UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION III

STATEMENT OF BASIS

FORMER LAWRENCE MCFADDEN COMPANY
7430 STATE ROAD

PHILADELPHIA, PENNSYLVANIA

EPA ID NO. PAD002279008

Prepared by
RCRA Corrective Action Branch 2
Land, Chemicals, and Redevelopment Division
November 2019

Table of Contents

List of Acronyms

AOC	Area of Concern
AR	Administrative Record
AST	Above-ground Storage Tank
bgs	below ground surface
BTEX	Benzene, Toluene, Ethylbenzene, Xylenes
EPA	Environmental Protection Agency
LNAPL	Light Non-Aqueous Phase Liquid
MCL	Maximum Contaminant Level
PADEP	Pennsylvania Department of Environmental Protection
PRCP	Post-Remediation Care Plan
RCRA	Resource Conservation and Recovery Act
RSL	Regional Screening Level
SB	Statement of Basis
SPL	Separate-Phase Liquid
SWMU	Solid Waste Management Unit
UST	Underground Storage Tank
VOC	Volatile Organic Compound

Section 1: Introduction

The United States Environmental Protection Agency (EPA) has prepared this Statement of Basis (SB) to solicit public comment on its proposed remedy for the former Lawrence McFadden Company facility located in Philadelphia, Pennsylvania (hereinafter referred to as the Facility). EPA's proposed remedy for the Facility consists of the implementation of land and groundwater use restrictions and compliance with a Post-Remediation Care Plan (PRCP). This SB highlights key information relied upon by EPA in proposing its remedy for the Facility.

The Facility is subject to EPA's Corrective Action program under the Solid Waste Disposal Act, as amended, commonly referred to as the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. §§ 6901 et seq. The Corrective Action program requires that facilities subject to certain provisions of RCRA investigate and address releases of hazardous waste and hazardous constituents, usually in the form of soil or groundwater contamination, that have occurred at or from their property. The Commonwealth of Pennsylvania is not authorized for the Corrective Action Program under Section 3006 of RCRA. Therefore, EPA retains primary authority in the Commonwealth for the Corrective Action Program.

EPA is providing a thirty (30) day public comment period on this SB. EPA may modify its proposed remedy based on comments received during this period. EPA will announce its selection of a final remedy for the Facility in a Final Decision and Response to Comments (Final Decision) after the public comment period has ended.

Information on the Corrective Action program as well as a fact sheet for the Facility can be found at https://www.epa.gov/hwcorrectiveactionsites. The Administrative Record (AR) for the Facility contains all documents, including data and quality assurance information, on which EPA's proposed remedy is based. See Section 8, Public Participation, below, for information on how you may review the AR.

Section 2: Facility Background

The Facility is located at 7430 State Road, Philadelphia, Pennsylvania 19136. It occupies approximately 1.7 acres bounded by State Road to the southeast, railroad tracks to the northwest, and commercial properties to the northeast and southwest. Dense residential development is located to the northwest, with the nearest residences approximately 750 feet upgradient of the Facility. The Delaware River is approximately ½ mile south of the Facility. A location map and Facility layout are attached as Figures 1 and 2, respectively.

Historical maps indicate the Facility property was vacant land in 1862 but had become developed by 1895 and operated by H.H. Barton and Sons sandpaper manufacturing until 1937, when the property was purchased and redeveloped by the Lawrence McFadden Company. From 1937 until its bankruptcy in 2009, the Lawrence McFadden Company owned and operated the Facility, manufacturing industrial wood finishes for kitchen cabinets, musical instruments, furniture, wooden caskets, and certain special metal finishes. 7430 State Road LLC (7430 LLC) purchased the Facility in 2010. Since approximately 2012, the Facility has been used as office and warehouse space for a few tenants, including independently-owned construction companies and a PennDOT driver's license office.

Section 3: Summary of Environmental Investigations

For all environmental investigations conducted at the Facility, groundwater concentrations were screened against federal Maximum Contaminant Levels (MCLs) promulgated pursuant to Section 42 U.S.C. §§ 300f et seq. of the Safe Drinking Water Act and codified at 40 CFR Part 141, or if there was no MCL for a contaminant, EPA Region III Screening Levels (RSLs) for tap water for chemicals were used. Soil concentrations were screened against EPA RSLs for industrial soil.

In November 1990, EPA conducted a Preliminary Assessment of the Facility. The Preliminary Assessment identified two solid waste management units (SWMUs) at the Facility: the Hazardous Waste and Finished Goods Warehouse and the Hazardous Waste Loading Dock. No historical spills or releases were reported or observed at these SWMUs at the time of the Assessment.

7430 LLC performed a limited Phase II Site Investigation of the Facility in June 2010 (Phase II). Areas of concern identified during the Phase II investigation included two above-ground storage tank (AST) farms, drum storage areas, hazardous waste management areas, and material handling areas. Thirty-five (35) direct-push soil borings were taken to characterize environmental conditions at the Facility. Based on evidence of soil staining and/or chemical odors, samples were taken above the soil-groundwater interface from six of these borings; sample results are summarized in the following table:

Detected Analytes in Soil Samples (mg/kg)

Sample ID	**Acetone (670,000)**	**Methylene Chloride (1000)**	**Toluene (47,000)**	**Ethylbenzene (25)**	**Xylenes (2500)**
S-2	6	2	74	4	26
S-4	25	9	391	**178**	931
S-9	<0.5	8	42	**133**	613
S-16	0.04	<0.5	0.009	0.009	0.019
S-18	31	10	6	<0.5	<0.5
S-23	0.042	0.006	0.002	0.116	0.008

Industrial RSLs in parentheses; exceedances in **bold**

Additionally, four borings surrounding the largest AST farm on the northern end of the Facility were converted to temporary groundwater monitoring points; sample results are summarized in the following table:

Detected Analytes in Groundwater Samples (ug/L)

Sample ID	Toluene (1000)	Ethylbenzene (700)	Xylenes (10,000)	Trans-1,3-dichloropropene (0.47)*
W-1	260	154	811	<0.5
W-2	**179,000**	**31,800**	**138,600**	<0.5
W-3	**27,200**	**9780**	**55,900**	<0.5
W-4	**474,000**	**3340**	**20,560**	**9430**

MCLs in parentheses; exceedances in **bold**

*Tap water RSL shown for trans-1,3-dichloropropene, as no MCL exists

Based on these soil and groundwater sampling results, three areas of impact were identified: 1) the approximately 12,000-square-foot northern/rear end of the Facility associated with materials handling, loading/unloading, and the large AST farm; 2) the central AST farm housing raw and hazardous wastes and blending operations; and 3) the concrete loading/unloading area in the middle of the Facility.

In November 2010, EPA conducted an Environmental Indicator (EI) Inspection at the Facility. The EI Inspection Report of July 2012 summarized the previous environmental investigations mentioned above, in addition to Compliance Evaluation Inspections performed on behalf of EPA in September 1989 and March 1994 and other Commonwealth inspections that noted several violations over the history of the Facility. The EI Inspection Report concluded that (i) exposures to groundwater were not likely due to the current use of the Facility, (ii) no exposure controls were known to have been implemented to address contaminated soil at the Facility, and (iii) that the vapor intrusion pathway could not be adequately evaluated due to a lack of relevant data and the concentrations of VOCs in soil and groundwater from the 2010 Phase II Report.

Although the Facility had not been operational for approximately a year at the time of the EI Inspection, numerous process materials remained throughout most areas of the main Facility building. In August 2011, these materials were removed from the Facility and transported for disposal off-site. Additionally, both AST farms were subsequently cleaned, dismantled, and removed from the Facility.

Due to the high levels of VOCs in groundwater and the conclusions of the EI Inspection, EPA determined that a vapor intrusion investigation of the Facility was necessary to ascertain if site-related VOCs were present in soil gas beneath the Facility or indoor air within the main Facility building at levels that could present a potentially unacceptable risk to occupants. EPA performed two rounds of indoor air, ambient air, and sub-slab sampling within four areas of the main Facility building in June 2015 and January 2016. Elevated concentrations of VOCs, particularly benzene, ethylbenzene, trimethylbenzene, and naphthalene, were detected in indoor air within the main office area. Concentrations of ethylbenzene and trimethylbenzene were also elevated in one of the sub-slab samples under the building in this area. As a result, in September 2016, 7430 LLC installed a two-port vapor mitigation system to mitigate the indoor air contamination within the main office area. In May 2017, EPA determined that human exposures to vapor intrusion at the Facility were under control.

In 2016, 7430 LLC installed four permanent monitoring wells, one located in the center of the Facility and three along the northwestern and southeastern edges of the Facility, and initiated quarterly groundwater sampling. Results from the first three quarters did not show any exceedances of VOCs in the three wells downgradient of the main area of impact (Impacted Area) which is located beneath the Hazardous Waste Loading Dock on the northern side of the Facility. Well MW-1, which is located within the Impacted Area, contained light non-aqueous phase liquid (LNAPL) floating on top of the groundwater surface during each of the three monitoring events. However, based on these sampling events and the investigation of the extent of the contaminated area from the Phase II, remaining groundwater contamination is localized and stable, and natural attenuation processes (primarily volatilization and aerobic biodegradation by microorganisms) are expected to decrease the extent and concentration of contamination within the contaminated area within a reasonable timeframe. As a result, in September 2017, EPA determined that the migration of contaminated groundwater beneath the Facility was under control.

Section 4: Corrective Action Objectives

EPA's Corrective Action Objections for the Facility are the following:

Soils

Soil contamination remains within the approximately 12,000-square-foot northern end of the Facility; however, no significant exposure to remaining soil contamination occurs because remaining contamination exists in the subsurface, minimal operations are conducted in this area of the Facility, and buildings or asphalt/concrete paving covers approximately 80% of the Facility. Therefore, EPA's Corrective Action Objectives for soil are to:

- Control industrial and construction worker exposures to soil where VOC concentrations remain above Industrial RSLs; and
- Prevent residential exposures to soil where contaminant concentrations exceed residential RSLs.

Groundwater

EPA expects final remedies to return usable groundwater to its maximum beneficial use within a timeframe that is reasonable given the site-specific conditions. For facilities associated with aquifers that are either currently used for water supply or have the potential to be used for water supply, EPA will require the groundwater be remediated to MCLs, or to RSLs for tap water for chemicals for which there are no applicable MCLs.

Monitoring at the Facility has demonstrated that contaminant concentrations remaining in groundwater are not migrating off-site, and that both contaminant concentrations and the size and scope of the Impacted Area are stable or decreasing. EPA expects that natural attenuation processes will restore the remaining impacted portion of the aquifer beneath the Facility within a reasonable timeframe. Due to its location within a highly urbanized area and the shallow depth of impacted groundwater (approximately 6.5 feet), it is unlikely the water table aquifer would ever be used as a drinking water source. Nonetheless, because there is a potential for the aquifer to be used for water supply purpose, EPA's Corrective Action Objectives for Facility groundwater are to prohibit the use of the groundwater for potable purposes and control human exposure to groundwater beneath the northern portion of the Facility while VOC concentrations remain above MCLs.

Subsurface Vapor

Groundwater beneath the loading dock area on the northern side of the Facility and subsurface vapor beneath the main office building contains sufficient concentrations of VOCs to pose a risk of vapor intrusion into buildings located in these areas.

Therefore, EPA's Corrective Action Objective for subsurface vapor intrusion is to:

- Prevent worker exposures to VOCs, including benzene, ethylbenzene, trimethylbenzenes, and naphthalene, in indoor air above their respective industrial air RSLs within the main office area and within any future occupied structure near the loading dock area on the northern side of the Facility.

Section 5: Proposed Remedy

Soils

EPA's proposed remedy for Facility soils consists of the following components:

1) The Facility property shall be restricted to commercial and/or industrial purposes and shall not be used for residential purposes unless it is demonstrated to EPA that such use will not pose a threat to human health or the environment or adversely affect or interfere with the selected remedy and EPA provides prior written approval for such use; and
2) The Facility owner shall develop and implement a soil management plan outlining personal protective equipment (PPE) and work procedures required for any intrusive operations within the Impacted Area as depicted on Figure 2.

Groundwater

EPA's proposed remedy for Facility groundwater consists of the following components:

1) Groundwater shall not be used for any purpose – including, but not limited to, use as a potable water source – other than to conduct the operation, maintenance, and monitoring activities required by EPA, unless it is demonstrated to EPA that a) such use will not pose a threat to human health or the environment or adversely affect or interfere with the final remedy selected by EPA, and b) EPA provides prior written approval for such use; and
2) Periodic groundwater monitoring to continue until MCLs are met or until EPA approves cessation of monitoring.

Subsurface Vapor

EPA's proposed remedy for subsurface vapor beneath the Facility consists of the following components:

1) No person may construct or expand any building within the Impacted Area as depicted on Figure 2, unless (i) additional sampling and/or vapor intrusion modeling is submitted to EPA demonstrating to the satisfaction of EPA, that the occupation of such buildings will not result in an unacceptable risk of subsurface vapor exposure to occupants of such buildings; (ii) EPA provides prior written approval for such use described in (i), above; or (iii) engineering measures (such as vapor barriers or venting systems) or other actions are implemented to limit or prevent vapor intrusion into occupied areas, so as to avoid an unacceptable risk of soil vapor exposure to occupants of such buildings; and (iv) EPA provides prior written approval for the use described in (iii), above; and
2) Operational, inspection, and maintenance procedures for the existing vapor mitigation system shall continue unless future investigations demonstrate that contaminant concentrations in indoor air do not pose any unacceptable risks to human health or until EPA approves decommissioning of the vapor mitigation system.

Post-Remediation Care Plan

EPA's proposed remedy requires the development of a Post-Remediation Care Plan (PRCP) that details on-going procedures necessary for some remedial components. The PRCP shall be submitted to EPA for review and approval and shall include, at a minimum, the following components:

1) Soil management plan;
2) Groundwater monitoring plan; and
3) Operational, maintenance, and inspection procedures for the existing vapor mitigation system and any other vapor mitigation systems that may be installed at the Facility in the future.

Implementation

EPA proposes that the final remedy be implemented through an enforceable mechanism such as a permit, order, or an Environmental Covenant. If an Environmental Covenant is selected as the enforceable mechanism, it will be recorded in the chain of title for the property pursuant to the Pennsylvania Uniform Environmental Covenants Act.

Additional Requirements

1) On an annual basis and when requested by PADEP or EPA, submit a written certification of compliance with all terms of the final remedy.

2) Within one month after any of the following events, require the then current owner to submit written documentation to EPA and PADEP describing any:

   - observed noncompliance with groundwater use restrictions,
   - transfer of ownership,
   - change in land use,
   - application for building permits, and
   - proposed site work that could affect the effectiveness of the final remedy.

3) EPA will require the Facility owner to include a coordinate and metes and bounds survey of the Facility boundary in the enforceable mechanism which implements the final remedy. At a minimum, the coordinate survey would be in a form amenable to publicly accessible mapping programs (e.g., Google Earth® or Google Maps®) and include boundaries of each area under a use restriction defined as polygons using the World Geodetic System (WGS) 1984 datum, with the latitude and longitude of each polygon vertex in decimal degrees format to at least seven decimal places and a negative sign used for west longitude.

Section 6: Evaluation of Proposed Remedy

This section provides a description of the criteria EPA used to evaluate the proposed remedy consistent with EPA guidance. The criteria are applied in two phases. In the first phase, EPA evaluates three decision threshold criteria as general goals. In the second phase, for those remedies which meet the threshold criteria, EPA then evaluates seven balancing criteria.

Threshold Criteria	Evaluation
1) Protect human health and the environment	This criterion is met without additional active remedial actions. There is no current potable use of groundwater and the plume of contaminated groundwater is stable and not affecting potential receptors. The proposed remedy will continue to protect human health and the environment by limiting exposures to remaining contamination. Land and groundwater use restrictions will prohibit future uses that would pose an unacceptable risk through the use of an environmental covenant or other administrative mechanism.
2) Achieve media cleanup objectives	EPA's proposed remedy meets the media cleanup objectives based on current and reasonably anticipated land and groundwater use. The Facility property will not be used for residential purposes and groundwater will not be used for potable purposes. In addition, the proposed remedy addresses human and environmental exposures stemming from non-residential use. Industrial RSLs in soil and MCLs in groundwater have been met throughout the Facility except within the Impacted Area which is an approximate 12,000-square foot area on the northern side of the Facility. No exposures to this subsurface contamination currently exist, and any future exposures (i.e., construction workers) will be controlled through the PRCP and institutional controls.
3) Remediating the Source of Releases	In all proposed remedies, EPA seeks to eliminate or reduce further releases of hazardous wastes and hazardous constituents that may pose a threat to human health and the environment. The Facility has met this objective, to the extent feasible, by removing all former process materials and both AST farms and associated piping. Therefore, EPA has determined that this criterion has been met.

Balancing Criteria	Evaluation
4) Long-term effectiveness	The proposed institutional and engineering controls will maintain protection of human health and the environment over time by controlling exposure to contaminated soils and

	groundwater. EPA's proposed remedy requires the compliance with and maintenance of land use and groundwater use restrictions. EPA anticipates that these restrictions will be implemented through an enforceable permit, order, or an environmental covenant to be recorded with the Facility property records. The long-term effectiveness of the proposed remedy for the Facility will be maintained by the implementation of such restrictions and engineering controls.
5) Reduction of toxicity, mobility, or volume of the Hazardous Constituents	The reduction of toxicity and volume of the volatile contaminants remaining in soil and groundwater beneath the Facility has occurred largely through natural attenuation processes. These natural attenuation processes will continue to degrade the contaminants to non-toxic or less toxic constituents or levels. Remaining groundwater contamination has not migrated to other areas of the Facility as demonstrated by monitoring results from downgradient wells, suggesting the mobility of the contaminant plume is stable.
6) Short-term effectiveness	EPA's proposed remedy does not involve any activities such as construction or excavation that would pose short-term risks to workers, residents, and/or the environment. EPA anticipates that the land and groundwater use restrictions and PRCP will be fully implemented shortly after issuing the Final Decision and Response to Comments.
7) Implementability	EPA's proposed remedy is readily implementable. EPA proposes to implement the land and groundwater use restrictions through an enforceable mechanism such as an Environmental Covenant, permit or order.
8) Cost	EPA's proposed remedy is cost effective. Most of the costs associated with this proposed remedy have already been incurred and the remaining costs to implement an enforceable mechanism for the land and groundwater use restrictions and PRCP should be minimal.
9) Community Acceptance	EPA will evaluate community acceptance of the proposed remedy during the public comment period, and it will be described in the Final Decision and Response to Comments.
10) State/Support Agency Acceptance	EPA will evaluate state acceptance of the proposed remedy during the public comment period, and it will be described in the Final Decision and Response to Comments.

Section 7: Financial Assurance

EPA has evaluated whether financial assurance for corrective action is necessary to implement EPA's proposed remedy at the Facility. Given that EPA's proposed remedy does not require any additional engineering actions to remediate soil, groundwater or indoor air contamination at this time, and given that the costs of implementing institutional and engineering controls at the Facility will be minimal (less than $20,000 annually), EPA is proposing that no financial assurance is required.

Section 8: Public Participation

Interested persons are invited to comment on EPA's proposed remedy. The public comment period will last thirty (30) calendar days from the date that notice is published in a local newspaper. Comments may be submitted by mail, fax, or electronic mail to Mr. Griff Miller at the contact information listed below.

A public meeting may be held upon request. Requests for a public meeting should be submitted to Mr. Miller in writing at the contact information listed below. A meeting will not be scheduled unless one is requested.

The Administrative Record contains all the information considered by EPA for the proposed remedy at this Facility. The Administrative Record is available at the following location:

U.S. EPA Region III
1650 Arch Street
Philadelphia, PA 19103
Contact: Mr. Griff Miller (3LD20)
Phone: (215) 814-3407
Fax: (215) 814 - 3113
Email: miller.griff@epa.gov

Attachments:
Figure 1: Location Map
Figure 2: Facility Diagram

Date: 11/19/19

for
John A. Armstead, Director
Land, Chemicals, and Redevelopment Division
US EPA, Region III

Section 9: Index to Administrative Record

Environmental Priorities Initiative Preliminary Assessment of Lawrence-McFadden Company Incorporated, prepared by NUS Corporation, February 1991.

Limited Phase II Site Investigation of 7430 State Road, prepared by Environmental Maintenance Company, July 2010.

Environmental Indicator Inspection Report for the Lawrence McFadden Company, prepared by Baker, July 2012.

Final Report – Vapor Intrusion Study at the Lawrence-McFadden Company, prepared by AMO Environmental Decisions, March 2016.

Analysis Report for McFadden Site, prepared by Eurofins Lancaster Laboratories, November 2016.

Analysis Report for McFadden Site, prepared by Eurofins Lancaster Laboratories, February 2017.

Analysis Report for McFadden Site, prepared by Eurofins Lancaster Laboratories, April 2017.

Source: GOOGLE, 2010.

200 0 100 200

1 inch = 200 ft.

SCALE: 1" = 200'	DATE: JULY 2012
S.O. NO.: 118038	FILE: 118038-LMC-01
DSN/DWN: KAT/WJH	CHK: SRF

Baker MICHAEL BAKER JR., INC.
MOON TOWNSHIP, PENNSYLVANIA

FIGURE 1
FACILITY LOCATION MAP
THE LAWRENCE-McFADDEN COMPANY, INC.
7430 STATE ROAD
PHILADELPHIA, PENNSYLVANIA 19136

FIGURE 4

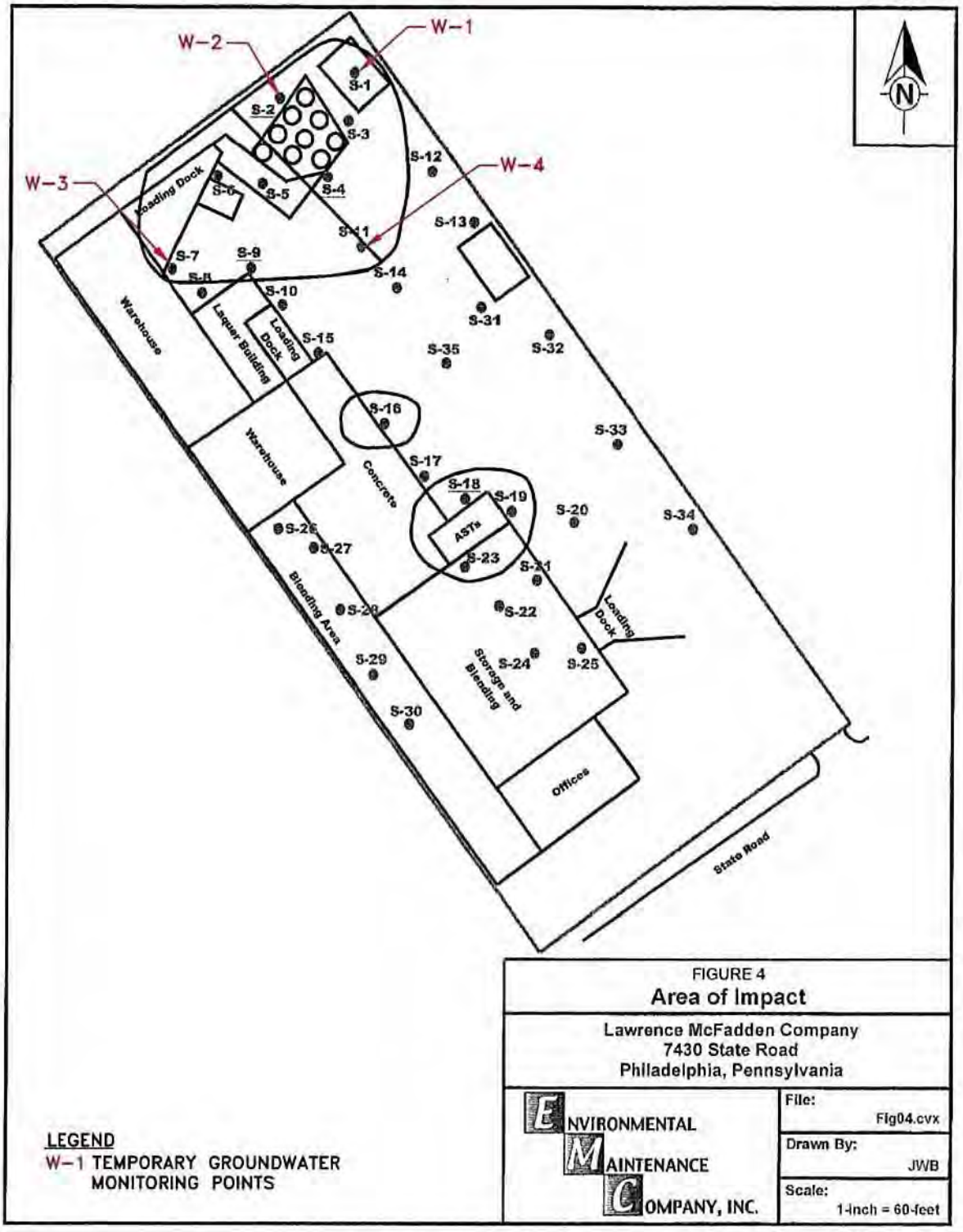

FIGURE 4
Area of Impact

Lawrence McFadden Company
7430 State Road
Philadelphia, Pennsylvania

ENVIRONMENTAL MAINTENANCE COMPANY, INC.

File: Fig04.cvx
Drawn By: JWB
Scale: 1-inch = 60-feet

SOURCE:
JUNE 17, 2010
LIMITED PHASE II
SITE INVESTIGATION

BAKER EDITS

FIGURE 3
SOIL BORING LOCATIONS AND AREAS OF IMPACT
THE LAWRENCE-McFADDEN COMPANY, INC.
7430 STATE ROAD
PHILADELPHIA, PENNSYLVANIA 19136

SCALE: NOT TO SCALE
S.O. NO.: 118038
DSN/DWN: SRF/RRR
DATE: JULY 2012
FILE: 118038-LMC-02
CHK: SRF

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