SECOND FIVE YEAR REVIEW

SOL LYNN / INDUSTRIAL TRANSFORMERS SUPERFUND SITE

HOUSTON, HARRIS COUNTY, TEXAS

Prepared By:

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

November 2004

Region 6
1445 Ross Avenue
Dallas, Texas 75202-2733

TABLE OF CONTENTS
Second Five Year Review

LIST OF FIGURES

LIST OF ACRONYMS AND ABBREVIATIONS

ARAR	Applicable or Relevant and Appropriate Requirement
bgs	Below Ground Surface
CAA	Clean Air Act
CDI	Chronic Daily Intake (mg/kg-day)
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
ChemOx	Chemical Oxidation Treatment
cis-1,2-DCE	cis-1,2-dichloroethylene
cm/s	Centimeters per second
COC	Contaminants of Concern
CPT	Cone Penetrometer
CWA	Clean Water Act
DNAPL	Dense Non Aqueous Phase Liquids
DO	Dissolved Oxygen
DOT	Department of Transportation
EPA	Environmental Protection Agency
EPC	Exposure Point Concentration
ft	Feet
ft/day	Feet per Day
HAP	Hazardous Air Pollutant under the Clean Air Act
HI	Hazard Index
HQ	Hazard Quotient
IC	Institutional Controls
IRIS	Integrated Risk Information System
ISB	In-Situ Bioremediation
Kd	Soil and Ground Water Distribution Coefficient
MCL	Maximum Contaminant Level
MCLG	Maximum Contaminant Level Goal
mg/kg	Milligrams per Kilogram
mg/kg-day	Milligrams per Kilogram per Day
mg/L	Milligrams per Liter
MNA	Monitored Natural Attenuation
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NIOSH	National Institute for Occupational Safety and Health
NPDES	National Pollutant Discharge Elimination System
NPL	National Priorities List
NSPS	New Source Performance Standards
O&M	Operation and Maintenance
OSHA	Occupational Safety and Health Administration
OU2	Operable Unit 2 of the Sol Lynn Superfund Site
PCB	Polychlorinated Biphenyl
PCE	Tetrachloroethylene
ppbV	Parts per Billion by Volume

PMZ	Plume Management Zone
ppm	Parts per Million
PRB	Permeable Reactive Barrier
PRP	Potentially Responsible Parties
RAGS	Risk Assessment Guidance for Superfund
RAO	Remedial Action Objective
RCRA	Resource Conservation and Recovery Act
RfD	Reference Dose
RI/FS	Remedial Investigation/Feasibility Study
ROD	Record of Decision
SARA	Superfund Amendments and Reauthorization Act
SEAR	Surfactant Enhanced Aquifer Remediation
SF	Slope Factor
TCAA	Texas Clean Air Act
TCE	Trichloroethylene
TCEQ	Texas Commission on Environmental Quality
TI	Technical Impracticability
TPDES	Texas Pollutant Discharge Elimination System
TRRP	Texas Risk Reduction Program
TSCA	Toxic Substances Control Act
TSD	Hazardous Waste Treatment, Storage, or Disposal
TXDOT	Texas Department of Transportation
TWC	Texas Water Commission
μg/L	Micrograms per Liter
$\mu g/m^3$	Micrograms per Cubic Meter
VC	Vinyl Chloride
WBZ	Water Bearing Zone
WWTP	Waste Water Treatment Plant

Executive Summary

The Sol Lynn/Industrial Transformer Site (Site) is the location of a former electrical transformer salvage and recycling company which operated between 1965 and 1975. A chemical recycling and supply company subsequently operated at the same location from1979 through 1980. The Site was placed on the National Priorities List (NPL) effective May 1, 1989. The operable unit 1 (OU1) Record of Decision (ROD) for contaminated soils was issued on March 25, 1988, and was subsequently amended on September 16, 1992. The remedy for OU1 was completed in 1993. The OU2 ROD was issued on September 23, 1988.

The First Five Year Review for the site was approved November 23, 1999. The Review found that the ground water remedy might not be protective of public health and the environment. EPA staff were directed to initiate and undertake a supplemental remedial investigation and feasibility study (RI/FS) to determine whether additional remedial action should be implemented. Remediation was continued during the interim period, while studies were ongoing. However, the pump and treat system was shut down in early 2000 to allow the installation of additional monitoring wells, and it remains shut down today.

On September 30, 2004, Region 6 issued an amended ROD for OU2. The ROD calls for In-Situ Bioremediation (ISB) for contaminant mass reduction in the source areas to remediate residual DNAPL, the principal threat waste at the Site. The ROD also would utilize Monitored Natural Attenuation (MNA) to treat and mitigate the dissolved contaminant plumes in ground water downgradient from the source areas Finally, Institutional Controls (IC) will be used to prevent exposure to the contaminated ground water at the Site for as long as contaminants remain at levels above the drinking water standards, and also to prevent residential land use over areas of ground water contamination until appropriate measures are implemented to remediate the risk from vapor intrusion.

In accordance with the statutory determinations, the selected remedy in the September 2004 amended ROD will be protective of human health and the environment when implemented. The selected remedy will also comply with the Federal and State requirements that are applicable or relevant and appropriate to the remedial action, and will be cost effective. The originally implemented ground water remedy, selected in the 1988 ROD, was not protective of human health and the environment.

Five Year reviews will continue to be conducted as required by the National Contingency Plan to determine if contaminants that remain are causing unacceptable risk to human health or the environment.

Five-Year Review Summary Form

SITE IDENTIFICATION

Site Name : Sol Lynn/Industrial Transformers
EPA - ID: TXD980873327
Region 6; State: Texas; City: Houston; County: Harris

SITE STATUS

NPL Status:(OU1) Soils Source: Final;
Remediation Status:(OU2) Ground Water-Active RD/Pending RA
Multiple use- Yes; (Soils: Completed) (GW - Pending), Construction Completion Date: N.A.
Has Site been put to use: Yes! Businesses on site- Restricted areas by IC's

REVIEW STATUS

Lead Agency: EPA
Author Name: Ernest R. Franke, PE, PLS
Author title: Remedial Project Manager (RPM/WAM) Affiliation: EPA- Superfund Branch
Review Period: 11/29/1999 to 11/29/2004
Dates of Site Inspection:(N.A.) - Proposed Plan Public meeting- presented April 15, 2004
Type of Review: Statutory Review: Post-Sara
Review Number: 2 (Second)
Triggering action: Previous Five -Year Review Report
Triggering action date: 11/29/1999
Due Date: 11/29/2004

Issues:

Question A - Is the remedy functioning as intended by the decision document? No. The 1988 remedy was not protective of human health and the environment and has been amended consistent with actions identified in the First Five - Year Review.

Question B - Are the assumptions used at the time of remedy selection still valid? Yes. This ROD Amendment maintains and addresses Remedial Action Objectives (RAOs) from the 1988 ROD. However, the Amended ROD adopts different remedial technologies for accomplishment of RAOs, due to the presence of residual DNAPL and the failure of the pump and treat system to mitigate the Site.

Question C - Has any other information come to light that could call into question the protectiveness of the remedy? Yes. The area of ground water contamination is significantly larger than defined in the 1988 remedial investigation. Therefore, the original implemented remedy was unable to address the plume adequately.

Recommendations and Follow-up Actions:

In-situ bioremediation (ISB) is the amended remedy that increases the degradation of contaminants by the metabolic reactions of microorganisms. This process is being used in the source area of the Site because of restricted physical access limitation in the IH-610 and IH-610 feeder road areas. Monitored Natural Attenuation (MNA) will be implemented for the larger and

less contaminated level areas identified as the dissolved plumes in the ground water down gradient of the source areas. The long term effectiveness and permanence of ISB as stated in the ROD amendment is promising, and its implementation is important for remediation success of MNA in the dissolve plume areas. The Amended ROD determined that ICs are being and will be used as necessary to prevent exposure to the contaminated ground water at the Site for as long as contaminants remain at levels above the MCLs and to prevent residential land use over areas of ground water contamination until appropriate measures are implemented to remediate the risk from vapor intrusion.

EPA will closely monitor and review the remedy's effectiveness and performance and will take appropriate further action for the Site, if warranted. In such an event, modifications of existing equipment may be required for nutrient addition and preparation of microorganism amendments.

SECOND FIVE- YEAR REVIEW
SOL LYNN/ INDUSTRIAL TRANSFORMERS SUPERFUND SITE
Houston, Texas

I. INTRODUCTION

The U.S. Environmental Protection Agency (EPA) Region 6 conducted this Five-Year Review pursuant to Section 121(c) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 U.S.C. § 9621(c) and Section 300.430(f)(4)(ii) of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), 40 CFR 300.430(f)(4)(ii). EPA Region 6 followed EPA Office of Solid Waste and Emergency Response (OSWER) Directive No. 9355.7-03B-P, June 2001, as guidance in preparation of this document. The purpose of this Five - Year Review (review) is to ensure that the remedial action for the ground water operable unit at the Sol Lynn/Industrial Transformers Superfund Site, Houston, Texas (the Site), remains protective of human health and the environment. The review was conducted by EPA Remedial Project Managers Ernest Franke and Gary G. Miller, assisted by personnel of EPA contractor Tetra Tech Environmental Management, Inc. (TTEMI), and others, as discussed below. This is a second review for the Site, and it was initiated concurrently with the Supplemental Remedial Investigation/Feasibility Study (RI/FS) and Record of Decision (ROD) process and completed in November 2004. This review document will become a part of the Site file. This is a statutory review applicable to a site at which the response is ongoing. The first operable unit of Site remediation involved excavation and clean closure of soil contamination by polychlorinated biphenyls (PCBs). That action was completed in April 1993 and is not subject to further review.

II. SITE CHRONOLOGY

The Site is the location of a former electrical transformer salvage and recycling company which operated between 1965 and 1975. A chemical recycling and supply company subsequently operated at the same location from1979 through 1980. Previous Site activities, investigations, and Superfund enforcement activities include the following:

- ***September 21, 1971***: The first documented investigation of the Site, done by the City of Houston Water Pollution Control Division, reported that workers at the Site poured oil out of electrical transformers as they were being dismantled. Oil and grease were seen on the soil and floating on ponded water on the property as well as in the ditches.

- ***September 11, 1972***: The State of Texas brought suit against Sol Lynn, Site owner and operator, on charges of illegally discharging industrial waste into Braes Bayou.

- ***January 13, 1980***: An inspection by the Texas Water Commission (TWC), predecessor to the Texas Commission on Environmental Quality (TCEQ), discovered old drums stored behind Sila-King, Inc., a chemical company operating at the Site. An oily discharge was found from a drum storage area behind the warehouses.

- ***September 14, 1981***: A Site inspection by TWC and the City of Houston Department of Health identified approximately 75 drums scattered on the Site. Most of the drums were labeled "trichloroethene" and were empty and punctured.

- ***1981 - 1986***: During this period 24 sampling events were completed by either the TWC, the City of Houston, the EPA, or Mr. Lynn. TCE was detected in 13 of 21 ground water samples with a maximum value of 953 ppm.

- ***October 15, 1984***: The Site was proposed for inclusion on the second update of the National Priorities List (NPL). The Site was placed on the NPL effective May 1, 1989.

- ***March 25, 1988***: The EPA issued the OU1 ROD for contaminated soil. The selected remedy for OU1 was excavation of the PCB contaminated soils and treatment with a chemical dechlorination process. The soil remedy was changed with an Amended ROD on September 16, 1992, calling for off-site disposal at a Toxic Substances Control Act (TSCA) landfill. The soil remedy for OU1 was completed in 1993 and resulted in the removal of approximately 2,281 cubic yards of soil.

- ***July 21, 1988***: The remedial investigation (RI) report for OU2 (ground water) was issued, identifying two water bearing zones (WBZ), which were named the uppermost WBZ and the intermediate WBZ. Based on 38 ground water samples, a maximum TCE concentration of 790 ppm was found in the uppermost WBZ, while the maximum TCE concentration in the intermediate WBZ was 26 ppm.

- ***September 23, 1988***: The EPA issued a ROD for OU2. The remedy selected by EPA included extraction of ground water exceeding the MCL for TCE, and treatment through an air stripper followed by liquid phase and vapor phase activated carbon units. Disposal of treated water was to be either in a sanitary sewer or by re-injection into the water bearing zone. The ROD estimated that the ground water plume contained 12 million gallons of TCE contaminated ground water.

- ***October 8, 1993***: Ground water remediation commenced with pumping from both the uppermost and intermediate WBZs. Treated water was discharged on-site.

- ***October 12, 1994:*** The ground water system was modified to pump from a third WBZ in between the uppermost and intermediate WBZs. Re-injection of treated water began into shallow aquifer recharge wells. Treated water not re-injected was discharged to a storm sewer. In October 1996, the system was shut down due to various leaks.

- ***March 1998:*** Investigations were conducted to further define the contaminated plume north of IH-610. This investigation identified a fourth aquifer, referred to as the 60-foot aquifer, located north of I-610. After system overhaul and additions, pumping resumed in December 1998.

- ***November 23, 1999***: EPA Region 6 approved the first Site Five Year Review, finding the ground water remedy might not be protective of public health and the environment. EPA staff were directed to initiate and undertake a Supplemental RI/FS to determine whether additional remedial action should be implemented. Remediation was continued during the interim period, while studies were ongoing. However, the pump and treat system was shut down again in early 2000, and it remains shut down today.

- ***2000***: In 2000, an evaluation of the ground water remediation system performance found that TCE concentrations decreased in most wells, but increased in some wells. The 2000 report concluded that the long term remediation goals would not be achieved with the existing pump and treat system.

- ***December 23, 2002***: The supplemental RI report for OU2 was issued, following field activities that were completed in Spring 2002. A total of 98 new monitoring wells were installed and CPT samples were collected at 39 locations. Nine water bearing zones were identified at the Site to a depth of about 200 feet below ground surface (bgs), and over 400 ground water samples were collected from these zones. The maximum TCE concentration was 333 mg/L. This investigation discovered degradation products of TCE, including cis-1,2-dichloroethene (cis-1,2-DCE) and vinyl chloride (VC). Their maximum concentrations measured were 401 mg/L and 14.2 mg/L, respectively. TCE is expected to be present as residual DNAPL, because the measured concentrations exceed 1 percent of their solubilities in water. Some TCE samples approached 50 percent of their solubility. However, DNAPL was not directly observed at the Site.

- ***October 17, 2003***: The supplemental Feasibility Study (FS) report for OU2 was issued. The FS includes a detailed analysis of Potential ARARs of Federal/State environmental or facility siting laws and regulations, as well as identification, screening, and evaluation of applicable remedial technologies. The FS developed and analyzed seven remedial alternatives for the Site, including the "no action" alternative. Those alternatives are described in some detail in the Proposed Plan, as well as in this Amended ROD.

- ***April 8, 2004:*** EPA released its Amended Proposed Plan for remedial action at the Site. The plan calls for In-Situ Bioremediation (ISB) for contaminant mass reduction in the source areas to remediate residual DNAPL, the principal threat waste at the Site. The plan also would utilize Monitored Natural Attenuation (MNA) to treat and mitigate the dissolved contaminant plumes in ground water downgradient from the source areas Finally, Institutional Controls (IC) will be used to prevent exposure to the contaminated ground water at the Site for as long as contaminants remain at levels above the drinking water standards, and also to prevent residential land use over areas of ground water contamination until appropriate measures are implemented to remediate the risk from vapor intrusion.

- ***September 30, 2004:*** EPA issues its Amended ROD for OU2, selecting the proposed remedy for the Site of ISB, MNA, and ICs, as set forth in the discussion above.

- ***CERCLA Enforcement Activities***: The EPA entered into a Consent Decree, effective March 8, 1990, with Gulf States Utilities to clean up the PCB contaminated soils at the Site (OU1). *United States v. Gulf States Utilities Company*, C.A. No. H-89-2584 (S.D.Tex.)(hereinafter *Gulf States*). Because of subsequent changes in the soil remedy from on-site treatment to off-site disposal, a second amended Consent Decree was signed and became effective on January 12, 1993, which called for off-site disposal and clean closure. The EPA determined that there are no remaining Potentially Responsible Parties (PRPs) for cleanup of the ground water at the Site.

III. BACKGROUND - SITE CHARACTERISTICS

The Site is located within the city limits of Houston, Texas. The Site surface area is located just south of Interstate Highway (IH)-610 and west of State Highway Number 288. The Site surface area encompasses approximately three quarters of an acre. The Site is bounded on the north by South Loop Feeder Street of IH-610 West by Knight Street, on the south by Mansard Street, and on the east by South David Street. See attached Figure # 1 for the Site location.

The EPA Site identification Number is TXD980873327. The lead agency for the Site is the EPA, and the support agency is the Texas Commission on Environmental Quality (TCEQ). The EPA proposed the Site to the National Priorities List (NPL) under CERCLA on October 15, 1984. 49 Fed. Reg. 40320, 40330 (Oct. 15, 1984). The Site was finalized on the NPL on March 31, 1989. 54 Fed. Reg. 13296, 13301 (Mar. 31, 1989).

The initial Site RI was conducted in 1987 and 1988, comprised of a "Sol Lynn" Phase I soils or source control investigation, and an "Industrial Transformers Site," or "ITS" Phase II ground water investigation. The initial FS for both soil and groundwater contamination at this Site was completed in 1988. The results of the investigation identified the presence of PCBs in the soils and TCE in the aquifer at approximately 30 - 40 feet below the ground surface, now referred to as "the 40-foot aquifer," and in the intermediate aquifer (approximately 80 - 90 feet below the ground surface, referred to as "the 80-foot aquifer").

The September 1988 ROD for ground water found that the shallow water bearing zones at the Site have the potential to be used as drinking water sources and are classified as Class IIB aquifers (potential drinking water) in the EPA ground water classification system under the Safe Drinking Water Act (SDWA), 42 U.S.C. §300f *et seq.*, which is a CERCLA ARAR. A search for residential, industrial, and agricultural water wells within a 1-mile radius of the Site found three drinking water wells in the vicinity of the Site. The first former private well is located immediately north of the Site WWTP. The first well was used as a source of restroom water for a small commercial business. The well was disconnected in July 2002, and it was replaced with a water line connected to the City of Houston water system. This well was plugged and abandoned in 2003. The ground water from this well historically had concentrations exceeding

the Maximum Contaminant Level (MCL) for TCE, which is 0.005 mg/L. A second, private water well is located about 900 feet north of the Site. The owner stated that the well had not been in service during the 15 years he has lived at the residence. The third private water well is located about 660 feet east of the Site. The well is currently active and provides potable water for the small commercial business operating at the same location.

Since the last review, the Site has been further characterized by a Supplemental RI/FS, an Amended Proposed Plan, and an Amended ROD, which identified contaminated ground water plumes in four aquifer zones beneath and adjacent to the surface area of the Site, the south and north frontage roads and main lanes of IH-610. These newly characterized contaminated plumes encompass an area in excess of 15.0 acres. The attached illustration in Figure #3 reflects the horizontal surface area of these individual characterized aquifers.

BACKGROUND - LAND USE

The City of Houston does not use zoning ordinances, and therefore the Site is not zoned for any particular type of usage. The one-mile Site radius encompasses an area which is a mix of residential, commercial, and light industrial. A light industrial and commercial business area is located directly to the east and south of the Site. Six Flags Astroworld, the Astrodome, and Reliant Stadium are located approximately 4,000 feet to the northwest. Finally, a mix of private, single, and multi-family dwellings are approximately 3,000 feet to the west. The residential population is about 2,000, and there are recreational activities associated with the stadium and amusement complex. Maximum daily traffic in excess of 100,000 vehicles per day is estimated to move within a one-mile radius due to major daily highway traffic on IH-610.

IV. REMEDIAL ACTIONS - REMEDY SELECTION

A ROD for OU1 was issued on March 25, 1988, for the Sol Lynn source, requiring about 2,400 2400 cubic yards of PCB contaminated soil to be chemically de-chlorinated with a soil washing pre-treatment technology. The OU2 ROD was signed on September 23, 1988, for ground water, specifying that a pump-and-treat remediation system be installed and that the groundwater be treated using air stripping in combination with liquid phase carbon absorption. The objectives of these RODs were to remove the contaminated soils source, and to remediate the contaminated ground water to a level of no more than 5 ppb of TCE within 10 years.

SOIL (SOURCE CONTROL): OPERABLE UNIT 1 ("OU1")

The Sol Lynn soil remedy was carried out with EPA oversight by Gulf States Utilities Company (GSU), now Entergy Services, Inc. (Entergy), under a consent decree, which was modified twice to reflect changes in the soil remedy. The original consent decree in the *Gulf States* case was entered by the Court between EPA and GSU on January 8, 1990, in the United States District Court for the Southern District of Texas. It was modified first on May 15, 1991, following a determination by EPA to permit the defendant to implement the polyethylene glycolate complex

(APEG™) chemical de-chlorination process, a proprietary trademark of GRC Environmental, Inc. Following problems with application of the technology during the treatment by GSU of some 140 tons of contaminated soil, EPA issued an amended ROD on September 16, 1992, determining a soil remedy of excavation and removal of the remaining PCB contaminated soils above 25 ppm to an off-site approved Toxic Substances Control Act (TSCA) landfill. On January 12, 1993, the consent decree with GSU was amended a second time to provide for GSU implementation of the amended remedy. *See* 57 Fed. Reg. 55570, Nov. 25, 1992, for the consent decree lodging notice. The soil remedial action was completed in April 1993.

GROUND WATER: OPERABLE UNIT 2 ("OU2")

The EPA issued its ROD for OU2 (ground water) on September 23, 1988. The remedy selected by EPA Region 6 included extraction of ground water exceeding the MCL for TCE, followed by treatment through an air stripper and then liquid phase and vapor phase activated carbon units. Disposal of treated water was to be either in a sanitary sewer or by re-injection into the water bearing zone. The ROD estimated that the ground water plume contained 12 million gallons of TCE contaminated ground water. The RI report for OU2 had identified only two water bearing zones, which were named the uppermost WBZ and the intermediate WBZ. Based on about 38 ground water samples, EPA had determined a maximum TCE concentration of 790 ppm in the uppermost WBZ, while the maximum TCE concentration in the intermediate WBZ was 26 ppm.

REMEDY IMPLEMENTATION

In connection with the ground water contamination problem, in 1990 an environmental firm contracted by First Gibraltar Bank conducted an environmental assessment of a small tract of property located next to the Site. The result of the investigation indicated high concentrations of TCE in the Silty Zone (approximately 20 - 30 feet below the ground surface, referred to as "the 20-foot aquifer"). In 1992, the 20-foot aquifer investigation was conducted. TCE was detected in the ground water from the 20-foot aquifer up to 1,100,000 ppb which was considerably higher than the 790,000 ppb maximum concentration stated on page seven of the ROD. The 20-foot and 40-foot aquifers were also found to be interconnected. These high dissolved concentrations suggest that residual TCE still exists in the aquifer material.

The ground water treatment system designed for the 40 and 80 foot aquifers was modified to include the pumping and treatment of ground water from the 20-foot aquifer. On October 27, 1992, the EPA issued an Explanation of Significant Difference (ESD) to the ROD, changing the volume of ground water required to be treated. On April 8, 1996, the TCEQ contracted with Radian Corp. to perform its Treatment Phase activities for one year, evaluating alternative technologies to accelerate Site ground water remediation, and conduct a system modification evaluation for the off-site migration of the shallow aquifer plume. This evaluation resulted in detection of additional water bearing aquifers or zones and expanded areas of contamination. The ground water treatment system was shut down in October 1996 after various leaks were detected in the extraction system. To prevent further leaks, all existing extraction

pipes, all valves, fittings, manholes, and controls were redesigned and installed. The pump and treat system resumed operation in December 1998.

REMEDY AMENDMENT

The September 1988 ROD provided for restoration of ground water for drinking water use using a pump and treat remedy. Following its finding of the failure of the 1988 ground water remedy and its consequent directives in the 1999 First Five Year Review, EPA then implemented a Supplemental RI/FS; and on September 30, 2004, EPA issued an Amended ROD for ground water. This ROD Amendment maintains Remedial Action Objectives (RAOs) from the 1988 ROD. However, the Amended ROD adopts different remedial technologies for accomplishment of RAOs, due to the presence of residual DNAPL and the failure of the pump and treat system to mitigate the Site. RAOs identify site-specific contaminants, media of concern, potential exposure pathways, and remediation goals. The remediation goals are derived from either risk assessment findings or previously established concentration limits that protect human health and the environment and comply with ARARs. The RAOs for ground water at the Site were developed based on sampling data, the risk assessment, fate and transport modeling, and a review of the ARARs. The RAOs for the ground water OU2 are:

(A) Restore the water bearing zone aquifers, the source and plume areas, to drinking water standards for COCs within a reasonable time frame.

(B) Prevent or minimize future migration of ground water contamination.

(C) Reduce or eliminate further contamination of ground water from the source area.

(D) Prevent use of ground water as drinking water for as long as contaminant concentrations remain above drinking water levels.

(E) Mitigate risk from subsurface vapor intrusion from ground water to indoor air.

(F) Prevent residential exposure to indoor air above risk-based levels.

The September 1988 ROD only provided a performance standard for TCE. However, as noted, in addition to TCE, the supplemental RI found significant levels of cis-1,2-DCE and VC, which are degradation products of TCE and which exceeded the acceptable risk ranges. Therefore, the ROD Amendment provides for adding performance standards to include cleanup levels for cis-1,2-DCE and VC in ground water, while retaining the September 1988 ROD's standard for TCE. The performance values for both the source and desolved plume areas will be the MCLs, which are ARARs and which are as follows: TCE - 5 μg/L; cis-1,2-DCE - 70 μg/L; and VC - 2 μg/L.

The Amended ROD for ground water includes ISB for the source area, MNA for the dissolved phase ground water plumes, and ICs in both the source and plume areas, as noted in Section II.

V. PROGRESS SINCE LAST REVIEW

During a February 18, 1999, meeting and subsequent discussions, the Texas Natural Resource Conservation Commission, or TNRCC (now TCEQ) and the EPA tentatively agreed to the following project strategies:

- Installation of additional extraction and monitoring wells as necessary to characterize the Site's existing vertical and horizontal limits of contamination.

- Acknowledging that the1988 OU2 ground water remedy addressed the location, but not the deeper contaminated aquifer or the expanded water bearing zone of the plume areas, the EPA would consider preparation of an Explanation of Significant Differences (ESD) or ROD Amendment, which would contain a revised remedial action plan agreed to by TNRCC and EPA.

- EPA and TCEQ agreed to develop a revised Remedial Action Plan and issue a ROD Amendment or ESD as appropriate.

PROTECTIVENESS STATEMENT FROM LAST REVIEW

On November 23, 1999, the EPA Region 6 Superfund Division Director approved the first Five Year Review for the Site, finding that the soils remedy remains protective of public health and the environment. However, the Director found that the OU2 ground water remedy might not be protective; he ordered EPA staff to initiate and undertake a Supplemental RI/FS and evaluate potential remedial alternatives for addressing the Site. The Director further ordered that the remediation be continued during the interim period, while studies were ongoing. However, the ground water pump and treat system continued operating until early 2000, when it was shut down to install additional Site monitoring wells and conduct the well sampling. The RI/FS was conducted in 2002 and 2003, and an Amended ROD was signed on September 30, 2004. The Site Remedial Design phase for the amended remedy has now commenced.

VI. FIVE YEAR REVIEW PROCESS

DOCUMENT PREPARATION AND REVIEW

Because of the exhaustive amount of Site investigation and review of remedial alternatives that were involved in the development of the RI, the FS, and the ROD, a separate Five -Year Review process was not followed. Rather, the Five -Year Review was incorporated as an integral part of the remedy development process, following the findings and directives of the 1999 Five - Year Review. The preparation of this Second Five -Year Review Report immediately followed the September 30, 2004, ROD, and proceeded concurrently with early remedial design activities.

The Supplemental RI/FS Report and the Amended Proposed Plan for the Site were made available to the public in April 2004. The selected ROD Amended remedy for ground water is in-situ bioremediation (ISB) for the source area, and monitored natural attenuation (MNA) for the dissolved phase ground water plumes, with ICs in place to protect the public from exposure to contaminated ground water while the remedy is in the operation and maintenance phase.

Site documents can be found in the Administrative Record file and the information repositories maintained at the Houston Central Library at 500 McKinney St. in Houston, Texas, at the EPA Region 6 Library at 1445 Ross Ave, Dallas, Texas, and the TCEQ Records Management Center located at 12100 Park 35 Circle, Austin, Texas. A notice informing the public of the Amended Proposed Plan, documentation of the remedy alternative analysis, the public comment period, and the date and location for a public meeting was published in the Houston Chronicle on April 7, 2004. A Spanish version of the notice was published in a Spanish language newspaper, *El Dia*, on April 8, 2004. In addition, a fact sheet regarding the public meeting and proposed remedy was mailed to 40 members of the community on April 12, 2004. The public meeting was held at the Radisson Hotel Astrodome in Houston, Texas, on April 15, 2004, regarding the Proposed Plan. The public meeting was attended by one community member, and one comment was received during the public comment period.

IDENTIFICATION OF FIVE-YEAR REVIEW AND REMEDY TEAM MEMBERS

Because the principle activities since the last Five - Year review are included the numerous monitoring well installations, sampling, analysis, a supplemental RI/FS Report, an Amended Proposed Plan, a public meeting and a ROD amendment with a new Site remedy, the remedy team and five-year review team are identified together. Three EPA Laboratories were involved in these activities. Design oversight and reviews were conducted by the Ada Laboratory staff, Site plume modeling was conducted by EPA Las Vegas Laboratory and staff with joint activities with USGS staff, and Site samples were analyzed and reported by the EPA Houston Laboratory. The EPA Contractor, TTEMI completed the RI/FS, and is scheduled to perform the RD activities. Site RPMs Ernest Franke and Gary G. Miller directed and coordinated this activity and were involved in document preparation and development as well. The Second Five - Year Review Report was reviewed by EPA counsel James L. Turner.

VII. TECHNICAL ASSESSMENT

REMEDY WAS NOT FUNCTIONING PER INTENT OF THE 1988 OU2 ROD

In 2000, an evaluation of the ground water remediation system performance found that TCE concentrations decreased over time in most wells, but increased in some wells. The 2000 report concluded that the long term remediation goals would not be achieved with the existing pump and treat system. Ground water remediation had resulted in the pumping and treatment of approximately 15.5 million gallons of contaminated ground water, which was larger, by 29 %, than the volume of contaminated ground water estimated in the initial ROD for OU2.

Approximately 15 percent of the treated ground water was re-injected into the shallow and intermediate aquifers with the goal of flushing contaminants from these zones. The remaining treated water was discharged to a storm sewer. Following this study, the remediation system was shut down in order to facilitate the necessary work for the RI/FS and remedy development.

SUPPLEMENTAL SITE INVESTIGATION

The RI/FS field activities began October 30, 2000, and all field well installations and sampling activities were completed by May 18, 2002. The supplemental RI report for OU2 was issued on December 23, 2002. A total of 98 new monitoring wells were installed and CPT samples were collected at 39 locations. Nine water bearing zones were identified at the Site to a depth of about 200 feet below ground surface (bgs), and over 400 ground water samples were collected from these zones. The maximum TCE concentration measured during this investigation was 333 milligrams per liter (mg/L). In addition, this investigation discovered the degradation products of TCE, including cis-1,2-dichloroethene (cis-1,2-DCE) and vinyl chloride (VC). The maximum cis-1,2-DCE and VC concentrations measured were 401 mg/L and 14.2 mg/L, respectively. TCE is expected to be present as a residual dense non-aqueous phase liquid (DNAPL) because the measured concentrations exceed 1 percent of its solubility in water. In fact, some TCE samples approached 50 percent of their solubility. However, DNAPL was not directly observed at the Site.

The supplemental FS report for OU2 was issued by TTEMI on behalf of EPA Region 6 on October 17, 2003. The FS includes a detailed analysis of potential Applicable or Relevant and Appropriate Requirements (ARARs) of Federal and State environmental or facility siting laws and regulations, as well as identification, screening, and evaluation of applicable remedial technologies. The FS also developed and analyzed seven remedial alternatives for the Site, including the "no action" alternative. Those alternatives are described in some detail in the FS, Proposed Plan, and the ROD Amendment.

INFORMATION AND TECHNICAL ASSESSMENT - FINDINGS AND CONCLUSIONS

The Amended ROD selected remedy for ground water is in-situ bioremediation (ISB) for the source area, and monitored natural attenuation (MNA) for the dissolved phase ground water plumes, as well as institutional controls (IC) to prevent exposure to contaminated ground water during remedy operation and prevent residential development over contaminated areas pending measures to prevent contaminated vapor intrusion. The selected remedy identified in the issued ROD Amendment is necessary to protect public health or welfare or the environment from actual or threatened releases of hazardous substances into the environment.

ISB would consist of augmenting and stimulating the naturally occurring reductive dechlorination processes at work on the Site. Important factors considered in the selection of this amended remedy included:

- The microcosm studies conducted in 2002 showed significant potential for the ISB technology;

- The ISB process satisfies the requirement to provide treatment of the principal threat wastes;

- The present worth cost of the ROD amended remedy is in the lower tier of alternatives evaluated in the FS.

- MNA can be used for the dissolved ground water plumes in conjunction with the source area treatment by ISB.

VIII. ISSUES

INCREASING EXTENT OF CONTAMINATION

Nine water bearing zones (WBZ) were identified in the Supplemental RI to a depth of about 200 feet below ground surface (bgs) at the Site. The WBZs are composed primarily of silty or sandy sediments capable of storing and transporting water. WBZs are named from shallowest to deepest as WBZ-1, WBZ-2, WBZ-3, and so on, with subunits being assigned a suffix of A, B, C, or D within a WBZ as appropriate. The top four of these WBZs have been affected by contamination from the Site as follows:

Water Bearing Zone 1: WBZ-1 exists at depths of about 18 to 24 feet bgs. This unit was previously named the 20-Foot Zone and Shallow Aquifer. The extent of the TCE plume has increased in aerial extent to the north, east, and south based on a comparison of recent sampling data and previous sampling done in November 1998. The area of highest concentrations has decreased in size and has migrated to the north and east in WBZ-1. Ground water flow in WBZ-1 is generally to the north-northwest near the Site, and north-northeast to the north of I-610.

Water Bearing Zone 2: WBZ-2 exists at depths of approximately 33 to 40 feet and was previously described as the Uppermost Aquifer, 40 foot Aquifer Zone, and Shallow Aquifer. The extent of the TCE plume in WBZ-2 has increased in aerial extent to the north, east, and south based on a comparison of recent sampling data and previous sampling done in November 1998. The area of highest TCE concentrations has increased in size and has migrated to the north and southwest. The concentrations in the older wells have generally decreased.

Water Bearing Zone 3: WBZ-3 is a complex stratigraphic interval of sand and clay layers. This interval of sand and clay layers was described in previous investigations as the 60-foot zone. Three individual sand lenses in the WBZ-3 interval have been identified as distinct units and are named, from shallowest to deepest, WBZ-3A, WBZ-3B, and WBZ-3C. Ground water flow within WBZ-3 is to the east-northeast.

Water Bearing Zone 4: WBZ-4 exists at depths of about 80 to 90 feet bgs and was previously named the Intermediate Aquifer, the 80-foot zone, and the Deep Aquifer. The extent of the TCE plume in WBZ-4 has increased in aerial extent to the north, east, and south based on a comparison of recent sampling data and previous sampling done in September 1999. The area of highest concentrations has decreased in size and has migrated to the west, coinciding with ground water flow direction.

In summary of plume expansions, the largest ground water plumes are in WBZ-1, WBZ-2, and WBZ-3C. The total areas of the TCE plumes in these WBZs range from 10 to 15 acres. In WBZ-4, the TCE plume is less than 4 acres. The cis-1,2-DCE and VC plumes are largest in WBZ-1 and WBZ-2, where they are about one-third to one-half the area of the TCE plumes. In WBZ-3, the cis-1,2-DCE and VC plumes represent only about 5 percent of the area of the TCE plume. Neither cis-1,2-DCE nor VC is significant in WBZ-4. The Site history establishes that cis-1,2-DCE and VC were not used at the Site, and therefore are likely the result of degradation of TCE.

NEED FOR EXPANDED INSTITUTIONAL CONTROLS

Institutional Controls are in place on the Site and will be used to prevent exposure to the contaminated ground water at the Site for as long as contaminants remain at levels above the drinking water standards, and to prevent residential land use over areas of ground water contamination until appropriate measures are implemented to remediate the risk from vapor intrusion. Because of the increased contaminated plume areas beyond limits of existing institutional controls, additional ICs will be required to ensure the protection of human health and the environment.

INCREASED REMEDIAL ACTION DURATION

Source Zone, evaluation and treatment activities will be conducted during the Remedial Design (RD) and Remedial Action(RA) activities. Long term monitoring and evaluation of MNA in the dissolved plume areas will be conducted during and after RA activities until MCLs have been achieved. The RD includes a treatment study scheduled for a one year duration, and the RA has a five year scheduled duration.

IX. RECOMMENDATIONS AND FOLLOW-UP ACTIONS

ISB is a remedy that increases the degradation of contaminants by the metabolic reactions of microorganisms. This process is being used in the source area because of restricted physical access limitation in the IH-610 and IH- 610 feeder road areas. MNA will be implemented for the larger and less contaminated level areas identified as the dissolved plumes in the ground water downgradient of the source areas. The long term effectiveness and permanence of ISB as stated in the ROD amendment is promising, and its implementation is important for remediation success of MNA in the dissolve plume areas. As noted above, the Amended ROD determined that ICs are being and will be used as necessary to prevent exposure to the contaminated ground

water at the Site for as long as contaminants remain at levels above the MCLs and to prevent residential land use over areas of ground water contamination until appropriate measures are implemented to remediate the risk from vapor intrusion.

Completion of the ISB treatment may eventually free the properties in the area for further development for commercial uses, with an exception for the location of retained ground water monitoring wells per the objective of the current ROD amendment. In the event of further remedy failure, the EPA could review and potentially select either one or some combination of the contingent remedies that were developed and reviewed by the Agency in the FS and ROD process. EPA will closely monitor and review the remedy's effectiveness and performance and will take appropriate further action for the Site, if warranted. In such an event, modifications of existing equipment may be required for nutrient addition and preparation of microorganism amendments.

Five-Year reviews will continue to be conducted as required by the NCP to determine if contaminants that remain are causing unacceptable risk to human health or the environment.

X. PROTECTIVENESS STATEMENT

The 1988 Site remedy was not protective of human health and the environment, and has been terminated, consistent with actions directed by the First Five - Year Review. In accordance with the statutory determinations of the ROD Amendment, the selected remedy will be protective of human health and the environment when implemented, complies with the Federal and State requirements that are applicable or relevant and appropriate to the remedial action, and is cost-effective.

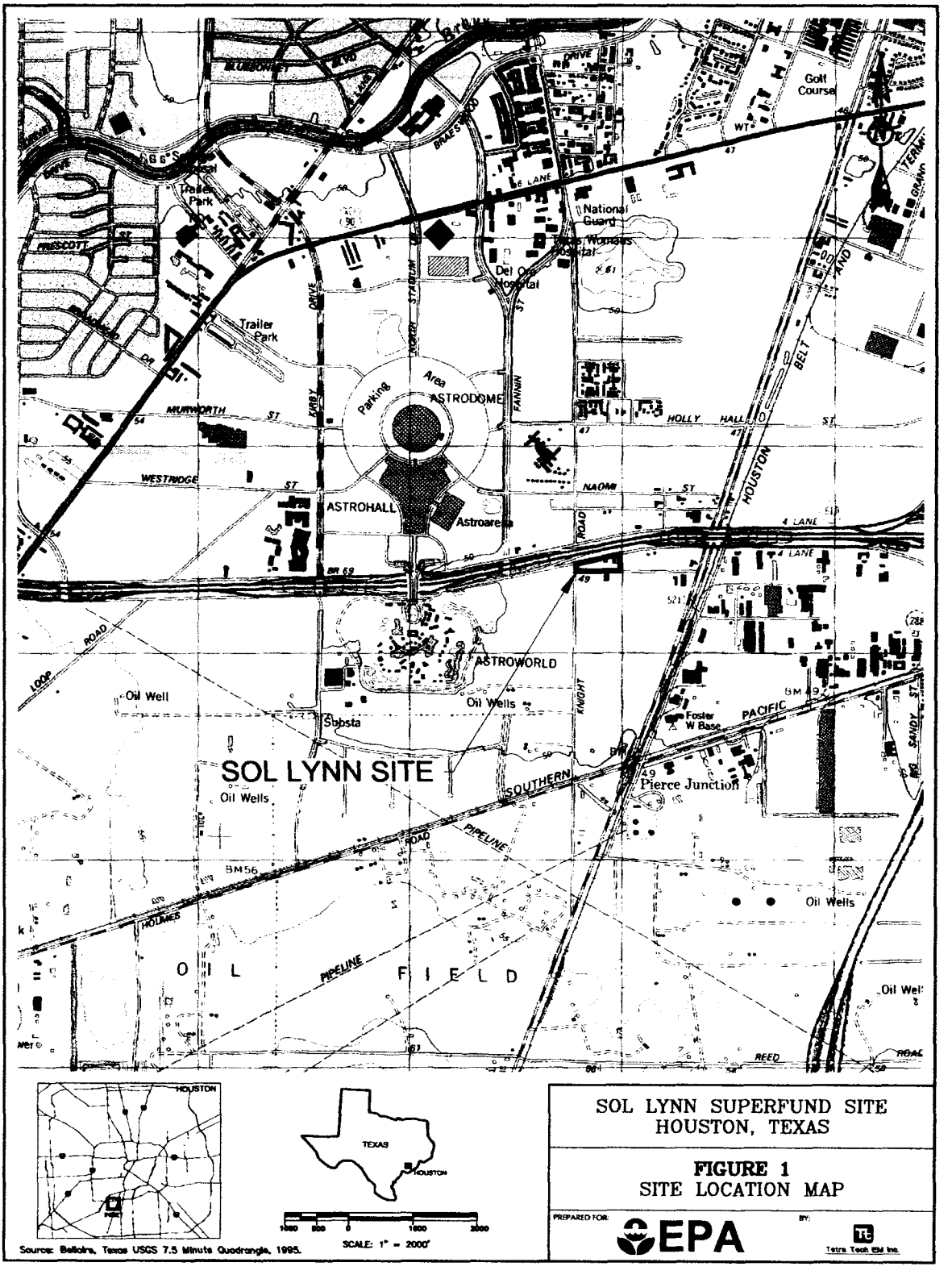
Because the Site has hazardous substances remaining on-site above health-based levels, a statutory review pursuant to Section 121(c) of CERCLA, 42 U.S.C. §9621(c), will be conducted at least every five years after commencement of this amended remedial action to insure that the remedy continues to provide adequate protection of human health and the environment.

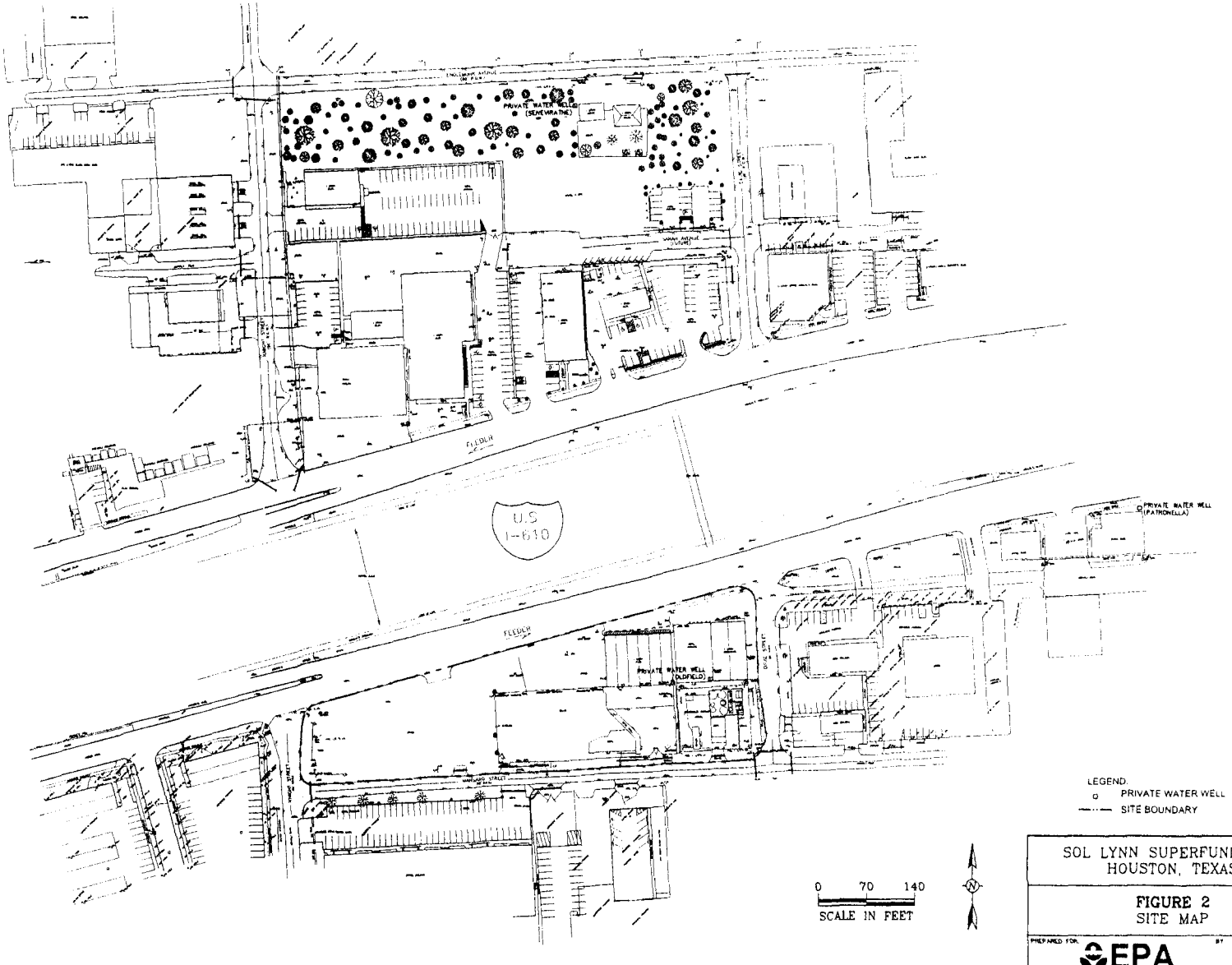
XI. NEXT FIVE-YEAR REVIEW

The next five-year review of the source and dissolved plumes ground water OU2 remedy for the Sol Lynn/Industrial Transformers Site is to be conducted within five years from the signature date of this document. However, the five year review of the ground water remedy for Sol Lynn/ITS may be conducted earlier at such appropriate time as warranted, consistent with the NCP and Section 121 of CERCLA, following a ROD amendment, or otherwise.

Amelia Phillips, Acting 12/9/2004

Samuel Coleman, P.E. Date
Director, Superfund Division


SOL LYNN SITE
ASTRODOME
ASTROHALL
ASTROWORLD
Astroarena
Parking Area
Golf Course
National Guard
Trailer Park
Oil Well
Oil Wells
Substa
Foster W Base
Pierce Junction
OIL FIELD
PIPELINE
SOUTHERN PACIFIC
HOUSTON
TEXAS
SCALE: 1" = 2000'
Source: Bellaire, Texas USGS 7.5 Minute Quadrangle, 1995.
SOL LYNN SUPERFUND SITE
HOUSTON, TEXAS
FIGURE 1
SITE LOCATION MAP
PREPARED FOR:
EPA
BY:
Tetra Tech EM Inc.

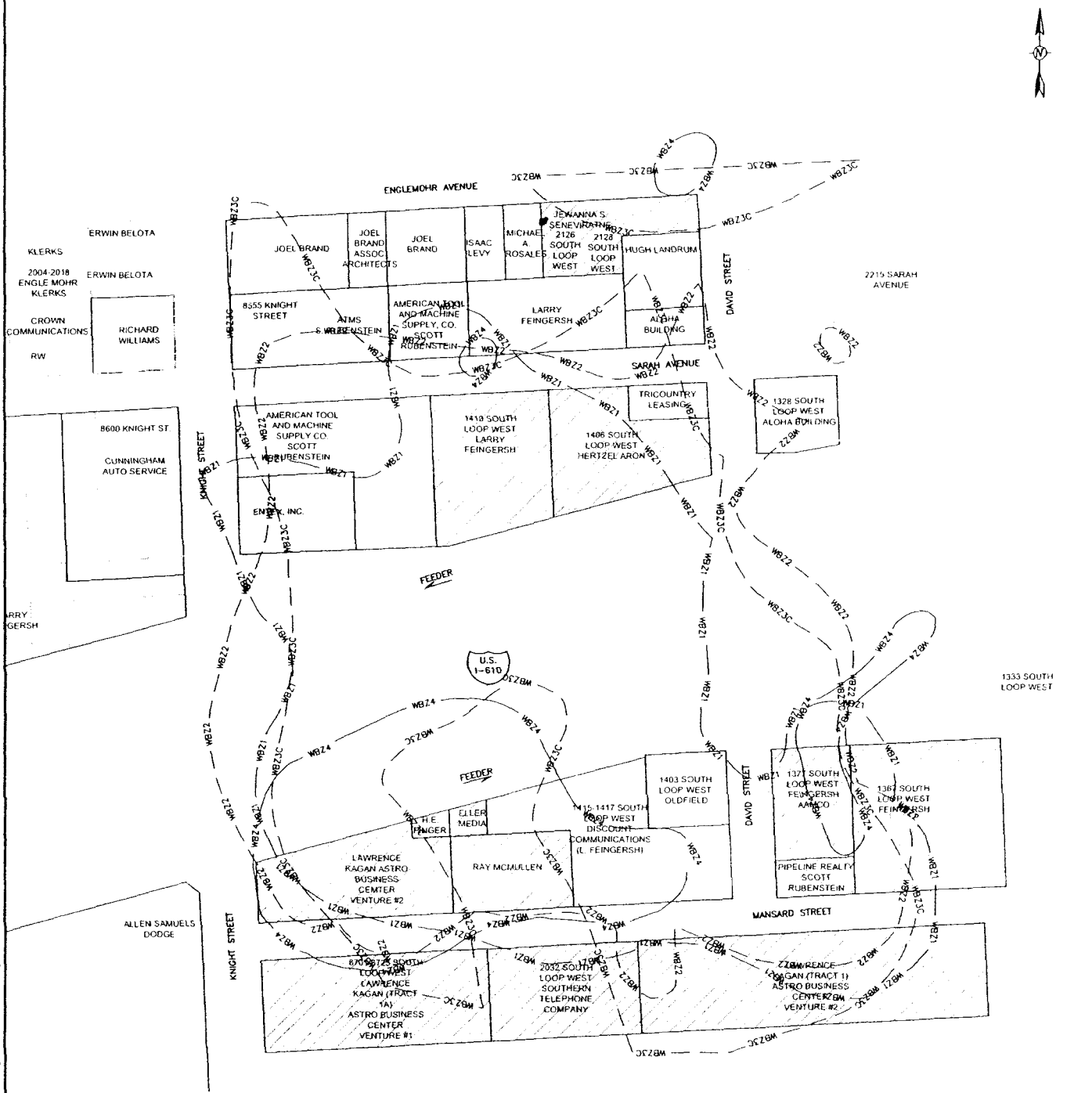


SOL LYNN SUPERFUND SITE
HOUSTON, TEXAS

FIGURE 2
SITE MAP

PREPARED FOR EPA BY Tetra Tech EM Inc.

Source: San Jacinto Engineering 2000
W.J. DeField 2001 and 2002



LEGEND

- PROPERTY LINE
- WATER-BEARING ZONE 1 (WBZ1) CONTAMINATION PLUME EXTENT
- WATER-BEARING ZONE 2 (WBZ2) CONTAMINATION PLUME EXTENT
- WATER-BEARING ZONE 3C (WBZ3C) CONTAMINATION PLUME EXTENT
- WATER-BEARING ZONE 4 (WBZ4) CONTAMINATION PLUME EXTENT
- CONDITIONAL ACCESS AGREEMENT ON FILE FOR THIS PROPERTY
- EASEMENT
- ACCESS AGREEMENT AND EASEMENT

100 50 0 100 200

SCALE: 1" = 200'

NOTE:
CONTAMINATION PLUME EXTENTS ENCOMPASS MAXIMUM CONTAINMENT LEVELS (MCLS) FOR TCE, DCE, AND VC.

Source: San Jacinto Engineering 2000
M.J. DeField 2001 and 2002

SOL LYNN / ITS SITE
HOUSTON, TEXAS

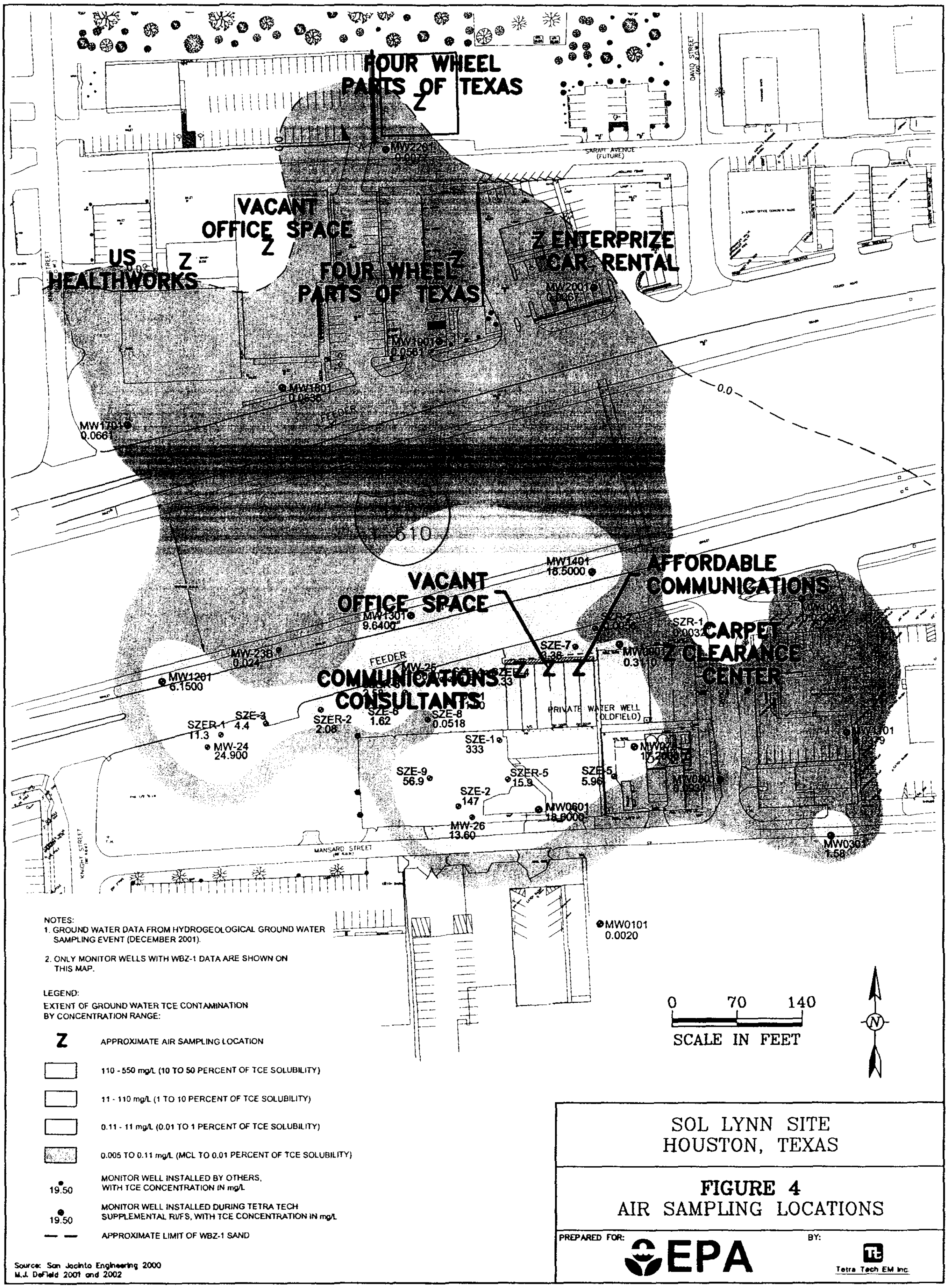
FIGURE 3

GROUND WATER CONTAMINATED PLUMES/ PROPERTY LIMITS
ZONES: WBZ1, WBZ2, WBZ3C, AND WBZ4

PREPARED FOR: EPA

BY: Tetra Tech EM Inc.

T:\CADD\G\00da\1932\DWGS\Parcel_Plume_Map\ Plume_Limits.dwg 10/14/2004 jack.schwertz TX



FOUR WHEEL PARTS OF TEXAS
Z
SARAH AVENUE (FUTURE)
VACANT OFFICE SPACE
US HEALTHWORKS
Z ENTERPRIZE CAR RENTAL
FOUR WHEEL PARTS OF TEXAS
MW1801 0.0538
MW1701 0.0661
FEEDER
0.0
I-610
MW1401 18.5000
AFFORDABLE COMMUNICATIONS
VACANT OFFICE SPACE
MW1301 9.6400
SZR-1 0.0032
CARPET CLEARANCE CENTER
SZE-7
MW-236 0.024
MW1201 6.1500
COMMUNICATIONS CONSULTANTS
PRIVATE WATER WELL (OLDFIELD)
SZER-1 11.3
SZE-3 4.4
MW-24 24.900
SZER-2 2.08
SZE-6 1.62
SZE-8 0.0518
SZE-1 333
SZE-9 56.9
SZER-5 15.9
SZE-5 5.96
SZE-2 147
MW-26 13.60
MW0601 18.0000
MANSARD STREET
KNIGHT STREET
MW0301 1.58
MW0101 0.0020
NOTES:
1. GROUND WATER DATA FROM HYDROGEOLOGICAL GROUND WATER SAMPLING EVENT (DECEMBER 2001).
2. ONLY MONITOR WELLS WITH WBZ-1 DATA ARE SHOWN ON THIS MAP.
LEGEND:
EXTENT OF GROUND WATER TCE CONTAMINATION BY CONCENTRATION RANGE:
Z APPROXIMATE AIR SAMPLING LOCATION
110 - 550 mg/L (10 TO 50 PERCENT OF TCE SOLUBILITY)
11 - 110 mg/L (1 TO 10 PERCENT OF TCE SOLUBILITY)
0.11 - 11 mg/L (0.01 TO 1 PERCENT OF TCE SOLUBILITY)
0.005 TO 0.11 mg/L (MCL TO 0.01 PERCENT OF TCE SOLUBILITY)
19.50 MONITOR WELL INSTALLED BY OTHERS, WITH TCE CONCENTRATION IN mg/L
19.50 MONITOR WELL INSTALLED DURING TETRA TECH SUPPLEMENTAL RI/FS, WITH TCE CONCENTRATION IN mg/L
APPROXIMATE LIMIT OF WBZ-1 SAND
0 70 140
SCALE IN FEET
N
SOL LYNN SITE
HOUSTON, TEXAS
FIGURE 4
AIR SAMPLING LOCATIONS
PREPARED FOR:
EPA
BY:
Tetra Tech EM Inc.
Source: San Jacinto Engineering 2000
M.J. DeField 2001 and 2002

LIST OF APPENDICES

Since 1st Five Year Review

A COMMUNITY INVOLVEMENT PLAN - September 2004 (See Repositories files)

Local Repository:
Houston Central Library
Texas & Local History Division
500 McKinney St.
Houston, TX 77002
Hours: Mon - Thu 9 a.m. to 9 p.m.
Fri - Sat 9 a.m. to 6 p.m., Sun 2 p.m. to 6 p.m.

State Repository:
TCEQ, Records Management Center
12100 Park 35 Circle
First Floor, Building E,
Austin, TX 78753
Ph. (512) 239-2920
Hours: Monday - Friday - 8:00 a.m. to 5:00 p.m.
(Open on State Holidays)

EPA Region 6 Repository:
U.S. Environmental Protection Agency
12th Floor Library
1445 Ross Avenue
Dallas, Texas 75202-2733
(214) 665-6424
Hours Open to Public:
Monday - Friday: 10:00am - 12:00pm & 1:00pm – 4:00pm

B INTERVIEW QUESTIONNAIRES (Attachment to this Document)

C1. TCEQ, Project Manager (Carol Dye - Attached Form)

C2. Tetra Tech, EMI(EPA's- RACs Contractor) (two interviews)

a) Project Manager (Tim Startz- Attached Form)

b) Field Site Manager (Jay Snyder- Attached Form)

SUPERFUND SITE SURVEY - FORM A

Site Name: Sol Lynn Industrial Transformer Superfund Site	**EPA Work Assignment No.: 932-RI-CO-0680**
Subject: 5-Year Review Information Survey	**Date:** 11/16/04

Contact Made By:

Name: Ernest Franke	**Title: Remedial Project Manager**	**Organization: U.S. EPA**
Telephone No.: (214) 665-8521 **E-Mail: franke.ernest@epa.gov**	**Street Address: 1455 Ross Avenue, Suite 1200** **City, State, Zip: Dallas, Texas 75202**	

Individual Contacted:

Name: Carol Dye	**Title: Project Manager**	**Organization: Texas Commission on Environmental Quality**
Telephone No.: **E-Mail Address:**	**Street Address:** **City, State, Zip:**	

Survey Questions

What is your overall impression of the activities (completion of supplemental documents, remedial investigation/feasibility study, proposed plan, Record of Decision amendment, and progress schedules) completed during the past 5 years at the Sol Lynn site (general sentiment)? TCEQ IS PLEASED WITH THE ACTIVITIES.

What effects have these activities had on the surrounding community? OTHER THAN GETTING ACCESS AGREEMENTS + PLUGGING A WELL, NO EFFECTS HAVE BEEN NOTED.

Are you aware of any community concerns or complaints regarding the site or its operation and administration? If so, please provide details. NO CONCERNS OR COMPLAINTS HAVE BEEN NOTED.

SUPERFUND SITE SURVEY - FORM A (continued)	
Site Name: Sol Lynn Industrial Transformer Superfund Site	EPA Work Assignment No.: 932-RI-CO-0680
Subject: 5-Year Review Information Survey	Date: 11/16/04

Survey Questions (Cont.)

Do you feel well informed about the site's activities and progress during the past 5 years? DURING BUSY TIMES, SUCH AS THE ADDITIONAL INVESTIGATION, TCEQ WOULD HAVE BENEFITTED FROM WEEKLY UPDATES. BEYOND THAT, TCEQ HAS BEEN WELL INFORMED.

Do you have any comments, suggestions, or recommendations regarding the site's management or operation? NOT AT THIS TIME.

SUPERFUND SITE SURVEY - FORM B	
Site Name: Sol Lynn Industrial Transformer Superfund Site	**EPA Work Assignment No.:** 932-RI-CO-0680
Subject: 5-Year Review Information Survey	**Date:** November 15, 2004

Contact Made By:

Name: Ernest Franke	**Title:** Remedial Project Manager	**Organization:** U.S. EPA
Telephone No.: (214) 665-8521 **E-Mail:** franke.ernest@epa.gov	**Street Address:** 1455 Ross Avenue, Suite 1200 **City, State, Zip:** Dallas, Texas 75202	

Individual Contacted:

Name: Tim Startz	**Title:** Project Manager	**Organization:** Tetra Tech EM Inc.
Telephone No.: (214) 740-2064 **E-Mail Address:** tim.startz@ttemi.com	**Street Address:** 350 N. St. Paul Street, Suite 2600 **City, State, Zip:** Dallas, Texas 75201	

Survey Questions

1. Please provide a brief overview of the activities conducted at the Sol Lynn site during the past 5 years.

   Tetra Tech summarized all historical activities completed to date, installed 98 new monitoring wells to supplement the existing 65 monitoring wells, sampled all monitoring wells, completed a remedial investigation defining the areas of contamination, and completed a feasibility study that researched ways to remediate/address the site.

2. What is your impression of the project (general sentiment)?

   I feel that the site is being adequately addressed by the EPA and TCEQ. The remedial design will probably be completed in FY 2005.

3. What effects have site operations had on the surrounding community?

   To my knowledge, the only business or local resident that has been affected by site operations has been the owner of the Carpet Clearance Center who has been wanting to expand his building, but cannot due to an existing easement that prevents him from construction activities that would interfere with EPA's well network and underground injection and recovery wells.

4. Are you aware of any community concerns regarding the site or its operation and administration? If so, please provide details.

   No.

SUPERFUND SITE SURVEY - FORM A (continued)	
Site Name: Sol Lynn Industrial Transformer Superfund Site	**EPA Work Assignment No.:** 932-RI-CO-0680
Subject: 5-Year Review Information Survey	**Date:** November 15, 2004

Survey Questions (Cont.)

5. Are you aware of any events, incidents, or activities at the site such as vandalism, trespassing, or emergency responses from local authorities? If so, please provide details.

   No.

6. Do you feel that the community is well informed about the site's activities and progress?

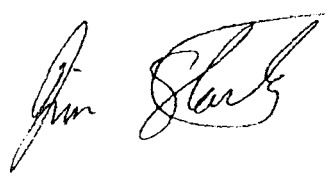
   Yes.

6. Do you have any comments, suggestions, or recommendations regarding the site's management or operation?

   No.

8. What has been your role in the Sol Lynn Remedial Investigation and/or Five-year Review process? (check all that apply)

   ( ) Notified potentially interested parties of start of review
   ( ) Identified five-year review team members
   ( ) Set components and schedule of five-year review
   (X) Community notification
   (X) Other community involvement activities
   ( ) Site inspection
   ( ) Site interviews



SUPERFUND SITE SURVEY - FORM B		
Site Name: Sol Lynn Industrial Transformer Superfund Site	**EPA Work Assignment No.:** 932-RI-CO-0680	
Subject: 5-Year Review Information Survey	**Date:** November 16, 2004	
Contact Made By:		
Name: Ernest Franke	**Title:** Remedial Project Manager	**Organization:** U.S. EPA
Telephone No.: (214) 665-8521 **E-Mail:** franke.ernest@epa.gov	**Street Address:** 1455 Ross Avenue, Suite 1200 **City, State, Zip:** Dallas, Texas 75202	
Individual Contacted:		
Name: Jay Snyder	**Title:** Project Geologist	**Organization:** Tetra Tech EM Inc.
Telephone No.: (505) 881-3283 **E-Mail Address:** jay.snyder@ttemi.com	**Street Address:** 6121 Indian School Rd., N.E. **City, State, Zip:** Albuquerque, NM 87110	

Survey Questions

1. Please provide a brief overview of the activities conducted at the Sol Lynn site during the past 5 years.

   Tetra Tech summarized all historical activities completed to date, installed 98 new monitoring wells to supplement the existing 65 monitoring wells, sampled all monitoring wells, completed a remedial investigation defining the areas of contamination, and completed a feasibility study that researched ways to remediate/address the site.

2. What is your impression of the project (general sentiment)?

   I feel that the site is being adequately addressed by the EPA and TCEQ. The remedial design and remedial action will probably be completed in FY 2005.

3. What effects have site operations had on the surrounding community?

   To my knowledge, the only business or local resident that has been affected by site operations has been the owner of the Carpet Clearance Center who has been wanting to expand his building, but cannot due to an existing easement that prevents him from construction activities that would interfere with EPA's well network and underground injection and recovery wells.

4. Are you aware of any community concerns regarding the site or its operation and administration? If so, please provide details.

   No.

11-16-04

SUPERFUND SITE SURVEY - FORM A (continued)	
Site Name: Sol Lynn Industrial Transformer Superfund Site	**EPA Work Assignment No.:** 932-RI-CO-0680
Subject: 5-Year Review Information Survey	**Date:** November 16, 2004

Survey Questions (Cont.)

5. Are you aware of any events, incidents, or activities at the site such as vandalism, trespassing, or emergency responses from local authorities? If so, please provide details.

   No.

6. Do you feel that the community is well informed about the site's activities and progress?

   Yes.

6. Do you have any comments, suggestions, or recommendations regarding the site's management or operation?

   No.

8. What has been your role in the Sol Lynn Remedial Investigation and/or Five-year Review process? (check all that apply)

   ( ) Notified potentially interested parties of start of review
   ( ) Identified five-year review team members
   ( ) Set components and schedule of five-year review
   (X) Community notification
   (X) Other community involvement activities
   ( ) Site inspection
   ( ) Site interviews