Five-Year Review Report

First Five-Year Review Report

for

Waste Disposal Inc. Superfund Site

Santa Fe Springs
Los Angeles County, California

August 2009

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List of Acronyms

ARARs	Applicable or Relevant and Appropriate Requirements
AROD	Amended Record of Decision
bgs	below ground surface
CD	Consent Decree
CERCLA	Comprehensive Environmental Response Compensation and Liability Act
CFR	Code of Federal Regulations
COC	Contaminant of Concern
DTSC	Department of Toxic Substances Control
EPA	Environmental Protection Agency
ERC	Environmental Restriction Covenant
GW	Groundwater
IATL	Indoor Air Threshold Limit
ICs	Institutional Controls
ICMEWP	Institutional Control Monitoring & Enforcement Work Plan
MCL	Maximum Contaminant Level
NPL	National Priorities List
O&M	Operation and Maintenance
OM&M	Operation, Maintenance, and Monitoring
OU	Operable Unit
PAHs	polyaromatic hydrocarbons
PCBs	polychlorinated biphenyls
PCE	tetrachloroethene
PC	Project Coordinator
PCOR	Preliminary Closeout Report
PEL	Permissible Exposure Limit
PM	Project Manager
POC	Point of Compliance
PRP	Potentially Responsible Party
PRG	Preliminary Remediation Goal
RD	Remedial Design
RI/FS	Remedial Investigation/Feasibility Study
RA	Remedial Action
RAO	Remedial Action Objective
RCRA	Resource Conservation & Recovery Act
ROD	Record of Decision
RPM	Remedial Project Manager
RSL	EPA Region 9 Regional Screening Levels
TCE	Trichloroethene
UAO	Unilateral Administrative Order
USACE	U.S. Army Corps of Engineers
VOC	Volatile Organic Compound
VW	Vapor Well
WDI	Waste Disposal, Inc.
WDIG	Waste Disposal, Inc., Group

Executive Summary

In this initial Five-Year Review, EPA has evaluated the overall protectiveness of the recently completed remedial action for the Waste Disposal, Inc. (WDI) Superfund Site, located in Santa Fe Springs, California. The containment remedy was completed at the site in September 2006. Completion of the remedy concludes a long history of uncontrolled waste disposal at the site. Wastes included rotary drilling muds, clean earth, rock, sand, gravel, paving fragments, concrete, brick, plaster, steel mill slag, dry mud cake from oil field sumps, acetylene sludge, organic wastes, oil refinery wastes, solvents, petroleum-related chemicals, and other chemical wastes.

The physical construction activities were performed from March 2004 to August 2005. The site entered the operations, maintenance, and monitoring (OM&M) phase on September 15, 2006. The remedy includes containment, soil gas and leachate collection, long-term monitoring, operations and maintenance, and institutional controls. More specifically, it includes RCRA-equivalent engineered capping systems, drainage control, leachate collection, soil gas migration control, engineering controls in the form of building modifications for existing structures, monitoring of soil gas, indoor air monitoring, groundwater monitoring, and institutional controls.

Contamination at the site has impacted two media: the soil and soil vapor. During the site investigations and remedy selection processes, EPA determined that the site has not contributed to exceedances of groundwater standards; hence the remedy does not include a groundwater remediation component (see Amended Record of Decision, 2002). However, the remedy includes groundwater detection monitoring to ensure long-term protectiveness. The groundwater detection monitoring has supported EPA's earlier conclusion that the site has not contributed to exceedances of groundwater standards. Contaminants of concern (COCs) in the soil include 11 metals, 7 chlorinated pesticides, 16 volatile organic compounds (VOCs), polyaromatic hydrocarbons (PAH), and polychlorinated biphenyls (PCB). The COCs identified for soil gas include benzene, ethylbenzene, toluene, xylenes, carbon tetrachloride, chloroform, 1,2-dibromoethane, tetrachloroethene (PCE), 1,1,1-trichloroethane, trichloroethene (TCE), vinyl chloride, 1,2-dichloropropane, and methane. For groundwater, the chemicals identified for long-term detection monitoring include arsenic, lead, manganese, mercury, toluene, carbon tetrachloride, chloroform, PCE, TCE, benzene, toluene, xylenes, carbon tetrachloride, chloroform, and vinyl chloride

EPA has determined that the remedy is protective of human health and the environment. The remedy successfully contains on-site waste and blocks exposure pathways. The cap prevents direct exposure to contaminated soils. The soil gas extraction and treatment system and engineering controls for structures prevent migration of vapors to indoor air and/or off-site. Groundwater remains unaffected by site contamination.

Five-Year Review Summary Form

SITE IDENTIFICATION		
Site name: Waste Disposal, Inc.		
EPA ID: CAD980884357		
Region: 9	**State: CA**	**City/County: Santa Fe Springs/Los Angeles**
SITE STATUS		
NPL status: √ Final		
Remediation status : Operating		
Multiple OUs? No	**Construction completion date:** 08/12/2005	
Has site been put into reuse? No		
REVIEW STATUS		
Lead agency: √ EPA State Tribe Other Federal Agency _____		
Author name: James Stellmach, Doug Mackenzie, John Erwin		
Author title: Env. Engr. (all)	**Author affiliation: USACE**	
Review period: 08/14/2008 to 02/28/2009		
Date(s) of site inspection: 09/11/2008		
Type of review: √ Post-SARA Pre-SARA NPL Removal only Non-NPL Remedial Action Site NPL State/Tribe-lead Regional Discretion		
Review number: 1 (First)		
Triggering action: √ Actual RA Onsite Construction Actual RA Start Construction Completion Previous Five-Year Review Report Other (specify)		
Triggering action date *(from WasteLAN)*: 03/08/2004 (Onsite Construction Start)		
Due date *(five years after triggering action date)*: 03/08/2009		

Five-Year Review Summary Form cont'd.

Issues:

EPA has identified no issues that affect protectiveness of the remedy

Recommendations and Follow-up Actions: EPA has not identified any follow-up actions that affect protectiveness of the remedy.

Protectiveness Statement(s):

The remedy is protective of human health and the environment. The remedy successfully contains on-site waste and blocks exposure pathways. The cap prevents direct exposure to contaminated soils. The soil gas migration control systems prevent migration of vapors to indoor air and/or off-site. Groundwater remains unaffected by site contamination.

1. Introduction

The purpose of this Five-Year Review is to evaluate the completed remedial action at the Waste Disposal, Inc. (WDI) Superfund site in Santa Fe Springs, California, and to confirm that the selected remedy is protective of human health and the environment. This report documents the methods, findings, and conclusions of the Five-Year Review. In addition, this report would identify any potential issues related to remedy protectiveness found during the review and discuss recommendations to address them. EPA has not identified any such issues that affect remedy protectiveness.

The U.S. Army Corps of Engineers (USACE), Sacramento District, on behalf of the U.S. Environmental Protection Agency (EPA), Region IX, has prepared this Five-Year Review report pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) §121 and the National Contingency Plan (NCP). CERCLA §121 states:

> "If the president selects a remedial action that results in any hazardous substances, pollutants, or contaminants remaining at the site, the President shall review such remedial action no less often than each five years after the initiation of such remedial action to assure that human health and the environment is being protective by the remedial action being implemented. In addition, if upon such review it is the judgment of the President that action is appropriate at such site in accordance with section [104] or [106], the President shall take or require such action. The President shall report to the Congress a list of facilities for which such review is required, the results of all such reviews, and any actions taken as a result of such reviews."

The EPA interpreted this requirement further in the National Contingency Plan (NCP); 40 CFR §300.430(f)(4)(ii) states:

> "If a remedial action is selected that results in hazardous substances, pollutants, or contaminants remaining at the site above levels that allow for unlimited use and unrestricted exposure, the lead agency shall review such action no less often than every five years after the initiation of the selected remedial action."

This is the first Five-Year Review for the WDI site. The Waste Disposal Inc. Group (WDIG), the potentially responsible party (PRP) work group, began physical construction of the site remedy in March 2004 under EPA oversight. Physical construction was completed in August 2005, and EPA approved the Remedial Action (RA) Completion Report in September 2006. The Five-Year Review is now required because hazardous substances, pollutants, or contaminants remain at the site above levels that allow for unlimited use and unrestricted exposure. This review and the associated site inspection were conducted between August 2008 and February 2009. This report documents the results of the review and inspection.

2. Site Chronology

Table 1 lists the events, activities, and dates associated with remedial activities at the WDI site. Additional details are provided in Sections 3.4 through 4.2.

Table 1. Chronology of Site Events

Event	Date
Reservoir used for crude oil storage	Pre-1924 – late 1930s
Operation as a disposal site under permit with Los Angeles County	1949 – 1964
Most disposal activities ceased	1964
Proposed National Priorities List (NPL) listing	June 1986
Site placed on NPL	July 1987
General notice issued to 28 Potentially Responsible Parties (PRPs)	1987
Initiation of Remedial Investigation/Feasibility Study (RI/FS) process	1988
Removal Action	1988
RI completed/FS commenced	1990
Further groundwater (GW) investigations	1992 – 2000
FS completed for contaminated soils and subsurface gases for Operable Unit #1 (OU1)	1993
Record of Decision (ROD) signed for OU1. EPA designated a second, reserved operable unit (OU2) for groundwater, with the groundwater remedy selection pending completion of ongoing groundwater study. Note: OU1 and OU2 were later combined into a single Amended ROD (2002) for the entire site, based on EPA's determination that the site has not contributed to exceedances of GW standards.	December 1993
Issued Unilateral Administrative Order (UAO) #94-17 to eight PRPs to compel commencement of Remedial Design (RD) activities for the site. This PRP group is known as the Waste Disposal, Inc., Group (WDIG).	1994
Pre-design Investigations	1994 – 1995

Table 1. Chronology of Site Events

Event	Date
Pre-design Report	1995
90% Remedial Design Report, community meeting on 90% Design Report, public meetings revealed new information, decision to review the remedy selection and prepare an Amended ROD (AROD), combining OU1 & OU2.	1996
EPA issued Amended UAO #97-09 to add 13 additional parties, and ordered additional investigative activities at the site as well as continued remedial design activities.	1997
Continuation of supplemental remedial design investigations and the Supplemental FS	1997 – 2001
Community meetings on Remedial Design	1999
Groundwater Data Evaluation Report	2000
Supplemental FS Report	2001
Remedial Design Investigations Summary Report	2001
Proposed Plan for revised remedy	June 2001
Amended ROD signature (entire site)	June 2002
Start of physical construction for the RA	March 2004
Remedy construction complete – Preliminary Closeout Report (PCOR)	August 2005
EPA approved the Final Remedial Action Completion Report. Operations, maintenance, and monitoring (OM&M) activities began	September 2006
Long-term OM&M	Ongoing

3. Background

3.1 Land and Resource Use

The WDI site encompasses approximately 38 acres in an industrial area on the east side of Santa Fe Springs in Los Angeles County, California. The site is bounded by Santa Fe Springs Road on the northwest, a warehouse and a private high school on the northeast, Los Nietos Road on the southwest, and Greenleaf Avenue on the southeast (Figure 1). Adjacent land uses include residential areas and additional businesses that undertake light industrial and commercial activities. The site has been divided into Areas 1 through 8 (Figure 2) which facilitated site assessment.

Zoning for the site is M-2 Heavy Manufacturing with an industrial land use designation. The City of Santa Fe Springs supports commercial and industrial development in the area, and has supported redevelopment of the WDI site for industrial land uses. The City adopted a Specific Use Plan in May 2004 that lays out a vision for site redevelopment along with conceptual site plans, siting and set-back requirements, and design guidelines. The WDI site encompasses a total of 22 individual land parcels, 19 of which currently contain structures. Land owners and tenants operate a host of small business enterprises, encompassing commercial and light industrial activities. Existing structures accommodate a wide variety of light industrial businesses, including recreational vehicle storage, a tool and die shop, printing and plating shops, and vehicle maintenance facilities among others. The majority of small businesses use chemicals containing volatile organic compounds (VOCs), such as solvents and petroleum products, that can contribute to detections by indoor air monitoring systems that were installed as part of EPA's selected environmental remedy. No land uses near the site have changed since the remedial actions were selected for the site.

3.2 Physical Characteristics & General Hydrogeology

The site is generally level, but exhibits some mounding at the center of the site as a result of topographic contouring to facilitate cap construction and effective storm water management. The central portion of the site, called "the dial" contains a buried concrete lined 42-million gallon reservoir. The reservoir, which is 600 feet in diameter and 25 feet deep, was constructed before 1924 and was initially used for crude petroleum storage. Later it was used to store a variety of liquid and solid wastes. In addition waste materials were disposed outside the reservoir, and have been delineated in many of the parcels located around the perimeter of the reservoir (see Amended ROD, 2002).

The WDI site is located in the Whittier area of the Los Angeles Central Groundwater Basin. From a hydrogeologic perspective, the WDI site is underlain by unconsolidated recent alluvium and the Lakewood and San Pedro formations (primarily Pleistocene age fluvial sedimentary deposits). The subsurface stratigraphy and materials at the WDI site include:

- Five to 15 feet of fill material that cover the concrete reservoir (in Area 2), waste containment areas, and most of the site.
- Ten to 25 feet of sandy clay and silt that underlie the fill and waste deposits.
- Fifty feet of sandy, pebbly, channelized braided river (fluvial) deposits that underlie the near-surface interval.
- Depth to groundwater varies between depths of 48 to 65 feet below ground surface (bgs) throughout the lateral extent of the site.
- Interbedded and pebbly sands that underlie the shallower fluvial channelized deposits around 80 to 130 feet bgs.

The Groundwater Data Evaluation Report (USACE and CDM Federal, 2000) details the hydrogeology at the WDI site. The depth to the groundwater surface varies across the site from approximately 48 to 65 feet. The site is underlain by (1) a shallow, upper water bearing zone that exhibits localized groundwater flow generally to the southwest, and (2) a deeper, lower water bearing zone that represents the regional flow pattern with groundwater flow towards the southeast. The shallow water bearing zone at the site extends to a depth of approximately 70 feet. Regional data demonstrate the presence of deeper water-bearing zones extending in depth from 70 feet to approximately 1,000 feet bgs. The upper and lower water bearing zones exhibit some degree of hydraulic interconnection, and there does not appear to be a distinct physical separation between the two zones. Although local low-conductivity layers occur throughout the site, the deepest soil borings (100 to 130 bgs) at the WDI site have not identified laterally extensive confining beds within the upper water-bearing zone. Groundwater flow rates have been estimated to range from 6 to 60 feet/year based on the soil characteristics at the WDI site.

The Groundwater Data Evaluation Report (USACE and CDM Federal, 2000) identifies a number of offsite facilities hydraulically up-gradient from WDI that contribute to regional groundwater contamination. WDI is situated in a heavily industrialized area and the production of oil from the Santa Fe Springs Oil Field has been ongoing since the early 1900s. Groundwater investigations at sites northwest and up gradient of WDI have indicated concentrations of VOCs that considerably exceed Federal and State MCLs. As recommended in the 2000 Groundwater Data Evaluation Report, two additional monitoring wells were installed at WDI (at depths of about 120 feet) to facilitate detection monitoring for potential groundwater contamination from offsite sources (AROD, June 2002, Page II-16). The Groundwater Data Evaluation Report concluded that the site had not contributed to exceedances of groundwater standards based on the distribution of measured concentrations of contaminants. Measured concentrations of VOCs in shallow wells around the perimeter of the site show infrequent detections below MCLs. A deeper well located cross-gradient of the disposal area shows consistent detections of VOCs above MCLs. If site-related contamination were occurring, one would expect to see higher concentrations of VOCs in shallower groundwater. The distribution of concentrations does not indicate downward migration from a WDI source, but has been attributed to lateral migration from offsite sources.

3.3 History of Contamination

The most significant feature of the WDI site is the buried 42-million gallon concrete-lined reservoir (600 feet in diameter and 25 feet deep), located within Area 2 in the center of the site. The reservoir was constructed prior to 1924 and was initially used for crude petroleum storage. The areas outside of the reservoir began to be used for the unregulated disposal of a variety of liquid and solid wastes, as well as the possible storage and mixing of drilling muds, by the late 1920s. Sometime between 1937 and 1941, the owner/operators removed the reservoir cover anticipating a change of use. After removal of the reservoir cover, the reservoir was used from the early to mid-1940s until the mid-1960s for the disposal of a variety of liquid and solid wastes.

The disposal site operated under a permit from Los Angeles County from 1949 until 1964, and may have operated for roughly two to three years afterwards while the site was graded. Permitted wastes included rotary drilling muds, clean earth, rock, sand, gravel, paving fragments, concrete, brick, plaster, steel mill slag, dry mud cake from oil field sumps, and acetylene sludge. Investigations have shown that disposed materials also included, but were not limited to, the following un-permitted wastes: organic wastes, oil refinery wastes, solvents, petroleum-related chemicals, and other chemical wastes. Wastes were disposed within the reservoir and in areas adjacent to and outside of the reservoir.

While disposal activities continued during the 1950s, the reservoir and some of the areas of the site outside the reservoir were gradually developed for commercial and industrial use. During this time, a number of structures were constructed onsite for small businesses. By 1963, the reservoir was covered with fill, and by 1964 most, although not all, disposal activities appear to have ceased. Grading over the remainder of the buried wastes continued until approximately 1966.

3.4 Initial Response

The site was placed on the NPL on July 22, 1987. Early in the remedial process, the EPA took immediate action to secure the site and limit access to potential sources of exposure. As part of a removal action program, the EPA erected a fence around the site in 1988 to prevent the potential for direct contact with site contaminants. The EPA placed multilingual signs at the site to inform the public of potential health risks.

3.5 Basis for Taking Action

At the time of NPL listing in July 1987, site conditions posed several human health risks, including the potential for uncontrolled exposure via direct contact with buried wastes and contaminated soil, and soil vapor migration into nearby businesses. At the time there were concerns that the site waste also created a potential threat of groundwater contamination. After extensive site investigations, however, current data indicate that the site has not contributed to exceedances of groundwater standards.

The COCs in the soil include 11 metals, 7 chlorinated pesticides, 16 volatile organic compounds (VOCs), polyaromatic hydrocarbons (PAHs), and polychlorinated biphenyls (PCBs). The COCs identified for soil gas include benzene, ethylbenzene, toluene, xylenes, carbon tetrachloride, chloroform, 1,2-dibromoethane, tetrachloroethene (PCE), 1,1,1-trichloroethane, trichloroethene (TCE), vinyl chloride, 1,2-dichloropropane, and methane. For groundwater, the chemicals identified for long-term detection monitoring include arsenic, lead, manganese, mercury, toluene, carbon tetrachloride, chloroform, PCE, TCE, benzene, toluene, xylenes, carbon tetrachloride, chloroform, and vinyl chloride.

4. Remedial Actions

4.1 Remedy Selection

The EPA completed an initial Remedial Investigation (RI) in November 1990 and commenced work on a Feasibility Study (FS). The RI/FS investigations consisted of ambient air monitoring, soil borings, installation and monitoring of groundwater wells, installing and monitoring soil vapor wells, and geophysical surveys. During the investigation process, EPA conceptually identified eight sub-areas for discussion purposes, based on previous uses and conditions. These areas are shown on Figure 2. In January 1992, EPA undertook additional groundwater monitoring at WDI to assess the possibility that the site had contributed to exceedances of groundwater standards.

Based on these investigations, EPA prepared a Proposed Plan and then finalized a ROD in 1993. The original 1993 remedy consisted of building a hazardous waste cap, with gas extraction and treatment capacity, if necessary. During design of the remedy, however, new information on the nature and lateral extent of waste and soil gas at the site became available, and EPA determined that the ROD should be amended. As a result, work on supplemental remedial design investigations and the Supplemental FS continued from 1997 to May 2001.

The 1993 ROD focused on Operable Unit 1 (OU1), addressing contaminated soil and soil gas. The ROD anticipated that a second operable unit, focusing on groundwater, would be separately addressed at a later date. However, groundwater investigations conducted between 1998 and 2000 led EPA to determine that the WDI site had not caused exceedances of groundwater standards as defined by California maximum contaminant levels (MCLs). The EPA concluded that only continued groundwater detection monitoring and the use of Institutional Controls (ICs) would be necessary to ensure that site-related hazardous substances do not contribute to exceedances of MCLs.

EPA signed an Amended ROD (AROD) on June 21, 2002. The AROD presents the revised remedy for soil and soil gas and eliminates the need for a groundwater operable unit (OU2) by incorporating groundwater detection monitoring in the remedy. The AROD combines OU1 and OU2 and serves as the final Record of Decision for the entire WDI site. The remedy was designed and constructed consistent with the AROD. The remedy addresses waste materials, contaminated soil, subsurface liquids, subsurface

gases, and groundwater conditions.

Remedial Action Objectives (RAOs) are listed in the AROD. The RAOs for the remedy as stated in the AROD are as follows:

- Protect human health and the environment by preventing exposure to buried wastes and contaminated soils;
- Protect current and future on-site and off-site receptors from exposure to soil gases;
- Prevent human exposure, from direct contact, consumption, and other uses, to site liquids exceeding state and federal standards;
- Prevent contribution of site liquids to exceedances of state and federal groundwater standards; and
- Prevent human exposure to groundwater that exceeds state and federal standards due to site-related contaminants.

The primary source of contamination at the WDI site is a landfill, including the reservoir in the central dial area and waste materials in the surrounding area. The selected remedy therefore incorporates a landfill-based approach, including containment; collection and treatment of gases; collection and removal of site liquids; and institutional controls. In addition to monitoring of soil gas and indoor air (see Table 2 Soil Gas Performance Standards), the remedy includes long-term groundwater monitoring to ensure protectiveness, to detect possible future changes in the groundwater conditions, and to determine if the site might cause exceedances in contaminant standards (see Data Review, Attachment C).

4.2 Remedy Implementation

WDIG mobilized and began physical construction of the remedy in March 2004. The Remedial Design Report (TRC, 2003), Remedial Action Work Plan (TRC, 2004), and Combined Construction Completion Report (TRC, 2006) detail the remedial actions for the site.

Implementation of the remedy included the components listed below (see Figure 3, for a plan view of remedy components.)

- **RCRA Subtitle C-Equivalent Cover:** This multi-layered cover for hazardous waste was installed over the existing reservoir in Area 2. The RCRA C-equivalent cover consists of geosynthetic materials (geosynthetic clay liner, HDPE geomembrane, geocomposites, and geotextiles) below a vegetative soil layer.

- **Engineered Capping Systems:** These capping systems were installed for areas outside the reservoir designed to achieve RCRA solid waste engineering and performance standards. This includes a RCRA Subtitle D-equivalent cover over the remainder of Area 2 and parts of other areas, as well as asphalt, concrete paving, and/or building foundations in areas outside of Area 2. Engineered

capping systems were installed over selected portions of much of the site except Area 3 and areas outside the extent of waste materials.

- **Gas Collection, Extraction, and Treatment System:** This system was installed beneath the RCRA C-equivalent cover over the reservoir to collect, remove, and treat subsurface gases. Vapor is treated utilizing granular activated carbon (GAC). The system consists of a radial network of eight buried pipelines installed beneath the finished subgrade of the cap. The pipes extend in a radial configuration from a manifold system constructed at the site's central high point and end within 25 feet of the edge of the reservoir. The system was originally designed to operate under active vacuum provided by a blower in the gas treatment system. The system, however, has been converted to passive operation by turning off the blower and allowing the system to vent naturally.

- **Long-term Soil Gas Monitoring:** EPA established Soil Gas Performance Standards for the site in the AROD (Table 2). This long-term program involves monitoring selected vapor wells and the reservoir gas collection system to determine the potential for health risks associated with soil gas migration. There are currently 20 vapor well locations sampled per event, containing a total of 50 nested wells.

- **Liquids (Leachate) Collection System:** Four liquids collection points in the reservoir monitor, collect, and extract leachate and free liquids for treatment and disposal at an off-site facility approved by EPA. Due to very low liquids generation rates, WDIG initially removed leachate using bailing but installed automated leachate pumping systems in two of four collection points in December 2007.

- **Engineering Controls:** Engineering controls include a variety of measures designed to protect the integrity of building foundations as containment systems. Engineering controls include physical barriers and/or indoor venting systems at, or within, existing and new buildings on or near waste. The purpose is to utilize building foundation structures to prevent indoor air exposure to site contaminants. During construction of the remedy, parcel-specific remediation work plans were implemented for each structure. WDIG conducted inspections of existing buildings and sealed foundations and repaired any cracks with industry-standard epoxy sealer in floor slabs to prevent vapor intrusion. For any future construction of onsite buildings, the City's Specific Use Plan for the WDI site requires engineering controls, such as vapor barriers and sub-slab depressurization systems.

- **Passive Bioventing Wells:** Passive biovent wells were installed for soil gas migration control along portions of the waste perimeter outside of the reservoir area and near existing buildings. Twenty-four bioventing wells were constructed at the site to inflow of oxygen to the subsurface in order to enhance degradation of soil vapor.

- **Long-term Monitoring of Indoor Air:** Indoor ambient air monitoring is conducted quarterly for selected onsite buildings. EPA developed conservative Indoor Air Threshold Limits (IATLs) for the site's COCs (Table 2). The goal of the indoor air monitoring is to verify that subsurface soil gas is not migrating from subsurface waste source areas through foundation slabs and into tenant-occupied buildings, a process referred to as "vapor intrusion". The IATLs provide a basis for comparison with concentrations measured in site buildings to determine if there are potential health risks to tenants and employees. Currently, approximately 10 business locations are sampled per event. The number of locations may vary based on results from soil gas monitoring. The site's OM&M Plan includes flow charts that describe a series of decision points and corrective actions to be taken in the event that IATLs are exceeded during indoor air monitoring.

- **Institutional Controls (ICs):** These controls, including zoning ordinances, groundwater use restrictions, and restrictive covenants, were implemented to ensure the integrity of remedial systems, minimize the potential for exposure to residual wastes and hazardous substances, and to restrict land use and site access. The City of Santa Fe Springs approved a Specific Use Plan in May 2004 to control future land use at the WDI site. EPA provided substantial input to the plan to help ensure consistency between the plan and EPA's remedial activities.

- **Groundwater Detection Monitoring:** As required by the AROD, WDIG conducts long-term detection monitoring to ensure that the site is not contributing to exceedances of groundwater standards. The groundwater program includes twelve (12) wells: background wells, point-of-compliance (POC) wells, and wells suitable for early detection of release from a waste unit. The wells were initially sampled semi-annually; as of December 2007, well sampling has been conducted on an annual basis. Of the twelve wells, two background wells and one down-gradient verification well are deep-screened wells to detect potential contamination in the deeper, more regional groundwater zone. The remaining wells are shallow-screened wells.

- **Long-term OM&M:** Pursuant to AROD requirements, operations and maintenance (O&M) are part of the remedial action and have been implemented to ensure that all environmental systems and IC components are functioning effectively. Details of the operations, maintenance, and monitoring activities are presented in detail in the site's OM&M Work Plan that was approved by EPA in 2006.

Following construction and installation of the remedial systems, EPA approved the Compliance Testing Report on July 27, 2006. The EPA subsequently approved the combined Remedial Action Completion Report and As-Built Report on September 14, 2006, which signaled the start of formal OM&M activities on September 15, 2006.

4.3 Remedy Operations, Maintenance, and Monitoring (OM&M)

The long-term OM&M activities are described in the Operations, Maintenance and Monitoring Plan (TRC, 2006). The OM&M activities are reported in semiannual and annual OM&M reports. The October 2007 through March 2008 semiannual OM&M report (TRC, 2008) was the most recent report referred to in preparation of this Five-Year Report. An examination of OM&M data is presented in Data Review Attachment C. OM&M activities are generally summarized below.

4.3.1 RCRA-Equivalent Covers and Engineered Capping System

WDIG performs regular landfill cap inspection and repair activities as part of their EPA-approved operations and maintenance program. WDIG formally inspects the RCRA Subtitle C- and D-equivalent covers and engineered capping systems annually for signs of erosion, settlement, vegetative growth, and cracks and fractures in asphalt/concrete surface areas. In addition, more frequent informal inspection activities, related to other remedy components, provide opportunities to evaluate the cover condition. An annual settlement survey of the covers is conducted by a California State licensed land surveyor, and an annual inspection of the RCRA C-equivalent cover is done by an independent engineer pursuant to California Code of Regulations, Title 22, section 66264.228(k), (p) and (r). Landscape maintenance inspections are performed every two months.

EPA has identified no major concerns regarding the maintenance of the RCRA-equivalent covers. The RCRA-equivalent (C&D) covers are well maintained and are functioning effectively.

To provide continuous improvement, EPA has been working closely with the PRPs to track and implement enhancements for a number of minor OM&M activities. As one example, EPA is currently watching growth performance for the vegetative layer of the cap. EPA established informal performance standards for vegetation coverage over the RCRA Subtitle C- and D-equivalent caps at 70 percent coverage. The PRPs have faced challenges in establishing this level of coverage on the non-irrigated caps due to serious droughts in southern California which have slowed vegetation growth. However, there has been no erosion of soil cover and the reduced vegetation coverage has not impacted the performance of the engineered caps.

4.3.2 Soil Gas Migration Control System

The soil gas migration control system is inspected on a regular basis. The soil gas migration control system includes (1) the reservoir gas collection system, (2) engineering controls (building modifications), and (3) the passive bioventing system.

The reservoir gas collection system includes a radial network of pipelines that collect landfill gas and convey it to a centrally located GAC treatment system. The system was initially designed to operate with active pumping, but was subsequently converted to passive operation in response to acceptably low generation rates of methane and total

gaseous non-methane organics (TGNMO). The system has been in passive operation since December 2007. The reservoir gas collection and GAC treatment systems are inspected semi-annually. The treatment systems are also checked on an informal basis during site visits conducted for other purposes.

OM&M for engineering controls includes annual inspection, repair, and crack-sealing for foundations of existing structures. Improperly sealed foundation slabs could serve as potential pathways for soil vapor intrusion. WDIG continues to conduct in-business quarterly air monitoring and visual checks to assess the potential for soil gas migration. The goal of the indoor air monitoring is to verify that the foundation slabs for buildings provide effective barriers to prevent soil vapor intrusion. To date, indoor air monitoring has not indicated the presence of vapor intrusion.

The passive bioventing wells are located throughout the site to facilitate biodegradation of waste materials. The biovent wells are inspected on a semi-annual basis

4.3.3 Groundwater and Soil Vapor Wells

The twelve (12) groundwater wells and the 21 soil vapor wells are in good condition. The OM&M program provides a process for inspection of the wells and implementation of repairs if any deficiencies are noted. WDIG conducts groundwater sampling annually and soil vapor sampling semi-annually.

The groundwater monitoring network includes (1) background wells, (2) point-of-compliance (POC) wells, (3) near-source detection wells, and (4) verification wells. Three of the four background wells are located up gradient in the northwest of the site and are screened within the uppermost aquifer to monitor and document onsite impacted groundwater quality and detect contamination from offsite sources. Another background well is screened deeper to detect cross-gradient influxes of contamination from offsite. POC wells are screened within the uppermost aquifer to monitor and detect potential releases and impacts to groundwater from site related waste sources. Near-source detection wells are onsite wells located near the waste source area. Near-source wells are designed to provide early warning in the event of a release from a waste source. Verification wells are onsite wells located near the property line of the site down gradient of the site waste source. Verification wells (a.k.a. sentinel wells) are intended to confirm that no contamination migrates offsite.

The OM&M plan provides a detailed decision flow-chart and narrative discussion that details procedures used to analyze COC concentrations in groundwater, focusing on (1) detections and (2) trend analysis. Groundwater at the site has been differentiated into shallow (0-70 ft. bgs) and deeper (>70 ft. bgs) groundwater flow patterns. The OM&M plan and OM&M reports also include hydrologic contour maps indicating groundwater flow directions for the (1) shallow groundwater zone and (2) deep groundwater zone respectively. Groundwater in the upper shallow zone generally flows south with radial flow to the southwest. Deeper groundwater generally reflects more regional scale flow to the southeast.

With respect to soil gas, EPA and the PRPs conducted soil gas characterization at the site between 1989 and 2003. The long-term soil vapor monitoring program currently includes 13 "compliance wells" located at the periphery of the site, and 9 "non-compliance wells" located throughout the site closer to the source areas. The non-compliance wells are located in or near soil vapor source areas in order to provide a mechanism to evaluate trends in soil gas concentrations and track potential soil gas migration. Compliance wells verify the absence of offsite soil gas migration.

The primary objectives of the post-remedy soil vapor monitoring are to:

- Assess soil gas conditions in (1) the site perimeter (compliance vapor wells), (2) adjacent to onsite structures (non-compliance vapor wells); and (3) site interior (non-compliance vapor wells).
- Determine trends in historic and post-remedy data.

The wells are performing effectively and are inspected regularly as part of the semiannual OM&M activities. The soil vapor monitoring results indicate that gas migration from the remaining waste is not occurring.

4.3.4 Storm Water Drainage System

The storm water drainage system consists of berms, swales, ditches, cleanouts, drainage piping from the French drain of the RCRA Subtitle C-equivalent cap, and a precast concrete catch basin near the northeast corner of the site. Pursuant to the OM&M Plan, formal inspections occur semi-annually, as well as, after significant storm events. There are currently no OM&M concerns regarding the storm water drainage system.

4.3.5 Leachate Monitoring/Control System

The leachate monitoring/control system consists of four leachate collection wells. The OM&M of the wells consists of monitoring and recovery of leachate that accumulates in the wells, inspections, and monitoring of the automatic recovery systems that were installed for wells LC-2 and LC-4 in November 2007 and started in December 2007. Prior to November 2007, the liquids management strategy consisted of monitoring and bailing twice each week, if necessary, based on the measured liquid level in each well. System inspections were performed twice each week through October 2007. During construction of the automatic recovery systems for LC-2 and LC-4, no leachate recovery or inspections were conducted. Since automatic recovery operations were started on LC-2 and LC-4 in December 2007, OM&M activities have been conducted weekly on all four wells. Only minor and routine maintenance has been needed on this system, and there are currently no OM&M concerns regarding the leachate collection system.

4.3.6 Site Security

One formal annual inspection and frequent site visits include checks for vandalism or other damage to site security features such as fencing, gates, and locks. The integrity of

the fence is checked to ensure that the fencing is secure, gates are working properly, and locks are in place. The only notable site security issues have been minor repairs of the fence and painting over of graffiti.

5. Progress since Last Five-Year Review

This is the first Five-Year Review for the WDI site.

6. Five-Year Review Process

6.1 Administrative Components, Community Notification, and Document Review

This Five-Year Review included review of relevant documents as listed in List of Documents Reviewed (Attachment B) discussions with operation and maintenance contractors, the EPA Remedial Project Manager (RPM), and a site inspection. The Remedial Action Objectives (RAOs), applicable or relevant and appropriate requirements (ARARs), and cleanup levels were obtained from the AROD. EPA published a public notice in the Whittier Daily News to inform the community of the initiation of this Five-Year Review (Attachment A). EPA will issue another public notice when the review is complete to inform the community that the Five-Year Review report will be available in the public information repository at the Santa Fe Springs City Library, or the web site set up for the WDI site. A copy of this completed report will also be available through the EPA Region IX Superfund Record Center located in San Francisco.

6.2 Data Review

EPA prepared a detailed data review as part of this Five-Year Review (Attachment C) and has determined that the remedy has been effective. There are no issues with respect to remedy implementation that raise concerns regarding protectiveness of the remedy.

EPA has identified some minor enhancements that can be readily managed through the routine OM&M and oversight activities. These minor follow-up items are not identified as issues that affect protectiveness. These enhancements relate to site management, documentation, and optimization (see System Optimization Chart, Table 3). WDIG is aware of the issues and is in the process of addressing them.

A summary of observations from the data review are listed below.

6.2.1 Inspection and Maintenance

Inspection and maintenance of all constructed components of the remedy are being performed in accordance with the EPA-approved Operation, Maintenance, and Monitoring (OM&M) Plan. The documentation is thorough, and no deficiencies related to those activities were noted that call protectiveness of the remedy into question.

6.2.2 In-Business Monitoring

The indoor air monitoring program is functioning effectively. Indoor air monitoring is conducted quarterly at specified locations and results are compared against indoor air threshold levels (IATLs). The IATLs are very conservative and are typically 2-3 orders of magnitude lower than OSHA permissible exposure levels (PELs) for occupational health exposure.

Quarterly monitoring reports provide data on a large suite of analytes. The PRPs and EPA compare the results to the IATLs to verify that there are no exceedances of IATLs. Since remedy implementation, monitoring results indicate that only benzene and PCE have been detected multiple times above respective IATLs. Exceedances of the IATL for benzene (2.0 ppbv) were recorded at several indoor sampling locations. At all except one of these locations, the exceedances occurred only sporadically over time, and at low concentrations. The IATLs are very conservative and were based on EPA Region 9 Ambient Air Preliminary Remediation Goals, which were calculated with an exposure assumption of 250 days per year for 25 years. The sporadic exceedances of the IATL for benzene therefore do not represent an unacceptable risk as a result of the low frequency of detection.

Two indoor air sampling locations have exhibited exceedances of IATLs on a fairly consistent basis since remedy construction. One location exceeded the IATL for benzene, and the other location exceeded the IATL for tetrachloroethene (PCE). At all locations where IATLs have been exceeded, the exceedances have been attributed to use of chemicals by the businesses in the buildings as documented by a 1999 in-building use chemical inventory and subsequent inspections.

EPA's consultants performed a chemical inventory in 1999 for the on-site businesses and documented widespread use of chemicals within individual buildings. The inventories identified both open and closed containers of chemicals containing VOCs in all of the inventoried buildings, which are mostly manufacturing or repair facilities. Examples of chemicals used in buildings include a long list of solvents, degreasers, coolants, lubricants, paints, paint thinners, petroleum products, and waste oil stored in a variety of open tanks, containers or spray cans. WDIG continues to informally keep track of indoor chemical usage as part of their ongoing OM&M inspection program. At the business where benzene exceeded the IATL, presence of gasoline containers and chemicals associated with cabinet making activities was documented. The business where PCE exceeded the IATL performs repair and machining associated with race cars. The chemical inventory information for that facility does not list any substance that directly addresses PCE. However, the indoor air concentrations greatly exceed the soil vapor concentrations in nearby vapor monitoring wells; strongly suggesting an in-business source of PCE rather than a site-related source. Meanwhile, the floor slabs in these structures are intact with no indications of breaches or other exposure pathways.

6.2.3 Soil Vapor Monitoring Well Network

The long term soil vapor monitoring program currently includes 13 "compliance wells" located at the periphery of the site, and 9 "non-compliance wells" located throughout the site closer to the source areas. These wells are currently sampled semi-annually. Data from the compliance wells are compared to soil gas performance standards (SGPS) developed for the project. These performance standards are intended to identify potential vapor intrusion risk, and are generally set at 100 times the IATLs.

Following remedy construction and start-up of the soil gas collection system, exceedances of the SGPS for benzene were observed at multiple compliance wells. Data for all soil gas analytes, including methane and fixed gases suggest that introduction of oxygen into the sub-surface through construction of the remedy and active operation of the soil gas collection system may have accelerated the generation of soil gas, thus forcing more soil gas out to the compliance wells. The soil gas collection system was converted to passive operation after two years of operation. Exceedances of the SGPS have diminished to zero with no exceedances reported in the most recent sampling event.

6.2.4 Groundwater Monitoring Well Network: The groundwater monitoring well network at WDI includes a total of 27 groundwater monitoring wells that were installed as part of the RI/FS process. Two additional wells were installed in January 2001. Seventeen (17) wells were decommissioned during construction of the remedial capping systems. The wells have been completed in two depth ranges, corresponding to the shallow and deeper groundwater flow patterns observed at the site. Groundwater investigations conducted throughout the 1990s provided information showing that the site has not contributed to exceedances of MCLs based on the distribution of COC concentrations.

Twelve (12) wells were selected and retained for the long-term groundwater monitoring program. In accordance with California's Title 22 regulations (22 CCR §66265.97), the groundwater detection program includes background wells, point-of-compliance (POC) wells, and other wells suitable for early detection of a release from a waste unit.

A review of the more recent groundwater monitoring data (1999-present) continues to show that there is no site-related groundwater contamination. The single well (GW-11), that has shown consistent VOC detections since 1999, is screened in the deeper water bearing zone that reflects more regional groundwater flow from northwest to southeast. GW-11 is located immediately adjacent to a shallower well (GW-10) that is sited in the upper water bearing zone characterized by groundwater flow to the southwest. The VOCs in GW-11 have been attributed to offsite contamination based on (1) VOC detections in the deeper well (GW-11) rather than the shallower well (GW-10; and (2) the deeper and shallower water bearing zones reflect different groundwater patterns. The detections in GW-11 are believed to represent impacts from an offsite source, possibly an adjacent Superfund site. There appears to be a downward trend in the concentration levels from 2001 through 2007.

6.2.5 Summary of Minor Enhancements from Data Review

A number of minor enhancements were suggested as a result of the data review. These are listed below. Please refer to Table 3 for a complete listing of enhancements raised throughout this Five Year Review, including the site inspection.

6.2.5.1 In-business ambient air monitoring: The OM&M program for in-business ambient air monitoring should be upgraded to formalize updates to the in-building chemical use inventories. Business owners and tenants, as well as their business activities, can change over time. EPA anticipates that quarterly monitoring procedures will be augmented to include (1) visual inspections of the floor slabs in each sampled building, (2) updated chemical use inventories, and (3) a questionnaire of chemical use in the last three (3) days to maintain accurate records of indoor chemical usage at all sampled buildings. Monitoring reports should include updated in-business chemical use information and results of visual inspection necessary to verify that IATL exceedances of any specific chemical are not due to soil vapor intrusion.

6.2.5.2 Soil vapor monitoring optimization: Opportunities exist to optimize and streamline environmental monitoring and reporting. After collecting extensive data for three years, EPA has sufficient data to reduce the analyte list and the number of analytes evaluated by statistical control chart trend analysis. The current data set includes enough sampling events to provide justification for selecting a smaller group of analytes that best represents actual site risk and changes in sub-surface soil gas conditions. Results for a large percentage of the analytes show either no detection, very low detection, or sporadic detection well below the IATL or SGPS. Reduction of the analyte list to a smaller number of indicator constituents is therefore warranted.

6.3 Institutional Controls Assessment

Institutional controls (ICs) play a substantial role in the site remedy. ICs are actions, such as legal controls, that help ensure the long-term integrity of the remedy and prevent human exposure to waste remaining at the site. ICs are particularly important at sites that involve multiple property owners and likely future development. The WDI site is comprised of 22 land parcels, owned by various entities, and occupied by numerous tenants operating small businesses (See Table 4 Summary of Parcel Owners and Tenants). In addition, the City of Santa Fe Springs has expressed considerable interest in encouraging redevelopment of the entire site area for light industrial use.

Environmental Restriction Covenants (ERCs) constitute the site's primary institutional control mechanism. The ERCs prohibit certain uses of the site property without EPA's consent.

As of December 2007, EPA had entered into fourteen (14) consent decrees with all the landowners of parcels contained within the WDI site. The consent decrees required each landowner to record an ERC for its parcel(s). All of the covenants have been recorded and are publicly available at the LA County Recorder's Office. Recently, a financial

institution foreclosed on an old promissory note against one of the parcels. Under California law, foreclosure of a lien extinguishes covenants recorded later in time; therefore, a new Environmental Restriction Covenant was recorded on this parcel on March 18, 2009.

In addition, the WDIG is obligated to monitor and enforce ICs pursuant with their own consent decree with EPA (WDIG Consent Decree). An Institutional Controls Monitoring and Enforcement Work Plan (ICMEWP), which must be updated bi-annually, provides an effective mechanism to maintain the selected institutional controls and includes the following activities:

- Monitoring property information and covenants for each property from a variety of sources.
- Monitoring the condition of the remedy on each property through site inspections, monitoring of permits, contract advertisements, and USA alerts.
- Communication with landowners and tenants to coordinate site access for all OM&M activities.
- Non-compliance enforcement – WDIG notifies property owner and EPA of violations.
- Application for exceptions – Property owner may apply to EPA to modify/redevelop the property.

The ICs have been crucial in protecting the remedy and maintaining compliance with AROD requirements. The covenants have provided an effective framework to protect the capping remedy in light of potential future redevelopment of the site. Similarly, an effective program has been developed to monitor and enforce the covenants under oversight by EPA. A detailed IC review is included with this report in Attachment D.

6.4 Site Inspection

6.4.1 Participants and Activities

The USACE conducted an inspection of the WDI site on September 11, 2008. The inspection addressed the entire site including the RCRA C and D-equivalent engineered multi-layered caps, the other RCRA D-equivalent asphalt and concrete capping systems, engineering controls at selected locations, the soil vapor and groundwater monitoring wells, the leachate extraction system, and the fencing of the site. The USACE representatives and the WDIG Project Coordinator participated in the site inspection. A Site Inspection Report, including a list of attendees, is included in Attachment E. The inspection involved discussion with the WDIG Project Coordinator and a walking tour of the site. USACE staff also visited city officials to review the status of ICs and redevelopment plans.

6.4.2 Remedy Condition

Access controls for the site were in good condition. The majority of the WDI site is

undeveloped and surrounded by fencing which is maintained by the WDIG. However, small businesses located around the perimeter of the site along city streets maintain their own fencing and are responsible for their own access control. The purpose of the fencing is to prevent trespassing with particular attention focused on the adjacent high school to the northeast. The fenced site area is secure. All areas of the site were in good condition with no noted vandalism, graffiti, or other visible damage. There is higher fencing along the north side of the site, where the site abuts the adjacent high school. The remedy includes enhanced security, landscaping, and a stray ball fence constructed in response to issues raised by the school during the remedy selection and remedial design processes. Since the interior site area currently has minimal and sporadic use and does not typically receive visitors, there is no manned security. The site has two main vehicle access gates on Greenleaf Avenue and Santa Fe Springs Road. Bilingual EPA Superfund site warning signs are placed appropriately at intervals along the site's fencing.

The RCRA-equivalent capping systems were in good condition. RCRA Subtitle C-equivalent cap covers the waste reservoir located in the center of the site (the "dial"). The cap was in good repair, with no notable defects or damage. The native vegetation on the unirrigated site was dry due to its seasonal nature and generally dry conditions for several seasons. No significant erosion or other wear was observed. Landscaping adjacent to the school is being irrigated. The settlement monuments were located, and found in good condition during the site visit.

The majority of the area outside the reservoir and within the secured fenced area is covered by RCRA Subtitle D-equivalent containment systems. The inspectors noted some minor items for follow-up which do not affect remedy protectiveness and can be readily addressed through visual monitoring and routine OM&M.

Observations related to OM&M for the RCRA D-equivalent capped area include the following:

- The Subtitle D-equivalent cap was intact, but there are some minor cracks in the surface soil layer and a few deep-rooted flowering bushes, which can be easily corrected.
- There are some bare areas in the vegetation where grass seed has not germinated. These areas should be monitored after future significant rain events to ensure that there is no erosion.

The groundwater, vapor, and bioventing wells were in good condition. Vapor well VW-33 has been paved over and can be restored to service with minimal effort. The inspectors noted minor cracking on several concrete well pads and unsecured lids on two wells. Although damage is minor, repairs should be performed to maintain optimal remedy efficiency. EPA expects that the necessary repairs will be made in the near future, and will work with the WDIG to develop a schedule to address these issues.

The VW-33 is a "compliance well," located along the perimeter of the site, and was designed to monitor migration of soil vapor offsite as well as towards nearby buildings.

VW-33 was paved over during remedy construction and has been omitted from previous sampling rounds by the PRPs. This omission is not considered critical because adjacent "non-compliance" wells have been in compliance with soil gas performance standards. The site inspection confirmed that VW-33 has been paved over. The location of the paved-over well was noted during the site inspection. The date of the pave-over is unknown. EPA recommends that VW-33 be restored to service, but does not currently consider this to be an immediate or critical issue affecting remedy protectiveness.

The recently installed automatic leachate collection system was functioning as designed. The low-volume leachate extraction system includes two automated wells and two hand-hand bailed wells. The four low-volume leachate wells were installed to maintain leachate levels in the lined reservoir in the dial area to less than twelve (12) inches. The extraction points are fenced and together remove approximately 30 gallons per week.

The engineered covers on developed properties outside the fence were in good condition. At small businesses on the south side of the site, engineered asphalt and engineered concrete pavements were noted to be in good condition. It was observed that some surface cracks have been sealed.

A detailed Site Inspection Memorandum, including photos and an inspection checklist, is included in Attachment E.

7. Technical Assessment

The technical assessment focuses on answering the following three questions in order to reach conclusions regarding protectiveness of the remedy.

7.1 Question 1: Is the remedy functioning as intended by the decision documents?

7.1.1 Remedial Action Performance and Operations

The remedy was considered operational and functional upon EPA approval of the combined Remedial Action Completion Report and As-Built Report on September 14, 2006. Formal OM&M activities began on September 15, 2006.

The remedy is performing as intended. The RCRA-Equivalent caps and other engineered capping systems are functioning as designed. The capping systems minimize the potential for exposure to buried wastes, contaminated soils, and subsurface gases. The capping systems also minimize surface water infiltration to the subsurface. The liquids extraction system has been effective for the removal of leachate. The soil gas collection and extraction system was operated actively for approximately two years and is currently operating effectively in passive mode due to low gas generation rates. This change was anticipated during the remedial design, with numerical criteria set for gas concentrations that could be allowed to vent passively. The indoor air monitoring program shows that engineering controls to building foundations have been effective in preventing indoor vapor intrusion. Although there have been some instances where indoor air concentrations in some buildings have exceeded threshold criteria, there is strong

evidence to indicate that these exceedances are due to indoor use of chemicals (solvents, petroleum products, etc.) for business purposes rather than vapor intrusion from the site. With respect to groundwater, to date, there is no indication that waste materials from the WDI site have caused exceedances of groundwater standards.

7.1.2 Implementation of Institutional Controls

Institutional controls have been established to protect human health by maintaining industrial use of the site and to protect the integrity of the remedy by limiting future construction activities. The owners of each site parcel have recorded an Environmental Restriction Covenant (ERCs), which controls future property use. An Institutional Controls Monitoring and Enforcement Work Plan is updated bi-annually to ensure that all properties are in compliance with the institutional controls. The City of Santa Fe Springs' Specific Use Plan for redevelopment of the site is consistent with the institutional control objectives described in the AROD.

With monitoring and enforcement, the ICs have been effective in protecting the integrity of the control systems, restricting inappropriate future land use, restricting potential future groundwater use, and ensuring access for ongoing O&M activities.

7.2 Question 2: Are the exposure assumptions, toxicity data, cleanup levels, and remedial action objectives (RAOs) used at the time of the remedy selection still valid?

7.2.1 Changes in Standards and Newly Promulgated Standards

The AROD for the WDI site established performance standards for soil gas based on Region 9 industrial preliminary remediation goals (PRGs). EPA did not establish performance standards for soil because the selected remedy relies upon RCRA-equivalent engineered capping systems to provide onsite containment of waste materials. MCLs serve as the performance standards for long-term detection groundwater monitoring.

WDIG complied with all action-specific ARARs listed in the 2002 AROD during remedy construction. At the time of the risk characterization, the inhalation risk screening factors were based on USEPA Region 9's preliminary remediation goals (PRGs) for ambient air. The current inhalation risk screening values are the Region 9 Regional Screening Levels (RSLs) for industrial air. There have been a number of changes to the ambient air PRGs/RSLs. However, the majority of the revisions entail increases of the PRG/RSL values from lower to higher values, which indicates that the criteria in the 2002 AROD are conservative and protective. None of the PRG/RSL changes affect protectiveness of the remedy. EPA has reduced screening levels for four compounds: 1,2 dibromoethane, ethylbenzene, tetrachloroethene, and xylenes. Based on review of site data those changes do not result in any reduction of protectiveness. A full evaluation of changes in standards is provided in Attachment F, Risk Assessment, Toxicology, and ARARS Analysis Memorandum.

7.2.2 Changes in Exposure Pathways

There have been no significant changes to either existing or anticipated land use on or near the WDI site. There have been no newly identified contaminants or contaminant sources since remedy implementation. There have been no unanticipated toxic by-products of the remedy not previously addressed. There has been no change to the physical site conditions other than that resulting from the required remedial actions that could affect the protectiveness of the remedy. The cap integrity has been evaluated and the engineering capping systems are performing as designed.

7.2.3 Changes in Toxicity

The AROD did not identify remedial action levels (cleanup levels) for soil COCs because the selected remedy relies on capping rather than excavation. However, an evaluation of changes in toxicity factors for those compounds driving the risks and hazards associated with site soils was conducted. While there have been changes in toxicity factors used in the initial risk assessment, the conservative nature of the exposure assumptions (residential) used in conjunction with the exposure pathways evaluated, most of which are no longer complete, indicate that the risk assessment is still valid. Most of the significant changes in toxicity values are for reference doses for inhalation, which were not included in the original risk assessment. Again, this inhalation pathway is currently incomplete because the implemented remedy prevents direct contact and incidental inhalation of site soils.

The AROD's performance standards for soil vapor COCs are based on modified Region 9 Ambient Air PRGs. In 2008, EPA Region 9 updated its screening values and some procedures for screening environmental risks. EPA now uses updated screening levels as presented in the 2008 Regional Screening Levels (RSLs).

The 2008 RSLs provide updated standards for industrial air. For all but four VOCs at WDI, the former PRGs are more conservative standards, and hence remain protective. With respect to the four VOCs with new RSLs, the risks associated with using the newer more conservative RSLs still fall within the EPA's acceptable risk range. EPA's updating of the screening levels for soil vapor from PRGs to the 2008 RSLs does not call protectiveness of the remedy into question. Therefore the standards in the AROD are appropriate and protective. A full evaluation of toxicity changes is provided in Attachment F, Risk Assessment, Toxicology, and ARARS Analysis Memorandum.

7.2.4 Changes in Risk Assessment Methods

To date, no standardized risk assessment methodologies have changed in a way that could affect the protectiveness of the remedy.

7.2.5 Expected Progress Towards Meeting Remedial Action Objectives

EPA selected the following RAOs for the site: (1) protect human health and the environment by preventing exposure to buried wastes and contaminated soils; (2) protect current and future on-site and off-site receptors from exposure to soil gases; (3) prevent human exposure, from direct contact, consumption, and other uses, to site liquids

exceeding state and federal standards; (4) prevent contribution of site liquids to exceedances of state and federal groundwater standards; and (5) prevent human exposure to groundwater that exceeds state and federal standards due to site-related contaminants.

These objectives recognize (1) the present use of the site, (2) the anticipated potential for future use of the site for industry, and (3) the potential for groundwater in the area to be used as a public water supply. The remedial actions are currently achieving the RAOs. Site data indicate that all exposure routes remain incomplete.

7.3 Question 3: Has any other information come to light that could call into question the protectiveness of the remedy?

There is no new information that might affect the protectiveness of the remedy. No new ecological factors have been identified. No natural disasters such as earthquakes, floods, or fires have occurred in or near the WDI.

8. Issues

No issues have been identified that relate to protectiveness of the remedy.

This review noted a number of minor enhancements that are being addressed by the site team under routine OM&M processes. Opportunities for optimization are also being identified to provide increased efficiencies and enhance cost-effectiveness with no decrease in remedy protectiveness. These enhancements are being addressed by the project team on an ongoing basis (see Table 3).

9. Recommendations and Follow-up Actions

There are no recommendations for follow-up action for the WDI site that affect remedy protectiveness.

10. Protectiveness Statement

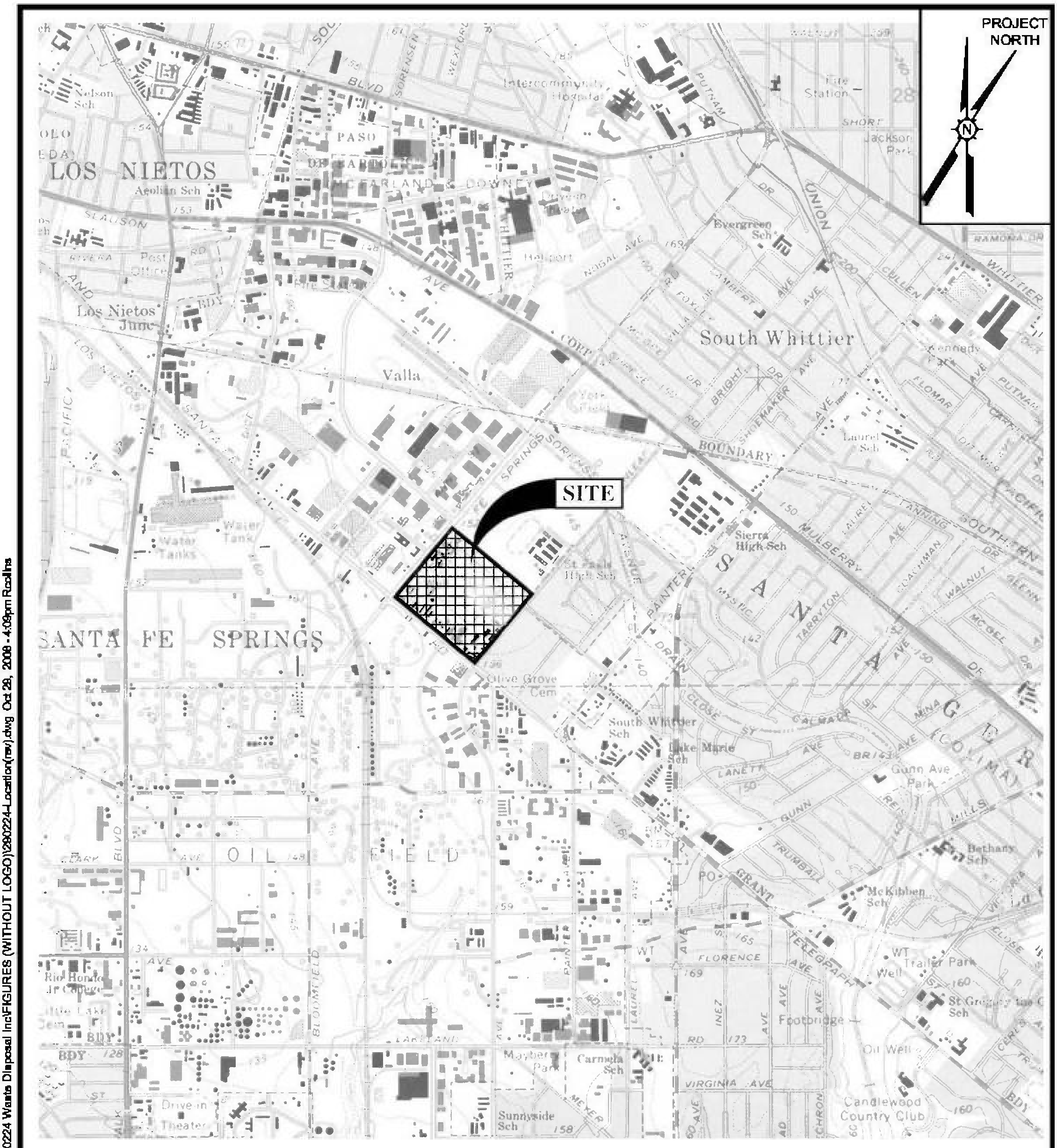
The remedy is protective of human health and the environment. The remedy successfully contains on-site waste and blocks exposure pathways. The cap prevents direct exposure to contaminated soils. The soil gas migration control systems prevent migration of vapors off-site and/or into buildings. Groundwater remains unaffected by site contamination.

11. Next Review

The next review will be performed in the autumn of 2013. The next Five-Year Review Report will be due in March 2014.

FIGURES

1. **SITE LOCATION MAP**
2. **SITE FEATURES**
3. **MAJOR REMEDY COMPONENTS**



MS=1:1 L:\Graphics\ProjectsByNumber\129-xxxx\129-0224 Waste Disposal Inc\FIGURES (WITHOUT LOGO)\290224-Location(new).dwg Oct 29, 2008 - 4:09pm Rcalha

REFERENCE:

USGS 7.5 MINUTE TOPOGRAPHIC MAP OF WHITTIER, CALIFORNIA, DATED 1981.

PROJECT: 156626

FACILITY:

WASTE DISPOSAL, INC.
SANTA FE SPRINGS, CALIFORNIA

SITE LOCATION MAP

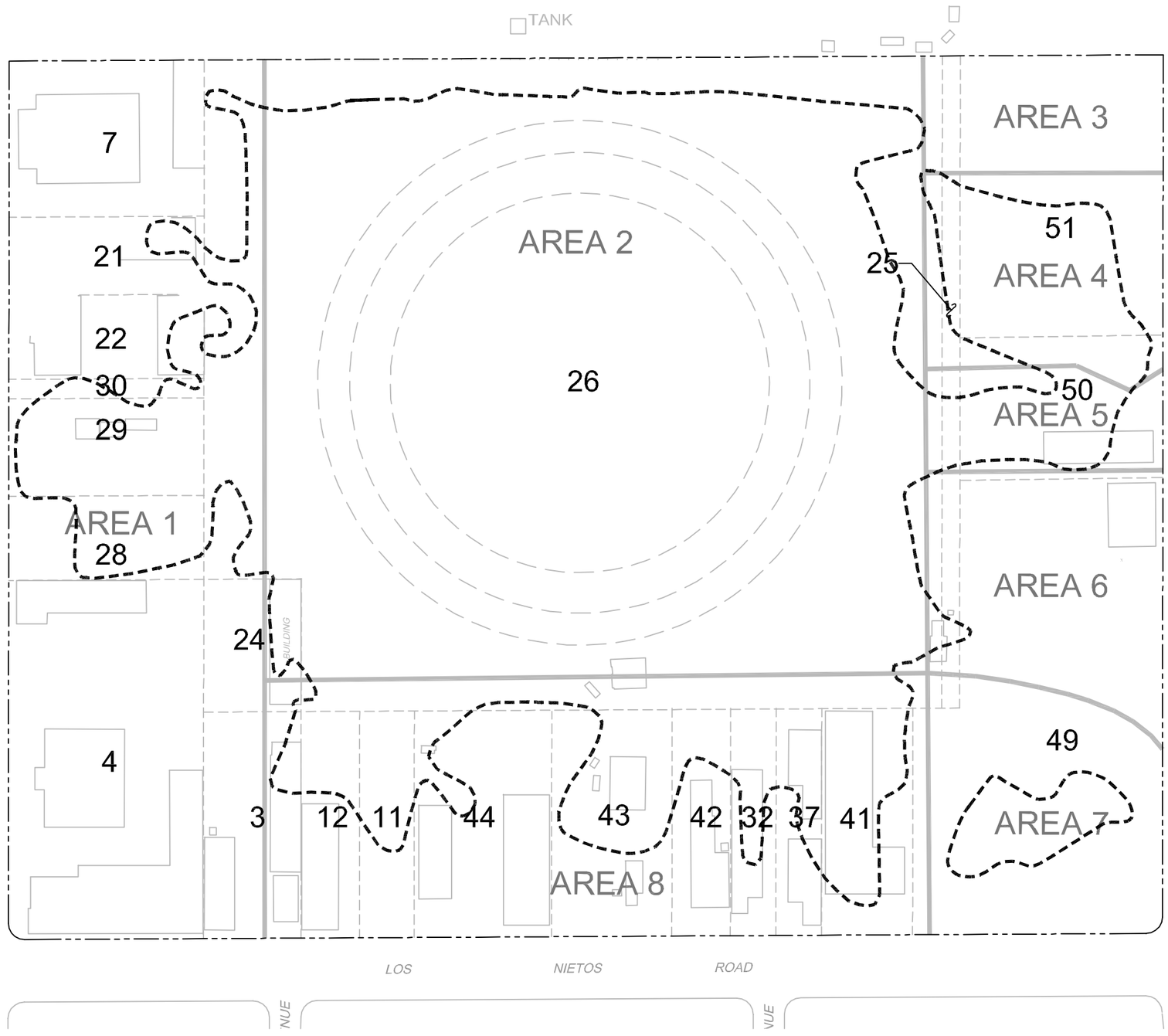
FIGURE 1

LEGEND

- Site Boundary
- Area Boundary
- AREA 1 Historical Use Designations
- Parcel Boundary
- 7 Parcel Number
- Limit of Waste
- Existing Building

Parcel No./Owner

3	Raymond & Donnis Holbrook Trust
4	Dia-Log Company
7	Eugene and Geraldine Welter Trust
11	Albert C K & Betty Leung
12	Albert C K & Betty Leung
21	Lucille F. Ferris Living Trust
22	John I. Maple Family Partnership
24	Raymond & Donnis Holbrook Trust
25	Marvin W. Pitts and Cecilia Pitts, trustees under Declaration of Trust, dated February 1, 1982 (Pitts Family Trust), Adeline R. Bennet, M.D. Living Trust
26	Marvin W. Pitts and Cecilia Pitts, trustees under Declaration of Trust, dated February 1, 1982 (Pitts Family Trust), Adeline R. Bennet, M.D. Living Trust
28	Thomas J. Mersits, Irene L. Mersits Trust
29	Thomas J. Mersits, Irene L. Mersits Trust
30	Marvin W. Pitts and Cecilia Pitts, trustees under Declaration of Trust, dated February 1, 1982 (Pitts Family Trust), Adeline R. Bennet, M.D. Living Trust
32	David Joseph Neptune Family Trust
37	Lula Graziano, Trustee of Trust "A" of the Graziano Trust as restated March 4, 1992 Lula Graziano, Trustee of Trust "B" of the Graziano Trust as restated March 4, 1992, Jovita I. Ortega
41	Eugene and Geraldine Welter Trust
42	Danny R. Peoples & Dena Peoples
43	Eddie Earl Timmons
44	Sisneros Family Trust
49	Greve Financial Services, Inc.
50	Brothers Machine & Tool, Inc.
51	Marvin W. Pitts and Cecilia Pitts, trustees under Declaration of Trust, dated February 1, 1982 (Pitts Family Trust), Adeline R. Bennet, M.D. Living Trust



REFERENCE:

Nunez Engineering, Survey Drawing NE 97187, Oct. 31, 1997.

SCALE (FEET)

0 150 300

PROJECT: 156626

FACILITY:

WASTE DISPOSAL, INC.
SANTA FE SPRINGS, CALIFORNIA

SITE FEATURES

FIGURE 2

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LEGEND

RCRA SUBTITLE C-EQUIVALENT CAP AREA
DETAIL 4 (9|10)

RCRA SUBTITLE D - EQUIVALENT COVER AREA
DETAIL 5 (9|10)

REMOVE EXISTING ASPHALT AND REPLACE WITH ENGINEERED ASPHALT COVER
DETAIL 6 (9|10)

2" ASPHALT OVERLAY COVER
DETAIL 6A (9|10)

REMOVE EXISTING CONCRETE AND REPLACE WITH ENGINEERED CONCRETE COVER
DETAIL 7 (9|10)

ENGINEERED CONCRETE COVER WITH SEALED CRACKS
DETAIL 7A (9|10)

SEAL ASPHALT AND RESTRIPE

CLEAN OUT

LIMIT OF WASTE

GAS COLLECTION PIPE

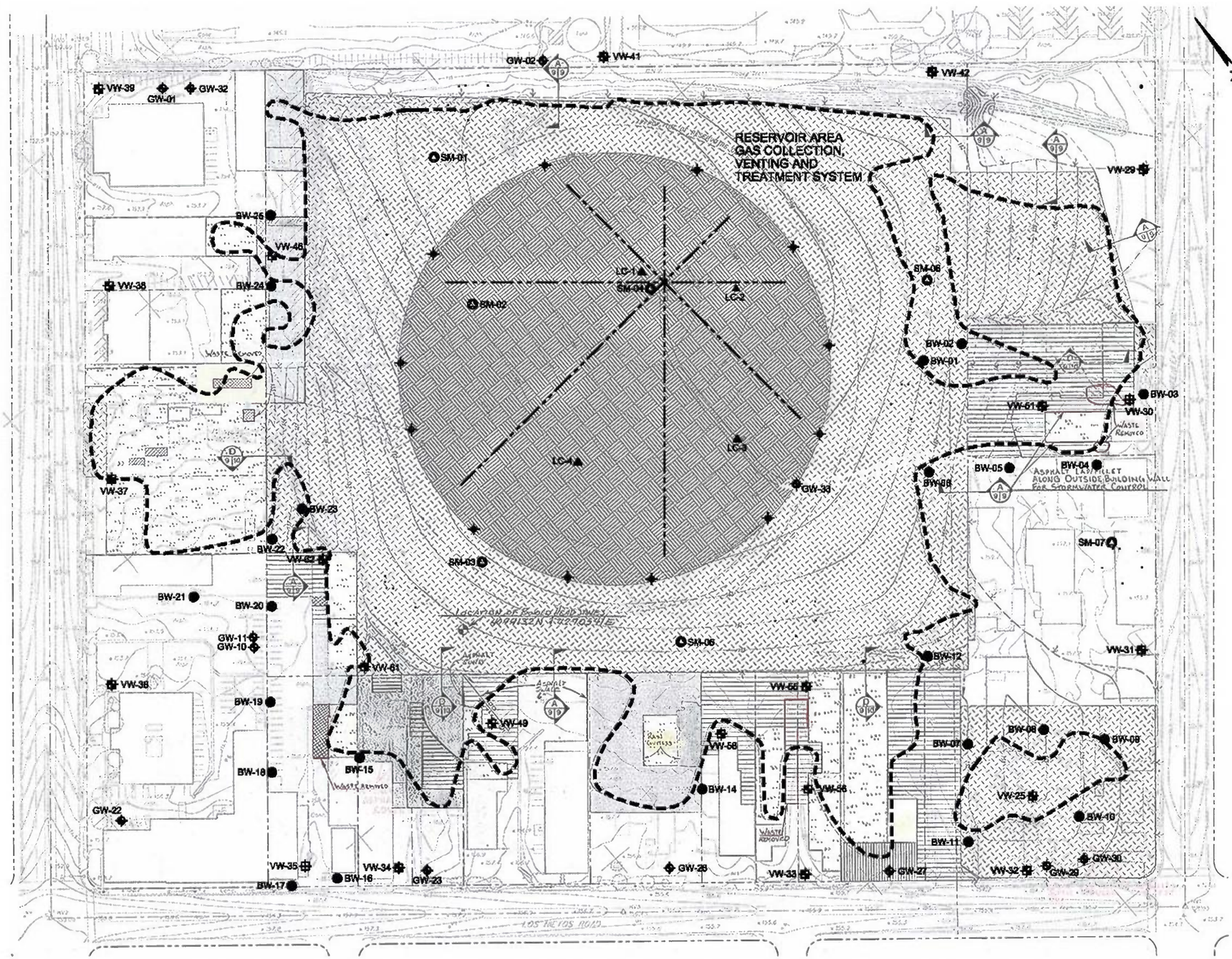
BIOVENT WELL

EXISTING GROUND WATER WELL RETAINED FOR MONITORING

EXISTING VAPOR WELL RETAINED FOR MONITORING

LEACHATE COLLECTION WELL

SETTLEMENT MONUMENT



SCALE (FEET)
0 150 300

PROJECT: 156626

FACILITY:
WASTE DISPOSAL, INC.
SANTA FE SPRINGS, CALIFORNIA

MAJOR REMEDY COMPONENTS

FIGURE 3

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TABLES

2. **SOIL GAS PERFORMANCE STANDARDS**
3. **SYSTEM OPTIMIZATION CHART**
4. **SUMMARY OF PARCEL OWNERS AND TENANTS WASTE DISPOSAL INC. SUPERFUND SITE**

TABLE 2

SOIL GAS PERFORMANCE STANDARDS AND INDOOR AIR THRESHOLD LEVELS WASTE DISPOSAL, INC. SUPERFUND SITE

COMPOUND	SOIL GAS PERFORMANCE STANDARD[1] (ppbv)	INDOOR AIR THRESHOLD LEVEL[2] (ppbv)[3]
Benzene	10	2.0
Carbon Tetrachloride	21	0.68
Chloroform	20	3.4
1,2-Dibromoethane	1	0.06
1,2-Dichloroethane	20	3.6
cis-1,2-Dichloroethene	180	18.6
1,1-Dichloroethene	100	53[4]
1,2-Dichloropropane	20	1.86
trans-1,2-Dichloroethene	400	36.8
Ethylbenzene	5,000	490
Tetrachloroethene	500	10.6
Toluene	2,000	212.0
1,1,1-Trichloroethane	3,600	368.0
Trichloroethene	200	3.0 µg/m^3 [5]
Vinyl Chloride	10	0.25
m,p-Xylene	4,000	142.8
o-Xylene	4,000	142.8
Methane	1.25% (near buildings) 5.0% (site perimeter)	1.25%

(1) EPA, Amended Record of Decision, Waste Disposal, Inc. June 2002.

(2) CDM Federal Programs Corporation, Subsurface Gas Contingency Plan, Waste Disposal, Inc. Superfund Site, July 1997.

(3) Indoor Air Threshold Levels are expressed in part per billion volume (ppbv), except for Trichloroethene (TCE) that is expressed in µg/m^3.

(4) Developed separately by EPA (i.e., subsequent to the *Subsurface Gas Contingency Plan* [see footnote (2)]).

(5) Pursuant to EPA policy requirements, the indoor air *interim* threshold level for Trichloroethene (TCE) has been revised to 3.0 µg/m^3 (0.56 ppbv at 25 ^{o}C and 1 atm) for the in-business ambient air monitoring program. Please note that this value may be subject to future revision.

DRAFT

Table 3
System Optimization Chart
Waste Disposal, Inc. (WDI) Superfund Site
Santa Fe Springs, CA 90670

No.	Priority	System	ID#	Deficiency	Action	Target Date	Actual Completion Date
1	Moderate	Indoor Ambient Air	6.2.5.1 p16	Revise OM&M Program to include visual inspection of foundation slabs and crack sealing; implement repairs as needed.	Document inspection & up date OM&M Plan	Sep-09	
2	Moderate	Indoor Ambient Air	6.2.5.1 p16	Update in-building Chemical Use Inventories on a quarterly basis in conjunction with quarterly in-building air monitoring program.	Document inventory & up date OM&M Plan	Sep-09	
3	Low	Groundwater Monitoring System	6.4.2 p19	Monitoring well VW-33 has been paved over.	Expose VW-33 and construct surface completion. Restore the well to the monitoring network.	Aug-09	
4	Low	Groundwater Monitoring System	6.4.2 p19	Cracks on well completions	Repair cracks on well completions	Aug-09	
5	Low	Soil Vapor Monitoring	6.2.5.2 p17	Large number of soil vapor analytes show no detections or low and sporadic detections	Revise soil vapor monitoring analyte list to optimize list of target constituents. Select indicator constituents & up date O&M	Aug-09	
6	Low	Capping system	6.4.2 p19	Nuisance Vegetation	Remove nuisance vegetation	Oct-09	
7	Low	Capping system	6.4.2 p19	Check for erosion	Repair any discovered erosion	Oct-09	
8	Low	Access Control	6.4.2 p18	Continue to follow-up on graffiti	Remove discovered grafitti & up date O&M	Within 30 days of discovery	
9	Low	Landscaping	6.4.2 p19	Landscaping Condition and High School Concerns	Continue coordination with High School, lawn mowing & landscape maintenance	As required	
10	Low	Capping system	6.4.2 p19	Surface cracks in soil cover	Repair surface cracks in soil cover	Oct-09	

SUMMARY OF PARCEL OWNERS AND TENANTS
WASTE DISPOSAL INC. SUPERFUND SITE

PARCEL NO.	UNIT NO.	RECORDED OWNER	OWNER CONTACT	OWNER CONTACT TELEPHONE NO.	TENANT	TENANT CONTACT	TENANT ADDRESS	TENANT TELEPHONE NO.	CURRENT LAND USE
3	1	Raymond and Donnis Holbrook Trust	Eileen Holbrook	562-402-8389	Metro Diesel Injection	Monty Torres	12631 Los Nietos Rd	562-944-4846	Manufacturing
	2				DT Precision	Robert Barraza	12633 Los Nietos Rd	562-941-3308 714-277-9915	Unknown
	3				Vacant		12635 Los Nietos Rd		
	4				DK Enterprises	Dan Stroben	12635 Los Nietos Rd	562-906-2900	Machine Shop
4	1	Dia-Log Company	**Scott Hartshorn**	**713-624-8386**	Air Liquide	**Scott Adams**	9756 Santa Fe Springs Rd	**562-906-8729**	Industrial Gas Distribution
7	1	Eugene and Geraldine Welter Trust	**Darren Welter**	562-944-0291		Katherine Thrower	9618 Santa Fe Springs Rd #1	562-941-1821	Storage
	2				Ink Print	Martha De la Huerta	9618 Santa Fe Springs Rd #2	213-215-2103	Print Shop (business cards)
	3				The Polish Shop	Patrick Renish	9618 Santa Fe Springs Rd #3	714-362-1773	Polish Shop
	4				Cardon Cutting Tools	Abe & Frances Quighano	9618 Santa Fe Springs Rd #4	562-544-1420	
	5				Fontenont Construction	Jaret Fontenont	9618 Santa Fe Springs Rd #5	562-307-5371	
	6				Green Mountain Studios	Peter Schneckee	9618 Santa Fe Springs Rd #6&7	562-903-8556	Studio
	7								
	8					J. Silva	9618 Santa Fe Springs Rd #8	562-695-0132	Coffee Pots
	9					Jose Ramirez	9618 Santa Fe Springs Rd #9	310-787-7175	Welding
	10					Hugo Trujillo	9618 Santa Fe Springs Rd #10	714-447-4478	Welding - fences & gates
	11					Jesus Ramirez	9618 Santa Fe Springs Rd #11	562-212-2535	Metal Forming
	12				Conrad Enterprises	William Saxton	9618 Santa Fe Springs Rd #12	562-903-4006	
	13				City Steel	George Sullivan	9618 Santa Fe Springs Rd #13	562-944-3936	
	14					Leroy Bentaleou	9618 Santa Fe Springs Rd #14	310-779-1090	
	15					Mike Ferris	9618 Santa Fe Springs Rd #15	310-920-1296	Auto Electric
	16					Dennis Rodriguez	9618 Santa Fe Springs Rd #16	562-652-3516	Machine Shop
	1				Go Fast	Ronnie Tagle	9606 Santa Fe Springs Rd	562-698-2652	Auto/Machine Shop
	2					Roy Law	9608 Santa Fe Springs Rd		Wood Shop
	3				A & L Sweep Systems	Kim Goines	9610 Santa Fe Springs Rd	562-693-2971	Street Sweeping
11	1	Albert C.K. and Betty Leung	Albert Leung	**818-512-7886**	AAG Metal Industries	Albert Leung		562-698-9762	Import company, cast iron for commercial stoves
12	1						12645 Los Nietos Road		
	2						12647 Los Nietos Road		
	3						12649 Los Nietos Road		
21	1	Lucille F. Ferris Living Trust	Lucille Ferris	562-869-4143	Chillers Services	Bruce Kolstad	9620 Santa Fe Springs Rd	562-906-0105	Air Conditioning/Demolition
22	1	John I. Maple Family Partnership	**Pam Maple**	**949-495-0408**	Gold Coast Refractory	Robert Black	9630 Santa Fe Springs Rd	562-946-1942	Metal Work
24	1	Raymond and Donnis Holbrook Trust	Eileen Holbrook	562-402-8389	C&E Metal Products, Inc.	Mark Ellis	12637A/B Los Nietos Rd	562-946-6661	Machine Shop
	2				Buffalo Bullet	Ronald Dahlitz	12637 Los Nietos Rd	562-944-0322	Bullet Manufacturing
25		Marvin W. Pitts and Cecelia Pitts, trustees under declaration of Trust dated February 1, 1982 (Pitts Family Trust)	Marvin C. Pitts	**931-237-6782**	Marvin Pitts (Reservoir Area)	Marvin Pitts			RV/Other Storage
26		Adeline R. Bennet, M.D. Living Trust	Adeline Bennet						RV/Other Storage
28	1	Thomas J. Mersits Irene L. Mersits Trust	Tom Mersits	562-946-1220	Mersits Equipment	Tom Mersits	9640 Santa Fe Springs Rd	562-946-5707	Heavy Equipment Rentals
29	1							562-946-5806	
30	1	Marvin W. Pitts and Cecelia Pitts, trustees under declaration of Trust dated February 1, 1982 (Pitts Family Trust)	Marvin C. Pitts	**931-237-6782**	Marvin Pitts (Driveway)	Marvin Pitts			Storage Lot
		Adeline R. Bennet, M.D. Living Trust	Adeline Bennet						
32	1	David Joseph Neptune Family Trust	Dave Neptune	562-946-6377	California Reamers	Dave/Lori Neptune	12747 Los Nietos Rd	562-946-6377	Machine Shop

SUMMARY OF PARCEL OWNERS AND TENANTS
WASTE DISPOSAL INC. SUPERFUND SITE
(CONTINUED)

PARCEL NO.	UNIT NO.	RECORDED OWNER	OWNER CONTACT	OWNER CONTACT TELEPHONE NO.	TENANT	TENANT CONTACT	TENANT ADDRESS	TENANT TELEPHONE NO.	CURRENT LAND USE
37	1	Lula Graziano, Trustee of Trust "A" of the Graziano Trust restated March 4, 1992	John Graziano Lula Graziano	707-554-5696 562-942-3672	**Estus Racing**	Richard Stannard	12803 Los Nietos Rd	626-484-1107	Automotive Shop
	2	Lula Graziano, Trustee of Trust "B" of the Graziano Trust restated March 4, 1992 Jovita I. Ortega	Jovita Ortega	562-902-5343	Unknown				
41	1	Eugene and Geraldine Welter Trust	**Darren Welter**	562-944-0291	Four C's Transmission	Julian Nieto	12807A Los Nietos Rd	562-946-9272	Automotive Shop
	2				Seal Methods, Inc. (SMI)	Darren Welter	12807B Los Nietos Rd	562-944-0291	Gadgets and Manufacturing
	3				2 Stage Enterprises	David Campion	12809A Los Nietos Rd	562-841-5149	
	4						12809B Los Nietos Rd	562-777-0994	Sporting Good Wholesaler
	5				Seal Methods, Inc. (SMI)	Darren Welter	12811A Los Nietos Rd	562-944-0291	Gadgets and Manufacturing
	6				Storage	Darren Welter	12811B Los Nietos Rd	562-944-0291	Storage
	7				Leo's Lawnmower	Leo Rojas	12811C Los Nietos Rd	562-944-0538	Machine Shop
	8				Hernandez Auto	Octavio Hernandez	12811D Los Nietos Rd	562-237-4967	Automotive Shop
	9				H & H Contractors	Roger Hall	12811E Los Nietos Rd	562-946-5108	Contractors
	10						12811F Los Nietos Rd		
42	1	Danny R. Peoples & Dena Peoples	Danny Peoples	562-947-7725	Airbrake Associates	Daniel Wedge	12741 Los Nietos Rd	562-946-4960	Automotive Manufacturing
43[(1)]	1	Eddie Earl Timmons	Eddie Timmons	**562-244-5126**	**X-Transportation & Storage, Inc.**	**Angel Galliando**	12723 Los Nietos Rd	562-577-8753	**Brokerage Trucking Company**
					TNT Auto Recovery	**Gary Rogers**		562-946-5401	**Car repossession lot**
44	1	Sisneros Family Trust	Dave Hoffman	562-777-9797	Sisneros Office Furniture	Dave Hoffman	12717 Los Nietos Rd	562-777-9797	Furniture Manufacturing
49		**Greve Financial Services, Inc.**	**Joseph E. Kennedy**	**310-753-5770**	**Vacant Lot**	**Joseph E. Kennedy**	**9951 Greenleaf Ave.**	**310-753-5770**	**Vacant Lot**
50	1	Brothers Machine & Tool, Inc.	Jose Razo	562-903-1117	Brothers Machine & Tool	Jose Razo	9843 S. Greenleaf Ave.	562-903-1117	Machine Shop
51		Marvin W. Pitts and Cecelia Pitts, trustees under declaration of Trust dated February 1, 1982 (Pitts Family Trust) Adeline R. Bennet, M.D. Living Trust	Marvin C. Pitts Adeline Bennet	**931-237-6782**	Vacant Lot				

Note: Tenants frequently rotate on the properties and as a result, this list will be updated periodically.
BOLD ITEMS: Represent updated information since the previous report.
(1) This parcel has been leased out as of 06/01/08.

Reference: In accordance with Institutional Controls Monitoring and Enforcement Work Plan, Section 2.5, Page 9.

ATTACHMENT A

PUBLIC NOTICE

PUBLIC NOTICE
THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY BEGINS FIRST FIVE-YEAR REVIEW OF CLEANUP AT THE WASTE DISPOSAL, INC SUPERFUND SITE

The United States Environmental Protection Agency (EPA) has begun the first Five-Year Review of cleanup actions undertaken at the Waste Disposal, Inc., Superfund Site (Site) in Santa Fe Springs, CA. The review will evaluate whether the cleanup actions completed for the Site remain protective of human health and the environment.

SITE HISTORY
The Waste Disposal, Inc. site was originally constructed in 1924 as a storage reservoir for petroleum drilling waste and later hazardous substances, including both liquid and solid wastes. The reservoir was finally decommissioned in 1963. The Site was placed on the National Priorities List (NPL) in 1987 to address the resulting contamination in the subsurface soils and soil gas beneath the reservoir and some of the surrounding businesses. A Record of Decision was signed in 1993 initiating the cleanup actions and was later amended in May 2001. Construction of the remedy was completed in 2006 and has since been transitioned into long-term operation and maintenance.

CLEANUP OBJECTIVE
The cleanup goals established in the Site's Record of Decision are to protect human health and the environment by preventing exposure to buried wastes and contaminated soils and to prevent site liquids from causing exceedances of state and federal groundwater standards. To achieve these goals, a multi-layer engineered cap and an engineered cap (cover) has been placed over the reservoir and selected areas outside the reservoir. In addition, a landfill gas and leachate collection and treatment system was installed along with other soil vapor protection measures. Institutional controls, such as deed restrictions and zoning ordinances, and monitoring are also utilized to ensure the integrity of the remedy over time.

THE REVIEW PROCESS
When EPA's cleanup remedy leaves waste in place or the remedy will take longer than five years to complete, the Superfund law requires an evaluation of the protectiveness of remedial systems every five years, until the Site has been cleaned up sufficiently to allow unrestricted access. The purpose of the Five-Year Review is to understand how the constructed remedy is operating and to measure the progress towards achieving the Site's cleanup objectives. This Five-Year Review, the first for the Site, will evaluate the short- and long-term protectiveness of human health and the environment.

EPA will look at the effectiveness of the remedies, including the engineered capping systems, collection and treatment of gases, collection and removal of site liquids, and institutional controls. EPA will talk with applicable stakeholders and interested members of the public.

Upon completion of the review, a copy of the final report will be placed in the local information repository listed below and a notice will appear announcing the completion of the Five-Year Review Report in the local paper. EPA will monitor the Site and conduct additional five-year reviews to ensure the long-term protectiveness of the remedy.

COMMUNITY INVOLVEMENT
EPA is always interested in hearing from the public. If you have any issues or concerns about the Waste Disposal, Inc.'s Site cleanup plan or have direct knowledge regarding the operation or implementation of the as-built remedy, EPA would like to talk with you. Please contact Project Manager Russell Mechem or Community Involvement Coordinator José García at the numbers below. If you would like to be included in our mailing list and receive future fact sheets, please contact José García.

FOR MORE INFORMATION
Please visit the Site Overview at:
www.epa.gov/region09/wastedisposal

Or visit the information repository to review the administrative record or contact EPA representatives.

INFORMATION REPOSITORY:
EPA Superfund Records Center
95 Hawthorne St.
San Francisco, CA 94105
(415) 536-2000

Santa Fe Springs City Library
11700 East Telegraph Road
Santa Fe Springs, CA 90670
(562) 868-7738
library@santafesprings.org

CONTACT INFORMATION:
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Remedial Project Manager
75 Hawthorne St. (SFD 7-2)
San Francisco, CA 94105
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mechem.russell@epa.gov

José García
Community Involvement Coordinator
75 Hawthorne St. (SFD 6-3)
San Francisco, CA 94105
1(800) 231-3075 or 1(415) 972-3331
garcia.jose@epa.gov

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ATTACHMENT B

LIST OF DOCUMENTS REVIEWED

LIST OF DOCUMENTS REVIEWED

OSWER Directive 9355.7-03B-P, Comprehensive Five-Year Review Guidance

CDM Federal Programs Corporation, 1997. *Subsurface Gas Contingency Plan, Waste Disposal, Inc., Superfund Site, Santa Fe Springs, California.* July 1997.

CDM Federal Programs Corporation, 1999a. *Subsurface Gas Contingency Plan Investigation Report, Waste Disposal, Inc., Superfund Site, Santa Fe Springs, California.* October 1999.

CDM Federal Programs Corporation, 1999b. *Groundwater Data Evaluation Report, Waste Disposal, Inc., Superfund Site, Santa Fe Springs, California.* January 1999.

Ebasco, 1989. *Endangerment Assessment, Waste Disposal Inc., USEPA ID: CAD980884357.* 1989

EPA. 1993. *Record of Decision (ROD) - Soils and Subsurface Gas Operable Unit*. December 22, 1993.

EPA. 2002. *Amended Record of Decision (AROD) - Soils and Subsurface Gas Operable Unit.* June 2002.

Hovore and Associates, 1998. *Biological Endangerment Assessment, Waste Disposal Inc.* October 1998.

TRC. 2003. *Design Report, Soils, Subsurface Gas and Groundwater Remedial Design, Waste Disposal, Inc., Superfund Site*. August 2006.

TRC. 2006. *Final Operation, Maintenance and Monitoring Plan (OMMP), Waste Disposal, Inc., Superfund Site.* May 2003.

TRC. 2008a. *Annual Operations, Maintenance and Monitoring (OM&M) Report - October 2006 through September 2007. Waste Disposal, Inc., Superfund Site*. June 2008.

TRC. 2008b. *Semi-Annual Operations, Maintenance and Monitoring (OM&M) Report - October 2007 through March 2008. Waste Disposal, Inc., Superfund Site*. November 2008.

ATTACHMENT C

DATA REVIEW

TECHNICAL MEMORANDUM
FIRST FIVE-YEAR REVIEW FOR THE
WASTE DISPOSAL, INC., SUPERFUND SITE

DATA REVIEW

A. INTRODUCTION

This data review memorandum provides supporting documentation for the first Five-Year Review for the Waste Disposal, Inc., Superfund (WDI) Site, located in the City of Santa Fe Springs, California. The U.S. Environmental Protection Agency (EPA) has tasked the U.S. Army Corps of Engineers (USACE), Sacramento District, to perform the Five Year Review. The project scope includes preparation of a narrative Five Year Review Report as well as several detailed memoranda to analyze specific topics required by EPA guidance documents. This data review memorandum evaluates all site information related to events since the remedy was constructed. The implications of this information as related to protectiveness and general site management are also discussed.

B. SITE BACKGROUND

The WDI site encompasses 38 acres located in an industrial area on the east side of Santa Fe Springs, CA. The site boundaries include Santa Fe Springs Road on the northwest, a warehouse and a private high school on the northeast, Los Nietos Road on the southwest, and Greenleaf Avenue on the southeast. A residential area lies to the east of the site. The site is currently zoned as industrial, with approximately 35 small businesses operating onsite. Typical businesses include auto shops, industrial gas distribution, machine shops, fabricators, and various manufacturing operations. See the Five Year Review Report, Table 4 Summary of Parcel Owners and Tenants for a detailed listing of onsite businesses. It is up to date as of the most recent OM&M Report (October 2007 through March 2008).

The 38-acre site consists of 22 land parcels that are currently owned by 17 individual landowners. Site owner/operators (a sub-set of the property owners) formerly used a now-buried 42-million gallon reservoir (600 feet in diameter and 25 feet deep), located in the center of the site, for the disposal of a variety of oil field, refinery, and construction wastes from the 1940's to 1964. In addition, wastes were disposed outside of the reservoir, and have been delineated in many of the parcels located on the perimeter of the reservoir (see Five-Year Review Report, Figure 2, "Site Features" and Figure 3, "Major Remedy Components").

EPA placed the WDI site on the National Priorities List on July 22, 1987. In August 1993, EPA completed the feasibility study for contaminated soils and subsurface gases for Operable Unit #1 (OU1), and in December 1993, EPA signed a Record of Decision (ROD) for OU1. The EPA initially designated a second operable unit for groundwater and decided to reserve selection of a groundwater remedy pending completion of groundwater investigations.

Based on information that became available after the signature of the 1993 ROD, EPA determined that an Amended ROD (AROD) would be required to ensure protection of human health and the environment. The new information included: the expanded lateral extent and volume of buried waste on the site; new information on the nature and increased extent of soil gas beneath the site; and the presence of liquids inside the buried concrete-lined reservoir at the center of the site. EPA determined that this information was sufficient to warrant additional site investigations and further analysis of the potential remedial alternatives for the site. These further site investigations were conducted to update previously collected data and to fill in data gaps.

Although the original 1993 Feasibility Study (FS) focused primarily on soils, these subsequent investigations focused on other media (groundwater, soil gas, and landfill liquids). This process led to a Supplemental Feasibility Study (SFS), which EPA completed in May 2001. The SFS presented a detailed analysis of remedial alternatives that addressed the updated information regarding the nature and extent of contamination on the site. EPA prepared a proposed Plan, conducted a public comment process (June 2001), and the issued the AROD in 2002.

As detailed in the AROD, no significant impacts to groundwater quality from WDI wastes were identified based on groundwater sampling and the comparison of sampling data with the locations and characteristics of waste sources at the site. The EPA decided not to retain a separate OU for groundwater, and incorporated detection groundwater monitoring and institutional controls (ICs) to restrict use of groundwater underlying the site into the revised remedy presented in the AROD. As a result, the AROD serves as the final record of decision for the entire site. The AROD incorporates long-term operations and maintenance (O&M) into the revised remedy.

The Waste Disposal, Inc., Group (WDIG), consisting of 17 site generators, began preparation of a Remedial Design under EPA oversight pursuant to Unilateral Administrative Order (UAO) 94-17 and the amended UAO 97-09 issued in 1994 and 1997, respectively. EPA entered a Consent Decree (CD) with WDIG in 2003 for implementation of the remedial action following issuance of the AROD. In addition to the CD with WDIG, EPA entered CDs with each of the property owners to implement site access and institutional controls. EPA approved the final Remedial Design Report in June 2003. The physical construction of the selected remedy commenced in March 2004, and was completed in August 2005. The Consent Decree required compliance testing, consisting of operation of the gas system in active mode. WDIG conducted the compliance testing from December 17, 2005, to January 17, 2006. The SOW initially called for 90 days, but EPA approved a shorter time frame in response to a WDIG request. The EPA approved the Compliance Testing Report on July 27, 2006. The EPA approved the combined Remedial Action Completion Report and As-Built Report on September 14, 2006; and formal OM&M activities began on September 15, 2006.

The AROD anticipates potential future redevelopment, stating “within EPA’s authority, and to the maximum extent practicable, the design and implementation for the remedy will be accomplished so as not to preclude appropriate redevelopment of the site.” In 2000, EPA provided a grant to the City of Santa Fe Springs to develop a plan for the future redevelopment and reuse of the site. The City of Santa Fe Springs has been interested in seeing the site redeveloped and has since developed a Specific Plan for the site. The City is the lead agency on Site redevelopment. The Specific Plan dictates developers comply with Federal and state of

California laws, standards established by the EPA in the AROD, and the requirements specified by the City. In the event there is a conflict, Federal and state of California requirements supersede the Specific Plan.

Contamination at the site has impacted two media: the soil and soil vapor. Contaminants of concern (COCs) in the soil include 11 metals, 7 chlorinated pesticides, 16 volatile organic compounds (VOCs), polyaromatic hydrocarbons (PAHs), and polychlorinated biphenyls (PCBs). The COCs identified for soil gas include benzene, ethylbenzene, toluene, xylenes, carbon tetrachloride, chloroform, 1,2-dibromoethane, tetrachloroethene (PCE), 1,1,1-trichloroethane (1,1,1-TCA), trichloroethene (TCE), vinyl chloride, 1,2-dichloropropane, and methane. For groundwater, the chemicals identified for long-term detection monitoring include arsenic, lead, manganese, mercury, toluene, carbon tetrachloride, chloroform, PCE, TCE, benzene, toluene, xylenes, carbon tetrachloride, chloroform, and vinyl chloride.

C. REMEDIAL ACTION OBJECTIVES

Remedial Action Objectives (RAOs) are listed in the AROD. The RAOs for the remedy are intended to:

1. Protect human health and the environment by preventing exposure to buried wastes and contaminated soils;
2. Protect current and future on-site and off-site receptors from exposure to soil gases;
3. Prevent human exposure, from direct contact, consumption, and other uses, to site liquids exceeding state and federal standards;
4. Prevent contribution of site liquids to exceedances of state and federal groundwater standards; and
5. Prevent human exposure to groundwater that exceeds state and federal standards due to site-related contaminants.

These objectives were based on the site use at the time, the anticipated potential for future use of the site for industrial purposes, and the potential for groundwater in the area to be used as a public water supply.

To meet the RAOs, the AROD addressed the buried waste, contaminated soils, soil gas, liquids, groundwater monitoring, and institutional controls. Table 7, page 4, illustrates how the remedy elements selected in the AROD address the RAOs.

Table 7 – Site Remedy (2002 AROD)

Activity/Component	Redial Action Objective(s)	Activity/ Component Details
RCRA-Equivalent Cap	Protect human health and the environment by preventing exposure to buried wastes and contaminated soils. The cap also helps attain all other RAOs.	Installation of a RCRA-equivalent cap (RCRA "C" cap) over reservoir in Area 2 (approx. 306,000 square feet).
Extraction & Treatment of Subsurface Gases (Area 2)	Protect current and future on-site and off-site receptors from exposure to soil gases.	Installation of a gas migration control system under a RCRA-equivalent cap. System will be designed to be an active system (mechanical blower/vacuum driven) and include treatment of gas emissions with Granular Activated Carbon (GAC); conversion to a passive gas (non mechanical driven) migration control system will be considered after one year depending on gas volumes and gas emission rates. Implementation of long-term gas monitoring as part of O&M.
Extraction & Treatment of Subsurface Gases (Outside Area 2)	Protect current and future on-site and off-site receptors from exposure to soil gases.	In designated areas outside of reservoir area, installation of passive bioventing systems or active soil vapor extraction (SVE) wells with treatment. Implementation of long-term gas monitoring as part of O&M including monitoring of ambient air in onsite buildings.
Liquids Management Systems	Prevent human exposure, from direct contact, consumption, and other uses, to site liquids exceeding state and federal standards. Prevent contribution of site liquids to exceedances of state and federal groundwater standards.	Installation of a liquids collection system under the cap (in Area 2) to collect leachate and free liquids for offsite treatment and disposal at a facility approved by EPA.
Engineered Capping Systems	Protect human health and the environment by preventing exposure to buried wastes and contaminated soils. The capping systems also help in attaining all other RAOs.	Installation of engineered capping systems in Areas 1, 2, 4, 5, 6, 7, 8 (approx. 638,000 square feet), outside of reservoir, including engineered graded soil, asphalt, and concrete capping systems. This includes the installation of a RCRA "D" cap surrounding the limits of the reservoir RCRA "C" cap noted above
Engineering Controls	Protect current and future on-site and off-site receptors from exposure to soil gases.	Implementation of engineering controls including physical barriers and ventilation systems at and/or within existing and new buildings overlying or adjacent to waste. Demolition and removal of some existing structures may be required where engineering controls are not feasible.
Access & Institutional Controls (ICs)	All.	Implementation of approved ICs to control future land use, protect the integrity of the cap, prevent exposure to contaminated soils, and prohibit shallow groundwater use.
Groundwater Monitoring	Prevent human exposure to groundwater that exceeds state and federal standards due to site-related contaminants.	Implementation of long-term groundwater monitoring program
Operations and maintenance (O&M)	All.	Implementation of long-term O&M.

D. SELECTED REMEDY

The remedy was designed and constructed consistent with the AROD. Significant decision documents included the two UAOs, (UAO #94-17 and UAO #97-09), the WDIG Consent Decree (and Statement of Work) and implementing work plans, site management plans, and engineering design documents. The remedial design (RD) was prepared pursuant to UAO 97-09 whereas the remedial action was conducted pursuant to the WDIG consent decree. The AROD selected the final remedy for the site and addressed waste materials, contaminated soil, subsurface liquids, subsurface gases, and groundwater conditions. Since WDI is essentially a landfill, remediation primarily entailed containment, collection and treatment of gases (currently passive venting and monitoring only), collection and removal of site liquids, and institutional controls (ICs).

The selected remedy for the site includes the components described below. For descriptive purposes, the site has been divided into eight areas, as shown on the Five Year Report, Figure 2, "Site Features". The Five Year Report, Figure 3, "Major Remedy Components," provides a plan view of remedy components. See Attachment A of the Five-Year Review Report for these figures (all other referenced figures are specific to this memorandum and are attached following the memorandum's text).

1. **RCRA Subtitle C-Equivalent Cover:** This cover for hazardous waste was installed over the existing reservoir in Area 2. The RCRA C-equivalent cover consists of geosynthetic materials (geosynthetic clay liner, HDPE geomembrane, geocomposites, and geotextiles) below a vegetative soil layer.

2. **Engineered Capping Systems:** These capping systems were installed for areas outside the reservoir designed to achieve RCRA solid waste engineering and performance standards. This includes a RCRA Subtitle D-equivalent cover over the remainder of Area 2 and parts of other areas, as well as asphalt, concrete paving, and/or building foundations in areas outside of Area 2. Engineered capping systems were installed over selected portions of Areas 1, 2, 4, 5, 6, 7, and 8.

3. **Gas Collection, Extraction, and Treatment System:** This system was installed beneath the RCRA C-equivalent cover over the reservoir to collect, remove, and treat subsurface gases. Vapor is treated through activated carbon. The system consists of eight buried pipes below the finished subgrade of the cap. The pipes extend laterally from a manifold system constructed at the site high point and end within 25 feet of the edge of the reservoir.

4. **Long-Term Soil Gas Monitoring:** The EPA has established Soil Gas Performance Standards (SGPS) for the site. This long-term program involves monitoring selected vapor wells and the reservoir gas collection system to determine the potential for health risks associated with soil gas migration. There are currently 20 vapor well locations sampled per event, containing a total of 50

5. **Liquids Collection System:** This system includes four liquids collection points in the reservoir to monitor, collect, and extract leachate and free liquids for treatment and disposal at an off-site facility approved by EPA.

6. **Engineering Controls:** These controls include physical barriers and/or indoor venting systems at, and/or within, existing and new buildings overlying or adjacent to waste in order to prevent indoor air exposure to site contaminants.

7. **Passive Bioventing Wells:** These wells were installed for soil gas migration control along portions of the waste perimeter outside of the reservoir area and near existing buildings. Twenty-four biovent wells were constructed at the site.

8. **Long-Term Monitoring of Ambient Air:** WDIG conducts this monitoring in onsite buildings. The EPA developed Indoor Air Threshold Limits (IATLs) for the site's COCs. The objective of the in-building monitoring is to ensure that subsurface soil gas is not migrating from waste source areas to the surface and into tenant-occupied buildings. Concentrations measured in site buildings are compared with the IATLs to determine if there are potential health risks to tenants and employees. Currently, approximately 10 business locations are sampled per event. The number may vary based on results from soil gas monitoring.

9. **Institutional Controls (ICs):** These controls, including zoning ordinances, access controls, groundwater use restrictions, and restrictive covenants, were implemented to ensure the integrity of remedial systems, minimize the potential for exposure to residual wastes and hazardous substances, and to restrict land use and site access.

10. **Groundwater Detection Monitoring:** The remedy includes this monitoring to ensure that the site is not contributing to exceedances of groundwater standards. The groundwater program includes background wells, point-of-compliance wells, and wells suitable for early detection of release from a waste unit.

11. **Long-Term O&M:** Long term O&M and performance monitoring were implemented to ensure that all environmental systems and IC components are functioning effectively.

E. DATA GATHERED

Information used to evaluate site operations, maintenance, and monitoring (OM&M) included the site visit, discussions with project staff, the O&M manual, and OM&M Reports. Additional documents were reviewed to provide necessary background. Section H provides a listing of all reference documents. A separate memorandum has been prepared to document the site visit. The OM&M Reports submitted semi-annually

provide a comprehensive review of data gathered and project status. The reports include all sampling data and inspection checklists. The semi-annual OM&M Reports are the primary source of information for this data review. See Table 1 for a matrix of remedy components, and OM&M requirements and frequency.

USACE representatives conducted a number of discussions with key stakeholders during the course of the project. EPA and the USACE have maintained regular and consistent contact with key stakeholders throughout the entire WDI project using several mechanisms, including regular conference calls, site visits, office visits, and one-on-one conversations. EPA and the USACE have coordinated closely with public agencies through the WDI Interagency Committee (IAC). The IAC has continued to conduct frequent conference calls to discuss site issues and coordinate oversight.

In addition, the USACE contacted the following individuals to discuss the specifics of the Five Year Review:

Ken Floom, Project Coordinator, WDIG, Project Navigator Ltd
Mike Skinner, Trustee, WDIG Trust, MJS Consulting
Wayne Morrell, Principal Planner, City of Santa Fe Springs
Robert Winzlau, CEO, Terradex Inc.
Taly Jolish, Regional Counsel, EPA Region IX

F. DATA EVALUATION

Under the WDIG Consent Decree, the WDIG is obligated to conduct long term operations, maintenance, and monitoring (OM&M) for the WDI site remedy. WDIG conducts O&M activities and performance monitoring pursuant to an EPA approved OM&M work plan. O&M activities include frequent inspection of remedy systems and components according to frequencies specified in the OM&M plan. WDIG crews perform maintenance activities on a regular basis and undertake repairs when needed. Copies of the inspection checklists for all activities are provided in the OM&M Reports.

An evaluation of each component of the remedy is provided below, with the exception of institutional controls, which are discussed in detail in a separate technical memorandum.

RCRA C- and D-Equivalent Covers: WDIG performs annual inspections of the RCRA C-equivalent and RCRA D-equivalent covers. In addition, an independent engineer performs an annual inspection of the C-equivalent cover per Title 22, sec 66264.228(k), (p) and (r). There is also an annual land survey to evaluate settlement. No significant problems have been identified in any of the RCRA cover inspections. In addition to formal annual inspections, WDIG crews conduct informal inspections during frequent site visits associated with other OM&M activities. The most frequent of those activities is weekly monitoring and bailing of the leachate collection wells.

Building Modifications: WDIG performs annual inspections of building floors and foundations. No significant problems have been identified to date. Some hairline cracks were observed in crack sealing material, but not to the extent they penetrated through the sealant. WDIG did not recommend any follow-up action. In addition, during the site visit for this review, the crack sealing was spot-checked, and found to be intact, with no cracks or separation from the pavement.

Passive Biovent Wells: Pursuant to the OM&M plan, WDIG inspects these wells semi-annually. No problems have been reported or were identified during the Five-year Review site visit. The WDIG has recommended closing these wells. They believe that the bio vent wells have introduced oxygen to the subsurface and altered the condition from anaerobic to aerobic, resulting in increased microbial production of soil gas. If these wells are closed, sampling of the soil vapor compliance monitoring wells should continue semi-annually to evaluate the changes in the soil vapor chemical profile until significant changes are no longer observed.

Vapor Monitoring Well/Groundwater Monitoring Well Inspections: WDIG inspects these wells during each sampling event. The semi-annual OM&M Reports include copies of the inspection checklists. WDIG suspected two vapor wells (VW-32 and VW-33) were destroyed during construction or paved over. Concrete well collars have been damaged at three groundwater wells, as well as a damaged cap at one of the wells. The Five-year Review team observed some of this damage during the site visit and noted it in the Site Inspection Report. EPA has recently approved reduction of the groundwater monitoring frequency to annual. WDIG should consider maintaining a semi-annual inspection frequency to minimize the length of time an un-secure condition may exist.

Stormwater Drainage System: The inspections, which WDIG conducts twice annually, have revealed no problems. Minor accumulation of sediment has been noted on inspection checklists, although not enough sediment to be of concern. Inspection is also required after major rain events (greater than 2 inches of rain within 24 hours), but WDIG has not performed any of those inspections to date, since there have been no major rain events since construction.

Site Security: WDIG performs a formal annual inspection, but informal inspections are also conducted during frequent site visits for other purposes. The OM&M staff are on the site weekly to perform the leachate collection activity. There are quarterly indoor air and semi-annual soil vapor sampling activities as well. In addition, the USACE performs project oversight for EPA, which has included site visits. The USACE site representative walks the site monthly and drives by the site approximately weekly. There have been no major problems with site security. The only notable site security issues have been minor repairs of the fence and painting over of graffiti. WDIG has submitted requests to EPA reduce the frequency of several site inspection and sampling activities, including the leachate collection and the vapor monitoring. With decreased site presence, there is potential that breaches of the fence would become less minor in nature due to length of time before detection and repair; which could result in an

increase of vandalism. In the event that on-site presence is reduced due to reduction of other O&M activities, the project team should consider adding a specific fence line inspection activity at an agreed-upon frequency to the site security requirements in the OM&M Plan.

Landscape and Vegetation Maintenance: WDIG crews conduct inspections of the site's landscaping and vegetation every 2 months. Dry weather conditions had initially made it difficult to achieve a qualitative 70 percent cover objective for vegetative cover adopted by WDIG. There is no formal requirement for percentage of coverage in the AROD, the Design Documents, or the OM&M Plan, but only a general requirement that the vegetative cover be installed to prevent soil erosion. Photos provided in OM&M Reports show that wet weather seasons have improved the coverage. The site inspection checklist in the most recent OM&M Report (1st and 2nd quarters FY08) indicate that some areas remain that have less than 70 percent cover. To date there has been no erosion of the soil cover observed. A higher level of landscaping exists at the north and northeast boundary of the site due to the presence of a school and residential area. The O&M contractor has maintained communication with the school to ensure the site is presentable during school special events.

Leachate Monitoring and Control System: WDIG inspects the leachate collection wells, and removes the leachate at a frequency based on the liquid level in each well (see Table 1). Due to high leachate levels through the fall of 2007, two of the four leachate wells (#2 and #4) required bailing twice per week (see Figure 3 for leachate levels through December 2007). In December 2007, WDIG installed automated leachate removal systems on wells 2 and 4. Those systems appear to be operating as expected. Leachate wells 1 and 3 continue to be inspected and bailed at a weekly frequency. The 1st and 2nd quarter FY 2008 OM&M Report recommends revisiting the need for leachate removal based on continuing lack of impact to groundwater and low leachate production rate.

Reservoir Gas Collection System: The reservoir gas collection system is operating effectively. WDIG initially operated the reservoir gas collection system in active mode for approximately 2 years. Sampling data include December 2005, January 2006, and monthly from November 2006 through December 2007. WDIG converted the system to passive operation in December 2007 due to very low rates of gas generation. WDIG inspects the system semi-annually. Figure 4 shows a graphic representation of system performance. With the exception of two sampling events in September through October 2007, the treatment system inlet concentrations were relatively stable, with no upward or downward trend. A criterion of 2.3 lb/day methane extraction rate was established during remedial design (TRC 2003) as the rate at which active gas extraction could be terminated. This value is an estimate of the natural emission rate before remediation. With the exception of one sample in September 2007, the methane extraction rate was below 2.3 lb/day. South Coast Air Quality Management District regulations require an emission rate of total VOCs below 1 lb per day, or treatment is required. The rate of VOC extraction never exceeded 0.1 lb/day (Figure 4). The reservoir gas collection system was switched to passive mode on December 10, 2007,

after a written request from WDIG was approved by EPA. There are no issues of concern with the operation of the reservoir gas collection system at this time.

Indoor Air Sampling: WDIG is conducting an effective indoor air sampling program, but EPA has identified a number of areas for improvement that can be readily incorporated into the OM&M program. Results of indoor air sampling are compared against IATLs that were established in the Subsurface Gas Contingency Plan (CDM 1997). A listing of the IATLs is provided in Table 2. Ten businesses and two ambient locations have been sampled quarterly since remedy implementation. With the exception of IBM-28, exceedances of the IATLs have been noted at all of the locations (including the two ambient locations) at least once since remedy implementation. Four COCs (benzene, TCE, PCE, and toluene) have exceeded the IATLs. Of the four chemicals, only benzene exceeds its IATL more than once at several locations. Table 3 presents the indoor air results. At all but two locations, exceedances for all analytes are temporally inconsistent. Two locations, IBM-37 and IBM-41, have shown fairly consistent exceedances for PCE and benzene, respectively.

Several analytes, (1,2 dichloropropane, 1,2 dibromomethane, carbon tetrachloride, vinyl chloride, chloroform, 1,2 dichloroethane) show possible exceedances, with non-detect results qualified due to detection limits greater than the IATL. These analytes also have many results showing non-detect at detection limits lower than the IATL. These analytes have either no confirmed detections, or only one detection.

The WDIG and EPA have concluded that all exceedances that have been documented are attributable to current or recent chemical use in the buildings rather than site-related contamination. Supporting information is provided in Table 4, which contains chemical inventory information at the businesses where indoor air sampling is routinely performed. The information comes from a 1999 inventory performed by EPA, and from more recent observations made by indoor air sampling crews. Upon review of the most current information, the assumption generally appears to be valid although updating the chemical inventory for each building would improve assurance of protectiveness. The most current business chemical inventory information is shown in Table 4. The information shows that four of the locations have had a change of tenant since the 1999 chemical inventory inspection. An additional three businesses did not have any data available during the 1999 inspection. For all those locations, recent observations by the sampling crews are relied upon to assess chemical use. In addition, chemical use in any of the businesses could have changed during the ten years since the initial chemical inventory. For businesses that were inventoried in 1999, review of earlier documents such as the Subsurface Gas Contingency Plan Investigation Report (CDM 1999a) indicates that more detailed information is available to support the assertion that IATL exceedances are not site related. The observations presented in the OM&M Reports might not be comprehensive enough to support that assertion. EPA recommends that WDIG add a procedure to the OM&M Plan to update the chemical inventories to ensure the validity of the assumption that the IATL exceedances are not site related.

Additional lines of evidence exist that support protectiveness of the remedy with

respect to vapor intrusion:

- Data from soil vapor wells were reviewed for possible spatial correlation between soil vapor concentrations and IATL exceedances. No such correlation was observed, which would be expected if the indoor air concentrations were related to business use rather than the disposal activity.

- The IATLs were largely based on the Region 9 ambient air preliminary remediation goals. The values are calculated using exposure frequency of 250 days per year and 25 years working on site. At the sampling locations where the frequency of detection above the IATL is low, unacceptable risk is not likely. Only two sampling locations, IBM-37 and IBM-41 have exceeded IATLs in more than 50% of the sampling events.

- At IBM-37, PCE has consistently exceeded the IATL by a significant amount. The chemical inventory information provided does not conclusively explain the presence of PCE. However, the indoor air concentrations are significantly greater than the soil vapor concentrations in nearby wells. This strongly suggests an above-ground source. At IBM-41, benzene exceeds the IATL by a small amount. The chemical inventory information includes mention of gasoline cans, paint thinner, and other chemicals associated with the cabinet making activity; which supports the explanation of business related use.

WDIG prepared a decision matrix to describe the establishment of sampling frequencies (Figure 5). WDIG also uses the sampling results from soil vapor compliance wells to identify which businesses to sample. The sampling frequency has been quarterly through the second quarter of FY 2008. In the OM&M Report, for the first and second quarters 2008, WDIG recommends reducing the sampling frequency to semi-annual, based on the decision matrix. To make that change, the decision matrix requires four consecutive quarter results below the IATL. Six of the 10 businesses sampled quarterly have met that criterion. The data show erratic exceedances of IATL at several businesses, which would be expected in an environment where sporadic use of chemicals occurs. Meeting the 4-quarter criterion for sample frequency reduction may not be possible at several of the locations due to continued business use of chemicals. A different criterion to address that situation should be evaluated. A semi-annual sampling frequency may be justifiable, but the project team would need to develop a new criterion or justification to document acceptance of the reduction.

Vapor Well Sampling: The OM&M Plan established a sampling frequency of quarterly for the first year, followed by semi-annual sampling or other frequency based on corrective actions or direction from EPA (Figure 6). Sampling frequency was quarterly for six events, and was changed to semi-annual with EPA approval starting with the December 2007 event. .

As detailed below, vapor wells are distinguished as either “compliance” or “non-compliance” wells, and their data are evaluated toward different objectives.

Compliance Wells: WDIG samples twenty-five wells at varying depths around the periphery of the site for compliance with the soil gas performance standard (SGPS) established in the AROD. Results from the compliance wells may trigger indoor air sampling at additional locations, as determined through a decision tree (Figure 6). Table 2 provides the SGPS for the site's COCs. Exceedances of the SGPS for benzene have occurred in 22 of the 25 wells at various times during the monitoring program. Table 5 provides the history of benzene detections in soil vapor compliance wells. There was a trend of increasing exceedances of IATL following remedy construction. Prior to the implementation of the remedy, there had been only one benzene exceedance. Following shut down of the active reservoir gas extraction system, the number of exceedances has declined to levels below the SGPS in all the compliance wells as of the December 2007 sampling event. TCE has exceeded its SGPS in one compliance well (VW-35-D) since the first quarter of 1998. The TCE concentrations in VW-35-D show a general downward trend, indicating a gradual decay/dissipation of an isolated TCE source near that well. Chloroform exceeded its SGPS in one well (VW-35) consistently before remedy implementation, but has exceeded its SGPS only once afterward. Vinyl chloride, 1,2-dibromoethane, and 1,2-dichloroethane are reported as "non-detect" at a reporting limit above SGPS sporadically.

As with the indoor air sampling, benzene is the COC of primary concern. It is the only chemical that has appeared above SGPS at several locations with some degree of frequency. TCE has been detected consistently above SGPS at only one well, indicating a localized source. The data for vinyl chloride, 1,2-dibromoethane, and 1,2-dichloroelthane do not indicate an ongoing concern since there have never been any actual detections of these chemicals, even when the reporting limits are below the SGPS .

Non-compliance Wells: There are 25 vapor wells at varying depths adjacent to contaminant source areas. These wells are sampled to monitor changes in the quantity and composition of the soil gas. The data have indicated changes in soil gas concentrations following remedy implementation that warrant continued monitoring. Most non-compliance wells showed results for methane similar to those found at the time of remedy implementation. However, in eight wells, dramatic decreases have occurred. The WDIG has interpreted this as an indication that the implementation of the remedy, including construction, operating the reservoir gas extraction, and the biovent wells, has caused the subsurface condition to become more aerobic. Results for other fixed gases also support that interpretation. This changes the biological decomposition of organic material from the slow anaerobic process to the more rapid aerobic process. The increased rate of decomposition is thought to be the reason for the increased exceedances of SGPS for benzene in compliance wells after remedy implementation. The overall increase in soil gas generation combined with the presence of the cap would cause the lateral spread of soil gas. The general trend of the methane data, from before construction through January 2008, tends to support this explanation. Concentrations of non-methane VOCs have, in many cases, varied in a manner similar to methane in the corresponding well. In other cases, there does not appear to be a matching trend. Accelerated aerobic microbial activity may be localized at various "hot spots" within the site, and displacing

the non-methane VOCs to other locations.

In the OM&M Report for the first and second quarters 2008, WDIG requested a reduction in soil vapor sampling frequency from semi-annual to annual. The 5-Year Review team considers the additional reduction in frequency to be premature. With the shut-down of the reservoir gas collection system, there are changes in the gas composition, and there is an explanation provided by WDIG that appears to have merit. However, the changes at the site are still underway, and this should be monitored to verify the explanation. In addition, WDIG is proposing closure of the biovent wells, which may also cause some changes in soil gas composition. It is recommended that the sampling frequency be maintained at semi-annual until all other soil vapor actions are completed and their effects are fully observed.

In addition to the reduction in sampling frequency, WDIG has requested a reduction in the analyte list. The database is robust enough to adequately evaluate the request, and the Five Year Review Team believes that some reduction of the analyte list is justified. A reduction of the analyte list would provide cost savings to the WDIG, and would provide more focused reporting of results to the EPA. All analytes have eight or 12 results prior to remedy implementation, and six or seven after remedy implementation. Many analytes have never had reportable detections. There are also many analytes that have had only low level detections far below the performance standards.

Statistical Trend Analysis: The WDIG performs statistical trend analysis on the non-compliance well data to evaluate trends in the quantity and composition of the soil While some exceedances of statistical control limits have been observed, they are not a long-term concern of site-wide increases in gas concentrations. The exceedances in general appear to be responses to “spikes” in concentration as opposed to longer term trends, and there is little consistency in their location. The statistical software program DUMPStat, incorporates the Shewart-CUSUM (cumulative sum) control chart methodology documented by Dr. Robert Gibbons. The method involves an intra-well comparison of current concentration data with the well’s historic “background” concentration data. Initially, the background data set for each well consisted of results prior to remedy implementation for comparison of the post-implementation condition to the pre-implementation condition. The control chart methodology states that at 2-year intervals, the background data set may be updated to include more recent data if those data have been shown to be in control. Table 6 lists the exceedances of cumulative sum control limits during FY 2007. It is noted that the number of control limit exceedances is greatest in the second quarter, with consecutive decreases in that number in the 3rd and 4th quarters. One significant upward trend and one significant downward trend have been identified. The most recent OM&M Report includes one additional sampling event in the analysis (December 2007). After that event, five exceedances of the control limit were observed, and two statistically significant trends were observed.

Opportunities to optimize the statistical trend analysis process can be realized through review of the results of two reporting periods now available. The project team should

optimize the statistical trend analysis process to focus on a limited number of indicator analytes. Figure 7 is an example of outputs from DUMPStat that are reported in the semi-annual OM&M Reports. The figure is one page out of the most recent report, and includes the statistical analysis charts of all 18 COCs for one soil vapor well. On this figure, the chart for benzene is an example of a control limit exceedance. In reviewing all the charts for all wells in two semi-annual OM&M Reports, it is observed that several of the analytes being tracked have had few detections. The Shewart-CUSUM methodology allows for detection frequencies of 25 percent or greater, and a Poisson control limit is used for detection frequencies less than 25 percent. In many cases exceedances of control or significant trends are reported for analytes that are rarely detected or are detected at levels well below SGPS. The statistical analysis results from those analytes are of little decision-making value to the project. In addition, trends or exceedances identified for these analytes distract the reviewer from the analytes that more likely drive the site decisions (e.g., benzene and methane).

Groundwater Monitoring: The selected remedy does not include groundwater remediation. However, it does include long-term detection monitoring to provide notification of potential changes in groundwater quality under the site. WDIG established the detection monitoring program in accordance with Title 22 California Code of Regulations (CCR) 66264.95, 66264.97, 66264.98, and 66264.99, and 27 CCR 20405 and 20415-20430 for early detection of releases from waste management units, which are listed as Relevant and Appropriate Standards in the AROD. WDIG samples twelve wells, and compares the results for the site COCs to their respective maximum contaminant levels (MCLs) to identify potential releases to groundwater. The wells were selected to represent background, point of compliance (downgradient site boundary), and near-source detection. To date, there have been no indications of site-related groundwater contamination. Some detections above MCLs for metals have been noted, but are attributable to regional background. In sampling events since 1999, there have been consistent detections of PCE and TCE in one well at the west side of the site. This same well has shown VOC contamination during the Remedial Investigation, and was determined to indicate contamination from the adjacent Omega Superfund Site rather than the WDI site. The situation is described in the Groundwater Data Evaluation Report (CDM 1999b) and re-iterated in the AROD as follows:

> *"The primary VOCs detected in groundwater samples are PCE and TCE generally at concentrations less than 20 ug/l. PCE and TCE concentra-tions in two monitoring wells exceed their respective primary drinking water MCLs (5 ug/l). These VOCs have been detected only in the western portion of the site. The exceedances have been limited to upgradient and deep monitoring wells (screened to 128 feet bgs). Shallow and intermediate depth monitoring wells, including wells located immediately adjacent to deep wells with exceedances, show predominantly non-detects or minor detections below MCLs. Based on groundwater flow conditions, the distribution of detections, and information on offsite groundwater contamination sites (see discussion above), the sources of the PCE and TCE detected in the monitoring wells in the western portion of*

WDI appear to be from solvent releases associated with upgradient industrial sites."

The review team has examined the more recent groundwater monitoring data (1999-present) and has found no trend that would compel re-evaluation of this position. There continues to be no indication of site-related groundwater contamination. The responsible parties from both the WDI and Omega Superfund sites are sharing data and monitoring this situation. If any trend appears that may call the current conceptual site model (CSM) into question, additional plume delineation wells may be needed. Facts that support the CSM include:

1. The single well (GW-11) that has shown VOC detections since 1999 is screened in a deeper water bearing zone and is adjacent to a shallower well (GW-10) that shows no detections. Well GW-11 shows consistent concentrations: 14 detections in 17 samples for PCE and TCE. The concentrations are higher in these sampling events after the ROD (PCE, 17-120 ug/l and TCE, 11-20 ug/l), although there appears to be a downward trend from 2001 through 2007.

2. The well is located cross-gradient of the WDI sources. The wells located at the downgradient edge of the WDI source areas have shown no detections of VOCs.

3. A review of the distribution of contamination in the Omega Site plume suggests that the detection in the well on the WDI site would reasonably fit within the Omega Plume's footprint.

The WDIG has proposed in the latest OM&M Report to reduce the groundwater monitoring frequency from annual to bi-annual. There has been no decision made at this time regarding that proposal. The sampling frequency at WDI must be adequate to provide a reasonable basis for comparison to the groundwater data set collected from the Omega Site and to support the position that the WDI site is not contributing to the groundwater contamination.

G. SUMMARY

The Five-Year Review Team has evaluated all data generated from OM&M programs at the WDI site, and has found that the remedy has been effective and that there are no issues with respect to remedy implementation that call protectiveness of the remedy into question.

Some areas for improvement have been identified that can be readily managed through the routine OM&M and oversight activities, and as such, are not major issues. These issues relate to site management, assurance of protectiveness, and optimization. WDIG has presented several proposals to modify O&M requirements, sampling frequencies, and remedy components. This is typical in the first 5-year period as opportunities for optimization become apparent upon collection of initial data. EPA is

continuing to discuss the proposals with WDIG.

Significant findings include:

1. WDIG has proposed several modifications to remedy components, O&M requirements, and sampling frequencies, in order to reduce costs. In some cases there is the potential that the proposed change may have a negative impact on another remedy component. The inter-relationships of the various maintenance and monitoring programs should be examined and the impacts evaluated before implementing changes.

2. In the OM&M Report for the first and second quarters 2008, WDIG recommends reducing the indoor air sampling frequency from quarterly to semi-annually. To make that change, the decision matrix requires four consecutive quarter results below the IATL. Only six of the 10 businesses sampled quarterly, have met that criterion. A sampling frequency of semi-annual may turn out to be justifiable, but the project team would need to develop a new criterion or justification to document acceptance of the reduction.

3. The indoor chemical use information provided in recent OM&M Reports is incomplete and does not in itself fully support the position that current chemical use is the cause of exceedances of IATLs. Review of older documents, such as the Subsurface Gas Contingency Plan Investigation Report, reveals that better supporting information exists. This information should be brought forward to the current OM&M Reports to provide protectiveness assurance in these publicly available documents.

4. Periodic chemical inventory updates should be performed, particularly in buildings where businesses have changed. WDIG should add a process for updating the chemical use inventories in the OM&M Plan.

5. Optimization opportunities to enhance cost-effectiveness exist in the reduction of the soil vapor analyte list, and in reducing the number of COCs evaluated by control chart trend analysis.

H. REFERENCES

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TRC. 2003. *Design Report, Soils, Subsurface Gas and Groundwater Remedial Design, Waste Disposal, Inc., Superfund Site.* August 2006.

TRC. 2006. *Final Operation, Maintenance and Monitoring Plan (OMMP), Waste Disposal, Inc., Superfund Site.* May 2003.

TRC. 2008a. *Annual Operations, Maintenance and Monitoring (OM&M) Report - October 2006 through September 2007. Waste Disposal, Inc., Superfund Site*. June 2008.

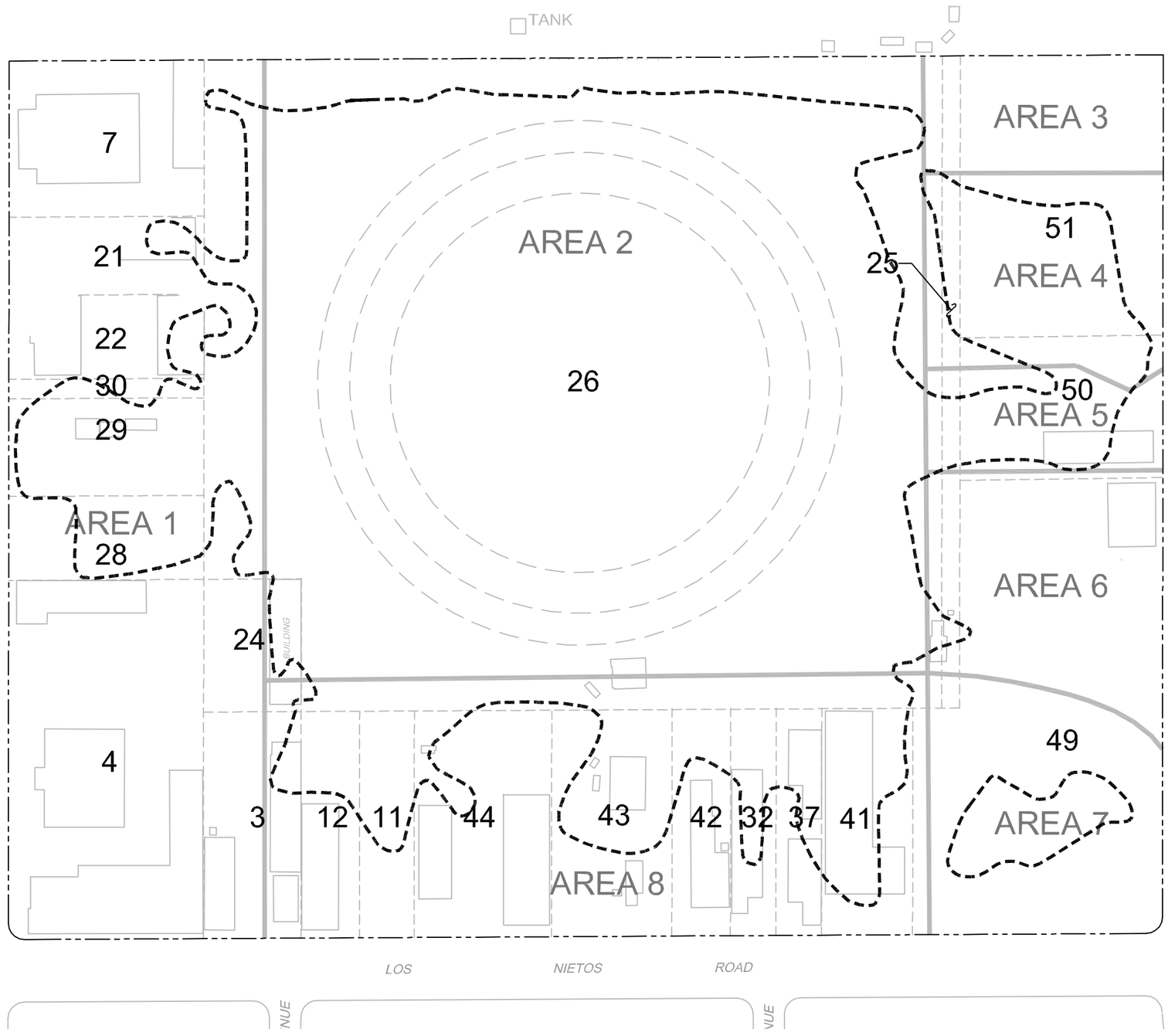
TRC. 2008b. *Semi-Annual Operations, Maintenance and Monitoring (OM&M) Report - October 2007 through March 2008. Waste Disposal, Inc., Superfund Site*. November 2008.

LEGEND

- Site Boundary
- Area Boundary
- AREA 1 Historical Use Designations
- Parcel Boundary
- 7 Parcel Number
- Limit of Waste
- Existing Building

Parcel No./Owner

3	Raymond & Donnis Holbrook Trust
4	Dia-Log Company
7	Eugene and Geraldine Welter Trust
11	Albert C K & Betty Leung
12	Albert C K & Betty Leung
21	Lucille F. Ferris Living Trust
22	John I. Maple Family Partnership
24	Raymond & Donnis Holbrook Trust
25	Marvin W. Pitts and Cecilia Pitts, trustees under Declaration of Trust, dated February 1, 1982 (Pitts Family Trust), Adeline R. Bennet, M.D. Living Trust
26	Marvin W. Pitts and Cecilia Pitts, trustees under Declaration of Trust, dated February 1, 1982 (Pitts Family Trust), Adeline R. Bennet, M.D. Living Trust
28	Thomas J. Mersits, Irene L. Mersits Trust
29	Thomas J. Mersits, Irene L. Mersits Trust
30	Marvin W. Pitts and Cecilia Pitts, trustees under Declaration of Trust, dated February 1, 1982 (Pitts Family Trust), Adeline R. Bennet, M.D. Living Trust
32	David Joseph Neptune Family Trust
37	Lula Graziano, Trustee of Trust "A" of the Graziano Trust as restated March 4, 1992 Lula Graziano, Trustee of Trust "B" of the Graziano Trust as restated March 4, 1992, Jovita I. Ortega
41	Eugene and Geraldine Welter Trust
42	Danny R. Peoples & Dena Peoples
43	Eddie Earl Timmons
44	Sisneros Family Trust
49	Greve Financial Services, Inc.
50	Brothers Machine & Tool, Inc.
51	Marvin W. Pitts and Cecilia Pitts, trustees under Declaration of Trust, dated February 1, 1982 (Pitts Family Trust), Adeline R. Bennet, M.D. Living Trust



REFERENCE:

Nunez Engineering, Survey Drawing NE 97187, Oct. 31, 1997.

SCALE (FEET)

0 150 300

PROJECT: 156626

FACILITY:

WASTE DISPOSAL, INC.
SANTA FE SPRINGS, CALIFORNIA

SITE FEATURES

FIGURE 1

MS=1:150 L:\Graphics\ProjectsByNumber\29-xxxx\29-0224 Waste Disposal Inc\FIGURES (WITHOUT LOGO)\290224-Features(rev).dwg Oct 29, 2008 - 2:16pm Rcollins

LEGEND

RCRA SUBTITLE C-EQUIVALENT CAP AREA
DETAIL 4 (9|10)

RCRA SUBTITLE D - EQUIVALENT COVER AREA
DETAIL 5 (9|10)

REMOVE EXISTING ASPHALT AND REPLACE WITH ENGINEERED ASPHALT COVER
DETAIL 6 (9|10)

2" ASPHALT OVERLAY COVER
DETAIL 6A (9|10)

REMOVE EXISTING CONCRETE AND REPLACE WITH ENGINEERED CONCRETE COVER
DETAIL 7 (9|10)

ENGINEERED CONCRETE COVER WITH SEALED CRACKS
DETAIL 7A (9|10)

SEAL ASPHALT AND RESTRIPE

CLEAN OUT

LIMIT OF WASTE

GAS COLLECTION PIPE

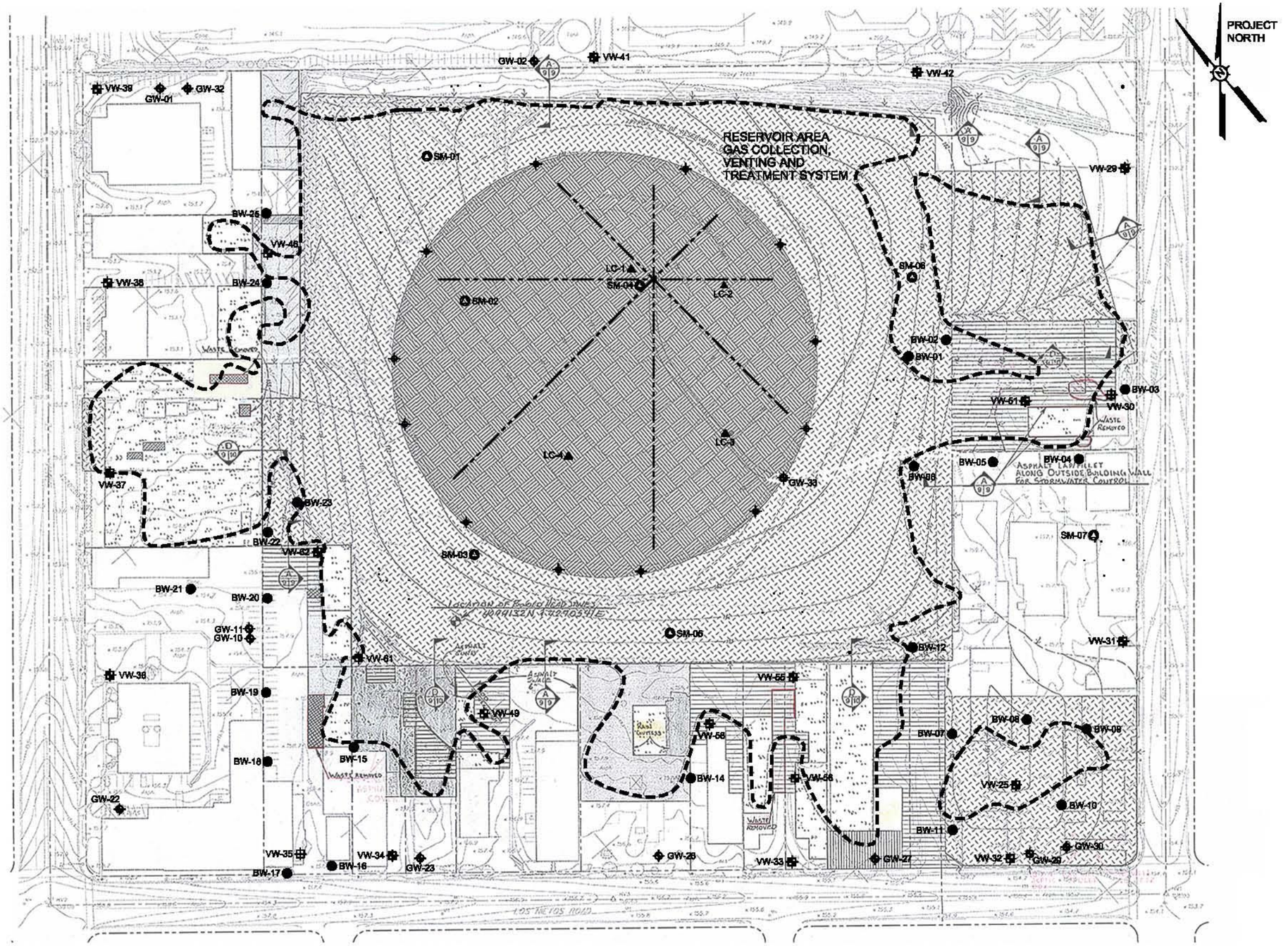
BIOVENT WELL

EXISTING GROUND WATER WELL RETAINED FOR MONITORING

EXISTING VAPOR WELL RETAINED FOR MONITORING

LEACHATE COLLECTION WELL

SETTLEMENT MONUMENT



SCALE (FEET)
0 150 300

PROJECT: 156626

FACILITY:
WASTE DISPOSAL, INC.
SANTA FE SPRINGS, CALIFORNIA

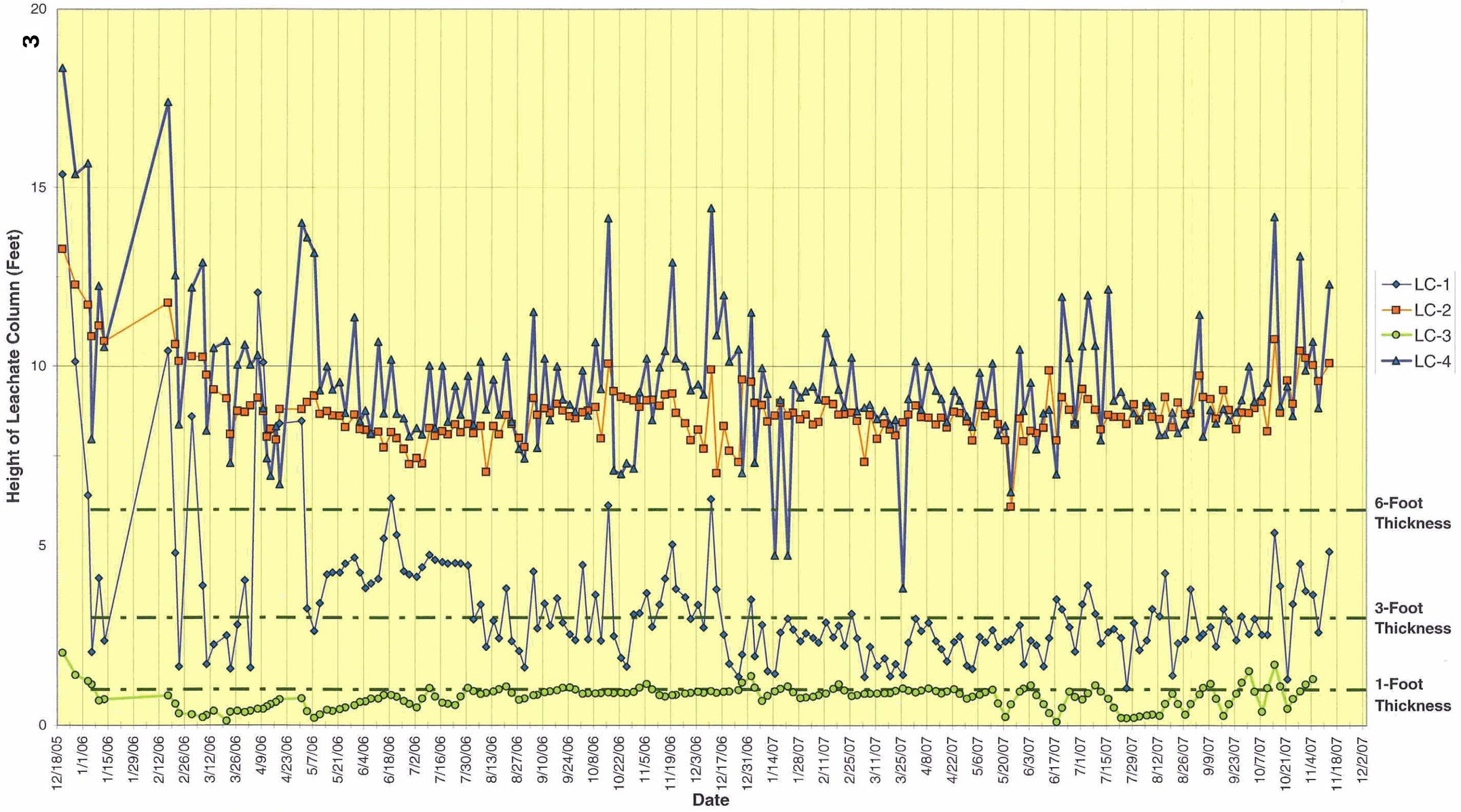
MAJOR REMEDY COMPONENTS

FIGURE 2

MS=1:150 L:\Graphical\ProjectsByNumber\29-xxxx\29-0224 Waste Disposal Inc\FIGURES (WITHOUT LOGO)\2900224-Components(rev).dwg Oct 29, 2008 - 2:19pm Roxline

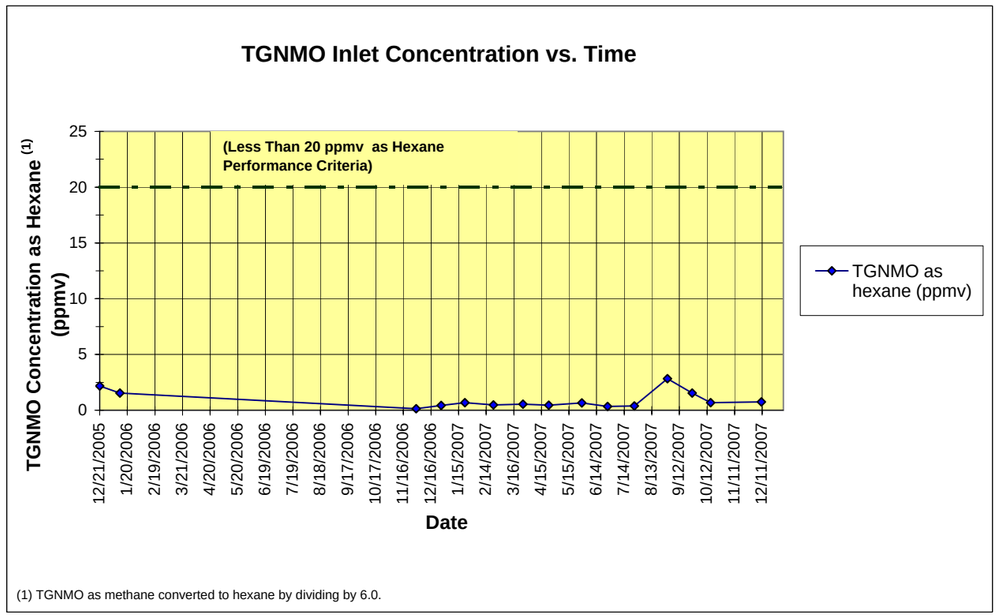
FIGURE 3

Initial Height of Leachate Column at Start of Monitoring

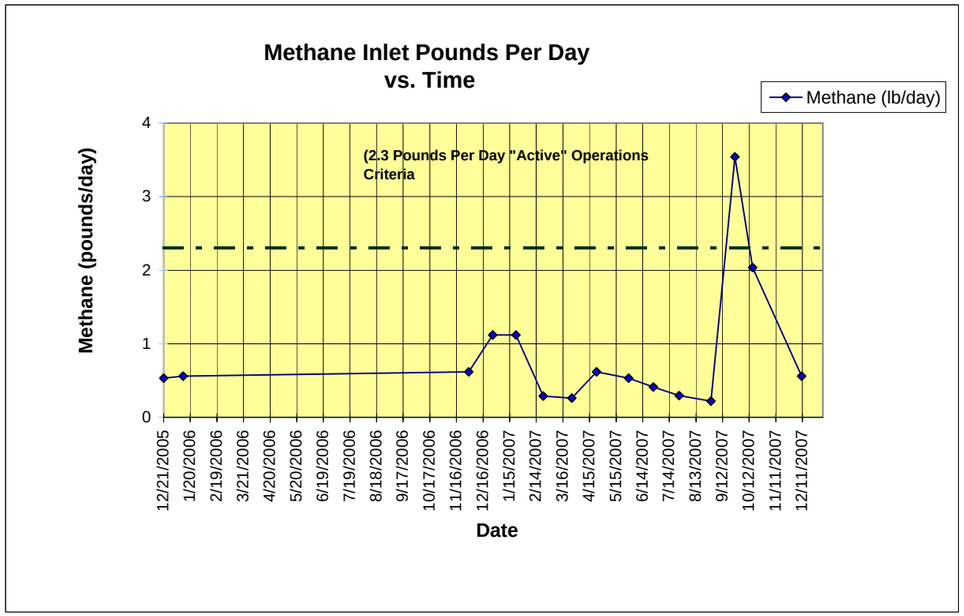


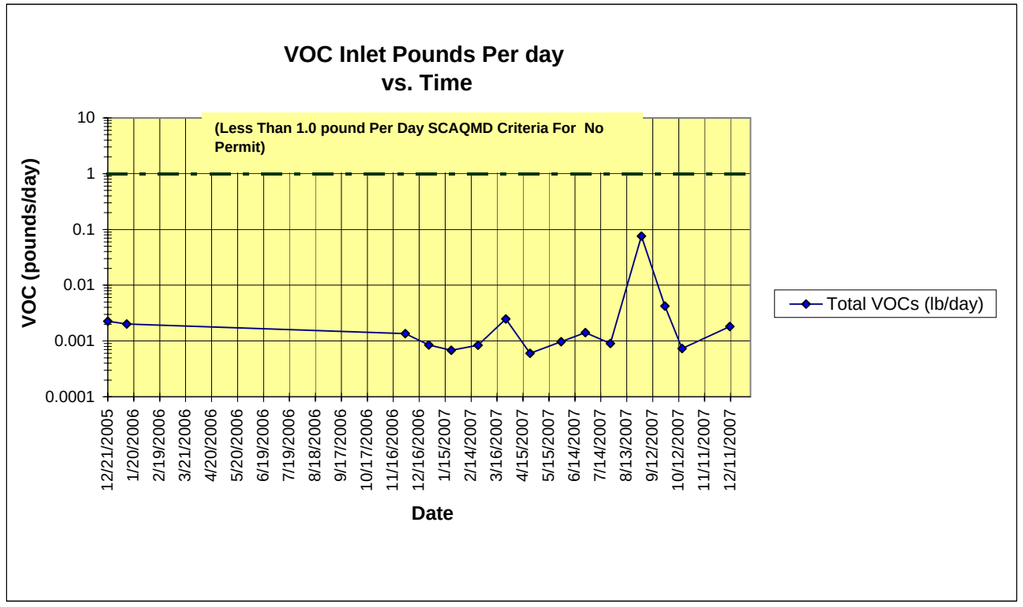
N:\Projects\Waste_Disposal_Inc\Project_Documents\MgmtPlans_Reports\Semi-Annual O&M Reports\Second Semi-annual O&M Report April 07-September 07\Figures\Copy of Figure 5-2-LeachateCollectionWells_Monitoring(YF)(TG1).xls
Graph

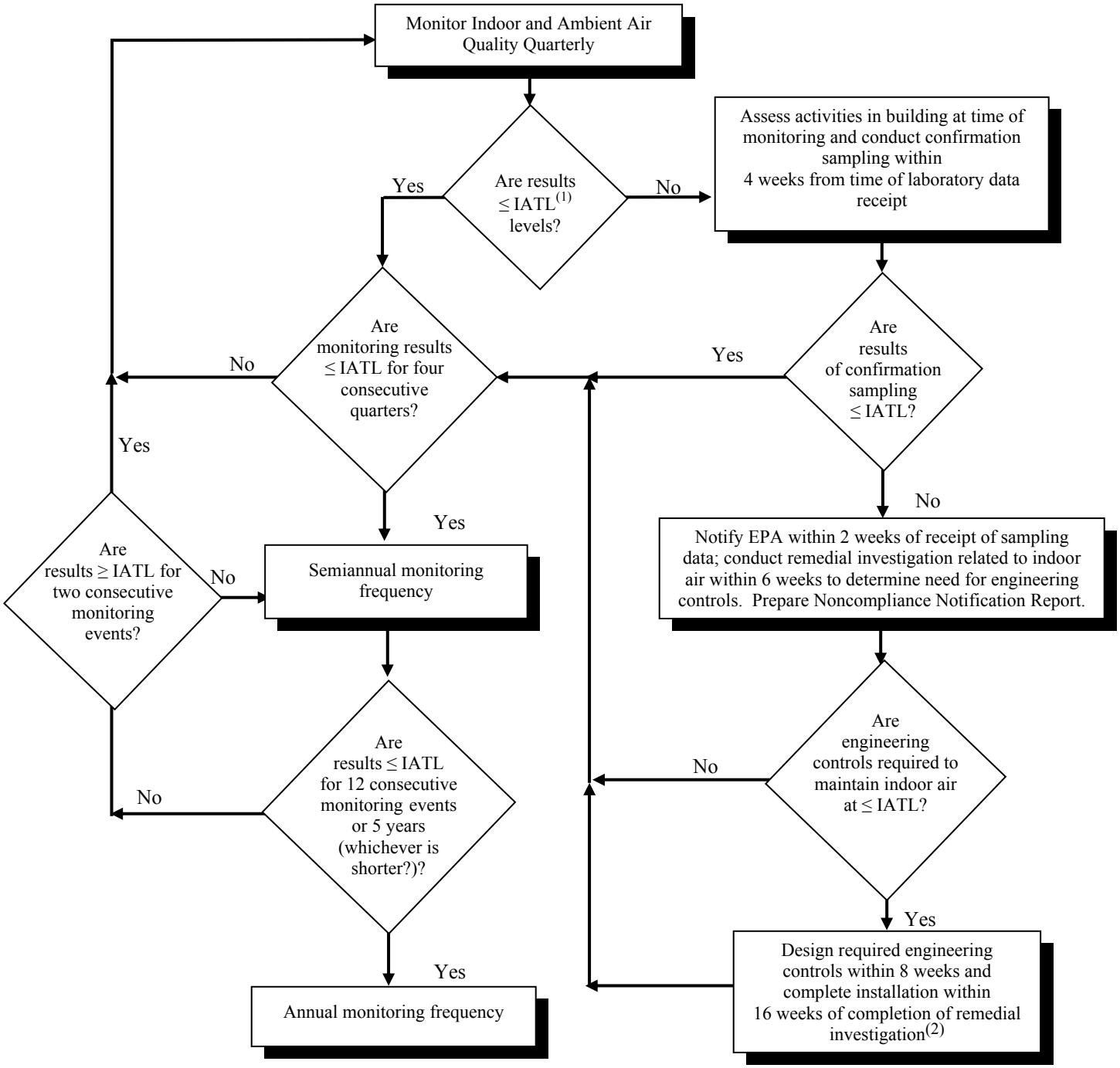
Figure 4
Trend Graphs
TGNMO, Methane, and VOC Inlet Values
Reservoir Gas Collection System



(1) TGNMO as methane converted to hexane by dividing by 6.0.







(1) IATL = Indoor Air Threshold Levels (see Table 2-2).

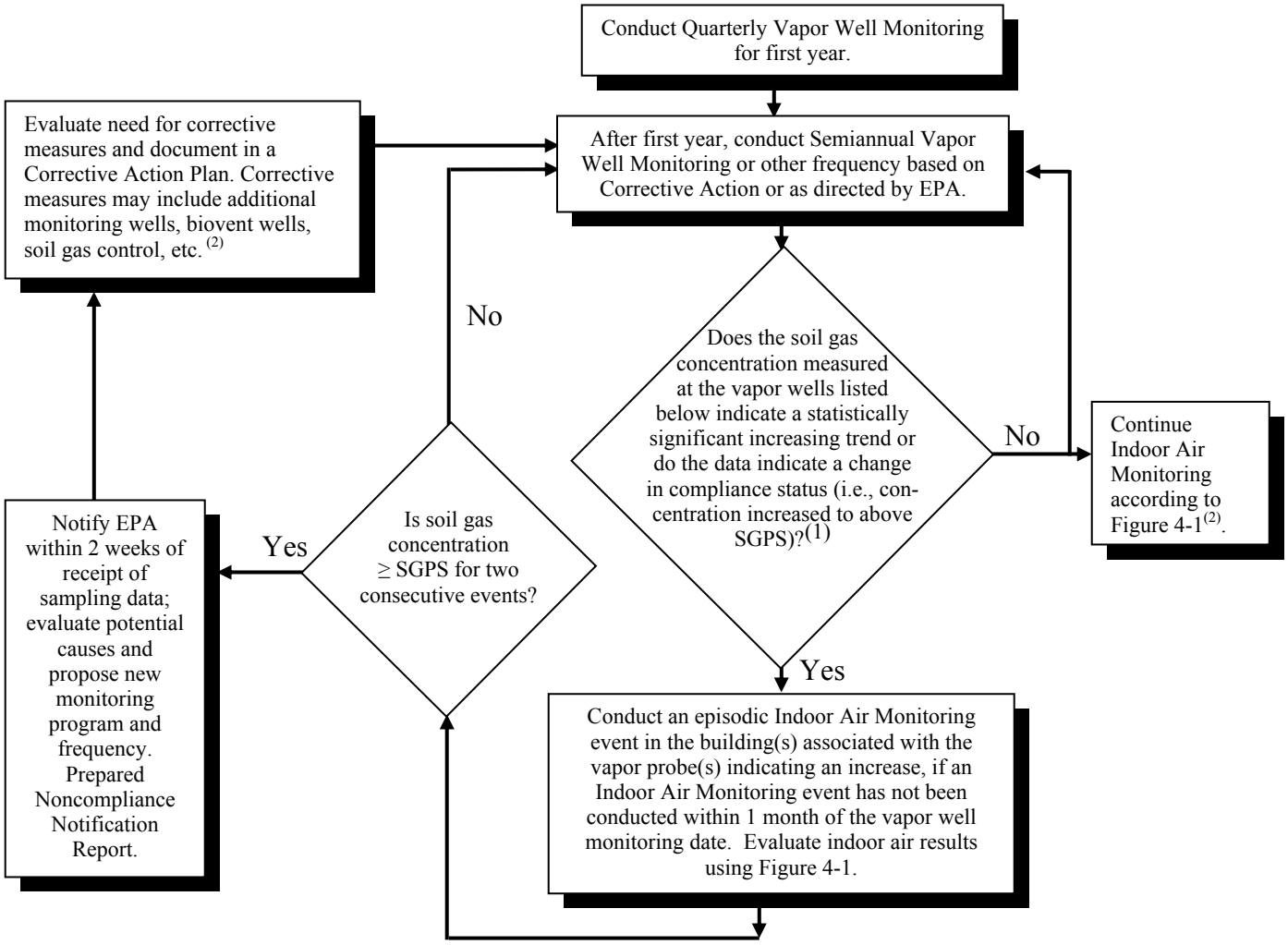
(2) Required engineering controls may include but are not limited to soil vapor extraction system outside building, passive or active foundation vent system, or HVAC system improvements. Any corrective measures will be discussed with and approved by EPA and DTSC prior to implementation.

(3) Decision matrix may be revised to include additional actions based on the concentration of the exceedance, e.g., as discussed in the Subsurface Gas Contingency Plan, CDM Federal Programs Corporation, July 17, 1997.

DECISION MATRIX FOR IN-BUSINESS AND AMBIENT AIR MONITORING
(See Footnote 3)

WASTE DISPOSAL, INC.
SANTA FE SPRINGS, CALIFORNIA

FIGURE 5



PARCEL NO.	PARCEL ADDRESS	VAPOR WELL NUMBER
021	9620 Santa Fe Springs Road	VW-46
022	9630 Santa Fe Springs Road	VW-46
024	12637 Los Nietos Road	VW-61 and VW-62
003	12635 Los Nietos Road	VW-61
012	12639 Los Nietos Road	VW-61
044	12715-17 Los Nietos Road	VW-49
043	12723 Los Nietos Road	VW-58
042	12741 Los Nietos Road	VW-58
032	12747 Los Nietos Road	VW-55 and -56
037	12801 Los Nietos Road; 12803 Los Nietos Road	VW-55 and -56
041	12807B, 12807A, 12809, 12811, and 12813 Los Nietos Road	VW-55 and -56
050	9843 Greenleaf Avenue	VW-30 and -51

(1) SGPS = Soil Gas Performance Standard. See Table 2-2.

(2) Any changes to monitoring program and corrective actions due to soil gas concentrations ≥ SGPS for two consecutive events will be discussed with and approved by the EPA and DTSC prior to implementation

DECISION MATRIX CRITERIA FOR SOIL GAS MONITORING DATA

WASTE DISPOSAL, INC.
SANTA FE SPRINGS, CALIFORNIA

FIGURE 6

Figure 7

WDI

Analysis prepared on: 8/7/2008

Intra-Well Control Charts

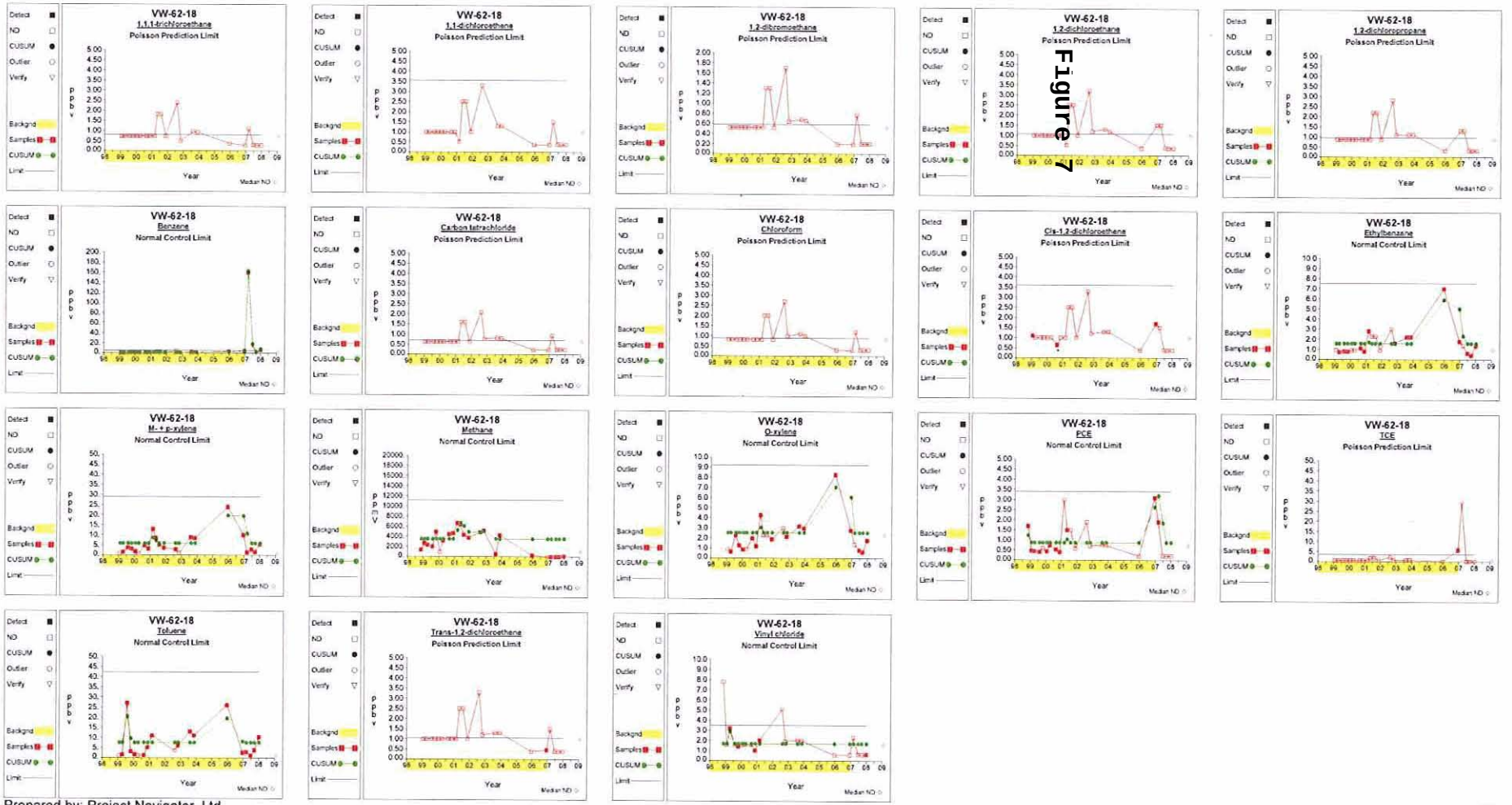


Figure 7

Prepared by: Project Navigator, Ltd.

TABLE 1

PERFORMANCE REQUIREMENTS AND FREQUENCY OF ACTIVITIES [1]
WASTE DISPOSAL, INC. SUPERFUND SITE

REMEDIAL AND MONITORING SYSTEMS PERFORMANCE REQUIREMENTS	FREQUENCY		OMMP REFERENCE
	Operations and Maintenance	Monitoring	
RCRA C-Equivalent Cover [2]	Annually	N/A	Section 4.1
• designed and constructed to meet RCRA-equivalent engineering standards for hazardous waste containment			
• existing fill material complies with performance requirements including hydraulic conductivity, compaction, density, moisture content, and structural loading			
• soil cover/foundation layer sustains reasonable loads			
• cover includes a composite low hydraulic conductivity layer below a geomembrane (barrier layer)			
• resist infiltration equivalent to a geomembrane over a 2-foot-thick soil layer with a hydraulic conductivity of 1E-07 cm/sec or less			
• provide a water drainage layer above the barrier layer			
• provide a filter layer above the drainage layer to prevent clogging			
• include an overlying vegetative layer thick enough to protect the barrier layer, support vegetation, and prevent erosion from damaging cover and root penetration into the filter layer			
• assure cover integrity (no settlement or intrusion)			
• provide surface grades sufficient to prevent ponding or surface run-on			
• Annual inspection by independent Professional Engineer			
• Annual cover surface survey			
RCRA D-Equivalent Cover [2]	Annually	N/A	Section 4.1
• designed and constructed to meet RCRA-equivalent engineering standards for solid waste containment			
• existing fill material complies with performance requirements including hydraulic conductivity, compaction, density, moisture content, and structural loading			
• foundation layer sustains reasonable loads			
• low hydraulic conductivity layer with infiltration equivalent to a minimum 1-foot-thick soil with a hydraulic conductivity of 1E-06 cm/sec or less			
• vegetative/erosion resistant layer thick enough to support vegetation (for soil based cover) and resist erosion			
• assure cover integrity (no settlement or intrusion)			
• provide surface grades sufficient to prevent ponding or surface run-on			
• Annual cover surface survey			
Surface Drainage Control System	Annually	N/A	Section 4.1
• prevents erosion of containment structure			
• capable of handling 100-year, 24-hour storm			
• integration with existing offsite infrastructure			
• sufficient grading to promote lateral drainage and prevent ponding			
• final grading considers post-closure land use			

(1) Performance requirements are described in the Amended Record of Decision (AROD) and Statement of Work (SOW).

(2) Also complies with requirements set for in Title 22, 66264.310 and 66264.228 (k), (p) and (r).

N/A = Not Applicable

TABLE 1

PERFORMANCE REQUIREMENTS AND FREQUENCY OF ACTIVITIES [1]
WASTE DISPOSAL, INC. SUPERFUND SITE
(Continued)

REMEDIAL AND MONITORING SYSTEMS PERFORMANCE REQUIREMENTS	FREQUENCY		OMMP REFERENCE
	Operations and Maintenance	Monitoring	
Soil Gas Migration Control Systems	Varies (see below)	Varies (see below)	Sections 4.2 and 5.2
• control soil gas migration			
• compliance with soil gas performance requirements at points-of-compliance			
1. Reservoir Gas Collection System	Active - Monthly Passive - Semiannually	Active - Monthly Passive - Semiannually	Sections 4.2.1 and 5.2
• system designed to handle maximum expected gas flow rate			
• Treat extracted gas for at least the first year			
• compliance with applicable rules of South Coast Air Quality Management District (SCAQMD)			
• VOC emission rate less than 1.0 lb per day; if greater than 1.0 lb per day, extracted gas shall be treated and a SCAQMD permit-to-operate obtained			
• Reduce NMOC by at least 98% by weight or reduce NMOC concentration to less than 20 ppmv dry basis as hexane at 3% oxygen			
• Convert to passive system if methane emission rate is less than 2.3 lb per day after 1 year			
• Emissions comply with ARARs for Chemicals Of Concern (COCs) in subsurface soil gas			
2. Building Modifications	Annually	See Figure 4-1	Sections 4.2.2 and 5.2
• Sealing cracks in and penetrations through floor slabs			
• In-business air quality complies with EPA Indoor Air Threshold Levels (IATL) (Table 2-2)			
• Methane concentration maintained at or below 1.25% by volume in air within buildings			
3. Sentinel Biovent System	Semiannually	N/A	Section 4.2.3
• Air flow into the well			
Leachate Monitoring / Control System	Leachate Level >12"	Leachate Level <12": Monthly Leachate Level 12"-36": Weekly Leachate Level >36": Twice Weekly or Continuous Pumping	Section 4.5
• System designed to collect and maintain liquid head at leachate collection wells at or below 12 inches			
• Leachate disposal off-site			

(1) Performance requirements are described in the Amended Record of Decision (AROD) and Statement of Work (SOW).

N/A = Not Applicable

TABLE 1

PERFORMANCE REQUIREMENTS AND FREQUENCY OF ACTIVITIES [1]
WASTE DISPOSAL, INC. SUPERFUND SITE
(Continued)

REMEDIAL AND MONITORING SYSTEMS PERFORMANCE REQUIREMENTS	FREQUENCY		OMMP REFERENCE
	Operations and Maintenance	Monitoring	
Monitoring Systems			
1. Ground Water	To be performed at monitoring frequency	See Figure 4-3	Sections 4.3 and 5.1
• System designed to meet appropriate monitoring objectives: background, point-of-compliance, near-source detection, and verification/guard			
• Ground water monitoring to assure current conditions maintained or improved			
2. Soil Gas	To be performed at monitoring frequency	See Figure 4-2	Sections 4.3 and 5.2
• System designed to monitor appropriate zones and to provide representative samples			
• Soil vapor from respective vapor wells complies with the following:			
- Compliance Vapor Wells (perimeter wells): Levels meet Soil Gas Performance Standards (Table 2-2), levels maintained at or less than concentrations prior to remedy implementations, and methane concentration maintained at or below 5.0% by volume in soil gas at the Site boundary			
- Non-Compliance Vapor Wells: levels maintained at or less than concentrations prior to remedy implementations, or are not at levels of health concern.			
3. Surface Emissions - Outdoor	Annually	See Figure 4-1	Sections 4.2.2 and 5.2
• Sealing cracks in pavement			
• Surface emission testing for methane (e.g., methane concentration maintained at or below 1.25% by volume in air near buildings)			
4. Stormwater	Twice a year and following significant storm events (>2" of precipitation over a 24-hour period)	First two significant storm events after completion of remedial construction	Sections 4.4 and 5.3
• System designed to prevent flooding or ponding at Site during storm events			
• Stormwater quality complies with discharge criteria for site			
Landscaping and Vegetation			
• Vegetative Cover Mowing to maintain site appearance and allow easy access to monitoring wells	Every 3 to 4 months, and at least one week before St. Paul High School graduation.	N/A	Section 4.7
• Vegetative Cover Replacement if 70% coverage standard is not met.	As necessary	Bi-Annual	Section
• Tree trimming to promote healthy growth, prevent damage to stray ball fence and prevent off-site encroachment	Annually	N/A	Section 4.7
• Landscape Area weed control to maintain healthy appearance of trees, bushes, and ground cover	During mowing vents	N/A	Section 4.7
• Site housekeeping to remove accumulated debris, trash and waste	Annually	N/A	Section 4.7
• Site fences, signs and gates will be inspected and repaired, as necessary.	Annually	N/A	Section 4.6

(1) Performance requirements are described in the Amended Record of Decision (AROD) and Statement of Work (SOW).

N/A = Not Applicable

TABLE 2

SOIL GAS PERFORMANCE STANDARDS AND INDOOR AIR THRESHOLD LEVELS WASTE DISPOSAL, INC. SUPERFUND SITE

COMPOUND	SOIL GAS PERFORMANCE STANDARD[1] (ppbv)	INDOOR AIR THRESHOLD LEVEL[2] (ppbv)[3]
Benzene	10	2.0
Carbon Tetrachloride	21	0.68
Chloroform	20	3.4
1,2-Dibromoethane	1	0.06
1,2-Dichloroethane	20	3.6
cis-1,2-Dichloroethene	180	18.6
1,1-Dichloroethene	100	53[4]
1,2-Dichloropropane	20	1.86
trans-1,2-Dichloroethene	400	36.8
Ethylbenzene	5,000	490
Tetrachloroethene	500	10.6
Toluene	2,000	212.0
1,1,1-Trichloroethane	3,600	368.0
Trichloroethene	200	3.0 µg/m^3 [5]
Vinyl Chloride	10	0.25
m,p-Xylene	4,000	142.8
o-Xylene	4,000	142.8
Methane	1.25% (near buildings) 5.0% (site perimeter)	1.25%

(1) EPA, Amended Record of Decision, Waste Disposal, Inc. June 2002.

(2) CDM Federal Programs Corporation, Subsurface Gas Contingency Plan, Waste Disposal, Inc. Superfund Site, July 1997.

(3) Indoor Air Threshold Levels are expressed in part per billion volume (ppbv), except for Trichloroethene (TCE) that is expressed in µg/m^3.

(4) Developed separately by EPA (i.e., subsequent to the *Subsurface Gas Contingency Plan* [see footnote (2)]).

(5) Pursuant to EPA policy requirements, the indoor air *interim* threshold level for Trichloroethene (TCE) has been revised to 3.0 µg/m^3 (0.56 ppbv at 25 ^{o}C and 1 atm) for the in-business ambient air monitoring program. Please note that this value may be subject to future revision.

TABLE 3

SUMMARY OF ANALYTIC DATA FOR IN-BUSINESS AND AMBIENT AIR SAMPLE LOCATIONS
1998 THROUGH 2008
WASTE DISPOSAL, INC. SUPERFUND SITE

		Analytical Methods, Constituents and Results																											
		EPA Method 25C		EPA Method 3C					EPA Method TO-15																				
Sample Location	Sample Event Date	Methane	Total Gaseous Nonmethane Organics (TGNMO) as Methane	Hydrogen	Oxygen + Argon *	Nitrogen	Carbon Monoxide	Carbon Dioxide	Chloromethane	Vinyl Chloride	Bromomethane	Chloroethane	Acetone	Trichlorofluoro-methane	1,1-Dichloroethene	Methylene Chloride	Trichloro-trifluoroethane	Carbon Disulfide	trans-1,2-Dichloroethene	1,1-Dichloroethane	Methyl tert-Butyl Ether	Vinyl Acetate	2-Butanone (MEK)	cis-1,2-Dichloroethene	Chloroform	1,2-Dichloroethane	1,1,1-Trichloroethane	Benzene	Carbon Tetrachloride
		ppmv	ppmv	(%, v/v)	(%, v/v)	(%, v/v)	(%, v/v)	(%, v/v)	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv
IBM-03	1998 Feb	3.1	--	--	--	--	--	--	--	ND	--	--	1900	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**4.6**	--
	1998 3rdQ	3.5	--	--	--	--	--	--	--	ND	--	--	270	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.3**	--
	1998 4thQ	3.2	--	--	--	--	--	--	--	ND	--	--	290	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**4.7**	--
	1999 1stQ	3.9	--	--	--	--	--	--	--	ND	--	--	750	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**6.6**	--
	1999 2ndQ	2.8	--	--	--	--	--	--	--	ND	--	--	640	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**6.4**	--
	2000 2ndQ	2.7	--	--	--	--	--	--	--	ND	--	--	2000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**5.3**	--
	2000 3rdQ	3.2	--	--	--	--	--	--	--	ND	--	--	720	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**5.2**	--
	2000 4thQ	3.2	--	--	--	--	--	--	--	ND	--	--	290	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**7.4**	--
	2001 2ndQ	2.9	--	--	--	--	--	--	--	**7.8**	--	--	1200	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	--
	12/18/2005	4.4,J8,(1)	<1.6 (1)	<0.1 (1)	21.9 (1)	78.1 (1)	<0.1 (1)	<0.1 (1)	<0.7 UJ2,(1)	**<0.61 UJ2,UJ9,(1)**	<0.40 UJ2,(1)	<0.59 UJ2,(1)	18 J2,(1)	<0.28 UJ2,(1)	<0.39 UJ2,(1)	<0.45 UJ2,(1)	<0.20 UJ2,(1)	<0.50 UJ2,(1)	<0.39 UJ2,(1)	<0.38 UJ2,(1)	<0.43 UJ2,(1)	<0.44 UJ2,(1)	1.8 J2,(1)	<0.39 UJ2,(1)	<0.32 UJ2,(1)	<0.38 UJ2,(1)	<0.28 UJ2,(1)	1.2 J2,(1)	<0.25 UJ2,(1)
	12/18/2005 Dup	<0.80 UJ8,(1)	<1.6 (1)	<0.16 (1)	21.9 (1)	78.1 (1)	<0.16 (1)	<0.16 (1)	<0.78 UJ2,(1)	**<0.63 UJ2,UJ9,(1)**	<0.41 UJ2,(1)	<0.61 UJ2,(1)	19 J2,(1)	<0.28 UJ2,(1)	<0.40 UJ2,(1)	<0.46 UJ2,(1)	<0.21 UJ2,(1)	<0.51 UJ2,(1)	<0.40 UJ2,(1)	<0.40 UJ2,(1)	<0.44 UJ2,(1)	<0.45 UJ2,(1)	1.8 J2,(1)	<0.40 UJ2,(1)	<0.33 UJ2,(1)	<0.40 UJ2,(1)	<0.29 UJ2,(1)	1.2 J2,(1)	<0.25 UJ2,(1)
	1/15/2006	2.5 (1)	<1.7 (1)	<0.17 (1)	21.9 (1)	78.1 (1)	<0.17 (1)	<0.17 (1)	<0.83 (1)	<0.017 (1)	<0.44 (1)	<0.65 (1)	15 (1)	<0.31 (1)	<0.43 (1)	<0.50 (1)	<0.22 (1)	<0.55 (1)	<0.43 (1)	<0.43 (1)	<0.48 (1)	<0.49 (1)	1.2 (1)	<0.43 (1)	<0.35 (1)	<0.43 (1)	<0.32 (1)	0.76 (1)	<0.27 (1)
	1/6/2007	2.8 (1)	<1.9 (1)	<0.19 (1)	22.2 (1)	77.8 (1)	<0.19 (1)	<0.19 (1)	<0.91 (1)	<0.018 (1)	<0.48 (1)	<0.71 (1)	51 (1)	<0.33 (1)	<0.47 (1)	7.1 (1)	<0.25 (1)	<0.60 (1)	<0.47 (1)	<0.46 (1)	1.2 (1)	<0.53 (1)	2.8 (1)	<0.47 (1)	<0.39 (1)	<0.46 (1)	<0.34 (1)	1.5 (1)	<0.30 (1)
	3/5/2007	2.4 (1)	<1.7 (1)	<0.17 (1)	22.2 (1)	77.7 (1)	<0.17 (1)	<0.17 (1)	<0.82 (1)	<0.017 (1)	<0.44 (1)	<0.64 (1)	31 (1)	0.4 (1)	<0.43 (1)	7 (1)	<0.22 (1)	<0.54 (1)	<0.43 (1)	<0.42 (1)	1.9 (1)	<0.48 (1)	15 (1)	<0.43 (1)	<0.35 (1)	<0.42 (1)	<0.31 (1)	1.3 (1)	<0.27 (1)
	6/9/2007	1.9 (1)	<1.6 (1)	--	--	--	--	--	<0.75 (1)	<0.015 (1)	<0.40 (1)	<0.59 (1)	45 V,(1)	<0.28 (1)	0.46 (1)	12 (1)	<0.20 (1)	<0.50 (1)	<0.39 (1)	<0.38 (1)	2.2 (1)	<0.44 (1)	3.6 (1)	<0.39 (1)	<0.32 (1)	<0.38 (1)	0.48 (1)	1 (1)	<0.25 (1)
	10/13/2007	1.5 (1)	<1.4 (1)	--	--	--	--	--	<1.0 (1)	<0.014 (1)	<0.53 (1)	<0.78 (1)	51 M,(1)	<0.37 (1)	<0.52 (1)	41 (1)	<0.27 (1)	<0.66 (1)	<0.52 (1)	<0.51 (1)	1.7 (1)	<2.9 (1)	3.8 (1)	<0.52 (1)	<0.42 (1)	<0.51 (1)	<0.38 (1)	0.8 (1)	<0.33 (1)
	10/13/2007 Dup	1.5 (1)	<1.6 (1)	--	--	--	--	--	<1.1 (1)	<0.015 (1)	<0.58 (1)	<0.85 (1)	52 M,(1)	<0.40 (1)	<0.57 (1)	45 (1)	<0.29 (1)	<0.72 (1)	<0.57 (1)	<0.55 (1)	1.7 (1)	<3.2 (1)	4 (1)	<0.57 (1)	<0.46 (1)	<0.55 (1)	<0.41 (1)	0.84 (1)	<0.36 (1)
	1/11/2008	3.6	<1.4	--	--	--	--	--	<0.7	<0.094	<0.37	<0.55	53	0.32	<0.36	100	<0.19	<0.46	<0.36	<0.36	0.96	<2	4.4	<0.36	0.36	<0.36	0.3	**2**	<0.23
	1/11/2008 Dup	3.7	<1.4	--	--	--	--	--	<0.66	<0.089	<0.35	<0.52	52	0.32	<0.34	100	<0.18	<0.44	<0.34	<0.34	0.9	<1.9	4.5	<0.34	0.35	<0.34	0.31	**2**	<0.22
	4/11/2008	2.2	1.7	--	--	--	--	--	<0.64	<0.044	<0.34	<0.5	32	0.26	<0.34	86	<0.17	<0.43	<0.34	<0.33	1.2	<1.9	3	<0.34	<0.27	<0.33	<0.24	0.77	<0.21
	4/11/2008 Dup	2.1	1.9	--	--	--	--	--	<0.69	<0.046	<0.37	<0.54	33	0.26	<0.36	85	<0.19	<0.46	<0.36	<0.35	1.2	<2	3	<0.36	<0.29	<0.35	<0.26	0.79	<0.23
IBM-03B	1998 2ndQ	2.3	--	--	--	--	--	--	--	ND	--	--	12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	--
	1998 4thQ	4.1	--	--	--	--	--	--	--	ND	--	--	30	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**9.4**	--
	1999 1stQ	3.8	--	--	--	--	--	--	--	ND	--	--	24	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2**	--
	1999 2ndQ	2.9	--	--	--	--	--	--	--	ND	--	--	24	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.4	--
	1999 3rdQ	1.9	--	--	--	--	--	--	--	ND	--	--	16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.1	--
	12/17/2005	2.8 J2,(1)	<1.2 UJ2,(1)	<0.12 UJ2,(1)	21.7 J2,(1)	78.2 J2,(1)	<0.12 UJ2,(1)	<0.12 UJ2,(1)	<3.0 UJ2,(1)	**<2.4 UJ2,UJ9,(1)**	<1.6 UJ2,(1)	<2.3 UJ2,(1)	32 J2,(1)	<1.1 UJ2,(1)	<1.5 UJ2,(1)	<1.8 UJ2,(1)	<0.8 UJ2,(1)	<2.0 UJ2,(1)	<1.5 UJ2,(1)	<1.5 UJ2,(1)	<1.7 UJ2,(1)	<1.7 UJ2,(1)	<2.1 UJ2,(1)	<1.5 UJ2,(1)	<1.2 UJ2,(1)	<1.5 UJ2,(1)	<1.1 UJ2,(1)	<1.9 UJ2,(1)	**<0.97 UJ2,UJ9,(1)**
	1/15/2006	3.1 (1)	<1.6 (1)	<0.16 (1)	21.9 (1)	78 (1)	<0.16 (1)	<0.16 (1)	<0.79 (1)	0.097 (1)	<0.42 (1)	<0.62 (1)	40 (1)	<0.29 (1)	<0.41 (1)	0.59 (1)	<0.21 (1)	<0.52 (1)	<0.41 (1)	<0.40 (1)	<0.45 (1)	<0.46 (1)	2.8 (1)	<0.41 (1)	<0.33 (1)	<0.40 (1)	<0.30 (1)	**14 (1)**	<0.26 (1)
	12/10/2006	2.2 (1)	5.5 UJ10,(1)	<0.20 (1)	22.2 (1)	77.7 (1)	<0.20 (1)	<0.20 (1)	<0.74 (1)	< 0.060 UJ10,(1)	<0.39 (1)	<0.58 (1)	23 J10,(1)	0.27 (1)	<0.39 (1)	5.8 (1)	<0.20 (1)	<0.49 (1)	<0.39 (1)	<0.38 (1)	<0.42 (1)	<0.43 (1)	6.5 (1)	<0.39 (1)	<0.31 (1)	<0.38 (1)	<0.28 (1)	**3.8 (1)**	<0.24 (1)
	3/25/2007	2.5 (1)	<01.5 V,(1)	--	--	--	--	--	<1.1 (1)	<0.015 (1)	<0.56 (1)	<0.82 (1)	37 (1)	<0.39 (1)	<0.55 (1)	2.4 (1)	<0.28 (1)	<0.70 (1)	<0.55 (1)	<0.54 (1)	<0.60 (1)	1.6 M,(1)	2.2 (1)	<0.55 (1)	<0.44 (1)	2.6 (1)	<0.40 (1)	0.95 (1)	<0.35 (1)
	6/10/2007	2.3 (1)	<1.7 (1)	--	--	--	--	--	<0.80 (1)	<0.016 (1)	<0.43 (1)	<0.63 (1)	19 *,(1)	<0.29 (1)	<0.42 (1)	0.69 (1)	<0.22 (1)	<0.53 (1)	<0.42 (1)	<0.41 (1)	<0.46 (1)	1.7 M,(1)	1.5 (1)	<0.42 (1)	<0.34 (1)	1.1 (1)	<0.30 (1)	0.76 (1)	<0.26 (1)
	9/16/2007	2.2 (1)	<2.1 (1)	--	--	--	--	--	<1.0 (1)	<0.021 (1)	<0.55 (1)	<0.80 (1)	65 M,(1)	<0.38 (1)	<0.53 (1)	0.85 (1)	<0.28 (1)	<0.68 (1)	<0.53 (1)	<0.52 (1)	<0.59 (1)	<3.0 (1)	5.7 (1)	<0.53 (1)	<0.43 (1)	1.1 (1)	<0.39 (1)	0.97 (1)	<0.34 (1)
	1/19/2008	3.2	<1.4	--	--	--	--	--	<0.62	<0.013	<0.33	<0.49	16	<0.23	<0.32	0.56	<0.17	<0.41	<0.32	<0.32	<0.36	<1.8	1.3	<0.32	<0.26	<0.32	<0.24	0.91	<0.2
	1/19/2008 Dup	3.16	<1.4	--	--	--	--	--	<0.57	<0.013	<0.3	<0.45	17	0.23	<0.3	0.58	<0.15	<0.38	<0.3	<0.29	<0.33	<1.7	1.3	<0.3	<0.24	<0.29	<0.22	0.94	<0.19
	4/12/2008	2.4	2.5	--	--	--	--	--	<0.61	<0.012	<0.33	<0.48	30	0.24	<0.32	0.67	<0.16	<0.41	<0.32	<0.31	<0.35	<1.8	1.8	<0.32	<0.26	<0.31	<0.23	0.53	<0.2
	4/12/2008 Dup	2.3	2.3	--	--	--	--	--	<0.61	<0.012	<0.33	<0.48	28	0.24	<0.32	0.6	<0.17	<0.41	<0.32	<0.31	<0.35	<1.8	1.7	<0.32	<0.26	<0.31	<0.23	0.53	<0.2
IBM-12	9/16/2007	1.8 (1)	<1.5 (1)	--	--	--	--	--	<0.72 (1)	<0.015 (1)	<0.38 (1)	<0.56 (1)	29 M,J6,J8,J15,(1)	0.28 (1)	<0.38 (1)	1.6 (1)	<0.19 (1)	<0.48 (1)	<0.38 (1)	<0.37 (1)	<0.41 (1)	<2.1 (1)	1.9 (1)	<0.38 (1)	0.48 (1)	<0.37 (1)	<0.27 (1)	<0.47 (1)	<0.24 (1)
	9/16/2007 Dup	1.8 (1)	<1.8 (1)	--	--	--	--	--	<0.86 (1)	<0.017 (1)	<0.46 (1)	<0.67 (1)	20 M,J6,J8,J15,(1)	<0.32 (1)	<0.45 (1)	1.8 (1)	<0.23 (1)	<0.57 (1)	<0.45 (1)	<0.44 (1)	<0.49 (1)	<2.5 (1)	1.4 (1)	<0.45 (1)	0.48 (1)	<0.44 (1)	<0.33 (1)	<0.56 (1)	<0.28 (1)
IBM-21	12/17/2005	2.5 J2,(1)	<1.6 UJ2,(1)	<0.16 UJ2,(1)	21.9 J2,(1)	78.1 J2,(1)	<0.16 UJ2,(1)	<0.16 UJ2,(1)	<0.77 UJ2,(1)	**<0.62 UJ2,UJ9,(1)**	<0.41 UJ2,(1)	<0.60 UJ2,(1)	32 J2,(1)	0.38 J2,(1)	<0.40 UJ2,(1)	7.9 J2,(1)	<0.21 UJ2,(1)	<0.51 UJ2,(1)	<0.40 UJ2,(1)	<0.39 UJ2,(1)	1.2 J2,(1)	<0.45 UJ2,(1)	4.4 J2,(1)	<0.40 UJ2,(1)	<0.33 UJ2,(1)	<0.39 UJ2,(1)	<0.29 UJ2,(1)	1.2 J2,(1)	<0.25 UJ2,(1)
	1/15/2006	2.9 (1)	<1.2 (1)	<0.12 (1)	21.9 (1)	78.1 (1)	<0.12 (1)	<0.12 (1)	<0.59 (1)	<0.012 (1)	<0.31 (1)	<0.46 (1)	30 (1)	0.77 (1)	<0.31 (1)	6.7 (1)	<0.16 (1)	<0.39 (1)	<0.31 (1)	<0.30 (1)	1.1 (1)	<0.34 (1)	2.8 (1)	<0.31 (1)	<0.25 (1)	<0.30 (1)	<0.22 (1)	1.2 (1)	<0.19 (1)
	12/6/2006	3 (1)	55 (1)	<0.17 (1)	22.2 (1)	77.7 (1)	<0.17 (1)	<0.17 (1)	<0.80 (1)	<0.16 (1)	<0.43 (1)	<0.63 (1)	53 (1)	0.58 (1)	<0.42 (1)	7.4 (1)	<0.22 (1)	<0.53 (1)	<0.42 (1)	<0.41 (1)	1.3 (1)	<0.47 (1)	16 (1)	<0.42 (1)	<0.34 (1)	<0.41 (1)	<0.30 (1)	1.7 (1)	<0.26 (1)
	3/15/2007	1.6 (1)	12 (1)	<0.15 (1)	22.2 (1)	77.7 (1)	<0.15 (1)	<0.15 (1)	<1.5 (1)	<0.037 (1)	<0.79 (1)	<1.2 (1)	30 (1)	0.74 V,(1)	<0.77 (1)	<0.88 (1)	<0.40 (1)	<0.98 (1)	<0.77 (1)	<0.76 (1)	1.1 (1)	3.4 M,(1)	5.4 (1)	<0.77 (1)	<0.63 (1)	<0.76 (1)	<0.56 (1)	<0.96 (1)	<0.49 (1)
	6/30/2007	1.8 (1)	18 (1)	--	--	--	--	--	<1.5 (1)	0.085 (1)	<0.78 (1)	<1.2 (1)	55 (1)	1.2 (1)	<0.77 (1)	26 (1)	<0.40 (1)	<0.98 (1)	<0.77 (1)	<0.75 (1)	1.7 (1)	<0.86 (1)	21 (1)	<0.77 (1)	<0.62 (1)	<0.75 (1)	<0.56 (1)	**97 (1)**	<0.48 (1)
	6/30/2007 Dup	1.4 (1)	17 (1)	--	--	--	--	--	<1.6 (1)	0.082 (1)	<0.82 (1)	<1.2 (1)	52 (1)	1.2 (1)	<0.81 (1)	24 (1)	<0.42 (1)	<1.0 (1)	<0.81 (1)	<0.79 (1)	1.7 (1)	4.2 (1)	20 (1)	<0.81 (1)	<0.66 (1)	<0.79 (1)	<0.59 (1)	**92 (1)**	<0.51 (1)
	10/12/2007	1.8 (1)	<1.6 (1)	--	--	--	--	--	<0.79 (1)	<0.016 (1)	<0.42 (1)	<0.62 (1)	31 M,(1)	0.55 (1)	<0.41 (1)	18 (1)	<0.21 (1)	<0.52 (1)	<0.41 (1)	<0.40 (1)	1.4 (1)	<2.3 (1)	5.3 (1)	<0.41 (1)	<0.33 (1)	<0.40 (1)	0.38 (1)	0.74 (1)	<0.26 (1)
	10/12/2007 Dup	1.7 (1)	<1.3 (1)	--	--	--	--	--	<0.63 (1)	<0.013 (1)	<0.34 (1)	<0.50 (1)	29 M,(1)	0.5 (1)	<0.33 (1)	16 (1)	<0.17 (1)	<0.42 (1)	<0.33 (1)	<0.32 (1)	1.3 (1)	<1.9 (1)	4.9 (1)	<0.33 (1)	<0.27 (1)	<0.32 (1)	0.35 (1)	0.7 (1)	<0.21 (1)
	1/24/2008	2.2 J	<1.5	--	--	--	--	--	<0.65	<0.013	<0.35	<0.51	9.7 M	0.48	<0.34	5.5	<0.17	<0.43	<0.34	<0.33	0.41	<1.9	0.79	<0.34	<0.27	<0.33	<0.25	<0.42	<0.21
	1/24/2008 Dup	2.3 J	<1.5	--	--	--	--	--	<0.66	<0.013	<0.35	<0.51	11.3 M	0.49	<0.34	5.47	<0.18	<0.44	<0.34	<0.34	0.412	<1.9	0.91	<0.34	<0.28	<0.34	<0.25	<0.42	<0.22
	4/9/2008	1.8	8.6	--	--	--	--	--	<6	<0.08	<3.2	<4.7	<26	<2.2	<3.1	10	<1.6	<4	<3.1	<3	<3.4	<17	<4.2	<3.1	<2.5	<3	<2.3	**<3.9**	**<2**
IBM-22	1/16/2006	1.9 J2,(1)	<1.6 UJ2,(1)	<0.16 UJ2,(1)	21.8 J2,(1)	78.1 J2,(1)	<0.16 UJ2,(1)	<0.16 UJ2,(1)	<0.78 UJ2,(1)	<0.031 UJ2,(1)	<0.41 UJ2,(1)	<0.61 UJ2,(1)	130 J2,(1)	0.29 J2,(1)	<0.40 UJ2,(1)	<0.46 UJ2,(1)	<0.21 UJ2,(1)	<0.51 UJ2,(1)	<0.40 UJ2,(1)	<0.40 UJ2,(1)	<0.44 UJ2,(1)	<0.45 UJ2,(1)	13 J2,(1)	<0.40 UJ2,(1)	<0.33 UJ2,(1)	<0.40 UJ2,(1)	<0.29 UJ2,(1)	1.2 J2,(1)	<0.25 UJ2,(1)
	1/21/2007	2.8 (1)	<1.7 (1)	<0.17 (1)	22.2 (1)	77.8 (1)	<0.17 (1)	<0.17 (1)	<0.82 (1)	<0.017 (1)	<0.44 (1)	<0.64 (1)	120 (1)	0.55 (1)	<0.43 (1)	0.58 (1)	<0.22 (1)	<0.55 (1)	<0.43 (1)	<0.42 (1)	<0.47 (1)	<0.48 (1)	2.1 (1)	<0.43 (1)	<0.35 (1)	<0.42 (1)	<0.31 (1)	**2.5 (1)**	<0.27 (1)
	3/4/2007	2.6 (1)	<1.5 (1)	<0.15 UJ2,(1)	22.2 J2,(1)	77.8 J2,(1)	<0.15 UJ2,(1)	<0.15 UJ2,(1)	<0.72 (1)	<0.014 (1)	<0.38 (1)	<0.56 (1)	28 (1)	<0.26 (1)	<0.37 (1)	0.54 (1)	<0.19 (1)	<0.48 (1)	<0.37 (1)	<0.37 (1)	<0.41 (1)	<0.42 (1)	4.1 (1)	<0.37 (1)	<0.30 (1)	<0.37 (1)	<0.27 (1)	1.6 (1)	<0.24 (1)
	6/9/2007	1.9 (1)	<1.6 (1)	--	--	--	--	--	<0.93 (1)	<0.016 (1)	<0.50 (1)	<0.73 (1)	18 M,*,(1)	<0.34 (1)	<0.49 (1)	<0.56 (1)	<0.25 (1)	<0.62 (1)	<0.49 (1)	<0.48 (1)	<0.54 (1)	<0.55 (1)	2.4 (1)	<0.49 (1)	<0.40 (1)	<0.48 (1)	<0.35 (1)	**2.3 (1)**	<0.31 (1)
	9/18/2007	1.9 (1)	5.6 (1)	--	--	--	--	--	<0.60 (1)	<0.040 (1)	<0.32 (1)	<0.47 (1)	54 M,(1)	0.29 (1)	<0.31 (1)	0.6 (1)	<0.16 (1)	<0.40 (1)	<0.31 (1)	<0.31 (1)	<0.34 (1)	<1.8 (1)	7.7 (1)	<0.31 (1)	<0.25 (1)	<0.31 (1)	<0.23 (1)	**2.1 (1)**	<0.20 (1)
	1/18/2008	2.9	<1.5	--	--	--	--	--	<0.66	<0.013	<0.35	<0.51	27	0.25	<0.34	0.77	<0.18	<0.44	<0.34	<0.34	<0.38	<1.9	3.1	<0.34	<0.28	<0.34	<0.25	1.8	<0.22
	1/18/2008 Dup	2.8	<1.3	--	--	--	--	--	<0.57	<0.012	<0.3	<0.45	26.5	0.242	<0.3	0.786	<0.15	<0.38	<0.3	<0.29	<0.33	<1.7	3.6	<0.3	<0.24	<0.29	<0.22	1.6	<0.19
	3/29/2008	2.1	1.7	--	--	--	--	--	1.2	<0.017	<0.46	<0.67	20 M	<0.32	<0.45	<0.51	<0.23	<0.57	<0.45	<0.44	<0.49	<2.5	2	<0.45	<0.36	<0.44	<0.32	1.5	<0.28
	3/29/2008 Dup	2	1.7	--	--	--	--	--	<1	<0.02	<0.53	<0.78	21 M	<0.37	<0.52	<0.59	<0.27	<0.66	<0.52	<0.51	<0.57	<2.9	2	<0.52	<0.42	<0.51	<0.38	1.5	<0.33
IBM-24	1998 Feb	2.8	--	--	--	--	--	--	--	ND	--	--	27	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.4	--
	1998 Mar	2.5	--	--	--	--	--	--	--	ND	--	--	5.9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--
	1998 Apr	2.6	--	--	--	--	--	--	--	ND	--	--	13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--
	1998 2ndQ	2.2	--	--	--	--	--	--	--	ND	--	--	9.3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	--
	1998 3rdQ	2.9	--	--	--	--	--	--	--	ND	--	--	12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	--
	1998 4thQ	3.3	--	--	--	--	--	--	--	ND	--	--	20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.7	--
	1999 1stQ	3.2	--	--	--	--	--	--	--	ND	--	--	45	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**28**	--
	1999 2ndQ	2.4	--	--	--	--	--	--	--	ND	--	--	19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	--
	1999 3rdQ	1.8	--	--	--	--	--	--	--	ND	--	--	22	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	--
	1999 4thQ	3	--	--	--	--	--	--	--	**3.1**	--	--	880	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	--
	2000 1stQ	2.5	--	--	--	--	--	--	--	ND	--	--	810	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	--
	2000 1stQ Dup	3	--	--	--	--	--	--	--	ND	--	--	1100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	--
	2000 1stQ Trip	2.5	--	--	--	--	--	--	--	ND	--	--	23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	--
	2000 2ndQ	3	--	--	--	--	--	--	--	ND	--	--	1100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	--
	2000 3rdQ	2.5	--	--	--	--	--	--	--	ND	--	--	23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	--
	2000 4thQ	3.6	--	--	--	--	--	--	--	ND	--	--	510	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	--
	2001 2ndQ	2.8	--	--	--	--	--	--	--	ND	--	--	990	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	--
	2001 4thQ	3.1	--	--	--	--	--	--	--	ND	--	--	47	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	--
	2002 2ndQ	2.2	--	--	--	--	--	--	--	ND	--	--	37	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.3	--
	2002 4thQ	3.8	1.4	--	--	--	--	--	<2.7	**<2.2 UJ9**	<1.5	<2.1	16	<1.0	<1.4	<1.6	<0.74	<1.8	<1.4	<1.4	5.7	<1.6	<1.9	<1.4	<1.2	<1.4	<1.0	<1.8	**<0.90 UJ9**
	2003 2ndQ	2.3	--	--	--	--	--	--	--	ND	--	--	320	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	--
	2003 4thQ	3.3	<1.6	--	--	--	--	--	<3.1	**<2.5 UJ9**	<1.7	<2.4	730	<1.1	<1.6	2.1	<0.84	<2.1	<1.6	<1.6	<1.8	<1.8	31	<1.6	<1.3	<1.6	<1.2	**<2.0 UJ9**	**<1.0 UJ9**
IBM-24AMB	1998 Mar	2.9	--	--	--	--	--	--	--	ND	--	--	5.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.2	--
	1998 Apr	2.7	--	--	--	--	--	--	--	ND	--	--	3.7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	--
	1998 2ndQ	2.1	--	--	--	--	--	--	--	ND	--	--	8.8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	--
	1998 3rdQ	2.9	--	--	--	--	--	--	--	ND	--	--	6.7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	--

TABLE 3

SUMMARY OF ANALYTIC DATA FOR IN-BUSINESS AND AMBIENT AIR SAMPLE LOCATIONS
1998 THROUGH 2008
WASTE DISPOSAL, INC. SUPERFUND SITE

		Analytical Methods, Constituents and Results																					
		EPA Method TO-15																					
Sample Location	Sample Event Date	1,2-Dichloropropane	Bromodichloro-methane	Trichloroethene	cis-1,3-Dichloropropene	4-Methyl-2-pentanone	trans-1,3-Dichloropropene	1,1,2-Trichloroethane	Toluene	2-Hexanone	Dibromochloro-methane	1,2-Dibromoethane	Tetrachloroethene	Chlorobenzene	Ethylbenzene	m- & p-Xylene	Bromoform	Styrene	o-Xylene	1,1,2,2-Tetrachloroethane	1,3-Dichlorobenzene	1,4-Dichlorobenzene	1,2-Dichlorobenzene
		ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv
IBM-03	1998 Feb	--	--	ND	--	--	--	--	45	--	--	--	2	--	5.8	24	--	--	--	--	--	--	--
	1998 3rdQ	--	--	ND	--	--	--	--	12	--	--	--	ND	--	1.8	7	--	--	--	--	--	--	--
	1998 4thQ	--	--	ND	--	--	--	--	15	--	--	--	ND	--	2.5	8.2	--	--	--	--	--	--	--
	1999 1stQ	--	--	ND	--	--	--	--	48	--	--	--	ND	--	7	25	--	--	--	--	--	--	--
	1999 2ndQ	--	--	ND	--	--	--	--	63	--	--	--	ND	--	11	44	--	--	--	--	--	--	--
	2000 2ndQ	--	--	ND	--	--	--	--	63	--	--	--	ND	--	4.4	17	--	--	--	--	--	--	--
	2000 3rdQ	--	--	ND	--	--	--	--	51	--	--	--	ND	--	4.7	17	--	--	--	--	--	--	--
	2000 4thQ	--	--	ND	--	--	--	--	32	--	--	--	0.94	--	4.1	16	--	--	--	--	--	--	--
	2001 2ndQ	--	--	ND	--	--	--	--	26	--	--	--	ND	--	ND	13	--	--	--	--	--	--	--
	12/18/2005	<0.34 UJ2,(1)	<0.23 UJ2,(1)	<0.29 UJ2,(1)	<0.34 UJ2,(1)	<0.38 UJ2,(1)	<0.34 UJ2,(1)	<0.28 UJ2,(1)	3.3 J2,(1)	<0.38 UJ2,(1)	<0.18 UJ2,(1)	**<0.20 UJ2,UJ9,(1)**	<0.23 UJ2,(1)	<0.34 UJ2,(1)	0.42 J2,(1)	1.5 J2,(1)	<0.15 UJ2,(1)	<0.36 UJ2,(1)	0.53 J2,(1)	<0.23 UJ2,(1)	<0.26 UJ2,(1)	<0.26 UJ2,(1)	<0.26 UJ2,(1)
	12/18/2005 Dup	<0.35 UJ2,(1)	<0.24 UJ2,(1)	<0.30 UJ2,(1)	<0.35 UJ2,(1)	<0.39 UJ2,(1)	<0.35 UJ2,(1)	<0.29 UJ2,(1)	3.0 J2,(1)	<0.39 UJ2,(1)	<0.19 UJ2,(1)	**<0.21 UJ2,UJ9,(1)**	<0.24 UJ2,(1)	<0.35 UJ2,(1)	0.43 J2,(1)	1.5 J2,(1)	<0.15 UJ2,(1)	<0.38 UJ2,(1)	0.51 J2,(1)	<0.23 UJ2,(1)	<0.27 UJ2,(1)	<0.27 UJ2,(1)	<0.27 UJ2,(1)
	1/15/2006	<0.37 (1)	<0.26 (1)	**3.2 (1)**	<0.38 (1)	<0.42 (1)	<0.38 (1)	<0.32 (1)	3.7 (1)	<0.42 (1)	<0.20 (1)	<0.0056 (1)	<0.25 (1)	<0.37 (1)	0.41 (1)	1.4 (1)	<0.17 (1)	<0.40 (1)	0.47 (1)	<0.25 (1)	<0.29 (1)	<0.29 (1)	<0.29 (1)
	1/6/2007	<0.41 (1)	<0.28 (1)	<0.35 (1)	<0.41 (1)	<0.46 (1)	<0.41 (1)	<0.34 (1)	20 (1)	<0.46 (1)	<0.22 (1)	<0.0061 (1)	<0.28 (1)	<0.41 (1)	1.7 (1)	7.7 (1)	<0.18 (1)	<0.44 (1)	2.6 (1)	<0.27 (1)	<0.31 (1)	<0.31 (1)	<0.31 (1)
	3/5/2007	<0.37 (1)	<0.25 (1)	<0.31 (1)	<0.37 (1)	<0.41 (1)	<0.37 (1)	<0.31 (1)	24 (1)	<0.41 (1)	<0.20 (1)	<0.0055 (1)	<0.25 (1)	<0.37 (1)	2.1 (1)	9 (1)	<0.16 (1)	<0.40 (1)	3.1 (1)	<0.25 (1)	<0.28 (1)	<0.28 (1)	<0.28 (1)
	6/9/2007	<0.34 (1)	<0.23 (1)	0.48 (1)	<0.34 (1)	<0.38 (1)	<0.34 (1)	<0.28 (1)	17 (1)	0.74 V,(1)	<0.18 (1)	<0.0050 (1)	0.32 (1)	<0.34 (1)	2.4 (1)	11 (1)	<0.15 (1)	<0.36 (1)	3.9 (1)	<0.23 (1)	<0.26 (1)	<0.26 (1)	<0.26 (1)
	10/13/2007	<0.45 (1)	<0.31 (1)	<0.38 (1)	<0.45 (1)	<0.50 (1)	<0.45 (1)	<0.38 (1)	13 (1)	<0.50 (1)	<0.24 (1)	<0.0047 (1)	<0.30 (1)	<0.45 (1)	1.7 (1)	7.5 (1)	<0.20 (1)	<0.48 (1)	2.5 (1)	<0.30 (1)	<0.34 (1)	<0.34 (1)	<0.34 (1)
	10/13/2007 Dup	<0.49 (1)	<0.33 (1)	<0.42 (1)	<0.49 (1)	<0.55 (1)	<0.49 (1)	<0.41 (1)	13 (1)	<0.55 (1)	<0.26 (1)	<0.0051 (1)	<0.33 (1)	<0.49 (1)	1.7 (1)	7.7 (1)	<0.22 (1)	<0.53 (1)	2.6 (1)	<0.33 (1)	<0.37 (1)	<0.37 (1)	<0.37 (1)
	1/11/2008	<0.31	<0.22	<0.27	<0.32	0.5	<0.32	<0.26	18	<0.35	<0.17	<0.031	<0.21	<0.31	2.6	11	<0.14	0.41	3.6	<0.21	<0.24	<0.24	<0.24
	1/11/2008 Dup	<0.29	<0.20	<0.25	<0.30	0.45	<0.30	<0.25	17	<0.33	<0.16	<0.030	<0.20	<0.30	2.6	12	<0.13	<0.32	3.6	<0.20	<0.23	<0.23	<0.23
	4/11/2008	<0.29	<0.2	<0.25	<0.29	<0.32	<0.29	<0.24	7.1	<0.32	<0.16	<0.014	<0.2	<0.29	2.1	9.7	<0.13	<0.31	3.4	<0.19	<0.22	<0.22	<0.22
	4/11/2008 Dup	<0.31	<0.21	<0.27	<0.31	<0.35	<0.31	<0.26	7.1	<0.35	<0.17	<0.015	<0.21	<0.31	2.1	9.8	<0.14	<0.33	3.4	<0.21	<0.24	<0.24	<0.24
IBM-03B	1998 2ndQ	--	--	ND	--	--	--	--	2.6	--	--	--	ND	--	ND	1.3	--	--	--	--	--	--	--
	1998 4thQ	--	--	ND	--	--	--	--	4.9	--	--	--	ND	--	ND	2.2	--	--	--	--	--	--	--
	1999 1stQ	--	--	ND	--	--	--	--	6.3	--	--	--	ND	--	ND	3.1	--	--	--	--	--	--	--
	1999 2ndQ	--	--	ND	--	--	--	--	5.6	--	--	--	ND	--	ND	3.4	--	--	--	--	--	--	--
	1999 3rdQ	--	--	ND	--	--	--	--	3.3	--	--	--	ND	--	ND	1.3	--	--	--	--	--	--	--
	12/17/2005	<1.3 UJ2,(1)	<0.91 UJ2,(1)	**<1.1 UJ2,UJ9,(1)**	<1.3 UJ2,(1)	<1.5 UJ2,(1)	<1.3 UJ2,(1)	<1.1 UJ2,(1)	6.6 J2,(1)	<1.5 UJ2,(1)	<0.72 UJ2,(1)	**<0.79 UJ2,UJ9,(1)**	<0.9 UJ2,(1)	<1.3 UJ2,(1)	<1.4 UJ2,(1)	3.0 J2,(1)	<0.59 UJ2,(1)	<1.4 UJ2,(1)	<1.4 UJ2,(1)	<0.89 UJ2,(1)	<1.0 UJ2,(1)	73 J2,(1)	<1.0 UJ2,(1)
	1/15/2006	<0.35 (1)	<0.24 (1)	**6.2 (1)**	<0.36 (1)	<0.40 (1)	<0.36 (1)	<0.30 (1)	5 (1)	<0.40 (1)	<0.19 (1)	<0.011 (1)	<0.24 (1)	<0.35 (1)	0.63 (1)	1.9 (1)	<0.16 (1)	<0.38 (1)	0.64 (1)	<0.24 (1)	<0.27 (1)	<0.27 (1)	<0.27 (1)
	12/10/2006	<0.33 (1)	<0.23 (1)	<0.28 (1)	<0.34 (1)	<0.37 (1)	<0.34 (1)	<0.28 (1)	2.7 (1)	<0.37 (1)	<0.18 (1)	<0.020 (1)	<0.23 (1)	<0.33 (1)	0.73 (1)	3.2 (1)	<0.15 (1)	<0.36 (1)	1.1 (1)	<0.22 (1)	<0.25 (1)	<0.25 (1)	<0.25 (1)
	3/25/2007	<0.47 (1)	<0.32 (1)	<0.40 (1)	<0.48 (1)	<0.53 (1)	<0.48 (1)	<0.40 (1)	7 (1)	<0.53 (1)	<0.25 (1)	<0.0050 (1)	<0.32 (1)	<0.47 (1)	1.7 (1)	3.5 (1)	<0.21 (1)	<0.51 (1)	1.2 (1)	<0.32 (1)	<0.36 (1)	<0.36 (1)	<0.36 (1)
	6/10/2007	<0.36 (1)	<0.25 (1)	<0.31 (1)	<0.36 (1)	<0.40 (1)	<0.36 (1)	<0.30 (1)	6.2 (1)	<0.40 (1)	<0.19 (1)	<0.0054 (1)	<0.24 (1)	<0.36 (1)	1.8 (1)	4 (1)	<0.16 (1)	<0.39 (1)	1.5 (1)	<0.24 (1)	<0.27 (1)	<0.27 (1)	<0.27 (1)
	9/16/2007	<0.46 (1)	<0.32 (1)	<0.39 (1)	<0.47 (1)	<0.52 (1)	<0.47 (1)	<0.39 (1)	6.2 (1)	0.79 (1)	<0.25 (1)	<0.0069 (1)	<0.31 (1)	<0.46 (1)	2.1 (1)	4.3 (1)	<0.21 (1)	<0.50 (1)	1.6 (1)	<0.31 (1)	<0.35 (1)	<0.35 (1)	<0.35 (1)
	1/19/2008	<0.28	<0.19	<0.24	<0.28	<0.31	<0.28	<0.24	3.6	<0.31	<0.15	<0.0042	<0.19	<0.28	0.81	2.3	<0.12	<0.3	0.87	<0.19	<0.21	<0.21	<0.21
	1/19/2008 Dup	<0.25	<0.18	<0.22	<0.26	<0.29	<0.26	<0.22	3.7	<0.29	<0.14	<0.0042	<0.17	<0.26	0.85	2.4	<0.11	<0.28	0.9	<0.17	<0.2	<0.2	<0.2
	4/12/2008	<0.27	<0.19	<0.24	<0.28	<0.31	<0.28	<0.23	5.3	<0.31	<0.15	<0.0041	<0.19	<0.27	1.1	2.7	<0.12	<0.3	1.1	<0.18	<0.21	<0.21	<0.21
	4/12/2008 Dup	<0.27	<0.19	<0.24	<0.28	<0.31	<0.28	<0.23	5	<0.31	<0.15	<0.0041	<0.19	<0.28	1	2.6	<0.12	<0.3	1	<0.18	<0.21	<0.21	<0.21
IBM-12	9/16/2007	<0.32 (1)	<0.22 (1)	<0.28 (1)	<0.33 (1)	<0.36 (1)	<0.33 (1)	<0.27 (1)	5.9 (1)	<0.36 (1)	<0.17 (1)	<0.0048 (1)	<0.22 (1)	<0.32 (1)	0.5 (1)	1.8 (1)	<0.14 (1)	<0.35 (1)	0.6 (1)	<0.22 (1)	<0.25 (1)	<0.25 (1)	<0.25 (1)
	9/16/2007 Dup	<0.39 (1)	<0.27 (1)	<0.33 (1)	<0.39 (1)	<0.43 (1)	<0.39 (1)	<0.33 (1)	6.4 (1)	<0.43 (1)	<0.21 (1)	<0.0058 (1)	<0.26 (1)	<0.39 (1)	0.55 (1)	1.9 (1)	<0.17 (1)	<0.42 (1)	0.65 (1)	<0.26 (1)	<0.30 (1)	<0.30 (1)	<0.30 (1)
IBM-21	12/17/2005	<0.34 UJ2,(1)	<0.24 UJ2,(1)	<0.30 UJ2,(1)	<0.35 UJ2,(1)	<0.39 UJ2,(1)	<0.35 UJ2,(1)	<0.29 UJ2,(1)	6.2 J2,(1)	<0.39 UJ2,(1)	<0.19 UJ2,(1)	**<0.21 UJ2,UJ9,(1)**	0.26 J2,(1)	<0.35 UJ2,(1)	0.76 J2,(1)	3.0 J2,(1)	<0.15 UJ2,(1)	<0.37 UJ2,(1)	1.0 J2,(1)	<0.23 UJ2,(1)	<0.26 UJ2,(1)	<0.26 UJ2,(1)	<0.26 UJ2,(1)
	1/15/2006	<0.26 (1)	<0.18 (1)	**4.9 (1)**	<0.27 (1)	<0.30 (1)	<0.27 (1)	<0.22 (1)	8.7 (1)	<0.30 (1)	<0.14 (1)	<0.0039 (1)	0.26 (1)	<0.26 (1)	0.8 (1)	3.1 (1)	<0.12 (1)	<0.28 (1)	1 (1)	<0.18 (1)	<0.20 (1)	<0.20 (1)	<0.20 (1)
	12/6/2006	<0.36 (1)	<0.25 (1)	<0.31 (1)	<0.36 (1)	<0.40 (1)	<0.36 (1)	<0.30 (1)	8.2 (1)	<0.40 (1)	<0.19 (1)	<0.054 (1)	0.32 (1)	<0.36 (1)	0.99 (1)	4.4 (1)	<0.16 (1)	<0.39 (1)	1.4 (1)	<0.24 (1)	<0.27 (1)	<0.27 (1)	<0.27 (1)
	3/15/2007	<0.66 (1)	<0.46 (1)	**<0.57 UJ9,(1)**	<0.67 (1)	<0.75 (1)	<0.67 (1)	<0.56 (1)	63 (1)	<0.75 (1)	<0.36 (1)	<0.012 (1)	<0.45 (1)	<0.66 (1)	1.1 (1)	4.2 (1)	<0.30 (1)	<0.72 (1)	2 (1)	<0.45 (1)	<0.51 (1)	<0.51 (1)	<0.51 (1)
	6/30/2007	<0.66 (1)	<0.45 (1)	**<0.57 UJ9,(1)**	<0.67 (1)	1.7 (1)	<0.67 (1)	<0.56 (1)	7.7 (1)	6.3 (1)	<0.36 (1)	<0.012 (1)	2.8 (1)	<0.66 (1)	1.2 (1)	6.3 (1)	<0.29 (1)	<0.71 (1)	2 (1)	<0.44 (1)	<0.51 (1)	<0.51 (1)	<0.51 (1)
	6/30/2007 Dup	<0.69 (1)	<0.48 (1)	**<0.60 UJ9,(1)**	<0.71 (1)	1.6 (1)	<0.71 (1)	<0.59 (1)	7.5 (1)	6.2 (1)	<0.38 (1)	<0.013 (1)	2.5 (1)	<0.70 (1)	1.2 (1)	5.9 (1)	<0.31 (1)	<0.75 (1)	1.9 (1)	<0.47 (1)	<0.53 (1)	<0.53 (1)	<0.53 (1)
	10/12/2007	<0.35 (1)	<0.24 (1)	<0.30 (1)	<0.36 (1)	<0.40 (1)	<0.36 (1)	<0.30 (1)	4.8 (1)	<0.40 (1)	<0.19 (1)	<0.0053 (1)	<0.24 (1)	<0.35 (1)	0.87 (1)	4.2 (1)	<0.16 (1)	<0.38 (1)	1.4 (1)	<0.24 (1)	<0.27 (1)	<0.27 (1)	<0.27 (1)
	10/12/2007 Dup	<0.28 (1)	<0.20 (1)	<0.24 (1)	<0.29 (1)	0.36 (1)	<0.29 (1)	<0.24 (1)	4.4 (1)	<0.32 (1)	<0.17 (1)	<0.0043 (1)	<0.19 (1)	<0.28 (1)	0.88 (1)	4.3 (1)	<0.13 (1)	<0.31 (1)	1.5 (1)	<0.19 (1)	<0.22 (1)	<0.22 (1)	<0.22 (1)
	1/24/2008	<0.29	<0.2	<0.25	<0.3	<0.33	<0.3	<0.25	1.8	<0.33	<0.16	<0.0044	<0.2	<0.29	<0.31	0.88	<0.13	<0.31	<0.31	<0.2	<0.22	<0.22	<0.22
	1/24/2008 Dup	<0.29	<0.2	<0.25	<0.3	<0.33	<0.3	<0.25	1.9	<0.33	<0.16	<0.0044	<0.2	<0.29	<0.31	0.88	<0.13	<0.32	<0.31	<0.2	<0.23	<0.23	<0.23
	4/9/2008	**<2.7**	<1.8	**<2.3**	<2.7	<3	<2.7	<2.3	<3.3	<3	<1.4	<0.027	<1.8	<2.7	<2.8	<2.8	<1.2	<2.9	<2.8	<1.8	<2	<2	<2
IBM-22	1/16/2006	<0.35 UJ2,(1)	<0.24 UJ2,(1)	**2.4 J2,(1)**	<0.35 UJ2,(1)	<0.39 UJ2,(1)	<0.35 UJ2,(1)	<0.29 UJ2,(1)	14 J2,(1)	<0.39 UJ2,(1)	<0.19 UJ2,(1)	<0.010 UJ2,(1)	<0.24 UJ2,(1)	<0.35 UJ2,(1)	2.3 J2,(1)	8.9 J2,(1)	<0.15 UJ2,(1)	1.2 J2,(1)	2.5 J2,(1)	<0.23 UJ2,(1)	<0.27 UJ2,(1)	<0.27 UJ2,(1)	<0.27 UJ2,(1)
	1/21/2007	<0.37 (1)	<0.25 (1)	<0.32 (1)	<0.37 (1)	0.54 (1)	<0.37 (1)	<0.31 (1)	15 (1)	<0.42 (1)	<0.20 (1)	<0.0055 (1)	<0.25 (1)	<0.37 (1)	1.6 (1)	8.2 (1)	<0.16 (1)	<0.40 (1)	2.4 (1)	<0.25 (1)	<0.28 (1)	<0.28 (1)	<0.28 (1)
	3/4/2007	<0.32 (1)	<0.22 (1)	<0.28 (1)	<0.33 (1)	0.54 (1)	<0.33 (1)	<0.27 (1)	8.3 (1)	1.3 (1)	<0.17 (1)	<0.0048 (1)	<0.22 (1)	<0.32 (1)	1.1 (1)	5.5 (1)	<0.14 (1)	<0.35 (1)	1.6 (1)	<0.22 (1)	<0.25 (1)	<0.25 (1)	<0.25 (1)
	6/9/2007	<0.42 (1)	<0.29 (1)	<0.36 (1)	<0.43 (1)	0.51 (1)	<0.43 (1)	<0.35 (1)	22 (1)	<0.47 (1)	<0.23 (1)	<0.0053 (1)	<0.28 (1)	<0.42 (1)	2.5 (1)	13 (1)	<0.19 (1)	<0.45 (1)	3.7 (1)	<0.28 (1)	<0.32 (1)	<0.32 (1)	<0.32 (1)
	9/18/2007	<0.27 (1)	<0.19 (1)	<0.23 (1)	<0.27 (1)	0.41 (1)	<0.27 (1)	<0.23 (1)	15 (1)	<0.30 (1)	<0.15 (1)	<0.013 (1)	<0.18 (1)	<0.27 (1)	1.6 (1)	7.7 (1)	<0.12 (1)	<0.29 (1)	2.3 (1)	<0.18 (1)	<0.21 (1)	<0.21 (1)	<0.21 (1)
	1/18/2008	<0.29	<0.2	<0.25	<0.3	<0.33	<0.3	<0.25	9.1	<0.33	<0.16	<0.0044	<0.2	<0.29	1.4	6.4	<0.13	<0.32	1.9	<0.2	<0.23	<0.23	<0.23
	1/18/2008 Dup	<0.25	<0.18	<0.22	<0.26	<0.29	<0.26	<0.22	8.43	<0.29	<0.14	0.0045	<0.17	<0.26	1.11	5.21	<0.11	<0.28	1.6	<0.17	<0.2	<0.2	<0.2
	3/29/2008	<0.38	<0.26	<0.33	<0.39	<0.43	<0.39	<0.32	8.8	<0.43	<0.21	<0.0058	<0.26	<0.38	1.1	5.5	<0.17	<0.42	1.6	<0.26	<0.29	<0.29	<0.29
	3/29/2008 Dup	<0.45	<0.31	<0.38	<0.46	<0.5	<0.46	<0.38	8.8	<0.5	<0.24	<0.0067	<0.3	<0.45	1.1	5.4	<0.2	<0.49	1.6	<0.3	<0.34	<0.34	<0.34
IBM-24	1998 Feb	--	--	ND	--	--	--	--	9.3	--	--	--	0.7	--	ND	2.6	--	--	--	--	--	--	--
	1998 Mar	--	--	ND	--	--	--	--	3.2	--	--	--	ND	--	ND	1.1	--	--	--	--	--	--	--
	1998 Apr	--	--	ND	--	--	--	--	2.9	--	--	--	2.1	--	ND	ND	--	--	--	--	--	--	--
	1998 2ndQ	--	--	1.1	--	--	--	--	14	--	--	--	4.7	--	ND	1.8	--	--	--	--	--	--	--
	1998 3rdQ	--	--	ND	--	--	--	--	3.4	--	--	--	ND	--	ND	1.1	--	--	--	--	--	--	--
	1998 4thQ	--	--	ND	--	--	--	--	4.7	--	--	--	ND	--	ND	2	--	--	--	--	--	--	--
	1999 1stQ	--	--	ND	--	--	--	--	6.7	--	--	--	ND	--	2.3	9.6	--	--	--	--	--	--	--
	1999 2ndQ	--	--	ND	--	--	--	--	2.3	--	--	--	ND	--	ND	1.7	--	--	--	--	--	--	--
	1999 3rdQ	--	--	ND	--	--	--	--	17	--	--	--	ND	--	ND	1.9	--	--	--	--	--	--	--
	1999 4thQ	--	--	ND	--	--	--	--	9.4	--	--	--	ND	--	1.2	4.3	--	--	--	--	--	--	--
	2000 1stQ	--	--	ND	--	--	--	--	7	--	--	--	ND	--	0.9	3.3	--	--	--	--	--	--	--
	2000 1stQ Dup	--	--	ND	--	--	--	--	8.3	--	--	--	ND	--	ND	2	--	--	--	--	--	--	--
	2000 1stQ Trip	--	--	ND	--	--	--	--	3.2	--	--	--	ND	--	ND	1.1	--	--	--	--	--	--	--
	2000 2ndQ	--	--	ND	--	--	--	--	8.3	--	--	--	ND	--	ND	2	--	--	--	--	--	--	--
	2000 3rdQ	--	--	ND	--	--	--	--	3.2	--	--	--	ND	--	ND	1.1	--	--	--	--	--	--	--
	2000 4thQ	--	--	ND	--	--	--	--	6.9	--	--	--	ND	--	ND	4.2	--	--	--	--	--	--	--
	2001 2ndQ	--	--	ND	--	--	--	--	1.8	--	--	--	ND	--	ND	ND	--	--	--	--	--	--	--
	2001 4thQ	--	--	ND	--	--	--	--	6	--	--	--	ND	--	ND	5.5	--	--	--	--	--	--	--
	2002 2ndQ	--	--	ND	--	--	--	--	5.6	--	--	--	ND	--	6.8	2.3	--	--	--	--	--	--	--
	2002 4thQ	<0.94	<0.84	**<1.0 UJ9**	<1.2	<1.4	<1.2	<1.0	7.1	<1.4	<0.66	**<0.73 UJ9**	<0.83	<1.2	<1.3	2.7	<0.55	<1.3	<1.3	<0.82	<0.94	<0.94	<0.94
	2003 2ndQ	--	--	ND	--	--	--	--	6.7	--	--	--	ND	--	ND	3.6	--	--	--	--	--	--	--
	2003 4thQ	<1.4	<0.96	**<1.2 UJ9**	<1.4	<1.6	<1.4	<1.2	4.7	<1.6	<0.76	**<0.84 UJ9**	<0.95	<1.4	<1.5	2.5	<0.62	<1.5	<1.5	<0.94	<1.1	<1.1	<1.1
IBM-24AMB	1998 Mar	--	--	ND	--	--	--	--	3.2	--	--	--	ND	--	ND	ND	--	--	--	--	--	--	--
	1998 Apr	--	--	ND	--	--	--	--	2.1	--	--	--	ND	--	ND	0.8	--	--	--	--	--	--	--
	1998 2ndQ	--	--	ND	--	--	--	--	2.5	--	--	--	ND	--	ND	1.2	--	--	--	--	--	--	--
	1998 3rdQ	--	--	ND	--	--	--	--	6.9	--	--	--	ND	--	ND	0.9	--	--	--	--	--	--	--

TABLE 3

SUMMARY OF ANALYTIC DATA FOR IN-BUSINESS AND AMBIENT AIR SAMPLE LOCATIONS
1998 THROUGH 2008
WASTE DISPOSAL, INC. SUPERFUND SITE

		Analytical Methods, Constituents and Results																										
		EPA Method 25C		EPA Method 3C					EPA Method TO-15																			
Sample Location	Sample Event Date	Methane	Total Gaseous Nonmethane Organics (TGNMO) as Methane	Hydrogen	Oxygen + Argon *	Nitrogen	Carbon Monoxide	Carbon Dioxide	Chloromethane	Vinyl Chloride	Bromomethane	Chloroethane	Acetone	Trichlorofluoro-methane	1,1-Dichloroethene	Methylene Chloride	Trichloro-trifluoroethane	Carbon Disulfide	trans-1,2-Dichloroethene	1,1-Dichloroethane	Methyl tert-Butyl Ether	Vinyl Acetate	2-Butanone (MEK)	cis-1,2-Dichloroethene	Chloroform	1,2-Dichloroethane	1,1,1-Trichloroethane	Benzene	Carbon Tetrachloride
		ppmv	ppmv	(%, v/v)	(%, v/v)	(%, v/v)	(%, v/v)	(%, v/v)	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv
IBM-24AMB	1998 4thQ	3.6	--	--	--	--	--	--	--	ND	--	--	8.3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.8	--
	1999 1stQ	4	--	--	--	--	--	--	--	ND	--	--	9.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.7	--
	1999 2ndQ	3.4	--	--	--	--	--	--	--	ND	--	--	290	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--
	1999 3rdQ	2.5	--	--	--	--	--	--	--	ND	--	--	9.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.1	--
	1999 4thQ	3	--	--	--	--	--	--	--	ND	--	--	26	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	--
	2000 1stQ	2.6	--	--	--	--	--	--	--	ND	--	--	9.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	--
	2000 2ndQ	2.5	--	--	--	--	--	--	--	ND	--	--	33	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	--
	2000 3rdQ	2.5	--	--	--	--	--	--	--	ND	--	--	39	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	--
	2000 4thQ	5.2	--	--	--	--	--	--	--	ND	--	--	11	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.1**	--
	2001 4thQ	2.4	--	--	--	--	--	--	--	ND	--	--	13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	--
	2002 2ndQ	2.9	--	--	--	--	--	--	--	ND	--	--	1.7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.92	--
	2002 4thQ	4.9	<1.4	--	--	--	--	--	<2.7	**<2.2 UJ9**	<1.4	<2.1	11	<0.98	<1.4	<1.8	<0.72	<1.8	<1.4	<1.4	5.8	<1.6	<1.9	<1.4	<1.1	<1.4	<1.0	1.8	**<0.88 UJ9**
	2003 2ndQ	2.7	--	--	--	--	--	--	--	ND	--	--	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	--
	2003 4thQ	2.9	<1.6	--	--	--	--	--	<3.1	**<2.5 UJ9**	<1.6	<2.4	<13	<1.1	<1.6	<1.8	<0.84	<2.1	<1.6	<1.6	<0.32 UJ2,(2)	<1.8	<1.8	<2.2	<1.6	<1.3	<1.6	<1.2	<2.0	**<1.0 UJ9**
	12/17/2005	2.3 J2,(2)	<1.3 UJ2,(2)	<0.13 UJ2,(2)	21.8 J2,(2)	78.2 J2,(2)	<0.13 UJ2,(2)	<0.13 UJ2,(2)	<0.63 UJ2,(2)	**<0.51 UJ2,UJ9,(2)**	<0.33 UJ2,(2)	<0.49 UJ2,(2)	5.8 M,J2,J6,(2)	<0.23 UJ2,(2)	<0.33 UJ2,(2)	<0.37 UJ2,(2)	<0.17 UJ2,(2)	<0.42 UJ2,(2)	<0.33 UJ2,(2)	<0.32 UJ2,(2)	<0.36 UJ2,(2)	<1.8	<0.37 UJ2,(2)	0.94 J2,(2)	<0.33 UJ2,(2)	<0.27 UJ2,(2)	<0.32 UJ2,(2)	<0.24 UJ2,(2)	0.76 J2,(2)	<0.21 UJ2,(2)
	1/15/2006	2.3 (2)	<1.5 (2)	<0.15 (2)	21.8 (2)	78.1 (2)	<0.15 (2)	<0.15 (2)	<0.71 (2)	<0.014 (2)	<0.38 (2)	<0.55 (2)	6.6 (2)	<0.26 (2)	<0.37 (2)	<0.42 (2)	<0.19 (2)	<0.47 (2)	<0.37 (2)	<0.36 (2)	<0.41 (2)	<0.41 (2)	0.74 (2)	<0.37 (2)	<0.30 (2)	<0.36 (2)	<0.27 (2)	<0.46 (2)	<0.23 (2)
	12/10/2006	1.6 (2)	<2.0 (2)	<0.20 (2)	22.2 (2)	77.7 (2)	<0.20 (2)	<0.20 (2)	<0.74 (2)	<0.020 (2)	<0.39 (2)	<0.58 (2)	5.3 (2)	<0.27 (2)	<0.38 (2)	<0.44 (2)	<0.20 (2)	<0.49 (2)	<0.38 (2)	<0.38 (2)	<0.42 (2)	<0.43 (2)	<0.52 (2)	<0.38 (2)	<0.31 (2)	<0.38 (2)	<0.28 (2)	<0.48 (2)	<0.24 (2)
	3/11/2007	3 (2)	<1.8 (2)	<0.18 (2)	22.2 (2)	77.7 (2)	<0.18 (2)	<0.18 (2)	<0.85 (2)	<0.017 (2)	<0.45 (2)	<0.66 (2)	9.1 (2)	<0.31 (2)	<0.44 (2)	<0.50 (2)	<0.23 (2)	<0.56 (2)	<0.44 (2)	<0.43 (2)	<0.49 (2)	<0.50 (2)	1.1 (2)	<0.44 (2)	<0.36 (2)	<0.43 (2)	<0.32 (2)	0.97 (2)	<0.28 (2)
	6/10/2007	2 (2)	<1.6 (2)	--	--	--	--	--	<0.76 (2)	<0.015 (2)	<0.40 (2)	<0.59 (2)	3.4 *,(2)	<0.28 (2)	<0.39 (2)	<0.45 (2)	<0.20 (2)	<0.50 (2)	<0.39 (2)	<0.39 (2)	<0.43 (2)	0.50 M,(2)	<0.53 (2)	<0.39 (2)	<0.32 (2)	<0.39 (2)	<0.29 (2)	<0.49 (2)	<0.25 (2)
	9/24/2007	2.2 (2)	<1.7 (2)	--	--	--	--	--	0.82 V,(2)	<0.027 (2)	<0.44 (2)	<0.64 (2)	4.4 (2)	<0.30 (2)	<0.43 (2)	<0.49 (2)	<0.22 (2)	<0.54 (2)	<0.43 (2)	<0.42 (2)	<0.47 (2)	<2.4 (2)	<0.57 (2)	<0.43 (2)	<0.35 (2)	<0.42 (2)	<0.31 (2)	<0.53 (2)	<0.27 (2)
	1/12/2008	3.6	<1.4	--	--	--	--	--	<0.69	<0.014	<0.37	<0.54	25	0.3	<0.36	0.85	<0.19	<0.46	<0.36	<0.35	<0.39	<2	1.62	<0.36	<0.29	<0.35	<0.26	1.7	<0.23
	3/25/2008	2.1	<1.9	--	--	--	--	--	<1.1	<0.023	<0.61	<0.89	9.5 M	<0.42	<0.59	<0.68	<0.31	<0.76	<0.59	<0.58	<0.65	<3.3	0.89	<0.59	<0.48	<0.58	<0.43	<0.74	<0.37
IBM-24B	1998 Feb	3.8	--	--	--	--	--	--	--	ND	--	--	12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.2	--
	1998 Mar	3.3	--	--	--	--	--	--	--	ND	--	--	17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.1	--
	1998 Apr	3.9	--	--	--	--	--	--	--	ND	--	--	8.9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	--
	1998 2ndQ	2.7	--	--	--	--	--	--	--	ND	--	--	11	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	--
	1998 3rdQ	3.5	--	--	--	--	--	--	--	ND	--	--	8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.7**	--
	1998 4thQ	3	--	--	--	--	--	--	--	ND	--	--	8.9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.7	--
	1999 1stQ	4.4	--	--	--	--	--	--	--	ND	--	--	12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.4**	--
	1999 2ndQ	2.9	--	--	--	--	--	--	--	ND	--	--	34	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.6	--
	1999 3rdQ	2.5	--	--	--	--	--	--	--	ND	--	--	15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	--
	1999 4thQ	4.5	--	--	--	--	--	--	--	ND	--	--	14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--
	2000 1stQ	3.2	--	--	--	--	--	--	--	ND	--	--	10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	--
	2000 2ndQ	3.2	--	--	--	--	--	--	--	ND	--	--	19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.7	--
	2000 3rdQ	4	--	--	--	--	--	--	--	ND	--	--	26	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	--
	2000 4thQ	4.4	--	--	--	--	--	--	--	ND	--	--	19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.3**	--
	2001 2ndQ	3.9	--	--	--	--	--	--	--	ND	--	--	21	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	--
	2001 4thQ	3.9	--	--	--	--	--	--	--	ND	--	--	17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	--
	2002 2ndQ	2.7	--	--	--	--	--	--	--	ND	--	--	19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.81	--
	2002 4thQ	6.2	<1.3	--	--	--	--	--	<2.6	**<2.1 UJ9**	<1.4	<2.0	15	<0.94	<1.3	<1.5	<0.69	<1.7	<1.3	<1.3	6	<1.5	2	<1.3	<1.1	<1.3	<0.97	1.9	**<0.84**
	2003 2ndQ	3.6	--	--	--	--	--	--	--	ND	--	--	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	--
	2003 4thQ	6	<1.6	--	--	--	--	--	<3.2	**2.6**	<1.7	<2.5	23	<1.2	<1.7	<1.9	<0.86	<2.1	<1.7	<1.6	<1.8	<1.9	<2.2	<1.7	<1.3	<1.6	<1.2	**<2.1 UJ9**	**<1.0 UJ9**
	12/17/2005	6.8 J2,(1)	<1.2 UJ2,(1)	<0.12 UJ2,(1)	21.7 J2,(1)	78.2 J2,(1)	<0.12 UJ2,(1)	<0.12 UJ2,(1)	<0.58 UJ2,(1)	**<0.47 UJ2,UJ9,(1)**	<0.31 UJ2,(1)	<0.45 UJ2,(1)	6.9 M,J2,J6,(1)	0.24 J2,(1)	<0.30 UJ2,(1)	<0.34 UJ2,(1)	<0.16 UJ2,(1)	<0.38 UJ2,(1)	<0.30 UJ2,(1)	<0.29 UJ2,(1)	<0.33 UJ2,(1)	<0.34 UJ2,(1)	0.97 J2,(1)	<0.30 UJ2,(1)	<0.24 UJ2,(1)	<0.29 UJ2,(1)	<0.22 UJ2,(1)	0.76 J2,(1)	<0.19 UJ2,(1)
	1/15/2006	4 (1)	<1.5 (1)	<0.15 (1)	21.8 (1)	78.1 (1)	<0.15 (1)	<0.15 (1)	<0.71 (1)	<0.014 (1)	<0.38 (1)	<0.56 (1)	16 J8,(1)	<0.26 (1)	<0.37 (1)	<0.42 (1)	<0.19 (1)	<0.47 (1)	<0.37 (1)	<0.36 (1)	<0.41 (1)	<0.42 (1)	1.2 J8,(1)	<0.37 (1)	<0.30 (1)	<0.36 (1)	<0.27 (1)	1.1 J8,(1)	<0.23 (1)
	1/15/2006 Dup	3.3 (1)	<1.4 (1)	<0.14 (1)	21.8 (1)	78.2 (1)	<0.14 (1)	<0.14 (1)	<0.66 (1)	<0.013 (1)	<0.35 (1)	<0.52 (1)	6.8 J8,(1)	<0.24 (1)	<0.34 (1)	<0.39 (1)	<0.18 (1)	<0.44 (1)	<0.34 (1)	<0.34 (1)	<0.38 (1)	<0.39 (1)	0.68 J8,(1)	<0.34 (1)	<0.28 (1)	<0.34 (1)	<0.25 (1)	0.45 J8,(1)	<0.22 (1)
	12/10/2006	3.2 (1)	<1.5 (1)	<0.15 (1)	22.2 (1)	77.8 (1)	<0.15 (1)	<0.15 (1)	<0.72 (1)	<0.029 (1)	<0.38 (1)	<0.56 (1)	29 (1)	<0.27 (1)	<0.38 (1)	0.44 (1)	<0.19 (1)	<0.48 (1)	<0.38 (1)	<0.37 (1)	<0.41 (1)	<0.42 (1)	1 (1)	<0.38 (1)	<0.31 (1)	<0.37 (1)	<0.27 (1)	0.48 (1)	<0.24 (1)
	3/11/2007	4.3 (1)	<1.7 (1)	<0.17 (1)	22.2 (1)	77.8 (1)	<0.17 (1)	<0.17 (1)	<0.80 (1)	<0.016 (1)	<0.43 (1)	<0.63 (1)	36 (1)	<0.29 (1)	<0.42 (1)	0.72 (1)	<0.22 (1)	<0.53 (1)	<0.42 (1)	<0.41 (1)	<0.46 (1)	<0.47 (1)	1.5 (1)	<0.42 (1)	<0.34 (1)	<0.41 (1)	<0.30 (1)	1.1 (1)	<0.26 (1)
	6/9/2007	3.1 (1)	<1.6 (1)	--	--	--	--	--	<0.78 (1)	<0.016 (1)	<0.41 (1)	<0.61 (1)	32 *,(1)	<0.29 (1)	<0.41 (1)	0.48 (1)	<0.21 (1)	<0.52 (1)	<0.41 (1)	<0.40 (1)	<0.45 (1)	1.7 M,(1)	0.85 (1)	<0.41 (1)	<0.33 (1)	<0.40 (1)	<0.30 (1)	<0.50 (1)	<0.26 (1)
	6/9/2007 Dup	3.1 (1)	<1.6 (1)	--	--	--	--	--	<0.78 (1)	<0.016 (1)	<0.41 (1)	<0.61 (1)	24 *,(1)	<0.28 (1)	<0.40 (1)	0.47 (1)	<0.21 (1)	<0.51 (1)	<0.40 (1)	<0.40 (1)	<0.44 (1)	1.4 M,(1)	0.84 (1)	<0.40 (1)	<0.33 (1)	<0.40 (1)	<0.29 (1)	<0.50 (1)	<0.25 (1)
	9/24/2007	3.5 (1)	<2.0 (1)	--	--	--	--	--	<0.97 V,(1)	<0.020 (1)	<0.52 (1)	<0.76 (1)	25 (1)	<0.36 (1)	<0.51 (1)	<0.58 (1)	<0.26 (1)	<0.65 (1)	<0.51 (1)	<0.50 (1)	<0.56 (1)	<2.9 (1)	0.92 (1)	<0.51 (1)	<0.41 (1)	<0.50 (1)	<0.37 (1)	<0.63 (1)	<0.32 (1)
	9/24/2007 Dup	3.3 (1)	<1.7 (1)	--	--	--	--	--	<0.81 V,(1)	<0.016 (1)	<0.43 (1)	<0.63 (1)	24 (1)	<0.30 (1)	<0.42 (1)	0.54 (1)	<0.22 (1)	<0.54 (1)	<0.42 (1)	<0.41 (1)	<0.46 (1)	<2.4 (1)	0.93 (1)	<0.42 (1)	<0.34 (1)	<0.41 (1)	<0.31 (1)	<0.52 (1)	<0.27 (1)
	1/24/2008	3.1 J	<1.4	--	--	--	--	--	<0.63	<0.013	<0.33	<0.49	11 M	0.25	<0.33	0.91	<0.17	<0.41	<0.33	<0.32	<0.36	<1.8	0.54	<0.33	<0.26	<0.32	<0.24	<0.4	<0.21
	3/25/2008	2.7	1.6	--	--	--	--	--	<0.97	<0.02	<0.52	<0.76	30 M	<0.36	<0.51	<0.58	<0.26	<0.64	<0.51	<0.5	<0.56	<2.9	1.1	<0.51	<0.41	<0.5	<0.37	<0.63	<0.32
	3/25/2008 Dup	2.6	<1.5	--	--	--	--	--	<0.92	<0.018	<0.49	<0.72	28 M	<0.34	<0.48	<0.54	<0.25	<0.61	<0.48	<0.47	<0.52	<2.7	0.99	<0.48	<0.39	<0.47	<0.35	<0.59	<0.3
AMB PARCEL 26	2002 1stQ	2.5	<2.0	--	--	--	--	--	<3.9	**<3.1 UJ9**	<2.1	<3.0	19	<1.4	<2.0	<2.3	<1.0	<2.6	<2.0	<2.0	<2.2	<2.3	<2.7	<2.0	<1.6	<2.0	<1.5	**2.5**	**<1.3 UJ9**
	2002 2ndQ	--	--	--	--	--	--	--	--	ND	--	--	10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.92	--
	2002 4thQ	3.2	<1.6	--	--	--	--	--	<3.0	**<2.4 UJ9**	<1.6	<2.4	12	<1.1	<1.6	<1.8	<0.81	<2.0	<1.6	<1.5	5.4	<1.8	<2.1	<1.6	<1.3	<1.5	<1.1	**<2.0 UJ9**	**<0.99 UJ9**
	2003 2ndQ	2	--	--	--	--	--	--	--	ND	--	--	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	--
	2003 4thQ	2.2	1.6	--	--	--	--	--	<3.1	**<2.5 UJ9**	<1.6	<2.4	23	<1.1	<1.6	<1.8	<0.82	<2.0	<1.6	<1.6	<1.8	<1.8	<2.1	<1.6	<1.3	<1.6	<1.2	**<2.0 UJ9**	**<1.4 UJ9**
IBM-28	12/17/2005	2.4 J2,(1)	<1.3 UJ2,(1)	<0.13 UJ2,(1)	21.8 J2,(1)	78.2 J2,(1)	<0.13 UJ2,(1)	<0.13 UJ2,(1)	<0.64 UJ2,(1)	**<0.52 UJ2,UJ9,(1)**	<0.34 UJ2,(1)	<0.50 UJ2,(1)	8.5 M,J2,J6,(1)	0.36 J2,(1)	<0.34 UJ2,(1)	3.8 J2,(1)	<0.17 UJ2,(1)	<0.43 UJ2,(1)	<0.34 UJ2,(1)	<0.33 UJ2,(1)	<0.37 UJ2,(1)	<0.38 UJ2,(1)	1.4 J2,(1)	<0.34 UJ2,(1)	<0.27 UJ2,(1)	<0.33 UJ2,(1)	<0.24 UJ2,(1)	0.78 J2,(1)	<0.21 UJ2,(1)
	1/14/2006	2.1 (1)	<1.7 (1)	<0.17 (1)	21.9 (1)	78 (1)	<0.17 (1)	<0.17 (1)	<0.82 (1)	<0.017 (1)	<0.44 (1)	<0.64 (1)	21 (1)	0.37 (1)	<0.43 (1)	2.8 (1)	<0.22 (1)	<0.55 (1)	<0.43 (1)	<0.42 (1)	<0.47 (1)	<0.48 (1)	2.1 (1)	<0.43 (1)	<0.35 (1)	<0.42 (1)	<0.31 (1)	0.6 (1)	<0.27 (1)
	12/10/2006	2.1 (1)	<1.6 (1)	<0.16 (1)	22.2 (1)	77.8 (1)	<0.16 (1)	<0.16 (1)	<0.77 (1)	0.03 (1)	<0.41 (1)	<0.60 (1)	13 (1)	0.35 (1)	<0.40 (1)	0.73 (1)	<0.21 (1)	<0.51 (1)	<0.40 (1)	0.39 (1)	<0.44 (1)	<0.45 (1)	1.3 (1)	<0.40 (1)	<0.33 (1)	<0.39 (1)	<0.29 (1)	<0.50 (1)	<0.25 (1)
	3/11/2007	3 (1)	<1.7 (1)	<0.17 (1)	22.2 (1)	77.7 (1)	<0.17 (1)	<0.17 (1)	<0.82 (1)	<0.017 (1)	<0.44 (1)	<0.64 (1)	14 (1)	0.34 (1)	<0.43 (1)	1.9 (1)	<0.22 (1)	<0.54 (1)	<0.43 (1)	<0.42 (1)	<0.47 (1)	<0.48 (1)	4.1 (1)	<0.43 (1)	<0.35 (1)	<0.42 (1)	<0.31 (1)	0.96 (1)	<0.27 (1)
	6/10/2007	2 (1)	<1.4 (1)	--	--	--	--	--	<0.68 (1)	<0.014 (1)	<0.36 (1)	<0.53 (1)	7.9 *,(1)	0.36 (1)	<0.36 (1)	1.4 (1)	<0.18 (1)	<0.45 (1)	<0.36 (1)	<0.35 (1)	<0.39 (1)	1.7 M,(1)	2 (1)	<0.36 (1)	<0.29 (1)	<0.35 (1)	<0.26 (1)	<0.44 (1)	<0.22 (1)
	9/16/2007	2 (1)	<1.6 (1)	--	--	--	--	--	<0.78 (1)	<0.023 (1)	<0.42 (1)	<0.61 (1)	19 M,(1)	0.43 (1)	<0.41 (1)	2.1 (1)	<0.21 (1)	<0.52 (1)	<0.41 (1)	<0.40 (1)	<0.45 (1)	<2.3 (1)	2.5 (1)	<0.41 (1)	<0.33 (1)	<0.40 (1)	<0.30 (1)	0.54 (1)	<0.26 (1)
	1/12/2008	3.4	<1.7	--	--	--	--	--	<0.82	<0.017	<0.44	<0.64	19	0.4	<0.43	1.6	<0.22	<0.55	<0.43	<0.42	<0.47	<2.4	2.2	<0.43	<0.35	<0.42	<0.31	1.8	<0.27
	1/12/2008 Dup	3.3	<1.6	--	--	--	--	--	<0.77	<0.015	<0.41	<0.60	21	0.44	<0.40	1.7	<0.21	<0.51	<0.40	<0.39	<0.44	<2.2	2.4	<0.40	<0.32	<0.39	<0.29	1.8	<0.25
	3/22/2008	2.1	<1.7	--	--	--	--	--	<1	<0.021	<0.55	<0.81	20	<0.38	<0.54	0.96	<0.28	<0.69	<0.54	<0.53	<0.6	<3 V	1.6	<0.54	<0.44	<0.53	<0.39	<0.67	<0.34
IBM-32	12/30/2005	5.2 J2,J7,(1)	<1.2 UJ2,(1)	<0.12 UJ2,(1)	21.7 J2,(1)	78.2 J2,(1)	<0.12 UJ2,(1)	<0.12 UJ2,(1)	<0.60 UJ2,(1)	**<0.48 UJ2,UJ9,(1)**	<0.32 UJ2,(1)	<0.47 UJ2,(1)	82 J2,J6,(1)	0.69 J2,(1)	<0.31 UJ2,(1)	2.8 J2,(1)	<0.16 UJ2,(1)	3.4 J2,(1)	<0.31 UJ2,(1)	<0.30 UJ2,(1)	0.90 J2,(1)	<0.35 UJ2,(1)	6.2 J2,(1)	<0.31 UJ2,(1)	<0.25 UJ2,(1)	<0.30 UJ2,(1)	<0.23 UJ2,(1)	**2.0 J2,(1)**	<0.20 UJ2,(1)
	1/14/2006	4.1 (1)	<1.8 (1)	<0.18 (1)	21.9 (1)	78 (1)	<0.18 (1)	<0.18 (1)	<0.86 (1)	0.04 (1)	<0.46 (1)	<0.67 (1)	35 M,(1)	0.78 (1)	<0.45 (1)	2.7 (1)	<0.23 (1)	<0.57 (1)	<0.45 (1)	<0.44 (1)	1.7 (1)	<0.50 (1)	4.7 (1)	<0.45 (1)	<0.36 (1)	<0.44 (1)	<0.32 (1)	**3.2 (1)**	<0.28 (1)
	12/6/2006	11 (1)	<1.5 (1)	<0.15 (1)	22.1 (1)	77.8 (1)	<0.15 (1)	<0.15 (1)	<0.73 (1)	0.031 (1)	<0.39 (1)	<0.57 (1)	70 M,(1)	0.99 (1)	<0.38 (1)	3.2 (1)	<0.20 (1)	<0.48 (1)	<0.38 (1)	<0.37 (1)	0.66 (1)	<0.43 (1)	6.3 (1)	<0.38 (1)	<0.31 (1)	<0.37 (1)	<0.28 (1)	1.9 (1)	<0.24 (1)
	3/11/2007	18 (1)	<1.8 (1)	<0.18 (1)	22.2 (1)	77.7 (1)	<0.18 (1)	<0.18 (1)	<0.86 (1)	<0.017 (1)	<0.46 (1)	<0.67 (1)	20 M,(1)	0.76 (1)	<0.45 (1)	2.4 (1)	<0.23 (1)	<0.57 (1)	<0.45 (1)	<0.44 (1)	0.53 (1)	<0.50 (1)	3.1 (1)	<0.45 (1)	<0.36 (1)	<0.44 (1)	<0.32 (1)	1.5 (1)	<0.28 (1)
	6/13/2007	15 (1)	<1.6 (1)	--	--	--	--	--	<0.79 (1)	0.017 (1)	<0.42 (1)	<0.62 (1)	26 *,J10,J12,V,(1)	1.7 (1)	<0.41 (1)	21 (1)	<0.21 (1)	1.2 (1)	<0.41 (1)	<0.40 (1)	0.48 (1)	<0.46 (1)	3.5 (1)	<0.41 (1)	<0.33 (1)	<0.40 (1)	<0.30 (1)	1.2 (1)	<0.26 (1)
	6/13/2007 Dup	14 (1)	<1.9 (1)	--	--	--	--	--	<0.94 (1)	<0.019 (1)	<0.50 (1)	<0.74 (1)	26 *,J10,J12,V,(1)	1.7 (1)	<0.49 (1)	21 (1)	<0.25 (1)	<0.62 (1)	<0.49 (1)	<0.48 (1)	<0.54 (1)	<0.55 (1)	3.5 (1)	<0.49 (1)	<0.40 (1)	<0.48 (1)	<0.36 (1)	1.2 (1)	<0.31 (1)
	10/13/2007	1.9 (1)	<1.7 (1)	--	--	--	--	--	<0.82 (1)	<0.017 (1)	<0.44 (1)	<0.64 (1)	30 M,(1)	0.57 (1)	<0.43 (1)	1.5 (1)	0.99 (1)	<0.55 (1)	<0.43 (1)	<0.42 (1)	<0.47 (1)	<2.4 (1)	3.6 (1)	<0.43 (1)	<0.35 (1)	<0.42 (1)	<0.31 (1)	<0.53 (1)	<0.27 (1)
	1/12/2008	3.6	<1.6	--	--	--	--	--	<0.77	0.043	<0.41	<0.6	50	1.1	<0.4	2.5	0.54	<0.51	<0.4	<0.39	2.3	<2.2	4.8	<0.4	<0.32	<0.39	<0.29	**2.8**	<0.25
	3/25/2008	2	<1.7	--	--	--	--	--	<1	<0.021	<0.55	<0.81	24	0.6	<0.54	2.6	0.8	<0.69	<0.54	<0.53	<0.59	<3	2.6	<0.54	<0.44	<0.53	<0.39	<0.67	<0.34
IBM-37	1999 2ndQ	2.1	--	--	--	--	--	--	--	ND	--	--	12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.3	--
	1999 4thQ	2	--	--	--	--	--	--	--	ND	--	--	28	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.9	--
	2000 3rdQ	2.1	--	--	--	--	--	--	--	ND	--	--	98	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	--
	2000 4thQ	3.6	--	--	--	--	--	--	--	ND	--	--	130	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.4**	--
	2001 2ndQ	2.2	--	--	--	--	--	--	--	ND	--	--	58	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	--
	2003 2ndQ	2.2	--	--	--	--	--	--	--	ND	--	--	25	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	--
	2003 4thQ	2.3	<1.2	--	--	--	--	--	<2.3	**<1.9 UJ9**	<1.2	<1.8	21	<0.85	<1.2	<1.4	<0.63	<1.5	<1.2	<1.2	<1.3	<1.4	<1.6	<1.2	<0.98	<1.2	<0.88	<1.5	**<0.76 UJ9**

TABLE 3

SUMMARY OF ANALYTIC DATA FOR IN-BUSINESS AND AMBIENT AIR SAMPLE LOCATIONS
1998 THROUGH 2008
WASTE DISPOSAL, INC. SUPERFUND SITE

		Analytical Methods, Constituents and Results																				
		EPA Method TO-15																				
Sample Location	Sample Event Date	1,2-Dichloropropane	Bromodichloro-methane	Trichloroethene	cis-1,3-Dichloropropene	4-Methyl-2-pentanone	trans-1,3-Dichloropropene	1,1,2-Trichloroethane	Toluene	2-Hexanone	Dibromochloro-methane	1,2-Dibromoethane	Tetrachloroethene	Chlorobenzene	Ethylbenzene	m- & p-Xylene	Bromoform	Styrene	o-Xylene	1,1,2,2-Tetrachloroethane	1,3-Dichlorobenzene	1,4-Dichlorobenzene	1,2-Dichlorobenzene
		ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv
IBM-24AMB	1998 4thQ	--	--	ND	--	--	--	--	2.6	--	--	--	ND	--	ND	1.3	--	--	--	--	--	--	--
	1999 1stQ	--	--	ND	--	--	--	--	4.8	--	--	--	ND	--	ND	2.3	--	--	--	--	--	--	--
	1999 2ndQ	--	--	ND	--	--	--	--	3.2	--	--	--	ND	--	ND	2.2	--	--	--	--	--	--	--
	1999 3rdQ	--	--	ND	--	--	--	--	3	--	--	--	ND	--	ND	1.4	--	--	--	--	--	--	--
	1999 4thQ	--	--	ND	--	--	--	--	3.2	--	--	--	ND	--	ND	1.7	--	--	--	--	--	--	--
	2000 1stQ	--	--	ND	--	--	--	--	2.2	--	--	--	ND	--	ND	0.9	--	--	--	--	--	--	--
	2000 2ndQ	--	--	ND	--	--	--	--	3.8	--	--	--	ND	--	ND	3	--	--	--	--	--	--	--
	2000 3rdQ	--	--	ND	--	--	--	--	2.7	--	--	--	ND	--	ND	ND	--	--	--	--	--	--	--
	2000 4thQ	--	--	ND	--	--	--	--	5.9	--	--	--	1.4	--	0.8	2.7	--	--	--	--	--	--	--
	2001 4thQ	--	--	ND	--	--	--	--	3.2	--	--	--	ND	--	ND	5.1	--	--	--	--	--	--	--
	2002 2ndQ	--	--	ND	--	--	--	--	3.1	--	--	--	ND	--	0.42	1.3	--	--	--	--	--	--	--
	2002 4thQ	<1.2	<0.82	<1.0	<1.2	<1.3	<1.2	<1.0	6	<1.3	<0.65	**<0.72 UJ9**	<0.81	<1.2	<1.3	2.5	<0.53	<1.3	<1.3	<0.80	<0.92	<0.92	<0.92
	2003 2ndQ	--	--	ND	--	--	--	--	4.6	--	--	--	ND	--	ND	ND	--	--	--	--	--	--	--
	2003 4thQ	<1.4	<0.96	<1.2	<1.4	<1.6	<1.4	<1.2	2.3	<1.6	<0.75	**<0.83 UJ9**	<0.94	<1.4	<1.5	<1.5	<0.62	<1.5	<1.5	<0.93	<1.1	<1.1	<1.1
	12/17/2005	<0.28 UJ2,(2)	<0.19 UJ2,(2)	<0.24 UJ2,(2)	<0.29 UJ2,(2)	<0.32 UJ2,(2)	<0.29 UJ2,(2)	<0.24 UJ2,(2)	2.1 J2,(2)	<0.32 UJ2,(2)	<0.15 UJ2,(2)	**<0.17 UJ2,UJ9,(2)**	<0.19 UJ2,(2)	<0.28 UJ2,(2)	<0.30 UJ2,(2)	1.1 J2,(2)	<0.13 UJ2,(2)	<0.31 UJ2,(2)	0.40 J2,(2)	<0.19 UJ2,(2)	<0.22 UJ2,(2)	<0.22 UJ2,(2)	<0.22 UJ2,(2)
	1/15/2006	<0.32 (2)	<0.22 (2)	**2.2 (2)**	<0.32 (2)	<0.36 (2)	<0.32 (2)	<0.27 (2)	1.9 (2)	<0.36 (2)	<0.17 (2)	<0..0048 (2)	<0.22 (2)	<0.32 (2)	<0.34 (2)	0.63 (2)	<0.14 (2)	<0.34 (2)	<0.34 (2)	<0.21 (2)	<0.24 (2)	<0.24 (2)	<0.24 (2)
	12/10/2006	<0.33	<0.23	<0.28	<0.33	<0.37	<0.33	<0.28	0.79	<0.37	<0.18	<0.0065	<0.22	<0.33	<0.35	<0.35	<0.15	<0.36	<0.35	<0.22	<0.25	<0.25	<0.25
	3/11/2007	<0.38 (2)	<0.26 (2)	<0.33 (2)	<0.39 (2)	<0.43 (2)	<0.39 (2)	<0.32 (2)	4.1 (2)	<0.43 (2)	<0.21 (2)	<0.0057 (2)	<0.26 (2)	<0.38 (2)	0.44 (2)	1.8 (2)	<0.17 (2)	<0.41 (2)	0.63 (2)	<0.25 (2)	<0.29 (2)	<0.29 (2)	<0.29 (2)
	6/10/2007	<0.34 (2)	<0.23 (2)	<0.29 (2)	<0.34 (2)	<0.38 (2)	<0.34 (2)	<0.29 (2)	0.61 (2)	<0.38 (2)	<0.18 (2)	<0.0051 (2)	<0.23 (2)	<0.34 (2)	<0.36 (2)	<0.36 (2)	<0.15 (2)	<0.37 (2)	<0.36 (2)	<0.23 (2)	<0.26 (2)	<0.26 (2)	<0.26 (2)
	9/24/2007	<0.37 (2)	<0.25 (2)	<0.31 (2)	<0.37 (2)	<0.41 (2)	<0.37 (2)	<0.31 (2)	0.59 (2)	<0.41 (2)	<0.20 (2)	<0.00091 (2)	<0.25 (2)	<0.37 (2)	<0.39 (2)	<0.39 (2)	<0.16 (2)	<0.40 (2)	<0.39 (2)	<0.25 (2)	<0.28 (2)	<0.28 (2)	<0.28 (2)
	1/12/2008	<0.31	<0.21	<0.26	<0.31	<0.35	<0.31	<0.26	5.11	<0.35	<0.17	<0.0046	<0.21	<0.31	0.802	3.4	<0.14	<0.33	1.13	<0.21	<0.24	<0.24	<0.24
	3/25/2008	<0.51	<0.35	<0.44	<0.52	<0.57	<0.52	<0.43	1.3	<0.57	<0.28	<0.0077	<0.35	<0.51	<0.54	0.69	<0.23	<0.55	<0.54	<0.34	<0.39	<0.39	<0.39
IBM-24B	1998 Feb	--	--	ND	--	--	--	--	4.7	--	--	--	0.62	--	ND	1.7	--	--	--	--	--	--	--
	1998 Mar	--	--	ND	--	--	--	--	3.9	--	--	--	ND	--	ND	1.4	--	--	--	--	--	--	--
	1998 Apr	--	--	ND	--	--	--	--	3.1	--	--	--	0.92	--	ND	ND	--	--	--	--	--	--	--
	1998 2ndQ	--	--	ND	--	--	--	--	3.6	--	--	--	ND	--	ND	1.3	--	--	--	--	--	--	--
	1998 3rdQ	--	--	ND	--	--	--	--	3	--	--	--	ND	--	ND	1	--	--	--	--	--	--	--
	1998 4thQ	--	--	ND	--	--	--	--	2.6	--	--	--	ND	--	ND	1.3	--	--	--	--	--	--	--
	1999 1stQ	--	--	**1**	--	--	--	--	2.5	--	--	--	ND	--	1.8	4.2	--	--	--	--	--	--	--
	1999 2ndQ	--	--	ND	--	--	--	--	11	--	--	--	0.84	--	6	28	--	--	--	--	--	--	--
	1999 3rdQ	--	--	ND	--	--	--	--	3.6	--	--	--	3.6	--	ND	1.3	--	--	--	--	--	--	--
	1999 4thQ	--	--	ND	--	--	--	--	3.9	--	--	--	ND	--	ND	1.7	--	--	--	--	--	--	--
	2000 1stQ	--	--	ND	--	--	--	--	2.6	--	--	--	ND	--	ND	1.2	--	--	--	--	--	--	--
	2000 2ndQ	--	--	ND	--	--	--	--	9.1	--	--	--	ND	--	1.5	6	--	--	--	--	--	--	--
	2000 3rdQ	--	--	ND	--	--	--	--	4.6	--	--	--	ND	--	ND	1	--	--	--	--	--	--	--
	2000 4thQ	--	--	ND	--	--	--	--	7.1	--	--	--	0.95	--	0.8	2.9	--	--	--	--	--	--	--
	2001 2ndQ	--	--	ND	--	--	--	--	ND	--	--	--	ND	--	ND	ND	--	--	--	--	--	--	--
	2001 4thQ	--	--	ND	--	--	--	--	3.6	--	--	--	ND	--	ND	1.4	--	--	--	--	--	--	--
	2002 2ndQ	--	--	ND	--	--	--	--	2.6	--	--	--	ND	--	ND	1	--	--	--	--	--	--	--
	2002 4thQ	<1.1	<0.79	**<0.98 UJ9**	<1.2	<1.3	<1.2	<0.97	6.2	<1.3	<0.62	**<0.69 UJ9**	<0.78	<1.1	<1.2	2.7	<0.51	<1.2	<1.2	<0.77	<0.88	<0.88	<0.88
	2003 2ndQ	--	--	ND	--	--	--	--	ND	--	--	--	ND	--	ND	ND	--	--	--	--	--	--	--
	2003 4thQ	<1.4	<0.98	**<1.2 UJ9**	<1.4	<1.6	<1.4	<1.2	3.8	<1.6	<0.77	**<0.85 UJ9**	<0.97	<1.4	<1.5	1.8	<0.63	<1.5	<1.5	<0.96	<1.1	<1.1	<1.1
	12/17/2005	<0.26 UJ2,(1)	<0.18 UJ2,(1)	<0.22 UJ2,(1)	<0.26 UJ2,(1)	<0.29 UJ2,(1)	<0.26 UJ2,(1)	<0.22 UJ2,(1)	2.2 J2,(1)	<0.29 UJ2,(1)	<0.14 UJ2,(1)	**<0.15 UJ2,UJ9,(1)**	<0.18 UJ2,(1)	<0.26 UJ2,(1)	0.28 J2,(1)	1.0 J2,(1)	<0.12 UJ2,(1)	<0.28 UJ2,(1)	0.36 J2,(1)	<0.17 UJ2,(1)	<0.20 UJ2,(1)	<0.20 UJ2,(1)	<0.20 UJ2,(1)
	1/15/2006	<0.32 (1)	<0.22 (1)	**4.2 J8,(1)**	<0.32 (1)	<0.36 (1)	<0.32 (1)	<0.27 (1)	4.3 J8,(1)	<0.36 (1)	<0.17 (1)	<0.0048 (1)	<0.22 (1)	<0.32 (1)	0.57 (1)	2.1 J8,(1)	<0.14 (1)	<0.35 (1)	0.81 J8,(1)	<0.21 (1)	<0.24 (1)	<0.24 (1)	<0.24 (1)
	1/15/2006 Dup	<0.29 (1)	<0.20 (1)	**1.2 J8,(1)**	<0.30 (1)	<0.33 (1)	<0.30 (1)	<0.25 (1)	1.8 J8,(1)	<0.33 (1)	<0.16 (1)	<0.0044 (1)	<0.20 (1)	<0.30 (1)	<0.31 (1)	0.97 J8,(1)	<0.13 (1)	<0.32 (1)	0.37 J8,(1)	<0.20 (1)	<0.23 (1)	<0.23 (1)	<0.23 (1)
	12/10/2006	<0.32 (1)	<0.22 (1)	<0.28 (1)	<0.33 (1)	<0.36 (1)	<0.33 (1)	<0.27 (1)	2.3 (1)	<0.36 (1)	<0.17 (1)	<0.0097 (1)	<0.22 (1)	<0.32 (1)	<0.34 (1)	0.9 (1)	<0.14 (1)	<0.35 (1)	<0.34 (1)	<0.22 (1)	<0.25 (1)	<0.25 (1)	<0.25 (1)
	3/11/2007	<0.36 (1)	<0.25 (1)	<0.31 (1)	<0.36 (1)	<0.40 (1)	<0.36 (1)	<0.30 (1)	4.5 (1)	<0.40 (1)	<0.19 (1)	<0.0054 (1)	0.29 (1)	<0.36 (1)	0.46 (1)	1.8 (1)	<0.16 (1)	<0.39 (1)	0.64 (1)	<0.24 (1)	<0.27 (1)	<0.27 (1)	<0.27 (1)
	6/9/2007	<0.35 (1)	<0.24 (1)	<0.30 (1)	<0.35 (1)	<0.39 (1)	<0.35 (1)	<0.30 (1)	1.4 (1)	<0.39 (1)	<0.19 (1)	<0.0052 (1)	<0.24 (1)	<0.35 (1)	<0.37 (1)	0.61 (1)	<0.16 (1)	<0.38 (1)	<0.37 (1)	<0.23 (1)	<0.27 (1)	<0.27 (1)	<0.27 (1)
	6/9/2007 Dup	<0.35 (1)	<0.24 (1)	<0.30 (1)	<0.35 (1)	<0.39 (1)	<0.35 (1)	<0.29 (1)	1.4 (1)	<0.39 (1)	<0.19 (1)	<0.0052 (1)	<0.24 (1)	<0.35 (1)	<0.37 (1)	0.61 (1)	<0.15 (1)	<0.38 (1)	<0.37 (1)	<0.23 (1)	<0.27 (1)	<0.27 (1)	<0.27 (1)
	9/24/2007	<0.44 (1)	<0.30 (1)	<0.37 (1)	<0.44 (1)	<0.49 (1)	<0.44 (1)	<0.37 (1)	1.4 (1)	<0.49 (1)	<0.24 (1)	<0.0065 (1)	<0.30 (1)	<0.44 (1)	<0.46 (1)	0.71 (1)	<0.19 (1)	<0.47 (1)	<0.46 (1)	<0.29 (1)	<0.33 (1)	<0.33 (1)	<0.33 (1)
	9/24/2007 Dup	<0.36 (1)	<0.25 (1)	<0.31 (1)	<0.37 (1)	<0.41 (1)	<0.37 (1)	<0.31 (1)	1.5 (1)	<0.41 (1)	<0.20 (1)	<0.0054 (1)	<0.25 (1)	<0.36 (1)	<0.38 (1)	0.73 (1)	<0.16 (1)	<0.39 (1)	<0.38 (1)	<0.24 (1)	<0.28 (1)	<0.28 (1)	<0.28 (1)
	1/24/2008	<0.28	<0.19	<0.24	<0.28	<0.32	<0.28	<0.24	0.83	<0.32	<0.15	<0.0042	<0.19	<0.28	<0.3	0.48	<0.12	<0.3	<0.3	<0.19	<0.21	<0.21	<0.21
	3/25/2008	<0.43	<0.3	<0.37	<0.44	<0.49	<0.44	<0.37	2.6	<0.49	<0.24	<0.0065	<0.3	<0.44	<0.46	1.0	<0.19	<0.47	<0.46	<0.29	<0.33	<0.33	<0.33
	3/25/2008 Dup	<0.41	<0.28	<0.35	<0.42	<0.46	<0.42	<0.35	2.5	<0.46	<0.22	<0.0061	<0.28	<0.41	<0.44	0.99	<0.18	<0.44	<0.44	<0.28	<0.31	<0.31	<0.31
AMB PARCEL 26	2002 1stQ	<1.7	<1.2	**<1.5 UJ9**	<1.8	<2.0	<1.8	<1.5	<2.1	<2.0	<0.94	**<1.0 UJ9**	<1.2	<1.7	<1.8	<1.8	<0.77	<1.9	<1.8	<1.2	<1.3	<1.3	<1.3
	2002 2ndQ	--	--	**1.8**	--	--	--	--	3	--	--	--	0.49	--	ND	--	--	--	--	--	--	--	--
	2002 4thQ	<1.4	<0.93	**<1.2 UJ9**	<1.4	<1.5	<1.4	<1.1	8	<1.5	<0.73	**<0.81 UJ9**	<0.92	<1.4	<1.4	2.3	<0.60	<1.5	<1.4	<0.91	<1.0	<1.0	<1.0
	2003 2ndQ	--	--	ND	--	--	--	--	ND	--	--	--	ND	--	ND	ND	--	--	--	--	--	--	--
	2003 4thQ	<1.4	<0.94	**<1.2 UJ9**	<1.4	<1.5	<1.4	<1.2	2.3	<1.5	<0.74	**<0.82 UJ9**	<0.93	<1.4	<1.5	1.8	<0.61	<1.5	<1.5	<0.92	<1.1	<1.1	<1.1
IBM-28	12/17/2005	<0.29 UJ2,(1)	<0.20 UJ2,(1)	<0.25 UJ2,(1)	<0.29 UJ2,(1)	<0.32 UJ2,(1)	<0.29 UJ2,(1)	<0.24 UJ2,(1)	3.1 J2,(1)	<0.32 UJ2,(1)	<0.16 UJ2,(1)	**<0.17 UJ2,UJ9,(1)**	<0.20 UJ2,(1)	<0.29 UJ2,(1)	0.35 J2,(1)	1.3 J2,(1)	<0.13 UJ2,(1)	<0.31 UJ2,(1)	0.49 J2,(1)	<0.19 UJ2,(1)	<0.22 UJ2,(1)	<0.22 UJ2,(1)	<0.22 UJ2,(1)
	1/14/2006	<0.37 (1)	<0.25 (1)	**6.3 (1)**	<0.37 (1)	<0.41 (1)	<0.37 (1)	<0.31 (1)	5.8 (1)	<0.42 (1)	<0.20 (1)	<0.0055 (1)	<0.25 (1)	<0.37 (1)	<0.39 (1)	1.1 (1)	<0.16 (1)	<0.40 (1)	<0.39 (1)	<0.25 (1)	<0.28 (1)	<0.28 (1)	<0.28 (1)
	12/10/2006	<0.34 (1)	<0.24 (1)	<0.30 (1)	<0.35 (1)	<0.39 (1)	<0.35 (1)	<0.29 (1)	2.1 (1)	<0.39 (1)	<0.19 (1)	<0.0052 (1)	<0.23 (1)	<0.35 (1)	<0.37 (1)	1.3 (1)	<0.15 (1)	<0.37 (1)	0.56 (1)	<0.23 (1)	<0.26 (1)	<0.26 (1)	<0.26 (1)
	3/11/2007	<0.37 (1)	<0.25 (1)	<0.31 (1)	<0.37 (1)	<0.41 (1)	<0.37 (1)	<0.31 (1)	5.4 (1)	<0.41 (1)	<0.20 (1)	<0.0055 (1)	<0.25 (1)	<0.37 (1)	0.6 (1)	2.5 (1)	<0.16 (1)	<0.40 (1)	0.99 (1)	<0.25 (1)	<0.28 (1)	<0.28 (1)	<0.28 (1)
	6/10/2007	<0.31 (1)	<0.21 (1)	<0.26 (1)	<0.31 (1)	<0.34 (1)	<0.31 (1)	<0.26 (1)	1.3 (1)	<0.34 (1)	<0.17 (1)	<0.0046 (1)	<0.21 (1)	<0.31 (1)	<0.32 (1)	0.64 (1)	<0.14 (1)	<0.33 (1)	<0.32 (1)	<0.21 (1)	<0.23 (1)	<0.23 (1)	<0.23 (1)
	9/16/2007	<0.35 (1)	<0.24 (1)	<0.30 (1)	<0.36 (1)	<0.40 (1)	<0.36 (1)	<0.30 (1)	2.2 (1)	<0.40 (1)	<0.19 (1)	<0.0075 (1)	<0.24 (1)	<0.35 (1)	0.75 (1)	3.3 (1)	<0.16 (1)	<0.38 (1)	1.1 (1)	<0.24 (1)	<0.27 (1)	<0.27 (1)	<0.27 (1)
	1/12/2008	<0.37	<0.25	<0.32	<0.37	<0.41	<0.37	<0.31	6.3	<0.42	<0.2	<0.0055	<0.25	<0.37	0.79	3.3	<0.16	0.9	1.1	<0.25	<0.28	<0.28	<0.28
	1/12/2008 Dup	<0.34	<0.24	<0.29	<0.35	<0.39	<0.35	<0.29	6.1	<0.39	<0.19	<0.0051	<0.23	<0.34	0.77	3	<0.15	0.78	1	<0.23	<0.26	<0.26	<0.26
	3/22/2008	<0.46	<0.32	<0.4	<0.47	0.99	<0.47	<0.39	3.1	<0.52	<0.25	<0.0070	<0.32	<0.47	<0.49	1.5	<0.21	<0.5	0.51	<0.31	<0.36	<0.36	<0.36
IBM-32	12/30/2005	<0.27 UJ2,(1)	<0.18 UJ2,(1)	<0.23 UJ2,(1)	<0.27 UJ2,(1)	0.33 J2,(1)	<0.27 UJ2,(1)	<0.23 UJ2,(1)	12 J2,(1)	<0.30 UJ2,(1)	<0.14 UJ2,(1)	**<0.16 UJ2,UJ9,(1)**	2.9 J2,(1)	<0.27 UJ2,(1)	1.6 J2,(1)	6.4 J2,(1)	<0.12 UJ2,(1)	1.8 J2,(1)	2.3 J2,(1)	<0.18 UJ2,(1)	<0.20 UJ2,(1)	0.27 J2,(1)	<0.20 UJ2,(1)
	1/14/2006	<0.38 (1)	<0.26 (1)	**8.3 (1)**	<0.39 (1)	<0.43 (1)	<0.39 (1)	<0.32 (1)	26 (1)	<0.43 (1)	<0.21 (1)	0.036 (1)	1.1 (1)	<0.38 (1)	3 (1)	12 (1)	<0.17 (1)	1.6 (1)	4.1 (1)	<0.26 (1)	<0.29 (1)	<0.29 (1)	<0.29 (1)
	12/6/2006	<0.32 (1)	<0.22 (1)	<0.28 (1)	<0.33 (1)	<0.37 (1)	<0.33 (1)	<0.28 (1)	11 (1)	<0.37 (1)	<0.18 (1)	<0.0070 (1)	0.88 (1)	<0.33 (1)	1.2 (1)	5.5 (1)	<0.15 (1)	<0.35 (1)	1.9 (1)	<0.22 (1)	<0.25 (1)	0.36 (1)	<0.25 (1)
	3/11/2007	<0.38 (1)	<0.26 (1)	<0.33 (1)	<0.39 (1)	<0.43 (1)	<0.39 (1)	<0.32 (1)	8.3 (1)	<0.43 (1)	<0.21 (1)	<0.0058 (1)	0.94 (1)	<0.38 (1)	1.1 (1)	4.4 (1)	<0.17 (1)	<0.42 (1)	1.4 (1)	<0.26 (1)	<0.29 (1)	0.42 (1)	<0.29 (1)
	6/13/2007	<0.35 (1)	<0.24 (1)	**0.69 (1)**	<0.36 (1)	<0.40 (1)	<0.36 (1)	<0.30 (1)	13 (1)	<0.40 (1)	<0.19 (1)	<0.0053 (1)	<0.24 (1)	<0.35 (1)	1.1 (1)	5.4 (1)	<0.16 (1)	<0.38 (1)	1.6 (1)	<0.24 (1)	<0.27 (1)	1.1 (1)	<0.27 (1)
	6/13/2007 Dup	<0.42 (1)	<0.29 (1)	**0.64 (1)**	<0.43 (1)	<0.47 (1)	<0.43 (1)	<0.36 (1)	12 (1)	<0.47 (1)	<0.23 (1)	<0.0063 (1)	<0.29 (1)	<0.42 (1)	0.99 (1)	4.9 (1)	<0.19 (1)	<0.46 (1)	1.5 (1)	<0.28 (1)	<0.32 (1)	1.1 (1)	0.32 (1)
	10/13/2007	<0.37 (1)	<0.25 (1)	<0.32 (1)	<0.37 (1)	<0.41 (1)	<0.37 (1)	<0.31 (1)	5.9 (1)	<0.42 (1)	<0.20 (1)	<0.0055 (1)	0.37 (1)	<0.37 (1)	<0.39 (1)	1.5 (1)	<0.16 (1)	<0.40 (1)	0.5 (1)	<0.25 (1)	<0.28 (1)	<0.28 (1)	<0.28 (1)
	1/12/2008	<0.34	<0.24	<0.29	<0.35	0.62	<0.35	<0.29	19	<0.39	<0.19	<0.0051	0.49	<0.34	2.5	13	<0.15	0.97	4.2	<0.23	<0.26	<0.26	<0.26
	3/25/2008	<0.46	<0.32	<0.4	<0.47	0.61	<0.47	<0.39	4.8	<0.52	<0.25	<0.0070	<0.32	<0.47	<0.49	1.6	<0.21	<0.5	0.52	<0.31	<0.36	0.48	<0.36
IBM-37	1999 2ndQ	--	--	**12**	--	--	--	--	5	--	--	--	ND	--	ND	1.1	--	--	--	--	--	--	--
	1999 4thQ	--	--	**42**	--	--	--	--	6.4	--	--	--	ND	--	0.7	2.6	--	--	--	--	--	--	--
	2000 3rdQ	--	--	ND	--	--	--	--	16	--	--	--	ND	--	ND	2.7	--	--	--	--	--	--	--
	2000 4thQ	--	--	ND	--	--	--	--	170	--	--	--	ND	--	6.1	22	--	--	--	--	--	--	--
	2001 2ndQ	--	--	ND	--	--	--	--	9.7	--	--	--	ND	--	ND	ND	--	--	--	--	--	--	--
	2003 2ndQ	--	--	ND	--	--	--	--	6.3	--	--	--	31	--	ND	1.6	--	--	--	--	--	--	--
	2003 4thQ	<1.0	<0.72	<0.89	<1.1	<1.2	<1.1	<0.88	3.5	<1.2	<0.85	**<0.62 UJ9**	<0.71	<1.0	<1.1	1.3	<0.46	<1.1	<1.1	<0.70	<0.80	<0.80	<0.80

TABLE 3

SUMMARY OF ANALYTIC DATA FOR IN-BUSINESS AND AMBIENT AIR SAMPLE LOCATIONS
1998 THROUGH 2008
WASTE DISPOSAL, INC. SUPERFUND SITE

		Analytical Methods, Constituents and Results																												
		EPA Method 25C		EPA Method 3C						EPA Method TO-15																				
Sample Location	Sample Event Date	Methane	Total Gaseous Nonmethane Organics (TGNMO) as Methane	Hydrogen	Oxygen + Argon *	Nitrogen	Carbon Monoxide	Carbon Dioxide	Chloromethane	Vinyl Chloride	Bromomethane	Chloroethane	Acetone	Trichlorofluoro-methane	1,1-Dichloroethene	Methylene Chloride	Trichloro-trifluoroethane	Carbon Disulfide	trans-1,2-Dichloroethene	1,1-Dichloroethane	Methyl tert-Butyl Ether	Vinyl Acetate	2-Butanone (MEK)	cis-1,2-Dichloroethene	Chloroform	1,2-Dichloroethane	1,1,1-Trichloroethane	Benzene	Carbon Tetrachloride
		ppmv	ppmv	(%, v/v)	(%, v/v)	(%, v/v)	(%, v/v)	(%, v/v)	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv
IBM-37	12/18/2005	4.6 J2,(1)	<1.4 UJ2,(1)	<0.14 UJ2,(1)	21.8 J2,(1)	78.1 J2,(1)	<0.14 UJ2,(1)	<0.14 UJ2,(1)	<3.5 UJ2,(1)	**<2.8 UJ2,UJ9,(1)**	<1.9 UJ2,(1)	<2.7 UJ2,(1)	23 M,J2,J6,(1)	<1.3 UJ2,(1)	<1.8 UJ2,(1)	9.3 J2,(1)	<0.94 UJ2,(1)	<2.3 UJ2,(1)	<1.8 UJ2,(1)	<1.8 UJ2,(1)	<2.0 UJ2,(1)	<2.0 UJ2,(1)	<2.4 UJ2,(1)	<1.8 UJ2,(1)	<1.5 UJ2,(1)	0.55 J1,J2,(1)	<1.3 UJ2,(1)	**<2.3 UJ2,UJ9,(1)**	**<1.1 UJ2,UJ9,(1)**
	1/17/2006	6.4 (1)	<1.5 (1)	<0.15 (1)	21.8 (1)	78.1 (1)	<0.15 (1)	<0.15 (1)	<3.7 (1)	**<0.75 UJ9,(1)**	<2.0 (1)	<2.9 (1)	<16 (1)	<1.4 (1)	<1.9 (1)	3.1 (1)	<1.0 (1)	<2.5 (1)	<1.9 (1)	<1.9 (1)	<2.1 (1)	<2.2 (1)	2.8 (1)	<1.9 (1)	<1.6 (1)	<1.9 (1)	<1.4 (1)	**<2.4 UJ9,(1)**	**<1.2 UJ9,(1)**
	2/2/2007	3.7 (1)	<1.2 (1)	<0.12 (1)	22.1 (1)	77.8 (1)	<0.12 (1)	<0.12 (1)	<1.6 (1)	<0.012 (1)	<0.88 (1)	<1.3 (1)	31 (1)	<0.61 (1)	<0.86 (1)	<0.98 (1)	<0.44 (1)	<1.1 (1)	<0.86 (1)	<0.84 (1)	<0.94 (1)	<0.97 (1)	2.5 (1)	<0.86 (1)	<0.70 (1)	<0.84 (1)	<0.62 (1)	<1.1 (1)	<0.54 (1)
	2/2/2007 Dup	3.9 (1)	<1.2 (1)	<0.12 (1)	22 (1)	77.9 (1)	<0.12 (1)	<0.12 (1)	<1.6 (1)	<0.012 (1)	<0.88 (1)	<1.3 (1)	36 (1)	<0.61 (1)	<0.86 (1)	<0.98 (1)	<0.44 (1)	<1.1 (1)	<0.86 (1)	<0.84 (1)	<0.94 (1)	<0.97 (1)	2.9 (1)	<0.86 (1)	<0.70 (1)	<0.84 (1)	<0.62 (1)	<1.1 (1)	<0.54 (1)
	3/7/2007	5.2 (1)	<1.6 (1)	<0.16 (1)	22.2 (1)	77.7 (1)	<0.16 (1)	<0.16 (1)	<0.79 (1)	<0.23 (1)	<0.42 (1)	<0.62 (1)	94 (1)	<0.29 (1)	<0.41 (1)	0.71 (1)	<0.21 (1)	<0.52 (1)	<0.41 (1)	<0.40 (1)	<0.45 (1)	<0.46 (1)	2.6 (1)	<0.41 (1)	<0.33 (1)	<0.40 (1)	<0.30 (1)	**2.2 (1)**	<0.26 (1)
	6/13/2007	4.5 (1)	<1.5 (1)	--	--	--	--	--	<4.9 (1)	**<1.5 UJ9,(1)**	<2.6 (1)	<3.8 (1)	44 *,V,(1)	<1.8 (1)	<2.5 (1)	<2.9 (1)	<1.3 (1)	<3.2 (1)	<2.5 (1)	<2.5 (1)	<2.8 (1)	<2.9 (1)	<3.4 (1)	<2.5 (1)	<2.1 (1)	<2.5 (1)	<1.8 (1)	**<3.2 UJ9,(1)**	**<1.6 UJ9,(1)**
	9/19/2007	2.5 (1)	<1.7 (1)	--	--	--	--	--	<3.2 (1)	<0.016 (1)	<1.7 (1)	<2.5 (1)	22 (1)	<1.2 (1)	<1.7 (1)	<1.9 (1)	<0.87 (1)	<2.1 (1)	<1.7 (1)	<1.7 (1)	<1.9 (1)	<9.5 (1)	<2.3 (1)	<1.7 (1)	<1.4 (1)	<1.7 (1)	<1.2 (1)	**<2.1 UJ9,(1)**	**<1.1 UJ9,(1)**
	3/22/2008	3.4	<1.3	--	--	--	--	--	<0.84	<0.024	<0.45	<0.66	80	<0.31	<0.44	2.1	<0.23	<0.56	<0.44	<0.43	<0.48	<2.5 V	3.2	<0.44	<0.36	<0.43	<0.32	0.84	<0.28
	3/22/2008 Dup	3.7	<1.6	--	--	--	--	--	<0.96	<0.019	<0.51	<0.75	86	<0.35	<0.5	2.4	<0.26	<0.64	<0.5	<0.49	<0.55	<2.8 V	3.2	<0.5	<0.41	<0.49	<0.36	0.93	<0.31
IBM-41	1998 Feb	3.5	--	--	--	--	--	--	--	ND	--	--	46	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**4.1**	--
	1998 Mar	ND	--	--	--	--	--	--	--	ND	--	--	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	--
	1998 Apr	3.1	--	--	--	--	--	--	--	ND	--	--	37	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**4.6**	--
	1998 2ndQ	2.4	--	--	--	--	--	--	--	ND	--	--	53	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**5.8**	--
	1998 3rdQ	3.1	--	--	--	--	--	--	--	ND	--	--	50	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**7.2**	--
	1998 4thQ	2.8	--	--	--	--	--	--	--	ND	--	--	94	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**5.7**	--
	1999 1stQ	2.8	--	--	--	--	--	--	--	ND	--	--	200	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**3.9**	--
	1999 2ndQ	2.2	--	--	--	--	--	--	--	ND	--	--	340	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**3.2**	--
	1999 3rdQ	1.5	--	--	--	--	--	--	--	ND	--	--	490	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.6**	--
	1999 4thQ	1.6	--	--	--	--	--	--	--	ND	--	--	430	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.4**	--
	2000 1stQ	1.1	--	--	--	--	--	--	--	ND	--	--	100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.2**	--
	2000 2ndQ	1.9	--	--	--	--	--	--	--	ND	--	--	75	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**3.8**	--
	2000 3rdQ	3.1	--	--	--	--	--	--	--	ND	--	--	42	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.4**	--
	2000 4thQ	3	--	--	--	--	--	--	--	ND	--	--	100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**5.2**	--
	2001 2ndQ	2	--	--	--	--	--	--	--	ND	--	--	49	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.4**	--
	2001 4thQ	2.3	--	--	--	--	--	--	--	ND	--	--	350	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.5**	--
	2003 2ndQ	1.9	--	--	--	--	--	--	--	ND	--	--	63	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.1**	--
	2003 4thQ	4	<1.2	--	--	--	--	--	<2.3	**<1.9 UJ9**	<1.2	<1.8	92	<0.85	<1.2	3.2	<0.63	<1.5	<1.2	<1.2	2.3	<1.4	37	<1.2	<0.98	<1.2	<0.88	**2.2**	**<0.76**
	12/17/2005	2.6 J2,(1)	<1.4 UJ2,(1)	<0.14 UJ2,(1)	21.8 J2,(1)	78.1 J2,(1)	<0.14 UJ2,(1)	<0.14 UJ2,(1)	<3.4 UJ2,(1)	**<2.8 UJ2,UJ9,(1)**	<1.8 UJ2,(1)	<2.7 UJ2,(1)	65 J2,J6,(1)	<1.3 UJ2,(1)	<1.8 UJ2,(1)	47 J2,(1)	<0.93 UJ2,(1)	<2.3 UJ2,(1)	<1.8 UJ2,(1)	<1.8 UJ2,(1)	<2.0 UJ2,(1)	<2.1 UJ2,(1)	9.9 J2,(1)	<1.8 UJ2,(1)	<1.5 UJ2,(1)	<1.8 UJ2,(1)	<1.3 UJ2,(1)	**2.3 J2,(1)**	**<1.1 UJ2,UJ9,(1)**
	1/15/2006	3.3 (1)	<1.5 (1)	<0.15 (1)	21.8 (1)	78.1 (1)	<0.15 (1)	<0.15 (1)	<3.6 UJ2,(1)	<0.14 UJ2,(1)	<1.9 UJ2,(1)	<2.8 UJ2,(1)	79 M,J2,(1)	<1.3 UJ2,(1)	<1.9 UJ2,(1)	43 J2,(1)	<0.96 UJ2,(1)	<2.4 UJ2,(1)	<1.9 UJ2,(1)	<1.8 UJ2,(1)	<2.0 UJ2,(1)	<2.1 UJ2,(1)	7.4 J2,(1)	<1.9 UJ2,(1)	<1.5 UJ2,(1)	<1.8 UJ2,(1)	<1.3 UJ2,(1)	**5.6 J2,(1)**	**<1.2 UJ2,UJ9,(1)**
	12/6/2006	3.3 (1)	<1.5 (1)	<0.15 (1)	22.1 (1)	77.8 (1)	<0.15 (1)	<0.15 (1)	<7.4 (1)	**<0.74 UJ9,(1)**	<3.9 (1)	<5.8 (1)	2000 (1)	<2.7 (1)	<3.8 (1)	56 (1)	<2.0 (1)	<4.9 (1)	<3.8 (1)	<3.8 (1)	<4.2 (1)	<4.3 (1)	6.8 (1)	<3.8 (1)	<3.1 (1)	**<3.8 UJ9,(1)**	<2.8 (1)	**<4.8 UJ9,(1)**	**<2.4 UJ9,(1)**
	3/4/2007	2.5 (1)	<1.4 (1)	<0.14 (1)	22.1 (1)	77.9 (1)	<0.14 (1)	<0.14 (1)	<0.68 (1)	<0.014 (1)	<0.36 (1)	<0.53 (1)	44 (1)	0.26 (1)	<0.35 (1)	3.1 (1)	<0.18 (1)	<0.45 (1)	<0.35 (1)	<0.35 (1)	1 (1)	<0.40 (1)	4 (1)	<0.35 (1)	<0.29 (1)	<0.35 (1)	<0.26 (1)	**2.4 (1)**	<0.22 (1)
	3/4/2007 Dup	2.5 (1)	<1.4 (1)	<0.14 (1)	18.4 (1)	81.5 (1)	<0.14 (1)	<0.14 (1)	1 (1)	<0.014 (1)	<0.37 (1)	<0.55 (1)	<3.0 (1)	0.27 (1)	<0.36 (1)	3.1 (1)	<0.19 (1)	<0.46 (1)	<0.36 (1)	<0.36 (1)	<0.40 (1)	<0.41 (1)	<0.49 (1)	<0.36 (1)	<0.29 (1)	<0.36 (1)	<0.26 (1)	**2.4 (1)**	<0.23 (1)
	6/10/2007	1.9 (1)	13 (1)	--	--	--	--	--	<14 (1)	**<0.36 UJ9,(1)**	<7.7 (1)	<11 (1)	<63 V,(1)	<5.3 (1)	<7.5 (1)	<8.6 (1)	<3.9 (1)	<9.6 (1)	<7.5 (1)	<7.4 (1)	<8.3 (1)	<8.5 (1)	<10 (1)	<7.5 (1)	**<6.1 UJ9,(1)**	**<7.4 UJ9,(1)**	<5.5 (1)	**<9.3 UJ9,(1)**	**<4.7 UJ9,(1)**
	9/16/2007	1.9 (1)	<1.8 (1)	--	--	--	--	--	<0.88 (1)	<0.018 (1)	<0.47 (1)	<0.69 (1)	45 M,(1)	<0.40 (1)	<0.46 (1)	9 (1)	<0.24 (1)	<0.58 (1)	<0.46 (1)	<0.45 (1)	1.1 (1)	<2.6 (1)	5.7 (1)	<0.46 (1)	<0.45 (1)	<0.45 (1)	0.45 (1)	1.8 (1)	<0.29 (1)
	1/11/2008	3.9	<1.5	--	--	--	--	--	<0.72	<0.097	<0.38	<0.56	58	0.35	<0.37	4	<0.19	<0.48	<0.37	<0.37	0.95	<2.1	5.5	<0.37	<0.3	<0.37	0.29	**3.5**	<0.24
	3/30/2008	1.9	7.6	--	--	--	--	--	<17	**<0.27**	<9	<13	920	<6.2	<8.8	<10	<4.6	<11	<8.8	<8.6	<9.7	<50	<12	<8.8	**<7.2**	**<8.6**	<6.4	**<11**	**<5.6**
	3/30/2008 Dup	1.8	7.3	--	--	--	--	--	<16	<0.18	<8.7	<13	960	<6	<8.6	<9.8	<4.4	<11	<8.6	<8.4	<9.4	<48	<12	<8.6	**<7**	**<8.4**	<6.2	**<11**	**<5.4**
IBM-42	9/16/2007	10 (1)	<1.6 (1)	--	--	--	--	--	<0.78 (1)	<0.016 (1)	<0.41 (1)	<0.61 (1)	120 J6,J15,M,(1)	0.44 (1)	<0.40 (1)	1.2 (1)	<0.21 (1)	<0.51 (1)	<0.40 (1)	<0.40 (1)	<0.44 (1)	2.3 (1)	3.2 (1)	<0.40 (1)	<0.33 (1)	<0.40 (1)	<0.29 (1)	**3.3 (1)**	<0.25 (1)
IBM-43	9/29/2007	1.8 (1)	<1.5 (1)	--	--	--	--	--	<0.75 (1)	<0.015 (1)	<0.40 (1)	<0.58 (1)	58 (1)	0.31 (1)	<0.39 (1)	<0.44 (1)	<0.20 (1)	<0.49 (1)	<0.39 (1)	<0.38 (1)	<0.43 (1)	<2.2 (1)	2.6 (1)	<0.39 (1)	<0.32 (1)	<0.38 (1)	<0.28 (1)	<0.48 (1)	<0.24 (1)
	9/29/2007 Dup	1.8 (1)	<1.5 (1)	--	--	--	--	--	<0.74 (1)	<0.015 (1)	<0.39 (1)	<0.58 (1)	56 (1)	0.33 (1)	<0.39 (1)	<0.44 (1)	<0.20 (1)	<0.49 (1)	<0.39 (1)	<0.38 (1)	<0.42 (1)	<2.2 (1)	2.5 (1)	<0.39 (1)	<0.31 (1)	<0.38 (1)	<0.28 (1)	<0.48 (1)	<0.24 (1)
IBM-44	9/16/2007	2 (1)	3 (1)	--	--	--	--	--	<2.8 (1)	**<0.80 UJ9,(1)**	<1.5 (1)	<2.2 (1)	750 (1)	<1.0 (1)	<1.5 (1)	20 (1)	<0.76 (1)	<1.9 (1)	<1.5 (1)	<1.4 (1)	<1.6 (1)	<8.3 (1)	15 (1)	<1.5 (1)	<1.2 (1)	<1.4 (1)	<1.1 (1)	<1.8 (1)	**<0.93 UJ9,(1)**
IBM-49AMB	1998 Feb	2.6	--	--	--	--	--	--	--	ND	--	--	21	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**390**	--
	1998 Mar	2.5	--	--	--	--	--	--	--	ND	--	--	4.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.5	--
	1998 Apr	2.4	--	--	--	--	--	--	--	ND	--	--	5.3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	--
	1998 2ndQ	2.1	--	--	--	--	--	--	--	ND	--	--	4.3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.1	--
	1998 3rdQ	2.5	--	--	--	--	--	--	--	ND	--	--	5.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.4	--
	1998 4thQ	2.7	--	--	--	--	--	--	--	ND	--	--	24	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.5	--
	1999 1stQ	2.5	--	--	--	--	--	--	--	ND	--	--	22	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	--
	1999 2ndQ	2.5	--	--	--	--	--	--	--	ND	--	--	7.7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.1	--
	1999 3rdQ	1.8	--	--	--	--	--	--	--	ND	--	--	12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.3	--
	1999 4thQ	2.1	--	--	--	--	--	--	--	ND	--	--	13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--
	2000 1stQ	1.9	--	--	--	--	--	--	--	ND	--	--	6.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.82	--
	2000 2ndQ	12	--	--	--	--	--	--	--	ND	--	--	7.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	--
	2000 3rdQ	2	--	--	--	--	--	--	--	ND	--	--	11	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	--
	2000 4thQ	2.8	--	--	--	--	--	--	--	ND	--	--	36	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.3**	--
	2001 2ndQ	2.3	--	--	--	--	--	--	--	ND	--	--	22	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	--
	12/17/2005	2.7 J2,(2)	<1.5 UJ2,(2)	<0.15 UJ2,(2)	21.8 J2,(2)	78.1 J2,(2)	<0.15 UJ2,(2)	<0.15 UJ2,(2)	<0.73 UJ2,(2)	**<0.59 UJ2,UJ9,(2)**	<0.39 UJ2,(2)	<0.57 UJ2,(2)	4.3 M,J2,J6,(2)	<0.27 UJ2,(2)	<0.38 UJ2,(2)	<0.43 UJ2,(2)	<0.20 UJ2,(2)	<0.48 UJ2,(2)	<0.38 UJ2,(2)	<0.37 UJ2,(2)	<0.42 UJ2,(2)	<0.43 UJ2,(2)	0.70 J2,(2)	<0.38 UJ2,(2)	<0.31 UJ2,(2)	<0.37 UJ2,(2)	<0.28 UJ2,(2)	0.68 J2,(2)	<0.24 UJ2,(2)
	1/15/2006	2.9 (2)	<1.4 (2)	<0.14 (2)	21.8 (2)	78.2 (2)	<0.14 (2)	<0.14 (2)	<0.68 (2)	<0.014 (2)	<0.36 (2)	<0.53 (2)	6.4 M,J6,(2)	<0.25 (2)	<0.35 (2)	<0.40 (2)	<0.18 (2)	<0.45 (2)	<0.35 (2)	<0.35 (2)	<0.39 (2)	<0.40 (2)	0.85 (2)	<0.35 (2)	<0.29 (2)	<0.35 (2)	<0.26 (2)	0.87 (2)	<0.22 (2)
	12/6/2006	3.3 (2)	<1.5 (2)	<0.15 (2)	22.1 (2)	77.8 (2)	<0.15 (2)	<0.15 (2)	<0.71 (2)	<0.014 (2)	<0.38 (2)	<0.56 (2)	18 M,(2)	0.28 (2)	<0.37 (2)	1 (2)	<0.19 (2)	<0.47 (2)	<0.37 (2)	<0.36 (2)	<0.41 (2)	<0.42 (2)	2 (2)	<0.37 (2)	<0.30 (2)	<0.36 (2)	<0.27 (2)	1.5 (2)	<0.23 (2)
	3/11/2007	3.1 (2)	<1.7 (2)	<0.17 (2)	22.2 (2)	77.7 (2)	<0.17 (2)	<0.17 (2)	<0.80 (2)	<0.016 (2)	<0.43 (2)	<0.63 (2)	10 (2)	0.32 (2)	<0.42 (2)	0.48 (2)	<0.22 (2)	<0.53 (2)	<0.42 (2)	<0.41 (2)	<0.46 (2)	<0.47 (2)	1.4 (2)	<0.42 (2)	<0.34 (2)	<0.41 (2)	<0.30 (2)	1.1 (2)	<0.26 (2)
	3/11/2007 Dup	3 (2)	<1.6 (2)	<0.16 (2)	22.2 (2)	77.7 (2)	<0.16 (2)	<0.16 (2)	<0.77 (2)	<0.015 (2)	<0.41 (2)	<0.60 (2)	12 (2)	<0.28 (2)	<0.40 (2)	0.46 (2)	<0.21 (2)	<0.51 (2)	<0.40 (2)	<0.39 (2)	<0.44 (2)	<0.45 (2)	1.4 (2)	<0.40 (2)	<0.32 (2)	<0.39 (2)	<0.29 (2)	1 (2)	<0.25 (2)
	6/10/2007	2 (2)	<1.3 (2)	--	--	--	--	--	<0.64 (2)	<0.013 (2)	<0.34 (2)	<0.50 (2)	3.8 M,V,(2)	<0.24 (2)	<0.34 (2)	<0.38 (2)	<0.17 (2)	<0.43 (2)	<0.34 (2)	<0.33 (2)	<0.37 (2)	<0.38 (2)	0.66 (2)	<0.34 (2)	<0.27 (2)	<0.33 (2)	<0.24 (2)	<0.42 (2)	<0.21 (2)
	9/16/2007	1.9 (2)	<1.5 (2)	--	--	--	--	--	<0.71 (2)	<0.014 (2)	<0.38 (2)	<0.56 (2)	14 (2)	0.3 (2)	<0.37 (2)	<0.42 (2)	<0.19 (2)	<0.47 (2)	<0.37 (2)	<0.36 (2)	<0.41 (2)	<2.1 (2)	1.6 (2)	<0.37 (2)	<0.30 (2)	<0.36 (2)	<0.27 (2)	0.52 (2)	<0.23 (2)
	9/16/2007 Dup	1.9 (2)	<1.7 (2)	--	--	--	--	--	<0.82 (2)	<0.017 (2)	<0.44 (2)	<0.64 (2)	10 M,(2)	<0.31 (2)	<0.43 (2)	<0.49 (2)	<0.22 (2)	<0.54 (2)	<0.43 (2)	<0.42 (2)	<0.47 (2)	<2.4 (2)	1.1 (2)	<0.43 (2)	<0.35 (2)	<0.42 (2)	<0.31 (2)	0.55 (2)	<0.27 (2)
	1/11/2008	3.9	<1.4	--	--	--	--	--	<0.68	<0.014	<0.36	<0.53	18	0.29	<0.36	1.1	<0.18	<0.45	<0.36	<0.35	<0.39	<2	2.4	<0.36	<0.29	<0.35	<0.26	**2**	<0.22
	3/22/2008	2.3	<1.6	--	--	--	--	--	<0.98	<0.02	<0.52	<0.77	12 M	<0.36	<0.51	<0.58	<0.26	<0.65	<0.51	<0.5	<0.56	<2.9 V	1.2	<0.51	<0.42	<0.5	<0.37	0.65	<0.32
	3/22/2008 Dup	2.3	<1.6	--	--	--	--	--	<0.95	<0.019	<0.51	<0.75	13 M	<0.35	<0.5	<0.57	<0.26	<0.63	<0.5	<0.49	<0.55	<2.8 V	1.2	<0.5	<0.4	<0.49	<0.36	0.73	<0.31
IBM-50	1998 Feb	2.7	--	--	--	--	--	--	--	ND	--	--	17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--
	1998 Mar	2.5	--	--	--	--	--	--	--	ND	--	--	7.9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.1	--
	1998 Apr	2.6	--	--	--	--	--	--	--	ND	--	--	5.7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	--
	1998 2ndQ	2.1	--	--	--	--	--	--	--	ND	--	--	66	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.1	--
	1998 3rdQ	3	--	--	--	--	--	--	--	ND	--	--	15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.6	--
	1998 4thQ	2.8	--	--	--	--	--	--	--	ND	--	--	25	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.1**	--
	1999 1stQ	2.9	--	--	--	--	--	--	--	ND	--	--	110	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.1**	--
	1999 2ndQ	2.3	--	--	--	--	--	--	--	ND	--	--	24	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.2	--
	1999 3rdQ	1.8	--	--	--	--	--	--	--	ND	--	--	20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**16**	--
	1999 4thQ	2.2	--	--	--	--	--	--	--	ND	--	--	35	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--
	2000 1stQ	1.7	--	--	--	--	--	--	--	ND	--	--	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	--
	2000 2ndQ	2	--	--	--	--	--	--	--	ND	--	--	23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	--
	2000 3rdQ	2.6	--	--	--	--	--	--	--	ND	--	--	13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--
	2000 4thQ	3	--	--	--	--	--	--	--	ND	--	--	22	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.6**	--
	2001 2ndQ	2.1	--	--	--	--	--	--	--	ND	--	--	13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	--
	2001 4thQ	2.2	--	--	--	--	--	--	--	ND	--	--	25	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	--
	2002 2ndQ	1.8	--	--	--	--	--	--	--	ND	--	--	13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.95	--

TABLE 3

SUMMARY OF ANALYTIC DATA FOR IN-BUSINESS AND AMBIENT AIR SAMPLE LOCATIONS
1998 THROUGH 2008
WASTE DISPOSAL, INC. SUPERFUND SITE

		Analytical Methods, Constituents and Results																					
		EPA Method TO-15																					
Sample Location	Sample Event Date	1,2-Dichloropropane	Bromodichloro-methane	Trichloroethene	cis-1,3-Dichloropropene	4-Methyl-2-pentanone	trans-1,3-Dichloropropene	1,1,2-Trichloroethane	Toluene	2-Hexanone	Dibromochloro-methane	1,2-Dibromoethane	Tetrachloroethene	Chlorobenzene	Ethylbenzene	m- & p-Xylene	Bromoform	Styrene	o-Xylene	1,1,2,2-Tetrachloroethane	1,3-Dichlorobenzene	1,4-Dichlorobenzene	1,2-Dichlorobenzene
		ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv
IBM-37	12/18/2005	<1.6 UJ2,(1)	<1.1 UJ2,(1)	<1.3 UJ2,UJ9,(1)	<1.6 UJ2,(1)	<1.8 UJ2,(1)	<1.6 UJ2,(1)	<1.3 UJ2,(1)	80 J2,(1)	<1.8 UJ2,(1)	<0.85 UJ2,(1)	**<0.94 UJ2,UJ9,(1)**	**750 J2,(1)**	<1.6 UJ2,(1)	<1.7 UJ2,(1)	4.7 J2,(1)	<0.70 UJ2,(1)	<1.7 UJ2,(1)	<1.7 UJ2,(1)	<1.0 UJ2,(1)	<1.2 UJ2,(1)	<1.2 UJ2,(1)	<1.2 UJ2,(1)
	1/17/2006	<1.7 (1)	<1.1 (1)	<1.4 UJ9,(1)	<1.7 (1)	<1.9 (1)	<1.7 (1)	<1.4 (1)	130 (1)	<1.9 (1)	<0.90 (1)	**0.34 (1)**	**510 (1)**	<1.7 (1)	<1.8 (1)	5.4 (1)	<0.75 (1)	<1.8 (1)	2 (1)	<1.1 (1)	<1.3 (1)	<1.3 (1)	<1.3 (1)
	2/2/2007	<0.74 (1)	<0.51 (1)	<0.63 UJ9,(1)	<0.75 (1)	<0.83 (1)	<0.75 (1)	<0.62 (1)	8.4 (1)	<0.83 (1)	<0.40 (1)	0.0042 (1)	**32 (1)**	<0.74 (1)	<0.78 (1)	3.3 (1)	<0.33 (1)	<0.80 (1)	0.95 (1)	<0.50 (1)	<0.57 (1)	<0.57 (1)	<0.57 (1)
	2/2/2007 Dup	<0.74 (1)	<0.51 (1)	<0.63 UJ9,(1)	<0.75 (1)	<0.83 (1)	<0.75 (1)	<0.62 (1)	8.6 (1)	<0.83 (1)	<0.40 (1)	0.0044 (1)	**32 (1)**	<0.74 (1)	<0.78 (1)	3.3 (1)	<0.33 (1)	<0.80 (1)	1 (1)	<0.50 (1)	<0.57 (1)	<0.57 (1)	<0.57 (1)
	3/7/2007	<0.35 (1)	<0.24 (1)	<0.30 (1)	<0.36 (1)	0.47 (1)	<0.36 (1)	<0.30 (1)	21 (1)	<0.40 (1)	<0.19 (1)	**<0.076 UJ9,(1)**	**170 (1)**	<0.35 (1)	1.9 (1)	9.7 (1)	<0.16 (1)	0.42 (1)	3 (1)	<0.24 (1)	<0.27 (1)	<0.27 (1)	<0.27 (1)
	6/13/2007	**<2.2 UJ9,(1)**	<1.5 (1)	**<1.9 UJ9,(1)**	<2.2 (1)	<2.5 (1)	<2.2 (1)	<1.8 (1)	21 (1)	<2.5 (1)	<1.2 (1)	**<0.49 UJ9,(1)**	**200 (1)**	<2.2 (1)	<2.3 (1)	11 (1)	<0.97 (1)	<2.4 (1)	3.3 (1)	<1.5 (1)	<1.7 (1)	<1.7 (1)	<1.7 (1)
	9/19/2007	<1.4 (1)	<1.0 (1)	**<1.2 UJ9,(1)**	<1.5 (1)	<1.6 (1)	<1.5 (1)	<1.2 (1)	9 (1)	<1.6 (1)	<0.78 (1)	<0.0054 (1)	**54 (1)**	<1.5 (1)	<1.5 (1)	5.1 (1)	<0.65 (1)	<1.6 (1)	1.7 (1)	<0.97 (1)	<1.1 (1)	<1.1 (1)	<1.1 (1)
	3/22/2008	<0.38	<0.26	<0.32	<0.38	0.58	<0.38	<0.32	19	<0.43	<0.2	<0.0079	10	<0.38	2.3	9.6	<0.17	1.4	2.5	<0.25	<0.29	<0.29	<0.29
	3/22/2008 Dup	<0.43	<0.3	<0.37	<0.44	0.54	<0.44	<0.36	21	<0.48	<0.23	<0.0086	10	<0.43	2.3	9.8	<0.19	1.5	2.6	<0.29	<0.33	<0.33	<0.33
IBM-41	1998 Feb	--	--	ND	--	--	--	--	64	--	--	--	3	--	6	24	--	--	--	--	--	--	--
	1998 Mar	--	--	ND	--	--	--	--	ND	--	--	--	ND	--	ND	ND	--	--	--	--	--	--	--
	1998 Apr	--	--	ND	--	--	--	--	34	--	--	--	ND	--	3.2	12	--	--	--	--	--	--	--
	1998 2ndQ	--	--	ND	--	--	--	--	48	--	--	--	ND	--	6.3	23	--	--	--	--	--	--	--
	1998 3rdQ	--	--	ND	--	--	--	--	34	--	--	--	1.4	--	4.8	17	--	--	--	--	--	--	--
	1998 4thQ	--	--	ND	--	--	--	--	52	--	--	--	**11**	--	4.6	17	--	--	--	--	--	--	--
	1999 1stQ	--	--	ND	--	--	--	--	91	--	--	--	**22**	--	5.1	20	--	--	--	--	--	--	--
	1999 2ndQ	--	--	ND	--	--	--	--	61	--	--	--	**34**	--	8.2	32	--	--	--	--	--	--	--
	1999 3rdQ	--	--	ND	--	--	--	--	180	--	--	--	ND	--	6.3	32	--	--	--	--	--	--	--
	1999 4thQ	--	--	ND	--	--	--	--	140	--	--	--	ND	--	5.9	22	--	--	--	--	--	--	--
	2000 1stQ	--	--	ND	--	--	--	--	30	--	--	--	ND	--	2.9	12	--	--	--	--	--	--	--
	2000 2ndQ	--	--	ND	--	--	--	--	24	--	--	--	ND	--	3.4	13	--	--	--	--	--	--	--
	2000 3rdQ	--	--	ND	--	--	--	--	28	--	--	--	ND	--	2.7	11	--	--	--	--	--	--	--
	2000 4thQ	--	--	ND	--	--	--	--	44	--	--	--	2.1	--	6.2	23	--	--	--	--	--	--	--
	2001 2ndQ	--	--	ND	--	--	--	--	22	--	--	--	ND	--	3.3	13	--	--	--	--	--	--	--
	2001 4thQ	--	--	ND	--	--	--	--	88	--	--	--	ND	--	3.9	16	--	--	--	--	--	--	--
	2003 2ndQ	--	--	ND	--	--	--	--	19	--	--	--	ND	--	2.2	8.3	--	--	--	--	--	--	--
	2003 4thQ	<1.0	<0.72	**<0.89**	<1.1	<1.2	<1.1	<0.88	75	<1.2	<0.56	**<0.62 UJ9**	<0.71	<1.0	8.3	31	<0.46	<1.1	12	<0.70	<0.80	<0.80	<0.80
	12/17/2005	<1.5 UJ2,(1)	<1.1 UJ2,(1)	**<1.3 UJ2,UJ9,(1)**	<1.6 UJ2,(1)	<1.7 UJ2,(1)	<1.6 UJ2,(1)	<1.3 UJ2,(1)	180 J2,(1)	<1.7 UJ2,(1)	<0.83 UJ2,(1)	**<0.92 UJ2,UJ9,(1)**	<1.0 UJ2,(1)	<1.5 UJ2,(1)	4.8 J2,(1)	20 J2,(1)	<0.69 UJ2,(1)	<1.7 UJ2,(1)	7.0 J2,(1)	<1.0 UJ2,(1)	<1.2 UJ2,(1)	<1.2 UJ2,(1)	<1.2 UJ2,(1)
	1/15/2006	<1.6 UJ2,(1)	<1.1 UJ2,(1)	**6.2 J2,(1)**	<1.6 UJ2,(1)	<1.8 UJ2,(1)	<1.6 UJ2,(1)	<1.3 UJ2,(1)	**270 J2,(1)**	<1.8 UJ2,(1)	<0.86 UJ2,(1)	<0.048 UJ2,(1)	1.2 J2,(1)	<1.6 UJ2,(1)	4.1 J2,(1)	15 J2,(1)	<0.71 UJ2,(1)	<1.7 UJ2,(1)	5.1 J2,(1)	<1.1 UJ2,(1)	<1.2 UJ2,(1)	3.6 J2,(1)	<1.2 UJ2,(1)
	12/6/2006	<3.3 (1)	<2.3 (1)	**<2.8 UJ9,(1)**	<3.3 (1)	<3.7 (1)	<3.3 (1)	<2.8 (1)	23 (1)	<3.7 (1)	<1.8 (1)	**<0.25 UJ9,(1)**	5.1 (1)	<3.3 (1)	3.5 (1)	17 (1)	<1.5 (1)	<3.6 (1)	5.2 (1)	<2.2 (1)	<2.5 (1)	7.8 (1)	<2.5 (1)
	3/4/2007	<0.30 (1)	<0.21 (1)	0.36 (1)	<0.31 (1)	<0.34 (1)	<0.31 (1)	<0.26 (1)	15 (1)	<0.34 (1)	<0.16 (1)	<0.0046 (1)	3 (1)	<0.30 (1)	3.2 (1)	15 (1)	<0.14 (1)	<0.33 (1)	5.1 (1)	<0.20 (1)	<0.23 (1)	1.3 (1)	<0.23 (1)
	3/4/2007 Dup	<0.31 (1)	<0.22 (1)	0.39 (1)	<0.32 (1)	<0.35 (1)	<0.32 (1)	<0.26 (1)	15 (1)	<0.35 (1)	<0.17 (1)	<0.0047 (1)	3.1 (1)	<0.31 (1)	3.1 (1)	9.2 (1)	<0.14 (1)	<0.34 (1)	4 (1)	<0.21 (1)	<0.24 (1)	1.3 (1)	<0.24 (1)
	6/10/2007	**<6.5 UJ9,(1)**	<4.4 (1)	**<5.5 UJ9,(1)**	<6.6 (1)	<7.3 (1)	<6.6 (1)	<5.5 (1)	**690 (1)**	<7.3 V,(1)	<3.5 (1)	**<0.12 UJ9,(1)**	<4.4 (1)	<6.5 (1)	<6.9 (1)	11 (1)	<2.9 (1)	<7.0 (1)	<6.9 (1)	<4.3 (1)	<5.0 (1)	<5.0 (1)	<5.0 (1)
	9/16/2007	<0.39 (1)	<0.27 (1)	0.52 (1)	<0.40 (1)	0.51 (1)	<0.40 (1)	<0.33 (1)	22 (1)	<0.44 (1)	<0.21 (1)	<0.0059 UJ9,(1)	1.3 (1)	<0.40 (1)	1.7 (1)	7.5 (1)	<0.18 (1)	0.54 (1)	2.3 (1)	<0.27 (1)	<0.30 (1)	<0.30 (1)	<0.30 (1)
	1/11/2008	<0.32	<0.22	0.43	<0.33	0.41	<0.33	<0.27	130	<0.36	<0.17	<0.032	1.6	<0.32	3.4	14	<0.14	0.63	4.7	<0.22	<0.25	<0.25	<0.25
	3/30/2008	**<7.6**	<5.2	**<6.5**	<7.7	<8.5	<7.7	<6.4	140	<8.5	<4.1	**<0.091**	<5.2	<7.6	<8.1	19	<3.4	<8.2	<8.1	<5.1	<5.8	<5.8	<5.8
	3/30/2008 Dup	**<7.3**	<5.1	**<6.3**	<7.5	<8.3	<7.5	<6.2	150	<8.3	<4	<0.059	<5	<7.4	<7.8	19	<3.3	<8	<7.8	<4.9	<5.6	<5.6	<5.6
IBM-42	9/16/2007	<0.35 (1)	<0.24 (1)	<0.30 (1)	<0.35 (1)	0.55 (1)	<0.35 (1)	<0.29 (1)	15 (1)	<0.39 (1)	<0.19 (1)	<0.0052 (1)	<0.24 (1)	<0.35 (1)	3.6 (1)	14 (1)	<0.15 (1)	<0.38 (1)	4.4 (1)	<0.23 (1)	<0.27 (1)	<0.27 (1)	<0.27 (1)
IBM-43	9/29/2007	<0.33 (1)	<0.23 (1)	<0.29 (1)	<0.34 (1)	<0.38 (1)	<0.34 (1)	<0.28 (1)	1.5 (1)	<0.38 (1)	<0.18 (1)	<0.0050 (1)	0.24 (1)	<0.33 (1)	0.82 (1)	3.7 (1)	<0.15 (1)	<0.36 (1)	0.89 (1)	<0.22 (1)	<0.26 (1)	<0.26 (1)	<0.26 (1)
	9/29/2007 Dup	<0.33 (1)	<0.23 (1)	<0.28 (1)	<0.34 (1)	<0.37 (1)	<0.34 (1)	<0.28 (1)	1.5 (1)	<0.37 (1)	<0.18 (1)	<0.0050 (1)	0.23 (1)	<0.33 (1)	0.83 (1)	3.6 (1)	<0.15 (1)	<0.36 (1)	0.89 (1)	<0.22 (1)	<0.25 (1)	<0.25 (1)	<0.25 (1)
IBM-44	9/16/2007	<1.3 (1)	<0.87 (1)	**<1.1 (1)**	<1.3 (1)	<1.4 (1)	<1.3 (1)	<1.1 (1)	110 (1)	<1.4 (1)	<0.68 (1)	**<0.27,(1)**	<0.86 (1)	<1.3 (1)	6.8 (1)	34 (1)	<0.56 (1)	<1.4 (1)	12 (1)	<0.85 (1)	<0.97 (1)	<0.97 (1)	<0.97 (1)
IBM-49AMB	1998 Feb	--	--	ND	--	--	--	--	**6700**	--	--	--	ND	--	**1000**	**2900**	--	--	--	--	--	--	--
	1998 Mar	--	--	ND	--	--	--	--	4.9	--	--	--	ND	--	ND	1.9	--	--	--	--	--	--	--
	1998 Apr	--	--	ND	--	--	--	--	2.9	--	--	--	1.1	--	ND	1.3	--	--	--	--	--	--	--
	1998 2ndQ	--	--	ND	--	--	--	--	4.2	--	--	--	ND	--	ND	1.6	--	--	--	--	--	--	--
	1998 3rdQ	--	--	ND	--	--	--	--	3.7	--	--	--	ND	--	ND	3	--	--	--	--	--	--	--
	1998 4thQ	--	--	ND	--	--	--	--	3.1	--	--	--	ND	--	ND	1.8	--	--	--	--	--	--	--
	1999 1stQ	--	--	ND	--	--	--	--	5.2	--	--	--	1.7	--	ND	2.5	--	--	--	--	--	--	--
	1999 2ndQ	--	--	ND	--	--	--	--	2.7	--	--	--	ND	--	ND	1.5	--	--	--	--	--	--	--
	1999 3rdQ	--	--	ND	--	--	--	--	4	--	--	--	ND	--	ND	3	--	--	--	--	--	--	--
	1999 4thQ	--	--	ND	--	--	--	--	3	--	--	--	ND	--	ND	1.6	--	--	--	--	--	--	--
	2000 1stQ	--	--	ND	--	--	--	--	2.4	--	--	--	ND	--	ND	1.5	--	--	--	--	--	--	--
	2000 2ndQ	--	--	ND	--	--	--	--	1.6	--	--	--	ND	--	ND	0.88	--	--	--	--	--	--	--
	2000 3rdQ	--	--	ND	--	--	--	--	3.1	--	--	--	ND	--	ND	0.85	--	--	--	--	--	--	--
	2000 4thQ	--	--	ND	--	--	--	--	6.9	--	--	--	0.7	--	0.92	3.3	--	--	--	--	--	--	--
	2001 2ndQ	--	--	ND	--	--	--	--	ND	--	--	--	ND	--	ND	ND	--	--	--	--	--	--	--
	12/17/2005	<0.32 UJ2,(2)	<0.22 UJ2,(2)	<0.28 UJ2,(2)	<0.33 UJ2,(2)	<0.37 UJ2,(2)	<0.33 UJ2,(2)	<0.28 UJ2,(2)	1.6 J2,(2)	<0.37 UJ2,(2)	<0.18 UJ2,(2)	**<0.20 UJ2,UJ9,(2)**	<0.22 UJ2,(2)	<0.33 UJ2,(2)	<0.35 UJ2,(2)	0.90 J2,(2)	<0.15 UJ2,(2)	<0.35 UJ2,(2)	<0.35 UJ2,(2)	<0.22 UJ2,(2)	<0.25 UJ2,(2)	<0.25 UJ2,(2)	<0.25 UJ2,(2)
	1/15/2006	<0.30 (2)	<0.21 (2)	**6.8 (2)**	<0.31 (2)	<0.34 (2)	<0.31 (2)	<0.26 (2)	4.8 (2)	<0.34 (2)	<0.16 (2)	<0.0046 (2)	<0.21 (2)	<0.30 (2)	0.39 (2)	1.4 (2)	<0.14 (2)	0.37 (2)	0.49 (2)	<0.20 (2)	<0.23 (2)	<0.23 (2)	<0.23 (2)
	12/6/2006	<0.32 (2)	<0.22 (2)	<0.27 (2)	<0.32 (2)	<0.36 (2)	<0.32 (2)	<0.27 (2)	5 (2)	<0.36 (2)	<0.17 (2)	<0.0048 (2)	<0.22 (2)	<0.32 (2)	0.7 (2)	3.1 (2)	<0.14 (2)	<0.35 (2)	1 (2)	<0.21 (2)	<0.24 (2)	<0.24 (2)	<0.24 (2)
	3/11/2007	<0.36 (2)	<0.25 (2)	<0.31 (2)	<0.36 (2)	<0.40 (2)	<0.36 (2)	<0.30 (2)	3.7 (2)	<0.40 (2)	<0.19 (2)	<0.0054 (2)	<0.24 (2)	<0.36 (2)	0.48 (2)	1.9 (2)	<0.16 (2)	<0.39 (2)	0.67 (2)	<0.24 (2)	<0.27 (2)	<0.27 (2)	<0.27 (2)
	3/11/2007 Dup	<0.34 (2)	<0.24 (2)	<0.29 (2)	<0.35 (2)	<0.39 (2)	<0.35 (2)	<0.29 (2)	3.8 (2)	<0.39 (2)	<0.19 (2)	<0.0051 (2)	0.25 (2)	<0.34 (2)	0.47 (2)	1.9 (2)	<0.15 (2)	<0.37 (2)	0.66 (2)	<0.23 (2)	<0.26 (2)	<0.26 (2)	<0.26 (2)
	6/10/2007	<0.29 (2)	<0.20 (2)	<0.25 (2)	<0.29 (2)	<0.32 (2)	<0.29 (2)	<0.24 (2)	1.1 (2)	<0.32 V,(2)	<0.16 (2)	<0.0043 (2)	<0.20 (2)	<0.29 (2)	<0.31 (2)	0.37 (2)	<0.13 (2)	<0.31 (2)	<0.31 (2)	<0.19 (2)	<0.22 (2)	<0.22 (2)	<0.22 (2)
	9/16/2007	<0.32 (2)	<0.22 (2)	<0.27 (2)	<0.32 (2)	<0.36 (2)	<0.32 (2)	<0.27 (2)	1.8 (2)	<0.36 (2)	<0.17 (2)	<0.0048 (2)	<0.22 (2)	<0.32 (2)	<0.34 (2)	1.1 (2)	<0.14 (2)	<0.35 (2)	0.39 (2)	<0.21 (2)	<0.24 (2)	<0.24 (2)	<0.24 (2)
	9/16/2007 Dup	<0.37 (2)	<0.25 (2)	<0.31 (2)	<0.37 (2)	<0.41 (2)	<0.37 (2)	<0.31 (2)	1.8 (2)	<0.41 (2)	<0.20 (2)	<0.0055 (2)	<0.25 (2)	<0.37 (2)	<0.39 (2)	1.1 (2)	<0.16 (2)	<0.40 (2)	<0.39 (2)	<0.25 (2)	<0.28 (2)	<0.28 (2)	<0.28 (2)
	1/11/2008	<0.31	<0.21	<0.26	<0.31	<0.34	<0.31	<0.26	6	<0.34	<0.17	<0.0046	0.25	<0.31	0.74	3	<0.14	0.35	1	<0.21	<0.23	<0.23	<0.23
	3/22/2008	<0.44	<0.3	<0.38	<0.45	<0.49	<0.45	<0.37	2.8	<0.5	<0.24	<0.0066	<0.3	<0.44	<0.47	1.5	<0.2	<0.48	0.52	<0.3	<0.34	<0.34	<0.34
	3/22/2008 Dup	<0.43	<0.29	<0.37	<0.43	<0.48	<0.43	<0.36	2.9	<0.48	<0.23	<0.0064	<0.29	<0.43	<0.45	1.6	<0.19	<0.46	0.55	<0.29	<0.33	<0.33	<0.33
IBM-50	1998 Feb	--	--	ND	--	--	--	--	3.8	--	--	--	0.67	--	ND	1.4	--	--	--	--	--	--	--
	1998 Mar	--	--	ND	--	--	--	--	3.9	--	--	--	ND	--	ND	1.4	--	--	--	--	--	--	--
	1998 Apr	--	--	ND	--	--	--	--	2.7	--	--	--	ND	--	0.7	2.5	--	--	--	--	--	--	--
	1998 2ndQ	--	--	ND	--	--	--	--	3.9	--	--	--	ND	--	ND	1.4	--	--	--	--	--	--	--
	1998 3rdQ	--	--	ND	--	--	--	--	5.3	--	--	--	ND	--	ND	1.8	--	--	--	--	--	--	--
	1998 4thQ	--	--	ND	--	--	--	--	8	--	--	--	ND	--	2.5	11	--	--	--	--	--	--	--
	1999 1stQ	--	--	ND	--	--	--	--	6.2	--	--	--	ND	--	1.1	4.4	--	--	--	--	--	--	--
	1999 2ndQ	--	--	ND	--	--	--	--	2.6	--	--	--	ND	--	ND	1.1	--	--	--	--	--	--	--
	1999 3rdQ	--	--	ND	--	--	--	--	5.7	--	--	--	ND	--	ND	1.6	--	--	--	--	--	--	--
	1999 4thQ	--	--	ND	--	--	--	--	2.8	--	--	--	ND	--	ND	1.7	--	--	--	--	--	--	--
	2000 1stQ	--	--	ND	--	--	--	--	2.5	--	--	--	ND	--	ND	1.1	--	--	--	--	--	--	--
	2000 2ndQ	--	--	ND	--	--	--	--	5.4	--	--	--	ND	--	1.1	4.7	--	--	--	--	--	--	--
	2000 3rdQ	--	--	ND	--	--	--	--	2.6	--	--	--	ND	--	ND	0.7	--	--	--	--	--	--	--
	2000 4thQ	--	--	ND	--	--	--	--	9.2	--	--	--	0.74	--	3.9	20	--	--	--	--	--	--	--
	2001 2ndQ	--	--	ND	--	--	--	--	10	--	--	--	ND	--	ND	ND	--	--	--	--	--	--	--
	2001 4thQ	--	--	ND	--	--	--	--	2.6	--	--	--	ND	--	ND	1.5	--	--	--	--	--	--	--
	2002 2ndQ	--	--	ND	--	--	--	--	3.3	--	--	--	ND	--	0.65	2.4	--	--	--	--	--	--	--

TABLE 3

SUMMARY OF ANALYTIC DATA FOR IN-BUSINESS AND AMBIENT AIR SAMPLE LOCATIONS
1998 THROUGH 2008
WASTE DISPOSAL, INC. SUPERFUND SITE

		Analytical Methods, Constituents and Results																									
		EPA Method 25C		EPA Method 3C					EPA Method TO-15																		
Sample Location	Sample Event Date	Methane	Total Gaseous Nonmethane Organics (TGNMO) as Methane	Hydrogen	Oxygen + Argon *	Nitrogen	Carbon Monoxide	Carbon Dioxide	Chloromethane	Vinyl Chloride	Bromomethane	Chloroethane	Acetone	Trichlorofluoro-methane	1,1-Dichloroethene	Methylene Chloride	Trichloro-trifluoroethane	Carbon Disulfide	trans-1,2-Dichloroethene	1,1-Dichloroethane	Methyl tert-Butyl Ether	Vinyl Acetate	2-Butanone (MEK)	cis-1,2-Dichloroethene	Chloroform	1,2-Dichloroethane	1,1,1-Trichloroethane	Benzene	Carbon Tetrachloride
		ppmv	ppmv	(%, v/v)	(%, v/v)	(%, v/v)	(%, v/v)	(%, v/v)	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv
IBM-50	2002 4thQ	3.5	<1.5	--	--	--	--	--	<2.9	**<2.3 UJ9**	<1.5	<2.2	22	<1.1	<1.5	<1.7	<0.77	<1.9	<1.5	<1.5	5.7	<1.7	<2.0	<1.5	<1.2	<1.5	<1.1	**2**	**<0.94 UJ9**
	2003 4thQ	2.5	<1.6	--	--	--	--	--	<3.0	**<2.4 UJ9**	<1.6	<2.4	18	<1.1	<1.6	<1.9	<0.81	<2.0	<1.6	<1.5	<1.7	<1.8	<2.1	<1.6	<1.3	<1.5	<1.1	<2.0	**0.99**
	12/23/2005	3.1 (1)	35 (1)	<0.18 (1)	21.9 (1)	78.1 (1)	<0.18 (1)	<0.18 (1)	<0.89 UJ2,(1)	**<0.72 UJ2,UJ9,(1)**	<0.47 UJ2,(1)	<0.70 UJ2,(1)	20 M,J2,J6,(1)	<0.33 UJ2,(1)	<0.46 UJ2,(1)	1.2 J2,(1)	<0.24 UJ2,(1)	<0.59 UJ2,(1)	<0.46 UJ2,(1)	<0.45 UJ2,(1)	<0.51 UJ2,(1)	<0.52 UJ2,(1)	3.5 J2,(1)	<0.46 UJ2,(1)	<0.38 UJ2,(1)	<0.45 UJ2,(1)	<0.34 UJ2,(1)	**2.4 J2,(1)**	<0.29 UJ2,(1)
	1/15/2006	2.7 (1)	<1.8 (1)	<0.18 (1)	21.9 (1)	78.1 (1)	<0.18 (1)	<0.18 (1)	<0.87 (1)	<0.018 (1)	<0.46 (1)	<0.68 (1)	32 (1)	<0.32 (1)	<0.45 (1)	<0.52 (1)	<0.23 (1)	<0.58 (1)	<0.45 (1)	<0.44 (1)	<0.5 (1)	<0.51 (1)	1.8 (1)	<0.45 (1)	<0.37 (1)	<0.44 (1)	<0.33 (1)	0.95 (1)	<0.29 (1)
	12/10/2006	1.7 (1)	17 (1)	<0.17 (1)	22.1 (1)	77.8 (1)	<0.17 (1)	<0.17 (1)	<3.2 (1)	<0.065 (1)	<1.7 (1)	<2.5 (1)	<14 (1)	<1.2 (1)	<1.7 (1)	<1.9 (1)	<0.87 (1)	<2.1 (1)	<1.7 (1)	<1.6 (1)	<1.8 (1)	<1.9 (1)	2.6 (1)	<1.7 (1)	<1.4 (1)	<1.6 (1)	<1.2 (1)	**<2.1 UJ9,(1)**	**<1.1 UJ9,(1)**
	12/10/2006 Dup	1.9 (1)	15 (1)	<0.15 (1)	22.2 (1)	77.7 (1)	<0.15 (1)	<0.15 (1)	<0.74 (1)	<0.060 (1)	<0.39 (1)	<0.58 (1)	20 M,(1)	<0.27 (1)	<0.39 (1)	<0.44 (1)	<0.20 (1)	<0.49 (1)	<0.39 (1)	<0.38 (1)	<0.42 (1)	2 (1)	3.3 (1)	<0.39 (1)	<0.31 (1)	<0.38 (1)	<0.28 (1)	0.85 (1)	**<0.24,(1)**
	3/11/2007	3.1 (1)	68 (1)	<0.16 (1)	22.2 (1)	77.7 (1)	<0.16 (1)	<0.16 (1)	<0.79 (1)	<0.016 (1)	<0.42 (1)	<0.62 (1)	15 M,(1)	<0.29 (1)	<0.41 (1)	0.51 (1)	<0.21 (1)	<0.53 (1)	<0.41 (1)	<0.41 (1)	<0.46 (1)	<0.47 (1)	4.6 (1)	<0.41 (1)	<0.34 (1)	<0.41 (1)	<0.30 (1)	1.1 (1)	<0.26 (1)
	3/11/2007 Dup	3.3 (1)	67 (1)	<0.18 (1)	22.2 (1)	77.7 (1)	<0.18 (1)	<0.18 (1)	<0.86 (1)	<0.017 (1)	<0.46 (1)	<0.67 (1)	15 M,(1)	<0.32 (1)	<0.45 (1)	<0.51 (1)	<0.23 (1)	<0.57 (1)	<0.45 (1)	<0.44 (1)	<0.49 (1)	<0.50 (1)	4.8 (1)	<0.45 (1)	<0.36 (1)	<0.44 (1)	<0.32 (1)	1.1 (1)	<0.28 (1)
	6/10/2007	2 (1)	<1.9 (1)	--	--	--	--	--	<0.93 (1)	<0.019 (1)	<0.49 (1)	<0.73 (1)	6.7 M, V,(1)	<0.34 (1)	<0.48 (1)	<0.55 (1)	<0.25 (1)	<0.62 (1)	<0.48 (1)	<0.47 (1)	<0.53 (1)	1 (1)	1.1 (1)	<0.48 (1)	<0.39 (1)	<0.47 (1)	<0.35 (1)	<0.60 (1)	<0.31 (1)
	9/23/2007	1.9 (1)	<1.9 (1)	--	--	--	--	--	<0.90 V,(1)	<0.018 (1)	<0.48 (1)	<0.70 (1)	11 (1)	<0.33 (1)	<0.47 (1)	<0.53 (1)	<0.24 (1)	<0.59 (1)	<0.47 (1)	<0.46 (1)	<0.51 (1)	<2.6 (1)	1.2 (1)	<0.47 (1)	<0.38 (1)	<0.46 (1)	<0.34 (1)	<0.58 (1)	<0.29 (1)
	1/12/2008	3.7	<1.5	--	--	--	--	--	<0.73	<0.015	<0.39	<0.57	15	0.31	<0.38	0.88	<0.2	<0.48	<0.38	<0.37	<0.42	<2.1	2.2	<0.38	<0.31	<0.37	<0.28	1.6	<0.24
	3/22/2008	2.4	<1.6	--	--	--	--	--	<0.95	<0.019	<0.51	<0.75	15 M	<0.35	<0.5	<0.57	<0.26	<0.63	<0.5	<0.49	<0.55	<2.8 V	1.4	<0.5	<0.4	<0.49	<0.36	0.62	<0.31
AMB PARCEL 51	2001 1stQ	2.4	2.9	--	--	--	--	--	<1.9	**<1.6 UJ9**	<1.0	<1.5	<17	<0.74	<1.0	<1.2	<0.52	<1.3	<1.0	<1.0	<1.1	<1.1	<1.4	<1.0	<0.82	<0.99	<0.73	<1.3	<0.64
	2002 2ndQ	2.2	--	--	--	--	--	--	--	ND	--	--	13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.95	--
	2002 4thQ	3.7	<1.3	--	--	--	--	--	<2.6	**<2.1 UJ9**	<1.4	<2.0	13	<0.94	<1.3	<1.5	<0.69	<1.7	<1.3	<1.3	6.3	<1.5	<1.8	<1.3	<1.1	<1.3	<0.97	**2**	**<0.84**
	2003 2ndQ	1.9	--	--	--	--	--	--	--	ND	--	--	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	--
	2003 4thQ	2.2	<1.5	--	--	--	--	--	<3.0	**<2.4 UJ9**	<2.0	<2.3	<13	<1.1	<1.6	<1.8	<0.80	<2.0	<1.6	<1.5	<1.7	<1.8	<2.1	<1.6	<1.3	<1.5	<1.1	<1.9	**<0.98 UJ9**

Notes:
(1) Results compared to Indoor Air Threshold Levels (IATLs) from the CDM Federal Programs Corporation, Subsurface Gas Contingency Plan, Waste Disposal, Inc. (July 1997). See Table 2-2 for limits.
(2) Results compared to Soil Gas Performance Standards from the EPA, Amended Record of Decision, Waste Disposal, Inc. June 2002. See Table 2-2 for limits.
Results in shaded cells with bold font show concentrations that exceeded the IATLs or Soil Gas Performance Standards.
IBM-37 could not be sampled during the 1st quarter, 07-08 as the property contact indicated they would be doing resin work during the sample period. Sampling resumed in the 2nd quarter 07-08.
ppmv = Parts per million by volume
ppbv = Parts per billion by volume
(%v/v) = Percent by volume
ND = Concentration of the constituent was not detected above the laboratory's reporting limit.
AMB = Ambient air sample
Columbia Analytical Services Data Qualifiers
M = Matrix interference; results may be biased high.
J1 = The analyte was positively identified below the method reporting limit; the associated numerical value is considered estimated.
Veridian Environmental Data Qualifiers ('U' indicates the laboratory result was below the method detection limit)
UJ2 or J2 = Estimated value. Samples analyzed beyond EPA Region 9 holding time of 14 days after sample collection.
UJ3 or J3 = Estimated value. Container failed leak check process.
UJ4 or J4 = Estimated value. Low recoveries (<80%) were observed for one or more volatile surrogate compounds.
J5 = Estimated value. High recoveries (>120%) were observed for one or more volatile surrogate compounds.
J6 = Estimated value. Results may be lower than reported due to matrix interference.
J7 = Estimated value. High recovery (>113%) was observed for this compound (methane) in the associated laboratory control sample analysis
UJ8 or J8 = Significant discrepancies observed between field duplicate pair sample analyses.
UJ10 or J10 = Results may be higher than reported due to high percent differences coupled with decreases in instrument sensitivity in continuing calibration standards.
J13 = Estimated value. High relative standard deviation observed in associated initial calibration.
J15 = Results may be lower than reported due to a high recovery in associated CRQL standard with increases in instrument sensitivity in continuing calibration standards.
TRC Data Qualifiers
UJ9 = Compliance well sample analysis had non-detect result higher than the IATLs or Soil Gas Performance Standards.

TABLE 3

SUMMARY OF ANALYTIC DATA FOR IN-BUSINESS AND AMBIENT AIR SAMPLE LOCATIONS
1998 THROUGH 2008
WASTE DISPOSAL, INC. SUPERFUND SITE

		Analytical Methods, Constituents and Results																					
		EPA Method TO-15																					
Sample Location	Sample Event Date	1,2-Dichloropropane	Bromodichloro-methane	Trichloroethene	cis-1,3-Dichloropropene	4-Methyl-2-pentanone	trans-1,3-Dichloropropene	1,1,2-Trichloroethane	Toluene	2-Hexanone	Dibromochloro-methane	1,2-Dibromoethane	Tetrachloroethene	Chlorobenzene	Ethylbenzene	m- & p-Xylene	Bromoform	Styrene	o-Xylene	1,1,2,2-Tetrachloroethane	1,3-Dichlorobenzene	1,4-Dichlorobenzene	1,2-Dichlorobenzene
		ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv
IBM-50	2002 4thQ	<1.3	<0.88	**<1.1 UJ9**	<1.3	<1.4	<1.3	<1.1	6.4	<1.4	<0.70	**<0.77 UJ9**	<0.87	<1.3	<1.4	2.6	<0.57	<1.4	<1.4	<0.86	<0.99	<0.99	<0.99
	2003 4thQ	<1.4	<0.93	**<1.2 UJ9**	<1.4	<1.5	<1.4	<1.1	5.1	<1.5	<0.73	**<0.81 UJ9**	<0.92	<1.4	<1.4	2.5	<0.60	<1.5	<1.4	<0.91	<1.0	<1.0	<1.0
	12/23/2005	<0.40 UJ2,(1)	<0.27 UJ2,(1)	<0.34 UJ2,(1)	<0.41 UJ2,(1)	<0.45 UJ2,(1)	<0.41 UJ2,(1)	<0.34 UJ2,(1)	8.1 J2,(1)	<0.45 UJ2,(1)	<0.22 UJ2,(1)	**<0.24 UJ2,UJ9,(1)**	0.36 J2,(1)	<0.40 UJ2,(1)	1.2 J2,(1)	4.4 J2,(1)	<0.18 UJ2,(1)	<0.43 UJ2,(1)	1.6 J2,(1)	<0.27 UJ2,(1)	<0.31 UJ2,(1)	<0.31 UJ2,(1)	<0.31 UJ2,(1)
	1/15/2006	<0.39 (1)	<0.27 (1)	**7.4 (1)**	<0.40 (1)	<0.44 (1)	<0.40 (1)	<0.33 (1)	4.9 (1)	<0.44 (1)	<0.21 (1)	0.029 (1)	<0.27 (1)	<0.39 (1)	0.43 (1)	1.6 (1)	<0.17 (1)	<0.42 (1)	0.54 (1)	<0.26 (1)	<0.30 (1)	<0.30 (1)	<0.30 (1)
	12/10/2006	<1.4 (1)	<0.99 (1)	**<1.2 UJ9,(1)**	<1.5 (1)	<1.6 (1)	<1.5 (1)	<1.2 (1)	2.2 (1)	<1.6 (1)	<0.78 (1)	<0.022 (1)	<0.98 (1)	<1.4 (1)	<1.5 (1)	2.8 (1)	<0.64 (1)	<1.6 (1)	<1.5 (1)	<0.97 (1)	<1.1 (1)	<1.1 (1)	<1.1 (1)
	12/10/2006 Dup	<0.33 (1)	<0.23 (1)	**<0.28,(1)**	<0.34 (1)	<0.37 (1)	<0.34 (1)	<0.28 (1)	2.2 (1)	<0.37 (1)	<0.18 (1)	<0.020 (1)	<0.23 (1)	<0.33 (1)	0.7 (1)	3 (1)	<0.15 (1)	<0.36 (1)	1.1 (1)	<0.22 (1)	<0.25 (1)	<0.25 (1)	<0.25 (1)
	3/11/2007	<0.35 (1)	<0.24 (1)	<0.31 (1)	<0.36 (1)	<0.40 (1)	<0.36 (1)	<0.30 (1)	8.1 (1)	<0.40 (1)	<0.19 (1)	<0.0053 (1)	0.26 (1)	<0.36 (1)	0.49 (1)	2 (1)	<0.16 (1)	<0.39 (1)	0.69 (1)	<0.24 (1)	<0.27 (1)	<0.27 (1)	<0.27 (1)
	3/11/2007 Dup	<0.38 (1)	<0.26 (1)	<0.33 (1)	<0.39 (1)	<0.43 (1)	<0.39 (1)	<0.32 (1)	8.5 (1)	<0.43 (1)	<0.21 (1)	<0.0058 (1)	<0.26 (1)	<0.38 (1)	0.5 (1)	2.1 (1)	<0.17 (1)	<0.42 (1)	0.68 (1)	<0.26 (1)	<0.29 (1)	<0.29 (1)	<0.29 (1)
	6/10/2007	<0.42 (1)	<0.29 (1)	<0.36 (1)	<0.42 (1)	<0.47 (1)	<0.42 (1)	<0.35 (1)	0.94 (1)	<0.47 V,(1)	<0.23 (1)	<0.0062 (1)	<0.28 (1)	<0.42 (1)	<0.44 (1)	<0.44 (1)	<0.19 (1)	<0.45 (1)	<0.44 (1)	<0.28 (1)	<0.32 (1)	<0.32 (1)	<0.32 (1)
	9/23/2007	<0.40 (1)	<0.28 (1)	<0.34 (1)	<0.41 (1)	<0.45 (1)	<0.41 (1)	<0.45 (1)	1.8 (1)	<0.45 (1)	<0.22 (1)	<0.0060 (1)	<0.27 (1)	<0.40 (1)	<0.43 (1)	0.97 (1)	<0.18 (1)	<0.43 (1)	<0.43 (1)	<0.27 (1)	<0.31 (1)	0.55 (1)	<0.31 (1)
	1/12/2008	<0.32	<0.22	<0.28	<0.33	<0.37	<0.33	<0.28	4.7	<0.37	<0.18	<0.0049	0.23	<0.33	0.65	2.6	<0.15	<0.35	0.9	<0.22	<0.25	<0.25	<0.25
	3/22/2008	<0.43	<0.29	<0.37	<0.43	<0.48	<0.43	<0.36	2.9	<0.48	<0.23	<0.0064	<0.29	<0.43	<0.45	1.6	<0.19	<0.46	0.59	<0.29	<0.33	<0.33	<0.33
AMB PARCEL 51	2001 1stQ	<0.87	<0.60	**<0.74 UJ9**	<0.88	<0.98	<0.88	<1.5	<1.1	<0.98	<0.47	**<0.52 UJ9**	<0.59	<0.87	<0.92	<0.92	<0.39	<0.94	<0.92	<0.58	<0.67	<0.67	<0.67
	2002 2ndQ	--	--	ND	--	--	--	--	3.4	--	--	--	ND	--	0.46	2.4	--	--	--	--	--	--	--
	2002 4thQ	<1.1	<0.79	**<0.98 UJ9**	<1.2	<1.3	<1.2	<0.97	6.5	<1.3	<0.62	**<0.69 UJ9**	0.78	<1.1	<1.2	2.8	<0.51	<1.2	<1.2	<0.77	<0.88	<0.88	<0.88
	2003 2ndQ	--	--	ND	--	--	--	--	ND	--	--	--	ND	--	ND	ND	--	--	--	--	--	--	--
	2003 4thQ	<1.3	<0.92	**2.2**	<1.4	<1.5	<1.4	<1.1	2.4	<1.5	<0.72	**<0.80 UJ9**	<0.91	<1.3	<1.4	<1.4	<0.60	<1.4	<1.4	<0.90	<1.0	<1.0	<1.0

Notes:
(1) Results compared to Indoor Air Threshold Levels (IATLs) from the CDM Federal Programs Corporation, Subsurface Gas Contingency Plan, Waste Disposal, Inc. (July 1997). See Table 2-2 for limits.
(2) Results compared to Soil Gas Performance Standards from the EPA, Amended Record of Decision, Waste Disposal, Inc. June 2002. See Table 2-2 for limits.
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ppmv = Parts per million by volume
ppbv = Parts per billion by volume
(%v/v) = Percent by volume
ND = Concentration of the constituent was not detected above the laboratory's reporting limit.
AMB = Ambient air sample
Columbia Analytical Services Data Qualifiers
M = Matrix interference; results may be biased high.
J1 = The analyte was positively identified below the method reporting limit; the associated numerical value is considered estimated.
Veridian Environmental Data Qualifiers ('U' indicates the laboratory result was below the method detection limit)
UJ2 or J2 = Estimated value. Samples analyzed beyond EPA Region 9 holding time of 14 days after sample collection.
UJ3 or J3 = Estimated value. Container failed leak check process.
UJ4 or J4 = Estimated value. Low recoveries (<80%) were observed for one or more volatile surrogate compounds.
J5 = Estimated value. High recoveries (>120%) were observed for one or more volatile surrogate compounds.
J6 = Estimated value. Results may be lower than reported due to matrix interference.
J7 = Estimated value. High recovery (>113%) was observed for this compound (methane) in the associated laboratory control sample analysis
UJ8 or J8 = Significant discrepancies observed between field duplicate pair sample analyses.
UJ10 or J10 = Results may be higher than reported due to high percent differences coupled with decreases in instrument sensitivity in continuing calibration standards.
J13 = Estimated value. High relative standard deviation observed in associated initial calibration.
J15 = Results may be lower than reported due to a high recovery in associated CRQL standard with increases in instrument sensitivity in continuing calibration standards.
TRC Data Qualifiers
UJ9 = Compliance well sample analysis had non-detect result higher than the IATLs or Soil Gas Performance Standards.

TABLE 4

SUMMARY OF TYPICAL CHEMICALS IN-USE
IN-BUSINESS AIR MONITORING LOCATIONS
WASTE DISPOSAL, INC. SUPERFUND SITE

SAMPLE LOCATION I.D.	PARCEL NO.	UNIT NO.	TENANT	TENANT ADDRESS	TENNANT ACTIVITY	CHEMICAL PRODUCTS USED WITHIN THE BUILDING FROM EPA INVENTORY(1)	ADDITIONAL CHEMICALS IDENTIFIED OR SUSPECTED DURING IN-BUSINESS AIR MONITORING EVENTS
IBM- 03B	3	2	Precision Sheetmetal	12633 Los Nietos Road	Sheet metal shop-custom sheet metal fabrications-includes equipment to cut and bend sheet metal.	New tenant; data provided on EPA 1999 inventory was for prior tenant.	Lubricating oil and paint.
IBM-03	3	4	Stansil Brothers/Mr. Song	12635 Los Nietos Rd	Prior machine shop. All machinery removed – Tenant is remodeling interior. Future use unknown.	New tenant; data provided on EPA 1999 inventory was for prior tenant.	Building is empty except for trash and saturated oil absorbent on the floor.
IBM-21	21	1	Chillers Services	9620 Santa Fe Springs Rd	Air Conditioning/Demolition Contractor. Activities in shop area include sheet metal fabrication and welding.	Two paint cans manufactured by CalWestern Paints containing benzene were observed. Paint cans containing epoxy reducer, Pro-Line, acetone, Wing Walk Compound X1567, enamel, and wood stain were observed. Gas cylinders containing argon, oxygen, 1,1,1-2-tetrachlorofluoroethane, acetylene, and propane were observed. Aerosol cans containing brake parts cleaner, contact cleaner, adhesive, maintenance paint, WD-40, and lubricant were observed. Paint remover, brake fluid, condenser coil cleaner, anti-spatter welding nozzle dip gel, contact cement, bleach, fiberglass resin, and drums containing R-123 2,2-dichloro-1,1,1-trifluoroethane were observed.	Lubricating oil, paint, oxygen, and acetylene.
IBM-22	22	1	Gold Coast Refractory	9630 Santa Fe Springs Rd	Manufacturer of refractory/industrial heating equipment. Activities include sheet metal fabrication, welding, and painting. Onsite propane storage.	No data was obtained during performance of prior EPA inventory in 1999.	Propane, lubricating oil, paint oxygen, and acetylene.
IBM-24B	24	1	Buffalo Bullet	12637A Los Nietos Rd	Firearm bullet manufacturing – lead rod is cut and stamped to make ball-shaped ammunition.	A list of chemical products used within the building was not available from the staff present at the time of the inspections in 1999.	Propane (forklift fuel), various cleaning solvents (Safety-Kleen, kerosene and naphtha).
IBM-28	28	1	Mersits Equipment	9640 Santa Fe Springs Rd	Heavy equipment repair/maintenance and rental.	The following spray cans were observed: WD-40, yellow paint (containing acetone, propane, mineral spirits), brake fluid (alkylene glycols), Rust-Oleum, Engine Brite (no chlorinated solvents), Fleck Stone Clear Acrylic Topcoat Gel-Gloss Fibergloss.	Lubricating oil, grease, hydraulic fluid, transmission fluid, antifreeze, diesel fuel, gasoline, paint.
IBM-32	32	1	Jack Lainer	12747 Los Nietos Rd	Manufacturer of small injection molded plastic parts.	New tenant; data provided on EPA 1999 inventory was for prior tenant.	Gasoline, used oil, spray paint, lacquer thinner, MEK.
IBM-37	37	1	Richard Stannard	12803 Los Nietos Rd	Auto repair/machine shop – activities include painting, metal machining, cutting and grinding	New tenant; data provided on EPA 1999 inventory was for prior tenant.	Gasoline, lubricating oil, grease, hydraulic fluid, transmission fluid, antifreeze, paint, thinner.
IBM-41	41	9/10	H & H Contractors	12811E Los Nietos Rd/ 12811F Los Nietos Rd	Carpentry/cabinet manufacturing shop – activities include paint, varnish, and lumber storage; wood cutting, assembly, staining and painting.	No data was obtained during performance of prior EPA inventory in 1999.	Paint, wood stain, varnish, shellac, paint thinner, adhesive, gasoline cans.
IBM-50	50	1	Brothers Machine & Tool	9843 S. Greenleaf Ave.	Machine shop; activities include machining metal parts using large turret lathes to rotate pieces.	The chemicals used at the facility include hydraulic oil (Western Basin Soluble Oil) for turret lathe machines and diesel fuel for vehicles. Diesel fuel is stored in one 5-gallon gas can in the north corner of the building. There are three 5-gallon containers of oil stored in plastic buckets inside the building. MSDS was not available for review.	Water based cutting fluids and machine oils, lubricating oil, WD-40, diesel fuel and gasoline.
IBM-24 AMB	24	4	Common Area	12635 Los Nietos Rd	Drive way, tenant parking and material storage.	No data was obtained during performance of prior EPA inventory in 1999.	Lubricating oils, grease, propane, gasoline, diesel fuel.
IBM-49 AMB	49	N/A	Vacant field	9905 Greenleaf Ave	Vacant field	No data was obtained during performance of prior EPA inventory in 1999.	None

(1) Chemical inventory information reported in EPA Subsurface Gas Contingency Plan Investigation Report dated October 15, 1999.

TABLE 5

BENZENE DATA FOR COMPLIANCE VAPOR MONITORING WELLS
WITH ONE OR MORE BENZENE EXCEEDANCES OF SGPS(1)
1998 THROUGH 2008
WASTE DISPOSAL, INC. SUPERFUND SITE

Sample Location	Sample Event Date	EPA Method TO-15
		Benzene
		ppbv
COMPLIANCE VAPOR WELLS		
VW-29-10 (VW-29-S)	1998 1stQ	1.3
	1998 2ndQ	--
	1998 3rdQ	--
	1998 4thQ	--
	1999 1stQ	1.3
	1999 2ndQ	ND
	1999 3rdQ	ND
	1999 4thQ	0.91
	2000 1stQ	ND
	2000 2ndQ	ND
	2000 3rdQ	<1.3
	2000 4thQ	0.85
	12/20/2005	**37 J2,C**
	6/8/2006	0.91
	12/6/2006	0.81
	3/20/2007	**64**
	6/24/2007	**19**
	9/27/2007	**16**
	12/27/2007	4.3
VW-29-23 (VW-29-I)	1998 1stQ	--
	1998 2ndQ	--
	1998 3rdQ	--
	1998 4thQ	--
	1999 1stQ	ND
	1999 2ndQ	ND
	1999 3rdQ	ND
	1999 4thQ	ND
	2000 1stQ	ND
	2000 2ndQ	ND
	2000 3rdQ	<1.3
	2000 4thQ	<1.3
	12/20/2005	**27 J2,C**
	12/6/2006	<0.49
	3/20/2007	9.2
	6/24/2007	**21**
	9/27/2007	**30**
	12/27/2007	1.6

(1) SGPS = Soil Gas Performance Standards. The following wells have had no SGPS benzene exceedances:
VW-30-01
VW-38-10
VW-39-07
(2) Cells with shading exceed SGPS for benzene of 10 ppbv. Cells without shading indicate benzene concentrations below SGPS for benzene.
(3) See page 12 for additional footnotes and data qualifiers.

TABLE 5

BENZENE DATA FOR COMPLIANCE VAPOR MONITORING WELLS
WITH ONE OR MORE BENZENE EXCEEDANCES OF SGPS(1)
1998 THROUGH 2008
WASTE DISPOSAL, INC. SUPERFUND SITE

Sample Location	Sample Event Date	EPA Method TO-15
		Benzene
		ppbv
VW-29-35 (VW-29-D)	1998 1stQ	--
	1998 2ndQ	--
	1998 3rdQ	--
	1998 4thQ	--
	1999 1stQ	ND
	1999 2ndQ	ND
	1999 3rdQ	ND
	1999 4thQ	ND
	2000 1stQ	ND
	2000 2ndQ	ND
	2000 3rdQ	<1.3
	2000 4thQ	1.5
	12/20/2005	**17 J2,C**
	12/6/2006	0.62
	3/20/2007	3.3
	6/24/2007	5.4
	9/27/2007	**37**
	12/27/2007	1.9
VW-30-23 (VW-30-I)	1998 1stQ	ND
	1998 2ndQ	ND
	1998 3rdQ	ND
	1998 4thQ	ND
	1999 1stQ	ND
	1999 2ndQ	ND
	1999 3rdQ	ND
	1999 4thQ	ND
	2000 1stQ	ND
	2000 2ndQ	ND
	2000 3rdQ	<1.3
	2000 4thQ	<1.3
	12/28/2005	9.3 J2,C
	12/21/2006	1.9
	3/22/2007	**15**
	3/22/2007 Dup	**20**
	7/7/2007	2.4
	9/26/2007	**<19 UJ9**
	12/27/2007	6

(1) SGPS = Soil Gas Performance Standards. The following wells have had no SGPS benzene exceedances:
VW-30-01
VW-38-10
VW-39-07
(2) Cells with shading exceed SGPS for benzene of 10 ppbv. Cells without shading indicate benzene concentrations below SGPS for benzene.
(3) See page 12 for additional footnotes and data qualifiers.

TABLE 5

BENZENE DATA FOR COMPLIANCE VAPOR MONITORING WELLS
WITH ONE OR MORE BENZENE EXCEEDANCES OF SGPS(1)
1998 THROUGH 2008
WASTE DISPOSAL, INC. SUPERFUND SITE

Sample Location	Sample Event Date	EPA Method TO-15
		Benzene
		ppbv
VW-30-35 (VW-30-D)	1998 1stQ	ND
	1998 2ndQ	ND
	1998 3rdQ	ND
	1998 4thQ	ND
	1999 1stQ	ND
	1999 2ndQ	ND
	1999 3rdQ	ND
	1999 4thQ	ND
	2000 1stQ	ND
	2000 2ndQ	ND
	2000 3rdQ	<1.3
	2000 4thQ	<1.3
	12/28/2005	6.0 J2,C
	12/21/2006	2.7
	3/22/2007	6.2
	7/7/2007	5.9
	7/7/2007 Dup	8.3
	9/26/2007	**<38 UJ9**
	12/27/2007	<4.4
VW-31-10 (VW-31-S)	1998 1stQ	--
	1998 2ndQ	--
	1998 3rdQ	--
	1998 4thQ	--
	1999 1stQ	0.9
	1999 2ndQ	ND
	1999 3rdQ	ND
	1999 4thQ	ND
	2000 1stQ	ND
	2000 2ndQ	<1.3
	2000 3rdQ	<1.3
	2000 4thQ	<1.3
	2001 1stQ	<1.3
	2001 2ndQ	<1.3
	2001 3rdQ	<1.3
	2001 4thQ	<1.3
	2002 1stQ	<1.3
	2002 3rdQ	<1.3
	2002 4thQ	<1.7
	2003 4thQ	<1.5
	12/20/2005	2.0 J2,C
	12/12/2006	4.1
	3/20/2007	6.9
	6/24/2007	**12**
	9/23/2007	2.1
	12/27/2007	0.53

(1) SGPS = Soil Gas Performance Standards. The following wells have had no SGPS benzene exceedances:
VW-30-01
VW-38-10
VW-39-07
(2) Cells with shading exceed SGPS for benzene of 10 ppbv. Cells without shading indicate benzene concentrations below SGPS for benzene.
(3) See page 12 for additional footnotes and data qualifiers.

TABLE 5

BENZENE DATA FOR COMPLIANCE VAPOR MONITORING WELLS
WITH ONE OR MORE BENZENE EXCEEDANCES OF SGPS(1)
1998 THROUGH 2008
WASTE DISPOSAL, INC. SUPERFUND SITE

Sample Location	Sample Event Date	EPA Method TO-15
		Benzene
		ppbv
VW-31-30 (VW-31-D)	1998 1stQ	0.22
	1998 2ndQ	--
	1998 3rdQ	--
	1998 4thQ	--
	1999 1stQ	0.82
	1999 2ndQ	ND
	1999 3rdQ	ND
	1999 4thQ	ND
	2000 1stQ	ND
	2000 2ndQ	<1.3
	2000 3rdQ	0.94
	2000 4thQ	<1.3
	2001 1stQ	<1.3
	2001 2ndQ	<1.3
	2001 3rdQ	<1.3
	2001 4thQ	<1.3
	2002 1stQ	<1.3
	2002 3rdQ	<1.3
	2002 4thQ	<1.7
	2003 4thQ	8.3
	12/20/2005	2.5 J2,C
	12/12/2006	4.1
	3/20/2007	2.4
	6/24/2007	**52**
	9/23/2007	1.9
	12/27/2007	2.3
VW-34-10 (VW-34-S)	1998 1stQ	--
	1998 2ndQ	--
	1998 3rdQ	--
	1998 4thQ	0.79
	1999 1stQ	ND
	1999 2ndQ	ND
	1999 3rdQ	ND
	1999 4thQ	ND
	2000 1stQ	--
	2000 2ndQ	<1.3
	2000 3rdQ	0.93
	2000 4thQ	<1.3
	12/27/2005	6.2 C
	12/12/2006	7.1
	3/13/2007	**30**
	6/27/2007	**20**
	9/26/2007	**33**
	12/21/2007	2.7

(1) SGPS = Soil Gas Performance Standards. The following wells have had no SGPS benzene exceedances:
VW-30-01
VW-38-10
VW-39-07
(2) Cells with shading exceed SGPS for benzene of 10 ppbv. Cells without shading indicate benzene concentrations below SGPS for benzene.
(3) See page 12 for additional footnotes and data qualifiers.

TABLE 5

BENZENE DATA FOR COMPLIANCE VAPOR MONITORING WELLS
WITH ONE OR MORE BENZENE EXCEEDANCES OF SGPS(1)
1998 THROUGH 2008
WASTE DISPOSAL, INC. SUPERFUND SITE

Sample Location	Sample Event Date	EPA Method TO-15
		Benzene
		ppbv
VW-34-23 (VW-34-I)	1998 1stQ	--
	1998 2ndQ	--
	1998 3rdQ	--
	1998 4thQ	--
	1999 1stQ	ND
	1999 2ndQ	ND
	1999 3rdQ	ND
	1999 4thQ	ND
	2000 1stQ	ND
	2000 2ndQ	<1.3
	2000 3rdQ	<1.3
	2000 4thQ	<1.3
	12/27/2005	7.3 C
	12/12/2006	3.1
	12/12/2006 Dup	2.1
	3/13/2007	**35**
	6/27/2007	2.5
	9/26/2007	**14**
	12/21/2007	2.1
	12/21/2007 Dup	1.6
VW-34-40 (VW-34-D)	1998 1stQ	--
	1998 2ndQ	--
	1998 3rdQ	--
	1998 4thQ	--
	1999 1stQ	ND
	1999 2ndQ	ND
	1999 3rdQ	ND
	1999 4thQ	ND
	2000 1stQ	ND
	2000 2ndQ	<1.3
	2000 3rdQ	0.86
	2000 4thQ	<1.3
	12/27/2005	**19 C**
	12/27/2005 Dup	**23 C**
	6/8/2006	4.3
	12/12/2006	5.4
	3/13/2007	**43**
	3/13/2007 Dup	**34**
	6/27/2007	**23**
	9/26/2007	**55**
	12/21/2007	3.2

(1) SGPS = Soil Gas Performance Standards. The following wells have had no SGPS benzene exceedances:
VW-30-01
VW-38-10
VW-39-07
(2) Cells with shading exceed SGPS for benzene of 10 ppbv. Cells without shading indicate benzene concentrations below SGPS for benzene.
(3) See page 12 for additional footnotes and data qualifiers.

TABLE 5

BENZENE DATA FOR COMPLIANCE VAPOR MONITORING WELLS
WITH ONE OR MORE BENZENE EXCEEDANCES OF SGPS(1)
1998 THROUGH 2008
WASTE DISPOSAL, INC. SUPERFUND SITE

Sample Location	Sample Event Date	EPA Method TO-15
		Benzene
		ppbv
VW-35-10 (VW-35-S)	1998 1stQ	--
	1998 2ndQ	--
	1998 3rdQ	--
	1998 4thQ	--
	1999 1stQ	ND
	1999 2ndQ	ND
	1999 3rdQ	ND
	1999 4thQ	ND
	2000 1stQ	ND
	2000 2ndQ	ND
	2000 3rdQ	<1.3
	2000 4thQ	<1.3
	12/22/2005	2.5 J2,C
	12/12/2006	4.1
	3/13/2007	**130**
	6/30/2007	**12**
	9/20/2007	0.62
	12/21/2007	1.3
VW-35-38 (VW-35-D)	1998 1stQ	--
	1998 2ndQ	--
	1998 3rdQ	1.6
	1998 4thQ	--
	1999 1stQ	ND
	1999 2ndQ	ND
	1999 3rdQ	1.2
	1999 4thQ	0.95
	2000 1stQ	ND
	2000 2ndQ	<1.3
	2000 3rdQ	<1.3
	2000 4thQ	<6.3
	12/22/2005	4.6 J2,C
	12/12/2006	**<19 UJ9**
	3/13/2007	**16**
	6/30/2007	**18**
	9/20/2007	<7.3
	9/20/2007 Dup	<7.9
	12/21/2007	1.9

(1) SGPS = Soil Gas Performance Standards. The following wells have had no SGPS benzene exceedances:
VW-30-01
VW-38-10
VW-39-07
(2) Cells with shading exceed SGPS for benzene of 10 ppbv. Cells without shading indicate benzene concentrations below SGPS for benzene.
(3) See page 12 for additional footnotes and data qualifiers.

TABLE 5

BENZENE DATA FOR COMPLIANCE VAPOR MONITORING WELLS
WITH ONE OR MORE BENZENE EXCEEDANCES OF SGPS(1)
1998 THROUGH 2008
WASTE DISPOSAL, INC. SUPERFUND SITE

Sample Location	Sample Event Date	EPA Method TO-15
		Benzene
		ppbv
VW-36-10 (VW-36-S)	1998 1stQ	0.61
	1998 2ndQ	--
	1998 3rdQ	0.94
	1998 4thQ	1.1
	1999 1stQ	1.2
	1999 2ndQ	0.88
	1999 3rdQ	ND
	1999 4thQ	2
	2000 1stQ	ND
	2000 2ndQ	ND
	2000 3rdQ	0.84
	2000 4thQ	0.99
	12/28/2005	3.6 J2,C
	12/21/2006	5.1
	3/13/2007	9
	6/27/2007	**31**
	6/27/2007 Dup	**23**
	9/18/2007	3.7
	12/21/2007	1.4
VW-36-30 (VW-36-D)	1998 1stQ	--
	1998 2ndQ	--
	1998 3rdQ	--
	1998 4thQ	--
	1999 1stQ	ND
	1999 2ndQ	ND
	1999 3rdQ	ND
	1999 4thQ	1.1
	2000 1stQ	<1.3
	2000 2ndQ	<1.3
	2000 3rdQ	<1.3
	2000 4thQ	<1.3
	12/28/2005	2.4 J2,C
	12/21/2006	3.7
	3/13/2007	**97**
	6/27/2007	5.1
	9/18/2007	1.1
	12/21/2007	<0.46

(1) SGPS = Soil Gas Performance Standards. The following wells have had no SGPS benzene exceedances:
VW-30-01
VW-38-10
VW-39-07
(2) Cells with shading exceed SGPS for benzene of 10 ppbv. Cells without shading indicate benzene concentrations below SGPS for benzene.
(3) See page 12 for additional footnotes and data qualifiers.

TABLE 5

BENZENE DATA FOR COMPLIANCE VAPOR MONITORING WELLS
WITH ONE OR MORE BENZENE EXCEEDANCES OF SGPS(1)
1998 THROUGH 2008
WASTE DISPOSAL, INC. SUPERFUND SITE

Sample Location	Sample Event Date	EPA Method TO-15
		Benzene
		ppbv
VW-37-10 (VW-37-S)	1998 1stQ	9.3
	1998 2ndQ	1.5
	1998 3rdQ	1.6
	1998 4thQ	**12**
	1999 1stQ	1.6
	1999 2ndQ	ND
	1999 3rdQ	1.6
	1999 4thQ	1.2
	2000 1stQ	ND
	2000 2ndQ	ND
	2000 3rdQ	1.2
	2000 4thQ	1.3
	12/28/2005	3.3 J2,C
	12/20/2006	5.3
	3/12/2007	9.5
	6/23/2007	**35**
	9/18/2007	1.3
	12/20/2007	2.3
	12/20/2007 Dup	1.7
VW-37-30 (VW-37-D)	1998 1stQ	--
	1998 2ndQ	--
	1998 3rdQ	0.8
	1998 4thQ	--
	1999 1stQ	ND
	1999 2ndQ	1.3
	1999 3rdQ	ND
	1999 4thQ	ND
	2000 1stQ	ND
	2000 2ndQ	<1.3
	2000 3rdQ	<1.3
	2000 4thQ	<1.3
	12/28/2005	3.8 J2,C
	12/20/2006	3
	3/12/2007	**28**
	3/12/2007 Dup	**21**
	6/23/2007	**19**
	9/18/2007	<1.0
	12/20/2007	1.7

(1) SGPS = Soil Gas Performance Standards. The following wells have had no SGPS benzene exceedances:
VW-30-01
VW-38-10
VW-39-07
(2) Cells with shading exceed SGPS for benzene of 10 ppbv. Cells without shading indicate benzene concentrations below SGPS for benzene.
(3) See page 12 for additional footnotes and data qualifiers.

TABLE 5

BENZENE DATA FOR COMPLIANCE VAPOR MONITORING WELLS
WITH ONE OR MORE BENZENE EXCEEDANCES OF SGPS(1)
1998 THROUGH 2008
WASTE DISPOSAL, INC. SUPERFUND SITE

Sample Location	Sample Event Date	EPA Method TO-15
		Benzene
		ppbv
VW-38-34 (VW-38-D)	1998 1stQ	--
	1998 2ndQ	--
	1998 3rdQ	--
	1998 4thQ	--
	1999 1stQ	0.89
	1999 2ndQ	ND
	1999 3rdQ	ND
	1999 4thQ	ND
	2000 1stQ	**<13**
	2000 2ndQ	<1.3
	2000 3rdQ	0.89
	2000 4thQ	<6.3
	12/27/2005	7.9 C
	12/14/2006	6.8
	3/12/2007	**27**
	6/23/2007	8.9
	9/23/2007	3.2
	9/23/2007 Dup	3.2
	12/20/2007	1.4
VW-39-30 (VW-39-D)	1998 1stQ	--
	1998 2ndQ	--
	1998 3rdQ	0.91
	1998 4thQ	--
	1999 1stQ	ND
	1999 2ndQ	ND
	1999 3rdQ	ND
	1999 4thQ	ND
	2000 1stQ	<1.3
	2000 2ndQ	<1.3
	2000 3rdQ	0.91
	2000 4thQ	<1.3
	2001 3rdQ	<1.3
	12/28/2005	**<17 UJ2,UJ9,C**
	12/14/2006	7.4
	3/12/2007	**13**
	6/23/2007	9.9
	9/18/2007	1.2
	12/20/2007	1.7

(1) SGPS = Soil Gas Performance Standards. The following wells have had no SGPS benzene exceedances:
VW-30-01
VW-38-10
VW-39-07
(2) Cells with shading exceed SGPS for benzene of 10 ppbv. Cells without shading indicate benzene concentrations below SGPS for benzene.
(3) See page 12 for additional footnotes and data qualifiers.

TABLE 5

BENZENE DATA FOR COMPLIANCE VAPOR MONITORING WELLS
WITH ONE OR MORE BENZENE EXCEEDANCES OF SGPS(1)
1998 THROUGH 2008
WASTE DISPOSAL, INC. SUPERFUND SITE

Sample Location	Sample Event Date	EPA Method TO-15
		Benzene
		ppbv
VW-41-07 (VW-41-S)	1998 1stQ	--
	1998 2ndQ	--
	1998 3rdQ	--
	1998 4thQ	--
	1999 1stQ	ND
	1999 2ndQ	ND
	1999 3rdQ	ND
	1999 4thQ	1.1
	2000 1stQ	ND
	2000 2ndQ	<1.3
	2000 3rdQ	1.2
	2000 4thQ	0.78
	2001 3rdQ	<1.3
	12/28/2005	2.3 J5,C
	12/19/2006	2.8
	3/22/2007	2.7
	7/2/2007	**25**
	7/2/2007 Dup	**21**
	9/18/2007	0.97
	1/2/2008	4.3
	1/2/2008 Dup	5
VW-41-20 (VW-41-D)	1998 1stQ	--
	1998 2ndQ	--
	1998 3rdQ	--
	1998 4thQ	--
	1999 1stQ	ND
	1999 2ndQ	ND
	1999 3rdQ	ND
	1999 4thQ	ND
	2000 1stQ	ND
	2000 2ndQ	<1.3
	2000 3rdQ	<1.3
	2000 4thQ	1
	2001 3rdQ	<1.3
	12/28/2005	9.8 J2,C
	12/28/2005 Dup	**12 J2,J5,C**
	12/19/2006	3.5
	3/22/2007	**64**
	7/2/2007	**11**
	9/18/2007	<1.2
	9/18/2007 Dup	<0.50
	1/2/2008	7.6

(1) SGPS = Soil Gas Performance Standards. The following wells have had no SGPS benzene exceedances:
VW-30-01
VW-38-10
VW-39-07
(2) Cells with shading exceed SGPS for benzene of 10 ppbv. Cells without shading indicate benzene concentrations below SGPS for benzene.
(3) See page 12 for additional footnotes and data qualifiers.

TABLE 5

BENZENE DATA FOR COMPLIANCE VAPOR MONITORING WELLS
WITH ONE OR MORE BENZENE EXCEEDANCES OF SGPS(1)
1998 THROUGH 2008
WASTE DISPOSAL, INC. SUPERFUND SITE

Sample Location	Sample Event Date	EPA Method TO-15
		Benzene
		ppbv
VW-42-10 (VW-42-S)	1998 3rdQ	ND
	1998 4thQ	1.7
	1999 1stQ	ND
	1999 2ndQ	ND
	1999 3rdQ	ND
	1999 4thQ	0.99
	2000 1stQ	<1.3
	2000 2ndQ	<1.3
	2000 3rdQ	<1.3
	2000 4thQ	<1.3
	12/20/2005	**16 J2,C**
	12/22/2006	3.8
	3/20/2007	**65**
	6/24/2007	6.1
	9/26/2007	**41**
	12/27/2007	3.2
VW-42-30 (VW-42-D)	1998 3rdQ	ND
	1998 4thQ	4.3
	1999 1stQ	ND
	1999 2ndQ	ND
	1999 3rdQ	ND
	1999 4thQ	1.1
	2000 1stQ	<1.3
	2000 2ndQ	<1.3
	2000 3rdQ	<1.3
	2000 4thQ	<1.3
	12/20/2005	**21 J2,C**
	12/22/2006	3.7
	3/20/2007	**11**
	3/20/2007 Dup	**16**
	6/24/2007	6.2
	9/26/2007	**33**
	12/27/2007	1.4
	12/27/2007 Dup	1.2

(1) SGPS = Soil Gas Performance Standards. The following wells have had no SGPS benzene exceedances:
VW-30-01
VW-38-10
VW-39-07
(2) Cells with shading exceed SGPS for benzene of 10 ppbv. Cells without shading indicate benzene concentrations below SGPS for benzene.
(3) See page 12 for additional footnotes and data qualifiers.

TABLE 5

BENZENE DATA FOR COMPLIANCE VAPOR MONITORING WELLS
WITH ONE OR MORE BENZENE EXCEEDANCES OF SGPS[(1)]
1998 THROUGH 2008
WASTE DISPOSAL, INC. SUPERFUND SITE

Notes:
Table contains historical and current data for the vapor monitoring wells that were identified in the project documents (CD, AROD, etc.) for monitoring purposes and do not include abandoned or destroyed locations/wells.
Compliance vapor well results with bold font in highlighted cells show concentrations that exceeded the Soil Gas Performance.
ppbv = Parts per billion by volume
ND = Concentration of the constituent was not detected above the laboratory's reporting limit.
-- = Constituent not analyzed
If third-party QA/QC contractor applied qualifiers to data already qualified by laboratory, then third-party qualifiers were not applied to data in this table.
Columbia Analytical Services Data Qualifiers
H = Samples analyzed beyond EPA Region 9 holding time of 14 days after sample collection.
M = Matrix interference; results may be biased high.
D = Duplicate precision not within the specified limits
J1 = The analyte was positively identified below the method reporting limit; the associated numerical value is considered estimated.
V = The continuing calibration verification standard was outside the client specified limits for this compound.
L = Laboratory control sample recovery outside the specified limits; results may be biased high or low.
* = % RSD for the initial calibration exceeded client specified requirements.
Veridian Environmental Data Qualifiers ('U' indicates the laboratory result was below the method detection limit)
UJ = Detection limit may be biased low due to limitations identified during the quality assurance review (data validation)
J = Quantitation is approximate due to limitations identified during the quality assurance review (data validation)
UJ2 or J2 = Estimated value. Samples analyzed beyond EPA Region 9 holding time of 14 days after sample collection.
UJ3 or J3 = Estimated value. Container failed leak check process.
UJ4 or J4 = Estimated value. Low recoveries (<80%) were observed for one or more volatile surrogate compounds.
J5 = Estimated value. High recoveries (>120%) were observed for one or more volatile surrogate compounds.
J6 = Estimated value. Sample may be biased due to matrix interference.
J7 = Estimated value. High recovery (>113%) was observed for this compound (methane) in the associated laboratory control sample analysis
UJ8 or J8 = significant discrepancies observed between field duplicate pair sample analyses.
UJ10 or J10 = results may be higher than reported due to high percent differences coupled with decreases in intrument sensitivity in continuing calibration standards.
UJ11 or J11 = results may be biased high due to high percent differences coupled with increases in instrument sensitivity in continuing calibration standards.
TRC Data Qualifiers
UJ9 = Sample analysis had non-detect result higher than the IATLs or Soil Gas Performance Standards.
C = Analyte concentration was not verified by confirmation sampling results performed on representative samples collected from Compliance

TABLE 6

RESULTS OF STATISTICAL ANALYSIS
WASTE DISPOSAL INC. SUPERFUND SITE

VW Well No.	Monitoring Quarter, FY07-08	Constituent	CUSUM Limit Exceedance	Significant Trends	Comment
46-15	1st	m-+p-xylene		X	
46-27	1st	toluene	X		Below limit in 3rd & 4th quarters, FY06-07
58-19	1st	methane	X		Concentration is 2.17 ppmv
58-29	1st	methane	X		Concentration is 1.85 ppmv
61-30	1st	toluene	X		Below limit in prior quarters
62-18	1st	benzene	X		
62-29	1st	toluene		X	

ATTACHMENT D

INSTITUTIONAL CONTROLS REVIEW

TECHNICAL MEMORANDUM
FIRST FIVE-YEAR REVIEW FOR THE
WASTE DISPOSAL, INC. SUPERFUND SITE

INSTITUTIONAL CONTROLS REVIEW

A. INTRODUCTION

This Institutional Control Review memorandum provides supporting documentation for the first Five-Year Review for the Waste Disposal, Inc., Superfund (WDI) Site, located in the City of Santa Fe Springs, California. The U.S. Environmental Protection Agency (EPA) has tasked the U.S. Army Corps of Engineers (USACE), Sacramento District, to perform the Five Year Review. The project scope includes preparation of a narrative Five Year Review Report as well as several detailed memoranda to analyze specific topics required by EPA guidance documents. This memorandum provides detailed discussion and analysis of institutional controls (ICs) that have been included in the remedy for the WDI site. Summary discussion and findings from the ICs analysis will be included in the final FYR Report. This memorandum has been prepared in advance of the final FYR Report, and summarizes (1) the institutional controls that have been applied at the WDI site and (2) practices and procedures used to monitor and enforce the institutional controls.

B. SITE CONTEXT

The City of Santa Fe Springs has long expressed an interest in redeveloping the WDI site, either as a comprehensive project or in multiple phases. Assisted by funding from EPA, the City of Santa Fe Springs prepared a specific use plan for the site that lays out a vision for future industrial redevelopment. The plan, which was adopted by the City in May 2004, includes conceptual site plans and a variety of land use guidelines and restrictions, and requires close coordination with regulatory agencies in the planning of future onsite redevelopment activities. Similarly, a number of prospective purchasers have expressed interest in the site over the last decade, and several parcel owners have explored sale of their individual parcels to developers.

EPA's selected remedy for the WDI site includes ICs in the form of environmental restriction covenants (ERCs or covenants) for each parcel. EPA selected ICs as part of the WDI site remedy in order to protect the integrity of the remedy into the future. The ERCs, which have now been recorded for each parcel, provide notifications to prospective purchasers about the status and condition of the site and restrict land and water uses. Specifically, the ERCs prohibit residential land use and require EPA's review and prior written approval for an extensive list of specified activities that could potentially damage the engineered capping and monitoring systems that comprise the site remedy.

C. AROD REQUIREMENTS FOR INSTITUTIONAL CONTROLS

The selected remedy included the establishment of institutional controls. The AROD (Page II-58) states the following:

g. Institutional Controls: Institutional controls will be implemented in order to ensure the long-term integrity of the remedy and to prevent exposure to waste remaining at the site.

The objectives of institutional controls for the WDI site are:

- *To provide notification to all potential site users of the presence of hazardous materials and on-site contamination;*
- *To provide notification to potential site users concerning the presence and location of all remedial systems;*
- *To expressly prohibit residential land use on any part of the site and limit future uses to certain industrial activities;*
- *To minimize the potential for exposure of future site users to site related hazardous materials (including waste materials, groundwater, and/or soil gas emissions);*
- *To protect the integrity of the remedy from any activity that may interfere with the effective O&M of remedial control and monitoring systems;*
- *To provide access to the site for appropriate regulatory agencies and responsible parties engaged in approved remedial actions and monitoring activities.*

To implement these objectives, EPA anticipates that restrictive covenants will be executed and recorded on all of the properties at the WDI site, as well as any other properties which EPA determines may require institutional controls to achieve the objectives listed above. The restrictive covenants shall run with the land and be enforceable under California law (including California Civil Code Section 1471) against all future property owners and tenants. EPA shall oversee compliance with the use restrictions. The restrictive covenants shall provide for access by EPA and the State, as well as by PRPs conducting the remedial action, and their contractors, for the following purposes:

1. *Monitoring the remedial action, and monitoring and O&M;*
2. *Verifying any data or information submitted to EPA or the State;*
3. *Conducting investigations relating to contamination at or near the site;*
4. *Obtaining samples;*
5. *Assessing the need for, planning, or implementing additional response actions at or near the site;*
6. *Assessing implementation of quality assurance and quality control practices as defined in the approved Quality Assurance Project Plans;*
7. *Implementing the remedial action, monitoring, and O&M;*
8. *Assessing compliance with the access easements and environmental restrictions; and*
9. *Determining whether the site or other property is being used in a manner that is prohibited or restricted by the environmental restrictions, or that may need to be prohibited or restricted.*

The land use restrictions in the restrictive covenants shall include compliance by all users of the properties with the following restrictions:

1. *Placement of warning signs or other posted information shall be allowed and, once posted, no removal or interference with such signs or information shall be permitted.*
2. *Placement of site access controls, such as gates or fencing, shall be allowed and shall not be damaged or circumvented.*
3. *The site or such other property shall not be used in any manner that may interfere with or affect the integrity of the remedial cap or other components of the remedy, as constructed pursuant to this Amended ROD.*
4. *Construction not approved by EPA that impacts any of the remedial capping or other remedy components shall not occur.*
5. *No interference with or alterations to the grading, vegetation and surface water and drainage controls shall be made without the prior written approval of EPA.*
6. *Portions of the site or such other adjacent property underlain by waste materials or in soil gas noncompliance areas shall not be regraded without the prior written approval of EPA.*
7. *Areas of asphalt or concrete pavement shall not be removed or improved without the prior written approval of EPA.*
8. *No penetrations or interferences (including, but not limited to, utility trench excavations, excavations for fence posts, excavations for planting trees or large bushes, foundation excavations, and foundation piles) within the remedial cap or any other areas with remedial controls shall occur without the prior written approval of EPA.*
9. *Deep-rooting plants (plants whose root systems will penetrate more than two feet below ground surface) shall not be planted without the prior written approval of EPA.*
10. *Approval from EPA must be obtained for settings of irrigation controls. Such settings shall not be changed without the prior written approval of EPA.*
11. *Drainage channels and pipes shall not be blocked, rerouted or otherwise interfered with without the prior written approval of the EPA.*
12. *No new openings shall be made in building floor slabs in buildings located over waste materials or over soil gas noncompliance areas without the prior written approval of EPA.*
13. *The integrity of existing and future foundations shall be maintained in areas underlain by waste materials or in soil gas noncompliance areas. All cracks or damage in such foundations shall be reported to EPA and DTSC.*
14. *Indoor gas controls shall not be circumvented.*
15. *Indoor gas sensors or alarms shall not be turned off or interfered with.*
16. *Soil gas control systems shall not be turned off or interfered with.*
17. *Monitoring points, including but not limited to groundwater monitoring wells, soil gas probes, reservoir (in Area 2) leachate collection wells, soil gas vents, and survey monuments, shall not be blocked or otherwise obstructed.*
18. *Monitoring wells shall not be opened; nothing shall be placed into the monitoring wells except by authorized personnel permitted to monitor the wells.*
19. *Liquids recovery systems, liquids treatment systems, and treated liquids storage facilities shall not be turned off or interfered with.*
20. *Groundwater supply or monitoring wells shall not be constructed without the prior written approval of EPA, and there shall be no extraction of or injection into groundwater on the site.*

21. Owners of the site or any portion thereof shall disclose all institutional controls to all tenants on the property.
22. Owners of the site or any portion thereof shall inform EPA of the identities of all tenants on the property.
23. During construction, excavation, or grading of any type, measures shall be taken to ensure that there is no offsite migration of dust, odors or organic vapors. During such activities, appropriate measures shall be taken to protect the health and welfare of on-site personnel and workers and to prevent offsite impacts.
24. Prior written approval must be obtained from EPA for all building or site modifications.
25. Waste materials shall not be excavated without the prior written approval of and supervision by EPA.
26. No new construction shall occur on the site without the prior written approval of EPA.
(a) New construction shall be supported by subsurface explorations and analytical laboratory data to characterize the construction area for the possible existence of waste materials.
(b) If contaminants are discovered in the construction area, they shall be remediated or buildings and structures must be appropriately designed to protect occupants.
(c) Appropriate worker and public health and safety precautions, including but not limited to dust control, safety plans, and other forms of worker protection, must be taken prior to approval of construction.
27. Boreholes, foundation piles, or other subsurface penetrations into the reservoir (in Area 2) or any other area of the site which could create conduits allowing wastes to migrate to groundwater shall not be made without the prior written approval of EPA.
28. Construction workers shall be provided with appropriate personal protective equipment while they are working at the site.
29. Pesticides or herbicides shall not be applied to the capped areas of the site or to areas surrounding monitoring points without the prior written approval of EPA.
30. Use of any septic tanks on the property shall be discontinued and such tanks shall be decommissioned in accordance with local regulations.
31. The site or such other property shall not be used or redeveloped for residential use; use as a hospital, school for people aged 21 and under, or day care center; or other uses by sensitive receptors.

In addition, EPA will work with the City of Santa Fe Springs to ensure that the City's master plan for redevelopment of the site is consistent with the institutional control objectives described in this Amended ROD. EPA may also work with the City of Santa Fe Springs to develop ordinances to prohibit residential use; use as a hospital, school for people aged 21 and under, or day care center; or other uses by sensitive receptors, and to limit activities on the site that have not been approved by EPA.

D. INSTITUTIONAL CONTROL STATUS

As of December 2007, EPA had entered into consent decrees with all the landowners of parcels contained within the WDI site. The consent decrees required each landowner to record environmental restriction covenants for its parcel(s). To date, all of the covenants have been recorded and are publicly available at the LA County Recorder's Office. A sample deed restriction is attached to this memorandum.

The recording information for the covenants is as follows:

Owner at time of Recording	Record No.	Recording Date	Assessor's Parcel No.	Acres
Raymond and Donnis Holbrook Trust	52886050	11/28/2005	8167-002-003	0.83
DiLo, Inc.	61084385	5/17/2006	8167-002-004	2.64
Eugene and Geraldine Welter Trust	43385749	12/29/2004	8167-002-007	1.15
O.R.P LLC	31777672	6/23/2003	8167-002-011	0.47
O.R.P LLC	31777672	6/23/2003	8167-002-012	0.50
Lucille F. Ferris Living Trust	33157716	10/22/2003	8167-002-021	0.57
John L Maple Family Partnership	40351309	2/17/2004	8167-002-022	0.62
Raymond and Donnis Holbrook Trust	52886050	11/28/2005	8167-002-024	0.49
Adeline R. Bennett Living Trust and Pitts Grandchildrens' Trust	20071437318	6/14/2007	8167-002-025	0.44
Adeline R. Bennett Living Trust and Pitts Grandchildrens' Trust	20071437318	6/14/2007	8167-002-026	17.65
Irene L. Mersits Trust and Thomas J. Mersits	31037687	4/17/2003	8167-002-028	0.62
Irene L. Mersits Trust and Thomas J. Mersits	31037687	4/17/2003	8167-002-029	0.72
Adeline R. Bennett Living Trust and Pitts Grandchildrens' Trust	20071437318	6/14/2007	8167-002-030	0.14
David Joseph Neptune Family Trust	40823450	4/6/2004	8167-002-032	0.39
Graziano Trust and Jovita L. Ortega	50038020	1/5/2005	8167-002-037	0.39
Eugene and Geraldine Welter Trust	43385749	12/29/2004	8167-002-041	0.78
Danny R. Peoples and Dena Peoples	53076210	12/14/2005	8167-002-042	0.50
Eddie E. Timmons	61656486	7/6/2006	8167-002-043	1.02
Chasin Trust, Hanson Trust, and Searing Revocable Trust	31283125	5/6/2003	8167-002-044	1.17
Greve Financial Services, Inc.	20090391597	3/18/2009	8167-002-049	3.87
Brothers Machine & Tool, Inc	51456108	6/21/2005	8167-002-050	1.09
Adeline R. Bennett Living Trust and Pitts Grandchildrens' Trust	20071437318	6/14/2007	8167-002-051	2.15

Note that in August 2006 the previous owners of Parcel No. 8167-002-049 recorded an earlier covenant for that parcel (Record No. 61903512). In November 2007, however, a financial institution foreclosed on an old promissory note on that parcel. Under California law, foreclosure of a lien extinguishes covenants recorded later in time; therefore, the new owner, Greve Financial Services, recorded a new Environmental Restriction Covenant on the parcel this year.

E. MONITORING AND ENFORCEMENT OF INSTITUTIONAL CONTROLS

Institutional Controls Monitoring and Enforcement Work Plan

As part of the remedy, the AROD required the creation and maintenance of an Institutional Controls Monitoring and Enforcement Work Plan (ICMEWP). WDIG prepared an ICMEWP that describes a process for each of the following elements:

1. Monitoring property information and covenants for each property: This monitoring effort relies on a number of sources and techniques, including regular internet queries of

LA County property records and various online sources for permits, development applications, contract advertisements, Sheriff and foreclosure sales, and real estate multiple listings. WDIG has contracted with a consultant to perform these property information monitoring tasks.

2. Monitoring condition of the remedy on properties: Through its consultant, WDIG monitors compliance with requirements of the ERCs by conducting physical site inspections, online and physical monitoring of permits, contract advertisements, and USA underground service alerts.

3. Communication with landowners/tenants: WDIG coordinates access for necessary operations, maintenance, and monitoring through mailings, phone calls, and site visits.

4. Non-compliance enforcement mechanism: When WDIG discovers a condition that jeopardizes the remedy, WDIG notifies the property owner and EPA of the violations. If the property owner does not respond by correcting the violations, WDIG, in consultation with the EPA, will take corrective action.

5. Application for exceptions: When a property owner wants to modify the remedy or redevelop its parcel, the property owner must submit an application to the EPA for review and processing.

6. Biennial Work Plan review: The ICMEWP is an "evergreen document" that is updated every two years by WDIG in consultation with the EPA.

Institutional Controls Monitoring and Enforcement Activities

WDIG's semi-annual Operations, Maintenance and Monitoring Reports include discussion and documentation of its ICs activities at the site.

The ICMEWP specifies the protocol for addressing parcel use issues that may impact the effectiveness of the ICs or the remedy as a whole. Since completing Remedial Construction at the WDI site, WDIG has addressed the following ICs-related issues in accordance with the ICMEWP protocols:

- Quarterly In-Business Air Monitoring: In the process of conducting this monitoring, WDIG encountered one recalcitrant tenant and several unprepared tenants that could not provide access for monitoring. WDIG worked around the recalcitrant tenant by coordinating with the parcel owner to ensure access. To better prepare other tenants and thereby ensure access, WDIG began coordinating earlier and more consistently with all the owners and tenants. WDIG will modify the "Communication with Landowners/Tenants" element of the ICMEWP to formalize this new procedure.

- Proposed Redevelopment of the site: A developer signed an exclusive due diligence agreement with the City of Santa Fe Springs (City) for redevelopment at the site. After coordination with the City, WDIG and EPA, the developer determined that it would be

unable to meet requirements of the AROD, and the agreement expired. Discussions with the developer proceeded in accordance with the "Application for Exceptions" element of the ICMEWP.

- Owner Improvements to Parcel 37: The City passed an ordinance that required upgrading the external appearances of metal buildings visible from the street. The tenant of Parcel 37 submitted for an application for a building permit to meet this ordinance. The application included plans to construct a new fascia for the existing building and required the construction of a foundation and rerouting of an existing gas line. WDIG first became aware of this plan through an alert service: USA Underground Alert notified WDIG of the application request. Also, the City instructed the applicant to coordinate with the EPA. During coordination the plans were modified to reduce the size of the fascia to prevent disturbance of buried waste. The project is currently underway. WDIG addressed this issue in accordance with the "Application for Exceptions" element of the ICMEWP.

- Sheriff's Sale of Parcel 49: A financial institution foreclosed on a promissory note and took ownership of this parcel. WDIG discovered the pending change of ownership November 07, 2007 when notified by the financial institution. As a result, WDIG is now also monitoring sheriff's sales and lists of distressed properties. WDIG addressed this matter in accordance with the "Monitoring of Property Information" and "Monitoring Condition of the Remedy on Properties" elements of the ICMEWP.

- Proposed Redevelopment of Parcels 25, 26, 30, and 51: A developer has approached the EPA and City with a proposed development of the Pitts-Bennett parcels. The EPA and WDIG became aware of the proposed Pitts-Bennett project when the City directed the corporation to coordinate with the EPA and WDIG. WDIG is addressing this proposal through the "Application for Exceptions" element of the ICMEWP.

F. REVIEW OF IMPLEMENTATION OF INSTITUTIONAL CONTROLS

Review of implementation of Institutional Controls at WDI show the ICMEWP and the City Site Specific Plan are comprehensive and flexible enough to successfully address planned and unplanned events. Events that have occurred and been successfully addressed within the structure of the ERCs, Site Specific Plan and the ICMEWP:

- City of Santa Fe Springs is in compliance with the WDI IC requirements. During the site visit, the City Principal Planner showed copies of the General Plan, Zoning map, and Specific Site Plan for the WDI area, thereby showing compliance with the IC requirements in the AROD. When the five-year review team member identified himself, the Principal Planner provided copies of City Ordinances for controlling soil vapor intrusion. The City Planner was aware of the requirements at WDI and has fully implemented the requirements for the City. The City also noted that WDIG has been periodically checking for permits issued for the WDI site.

- WDIG uses the ICMEWP to meet IC requirements. WDIG and their contractors were interviewed to review implementation of the ICMEWP. The ICMEWP is updated biannually as improvements are identified.

- WDIG monitors parcel ownership through a contractor. EPA guidance recommends periodically reviewing preliminary title reports to monitor changes in ownership and recorded documents. Rather than preliminary title reports, the WDIG contractor is using the County Assessor's synthesis of recorded information along with monitoring realtor multiple listings and lists of distressed properties. This monitoring, with the evaluation of a knowledgeable person, is sufficient to meet AROD requirements parcel ownership monitoring. EPA counsel and WDIG will continue evaluating the need to obtain preliminary title reports synchronized with five year reporting.

- WDIG monitors building permits for the WDI site. Permit monitoring, while not specifically described in the ICMEWP, is successful at alerting WDIG and EPA of construction activity on Site property.

- WDIG communicates with owners and tenants while monitoring the condition of the remedy and performing periodic sampling in conformance with the ICMEWP, consent decree and AROD. WDIG is refining the IC check list to ensure the tenants are aware of their duties under the AROD and consent decrees of the property owners.

G. SUMMARY OF FINDINGS

The implementation of Institutional Controls at the WDI site has been fully successful in preventing disruptions of the remedy and is in compliance with AROD requirements.

ATTACHMENT E

SITE INSPECTION REPORT

TECHNICAL MEMORANDUM
FIRST FIVE-YEAR REVIEW FOR THE
WASTE DISPOSAL INC. SUPERFUND SITE

SITE INSPECTION REPORT

A. INTRODUCTION

This site inspection report memorandum provides supporting documentation for the first Five-Year Review for the Waste Disposal, Inc., Superfund (WDI) Site, located in the City of Santa Fe Springs, California. The U.S. Environmental Protection Agency (EPA) has tasked the U.S. Army Corps of Engineers (USACE), Sacramento District, to perform the Five Year Review. The project scope includes preparation of a narrative Five Year Review Report as well as several detailed memoranda to analyze specific topics required by EPA guidance documents. This memorandum presents (1) a brief overview of the WDI site, (2) a summary of inspection activities, and (3) an evaluation of site conditions. Photographs and a site inspection checklist are attached.

B. SITE BACKGROUND

The WDI site encompasses 38 acres located in an industrial area on the east side of Santa Fe Springs, CA. The site boundaries include Santa Fe Springs Road on the northwest, a warehouse and a private high school on the northeast, Los Nietos Road on the southwest, and Greenleaf Avenue on the southeast. A residential area lies to the east of the site. The site is currently zoned as industrial, with approximately 35 small businesses operating onsite. Typical businesses include auto shops, industrial gas distribution, machine shops, fabricators, and various manufacturing operations. See the table attached to the Five Year Review Report "Summary of Parcel Owners and Tenants" for a detailed listing of onsite businesses. It is up-to-date as of the most recent OM&M Report (October 2007 through March 2008).

The 38-acre site consists of 22 land parcels that are currently owned by 17 individual landowners. Site owner/operators (a sub-set of the property owners) formerly used a now-buried 42-million gallon reservoir (600 feet in diameter and 25 feet deep), located in the center of the site, for the disposal of a variety of oil field, refinery, and construction wastes from the 1940's to 1964. In addition, wastes were disposed outside of the reservoir, and have been delineated in many of the parcels located on the perimeter of the reservoir (see Attachment A of the Five-Year Review Report, Figure 2, "Site Features" and Figure 3, "Major Remedy Components").

EPA placed the WDI site on the National Priorities List on July 22, 1987. In August 1993, EPA completed the feasibility study for contaminated soils and subsurface gases for Operable Unit #1 (OU1), and in December 1993, EPA signed a Record of Decision (ROD) for OU1. The EPA initially designated a second operable unit for groundwater and decided to reserve selection of a groundwater remedy pending completion of groundwater investigations.

Based on information that became available after the signature of the 1993 ROD, EPA determined that an Amended ROD (AROD) would be required to ensure protection of human

health and the environment. The new information included: the expanded lateral extent and volume of buried waste on the site; new information on the nature and increased extent of soil gas beneath the site; and the presence of liquids inside the buried concrete-lined reservoir at the center of the site. EPA determined that this information was sufficient to warrant additional site investigations and further analysis of the potential remedial alternatives for the site. These further site investigations were conducted to update previously collected data and to fill in data gaps.

Although the original 1993 Feasibility Study (FS) focused primarily on soils, these subsequent investigations focused on other media (groundwater, soil gas, and landfill liquids). This process led to a Supplemental Feasibility Study (SFS), which EPA completed in May 2001. The SFS presented a detailed analysis of remedial alternatives that addressed the updated information regarding the nature and extent of contamination on the site. EPA prepared a proposed Plan, conducted a public comment process (June 2001), and the issued the AROD in 2002.

As detailed in the AROD, no significant impacts to groundwater quality from WDI wastes were identified based on groundwater sampling and the comparison of sampling data with the locations and characteristics of waste sources at the site. The EPA decided not to retain a separate OU for groundwater, and incorporated detection groundwater monitoring and institutional controls (ICs) to restrict use of groundwater underlying the site into the revised remedy presented in the AROD. As a result, the AROD serves as the final record of decision for the entire site. The AROD incorporates long-term operations and maintenance (O&M) into the revised remedy.

The Waste Disposal, Inc., Group (WDIG), consisting of 17 site generators, began preparation of a Remedial Design under EPA oversight pursuant to Unilateral Administrative Order (UAO) 94-17 and the amended UAO 97-09 issued in 1994 and 1997, respectively. EPA entered a Consent Decree (CD) with WDIG in 2003 for implementation of the remedial action following issuance of the AROD. In addition to the CD with WDIG, EPA entered CDs with each of the property owners to implement site access and institutional controls. EPA approved the final Remedial Design Report in June 2003. The physical construction of the selected remedy commenced in March 2004, and was completed in August 2005. The Consent Decree required compliance testing, consisting of operation of the gas system in active mode. WDIG conducted the compliance testing from December 17, 2005, to January 17, 2006. The SOW initially called for 90 days, but EPA approved a shorter time frame in response to a WDIG request. The EPA approved the Compliance Testing Report on July 27, 2006. The EPA approved the combined Remedial Action Completion Report and As-Built Report on September 14, 2006; and formal OM&M activities began on September 15, 2006.

The AROD anticipates potential future redevelopment, stating “within EPA’s authority, and to the maximum extent practicable, the design and implementation for the remedy will be accomplished so as not to preclude appropriate redevelopment of the site.” In 2000, EPA provided a grant to the City of Santa Fe Springs to develop a plan for the future redevelopment and reuse of the site. The City of Santa Fe Springs has been interested in seeing the site redeveloped and has since developed a Specific Plan for the site. The City is the lead agency on Site redevelopment. The Specific Plan dictates developers comply with Federal and state of California laws, standards established by the EPA in the AROD, and the requirements specified by the City. In the event there is a conflict, Federal and state of California requirements supersede the Specific Plan.

Contamination at the site has impacted two media: the soil and soil vapor. Contaminants of concern (COCs) in the soil include 11 metals, 7 chlorinated pesticides, 16 volatile organic compounds (VOCs), polyaromatic hydrocarbons (PAHs), and polychlorinated biphenyls (PCBs). The COCs identified for soil gas include benzene, ethylbenzene, toluene, xylenes, carbon tetrachloride, chloroform, 1,2-dibromoethane, tetrachloroethene (PCE), 1,1,1-trichloroethane (1,1,1-TCA), trichloroethene (TCE), vinyl chloride, 1,2-dichloropropane, and methane. For groundwater, the chemicals identified for long-term detection monitoring include arsenic, lead, manganese, mercury, toluene, carbon tetrachloride, chloroform, PCE, TCE, benzene, toluene, xylenes, carbon tetrachloride, chloroform, and vinyl chloride.

C. REMEDIAL ACTION OBJECTIVES AND SITE REMEDY

Remedial Action Objectives (RAOs) are listed in the AROD. The RAOs for the remedy are intended to:

1. Protect human health and the environment by preventing exposure to buried wastes and contaminated soils;
2. Protect current and future on-site and off-site receptors from exposure to soil gases;
3. Prevent human exposure, from direct contact, consumption, and other uses, to site liquids exceeding state and federal standards;
4. Prevent contribution of site liquids to exceedances of state and federal groundwater standards; and
5. Prevent human exposure to groundwater that exceeds state and federal standards due to site-related contaminants.

These objectives were based on the site use at the time, the anticipated potential for future use of the site for industrial purposes, and the potential for groundwater in the area to be used as a public water supply.

To meet the RAOs, the AROD addressed the buried waste, contaminated soils, soil gas, liquids, groundwater monitoring, and institutional controls:

1. The primary component of the remedy presented in the AROD is the RCRA-equivalent cap (RCRA “C” cap) over the reservoir section of Area 2, to provide containment for the reservoir area.
2. Whereas the original remedy included excavation of wastes (in designated areas outside of the reservoir area) and reconsolidation of excavated materials beneath the RCRA “C” reservoir area cap, the AROD did not include waste excavation and reconsolidation. In this respect, the AROD was more protective in the short- term because it eliminated short-term exposure to wastes that would have resulted from significant excavation and consolidation.
3. The AROD also included capping systems for other areas of the site. Buried waste and contaminated soil outside the reservoir was capped in situ using several engineered capping systems, including engineered-graded soils, asphalt, and concrete. This includes the RCRA “D” cap in the area surrounding the RCRA “C” cap over the reservoir.
4. The AROD also included
    - a gas collection and treatment system under the RCRA “C” cap;
    - passive bioventing wells outside of the reservoir area;

- leachate collection, to monitor for, collect, and remove “free liquids” within the buried waste;
- engineering controls for soil gas control within existing structures;
- institutional controls to restrict current and future land uses at the site, protect the integrity of the cap and soil gas control systems, restrict future use of shallow groundwater, and ensure the effectiveness of the remedy components;
- soil vapor monitoring, in-business air quality monitoring, and groundwater monitoring;
- and long-term O&M.

Table 1 illustrates how the remedy elements selected in the AROD address the CAOs..

All of the physical features of the remedy were inspected during the site inspection. A significant additional site feature also inspected was the site’s surface water drainage system. The surface water drainage system is important, as its proper functioning is essential to limiting erosion of the Site’s capping features.

See the attached memorandum for a narrative and site photos of the site inspection.

Table 1 – Site Remedy (2002 AROD)

Activity/Component	Redial Action Objective(s)	Activity/ Component Details
RCRA-Equivalent Cap	Protect human health and the environment by preventing exposure to buried wastes and contaminated soils. The cap also helps attain all other RAOs.	Installation of a RCRA-equivalent cap (RCRA "C" cap) over reservoir in Area 2 (approx. 306,000 square feet).
Extraction & Treatment of Subsurface Gases (Area 2)	Protect current and future on-site and off-site receptors from exposure to soil gases.	Installation of a gas migration control system under a RCRA-equivalent cap. System will be designed to be an active system (mechanical blower/vacuum driven) and include treatment of gas emissions with Granular Activated Carbon (GAC); conversion to a passive gas (non mechanical driven) migration control system will be considered after one year depending on gas volumes and gas emission rates. Implementation of long-term gas monitoring as part of O&M.
Extraction & Treatment of Subsurface Gases (Outside Area 2)	Protect current and future on-site and off-site receptors from exposure to soil gases.	In designated areas outside of reservoir area, installation of passive bioventing systems or active soil vapor extraction (SVE) wells with treatment. Implementation of long-term gas monitoring as part of O&M including monitoring of ambient air in onsite buildings.
Liquids Management Systems	Prevent human exposure, from direct contact, consumption, and other uses, to site liquids exceeding state and federal standards. Prevent contribution of site liquids to exceedances of state and federal groundwater standards.	Installation of a liquids collection system under the cap (in Area 2) to collect leachate and free liquids for offsite treatment and disposal at a facility approved by EPA.
Engineered Capping Systems	Protect human health and the environment by preventing exposure to buried wastes and contaminated soils. The capping systems also help in attaining all other RAOs.	Installation of engineered capping systems in Areas 1, 2, 4, 5, 6, 7, 8 (approx. 638,000 square feet), outside of reservoir, including engineered graded soil, asphalt, and concrete capping systems. This includes the installation of a RCRA "D" cap surrounding the limits of the reservoir RCRA "C" cap noted above
Engineering Controls	Protect current and future on-site and off-site receptors from exposure to soil gases.	Implementation of engineering controls including physical barriers and ventilation systems at and/or within existing and new buildings overlying or adjacent to waste. Demolition and removal of some existing structures may be required where engineering controls are not feasible.
Access & Institutional Controls (ICs)	All.	Implementation of approved ICs to control future land use, protect the integrity of the cap, prevent exposure to contaminated soils, and prohibit shallow groundwater use.
Groundwater Monitoring	Prevent human exposure to groundwater that exceeds state and federal standards due to site-related contaminants.	Implementation of long-term groundwater monitoring program
Operations and maintenance (O&M)	All.	Implementation of long-term O&M.

CESPK-ED-EE 22 Dec 2009

MEMORANDUM FOR FILE

SUBJECT: Trip Report, Waste Disposal Incorporated (WDI), Santa Fe Springs, CA, EPA ID: CAD980884357

Representatives of the Corps of Engineers; Doug Mackenzie, James Stellmach, John Erwin, and Randall Born (USACE, Sacramento District) visited theWDI site on 11 September 2008. Meeting the aforementioned at the site were Richard Lane (USACE, Los Angeles District) and the WDI Project Coordinator, Ken Floom (Project Navigator, LTD. (PNL)). The purpose of the visit was to perform a site tour in order to evaluate the effectiveness and protectiveness of implementation of the remediation occurring at the site. This information will be later used to generate a five year review of the on-going activities at the site.

The site is located approximately two miles from I-605 in Santa Fe Springs, CA, at the intersection of Greenleaf Ave & Los Nietos Rd. The site is managed by PNL of Brea, CA. The site visit occurred from 10:00 AM to 1:00 PM on the 11th. The weather was initially overcast, with temperature ~65ºF, but later became sunny, with temperature ~75ºF.

The team entered the site via the main access gate on the east side of the site, off of Greenleaf Avenue (Photo 1). Mr. Floom gave a brief overview of the site history and current conditions. The site's ongoing operations maintenance and monitoring were discussed. USACE representatives had no immediate questions or concerns regarding site record keeping and reporting since all Operations Maintenance and Monitoring (OM&M) Reports include copies of all field documentation as specified in the OM&M Plan.

The majority of the site is a contiguous undeveloped area which is entirely enclosed in secure fencing. On-site buildings on the east, south, and west sides of the site are outside of the fenced-in area, with the fencing separating the buildings from the interior of the site. There is higher fencing along the north side of the site, where the site abuts St. Paul High School. Since the interior site area currently has minimal and sporadic use and does not typically receive visitors, there is no manned security. In addition to the main access gate, the fenced-in area has three other access gates and two man-gates. Four English and five English/Spanish bilingual warning signs are in place at intervals along the site's fencing. The inspection team conducted the visit on foot in order to view site systems in detail and discuss the site with Mr. Floom, the WDIG Project Coordinator.

Several groundwater, vapor, and biovent wells are located at the southeast corner of the site (Photo 2). Generally, all the site's monitoring wells are in good condition with only a few wells needing minor surface repairs (Photo 3). Minor well damage or deficiencies are limited to cracked concrete pads and unsecured lids. Although damage is minor, repair is needed so as to stop any surface cracks from worsening, and to secure well access, in order to maintain the protectiveness of the remedy over the long term. WDIG inspects the wells as part of each sampling event. Mr. Floom noted the wells in need of repair, and he indicated these repairs would be addressed as soon as reasonably possible (in a follow-up phone call, Mr. Floom reiterated that repairs would be made as soon as PNL's subcontractor was available to do so).

The majority of the site perimeter within the secured fenced area is covered by RCRA Subtitle D-equivalent cover. It was noted that across the site the Subtitle D-equivalent cover was intact, with only minor surface cracks. Several potentially deep-rooted yellow-flowering bushes were also evident (visible in Photo 2). In Parcel 49 (the southeast corner of the site), a survey monument had been driven into the surface (Photo 4). The surface cracking, as well as the bushes, and the survey monument, are not considered significant and can be addressed through visual monitoring and routine O&M. Bare areas were also notable, sporadic across the site, where grass seed has not germinated. This is currently not detrimental to the remedy's effectiveness, but these areas should be monitored after future significant rain events to ensure that erosion does not occur.

The AROD anticipates potential future site redevelopment, and the City of Santa Fe Springs has developed a Specific Plan for site development purposes. There were no aesthetic or functional issues encountered during this site visit that conflict with the development guidelines presented in the City's Specific Plan.

Across the entire site, the perimeter fence was secure and in good repair. Overall, the fenced site area appeared to be entirely secure, with appropriate warning signs displayed (Photo 5). The fencing extends around almost the entire site with the exception of the buildings which front on Los Nietos Road. WDIG spent considerable resources on fencing adjacent to the private high school north of the site and on the construction of a stray ball net to catch balls from the school's athletic fields to minimize the potential for trespassing.

Surface water mainly flows off the site via sheet flow, with two exceptions, one being along the northern side of the site, where the northern site boundary is bermed, and surface water reaches a ditch and catch basin at the northeastern corner of the site. From the catch basin, site runoff enters an underground system that connects to the city's storm water system offsite. The other exception being on the west side of the site, where there is an asphalt v-gutter. The v-gutter (Photo 11) is the location of a storm water monitoring point. There have been no recent significant storm events. This lack of rain likely explains the incomplete grass coverage across the site. Along the southern fence line there are storm water control features along the fence – the boundary is sandbagged and has silt fences for sediment control (only minor amounts of sediment were noted at the sandbags and silt fences), with periodic openings allowing for offsite drainage (Photo 12). The sandbags serve as berms, intended to concentrate surface flows and direct it towards historical stormwater discharge points along the perimeter of the site, onto the perimeter parcels or into storm drains. (See the attached figure for a plan view of the stormwater drainage system.) Mr. Floom stated that the site's drainage has performed adequately.

The RCRA Subtitle C-equivalent cap which covers the buried 42-million gallon waste reservoir is located in the center of the site. The cap is in good repair, with no notable defects or damage. Near the center of the cap are components of the recently installed automatic leachate collection system. Leachate well LC-2 is pictured in Photo 7 and Photo 8. Leachate collection was included in the remedy. Initially WDIG used bailing to remove low volumes of leachate, but found that periodic baling of the leachate wells was not sufficient to maintain a low level of liquid in the wells. WDIG later installed an automatic collection system in December 2007 which currently operates effectively.

The reservoir gas collection system is another prominent remedy feature. The active components of the gas collection system (Photo 9) are currently not in use. The gas collection system was

shut off after WDIG demonstrated that production of methane and total non-methane organics was below levels at which the AROD specified for acceptance of passive operation. In addition, WDIG believes that it was the cause of increased concentrations of COCs in some soil vapor wells at the periphery of the site. The concentrations in those wells have decreased following system shutdown. Mr. Floom stated that the extraction system introduced oxygen to the subsurface which likely increased microbial activity, resulting in accelerated production of landfill gases which spread to the peripheral wells. Passive operation has been approved by EPA.

A French drain outlet is located near the fence line on the west side of the site (Photo 10). The French drain controls surface water infiltration around the RCRA Subtitle C-equivalent cap. The end of the plastic outlet pipe was broken, likely from lawn mower traffic. The drain outlet is not fitted with a flap gate or screen or other means to prevent entry by rodents. Although the French drain is currently functioning as designed, a more robust, screened outlet pipe might be needed to ensure that the outlet remains functional. This would be a very minor and inexpensive enhancement.

As mentioned above, the Subtitle D-equivalent cap is in good condition. Near the west side of the site, the owner of Parcel 29 stores equipment on the site, on an area covered by the Subtitle D-equivalent cap. This equipment storage does not damage the cap, and does not adversely affect surface water drainage in the area. Along the extreme west side of the fenced-in area, a low-permeability engineered asphalt cover is in place in certain areas of the site outside of the areas covered by the Subtitle C- and Subtitle D-equivalent covers. The low-permeability engineered asphalt cover areas are intact and in good condition.

Along three sides of the site (the east, south, and west sides), on-site businesses and lots are outside of the fenced-in area. Near the southeast corner of the site an attempt was made to locate a vapor well (VW-33) that had been skipped in previous sampling rounds. A worker at a local business indicated that the well had been paved over. The location of the paved-over well was noted (Photo 13). The date of the pave-over is unknown. VW-33 is a “compliance well”, located along the perimeter of the site, and is used to monitor migration of soil vapors offsite as well as towards nearby buildings. Benzene and other VOCs have not been detected at significant levels at this well, but the last sampling event for this well occurred prior to implementation of the remedy. As explained above, at other perimeter compliance wells increased COC concentrations have been noted since the remedy has been in effect. However, since the reservoir gas collection system has been shut down, concentrations in those wells have decreased. Due to the lack of sampling at VW-33, it is unknown whether these trends have also occurred at this location. While likely not critical, gathering data at this location may be beneficial in determining the continued effectiveness of the remedy, and the project team should follow up on this issue in order to determine if VW-33 needs to be repaired and returned to the sampling program.

At small businesses on the south side of the site, the group noted the engineered asphalt and engineered concrete pavements, as well as sealed surface cracks (Photo 14). Mr. Floom reiterated that the engineered surfaces crack sealing are part of the site remedy as part of soil vapor control. The crack sealing was found to be intact, with no cracking or separation from the pavement. Mr. Floom further described that there is periodic sampling of indoor air for the surrounding small businesses. The selected remedy included indoor engineering controls for existing buildings to protect against indoor soil gas intrusion. WDIG performed inspections and

implemented crack sealing and repairs to foundation slabs to prevent indoor soil vapor intrusion. Discussion of these engineering controls and other institutional controls associated with the various parcels will be addressed in a separate memorandum.

In all areas of the site, aesthetically, the site is in good condition, with no noted vandalism, graffiti, or other negative housekeeping issues. But of particular note in Photo 7 is the brown and parched vegetation. The Site's vegetative cover was designed as native grasses and due to the ongoing drought in the region these grasses are naturally dormant. This is currently not detrimental to the remedy's effectiveness, but the vegetative cover should be monitored, for aesthetic reasons as well as protectiveness, to ensure that it does recover as designed.

The site inspection concluded with a brief discussion of the day's events. USACE had no concerns regarding the condition of the site and its OM&M, other than the minor concerns earlier stated as part of this narrative.

James Stellmach
Environmental Engineer
Environmental Engineering Section

ENCLOSURES: Stormwater Drainage System figure, Photo Log, Sit Inspection Checklist.

290224020MMP705-18 (No Logo) REV. 10/29/08

SOIL BERM
CATCH BASIN
BURIED PVC STORM DRAIN PIPE
EXISTING LACPWD CONCRETE CATCH BASIN
PROJECT NORTH
ASPHALT V-DITCH
DRAIN PIPE FROM FRENCH DRAIN
CONCRETE CURB
CLEANOUT (NOTE 1)
FRENCH DRAIN
ASPHALT CURB
ASPHALT BERMS
AREA 1
AREA 2
AREA 3
AREA 4
AREA 5
AREA 6
AREA 7
AREA 8
BUILDING
ROAD
AVENUE
SANTA FE SPRINGS
GREENLEAF
LOS NIETOS ROAD

LEGEND
- LIMIT OF GRADING
- EARTH/SOIL BERM
- AREA BOUNDARY
- SITE BOUNDARY

NOTE:
1. A CLEANOUT IS PROVIDED FOR THE CAP DRAINAGE TRENCH COLLECTION PIPE APPROXIMATELY EVERY 100 FEET.

0 150 300 FEET
SCALE

STORMWATER DRAINAGE SYSTEM

WASTE DISPOSAL, INC.
SANTA FE SPRINGS, CALIFORNIA

WASTE DISPOSAL INCORPORATED (WDI) SUPERFUND SITE

SITE INSPECTION REPORT

PHOTO LOG

Photo 1: Entrance Gate, Facing East, From Onsite

Photo 2: BW-10, Southeast Corner of Site

Photo 3: GW-30, Minor Surface Damage – Pad cracked, security lid damaged and unsecured

Photo 4: Survey Monument Placed Through Cap, Parcel 49

Photo 5: English and Spanish Warning Signs, South Fence

Photo 6: Storm Water Catch Basin, Northeast Area of Site

Photo 7: Leachate Collection Well, LC-2

Photo 8: Examining Automated Leachate Collection System at LC-2

Photo 9: SVE System, Currently in Passive Operation

Photo 10: French Drain Outlet, West Side of Site

Photo 11: Storm Water Control – V-gutter, West Side of Site

Photo 12: Storm Water Control – Sand Bags and Silt Fence, South Side of Site

Photo 13: Location of VM-33, Paved Over with Asphalt, South Side of Site, Adjacent to Los Nietos Road

Photo 14: Sealed Cracks in Pavement at Small Business ("Four C's Transmission"), South Side of Site

Site Inspection Checklist

I. SITE INFORMATION	
Site name: Waste Disposal, Inc. (WDI)	**Date of inspection:** 9/11/2008
Location and Region: Santa Fe Springs, CA	**EPA ID:** CAD980884357
Agency, office, or company leading the five-year review: USACE	**Weather/temperature:** Overcast-Sunny, 60s-low 70s F

Remedy Includes: (Check all that apply)

Landfill cover/containment	✓	Monitored natural attenuation	
Access controls	✓	Groundwater containment	
Institutional controls	✓	Vertical barrier walls	
Groundwater pump and treatment			
Surface water collection and treatment			

Other: Engineered capping for areas outside of landfill cover; soil vapor collection, extraction, and treatment system; liquids (leachate) collection system; engineering controls for buildings remaining onsite; passive soil gas migration control (biovent wells); Long-term groundwater monitoring; long-term O&M.

Attachments: Site map attached

II. INTERVIEWS (Check all that apply)

1. **O&M site manager** Name: Ken Floom Title: Project Coordinator Date: 9/11/2008
   Interviewed at site Phone no. (949) 374-0913 / (714) 388-1800
   Problems, suggestions: Mr. Floom was interviewed during the site visit. The only problems noted were minor damages to some wells, and one paved-over well.

2. **O&M staff** _____N/A_____ _____ _____
   Name Title Date
   Interviewed at site at office by phone Phone no. _____
   Problems, suggestions; Report attached _____
   _____

3. **Local regulatory authorities and response agencies** (i.e., State and Tribal offices, emergency response office, police department, office of public health or environmental health, zoning office, recorder of deeds, or other city and county offices, etc.) Fill in all that apply.

Agency _____
Contact _____ _____ _____ _____
Name Title Date Phone no.
Problems; suggestions; Report attached: _____
_____

Agency _____
Contact _____ _____ _____ _____
Name Title Date Phone no.
Problems; suggestions; Report attached: see interview report_____
_____

Agency _____
Contact _____ _____ _____ _____
Name Title Date Phone no.
Problems; suggestions; Report attached _____
_____

Agency _____
Contact _____ _____ _____ _____
Name Title Date Phone no.
Problems; suggestions; Report attached _____
_____

4. **Other interviews** (optional) Report attached.

III. ON-SITE DOCUMENTS & RECORDS VERIFIED (Check all that apply)

1. **O&M Documents**

O&M manual✓ Readily available✓ Up to date✓ N/A

As-built drawings✓ Readily available✓ Up to date✓ N/A

Maintenance logs✓ Readily available✓ Up to date✓ N/A

Remarks_____Documents kept at offsite locations due to lack of facilities on-site._____

2. **Site-Specific Health and Safety Plan** Readily available✓ Up to date✓ N/A

Contingency plan/emergency response plan Readily available✓ Up to date✓ N/A

Remarks_____

_____

3. **O&M and OSHA Training Records** Readily available Up to date N/A

Remarks: Not observed or requested._____

_____

4. **Permits and Service Agreements**

Air discharge permit Readily available Up to date N/A✓

Effluent discharge Readily available Up to date N/A✓

Waste disposal, POTW Readily available Up to date N/A✓

Other permits_____ Readily available Up to date N/A✓

Remarks: _____

_____

5. **Gas Generation Records** Readily available✓ Up to date✓

Remarks_____Available in O&M Reports._____

_____

6. **Settlement Monument Records** Readily available✓ Up to date✓ N/A

Remarks_____ Available in O&M Reports._____

_____

7. **Groundwater Monitoring Records** Readily available✓ Up to date✓ N/A

Remark: _____ Available in O&M Reports._____

_____

8. **Leachate Extraction Records** Readily available✓ Up to date✓ N/A

Remarks_____ Available in O&M Reports._____

_____

9. **Discharge Compliance Records**

Air Readily available Up to date N/A✓

Water (effluent) Readily available Up to date N/A✓

Remarks_____

_____

10. **Daily Access/Security Logs** Readily available Up to date N/A✓

Remarks: _____

_____

IV. O&M COSTS

1. **O&M Organization**

State in-house Contractor for State
PRP in-house Contractor for PRP✓
Federal Facility in-house Contractor for Federal Facility
Other_____
_____

2. **O&M Cost Records**

Readily available✓ Up to date: Need to update status and request information.
Funding mechanism/agreement in place
Original O&M cost estimate_____ Breakdown attached

Total annual cost by year for review period if available

For _____ _____
Date Total cost

For _____ _____
Date Total cost

For _____ _____
Date Total cost

For _____ _____
Date Total cost

For _____ _____
Date Total cost

3. **Unanticipated or Unusually High O&M Costs During Review Period**

Describe costs and reasons:
_____
_____

V. ACCESS AND INSTITUTIONAL CONTROLS Applicable N/A

A. Fencing

1. **Fencing** Location shown on site maps✓ Gates secured✓ N/A

Remarks: Fencing intact and in good condition. ✓

B. Other Access Restrictions

1. **Signs and other security measures** Location shown on site map✓ N/A

Remarks:

C. Institutional Controls (ICs)

1. **Implementation and enforcement**

Site conditions imply ICs properly implemented Yes✓ No N/A

Site conditions imply ICs being fully enforced Yes✓ No N/A

Type of monitoring : (e.g., self-reporting, drive by)_____

Frequency _____

Responsible party/agency _____

Contact_____ _____ _____ _____

Name Title Date Phone

Reporting is up-to-date	Yes	No	N/A
Reports are verified by the lead agency	Yes	No	N/A
Specific requirements in deed or decision documents have been met	Yes	No	N/A
Violations have been reported	Yes	No	N/A

Other problems or suggestions:

_____

_____

2. **Adequacy** ICs are adequate✓ ICs are inadequate N/A

Remarks: Will be covered in separate memo.

D. General

1. **Vandalism/trespassing** Location shown on site map No vandalism evident✓

Remarks: _____Mr. Floom indicated graffiti is a problem._____

_____

2. **Land use changes on site** N/A

Remarks:

3. **Land use changes off site** N/A

Remarks:

VI. GENERAL SITE CONDITIONS

A. Roads Applicable✓ N/A

1. Roads damaged Location shown on site map✓ Roads adequate✓ N/A

Remarks_____

_____

B. Other Site Conditions✓

Remarks: RCRA Subtitle D-Equivalent cover area is in good condition. Areas of engineered asphalt and engineered concrete are in good condition.

_____

_____

_____

VII. LANDFILL COVERS Applicable✓ N/A

A. Landfill Surface

1. **Settlement** Location shown on site map Settlement not evident✓
   Areal extent_____ Depth_____
   Remarks_____
   _____

2. **Cracks** Location shown on site map Cracking not evident✓
   Lengths_____ Widths_____ Depths_____
   Remarks_____
   _____

3. **Erosion** Location shown on site map Erosion not evident✓
   Areal extent_____ Depth_____
   Remarks_____
   _____

4. **Holes** Location shown on site map Holes not evident✓
   Areal extent_____ Depth_____
   Remarks_____
   _____

5. **Vegetative Cove** Grass✓ Cover properly established✓ No signs of stress✓
   NoTrees/Shrubs✓ (indicate size and locations on a diagram)
   Remarks____No shrubs noted. Possibly seasonal variation, and some low-growing shrubby growth might be more notable on-site during the wet season.
   _____
   _____

6. **Alternative Cover (armored rock, concrete, etc.)** N/A✓
   Remarks_____
   _____

7. **Bulges** Location shown on site map Bulges not evident✓
   Areal extent_____ Height_____
   Remarks_____
   _____

8. **Wet Areas/Water Damage** Wet areas/water damage not evident✓
   Wet areas Location shown on site map Areal extent_____
   Ponding Location shown on site map Areal extent_____
   Seeps Location shown on site map Areal extent_____
   Soft subgrade Location shown on site map Areal extent_____
   Remarks_____
   _____

9. **Slope Instability** Slides Location shown on site map No evidence of slope instability✓
   Areal extent_____
   Remarks_____
   _____

B. Benches Applicable N/A✓

(Horizontally constructed mounds of earth placed across a steep landfill side slope to interrupt the slope in order to slow down the velocity of surface runoff and intercept and convey the runoff to a lined channel.)

1. **Flows Bypass Bench** Location shown on site map N/A or okay
   Remarks_____
   _____

2. **Bench Breached** Location shown on site map N/A or okay
   Remarks_____
   _____

3. **Bench Overtopped** Location shown on site map N/A or okay
   Remarks_____
   _____

C. Letdown Channels Applicable N/A✓

(Channel lined with erosion control mats, riprap, grout bags, or gabions that descend down the steep side slope of the cover and will allow the runoff water collected by the benches to move off of the landfill cover without creating erosion gullies.)

1. **Settlement** Location shown on site map No evidence of settlement
   Areal extent_____ Depth_____
   Remarks_____
   _____

2. **Material Degradation** Location shown on site map No evidence of degradation
   Material type_____ Areal extent_____
   Remarks_____
   _____

3. **Erosion** Location shown on site map No evidence of erosion
   Areal extent_____ Depth_____
   Remarks_____
   _____

4. **Undercutting** Location shown on site map No evidence of undercutting✓
Areal extent_____ Depth_____
Remarks_____
_____

5. **Obstructions** Type_____ No obstructions✓
Location shown on site map Areal extent_____
Size_____
Remarks_____
_____

6. **Excessive Vegetative Growth** Type_____
No evidence of excessive growth
Vegetation in channels does not obstruct flow
Location shown on site map Areal extent_____
Remarks_____
_____

D. Cover Penetrations Applicable✓ N/A

1. **Gas Vents** Active Passive✓
Properly secured/locked✓ Functioning Routinely sampled Good condition✓
Evidence of leakage at penetration Needs Maintenance
N/A
Remarks: SVE system currently not active. See Site inspection narrative.

2. **Gas Monitoring Probes**
Properly secured/locked Functioning✓ Routinely sampled✓ Good condition✓
Evidence of leakage at penetration Needs Maintenance N/A
Remarks: Several across site. Mostly secure. Some with minor well head damageor security issue. Ken Floom took notes.
_____

3. **Monitoring Wells** (within surface area of landfill)
Properly secured/locked Functioning✓ Routinely sampled✓ Good condition✓
Evidence of leakage at penetration Needs Maintenance N/A
Remarks: Only one GW wells on landfill area itself (GW-33).

4. **Leachate Extraction Wells**
Properly secured/locked✓ Functioning✓ Routinely sampled✓ Good condition✓
Evidence of leakage at penetration Needs Maintenance N/A
Remarks_____
_____

5. **Settlement Monuments** Located✓ Routinely surveyed✓ N/A
Remarks_____
_____

E. Gas Collection and Treatment Applicable✓ N/A

1. **Gas Treatment Facilities**
   Flaring Thermal destruction Collection for reuse
   Good condition Needs Maintenance
   Remarks: See above (currently inactive SVE system in good condition)

2. **Gas Collection Wells, Manifolds and Piping**
   Good condition✓ Needs Maintenance
   Remarks___Currently inactive._____
   _____

3. **Gas Monitoring Facilities** (*e.g.*, gas monitoring of adjacent homes or buildings)
   Good condition Needs Maintenance N/A
   Remarks: Quarterly summa canisters in adjacent small businesses.

F. Cover Drainage Layer Applicable✓ N/A

1. **Outlet Pipes Inspected** Functioning✓ N/A
   Remarks: French drain.

2. **Outlet Rock Inspected** Functioning N/A✓
   Remarks_____
   _____

G. Detention/Sedimentation Ponds Applicable N/A✓

1. **Siltation** Areal extent_____ Depth_____ N/A
   Siltation not evident
   Remarks_____
   _____

2. **Erosion** Areal extent_____ Depth_____
   Erosion not evident
   Remarks_____
   _____

3. **Outlet Works** Functioning N/A
   Remarks_____
   _____

4. **Dam** Functioning N/A
   Remarks_____
   _____

H. Retaining Walls Applicable N/A✓

1. **Deformations** Location shown on site map Deformation not evident
   Horizontal displacement_____ Vertical displacement_____
   Rotational displacement_____
   Remarks_____
   _____

2. **Degradation** Location shown on site map Degradation not evident
   Remarks_____
   _____

I. Perimeter Ditches/Off-Site Discharge Applicable✓ N/A

Remarks: Off-site surface water flow is mostly via sheet flow, with two exceptions, one being along the northeast side of the site, where the northern site boundary is bermed, and surface water reaches a ditch and catch basin and then enters an underground system that connects to the city's storm water system offsite (the other exception being on the west side of the site, where there is an asphalt v-gutter which flows directly off-site. The majority of the site boundary is sandbagged and has silt fences for sediment control, with periodic openings allowing for offsite drainage. All surface water control features are seemingly in good condition _____

1. **Siltation** Location shown on site map Siltation not evident✓
   Areal extent_____ Depth_____
   Remarks_____
   _____

2. **Vegetative Growth** Location shown on site map N/A
   Vegetation does not impede flow
   Areal extent_____ Type_____
   Remarks_____
   _____

3. **Erosion** Location shown on site map Erosion not evident
   Areal extent_____ Depth_____
   Remarks_____
   _

4. **Discharge Structure** Functioning N/A
   Remarks_____
   _____

VIII. VERTICAL BARRIER WALLS Applicable N/A✓

1. **Settlement** Location shown on site map Settlement not evident
   Areal extent_____ Depth_____
   Remarks_____
   _____

2. **Performance Monitoring** Type of monitoring_____
   Performance not monitored
   Frequency_____ Evidence of breaching_____
   Head differential_____
   Remarks_____
   _____

IX. GROUNDWATER/SURFACE WATER REMEDIES Applicable N/A✓

A. Groundwater Extraction Wells, Pumps, and Pipelines Applicable N/A

1. **Pumps, Wellhead Plumbing, and Electrical**

   Good condition All required wells properly operation Needs Maintenance N/A

   Remarks_____

   _____

   _____

2. **Extraction System Pipelines, Valves, Valve Boxes, and Other Appurtenances**

   Good condition Needs Maintenance

   Remarks_____

   _____

3. **Spare Parts and Equipment**

   Readily available Good condition Requires upgrade Needs to be provided

   Remarks_____

   _____

B. Surface Water Collection Structures, Pumps, and Pipelines Applicable N/A✓

1. **Collection Structures, Pumps, and Electrical**

   Good condition Needs maintenance

   Remarks_____

   _____

2. **Surface Water Collection System Pipelines, Valves, Valve Boxes, and Other Appurtenances**

   Good condition Needs maintenance

   Remarks_____

   _____

3. **Spare Parts and Equipment**

   Readily available Good condition Requires upgrade Needs to be provided

   Remarks_____

   _____

C. Treatment System ~~Applicable~~ Long-term monitoring only

1. **Treatment Train** (Check components that apply)
   Metals removal Oil/water separation Bioremediation
   Air stripping Carbon adsorbers
   Filters_____
   Additive (*e.g.*, chelation agent, flocculent)_____
   Others: _____
   Good condition Needs Maintenance
   Sampling ports properly marked and functional
   Sampling/maintenance log displayed and up to date
   Equipment properly identified
   Quantity of groundwater treated annually: _____
   Quantity of surface water treated annually: _____
   Remarks: _____
   _____

2. **Electrical Enclosures and Panels** (properly rated and functional)
   N/A Good condition Needs Maintenance
   Remarks_____
   _____

3. **Tanks, Vaults, Storage Vessels**
   N/A Good condition Proper secondary containment Needs Maintenance
   Remarks_____
   _____

4. **Discharge Structure and Appurtenances**
   N/A Good condition Needs Maintenance
   Remarks_____
   _____

5. **Treatment Building(s)**
   N/A Good condition (esp. roof and doorways) Needs repair
   Chemicals and equipment properly stored
   Remarks_____
   _____

6. **Monitoring Wells** (~~pump and treatment remedy~~)
   Properly secured/locked✓ Functioning Routinely sampled✓ Good condition✓
   All required wells located Needs Maintenance N/A
   Remarks:

D. Monitoring Data

1. Monitoring Data
   Is routinely submitted on time✓ Is of acceptable quality✓

2. Monitoring data suggests: Groundwater is still not impacted.
   ~~Groundwater plume is effectively contained~~ ~~Contaminant concentrations are declining~~

D. Monitored Natural Attenuation N/A✓

1. **Monitoring Wells** (natural attenuation remedy)

Properly secured/locked | Functioning | Routinely sampled | Good condition
All required wells located | Needs Maintenance | N/A
Remarks_____
_____

1.1 X. OTHER REMEDIES

If there are remedies applied at the site which are not covered above, attach an inspection sheet describing the physical nature and condition of any facility associated with the remedy. An example would be soil vapor extraction. Note that there are no other remedies.

See comments above (in section VII. LANDFILL COVERS) regarding SVE system. See comments above (in section VI. GENERAL SITE CONDITIONS) regarding RCRA Subtitle D-equivalent cover and areas of engineered asphalt and engineered concrete. See below for inspection of the passive Biovent well system.

Biovent Wells

Properly secured/locked✓ Functioning✓ Routinely sampled Good condition✓
Needs Maintenance N/A

Remarks: As with the SVE system, the contractor, PNL, has proposed that the biovent wells are inducing aerobic conditions in the subsurface, leading to possibly detrimental soil vapor migration, and that the passive biovent wells should therefore be decommissioned.

XI. OVERALL OBSERVATIONS

A. Implementation of the Remedy

Describe issues and observations relating to whether the remedy is effective and functioning as designed. Begin with a brief statement of what the remedy is to accomplish (i.e., to contain contaminant plume, minimize infiltration and gas emission, etc.).

The remedy addresses waste materials, contaminated soil, subsurface liquids, subsurface gases, and groundwater conditions. These conditions are being remediated primarily through containment, collection and treatment of gases, collection and removal of site liquids, and institutional controls. EPA has also determined that there has been no demonstration that the site has contributed to exceedances of groundwater standards. To ensure continued protection of the groundwater, the remedy incorporates groundwater monitoring and institutional controls (ICs), including groundwater ICs.

The remedy seems to be effective and functioning as designed.

B. Adequacy of O&M

Describe issues and observations related to the implementation and scope of O&M procedures. In particular, discuss their relationship to the current and long-term protectiveness of the remedy.

Well inspection and maintenance frequency could be increased from current annual frequency.

C.	Early Indicators of Potential Remedy Problems
	Describe issues and observations such as unexpected changes in the cost or scope of O&M or a high frequency of unscheduled repairs that suggest that the protectiveness of the remedy may be compromised in the future. None.

D.	Opportunities for Optimization
	Describe possible opportunities for optimization in monitoring tasks or the operation of the remedy. As detailed above, in order to hopefully control soil gas migration, the O&M site management contractor, PNL, has switched the SVE system to a passive state. PNL has also proposed decommissioning the biovent wells.

ATTACHMENT F

RISK ASSESSMENT, TOXICOLOGY, AND ARARs ANALYSIS

TECHNICAL MEMORANDUM
FIRST FIVE-YEAR REVIEW FOR THE
WASTE DISPOSAL, INC. SUPERFUND SITE

RISK ASSESSMENT, TOXICOLOGY, AND ARARS ANALYSIS

A. INTRODUCTION

This Risk Assessment, Toxicology, and ARARs Analysis memorandum provides supporting documentation for the first Five-Year Review for the Waste Disposal, Inc., Superfund (WDI) Site, located in the City of Santa Fe Springs, California. The U.S. Environmental Protection Agency (EPA) has tasked the U.S. Army Corps of Engineers (USACE), Sacramento District, to perform the Five Year Review. The project scope includes preparation of a narrative Five Year Review Report as well as several detailed memoranda to analyze specific topics required by EPA guidance documents. This memorandum addresses Question B of the statement of service, "Are the exposure assumptions, toxicity data, cleanup levels and remedial action objectives (RAOs) used at the time of the remedy selection still valid?" This question in turn relates the overall protectiveness of the selected remedy with respect to current standards.

B. SITE BACKGROUND

The WDI site encompasses 38 acres located in an industrial area on the east side of Santa Fe Springs, CA. The site boundaries include Santa Fe Springs Road on the northwest, a warehouse and a private high school on the northeast, Los Nietos Road on the southwest, and Greenleaf Avenue on the southeast. A residential area lies to the east of the site. The site is currently zoned as industrial, with approximately 35 small businesses operating onsite. Typical businesses include auto shops, industrial gas distribution, machine shops, fabricators, and various manufacturing operations. See the table attached to the Five Year Review Report "Summary of Parcel Owners and Tenants" for a detailed listing of onsite businesses. It is up-to-date as of the most recent Operation Maintenance and Monitoring Report (October 2007 through March 2008).

The 38-acre site consists of 22 land parcels that are currently owned by 17 individual landowners. Site owner/operators (a sub-set of the property owners) formerly used a now-buried 42-million gallon reservoir (600 feet in diameter and 25 feet deep), located in the center of the site, for the disposal of a variety of oil field, refinery, and construction wastes from the 1940's to 1964. In addition, wastes were disposed outside of the reservoir, and have been delineated in many of the parcels located on the perimeter of the reservoir (see Attachment A of the Five-Year Review Report, Figure 2, "Site Features" and Figure 3, "Major Remedy Components").

EPA placed the WDI site on the National Priorities List on July 22, 1987. In August 1993, EPA completed the feasibility study for contaminated soils and subsurface gases for Operable Unit #1 (OU1), and in December 1993, EPA signed a Record of Decision (ROD) for OU1. The EPA initially designated a second operable unit for groundwater and decided to reserve selection of a groundwater remedy pending completion of groundwater investigations.

Based on information that became available after the signature of the 1993 ROD, EPA determined that an Amended ROD (AROD) would be required to ensure protection of human health and the environment. The new information included: the expanded lateral extent and volume of buried waste on the site; new information on the nature and increased extent of soil gas beneath the site; and the presence of liquids inside the buried concrete-lined reservoir at the center of the site. EPA determined that this information was sufficient to warrant additional site investigations and further analysis of the potential remedial alternatives for the site. These further site investigations were conducted to update previously collected data and to fill in data gaps.

Although the original 1993 Feasibility Study (FS) focused primarily on soils, these subsequent investigations focused on other media; groundwater, soil gas, and landfill liquids. This process led to a Supplemental Feasibility Study (SFS), which EPA completed in May 2001. The SFS presented a detailed analysis of remedial alternatives that addressed the updated information regarding the nature and extent of contamination on the site. EPA prepared a proposed Plan, conducted a public comment process (June 2001), and the issued the AROD in 2002.

As detailed in the AROD, no significant impacts to groundwater quality from WDI wastes were identified based on groundwater sampling and the comparison of sampling data with the locations and characteristics of waste sources at the site. The EPA decided not to retain a separate OU for groundwater, and incorporated detection groundwater monitoring and institutional controls (ICs) to restrict use of groundwater underlying the site into the revised remedy presented in the AROD. As a result, the AROD serves as the final record of decision for the entire site. The AROD incorporates long-term operations and maintenance (O&M) into the revised remedy.

The Waste Disposal, Inc., Group (WDIG), consisting of 17 site generators, began preparation of a Remedial Design under EPA oversight pursuant to Unilateral Administrative Order (UAO) 94-17 and the amended UAO 97-09 issued in 1994 and 1997, respectively. EPA entered a Consent Decree (CD) with WDIG in 2003 for implementation of the remedial action following issuance of the AROD. In addition to the CD with WDIG, EPA entered CDs with each of the property owners to implement site access and institutional controls. EPA approved the final Remedial Design Report in June 2003. The physical construction of the selected remedy commenced in March 2004, and was completed in August 2005. The Consent Decree required compliance testing, consisting of operation of the gas system in active mode. WDIG conducted the compliance testing from December 17, 2005, to January 17, 2006. The SOW initially called for 90 days, but EPA approved a shorter time frame in response to a WDIG request. The EPA approved the Compliance Testing Report on July 27, 2006. The EPA approved the combined Remedial Action Completion Report and As-Built Report on September 14, 2006; and formal OM&M activities began on September 15, 2006.

The AROD anticipates potential future redevelopment, stating “within EPA’s authority, and to the maximum extent practicable, the design and implementation for the remedy will be accomplished so as not to preclude appropriate redevelopment of the site.” In 2000, EPA provided a grant to the City of Santa Fe Springs to develop a plan for the future redevelopment and reuse of the site. The City of Santa Fe Springs has been interested in seeing the site redeveloped and has since developed a Specific Plan for the site. The City is the lead agency on

Site redevelopment. The Specific Plan dictates developers comply with Federal and state of California laws, standards established by the EPA in the AROD, and the requirements specified by the City. In the event there is a conflict, Federal and state of California requirements supersede the Specific Plan.

Contamination at the site has impacted two media: the soil and soil vapor. Contaminants of concern (COCs) in the soil include 11 metals, 7 chlorinated pesticides, 16 volatile organic compounds (VOCs), polyaromatic hydrocarbons (PAHs), and polychlorinated biphenyls (PCBs). The COCs identified for soil gas include benzene, ethylbenzene, toluene, xylenes, carbon tetrachloride, chloroform, 1,2-dibromoethane, tetrachloroethene (PCE), 1,1,1-trichloroethane (1,1,1-TCA), trichloroethene (TCE), vinyl chloride, 1,2-dichloropropane, and methane. For groundwater, the chemicals identified for long-term detection monitoring include arsenic, lead, manganese, mercury, toluene, carbon tetrachloride, chloroform, PCE, TCE, benzene, toluene, xylenes, carbon tetrachloride, chloroform, and vinyl chloride.

C. REMEDIAL ACTION OBJECTIVES AND SITE REMEDY

Remedial Action Objectives (RAOs) are listed in the AROD. The RAOs for the remedy are intended to:

1. Protect human health and the environment by preventing exposure to buried wastes and contaminated soils;
2. Protect current and future on-site and off-site receptors from exposure to soil gases;
3. Prevent human exposure, from direct contact, consumption, and other uses, to site liquids exceeding state and federal standards;
4. Prevent contribution of site liquids to exceedances of state and federal groundwater standards; and
5. Prevent human exposure to groundwater that exceeds state and federal standards due to site-related contaminants.

These objectives were based on the site use at the time, the anticipated potential for future use of the site for industrial purposes, and the potential for groundwater in the area to be used as a public water supply.

To meet the RAOs, the AROD addressed the buried waste, contaminated soils, soil gas, liquids, groundwater monitoring, and institutional controls:

1. The primary component of the remedy presented in the AROD is the RCRA-equivalent cap (RCRA “C” cap) over the reservoir section of Area 2, to provide containment for the reservoir area.
2. Whereas the original remedy included excavation of wastes (in designated areas outside of the reservoir area) and reconsolidation of excavated materials beneath the RCRA “C” reservoir area cap, the AROD did not include waste excavation and reconsolidation. In this respect, the AROD was more protective in the short- term because it eliminated short-term exposure to wastes that would have resulted from significant excavation and consolidation.
3. The AROD also included capping systems for other areas of the site. Buried waste and contaminated soil outside the reservoir was capped in situ using several engineered

capping systems, including engineered-graded soils, asphalt, and concrete. This includes the RCRA "D" cap in the area surrounding the RCRA "C" cap over the reservoir.

4. The AROD also included
    - a gas collection and treatment system under the RCRA "C" cap;
    - passive bioventing wells outside of the reservoir area;
    - leachate collection, to monitor for, collect, and remove "free liquids" within the buried waste;
    - engineering controls to prevent soil gas migration into existing structures;
    - institutional controls to restrict current and future land uses at the site, protect the integrity of the cap and soil gas control systems, restrict future use of shallow groundwater, and ensure the effectiveness of the remedy components;
    - soil vapor monitoring, in-business air quality monitoring, and groundwater monitoring;
    - and long-term O&M.

Table 1 illustrates how the remedy elements selected in the AROD address the RAOs.

Table 1 – Site Remedy (2002 AROD)

Activity/Component	Remedial Action Objective(s)	Activity/ Component Details
RCRA-Equivalent Cap	Protect human health and the environment by preventing exposure to buried wastes and contaminated soils. The cap also helps attain all other RAOs.	Installation of a RCRA-equivalent cap (RCRA "C" cap) over reservoir in Area 2 (approx. 306,000 square feet).
Extraction & Treatment of Subsurface Gases (Area 2)	Protect current and future on-site and off-site receptors from exposure to soil gases.	Installation of a gas migration control system under a RCRA-equivalent cap. System will be designed to be an active system (mechanical blower/vacuum driven) and include treatment of gas emissions with Granular Activated Carbon (GAC); conversion to a passive gas (non mechanical driven) migration control system will be considered after one year depending on gas volumes and gas emission rates. Implementation of long-term gas monitoring as part of O&M.
Extraction & Treatment of Subsurface Gases (Outside Area 2)	Protect current and future on-site and off-site receptors from exposure to soil gases.	In designated areas outside of reservoir area, installation of passive bioventing systems or active soil vapor extraction (SVE) wells with treatment. Implementation of long-term gas monitoring as part of O&M including monitoring of ambient air in onsite buildings.
Liquids Management Systems	Prevent human exposure, from direct contact, consumption, and other uses, to site liquids exceeding state and federal standards. Prevent contribution of site liquids to exceedances of state and federal groundwater standards.	Installation of a liquids collection system under the cap (in Area 2) to collect leachate and free liquids for offsite treatment and disposal at a facility approved by EPA.
Engineered Capping Systems	Protect human health and the environment by preventing exposure to buried wastes and contaminated soils. The capping systems also help in attaining all other RAOs.	Installation of engineered capping systems in Areas 1, 2, 4, 5, 6, 7, 8 (approx. 638,000 square feet), outside of reservoir, including engineered graded soil, asphalt, and concrete capping systems. This includes the installation of a RCRA "D" cap surrounding the limits of the reservoir RCRA "C" cap noted above
Engineering Controls	Protect current and future on-site and off-site receptors from exposure to soil gases.	Implementation of engineering controls including physical barriers and ventilation systems at and/or within existing and new buildings overlying or adjacent to waste. Demolition and removal of some existing structures may be required where engineering controls are not feasible.
Access & Institutional Controls (ICs)	All.	Implementation of approved ICs to control future land use, protect the integrity of the cap, prevent exposure to contaminated soils, and prohibit shallow groundwater use.
Groundwater Monitoring	Prevent human exposure to groundwater that exceeds state and federal standards due to site-related contaminants.	Implementation of long-term groundwater monitoring program
Operations and maintenance (O&M)	All.	Implementation of long-term O&M.

D. HUMAN HEALTH EVALUATION

The EPA Record of Decision (ROD) for the WDI Superfund site (1993) identified remediation goals for compounds in soil and soil gas. The selected containment remedy in the AROD (2002) did not include soil treatment or significant soil removal; rather it includes RCRA-equivalent engineered capping systems, soil gas and liquids collection and control, institutional controls, and long term operations, maintenance, and monitoring. Therefore, the AROD did not include soil cleanup standards. EPA approved completion of the remedial action in September 2006, and the capping remedy prevents receptor contact with soil.

As stated in the AROD (Page 1-3), extensive sampling and data analysis reflect no significant impacts from the WDI waste on groundwater quality. The AROD indicates that several COCs in groundwater have been detected above their respective State MCLs. These exceedances have been attributed to offsite industrial sources (AROD, page II-13) and do not appear to be related to WDI site waste materials based on their distribution in groundwater. EPA determined that the WDI site did not contribute to exceedences of groundwater MCLs. EPA therefore made the decision not to retain an operable unit for groundwater, and established a long-term monitoring program designed to detect potential changes in the groundwater conditions under the site.

Changes in Exposure Assumptions

The Final Endangerment Assessment of November 1989 identified three possible exposure pathways and one potential future exposure pathway. The current exposure pathways considered in the Endangerment Assessment were:

- Direct contact with contaminated surface soils;
- Inhalation of airborne particles by students and nearby residents; and
- Inhalation of volatiles by students and nearby residents.

The future risk pathway evaluated in the Endangerment Assessment was:

- Direct contact with contaminated surface soils to future hypothetical residents with homes built on top of the Site.

The 2002 AROD added a new possible exposure pathway: inhalation of subsurface soil gas constituents migrating from the waste pits through structure foundations. The AROD also evaluated the potential for migration of contaminants from the waste pit to groundwater and determined that this was not a likely exposure potential.

Currently, the waste pit has been capped and a gas collection system is in operation. Therefore, the potential exposure pathways are no longer complete. The onsite land use is expected to remain industrial, generally consistent with the Specific Use Plan for the site that was adopted by the City of Santa Fe Springs in 2004. Both the Specific Use Plan for the site and the restrictive covenants for each site parcel prohibit residential land use. No significant changes in exposure or water use are expected.

Changes in Toxicity

Several toxicity factors have changed since the original 1989 risk assessment (Ebasco, 1989). The original assessment concluded that the contaminants posing the greatest threat to human health at the site were arsenic, thallium, benzene, vinyl chloride, PCBs, and seven pesticides. Since 1989, our understanding of the toxicity of these contaminants has developed, and some compounds, such as arsenic, are now known to be more toxic than previously believed. Table 1 shows a comparison between the toxicity factors used in the initial risk assessment and the current toxicity factors for these contaminants.

In addition, there are now non-cancer reference doses for inhalation exposure, which were not available at the time of the original risk assessment. Note, however, that the inhalation pathway, as well as the direct exposure and inhalation of dust particles pathways, are currently incomplete at the site because the remedy prevents direct contact and incidental inhalation of site soils.

Changes in Risk Assessment Methods

The human health risk assessment method and results for the Waste Disposal, Inc. Superfund Site are detailed in the Endangerment Assessment (Ebasco, 1989) and updated in the AROD (EPA, 2002). No significant changes to risk assessment methodology or in the risk assessment results since 2002 indicate a change in the level of protectiveness. The exposure parameters used to develop the corrective action objectives are standard default EPA values. The exposure assumptions are for a future residential receptor, and are therefore conservative, valid and appropriate. Further, risks associated with ingestion of groundwater are not due to impacts from WDI.

Changes in Toxicity behind the Performance Standard Objectives

The Amended ROD adopted soil gas performance standards based on the EPA Region 9 Preliminary Remediation Goals (PRGs) for ambient air and applied an attenuation factor on the PRGs to take into account that the point of measurement was soil gas and not ambient air. Table 3 is the Soil Gas Performance Standards and Rationale presented in the AROD. Table 2 compares the PRGs used at the time of the Amended ROD and the comparable 2008 Regional Screening Levels (RSLs) for industrial air. As shown in Table 2, there have been a number of changes between the 2000 PRGs and 2008 RSLs for ambient air.

For most of the contaminants, the 2008 RSL exposure levels are higher than the 1999 PRGs, indicating that the criteria in the 2002 AROD are conservative and protective. Four compounds had lower screening values: 1,2 dibromoethane, ethylbenzene, tetrachloroethene, and xylenes. With respect to these compounds, the impacts associated with these changes can be summarized as follows:

- 1,2-dibromoethane: The RSL is an order of magnitude lower than the PRG (0.001 ppbv to 0.0003 ppbv). The soil gas standard selected in the ROD was 1 ppbv (based on a 10-5 indoor air inhalation risk and an attenuation factor of 100). Using the new

toxicity information, the current soil gas standard would result in a 3×10^{-5} risk which is in EPA's acceptable risk range.

- Ethylbenzene: The RSL for ethylbenzene has dropped more than two orders of magnitude less than the PRG (250 ppbv to 1.1 ppbv). The PRG in 2000 was based on the non-cancer risk, and the AROD used a hazard quotient of 0.2 and an attenuation factor of 100 to set the soil gas standard at 5000 ppbv. The more recent RSL was developed to assess a cancer risk. The risk for ethlybenzene at 50 ppbv in soil gas (5000 ppbv/100 attenuation factor) would be 4.5×10^{-5} which is in EPA's acceptable risk range.

- Tetrachloroethene: The RSL is slightly lower than the PRG and still would result in a 10^{-5} risk.

- Xylenes: The RSL is one-half the PRG (200 ppbv to 101 ppbv). The amended ROD selected a performance standard in soil gas for xylene of 4000 ppbv based on a hazard quotient of 0.2 and an attenuation factor of 100. The current standard corresponds to a hazard quotient of 0.4 when the RSL is used. EPA considers any concentration with a hazard quotient below 1.0 as protective. Therefore the increase in toxicity value between the RSL and the PRG using the AROD procedure would not result in an unacceptable risk.

Significant Finding

There have been no changes in toxicity, risk assessment methodology or exposure assumptions that affect protectiveness.

E. ENVIRONMENTAL HEALTH (ECOLOGICAL ASSESSMENT) EVALUATION

The Endangerment Assessment (Ebasco, 1989) also included a qualitative ecological assessment indicating the site is located in an industrial area and does not represent a significant habitat for wildlife. A subsequent assessment (Hovore & Associates, 1998) determined that there is no evidence of agency-listed endangered, threatened, or otherwise sensitive or protected species within the site boundaries and that the likelihood of any such species occupying the site is low given its history of surface disturbance, recent remedial activities, and effects of human intrusion from adjacent development. In addition, EPA received assurance from the Department of Interior (December 2002 ltr.) and the National Oceanic and Atmospheric Administration (September 2002 ltr.) verifying those organizations had no concerns about ecological receptors at the site. There are no changes in exposure to ecological receptors.

Significant Finding

The selected remedy as implemented is protective of the environment.

Table 1: Comparison of Toxicity Factors Used in the Risk Assessment (1989)[1] Compared To Current Toxicity Factors (2008)[2]

Chemical	Ingestion Exposure				Inhalation Exposure				Comment
	RfDo mg/kg/day		SFo $(mg/kg/day)^{-1}$		RfCi mg/kg/day		SFi $(mg/kg/day)^{-1}$		
	1989	Current	1989	Current	1989	Current	1989	Current	
Aldrin	3E-05	3E-05	17	17	-	-	17	17	
Arsenic	1E-03	**3E-04**	2.0	**1.5**	-	**3.0E-05**	5	**15**	
Benzene	-	**4.0E-03**	2.9E-02	**5.5E-02**	-	**3.0E-02**	2.9E-02	**2.7E-02**	
Chlordane	6E-05	**5E-04**	1.3	**3.5E-01**	-	**7.0E-04**	1.3	**0.35**	
DDT	5E-04	5E-04	3.4E-01	3.4E-01	-	-	3.4E-01	3.4E-01	
Dieldrin	5E-05	5E-05	16	16	-	-	16	16	
Heptachlor	5E-04	5E-04	4.5	4.5	-	-	4.5	4.55	
Heptachlor Epoxide	1.3E-05	1.3E-05	9.1	9.1	-	-	9.1	9.1	
Lindane	3E-04	3E-04	1.3	1.3	-	-	-	**1.1**	
Polychlorinated Biphenyls	-	-	7.7	**2.0**	-	-	-	**2.0**	
Thallium	7E-05	**6.5E-05**	-	-	-	-	-	-	
Vinyl Chloride	-	**3E-03**	2.3	**7.2E-1**	-	**1.0E-01**	-	**1.5E-02**	

MCL =Maximum Contaminant Level
mg/L = Milligrams per liter
NM = No MCLs identified
PRG = Preliminary Remediation Goal for tapwater
[1] Ebasco, 1989
[2] http://www.epa.gov/region09/waste/sfund/prg/index.html
Bold values indicate a difference from the ROD value.

Table 2: Chemical Specific Comparison of AROD Standards vs. Current Ambient Air Standards (ppbv)

Contaminant	Media	Ambient Air PRG[1]	Current Industrial Air RSL[2]
1,2-Dichloroethane	Air	0.02	0.17
1,1-Dichloroethene	Air	0.01	220
1,2,4-Trimethylbenzene	Air	1	4.2
1,2-Dichloroethene (cis)	Air	9	--
1,2-Dichloroethene (trans)	Air	20	66
1,2-Dichloropropane	Air	0.02	0.25
1,3,5-Trimethylbenzene	Air	1	5.3
1,2-Dibromoethane	**Air**	**0.001**	**0.0003**
1,1,1-Trichloroethane	Air	180	4000
Benzene	Air	0.1	0.5
Carbon Tetrachloride	Air	0.021	0.13
Chloroform	Air	0.02	0.11
Ethylbenzene	**Air**	**250**	**1.1**
Methane	Air	--	--
Tetrachloroethene	**Air**	**0.5**	**0.31**
Toluene	Air	100	5800
Trichloroethene	Air	0.2	1.1
Vinyl Chloride	Air	0.1(3)	1.1
Xylenes	**Air**	**200**	**101**

[1] EPA Region 9 Preliminary Remediation Goals (PRGs, 2000)
[2] EPA Region 9 Remedial Screening Levels for Industrial Air (2008), available at http://www.epa.gov/region09/waste/sfund/prg/index.html.
[3] Revised from the 1998 EPA Ambient Air PRG of 0.01 ppbv.
All units in parts per billion by volume (ppbv).
Bold values indicate a lower current ambient air comparison value.

Table 3:

SOIL GAS PERFORMANCE STANDARDS[1]
WASTE DISPOSAL, INC. SUPERFUND SITE

CHEMICAL OF CONCERN	2000 EPA AMBIENT AIR PRG[4] (ppbv)[2]	TOXICOLOGICAL BASIS FOR AMBIENT AIR PRG	SOIL GAS PERFORMANCE STANDARD (ppbv)	RATIONALE FOR THE DEVELOPMENT OF THE SOIL GAS PERFORMANCE STANDARD
1,2-Dichloroethane	0.02	probable carcinogen	20	(PRG at 1E-5 cancer risk level) x (attenuation factor) [3] = 0.2 ppbv x 100
1,1-Dichloroethene	0.01	possible carcinogen	100	(PRG at 1E-4 cancer risk level) x (attenuation factor) = 1 ppbv x 100
1,2,4-Trimethylbenzene	1	noncarcinogenic	20	(PRG at HQ of 0.2) x (attenuation factor)
1,2-Dichloroethene (cis)	9	noncarcinogenic	180	(PRG at HQ of 0.2) x (attenuation factor)
1,2-Dichloroethene (trans)	20	noncarcinogenic	400	(PRG at HQ of 0.2) x (attenuation factor)
1,2-Dichloropropane	0.02	probable carcinogen	20	(PRG at 1E-5 cancer risk level) x (attenuation factor) = 0.2 ppbv x 100
1,3,5-Trimethylbenzene	1	noncarcinogenic	20	(PRG at HQ of 0.2) x (attenuation factor)
1,2-Dibromoethane	0.001	probable carcinogen	1	(PRG at 1E-5 cancer risk level) x (attenuation factor) = 0.01 ppbv x 100
1,1,1-Trichloroethane	180	noncarcinogenic	3,600	(PRG at HQ of 0.2) x (attenuation factor)
Carbon Tetrachloride	0.021	probable carcinogen	21	(PRG at 1E-5 cancer risk level) x (attenuation factor) = 0.21 ppbv x 100
Benzene	0.1	known carcinogen	10	(PRG at 1E-6 cancer risk level) x (attenuation factor) = 0.1 ppbv x 100
Chloroform	0.02	probable carcinogen	20	(PRG at 1E-5 cancer risk level) x (attenuation factor) = 0.2 ppbv x 100
Ethylbenzene	250	noncarcinogenic	5,000	(PRG at HQ of 0.2) x (attenuation factor)
Methane	--	--	1.25% (near buildings) 5.0% (site perimeter)	1.25% Near Buildings - 25% of Lower Explosive Limit - City of Santa Fe Springs Ordinance; 27 CCR §20937 5% Site Perimeter - 27 CCR §20937
Xylenes	200	noncarcinogenic	4,000	(PRG at HQ of 0.2) x (attenuation factor)
Tetrachloroethene	0.5	probable carcinogen	500	(PRG at 1E-5 cancer risk level) x (attenuation factor) = 5 ppbv x 100
Toluene	100	noncarcinogenic	2,000	(PRG at HQ of 0.2) x (attenuation factor)
Trichloroethene	0.2	probable carcinogen	200	(PRG at 1E-5 cancer risk level) x (attenuation factor) = 2 ppbv x 100
Vinyl chloride	0.1[5]	known carcinogen	10	(PRG at 1E-6 cancer risk level) x (attenuation factor) = 0.1 ppbv x 100

(1) The provisional soil gas standards incorporated in the May 2001 Supplemental Feasibility Study have been modified and adopted for this Amended ROD.
(2) ppbv = parts per billion by volume
(3) Attenuation factor = 100
(4) Revised for the Amended ROD– Same as the 1998 EPA Ambient Air PRGs used in the May 2001 Supplemental Feasibility Study, except for Vinyl Chloride.
(5) Revised from the 1998 EPA Ambient Air PRG of 0.01 ppbv.

F. APPLICABLE AND RELEVANT AND APPROPRIATE REQUIREMENTS (ARARS) EVALUATION

Under the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. §§ 9601-9675 (CERCLA), remedial actions must comply with certain requirements of other federal laws and state laws. These requirements are referred to as "Applicable or Relevant and Appropriate Requirements" (ARARs) and are set forth in the Record of Decision for the remedial action. With respect to the WDI site, the major ARARs are the California Code of Regulation standards for post-closure landfills, South Coast Air Quality Management Rules for air quality, and the Safe Drinking Water Act maximum contaminant levels (MCLs). The ARARs are shown on Table 12 of the AROD. Compliance activities are also shown on Table 12, specifying the actions taken during construction of the remedy. Compliance activities for many of the ARARs were completed during construction and have no impact on the current protectiveness of the remedy. The ARARs listed in Table 3 (attached) have potential impacts on protectiveness of the remedy.

All ARARs used in the evaluation of remedies at the WDI site are still appropriate and valid, and all current site activities comply with those requirements. Therefore, ARARs concerns do not impact the protectiveness of the remedy.

Table 2: Applicable or Relevant and Appropriate Requirements that Potentially Impact Protectiveness

REQUIREMENT AND CITATION	ACTION TAKEN ATTAIN REQUIREMENT	CHANGE IN ARAR
Clean Water Act, 33 USC §1251-1387, and 40 CFR pt. 122, National Pollution Discharge Elimination System, implemented by State Water Resources Control Board Statewide General Permits re Stormwater Discharges, 99-08 (General Construction) and 97-03 (General Industrial)	Continued Groundwater Monitoring	None
Postclosure Land Use, 27 CCR §21190	Land Use Restrictions in Place	None
Solid Waste Management Act of 1972, 27 CCR §20919, Gas Control	Continued Soil Gas Monitoring	None
Gas Monitoring and Control during Closure and Postclosure, 27 CCR §20921	Continued Soil Gas Monitoring	None
Monitoring during Closure and Postclosure, 27 CCR §20923	Continued Soil Gas Monitoring	None
Perimeter Monitoring during Closure and Postclosure, 27 CCR §20925	Continued Soil Gas Monitoring	None
Structure Monitoring during Closure and Postclosure, 27 CCR §20931	Continued Soil Gas and Indoor Air Monitoring	None
Monitoring Parameters during Closure and Postclosure, 27 CCR §20932	Continued Soil Gas Monitoring	None
Monitoring Frequency during Closure and Postclosure, 27 CCR §20933	Continued Soil Gas Monitoring	None
Landfill Gas Control, 27 CCR §20937	Continued Soil Gas Monitoring	None

Landfill Gas Control, 27 CCR §20937	Continued Soil Gas Monitoring	None
Vadose Zone Monitoring, 27 CCR §20415(d)	Continued Groundwater and Soil Gas Monitoring	None
Postclosure Care and Use of Property, 27 CCR §21180	Continued Groundwater and Soil Gas Monitoring	None
Water Quality Monitoring Requirements for Permitted Facilities, 22 CCR §§66264.95, 66264.97, 66264.98, 66264.99	Continued Groundwater Monitoring	None
Groundwater Monitoring, 27 CCR §§20405, 20415-20430	Continued Groundwater Monitoring	None
Porter-Cologne Water Quality Control Act, Cal. Water Code §§13000, 13140, 13240; State Water Resources Control Board Resolution No. 88-63, "Sources of Drinking Water Policy"; Los Angeles RWQCB Resolution 89-03 (adopting Resolution 88-63 into Basin Plan)	Continued Groundwater Monitoring	None

Documents reviewed in the preparation of this Technical Memorandum

Ebasco, 1989. Endangerment Assessment, Waste Disposal Inc., USEPA ID: CAD980884357.

Hovore and Associates, 1998. Biological Endangerment Assessment, Waste Disposal Inc. October.

EPA, 1993. Record of Decision for Soil and Subsurface Gas Operable Unit, Waste Disposal, Inc. December.

EPA, 2001. Comprehensive Five-Year Review Guidance. EPA 540-R-01-007, OSWER NO. 9355.7-03B-P. June.

EPA, 2002. Amended Record of Decision, Waste Disposal, Inc.. June.

Landfill Gas Control, 27 CCR §20937	Continued Soil Gas Monitoring	None
Vadose Zone Monitoring, 27 CCR §20415(d)	Continued Groundwater and Soil Gas Monitoring	None
Postclosure Care and Use of Property, 27 CCR §21180	Continued Groundwater and Soil Gas Monitoring	None
Water Quality Monitoring Requirements for Permitted Facilities, 22 CCR §§66264.95, 66264.97, 66264.98, 66264.99	Continued Groundwater Monitoring	None
Groundwater Monitoring, 27 CCR §§20405, 20415-20430	Continued Groundwater Monitoring	None
Porter-Cologne Water Quality Control Act, Cal. Water Code §§13000, 13140, 13240; State Water Resources Control Board Resolution No. 88-63, "Sources of Drinking Water Policy"; Los Angeles RWQCB Resolution 89-03 (adopting Resolution 88-63 into Basin Plan)	Continued Groundwater Monitoring	None

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