

# GIS REGISTRY

## Cover Sheet

March, 2010  
(RR 5367)

### Source Property Information

**BRRTS #:**

**ACTIVITY NAME:**

**PROPERTY ADDRESS:**

**MUNICIPALITY:**

**PARCEL ID #:**

**CLOSURE DATE:**

**FID #:**

**DATCP #:**

**COMM #:**

#### \*WTM COORDINATES:

X:  Y:

*\* Coordinates are in  
WTM83, NAD83 (1991)*

#### WTM COORDINATES REPRESENT:

- Approximate Center Of Contaminant Source
- Approximate Source Parcel Center

**Please check as appropriate:** (BRRTS Action Code)

#### Contaminated Media:

Groundwater Contamination > ES (236)

Contamination in ROW

Off-Source Contamination

*(note: for list of off-source properties  
see "Impacted Off-Source Property" form)*

Soil Contamination > \*RCL or \*\*SSRCL (232)

Contamination in ROW

Off-Source Contamination

*(note: for list of off-source properties  
see "Impacted Off-Source Property" form)*

#### Land Use Controls:

N/A (Not Applicable)

Soil: maintain industrial zoning (220)

*(note: soil contamination concentrations  
between non-industrial and industrial levels)*

Structural Impediment (224)

Site Specific Condition (228)

Cover or Barrier (222)

*(note: maintenance plan for  
groundwater or direct contact)*

Vapor Mitigation (226)

Maintain Liability Exemption (230)

*(note: local government unit or economic  
development corporation was directed to  
take a response action)*

#### Monitoring Wells:

Are all monitoring wells properly abandoned per NR 141? (234)

Yes  No  N/A

*\* Residual Contaminant Level*

*\*\*Site Specific Residual Contaminant Level*

This Adobe Fillable form is intended to provide a list of information that is required for evaluation for case closure. It is to be used in conjunction with Form 4400-202, Case Closure Request. The closure of a case means that the Department has determined that no further response is required at that time based on the information that has been submitted to the Department.

**NOTICE: Completion of this form is mandatory** for applications for case closure pursuant to ch. 292, Wis. Stats. and ch. NR 726, Wis. Adm. Code, including cases closed under ch. NR 746 and ch. NR 726. The Department will not consider, or act upon your application, unless all applicable sections are completed on this form and the closure fee and any other applicable fees, required under ch. NR 749, Wis. Adm. Code, Table 1 are included. It is not the Department's intention to use any personally identifiable information from this form for any purpose other than reviewing closure requests and determining the need for additional response action. The Department may provide this information to requesters as required by Wisconsin's Open Records law [ss. 19.31 - 19.39, Wis. Stats.].

BRRTS #:	02-41-000465	PARCEL ID #:	541005930
ACTIVITY NAME:	Sigma-Aldrich Hope Avenue	WTM COORDINATES:	X: 686847 Y: 293025

**CLOSURE DOCUMENTS** (the Department adds these items to the final GIS packet for posting on the Registry)

- Closure Letter**
- Maintenance Plan** (if activity is closed with a land use limitation or condition (land use control) under s. 292.12, Wis. Stats.)
- Continuing Obligation Cover Letter** (for property owners affected by residual contamination and/or continuing obligations)
- Conditional Closure Letter**
- Certificate of Completion (COC)** (for VPLE sites)

**SOURCE LEGAL DOCUMENTS**

- Deed:** The most recent deed as well as legal descriptions, for the **Source Property** (where the contamination originated). Deeds for other, off-source (off-site) properties are located in the **Notification** section.  
*Note: If a property has been purchased with a land contract and the purchaser has not yet received a deed, a copy of the land contract which includes the legal description shall be submitted instead of the most recent deed. If the property has been inherited, written documentation of the property transfer should be submitted along with the most recent deed.*
- Certified Survey Map:** A copy of the certified survey map or the relevant section of the recorded plat map for those properties where the legal description in the most recent deed refers to a certified survey map or a recorded plat map. (lots on subdivided or platted property (e.g. lot 2 of xyz subdivision)).  
**Figure #: 1 Title: Certified Survey Map #1 badger Surveying Co., Inc.**
- Signed Statement:** A statement signed by the Responsible Party (RP), which states that he or she believes that the attached legal description accurately describes the correct contaminated property.

**MAPS** (meeting the visual aid requirements of s. NR 716.15(2)(h))

- Maps must be no larger than 11 x 17 inches unless the map is submitted electronically.
- Location Map:** A map outlining all properties within the contaminated site boundaries on a U.S.G.S. topographic map or plat map in sufficient detail to permit easy location of all parcels. If groundwater standards are exceeded, include the location of all potable wells within 1200 feet of the site.  
*Note: Due to security reasons municipal wells are not identified on GIS Packet maps. However, the locations of these municipal wells must be identified on Case Closure Request maps.*  
**Figure #: 1 Title: Site Location Diagram**
  - Detailed Site Map:** A map that shows all relevant features (buildings, roads, individual property boundaries, contaminant sources, utility lines, monitoring wells and potable wells) within the contaminated area. This map is to show the location of all contaminated public streets, and highway and railroad rights-of-way in relation to the source property and in relation to the boundaries of groundwater contamination exceeding a ch. NR 140 Enforcement Standard (ES), and/or in relation to the boundaries of soil contamination exceeding a Residual Contaminant Level (RCL) or a Site Specific Residual Contaminant Levels (SSRCL) as determined under s. NR 720.09, 720.11 and 720.19.  
**Figure #: 4 Title: Site Features**
  - Soil Contamination Contour Map:** For sites closing with residual soil contamination, this map is to show the location of all contaminated soil and a single contour showing the horizontal extent of each area of contiguous residual soil contamination that exceeds a Residual Contaminant Level (RCL) or a Site Specific Residual Contaminant Level (SSRCL) as determined under s. NR 720.09, 720.11 and 720.19.  
**Figure #: Title:**

BRRTS #: 02-41-000465

ACTIVITY NAME: Sigma Aldrich Hope Avenue

**MAPS (continued)**

**Geologic Cross-Section Map:** A map showing the source location and vertical extent of residual soil contamination exceeding a Residual Contaminant Level (RCL) or a Site Specific Residual Contaminant Level (SSRCL). If groundwater contamination exceeds a ch. NR 140 Enforcement Standard (ES) when closure is requested, show the source location and vertical extent, water table and piezometric elevations, and locations and elevations of geologic units, bedrock and confining units, if any.

Figure #: Title:

Figure #: Title:

**Groundwater Isoconcentration Map:** For sites closing with residual groundwater contamination, this map shows the horizontal extent of all groundwater contamination exceeding a ch. NR140 Preventive Action Limit (PAL) and an Enforcement Standard (ES). Indicate the direction and date of groundwater flow, based on the most recent sampling data.

*Note: This is intended to show the total area of contaminated groundwater.*

Figure #: **Figure 3** Title: **Vinyl Chloride Concentrations**

**Groundwater Flow Direction Map:** A map that represents groundwater movement at the site. If the flow direction varies by more than 20° over the history of the site, submit 2 groundwater flow maps showing the maximum variation in flow direction.

Figure #: **Figure 2** Title: **Groundwater Contour Map**

Figure #: Title:

**TABLES (meeting the requirements of s. NR 716.15(2)(h)(3))**

Tables must be no larger than 8.5 x 14 inches unless the table is submitted electronically. Tables must not contain shading and/or cross-hatching. The use of **BOLD** or *ITALICS* is acceptable.

**Soil Analytical Table:** A table showing remaining soil contamination with analytical results and collection dates.

*Note: This is one table of results for the contaminants of concern. Contaminants of concern are those that were found during the site investigation, that remain after remediation. It may be necessary to create a new table to meet this requirement.*

Table #: Title:

**Groundwater Analytical Table:** Table(s) that show the most recent analytical results and collection dates, for all monitoring wells and any potable wells for which samples have been collected.

Table #: **Table 1** Title: **Groundwater Sampling Results Summary**

**Water Level Elevations:** Table(s) that show the previous four (at minimum) water level elevation measurements/dates from all monitoring wells. If present, free product is to be noted on the table.

Table #: **Table 2** Title: **Water Table Elevations**

**IMPROPERLY ABANDONED MONITORING WELLS**

For each monitoring well not properly abandoned according to requirements of s. NR 141.25 include the following documents.

*Note: If the site is being listed on the GIS Registry for only an improperly abandoned monitoring well you will only need to submit the documents in this section for the GIS Registry Packet.*

**Not Applicable**

**Site Location Map:** A map showing all surveyed monitoring wells with specific identification of the monitoring wells which have not been properly abandoned.

*Note: If the applicable monitoring wells are distinctly identified on the Detailed Site Map this Site Location Map is not needed.*

Figure #: Title:

**Well Construction Report:** Form 4440-113A for the applicable monitoring wells.

**Deed:** The most recent deed as well as legal descriptions for each property where a monitoring well was not properly abandoned.

**Notification Letter:** Copy of the notification letter to the affected property owner(s).

BRRTS #: 02-41-000465

ACTIVITY NAME: Sigma Aldrich Hope Avenue

**NOTIFICATIONS**

**Source Property**

- Letter To Current Source Property Owner:** If the source property is owned by someone other than the person who is applying for case closure, include a copy of the letter notifying the current owner of the source property that case closure has been requested.
- Return Receipt/Signature Confirmation:** Written proof of date on which confirmation was received for notifying current source property owner.

**Off-Source Property**

Group the following information per individual property and label each group according to alphabetic listing on the "Impacted Off-Source Property" attachment.

- Letter To "Off-Source" Property Owners:** Copies of all letters sent by the Responsible Party (RP) to owners of properties with groundwater exceeding an Enforcement Standard (ES), and to owners of properties that will be affected by a land use control under s. 292.12, Wis. Stats.  
*Note: Letters sent to off-source properties regarding residual contamination must contain standard provisions in Appendix A of ch. NR 726.*

**Number of "Off-Source" Letters:**

- Return Receipt/Signature Confirmation:** Written proof of date on which confirmation was received for notifying any off-source property owner.
- Deed of "Off-Source" Property:** The most recent deed(s) as well as legal descriptions, for all affected deeded **off-source property(ies)**. This does not apply to right-of-ways.  
*Note: If a property has been purchased with a land contract and the purchaser has not yet received a deed, a copy of the land contract which includes the legal description shall be submitted instead of the most recent deed. If the property has been inherited, written documentation of the property transfer should be submitted along with the most recent deed.*

- Letter To "Governmental Unit/Right-Of-Way" Owners:** Copies of all letters sent by the Responsible Party (RP) to a city, village, municipality, state agency or any other entity responsible for maintenance of a public street, highway, or railroad right-of-way, within or partially within the contaminated area, for contamination exceeding a groundwater Enforcement Standard (ES) and/or soil exceeding a Residual Contaminant Level (RCL) or a Site Specific Residual Contaminant Level (SSRCL).

**Number of "Governmental Unit/Right-Of-Way Owner" Letters: 1**



February 15, 2011

Sigma-Aldrich  
Attn: Hari Kota  
6000 North Teutonia Avenue  
Milwaukee WI 53209

Subject: Final Case Closure with Land Use Limitations or Conditions for the Sigma-Aldrich Facility Located at 2905 West Hope Avenue Milwaukee, WI

FID: 241005930  
BRRTS: 02-41-000465

Dear Mr. Kota:

On September 2, 2010, the Wisconsin Department of Natural Resources ("the Department") reviewed the above referenced case for closure. The Department reviews environmental remediation cases for compliance with state laws and standards to maintain consistency in the closure of these cases. On January 12, 2011, you were notified that the Department had granted conditional closure to this case.

On February 14, 2011, the Department received correspondence indicating that you have complied with the requirements of closure by submitting the groundwater monitoring well abandonment forms as required in the conditional closure letter.

Based on the correspondence and data provided, it appears that your case meets the requirements of ch. NR 726, Wisconsin Administrative Code. The Department considers this case closed and no further investigation or remediation is required at this time.

#### GIS Registry

The conditions of case closure set out below in this letter require that your site be listed on the Remediation and Redevelopment Program's GIS Registry. The specific reasons are summarized below:

- Before the land use could be changed from industrial to non-industrial, additional environmental work must be completed
- Pavement, an engineered cover or a soil barrier must be maintained over the landfill material and the state must approve any changes to this barrier
- Groundwater contamination is present above Chapter NR 140 enforcement standards

Information that was submitted with your closure request application will be included on the GIS Registry. To review the sites on the GIS Registry web page, visit the RR Sites Map page at <http://dnr.wi.gov/org/aw/rr/gis/index.htm>. If your property is listed on the GIS Registry because of remaining contamination and you intend to construct or reconstruct a well, you will need prior Department approval in accordance with s. NR 812.09(4)(w), Wis. Adm. Code. To obtain approval, Form 3300-254 needs to be completed and submitted to the DNR Drinking and Groundwater program's

regional water supply specialist. This form can be obtained on-line <http://dnr.wi.gov/org/water/dwc/3300254.pdf> or at the web address listed above for the GIS Registry.

### Closure Conditions

Please be aware that pursuant to s. 292.12 Wisconsin Statutes, compliance with the requirements of this letter is a responsibility to which the current property owner and any subsequent property owners must adhere. If these requirements are not followed or if additional information regarding site conditions indicates that contamination on or from the site poses a threat to public health, safety, welfare, or the environment, the Department may take enforcement action under s. 292.11 Wisconsin Statutes to ensure compliance with the specified requirements, limitations or other conditions related to the property or this case may be reopened pursuant to s. NR 726.09, Wis. Adm. Code. It is the Department's intent to conduct inspections in the future to ensure that the conditions included in this letter including compliance with referenced maintenance plans are met.

### Cover or Barrier

Pursuant to s. 292.12(2)(a), Wis. Stats., the pavement or other impervious cap that currently exists in the location shown on the attached map shall be maintained in compliance with the **attached maintenance plan** in order to minimize the infiltration of water and prevent additional groundwater contamination that would violate the groundwater quality standards in ch. NR 140, Wis. Adm. Code, and to prevent direct contact with landfill material that might otherwise pose a threat to human health. If landfill material in the specific locations described above is excavated in the future, the property owner at the time of excavation must sample and analyze the excavated material to determine if the landfill material is contaminated. If sampling confirms that contamination is present the property owner at the time of excavation will need to determine whether the material would be considered solid or hazardous waste and ensure that any storage, treatment or disposal is in compliance with applicable statutes and rules. In addition, all current and future owners and occupants of the property need to be aware that excavation of the contaminated material may pose an inhalation or other direct contact hazard and as a result special precautions may need to be taken during excavation activities to prevent a health threat to humans.

The attached maintenance plan and inspection log are to be kept up-to-date and on-site, and the inspection log need only be submitted to the Department upon request.

### Prohibited Activities

The following activities are prohibited on any portion of the property where [pavement, a building foundation, soil cover, engineered cap or other barrier] is required as shown on the attached map, unless prior written approval has been obtained from the Wisconsin Department of Natural Resources: 1) removal of the existing barrier; 2) replacement with another barrier; 3) excavating or grading of the land surface; 4) filling on capped or paved areas; 5) plowing for agricultural cultivation; or 6) construction or placement of a building or other structure.

### Remaining Residual Groundwater Contamination

Groundwater impacted by Vinyl Chloride contamination greater than enforcement standards set forth in ch. NR140, Wis. Adm. Code, is present on the contaminated property. For more detailed information regarding the locations where groundwater samples have been collected (i.e., monitoring well locations) and the associated contaminant concentrations, refer to the Remediation and

Redevelopment Program's GIS Registry at the RR Sites Map page at <http://dnr.wi.gov/org/aw/rr/gis/index.htm>.

Please be aware that the case may be reopened pursuant to s. NR 726.09, Wis. Adm. Code, if additional information regarding site conditions indicates that contamination on or from the site poses a threat to public health, safety, or welfare or to the environment.

The Department appreciates the actions you have taken to investigate and remediate the contamination at this site. If you have any questions or comments, please feel free to contact me at the above address or at (414) 263-8644. Please refer to the FID number at the top of this letter in any future correspondence. Future correspondence should be sent directly to the Remediation and Redevelopment Program Assistant Vicky Stovall (414-263-8688) at the above address.

Sincerely,

A handwritten signature in cursive script that reads "James A. Schmidt".

James A. Schmidt  
Southeast Region Team Supervisor  
Remediation and Redevelopment

C: Steven Martin, RMT  
WDNR SER Files

## Cap Maintenance Plan

Sigma -- Aldrich  
2905 West Hope Avenue  
Milwaukee, Wisconsin

This maintenance plan example template may be used to begin developing an actual plan at straightforward sites that have only certain post-closure features. Sites that are more complex or contain different features should not use this template. Additional guidance on the content of Operation and Maintenance Plans can be found in "Guidance for Cover Systems as Soil Performance Standard Remedies", PUBL-RR-709, at <http://dnr.wi.gov/org/aw/rr/archives/pubs/RR709.pdf>.

This example template can be used to begin developing an actual maintenance plan at a simple site that:

- Is closed with contaminated soil remaining that contains contaminants exceeding NR 720 RCLs and the soil presents a direct contact and/or migration to groundwater pathway threat;
- Uses a soil performance standard cover or barrier to address the direct contact and/or migration to groundwater pathway(s);
- Uses a cover or barrier that is pavement and/or a building(s); and
- Can be closed with natural attenuation addressing the groundwater pathway where contaminated soil remains that can leach contaminants into groundwater. Often a cover or barrier is a necessary part of the overall remedial approach to assure natural attenuation continues successfully after closure, because it provides some level of infiltration reduction that should not be changed. These maintenance plans should be developed to assure that occurs after closure is granted.

In some cases, DNR may request the signature of the property owner, to acknowledge the responsibility for maintenance of a remedy. This is generally limited to the situation where someone other than the responsible party is maintaining a cap or engineered control.

## COVER CAP MAINTENANCE PLAN

November 3, 2010

Property Located at:

Sigma-Aldrich Facility  
2905 West Hope Avenue  
Milwaukee, WI

FID # 541005930

TAX # 2469994100

### Introduction

This document is the Maintenance Plan for a cap at the above-referenced property in accordance with the requirements of s. NR 724.13(2), Wisconsin Administrative Code. The maintenance activities relate to the existing concrete cap occupying the area over the contaminated groundwater plume on-site.

More site-specific information about this property may be found in:

- The case file in the DNR Southeastern regional office
- BRRTS on the Web (DNR's internet based data base of contaminated sites): <http://botw.dnr.state.wi.us/botw/SetUpBasicSearchForm.do>
- GIS Registry PDF file for further information on the nature and extent of contamination: <http://dnrmaps.wisconsin.gov/imf/imfApplyTheme.jsp?index=1>; and
- The DNR project manager for Milwaukee County.

### Description of Contamination

Sigma-Aldrich owns and operates a warehouse and distribution facility at 2905 West Hope Avenue in Milwaukee, Wisconsin. Figure 1 shows the site location. The warehouse building has been constructed over an area of residual groundwater contamination. The slab floor of the building, which consists of approximately 12 inches of reinforced concrete, serves as a cap over the contaminated area. Groundwater monitoring wells located inside the warehouse show the presence of vinyl chloride above the Enforcement Standard (ES), as well as the presence of benzene. The concrete cap was also constructed over two former non-characterized areas where historical releases and disposal occurred. No soil analytical data is available for these former disposal areas. The groundwater elevation and flow direction can be seen on Figure 2. The extent of the groundwater contamination is shown on Figure 3. Figure 4 shows the location of the former disposal areas, as well as the property boundary of the site.

### Description of the Cap to be Maintained

The cap consists of approximately twelve inches of reinforced concrete. It is located within the building footprint and is identified as areas 1 and 2 on the attached Figure 4.

## Cover Barrier Purpose

The cap over the contaminated groundwater plume and former disposal areas serves as a barrier to prevent direct human contact with residual groundwater contamination that might otherwise pose a threat to human health. The concrete cap also acts as a partial infiltration barrier to minimize future soil-to-groundwater contamination migration that would violate the groundwater standards in ch. NR 140, Wisconsin Administrative Code. Based on the current and future use of the property, the barrier should function as intended unless disturbed.

## Annual Inspection

The concrete cap overlying the contaminated groundwater plume and former disposal areas as depicted as Areas 1 and 2 on Figure 4 will be inspected once a year, for deterioration, cracks and other potential problems that can cause infiltration or exposure to underlying soils. The inspections will be performed by the property owner or their designated representative. The inspections will be performed to evaluate damage due to settling, exposure to the weather, wear from traffic, increasing age and other factors. Any area where soils have become or are likely to become exposed will be documented. A log of the inspections and any repairs will be maintained by the property owner and is included as Exhibit B, Cap Inspection Log. The log will include recommendations for necessary repair of any areas where underlying soils are exposed. Once repairs are completed, they will be documented in the inspection log. A copy of the inspection log will be kept at the address of the property owner and available for submittal or inspection by Wisconsin Department of Natural Resources ("WDNR") representatives upon their request.

## Maintenance Activities

If problems are noted during the annual inspections or at any other time during the year, repairs will be scheduled as soon as practical. Repairs can include patching and filling or larger resurfacing or construction operations. In the event that necessary maintenance activities expose the underlying soil, the owner must inform maintenance workers of the direct contact exposure hazard and provide them with appropriate personal protection equipment ("PPE"). The owner must also sample any soil that is excavated from the site prior to disposal to ascertain if contamination remains. The soil must be treated, stored and disposed of by the owner in accordance with applicable local, state and federal law.

In the event the concrete cap overlying the areas 1 and 2 as depicted on Figure 4 is removed or replaced, the replacement barrier must be equally impervious. Any replacement barrier will be subject to the same maintenance and inspection guidelines as outlined in this Maintenance Plan unless indicated otherwise by the WDNR or its successor.

The property owner, in order to maintain the integrity of the concrete cap, will maintain a copy of this Maintenance Plan on-site and make it available to all interested parties (i.e. on-site employees, contractors, future property owners, etc.) for viewing.

## Prohibition of Activities and Notification of DNR Prior to Actions Affecting a Cover or Cap

The following activities are prohibited in areas 1 & 2 as depicted on Figure 4, unless prior written approval has been obtained from the Wisconsin Department of Natural Resources: 1) removal of the existing barrier; 2) replacement with another barrier; 3) excavating or grading of the land surface; 4) filling on capped or paved areas; 5) plowing for agricultural cultivation; or 6) construction or placement of a new building or other new structure.

#### Amendment or Withdrawal of Maintenance Plan

This Maintenance Plan can be amended or withdrawn by the property owner and its successors with the written approval of WDNR.

#### Contact Information

Site Owner and Operator: Hari Kota  
6000 North Teutonia Avenue  
Milwaukee, WI 53209  
(414) 438-3850 x 5324

Signature:



---

Consultant: Steve Martin  
RMT, Inc.  
744 Heartland Trail  
Madison, WI 53717  
(608) 662-5242

WDNR: John Hnat  
Southeast Region Headquarters  
2300 N. Dr. Martin Luther King, Jr. Drive  
Milwaukee, WI 53212-3128  
(414) 263-8644

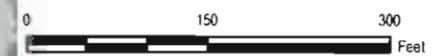


**LEGEND**

-  PROPERTY LIMITS
-  APPROXIMATE FORMER DISPOSAL AREA
-  APPROXIMATE MONITORING WELL LOCATION
- APPROXIMATE UTILITY LOCATIONS
  -  SANITARY OR STORM SEWER
  -  UNDERGROUND CONDUIT
  -  WATER DISTRIBUTION

**NOTES**

1. BASE MAP IMAGERY FROM MILWAUKEE COUNTY, APRIL 2010.



1" = 150'  
1:1,800

PROJECT:		<b>SIGMA ALDRICH</b>	
		2905 WEST HOPE AVENUE	
		MILWAUKEE, WISCONSIN	
SHEET TITLE:			
<b>SITE FEATURES</b>			
DRAWN BY:	PAPEZ J	SCALE:	PROJ. NO. 05229.01.001
CHECKED BY:		AS NOTED	FILE NO. 52290102.mxd
APPROVED BY:		DATE PRINTED:	<b>FIGURE 4</b>
DATE:	DECEMBER 2010		



744 Heartland Trail  
Madison, WI 53717-1934  
Phone: 608-831-4444  
Fax: 608-831-3334





January 12, 2011

Sigma-Aldrich  
Attn: Hari Kota  
6000 North Teutonia Avenue  
Milwaukee, WI 53209

Subject: Conditional Closure Decision with Requirements to Achieve Final Closure Located at the Aldrich Facility 2905 West Hope Avenue Milwaukee, WI

FID: 241005930  
BRRTS: 02-41-000465

Dear Mr. Kota:

On September 2, 2010 the Wisconsin Department of Natural Resources ("the Department") reviewed your request for closure of the case described above. The Department reviews environmental remediation cases for compliance with state rules and statutes to maintain consistency in the closure of these cases. After careful review of the closure request, the Department has determined that the chlorinated solvent groundwater contamination from the onsite landfills (2 locations) appears to have been investigated and remediated to the extent practicable under site conditions. Your case meets the requirements of ch. NR 726, Wis. Adm. Code and will be closed when the following condition is satisfied:

### **Monitoring Well Abandonment**

The groundwater monitoring wells and any other remediation systems at the site must be properly abandoned in compliance with ch. NR 141, Wis. Admin. Code. Documentation of well abandonment must be submitted to this office on Form 3300-5B found at <http://dnr.state.wi.us/org/water/dgw/gw> within 60-days on receipt of this letter as required in s. NR 726.05(8)(a)1 and s. NR 141.25 Wis. Admin. Code. The Department requires the abandonment of these wells before issuing a final closure letter.

When the above conditions have been satisfied, please submit the appropriate documentation, well abandonment forms, to verify that applicable conditions have been met, and your case will be closed. Your site will be listed on the DNR Remediation and Redevelopment GIS Registry. Information that was submitted with your closure request application will be included on the GIS Registry. To review the site on the GIS Registry web page, visit the RR Sites Map page at:

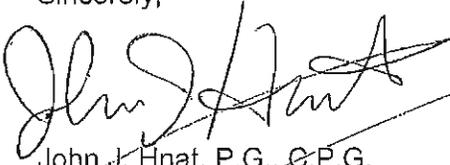
<http://dnr.wi.gov/org/aw/rr/gis/index.htm>.

Please be aware that the case may be reopened pursuant to s. NR 726.09, Wis. Adm. Code, if additional information regarding site conditions indicates that contamination on or from the site poses a threat to public health, safety, or welfare or to the environment.

If you have any questions or comments, please feel free to contact me at the above address or at (414) 263-8644. Please refer to the FID number at the top of this letter in any future correspondence. Future

correspondence should be sent directly to the Remediation and Redevelopment Program Assistant Vicky Stovall (414-263-8688) at the above address.

Sincerely,

A handwritten signature in black ink, appearing to read "John J. Hnat". The signature is stylized with a large initial "J" and a long horizontal stroke extending to the right.

John J. Hnat, P.G., C.P.G.  
Project Manager/Hydrogeologist  
Southeast Region  
Remediation and Redevelopment

C: Steven Martin, RMT  
WDNR SER Files

This Deed, made between Outboard Marine Corporation, a Delaware corporation, 100 Sea-Horse Drive, Kaukegan, Illinois 60085, Grantor and Aldrich Chemical Company, Inc. a Delaware corporation, 940 West St. Paul Avenue, Milwaukee, Wisconsin, Grantee. Witnesseth, That the said Grantor, for a ~~300,000.00~~ \$10.00 and other good and valuable consideration convey to Grantee the following described real estate in Milwaukee County, State of Wisconsin:

RETURN TO Michael J. Kelly, Esq.  
Foley and Lardner, First  
Wisconsin Center, 777 E. WI Ave.  
Milwaukee, Wisconsin 54202

Tax Key No. 1) No. 246-9994-100  
2) No. 245-0479-100  
3) No. 245-0301-100

See Attachment "A"

This is NOT homestead property.  
(is) (is not)  
Together with all and singular the hereditaments and appurtenances thereunto belonging:  
And, Grantor warrants that the title is good, indefeasible in fee simple and free and clear of encumbrances except those items noted in Schedule B-2 of the Chicago Title Insurance Company Title Commitment dated October 4, 1983 and will warrant and defend the same.  
Dated this 18th day of October, 1983.

OUTBOARD MARINE CORPORATION  
(SEAL) By: J. C. Chapman (SEAL)  
Vice President, Manufacturing  
(SEAL) Attest: R. W. Comstock (SEAL)  
Assistant Secretary

AUTHENTICATION  
Signatures authenticated this \_\_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_

TITLE: MEMBER STATE BAR OF WISCONSIN  
(If not authorized by § 706.06, Wis. Stats.)

THIS INSTRUMENT WAS DRAFTED BY  
David A. Domzal  
100 Sea-Horse Drive  
Kaukegan, Illinois 60085

ACKNOWLEDGMENT  
STATE OF ~~WISCONSIN~~  
ILLINOIS  
Lake \_\_\_\_\_ County \_\_\_\_\_

Personally came before me, this 18th day of October, 1983 the above named J. C. Chapman, Vice President, Manufacturing, and R. W. Comstock, Assistant Secretary

to me known to be the persons who executed the foregoing instrument and acknowledged the same.  
Brenda Y. Agnew  
Brenda Y. Agnew, Notary Public  
Notary Public  
My Commission is permanent. (If not, state expiration date May 28, 1985.)

may be authenticated or acknowledged. Both

ATTACHMENT "A"

Parcel 1:

That part of the South East 1/4 of Section 1, Township 7 North, Range 21 East, in the City of Milwaukee, County of Milwaukee, State of Wisconsin, bounded and described as follows: Commencing at the Southeast corner of said 1/4 Section; thence North along the East line of said 1/4 Section 660.00 feet; thence South 88° 53' West parallel to the South line of said 1/4 Section 50.01 feet to a point in the West line of North 27th Street, said point being the point of beginning of the land to be described; thence continuing South 88° 53' West parallel to the South line of said 1/4 Section 708.99 feet; thence South 32° 42' 49" West, 20.46 feet; thence South 88° 53' West parallel to the South line of said 1/4 Section 8.94 feet; thence South parallel to the East line of said 1/4 Section 63.00 feet; thence South 88° 53' West parallel to the South line of said 1/4 Section 690.80 feet to a point in the East line of North 31st Street; thence North 3° 28' 37" West along the East line of said North 31st Street 336.08 feet to a point of curve; thence Northeasterly along the Easterly line of said North 31st Street and along the Southerly line of West Hope Avenue on a curved line (whose center lies to the Northeast, having a radius of 100.00 feet, with a chord of 144.30 feet, bearing North 42° 42' 11" East a distance of 161.20 feet to a point of tangency; thence North 88° 53' East along the South line of said West Hope Avenue 1342.29 feet to a point in the West line of said North 27th Street; thence South along the West line of said North 27th Street being parallel to and 50.00 feet distant from the East line of said 1/4 Section 360.00 feet to the point of beginning.

Parcel 2:

Lots 9 and 10, except the North 6 feet of Lot 10, in Block 6 in Graham & Osborn's Subdivision being a resubdivision of Lots 15 to 21 inclusive in Plat of Resubdivision of Lots 2 to 8 inclusive, in E. C. Freihube's Subdivision together with a strip of land adjoining said Lot 9 on the South, bounded on the North by the South line of said Lot 9 on the East by the West line of the alley running North and South in said Block 6 and in Block 5, in Grass Bros. Subdivision on the South by the North line of Lot 31 in Block 5 in Grass Bros. Subdivision and on the West by the East line of North 27th Street all in the South West 1/4 of Section 6 in Township 7 North, Range 22 East, in the City of Milwaukee, County of Milwaukee, State of Wisconsin.

Also, Lots 24 to 31 inclusive in Block 5 in Grass Bros. Subdivision being a resubdivision of Lots 10 to 17 inclusive in E. C. Freihube's Subdivision in the South West 1/4 of Section 6, Township 7 North, Range 22 East, in the City of Milwaukee, County of Milwaukee, State of Wisconsin.

Parcel 3:

The South 1/2 of Lot 2, in Block 2 in Manitowish, being a part of the South West 1/4 of Section 6, Township 7 North, Range 22 East, in the City of Milwaukee, County of Milwaukee, State of Wisconsin.

Also; the East 110.00 feet of the West 160.00 feet of Lot 6 in Resubdivision of Lots 2, 3, 4, 5, 6, 7 and 8 in E. C. Freihube's Subdivision in the South West 1/4 of Section 6, Township 7 North, Range 22 East, in the City of Milwaukee, County of Milwaukee, State of Wisconsin.

Also; Lots 1, 2, 3 and 4 in Block 1 in H. S. Freihube's Subdivision being a redivision of Lots 7, 8, 9 and 10 and the West 68.06 feet of Lot 11, in Resubdivision of Lots 2 to 8 inclusive in E. C. Freihube's Subdivision of a part of the South West 1/4 of Section 6 and of a part of the North West 1/4 of Section 7, Township 7 North, Range 22 East, in the City of Milwaukee, County of Milwaukee, State of Wisconsin.

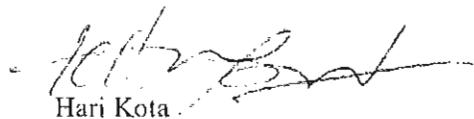




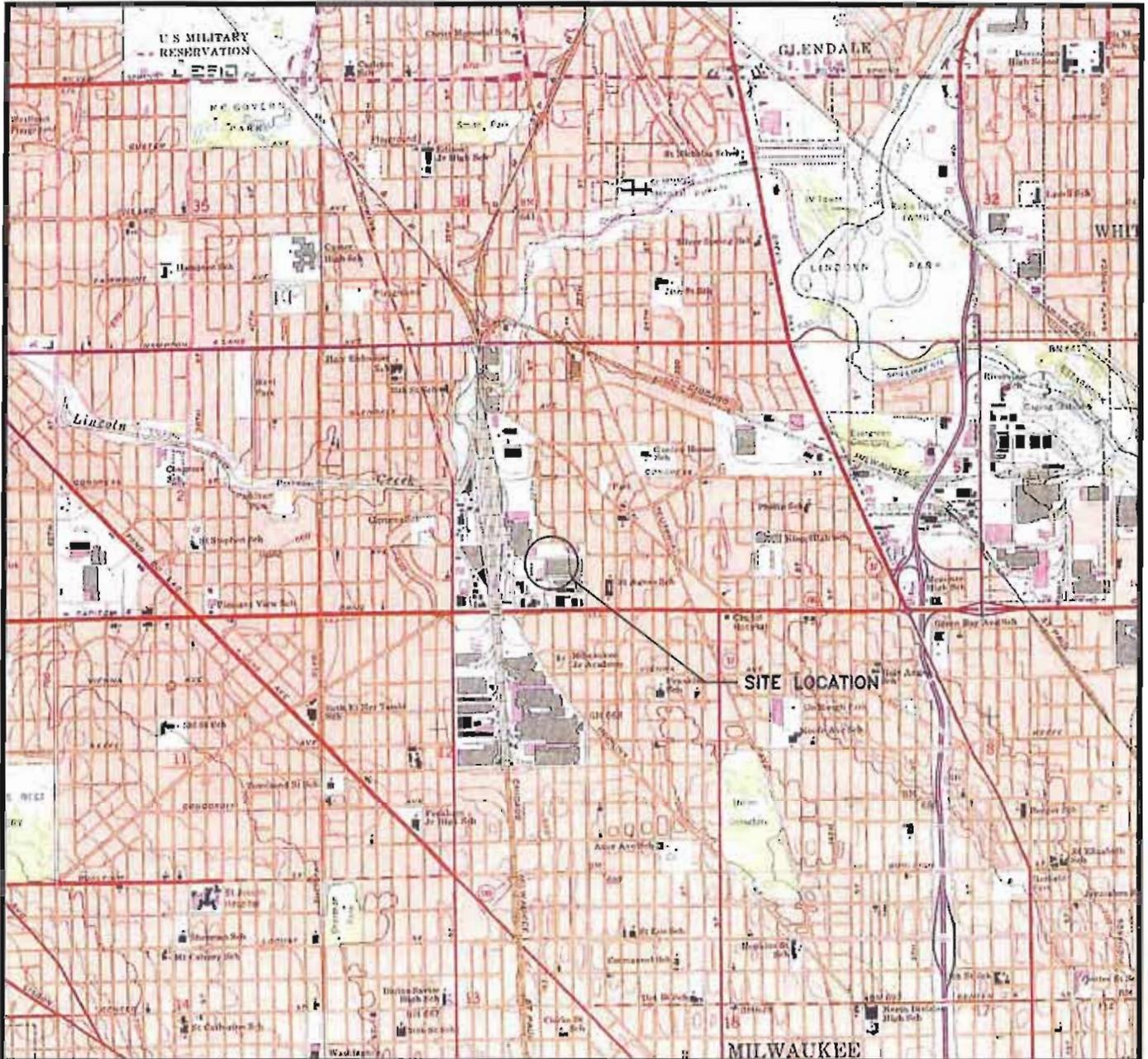
To Whom It May Concern:

The attached legal description of the Sigma-Aldrich property at 2905 W. Hope Ave., Milwaukee, WI 53216, accurately describes the correct contaminated property

Sincerely



Hari Kota  
Supervisor – Environmental, Health and Safety

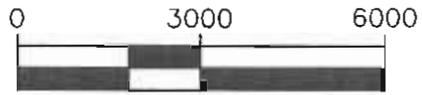


Attached Xref's:  
 Attached Images:  
 Layout:  
 SigmaAldrich Base:  
 Model

Dwg Size: 0.18 Mb  
 Plot Date: October 23,  
 Plot Time: 8:00:00 AM



**STATE LOCATION**



SOURCE: BASE MAP FROM MILWAUKEE  
 7.5 MINUTE USGS QUADRANGLE.

**RMT**  
 150 North Patrick Blvd.  
 Suite 180  
 Brookfield, WI 53045-5854  
 Phone: 262-879-1212 • Fax: 262-879-1220

**SIGMA ALDRICH**  
 2905 WEST HOPE AVENUE  
 MILWAUKEE, WISCONSIN

**SITE LOCATION MAP**

DRAWN BY:	EJP
CHECKED BY:	JH
APPROVED BY:	
PROJECT NUMBER:	J108508101
FILE NUMBER:	85080101.dwg
DATE:	October 2009

PLOT DATA:  
 Drawing Name:  
 Operator Name:  
 Drawing Plot Scale:

FIGURE 1



**LEGEND**

-  PROPERTY LIMITS
-  APPROXIMATE FORMER DISPOSAL AREA
-  APPROXIMATE MONITORING WELL LOCATION
- APPROXIMATE UTILITY LOCATIONS
  -  SANITARY OR STORM SEWER
  -  UNDERGROUND CONDUIT
  -  WATER DISTRIBUTION

**NOTES**

1. BASE MAP IMAGERY FROM MILWAUKEE COUNTY, APRIL 2010.

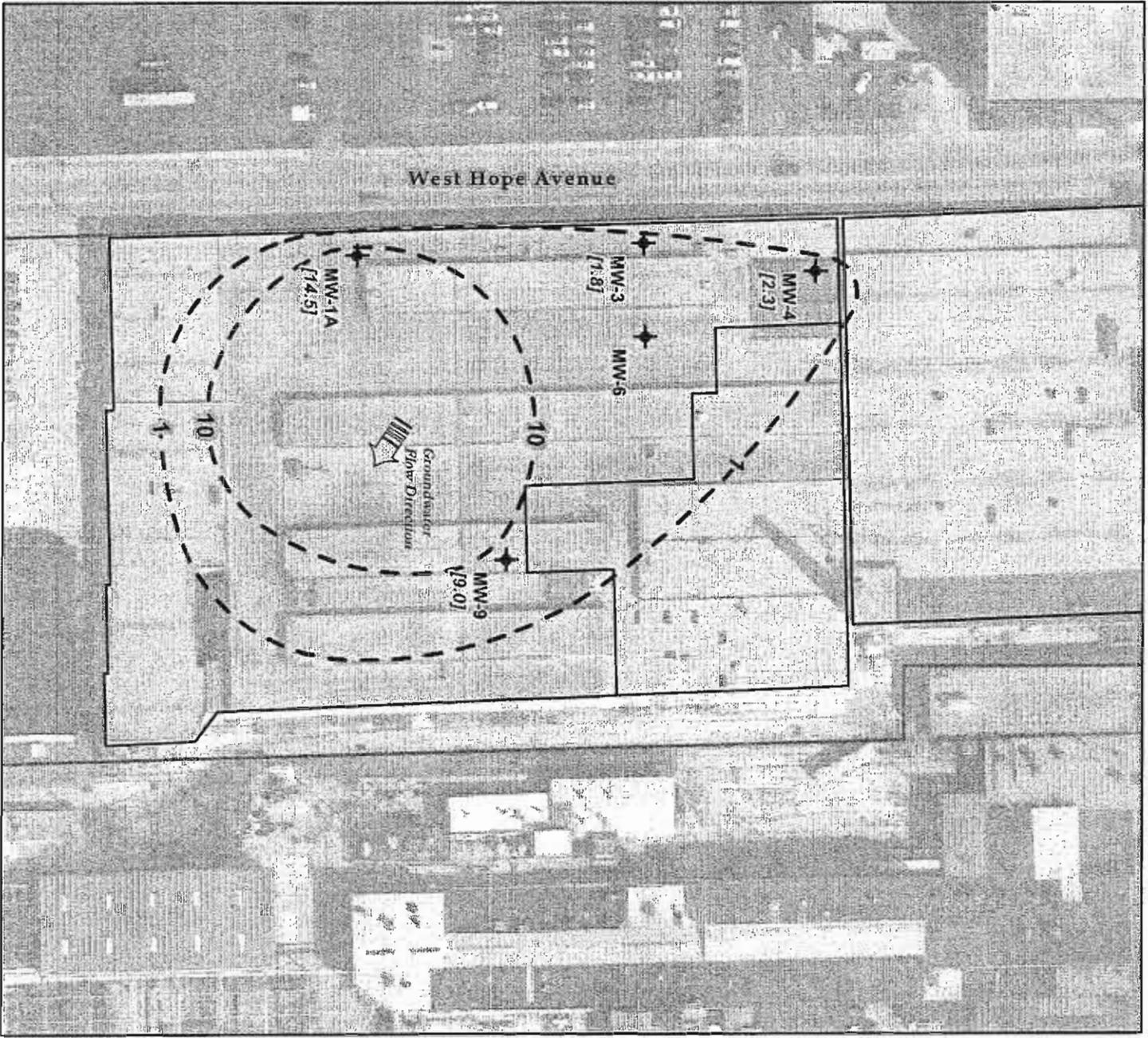


1" = 150'  
1:1,800

PROJECT:		<b>SIGMA ALDRICH</b>	
		2905 WEST HOPE AVENUE	
		MILWAUKEE, WISCONSIN	
SHEET TITLE:			
<b>SITE FEATURES</b>			
DRAWN BY:	PAPEZ J	SCALE:	PROJ. NO. 05229.01.001
CHECKED BY:		AS NOTED	FILE NO. 52290102.mxd
APPROVED BY:		DATE PRINTED:	<b>FIGURE 4</b>
DATE:	DECEMBER 2010		



744 Heartland Trail  
Madison, WI 53717-1934  
Phone: 608-831-4444  
Fax: 608-831-3334



**LEGEND**

◆ APPROXIMATE MONITORING WELL LOCATION

[14.5] VINYL CHLORIDE CONCENTRATION (µg/L), MEASURED ON MAY 10, 2010

- - - VINYL CHLORIDE CONCENTRATION CONTOUR

PROPERTY LIMITS

WORKING COPY

**RMT**

744 Highland Trail  
Madison, WI 53717-1934  
P.O. Box 8923 53708-8923  
Phone: 608-831-4444  
Fax: 608-831-3334

SIGMA-ALDRICH COMPANY  
WEST HOPE AVENUE FACILITY  
MILWAUKEE, WISCONSIN

VINYL CHLORIDE CONCENTRATIONS  
MAY 2010

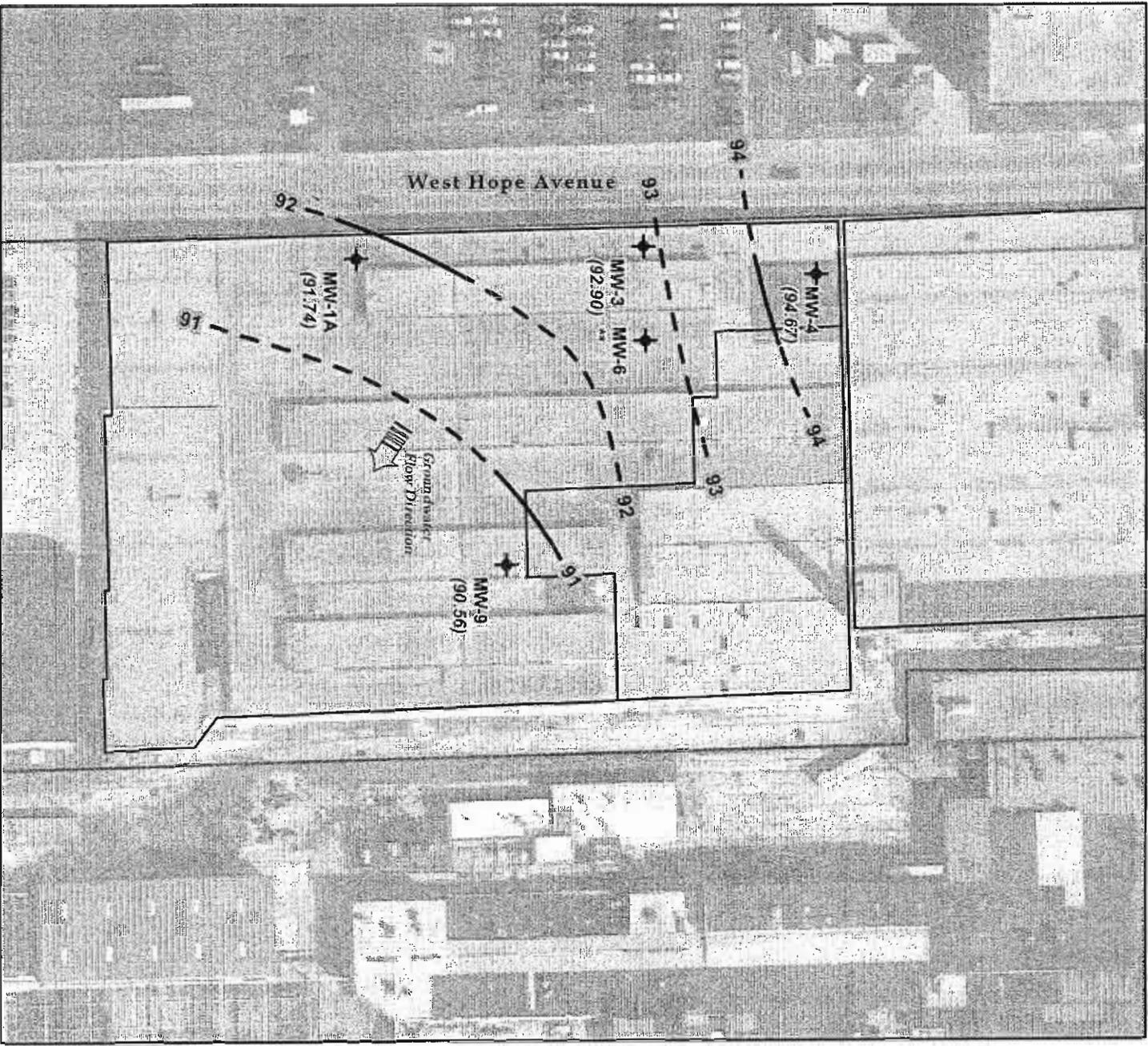
DRAWN BY: PAREZ J

APPROVED BY: 5228.01.001

PROJECT NO: 5229.01.001

FILE NO: 52290103.mxd

DATE: NOVEMBER 2010



**LEGEND**

★ APPROXIMATE MONITORING WELL LOCATION  
 (91.74) WATER TABLE ELEVATION,  
 MEASURED ON MAY 11, 2010 BY RMT

~ WATER TABLE CONTOUR  
 (DASHED WHERE INFERRED)  
 - - - PROPERTY LIMITS

WORKING COPY



744 Highland Trail  
 Madison, WI 53717-1934  
 P.O. Box 8923 53708-8923  
 Phone: 608-831-4444  
 Fax: 608-831-3334

SIGMA-ALDRICH COMPANY  
 WEST HOPE AVENUE FACILITY  
 MILWAUKEE, WISCONSIN  
 GROUNDWATER CONTOUR MAP

DRAWN BY: PAPER J  
 APPROVED BY:  
 PROJECT NO: S22901001  
 FILE NO: S2290101.mxd  
 DATE: NOVEMBER 2010

FIGURE 2

**Table 1**  
**Groundwater Sampling Results Summary**  
**Aldrich - Sigma**  
**Milwaukee, WI**

Well #	Date Sampled	Benzene	cis 1,2 - Dichloroethene	Vinyl Chloride
MW-1A	Oct-88	2.8	NA	42
	Jan-10	3.8	1.3	13.6
	May-10	3.4	1.3	14.5
MW-3	Oct-88	1.6	NA	7.0
	Jan-10	0.75J	<0.83	1.6
	May-10	0.73J	<0.83	1.8
MW-4	Oct-88	<1.0	NA	7.3
	Jan-10	<0.41	<0.83	1.9
	May-10	<0.41	<0.83	2.3
MW-6	Oct-88	<50 (FP)	NA	<25 (FP)
	Jan-10	Not Sampled due to free product		
	May-10	<0.41	<0.83	<0.18
MW-9	Oct-88	1.2	NA	25
	Jan-10	<0.41	1.5	8.3
	May-10	<0.41	1.4	9.0
<b>WDNR ES</b>		<b>5</b>	<b>70</b>	<b>0.2</b>
<b>WDNR PAL</b>		<b>0.5</b>	<b>7</b>	<b>0.02</b>

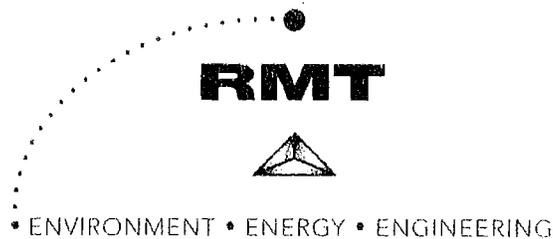
**Notes:**

1. VOCs = Volatile Organic Compounds analyzed using EPA Method 8260
  2. ug/l = micrograms per liter (ppb)
  3. WDNR ES = Wisconsin Administrative Code Chapter NR 140 Enforcement Standard
  4. WDNR PAL = Wisconsin Administrative Code Chapter NR 140 Preventive Action Limit
  5. Only compounds detected in any of the wells for this site are shown
- NA - Not Analyzed  
FP - Free Product identified in well, therefore concentrations may not be representative
- J - result is reported between Method Detection Limit and Limit of Quantitation (LOQ) and are therefore less certain than results detected at or above the LOQ

Table 2  
Water Table Elevations  
11-May-2010  
Aldrich - Sigma  
Milwaukee, WI

Well #	Reference Elevation (feet)	Depth to Water (feet)	Water Table Elevation (feet)
MW-1A	100.05	8.31	91.74
MW-3	100.00	7.10	92.90
MW-4	99.96	5.29	94.67
MW-6	99.98	NS	--
MW-9	100.08	9.52	90.56

NS - Not sampled due to presence of product



December 2, 2010

Mr. Jeff Polenske  
City Engineer  
City of Milwaukee  
841 N. Broadway  
7th Floor  
Milwaukee, WI 53202

Subject: Notification of Potential Groundwater Contamination in the Right-of-Way Near the Sigma-Aldrich Facility at 2905 West Hope Avenue, Milwaukee, Wisconsin

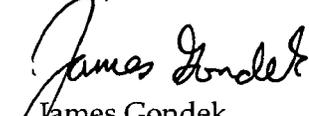
Dear Mr. Polenske:

Sigma-Aldrich owns and operates a facility at 2905 West Hope Avenue in Milwaukee, Wisconsin (see Figure 1 – Site Location). The facility is used as a warehouse and distribution facility. Groundwater monitoring wells located inside the warehouse show the presence of vinyl chloride and benzene. Sigma-Aldrich is seeking closure of the site from the Wisconsin Department of Natural Resources (WDNR) with residual groundwater contamination. Figure 2 is a groundwater contour map showing the water elevation and direction of groundwater flow, which is away from West Hope Avenue. Figure 3 shows the vinyl chloride concentrations from the most recent sampling, which was conducted on May 10, 2010. Although the groundwater flow is away from West Hope Avenue, we are hereby notifying you of the potential for groundwater contamination to exist in the right-of-way along West Hope Avenue.

Please call me, at 608-662-5241, if you have any questions.

Sincerely,

RMT, Inc.

  
James Gondek  
Project Engineer

Attachments: Figure 1 – Site Location map  
Figure 2 – Groundwater Contour Map  
Figure 3 – Vinyl Chloride Concentrations

P:\\_COSTPT\05229\01\001\CITY OF MILWAUKEE NOTIFICATION LETTER.DOCX

Mr. Jeff Polenske  
City of Milwaukee  
December 2, 2010  
Page 2

cc: Dave Misky, City of Milwaukee  
Steven Martin, RMT