



Memorandum

July 28, 2016

To: Grant Trigger, RACER

Ref. No.: 017358

BT

From: Beth Landale/bw/161

Tel: 734-357-5528

cc: Mike Reece, GHD

**Subject: Focused RCRA Facility Investigation of Out-Parcel III
Former Willow Run Powertrain
Ypsilanti, Michigan**

1. Introduction

GHD has prepared this memorandum to summarize a Focused RCRA Facility Investigation (FRFI) conducted for out-parcel (Parcel) III located at the Former Willow Run Powertrain located in Ypsilanti, Michigan (Site). Parcel III is located to the north of the former Powertrain building. The location of Parcel III is depicted on Figure 1. Figure 1 also depicts utilities located on or adjacent to Parcel III.

2. Information Review

As part of the FRFI, GHD reviewed historical aerial photographs for Parcel III, files at the Benson Ford Research Center in Dearborn, Michigan, a figure from the 1980 Hazardous Waste Part A Treatment, Storage, Disposal, Facility (TSDF) Permit for the Site, and analytical data results from soil and groundwater samples collected at Parcel III during 2012 and 2013 as part of a Resource Conservation and Recovery Act (RCRA) Facility Investigation (RFI) for the Site.

2.1 Historical Aerial Photographs

Aerial photographs assist in the identification of out-parcel features and outdoor activities of potential environmental concern. Aerial photographs of the Site for the years 1937, 1940, 1949, 1956, 1961, 1969, 1972, 1978, 1983, 1987, 1997, 1999, 2005, 2006, 2009, 2010, and 2012 were available from Environmental Data Resources (EDR) and were reviewed by GHD. The specific details observed for the out-parcel are dependent on the scale and quality of the aerial photographs reviewed. The aerial photographs were reviewed at a scale of one inch equals approximately 500 feet. Following is a summary of observations based on the review of the aerial photographs.

1937: The 1937 aerial photograph depicts Parcel III as cultivated land with an orchard located on the western portion of the parcel.



- 1940: The 1940 aerial photograph depicts the parcels as essentially unchanged from the 1937 aerial photograph.
- 1949: The 1949 aerial photograph depicts the Parcel III as vacant land with a trail running diagonally across the parcel. The orchard is no longer observed on the parcel.
- 1956: The 1956 aerial photograph is essentially unchanged from the 1949 aerial photograph.
- 1961: The 1961 aerial photograph is essentially unchanged from the 1956 aerial photograph, with the exception that trees and brush are observed at the northeast and northwest corners of the Parcel.
- 1969: The 1969 aerial photograph is essentially unchanged from the 1961 aerial photograph, with the exception that additional trees and brush are observed near the eastern portion of the Parcel.
- 1972: The 1972 aerial photograph is essentially unchanged from the 1969 aerial photograph.
- 1978: The 1978 aerial photograph is essentially unchanged from the 1969 aerial photograph.
- 1983: The 1983 aerial photograph is essentially unchanged from the 1978 aerial photograph.
- 1987: The 1987 aerial photograph is essentially unchanged from the 1983 aerial photograph.
- 1997: Only a portion of Parcel III is depicted in the 1997 aerial photograph. The portion of the Parcel observed on the aerial photograph is vegetated and has trees located on it.
- 1999: The 1999 aerial photograph is essentially unchanged from the 1997 aerial photograph.
- 2005: The 2005 aerial photograph is essentially unchanged from the 1999 aerial photograph.
- 2006: The 2006 aerial photograph is essentially unchanged from the 2005 aerial photograph.
- 2009: The 2009 aerial photograph is essentially unchanged from the 2006 aerial photograph.
- 2010: The 2010 aerial photograph is essentially unchanged from the 2009 aerial photograph.
- 2012: The 2012 aerial photograph is essentially unchanged from the 2010 aerial photograph, with the exception that the trail previously observed is now overgrown with vegetation.

Based on a review of aerial photographs, no hazardous waste management units or development activities were observed on out-parcel III.

Copies of the historical aerial photographs are included as Attachment A.

2.2 Benson Ford Research Center Information

No specific information related to out-parcel III was found during a March 29, 2016 visit to the Benson Ford Research Center in Dearborn, Michigan.



2.3 Hazardous Waste Part A TSDF Permit Figure

A review of a figure included with the 1980 Hazardous Waste Part A TSDF Permit depicts that no hazardous waste management units were located on any of the out-parcels. The hazardous waste units were located in the eastern portion of the Former Willow Run Powertrain building, south of the building at the Waste Treatment Plant (WTP) and adjacent to the WTP. A copy of the figure from the Part A TSDF Permit is included as Attachment B.

2.4 RFI Analytical Data Results

During the initial RFI field activities in 2012, two soil borings (CRA-701M and CRA-703I) were completed and soil samples collected on March 14 and 20, 2012 in Parcel III. A shallow well was installed at CRA-701M and a well nest (shallow and intermediate) was installed at CRA-703 (M and I). Groundwater samples were collected from each groundwater well in April, and August of 2012 and April of 2013. These locations were completed during the RFI as background sampling locations for soil and groundwater as they are on the up-gradient property boundary where no development had taken place.

The soil and groundwater results were compared to Michigan Part 201 generic cleanup criteria developed by the Michigan Department of Environmental Quality (MDEQ) effective December 30, 2013 under the authority of Natural Resources and Environmental Protection Act (1994 PA 451, as amended). Due to the proximity to a property boundary, the results were compared to both residential and non-residential cleanup criteria. Results were also screened against Site-Specific Background soil concentrations, which were calculated and presented in the Site 2013 RCRA Facility Investigation Report. Analytical results that are above Part 201 criteria but below Site specific background soil concentrations are not flagged as exceedances in the table.

No VOCs or SVOCs were detected at concentrations above the screening criteria and PCBs were not detected in any of the soil or groundwater samples. Several metals were detected in groundwater and soil samples.

In soil, no metals were detected above Site specific background and screening criteria.

In groundwater, aluminum, arsenic, iron, lead, manganese and vanadium were detected in at least one sample collected over residential and non-residential drinking water criteria. In addition, arsenic was detected in the intermediate well above groundwater surface water interface criteria. The 2013 RCRA Facility Investigation Report presented regional background concentrations for metals in groundwater. With the exception of one detection of aluminum, metals concentrations from out-parcel III are consistent with regional background groundwater concentrations. These wells are located on the up-gradient property boundary and detections in the groundwater are not related to the operations at the Site.

A table of analytical results for Parcel III and a figure showing sample locations are included as Attachment C.

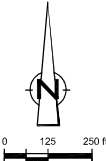


3. Summary

Based on a review of historical aerial photographs and a figure from the 1980 Hazardous Waste Part A Permit for the Former Willow Run Powertrain, Parcel III does not appear to have been associated with any RCRA hazardous waste management units. Parcel III also does not appear to have associated with development activities, with the exception of utilities located on the parcel. Review of the analytical data from the RFI indicates that the soil is not impacted by VOCs, SVOCs, PCBs or metals above screening levels associated with Site activities.



GHD
14496 Sheldon Road, Suite 200
Plymouth, Michigan 48170
T 734 453 5123 F 734 453 5201 W www.ghd.com



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Client
**FORMER POWERTRAIN PLANT
YPSILANTI, MICHIGAN**

Project
**REDEVELOPMENT
SUPPORT**

No.	Issue	Drawn	Approved	Date
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Drawn **DMG** Designer

Drafting Check **MR** Design Check **MR**

Project Manager **B.L.** Date **Apr 18, 2016**

This document shall not be used for construction unless signed and sealed for construction.

Original Size Scale **AS SHOWN**

Arch D Bar is one inch on original size drawing 0 1"

Project No. **017358-T01**

Title

OUT-PARCEL III

Sheet No.

FIGURE 1

DRAFT

Attachment A

Historical Aerial Photos



INQUIRY #: 4514322.1

YEAR: 1937

| = 500'





INQUIRY #: 4514327.1

YEAR: 1937

| = 500'





INQUIRY #: 4514322.1

YEAR: 1940

| = 500'





INQUIRY #: 4514327.1

YEAR: 1940

| = 500'



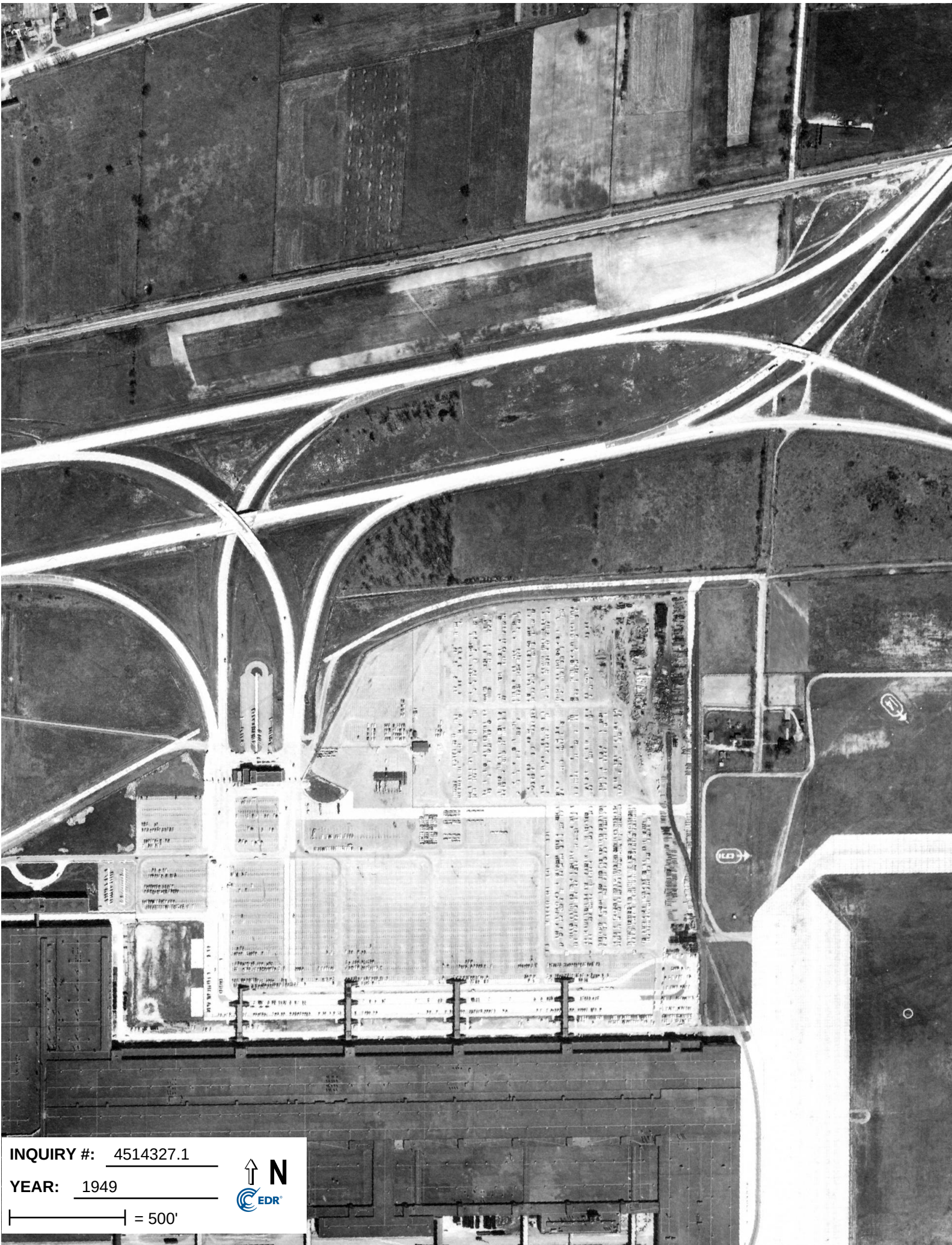


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YEAR: 1949

| = 500'





INQUIRY #: 4514327.1

YEAR: 1949

| = 500'



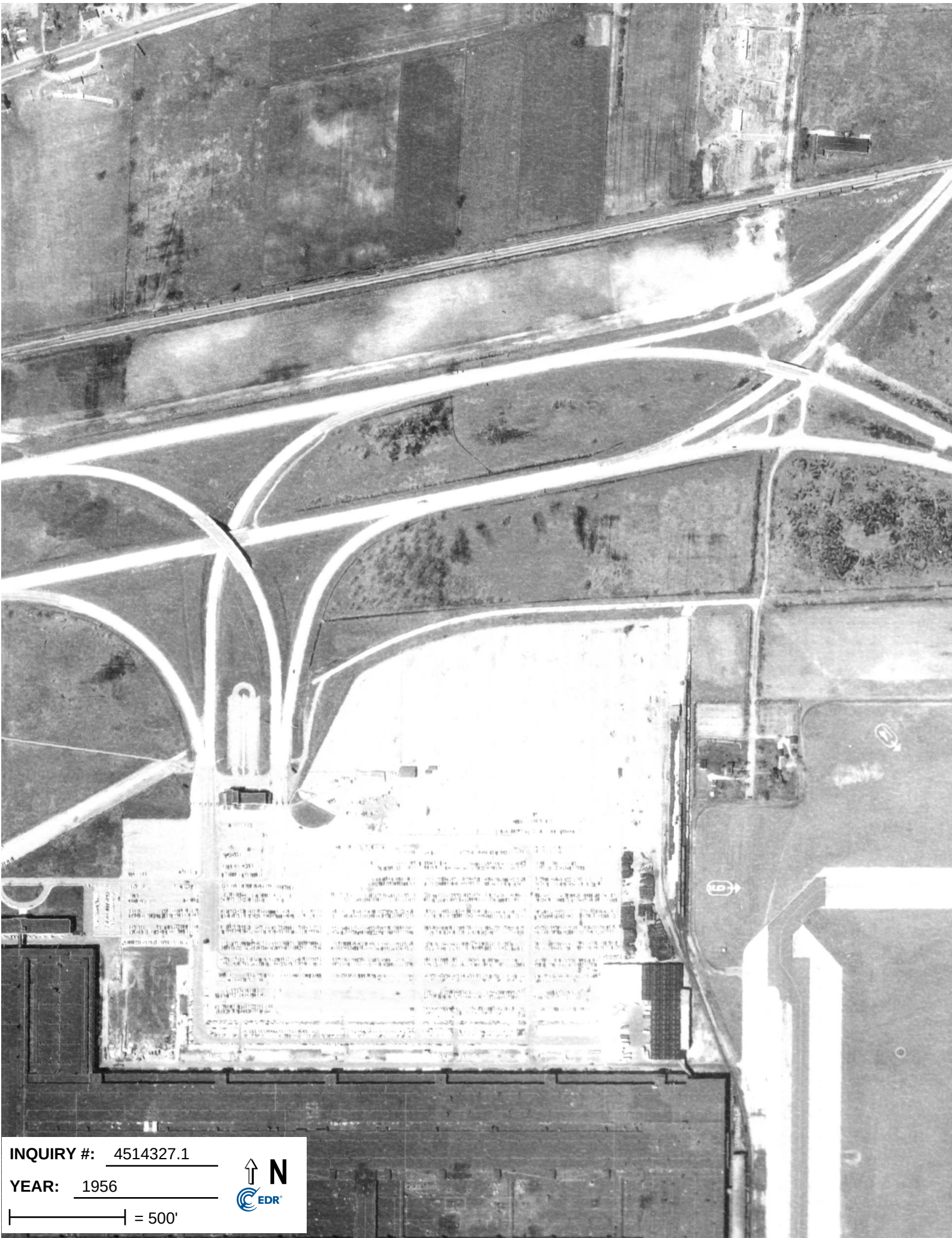


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YEAR: 1956

| = 500'





INQUIRY #: 4514327.1

YEAR: 1956

| = 500'



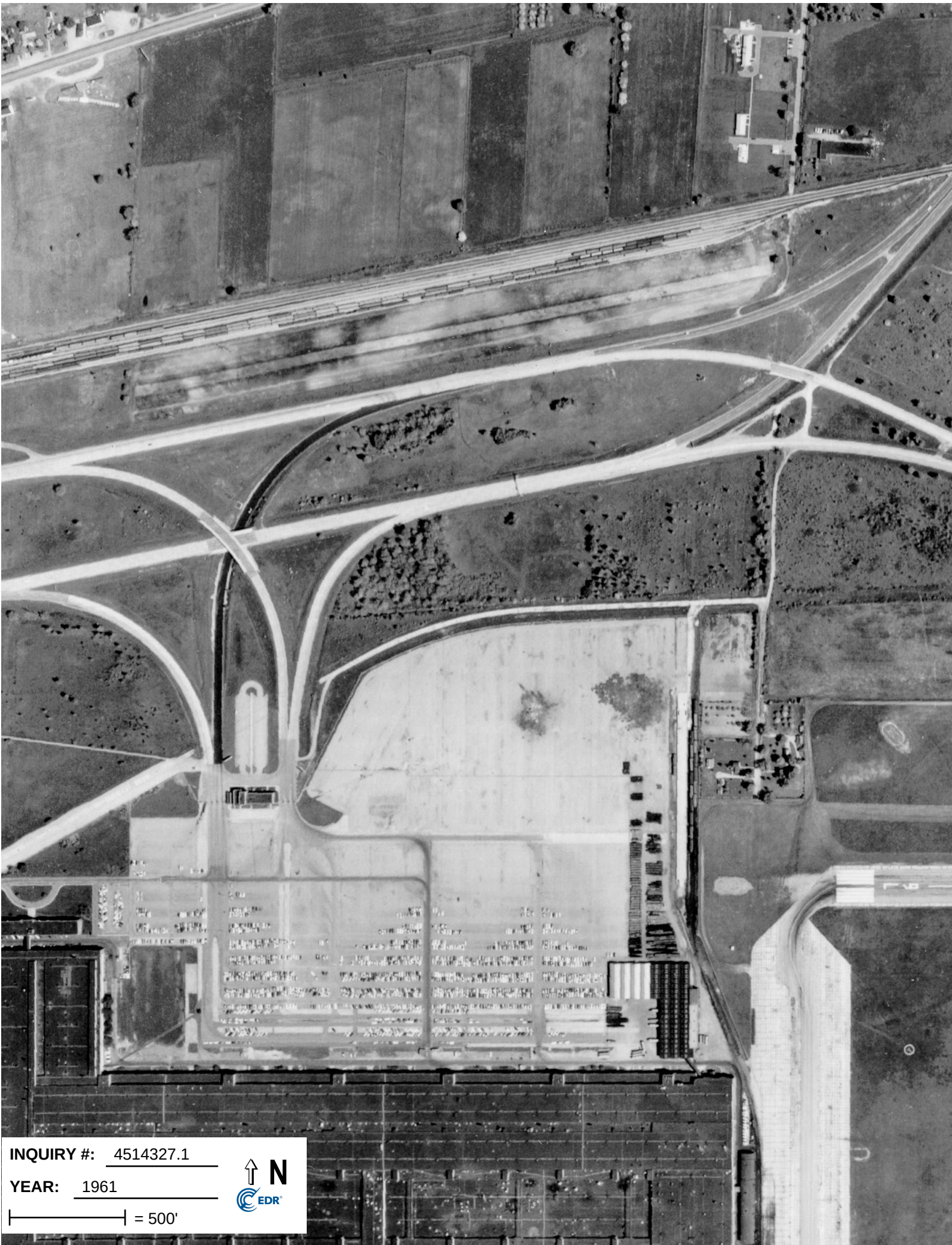


INQUIRY #: 4514322.1

YEAR: 1961

| = 500'





INQUIRY #: 4514327.1

YEAR: 1961

| = 500'





INQUIRY #: 4514322.1

YEAR: 1969

| = 500'





INQUIRY #: 4514327.1

YEAR: 1969

| = 500'





INQUIRY #: 4514322.1

YEAR: 1972

| = 500'





INQUIRY #: 4514327.1

YEAR: 1972

| = 500'



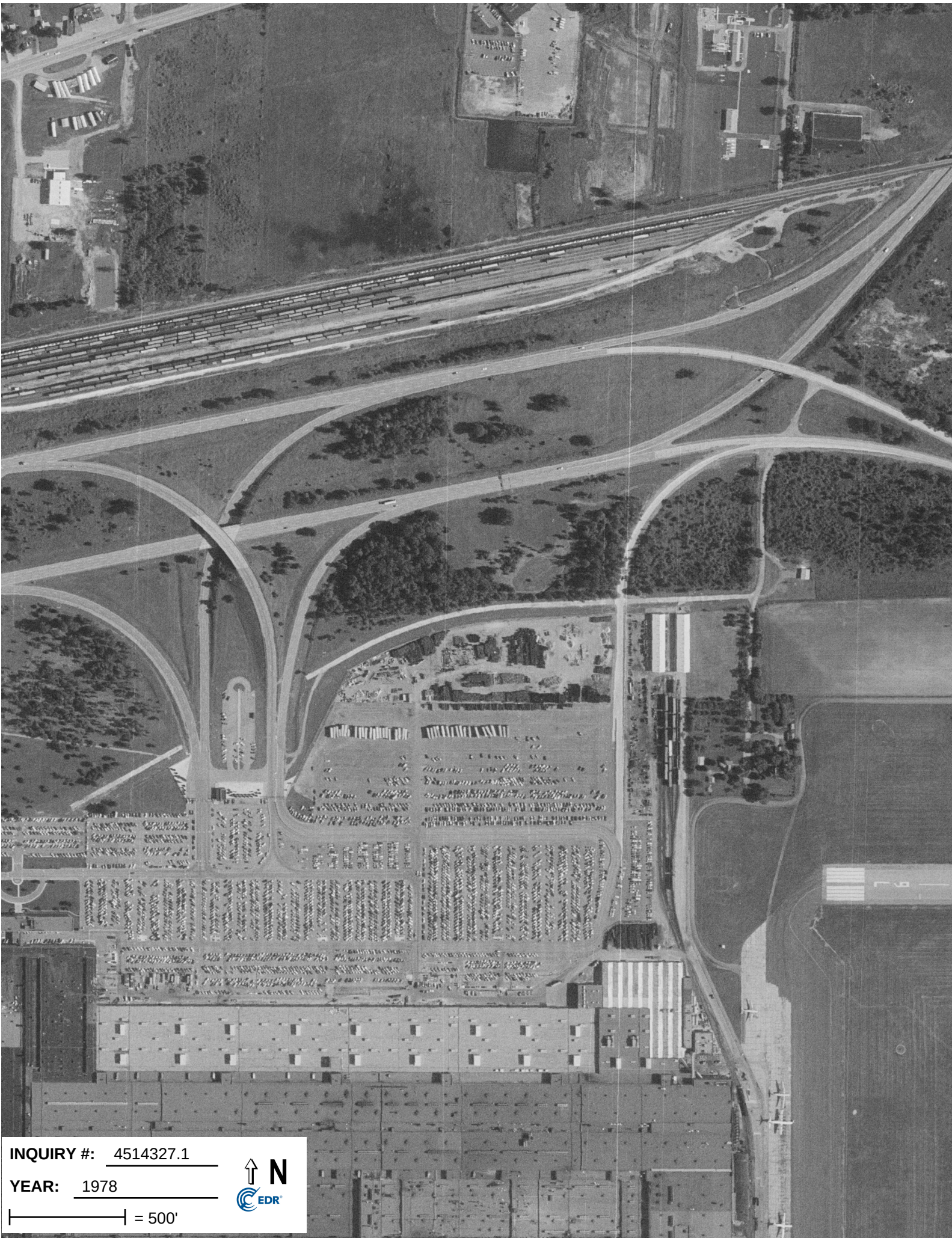


INQUIRY #: 4514322.1

YEAR: 1978

| = 500'





INQUIRY #: 4514327.1

YEAR: 1978

| = 500'





INQUIRY #: 4514322.1

YEAR: 1983

| = 500'





INQUIRY #: 4514327.1

YEAR: 1983

| = 500'





INQUIRY #: 4514322.1

YEAR: 1987

| = 500'





INQUIRY #: 4514327.1

YEAR: 1987

|—————| = 500'



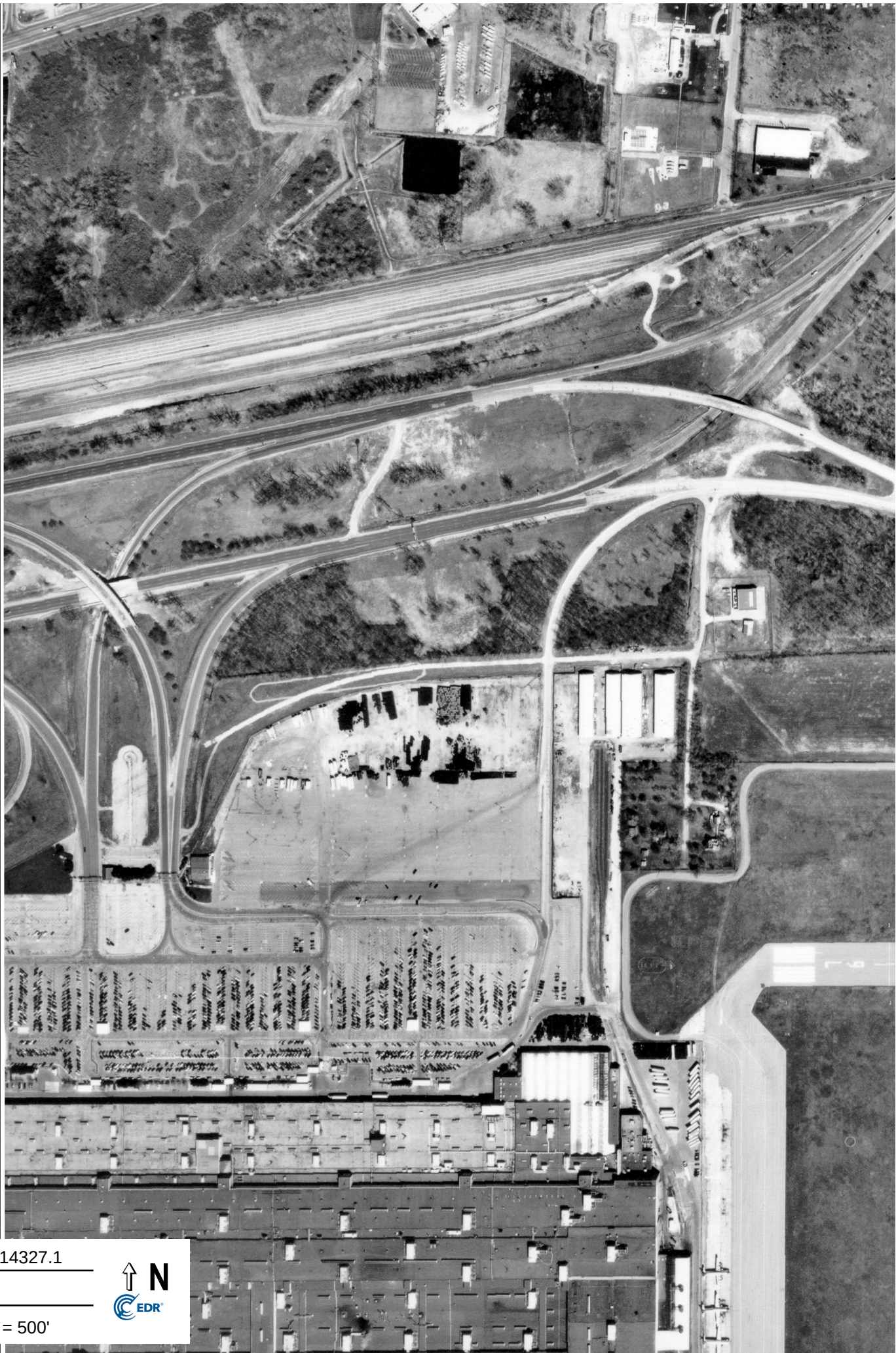


INQUIRY #: 4514322.1

YEAR: 1997

— = 500'





INQUIRY #: 4514327.1

YEAR: 1997

| = 500'





INQUIRY #: 4514322.1

YEAR: 1999

| = 500'





INQUIRY #: 4514327.1

YEAR: 1999

| = 500'





INQUIRY #: 4514322.1

YEAR: 2005

| = 500'





INQUIRY #: 4514327.1

YEAR: 2005

| = 500'





INQUIRY #: 4514322.1

YEAR: 2006

| = 500'





INQUIRY #: 4514327.1

YEAR: 2006

| = 500'





INQUIRY #: 4514322.1

YEAR: 2009

| = 500'



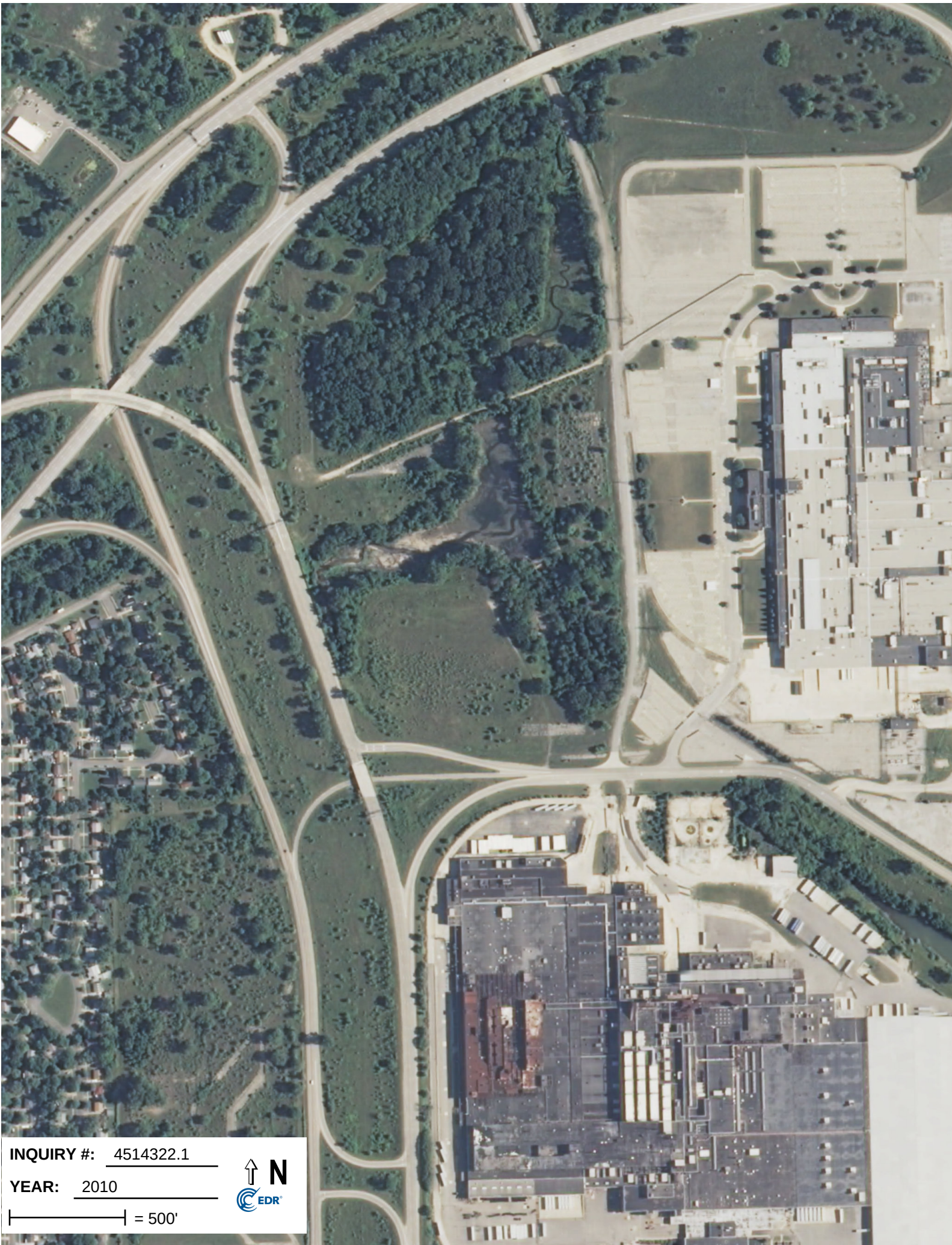


INQUIRY #: 4514327.1

YEAR: 2009

| = 500'





INQUIRY #: 4514322.1

YEAR: 2010

| = 500'





INQUIRY #: 4514327.1

YEAR: 2010

| = 500'





INQUIRY #: 4514322.1

YEAR: 2012

| = 500'





INQUIRY #: 4514327.1

YEAR: 2012

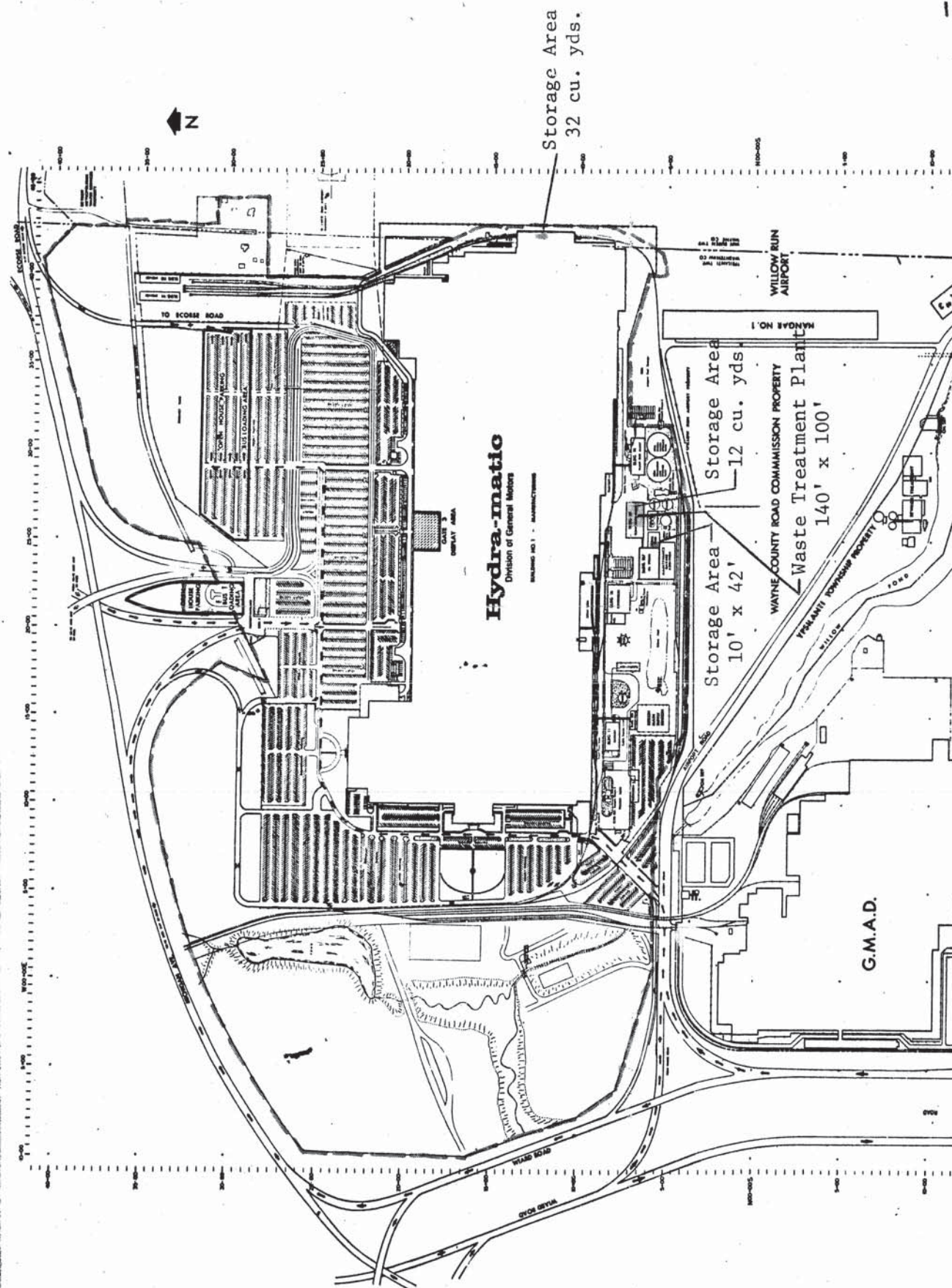
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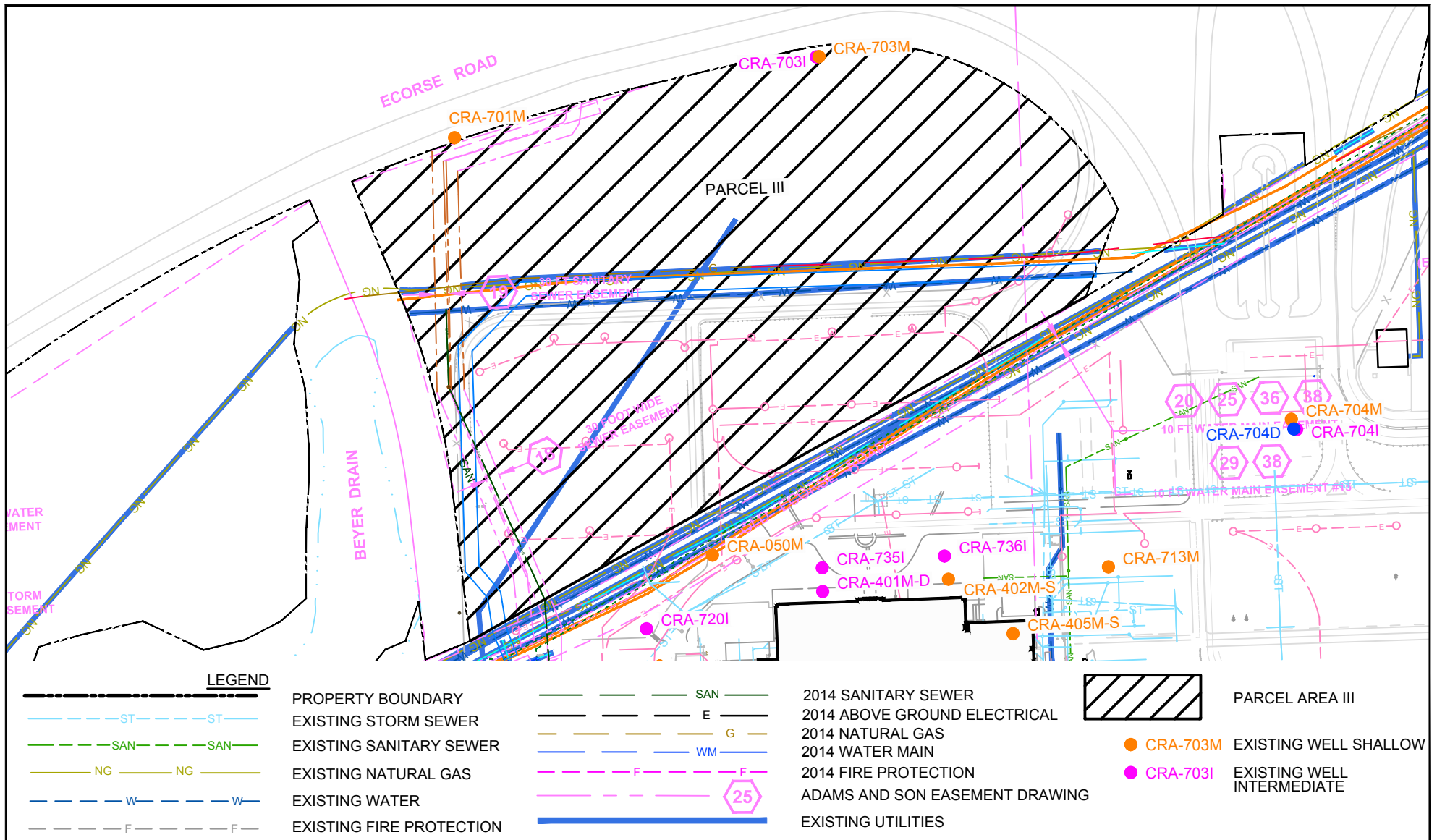
Attachment B

Figure from Part A TSDF Permit

V. FACILITY DRAWING (see page 4)



Attachment C
March 2016 Analytical Data Table and
Sample Location Figure



0 150 300ft



FORMER POWERTRAIN PLANT
YPSILANTI, MICHIGAN
REDEVELOPMENT SUPPORT

OUT-PARCEL III

017358-T01
Apr 18, 2016

FIGURE C-1

Sample Location:	MDEQ Generic Cleanup Criteria: Residential and Nonresidential ⁽¹⁾				CRA-701M	CRA-701M	CRA-701M	CRA-703I	CRA-703I	CRA-703I
Sample Identification:	Site	Drinking	Nonresidential Drinking	Groundwater	SO-17358-032012-CB-213	SO-17358-032012-CB-214	SO-17358-032012-CB-215	SO-17358-031412-DR-068	SO-17358-031412-DR-069	SO-17358-031412-DR-071
Sample Date:	Background	Water	Water	Surface Water	3/20/2012	3/20/2012	3/20/2012	3/14/2012	3/14/2012	3/14/2012
Sample Type:	Levels ⁽²⁾	Protection	Protection	Interface Protection		Duplicate			Duplicate	
Sample Depth:	a	b	c	d	(0-2) ft BGS	(0-2) ft BGS	(7.5-9.5) ft BGS	(0-2) ft BGS	(0-2) ft BGS	(4-6) ft BGS

Units
Volatile Organic Compounds (VOCs)

1,1,1-Trichloroethane	mg/kg	4	4	1.8	0.043 U	0.047 U	0.045 U	0.054 U	0.055 U	0.046 U
1,1,2,2-Tetrachloroethane	mg/kg	0.17	0.7	1.6	0.043 U	0.047 U	0.045 U	0.054 U	0.055 U	0.046 U
1,1,2-Trichloroethane	mg/kg	0.1	0.1	6.6	0.043 U	0.047 U	0.045 U	0.054 U	0.055 U	0.046 U
1,1-Dichloroethane	mg/kg	18	50	15	0.043 U	0.047 U	0.045 U	0.054 U	0.055 U	0.046 U
1,1-Dichloroethene	mg/kg	0.14	0.14	2.6	0.043 U	0.047 U	0.045 U	0.054 U	0.055 U	0.046 U
1,2,4-Trichlorobenzene	mg/kg	4.2	4.2	5.9	0.22 U	0.23 U	0.23 U	0.27 U	0.28 U	0.23 U
1,2-Dibromo-3-chloropropai	mg/kg	0.01	0.01	ID	0.22 U	0.23 U	0.23 U	0.27 U	0.28 U	0.23 U
1,2-Dibromoethane (Ethyl	mg/kg	0.02	0.02	0.11	0.22 U	0.23 U	0.23 U	0.27 U	0.28 U	0.23 U
1,2-Dichlorobenzene	mg/kg	14	14	0.28	0.086 U	0.094 U	0.09 U	0.11 U	0.11 U	0.091 U
1,2-Dichloroethane	mg/kg	0.1	0.1	7.2	0.043 U	0.047 U	0.045 U	0.054 U	0.055 U	0.046 U
1,2-Dichloropropane	mg/kg	0.1	0.1	4.6	0.043 U	0.047 U	0.045 U	0.054 U	0.055 U	0.046 U
1,3-Dichlorobenzene	mg/kg	0.17	0.48	0.68	0.086 U	0.094 U	0.09 U	0.11 U	0.11 U	0.091 U
1,4-Dichlorobenzene	mg/kg	1.7	1.7	0.36	0.086 U	0.094 U	0.09 U	0.11 U	0.11 U	0.091 U
2-Butanone (Methyl ethyl k	mg/kg	260	760	44	0.65 U	0.7 U	0.68 U	0.81 U	0.83 U	0.69 U
2-Hexanone	mg/kg	20	58	ID	2.2 U	2.3 U	2.3 U	2.7 U	2.8 U	2.3 U
4-Methyl-2-pentanone (Met	mg/kg	36	100	ID	2.2 U	2.3 U	2.3 U	2.7 U	2.8 U	2.3 U
Acetone	mg/kg	15	42	34	0.65 U	0.7 U	0.68 U	0.81 U	0.83 U	0.69 U
Benzene	mg/kg	0.1	0.1	4	0.043 U	0.047 U	0.045 U	0.054 U	0.055 U	0.046 U
Bromodichloromethane	mg/kg	1.6	1.6	ID	0.086 U	0.094 U	0.09 U	0.11 U	0.11 U	0.091 U
Bromoform	mg/kg	1.6	1.6	ID	0.086 U	0.094 U	0.09 U	0.11 U	0.11 U	0.091 U
Bromomethane (Methyl bro	mg/kg	0.2	0.58	0.7	0.22 U	0.23 U	0.23 U	0.27 U	0.28 U	0.23 U
Carbon disulfide	mg/kg	16	46	ID	0.22 U	0.23 U	0.23 U	0.27 U	0.28 U	0.23 U
Carbon tetrachloride	mg/kg	0.1	0.1	0.9	0.043 U	0.047 U	0.045 U	0.054 U	0.055 U	0.046 U
Chlorobenzene	mg/kg	2	2	0.5	0.043 U	0.047 U	0.045 U	0.054 U	0.055 U	0.046 U
Chloroethane	mg/kg	8.6	34	22	0.22 U	0.23 U	0.23 U	0.27 U	0.28 U	0.23 U
Chloroform (Trichlorometha	mg/kg	1.6	1.6	7	0.043 U	0.047 U	0.045 U	0.054 U	0.055 U	0.046 U
Chloromethane (Methyl chl	mg/kg	5.2	22	ID	0.22 U	0.23 U	0.23 U	0.27 U	0.28 U	0.23 U
cis-1,2-Dichloroethene	mg/kg	1.4	1.4	12	0.043 U	0.047 U	0.045 U	0.054 U	0.055 U	0.046 U
cis-1,3-Dichloropropene	mg/kg				0.043 U	0.047 U	0.045 U	0.054 U	0.055 U	0.046 U
Cyclohexane	mg/kg				1 U	1.1 U	1.1 U	1.3 U	1.3 U	1.1 U
Dibromochloromethane	mg/kg	1.6	1.6	ID	0.043 U	0.047 U	0.045 U	0.054 U	0.055 U	0.046 U
Dichlorodifluoromethane (C	mg/kg	95	270	ID	0.086 U	0.094 U	0.09 U	0.11 U	0.11 U	0.091 U
Ethylbenzene	mg/kg	1.5	1.5	0.36	0.043 U	0.047 U	0.045 U	0.054 U	0.055 U	0.046 U
Isopropyl benzene	mg/kg	91	260	3.2	0.22 U	0.23 U	0.23 U	0.27 U	0.28 U	0.23 U
Methyl acetate	mg/kg				1 U	1.1 U	1.1 U	1.3 U	1.3 U	1.1 U
Methyl cyclohexane	mg/kg				1 U	1.1 U	1.1 U	1.3 U	1.3 U	1.1 U
Methyl tert butyl ether (MTE	mg/kg	0.8	0.8	140	0.22 U	0.23 U	0.23 U	0.27 U	0.28 U	0.23 U
Methylene chloride	mg/kg	0.1	0.1	30	0.22 U	0.23 U	0.23 U	0.27 U	0.28 U	0.23 U
Styrene	mg/kg	2.7	2.7	2.1	0.043 U	0.047 U	0.045 U	0.054 U	0.055 U	0.046 U
Tetrachloroethene	mg/kg	0.1	0.1	1.2	0.043 U	0.047 U	0.045 U	0.054 U	0.055 U	0.046 U
Toluene	mg/kg	16	16	5.4	0.086 U	0.094 U	0.09 U	0.11 U	0.11 U	0.091 U
trans-1,2-Dichloroethene	mg/kg	2	2	30	0.043 U	0.047 U	0.045 U	0.054 U	0.055 U	0.046 U
trans-1,3-Dichloropropene	mg/kg				0.043 U	0.047 U	0.045 U	0.054 U	0.055 U	0.046 U
Trichloroethene	mg/kg	0.1	0.1	4	0.043 U	0.047 U	0.045 U	0.054 U	0.055 U	0.046 U
Trichlorofluoromethane (CF	mg/kg	52	150		0.086 U	0.094 U	0.09 U	0.11 U	0.11 U	0.091 U
Trifluorotrichloroethane (CF	mg/kg	9000	9000	1.7	0.22 U	0.23 U	0.23 U	0.27 U	0.28 U	0.23 U
Vinyl chloride	mg/kg	0.04	0.04	0.26	0.034 U	0.038 U	0.036 U	0.043 U	0.044 U	0.037 U
Xylenes (total)	mg/kg	5.6	5.6	0.82	0.13 U	0.14 U	0.14 U	0.16 U	0.17 U	0.14 U

Semi-Volatile Organic Compounds (SVOCs)

2,2'-Oxybis(1-chloropropan	mg/kg				0.29 U	0.29 U	0.3 U	0.31 U	0.29 U	0.3 U
2,4,5-Trichlorophenol	mg/kg	39	110		0.29 U	0.29 U	0.3 U	0.31 U	0.29 U	0.3 U
2,4,6-Trichlorophenol	mg/kg	2.4	9.4	0.33	0.29 U	0.29 U	0.3 U	0.31 U	0.29 U	0.3 U
2,4-Dichlorophenol	mg/kg	1.5	4.2	0.33	0.29 U	0.29 U	0.3 U	0.31 U	0.29 U	0.3 U
2,4-Dimethylphenol	mg/kg	7.4	20	7.6	0.29 U	0.29 U	0.3 U	0.31 U	0.29 U	0.3 U
2,4-Dinitrophenol	mg/kg				0.16 U	0.16 U	0.17 U	0.18 U	0.16 U	0.17 U
2,4-Dinitrotoluene	mg/kg	0.43	0.64		0.29 U	0.29 U	0.3 U	0.31 U	0.29 U	0.3 U
2,6-Dinitrotoluene	mg/kg				0.29 U	0.29 U	0.3 U	0.31 U	0.29 U	0.3 U
2-Chloronaphthalene	mg/kg	620	1800		0.29 U	0.29 U	0.3 U	0.31 U	0.29 U	0.3 U
2-Chlorophenol	mg/kg	0.9	2.6	0.36	0.29 U	0.29 U	0.3 U	0.31 U	0.29 U	0.3 U
2-Methylnaphthalene	mg/kg	57	170	4.2	0.29 U	0.29 U	0.3 U	0.31 U	0.29 U	0.3 U
2-Methylphenol	mg/kg	7.4	20	1	0.29 U	0.29 U	0.3 U	0.31 U	0.29 U	0.3 U
2-Nitroaniline	mg/kg				0.22 U	0.22 U	0.22 U	0.23 U	0.22 U	0.23 U
2-Nitrophenol	mg/kg	0.4	1.2	ID	0.29 U	0.29 U	0.3 U	0.31 U	0.29 U	0.3 U
3&4-Methylphenol	mg/kg	7.4	20	1	0.29 U	0.29 U	0.3 U	0.31 U	0.29 U	0.3 U
3,3'-Dichlorobenzidine	mg/kg	2	2	2	1.7 U	1.7 U	1.8 U	1.9 U	1.7 U	1.8 U
3-Nitroaniline	mg/kg				0.22 U	0.22 U	0.22 U	0.23 U	0.22 U	0.23 U
4,6-Dinitro-2-methylphenol	mg/kg	0.83	0.83		0.16 U	0.16 U	0.17 U	0.18 U	0.16 U	0.17 U
4-Bromophenyl phenyl ethe	mg/kg				0.29 U	0.29 U	0.3 U	0.31 U	0.29 U	0.3 U
4-Chloro-3-methylphenol	mg/kg	5.8	16	0.28	0.29 U	0.29 U	0.3 U	0.31 U	0.29 U	0.3 U
4-Chloroaniline	mg/kg				0.22 U	0.22 U	0.22 U	0.23 U	0.22 U	0.23 U
4-Chlorophenyl phenyl ethe	mg/kg				0.29 U	0.29 U	0.3 U	0.31 U	0.29 U	0.3 U

Sample Location:		MDEQ Generic Cleanup Criteria: Residential and Nonresidential ⁽¹⁾				CRA-701M	CRA-701M	CRA-701M	CRA-703I	CRA-703I	CRA-703I
Sample Identification:		Site	Drinking	Nonresidential Drinking	Groundwater	SO-17358-032012-CB-213	SO-17358-032012-CB-214	SO-17358-032012-CB-215	SO-17358-031412-DR-068	SO-17358-031412-DR-069	SO-17358-031412-DR-071
Sample Date:		Background	Water	Water	Surface Water	3/20/2012	3/20/2012	3/20/2012	3/14/2012	3/14/2012	3/14/2012
Sample Type:		Levels ⁽²⁾	Protection	Protection	Interface Protection		Duplicate			Duplicate	
Sample Depth:		a	b	c	d	(0-2) ft BGS	(0-2) ft BGS	(7.5-9.5) ft BGS	(0-2) ft BGS	(0-2) ft BGS	(4-6) ft BGS
		Units									
4-Nitroaniline	mg/kg					0.22 U	0.22 U	0.22 U	0.23 U	0.22 U	0.23 U
4-Nitrophenol	mg/kg					0.36 U	0.36 U	0.37 U	0.39 U	0.36 U	0.38 U
Acenaphthene	mg/kg		300	880	8.7	0.29 U	0.29 U	0.3 U	0.31 U	0.29 U	0.3 U
Acenaphthylene	mg/kg		5.9	17	ID	0.29 U	0.29 U	0.3 U	0.31 U	0.29 U	0.3 U
Acetophenone	mg/kg		30	88	ID	0.29 U	0.29 U	0.3 U	0.31 U	0.29 U	0.3 U
Anthracene	mg/kg		41	41	ID	0.29 U	0.29 U	0.3 U	0.31 U	0.29 U	0.3 U
Atrazine	mg/kg		0.06	0.06	0.15	0.044 U	0.044 U	0.045 U	0.047 U	0.044 U	0.046 U
Benzaldehyde	mg/kg					0.29 U	0.29 U	0.3 U	0.31 U	0.29 U	0.3 U
Benzo(a)anthracene	mg/kg		NLL	NLL	NLL	0.29 U	0.29 U	0.3 U	0.31 U	0.29 U	0.3 U
Benzo(a)pyrene	mg/kg		NLL	NLL	NLL	0.29 U	0.29 U	0.3 U	0.31 U	0.29 U	0.3 U
Benzo(b)fluoranthene	mg/kg		NLL	NLL	NLL	0.29 U	0.29 U	0.3 U	0.31 U	0.29 U	0.3 U
Benzo(g,h,i)perylene	mg/kg		NLL	NLL	NLL	0.29 U	0.29 U	0.3 U	0.31 U	0.29 U	0.3 U
Benzo(k)fluoranthene	mg/kg		NLL	NLL	NLL	0.29 U	0.29 U	0.3 U	0.31 U	0.29 U	0.3 U
Biphenyl (1,1-Biphenyl)	mg/kg					0.29 U	0.29 U	0.3 U	0.31 U	0.29 U	0.3 U
bis(2-Chloroethoxy)methan	mg/kg					0.29 U	0.29 U	0.3 U	0.31 U	0.29 U	0.3 U
bis(2-Chloroethyl)ether	mg/kg		0.10	0.17	0.1	0.087 U	0.087 U	0.09 U	0.094 U	0.087 U	0.091 U
bis(2-Ethylhexyl)phthalate (	mg/kg		NLL	NLL	NLL	0.021 J	0.29 U	0.028 J	0.31 U	0.29 U	0.3 U
Butyl benzylphthalate (BBP	mg/kg		2200	5600	120	0.29 U	0.29 U	0.3 U	0.31 U	0.29 U	0.3 U
Caprolactam	mg/kg		120	340		0.29 U	0.29 U	0.051 J	0.31 U	0.29 U	0.3 U
Carbazole	mg/kg		9.4	39	1.1	0.29 U	0.29 U	0.3 U	0.31 U	0.29 U	0.3 U
Chrysene	mg/kg		NLL	NLL	NLL	0.29 U	0.29 U	0.3 U	0.31 U	0.29 U	0.3 U
Dibenz(a,h)anthracene	mg/kg		NLL	NLL	NLL	0.29 U	0.29 U	0.3 U	0.31 U	0.29 U	0.3 U
Dibenzofuran	mg/kg		ID	ID	1.7	0.29 U	0.29 U	0.3 U	0.31 U	0.29 U	0.3 U
Diethyl phthalate	mg/kg		110	320	2.2	0.29 U	0.29 U	0.3 U	0.31 U	0.29 U	0.3 U
Dimethyl phthalate	mg/kg		1500	4200		0.29 U	0.29 U	0.3 U	0.31 U	0.29 U	0.3 U
Di-n-butylphthalate (DBP)	mg/kg		960	2700	11	0.29 U	0.29 U	0.3 U	0.31 U	0.29 U	0.3 U
Di-n-octyl phthalate (DnOP)	mg/kg		100000	290000	ID	0.29 U	0.29 U	0.3 U	0.31 U	0.29 U	0.3 U
Fluoranthene	mg/kg		730	730	5.5	0.0041 J	0.29 U	0.3 U	0.31 U	0.29 U	0.3 U
Fluorene	mg/kg		390	890	5.3	0.29 U	0.29 U	0.3 U	0.31 U	0.29 U	0.3 U
Hexachlorobenzene	mg/kg		1.8	1.8	0.35	0.29 U	0.29 U	0.3 U	0.31 U	0.29 U	0.3 U
Hexachlorobutadiene	mg/kg		26	72	0.091	0.044 U	0.044 U	0.044 U	0.047 U	0.044 U	0.046 U
Hexachlorocyclopentadiene	mg/kg		320	320	ID	0.29 U	0.29 U	0.3 U	0.31 U	0.29 U	0.3 U
Hexachloroethane	mg/kg		0.43	1.2	1.8	0.29 U	0.29 U	0.3 U	0.31 U	0.29 U	0.3 U
Indeno(1,2,3-cd)pyrene	mg/kg		NLL	NLL	NLL	0.29 U	0.29 U	0.3 U	0.31 U	0.29 U	0.3 U
Isophorone	mg/kg		15	62	26	0.29 U	0.29 U	0.3 U	0.31 U	0.29 U	0.3 U
Naphthalene	mg/kg		35	100	0.73	0.29 U	0.29 U	0.3 U	0.31 U	0.29 U	0.3 U
Nitrobenzene	mg/kg		0.33	0.33	3.6	0.29 U	0.29 U	0.3 U	0.31 U	0.29 U	0.3 U
N-Nitrosodi-n-propylamine	mg/kg		0.33	0.33		0.29 U	0.29 U	0.3 U	0.31 U	0.29 U	0.3 U
N-Nitrosodiphenylamine	mg/kg		5.4	22		0.29 U	0.29 U	0.3 U	0.31 U	0.29 U	0.3 U
Pentachlorophenol	mg/kg		0.022	0.022	27	0.16 U	0.16 U	0.17 U	0.18 U	0.16 U	0.17 U
Phenanthrene	mg/kg		56	160	2.1	0.29 U	0.29 U	0.3 U	0.31 U	0.29 U	0.3 U
Phenol	mg/kg		88	260	9	0.29 U	0.29 U	0.3 U	0.31 U	0.29 U	0.3 U
Pyrene	mg/kg		480	480	ID	0.29 U	0.29 U	0.3 U	0.31 U	0.29 U	0.3 U
Metals											
Aluminum	mg/kg	5788	1	1		2900	3200	2100	4200	4800	2500
Antimony	mg/kg	0.024	4.3	4.3	94	0.042 J	0.045 J	0.066 J	0.045 J	0.045 J	0.035 J
Arsenic	mg/kg	7.26	4.6	4.6	4.6	2.2	1.8	5.2	3.8	2.9	2.7
Barium	mg/kg	25.6	1300	1300	1200	8.7	10	5.4	17	22	11
Beryllium	mg/kg	0.196	51	51	950	0.15 U	0.16 U	0.18 U	0.058 J	0.068 J	0.052 J
Cadmium	mg/kg	0.098	6	6	7.30	0.077	0.093	0.098	0.087 U	0.081 U	0.088 U
Calcium	mg/kg					--	--	--	630	570	790
Chromium	mg/kg	11.9	1000000	1000000	6600000	4.7	5.3	5.2	8.4	7.3	7.3
Chromium III (trivalent)	mg/kg	18	1000000	1000000	6600000	4.3	4.9	4.9	--	--	--
Chromium VI (hexavalent)	mg/kg		30	30	3.3	0.36 J	0.42 J	0.37 J	--	--	--
Cobalt	mg/kg	4.38	0.8	2	2	3.1	2.5	3.7	3.6	2.2	2.2
Copper	mg/kg	13.0	5800	5800	170	3.3	3.8	5.2	8.4	5.5	5.3
Iron	mg/kg	13484	6	6		5000	5600	8600	9000	8500	5800
Lead	mg/kg	7.14	700	700	11000	3.4	4.2	3.2	5	4.5	3.5
Magnesium	mg/kg		8000	22000		--	--	--	1200	1200	760
Manganese	mg/kg	348	1	1	130	78	110	160	230	260	140
Mercury	mg/kg	0.05	1.7	1.7	0.05	0.042 U	0.025 J	0.042 J	0.05 U	0.04 U	0.021 J
Nickel	mg/kg	11.90	100	100	170	4.8	5.4	6.3	8.9	8.3	6.3
Potassium	mg/kg					--	--	--	310 J	280 J	320 J
Selenium	mg/kg	0.83	4	4	0.4	0.14 J	0.16 J	0.15 J	0.38 J	0.26 J	0.42 J
Silver	mg/kg	0.09	4.5	13	0.1	0.077 U	0.081 U	0.088 U	0.087 U	0.081 U	0.088 U
Sodium	mg/kg		4600	7000		--	--	--	87 U	81 U	88 U
Thallium	mg/kg	0.12	2.3	2.3	4.2	0.077 U	0.081 U	0.088 U	0.088 U	0.087 U	0.088 U
Vanadium	mg/kg	16.7	72	990	430	7.6	8.4	12	11	8.4	8.4
Zinc	mg/kg	32	2400	5000	380	10	12	18	18	19	12
PCBs											
Aroclor-1016 (PCB-1016)	mg/kg		NLL	NLL	NLL	0.036 U	0.036 U	0.037 U	0.038 U	0.036 U	0.038 U

Sample Location:	MDEQ Generic Cleanup Criteria: Residential and Nonresidential ⁽¹⁾				CRA-701M	CRA-701M	CRA-701M	CRA-703I	CRA-703I	CRA-703I
Sample Identification:	Site	Drinking	Nonresidential Drinking	Groundwater	SO-17358-032012-CB-213	SO-17358-032012-CB-214	SO-17358-032012-CB-215	SO-17358-031412-DR-068	SO-17358-031412-DR-069	SO-17358-031412-DR-071
Sample Date:	Background	Water	Water	Surface Water	3/20/2012	3/20/2012	3/20/2012	3/14/2012	3/14/2012	3/14/2012
Sample Type:	Levels ⁽²⁾	Protection	Protection	Interface Protection		Duplicate			Duplicate	
Sample Depth:	a	b	c	d	(0-2) ft BGS	(0-2) ft BGS	(7.5-9.5) ft BGS	(0-2) ft BGS	(0-2) ft BGS	(4-6) ft BGS
Units										
Aroclor-1221 (PCB-1221)	mg/kg	NLL	NLL	NLL	0.036 U	0.036 U	0.037 U	0.038 U	0.036 U	0.038 U
Aroclor-1232 (PCB-1232)	mg/kg	NLL	NLL	NLL	0.036 U	0.036 U	0.037 U	0.038 U	0.036 U	0.038 U
Aroclor-1242 (PCB-1242)	mg/kg	NLL	NLL	NLL	0.036 U	0.036 U	0.037 U	0.038 U	0.036 U	0.038 U
Aroclor-1248 (PCB-1248)	mg/kg	NLL	NLL	NLL	0.036 U	0.036 U	0.037 U	0.038 U	0.036 U	0.038 U
Aroclor-1254 (PCB-1254)	mg/kg	NLL	NLL	NLL	0.036 U	0.036 U	0.037 U	0.038 U	0.036 U	0.038 U
Aroclor-1260 (PCB-1260)	mg/kg	NLL	NLL	NLL	0.036 U	0.036 U	0.037 U	0.038 U	0.036 U	0.038 U
Total PCBs	mg/kg	NLL	NLL	NLL	ND	ND	ND	ND	ND	ND

Notes:

U - Not detected at the associated reporting limit.

J - Estimated concentration.

(1) MDEQ Generic cleanup criteria for residential and nonresidential category, administrative rule **R 299.46 and R 299.48**, respectively, effective December 30, 2013, pursuant to Part 201 of 1994 PA 451 as amended

(2) Site-Specific Background Level calculations and background information presented in the Site 2013 RCRA Facility Investigation Report

Sample Location:	CRA-701M		CRA-701M		CRA-701M		CRA-703I		CRA-703I		CRA-703I		CRA-703I		CRA-703M		CRA-703M		CRA-703M		CRA-703M	
Sample Identification:	GW-17358-042012- JY-1070		GW-17358-080712- BW-007		GW-17358-041213- EM-101		GW-17358-042012- JY-1069		GW-17358-080312- CB-004		GW-17358-080312- CB-005		GW-17358-041213- EM-095		GW-17358-042012- JY-1067		GW-17358-042012- JY-1068		GW-17358-080312- CB-006		GW-17358-041213- EM-096	
Sample Date:	4/20/2012		8/7/2012		4/12/2013		4/20/2012		8/3/2012		8/3/2012		4/12/2013		4/20/2012		4/20/2012		8/3/2012		4/12/2013	
Sample Type:											Duplicate						Duplicate					
Units																						
Volatile Organic Compounds (VOCs)																						
1,1,1-Trichloroethane	mg/L	0.001 U	--		0.001 U		0.001 U	--		--		0.001 U		0.001 U		0.001 U		0.001 U	--			0.001 U
1,1,2,2-Tetrachloroethane	mg/L	0.001 U	--		0.001 U		0.001 U	--		--		0.001 U		0.001 U		0.001 U		0.001 U	--			0.001 U
1,1,2-Trichloroethane	mg/L	0.001 U	--		0.001 U		0.001 U	--		--		0.001 U		0.001 U		0.001 U		0.001 U	--			0.001 U
1,1-Dichloroethane	mg/L	0.001 U	--		0.001 U		0.001 U	--		--		0.001 U		0.001 U		0.001 U		0.001 U	--			0.001 U
1,1-Dichloroethene	mg/L	0.001 U	--		0.001 U		0.001 U	--		--		0.001 U		0.001 U		0.001 U		0.001 U	--			0.001 U
1,2,4-Trichlorobenzene	mg/L	0.001 U	--		0.001 U		0.001 U	--		--		0.001 U		0.001 U		0.001 U		0.001 U	--			0.001 U
1,2-Dibromo-3-chloropropane (D	mg/L	0.001 U	--		0.001 U		0.001 U	--		--		0.001 U		0.001 U		0.001 U		0.001 U	--			0.001 U
1,2-Dibromoethane (Ethylene di	mg/L	0.001 U	--		0.001 U		0.001 U	--		--		0.001 U		0.001 U		0.001 U		0.001 U	--			0.001 U
1,2-Dichlorobenzene	mg/L	0.001 U	--		0.001 U		0.001 U	--		--		0.001 U		0.001 U		0.001 U		0.001 U	--			0.001 U
1,2-Dichloroethane	mg/L	0.001 U	--		0.001 U		0.001 U	--		--		0.001 U		0.001 U		0.001 U		0.001 U	--			0.001 U
1,2-Dichloropropane	mg/L	0.001 U	--		0.001 U		0.001 U	--		--		0.001 U		0.001 U		0.001 U		0.001 U	--			0.001 U
1,3-Dichlorobenzene	mg/L	0.001 U	--		0.001 U		0.001 U	--		--		0.001 U		0.001 U		0.001 U		0.001 U	--			0.001 U
1,4-Dichlorobenzene	mg/L	0.001 U	--		0.001 U		0.001 U	--		--		0.001 U		0.001 U		0.001 U		0.001 U	--			0.001 U
2-Butanone (Methyl ethyl ketone	mg/L	0.01 U	--		0.01 U		0.01 U	--		--		0.01 U		0.01 U		0.01 U		0.01 U	--			0.01 U
2-Hexanone	mg/L	0.01 U	--		0.01 U		0.01 U	--		--		0.01 U		0.01 U		0.01 U		0.01 U	--			0.01 U
4-Methyl-2-pentanone (Methyl is	mg/L	0.01 U	--		0.01 U		0.01 U	--		--		0.01 U		0.01 U		0.01 U		0.01 U	--			0.01 U
Acetone	mg/L	0.01 U	--		0.01 U		0.01 U	--		--		0.01 U		0.01 U		0.01 U		0.01 U	--			0.01 U
Benzene	mg/L	0.001 U	--		0.001 U		0.001 U	--		--		0.001 U		0.001 U		0.001 U		0.001 U	--			0.001 U
Bromodichloromethane	mg/L	0.001 U	--		0.001 U		0.001 U	--		--		0.001 U		0.001 U		0.001 U		0.001 U	--			0.001 U
Bromoform	mg/L	0.001 U	--		0.001 U		0.001 U	--		--		0.001 U		0.001 U		0.001 U		0.001 U	--			0.001 U
Bromomethane (Methyl bromide)	mg/L	0.001 U	--		0.001 U		0.001 U	--		--		0.001 U		0.001 U		0.001 U		0.001 U	--			0.001 U
Carbon disulfide	mg/L	0.00014 J	--		0.005 U		0.005 U	--		--		0.005 U		0.005 U		0.005 U		0.005 U	--			0.005 U
Carbon tetrachloride	mg/L	0.001 U	--		0.001 U		0.001 U	--		--		0.001 U		0.001 U		0.001 U		0.001 U	--			0.001 U
Chlorobenzene	mg/L	0.001 U	--		0.001 U		0.001 U	--		--		0.001 U		0.001 U		0.001 U		0.001 U	--			0.001 U
Chloroethane	mg/L	0.001 U	--		0.001 U		0.001 U	--		--		0.001 U		0.001 U		0.001 U		0.001 U	--			0.001 U
Chloroform (Trichloromethane)	mg/L	0.001 U	--		0.001 U		0.001 U	--		--		0.001 U		0.001 U		0.001 U		0.001 U	--			0.001 U
Chloromethane (Methyl chloride)	mg/L	0.001 U	--		0.001 U		0.001 U	--		--		0.001 U		0.001 U		0.001 U		0.001 U	--			0.001 U
cis-1,2-Dichloroethene	mg/L	0.001 U	--		0.001 U		0.001 U	--		--		0.001 U		0.001 U		0.001 U		0.001 U	--			0.001 U
cis-1,3-Dichloropropene	mg/L	0.001 U	--		0.001 U		0.001 U	--		--		0.001 U		0.001 U		0.001 U		0.001 U	--			0.001 U
Cyclohexane	mg/L	0.001 U	--		0.001 U		0.001 U	--		--		0.001 U		0.001 U		0.001 U		0.001 U	--			0.001 U
Dibromochloromethane	mg/L	0.001 U	--		0.001 U		0.001 U	--		--		0.001 U		0.001 U		0.001 U		0.001 U	--			0.001 U
Dichlorodifluoromethane (CFC-1	mg/L	0.001 U	--		0.001 U		0.001 U	--		--		0.001 U		0.001 U		0.001 U		0.001 U	--			0.001 U
Ethylbenzene	mg/L	0.001 U	--		0.001 U		0.001 U	--		--		0.001 U		0.001 U		0.001 U		0.001 U	--			0.001 U
Isopropyl benzene	mg/L	0.001 U	--		0.001 U		0.001 U	--		--		0.001 U		0.001 U		0.001 U		0.001 U	--			0.001 U
Methyl acetate	mg/L	0.01 U	--		0.01 U		0.01 U	--		--		0.01 U		0.01 U		0.01 U		0.01 U	--			0.01 U
Methyl cyclohexane	mg/L	0.001 U	--		0.001 U		0.001 U	--		--		0.001 U		0.001 U		0.001 U		0.001 U	--			0.001 U
Methyl tert butyl ether (MTBE)	mg/L	0.005 U	--		0.001 U		0.005 U	--		--		0.001 U		0.005 U		0.005 U		0.005 U	--			0.001 U
Methylene chloride	mg/L	0.005 U	--		0.005 U		0.005 U	--		--		0.005 U		0.005 U		0.005 U		0.005 U	--			0.005 U
Styrene	mg/L	0.001 U	--		0.001 U		0.001 U	--		--		0.001 U		0.001 U		0.001 U		0.001 U	--			0.001 U
Tetrachloroethene	mg/L	0.001 U	--		0.001 U		0.001 U	--		--		0.001 U		0.001 U		0.001 U		0.001 U	--			0.001 U
Toluene	mg/L	0.001 U	--		0.001 U		0.001 U	--		--		0.001 U		0.001 U		0.001 U		0.001 U	--			0.00048 J
trans-1,2-Dichloroethene	mg/L	0.001 U	--		0.001 U		0.001 U	--		--		0.001 U		0.001 U		0.001 U		0.001 U	--			0.001 U
trans-1,3-Dichloropropene	mg/L	0.001 U	--		0.001 U		0.001 U	--		--		0.001 U		0.001 U		0.001 U		0.001 U	--			0.001 U
Trichloroethene	mg/L	0.001 U	--		0.001 U		0.001 U	--		--		0.001 U		0.001 U		0.001 U		0.001 U	--			0.001 U
Trichlorofluoromethane (CFC-11	mg/L	0.001 U	--		0.001 U		0.001 U	--		--		0.001 U		0.001 U		0.001 U		0.001 U	--			0.001 U
Trifluorotrichloroethane (CFC-11	mg/L	0.001 U	--		0.001 U		0.001 U	--		--		0.001 U		0.001 U		0.001 U		0.001 U	--			0.001 U
Vinyl chloride	mg/L	0.001 U	--		0.001 U		0.001 U	--		--		0.001 U		0.001 U		0.001 U		0.001 U	--			0.001 U
Xylenes (total)	mg/L	0.002 U	--		0.002 U		0.002 U	--		--		0.002 U		0.002 U		0.002 U		0.002 U	--			0.002 U
SVOAs																						
2,2'-Oxybis(1-chloropropane) (bi	mg/L	0.0048 U	--		0.0048 U		0.0049 U	--		--		0.0049 U		0.005 U		0.0051 U		0.0051 U	--			0.0048 U
2,4,5-Trichlorophenol	mg/L	0.0048 U	--		0.0048 U		0.0049 U	--		--		0.0049 U		0.005 U		0.0051 U		0.0051 U	--			0.0048 U
2,4,6-Trichlorophenol	mg/L	0.0038 U	--		0.0038 U		0.0039 U	--		--		0.0039 U		0.004 U		0.0041 U		0.0041 U	--			0.0038 U
2,4-Dichlorophenol	mg/L	0.0095 U	--		0.0095 U		0.0098 U	--		--		0.0098 U		0.0099 U		0.01 U		0.01 U	--			0.0095 U
2,4-Dimethylphenol	mg/L	0.0048 U	--		0.0048 U		0.0049 U	--		--		0.0049 U		0.005 U		0.0051 U		0.0051 U	--			0.0048 U
2,4-Dinitrophenol	mg/L	0.019 U	--		0.019 U		0.02 U	--		--		0.02 U		0.02 U		0.02 U		0.02 U	--			0.019 U
2,4-Dinitrotoluene	mg/L	0.0048 U	--		0.0048 U		0.0049 U	--		--		0.0049 U		0.005 U		0.0051 U		0.0051 U	--			0.0048 U
2,6-Dinitrotoluene	mg/L	0.0048 U	--		0.0048 U		0.0049 U	--		--		0.0049 U		0.005 U		0.0051 U		0.0051 U	--			0.0048 U
2-Chloronaphthalene	mg/L	0.0048 U	--		0.0048 U		0.0049 U	--														

Sample Location:		CRA-701M		CRA-701M		CRA-701M		CRA-703I		CRA-703I		CRA-703I		CRA-703I		CRA-703M		CRA-703M		CRA-703M		CRA-703M	
Sample Identification:		GW-17358-042012- JY-1070		GW-17358-080712- BW-007		GW-17358-041213- EM-101		GW-17358-042012- JY-1069		GW-17358-080312- CB-004		GW-17358-080312- CB-005		GW-17358-041213- EM-095		GW-17358-042012- JY-1067		GW-17358-042012- JY-1068		GW-17358-080312- CB-006		GW-17358-041213- EM-096	
Sample Date:		4/20/2012		8/7/2012		4/12/2013		4/20/2012		8/3/2012		8/3/2012		4/12/2013		4/20/2012		4/20/2012		8/3/2012		4/12/2013	
Sample Type:												Duplicate						Duplicate					
		Units																					
4-Nitrophenol	mg/L	0.019 U	--		0.019 U		0.02 U	--		--		--		0.02 U		0.02 U		0.02 U	--		0.019 U		
Acenaphthene	mg/L	0.0048 U	--		0.0048 U		0.0049 U	--		--		--		0.0049 U		0.005 U		0.0051 U	--		0.0048 U		
Acenaphthylene	mg/L	0.0048 U	--		0.0048 U		0.0049 U	--		--		--		0.0049 U		0.005 U		0.0051 U	--		0.0048 U		
Acetophenone	mg/L	0.0048 U	--		0.0048 U		0.0049 U	--		--		--		0.0049 U		0.005 U		0.0051 U	--		0.0048 U		
Anthracene	mg/L	0.0048 U	--		0.0048 U		0.0049 U	--		--		--		0.0049 U		0.005 U		0.0051 U	--		0.0048 U		
Atrazine	mg/L	0.0029 U	--		0.0029 U		0.0029 U	--		--		--		0.0029 U		0.003 U		0.0031 U	--		0.0029 U		
Benzaldehyde	mg/L	0.0048 U	--		0.0048 U		0.0049 U	--		--		--		0.0049 U		0.005 U		0.0051 U	--		0.0048 U		
Benzo(a)anthracene	mg/L	0.00095 U	--		0.00095 U		0.00098 U	--		--		--		0.00098 U		0.00099 U		0.001 U	--		0.00095 U		
Benzo(a)pyrene	mg/L	0.00095 U	--		0.00095 U		0.00098 U	--		--		--		0.00098 U		0.00099 U		0.001 U	--		0.00095 U		
Benzo(b)fluoranthene	mg/L	0.00095 U	--		0.00095 U		0.00098 U	--		--		--		0.00098 U		0.00099 U		0.001 U	--		0.00095 U		
Benzo(g,h,i)perylene	mg/L	0.00095 U	--		0.00095 U		0.00098 U	--		--		--		0.00098 U		0.00099 U		0.001 U	--		0.00095 U		
Benzo(k)fluoranthene	mg/L	0.00095 U	--		0.00095 U		0.00098 U	--		--		--		0.00098 U		0.00099 U		0.001 U	--		0.00095 U		
Biphenyl (1,1-Biphenyl)	mg/L	0.0048 U	--		0.0048 U		0.0049 U	--		--		--		0.0049 U		0.005 U		0.0051 U	--		0.0048 U		
bis(2-Chloroethoxy)methane	mg/L	0.0048 U	--		0.0048 U		0.0049 U	--		--		--		0.0049 U		0.005 U		0.0051 U	--		0.0048 U		
bis(2-Chloroethyl)ether	mg/L	0.00095 U	--		0.00095 U		0.00098 U	--		--		--		0.00098 U		0.00099 U		0.001 U	--		0.00095 U		
bis(2-Ethylhexyl)phthalate (DEH	mg/L	0.0048 U	--		0.0016 J		0.0049 U	--		--		--		0.0049 U		0.005 U		0.0051 U	--		0.0048 U		
Butyl benzylphthalate (BBP)	mg/L	0.0048 U	--		0.0048 U		0.0049 U	--		--		--		0.0049 U		0.005 U		0.0051 U	--		0.0048 U		
Caprolactam	mg/L	0.0095 U	--		0.0095 U		0.0098 U	--		--		--		0.0098 U		0.0099 U		0.01 U	--		0.0095 U		
Carbazole	mg/L	0.0095 U	--		0.0095 U		0.0098 U	--		--		--		0.0098 U		0.0099 U		0.01 U	--		0.0095 U		
Chrysene	mg/L	0.00095 U	--		0.00095 U		0.00098 U	--		--		--		0.00098 U		0.00099 U		0.001 U	--		0.00095 U		
Dibenz(a,h)anthracene	mg/L	0.0019 U	--		0.0019 U		0.002 U	--		--		--		0.002 U		0.002 U		0.002 U	--		0.0019 U		
Dibenzofuran	mg/L	0.0038 U	--		0.0038 U		0.0039 U	--		--		--		0.0039 U		0.004 U		0.0041 U	--		0.0038 U		
Diethyl phthalate	mg/L	0.0048 U	--		0.0048 U		0.0049 U	--		--		--		0.0049 U		0.005 U		0.0051 U	--		0.0048 U		
Dimethyl phthalate	mg/L	0.0048 U	--		0.0048 U		0.0049 U	--		--		--		0.0049 U		0.005 U		0.0051 U	--		0.0048 U		
Di-n-butylphthalate (DBP)	mg/L	0.0048 U	--		0.0048 U		0.0049 U	--		--		--		0.0049 U		0.005 U		0.0051 U	--		0.0048 U		
Di-n-octyl phthalate (DnOP)	mg/L	0.0048 U	--		0.0048 U		0.0049 U	--		--		--		0.0049 U		0.005 U		0.0051 U	--		0.0048 U		
Fluoranthene	mg/L	0.00095 U	--		0.00095 U		0.00098 U	--		--		--		0.00098 U		0.00099 U		0.001 U	--		0.00095 U		
Fluorene	mg/L	0.0048 U	--		0.0048 U		0.0049 U	--		--		--		0.0049 U		0.005 U		0.0051 U	--		0.0048 U		
Hexachlorobenzene	mg/L	0.00019 U	--		0.00019 U		0.0002 U	--		--		--		0.0002 U		0.0002 U		0.0002 U	--		0.00019 U		
Hexachlorobutadiene	mg/L	0.00095 U	--		0.00095 U		0.00098 U	--		--		--		0.00098 U		0.00099 U		0.001 U	--		0.00095 U		
Hexachlorocyclopentadiene	mg/L	0.0048 U	--		0.0048 U		0.0049 U	--		--		--		0.0049 U		0.005 U		0.0051 U	--		0.0048 U		
Hexachloroethane	mg/L	0.0048 U	--		0.0048 U		0.0049 U	--		--		--		0.0049 U		0.005 U		0.0051 U	--		0.0048 U		
Indeno(1,2,3-cd)pyrene	mg/L	0.0019 U	--		0.0019 U		0.002 U	--		--		--		0.002 U		0.002 U		0.002 U	--		0.0019 U		
Isophorone	mg/L	0.0048 U	--		0.0048 U		0.0049 U	--		--		--		0.0049 U		0.005 U		0.0051 U	--		0.0048 U		
Naphthalene	mg/L	0.0048 U	--		0.0048 U		0.0049 U	--		--		--		0.0049 U		0.005 U		0.0051 U	--		0.0048 U		
Nitrobenzene	mg/L	0.0029 U	--		0.0029 U		0.0029 U	--		--		--		0.0029 U		0.003 U		0.0031 U	--		0.0029 U		
N-Nitrosodi-n-propylamine	mg/L	0.0048 U	--		0.0048 U		0.0049 U	--		--		--		0.0049 U		0.005 U		0.0051 U	--		0.0048 U		
N-Nitrosodiphenylamine	mg/L	0.0048 U	--		0.0048 U		0.0049 U	--		--		--		0.0049 U		0.005 U		0.0051 U	--		0.0048 U		
Pentachlorophenol	mg/L	0.0048 U	--		0.0048 U		0.0049 U	--		--		--		0.0049 U		0.005 U		0.0051 U	--		0.0048 U		
Phenanthrene	mg/L	0.0019 U	--		0.0019 U		0.002 U	--		--		--		0.002 U		0.002 U		0.002 U	--		0.0019 U		
Phenol	mg/L	0.0048 U	--		0.0048 U		0.0049 U	--		--		--		0.0049 U		0.005 U		0.0051 U	--		0.0048 U		
Pyrene	mg/L	0.0048 U	--		0.0048 U		0.0049 U	--		--		--		0.0049 U		0.005 U		0.0051 U	--		0.0048 U		
PCBs																							
Aroclor-1016 (PCB-1016)	mg/L	0.000095 U	--		0.000095 U		0.000095 U	--		--		--		0.000098 U		0.000097 U		0.0001 U	--		0.000095 U		
Aroclor-1221 (PCB-1221)	mg/L	0.000095 U	--		0.000095 U		0.000095 U	--		--		--		0.000098 U		0.000097 U		0.0001 U	--		0.000095 U		
Aroclor-1232 (PCB-1232)	mg/L	0.000095 U	--		0.000095 U		0.000095 U	--		--		--		0.000098 U		0.000097 U		0.0001 U	--		0.000095 U		
Aroclor-1242 (PCB-1242)	mg/L	0.000095 U	--		0.000095 U		0.000095 U	--		--		--		0.000098 U		0.000097 U		0.0001 U	--		0.000095 U		
Aroclor-1248 (PCB-1248)	mg/L	0.000095 U	--		0.000095 U		0.000095 U	--		--		--		0.000098 U		0.000097 U		0.0001 U	--		0.000095 U		
Aroclor-1254 (PCB-1254)	mg/L	0.000095 U	--		0.000095 U		0.000095 U	--		--		--		0.000098 U		0.000097 U		0.0001 U	--		0.000095 U		
Aroclor-1260 (PCB-1260)	mg/L	0.000095 U	--		0.000095 U		0.000095 U	--		--		--		0.000098 U		0.000097 U		0.0001 U	--		0.000095 U		
Aroclor-1262 (PCB-1262)	mg/L	0.000095 U	--		0.000095 U		0.000095 U	--		--		--		0.000098 U		0.000097 U		0.0001 U	--		0.000095 U		
Aroclor-1268 (PCB-1268)	mg/L	0.000095 U	--		0.000095 U		0.000095 U	--		--		--		0.000098 U		0.000097 U		0.0001 U	--		0.000095 U		
Total PCBs	mg/L	ND	--		ND		ND	--		--		--		ND		ND		ND	--		ND		
Metals																							
Aluminum	mg/L	0.05 U	5.5 ^{ab}		0.05 U		0.027 J	0.05 U		0.05 U		0.05 U		0.049 J	0.058 ^{ab}	0.061 ^{ab}		0.05 U					
Antimony	mg/L	0.00036 J	0.00033 J		0.002 U		0.0002 J	0.002 U		0.002 U		0.002 U		0.00038 J	0.00042 J	0.00029 J		0.002 U					
Arsenic	mg/L	0.00079 J	0.007		0.005 U		0.013 ^{abc}	0.022 ^{abc}		0.023 ^{abc}		0.016 ^{abc}		0.0015 J	0.0015 J	0.0029 J		0.00076 J					
Barium	mg/L	0.089 J	0.13		0.094 J		0.45	0.48		0.48		0.48		0.13	0.13	0.14		0.11					
Beryllium	mg/L	0.001 U	0.001 U		0.001 U		0.001 U	0.001 U		0.001 U		0.001 U		0.001 U	0.001 U	0.00029 J		0.001 U					
Cadmium	mg/L	0.001 U	0.001 U		0.001 U		0.001 U	0.001 U		0.001 U		0.001 U		0.001 U	0.001 U	0.00046 J		0.001 U					
Cadmium (dissolved)	mg/L	--	--		--		--	--		--		--		--	--	--		--					
Calcium	mg/L	120			--		170			--		--		95	97</								

Sample Location:		CRA-701M		CRA-701M		CRA-701M		CRA-703I		CRA-703I		CRA-703I		CRA-703I		CRA-703M		CRA-703M		CRA-703M		CRA-703M	
Sample Identification:		GW-17358-042012- JY-1070		GW-17358-080712- BW-007		GW-17358-041213- EM-101		GW-17358-042012- JY-1069		GW-17358-080312- CB-004		GW-17358-080312- CB-005		GW-17358-041213- EM-095		GW-17358-042012- JY-1067		GW-17358-042012- JY-1068		GW-17358-080312- CB-006		GW-17358-041213- EM-096	
Sample Date:		4/20/2012		8/7/2012		4/12/2013		4/20/2012		8/3/2012		8/3/2012		4/12/2013		4/20/2012		4/20/2012		8/3/2012		4/12/2013	
Sample Type:												Duplicate						Duplicate					
		Units																					
Lead	mg/L	0.003 U	0.0058 ^{ab}	0.003 U		0.003 U		0.003 U		0.003 U		0.003 U		0.003 U		0.003 U		0.003 U		0.0014 J		0.003 U	
Lead (dissolved)	mg/L	--	--	--		--		--		--		--		--		--		--		--		--	
Magnesium	mg/L	22	--	--		--		41		--		--		--		18		18		--		--	
Manganese	mg/L	0.13 ^{ab}	0.48 ^{ab}	0.05 U		0.05 U		0.15 ^{ab}		0.13 ^{ab}		0.13 ^{ab}		0.12 ^{ab}		0.49 ^{ab}		0.5 ^{ab}		0.3 ^{ab}		0.11 ^{ab}	
Mercury	mg/L	0.04 U	0.0002 U	0.0002 U		0.0002 U		0.04 U		0.0002 U		0.0002 U		0.0002 U		0.04 U		0.04 U		0.0002 U		0.0002 U	
Nickel	mg/L	0.0021 J	0.011 J	0.02 U		0.02 U		0.001 J		0.00031 J		0.02 U		0.02 U		0.0029 J		0.0029 J		0.0023 J		0.02 U	
Nickel (dissolved)	mg/L	--	--	--		--		--		--		--		--		--		--		--		--	
Potassium	mg/L	2.6 J	--	--		--		2.2 J		--		--		--		2.2 J		2.3 J		--		--	
Selenium	mg/L	0.005 U	0.005 U	0.001 J		0.001 J		0.005 U		0.005 U		0.005 U		0.005 U		0.00094 J		0.00083 J		0.0017 J		0.0015 J	
Silver	mg/L	0.0002 U	0.0002 U	0.0002 U		0.0002 U		0.0002 U		0.0002 U		0.0002 U		0.0002 U		0.0002 U		0.0002 U		0.0002 U		0.000018 J	
Sodium	mg/L	120	--	--		--		230		--		--		--		190		200		--		--	
Thallium	mg/L	0.002 U	0.002 U	0.002 U		0.002 U		0.002 U		0.002 U		0.002 U		0.002 U		0.002 U		0.002 U		0.00023 J		0.002 U	
Vanadium	mg/L	0.004 U	0.014 ^a	0.004 U		0.004 U		0.004 U		0.004 U		0.004 U		0.004 U		0.004 U		0.004 U		0.00062 J		0.004 U	
Zinc	mg/L	0.05 U	0.05 U	0.05 U		0.05 U		0.05 U		0.05 U		0.05 U		0.05 U		0.05 U		0.05 U		0.05 U		0.05 U	
Zinc (dissolved)	mg/L	--	--	--		--		--		--		--		--		--		--		--		--	
General Chemistry																							
Phosphorus	mg/L	--	--	--		--		--		--		--		0.1 U		--		--		--		0.1 U	
Field Parameters																							
Conductivity, field	mS/cm	1.266	1.318	1.62		1.62		2.32		2.1		2.1		2.37		1.52		1.52		1.58		1.75	
Dissolved oxygen (DO), field	mg/L	4.58	2.74	1.19		1.19		0.27		1.66		1.66		0.29		0.8		0.8		3.44		1.32	
Oxidation reduction potential (Of millivolts		78	-31	70		70		-99		-120		-120		-97		-1		-1		-88		-18	
pH, field	s.u.	7.17	7.22	7.9		7.9		7.32		7.26		7.26		7.25		7.47		7.47		7.38		8.36	
Temperature, field	Deg C	11.49	22.61	7.1		7.1		11.04		19.47		19.47		7.74		10.37		10.37		22.07		6.81	
Turbidity, field	NTU	2.63	42.4	2.54		2.54		6.63		3.17		3.17		4.59		4.4		4.4		4.27		1.06	
Notes:																							
U - Not detected at the associated reporting limit.																							
J - Estimated concentration.																							
UJ - Not detected; associated reporting limit is estimated.																							
R - Rejected.																							

(1) Groundwater - MDEQ Generic cleanup criteria for residential and nonresidential category, administrative rule R 299.44 effective December 30, 2013, pursuant to Part 201 of 1994 PA 451 as amended