

Notice: Use this form to request a **written response (on agency letterhead)** from the Department of Natural Resources (DNR) regarding technical assistance, a post-closure change to a site, a specialized agreement or liability clarification for Property with known or suspected environmental contamination. A fee will be required as is authorized by s. 292.55, Wis. Stats., and NR 749, Wis. Adm. Code., unless noted in the instructions below. Personal information collected will be used for administrative purposes and may be provided to requesters to the extent required by Wisconsin's Open Records law [ss. 19.31 - 19.39, Wis. Stats.].

Definitions

"Property" refers to the subject Property that is perceived to have been or has been impacted by the discharge of hazardous substances.

"Liability Clarification" refers to a written determination by the Department provided in response to a request made on this form. The response clarifies whether a person is or may become liable for the environmental contamination of a Property, as provided in s. 292.55, Wis. Stats.

"Technical Assistance" refers to the Department's assistance or comments on the planning and implementation of an environmental investigation or environmental cleanup on a Property in response to a request made on this form as provided in s. 292.55, Wis. Stats.

"Post-closure modification" refers to changes to Property boundaries and/or continuing obligations for Properties or sites that received closure letters for which continuing obligations have been applied or where contamination remains. Many, but not all, of these sites are included on the GIS Registry layer of RR Sites Map to provide public notice of residual contamination and continuing obligations.

Select the Correct Form

This form should be used to request the following from the DNR:

- Technical Assistance
- Liability Clarification
- Post-Closure Modifications
- Specialized Agreements (tax cancellation, negotiated agreements, etc.)

Do not use this form if one of the following applies:

- Request for an **off-site liability exemption or clarification** for Property that has been or is perceived to be contaminated by one or more hazardous substances that originated on another Property containing the source of the contamination. Use DNR's Off-Site Liability Exemption and Liability Clarification Application Form 4400-201.
- Submittal of an Environmental Assessment for the **Lender Liability Exemption**, s 292.21, Wis. Stats., **if no response or review by DNR is requested**. Use the Lender Liability Exemption Environmental Assessment Tracking Form 4400-196.
- Request for an **exemption to develop on a historic fill site** or licensed landfill. Use DNR's Form 4400-226 or 4400-226A.
- **Request for closure** for Property where the investigation and cleanup actions are completed. Use DNR's Case Closure - GIS Registry Form 4400-202.

All forms, publications and additional information are available on the internet at: dnr.wi.gov/topic/Brownfields/Pubs.html.

Instructions

1. Complete sections 1, 2, 6 and 7 for all requests. Be sure to provide adequate and complete information.
2. Select the type of assistance requested: Section 3 for technical assistance or post-closure modifications, Section 4 for a written determination or clarification of environmental liabilities; or Section 5 for a specialized agreement.
3. Include the fee payment that is listed in Section 3, 4, or 5, unless you are a "Voluntary Party" enrolled in the Voluntary Party Liability Exemption Program **and** the questions in Section 2 direct otherwise. Information on to whom and where to send the fee is found in Section 8 of this form.
4. Send the completed request, supporting materials and the fee to the appropriate DNR regional office where the Property is located. See the map on the last page of this form. A paper copy of the signed form and all reports and supporting materials shall be sent with an electronic copy of the form and supporting materials on a compact disk. For electronic document submittal requirements see: <http://dnr.wi.gov/files/PDF/pubs/rr/RR690.pdf>

The time required for DNR's determination varies depending on the complexity of the site, and the clarity and completeness of the request and supporting documentation.

Technical Assistance, Environmental Liability Clarification or Post-Closure Modification Request

Form 4400-237 (R 12/18)

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Section 1. Contact and Recipient Information

Requester Information

This is the person requesting technical assistance or a post-closure modification review, that his or her liability be clarified or a specialized agreement and is identified as the requester in Section 7. DNR will address its response letter to this person.

Last Name Gaug	First Joseph	MI	Organization/ Business Name Albany International
Mailing Address P.O. Box 1907			City Albany
			State NY
			ZIP Code 12201-1907
Phone # (include area code) (518) 445-2273	Fax # (include area code) (518) 935-9316	Email jospeh.gaug@albint.com	

The requester listed above: (select all that apply)

- Is currently the owner
 Is considering selling the Property
 Is renting or leasing the Property
 Is considering acquiring the Property
 Is a lender with a mortgagee interest in the Property
 Other. Explain the status of the Property with respect to the applicant:

General counsel for the Responsible Party.

Contact Information (to be contacted with questions about this request)

Select if same as requester

Contact Last Name See consultant below	First	MI	Organization/ Business Name
Mailing Address			City
			State
			ZIP Code
Phone # (include area code)	Fax # (include area code)	Email	

Environmental Consultant (if applicable)

Contact Last Name Fassbender	First Wayne	MI	Organization/ Business Name EnviroForensics, LLC
Mailing Address N16W23390 Stone Ridge Dr, Suite G			City Waukesha
			State WI
			ZIP Code 53188
Phone # (include area code) (414) 326-4412	Fax # (include area code) (317) 972-7875	Email wfassbender@enviroforensics.com	

Property Owner (if different from requester)

Contact Last Name	First	MI	Organization/ Business Name Luvata Appleton, LLC
Mailing Address P.O. Box 1714			City Appleton
			State WI
			ZIP Code 54912
Phone # (include area code)	Fax # (include area code)	Email	

Technical Assistance, Environmental Liability Clarification or Post-Closure Modification Request

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Section 2. Property Information

Property Name Appleton Wire (Former)		FID No. (if known) 445035910	
BRRTS No. (if known) 02-45-000015		Parcel Identification Number 311114500	
Street Address 908 N Lawe St		City Appleton	State WI
		ZIP Code 54911	
County Outagamie	Municipality where the Property is located <input checked="" type="radio"/> City <input type="radio"/> Town <input type="radio"/> Village of Appleton	Property is composed of: <input checked="" type="radio"/> Single tax parcel <input type="radio"/> Multiple tax parcels	Property Size Acres 4

1. Is a response needed by a specific date? (e.g., Property closing date) Note: Most requests are completed within 60 days. Please plan accordingly.

No Yes

Date requested by: 03/07/2019

Reason: Meeting scheduled with WDNR committee

2. Is the "Requester" enrolled as a Voluntary Party in the Voluntary Party Liability Exemption (VPLE) program?

No. **Include the fee that is required for your request in Section 3, 4 or 5.**

Yes. **Do not include a separate fee.** This request will be billed separately through the VPLE Program.

Fill out the information in Section 3, 4 or 5 which corresponds with the type of request:

Section 3. Technical Assistance or Post-Closure Modifications;

Section 4. Liability Clarification; or Section 5. Specialized Agreement.

Section 3. Request for Technical Assistance or Post-Closure Modification

Select the type of technical assistance requested: [Numbers in brackets are for WI DNR Use]

- No Further Action Letter (NFA) (Immediate Actions) - NR 708.09, [183] - **Include a fee of \$350.** Use for a written response to an immediate action after a discharge of a hazardous substance occurs. Generally, these are for a one-time spill event.
- Review of Site Investigation Work Plan - NR 716.09, [135] - **Include a fee of \$700.**
- Review of Site Investigation Report - NR 716.15, [137] - **Include a fee of \$1050.**
- Approval of a Site-Specific Soil Cleanup Standard - NR 720.10 or 12, [67] - **Include a fee of \$1050.**
- Review of a Remedial Action Options Report - NR 722.13, [143] - **Include a fee of \$1050.**
- Review of a Remedial Action Design Report - NR 724.09, [148] - **Include a fee of \$1050.**
- Review of a Remedial Action Documentation Report - NR 724.15, [152] - **Include a fee of \$350**
- Review of a Long-term Monitoring Plan - NR 724.17, [25] - **Include a fee of \$425.**
- Review of an Operation and Maintenance Plan - NR 724.13, [192] - **Include a fee of \$425.**

Other Technical Assistance - s. 292.55, Wis. Stats. [97] (For request to build on an abandoned landfill use Form 4400-226)

- Schedule a Technical Assistance Meeting - **Include a fee of \$700.**
- Hazardous Waste Determination - **Include a fee of \$700.**
- Other Technical Assistance - **Include a fee of \$700.** Explain your request in an attachment.

Post-Closure Modifications - NR 727, [181]

- Post-Closure Modifications: Modification to Property boundaries and/or continuing obligations of a closed site or Property; sites may be on the GIS Registry. This also includes removal of a site or Property from the GIS Registry. **Include a fee of \$1050, and:**
 - Include a fee of \$300 for sites with residual soil contamination; and
 - Include a fee of \$350 for sites with residual groundwater contamination, monitoring wells or for vapor intrusion continuing obligations.

Attach a description of the changes you are proposing, and documentation as to why the changes are needed (if the change to a Property, site or continuing obligation will result in revised maps, maintenance plans or photographs, those documents may be submitted later in the approval process, on a case-by-case basis).

Technical Assistance, Environmental Liability
Clarification or Post-Closure Modification Request

Form 4400-237 (R 12/18)

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Skip Sections 4 and 5 if the technical assistance you are requesting is listed above and complete Sections 6 and 7 of this form.

Section 5. Request for a Specialized Agreement

Select the type of agreement needed. Include the appropriate draft agreements and supporting materials. Complete Sections 6 and 7 of this form. More information and model draft agreements are available at: dnr.wi.gov/topic/Brownfields/lgu.html#tabx4.

Tax cancellation agreement - s. 75.105(2)(d), Wis. Stats. [654]

❖ Include a fee of \$700, and the information listed below:

- (1) Phase I and II Environmental Site Assessment Reports,
- (2) a copy of the Property deed with the correct legal description.

Agreement for assignment of tax foreclosure judgement - s.75.106, Wis. Stats. [666]

❖ Include a fee of \$700, and the information listed below:

- (1) Phase I and II Environmental Site Assessment Reports,
- (2) a copy of the Property deed with the correct legal description.

Negotiated agreement - Enforceable contract for non-emergency remediation - s. 292.11(7)(d) and (e), Wis. Stats. [630]

❖ Include a fee of \$1400, and the information listed below:

- (1) a draft schedule for remediation; and,
- (2) the name, mailing address, phone and email for each party to the agreement.

Section 6. Other Information Submitted

Identify all materials that are included with this request.

Send both a paper copy of the signed form and all reports and supporting materials, and an electronic copy of the form and all reports, including Environmental Site Assessment Reports, and supporting materials on a compact disk.

Include one copy of any document from any state agency files that you want the Department to review as part of this request. The person submitting this request is responsible for contacting other state agencies to obtain appropriate reports or information.

Phase I Environmental Site Assessment Report - Date: _____

Phase II Environmental Site Assessment Report - Date: _____

Legal Description of Property (required for all liability requests and specialized agreements)

Map of the Property (required for all liability requests and specialized agreements)

Analytical results of the following sampled media: Select all that apply and include date of collection.

Groundwater Soil Sediment Other medium - Describe: _____

Date of Collection: _____

A copy of the closure letter and submittal materials

Draft tax cancellation agreement

Draft agreement for assignment of tax foreclosure judgment

Other report(s) or information - Describe: _____

For Property with newly identified discharges of hazardous substances only: Has a notification of a discharge of a hazardous substance been sent to the DNR as required by s. NR 706.05(1)(b), Wis. Adm. Code?

Yes - Date (if known): _____

No

Note: The Notification for Hazardous Substance Discharge (non-emergency) form is available at:

dnr.wi.gov/files/PDF/forms/4400/4400-225.pdf.

Section 7. Certification by the Person who completed this form

I am the person submitting this request (requester)

I prepared this request for: Joseph Gaug

Requester Name

I certify that I am familiar with the information submitted on this request, and that the information on and included with this request is true, accurate and complete to the best of my knowledge. I also certify I have the legal authority and the applicant's permission to make this request.

**Technical Assistance, Environmental Liability
Clarification or Post-Closure Modification Request**

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Signature

2/22/19
Date Signed

Senior Project Manager

(414) 326-4412

Title

Telephone Number (include area code)

Technical Assistance, Environmental Liability Clarification or Post-Closure Modification Request

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Section 8. DNR Contacts and Addresses for Request Submittals

Send or deliver one paper copy and one electronic copy on a compact disk of the completed request, supporting materials, and fee to the region where the property is located to the address below. Contact a [DNR regional brownfields specialist](#) with any questions about this form or a specific situation involving a contaminated property. For electronic document submittal requirements see: <http://dnr.wi.gov/files/PDF/pubs/rr/RR690.pdf>.

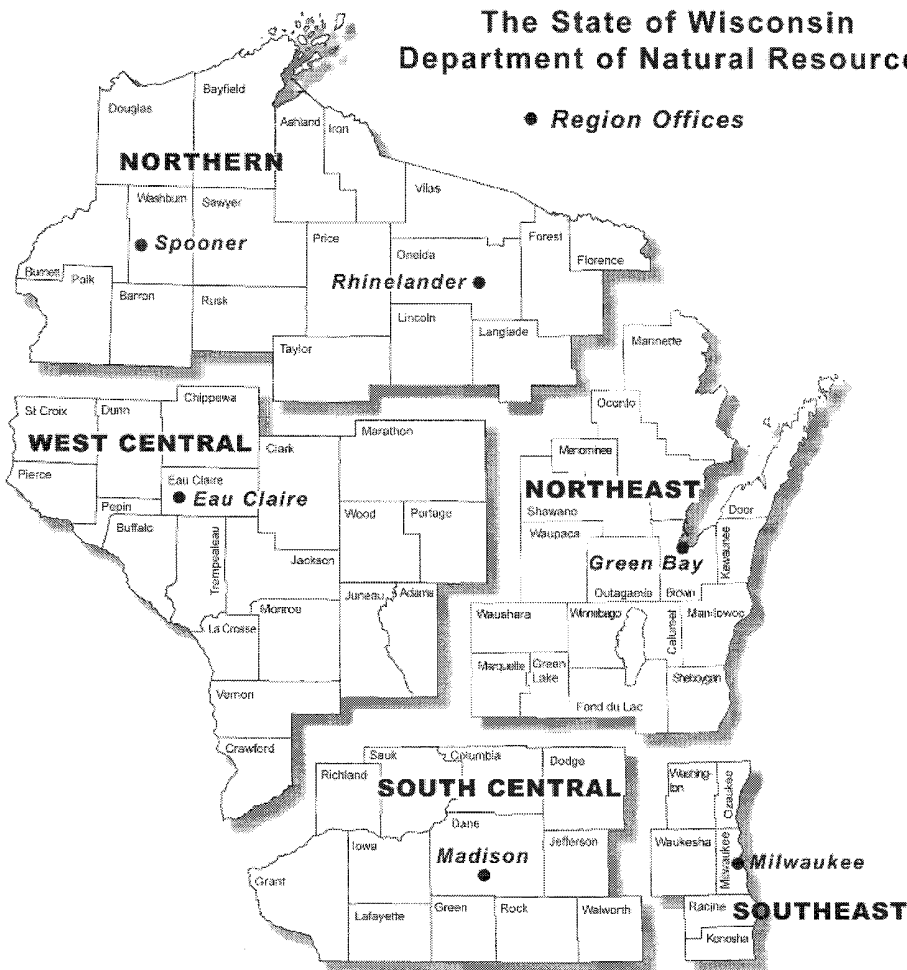
DNR NORTHERN REGION
Attn: RR Program Assistant
Department of Natural Resources
223 E Steinfest Rd Antigo, WI 54409

DNR NORTHEAST REGION
Attn: RR Program Assistant
Department of Natural Resources
2984 Shawano Avenue
Green Bay WI 54313

DNR SOUTH CENTRAL REGION
Attn: RR Program Assistant
Department of Natural Resources
3911 Fish Hatchery Road
Fitchburg WI 53711

DNR SOUTHEAST REGION
Attn: RR Program Assistant
Department of Natural Resources
2300 North Martin Luther King Drive
Milwaukee WI 53212

DNR WEST CENTRAL REGION
Attn: RR Program Assistant
Department of Natural Resources
1300 Clairemont Ave.
Eau Claire WI 54702



Note: These are the Remediation and Redevelopment Program's designated regions. Other DNR program regional boundaries may be different.

DNR Use Only			
Date Received	Date Assigned	BRRTS Activity Code	BRRTS No. (if used)
DNR Reviewer		Comments	
Fee Enclosed? <input type="radio"/> Yes <input type="radio"/> No	Fee Amount \$	Date Additional Information Requested	Date Requested for DNR Response Letter
Date Approved	Final Determination		

AGENDA

Technical Assistance Meeting of March 7th

Former Albany Chrome Plant

Need and Objectives

The site is currently a working facility (Luvata Appleton) that manufactures wire products. The former owners (Albany International) performed chromium plating operations within an eastern addition of the facility that have resulted in hexavalent chromium impacts in soil and groundwater along the former plating lines. This building addition is now utilized by Luvata for warehousing of raw materials. Additional hexavalent chromium impacts are outside of the warehouse primarily to the north. Two methods for remediation within and adjacent to the warehouse are being considered: Injection of chromium fixation/stabilization compounds followed by excavation of the top 5-feet of unsaturated soil; or a combination of injection in some locations and in-situ soil mixing.

Alternative warehousing space must be located for use by Luvata during remedial activities. These activities will significantly disrupt Luvata's operations and are logistically complicated. As a result, Albany International has negotiated a strict time frame to complete remedial activities in the summer months of July and August 2019 to minimize weather effects and the time that Luvata is displaced from the warehouse. Due to these substantial limitations, we are asking the WDNR for proactive assistance. This assistance will allow us to expedite completion of the remedy design, submittal of the RAP and subsequent WDNR review prior to implementation this summer. Specifically, we are requesting the following:

- review and discussion of initial plans and cleanup goals; and
- discussion of appropriate remedial confirmation sampling understanding the limitations discussed above .

1. Background (10 minutes)

- Introductions
- Brief overview of site operational history and ownership
- On-going groundwater remedial efforts
- Adjacent properties
- Site hydrogeology
- Sensitive receptors

2. Extent of Chromium Impacts - Defined (15 minutes)

- Total chromium concentrations and distribution in soil
- Hexavalent chromium concentrations and distribution in soil
- Distribution of chromium concentrations in groundwater

3. RAOR and Injection Pilot Testing - Completed (10 minutes)

- Limited options to comply with NR 722.09
- Areas tested and results
- Behavior of chromium in the subsurface
- Concerns

4. Treatment of Unsaturated Vadose Zone – Planning Stage (10 minutes)

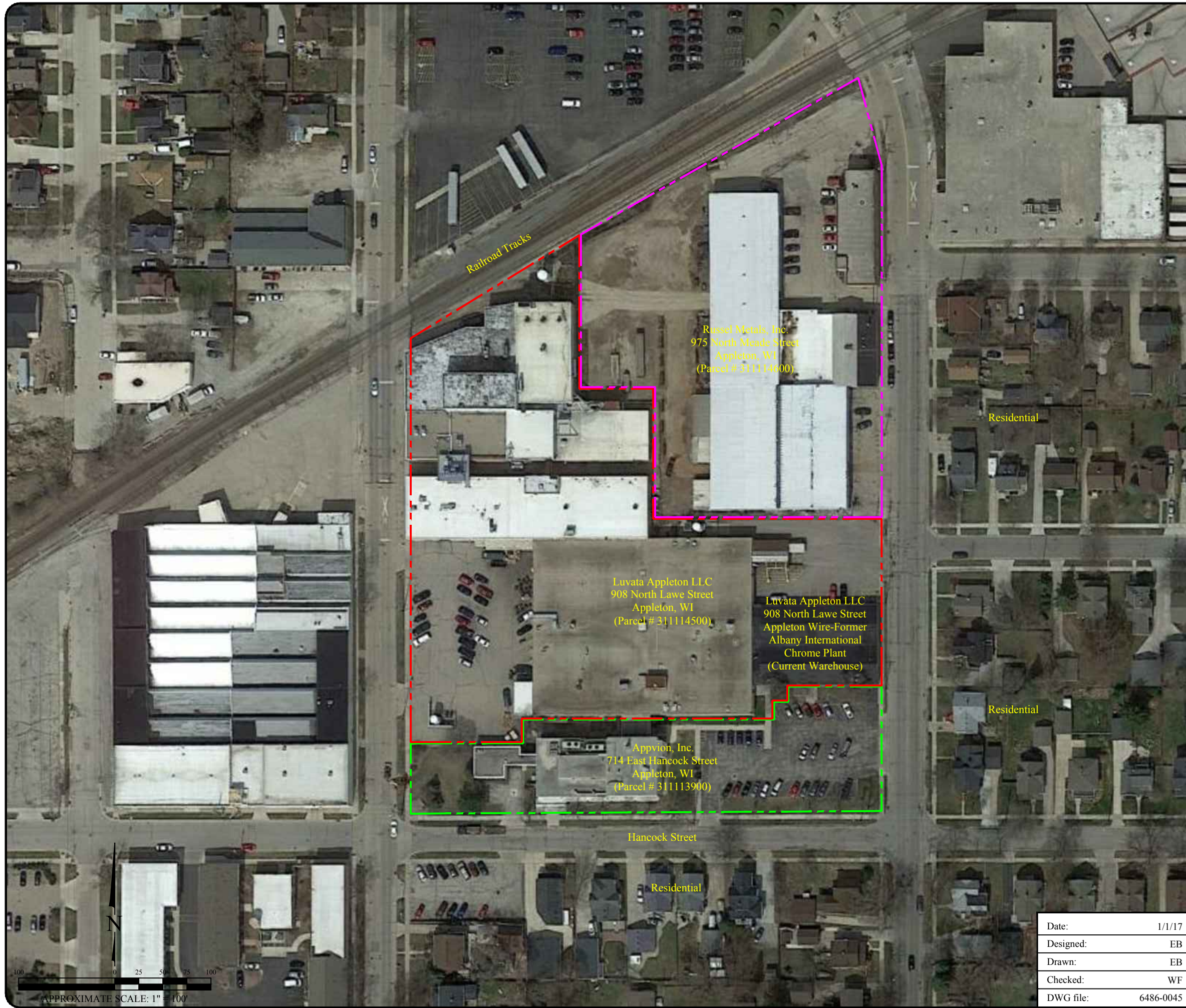
- Door installation
- Concrete removal
- Re-location of utilities
- Injections in basement
- Decommissioning of pump and treat system
- Backfilling of basement with contaminated soil and proposed treatment
- Anticipated cost

5. Treatment Within Saturated Zone – Planning Stage (15 minutes)

- Option 1: Injection only and anticipated cost
- Option 2: Injection along basement foundation and outside to south and soil mixing in all other areas with anticipated cost
- Pros and cons of both options

6. Discussion of Remedial Goals (30 minutes)

- Proposed goal for soil is to reduce hexavalent chromium to levels that will not continue to leach to groundwater
- Proposed goal for groundwater is to reduce concentrations below the ES within the areas indicated
- Proposed remedial confirmation sampling
- Use of engineering and institutional controls
- Long-term obligations
- PAL exemption for Appvion property?
- Closure with groundwater exceeding ES?
- Post-remedial groundwater monitoring expectations



Legend

--- Property boundary

SITE AERIAL PHOTOGRAPH

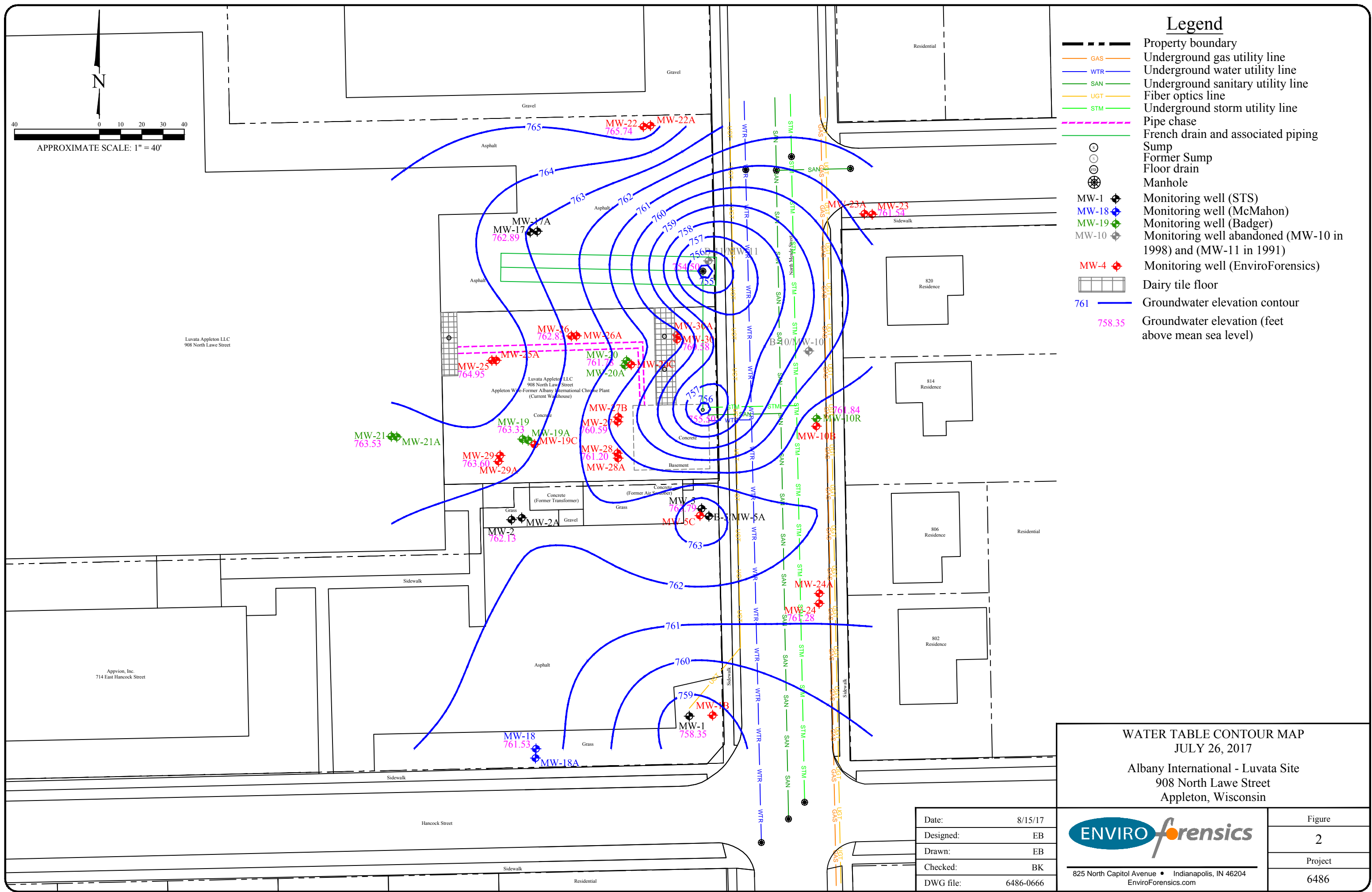
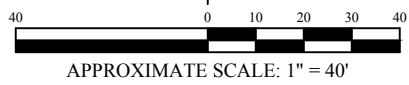
Former Appleton Wire Division of Albany International Corporation
 908 North Lawe Street
 Appleton, Wisconsin

Date:	1/1/17
Designed:	EB
Drawn:	EB
Checked:	WF
DWG file:	6486-0045

ENVIROforensics
 825 North Capitol Avenue • Indianapolis, IN 46204
 EnviroForensics.com

Figure	1
Project	6486

APPROXIMATE SCALE: 1" = 100'



Legend

- Property boundary
- GAS Underground gas utility line
- WTR Underground water utility line
- SAN Underground sanitary utility line
- UGT Fiber optics line
- STM Underground storm utility line
- Pipe chase
- French drain and associated piping
- Sump
- Former Sump
- Floor drain
- Manhole
- MW-1 Monitoring well (STS)
- MW-18 Monitoring well (McMahon)
- MW-19 Monitoring well (Badger)
- MW-10 Monitoring well abandoned (MW-10 in 1998) and (MW-11 in 1991)
- MW-4 Monitoring well (EnviroForensics)
- Dairy tile floor
- 761 Groundwater elevation contour
- 758.35 Groundwater elevation (feet above mean sea level)

WATER TABLE CONTOUR MAP
 JULY 26, 2017
 Albany International - Luvata Site
 908 North Lawe Street
 Appleton, Wisconsin

Date:	8/15/17
Designed:	EB
Drawn:	EB
Checked:	BK
DWG file:	6486-0666



825 North Capitol Avenue • Indianapolis, IN 46204
 EnviroForensics.com

Figure	2
Project	6486

Legend

- Property boundary
- Underground gas utility line
- Underground water utility line
- Underground sanitary utility line
- Fiber optics line
- Underground storm utility line
- Pipe chase
- French drain and associated piping
- Sump
- Floor drain
- Dairy tile floor
- Soil boring (Others)
- Soil samples collected through concrete floor (Others)
- Soil samples collected through concrete wall (Others)
- Monitoring well abandoned
- Monitoring well abandoned
- Monitoring well (EnviroForensics)
- Soil boring (EnviroForensics)
- Soil samples collected through concrete wall (EnviroForensics)
- Soil boring New (EnviroForensics)
- Soil boring/Temporary well New (EnviroForensics)

Analyte	Soil to Groundwater Residual Contaminant Level	Non-Industrial Residual Contaminant Level	Industrial Residual Contaminant Level
Total Cr	NE	NE	NE
Cr(VI)	3.84	0.301	6.36

Note:

- Bold shaded blue values exceed WDNR Soil to Groundwater Residual Contaminant Level
- Bold shaded green values exceed WDNR Non-Industrial Residual Contaminant Level
- Bold shaded orange values exceed WDNR Industrial Residual Contaminant Level
- Bold values exceed laboratory detection levels
- Cr and Cr (VI) standards and analytical results are reported in milligram per kilogram (mg/kg)
- Cr (VI) = Hexavalent Chromium
- Cr = Chromium
- NA = Not analyzed
- NS = Not sampled
- == Calculated using EPA Risk-Based Screening Level Calculator
- Lab LOD = Laboratory limit of detecting

- Total chromium concentrations 100 mg/kg
- Total chromium concentrations 500 mg/kg
- Total chromium concentrations exceeding Non-Industrial Residual Contaminant Level
- Total chromium concentrations exceeding Industrial Direct Contact Contaminant Level

- MW-19 Water table observation well (with 10 foot screen length)
- MW-19A Piezometer (with 5 foot screen length set within the 30-40' depth interval)
- MW-1B Piezometer (with 5 foot screen length set within the 40-50' depth interval)

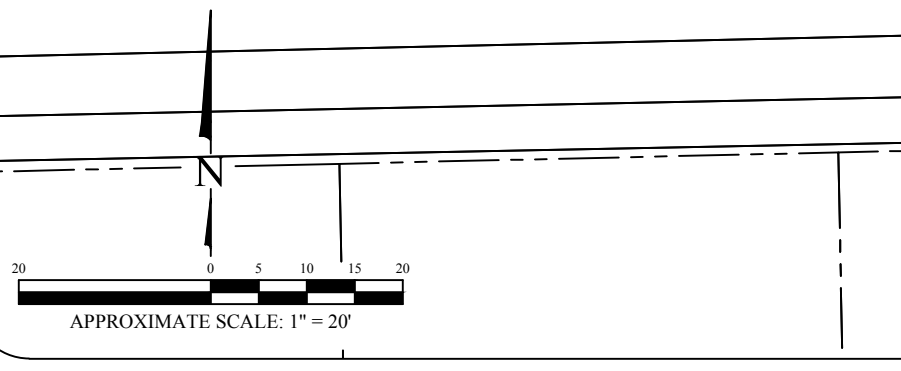
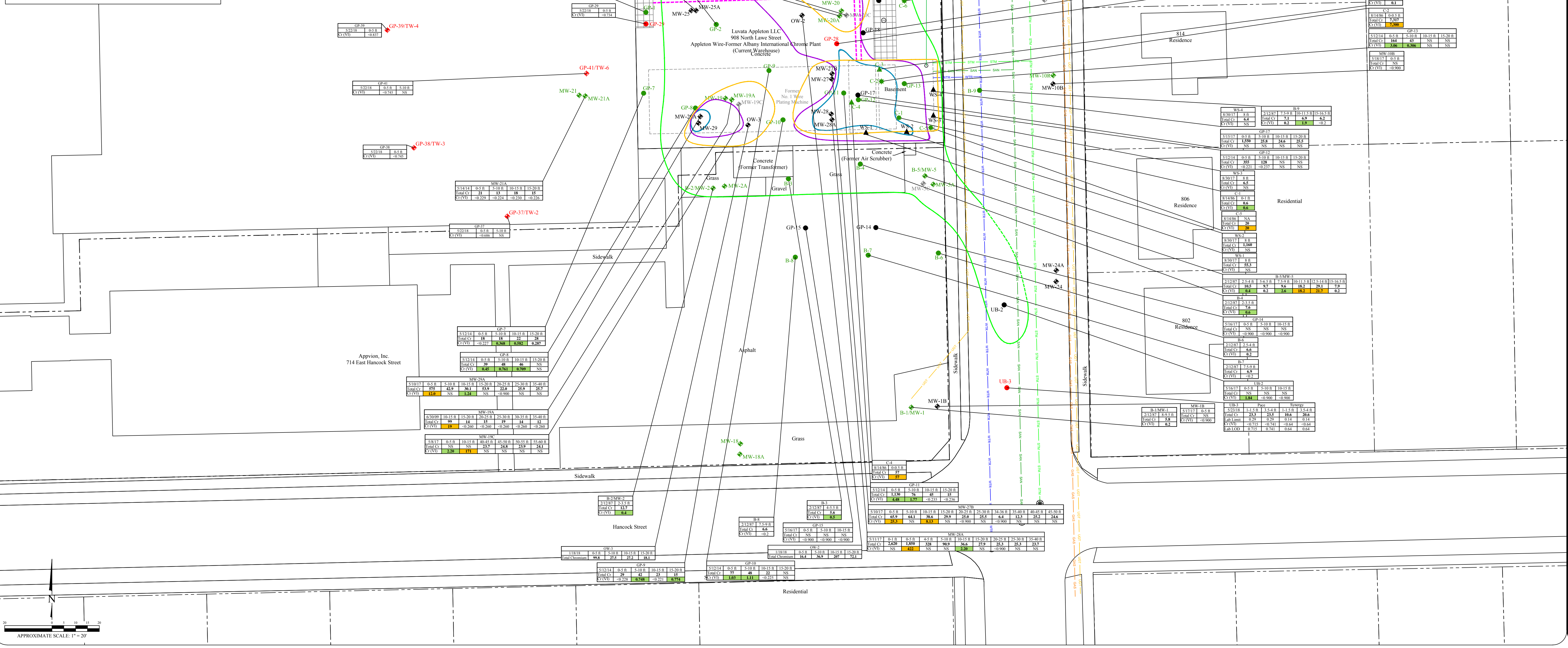


Figure	3	Project	6486
	Project		6486

SOIL ANALYTICAL RESULTS MAP WITH SELECT ISO-CONCENTRATION LINES SHOWING LATERAL DISTRIBUTION OF TOTAL CHROMIUM IMPACTS

Albany International - LuVata Site
908 North Lawe Street
Appleton, Wisconsin

Date:	6/29/17
Designed:	EB
Drawn:	EB
Checked:	WF
DWG file:	6486-0740

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EnviroForensics.com

Approved	WF
	Updates
Revision	1
Date	7/3/18

Legend

- Property boundary
- Underground gas utility line
- Underground water utility line
- Underground sanitary utility line
- Fiber optics line
- Underground storm utility line
- Pipe chase
- French drain and associated piping
- Stump
- Former Stump
- Floor drain
- Manhole
- Abandoned temporary well
- Monitoring well (Others)
- Abandoned monitoring well
- Monitoring well (EnviroForensics)
- Temporary well New (EnviroForensics)
- Dairy tile floor

Analyte	Public Health Preventive Action Limit	Public Health Enforcement Standard
Cr	10	100
Cr(VI)	NE	NE

Note:

- All groundwater samples were filtered and are representative of dissolved phase Cr and Cr(VI).
- Bolded and orange shaded values exceed the Public Health Enforcement Standard.
- Bolded and blue shaded values exceed the Public Health Preventive Action Limit.
- Bolded values are above detection limits.
- J = Analyte concentration less than laboratory detection limits.
- Samples analyzed using EPA SW-846 Method 8260.
- All results reported in units of micrograms per liter (µg/L).
- Cr(VI) = Hexavalent Chromium.
- Cr = Total Chromium.
- ND = Not detected.
- NA = Not analyzed.
- NE = Not established.
- Synergy = Synergy Environmental Laboratory, Inc.
- Pace Analytical = Pace Analytical Services, LLC.

- Area exceeding PAL for Total chromium >10 µg/L
- Area exceeding ES for Total chromium >100 µg/L
- Total chromium concentrations >5,000 µg/L
- Total chromium concentrations >25,000 µg/L
- Dashed boundaries are inferred

MW-19 ♦ Water table observation well (with 10 foot screen length)
 MW-19A ♦ Piezometer (with 5 foot screen length set within the 30-40' depth interval)
 MW-19B ♦ Piezometer (with 5 foot screen length set within the 40-50' depth interval)

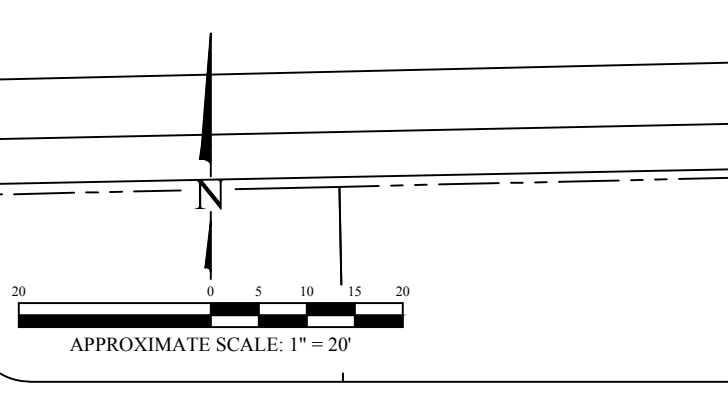
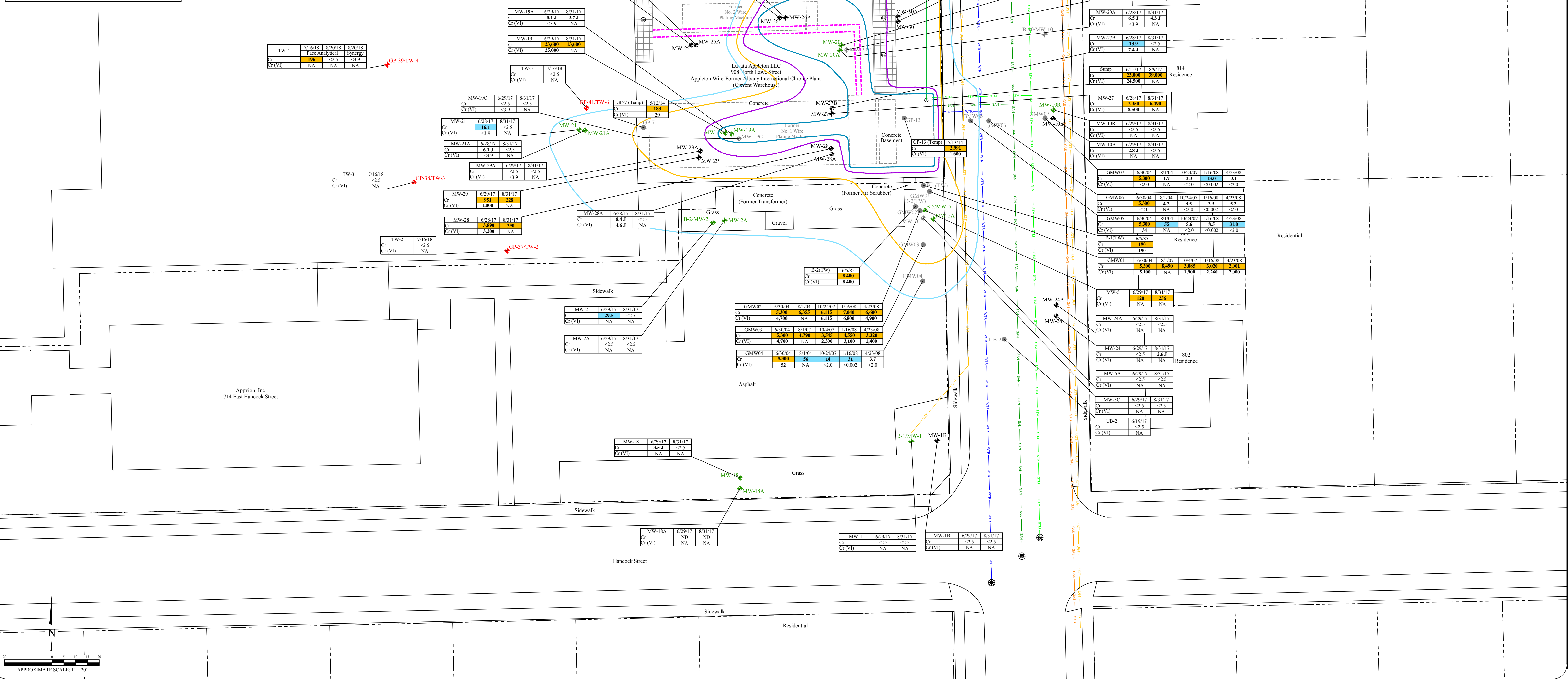


Figure	4
Project	6486

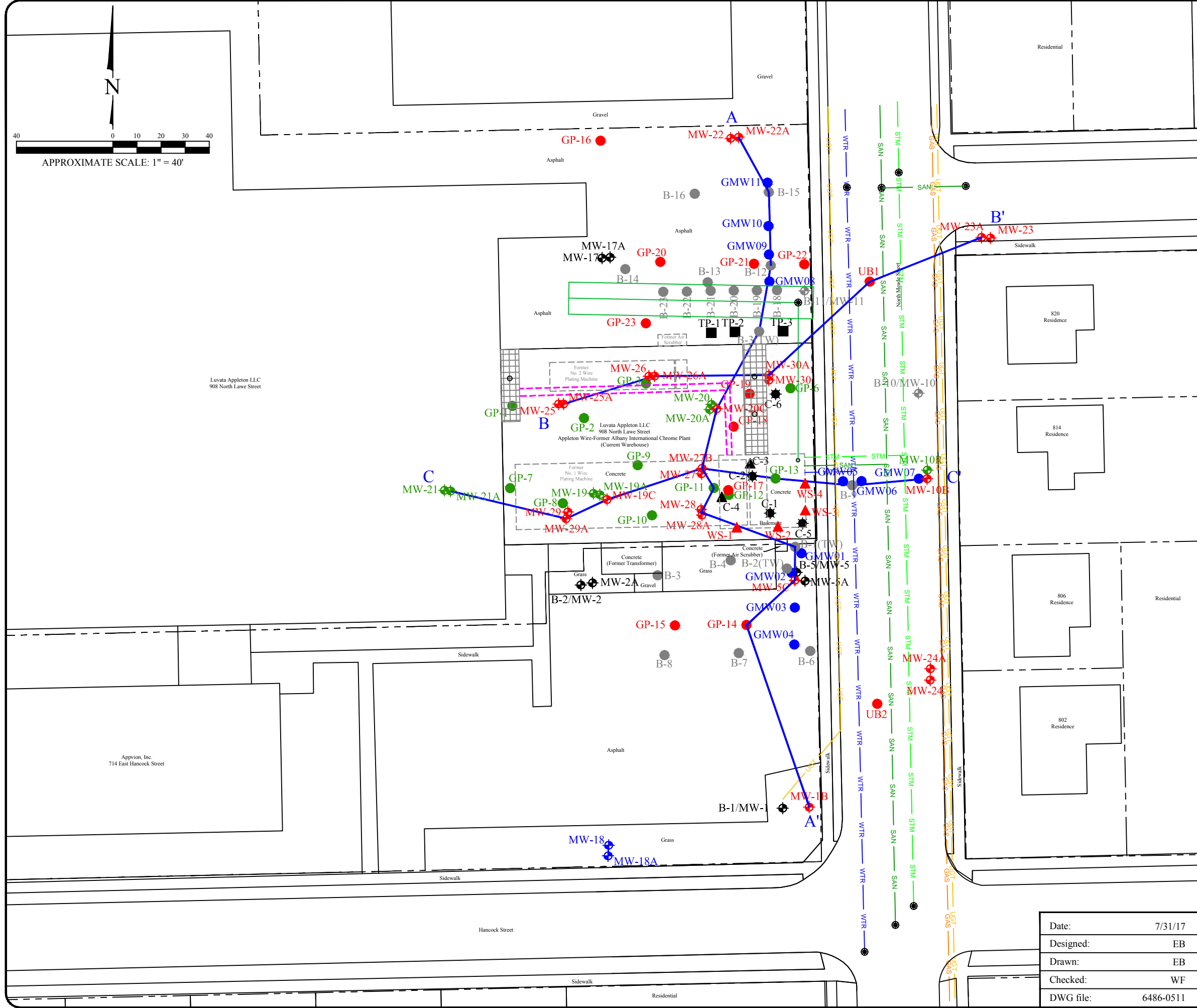
LATERAL DISTRIBUTION OF DISSOLVED CHROMIUM IN GROUNDWATER

Albany International - Luvata Site
 908 North Lawe Street
 Appleton, Wisconsin

Date:	9/21/17
Designed:	EBB
Drawn:	EBB
Checked:	WF
DWG file:	6486-0461

825 North Capitol Avenue • Indianapolis, IN 46204
 EnviroForensics.com

Approved	
Revision	
Date	



Legend

- Property boundary
- GAS Underground gas utility line
- WTR Underground water utility line
- SAN Underground sanitary utility line
- UGT Fiber optics line
- STM Underground storm utility line
- Pipe chase
- French drain and associated piping
- Sump
- Former Sump
- Floor drain
- Manhole
- B-1 Soil boring (STS)
- B-1(TW) Abandoned temporary well (STS)
- GP-1 Soil boring (Badger)
- GMW01 Abandoned Temp well (McMahon)
- C-1 Soil samples collected through concrete floor (STS)
- C-3 Soil samples collected through concrete wall (STS)
- B-1/MW-1 Monitoring well (STS)
- MW-18 Monitoring well (McMahon)
- MW-19 Monitoring well (Badger)
- MW-10 Monitoring well abandoned (MW-10 in 1998) and (MW-11 in 1991)
- MW-4 Monitoring well (EnviroForensics)
- GP-14 Soil boring (EnviroForensics)
- WS-1 Soil samples collected through concrete wall (EnviroForensics)
- A Dairy tile floor
- B Cross section transect
- C Cross section transect
- C' Cross section transect
- MW-19 Water table observation well (with 10 foot screen length)
- MW-19A Piezometer (with 5 foot screen length set within the 30-40' depth interval)
- MW-1B Piezometer (with 5 foot screen length set within the 40-50' depth interval)
- MW-19C Piezometer (with 5 foot screen length set within the 50-60' depth interval)

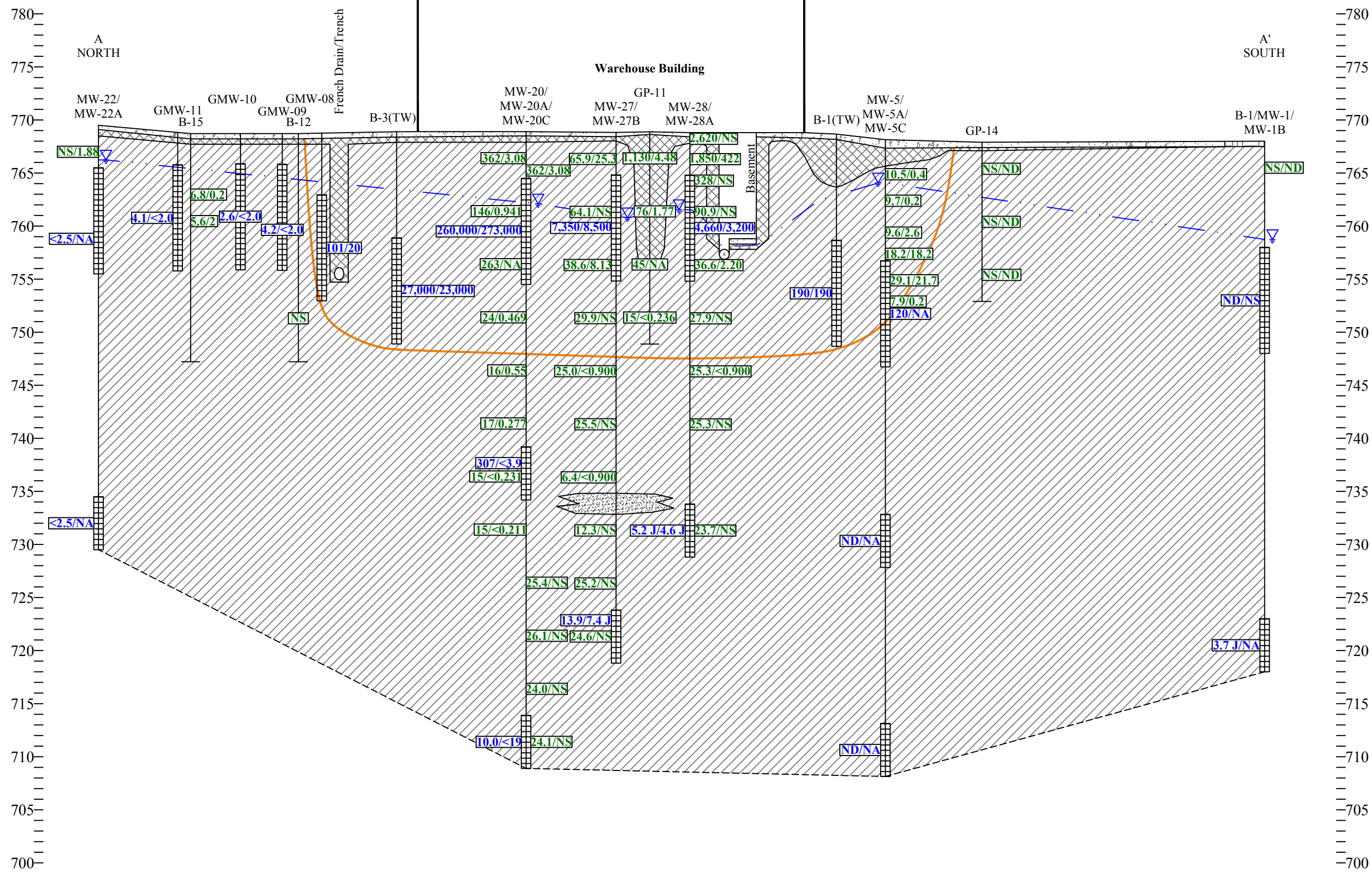
GEOLOGIC CROSS SECTION TRANSECT MAP

Albany International - Luvata Site
 908 North Lawe Street
 Appleton, Wisconsin

Date:	7/31/17
Designed:	EB
Drawn:	EB
Checked:	WF
DWG file:	6486-0511

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Figure	5
Project	6486



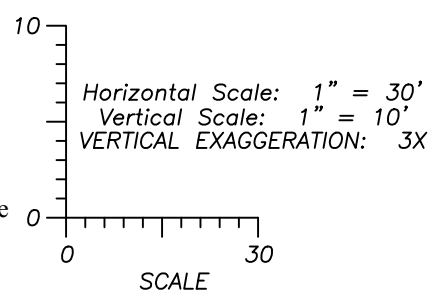
Legend

	Concrete
	Top Soil
	Fill (Sand and Gravel)
	Clayey Sand
	Clay

- 700/700 Total chromium/Hexavalent chromium concentration in soil sample (mg/kg)
- 700/700 Dissolved chromium/Dissolved Hexavalent chromium concentration in monitoring well sample (µg/L)
- Observed groundwater elevation in monitoring well on 7/26/17
- Monitoring well screen
- Proposed depth of treatment
- Dashed boundaries are inferred

⊙ Sump location (Approximate)

- Note:
- Soil units in milligrams per kilogram (mg/kg)
 - Groundwater units in micrograms per liter (µg/L)
 - Vertical positions of soil analytical results coincides with the depth at which samples were collected
 - ND = Not detected
 - NA = Not analyzed
 - NS = Not sampled



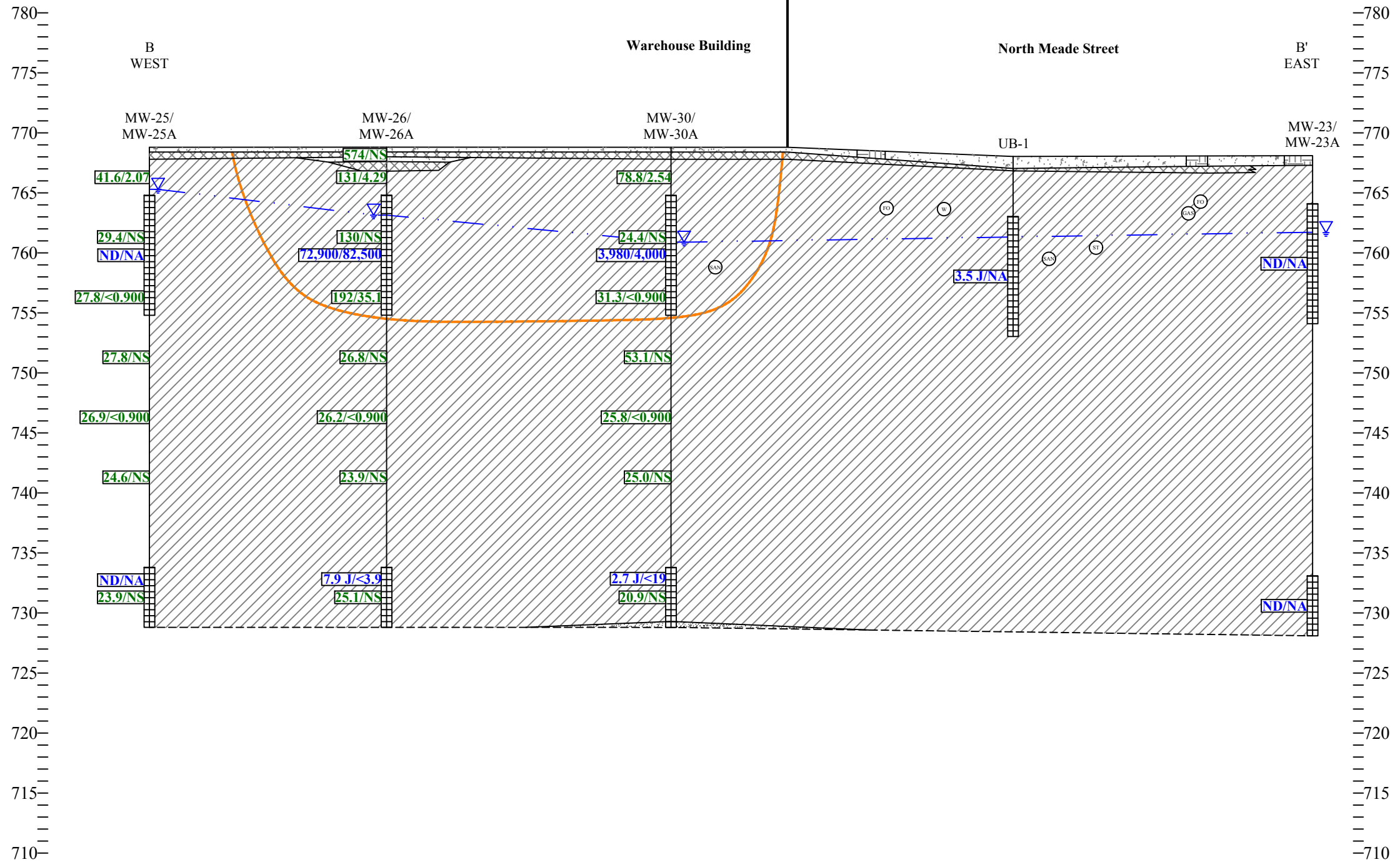
GEOLOGIC CROSS SECTION A-A' SHOWING DISTRIBUTION OF HEXAVALENT CHROMIUM IN SOIL WITH PROPOSED SOIL MIXING ZONES
 Albany International - Luvata Site
 908 North Lawe Street
 Appleton, Wisconsin

Date:	7/31/17
Designed:	EB
Drawn:	EB
Checked:	WF
DWG file:	6486-0511



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Figure	6
Project	6486



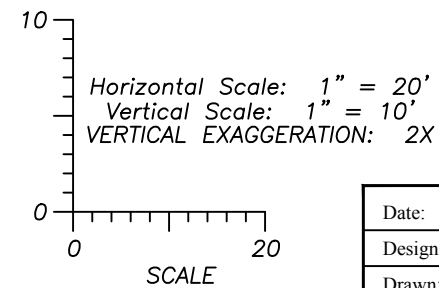
Legend

	Concrete
	Top Soil
	Fill (Sand and Gravel)
	Clayey Sand
	Clay

- 700/700 Total chromium/Hexavalent chromium concentration in soil sample (mg/kg)
- 700/700 Dissolved chromium/Dissolved Hexavalent chromium concentration in monitoring well sample (µg/L)
- Observed groundwater elevation in monitoring well on 7/26/17
- Monitoring well screen
- Proposed depth of treatment
- Dashed boundaries are inferred

- Underground sanitary utility line
- Underground storm utility line
- Underground gas utility line
- Underground water utility line
- Fiber optics line

- Note:
1. Soil units in milligrams per kilogram (mg/kg)
 2. Groundwater units in micrograms per liter (µg/L)
 3. Vertical positions of soil analytical results coincides with the depth at which samples were collected
 4. ND = Not detected
 5. NA = Not analyzed
 6. NS = Not sampled



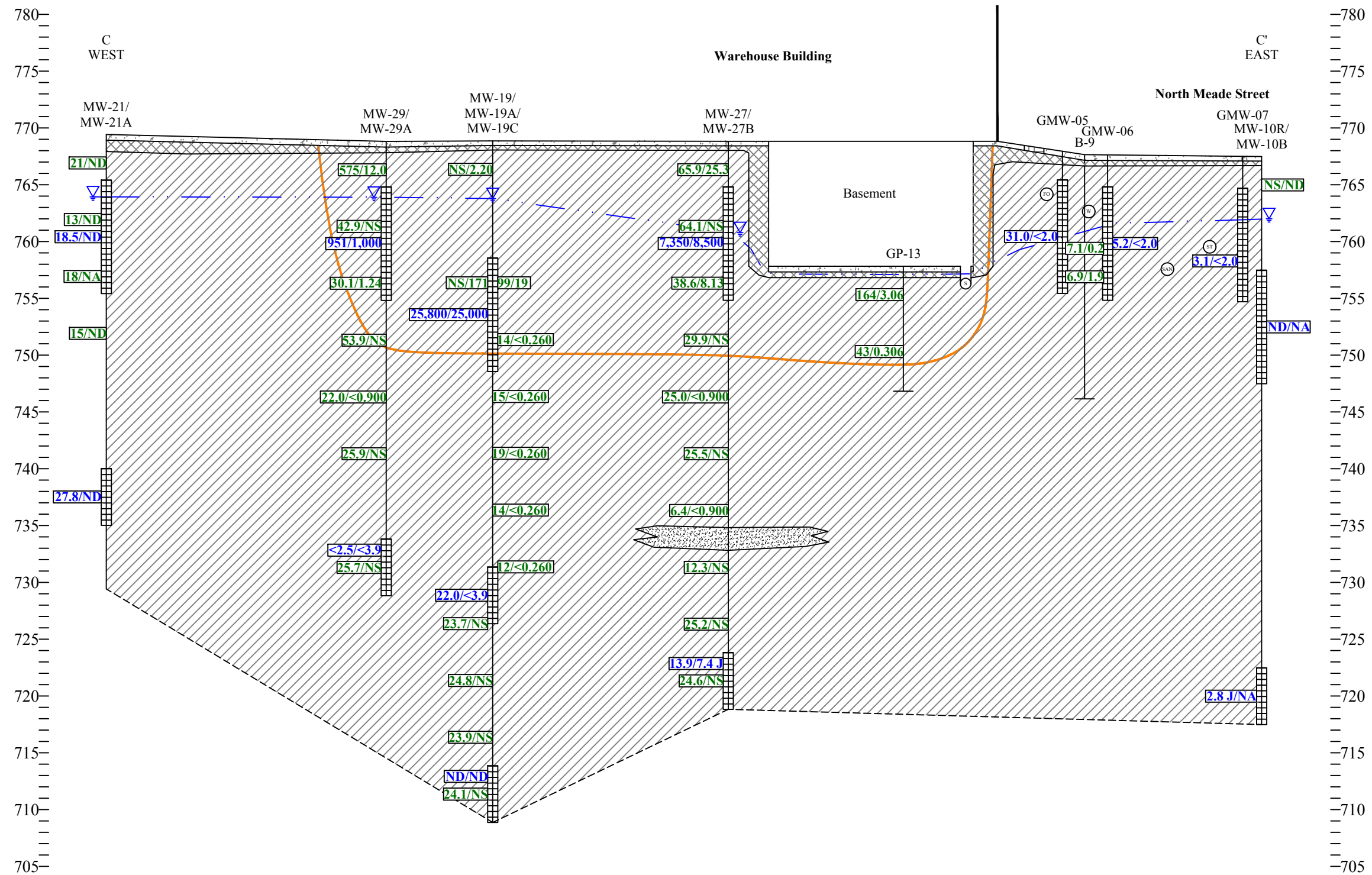
GEOLOGIC CROSS SECTION B-B' SHOWING DISTRIBUTION OF HEXAVALENT CHROMIUM IN SOIL WITH PROPOSED SOIL MIXING ZONES
 Albany International - Luvata Site
 908 North Lawe Street
 Appleton, Wisconsin

Date:	7/31/17
Designed:	EB
Drawn:	EB
Checked:	WF
DWG file:	6486-0511



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Figure	7
Project	6486

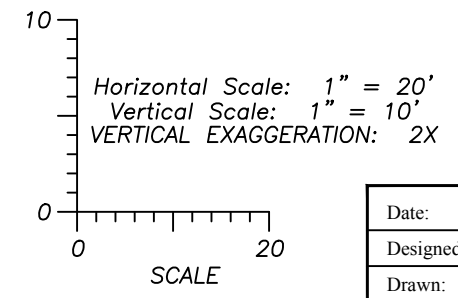


Legend

	Concrete
	Top Soil
	Fill (Sand and Gravel)
	Clayey Sand
	Clay

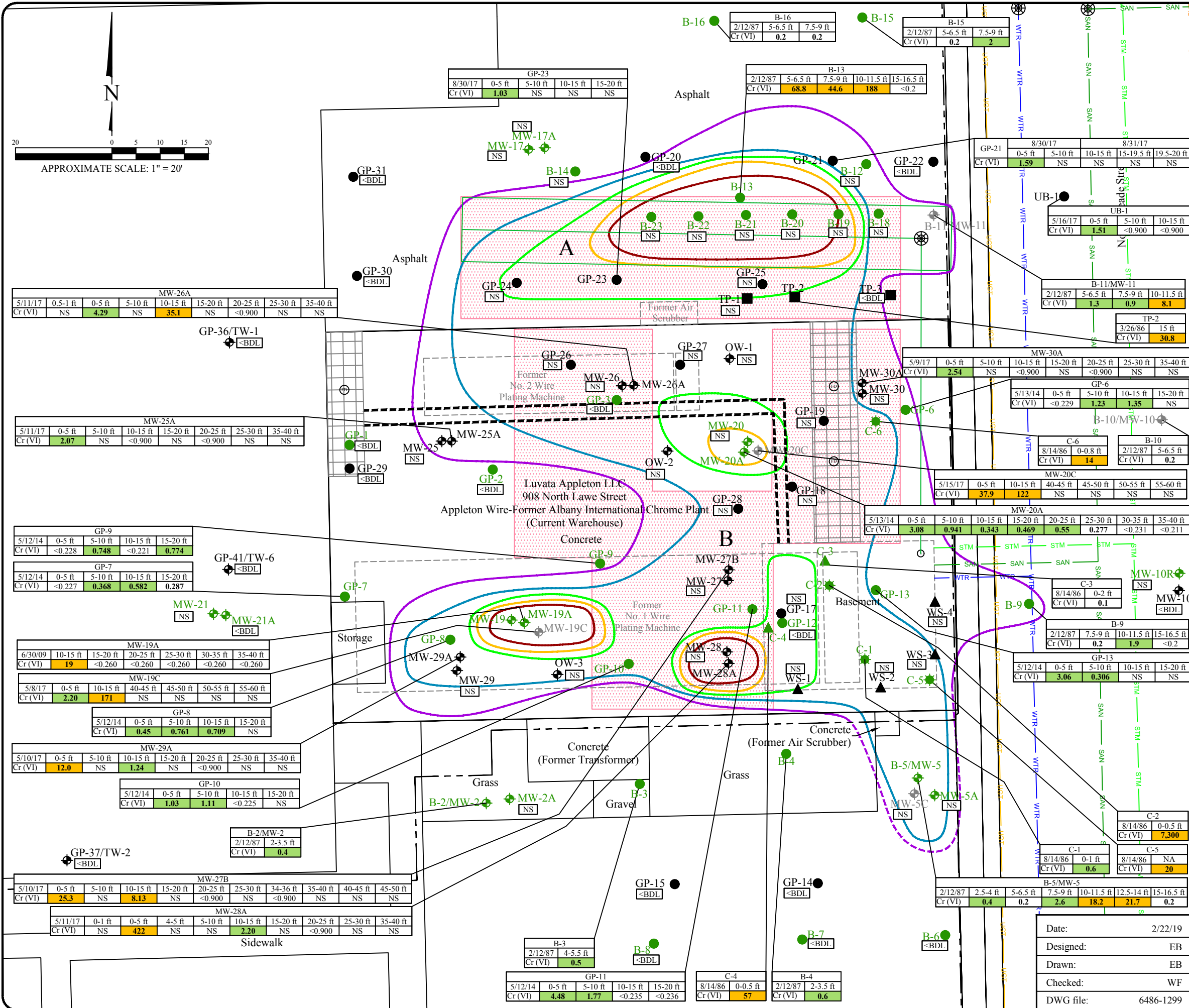
- 700/700** Total chromium/Hexavalent chromium concentration in soil sample (mg/kg)
- 700/700** Dissolved chromium/Dissolved Hexavalent chromium concentration in monitoring well sample (µg/L)
- Observed groundwater elevation in monitoring well on 7/26/17
- Monitoring well screen
- Proposed depth of treatment
- Dashed boundaries are inferred

- Sump location (Approximate)
 - Underground sanitary utility line
 - Underground storm utility line
 - Underground gas utility line
 - Underground water utility line
 - Fiber optics line
- Note:
- Soil units in milligrams per kilogram (mg/kg)
 - Groundwater units in micrograms per liter (µg/L)
 - Vertical positions of soil analytical results coincides with the depth at which samples were collected
 - ND = Not detected
 - NA = Not analyzed
 - NS = Not sampled



GEOLOGIC CROSS SECTION C-C' SHOWING DISTRIBUTION OF HEXAVALENT CHROMIUM IN SOIL WITH PROPOSED SOIL MIXING ZONES
Albany International - Luvata Site
908 North Lawe Street
Appleton, Wisconsin

Date:	7/31/17		Figure
Designed:	EB		8
Drawn:	EB		Project
Checked:	WF		6486
DWG file:	6486-0511		825 North Capitol Avenue • Indianapolis, IN 46204 EnviroForensics.com



Legend

- Property boundary
- GAS
- WTR
- SAN
- UGT
- STM
- Pipe chase
- French drain and associated piping
- Sump
- Former Sump
- Floor drain
- B-1 Soil boring (STS)
- GP-1 Soil boring (Badger)
- C-1 Concrete Floor Core samples (STS)
- C-3 Concrete Wall Core samples (STS)
- MW-1 Monitoring well (STS)
- MW-18 Monitoring well (McMahon)
- MW-19 Monitoring well (Badger)
- MW-10 Monitoring well abandoned (MW-10 in 1998) and (MW-11 in 1991)
- MW-4 Monitoring well (Envirofornics)
- B-1 Soil boring (Envirofornics)
- Dairy tile floor

Analyte	Soil to Groundwater Residual Contaminant Level	Non-Industrial Residual Contaminant Level	Industrial Residual Contaminant Level
Cr (VI)	3.84*	0.301	6.36

- Note:
- Bold shaded blue values exceed WDNR Soil to Groundwater Residual Contaminant Level
 - Bold shaded green values exceed WDNR Non-Industrial Residual Contaminant Level
 - Bold shaded orange values exceed WDNR Industrial Residual Contaminant Level
 - Bold values exceed laboratory detection levels
 - Cr and Cr (VI) standards and analytical results are reported in milligram per kilogram (mg/kg)
 - Cr (VI) = Hexavalent Chromium
 - Cr = Chromium
 - NA = Not analyzed
 - NS = Not sampled
 - <BDL = Below laboratory detection limits
 - * = Calculated using EPA Risk-Based Screening Level Calculator
 - Lab LOD = Laboratory limit of detecting

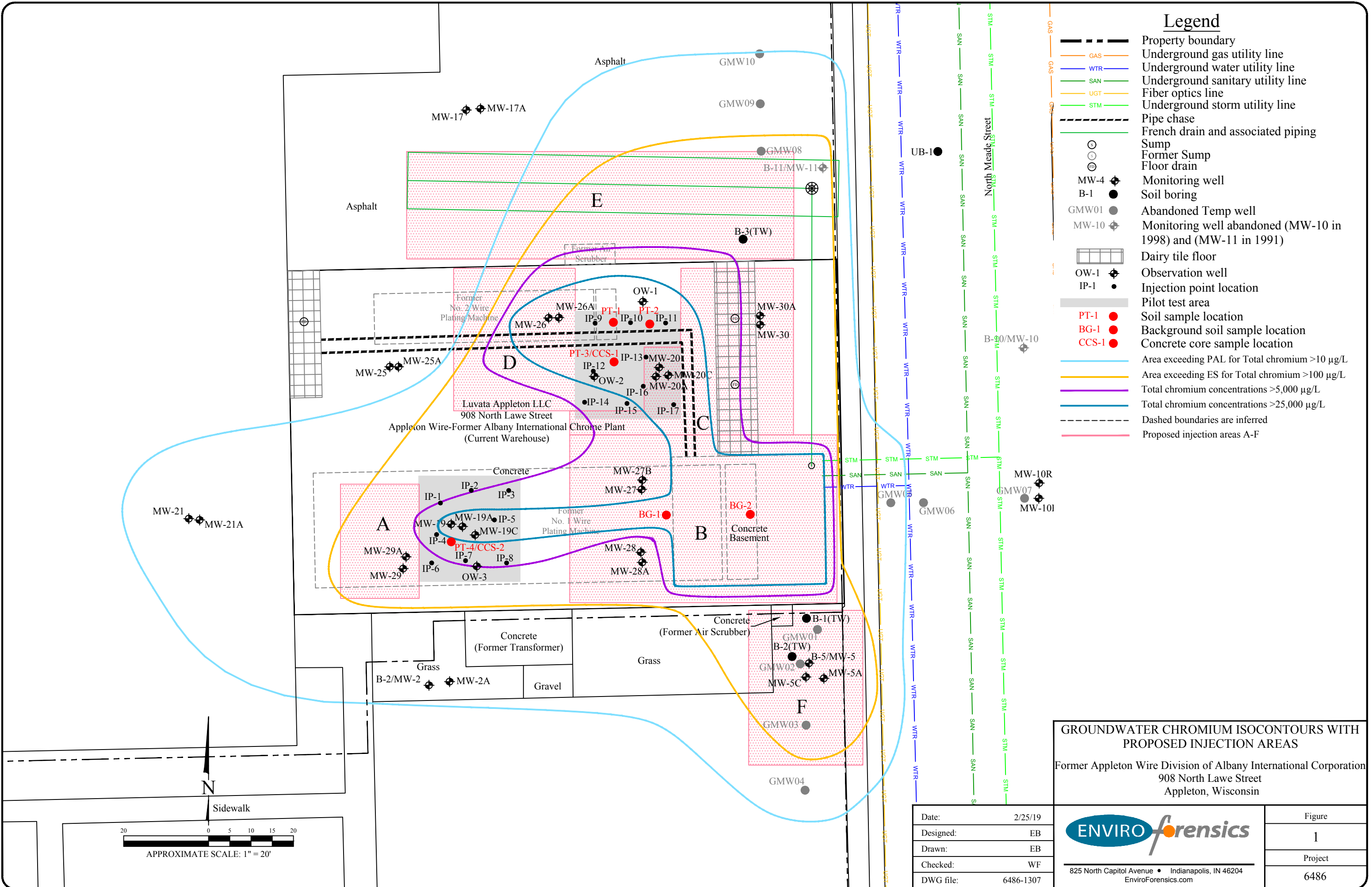
- Chromium VI concentrations 1 mg/kg
- Chromium VI concentrations 5 mg/kg
- Chromium VI concentrations 50 mg/kg
- Chromium VI concentrations 100 mg/kg
- Chromium VI concentrations 150 mg/kg
- Dashed boundaries are inferred
- Proposed soil mixing areas A and B

DISTRIBUTION OF HEXAVALENT CHROMIUM IN SOIL WITH PROPOSED SOIL MIXING ZONES

Albany International - Luvata Site
908 North Lawe Street
Appleton, Wisconsin

Date:	2/22/19		Figure
Designed:	EB		9
Drawn:	EB		Project
Checked:	WF		6486
DWG file:	6486-1299		

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Legend

- Property boundary
- GAS Underground gas utility line
- WTR Underground water utility line
- SAN Underground sanitary utility line
- UGT Fiber optics line
- STM Underground storm utility line
- Pipe chase
- French drain and associated piping
- Sump
- Former Sump
- Floor drain
- MW-4 Monitoring well
- B-1 Soil boring
- GMW01 Abandoned Temp well
- MW-10 Monitoring well abandoned (MW-10 in 1998) and (MW-11 in 1991)
- Dairy tile floor
- OW-1 Observation well
- IP-1 Injection point location
- PT-1 Pilot test area
- PT-1 Soil sample location
- BG-1 Background soil sample location
- CCS-1 Concrete core sample location
- Area exceeding PAL for Total chromium >10 µg/L
- Area exceeding ES for Total chromium >100 µg/L
- Total chromium concentrations >5,000 µg/L
- Total chromium concentrations >25,000 µg/L
- Dashed boundaries are inferred
- Proposed injection areas A-F

GROUNDWATER CHROMIUM ISOCONTOURS WITH PROPOSED INJECTION AREAS
 Former Appleton Wire Division of Albany International Corporation
 908 North Lawe Street
 Appleton, Wisconsin

Date:	2/25/19
Designed:	EB
Drawn:	EB
Checked:	WF
DWG file:	6486-1307



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Figure	1
Project	6486

TABLE 1
GROUNDWATER GEOCHEMICAL ANALYTICAL RESULTS
Former Appleton Wire Division of Albany International Corporation
908 North Lawe Street, Appleton, Wisconsin

Monitoring Well Identification	Screen Interval	Sample Date	Dissolved Metals			Inorganic/Physical Parameters						Field Parameters					
			Chromium	Manganese	Iron	Nitrate	Nitrite	Sulfate	Chemical Oxygen Demand	Total Organic Carbon	Dissolved Organic Carbon	Temperature	pH	Specific Conductance	Oxidation Reduction Potential	Turbidity	Dissolved Oxygen
Reporting Units			µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	Celsius	S.U.	µS/cm	mV	NTU	mg/L
MW-19	10.3 - 20.3	6/29/17	23,600	36.7	<15.5	6.9	<0.80	51.4 J	15.3	<0.25	<0.25	19.90	7.59	1.24	174	22.4	9.18
		4/23/18	18,900	<11.3	<155	NA	NA	NA	NA	NA	NA	16.60	7.53	1.31	177	0	10.17
		7/16/18	172	948	22,400	NA	NA	NA	NA	NA	NA	20.20	6.55	2.35	27	0	8.56
		8/20/18	97.6	1640	88,200	NA	NA	NA	NA	NA	NA	19.66	6.26	2.67	-45	265	10.04
		1/21/19	16.1	608	12,200	NA	NA	NA	NA	NA	NA	18.30	7.52	2.56	-81	373	0.06
MW-20	4.4 - 14.4	06/28/17	265,000	<36.6	<680	15.9	<0.80	103	31.4 J	<0.76	1.1 J	17.42	7.15	2.72	171	70.8	11.04
		04/23/18	296,000	<11.3	<155	NA	NA	NA	NA	NA	NA	15.73	7.21	2.70	282	50.4	NA
		07/16/18	161,000	99.1	929 J	NA	NA	NA	NA	NA	NA	20.33	7.10	2.73	78	47.8	8.76
		08/20/18	174,000	wfw	156	NA	NA	NA	NA	NA	NA	19.93	7.54	2.52	103	0	10.05
		01/21/19	179,000	37.1	<35.4	NA	NA	NA	NA	NA	NA	17.09	8.20	2.55	126	1.9	5.02
MW-26	4.0 - 14.0	07/16/18	21,600	115	3,550	NA	NA	NA	NA	NA	19.66	7.45	1.390	-94	227	8.74	
		08/20/18	17,100	15.6	<15.5	NA	NA	NA	NA	NA	20.48	7.36	1.240	72	0	9.94	
		01/21/19	26,700	1.5 J	<35.4	NA	NA	NA	NA	NA	16.46	8.24	1.310	95	3	4.40	
MW-29	4.0 - 14.0	04/23/18	NA	NA	NA	NA	NA	NA	NA	NA	15.86	7.89	0.589	104	30.2	10.40	
		07/16/18	220	13.1	89.6 J	NA	NA	NA	NA	NA	20.00	7.44	0.820	107	10.5	7.99	
		08/20/18	380	NA	NA	NA	NA	NA	NA	NA	20.23	7.52	0.661	-31	0.0	9.93	
OW-1	5.0 - 15.0	01/21/19	376	<1.1	<35.4	NA	NA	NA	NA	NA	17.54	8.36	0.837	40	1.9	6.20	
		04/23/18	20,000	31.1 J	<155	NA	NA	NA	NA	NA	14.38	7.48	1.960	283	37.2	10.28	
		07/16/18	84.6	628	28,000	NA	NA	NA	NA	NA	20.68	6.44	3.420	17	56.9	8.99	
OW-2	5.0 - 15.0	08/20/18	16.6	338	19,200	NA	NA	NA	NA	NA	19.73	7.57	2.580	-177	99.3	11.17	
		01/21/19	<2.5	28	2,620	NA	NA	NA	NA	NA	15.33	8.79	1.560	-200	88.0	9.40	
		04/23/18	25,800	<11.3	<155	NA	NA	NA	NA	NA	15.75	7.71	1.280	275	1.9	9.53	
OW-3	5.0 - 15.0	07/16/18	17.0	2,680	188,000	NA	NA	NA	NA	NA	21.09	6.79	5.240	105	45.1	7.51	
		08/20/18	5.9 J	398	24,100	NA	NA	NA	NA	NA	19.77	6.86	3.210	-128	0.0	9.91	
		08/20/18	NA	NA	NA	NA	NA	NA	NA	NA	18.82	7.35	3.490	-166	0.8	0.18	
		01/21/19	4.0 J	209	22,100	NA	NA	NA	NA	NA	16.67	7.88	2.410	-135	4.3	3.27	
OW-3	5.0 - 15.0	04/23/18	1,050	<22.3	<15.5	NA	NA	NA	NA	NA	16.76	7.16	1.100	175	249.0	10.25	
		07/16/18	505	158	299	NA	NA	NA	NA	NA	20.36	7.21	0.841	-45	364.0	7.81	
		08/20/18	13.8	133	2940	NA	NA	NA	NA	NA	20.22	7.25	0.811	-112	0.0	10.22	
		01/21/19	100	35	158	NA	NA	NA	NA	NA	16.49	7.99	1.110	-19	4.8	0.53	

Notes:
Bolded values are above laboratory detection limits
J = Analyte concentration detected between the laboratory Reporting Limit and the laboratory Method Detection Limit
NA = Not Analyzed
S.U. = Standard Units
µS/cm = Microsiemens per centimeter
mV = Millivolt
NTU = Nephelometric Turbidity Unit
mg/L = Milligram per liter

TABLE 2
SPLP SAMPLE ANALYTICAL RESULTS - CHROMIUM

Former Appleton Wire
908 N. Lawe St., Appleton, WI 54911

Boring Identification	Sample Depth (feet)	Sample Date	Laboratory	SPLP Chromium		
					Limit of Detection	Limit of Quantification
Public Health Enforcement Standard				100		
Public Health Preventive Action Limit				10		
PT-1	1-3	1/21/2018	Synergy	14,700	3.9	12.8
	3-5			10,300	3.9	12.8
PT-2	1-3	1/21/2018	Synergy	89.0	3.9	12.8
	3-5			9.2	3.9	12.8
PT-3	1-3	1/21/2018	Synergy	<3.9	3.9	12.8
	3-5			214	3.9	12.8
PT-4	1-3	1/21/2018	Synergy	3,090	3.9	12.8
	3-5			173	3.9	12.8
BG-1	1-5	1/21/2018	Synergy	1,810	3.9	12.8
BG-2	1-3	1/21/2018	Synergy	2,010	3.9	12.8
	3-5			315	3.9	12.8

Notes:

Synthetic Precipitation Leaching Procedure (SPLP) chromium samples analyzed using EPA SW-846 Method 1312
All SPLP concentrations reported in micrograms per kilogram (µg/l)

Bolded values are above Laboratory Detection Limits

Bolded and Orange Shaded values indicates an exceedance of the Public Health Enforcement Standard












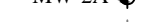
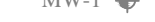
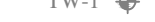


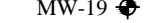

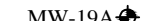
Bolded and Blue Shaded values indicates an exceedance the Public Health Preventive Action Limit

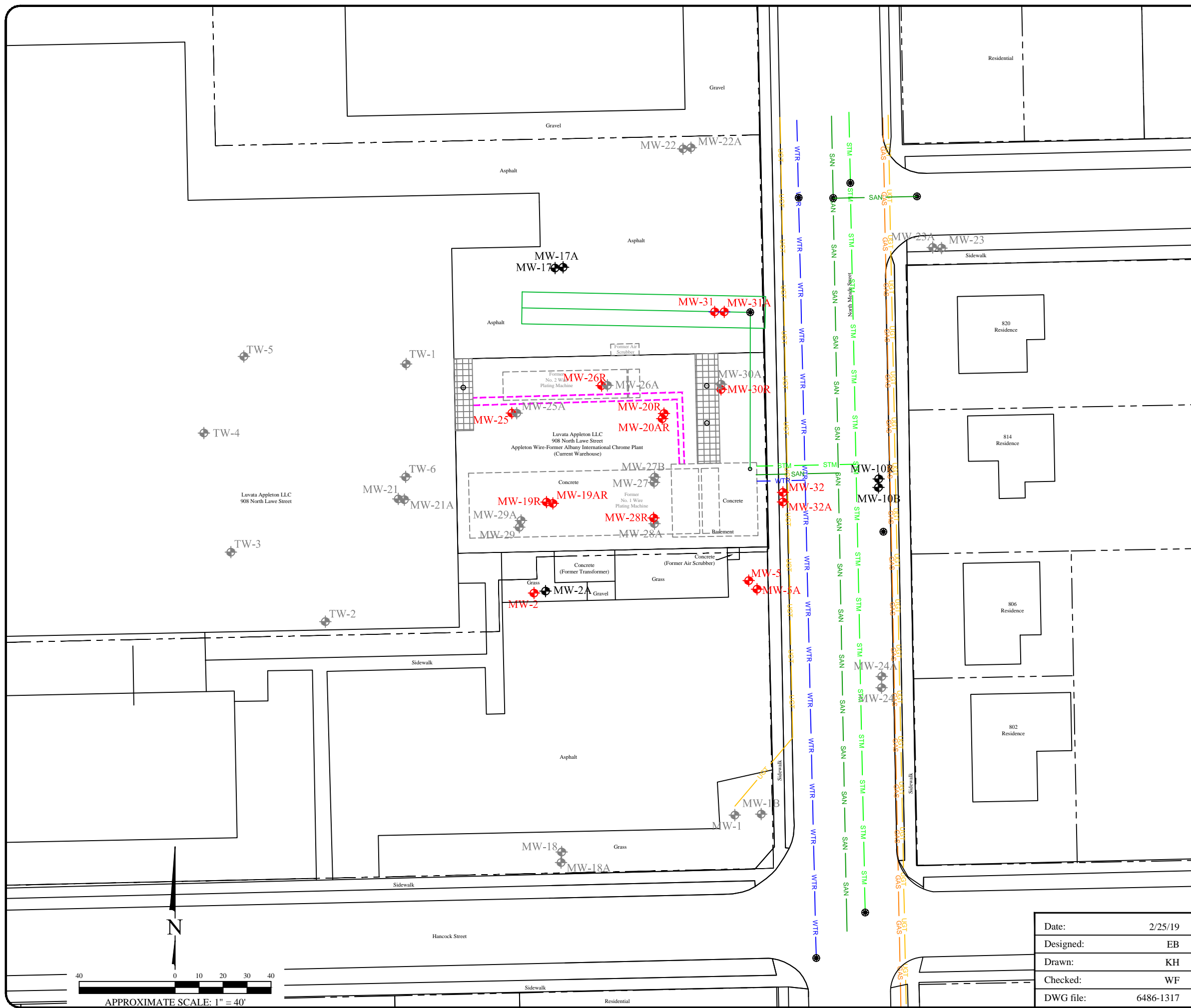
Synergy = Synergy Environmental Lab, Inc.

PT = Post Treatment Sample

BG = Background Sample

Legend

-  Property boundary
-  GAS Underground gas utility line
-  WTR Underground water utility line
-  SAN Underground sanitary utility line
-  UGT Fiber optics line
-  STM Underground storm utility line
-  Pipe chase
-  French drain and associated piping
-  Sump
-  Floor drain
-  Manhole
-  MW-2A Monitoring well
-  MW-1 Monitoring well to be abandoned
-  TW-1 Temporary groundwater monitoring well to be abandoned
-  Dairy tile floor
-  Well designated for remediation performance monitoring
-  MW-19 Water table observation well (with 10 foot screen length)
-  MW-19A Piezometer (with 5 foot screen length set within the 30-40' depth interval)
-  MW-1B Piezometer (with 5 foot screen length set within the 40-50' depth interval)



**MONITORING WELLS DESIGNATED FOR
REMEDATION PERFORMANCE MONITORING**

Albany International - Luvata Site
908 North Lawe Street
Appleton, Wisconsin

Date:	2/25/19
Designed:	EB
Drawn:	KH
Checked:	WF
DWG file:	6486-1317



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Figure	11
Project	6486

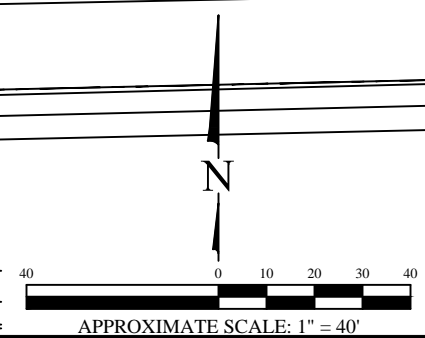


TABLE 3
PROPOSED GROUNDWATER MONITORING PLAN

Former Appleton Wire Facility
 908 N. Lawe Street
 Appleton, Wisconsin

Monitoring Well ID	Remediation Monitoring	
	Quarterly for 2 Years (Remediation Performance)	Annually for 2 Years (Plume Distribution)
MW-1		
MW-1B		
MW-2		C
MW-2A		
MW-5	C	
MW-5A		C
MW-10R		
MW-10B		
MW-17		
MW-17A		
MW-18		
MW-18A		
MW-19R	C	
MW-19AR		C
MW-20R	C	
MW-20AR		C
MW-21		
MW-21A		
MW-22		
MW-22A		
MW-23		
MW-23A		
MW-24		
MW-24A		
MW-25		C
MW-25A		
MW-26R	C	
MW-26A		
MW-27		
MW-27B		
MW-28R	C	
MW-28A		
MW-29		
MW-29A		
MW-30R	C	
MW-30A		
MW-31		C
MW-31A		C
MW-32		C
MW-32A		C

Notes:

Remediation performance monitoring will begin approximately 3 months after implementation of the remedial action

C = total chromium analysis

Highlighted wells will be abandoned during implementation of the remedial action