conduct an assessment of "SiteStats/GridStats" and OE*Cert* that are used to characterize sites contaminated with UXO. There are questions pertaining to the proper use and application of the mathematical and statistical approaches that have been incorporated in these programs. The data for this assessment was provided by the USACE in Huntsville, Alabama. The TSC completed a report titled "UXO Sampling and Characterization Using Indicator Kriging an Alternative Approach for Estimating Probabilities of Finding UXO Item." This report provided to the Region utilized Fort Ord and Buckley Field data. The TSC also provided the Region with the document titled "Review of the ORNL/TM-13588 Report." Following additional reviews the TSC provided the following two reports: "Summary of Recent Results on Site Stats Evaluation Performed After the August 9-10, 2000, Partnership Meeting Between USACE and EPA NERL Las Vegas" and "UXO Sampling and Characterization Using Indicator Kriging an Alternative Approach for Estimating Probabilities of Finding UXO Items."

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

  Type Lead:
  Requested by: Bruni Davila ((415) 744-2364
  Lead Scientist: A. K. Singh (702) 895-0364

Start Date: May 2000
Expected Completion Date: November 2000
Revised Completion Date: March 2001

Estimated Budget: $17,000
Revised Budget:$
Major Contaminants: Pesticides

Total Expenditures:$1,931
Total FY01 Expenditures:$600
Total 2nd Qtr. Expenditures:$400

The RPM requested that the ESD-LV TSC provide assistance in developing an air monitoring plan in the town of McFarland, CA.

Due to the side variety of chemicals of interest coupled with the many uses of chemicals in McFarland, CA throughout the year, EPA is proposing to collect over 1600 ambient air samples. EPA will institute an extensive Quality Assurance/Quality Control (QA/QC) program prior to sample collection to verify that the proposed sampling and analytical methods will adequately measure all the chemicals of interest while meeting EPA Region IX objectives.

The TSC received the "McFarland Ambient Air Investigation Sampling Workplan" and a listing of the analytes that will be anlayzed. Following the collection of data the TSC will assist in the data assessment(s).

- Project Name: MGM
  Site: MGM Brakes S. F. Site
  Site ID:

  Type Lead:
  Requested by: Steve Remaley (415) 744-1496 Akemi Wayne (415) 744-2454
  Lead Scientist: Tim Ehli (702) 897-3359

  Start Date: July 1999
  Expected Completion Date: February 2000
  Revised Completion Date: May 2001

  Estimated Budget: $18,000
  Revised Budget:$80,000
  Major Contaminants: Organics

  Total Expenditures:$71,185.
  Total FY01 Expenditures:$23,257.
  Total 2nd Qtr. Expenditures:$16,715.

  The Regional Technical Project Officer (TPO) requested that the ESD-LV TSC provide assistance in auditing laboratory data.

  Located in Cloverdale, California this 5-acre site includes an automotive brake casting plant, a paved area surrounding the plant, and an open field. Land use in the area is mixed residential/agricultural/industrial. From 1965 to 1972, wastewater containing PCBs was discharged on the site property. Wastewater containing ethylene glycol was disposed of on-site from 1972 to 1981. The ethylene glycol acted as a co-solvent with water, and facilitated the transport of PCBs in the soil. About 13,510 cubic yards of soil is contaminated with PCBs at concentrations up to 4500ppm. VOCs have also been detected in groundwater; however, the source of this contamination is unknown. The primary contaminants of concern affected soil, sediments, and surface water are VOCs including TCE and benzene. The primary contaminants affecting groundwater are PCBs.

  The TSC received from the Region and Regional IG's office a number of CD-ROMs's and diskettes containing laboratory data. The TSC has reviewed a number of these data files for questionable manual integrations. A

number of memorandums documenting these suspect files have been provided to the Region. The TSC developed a method file for auditing laboratory analytical data and responded to questions about types and numbers of files that were reviewed in order to match missing file requests to specific laboratories. The TSC also received two additional CD's of data which were not included in the original data package. The TSC completed an initial assessment of the two CD's. The status of this assessment was provided to the Region. Completing this data audit required "target" software. All data received (i.e. CD's) was sent to Region VI because the TSC did not have the "Target" software. Region VI failed to complete the audit so the data was sent back to the TSC. The TSC purchased the "Target" software and was trained on the use of this software. The TSC conducted data audits and provided the Region with the reports titled "Assessment of Electronic Data from Sequoia Analytical Laboratory Inc.", "Evaluation of Target Software Files for Sequoia Analytical Laboratory MGM Brakes S. F. Site" and "Expanded Assessment of Electronic Data from North Creek Analytical Laboratory Inc."

- Project Name: Modesto
  Site: Modesto Groundwater Contamination S. F. Site
  Site ID:

  Type Lead:
  Requested by: Steve Remaley (415) 744-1496
  Lead Scientist: John Zimmerman (702) 897-3379

  Start Date: November 2000
  Expected Completion Date: March 2001
  Revised Completion Date:

  Estimated Budget: $ 12,000
  Revised Budget:
  Major Contaminants: Organics/Inorganics

  Total Expenditures:$3,635.
  Total FY01 Expenditures:$3,635.
  Total 2nd Qtr. Expenditures:$696.

  The Regional RPM requested that the ESD-LV TSC provide assistance in reviewing a laboratory's Quality Assurance Manual (QAM). The manual and the identified guidance will be used for analyzing site samples.

  The City of Modesto began monitoring groundwater at this site in 1984 and found that 12 of the 24 wells tested were contaminated. Municipal Well #11 was found to be contaminated with tetrachloroethylene (PCE) and was taken out of service. Well #11 is one of 35 municipal wells in the city of Modesto and contributes to the city's municipal water service.

  The TSC review the QAM and associated quality assurance/quality control procedures and requirements and provided the Region with the report titled "Review of the EMAX Laboratories, Inc. Quality Assurance Manual." The TSC participated in a number of conference calls with the Region pertaining ro TSC comments and suggestions.

- Project Name: Motorola
  Site: Motorola Inc. S. F. Site
  Site ID:

  Type Lead:
  Requested by: Nadia Hollan (415) 744-2363
  Lead Scientist: Lance Peterson (208) 526-9738 Kent Sorenson (208) 526-9597 Bob Starr (208) 526–1170

Start Date: January 1999
Expected Completion Date: August 1999
Revised Completion Date: April 2001

Estimated Budget: $25,000
Revised Budget: $65,000
Major Contaminants: Organics

Total Expenditures:$46,297.
Total FY01 Expenditures:$11,507.
Total 2nd Qtr. Exp:$2,812.

Project Name: Motorola
Site: OU-1
Site ID: SS1D #48

Total Expenditures:$7,830.
Total FY01 Expenditures:$2,452.
Total 2nd Qtr. Expenditures:$142.

Project Name: Motorola-Honeywell
Site: OU-2
Site ID: SSID #BE

Total Expenditures:$23,046.
Total FY01 Expenditures:$8,336.
Total 2nd Qtr. Expenditures:$2,670.

Project Name: Motorola-Canon
Site: OU-2
Site ID:

Total Expenditures:$2,986.
Total FY01 Expenditures:$219.
Total 2nd Qtr. Expenditures:$0

Project Name: Motorola
Site: OU-3
Site ID: SSID #BF

Total Expenditures:$6,948.
Total FY01 Expenditures:$500.
Total 2nd Qtr. Expenditures:$0.

The RPM requested that the ESD-LV TSC provide assistance in evaluating a soil gas monitoring effort by the PRP's and assistance in characterizing site organic contaminants. The RPM has requested that costs per OU-1, OU-2 and OU3 be documented. As shown above total cost and cost per OU are identified.

This Phoenix, Arizona site is located in a mixed residential/commercial area, and is used as a manufacturing facility. The manufacturing operations required the use of solvents. Underground storage tanks were discovered to be leaking, which resulted in groundwater and soil contamination both on-and off-site. The selected remedy for this operable unit addresses groundwater contamination. The primary contaminant of concern is TCA.

Operable Unit Two is an area of contaminated groundwater down gradient of Operable Unit One. The selected remedy is an interim remedy designed to address groundwater that is contaminated with volatile organic compounds (VOCs). The major components of this remedy consist of extraction of groundwater in the vicinity of Interstate 10 and Van Buren Street, treatment of extracted water near extraction locations by either air stripping with off-gas treatment by synthetic resin adsorption, or advanced oxidation based on final design considerations, and injection of treated water back into the aquifer in locations allowing additional control of the contaminant plume. The TSC reviewed a number of site documents and provided comments.

The existing data presented in site reports were of high quality but several significant data gaps were identified. Recommendations were made for installation of at least two new groundwater monitoring wells with soil gas ports. A peer reviewed paper Design, Installation, and Uses of Combination Ground Water and Gas Sampling Wells (Hubble, Wood , and Higgs, 1998) published by INEEL scientists was provided as a recommendation to assist in collection of soil gas data with installation of new groundwater wells.

The TSC provided review comments on The Soil Vapor Extraction System Evaluation Report. The Environmental Restoration Directorate Sample Management Office reviewed the L&V reports supplied as

Appendix B-H. While some discrepancies were noted in laboratory technique, the data were validated for use in evaluating the effectiveness of the Soil Vapor Extraction System (SVE). An independent technical memorandum produced by Golder Associates (GA) was also reviewed. The GA evaluation methodology was appropriate and the conclusion that the SVE system achieved the goals of the project was confirmed. It was noted however that the confirmation sampling was conducted just a few days after shutdown of the extraction system which did not allow sufficient time for contaminant concentration rebound. The recommendation was to conduct additional sampling to confirm the initial results.

The TSC provided the Region with comments and recommendations pertaining to the 52nd Street soil gas data analysis. The TSC received a CD Rom of scanned site documents related to soil investigations and hard copies of related items. The purpose of the document review is to provide assistance in determining the sufficiency of site characterization at the site and beyond the CY and SWPL areas, and whether it is likely that further soils or groundwater cleanup will be necessary. The TSC is currently reviewing the site documents and will identify gaps as they are encountered. The TSC received the document titled "Characterization of Inorganic Constituents in Groundwater, 52nd Street Superfund Site for Motorola, Inc. dated July 1999 for review.

Two modeling reports were received. The first report entitled "Preliminary Review of Groundwater Flow Models at the Motorola 52nd Street Superfund Site" and the second report titled "Summary of Preliminary Groundwater Flow and Contaminant Transport Simulations." Those reports were both prepared by the Hydrodynamic Group (HG) and present reviews of previous modeling efforts plus a description of a new model that HG prepared to help answer some questions on the potential effectiveness of a proposed pump and treat remedy. There were some valuable discussions, recommendations, and insights in the reports, but there were also some shortcomings and issues that need to be resolved. The TSC briefly outlines an approach for correcting major deficiencies and resolving problems. Ron Arnett provided written review comments in a report entitled ""Review of Two Groundwater Flow and Contaminant Transport Model Reports for Motorola 52nd Street Superfund Site, Phoenix, Arizona, which was transmitted to Nadia Hollan.

The TSC received six additional documents for review. A review of these documents is in progress. The TSC also participated in a conference call with the RPM and the Arizona State Attorney Generals Office. The TSC reviewed ADEQ calculations pertaining to soil vapor extraction mass removal analysis and provided some recalculations. The TSC also provided the following documents to the RPM: "Review of Summary of Preliminary C\Groundwater Flow and Contaminant Transport Simulations Reports for OU-2 System Phoenix, AZ. Draft Version 2.0" dated August 2000 and "Review of Revised Groundwater Modeling Report on the Motorola/Honeywell OU-2 System Superfund Site" dated August 2000. The TSC also participated in a number of conference calls and meetings in San Francisco and Phoenix, AZ. TSC representatives attended a Honeywell site review 20-24 October. The review included an on-site tour of the Homeywell facility with a focus on the highest probability source area (LACC, oil chip yards, engine test cells, and return well..) An additional day included consultation on review of the Honeywell Conceptual Site Model and a meeting with the technical consultants for Honeywell. On November 6, 2000 the technical consultants presented their interpretation of the geology and hydrology and the flow and transport model supporting Motorola's interpretatio of historical plume development. Meetings with both parties have demonstrated that significant effort has been expended on collection and interpretation of site-specific data, and progress is being made on development of a site conceptual model.

The TSC is planning to participate in an on-site technical working group. The report titled "Review of Potential Source Areas Investigation Work Plan Honeywell International, Inc. 34th Street Facility" was provided to the Region. A number of site documents are currently being reviewed by the TSC.

- Project Name: NAS
  Site: North Island Naval Air Station S. F. Site

Site ID:

Type Lead:
Requested by: Steve Remaley (415) 744-1496
Lead Scientist: Tim Ehli (702) 879-3264, John Zimmerman (702) 897-3379

Start Date: January 2001
Expected Completion Date: June 2001
Revised Completion Date:

Estimated Budget: $19,000	Total Exps:$6,332.	PC&B:$200
Revised Budget: $	Total FY01 Exps:$6,332.	PC&B:$200
Major Contaminants: Dioxin	Total 2nd Qtr. $6,332.	PC&B:$200

The RPM requested that the ESD-LV TSC provide assistance in reviewing the Quality Assurance manual (QAM) and the Standard Operating Procedures (SOP's) of a laboratory (i.e., Columbia analytical Services) that will be analyzing samples from this site.

The U.S. Navy is planning to perform a Time-Critical Removal Action as part of the Installation Restoration Program (IR) at the Naval Air Station North Island in Coronado, California. Under the IR Program the Navy is investigating and cleaning up sites contaminated as a result of past waste operations and disposal practices. The IR Program site involved is Site 5, the Golf Course Garbage Disposal Area, Unit 2. Site 5 was operated as a landfill from the mid-1940s until 1965. After closing in 1965, the site was operated until 1983 as a transfer station where solid waste was stored and prepared for off-site disposal. Between 1983 and 1984, the site was converted to a golf course and is still in use today. Site 5, Unit 2 is an area south of the putting greens where volatile organic compounds (VOCs) and petroleum hydrocarbons have impacted soil and groundwater.

The TSC completed an on-site audit of the laboratory and provided the Region with the report titled "Columbia Analytical Services, Inc. Laboratory Audit Report." The QAM and SOPs were also reviewed with comments provided to the Region.

- Project Name: San Fernando
  Site: San Fernando S. F. Site
  Site ID:

  Type Lead:
  Requested by: Steve Remaley (415) 744-1496
  Lead Scientist: John Zimmerman (702) 897-3379

  Start Date: November 2000
  Expected Completion Date: March 2001
  Revised Completion Date:

Estimated Budget: $7,000	Total Expenditures:$4,954.
Revised Budget:	Total FY01 Expenditures:$4,954.
Major Contaminants: Inorganics	Total 2nd Qtr. Expenditures:$330.

  The Regional RPM requested that the ESD-LV TSC provide assistance in reviewing SOP's that are going to be utilized by an analytical laboratory for analyzing site samples.

The San Fernando Valley site is an area of contaminated groundwater covering approximately 9,336 acres in the vicinity of the North Hollywood section of the City of Los Angeles. This area is part of the San Fernando Valley basin, a natural underground reservoir. Groundwater contaminated with volatile organic compounds (VOC's) was discovered in 1980. Some groundwater contaminants currently affecting the Basin's water supply can be traced back to a period between 1940 and the 1960's, when the disposal of large chemical wastes was unregulated throughout the valley.

Following a review of the available SOP's the TSC provided the Region with a report that identifies suggested changes. The TSC participated in a number of conference calls with the Region pertaining to TSC comments and suggestions.

- Project Name: Yuma
  Site: Yuma (MCASY) S. F. Site
  Site ID:

  Type Lead:
  Requested by: Steve Remaley (415) 744-1496
  Lead Scientist: John Zimmerman (702) 897-3379

  Start Date: June 2000
  Expected Completion Date: September 2000
  Revised Completion Date: May 2001

  Estimated Budget: $10,000
  Revised Budget:$18,000
  Major Contaminants: Organics

  Total Expenditures:$12,893.
  Total FY01 Expenditures:$9,830.
  Total 2nd Qtr. Expenditures:$3,053.

  The RPM requested that the ESD-LV TSC provide assistance in reviewing SOP's and QAPjP's that will be utilized to analyze and characterize site contaminants.

  Since the mid-1950s, large volumes of waste fuels and solvents from refueling and servicing of airplanes have been disposed of directly onto the ground or into unlined pits at the 3,000-acre Yuma Marine Corps Air Station-site. In addition, combustible materials such as fuel oil and organic solvents have been deposited on the ground and burned during fire training exercises. The Navy has identified volatile organic compounds (VOCs) in soil at the site.

  The TSC reviewed the SOP's and QAPjP's and provided the Region with the report titled "Review of Standard Operating Procedures (SOP's) for HP Labs Mobile Laboratories, Solana Beach Facility" dated July 26, 2000. Additional protocols and SOP's were received and reviewed by TSC representatives. Following the review, the TSC provided the Region with the report titled "Review of Standard Operating Procedures (SOP's) for HP Labs Mobile Laboratories Solana Beach Facility" dated November 2, 2000. The PRP's revised the SOP's as per TSC comments and suggestions. Following the receipt of the revised SOP's the TSC received and reviewed the revisions and provided the Region with the report titled "Review of Standard Operating Procedures (SOP's) for HP Laboratories Solana Beach Facility" dated March 5, 2001. The TSC is currently reviewing additional SOP's.

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- Project Name: Adak

Site: Adak Naval Air Station S. F. Site
Site ID:

Type-Lead:
Requested by: Kevin Oates (907) 271-3424
Lead Scientist: Anita Singh (702) 798-3234

Start Date: September 2000
Expected Completion Date: January 2001
Revised Completion Date:

Estimated Budget:$30,000
Revised Budget:$45,000
Major Contaminants:UXO

Total Expenditures:$34,045.
Total FY01 Expenditures:$16,828.
Total 2nd Qtr. Expenditures:$5,225.

The Region X RPM has requested that the TSC evaluate statistical tests and approaches that have been used to characterize UXO.

The Naval Air Station (NASON) Adak, Alaska covers approximately 64,00 acres in Alaska on Adak Island. Near the western end of the Aleutian Islands. Adak Island became a military base in 1942, and in 1950, the Navy took control of all defense facilities on the island. The island is characterized by high winds and frequent storms. The southern half of the island is a Federal designated wilderness area, and the entire island is part of the Alaska Maritime National Wildlife Refuge.

The primary focus of this evaluation will be to conduct an assessment of the UXO calculator that is used to characterize sites contaminated with UXO. There are questions pertaining to the proper use and application of the mathematical and statistical approaches that have been incorporated in this program.

Under the Base Realignment and Closure Act (BRAC) the Navy is required to identify and remediate all hazardous materials including UXO. The identification and removal of hazardous materials must be completed prior to the transfer of these properties to the private sector. In 1966, the Navy completed an initial assessment study that identified 32 areas that potentially received hazardous substances, including chlorinated solvents, batteries, and transformer oils containing PCBs, over a 40 year period. These areas include spill sites, and pits for waste oil and fire-fighting training.

After reviewing site data the TSC performed a number of statistical tests and assessments. These tests and their results plus a summary of a homogenity and an outlier test will be presented in a final report. The report was prepared titled "Summary of Recent Results on Site Stats Evaluation Performed After the August 9-10 2000 Partnership Meeting Between USACE and EPA Las Vegas" and provided to the Region.

- Project Name: Boise
  Site: Boise Army Barracks S. F. Site
  Site ID:

  Type Lead:
  Requested by: Harry Craig (503) 326-3689
  Lead Scientist: Anita Singh (702) 897-3234

  Start Date: May 2000
  Expected Completion Date: December 2000

Revised Completion Date: May 2001

Estimated Budget: $30,000
Revised Budget: $60,000
Major Contaminants:UXO

Total Expenditures:$32,650.
Total FY01 Expenditures:$1,684.
Total 2nd Qtr. Expenditures:$789.

The RPM requested that the ESD-LV TSC provide assistance in reviewing the Unexploded Ordnance (UXO) Statistical Sampling (SiteStats/Grid Stats) and Risk Assessment (OE*Cert)* Methodology. These programs were developed for conducting engineering evaluation/cost analysis (EE/CA), and UXO investigations for various ordnance and explosives (OE) located on Formerly Used Defense Sites (FUDS).

The TSC reviewed provided site documents and data. Upon completion of this review a UXO data base was developed. A number of simulations to evaluate Site Stats/Grid Stats were completed. An interim evaluation of U. S. Army Corps of Engineers statistical UXO sampling and characterization methodologies was provided to the Region. The draft report titled "Evaluation of U. S. Army Corps of Engineers Statistical UXO Sampling and Characterization Methodologies" dated July 2000 was prepared and distributed for comments. TSC "personnel" met with the USACE in Las Vegas for discussions pertaining to the USACE developed UXO programs. TSC representatives participated in a SERDP presentation and meeting pertaining to improving UXO characterization approaches. The report titled "UXO Sampling and Characterization Approaches Using Indicator Kriging An Alternative Approach for Estimating Probabilities of Finding UXO Items." The TSC also provided the Region with the document titled "Review of the ORNAL/TM-13588 Report." Additional data reviews are anticipated.

- Project Name: Bonneville
  Site: Camp Bonneville S. F. Site
  Site ID:

  Type-Lead:
  Requested by: Harry Craig (503) 326-3689
  Lead Scientist: Anita Singh (702) 798-3234, A. K. Singh (702) 895-0364

  Start Date: November 1999
  Expected Completion Date: August 2000
  Revised Completion Date: April 2001

  Estimated Budget: $25,000
  Revised Budget:$112,000
  Major Contaminants: UXO

  Total Exp:$107,281. PC&B:$3,100
  Total FY01 Exp:$19,174. PC&B:$900
  Total 2nd Qtr. Exp:$4,514. PC&B:$400

  The RPM requested that the ESD-LV TSC provide assistance in reviewing the Unexploded Ordnance (UXO) Statistical Sampling (SiteStats/Grid Stats) and Risk Assessment (OE*Cert)* Methodology. These programs were developed for conducting engineering evaluation/cost analysis (EE/CA), and UXO investigations for various ordnance and explosives (OE) located on Formerly Used Defense Sites (FUDS). Three statisticians, Dr's Max Englehardt, Ashok K. Singh, and Anita Singh, were asked by the TSC to review and assess provided documents and computer programs.

  Camp Bonneville is a 3,839-acre site located in southwestern Washington State that has been utilized by the Department of the Army and others for training exercises for approximately 85 years. Large residential developments, densely forested lands, and small farms bound the property on all sides. Two areas within Camp Bonneville, totaling 820 acres, are currently leased from the Washington Department of Natural Resources.

The Department of the Army used Camp Bonneville for live fire of small arms, assault weapons, artillery, and field and air defense artillery between 1910 and 1995. Since 1947, Camp Bonneville has also provided training for a variety of military and non-military units from the National Guard, Reserves, and U.S. Air Force to federal, state, and local law enforcement agencies. In July of 1995, Camp Bonneville was selected for closure under the 1995 Base Realignment and closure (BRAC) process.

The TSC reviewed provided site documents and data. Following this review a data base was developed. A number of simulations for assessing USACE models (i.e., UXO calculator) were completed. The report titled "Interim Evaluation of U. S. Army Corps of Engineers Statistical UXO Sampling and Characterization Methodologies" was completed and sent to the Region and the OSWER Program Office. The draft report titled "Evaluation of U. S. Army Corps of Engineers Statistical UXO Sampling and Characterization Methodologies" dated July 2000 was prepared and distributed for comments. TSC "personnel" met with the USACE in Las Vegas for discussions pertaining to the USACE developed UXO programs. The TSC participated at a SERDP presentation and meeting pertaining to improving UXO Characterization approaches. The TSC also completed a number of statistical tests pertaining to characterizing UXO. The results of these tests are presented on the following two reports: "Summary of Recent Results on Site Stats Evaluation Performed After the August 9-10 Partnership Meeting Between USACE and EPA NERL Las Vegas," and "UXO Samples and Characterization Using Indicator Kriging-An Alternative Approach for Estimating Probabilities of Finding UXO Items."

- Project Name: Bunker Hill
  Site: Bunker Hill Mining S. F. Site
  Site ID:

  Type Lead:
  Requested by: Earl Liverman (208) 664-4858 Cami Grandinetti (206) 553-8696
  Lead Scientist: Anita Singh (702) 897-3234

  Start Date: July 2000
  Expected Completion Date: March 2001
  Revised Completion Date: August 2001

  Estimated Budget: $30,000
  Revised Budget: $
  Major Contaminants: Inorganics

  Total Expenditures:$33,500.
  Total FY01 Expenditures:$17,707.
  Total 2nd Qtr. Expenditures:$14,992.

  The Region X RPM has requested the ESD-LV TSC to provide assistance in the identification of innovative approaches for conducting vadose zone characterization, emerging fracture filling or compensation grouting technologies, and manipulating the geochemical environment to precipitate toxic metals. The Bunker Hill Mining District is located within the Coeur d'Alene River Basin in the eastern portion of the panhandle of northern Idaho. Historic ore mining, milling, and smelting practices have resulted in widespread mining-related contamination of the basin. In 1992, a ROD was signed for the non-populated areas of the Bunker Hill Superfund Site (BHSS), and implementation began in 1995. In 1998, EPA initiated an RI/FS of mining-related contamination in the Coeur d'Alene River Basin.

  The TSC participated in a on-site visit. The purposes of the visit were to: 1) meet with Idaho State DEQ and Silver Valley Trustees regarding provision of technical assistance for the Success Mine pilot in which the TSC would develop a protocol for predicting the adsorptive capacity of materials useful in the passive treatment of Acid Mine Drainage (AMD); and (2) meet with EPA officials regarding request for technical assistance in solving problems associated with characterization of the Bunker Hill CERCLA site.

A Scope of Work (SOW) was prepared and sent to the Region during November 2000. The SOW details the tasks for evaluating the feasibility of determining recharge areas that are contributing to the metals load in the mine drainage at the Bunker Hill mine. Following a review of appropriate geologic and hydrogeologic information, a determination that a tracer test or some other hydro geochemical test that would yield the desired information will be made. The review of provided data continued during this quarter. During the first part of April 2001 the TSC will provide a report with comments, recommendations and a "Path Forward" for site characterization technologies.

- Project Name: Laguna
  Site: Laguna Pueblo Aerial Bombing Target S. F. Site
  Site ID:

  Type Lead:
  Requested by: Harry Craig (503) 326-3689
  Lead Scientist: Anita Singh (702) 897-3234

  Start Date: December 2000
  Expected Completion Date: March 2001
  Revised Completion Date:

  Estimated Budget: $15,000
  Revised Budget:
  Major Contaminants: UXO

  Total Expenditures:$7,104.
  Total FY01 Expenditures:$7,104.
  Total 2nd Qtr. Expenditures:$6,604.

  The Regional RPM requested that the ESD-LV TSC provide assistance in assessing a visual inspection for homogeneity versus conducting statistical test(s), utilizing the Hopkins and the Chisquare statistics.

  The Laguna Pueblo site comprises an area of about 415,000 acres near Albuquerque and Grant, New Mexico. The site was utilized by the U.S. DoD for a bombing target and contains Unexploded Ordnance (UXO).

  The TSC conducted a number of statistical tests and provided the Region with the report titled "Naval Research Lab's Magnetometer Survey Data Bombing Target N-10, Laguna Pueblo, N.M." This report compared the homogeneity test results obtained using the Hopkins and the Chisquare tests. The report titled "UXO Sampling and Characterization Using Indicator Kriging - An Alternative Approach for Estimating Probability of Finding UXO Items" was prepared utilizing Laguna data and provided to the Region.

SUPERFUND SHORT-TERM REQUESTS

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

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

  Start Date: October 2000
  Expected Completion Date: September 2001
  Revised Completion Date:

Estimated Budget: $40,000	Total Exps:$6,602.	PC&B:$2,400
Revised Budget: $65,000	Total FY01 Exps:$ 6,602.	PC&B:$2,400
Major Contaminants: Variable	Ttl 2nd Qtr. Exps:$5,000.	PC&B:$1,200

TSC requests that can be completed within a 60-hour period. The ESD is requested to provide quick-turn-around support. Projects may include:

- Emergency Response - on-site field measurements, such as geophysics, soil gas, and XRF.
- Emergency Response - Laboratory support, such as the analysis of chemical and radiological contaminants.
- Review of reports and work plans, sampling/monitoring protocols, and analytical protocols and approaches.
- Review of techniques and methods used on site assessment.
- Providing expert testimony and/or contributing to the validity and authenticity of data used in cost recovery cases.

SUMMARY OF SUPERFUND SHORT TERM REQUESTS

REGION/ STATE	DATE	SITE	REQUESTOR	TELEPHONE NUMBER	NATURE OF REQUEST
OR	March		M. Thomas	(503) 261-7452	Bio Waste
OR	March		M. Thomas	(503) 261-7452	Blood
9	January		Mike Gill	(415) 744-1916	ESTAT Software
ORD	February	Dallas Lead	E. Englund	(702) 798-2248	Data Assessment
5	March		J. Kawecki	(312) 886-7236	Job
8	February	Ogden Railroad	J. Dunn	(303) 312-7023	Tech Support
8	February	Ogden Railroad	M. Robles	(303) 312-7023	Tech Support
ERT	March		H. Allen	(732) 321-6749	Tech Support
INEEL	March	Bunker Hill	J. Keck	(208) 526-5449	Tracer Test
INEEL	March	Bunker Hill	E. Netter	(208) 526-5449	Tracer Test
4	February	Shuron Inc.	R. Howard	(404) 562-8929	Tech Support
3	February	Maryland Sand	D. Rossi	(215) 814-3228	Tech Support
9	March	Casmalia	C. Cooper	(415) 744-2370	Land Fills
4	March	Georgia Pacific	B. Walden	(404) 562-8659	Dioxin
4	February	Tower Chemical	G. Jackson	(404) 562-8737	Fingerprinting
INEEL	February	Bunker Hill	C. Radke	(208) 526-5186	Tech Support
5	January		W. Wipple	(312) 353-9063	Tech Support
OSWER	February	Anaconda	B. Authur	(415) 744-2368	Tech Support
INEEL	February	Casmalia	J. Sondrup	(208) 526-8396	Modeling
3	February		M. Stephens	(215) 814-3353	Tech Support
9	February	Yuma	S. Remaley	(415) 744-1496	HP Labs
9	January	Saipan	M. Gill	(415) 744-2385	PCB's
TechLaw	February	Fort Ord	T. Hall	(501) 753-7984	UXO
7	January	Meth Labs	J. Facey	(913) 551-7934	Meth
10	January	Bunker Hill	E. Liverman	(208) 786-5203	Tracer Tests

9	January		S. Smucker	(415) 744-2311	Risk Assessment
10	January	Adak	H. Craig	(503) 326-3689	UXO
MA	February		B. Wiersma	(207) 581-3202	Risk Assessment
ORD	February	Nelson	D. Jackson	(702) 798-2635	Soils
10	March		H. Craig	(503) 326-3689	UXO Meeting
DC	February	Inside DC	L. Bevins	(703) 414-5003	Sote/Stats
9	March	MGM Brakes	A. Wayne	(415) 744-2454	Data Audit
MA	March		B. Wiersma	(207) 944-3202	Water Standards
3	February	Sharon Steel	J. Hubbard	(215) 814-3328	PROUCL
9	February	Aerojet	C. Berrey	(415) 744-7323	Tech Supprt
5	March	Wayne Disposal	M. Milkulka	(312) 886-6750	Review
4	February	Maimi Dade	L. Thomas	(404) 562-9786	Tech Support
ORD	January	Wayne Disposal	J. DLugosz	(218) 529-5215	Tech Support
TetraTech	February	Brownfields	Art Glazer	(703) 390-0623	Tech Support
OSWER	February		S. Frey	(703) 603-8817	Tech Support
	February	Sharon Steel	R. McCartney	(513) 569-7830	PROUCL
DE	Marh	Chem-Solve	M. Zhang	(302) 395-2654	Tech Support
10	January	Bunker Hill	N. Zilka	(208) 664-4858	Tech Supprt
2	February	Vieques	M. Olsen	(212) 637-4313	Tech Supprt
INEEL	March	Distler Brickyard	K. Moor	(208) 526-8810	Data Review
3	January	Exide	Kai Dao	(215) 814-5467	Statistics
5	January	NSP Ashland	T. Holoska	(312) 886-7503	Tech Support
2	January	Diamond Alkali	M. Olsen	(212) 837-4313	Statistics
4	March	Tower Chemical	G. Jackson	(404) 562-8939	Data Assessment
INEEL	February	Brownfiels	B. Breckenbridge	(208) 526-0757	Tech Support
3	February	Langley AFB	K. Davies	(215) 814-3315	Data Review
4	March	Stauffer Chemical	N. Young	(404) 562-8812	Samples
3	March	Langley AFB	Stacy Driscoll	(215) 814-3368	Data Review
3	February	Letterkenny	N. JaFolla	(215) 814-3324	Statistics
3	March	Palmerton	D. Ioven	(215) 814-3320	Data Review

1	February		S. Mangion	(617) 918-1452	Tech Support
3	March	Spring Valley	P. Leonard	(215) 814-3350	Sampling
7	February	Asarco	D. Bahnke	(913) 551-7749	Tech Support
10	March		B. Stamnes	(206) 553-1512	TSP Meeting
6	March	Sol-Lynn	R. Lee	(214) 665-8521	Modeling
Montana	February	Oronogo-Duenweg	J. Cornish	(406) 494-7324	Analysis
5	January	Joliet	D. Mally	(312) 886-7275	Munitions
7	January	Alcoa	M. Beringer	(913) 551-7351	Tech Support

SUPERFUND REMOTE SENSING SHORT TERM REQUESTS

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

  Type Lead:
  Requested by: See below
  Lead Scientist: TSC Staff Scientists

  Start Date: October 2000
  Expected Completion Date: September 2001
  Revised Completion Date:

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

  Total Expenditures:$1,000.
  Total FY01 Expenditures:$1,000.
  Total 2nd Qtr. Expenditures:$800.

  TSC Remote Sensing requests that can be completed within a 60 hour period. The ESD TSC is requested to provide Remote Sensing support that requires a quick-turn-around-time. Projects that may be addressed within this 60 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 work plans, 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	January		M. Gill	(415) 744-1916	Photographs
7	February	Asarco	D. Bahnke	(913) 551-7747	Photographs
INEEL	March	Anaconda	M. Abbott	(208) 526-8576	Photographs
10	February	Camp Bonneville	H. Craig	(503) 326-3689	Photographs
LMSG	March	Asarco	B. Cole	(702) 897-3255	Photographs

ISSUE PAPER/ISSUES

ISSUES

- Project Name: Exide
  Site: General Battery Corporation
  Site ID:

  Type Lead:
  Requested by: Khai Dao (215) 814-5467
  Lead Scientist: A. K. Singh (702) 895-1439

  Start Date: February 2001
  Expected Completion Date: July 2001
  Revised Completion Date:

  Estimated Budget: $
  Revised Budget: $
  Major Contaminants:

  Total Expenditures:$1,300
  Total FY01 Expenditures:$1,300
  Total 2nd Qtr. Expenditures: $1,300

  The Project Officer requested that the ESD-LV TSC requested that the ESD-LV TSC provide assistance in reviewing the proposed approach that is being suggested to "Krig" soil lead concentrations.

  Exide operates a secondary lead smelter and batter manufacturing/distribution facility in Berks County, Pennsylvania. Since 1991, several studies have been performed on soil, sediment and groundwater in areas adjacent to and in the vicinity of the facility to investigate the occurrence of lead, arsenic, selenium and cadmium that may be attributable to past facility operations. The Study Area covers approximately a one-square mile area centered around the facility. The Study Area includes portions of Laureldale Borough and Muhlenburg Township. Berks County, Pennsylvania, and is situated less that one mile north of the City of Reading. The investigations conducted to date in the Study Area include the following:

  - Soil sampling performed during 1992 (now referred to as Phase I investigation);
  - Soil sampling performed between completion of Phase I investigation and July 2, 1993, designated as the Phase II investigation;
  - Soil, sediment and groundwater sampling performed under the Phase III investigation in 1994: and
  - The Phase IV soil and sediment sampling (1996).

Following a review of the geostatistical issues, the TSC provided some comments and suggestions for the improvement of the suggested approaches.

- Project Name: Meth
  Site: Methamphetamine Multi Laboratory
  Site ID:

  Type Lead:
  Requested by:Judy Facey (913) 551-7934
  Lead Scientist: A. K. Singh (702) 895-1439

  Start Date: January 2001
  Expected Completion Date: September 2001
  Revised Completion Date:

  Estimated Budget: $ — Total Expenditures:$1,200 — PC&B:$400
  Revised Budget: $ — Total FY01 Exp:$1,200 — PC&B:$400
  Major Contaminants: — Total 2nd Qtr. $1,200 — PC&B:$400

  The Region VII Toxicologist requested that the ESD-LV provide assistance in investigating the exposure of children living in methamphetamine clandestine homes being used to manufacture methamphetamine.

  The Anti-Abuse Act of 1988 established a Joint Federal Task Force on illegal drug laboratories. The Task Force consisted of representatives of the U. S. DEA and the USEPA and representatives of the USCG. Congress directed the Task Force to formulate a program for cleaning up and disposing of hazardous wastes produced by clandestine drug laboratories.

  The TSC met with the Toxicologist and discussed a number of exposure model(s) and data requirements necessary for running the model(s). The TSC will participate in model assessment(s) and conducting Monte Carlo data simulations.

- Project Name: Miami Dade
  Site: Miami Dade
  Site ID:

  Type Lead:
  Requested by: Lee Thomas (404) 562-9786
  Lead Scientist: Bob Starr (208) 526-0174

  Start Date: June 1999
  Expected Completion Date: February 2001
  Revised Completion Date: April 2001

  Estimated Budget: $22,000 — Total Expenditures:$38,495.
  Revised Budget: $40,000 — Total FY01 Exps:$19,800.
  Major Contaminants: — Total 2nd Qtr. Exps:$19,000.

  The RPM requested that the ESD-LV TSC provide asistance in reviewing a hydrogeolocical program. **Note: this is not a Superfund related project. As such, the Region has provided the resources.**

  Region IV is involved with a major facility that injects municipal effluent into the subsurface in Florida via a Class 1 underground injection well. At the time the well was permitted it was believed that the injection

zone by the state, a highly permeable cavernous zone, would contain all the waste even though no traditional confining zones (i.e., dense, thick shales) exist between the injection zone and the lowest underground sources of drinking water (USDW.) The regulations for Class 1 injections wills prohibit fluid movement out of the injection zone. Unfortunately, some of the monitoring wells located between the injection zone and the lowest USDW have shown contamination related to the injectate including coliform and nitrate. Because of the geology of the site it is difficult to complete monitoring wells that do not leak. After a couple of years of negotiations. An Administrative Order on Consent (AOC) was negotiated to design a study to resolve whether fluids from this facility have moved through formations away from the injection zone and toward the USDW. The AOC required that the facility design a study involving ground water tracers to assess this issue.

Specifically, the TSC will address the following: 1) assist in the evaluation and selection of the tracer(s) to be used, 2) to determine if there might be some better way to address this issue, and 3) to assist in the evaluation of the actual tracer study when it is conducted.

A preliminary screen of the available documents has been completed and data gaps identified. In response to the identification of data gaps, additional documentation was received from the RPM in August. The review is expected to be completed in October. The report titled "Evaluation of Confining Layer Integrity Beneath the South District Wastewater Treatment Plant, Miami-Dade Water and Sewer Department, Dade County, Florida (Draft)" dated 12/13/99. Following Regional review, the TSC will finalize this report.

On December 20, 2000, INEEL received the Miami-Dade Injection Well report from the Region with a request to provide review comments. In general, the purpose of the review was to determine whether the existing data sets, pertaining to geologic, hydrogeologic, and geochemical data, were sufficient to attribute the observed contamination above the zone of injection to either (1) movement only through inadequately sealed sells of (2) widespread movement through the confining layer. Specifically, the TSC was requested by Region IV to review the data sets provided to evaluate the following issues.

1. Whether the existing data are sufficient to either prove or disprove the presence of a confining layer above the zone of injection and, if it is present, whether it is capable of preventing movement of injected fluids from the zone of injection into the overlying monitoring zones.

2. Whether the data sets support the Miami-Dade Water and Sewer Department's contention that all of the observed contamination of the monitoring zone could have resulted from vertical flow through unsealed bore holes

3. If the data are not sufficient to evaluate points 1 and 2, identify the additional data that should be collected to provide definitive answers.

A TSC project team is evaluating the information provided by EPA, Region IV relative to those three issues. A report presenting the findings of the evaluation entitled "Evaluation of Confining Layer Integrity Beneath the South District Wastewater Treatment Plant, Miami-Dade Water and Sewer Department, Dade County, Florida" was sent out for Peer Review. Following the evaluation of additional data and reviewing Peer Review comments the TSC prepared and distributed the final report (see title above.)

BROWNFIELDS

REGION 7

- Project Name: Riverpoint
  Site: Riverpoint West-Des Moines Brownfields
  Site ID:

  Type Lead:
  Requested By: Ellen Walkowiak (515) 237-1351
  Lead Scientist: Russell Plumb (702) 897-3265 Dick Smith (208) 526-9896

  Start Date: June 2000
  Expected Completion Date: February 2001
  Revised Completion Date: May 2001

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

  Total Expenditures:$10,156.
  Total FY01 Expenditures:$200.
  Total 2nd Qtr. Expenditures:$0

  The RPM requested that the ESD, TSC provide assistance in reviewing the sampling/analysis (S&A) plans for characterizing site contaminants. The Riverpoint West area is located south of the Des Moines district. Riverpoint West is bordered by SW 9th Street to the east, railroad tracks and Market Street to the north, and the Racoon River to the west and south. Transient populations very frequently inhabit the undeveloped and wooded places of the subject site. This population very often creates shelters and dump sites which include non-hazardous and hazardous materials. Dump sites have been observed to contain motor oil containers, liquid propane canisters, and cans of solvents containing aromatic hydrocarbons. The dump site(s) also contain textiles, cardboard, bottles, cans, and plastic film.

  The TSC reviewed available documents and provided the following reports "Field Analytical Methodologies that Can Be Used at Riverpoint West-Des Moines Brownfields Superfund Site", "Riverpoint Site Characterization Techniques" and "Technical Input for Phase II Monitoring at the Riverpoint Brownfields Site." Additional support is anticipated.

SUPERFUND COORDINATION

COORDINATION PROJECT OVERSITE

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

  Type-Lead:
  Requested by: Ken Brown
  Lead Scientist: Tim Ehli (702) 897-3359, Ken Moor (208) 526-8810

  Start Date: October 2000
  Expected Completion Date: September 2001
  Revised Completion Date:

  Estimated Budget: $25,000
  Revised Budget: $
  Major Contaminants: N/A

  Total Expenditures:$6,800.
  Total FY01 Expenditures:$6.800.
  Total 2nd Qtr. Expenditures:$5,500.

  This project provides for Superfund coordination and management 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:

  Type-Lead:
  Requested by: Director TSC
  Lead Scientist: Clare Gerlach (702)897-3321 Kem Moor (208) 526-8810

  Start Date: October 2000
  Expected Completion Date: September 2001
  Revised Completion Date:

  Estimated Budget: $35,000
  Revised Budget: $
  Major Contaminants:

  Total Expenditures:$1,100.
  Total FY01 Expenditures:$1,100
  Total 2nd Qtr. Expenditures:$800.

  One of the objectives of the TSC is to identify and make available ESD 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. All ESD fact sheets have been updated.

  The Superfund Program Office requested that the ESD-LV TSC provide information and documentation pertaining to the operation and utilization of a vacuum distillation/gas chromatography/mass spectrometry instrument. The purpose of this effort is to adequately describe this instrument and provide written guidance that will enable Regional chemists to measure hazardous waste contaminants. The following information shall be addressed in this SOP:

  General introduction: including brief overviews of the concepts of and needs for vacuum extraction, gas chromatography, and mass spectrometry.

- Instrumentation: including sources of all instrument parts, suggestions about equipment parts (if appropriate), reagent sources (including gases), and glassware.
- Operating parameters: including step by step directions on installation and use.
- Data processing: to include a description of the software currently bing completed for use in a Windows NT environment and including use of spread sheet(s) for surrogate-matrices corrections.
- Trouble shooting: including what-to-do section for predictable problems such as vacuum leaks, contamination, and instrument down time.