

PHASE I ENVIRONMENTAL PROPERTY ASSESSMENT

Former Stearns and Foster Textile Plant
Shepherd and Wyoming Avenues
Cincinnati, Ohio 45215

October 2017



Prepared for:

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1.0 INTRODUCTION

Tetra Tech, Inc. (Tetra Tech) was tasked by the Ohio Environmental Protection Agency (Ohio EPA) to perform a Phase I Environmental Property Assessment (PA) of the former Stearns and Foster site, herein referred to as the Subject Property. The Subject Property (shown on Figure 1) is located at the corner of Shepherd and Wyoming Avenues in Lockland, Hamilton County, Ohio. The Subject Property consists of two parcels of land (Hamilton County Auditor Parcel Numbers 641-0013-0037-00 and 641-0013-0043-00) and totals 5.989 acres.

This work was authorized under the Investigation and Mitigation of Hazardous Waste Sites Level-of-Effort (LOE) Contract CSP800222-2, Mobilization Order (MO) No. TT17-15. Ohio EPA requested that the Phase I PA comply with Ohio Voluntary Action Program (VAP), ASTM International (ASTM), and All Appropriate Inquiry (AAI) standards and guidelines.

Tetra Tech prepared this Phase I PA report for use by Ohio EPA and the Village of Lockland to identify recognized environmental conditions (REC), controlled recognized environmental conditions (CREC), historical recognized environmental conditions (HREC), and identified areas (IAs) of the Subject Property, in accordance with Tetra Tech's Site-Specific Work Plan (SSWP), dated July 6, 2017. The Subject Property contained the former Stearns and Foster Plant and is located on land currently owned by the Village of Lockland. Site reconnaissance of the Subject Property was conducted by Ms. Vicky Farmer, a Tetra Tech Environmental Professional, on July 27, 2017.

1.1 PURPOSE

The Phase I PA was performed in general accordance with the Ohio VAP guidelines specified in *Ohio Administrative Code* (OAC) 3745-300-06 and AAI-compliant ASTM Standard for Phase I Environmental Site Assessments (ASTM E1527-13). The objective of the Phase I PA was to identify RECs, CRECs, and HRECs for the Subject Property (as defined by the ASTM Standard), and IAs (as defined by Ohio VAP guidelines). Subsurface investigations were not conducted as part of the Phase I PA.

The evaluation of the property and the information contained in this report are based on conditions existing on the date of the site reconnaissance. The evaluation was conducted only for the Subject Property, with limited visual observations of adjacent properties. To the extent feasible, this Phase I PA included an evaluation of past and present land uses at the Subject Property. Tetra Tech has based its conclusions and recommendations on the limited information available during the study. Tetra Tech does not and cannot represent that no RECs for the Subject Property or other latent conditions exist beyond those identified through examination of historical records, interviews, and observations at and near the Subject Property during this Phase I PA.

1.2 SCOPE OF SERVICES

The Phase I PA was performed in general accordance with Ohio VAP and ASTM Standard E1527-13 guidelines to satisfy a contractual agreement between Ohio EPA and Tetra Tech. The Phase I PA was completed to identify, to the extent feasible, environmental conditions that indicate a release or potential release to or from the Subject Property or adjacent properties.

As defined by Ohio VAP guidelines, an IA is a location at the property where a release of petroleum or hazardous substances has or may have occurred.

As defined by ASTM Standard E1527-13, a REC is the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property. ASTM defines a CREC as a past release that has been addressed to the satisfaction of the applicable regulatory authority but is subject to some form of control, such as a property use restriction or engineering control; HRECs are past releases that have been addressed and meet unrestricted land use criteria with no controls required.

Tetra Tech completed the following activities under the scope of work:

- Site reconnaissance;
- Records review (including adjacent properties);
- Interviews; and
- Report preparation.

The scope of the Phase I PA is intended to be thorough enough to determine whether an additional investigation, such as qualitative or quantitative investigations of contamination, would be prudent. However, the scope of work for the Phase I PA does not incorporate definitive subsurface sampling and analytical schemes.

As part of this Phase I PA, Tetra Tech did not evaluate the following non-ASTM Standard E1527-13 scope considerations: assessments of mold, radon, asbestos, and lead-based paint; determination of lead in drinking water; assessment for presence of wetlands; regulatory compliance; identification of cultural and historical resources; industrial hygiene; health and safety; assessment of ecological resources; presence of endangered species; indoor air quality; biological agents; and high-voltage power lines. Additionally, Tetra Tech did not review business environmental risks or evaluate a significantly lower purchase price, because these tasks are typically performed by the user. Tetra Tech also did not conduct a complete review of deeds for the adjacent properties.

1.3 LIMITATIONS AND EXCEPTIONS

This report is based on information supplied to Tetra Tech from outside sources and other available public records; as such, conclusions presented in this report are based solely on information Tetra Tech obtained for the Phase I PA. Tetra Tech makes no warranties regarding the accuracy of statements made by others that may be included in this report. Opinions and conclusions expressed in this study have been based strictly on the results of work conducted for this Phase I PA.

No conclusions based on work performed hereunder shall constitute or be represented as a legal opinion of any kind or nature, but shall be a representation of findings from site visits and records examined. No warranties or guarantees expressed or implied are included within or intended by the report, except that the report has been prepared in accordance with the current generally accepted practices and standards consistent with the level of care and skill exercised under similar circumstances by professional consultants or firms performing the same or similar service.

Changes in the condition of the Subject Property may occur with time, caused by either natural processes or human activities. The findings presented in this report are based on property conditions at the time of the investigation.

2.0 SITE DESCRIPTION

This section describes the Subject Property based on observations by Tetra Tech personnel during the site reconnaissance in July 2017, as well as information provided or obtained thereafter. The property is currently owned by the Village of Lockland. Site access and information pertaining to the site was provided by Daniel Ferguson of Hamilton County Development Co., Inc. (HCDC), who is working with the Village of Lockland on the redevelopment of the property.

2.1 LOCATION

The Subject Property is located east of Wyoming Avenue and north of Shepherd Avenue in the Village of Lockland, north of downtown Cincinnati, Ohio. The location of the Subject Property is shown on Figure 1. The site layout and surrounding properties are shown on Figure 2. Current and historical views of the property are also shown on various topographic maps and aerial photographs, and are discussed in this section and in Section 4.0. Historical use information is included in Appendix A.

2.2 SITE AND VICINITY GENERAL CHARACTERISTICS

The Subject Property is located in the Village of Lockland, Hamilton County, Ohio. The Subject Property is bordered by roads on three sides – Brown Street to the north, Shepherd Avenue to the east, and Wyoming Avenue to the south. To the west is a right of way owned and maintained by the Ohio Department of Transportation (ODOT).

The majority of the Subject Property consists of grassy areas with rocks, bricks, and portions of foundations from former buildings. The northeastern portion of the site is occupied by Heritage Environmental and Weisbrod Masonry. Heritage Environmental is a roofing shingle recycler that recently ceased operation. Weisbrod Masonry stores building materials on site.

The Subject Property slopes down from East Forrer Avenue to the northwest down to Shepherd Avenue to the southeast – there is an approximate 20 foot elevation change. The elevation at the approximate center of the Subject Property is 570 feet above mean sea level (msl).

Portions of the Subject Property are surrounded by a chain link fence (See Figure 2). Gates are present at the Heritage/Weisbrod portion of the site along Shepherd Avenue and Brown Street. Most of the border with Shepherd Avenue is not fenced. Stormwater at the Subject Property would either infiltrate into unpaved areas or flow via sheet flow southeast toward Shepherd Avenue where it would enter the municipal storm sewer.

2.3 CURRENT AND PAST USE OF THE PROPERTY

Current and past Subject Property use information was obtained from previous reports along with information collected from aerial photographs, city directories, and Sanborn maps. Most of the Subject Property is currently vacant and not in use. The Village of Lockland, who owns the Subject Property, leased the northeastern portion of the Subject Property to B.A.D. LLC, who sub-leased it to Heritage Environmental Services, LLC. An approximately 255 foot wide by 350 foot deep (84,770 square foot) area of the northeastern section of the Subject Property is improved with a former shingle recycling business (Heritage Environmental). The area has a gravel surface, a large storage tent, a mobile office, and multiple shipping containers used for

storage. Heritage Environmental, which recently vacated the site, left a large amount of equipment behind, including an aboveground storage tank (AST) along Brown Street. Weisbrod Masonry was still utilizing the northeastern portion of the Subject Property for storage during the site reconnaissance.

The past use of the Subject Property dates back to 1882 when it was first used for industrial purposes. The Stearns & Foster cotton wadding and batting mills were present on the majority of the Subject Property, with residences along the northern portion of Shepherd Avenue. Operations slowed down in the 1990s, and by 2003 the property was vacant. The entire Stearns and Foster property includes the Subject Property, or west portion; the east portion, which is located across Shepherd Avenue to the east; and the south portion, which is located across East Wyoming Avenue and is currently a garden center.

2.4 DESCRIPTION OF STRUCTURES, ROADS, AND OTHER IMPROVEMENTS

The Subject Property is largely unimproved, consisting of grassy areas with portions of old concrete foundations visible. The northeastern portion of the site, previously occupied by Heritage Environmental, contains a large storage tent, a mobile office, and multiple shipping containers. This portion of the site has a gravel surface. Gated entrances are present along Brown Street and Shepherd Avenue.

2.5 CURRENT AND PAST USE OF ADJOINING PROPERTIES

The Subject Property is located in a currently mixed residential and commercial area of Lockland. A large piece of vacant land is present to the east across Shepherd Avenue – this area was also formerly owned by Stearns and Foster and currently holds Ohio EPA No Further Action/Covenant Not To Sue (NFA/CNS) status. Vacant land is present to the north across Brown Street. A house is present on the corner of Brown Street and Shepherd Avenue, adjacent to the Subject Property. Shepherd Avenue borders the Subject Property to the east, followed by Mueller Roofing and the former Stearns and Foster property. Wyoming Avenue borders the Subject Property to the southwest, followed by a garden center that was historically part of the Stearns and Foster plant, and a small park. A strip of land owned by ODOT is present along the western boundary, followed by the southbound lanes of Interstate 75. ODOT is currently removing the retaining wall along the interstate in preparation for the eventual widening of the road. Historically, the surrounding properties have been of a similar nature.

3.0 USER-PROVIDED INFORMATION

The following sections summarize information obtained by Tetra Tech during Phase I PA work and investigative reviews.

3.1 OWNER, PROPERTY MANAGER, AND OCCUPANT INFORMATION

The Subject Property is currently owned by the Village of Lockland. A portion of the northeastern corner of the Subject Property is currently being utilized by Weisbrod Masonry for storage.

3.2 PRIOR ASSESSMENTS AND SITE INFORMATION

The following three documents were provided to Tetra Tech by Ohio EPA:

3.2.1 February 2003 – Phase I Environmental Site Assessment, Stearns Property, 200 Shepherd Avenue.

The report was prepared by Environmental Design Group, Inc. (EDG) and was commissioned by the Village of Lockland. The report covers the entire Stearns and Foster property (Subject Property, east, and south portions). This report identified multiple IAs. According to the Phase I report by EDG, the IAs were as follows and described them as follows (EDG 2003):

- The Stearns and Foster property has an over 150-year history of industrial use as a sawmill/lumber yard, Stearns and Foster, and a refrigerator manufacturer. The majority of areas potentially impacted by historical activities (e.g. canal basins used for unloading barges, coal storage pile(s), and UST(s) were beneath existing buildings at the time of the report and could not be observed. The majority of the property was considered an IA, the exception being the northwest portion of the Property that was historically residential and only used by Stearns for parking (this area is the current Heritage Environmental site).
- The Subject Property contained four electrical substations with polychlorinated biphenyl (PCB)-containing transformers. One unit had a visual release from the drain valve. Several wall-mounted capacitors were located within the buildings, which also contained several pieces of equipment that used either lubricating or hydraulic oils that could potentially have contained PCBs.
- Asbestos pipe insulation was present within the buildings.
- The storage yard area north of Buildings 30, 31, 48, and 51 was used for storage of equipment (on the eastern portion of the Stearns property). A portion of this area was identified in a 1993 Phase I for drum storage. A 1956 drawing of the facility shows a 3,000-gallon gasoline tank on the east side of Building 201 and an area listed as STGE acetone in steel drums immediately north of Building 48 (both on the eastern portion). The storage yard is considered an IA.

3.2.2 June 2006 – Interim Phase II Remedial Investigation Report

The report was conducted by the Floyd Browne Group for the Village of Lockland. The Floyd Browne Group was formerly known as EDG and conducted the Phase I discussed above. This Phase II Remedial Investigation (RI) was done in response to the Phase I findings. The report indicated that the entire Stearns and Foster property (Subject Property, east, and south portions) warranted a Phase II investigation; however, due to the majority of the property being covered in multi-story buildings, the assessment focused on groundwater at the building perimeters with direct-push soil borings outside the buildings, and hand auger borings inside. Field work consisted of two ground penetrating radar (GPR) surveys, 45 direct push test holes, 45 hand auger samples, and the installation of 12 groundwater monitoring wells. In addition, PCB wipe samples and PCB pulverized concrete and sub slab soil sampling was conducted, along with sampling the cistern and water in the basement. Sampling results were reported as follows (Floyd Browne Group 2006):

- **Ground Penetrating Radar Survey:** According to the report the GPR survey of the Subject Property indicated that subsurface structures appeared to be present but did not appear to be USTs. Three soil borings were advanced in the area of the GPR survey – no indications of a petroleum release were found.
- **Soil Samples:** Samples were compared to the Ohio VAP Generic Direct Contact Soil Standards (GDCSS) for Commercial and Industrial Use and Construction and Excavation use. Volatile Organic Compounds (VOCs), and PCBs were all below the VAP standards. The following analytes exceeded the VAP Standards:
 - **Polycyclic Aromatic Hydrocarbons (PAHs)** – one sample, GP-18 in the east site (not the Subject Property), exceeded the VAP standard for benzo(a)pyrene. Delineation samples were collected around the boring, one of which exceeded the standard.
 - **Total Petroleum Hydrocarbons (TPH)** - One sample was above the VAP standard for TPH – sample HA-J, located on the Subject Property, which was not soil but was described as rotten remains of a wood floor mixed with debris on top of a concrete slab. The residue was sampled as it was below a former mixing vat; the soil underneath the wood floor could not be accessed due to safety concerns.
 - **Resource, Conservation and Recovery Act (RCRA) Metals** – Arsenic was found above the Commercial Industrial standard in four borings on the east site (not the Subject Property), adjacent to the railroad tracks. A 95% Upper Confidence Limit (UCL) was run for arsenic site-wide and a value of 36.89 was obtained, which was below the 80 parts per million (ppm) VAP standard.
- **Groundwater Samples:** Samples were compared to the VAP Generic Unrestricted Potable Use Standards (GUPUS). The following exceedences were noted:
 - **VOCs:** Vinyl chloride exceeded the GUPUS during Tier 1 of the investigation at four monitoring wells, all on the eastern portion of the site (not the Subject Property). During Tier II, vinyl chloride exceeded the GUPUS at five monitoring wells, all on the eastern portion.

- **Semi Volatile Organic Compounds (SVOCs):** Samples analyzed during Tier 1 were found to be below the GUPUS. During Tier II, bis(2-ethylhexyl)phthalate was reported above the UPUS in five monitoring wells. Two of the monitoring wells were on the current ODOT property, adjacent to Interstate 75, the remaining were on the eastern portion (none on the Subject Property).
- **RCRA Metals:** Chromium was detected above the GUPUS on the Subject Property during Tier 1. No wells had metals above the GUPUS during Tier II.
- **PCB Wipe Samples:** Transformer wipe samples were collected from four transformers throughout the site. One sample site was located on the eastern portion, while the remaining three were located on the western portion/Subject Property. Samples from the transformer on the eastern portion were over the PCB Spill Cleanup Level of 10 micrograms per 100 centimeters (10ug/100cm). Of the three transformers on the western portion, 19 wipe samples were collected, and five were above the Cleanup Level. One transformer, east of Forrer Street, is currently on the ODOT property.
- **PCB Soil Samples:** For the transformers west of Shepherd Avenue at the north end of the complex (Subject Property), one soil sample was collected below the concrete floor in the transformer vault; no PCBs were reported above the method detection limit (MDL). For the transformers east of Shepherd Avenue, three soil samples were collected below the concrete – no PCBs were detected above the MDL.

3.2.3 September 2016 and April 2017 Update – Stearns & Foster Redevelopment.

The update was authored by HCDC's Economic Development Office. Stearns and Foster was a major industry in Lockland from 1882 through 2001 when it declared bankruptcy. B.A.D. Properties LLC, purchased the entire Stearns and Foster property in 2004 – this included the Subject Property (west site), the area southeast of Shepherd Avenue (east site), and a portion on the corner of East Wyoming Avenue and Williams Street (the current Gertz Garden Center; south site). The buildings on the east site were destroyed in a fire in 2004 and subsequently demolished in 2010. Shortly before the demolition was completed, valves on transformers on both the west and east sites were opened, dumping as much as 200 gallons of fluid PCBs which flowed into the storm sewer and in to the Mill Creek. Approximately 180 gallons came from the east site, and around 20 gallons collected on the floor of the west site (Subject Property) and was presumably absorbed by the floors. The Subject Property buildings were demolished in 2016; ODOT paid for the demolition so they could eventually widen Interstate 75. ODOT took possession of the land, demolished the buildings, and gave the portion of land not needed for the widening/grading project to the Village of Lockland. Lockland then agreed to lease the northern portion to B.A.D., who sub-leased it to Heritage Environmental Services, LLC. Their lease expired when ODOT began working on the existing retaining wall, which started in June/July 2017. The Subject Property and the east site are in the center of a redevelopment project for the Wyoming Avenue Business District. The April 2017 update indicates that both the east and west sites are advertised for sale and that an application was going sent to the State to obtain a CNS for the Subject Property.

4.0 RECORDS REVIEW

Tetra Tech reviewed available records to assess the environmental regulatory status of the Subject Property and other properties within a radius designated by ASTM E1527-13. The following subsections summarize the information obtained during the records review.

4.1 ENVIRONMENTAL LIENS OR ACTIVITY AND USE LIMITATIONS

Tetra Tech obtained an Environmental Lien Search Report from Environmental Data Resources, Inc. (EDR) for the Subject Property (EDR 2017). The Environmental Lien Search Report provides results from a search of available current land title records for environmental cleanup liens or other activity and use limitations, such as engineering or institutional controls. EDR did not identify any environmental liens or activity and use limitations (AULs) for the Subject Property. EDR's report is included in Appendix B.

4.2 STANDARD ENVIRONMENTAL RECORD SOURCES

EDR provided an environmental records search report for the Subject Property (EDR 2017). Tetra Tech reviewed the results of EDR's search of standard environmental sources for the Subject Property (see Appendix C). The search of available federal, state, and local regulatory agency databases was conducted in an attempt to (1) determine if the property is listed in searched environmental databases and (2) identify facilities within the ASTM and Ohio VAP-defined radius that could cause actual or potential environmental impacts to the Subject Property. A complete list of the federal, state, and local agency databases reviewed is provided in the EDR Radius Report.

Whether a site does or does not appear on a list does not necessarily indicate the presence or absence of an environmental concern. Moreover, sites may not be mapped in a list search because of inaccuracy of owner/operator records or government records, or errors during conversion of the data by informational sources. The Subject Property was listed as the Stearns and Foster in the following databases: PADS, RCRA-SQG, FINDS, ECHO, OH DERR, OH INST CONTROL, OH VCP, and OH BROWNFIELDS. A copy of the EDR Radius Report is provided in Appendix C.

The EDR Radius Report indicated 59 additional facilities located within the ASTM-specified search radii, as noted in Table 1 below.

Table 1
Sites Within One-Half Mile of the Subject Property

Facility Name(s)	Facility Address	Database(s)	Orientation from Subject Property (miles)
Former Stearns and Foster Property	200 Shepherd Avenue	PADS	Subject Property
Stearns and Foster Bedding Co.	200 E Forrer St	RCRA-SQG, FINDS, ECHO	
Stearns & Foster Textile Plant	E Wyoming Ave	OH DERR, OH INST CONTROL, OH VCP	
Stearns & Foster Mattress	238 E Shepherd St	OH BROWNFIELDS	

Facility Name(s)	Facility Address	Database(s)	Orientation from Subject Property (miles)
Factory			
Cook's Mobil	105 Shepherd Ln	OH LUST, OH UST, OH ARCHIVE UST, EDR Historic Auto	0.006 mi SSW per EDR/ 0.6 miles N per BUSTR
Carroll TP & Sons	64 William Howard Taft Rd	EDR Historic Auto	0.011 mi SW per EDR/over 7 miles S per Google Earth
Reading Tatman Taxi	211 E Wyoming Ave	OH LUST	0.021 mi SSW
Price Texaco Service Station	100 W Wyoming Ave	EDR Historic Auto	0.038 mi WSW
KOI Wilcox Auto Parts	105 Mill St	EDR Historic Auto	0.041 mi SSW
The Stearns Technical Textiles Company	100 Williams St	RCRA NonGen/NLR, ICIS, FINDS, ECHO	0.055 mi SSW
Coventry & Crewe Inc.	111 W Forrer St	EDR Historic Auto	0.056 mi W
Former Stearns and Foster Office Building	100 and 116 Williams St	US BROWNFIELDS, FINDS	0.064 mi SSW
Former Fifth Third Bank	117 Mill St	US BROWNFIELDS	0.069 mi SSW
Rays Cleaners	200 Dunn St	EDR Historic Cleaners	0.081 mi SSW
Harold J Sullivan	120 Mill St	EDR Historic Cleaners	0.092 mi S
Valley Fabric Shop	125 Williams St	EDR Historic Cleaners	0.099 mi SW
Celotex I	200 Cooper Ave N	US BROWNFIELDS	0.105 mi WNW
American Tissue		US BROWNFIELDS	
Lockland Sunoco Service	Wyoming & Cooper	EDR Historic Auto	0.107 mi W
Stearns Complex	200 Cooper Ave N	US BROWNFIELDS, FINDS	0.110 mi WNW
Mill Creek Sports and Commerce Park		US BROWNFIELDS, FINDS	
Celotex II		US BROWNFIELDS, FINDS	
Morgan Radiator Service	305 Dunn Alley	EDR Historic Auto	0.112 mi S
Lockland Sunoco	100 S Cooper Ave	RCRA NonGen/NLR, FINDS, ECHO, EDR Historic Auto	0.115 mi W
Lockland Marathon		OH LUST, OH UST, OH ARCHIVE UST	
Smith & Jones, Inc.	213 Dunn St	EDR Historic Cleaners	0.120 mi SSW
American Tissue Mills of Ohio	100 Lock St/Cooper Ave	OH HIST INST CONTROLS, SEMS, PRP, RCRA-LQG	0.121 mi WSW
Lockland Service	409 E Wyoming Ave	OH ARCHIVE UST, OH LUST, OH UST, RCRA NonGen/NLR, FINDS, ECHO	0.135 mi SSE
Fox Paper, Inc.	Lock St and Cooper Ave	RCRA-SQG	0.135 mi WSW
Erving Paper Mills		OH LUST	
Village of Lockland	101 N Cooper	OH LUST, OH UST, OH DERR, OH INST CONTROL, OH VCP, OH ARCHIVE UST	0.138 mi W
Sawbrook Steel Casting Company	Shepherd Ave at McWhorter	RCRA NonGen/NLR	0.185 mi NNE
David Hirschberg Co.	209-211 Longworth St	OH LUST, OH UST, OH ARCHIVE UST	0.193 mi S

Facility Name(s)	Facility Address	Database(s)	Orientation from Subject Property (miles)
City of Reading Water Plant	322 Walnut St	OH LUST	0.262 mi E
Lockland Commerce Park	401 S Cooper Ave	OH DERR, OH INST CONTROL, OH VCP, OH SPILLS, OH HIST INST CONTROLS	0.283 mi SW
No name	205 Smalley Rd	US BROWNFIELDS	0.289 mi NE
Allright Parking Garage	306 Walnut	OH LUST	0.318 mi E
Barret Paving	511 Shepherd Ave	US BROWNFIELDS, FINDS	0.336 mi NNE
LP Cavett Company		OH LUST, OH UST	
Shelly Company	600 Shepherd Ave	OH LUST, OH UST	0.364 mi NNE
City of Cincinnati	208 Pike St	OH LUST, OH UST	0.371 mi ESE
Lock and Cooper Site	NWC Lock St and Cooper Ave	US BROWNFIELDS	0.383 mi WSW
Pristine Inc., Reading	Intersection of Big Four/Smalley Rd	OH DERR, OH INST CONTROL	0.386 mi NE
Jefferson Smurfit Corp.	412 S Cooper Ave	OH LUST, OH UST	0.398 mi WSW
Former Celotex Property	320 South Wayne Ave	OH BROWNFIELDS, OH CRO, SEMS-ARCHIVE, OH SPILLS, RCRA NonGen/NLR, OH DERR, OH LUST, OH INST CONTROL, OH VCP, OH NPDES	0.434 mi WSW
Cromer Body Shop	100 N Wayne Ave	OH LUST, OH UST	0.490 mi W
Celotex Corp.	321 South Wayne Ave	OH DERR, OH INST CONTROL, OH VCP, OH BROWNFIELDS	0.532 mi WSW
Carstab Corp.	1560 West St	OH DERR	0.584 mi ENE
Reading VSI Property	8740 Reading Rd	OH DERR, OH VCP	0.613 mi SE
Former Sinclair Gas Station	800 Wyoming Ave	OH DERR, OH BROWNFIELDS, OH ARCHIVE UST	0.648 mi W
Former Tenacity Mfg. Co.	801 S Cooper Ave	OH DERR, OH INST CONTROL, OH VCP	0.664 mi WSW
Nivison Property	601 Third St	OH DERR, OH INST CONTROL, OH VCP	0.690 mi SE
Rohm & Haas Chemicals	2000 West St	OH DERR, OH SPILLS, OH CRO, OH NPDES, SEMS-ARCHIVE, CORRACTS, RCRA-TSDF, OH SPILLS, RCRA NonGen/NLR, 2020 COR ACTION, NY MANIFEST	0.714 mi ENE
Pristine, Inc.	410 Cavett Ave	CONSENT, PA MANIFEST, NPL, SEMS, RCRA-LQG, US ENG CONTROLS, US INST CONTROL, ROD, PRP	0.716 mi NE
Carthage Ave Landfill	Carthage Ave near Station Ave	OH DERR	0.767 mi SW
Muscogee Dump	Muscogee Ln	OH DERR	0.781 mi SW
Patheon Pharmaceuticals, Inc.	2110 E Galbraith Rd	CORRACTS, RCRA-TSDF, RCRA-LQG, OH SPILLS, NY MANIFEST, OH NPDES	0.794 mi SE
DuPont Lockland Works	606 Shepherd Ln	SEMS, OH DERR	0.814 mi NW
City of Wyoming	800 Oak Ave	OH DERR, OH SWF/LF, OH LUST,	0.829 mi WNW

Facility Name(s)	Facility Address	Database(s)	Orientation from Subject Property (miles)
		OH UST, OH ARCHIVE UST, OH SPILLS, OH NPDES	
Chromaflo Technologies	620 Shepherd Ln	SEMS-ARCHIVE, RCRA-LQG, OH DERR, TRIS, FINDS, OH NPDES	0.847 mi NW
Frank Hamilton Whse	605 N Wayne Ave	OH DERR	0.894 mi NW
Evergreen Everbrown Mass Realty, Inc.	614 Shepherd Ave	OH DERR	0.930 mi NW
GE Aircraft Engines	I-75 & Neumann Way	OH DERR	0.986 mi NNE

Notes:

ARCHIVE UST	Archived Underground Storage Tank sites
CORRACTS	Corrective Action Report
CRO	Cessation of Regulated Operations Facility listing
DERR	Ohio EPA Division of Emergency and Remedial Response
ECHO	Enforcement & Compliance History Information
EDR MGP	EDR Manufactured Gas Plant Database
EDR US Hist Auto Stat	EDR Database of gas/filling/service stations
FINDS	Facility Index System/Facility Registry System
HIST LF	Historic Landfill
LUST	Leaking Underground Storage Tank
NPDES	National Pollutant Discharge Elimination System
NY/WI/PA MANIFEST	Manifest database
PADS	PCB Activity Database System
RCRA	Resource, Conservation, and Recovery Act
RCRA-CESQG	RCRA Conditionally Exempt Small Quantity Generator
RCRA-LQG	RCRA Large Quantity Generator
RCRA-NonGen/NLR	RCRA Non Generator/No Longer Regulated
RCRA-TSDF	RCRA Treatment, Storage, and Disposal Facility
SEMS	Superfund Enterprise Management System
SEMS ARCHIVE	SEMS Archived Sites
SPILLS	Spills database
TRIS	Toxics Release Inventory System
Unreg L Tanks	Non Regulated UST
US BROWNFIELDS	Brownfields sites
US FIN ASSUR	Financial Assurance Information
UST	Underground Storage Tank Sites
VCP	Voluntary Action Program Sites

Details regarding each of these sites are presented in the EDR Radius Report in Appendix C. Tetra Tech reviewed the information provided by EDR to determine whether these sites posed RECs to the Subject Property, IAs, or potential environmental concerns regarding the Subject Property. In some instances, Tetra Tech obtained and reviewed additional follow-up information. The sites were assessed using available information regarding current or past site use and activities; known or suspected releases; regulatory history and status; proximity to the Subject Property; prevailing groundwater flow direction (west-southwest) and surface drainage patterns; and other factors.

Based on these considerations, the listings described below pose RECs to the Subject Property, IAs, or include potential environmental concerns, which may warrant an additional investigation.

Former Stearns and Foster Property, located at 200 Shepherd Avenue, is listed in the PADS database. The transformer spill occurred on both the east and west portions of the Stearns property; therefore it is assumed that this listing covers the Subject Property. The date received to the agency is listed as 10/31/2011, and the owner is listed as B.A.D. Properties, LLC. No other information is provided in the report.

Stearns and Foster Bedding Co., listed at 200 East Forrer Street, is listed in the RCRA-SQG, FINDS, and ECHO databases and is the Subject Property. The site registered as a small quantity generator in November 1992, generating between 100 and 1,000 kilograms of hazardous waste per month. Listed wastes include ignitable waste (D001), spent halogenated solvents used in degreasing (F001), and spent halogenated solvents (F002 and F003). The facility received one notice of violation in August 1993. The area is listed as Generators – Pre-transport, and it was a written informal violation. The facility achieved compliance in August 1994. The online ECHO report indicates the last inspection was in August 1993 and no violations were noted.

Stearns & Foster Textile Plant, Lockland, listed at East Wyoming Avenue, is listed in the OH DERR, OH INST CONTROL, and OH VCP databases. The DERR listing indicates that the site was listed in the Clean Ohio Fund Voluntary Action Program. The OH INST CONTROL listing indicates the site has an NFA with commercial and industrial use restrictions, and potable & non-potable groundwater extraction/use restrictions. These listings are for the eastern portion of the former Stearns property and not for the Subject Property.

The Subject Property is in an area of known groundwater contamination, both from on and offsite properties. The adjacent Stearns property (the eastern portion) is well characterized and has documented chlorinated solvent contamination (see Section 4.3). The former Air Force Property 36 (currently G.E. Aircraft Engines) was named as a source for vinyl chloride contamination. G.E. Aircraft Engines is listed in the OH DERR database for a site assessment, although no other information is provided.

EDR also listed twelve orphan sites that could not be mapped. Tetra Tech utilized Google Earth, along with a surrounding area reconnaissance, to determine which of the orphan sites were within 1/2 mile of the Subject Property. TMI Electrical Solutions, the vacant lot, Mercer's Trading Post, and Michel Tire Store are within a half mile west of the Subject Property. However, based on the documented groundwater flow direction (west-southwest), the properties are down gradient and are not considered threats to the Subject Property. The remaining properties are greater than 1/2 mile from the Subject Property and are generally not considered a threat, with the exception of the aforementioned G.E. Aircraft Engines, which is listed in the SEMS-ARCHIVE database.

4.3 ADDITIONAL ENVIRONMENTAL RECORD SOURCES

In accordance with the Freedom of Information Act (FOIA) and Ohio Public Records Law, Tetra Tech contacted the following agencies to request publicly available information regarding the Subject Property: U.S. EPA Region 5, Ohio EPA Southwest District Office (SWDO) and Online, the Bureau of Underground Storage Tank Regulations (BUSTR), the Southwest Ohio Regional Air Quality Agency, and Ohio Department of Natural Resources (ODNR). Copies of the information request letters and responses, if any, are included in Appendix D. The results of the file requests are summarized on the following page.

U.S. EPA

The following documents were received from U.S. EPA Region 5; summaries of the document contents based on Tetra Tech's review follow the document title.

- **9/9/2011 – Email from Allen Debus to Peter Ramanauskas and Cho Hak.** According to the e-mail, Keith Egan, a consultant for Stearns and Foster, called Mr. Debus. His client received a brownfields type clean Ohio grant to clean up the eastern property (not the Subject Property) under Ohio VAP. However, the week prior, a trespasser vandalized the property by opening a PCB-containing transformer, allowing the liquid (approximately 185-250 gallons) to drain into a sewer system which connects to the Mill Creek. Egan's crew sealed the storm drain and will power wash the sewer. PCB wipe samples were also taken from the walls of the drain showing "low results."
- **10/11/2011 – PCB Release Remedial Work Plan, Former Stearns and Foster – East.** The work plan was authored by Soils and Materials Engineers, Inc. (SME) on behalf of the property owner, B.A.D. Properties, LLC. According to the work plan, the site was participating in an Ohio VAP Brownfield redevelopment and is a portion of the larger former Stearns and Foster property and does not contain the Subject Property. On August 31, 2011, an unknown person drained one of the transformers of approximately 185 gallons of PCB contaminated fluid. SME used the Toxic Substances Control Act (TSCA) sampling and verification procedures but Ohio VAP commercial/industrial standards to determine when sufficient PCB remediation was completed. The transformer was not located on the Subject Property but on the eastern portion of the site. PCB contaminated fluid pooled on the concrete floor under the transformers and flowed out the northeast, fenced side of the structure. According to the report, none of the fluid spilled on to the Subject Property. After the cleanup was complete, wipe samples for PCB analysis were collected from four manholes; results contained low levels of PCBs. Three soil samples from the bottom of the excavation were also collected – results were in excess of Ohio VAP commercial/ industrial standards, therefore additional excavation was required. SME proposed a cleanup plan that focused on removing the impacted concrete and building materials, assessing and removing the curb and asphalt of Shepherd Avenue, cleaning and decommissioning the storm sewer, evaluating potential impact to the Mill Creek, and evaluating potential impact to the groundwater.
- **10/13/2011 – Email from Allen Debus to Peter Ramanauskas.** The email indicates that a work plan was submitted by Keith Egan for remediation in a coordinative approach to PCB cleanup under or in alliance with the Ohio VAP. The email is in reference to the Former Stearns and Foster site – East and not the Subject Property.
- **1/7/2013 - TSCA Implementation Report, Former Stearns and Foster Property (East Site).** The report was prepared for Hamilton County and B.A.D. Properties. According to the report, the East Site property (not the Subject Property) was remediated under the Ohio VAP and the area of the transformer was already included in that remediation based on the results of a Phase II ESA. The report was submitted to Ohio EPA with an NFA letter, and a Covenant Not to Sue was issued for the property on November 29, 2012. SME defined the extent of PCB impact by sampling the soil in the area around the release as well as the concrete curbing. Based on the investigation results, SME

concluded that the soils at the property presented a risk to commercial and industrial receptors in the area. Excavation and off-property disposal and/or remediation of soil and concrete were chosen as the method of remediation for the release area. Soils were removed and confirmation samples were collected. A total of 614 tons of PCB impacted concrete and soil was removed from the site. A deed restriction was then placed on the property identifying the area as containing PCBs at concentrations of less than 25 mg/kg. The sewer was also closed to prevent residual impact from flowing off-property.

Ohio EPA SWDO

Ms. Penny Prather provided the following documents on the entire Stearns and Foster site; summaries of the document contents based on Tetra Tech's review follow the document title. Many of the reports received pertained to the adjacent eastern Stearns and Foster site only. As the site is adjacent, they are summarized below.

- **2/2003 – Clean Ohio Assistance Fund Assessment Application, submitted by the Village of Lockland.** The application was submitted for a VAP Phase II Environmental Site Assessment on the entire Stearns & Foster property (the Subject Property and adjacent). According to the application, the first industrial uses of the property in 1882 were for the Stearns and Foster Company and the Lockland Lumber Company. Originally, Stearns and Foster manufactured cotton batting for quilts and later produced mattresses. Process included bleaching and processing raw cotton and bonding with starch and latex resins. According to a previous Phase I ESA, the chemicals of concern are asbestos, metals, SVOCs, VOCs, and petroleum hydrocarbons. Historical data indicates the former lumberyard on the eastern portion of the Stearns property had a UST and a former refrigerator manufacturer used hazardous substances in its operation. Historical maps from the Phase I indicated the presence of two gasoline USTs; a 300-gallon UST west of the carriage house and a tank of unknown size underneath Building 1.
- **2/2003 – Statement of Work (SOW) for the Stearns Textile Property located in the Village of Lockland.** The report was prepared by EDG for the Village of Lockland. The report included both the east and west portions of the Stearns facility, and therefore encompassed the Subject Property. The SOW is based on a Phase I PA conducted by EDG in April, 2002. The work described in the SOW was proposed to identify the lateral extent and composition of fill material and would determine the concentrations of asbestos, VOCs, SVOCs, PCBs, metals, TPH, and dioxins in the subsurface soils and shallow groundwater at the site. Field work was slated to include cistern fluids sampling, PCB wipe sampling, soil sampling, geophysical survey to look for USTs, and well installation and sampling.
- **6/2006- Interim Phase II Remedial Investigation Report Stearns Property.** This report was prepared by the Floyd Browne Group for the Village of Lockland, Ohio and covered the entire Stearns and Foster property (Subject Property, and the east and south portions of the Stearns property). The property was noted to have over 150 year history of industrial use, 4 electrical substations containing PCB transformers, and other PCB containing equipment, buildings containing friable asbestos pipe insulation, areas used for storage of drums containing gasoline, and an area used for storage of waste and scrap metal, equipment, and possible coal ash. GPR surveys were conducted, 45 direct push test holes were installed, 43 hand auger samples and two additional borings

were collected, and 12 groundwater monitoring wells were installed. PCB wipes, PCB pulverized concrete and sub slab soil sampling, and cistern and basement water sampling were also conducted. GPR surveys detected no buried USTs. SVOCs were detected in several soil samples, below VAP Soil Standards. PAHs exceeding Ohio VAP GDCSS for Commercial and Industrial Land Use Category were detected in several soil samples on the eastern portion of the Stearns property. RCRA metals were detected in several soil samples, including levels of arsenic exceeding VAP GDCSS for Commercial and Industrial Land Use on the eastern portion. Dioxins were detected above MDLs, but below the U.S. EPA OSWER Directive 9200.4-26 Preliminary Remediation Goals at CERCLA and RCRA sites for Residential and Commercial/Industrial sites. No labs were certified through the VAP to test for dioxins at that time. Lead and Barium were found in groundwater above the MDLs but below UPUS, and chromium was reported above VAP Standards in MW-1 on the current ODOT property. Cistern water sampling revealed levels of Bis(2-Ethylhexyl)phthalate and Benzo(a)pyrene, barium, chromium, and mercury, to be above the MDLs.

- **7/2010 – Remedial Action Plan (RAP) for Stearns and Foster – East Plant.**
Prepared by Keramida, Inc. for the Hamilton County Board of County Commissioners. The RAP does not include the Subject Property; it covers the property on the east side of Shepherd Avenue only. The four parcels were owned by B.A.D. Properties, LLC and comprised 5.955 acres. Two structures and the remnants of a third were on site when the plan was written. The partial structure caught fire in 2004. The affected media was identified as soil, asbestos, and impacted concrete and brick. The COCs exceeded the commercial-industrial direct contact and construction/excavation standards in soils. COCs in groundwater exceeded the VAP UPUS in the shallow aquifer; however, the groundwater impact was determined to be from an off-property source. One regulated area was identified on the property – three pad-mounted transformers were previously located on a concrete pad on the west side of the property. The removal and disposal of the material will be handled in accordance with the TSCA. The Interim Phase II Remedial Investigation (RI) identified arsenic and benzo(a)pyrene in the 0-2 foot soil in the storage yard north of the current buildings. The remedy was to excavate the upper two feet of soil and take confirmatory samples. Area 3 was impacted by dioxin; soils were excavated here to a depth of two feet. Previous groundwater samples indicated that onsite monitoring wells were impacted by vinyl chloride and bis-2 ethylhexylphthalate above the VAP UPUS. Based on the lack of an on-property source area on or upgradient of the highest concentrations, the lack of detection of chlorinated compounds in the soil, and the fact that groundwater flow was documented to be west-southwest, Keramida concluded that vinyl chloride was migrating onto the property from an offsite source. Bis-2 ethylhexylphthalate was detected in several wells during one sampling event; subsequent events could not replicate the results. Keramida indicates that this is a common laboratory contaminant and an artifact of plastic sampling equipment and did not believe that it was an actual COC. The property (and the Subject Property) is underlain by three aquifers: the water table aquifer, the lower aquifer, and the deep aquifer. The report indicates that the water table aquifer is located within the silty clay and consists of lenses of glacial outwash 40 to 60 feet below ground surface (bgs). The lower aquifer consists of glacial outwash deposits greater than 80 feet bgs. The deep aquifer consists of well-sorted sand and gravel glacial outwash deposits, is deeper than 120 feet bgs, and can produce 100 to 500 gallons of water per minute (gpm). The upper two aquifers are classified as Class A while the deep aquifer is a Critical Resource aquifer.

- **7/12/2011- Re: Technical Assistance Request #5, Former Stearns and Foster Property.** The request was written by SME for Ohio EPA Southwest District, addressing the need for evidence to support that groundwater impacts on the property were from an off-property source. It covers the property on the east side of Shepherd Avenue only. SME stated that there were no known sources of vinyl chloride at the property, and that it was only detected at two locations on the Subject Property. Groundwater flow direction indicated that contamination from off-site was responsible for vinyl chloride contamination. For example, vinyl chloride contamination was detected in an up-gradient monitoring well over 350 feet away from the property. SME identified an off-property source for groundwater contamination: former U.S. Air Force Property 36 (AFP 36), which was located on the southern portion of the GE Evendale Plant, located 2,800 feet north of the Stearns and Foster property. The chlorinated solvents detected beneath the former Stearns and Foster property were consistent with those frequently detected below the former AFP 36, indicating that the groundwater impacts observed on the East Site property possibly originated offsite.
- **5/4/2012- Phase I Property Assessment Update at the Former Stearns and Foster Property.** This update was authored by SME for Hamilton County and B.A.D. Properties LLC, and includes the eastern portion of the Stearns property, not the Subject Property. 180 days since the original Phase I, the Ohio EPA noted several deficiencies in the report, and environmental remediation and additional activities had since occurred. SME found the following areas of concern on the property: the entire property (VOCs, SVOCs, PAHs, TPH, and metals); the transformer area (PCBs); buildings (asbestos); storage yard (PAHs, arsenic); north storage yard (PAHs, arsenic); bleaching area (dioxins); hazardous waste storage area (VOCs); and Building 50 (arsenic). The update indicated that nothing which affected the property's VAP eligibility was discovered.
- **5/15/2012- Remedial Implementation Report at the Former Stearns and Foster Property.** The report was authored by SME for Hamilton County and B.A.D. Properties LLC and includes the eastern portion of the Stearns property and not the Subject Property. Remediation was performed at the property, including the removal of arsenic-impacted soil and removal of asbestos containing building materials (ACBM) from the building prior to demolition. The remediation successfully eliminated direct contact risk within the commercial/industrial point-of-exposure. Additional sampling at the site found that PCBs, PAHs, and arsenic did not exceed commercial/industrial direct contact standards.
- **5/23/2012- Phase II Property Assessment Update at the Former Stearns and Foster Facility.** This Phase II Property Assessment Update was prepared by SME for Hamilton County, Ohio to support a future NFA letter under the Ohio EPA. This update includes the eastern portion of the Stearns property and not the Subject Property. Receptor populations on the property were identified as those who will work on or visit the property, those who perform construction, utility work, or excavation on the property, and those who may consume water from the aquifer shared with the property. SME collected soil samples, including 75 samples for VOCs, 84 for SVOCs, 80 for RCRA metals, 27 for PCBs, and 4 for dioxins. The only VOCs detected were methylene chloride and acetone. Methylene chloride was detected in 3 samples, and acetone in 17. SVOCs and PAHs were detected in most POC samples collected. Metals were detected in all samples collected, however arsenic was the only metal to exceed direct contact standard. PCBs weren't detected in soils around the perimeter of the former

transformer areas, however soil samples collected beneath concrete slabs showed that PCBs did migrate through the concrete. Vinyl Chloride and bis(2-ethylhex)phthalate (BEHP) were detected in groundwater in concentrations which matched or exceeded maximum contaminant levels but not exceeding the VAP CIDARs database risk-based action level. BEHP was not detected in subsequent samplings. SME concluded that vinyl chloride and BEHP found on the property could be attributed to an off-property source. SME recommended controls on groundwater use at the property and stated that soil and groundwater impacts presented unacceptable risk through vapor intrusion into indoor air pathway, therefore remediation or engineering controls should be required.

- **6/1/2012- Risk Mitigation Plan at the Former Stearns and Foster Property.** This risk mitigation plan was prepared by SME for the Hamilton County Board of Commissioners, covering the entire former Stearns and Foster site (east, and Subject properties). The plan was written to ensure the safety and health of people and the environment during future construction or excavation activities which might disturb asbestos containing materials remaining buried in sub-grade structures at the site. The risk mitigation plan, including requirements for remediation, air sampling, and reporting to the Ohio EPA, was to be implemented during any construction, excavation, or during activities which would disturb soil below two feet of depth.
- **6/8/2012- Voluntary Action Program Risk Assessment at the Former Stearns and Foster Property.** This risk assessment was prepared by SME for the Hamilton County Board of Commissioners to address the risks to human health and the environment from the post-remediation eastern site only; it did not cover the Subject Property. A PCB Remediation Work Plan was developed in May 2011, to safely dispose of waste. Days before waste removal was scheduled, an intruder on the property released the drain valve on a transformer, releasing 185 gallons of fluid contaminated with PCBs. The Ohio EPA arrived and Immediate Response Actions began immediately. The area was covered with High Density Polyethylene, and access to the site was blocked. The fluid passed the metal gate around the site and flowed onto a concrete driveway, a sidewalk, and a grassy area between the sidewalk and road, and also flowed around the outside of the northwest building wall. A new Work Plan was prepared to address the release. Apparent transite and other asbestos containing materials were observed in exposed basement sections, but based upon the depth and expense to remove the material, and overlying rubble, the decision to bury it was made. COPCs found in soil and groundwater were considered volatile enough to be further evaluated for the indoor air scenario. It was decided future buildings needed to be equipped with a barrier to prevent vapor intrusion and a groundwater use restriction would be required at the site, but no further remediation would be required.
- **6/14/2012- No Further Action at the Former Stearns and Foster Property.** This NFA was prepared by SME for Hamilton County Board of Commissioners, covering the east side of the property and not the Subject Property. A Phase I on the property was conducted, and environmental conditions assessed. Arsenic and benzo(a)pyrene contaminated soils were removed to a depth of 2.5 feet after which it met applicable risk standards for commercial or industrial workers, and soil impacted by PCBs was removed to a depth of 2.5 feet, or 4.5 to 6 feet in some locations to meet TSCA requirements. Additional remediation was planned to include a sub-slab vapor depressurization system to prevent vapor intrusion from soil to groundwater, and implementing a risk mitigation plan for construction or excavation workers for asbestos. An environmental covenant limited the property to commercial or industrial land use, prohibited the use of

groundwater for potable water sources, and restricted occupancy until the vapor intrusion barrier was operational. Given institutional and engineering controls, and risk mitigation measures, the property was in compliance with VAP standards for commercial/industrial use.

- **9/21/2012 – Risk Mitigation Plan, Former Stearns and Foster Property.** The plan was authored by SME for Hamilton County and B.A.D. Properties LLC and includes the eastern portion of the Stearns property and not the Subject Property. The plan was written to assist the property owner's obligations during redevelopment and future use of the property. Suspect ACMs remain in former sub-grade structures located in two acres of the property. Additionally, post remedial work demonstrated a potential risk to future construction/excavation workers by inhalation and dermal contact from vinyl chloride in the groundwater. ACMs were removed from the buildings prior to demolition; however, additional asbestos was discovered in basements when the floors were removed. Due to the cost of removal, it was left in place. The asbestos was wetted and the excavations backfilled. For work at depths of greater than two feet bgs, asbestos air monitoring should take place. For work when groundwater will be encountered, ambient air monitoring should take place.

- **11/29/2012 – Covenant Not to Sue for the Former Stearns & Foster Property.** Ohio EPA issued the CNS to B.A.D Properties LLC and Hamilton County for the eastern portion of former Stearns & Foster property at 200 Shepherd Avenue (does not include the Subject Property). An NFA letter was issued in June 2012, with addenda in September and October of the same year. The Environmental Covenant was recorded in the Hamilton County Recorder's office and:
 - Restricted the property to commercial or industrial uses;
 - Prohibited groundwater extraction and use for any purpose except for investigation, monitoring or remediation of groundwater, or extraction associated with construction; and
 - Prohibited building occupancy unless a vapor intrusion or mitigation system was present and approved by Ohio EPA.

Ohio EPA Online Database

Tetra Tech conducted a search of Ohio EPA's online database for files pertaining to Heritage Environmental. The following files were reviewed:

- **12/17/2009 – Final Air Pollution Permit-to-install and Operate (PTIO).** The permit description indicates that Heritage would install a portable grinder for the recycling of asphalt shingles and associated storage piles – the permit was effective in December 2009 and had a December 2019 expiration. Two emissions units were identified in the document – F001 for grinding/material handling and F002 storage piles.

- **7/19/2010 – Final Air Pollution PTIO.** The permit indicates that it was an administrative modification to delete one conveyor, limit incidental wastes that can be processed, and to allow non-residential waste to be processed. One emissions unit is listed – F001 for grinding/material handling.

- **February 2010 – Annual Permit Evaluation Report.** The report is for the year 2009 and lists two emissions units with PTIOs – a grinder/loader/conveyor (F001) and a loader for storage piles (F002).
- **February 2011 – Annual Permit Evaluation Report.** The report is for the year 2010 and lists three emissions units with PTIOs – two grinder/loader/conveyor units (F001) and one loader for storage piles (F002).
- **February 2012 – Annual Permit Evaluation Report.** The report is for the year 2011 and lists three emissions units with PTIOs – two grinder/loader/conveyor units (F001) and one loader for storage piles (F002).
- **3/1/2012 – Notice of Violation from the Southwest Ohio Air Quality Agency.** The notice indicates that Heritage installed and was operating air contaminant sources prior to applying for and obtaining an air PTIO from Ohio EPA, which constituted a violation of OAC 3745-31-02. The facility since submitted the necessary PTIO for a new portable grinding/material handling operation.
- **3/6/2012 – Permit Application letter from the Southwest Ohio Air Quality Agency.** The office reviewed Heritage’s permit-to-install for air pollution sources and it was found to be preliminarily complete.
- **February 2013 – Annual Permit Evaluation Report.** The report is for the year 2012 and lists two emissions units with PTIOs – one grinder/loader/conveyor unit (F001) and one loader for storage piles (F002).
- **February 2014 – Annual Permit Evaluation Report.** The report is for the year 2013 and lists one emissions unit with a PTIO – one loader for storage piles (F002).
- **February 2015 - Annual Permit Evaluation Report.** The report indicates Heritage had one Emissions unit with PTIOs; the description indicates it was a “loader” and the company equipment ID is listed as “storage piles.”

BUSTR

A search of BUSTR’s online database did not reveal any results for Stearns and Foster on either Shepherd or Wyoming Avenues, or on Forrer Street.

Southwest Regional Air Quality Agency

Ms. Kerri Castlen provided the following documents:

- **2/17/2010 – Letter from Heritage Environmental Services to the Hamilton County Department of Environmental Services.** The letter indicates that Heritage will sample 100% of incoming shingle loads to the operation for asbestos. In addition, it indicates that the shingles will be staged until the sample results come back as negative for asbestos; should they be positive, the shingles will be shipped to a permitted landfill.

- **9/26/2012 – Notification of Demolition and Renovation Summary Report.** The building is listed as the former Stearns and Foster Plant at the corner of Wyoming and Shepherd; but it does not specify which building. The report indicates that asbestos is not present.
- **February 2013 – Annual Permit Evaluation Report.** The report is for the year 2012 and lists two PTIOs – storage piles and loader (F001), and grinder / loader / conveyor / diesel engine for grinding / material handling (P901).
- **February 2014 – Annual Permit Evaluation Report.** The report is for the year 2013 and lists two PTIOs – storage piles and loader (F001), and grinder / loader / conveyor / diesel engine for grinding / material handling (P901).
- **February 2015 – Annual Permit Evaluation Report.** The report is for the year 2014 and lists two PTIOs – storage piles and loader (F001), and grinder / loader / conveyor / diesel engine for grinding / material handling (P901).
- **5/1/2015 – Notification of Demolition and Renovation Summary Report.** The report is for the Former Stearns and Foster Buildings at the northwest corner of Shepherd and East Wyoming (Subject Property). The report indicates that asbestos is present on site. The approximate amounts of asbestos on site are listed as: Regulated Asbestos Containing Materials (RACM) to be removed (200,232 cubic feet), non-friable ACM to be removed (80 square feet), and non-friable ACM NOT to be removed (18,000 square feet). Demolition was scheduled to start 10/20/2014 and end 5/01/2015. Prior to the demolition, the agency met with the inspectors on site and toured the facility. The agency indicated that the entire boiler house should be treated as asbestos containing, and that PSI (who was doing the third party oversight) could use its best judgement as to what needed to be done for the rest of the demolition.
- **February 2016 – Annual Permit Evaluation Report.** The report is for the year 2015 and lists two PTIOs – storage piles and loader (F001), and grinder / loader / conveyor / diesel engine for grinding / material handling (P901).
- **February 2017 – Annual Permit Evaluation Report.** The report is for the year 2016 and lists one PTIO – storage piles and loader (F002).
- **April 2017 – Permit Evaluation Report.** The document indicates the annual permit evaluation report (PER) was submitted 10 days late, and additional training for personnel was required.
- **8/25/2017 – Site Detail Report.** The notification for removal was received on 7/18/2011 for Stearns and Foster Buildings 49, 550, and 51. Buildings 49 and 51 are on the eastern portion of the Stearns and Foster property; Building 550 is located on the Subject Property. The buildings are listed as being owned by B.A.D, LLC, are three stories, and 70 years old. RACM to be removed is listed as 300 linear feet of piping and 6,500 square feet of surface area. In addition, 850 square feet of non-friable ACM is listed for removal. The removal was slated for 9/26/2011 through 1/9/2012.
- **February 2011 – February 2017 – Permit Evaluation Reports.** No deviations or exceedances were noted.

ODNR

ODNR's database did not contain records of groundwater monitoring wells on the Subject Property. The database contains records of several wells located on adjacent properties; two located in the middle of Shepherd Avenue, one on the ODOT property, and two on the eastern portion of the former Stearns property. The well on the ODOT property is located near the eastern property boundary with the Subject Property, is 59 feet deep, and has a 10 foot screen. The well log indicates brown clayey silt to 12 feet below ground surface (bgs), gray clayey silt to 36 feet bgs, and gray sand to 59 bgs. The well was not observed during the site reconnaissance. (Note – a former production well, which was not found in ODNR's database, appears to still be present on site – see below.)

4.4 PHYSICAL SETTING

Tetra Tech reviewed the most recent United States Geological Survey (USGS) 7.5-minute Topographic Maps (see Appendix A) provided by EDR, the ODNR groundwater well logs for the surrounding area, and additional geologic and groundwater information for the Subject Property. The most recent USGS 7.5-Minute Topographic Map for the Subject Property is the 2013 Cincinnati East, Ohio Quadrangle.

The elevation in the approximate center of the Subject Property is 570 feet above msl. Elevations in the area range from a high of 674 feet above msl one mile east of the Subject Property to a low of 536 feet above msl one mile south of the Subject Property.

The Subject Property is located within the Mill Creek Valley, a well-documented area of southwest Ohio with regard to geologic features and groundwater use. Tetra Tech reviewed a Water-Resources Investigations Report from 2002 for the area, which indicates that the valley is generally broad and flat, bounded by glacial and alluvial terraces and relatively steep bedrock walls. The valley consists of shale and limestone bedrock overlain by unconsolidated glacial outwash and/or till. Typically, rocks underlying the deposits are limestones and interbedded shales of Ordovician age.

Tetra Tech reviewed the Ground-Water Resources of the Cincinnati Area, Butler and Hamilton Counties. Within the document is a record of wells in Hamilton County. A well is listed at Shepherd Avenue and Wyoming Avenues in Lockland and is registered to Stearns and Foster. The well was drilled in April 1921, is 170 feet deep, and has 24-10 inch diameter casing. The depth to the top of bedrock is listed as 85 feet bgs. The water level was measured multiple times between 1935 and 1940 – measurements range from 84 to 117 feet bgs. The well was utilized for industrial purposes. A feature that is presumed to be the well was observed during the site reconnaissance (see Appendix D). The well casing is located in the southeastern portion of the Subject Property, is approximately 2 feet in diameter, and has a cap that is bolted in place. Tetra Tech spoke with Jim Zehringer, director of ODNR, who indicated that there was no sealing report for the well, and that it was not listed in their databases.

EDR reports that the dominant soil composition in the area of the Subject Property is Eldean loam. Soils have moderate infiltration rates and are moderately well and well drained with moderately coarse textures. The depth to the water table is reported to be greater than six feet, and soils are not hydric. The corrosion potential for uncoated steel is listed as high.

EDR reports 70 Federal USGS-registered wells, one Federal Public Water Supply well, and 510 state-registered wells within a mile of the Subject Property. One Federal USGS-registered well and 12 state-registered wells are listed on the Stearns and Foster property as a whole; none are listed on the Subject Property itself. The wells listed in the EDR report are also listed on the ODNR website, as discussed in Section 4.3 above.

4.5 HISTORICAL USE INFORMATION

Tetra Tech conducted a search of reasonably ascertainable historical use information for the Subject Property. Tetra Tech reviewed the EDR-provided aerial photographs, historical topographic maps, Sanborn Fire Insurance Maps (Sanborn maps), city directories search, tax maps, and building permits for the Subject Property. Copies of these documents are included in Appendix A.

4.5.1 Historical Topographic Maps

Sections of historical topographic maps for the Subject Property were obtained by EDR. Copies of these map sections are included in Appendix A. EDR provided map sections from the 1898, 1900, and 1914 East Cincinnati OH USGS 15-Minute and 1953, 1961, 1970, 1970, 1974, 1981 and 2013 Cincinnati East OH USGS 7.5-Minute Topographic maps. The map review findings are discussed below:

1898-1900 – The Subject Property is shown developed with one large and at least five smaller buildings, located east of a canal and west of the east Fork of the Mill Creek. Additional development, both residential and commercial/industrial can be seen to the north and south of the Subject Property. A rail line runs north-south, to the east of the Subject Property.

1914 – Additional commercial/industrial development has occurred in the neighborhoods around the Subject Property including Arlington Heights, Wyoming, Lockland, and Reading.

1953 – 1961 - The site appears to contain one large building that occupies the entire southern half. The Subject Property is situated centrally between the East and West Forks of the Mill Creek. Interstate 75 was developed, adjoining the Subject Property to the west. Additional commercial/industrial development as occurred in the Lockland neighborhood to the south and southwest of the Subject property, and at least seven large commercial/industrial structures have been developed to the northeast of the Subject Property.

1971- 1974, 1981- Additions have been added to the Subject Property building, and the building on the eastern Stearns and Foster site. A highway interchange has been developed to the east of the Subject Property.

1979, 2013 - The topographic map does not give specific details pertaining to the Subject Property or surrounding area.

Review of the topographic maps did not reveal any obvious evidence of environmental concerns for the Subject Property.

4.5.2 Historical Aerial Photographs

Tetra Tech reviewed historical aerial photographs for the Subject Property provided by EDR for the years 1938, 1950, 1956, 1962, 1968, 1975, 1977, 1985, 1988, 1994, 2000, 2005, 2006,

2009, 2010 and 2011. Aerial photographs generally provide a surface view of land uses and changes in development over time. A brief description of each aerial photograph reviewed, with emphasis on changes to the land uses of the property and surrounding area is presented below. The photographs were effective in observing overall land use in the vicinity of the property. However, the scales of the photographs made it difficult to determine precise on-site features. Copies of the aerial photograph sections covering the Subject Property and surrounding areas are included in Appendix A.

1938- The entire southern portion of the Subject property, along with the ODOT property to the west, is filled with commercial buildings. The northern portion of the Subject Property is residential. The remaining Stearns and Foster buildings can be seen on the eastern portion, across Shepherd Avenue. Residential, and commercial/industrial development can be seen to the north, east, and south of the Subject Property.

1951-1956- Interstate 75 is shown west of the Subject Property. Additional residential, and commercial/industrial development has occurred to the west of the Subject Property.

1968- The residences in the northern portion of the Subject Property have been removed and the property appears to be used for exterior storage. Interstate 75 has now been split, with the northbound lanes to the east of the Subject Property and the southbound lanes to the west.

1975-1994 - The northern portion of the Subject Property appears to be a paved parking area. Additional commercial/industrial development has occurred on the western side of the highway.

2005-2006 - The Subject Property appears similar to previous photographs. The surrounding area, with the exception of the eastern Stearns property, appears similar to current conditions.

2009- Demolition has begun on the eastern portion of the Stearns and Foster site, with the majority of the buildings removed.

2010- The white storage tent is visible on the northern portion of the Subject Property, along with what appear to be storage containers. The buildings remain on the southern portion of the Subject Property.

2011- The area south of the storage tent is discolored grey. The remaining northern portion appears to be used for storage.

Review of the aerial photographs did not identify any additional evidence of environmental concerns for the Subject Property.

4.5.3 Sanborn Fire Insurance Maps

EDR provided Sanborn maps for the years 1886, 1891, 1904, 1937, 1950, and 1981.

1886 – The Subject Property and the ODOT property are labeled as the Stearns and Foster Company Cotton Wadding and Batting Mills. The Mills occupy the majority of the Subject Property, with two small dwellings in the northeast. Lockland Lumber is present to the east across Shepherd Avenue (called Mary Street in 1886). A paper mill is present to the southwest across Wyoming Avenue (then Benson Street), and the Miami canal is present to the north.

1891 – Additional dwellings have been constructed along Shepherd Avenue. The northwestern portion of the Subject Property is now the Lockland Lumber Company’s Planing Mill. The majority of the southern portion consists of warehouses.

1904 – The lumber company has a varnishing room along the northwestern property boundary. To the east of that is the Monroe Refrigerator Company warehouse. South of the warehouse is a coal pile and “oil room” associated with a boiler house that utilized steam heat. A second boiler house is located on the Stearns and Foster portion of the site, along with a fire pump room and two engine rooms. To the east, Lockland Lumber has moved north and Stearns and Foster has expanded eastward across Shepherd. Two iron bridges cross Shepherd Avenue connecting the two sites.

1937-1950 – Additional buildings have been constructed on the Subject Property – the entire southern portion of the property is full of interconnected buildings. The refrigerator company and lumber company are no longer present in the northern portion. A cotton warehouse, storage, and residences are present north of the factory. To the east across Shepherd Avenue is a bleach house and a large coal pile.

1981 – Only two residences remain in the northeastern portion, the remaining space is labeled “parking.” The remainder of the Subject Property appears similar to previous maps.

The former presence of coal piles, oil rooms, and a refrigerator company on the Subject Property are considered potential threats to the subsurface and are considered RECs and IAs.

4.5.4 City Directories

Tetra Tech reviewed a search of available city directory data performed by EDR for 200 East Forrer Street. EDR searched the Williams, R.L Polk, Haines & Company, and the EDR Digital Archive directories. The Subject Property was listed as the following:

Address	Listing(s)
200 East Forrer Street	2002 – Gentertainment Inc., Stephen Mallery, Painting Inc., Trophies and Awards 2008 – BAD Properties 2010 – BAD Properties, LLC
107 Brown Street	1961 – Lawrence Farmer 2008 – Mealany Hertel

Review of the city directory listings did not reveal any obvious evidence of RECs for the Subject Property.

5.0 SITE RECONNAISSANCE

This section discusses the site reconnaissance conducted by Tetra Tech personnel in January 2017. The site reconnaissance was conducted concurrently with an asbestos inspection, and therefore was completed over multiple dates. Tetra Tech was unaccompanied during the site visits. The objective of the site reconnaissance was to obtain information regarding RECs or IAs in connection with the Subject Property and adjacent areas. The sections below discuss the Phase I PA methodology and limiting conditions, general site setting, and Tetra Tech observations.

5.1 METHODOLOGY AND LIMITING CONDITIONS

Tetra Tech performed a site reconnaissance and physical inspection of the Subject Property. All inspections were visual and no intrusive inspections or sampling was performed. Tetra Tech attempted to inspect all areas of the Subject Property, including the interior and exterior of all buildings and structures.

5.2 GENERAL SITE SETTING

The Subject Property is located in the Village of Lockland, Hamilton County, Ohio. The Subject Property is bordered by roads on three sides – Brown Street to the north, Shepherd Avenue to the east, and Wyoming Avenue to the west. To the north is a right of way owned and maintained by ODOT.

The majority of the Subject Property consisted of grassy areas with rocks, bricks, and portions of foundations from the former buildings present. The northwestern portion of the site is occupied by Heritage Environmental and Weisbrod Masonry. Heritage Environmental is a roofing shingle recycler who recently ceased operation, while Weisbrod Masonry stores building materials on site.

The Subject Property slopes down from East Forrer Avenue to the northwest down to Shepherd Avenue to the southeast – there is an approximate 20 foot elevation change.

Portions of the Subject Property are fenced in with a chain link fence (See Figure 2). Gates are present at the Heritage/Weisbrod portion of the site along Shepherd Avenue and Brown Street. Most of the border with Shepherd Avenue is not fenced. Stormwater at the Subject Property would either infiltrate into the unpaved ground or flow via sheet flow southeast toward Shepherd Avenue where it would enter the municipal storm sewer.

5.2.1 Hazardous Substances, Petroleum Products, Containers, and Other Materials

The following materials were observed in the northern portion of the Subject Property during the site reconnaissance:

- Approximately 250-gallon AST north of the storage tent. The tank had no labels indicating its contents; however, it did have a dispenser nozzle and therefore appears to have been a diesel fuel tank for the Heritage heavy machinery. The AST was located on gravel/bare ground, was not located in secondary containment, and had black staining around its base. It is unclear whether the tank had fuel remaining inside.

A flat-bed pickup truck with three approximately 250-gallon ASTs stacked on the back was observed near the Shepherd Road gate. It was not possible to ascertain if the tanks were empty during the reconnaissance.

- The remnants of a large shingle pile was observed on the south side of the storage tent. The ground was observed to be black, and shingle particles were observed to be mixed in with the gravel and dirt surface.
- Two 55-gallon plastic drums labeled Vana Trol sensitive brick and stone cleaner were observed on a wooden pallet. No secondary containment or staining was observed.
- An approximately 200-gallon AST with unknown contents was observed on the eastern side of the storage tent. The AST had a dispenser nozzle and was not within secondary containment. No obvious staining was observed around the AST.
- Within the storage tent, the following containers were observed:
 - One empty 55-gallon drum labeled hydraulic oil on a wooden pallet;
 - Three 55-gallon drums located on a wooden pallet – the drums were labeled transmission fluid (full) and motor oil (full), the third was new and empty;
 - A shelving unit containing over 30 one-gallon containers of motor oil, with several one-quart containers of motor oil on the floor adjacent to the shelves;
 - A parts washer located on a wooden pallet. The parts washer, the pallet, and the ground beneath it were noted to be stained black; and
 - A metal cart containing three 10-20 gallon containers of various oils.
- A flammable cabinet located on the west side of the Weisbrod Office. The cabinet was locked and inaccessible during the site reconnaissance.
- A locked cage of propane cylinders. Six cylinders were observed within the cage.

5.2.2 Pools of Liquid and Odors

Tetra Tech did not observe any obvious evidence of pools of liquid or odors during the site reconnaissance.

5.2.3 Storage Tanks

Two ASTs are present on the Subject Property, as discussed in Section 5.2.1. Both ASTs were observed to be at least 200 gallons, had dispenser nozzles, and neither were labeled with their contents. Black staining was observed around the AST along the northern property border. The ASTs are assumed to have contained either gasoline or diesel fuel for onsite vehicles. In addition, three ASTs that appear to be currently unused were noted on a truck. However it was not possible to confirm that these tanks were empty during the reconnaissance.

5.2.4 PCB-Containing Equipment

No obvious evidence of PCB-containing equipment was observed during the site reconnaissance. Transformers were previously located on the site, as discussed in Section 3.2.

5.2.5 Solid Waste and Debris Disposal

Debris was noted throughout the northern portion of the Subject Property:

- A pile of shingles is present south of the storage tent. The shingle pile was previously much larger; most was cleared out when Heritage closed down. The current pile is approximately 12 feet long, five feet wide, and approximately four feet tall. A sign at the entrance to the tent indicates they only accept asphalt shingles with minimal roofing debris. They reportedly did not accept asbestos containing materials, cedar/wood shake roofing, built-up roofing, tile roofing, or hazardous materials. The vetting process for the shingles is unknown; therefore it is possible that some asbestos shingles were accepted by the facility.
- A six foot tall pile of bricks, wood, rebar, and other debris is located northeast of the storage building.

5.2.6 Floor Drains, Sumps, Waste Water, and Septic Systems

No obvious evidence of floor drains, sumps, waste water, or septic systems were observed during the site reconnaissance.

5.2.7 Stained Soil, Pavement, and Floors

Black, oily staining was observed off the southwest corner of the storage tent. The stained area was approximately six foot in diameter; no obvious source was observed at the Subject Property. Black staining was observed on the gravel adjacent to a bulldozer along the northern property boundary. The staining was noted to be approximately four foot by six foot. The area within and south of the storage tent was formerly used to store shingles – the gravel and dirt in this area was observed to be black.

5.2.8 Pits, Ponds, or Lagoons

No obvious evidence of pits, ponds, or lagoons was observed during the site reconnaissance.

5.2.9 Wells

Tetra Tech observed a casing that appears to be a former water supply well for the property during the site reconnaissance. The well casing is approximately two feet in diameter and was bolted shut. The well is assumed to be the 170-foot well discussed in Section 4.4, and is assumed to have not been properly closed. No other wells were noted on the site during the reconnaissance. Although multiple wells have been installed on the Stearns and Foster property as a whole, available information does not indicate that any of the wells were drilled on the Subject Property.

6.0 INTERVIEWS

Tetra Tech interviewed Mr. Dan Ferguson, Senior Development Specialist with HCDC, during the site reconnaissance. Mr. Ferguson's knowledge of the site is incorporated throughout the report.

Tetra Tech contacted historian Beth Sullebarger for information on the Subject Property. Ms. Sullebarger provided the Historic Inventory of Hamilton County from 1987. The document indicated the Stearns and Foster moved to Lockland in 1882, and all activities were moved there by 1898. Mattress making was added around the turn of the century. A 4-story brick building was located at the northeast corner of Wyoming and East Forrer Street. The buildings on the Subject Property dated from 1881-1965.

Tetra Tech spoke with ODNR director Jim Zehringer pertaining to the former production well located on the Subject Property. Mr. Zehringer indicated that his office had no record of the well.

Various companies and governmental agencies were contacted regarding knowledge of the Subject Property. Responses received are discussed in Section 4.3 of this document.

7.0 FINDINGS AND OPINIONS

Tetra Tech identified evidence of known or suspected environmental conditions associated with the Subject Property and surrounding properties. Conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property are considered RECs to the Subject Property, as defined by ASTM E1527-13. Additionally, the guidelines identify CRECs and HRECs. CRECs are past releases that have been addressed to the satisfaction of the applicable regulatory authority but are subject to controls; HRECs are not subject to any controls. As defined by Ohio VAP guidelines 3700-300-06, an IA is an area at a property where a release of petroleum or hazardous substances has or may have occurred.

The following IAs and associated RECs have been identified in association with the Subject Property (these are depicted on Figure 3):

- **IA-1:** The entire Subject Property has an over 150-year history of industrial use as a mattress manufacturer, refrigerator manufacturer, lumber yard, and a shingle recycler. Historical documentation indicates the presence of coal piles, boiler houses, oil rooms, and refrigerator warehouses on the Subject Property. During a 2006 Phase II, groundwater was sampled from three wells on the west side of Shepherd Avenue. The three wells appear to be located on the ODOT property (these wells were not observed during the site reconnaissance). In addition, six monitoring wells were placed on the eastern portion of the Stearns and Foster property. Groundwater exceedances in the western portion of the Stearns property include chromium and bis(2-ethylhexyl)phthalate on the ODOT property. Vinyl chloride was found in multiple wells on the eastern portion but was eventually determined to be from an offsite source. TPH exceedances were found in a rotten floor at the Subject Property. Available information does not indicate that monitoring wells were drilled on the Subject Property; however, three were drilled on the ODOT property to the west. The known soil and groundwater contamination associated with both the Stearns and Foster property and offsite sources on both the eastern Stearns site and the ODOT property should be considered an IA. Contaminants of concern (COCs) in the soil would include VOCs, metals, TPH, and SVOCs. COCs for groundwater include metals and SVOCs; VOCs detected on site are addressed in IA7.
- **IA-2a and 2b:** PCB contamination – In 2010, it was reported that vandals opened the valves on transformers at the Subject Property and the adjacent Stearns property. PCB containing fluid flowed from the transformers, and approximately 20 gallons collected on the floor of one of the Subject Property buildings. Prior to this, a 2006 Interim Phase II conducted wipe samples on the Subject Property and found five samples to be above the Cleanup Level. No PCBs above the cleanup level were found in a soil sample on the Subject Property. The former locations of the two on-site transformers are considered IAs. The COCs for this IA are PCBs in soil; they are not considered a COC for groundwater due to their low mobility.
- **IA3:** Shingle pile at the former Heritage Environmental – a large area south of the storage tent is stained black. The ground here is a mixture of gravel and pulverized shingles, and a small shingle pile remains. It is not known whether the remaining shingles were tested for asbestos or whether any potential asbestos shingles were properly managed; therefore the shingle pile is considered an IA, and asbestos is the COC.

- **IA4:** AST at Heritage Environmental – An approximately 250-gallon AST is located along Brown Street. The contents of the AST are unknown, although due to the dispenser it is assumed to have contained diesel fuel for onsite heavy machinery. Black staining was observed on the gravel around the base of the AST. The AST is considered a REC and the area around the AST is considered an IA. VOCs, SVOCs, and TPH are the COCs.
- **IA5:** Oily staining at Heritage Environmental – black, oily staining was observed off the southwest corner of the storage tent. The area was observed to be approximately six feet in diameter and no obvious source was present. The staining is both a REC and an IA. VOCs, TPH, and SVOCs are the COCs.
- **IA6:** Black staining at Heritage Environmental – the gravel was observed to be stained black adjacent to a bulldozer along the northern property boundary. The staining was observed to be approximately four foot by six foot. The staining is both a REC and an IA. VOCs, TPH, and SVOCs are the COCs.
- **IA7:** The Subject Property is in an area of a known and well documented groundwater VOC plume. The plume reportedly emanates from the northeast near the former Air Force Plant/General Electric Plant. The groundwater plume is considered a REC, and the point where it enters the Subject Property near the northeast border is considered an IA. However, as the plume is reportedly due to offsite/upgradient sources that are being addressed by other means, no additional action on the Subject Property is recommended to the groundwater in that context. VOCs are the COC.
- **REC:** Tetra Tech observed what is presumed to be an old production well on the Subject Property, along Shepherd Avenue. The well is assumed to have been drilled in 1921 based on citations in USGS water resource reports but is not on record with ODNR. The lid was bolted shut and inaccessible at the time of the site reconnaissance. Available information does not indicate that monitoring wells were installed on the Subject Property, but on the adjacent ODOT property and the eastern portion of the Stearns site. The status of the ODOT wells is unknown. The unused well is considered a potential conduit to the groundwater and is therefore considered a REC.

8.0 RECOMMENDATIONS

Based on the information obtained during the site reconnaissance, record reviews, interviews, and review of environmental history of the Subject Property, releases of hazardous substances and petroleum products may have occurred on the Subject Property. A review of site history and current activities observed during the site visit indicates documented releases to the Subject Property. Tetra Tech recommends Phase II ESA activities to address the IAs and associated RECs identified in this Phase I PA. The investigation would include the following activities:

- Tetra Tech recommends that a Phase II ESA be conducted to address the IAs at the Subject Property. Phase II activities include the development of a detailed Sampling and Analysis Plan (SAP) to address subsurface contamination at the Subject Property, soil borings/monitoring well installation, and soil/groundwater sampling.
- Tetra Tech recommends the proper closure of the old production well in accordance with ODNR regulations. The ODOT wells should also be located to ensure they are not on the Subject Property; should they be found to be on the Subject Property they too should be closed.
- Tetra Tech recommends the removal and proper disposal of the ASTs, drums, and containers at the Subject Property.
- Tetra Tech recommends soil gas sampling at the Subject Property to assess possible vapor impacts from the offsite groundwater plume.

9.0 DEVIATIONS

Tetra Tech conducted inquiries and completed research using guidance established by ASTM E1527-13 and Ohio VAP standard practices. Deviations from these practices include data gaps within the historical records, which were previously described.

10.0 REFERENCES

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- EDR. 2017c. The EDR Historical Topographic Map Report, Stearns and Foster, EDR Inquiry Number 4994759.4. July 17.
- EDR. 2017d. The EDR Radius Map Report, Stearns and Foster, EDR Inquiry Number 4994759.2s. July 17.
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- EDR. 2017f. Environmental Lien Report, Stearns and Foster, EDR Inquiry Number 4994759.7. July 19.
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- SME. 2012e. Voluntary Action Program Risk Assessment, Former Stearns and Foster Property. June 8.
- SME. 2013. TSCA Implementation Report, Former Stearns and Foster Property. January 7.
- Village of Lockland. 2003. Clean Ohio Assistance Fund Assessment Application for the Stearns and Foster Textile Plant. February.

11.0 SIGNATURES OF ENVIRONMENTAL PROFESSIONALS

We declare that, to the best of our professional knowledge and belief, one or both of the undersigned meet the definition of "Environmental Professional" as defined in 40 CFR 312.13 and one or both of the undersigned have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. We have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.



9/30/2017

Vicky Farmer
Environmental Scientist

Date

Qualifications

Ms. Vicky Farmer is an Environmental Scientist for Tetra Tech. Ms. Farmer holds a Bachelor's of Science degree in Environmental Science from Morehead State University in Morehead, Kentucky. Her seven years of experience includes performing numerous PESAs for various clients at a wide variety of residential and commercial sites throughout the United States.



9/30/2017

Guy Montfort, PG
Geophysical Engineer

Date

Qualifications

Mr. Montfort is a Tetra Tech professional with a B.S. in Geophysical Engineering and 27 years of experience in conducting environmental assessments. He holds a Bachelor's degree in Geophysical Engineering from the Colorado School of Mines in Golden, Colorado. His experience includes performing numerous PESAs and Phase II Environmental Site Assessments for various clients at a wide variety of residential, commercial, and industrial sites throughout the United States.

Figures

Appendix A

Historical Use Information and User Provided Information

Appendix B

EDR Environmental Lien Report

Appendix C
EDR Radius Map Report

Appendix D
Correspondence and File Review Documentation

Appendix E
Selected Site Photographs