FINAL

REMOVAL ACTION IMPLEMENTATION REPORT

ROBERTS TIRES
OAKLAND, CALIFORNIA

PREPARED FOR:

DEPARTMENT OF TOXIC SUBSTANCES CONTROL
700 HEINZ AVENUE
BERKELEY, CA 94710

SUBMITTED BY:

ENGINEERING/REMEDIATION RESOURCES GROUP, INC.
4070 NELSON, SUITE B
CONCORD, CALIFORNIA 94020

NOVEMBER 2002

Signature Page

Engineering/Remediation Resources Group, Inc.:

Randall
Signature

12/9/02
Date

Randy Randall
Name

Project Manager
Title

California Department of Toxic Substances Control:

Barbara J Cook
Signature

1/28/2003
Date

BARBARA J COOK
Name

BRANCH CHIEF/CONTRACT MGR
Title

CERTIFICATION

THIS DOCUMENT WAS PREPARED UNDER THE

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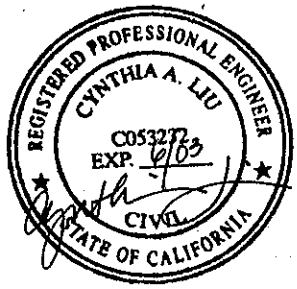

CYNTHIA A. LIU, P.E.

ENGINEERING MANAGER

CALIFORNIA PROFESSIONAL ENGINEER C053232

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List of Acronyms and Abbreviations

ASTM	American Society for Testing and Materials
bgs	below ground surface
CAM	California Assessment Method
DTSC	Department of Toxic Substances Control
EPA	Environmental Protection Agency
ERRG	Engineering/Remediation Resources Group, Inc.
ESA	environmental site assessment
ft	foot
HASP	Health and Safety Plan
LCS/LCSD	laboratory control spike and laboratory control spike duplicate
mg/kg	milligrams per kilogram
MS/MSDs	matrix spikes and matrix spike duplicates
ND	non detect
PARCCS	precision, accuracy, representativeness, completeness, comparability, and sensitivity
PCBs	polychlorinated biphenyls
PG&E	Pacific Gas and Electric
PPE	personnel protective equipment
ppm	part per million
QA/QC	quality assurance and quality control
QC/SAP	quality control and sample analyses plan
RCRA	Resource Conservation and Recovery Act
RL	laboratory reporting limit
RPD	relative percent difference
RWQCB	Regional Water Quality Control Board
sq ft	square foot
SVOCs	semi-volatile organic compounds
TPH	Total Petroleum Hydrocarbon
VOCs	Volatile Organic Compounds

1. INTRODUCTION

This report presents a summary of the remediation activities conducted at the Roberts Tires facility in Oakland, California in September 2002. Engineering/Remediation Resources Group, Inc. (ERRG) was tasked by the California Environmental Protection Agency (EPA), Department of Toxic Substances Control (DTSC) to remediate soil located at the Roberts Tires facility (site) located at 4311-4333 MacArthur Boulevard in Oakland, California (Figure 1). Remediation activities included excavation and disposal of approximately 60 cubic yards of soil contaminated with lead and placement of backfill to pre-excavation surface elevations.

The areas originally defined by DTSC included a 1,800 square feet (sq ft) area (Area 1) and a 400 sq ft area (Area 2). Both areas were to be excavated to 0.5 feet below ground surface (ft bgs). Upon receipt of confirmation sample results from Area 1, additional soil was excavated and disposed (Figure 2).

Approximately 60 cubic yards were transported under a hazardous waste manifest to Chemical Waste Management, a Class I waste disposal facility located in Kettleman Hills, California. The excavation areas were backfilled with Class II aggregate base and compacted to a minimum of 90 percent maximum dry density. The excavation areas were graded to match the existing grade.

1.1. Purpose and Objectives

The removal action was completed in accordance with the *Final Implementation Work Plan* (ERRG, 2002a) under the direction of the DTSC. The purpose was to remove soil containing lead contamination from an area in the front of the property and from an undeveloped area at the rear of the property. The excavations were focused on soils containing concentrations of lead above the cleanup goal of 350 milligram per kilogram (mg/kg), which was developed by the State of California Environmental Protection Agency, Department of Toxic Substances Control (DTSC, 2002).

1.2. Report Organization

The report is organized as follows:

- Chapter 2 — Site History and Conditions
- Chapter 3 — Field Activities
- Chapter 4 — Analytical Results and Data Quality

The appendices to this report include:

- Appendix A — Laboratory Analytical Reports
- Appendix B — Backfill Material – Laboratory Analytical Data
- Appendix C — Compaction Results
- Appendix D — Waste Manifest Documentation
- Appendix E — Data Validation
- Appendix F — Photo Documentation

2. SITE HISTORY AND CONDITIONS

The Roberts Tires facility is located in the southeast portion of Oakland, California and is bound by MacArthur Boulevard to the east, High Street to the north, Pacific Gas and Electric (PG&E) property to the west, and Interstate 580 to the south (Figure 2). The approximate 0.6-acre site is located in a mixed industrial and residential area. A vacant garage building consisting of service bays and an office previously existed at the back of the 4333 MacArthur Boulevard lot. An approximate 1,800 square foot undeveloped area is located in the northwest corner of the 4333 MacArthur Boulevard lot adjacent to the garage. The front portion of the lot is covered with asphalt with the exception of a small grassy area located near the front of the vacant garage. A commercial building previously covered the majority of the 4311 MacArthur Boulevard lot, which borders the 4333 MacArthur Boulevard lot to the north.

2.1. Project Background

A gas station operated on the project site during the 1940s and 1950s. Roberts Tires, a tire and brake shop, shared the site with the gas station from 1961 through 1996. Records indicate that the project site has not been used for commercial or industrial operations since December 1996 (DTSC, 2002).

In 1996, a hazardous substance was discovered during a Phase I environmental site assessment (ESA) conducted on the Pacific Gas & Electric (PG&E) property immediately west of the project site (DTSC, 2002). Based on observations made during the ESA, a Phase II soil investigation was conducted on the PG&E property in October 1999. Elevated levels of Total Petroleum Hydrocarbons as motor oil (TPH-m.o.) and lead were detected at concentrations of 16,000 parts per million (ppm) and 1,700 ppm, respectively. PG&E excavated the contaminated soil and disposed of it off-site. Based on past activities at the Roberts Tires facility, the environmental investigations were expanded to include Roberts Tires (DTSC, 2001).

2.2. Previous Site Investigations

The previous investigations and findings at the adjacent PG&E property prompted DTSC to conduct a site visit to the Roberts Tires facility in 2000. DTSC subsequently collected four surface soil samples from the project site. Three of the four samples were collected in the undeveloped area adjacent to the garage and the fourth sample was collected near the front of the property. Lead and TPH-m.o. were detected in a sample collected from the undeveloped area at concentrations up to 36,400 milligrams per kilogram (mg/kg) and 6,900 mg/kg, respectively. The soil sample (SSRT-4), collected near the front of the property, contained lead and TPH-m.o. at concentrations of 790 mg/kg and 1,400 mg/kg, respectively. Total petroleum hydrocarbons as diesel (TPH-d) were not detected above laboratory detection limits in any of the four samples.

In May 2002, ERRG conducted a soil sampling investigation to delineate the horizontal and vertical extent of lead contamination and to determine the potential for asbestos in the soil at the site (ERRG, 2002b). ERRG collected a total of 33 soil samples during the investigation: 32 soil samples from eight soil borings and one surface soil sample from a soil stockpile. All samples were analyzed for lead and asbestos. Six of the borings were advanced in the undeveloped area and two of the borings were advanced near previous sample location SSRT-4. All borings were advanced to a depth of 5 ft bgs. Surface samples collected from three of the six locations in the undeveloped area contained concentrations of lead ranging from 1,100 mg/kg to 2,200 mg/kg and samples collected below 0.5 ft bgs contained less than 100 mg/kg. The surface samples collected from the grassy area contained lead at concentrations from 14 mg/kg to 4,900 mg/kg with concentrations less than 100 mg/kg below 0.5 ft bgs.

The results of the laboratory analysis indicated that the top 0.5 feet of soil at the site contained lead in concentrations above the cleanup level of 350 mg/kg and required removal. Asbestos was not detected in any of the soil samples submitted.

3. FIELD ACTIVITIES

Field activities for the removal action began on September 9, 2002 following the approved Work Plan (ERRG, 2002a) with mobilization and site preparation tasks. Project work included:

- Site preparation
- Establishing work zones
- Location of underground utilities
- Excavation
- Confirmation soil sampling
- Backfill and compaction
- Site grading and restoration
- Soil management
- Decontamination of equipment and trucks

The following sections describe each of the preceding tasks in further detail.

3.1. Site Preparation

Site preparation activities focused on establishing the work conditions necessary to execute the scope of work provided by DTSC (DTSC, 2002). This included documenting existing conditions, establishing field facilities, procuring materials, and securing the site fencing.

3.1.1. Documentation of Existing Conditions

The current property owners removed the vacant buildings at the site prior to any soil removal. Documentation of site conditions consisted of field logs and photographs taken by qualified personnel during the site inspection. Items noted were the locations of former building foundations, access to the excavation areas, availability of water for dust suppression, condition of the existing fencing, and condition of the site's paved areas. Staining was observed on the concrete foundations on the site, including around the previous hydraulic lift post, a former repair bay, and an area at the rear of the building (Appendix F: Photos 1 through 4). The concrete foundation was located away from the scheduled areas of excavation and was not removed during this remedial action.

3.1.2. Establishment of Field Facilities

Field facilities established included an equipment storage area, soil staging area, and on-site sanitation facilities for field personnel. Areas of the site were cleared of surface materials and designated for either equipment storage or soil staging. Work zones were established and demarcated with caution tape and barricades.

3.1.3. Equipment and Materials

Heavy equipment, tools, personal protective equipment, monitoring devices, sampling supplies, and other miscellaneous materials were procured and delivered to the job site prior to the commencement of excavation activities.

The machinery used for this project consisted of a backhoe, skip-loader, water buffalo, and sheep-foot compactor. Personal protective equipment (PPE) used during excavation activities consisted of steel-toed boots, hard hats, safety glasses, disposable Tyvek™ coveralls, gloves, and air purifying respirators with cartridges. After hazardous materials were removed from the site, personal protection requirements were reduced to steel-toed boots, hard hat, safety glasses, and gloves.

Air monitoring analytical data did not warrant an upgrade in PPE. All air sampling data results were below the laboratory detection limit for project site contaminants. Laboratory analytical results are presented in Appendix A. A particulate dust monitoring Mini-Ram™ was used to measure airborne dust and evaluate the potential inhalation exposure to constituents in dust. A personal air sampling pump was placed on the equipment operator during excavation activities to determine exposure to total dust and total lead. The air sample was collected using a filter attached to a personal air pump. Total dust results were below the acceptable level of 0.05 mg/m^3 and lead was not detected in the sample (Appendix A).

Trowels and glass containers were used for the collection of soil samples.

3.1.4. Site Security and Access Control

Repairs were made to a pre-existing six-foot high chain-link fence with lockable gates that had been previously installed around the perimeter of the site. The field facilities and the equipment storage and soil staging areas were secured from the general public inside the chain-link fence. Barricades and caution tape were placed around active excavation areas and contaminated material to delineate hazardous materials areas for the additional safety of workers and the general public. Fencing and barriers were inspected daily and repaired as needed.

Every 50-foot section of the site fencing was posted with signs stating "Caution Hazardous Substances Area, Unauthorized Persons Keep Out" and "No Trespassing" in English and Spanish.

3.2. Work Zones

Three main work zones were established for excavation activities (Figure 2): the support zone; the contaminant reduction zone; and the active work zone, which included the soil staging area. These zones confined different work elements to specific areas of the site and served to buffer the surrounding environment from potential chemical and physical hazards. The specific zones also delineated the perimeter air monitoring boundaries, regulated entry into the excavation and soil staging areas, and facilitated communication and emergency response between work activities and management support. The entry points to the work zones were monitored to prevent public access and also to ensure that all trucks and equipment had been properly decontaminated prior to exiting the active work zone. These zones were demarcated with caution tape and barricades, and occasionally adjusted to accommodate remediation activities.

A portable field support station was established in the contaminant reduction zone on a daily basis to stage support materials including an eye wash, first-aid supplies, heat stress beverages, etc. Entrance and egress to/from the decontamination zone was directed through one primary entry/exit point. The entry and exit point were modified to accommodate trucks and heavy equipment during loading and transport of contaminated soil from the site. The support zone contained provisions to accommodate personnel and vehicles, and included sanitation facilities.

3.3. Underground Utility Location

ERRG notified Utility Service Alert (USA) three days prior to excavation activities to have the respective utility owners mark their utility lines in public access areas. ERRG also contracted with a private utility locator service to identify and mark the utilities within the work area prior to the excavation effort. No utilities were detected within the limits of the excavations.

3.4. Excavation

Soil was removed using a backhoe and temporarily staged adjacent to the excavation until end-dump trucks arrived on site for transport and disposal. Dust was controlled during excavation activities utilizing a water buffalo to periodically wet down excavation areas and staged soil. The use of water for dust suppression was minimized to the extent practical in order to eliminate potential runoff or leaching of contaminants.

The following steps were employed at both areas:

- Excavation area boundaries were established per the Removal Action Workplan.
- Soil was excavated and confirmation samples collected.
- Analytical results were compared to clean up goals to determine if additional excavation was required.
- Backfill material was placed and compacted in continuous lifts.

- Compaction testing.
- Site was graded to initial elevation contours.

The volume of soil excavated for both areas was approximately 60 cubic yards.

A designated Competent Person, familiar with the soil types, excavation methods, and OSHA regulations, was on-site during excavation activities. Due to the shallow depths of the excavation areas, shoring was not required.

3.5. Confirmation Soil Sampling

Confirmation samples were collected approximately three inches below the surface of the excavation floor. A total of ten confirmation soil samples were collected from Area 1. For Area 2, two confirmation soil samples were collected. One duplicate sample was collected from each of the two areas for quality control. Confirmation samples were submitted to a California state-certified laboratory for analysis by EPA Method 6010c on a 24-hour turn-around-time. Confirmation soil sample locations are presented in Figure 3. Analytical results are discussed in Section 4.

3.6. Backfill and Compaction

The excavation areas were backfilled with Class II aggregate base. Backfill material was submitted to a certified laboratory under a previous DTSC project (*San Leandro Boulevard Source Area Removal Action Completion Report*, ERRG, 2002c) for the analytical methods listed below. The analytical data is provided in Appendix B.

- VOCs by EPA Method 8260
- PCBs /pesticides by EPA Method 8080
- Lead by EPA Method 6000/7000 series
- Total Petroleum Hydrocarbons (TPH) by modified EPA Method 8015
- Semi-volatile organic compounds (SVOCs) by EPA Method 8310

Analyses were also performed for the geotechnical test methods listed below. The analytical data is provided in Appendix C.

- Laboratory compaction characteristics (ASTM Method D1557).
- In-place soil density (ASTM Method D2922).
- In place water content (ASTM Method D3017).

The backfill material was stockpiled in a designated area of the site, away from the contaminated soil staging area. Approximately 40 cubic yards of material were initially staged for immediate

use in Areas 1 and 2. An additional 20 yards of backfill was imported to complete backfill operations of the excavation areas.

The backfill material was placed in the excavation in one continuous loose lift of 12 inches. ERRG personnel conducted two compaction tests in Area 1 and one in Area 2. Compaction results are provided in Appendix C. The backfill material was mechanically compacted with a sheeps foot compactor to a minimum of 90 percent of maximum dry density.

3.7. Site Grade and Restoration

The site was graded to match the previous grade. All equipment and materials were removed from the site, and the site was secured to prevent unauthorized public entry.

3.8. Soil Management

In-situ waste characterization soil samples collected in Area 1 and Area 2 during the May 2002 site investigation indicated that the excavated soil was classified as a California Class I waste (Non-Resource Conservation and Recovery Act [RCRA] Hazardous Waste Solid). Excavated soil was transported under a hazardous waste manifest to Chemical Waste Management, a Class I waste disposal facility, located in Kettleman Hills, California. Copies of the manifest are provided in Appendix D.

The soil was excavated and loaded into end-dump trucks for transport to the approved California disposal facility. All end-dump trailers were covered with tarps prior to departing the project site to prevent the release of wind-blown soil during transport to the disposal facility. DenBeste Transportation, Inc., a licensed hazardous waste transporter, provided waste transportation services.

3.9. Decontamination of Equipment and Trucks

Equipment and trucks involved in site excavation and removal activities were dry decontaminated at the Decontamination Area located near the egress gate prior to leaving the project site. The Decontamination Area was approximately 20 ft wide by 40 ft long to accommodate transport trucks. Soil removed from equipment and trucks was loaded into the last truck of the day and transported to the disposal facility. All heavy equipment and tools that contacted potentially contaminated material during the project (i.e., shovels, compaction tools, backhoe buckets, etc.) were cleaned between excavation areas and before leaving the site. Potential contaminants were removed by scraping and brushing the soil from the equipment.

4. ANALYTICAL RESULTS AND DATA QUALITY

This section presents the analytical results for confirmation samples collected from sample plots from Area 1 and Area 2 at the site, as well as the data quality for the samples collected.

4.1. Confirmation Sample Analytical Results

A single confirmation soil sample was collected at a depth of three inches below the excavation floor for each sample plot. Each confirmation sample represented a sample plot approximately 200 sq ft to 300 sq ft and to a depth of 6 inches to 12 inches. A total of ten confirmation soil samples were collected from Area 1 and two confirmation soil samples were collected from Area 2. One field duplicate was collected from each area for quality control. Confirmation samples were submitted to a California state-certified laboratory for analysis by EPA Method 6010 on a 24-hour turn-around-time. Laboratory analytical reports are presented in Appendix A. Data validation reports are presented in Appendix E.

For Area 1, two of the initial six confirmation samples located in the western portion of the excavation contained lead at concentrations above the action level. Additional soil was excavated from each representative plot and a confirmation sample collected (RTCS-11 and RTCS-12). The excavation procedure was repeated until confirmation samples resulted in detections below the action level. Analytical results for Area 1 are presented in Table 4-1 (Section: Tables).

Area 2 was excavated to a depth of 6 inches and two confirmation samples collected. The sample results were below the action level. Analytical results for Area 2 are presented in Table 4-2 (Section: Tables).

4.2. Data Quality

The data quality evaluation was based on several indicators including: precision, accuracy, representativeness, completeness, comparability, and sensitivity (PARCCS). Each component of sample collection and sample analysis contains a potential source of bias, which may adversely affect the overall accuracy and precision of the results. The indicators were developed based on EPA method guidelines and previous analytical and field experience. The indicators are described below, as well as the data validation and usability for the project.

4.2.1. Precision

Precision is a measure of the reproducibility of analyses under a given set of conditions and may be expressed quantitatively in terms of a relative percent difference (RPD). Precision was evaluated through the collection and analysis of field duplicate samples, which were collected at a minimum of one per ten samples. Field duplicate samples were collected from both excavations, homogenized in the field, and delivered as blind samples to the laboratory. The RPD for field duplicates was calculated and used as measure of precision. The results of the precision calculations are presented in Table 4-3.

Table 4-3
Relative Percent Difference for Field Duplicate Samples
Roberts Tire, Oakland, California

Sample	Duplicate	Analyte	RPD
RTCS-01	RTCS-02	Lead	21.1%
RTCS-09	RTCS-10	Lead	10.5%

RPD = relative percent difference

4.2.2. Accuracy

Accuracy is the nearness of a result, or the mean of a set of results, to the true value. Accuracy includes a combination of random error (precision) and systematic error (bias) components that result from sampling and analytical operations. Accuracy was assessed through the analysis of matrix spikes (MSs) and/or matrix spike duplicates (MSDs), laboratory control spikes (LCSs), internal standards, and surrogate standards. The results are expressed as a percent recovery.

4.2.3. Representativeness

Representativeness expresses the degree to which sample data accurately and precisely represents a characteristic of a population, parameter variations at a sampling point, or an environmental condition. Representativeness is a qualitative parameter that relates to the proper design of the sampling program. The representativeness criterion is best satisfied by making certain that sampling locations are selected properly and a sufficient number of samples are collected (USEPA, 1994). Appropriate sampling techniques and the rationale used to select sampling locations, as described in the QC/SAP of the Work Plan (ERRG, 2002a), generated representative data for this project.

4.2.4. Comparability

The comparability criterion is a qualitative characteristic that is an expression of the confidence with which two data sets can contribute to a common analysis and interpolation (USEPA, 1994). Comparability is concerned with whether the field sampling techniques, analytical procedures, and concentration units of one data set can be compared with another. Data comparability was

achieved by using standard sampling and handling procedures in the field and by using standard analytical methods and standard units of measurement, as specified by the methods in the laboratory.

4.2.5. Completeness

Completeness is defined as the percentage of valid data relative to the total number of tests conducted. Valid data is comprised of those data that meet all of the acceptance criteria. The completeness goal for this project for all quality control (QC) parameters, except holding times, was 90 percent. The project goal for holding times was 100 percent. Completeness was calculated by dividing the number of complete sample results by the total number of samples analyses listed in the sampling plan. The 90 percent goal was met for the samples collected and analyzed for this project. The project goal for holding times was also achieved.

Completeness of the quality assurance and quality control (QA/QC) program was evaluated qualitatively and quantitatively. The qualitative evaluation of completeness was determined as a function of all events contributing to the sampling event, including items such as correct handling of chains-of-custody, etc. The quantitative description of completeness is defined as the percentage of laboratory-controlled QC parameters that are acceptable. QC parameters that were assessed for completeness included surrogate and internal standard percent recoveries for organics analyses, analysis of laboratory and field replicates for RPD, analysis of MS/MSD analyses for percent recovery and RPD, analysis of LCS for percent recovery, holding times, and preservation. The requirement for the quantitative assessment of completeness was 90 percent. The 90 percent standard was applied to the entire list of parameters described above and was determined to be 95 percent. The requirement for holding times was guided by the analytical holding times specified by SW846 and other guidance documents specified in the Work Plan (ERRG, 2002a).

4.2.6. Sensitivity

Sensitivity is the capability of a method or instrument to discriminate between measurement responses representing different levels of a variable of interest (USEPA, 1994). Sensitivity goals are the laboratory reporting limits for the analytical method. Laboratory reporting limits for lead are 1.0 mg/kg. Precision and Accuracy limits are presented in Table 4-4 for MS/MSD and LCS RPD calculations.

Table 4-4
Laboratory Precision and Accuracy Goals
Roberts Tires, Oakland, California

Lead Sample Batch Number	LCS	LCSD	LCS/LCSD RPD	MS	MSD	MS/MSD RPD
11-02.15	92.3	95.0	2.9	94.0	90.9	2.2
12-04.15	96.3	98.9	2.7	712	969	20
16-05.15	99.4	96.7	2.8	N/A	N/A	N/A

LCS = laboratory control spike
LCSD = laboratory control spike duplicate
MS = matrix spike
RPD = relative percent difference
MSD = matrix spike duplicate
N/A = not analyzed

4.3. Data Precision and Usability

Quality control samples were collected in association with certified laboratory samples on a per matrix basis. The following QC samples were collected:

- Three equipment rinsate blanks
- One field duplicate for each excavation area
- One MS/MSDs

4.3.1. Rinsate Blanks

Three equipment rinsate blanks were collected and analyzed to monitor and document possible cross contamination caused during documentation of reusable sampling equipment and field equipment. The results of the equipment rinsate analyses indicated that decontamination procedures were effective and that cross-contamination did not occur.

4.3.2. Field Duplicate Samples

Field duplicate samples were collected and analyzed for lead. Overall sampling and analysis precision or the agreement between analyses of duplicate samples was shown through calculation of the RPD. RPD is calculated as the absolute value difference between two concentration results divided by their average and converted to a percentage. RPD is not calculable for duplicate samples that have either or both concentrations below the detection limit. The RPD values calculated from the field duplicate are presented in Table 4-3. Calculated RPDs for the duplicates were within a range of 10.5 to 21.1 percent. RPDs greater than 50 indicate a lack of homogeneity. These results suggest that the soil is homogeneous.

4.3.3. MS/MSD and LCS

The analysis for MS/MSD indicated that the analyte lead was outside of the MS/MSD percent recovery limits. The LCS/LCSD recoveries were within QC limits indicating that the laboratory

procedures were adequate. Matrix precision was outside method control limits for lead and the lead concentration is an estimate for sample RTCS-10.

4.3.4. Summary

All the data was validated and qualified by laboratory protocol (Appendix D). Overall, the laboratory data was of acceptable analytical quality. The data collected met quality control specifications and showed no deficiencies. None of the results were rejected, and all are usable as qualified data. All of the data generated during the project was of sufficient quality to support the project Data Quality Objectives (DQOs) presented in the Work Plan.

5. REFERENCES

California Environmental Protection Agency, Regional Water Quality Control Board – San Francisco Bay Basin (Region 2), *Water Quality Control Plan*, June 21, 1995.

California Environmental Protection Agency, Department of Toxic Substances Control, *Removal Action Workplan for Soil, Roberts Tires Facility, Oakland, California,* June 2002.

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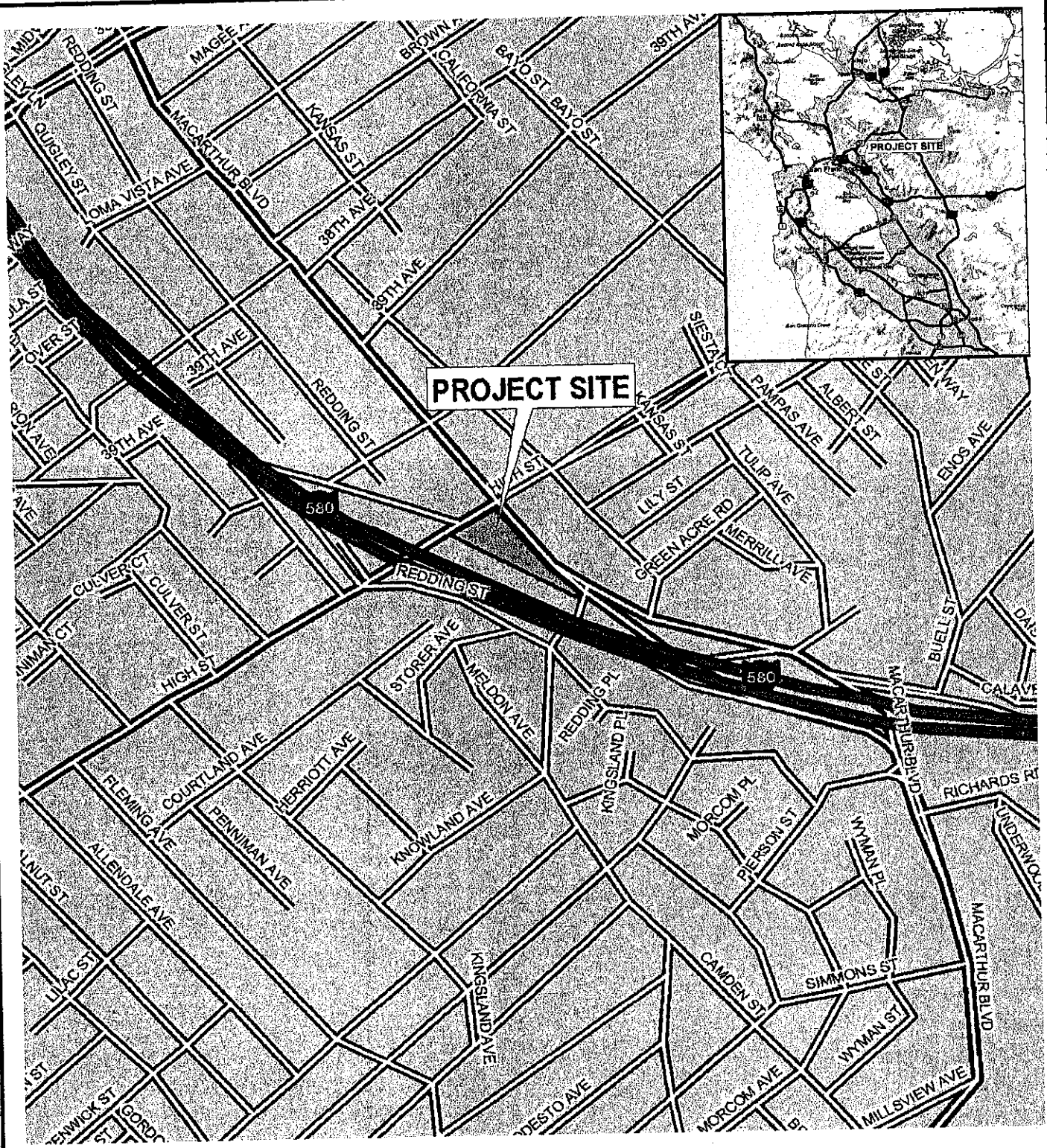
FIGURES



Engineering/Remediation Resources Group, Inc. 4070 Nelson Avenue, Suite B Concord, CA 94520 (925) 969-0750		SITE LOCATION MAP ROBERTS TIRES			
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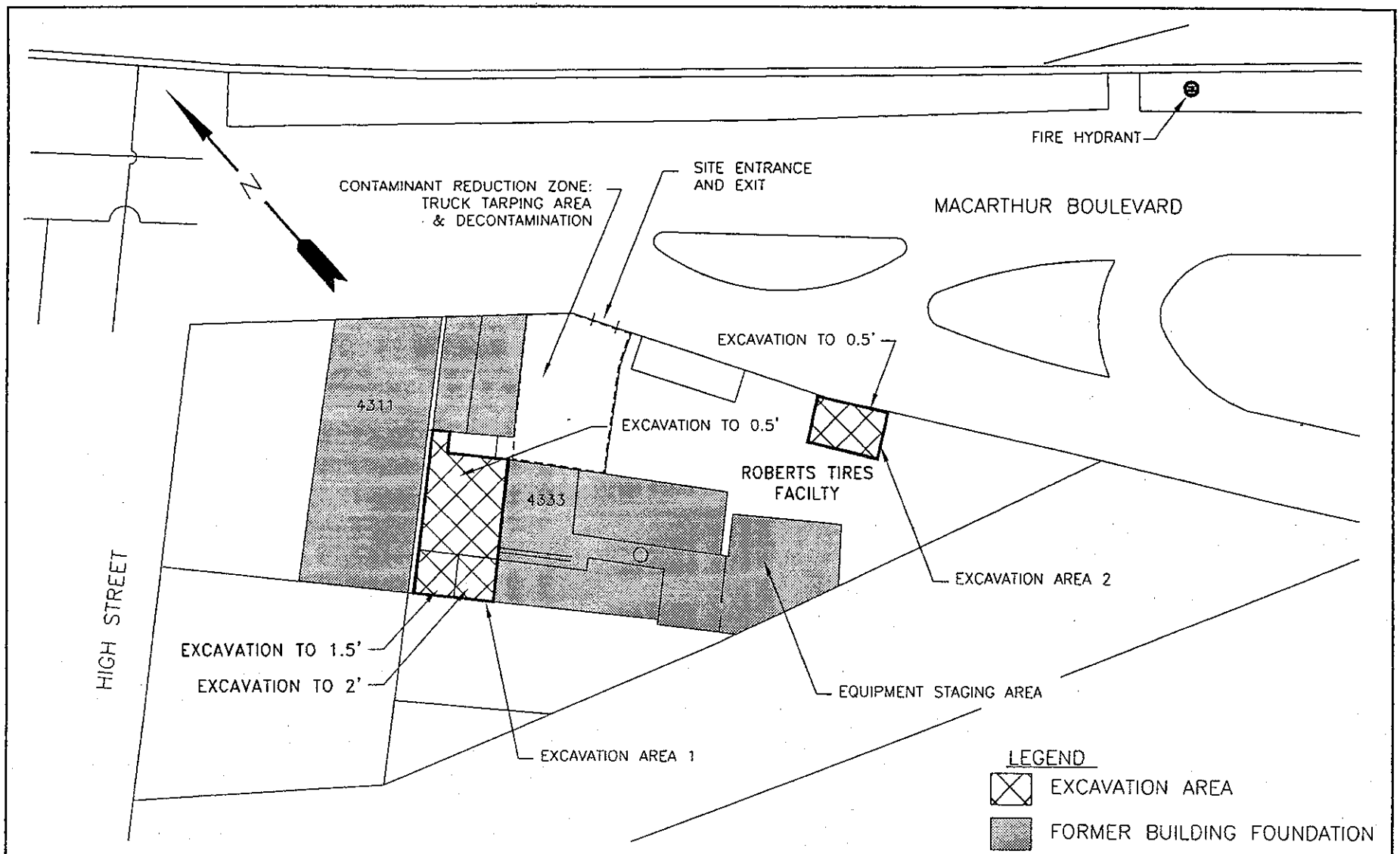

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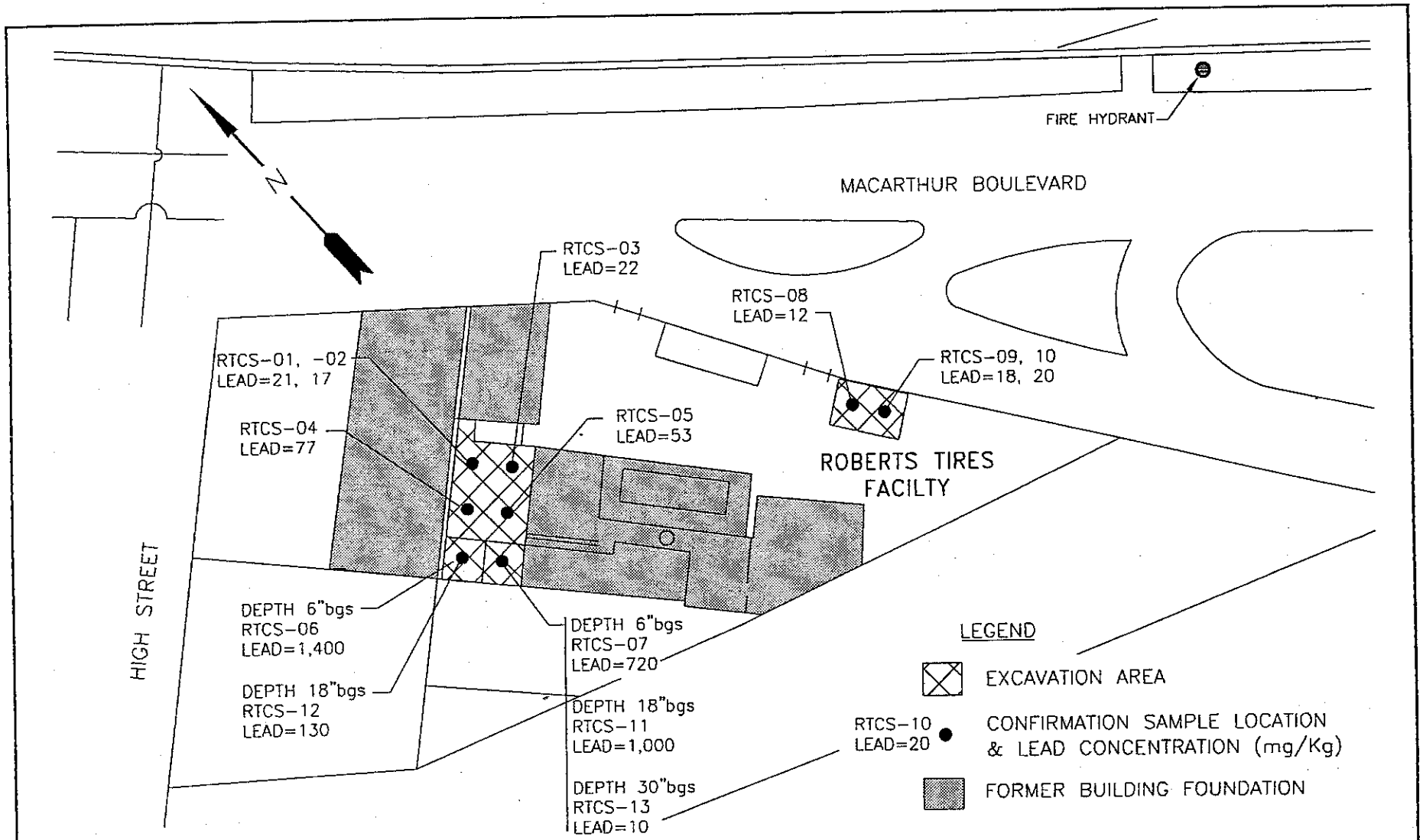

ERRG Engineering/Remediation Resources Group, Inc. 4070 Nelson Ave., Suite B Concord, California 94520 (925) 969-0750		SCALE: 0 100 FEET	CONFIRMATION SAMPLE LOCATIONS & LEAD CONCENTRATIONS	
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TABLES

Table 4-1
Area 1 Confirmation Sample Analytical Results
Roberts Tires, Oakland, California

Sample ID	Sample Date	Lead [2] (mg/kg)
Excavation to 6 inches below ground surface		
RTCS-01, -02[1]	9/10/02	21, 17
RTCS-03	9/10/02	22
RTCS-04	9/10/02	77
RTCS-05	9/10/02	53
RTCS-06	9/10/02	**1,400**
RTCS-07	9/10/02	**720**
Excavation to 18 inches below ground surface		
RTCS-11	9/12/02	**1,000**
RTCS-12	9/12/02	130
Excavation to 30 inches below ground surface		
RTCS-13	9/13/02	10
RTCS-14	9/13/02	4.9

mg/kg = milligrams per kilogram

Notes:

1. RTCS-02 is a field duplicate of RTCS-01.
2. Bold lead concentrations indicate exceedence of action level.

Table 4-2
Area 2 Confirmation Sample Analytical Results
Roberts Tires, Oakland, California

Sample ID	Sample Date	Lead (mg/kg)
Excavation to 6 inches below ground surface		
RTCS-08	9/10/02	12
RTCS-09, -10[1]	9/10/02	18, 20

mg/kg = milligrams per kilogram
Notes:
1. RTCS-10 is a field duplicate of RTCS-09.