ON-SITE SOIL INVESTIGATION WORK PLAN

Franklin Power Products, Inc. / Amphenol Corporation
Administrative Order on Consent, Docket #R8H-5-99-002
EPA ID # IND 044 587 848
980 Hurricane Road
Franklin, Indiana 46131

Prepared For:

Carolyn Bury
United States Environmental Protection Agency, Region 5
77 West Jackson Boulevard
Chicago, Illinois 60604

Date: February 21, 2020

Prepared by:

IWM Consulting Group, LLC
7428 Rockville Road
Indianapolis, IN 46214
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TABLE OF CONTENTS

FIGURES

TABLES

ATTACHMENTS

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February 21, 2020

Ms. Carolyn Bury
Project Manager
Corrective Action Section 2
Remediation and Re-use Branch
U.S. Environmental Protection Agency, Region 5
77 West Jackson Boulevard
Chicago, IL 60604-3590

Re: **On-Site Soil Investigation Work Plan**
Franklin Power Products, Inc./Amphenol Corporation
Administrative Order on Consent, Docket # R8H-5-99-002
EPA ID # IND 044 587 848
980 Hurricane Road
Franklin, Indiana 46131

Dear Ms. Bury:

In accordance with the United States Environmental Protection Agency (USEPA) letter dated January 23, 2020, Industrial Waste Management Consulting Group, LLC (IWM Consulting), on behalf of the "Performing Respondent", Amphenol Corporation (Amphenol), is submitting this *On-Site Soil Investigation Work Plan* (Work Plan). This Work Plan outlines the proposed work activities relating to the investigation and delineation of adsorbed phase volatile organic compounds (VOCs) and non-aqueous phase liquid (NAPL), if present, on-Site and off-Site, as necessary. The Former Amphenol facility is located at 980 Hurricane Road in Franklin, IN (Site). Off-Site areas which may be included in this investigation include the right-of-way to Hamilton Avenue, as well as the private property located west of the Site.

These work activities were requested in a letter from the USEPA dated January 23, 2020. The initial phase of the response to the USEPA letter was addressed by the *On-Site Sewer Vapor Intrusion Investigation Work Plan* dated January 30, 2020, which was submitted to and subsequently approved by the USEPA on February 4, 2020. A copy of the January 23, 2020 USEPA letter is provided as **Attachment A**.

The objectives of the proposed work activities are as follows:

- Complete delineation of the vertical and horizontal extent of adsorbed phase VOCs and NAPL (if present) to the bottom of geologic Unit B and the top of geolgic Unit C along the former sanitary sewer line.
- Complete the delineation of the vertical and horizontal extent of adsorbed phase VOCs and NAPL (if present) to the bottom of geologic Unit B and the top of geolgic Unit C in the vicinity of the former wastewater treatment building and recovery well RW-4.
- Utilize soil data to assist in the development of the *On-Site Interim Measure Work Plan*.

This Work Plan outlines the proposed methodology and sampling activities that will be utilized during the Work Plan implementation activities. A site vicinity map is provided as **Figure 1**, which displays the location of the Site and properties in the vicinity of the Site. A site map displaying pertinent site features has been included as **Figure 2**. **Figure 3** displays the proposed initial soil boring locations.

Proposed Boring Advancement

The primary objective of this Work Plan is to define the on-Site (and off-Site, if necessary) horizontal and vertical extent of adsorbed phase VOCs and NAPL (if present) in Unit B in order to provide design-level data for development of the *On-Site Interim Measure Work Plan*. During implementation of the *Design-Level Data Soil Investigation Work Plan*, soil borings were installed at the Site along the former sanitary sewer line and soil samples were collected and submitted for laboratory analysis. A table summarizing the on-Site design level soil analytical results has been included as **Table 1**.

Based on the results from the on-Site design-level data soil borings (DSB-48 through DSB-56) installed on March 5 and 6, 2019, IWM Consulting is proposing a two-staged approach to on-Site soil and NAPL source characterization. The initial stage of source characterization will utilize MIP technology in order to obtain data regarding relative VOC contaminant mass distribution. The second stage of source characterization will utilize standard Geoprobe® soil borings for the screening and collection of soil samples for laboratory analysis producing quantative data. IWM Consulting is proposing the the advancement of approximately twenty-five (25) MIP soil borings and twenty-five (25) Geoprobe® soil borings. All borings will be advanced approximately two (2) feet beyond the base of Unit B, which typically extends to depths ranging from 19 to 24 feet below ground surface (bgs). Unit B is the first unconfined water bearing sand unit and is underlain by a silty clay unit with a thickness historically documented to be approximately 20 to 25 feet (previously identified as "Unit C").

MIP Soil Borings

IWM Consulting will contract with a direct sensing site characterization contractor and will install approximately twenty-five (25) membrane interface probe (MIP) soil borings (M-1 through M-25) using a direct push drilling unit equipped with a high resolution direct sensing site characterization tool. The direct sensing tool will include the MIP technology in order to detect chlorinated VOCs and the soil electrical conductivity (EC) technology in order to measure soil conductivity in one downhole tool. This single downhole tool allows for the collection of data in real time during advancement at each soil boring location. Twenty (20) proposed initial MIP borings are displayed by location on **Figure 3**. Additionally, based on data obtained during initial MIP boring installation, up to five (5) secondary MIP borings may be installed to assist in adsorbed VOC or NAPL delineation. Select MIP soil borings will require obtaining an off-Site access agreement with a private property owner to the west of the Site. Please note that these are proposed locations only and the final locations may have to be relocated in order to accommodate for subsurface or above ground structures/features (i.e. utilities) or off-site access.

The high resolution system collects numerous data points within each foot in each survey location yielding hundreds of measurements for each boring location. The MIP can be used in both saturated and unsaturated materials to detect VOCs in the gaseous, sorbed, dissolved or free phases. The MIP technology should provide an accurate location and depth of any NAPL which may be present. The "Membrane" acts as an interface between the VOCs in the subsurface and gas phase detectors at the surface. The membrane is semi-permeable and is comprised of a thin film polymer impregnated into a stainless steel screen for support. The membrane is placed in a heated block attached to the probe. This block is heated to approximately 120 degrees Celsius and is raised at the leading edge to help protect the membrane from damage when being pushed through the geologic matrix. Heating the block helps accelerate diffusion of the VOCs through the membrane. Diffusion occurs due to a concentration gradient between the impacted soil and the clean carrier gas behind the membrane. A constant inert gas sweeps behind the membrane, and carries the diffused VOCs to the vapor-phase detectors at the surface. The MIP technology will utilize a combination of three chemical detectors, a photo-ionization detector (PID), flame ionization detector (FID), and halogen specific detector (XSD), to identify contaminant concentrations within the soil matrix. The XSD is a a chlorinated specific detector and will be the most optimal detection instrument since it is the most sensitive to the chemicals of concern (COCs). The membrane interface probe /hydraulic profiling tool (MiHpt) is a combination probe that can perform MIP, HPT, and EC measurements in one push. The MiHpt probe detects volatile contaminants with the MIP, measures soil electrical conductivity with a standard dipole array, and measures HPT injection pressure using the same down-hole transducer as the stand-alone HPT system. In post-processing the log data, the practitioner is able to estimate hydraulic conductivity (K) and water table elevation, as well as prepare graphical outputs of the log data. The direct sensing contractor will provide a summary report of their findings.

Geoprobe® Soil Borings

Geoprobe® soil borings will be advanced utilizing direct-push technology. The direct-push probe utilizes hydraulics to advance a sampler into the soil; consequently, excess soil cuttings are not generated during direct-push drilling activities. Continuous soil samples will be obtained utilizing dual-tube sampling methods where a four-foot long acetate sleeve contained within a stainless-steel casing is advanced hydraulically to obtain the soil sample. Soil samples pass through the sampler cutting shoe and are retained within a sealed disposable acetate plastic sampling tube for retrieval. The acetate sleeve containing the soil sample is then removed while the stainless-steel outer casing remains in place. A new acetate sleeve is placed inside the casing for continued sampling and advancement of the borehole. Any soil cuttings generated will be placed in labeled 55-gallon steel drum(s) for characterization and future disposal. The drum(s) will be temporarily stored near the existing groundwater treatment building located on the Site.

Strict decontamination procedures will be followed during the investigation activities by IWM Consulting personnel to reduce the potential for cross-contamination. Drilling and all non-disposable, down-hole sampling equipment will be decontaminated prior to first use on-site, and thereafter between uses, using a vigorous wash in Alconox solution, followed by a tap water and/or distilled water rinse. Any decontamination water generated will be temporarily placed in a 55-gallon steel drum, transported back to the Site, and then properly disposed of at a certified disposal facility.

The soil samples collected will be field screened using a PID in an effort to determine the relative presence of adsorbed VOCs. The soil will also be visually examined and logged in general accordance with the Unified Soil Classification System (USCS). To ensure accurate VOC screening, the quantity of the soil, temperature, and headspace volume are kept as constant as possible. Prior to field activities, the PID will be calibrated in accordance with manufacturer's directions to minimize error through instrument drift.

IWM Consulting anticipates that the Geoprobe® soil borings will be advanced within 5 feet of MIP soil borings, however the final locations will be dependant on data collected during advancement of the MIP borings. Additionally, if the proposed MIP soil boring location is in the location of a previous design-level data soil boring (DSB-48 through DSB-56), a Geoprobe® soil boring will not be installed. Soil samples collected for analysis will be based on a combination of set sampling intervals and the MIP instrument responses. Following receipt of laboratory analytical results from the analysis of soil samples from the Geoprobe® soil borings, if soil results exhibit concentrations greater than Indiana Department of Environmental Management (IDEM) Re-Calculated Remediation Closure Guide (RCG) Migration to Groundwater (MTG) screening levels, select secondary soil boring step outs from the initial Geoprobe® soil borings may be warranted. The IDEM Re-Calculated RCG MTG screening levels were approved as corrective action objectives (CAOs) within the *Off-Site Interim Measure Work Plan* dated June 18, 2019.

Adsorbed VOC data (and NAPL, if present) between boring locations will be compared to data obtained from the MIP investigation, interpolated similarly to dissolved plumes, and connected accordingly. Soil COC isoconcentration maps will be prepared utilizing this data which will in turn be used in developing the *On-Site Interim Measure Work Plan*.

Soil Sampling Activities

Soil samples will be collected from the Geoprobe® soil borings to quantify soil impacts or NAPL detected in the MIP soil borings and to delineate adsorbed VOC impacts and NAPL (if present). This information will be utilized in the development of the *On-Site Interim Measure Work Plan*.

The Geoprobe® soil borings will be continuously sampled and select sample intervals will be submitted for laboratory analysis in order to determine if soils are impacted by the short-listed VOCs. One (1) soil sample will be obtained from within the top two (2) feet of Unit C and one (1) soil sample will also be obtained from bottom two (2) feet of the base of Unit B. Additional soil sample intervals may be selected based on the MIP instrument responses and to document adsorbed VOC concentrations at shallower depths, including intervals above the observed water table.

Soil samples will be analyzed for short list VOCs using SW-846 Method 8260 and percent moisture. Soil samples collected for laboratory analysis of VOCs will be obtained in general accordance with EPA Sampling Method 5035 using bulk TerraCore sampling supplies, including the 5-gram T-handle sampling device (or comparable).

A table summarizing the Pace Analytical Services, LLC (Pace) reporting and method detection limits for each compound compared to IDEM RCG screening levels is listed on the following page.

VOC Compound	Pace Laboratory Reporting Limits (mg/kg)	Pace Laboratory Method Detection Limits (mg/kg)	IDEM Re-Calculated RCG Soil Migration to Groundwater (mg/kg)	IDEM RCG Residential Direct Contact Screening Level (mg/kg)	IDEM RCG Commercial-Industrial Direct Screening Level (mg/kg)
1,1-DCA	0.005	0.0025	0.737	50	160
1,2-DCA	0.005	0.0025	0.283	6.4	20
cis-1,2- DCE	0.005	0.0025	0.411	220	2,300
trans-1,2-DCE	0.005	0.0025	0.625	1,900	1,900
Methylene Chloride	0.02	0.01	38.654	490	3,200
PCE	0.005	0.0014	0.996	110	170
1,1,1-TCA	0.005	0.0025	90.668	640	640
TCE	0.005	0.001	0.065	5.7	19
Vinyl Chloride	0.005	0.0025	0.014	0.83	17

Sample Identification, Collection, & Analysis

Field sample identification for this project should follow the following format: a sample location identification code (GP-1 for Geoprobe® Soil Boring-1), a two-letter sample matrix code (SL for soil), and numbers designating the sampling interval of each sampling location. The trip blank, field duplicate, and equipment blank samples should utilize the identification codes TB, FD, and EB, respectively. Examples of the field sample identification codes for this project are as follows:

- For Geoprobe® soil boring soil samples: GP-1 SL (8' – 10')
  (Geoprobe® soil boring sampling location No. 1 – soil sample, interval 8' – 10' bgs)
- For Geoprobe® soil boring field duplicate soil samples: FD-1 SL
  (Soil sample field duplicate No. 1)
  Note that no sampling location identification is utilized for the field duplicate. The field duplicate location/sampling identification information is to be recorded in the field project notebook.
- For equipment blank samples: EB-1 WT
  (Equipment Blank - water sample No. 1)
- For trip blank water samples: TB-1 WT
  (Trip Blank – water sample No. 1)

Standard protocols will be observed for sample collection, sample handling and preservation, and chain-of-custody documentation. Personnel will utilize clean, disposable, nitrile gloves for each sample obtained. Laboratory provided sample containers will be utilized. Prior to use, the sample containers will be inspected for cracks, chips, cleanliness, and preservative (as appropriate). Container threads will be wiped clean before sealing (if applicable) to ensure proper sealing. The sample containers will be labeled with the appropriate project name and/or number, sample identification

designation, date, time, and sampler's name or initials. Samples will be placed in a cooler containing ice and maintained at a temperature of approximately 4º Celsius prior to analysis.

Samples will be analyzed by the laboratory using a standard 1-week turnaround time (TAT) and Level IV quality assurance/quality control (QA/QC) procedures. Additional soil samples may be collected in the future if the results from the initial soil sampling indicate additional horizontal delineation is warranted. For QA/QC purposes, one (1) field duplicate will be collected at a rate of one (1) sample per every ten (10) samples per sampling media and will be analyzed for the same analytical parameters. In addition, one (1) matrix spike/matrix spike duplicate (MS/MSD) sample will be collected at a rate of one (1) sample per every twenty (20) confirmatory samples per sampling media and will be analyzed for the same analytical parameters. One (1) trip blank for VOC analysis will accompany each cooler shipment that contains samples for select VOC analyses. One (1) equipment blank per sampling media per day will be obtained. The equipment blank will be collected by pouring laboratory-prepared water or distilled water over or through the field sampling equipment (e.g., the cutting shoe or bladder pump) and collecting the rinsate in the proper analytical containers. If only disposable or single use sampling equipment is used, then a field blank, consisting of analyte-free water poured into a laboratory provided container in the field (in order to assess the potential for sample contamination due to field conditions) will be collected in lieu of an equipment blank.

The Pace chain-of-custody, pertinent information such as laboratory certifications for Pace, were previously submitted as Attachments C, D, and E and conditionally approved by the USEPA during the implementation of the *Off-site Groundwater Investigation Work Plan* dated October 18, 2018. The applicable Standard Operating Procedures (SOPs), which will be followed by IWM Consulting during during the soil sampling activities, were provided as Attachment B of the *Design-Level Data Soil Investigation Work Plan* dated February 19, 2019.

Reporting

Preliminary results, including a copy of the laboratory report, a site map displaying the final sampling locations, boring logs, 3-D figures showing the distribution of adsorbed VOCs and NAPL (if present), and a table summarizing the results, will be supplied to representatives from the USEPA as soon as possible once the information has been received and reviewed. The soil analytical results will be compared to IDEM Recalculated RCG MTG screening levels and submitted to the USEPA. Prior to submission of the final analytical results, the analytical results will be validated by a third-party data validation firm and the validation report will be submitted to the USEPA.

Timeline

The table on the following page shows the estimated timeline associated with implementing this Work Plan.

Task	Anticipated Estimated Completion Date	Comments
Submittal of Work Plan	February 21, 2020	
Receipt of USEPA Comments/Approval	Early to Mid-March 2020	
Obtain Private Access	Mid-Late March 2020	
Completion of MIP Soil Boring Installation	Anticipate starting March 31, 2020 or the earliest available timeline for drilling subcontractors	Based on USEPA approval, weather, receipt of site access, and subcontractor availability – anticipate 5 days of MIP drilling activities
Installation of Initial Geoprobe Soil Borings	April 7-May 7, 2020	Based on USEPA approval, weather, receipt of site access, and subcontractor availability – if initial results indicate additional delineation is warranted, a second mobilization may be required – anticipate 5 days of Geoprobe drilling activities
Receipt of Preliminary Laboratory Analytical Results from Initial Geoprobe Soil Borings	April 17-May 14, 2020	Expedited analysis required, anticipate within 48 hours of sampling event
Installation of Secondary Geoprobe Soil Borings, if necessary	April 14-May 14, 2020	Based on USEPA approval, weather, receipt of site access, and subcontractor availability
Submittal of Preliminary Laboratory Results to the USEPA	April 20-May 17, 2020	
Submittal of Final Results to the USEPA	June 2020	

Please do not hesitate to contact the undersigned with questions or if you need additional information regarding this submittal.

Sincerely,

IWM CONSULTING GROUP, LLC

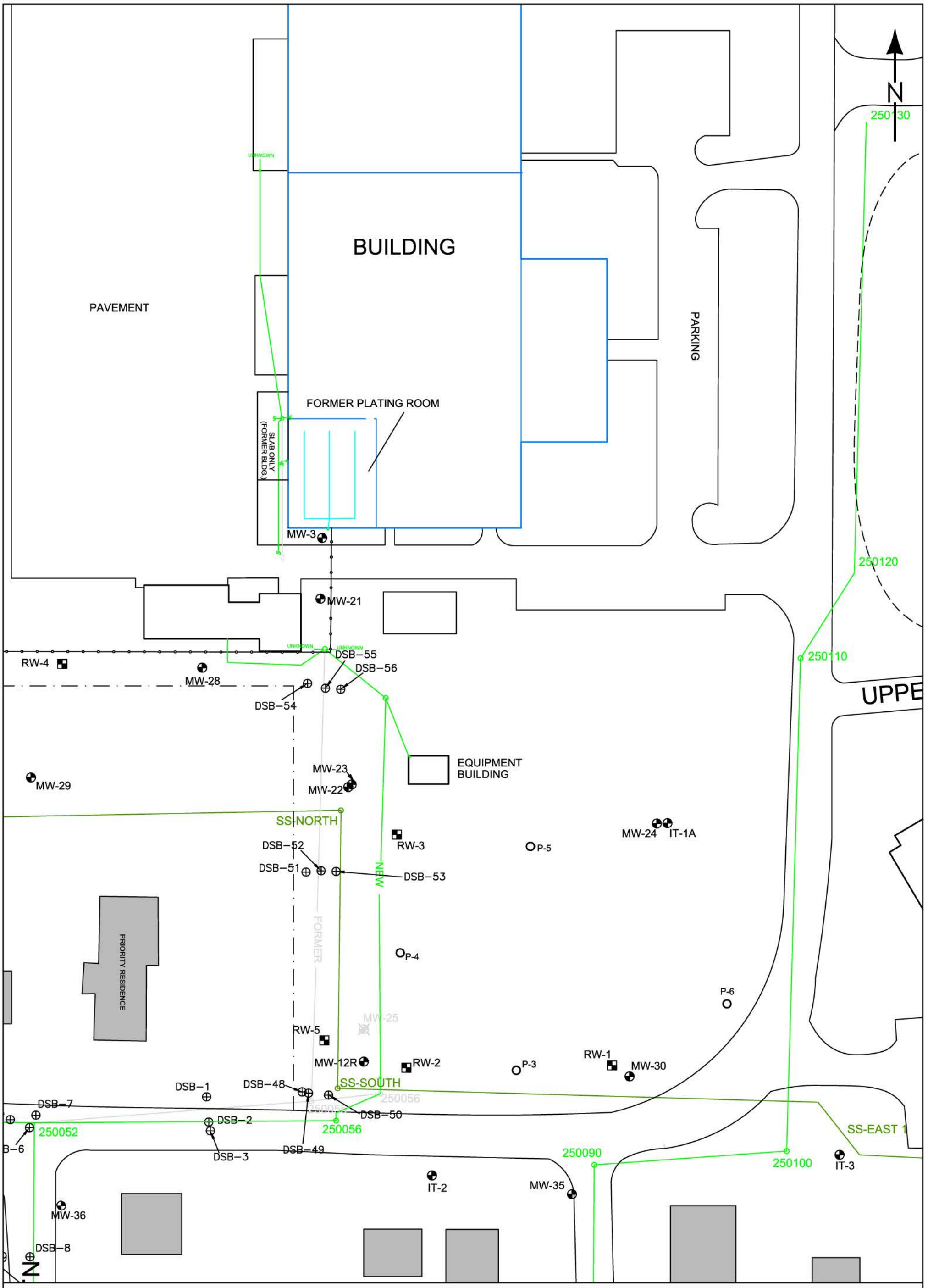
Christopher D. Parks, LPG #2169
Senior Project Manager

Bradley E. Gentry, LPG #2165
Vice President/Brownfield Coordinator

cc: Mr. Joseph Bianchi, Amphenol (electronic only)
Bhooma Sundar, U.S. EPA Region 5, RRB CAS2 (electronic only)

Figures

0' 300' SCALE IN FEET	DRAWN BY: L. STRUM DATE: 9/27/99 REVISED: 07/24/2018 HWPA #111291-01 DWG. NO. 111291S1	FIGURE 1 SITE VICINITY MAP	FORMER AMPHENOL RFI/CMS 980 HURRICANE ROAD FRANKLIN, INDIANA	IWM CONSULTING GROUP



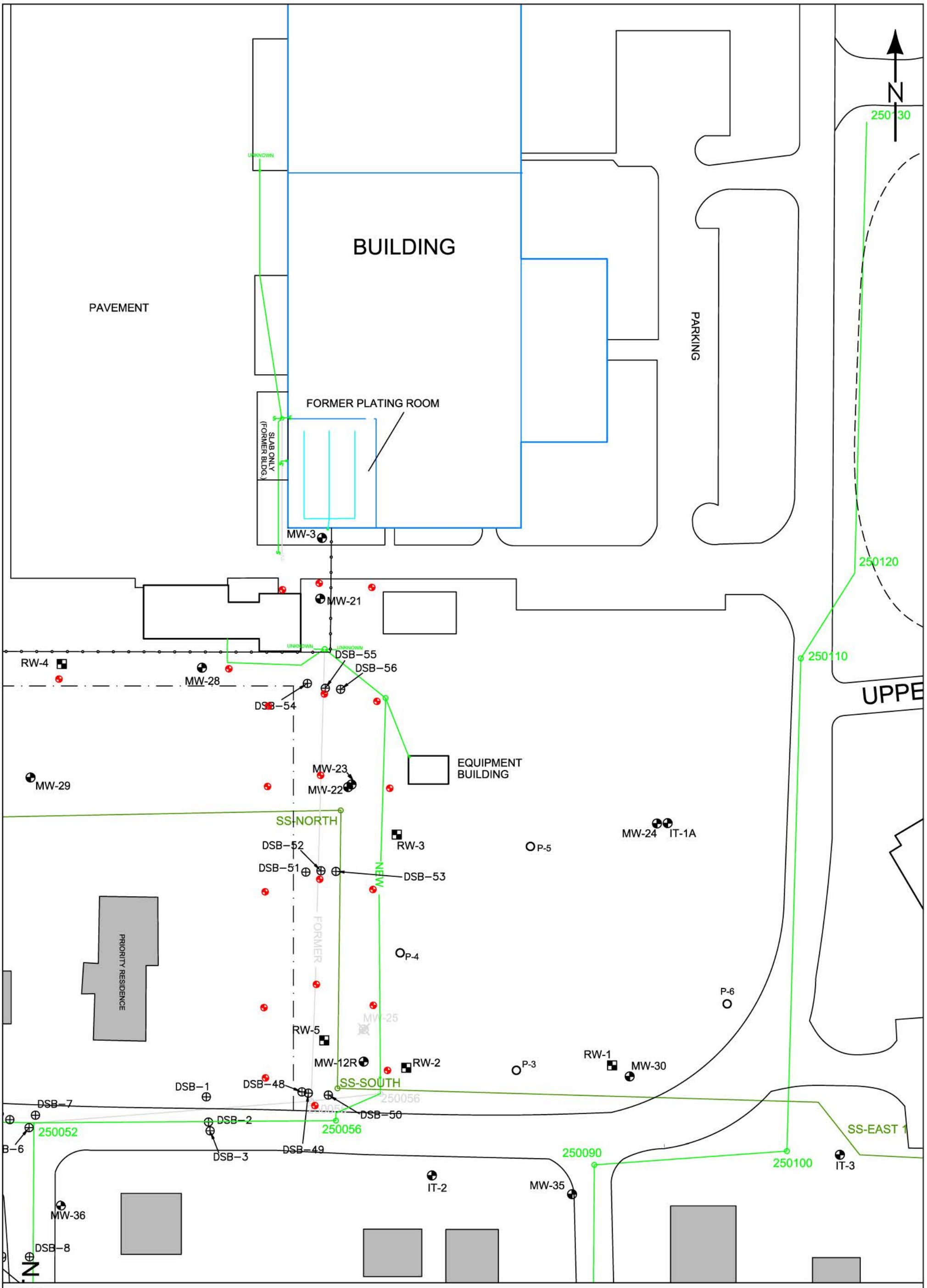
0' 50'
SCALE IN FEET

DRAWN BY:	L. STRUM
DATE:	9/27/99
REVISED:	02/19/2020
HWPA #:	111291-01
DWG. NO.	111291S1

FIGURE 2
SITE MAP

FORMER AMPHENOL RFI/CMS
980 HURRICANE ROAD
FRANKLIN, INDIANA

IWM CONSULTING GROUP


N
250130
UNKNOWN
BUILDING
PAVEMENT
PARKING
FORMER PLATING ROOM
SLAB ONLY (FORMER BLDG.)
MW-3
MW-21
RW-4
MW-28
UNKNOWN
UNKNOWN
DSB–55
DSB–56
DSB–54
250120
250110
UPPE
EQUIPMENT BUILDING
MW-23
MW-22
MW-29
SS-NORTH
RW-3
P-5
MW-24
IT-1A
DSB–52
DSB–51
DSB–53
NEW
FORMER
PRIORITY RESIDENCE
P-4
P-6
MW-25
RW-5
RW-1
MW-30
MW-12R
RW-2
P-3
SS-SOUTH
DSB–1
DSB–48
250056
DSB–7
DSB–50
DSB–2
250052
250056
SS-EAST 1
DSB–6
DSB–3
DSB–49
250090
250100
IT-3
IT-2
MW-35
MW-36
DSB–8
N
LEGEND
ABANDONED MONITORING WELL
MONITORING WELL
RECOVERY WELL
SANITARY SEWER MANHOLE
STORM SEWER MANHOLE
PROPERTY LINE (APPROXIMATE)
DSB–51 DESIGN SOIL BORING
P-3 PIEZOMETER
PROPOSED MIP BORING
APPROXIMATELY 5 ADDITIONAL MIP BORINGS CAN BE ADDED TO SHOWN BORINGS BASED ON MIP INITIAL INVESTIGATION RESULTS
RESIDENTIAL HOME
* DETACHED GARAGES & SHEDS NOT SHOWN
NON-RESIDENTIAL STRUCTURE
PRIMARY BUILDING WALLS
0'
50'
SCALE IN FEET
DRAWN BY: L. STRUM
DATE: 9/27/99
REVISED: 02/19/2020
HWPA #111291-01
DWG. NO. 111291S1
FIGURE 3
PROPOSED MIP BORING
LOCATION MAP
FORMER AMPHENOL RFI/CMS
980 HURRICANE ROAD
FRANKLIN, INDIANA
iWM
CONSULTING GROUP

Tables

Table 1
Design-Level Data Soil Sampling Analytical Results
Former Amphenol Facility
EPA ID # IND 044 587 848
Franklin, IN 46131

Screening Levels (mg/kg)			Parameters	On-Site Soil Sampling Locations (mg/kg)								
Re-Calculated RCG MTGSL	RCG RDCSL	RCG IDCSL	**Sample Location**	On-Site - South	On-Site - South	On-Site - South	On-Site - South		On-Site - South	On-Site - South	On-Site - South	On-Site - South
			Sample ID	**DSB-48 SL (4.65-5.65)**	**DSB-48 SL (6.25-7.25)**	**DSB-48 SL (13.5-14.5)**	**DSB-48 SL (19.5-20.5)**	**FD-18 SL**	**DSB-49 SL (4.65-5.65)**	**DSB-49 SL (6.25-7.25)**	**DSB-49 SL (13.5-14.5)**	**DSB-49 SL (20-21)**
			Sampling Interval	4.65 - 5.65	6.25 - 7.25	13.5 - 14.5	19.5 - 20.5	19.5 - 20.5	4.65 - 5.65	6.25 - 7.25	13.5 - 14.5	20 - 21
			Sample Date	3/5/2019	3/5/2019	3/5/2019	3/5/2019	3/5/2019	3/5/2019	3/5/2019	3/5/2019	3/5/2019
0.737	50	160	1,1-Dichloroethane	<0.0050	<0.0060	<0.0051	<0.0047	<0.0046	<0.0048	<0.0052	<0.0043	<0.23
0.283	6.4	20	1,2-Dichloroethane	<0.0050	<0.0060	<0.0051	<0.0047	<0.0046	<0.0048	<0.0052	<0.0043	<0.23
0.411	220	2,300	cis-1,2-Dichloroethene	<0.0050	<0.0060	<0.0051	<0.0047	<0.0046	<0.0048	<0.0052	<0.0043	<0.23
0.625	1,900	1,900	trans-1,2-Dichloroethene	<0.0050	<0.0060	<0.0051	<0.0047	<0.0046	<0.0048	<0.0052	<0.0043	<0.23
38.654	490	3,200	Methylene chloride*	<0.020	<0.024	<0.020	<0.019	<0.018	<0.019	<0.021	<0.017	<0.92
0.996	110	170	Tetrachloroethylene (PCE)	0.0019 J	0.0078	0.018	0.26	**3.6**	0.0019 J	0.014	0.050	**5.7**
90.668	640	640	1,1,1-Trichloroethane	<0.0050	<0.0060	<0.0051	0.076	0.086	<0.0048	<0.0052	0.0062	1.1
0.065	5.7	19	Trichlorethylene (TCE)	<0.0050	<0.0060	0.011	**10.3**	**3.4**	<0.0048	0.0067	0.039	**7.0**
0.014	0.83	17	Vinyl Chloride	<0.0050	<0.0060	<0.0051	<0.0047	<0.0046	<0.0048	<0.0052	<0.0043	<0.23
N/A	N/A	N/A	Percent Moisture	14.2	8.7	8.0	13.1	7.2	12.3	13.2	9.5	8.9

Screening Levels (mg/kg)			Parameters	On-Site Soil Sampling Locations (mg/kg)								
Re-Calculated RCG MTGSL	RCG RDCSL	RCG IDCSL	**Sample Location**	On-Site - South	On-Site - South	On-Site - South	On-Site - South		On-Site - South	On-Site - South	On-Site - South	On-Site - South
			Sample ID	**DSB-50 SL (4.65-5.65)**	**DSB-50 SL (6.25-7.25)**	**DSB-50 SL (12-13)**	**DSB-50 SL (18.8-19.8)**	**FD-17 SL**	**DSB-51 SL (4.8-5.8)**	**DSB-51 SL (6.25-7.25)**	**DSB-51 SL (13.5-14.5)**	**DSB-51 SL (20.5-21.5)**
			Sampling Interval	4.65 - 5.65	6.25 - 7.25	12 - 13	18.8 - 19.8	18.8 - 19.8	4.8 - 5.8	6.25 - 7.25	13.5 - 14.5	20.5 - 21.5
			Sample Date	3/5/2019	3/5/2019	3/5/2019	3/5/2019	3/5/2019	3/5/2019	3/5/2019	3/5/2019	3/5/2019
0.737	50	160	1,1-Dichloroethane	<0.0048	<0.0048	<0.0067	0.0061	<0.0056	<0.0070	<0.0057	<0.0078	<2.4
0.283	6.4	20	1,2-Dichloroethane	<0.0048	<0.0048	<0.0067	<0.0053	<0.0056	<0.0070	<0.0057	<0.0078	<2.4
0.411	220	2,300	cis-1,2-Dichloroethene	<0.0048	<0.0048	<0.0067	<0.0053	<0.0056	<0.0070	<0.0057	<0.0078	<2.4
0.625	1,900	1,900	trans-1,2-Dichloroethene	<0.0048	<0.0048	<0.0067	<0.0053	<0.0056	<0.0070	<0.0057	<0.0078	<2.4
38.654	490	3,200	Methylene chloride*	<0.019	<0.019	<0.027	<0.021	<0.023	<0.028	<0.023	<0.031	<9.8
0.996	110	170	Tetrachloroethylene (PCE)	0.0043 J	0.0096	0.036	0.24	0.24	0.11	0.15	0.91	**40.1**
90.668	640	640	1,1,1-Trichloroethane	<0.0048	<0.0048	<0.0067	0.056	0.066	<0.0070	<0.0057	<0.0078	<2.4
0.065	5.7	19	Trichlorethylene (TCE)	<0.0048	<0.0048	0.023	**6.7**	**4.0**	0.0014 J	<0.0057	<0.0078	**3.8**
0.014	0.83	17	Vinyl Chloride	<0.0048	<0.0048	<0.0067	<0.0053	<0.0056	<0.0070	<0.0057	<0.0078	<2.4
N/A	N/A	N/A	Percent Moisture	3.4	6.5	7.4	12.5	10.5	14.5	3.6	6.2	8.0

Table 1 (continued)
Draft Design-Level Data Soil Sampling Analytical Results
Former Amphenol Facility
EPA ID # IND 044 587 848
Franklin, IN 46131

Screening Levels (mg/kg)			Parameters	On-Site Soil Sampling Locations (mg/kg)								
Re-Calculated RCG MTGSL	RCG RDCSL	RCG IDCSL	**Sample Location**	DSB-51 SL (20.5-21.5)	On-Site - South	On-Site - South	On-Site - South	On-Site - South	On-Site - South	On-Site - South	On-Site - South	On-Site - South
			Sample ID	**FD-19 SL**	**DSB-52 SL (4.8-5.8)**	**DSB-52 SL (6.25-7.25)**	**DSB-52 SL (14.5-15.5)**	**DSB-52 SL (22-23)**	**DSB-53 SL (4.8-5.8)**	**DSB-53 SL (6.25-7.25)**	**DSB-53 SL (14-15)**	**DSB-53 SL (20.5-21.5)**
			Sampling Interval	20.5 - 21.5	4.8 - 5.8	6.25 - 7.25	14.5 - 15.5	22 - 23	4.8 - 5.8	6.25 - 7.25	14 - 15	20.5 - 21.5
			Sample Date	3/5/2019	3/5/2019	3/5/2019	3/5/2019	3/5/2019	3/5/2019	3/5/2019	3/5/2019	3/5/2019
0.737	50	160	1,1-Dichloroethane	<3.0	<0.0055	<0.0051	<0.0048	<2.5	<0.0053	<0.0047	<0.0053	<3.0
0.283	6.4	20	1,2-Dichloroethane	<3.0	<0.0055	<0.0051	<0.0048	<2.5	<0.0053	<0.0047	<0.0053	<3.0
0.411	220	2,300	cis-1,2-Dichloroethene	<3.0	<0.0055	<0.0051	<0.0048	**1.2 J**	<0.0053	<0.0047	<0.0053	**1.7 J**
0.625	1,900	1,900	trans-1,2-Dichloroethene	<3.0	<0.0055	<0.0051	<0.0048	<2.5	<0.0053	<0.0047	<0.0053	<3.0
38.654	490	3,200	Methylene chloride*	<12.0	<0.022	<0.020	<0.019	<9.9	<0.021	<0.019	<0.021	<12.2
0.996	110	170	Tetrachloroethylene (PCE)	**104**	0.098	0.27	**5.5**	**45.8**	0.062	0.074	0.088	**156**
90.668	640	640	1,1,1-Trichloroethane	<3.0	<0.0055	<0.0051	0.0015 J	<2.5	<0.0053	<0.0047	<0.0053	<3.0
0.065	5.7	19	Trichlorethylene (TCE)	**8.0**	<0.0055	<0.0051	0.0066	**1.6 J**	0.0011 J	0.00072 J	0.00094 J	**2.9 J**
0.014	0.83	17	Vinyl Chloride	<3.0	<0.0055	<0.0051	<0.0048	<2.5	<0.0053	<0.0047	<0.0053	<3.0
N/A	N/A	N/A	Percent Moisture	6.2	10.6	9.6	6.5	7.5	13.1	12.3	16.4	11.1

Screening Levels (mg/kg)			Parameters	On-Site Soil Sampling Locations (mg/kg)								
Re-Calculated RCG MTGSL	RCG RDCSL	RCG IDCSL	**Sample Location**	On-Site - South	On-Site - South	On-Site - South	On-Site - South	On-Site - South	On-Site - South	On-Site - South	On-Site - South	
			Sample ID	**DSB-54 SL (4.9-5.9)**	**DSB-54 SL (6.3-7.3)**	**DSB-54 SL (16-17)**	**DSB-54 SL (23.8-24.8)**	**DSB-55 SL (4.9-5.9)**	**DSB-55 SL (6.3-7.3)**	**DSB-55 SL (15-16)**	**DSB-55 SL (23.8-24.8)**	**FD-20 SL**
			Sampling Interval	4.9 - 5.9	6.3 - 7.3	16 - 17	23.8 - 24.8	4.9 - 5.9	6.3 - 7.3	15 - 16	23.8 - 24.8	23.8 - 24.8
			Sample Date	3/6/2019	3/6/2019	3/6/2019	3/6/2019	3/6/2019	3/6/2019	3/6/2019	3/6/2019	3/6/2019
0.737	50	160	1,1-Dichloroethane	<0.0061	<0.0071	<0.0049	<3.1	<0.0046	<0.0050	<0.0053	<2.7	<2.6
0.283	6.4	20	1,2-Dichloroethane	<0.0061	<0.0071	<0.0049	<3.1	<0.0046	<0.0050	<0.0053	<2.7	<2.6
0.411	220	2,300	cis-1,2-Dichloroethene	<0.0061	<0.0071	<0.0049	<3.1	<0.0046	<0.0050	<0.0053	<2.7	<2.6
0.625	1,900	1,900	trans-1,2-Dichloroethene	<0.0061	<0.0071	<0.0049	<3.1	<0.0046	<0.0050	<0.0053	<2.7	<2.6
38.654	490	3,200	Methylene chloride*	<0.025	<0.028	<0.020	<12.4	<0.018	<0.020	<0.021	<10.7	<10.3
0.996	110	170	Tetrachloroethylene (PCE)	0.13	0.20	**6.0**	**153**	0.064	0.079	0.27	**66.9**	**73.7**
90.668	640	640	1,1,1-Trichloroethane	<0.0061	<0.0071	0.0039 J	<3.1	<0.0046	<0.0050	<0.0053	<2.7	<2.6
0.065	5.7	19	Trichlorethylene (TCE)	0.0024 J	0.0043 J	0.015	**1.2 J**	<0.0046	0.0018 J	0.017	**0.56 J**	**0.56 J**
0.014	0.83	17	Vinyl Chloride	<0.0061	<0.0071	<0.0049	<3.1	<0.0046	<0.0050	<0.0053	<2.7	<2.6
N/A	N/A	N/A	Percent Moisture	16.6	3.7	13.4	10.6	11.0	15.1	14.0	11.6	11.6

Table 1 (continued)
Design-Level Data Soil Sampling Analytical Results
Former Amphenol Facility
EPA ID # IND 044 587 848
Franklin, IN 46131

Screening Levels (mg/kg)			Parameters	On-Site Soil Sampling Locations (mg/kg)			
Re-Calculated RCG MTGSL	RCG RDCSL	RCG IDCSL	**Sample Location**	On-Site - South	On-Site - South	On-Site - South	On-Site - South
			Sample ID	**DSB-56 SL (4.9-5.9)**	**DSB-56 SL (6.3-7.3)**	**DSB-56 SL (15-16)**	**DSB-56 SL (22.75-23.75)**
			Sampling Interval	4.9 - 5.9	6.3 - 7.3	15 - 16	22.75 - 23.75
			Sample Date	3/5/2019	3/5/2019	3/5/2019	3/5/2019
0.737	50	160	1,1-Dichloroethane	<0.0056	<0.0053	<0.0058	<2.5
0.283	6.4	20	1,2-Dichloroethane	<0.0056	<0.0053	<0.0058	<2.5
0.411	220	2,300	cis-1,2-Dichloroethene	<0.0056	<0.0053	<0.0058	<2.5
0.625	1,900	1,900	trans-1,2-Dichloroethene	<0.0056	<0.0053	<0.0058	<2.5
38.654	490	3,200	Methylene chloride*	<0.022	<0.021	<0.023	<9.8
0.996	110	170	Tetrachloroethylene (PCE)	0.044	0.11	0.29	**119**
90.668	640	640	1,1,1-Trichloroethane	<0.0056	<0.0053	<0.0058	<2.5
0.065	5.7	19	Trichlorethylene (TCE)	<0.0056	0.0032 J	0.012	**3.6**
0.014	0.83	17	Vinyl Chloride	<0.0056	<0.0053	<0.0058	<2.5
N/A	N/A	N/A	Percent Moisture	23.5	10.9	13.3	13.0

Notes:
1. All samples collected by IWM Consulting personnel and analyzed at Pace Analytical Services, LLC located in Indianapolis, IN.
2. All VOCs analyzed using US EPA Method 8260.
3. All results in mg/kg.
4. N/A: not applicable (risk-based screening levels have not been developed).
5. NA: Not applicable.
6. MTGSL: Migration to Groundwater Screening Level
7. Groundwater to Indoor Air Screening Level obtained from Indiana Department of Environmental Management (IDEM) Remediation Closure Guide (RCG) dated March 22, 2012 with corrections through July 9, 2012 and updated March 4, 2019.
8. Recalcualted MTGSL based on IDEM RCG Groundwater to Indoor Air SLs and regional groundwater temperature of 12.5 degrees Celsius.
9. **Bolded** concentrations exceed Re-Calculated RCG MTGWSL.
10. * : Indicates a reported non-detect concentration exceeds the corresponding RCG MTGWSL.
11. J : Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

Attachments

Attachment A

USEPA Letter Dated January 23, 2020

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF

LU-16J

Via E-mail and Certified Mail
RETURN RECEIPT REQUESTED

January 23, 2020

Mr. Joseph M. Bianchi
Group EHS Manager
Amphenol Corporation
40-60 Delaware Avenue
Sidney, NY 13838

Subject: On-site Investigation of Environmental Conditions, Request for Work Plan
Franklin Power Products, Inc./Amphenol Corporation
Administrative Order on Consent, Docket # R8H-5-99-00
EPA ID# IND 044 587 848

Dear Mr. Bianchi:

Under Section VIII, Paragraph N (Additional Work) of the RCRA 3008(h) Administrative Order on Consent dated November 24, 1998 (Order), EPA has determined that Respondents Amphenol Corporation and Franklin Power Products, Inc. (FPP/Amphenol), must perform Additional Work at the facility at 980 Hurricane Road in Franklin, Indiana ("Facility" or "Site"). The Additional Work described in this letter is necessary to meet the purposes of the Order, including but not limited to, assuring the selected corrective measures address the actual and potential threats to human health and the environment presented by the actual and potential releases of hazardous wastes or hazardous constituents at or from the Facility.

EPA requests that Amphenol Corp. prepare a work plan for on-Site investigations of environmental media. The purpose of the investigation is to determine whether source-areas may contribute to any ongoing groundwater and sewer-vapor contamination. This work can be divided into two parts, beginning with the sewer investigation. The sewer work should start by February 17, 2020 and the soil/NAPL investigation should start when conditions permit (for example, when the ground is no longer frozen), but no later than March 31, 2020.

As discussed with you and your consultants on January 23, 2020, the work plan can reference approved SOPs. The sewer investigation can begin with a video-logging of the on-site sewers. EPA approves the video-logging.

Sewer Investigation The on-site work plan must include at a minimum the following components:

1) figure showing all sample/investigation locations,
2) vapor sampling of manholes, sewer cleanouts,
3) video inspection of sewer line conditions, and
4) schedule.

Please provide an interim sample location figure to EPA for discussion in advance of the final work plan proposal. Upon receipt and review, EPA will work with you to identify the final sample locations for these events. The work plan should explain the purpose of the investigation and the sampling rationale.

The sewer investigation must include the on-site building and the groundwater treatment system.

Soil Investigation The soil investigation should build on historical sampling and also include areas that were not sampled previously. Samples must be taken at two-foot intervals to the top of the C-unit where NAPL could have permeated clay. During the March/February 2019 remedial design level sampling, NAPL was found near the western property boundary in one sample at depth. The extent of NAPL must be delineated, including off-site as necessary.

The sewer investigation portion of the work plan is due by January 31, 2020. The soil/NAPL investigation portion of the work plan is due February 21, 2020. To expedite the sewer work, EPA may approve discrete portions via email, as we discussed.

If you have any questions, please contact me at (312) 886-3020.

Sincerely,

Carolyn Bury
Project Manager
Corrective Action Section 2
Remediation and Re-use Branch

ecc: Matt Kupcak, BorgWarner, Inc.
Brad Gentry, IWM Consulting Group, LLC.
Bhooma Sundar, RRB CAS2
Motria Caudill, ATSDR
Bryan Cress, IDEM